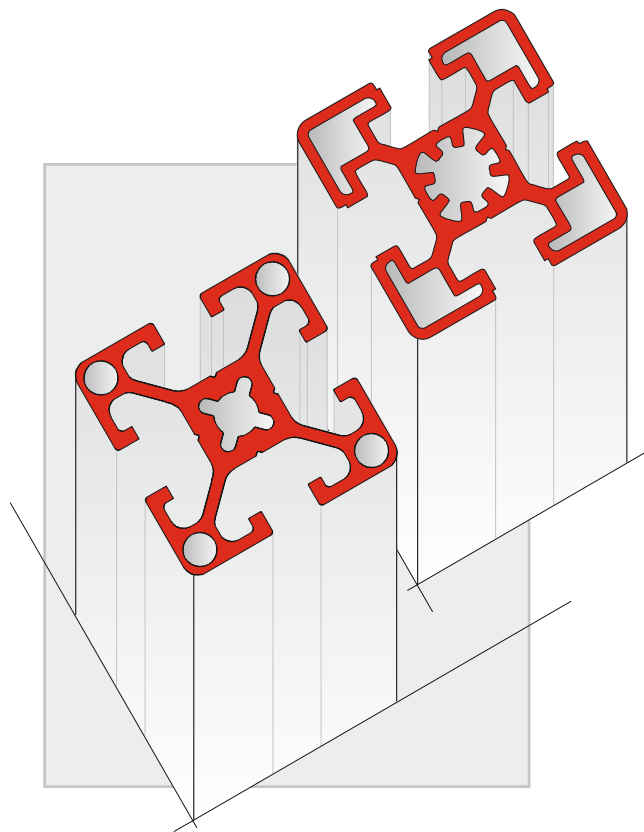


# ALUPROFIL



## KOMPATIBLE PROFILREIHEN & SYSTEM-ENGINEERING

- > SERIE PROFILI COMPATIBILI
- > KOMPATYBILNE SERIE PROFILI I INŻYNIERIA SYSTEMOWA



# DAS UNTERNEHMEN

L'AZIENDA

PRZEDSIĘBIORSTWO



FM SYSTEME liefert Alu-Profile und die Systeme daraus. Lösungen für die Infrastruktur industrieller Produktionsbetriebe. Vom Basis-Bauteil bis zur kompletten Fertigungsanlage und weiter zur Automatisierungs- und Rationalisierungstechnik.

Dahinter stehen 20 Jahre bewusste Spezialisierung: Erfahrung, Kompetenz, Engagement für ein einziges doch in seiner Vielfalt umfassendes Technikfeld. Nach dem Prinzip: In einem Fachbereich alles können, wissen, schaffen – und damit unschlagbar alles bieten. Dazu gehören mehr als Funktionalität und Qualität eines Produkts: Ständiger Knowhow-Ausbauintensive Partnerschaften – mit Kunden und Zulieferern. Immer neueste Anwendungsvarianten.

Universelle Standards und Individualität für jeden Praxisfall. Konsequente Zukunftsorientierung.

Kurz: Höchste Innovationskraft.

FM SYSTEME fornisce una serie completa di profili in alluminio e accessori che possono garantire molteplici soluzioni nei vari settori industriali.

Fornisce una consulenza a 360° per l'automazione e la razionalizzazione dei processi produttivi.

Tutto questo è reso possibile da oltre 20 anni di esperienza e di impegno messi al servizio dell'innovazione, per rispondere ai bisogni, semplici o complessi, dei nostri clienti. Il nostro ufficio tecnico collabora con i nostri clienti e i fornitori, assicurando una costante informazione sulla evoluzione della gamma dei nostri prodotti.

In breve: Massima impegno per l'innovazione

Firma FM Systeme dostarcza profile aluminiowe i ich systemy. Rozwiązania dla infrastruktury przemysłowych zakładów produkcyjnych. Od bazowego elementu konstrukcyjnego aż po kompletną linię produkcyjną i dalej w kierunku techniki automatyzacji i racjonalizacji.

Zaplecze stanowi 20 lat świadomej specjalizacji: doświadczenie, kompetencja, zaangażowanie na jednym, jednakże ze względu na swoją różnorodność bardzo rozległym polu techniki. Zgodnie z zasadą: Wiedzieć, umieć, potrafić wszystko w jednej dziedzinie – i dzięki temu oferować wszystko bezkonkurencyjnie. Ta filozofia obejmuje znacznie większy zakres niż tylko funkcjonalność i jakość produktu. Stały rozwój know-how, intensywne partnerstwo z klientami i poddostawcami. Zawsze najnowsze warianty zastosowań.

Krótko: Maksymalna siła innowacyjności



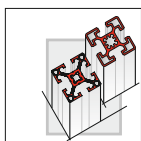
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# ALUPROFILSYSTEM

## & SYSTEM-ENGINEERING

- **Kompatibel einsetzbares Aluminiumprofil**
- **Umfangreiches Zubehör**
- **Kundenspezifische Lösungen**





# NAVIGATION INDICE NAWIGACJA

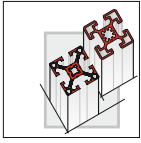


	Nutbreite des Profils 5 / 8E / 8K / 8 / 10	Cava del profilo 5 / 8E / 8K / 8 / 10	Szerokość rowka profilu 5 / 8E / 8K / 8 / 10
	Profilreihe / Ausführung L = leicht N = normal MS = mittelschwer S = schwer 10K = Kernloch Ø10	Serie / Versione del profilo L = leggero N = normale MS = peso medio S = pesante 10K = foro centrale Ø10	Seria profili / wersja L = lekki N = normalny MS = średniociężki S = ciężki 10K = otwór pod gwint Ø10
05.01352.00	Bestell - Nummer	Codice Articolo	Numer zamówienia
■ 1.02 / ➔ ■ 14.01	Seitenzahl / Verweis auf Seite	Pagina / Rinvio alla pagina	Numer strony / odsyłacz do strony
	Technische Informationen	Informazioni tecniche	Informacje techniczne
	Profilbearbeitung	Lavorazione profilo	Obróbka profilu
	In Profilbearbeitung: - empfohlen (mit Bearbeitung)	In lavorazione profilo: - possibile (con lavorazione)	W obróbce profilu: - zalecana jest obróbka
	In Profilbearbeitung: - ohne Bearbeitung	In lavorazione profilo: - senza lavorazione	W obróbce profilu: bez obróbki
	Werkzeug / Vorrichtung	Attrezzi / Dispositivi	Narzędzie / przyrząd
GD-Al GD-Zn St, vz. VA	Aluminiumdruckguss Zinkdruckguss Stahl, verzinkt Edelstahl	Alluminio pressofuso Zinco pressofuso Acciaio, zincato Acciaio inox	Aluminiowy odlew ciśnieniowy Cynkowy odlew ciśnieniowy Stal ocynkowana Stal szlachetna
<b>NEW</b>	Neuheit	Novità	Nowość
	ESD - leitfähig	Materiale conduttore ESD	Przewodzący ładunki elektrostatyczne
	Drehmoment [N] / Maximale Belastung [N]	Coppia [N] / Carico massimo [N]	Moment obrotowy [N] / Maksymalne obciążenie [N]
	Verweis auf separaten Katalog	Rinvio ad altro catalogo	Odsyłacz do oddzielnego katalogu
	FM - Patent	Brevetto FM	Patent FM

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**DER WEG ZUM RICHTIGEN PROFIL ...**  
**TROVARE IL PROFILO GIUSTO ...**  
**DROGA DO WŁAŚCIWEGO PROFILU ...**



**Profilreihe**

Serie del profilo · Seria profili

**16 / 20**

**30 / 40 / 45 / 50**

Weiter mit Profilgröße  
 Continua in dimensione del profilo  
 Następnie wybór wielkości profilu

Weiter mit Profilausführung  
 Continua in serie del profilo  
 Następnie wybór wersji profilu

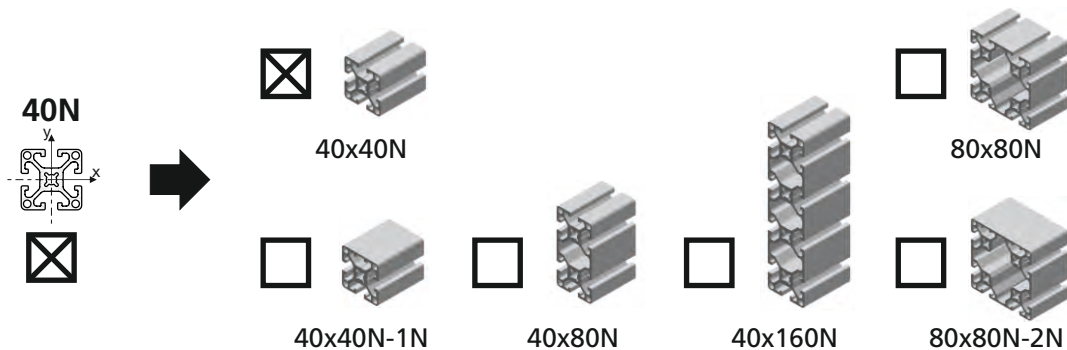
**Profilausführung**

Serie del profilo  
 Wersja profilu

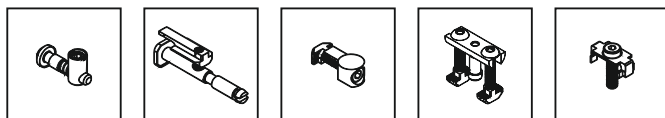
			<b>20</b> 			<b>30</b> 	<b>30-10K</b> 
	Masse $I_x / I_y$ $W_x / W_y$ ab Seite		<b>0,48 kg/m</b> 0,74 cm <sup>4</sup> 0,74 cm <sup>3</sup> ■ 2.07			<b>0,81 kg/m</b> 2,78 cm <sup>4</sup> 1,85 cm <sup>3</sup> ■ 2.11	<b>1,00 kg/m</b> 3,17 cm <sup>4</sup> 2,11 cm <sup>3</sup> ■ 2.17
		<b>40EL-1.4</b> 	<b>40L-1.55</b> 	<b>40-10K</b> 	<b>40N</b> 	<b>40MS</b> 	<b>40S</b> 
Masse $I_x / I_y$ $W_x / W_y$ ab Seite		<b>1,37 kg/m</b> 7,42 cm <sup>4</sup> 3,71 cm <sup>3</sup> ■ 2.21	<b>1,55 kg/m</b> 8,40 cm <sup>4</sup> 4,20 cm <sup>3</sup> ■ 2.21	<b>1,60 kg/m</b> 9,46 cm <sup>4</sup> 4,73 cm <sup>3</sup> ■ 2.39	<b>1,72 kg/m</b> 9,66 cm <sup>4</sup> 4,83 cm <sup>3</sup> ■ 2.29	<b>1,90 kg/m</b> 10,52 cm <sup>4</sup> 5,26 cm <sup>3</sup> ■ 2.43	<b>2,45 kg/m</b> 13,90 cm <sup>4</sup> 6,95 cm <sup>3</sup> ■ 2.47
		<b>45EL-1.4</b> 	<b>45L-1.6</b> 	<b>45N-1.9</b> 	<b>45MS-2.1</b> 	<b>45S</b> 	
Masse $I_x / I_y$ $W_x / W_y$ ab Seite		<b>1,40 kg/m</b> 9,28 cm <sup>4</sup> 4,12 cm <sup>3</sup> ■ 2.55	<b>1,60 kg/m</b> 10,17 cm <sup>4</sup> 4,52 cm <sup>3</sup> ■ 2.55	<b>1,90 kg/m</b> 12,95 cm <sup>4</sup> 5,18 cm <sup>3</sup> ■ 2.63	<b>2,10 kg/m</b> 15,56 cm <sup>4</sup> 6,92 cm <sup>3</sup> ■ 2.67	<b>2,62 kg/m</b> 18,95 cm <sup>4</sup> 8,42 cm <sup>3</sup> ■ 2.67	

**Profilgröße**

Dimensione del profilo · Wielkość profilu



Weiter mit Verbinderauswahl  
 Continua in selezione del connettore  
 Następnie wybór łącznika



Technische Änderungen vorbehalten

**... UND ZUM PASSENDEN VERBINDER**  
**... E DEL CONNETTORE ADATTO**  
**... I DO DOPASOWANEGO ŁĄCZNIKA**



**Verbinderauswahl**

Das Angebot von FM Systeme umfasst eine große Anzahl von Verbindern, mit unterschiedlichen Merkmalen und Eigenschaften. Mit Hilfe dieser Tabelle können Sie prüfen, ob die Eigenschaften des Verbinders, die für Sie notwendigen Anforderungen erfüllt.

**Scelta del connettore**

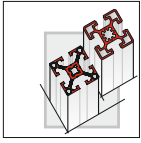
FM vi propone un'ampia gamma di connettori con caratteristiche e specifiche diverse. Questa tavola vi permette di scegliere il fissaggio più adatto alle vostre esigenze.

**Wybór łącznika**

FM oferuje bogaty wybór łączników o różnych cechach i właściwościach. Za pomocą niniejszej tabeli można dokonać wstępnego wyboru, czy łącznik posiada właściwości niezbędne do konkretnego zastosowania.

	3.02	3.04	3.11	3.06	3.08	3.10	3.13	3.05	3.15	3.16	
	8 10	5 8E 8 10	5 8E 8 10	8 10	8E 8 10	5 8E	8	5 8 10	8E 8 10	8 10	
	+++	+++	+	+++	+++	++	++	++	+++	+++	
Hohe Momentaufnahme / Momento massimo / Oddziaływanie dużego momentu obrotowego											
	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++	
Hohe Verschiebekraftaufnahme / Tenuta / Oddziaływanie dużej siły przesuwejacej											
	-	++	++	++	+++	++	++	++	-	+++	
Hohe Torsionsmomentaufnahme / Momento di torsione / Oddziaływanie dużego momentu skręcajacego											
	+	++	+	+	+++	+++	+++	+++	++	++	
Geringer Bearbeitungsaufwand / Non richiede molte lavorazioni sul profilo / Niewielkie nakłady na obróbkę											
	+++	++	+	++	+	+	++	++	+++	+++	
Geringer Montageaufwand / Tempi minimo di montaggio / Niewielkie nakłady montażowe											
	+++	+++	++	++	++	+++	++	++	-	-	
Justierbarkeit / Possibilità di regolazione / Możliwość regulacji											
	++	++	-	-	-	+	-	-	++	+++	
Aufnahme von Flächenelementen / Montaggio di pannelli / Mocowanie elementów powierzchniowych											
+++	<b>empfohlen</b>			+++	<b>consigliato</b>			+++	<b>zalecany</b>		
++	<b>geeignet</b>			++	<b>adatto</b>			++	<b>odpowiedni</b>		
+	<b>funktionsfähig</b>			+	<b>funzionale</b>			+	<b>sprawny</b>		
-	<b>ungeeignet</b>			-	<b>non utilizzare</b>			-	<b>nieodpowiedni</b>		

Technische Änderungen vorbehalten



# BESCHREIBUNG DES SYSTEMS

## PRINCIPI DI BASE

### OPIS SYSTEMU



#### • **Umfangreich**

Das FM-Profilsystem ist ein modularer Baukasten mit Grundelementen für den Bau von Rationalisierungs- und Automatisierungseinrichtungen, sowie Anlagen. Mehr als 150 Standard-Strebenprofile bilden die Basis. Profile in Sonderausführung ergänzen das System.

#### • **Kompatibel**

Die Profile der Baureihe 20 mit Nut 5, der Baureihe 30/40/80 mit Nut 8, sowie die Baureihen 45/60/90 und 50/100 mit Nut 10 sind kompatibel zu den am Markt gängigen Ausführungen.

#### • **Wirtschaftlich**

Auf Grund der umfangreichen Anzahl an Aluprofilen kann entsprechend der technischen Aufgabenstellung das jeweils wirtschaftlichste Profil gewählt werden.

#### • **Flexibel**

Ein flexibles, wirtschaftliches und modulares Verbindersystem gewährleistet den Zusammenbau aller vorhandenen Profile. Besonderheit: Einige Verbinder ermöglichen die Kombination unterschiedlicher Profilgrößen sowie Nuttypen.

#### • **Vielfältig**

Mit den standardisierten und modular aufgebauten Elementen ist es möglich, nahezu allen konstruktiven Herausforderungen gerecht zu werden.

#### • **Hochwertig**

Die stabilen Profilquerschnitte, die kräftige Nutausführung, die hohe Eloxalstärke sowie die stabile und montagefreundliche Verbindertechnik garantieren eine hohe Qualität.

#### • **Wiederverwendbar**

Die hohe Qualität sowie die Beständigkeit ermöglichen die Wiederverwendbarkeit der Elemente. Die flexiblen Baukästen garantieren einen stetigen Weiterbau und eine jederzeitige Anpassung der Einrichtungen an geänderte Aufgabenstellungen.

#### • **Un sistema modulare globale**

Il sistema di profilati FM risponde ad un concetto di modularità, costituito da elementi meccanici di base per la costruzione e razionalizzazione di sistemi automatici e di apparecchiature.

#### • **Compatibilità**

I profil della serie 20 con cava 5mm, serie 30/40/80 con cava 8mm, serie 45/60/90 e 50/100 con cava 10mm, offrono una scelta estremamente economica e in linea con le esigenze individuali.

#### • **Un'ampia scelta di soluzioni**

La larga gamma di profili in alluminio offerti permette di trovare la soluzione più adatta ai vostri bisogni tecnici ed economici.

#### • **Sistema di raccordo universale**

Il sistema di raccordo flessibile, economico e modulare permette la realizzazione di una varietà pressoché infinita di soluzioni. Le numerose tipologie di connettori si adattano perfettamente ai diversi tipi di cave di profili.

#### • **Numerose possibilità d'uso**

La diversità degli elementi, standardizzati e modulari, permette illimitate possibilità di applicazione.

#### • **Alta qualità**

Profil robusti, cave forti, alto spessore di anodizzazione, veloci e semplici al montaggio, offrono una elevata qualità delle strutture costruite.

#### • **Flessibilità nell'applicazione e riutilizzabilità**

L'elevata qualità e la robustezza assicurano la longevità dei nostri prodotti e la loro riutilizzabilità e flessibilità a diverse situazioni ed esigenze. La concezione modulare offre la possibilità di assemblare i nostri elementi su delle strutture già esistenti, e di permettere degli adattamenti in ogni momento in relazione ai cambiamenti delle necessità e alle situazioni che vengono a presentarsi.

#### • **Różnorodny**

System profili FM jest systemem modułowym obejmującym podstawowe elementy do budowy urządzeń oraz elementów wyposażenia służących do racjonalizacji i automatyzacji. Bazę stanowi ponad 150 standardowych profili rozporowych. System uzupełniają profile wersji specjalnej.

#### • **Kompatybilny**

Profile serii 20 z rowkiem 5, serii 30/40/80 z rowkiem 8 oraz serii 45/60/90 i 50/100 z rowkiem 10 są kompatybilne z wersjami powszechnie występującymi na rynku.

#### • **Ekonomiczny**

Ze względu na liczbę różnorodnych profili aluminiowych można wybrać najbardziej ekonomiczny profil odpowiedni do przewidzianych zadań technicznych.

#### • **Elastyczny**

Elastyczny, ekonomiczny i modułowy system łączników gwarantuje montaż wszystkich występujących profili. Cecha szczególna: Niektóre łączniki umożliwiają łączenie profili o różnej wielkości oraz różnych typach rowka.

#### • **Wszehstronny**

Przy użyciu znormalizowanych elementów o konstrukcji modułowej można sprostać niemal każdemu wyzwaniu konstrukcyjnemu.

#### • **Wysokiej jakości**

Wysoką jakość gwarantują stabilne przekroje profili, solidne wykonanie rowka, duża grubość powłoki anodowanej oraz stabilna i przyjazna w montażu technika łączenia.

#### • **Wielokrotnego użytku**

Wysoka jakość i trwałość umożliwiają wielokrotne ponowne wykorzystanie elementów. Elastyczne elementy modułowe gwarantują stałą możliwość rozbudowy i w każdej chwili dopasowania elementów wyposażenia do zmienionych zadań.



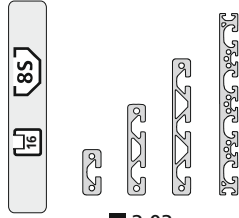
# PROFIL-ÜBERSICHT

## PANORAMA DIE PROFILATI

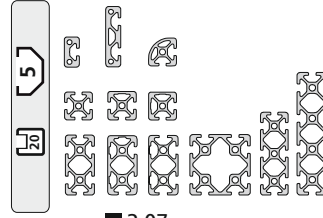
### PRZEGLĄD PROFILI



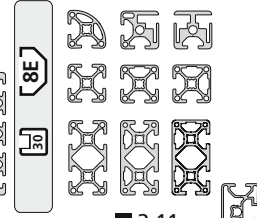
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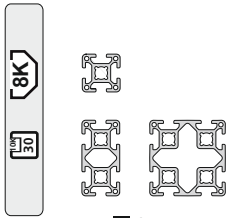
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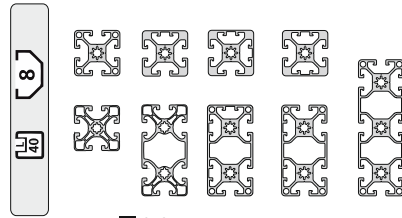
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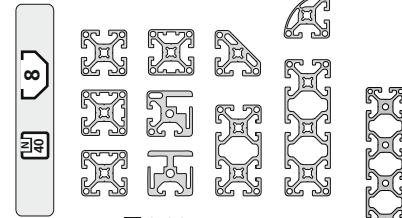
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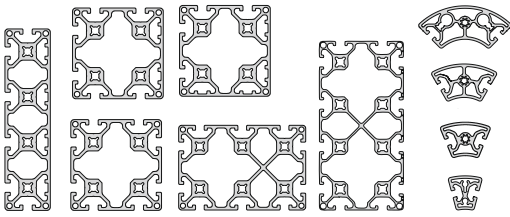
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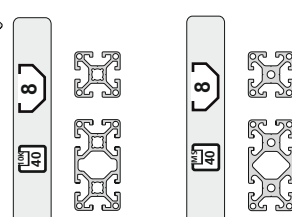
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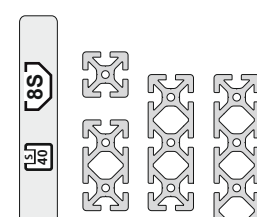
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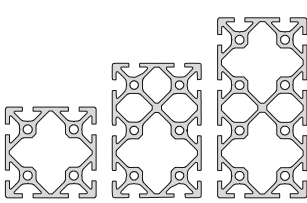
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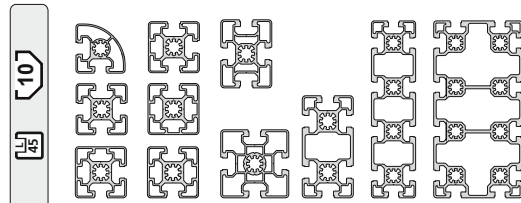
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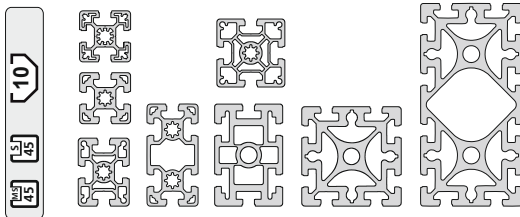
■ 2.47



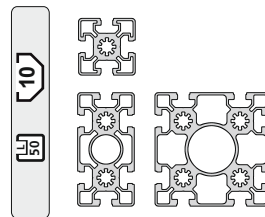
■ 2.55



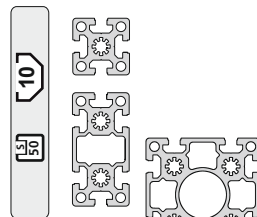
■ 2.63



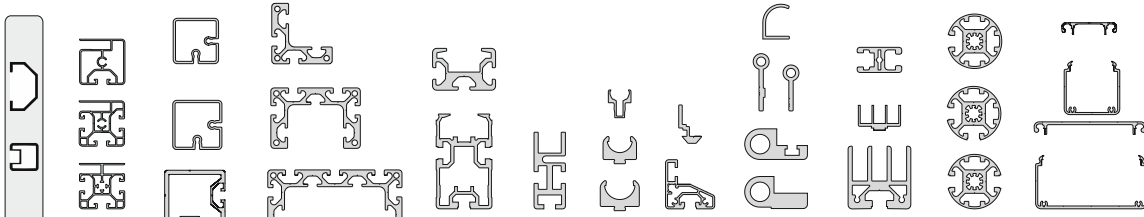
■ 2.67



■ 2.73

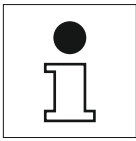


■ 2.77



■ 2.81

Technische Änderungen vorbehalten



# TECHNISCHE DATEN

## DATI TECNICI

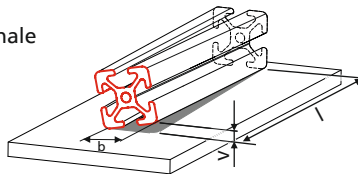
## DANE TECHNICZNE



<ul style="list-style-type: none"> <li><b>Strangpressprofile nach DIN EN 12020</b> (Ersatz für DIN 17615)</li> </ul> <p>Werkstoff Al Mg Si 0,5 F25 Werkstoff-Nr. 3.3206.72 (warmausgehärtet)</p>	<ul style="list-style-type: none"> <li><b>Profili estrusi in conformità con DIN EN 12020</b> (Sostituisce la norma DIN 17615)</li> </ul> <p>Materiale: Al Mg Si 0.5 F25 Materiale no.: 3.3206.72 (termoindurente)</p>	<ul style="list-style-type: none"> <li><b>Profile wytłaczane zgodnie z normą DIN EN 12020</b> (zastępuje DIN 17615)</li> </ul> <p>Materiał Al Mg Si 0,5 F25 Nr materiału 3.3206.72 (utwardzany cieplnie)</p>
<ul style="list-style-type: none"> <li><b>Lieferlänge</b> (falls nicht anders angegeben) 6040 mm</li> <li><b>Funktionslänge</b> (falls nicht anders angegeben) 6000 mm</li> <li><b>Zuschnittstoleranz</b> über alle Längen +/- 1 mm</li> </ul>	<ul style="list-style-type: none"> <li><b>Linghezza fornita</b> (se non diversamente specificato) 6040 mm</li> <li><b>Lunghezza funzionale</b> (se non diversamente specificato) 6000 mm</li> <li><b>Tolleranza</b> +/- 1 mm</li> </ul>	<ul style="list-style-type: none"> <li><b>Dostarczana długość</b> (jeżeli nie podano inaczej) 6040 mm</li> <li><b>Długość konstrukcyjna</b> (jeżeli nie podano inaczej) 6000 mm</li> <li><b>Tolerancja przekroju</b> dla wszystkich długości +/- 1 mm</li> </ul>
<ul style="list-style-type: none"> <li><b>Mechanische Daten</b> (in Pressrichtung)</li> </ul> <p>Zugfestigkeit R<sub>m</sub> min. 250 N/mm<sup>2</sup></p> <p>Streckgrenze R<sub>p0,2</sub> min. 200 N/mm<sup>2</sup></p> <p>Bruchdehnung A 5 min. 10 %</p> <p>Bruchdehnung A10 min. 8 %</p> <p>E-Modul ca. 70 000 N/mm<sup>2</sup></p> <p>Härte nach Brinell ca. 75 HB</p> <p>Längenausdehnungskoeffizient (bei 20-100°C) 23,6 x 10<sup>-6</sup> 1/K</p>	<ul style="list-style-type: none"> <li><b>Caratteristiche meccaniche</b> (senso di estrusione)</li> </ul> <p>Resistenza alla trazione R<sub>m</sub> min. 250 N/mm<sup>2</sup></p> <p>Limite di elasticità R<sub>p0,2</sub> min. 200 N/mm<sup>2</sup></p> <p>Allungamento alla Rottura A 5 min. 10 %</p> <p>Allungamento alla rottura A10 min. 8 %</p> <p>Coefficiente di elasticità appross. 70 000 N/mm<sup>2</sup></p> <p>Durezza secondo Brinell ca. 75 HB</p> <p>Coefficiente di dilatazione termica (at 20-100°C) 23,6 x 10<sup>-6</sup> 1/K</p>	<ul style="list-style-type: none"> <li><b>Parametry mechaniczne</b> (w kierunku przeciskania)</li> </ul> <p>Odporność na rozciąganie R<sub>m</sub> min. 250 N/mm<sup>2</sup></p> <p>Granica plastyczności R<sub>p0,2</sub> min. 200 N/mm<sup>2</sup></p> <p>Wydłużenie przy zerwaniu A 5 min. 10 %</p> <p>Wydłużenie przy zerwaniu A10 min. 8 %</p> <p>Moduł sprężystości ok. 70 000 N/mm<sup>2</sup></p> <p>Twardość wg Brinella ok. 75 HB</p> <p>Współczynnik rozszerzalności liniowej (20-100°C) 23,6 x 10<sup>-6</sup> 1/K</p>
<ul style="list-style-type: none"> <li><b>Oberfläche</b></li> </ul> <p>Matt, gebeizt E6 / Ev1</p> <p>Eloxal-Schichtdicke ca. 15 µm</p> <p>Eloxal-Schichthärtة ca. 270-320 HV</p>	<ul style="list-style-type: none"> <li><b>Superficie</b></li> </ul> <p>opaca, macchiato E6 / Ev1</p> <p>anodizzazione- spessore dello strato approx. 15µm</p> <p>anodizzazione - livello di durezza appross. 270-320 HV</p>	<ul style="list-style-type: none"> <li><b>Powierzchnia</b></li> </ul> <p>Matowa, wytrawiana E6 / Ev1</p> <p>Grubość powłoki anodowanej env. 15 µm</p> <p>Twardość powłoki anodowanej env. 270-320 HV</p>

### Verwindungstoleranz in Profillängsrichtung

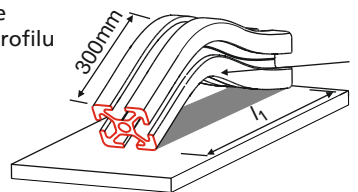
Tolleranza alla torsione del profilo in senso longitudinale  
Tolerancja skręcania w kierunku wzdłużnym profilu



b (mm)	über bis	v bei Längen l (mm)			
		1.000	2.000	4.000	6.000
20	45	1,0	1,2	1,8	2,0
45	70	1,0	1,2	1,5	2,0
75	100	1,0	1,5	2,2	3,0
125	150	1,2	1,5	2,2	3,0

### Geradheitstoleranz in Profillängsrichtung

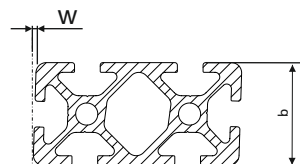
Tolleranza rettilinea del profilo in senso longitudinale  
Tolerancja prostoliniowości w kierunku wzdłużnym profilu



Länge l1 (mm)	h (mm)
bis 1.000	0,7
bis 2.000	1,3
bis 3.000	1,8
bis 4.000	2,2
bis 5.000	2,6
bis 6.000	3,0

### Winkeltoleranz (Neigungstoleranz)

Tolleranza angolare (tolleranza di inclinazione)  
Tolerancja kąta (tolerancja nachylenia)



Breite b (mm)	Toleranz w (mm)
0 - 20	0,2
20 - 40	0,4
40 - 80	0,6
80 - 120	0,8
120-160	1,2

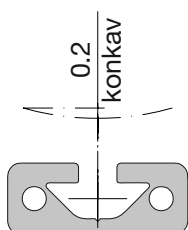
# ALU-PROFILE




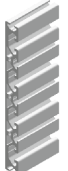
## PROFILATI

### PROFILE ALUMINIOWE



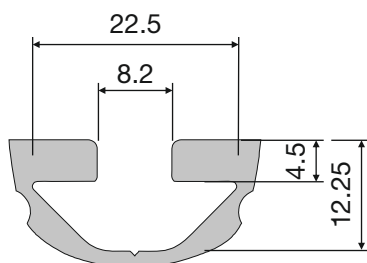
#### Konkavität



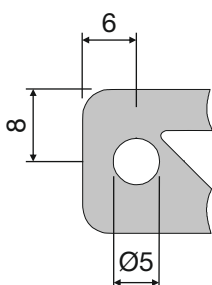
16x40S	16x80S	16x120S	16x160
			
■ 2.05	■ 2.05	■ 2.05	■ 2.06



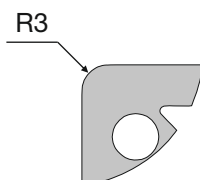
#### Nut



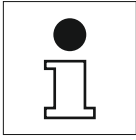
#### Kernloch



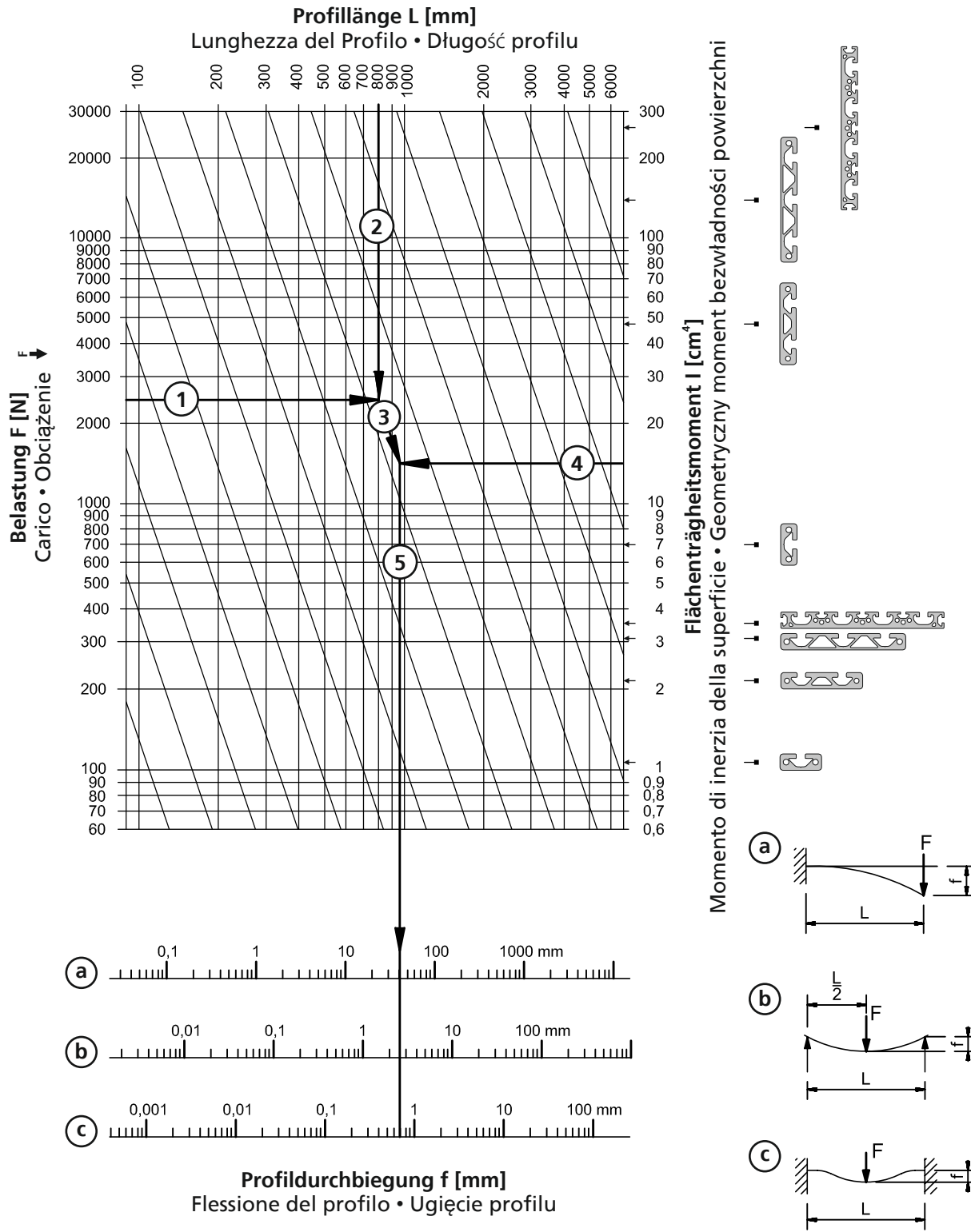
#### Außenkante



Technische Änderungen vorbehalten



**Durchbiegung der Profile**  
**Flessione del profilo**  
**Ugięcie profili**

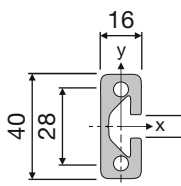


Technische Änderungen vorbehalten

**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**16x40 S**



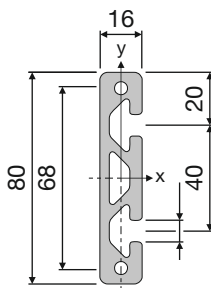
**05.01045.00**

$M = 1,16 \text{ kg/m}$   
 $I_x = 7,10 \text{ cm}^4$   
 $W_x = 3,55 \text{ cm}^3$   
 $I_y = 1,10 \text{ cm}^4$   
 $W_y = 1,38 \text{ cm}^3$

PE (m)  
 6 / 60 / 120

2

**16x80 S**

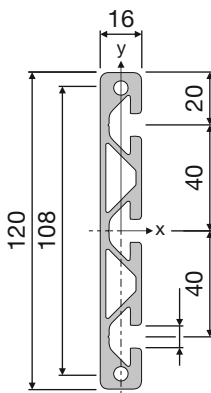


**05.01813.00**

$M = 2,14 \text{ kg/m}$   
 $I_x = 48,75 \text{ cm}^4$   
 $W_x = 12,19 \text{ cm}^3$   
 $I_y = 2,20 \text{ cm}^4$   
 $W_y = 2,75 \text{ cm}^3$

PE (m)  
 6 / 60 / 120

**16x120 S**

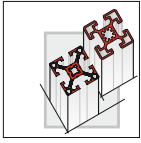


**05.01806.00**

$M = 2,79 \text{ kg/m}$   
 $I_x = 148,38 \text{ cm}^4$   
 $W_x = 24,73 \text{ cm}^3$   
 $I_y = 3,07 \text{ cm}^4$   
 $W_y = 3,84 \text{ cm}^3$

PE (m)  
 6 / 60 / 120

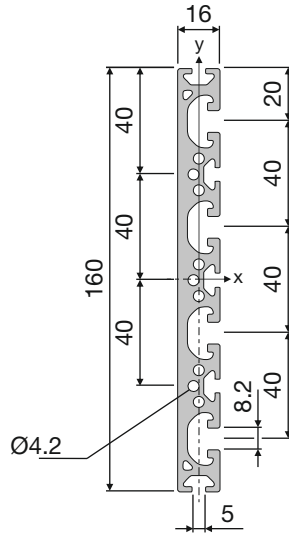
Technische Änderungen vorbehalten



**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



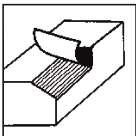
**16x160**



**05.01805.00**

M = 3,87 kg/m  
 $I_x = 298,20 \text{ cm}^4$   
 $W_x = 37,28 \text{ cm}^3$   
 $I_y = 3,91 \text{ cm}^4$   
 $W_y = 4,89 \text{ cm}^3$

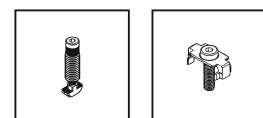
PE (m)  
 6 / 60 / 120



**PROFILBEARBEITUNG**  
**LAVORAZIONE DEL PROFILO**  
**OBRÓBKA PROFILU**

	↓ 16x40	↓ ↓ 16x80	↓ ↓ ↓ 16x120	↓ ↓ ↓ ↓ 16x160
			<b>05.xxxxx.09</b>	
VSI 7			<b>05.xxxxx.15</b> ■ 3.17	VSA 14
				<b>05.xxxxx.45</b> ■ 3.16
VSI 7			<b>05.xxxxx.16</b>	VSA 14
				VSA 14 <b>05.xxxxx.46</b>

Technische Änderungen vorbehalten



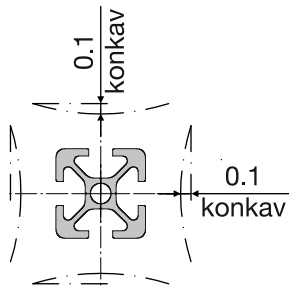
# ALU-PROFILE

## PROFILATI

## PROFILE ALUMINIOWE

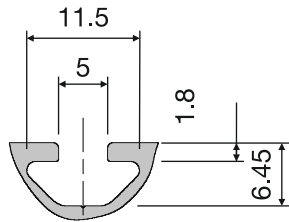


### Konkavität



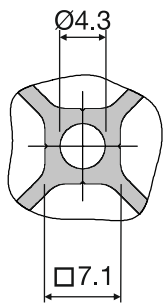
10x20	10x40		
■ 2.09	■ 2.31		

### Nut



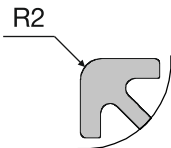
20x20	20x20-1N	20x20-2N90	20x20-R
■ 2.09	■ 2.09	■ 2.09.1	■ 2.09.1

### Kernloch



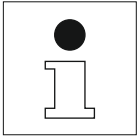
20x40	20x40-2N	20x40-3N90	
■ 2.09.1	■ 2.09.1	■ 2.09.2	
20x60	20x80	40x40	
■ 2.09.2	■ 2.09.2	■ 2.09.2	

### Außenkante

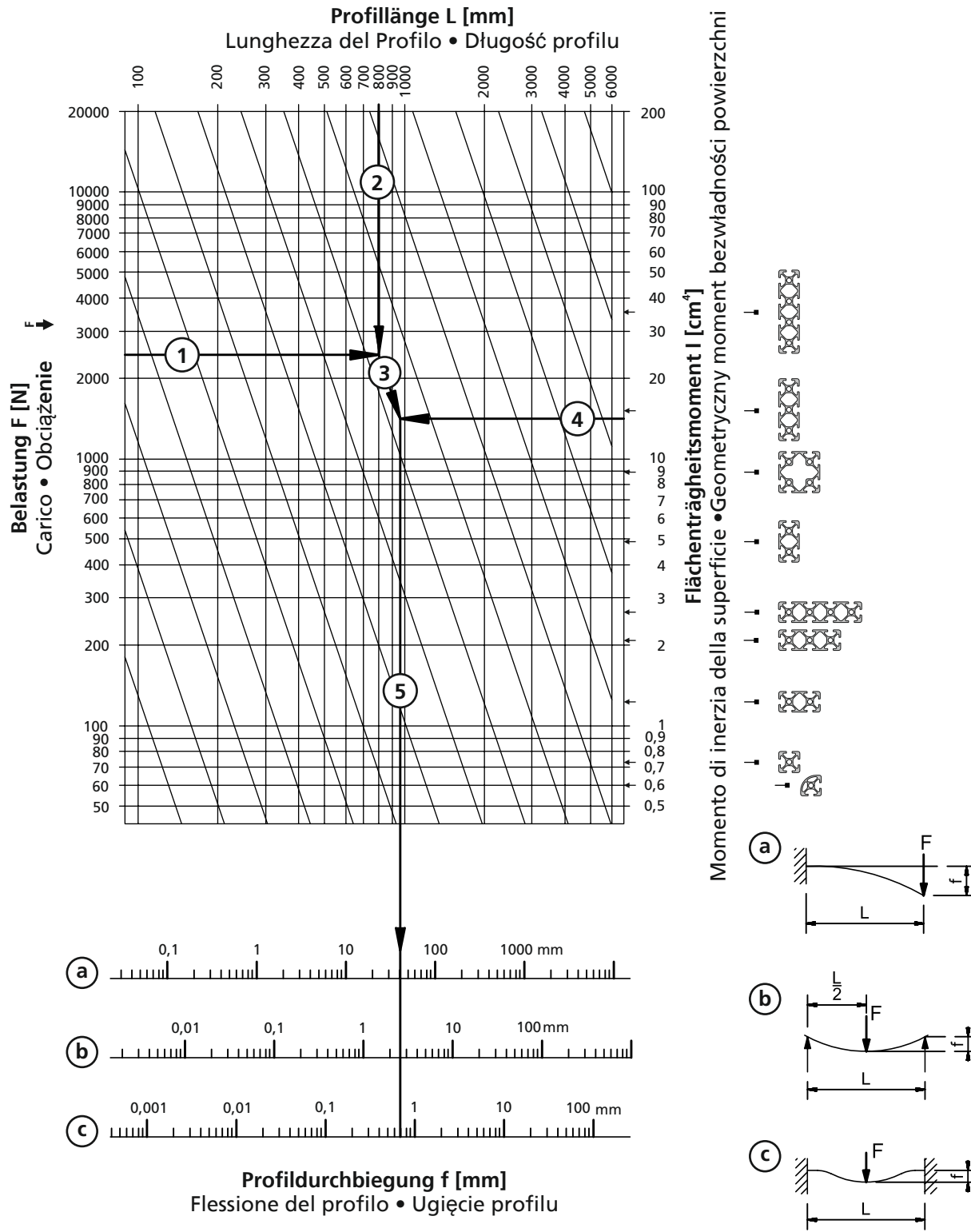


2

Technische Änderungen vorbehalten



**Durchbiegung der Profile**  
**Flessione del profilo**  
**Ugięcie profili**



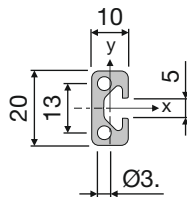
Technische Änderungen vorbehalten



**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**10x20**



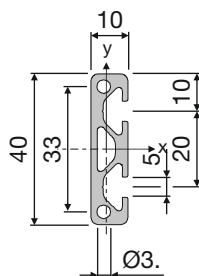
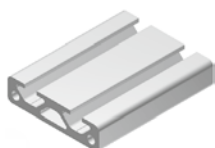
**05.01602.00**

M = 0,35 kg/m  
 $I_x = 0,53 \text{ cm}^4$   
 $W_x = 0,53 \text{ cm}^3$   
 $I_y = 0,13 \text{ cm}^4$   
 $W_y = 0,26 \text{ cm}^3$

PE (m)  
 3

2

**10x40**

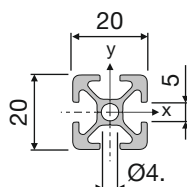
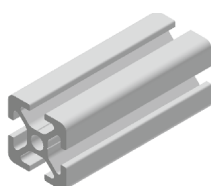


**05.01603.00**

M = 0,63 kg/m  
 $I_x = 3,56 \text{ cm}^4$   
 $W_x = 7,12 \text{ cm}^3$   
 $I_y = 0,35 \text{ cm}^4$   
 $W_y = 0,18 \text{ cm}^3$

PE (m)  
 3

**20x20**

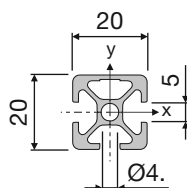
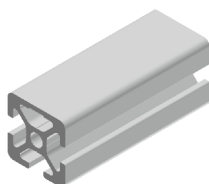


**05.01605.00**

M = 0,48 kg/m  
 $I_x = 0,74 \text{ cm}^4$   
 $W_x = 0,74 \text{ cm}^3$   
 $I_y = 0,74 \text{ cm}^4$   
 $W_y = 0,74 \text{ cm}^3$

PE (m)  
 6 / 96 / 192

**20x20-1N**

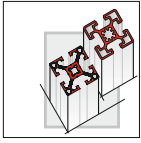


**05.01645.00**

M = 0,50 kg/m  
 $I_x = 0,74 \text{ cm}^4$   
 $W_x = 0,74 \text{ cm}^3$   
 $I_y = 0,80 \text{ cm}^4$   
 $W_y = 0,80 \text{ cm}^3$

PE (m)  
 6 / 96 / 192

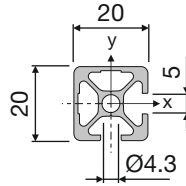
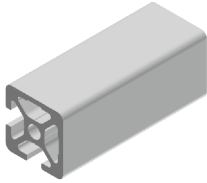
Technische Änderungen vorbehalten



**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



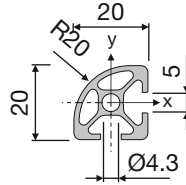
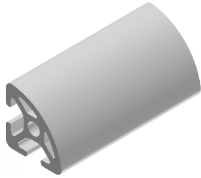
**20x20-2N90**



**05.01646.00**

M = 0,52 kg/m  
 $I_x = 0,80 \text{ cm}^4$   
 $W_x = 0,80 \text{ cm}^3$   
 $I_y = 0,80 \text{ cm}^4$   
 $W_y = 0,80 \text{ cm}^3$   
 PE (m)  
 6 / 96 / 192

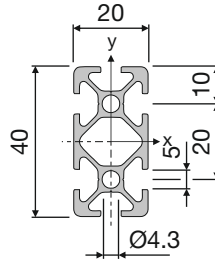
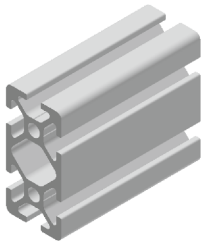
**20x20-R**



**05.01024.00**

M = 0,47 kg/m  
 $I_x = 0,66 \text{ cm}^4$   
 $W_x = 0,66 \text{ cm}^3$   
 $I_y = 0,66 \text{ cm}^4$   
 $W_y = 0,66 \text{ cm}^3$   
 PE (m)  
 3

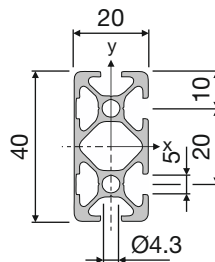
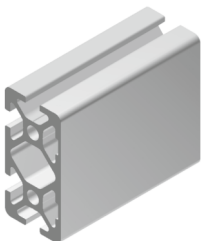
**20x40**



**05.01606.00**

M = 0,85 kg/m  
 $I_x = 5,01 \text{ cm}^4$   
 $W_x = 2,51 \text{ cm}^3$   
 $I_y = 1,36 \text{ cm}^4$   
 $W_y = 1,36 \text{ cm}^3$   
 PE (m)  
 6 / 96 / 192

**20x40-2N**



**05.01658.00**

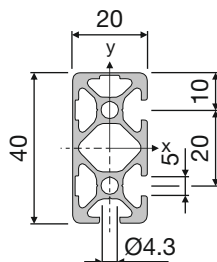
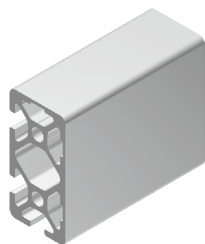
M = 0,89 kg/m  
 $I_x = 5,27 \text{ cm}^4$   
 $W_x = 2,64 \text{ cm}^3$   
 $I_y = 1,44 \text{ cm}^4$   
 $W_y = 1,44 \text{ cm}^3$   
 PE (m)  
 3

Technische Änderungen vorbehalten

**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**20x40-3N90**



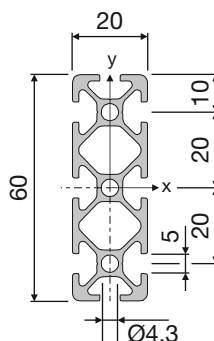
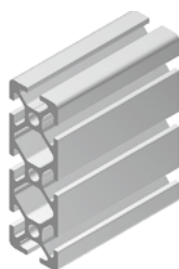
**05.01659.00**

$M = 0,89 \text{ kg/m}$   
 $I_x = 5,27 \text{ cm}^4$   
 $W_x = 2,64 \text{ cm}^3$   
 $I_y = 1,44 \text{ cm}^4$   
 $W_y = 1,44 \text{ cm}^3$

PE (m)  
 6 / 96 / 192

2

**20x60**

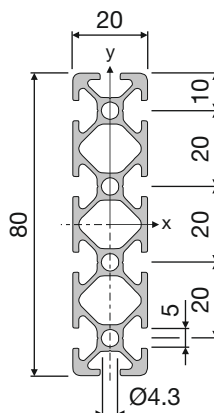
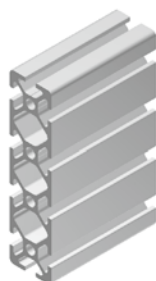


**05.01663.00**

$M = 1,24 \text{ kg/m}$   
 $I_x = 16,09 \text{ cm}^4$   
 $W_x = 5,36 \text{ cm}^3$   
 $I_y = 2,06 \text{ cm}^4$   
 $W_y = 2,06 \text{ cm}^3$

PE (m)  
 6 / 24

**20x80**

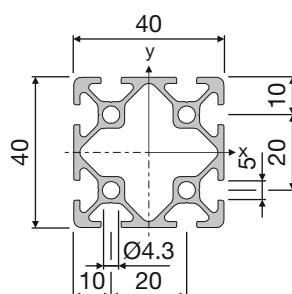
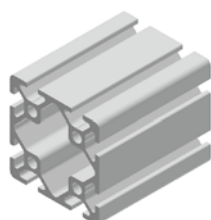


**05.01664.00**

$M = 1,62 \text{ kg/m}$   
 $I_x = 36,08 \text{ cm}^4$   
 $W_x = 9,02 \text{ cm}^3$   
 $I_y = 2,72 \text{ cm}^4$   
 $W_y = 2,72 \text{ cm}^3$

PE (m)  
 6 / 24

**40x40**

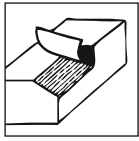


**05.01607.00**

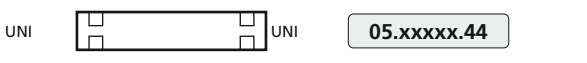
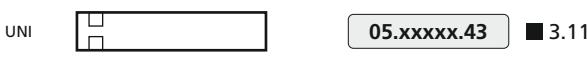
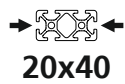
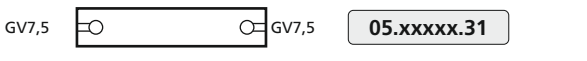
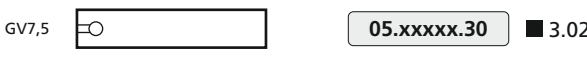
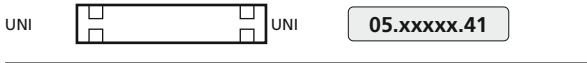
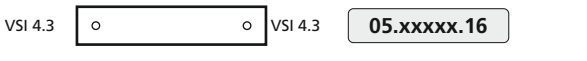
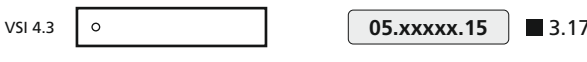
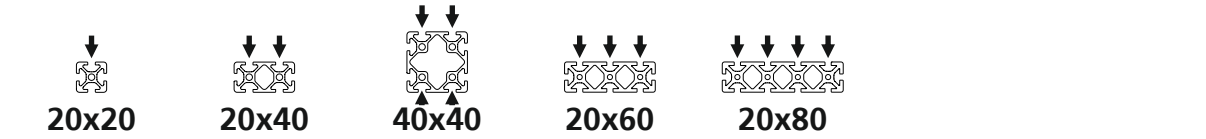
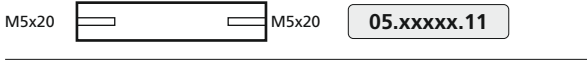
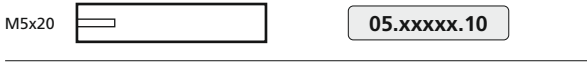
$M = 1,33 \text{ kg/m}$   
 $I_x = 8,92 \text{ cm}^4$   
 $W_x = 4,46 \text{ cm}^3$   
 $I_y = 8,92 \text{ cm}^4$   
 $W_y = 4,46 \text{ cm}^3$

PE (m)  
 3

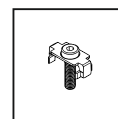
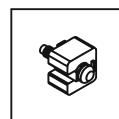
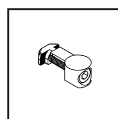
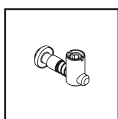
Technische Änderungen vorbehalten



**PROFILBEARBEITUNG**  
LAVORAZIONE DEL PROFILO  
OBRÓBKA PROFILU



Technische Änderungen vorbehalten



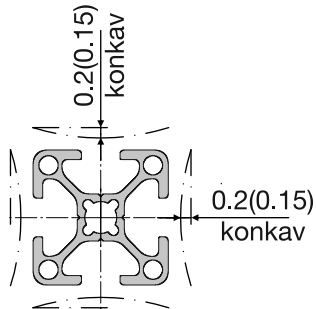
# ALU-PROFILE

## PROFILATI

## PROFILE ALUMINIOWE

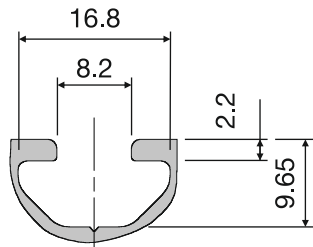


### Konkavität



30x30	30x30-1N	30x30-2N90	30x30-R
■ 2.13	■ 2.13	■ 2.13	■ 2.13

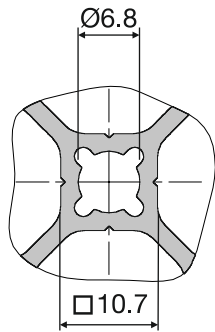
### Nut



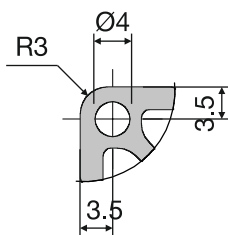
30x45	30x60	30x60-2N	30x60-3N90
■ 2.13	■ 2.14	■ 2.14	■ 2.14

30x30KL	30x30KL-180°
➔ ■ 2.15	➔ ■ 2.15

### Kernloch

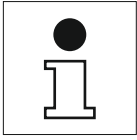


### Außenkante



2

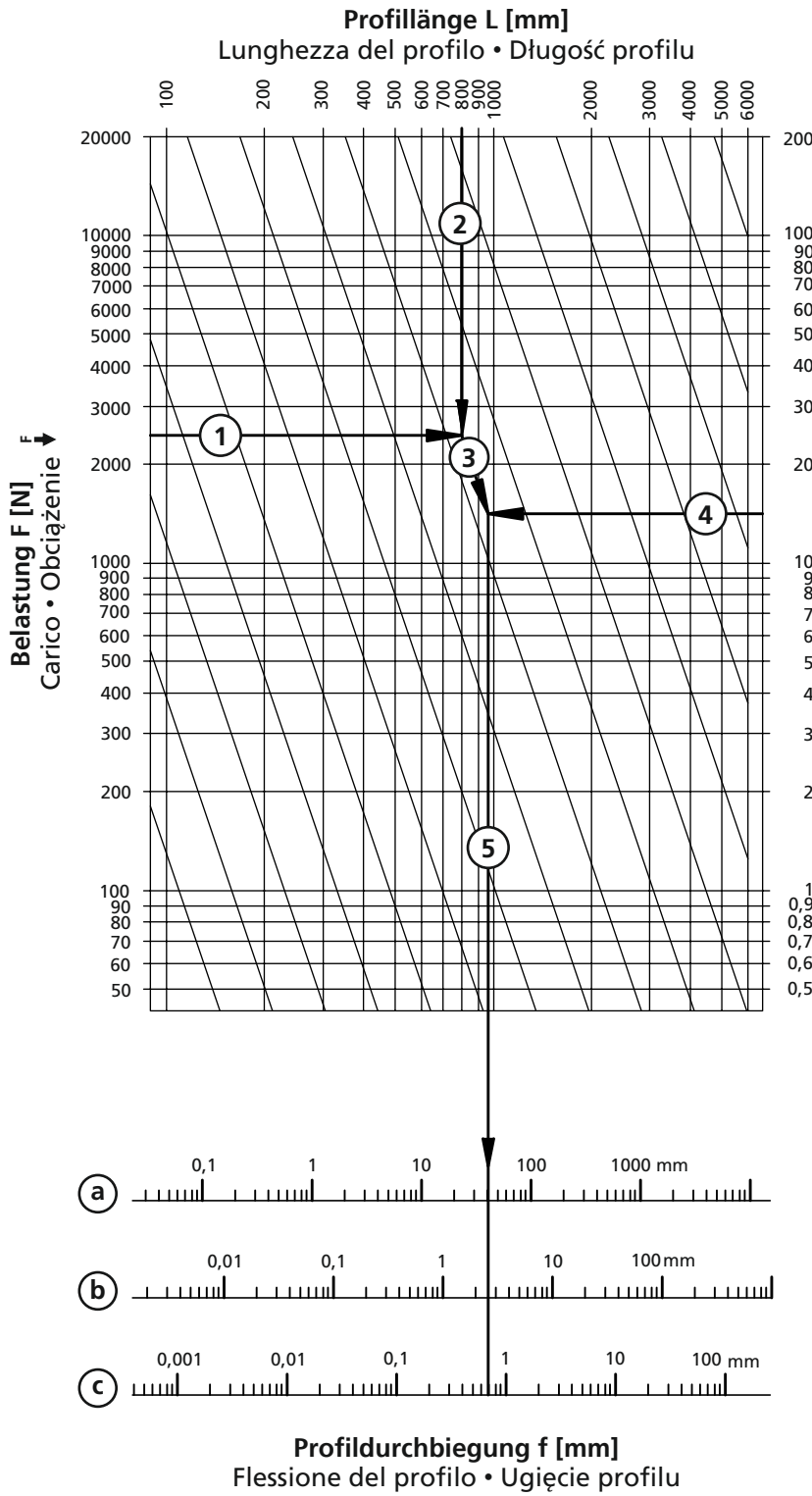
Technische Änderungen vorbehalten



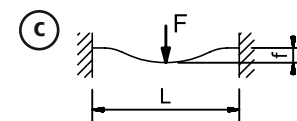
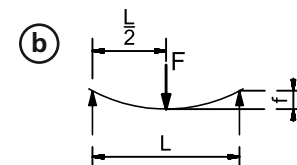
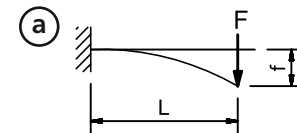
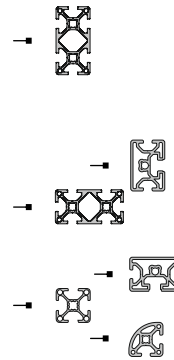
**TECHNISCHE DATEN**  
**DATI TECNICI**  
**DANE TECHNICZNE**



**Durchbiegung der Profile**  
**Flessione del profilo**  
**Ugięcie profili**



Flächenträgheitsmoment I [cm<sup>4</sup>]  
 Momento d'inerzia della superficie • Geometryczny moment bezwładności powierzchni

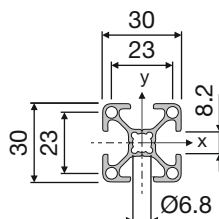
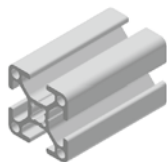


Technische Änderungen vorbehalten

**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**30x30**

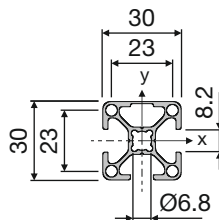
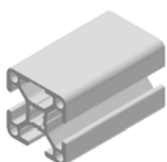


**05.01025.00**

M = 0,81 kg/m  
 $I_x = 2,78 \text{ cm}^4$   
 $W_x = 1,85 \text{ cm}^3$   
 $I_y = 2,78 \text{ cm}^4$   
 $W_y = 1,85 \text{ cm}^3$

PE (m)  
 6 / 72 / 144

**30x30 -1N**

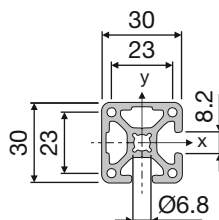
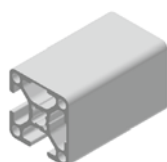


**05.01915.00**

M = 0,84 kg/m  
 $I_x = 2,95 \text{ cm}^4$   
 $W_x = 1,97 \text{ cm}^3$   
 $I_y = 2,78 \text{ cm}^4$   
 $W_y = 1,85 \text{ cm}^3$

PE (m)  
 6 / 72 / 144

**30x30 -2N90**

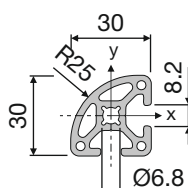
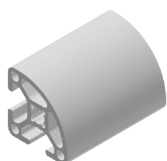


**05.01916.00**

M = 0,86 kg/m  
 $I_x = 2,96 \text{ cm}^4$   
 $W_x = 1,97 \text{ cm}^3$   
 $I_y = 2,96 \text{ cm}^4$   
 $W_y = 1,97 \text{ cm}^3$

PE (m)  
 6 / 72 / 144

**30x30 -R**

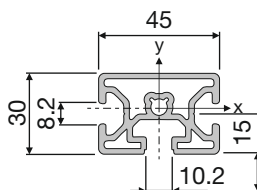
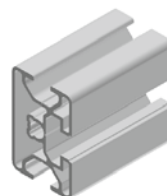


**05.01925.00**

M = 0,80 kg/m  
 $I_x = 2,40 \text{ cm}^4$   
 $W_x = 1,60 \text{ cm}^3$   
 $I_y = 2,40 \text{ cm}^4$   
 $W_y = 1,60 \text{ cm}^3$

PE (m)  
 6 / 72 / 144

**30x45**



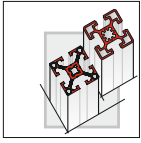
**05.01923.00**

M = 1,05 kg/m  
 $I_x = 7,97 \text{ cm}^4$   
 $W_x = 3,54 \text{ cm}^3$   
 $I_y = 3,75 \text{ cm}^4$   
 $W_y = 2,51 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

2

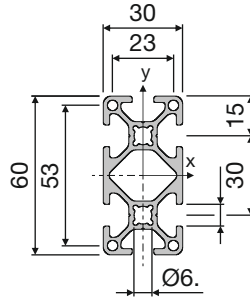
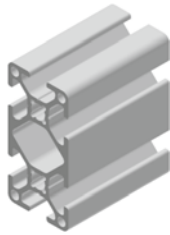
Technische Änderungen vorbehalten



**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**30x60**

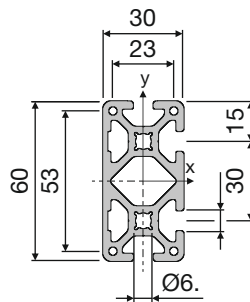
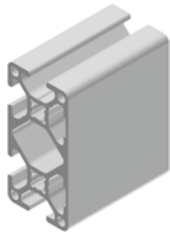


**05.01924.00**

M = 1,50 kg/m  
 $I_x = 19,10 \text{ cm}^4$   
 $W_x = 6,60 \text{ cm}^3$   
 $I_y = 5,64 \text{ cm}^4$   
 $W_y = 3,76 \text{ cm}^3$

PE (m)  
 6 / 36 / 72 / 108

**30x60-2N**

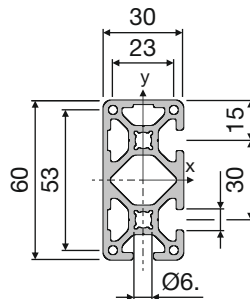
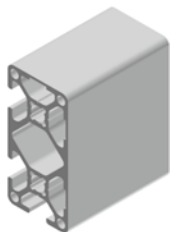


**05.01933.00**

M = 1,61 kg/m  
 $I_x = 20,48 \text{ cm}^4$   
 $W_x = 6,83 \text{ cm}^3$   
 $I_y = 6,07 \text{ cm}^4$   
 $W_y = 4,05 \text{ cm}^3$

PE (m)  
 3

**30x60-3N90**



**05.01928.00**

M = 1,61 kg/m  
 $I_x = 20,48 \text{ cm}^4$   
 $W_x = 6,83 \text{ cm}^3$   
 $I_y = 6,07 \text{ cm}^4$   
 $W_y = 4,05 \text{ cm}^3$

PE (m)  
 6 / 36 / 72 / 108

Technische Änderungen vorbehalten



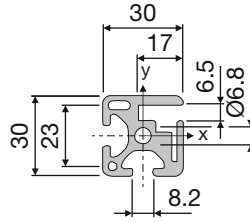
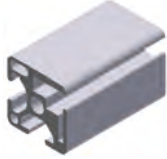
# KLEMMPROFILE

## PROFILI DI BLOCCAGGIO

## PROFILE ZACISKOWE



### 30x30 KL



05.01919.00

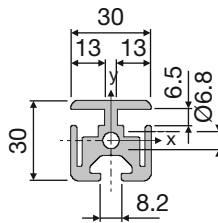
M = 1,04 kg/m  
 $I_x = 3,40 \text{ cm}^4$   
 $W_x = 2,27 \text{ cm}^3$   
 $I_y = 3,10 \text{ cm}^4$   
 $W_y = 2,07 \text{ cm}^3$

PE (m)  
 6 / 72 / 144

Klemmleiste und Schrauben nicht im Lieferumfang enthalten  
 Strisce di bloccaggio e viti non incluse  
 Listwa zaciskowa i śruby nie należą do zakresu dostawy

2

### 30x30 KL-180°



05.01921.00

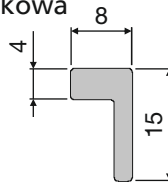
M = 1,16 kg/m  
 $I_x = 3,61 \text{ cm}^4$   
 $W_x = 2,41 \text{ cm}^3$   
 $I_y = 3,45 \text{ cm}^4$   
 $W_y = 2,30 \text{ cm}^3$

PE (m)  
 6 / 72 / 144

Klemmleiste und Schrauben nicht im Lieferumfang enthalten  
 Strisce di bloccaggio e viti non incluse  
 Listwa zaciskowa i śruby nie należą do zakresu dostawy

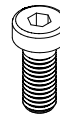
### Klemmleiste

Strisce di bloccaggio · Listwa zaciskowa

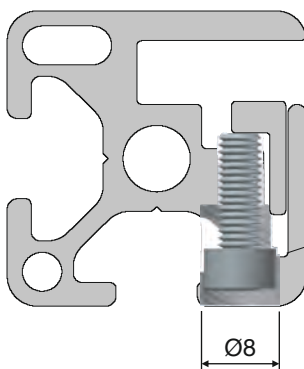


05.01922.00

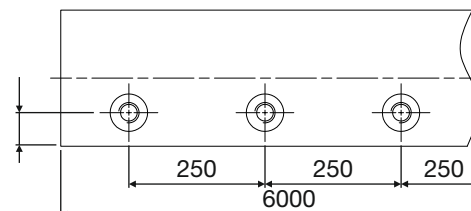
PE (m)  
 6



99.00095.00

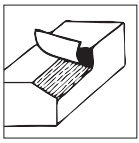


M4x12, DIN 7984  
 Bitte separat bestellen  
 Ordinare separatamente  
 Proszę zamawiać oddzielnie



Bohrungen bereits im Profil vorhanden  
 Fori già presenti nei profili  
 Otwory występują już w profilu

Technische Änderungen vorbehalten



# PROFILBEARBEITUNG

## LAVORAZIONE DEL PROFILO

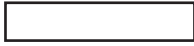
## OBRÓBKA PROFILU



30x30

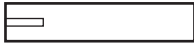


30x60



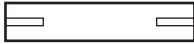
05.xxxxx.09

M8x30



05.xxxxx.10

M8x30



M8x30

05.xxxxx.11



30x30



30x60

VSI 7



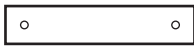
05.xxxxx.15 ■ 3.17

UNI



05.xxxxx.40 ■ 3.11

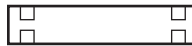
VSI 7



VSI 7

05.xxxxx.16

UNI



UNI

05.xxxxx.41

BV11



05.xxxxx.25 ■ 3.06

VSA 14



05.xxxxx.45 ■ 3.16

BV11



BV11

05.xxxxx.26

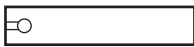
VSA 14



VSA 14

05.xxxxx.46

GV10.5



05.xxxxx.30 ■ 3.02

GV10.5



GV10.5

05.xxxxx.31



30x60

BV11V



05.xxxxx.85 ■ 3.06

UNI



05.xxxxx.43 ■ 3.11

BV11V



BV11V

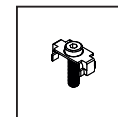
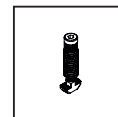
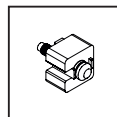
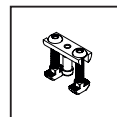
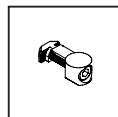
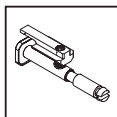
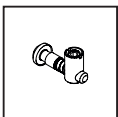
05.xxxxx.86

UNI



UNI

05.xxxxx.44



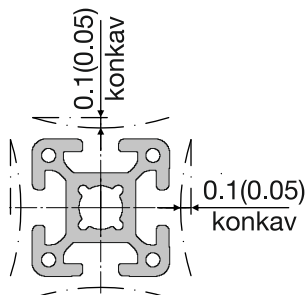
# ALU-PROFILE

## PROFILATI

## PROFILE ALUMINIOWE



### Konkavität



30x30-10K



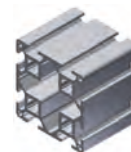
■ 2.19

30x60-10K



■ 2.19

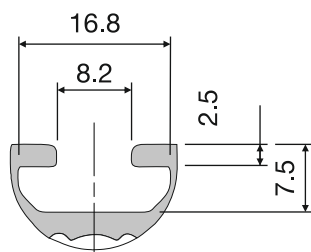
60x60-10K



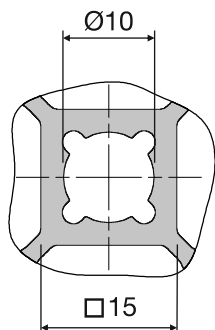
■ 2.19



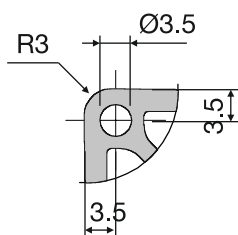
### Nut



### Kernloch



### Außenkante



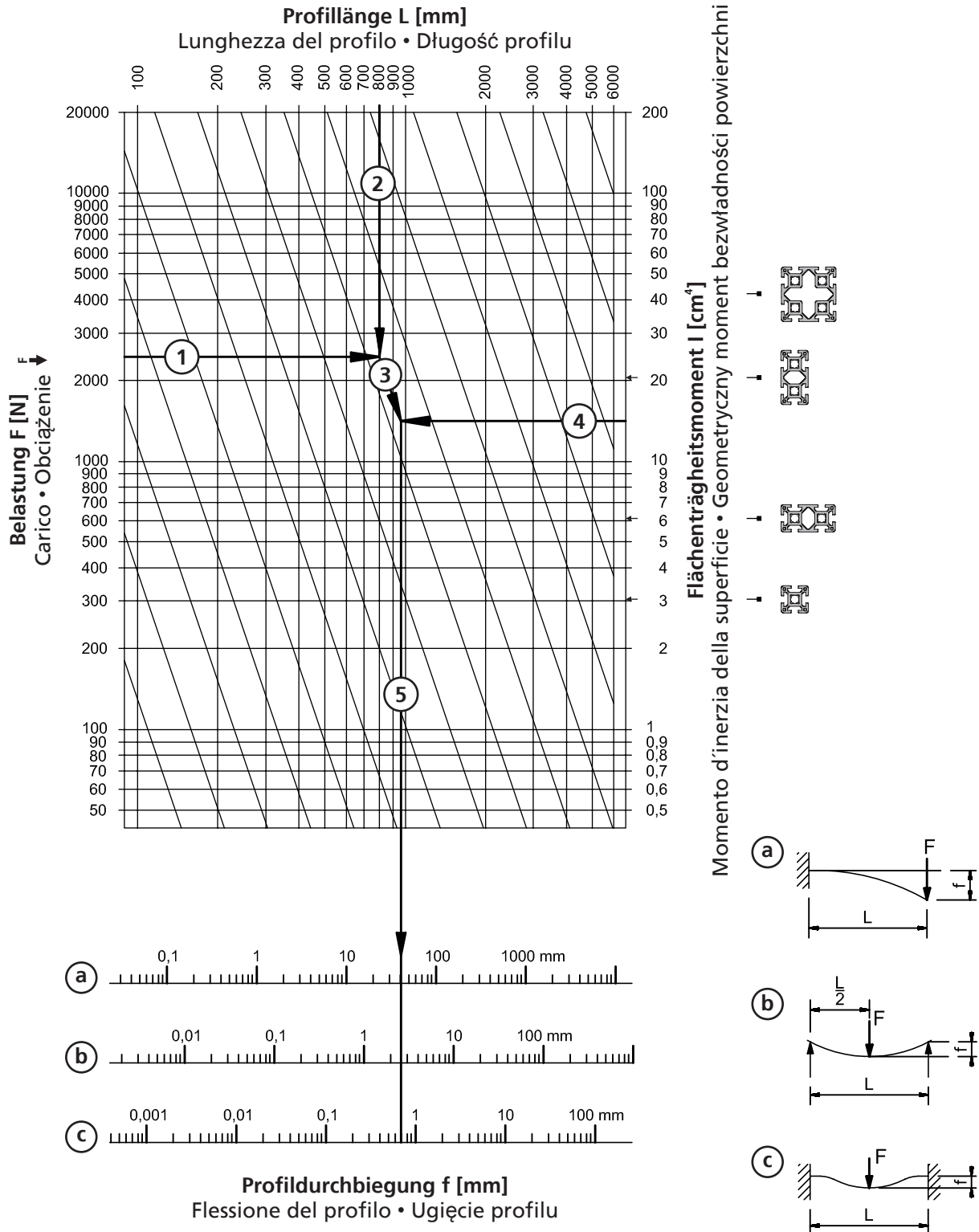
Technische Änderungen vorbehalten



**Durchbiegung der Profile**

Flessione del profilo

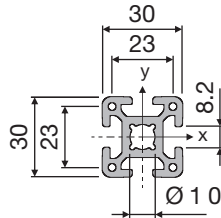
Ugięcie profili



Technische Änderungen vorbehalten

**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**

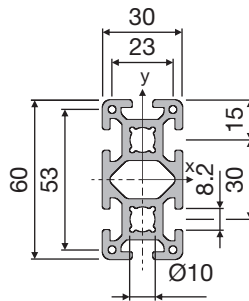
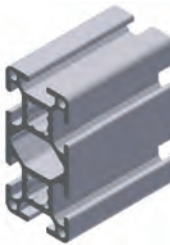
**30x30 -10K**



**05.01926.00**

M = 0,97 kg/m  
 $I_x = 3,17 \text{ cm}^4$   
 $W_x = 2,11 \text{ cm}^3$   
 $I_y = 3,17 \text{ cm}^4$   
 $W_y = 2,11 \text{ cm}^3$   
 PE (m)  
 6 / 72 / 144

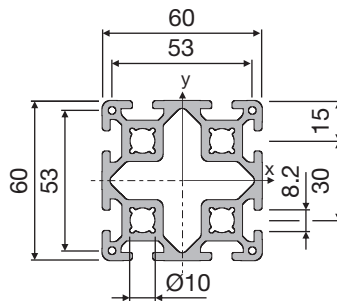
**30x60 -10K**



**05.01927.00**

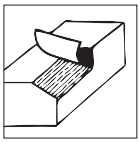
M = 1,81 kg/m  
 $I_x = 22,55 \text{ cm}^4$   
 $W_x = 7,52 \text{ cm}^3$   
 $I_y = 6,33 \text{ cm}^4$   
 $W_y = 4,22 \text{ cm}^3$   
 PE (m)  
 6 / 36 / 72 / 108

**60x60 -10K**



**05.01960.00**

M = 3,00 kg/m  
 $I_x = 42,67 \text{ cm}^4$   
 $W_x = 14,22 \text{ cm}^3$   
 $I_y = 42,67 \text{ cm}^4$   
 $W_y = 14,22 \text{ cm}^3$   
 PE (m)  
 6 / 36 / 72 / 108



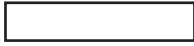
# PROFILBEARBEITUNG

## LAVORAZIONE DEL PROFILO

### OBRÓBKA PROFILU



30x30-10K



05.xxxxx.09



30x60-10K



05.xxxxx.10



60x60-10K



05.xxxxx.11



30x30-10K



05.xxxxx.15 ■ 3.17



30x60-10K



05.xxxxx.16



60x60-10K



05.xxxxx.25 ■ 3.06



05.xxxxx.45 ■ 3.16



05.xxxxx.46

VSI 7

BV11

GV

GV

VSA 14

VSA 14

VSA 14



30x60-10K

BV11V

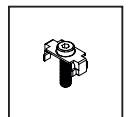
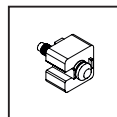
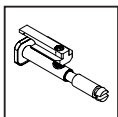
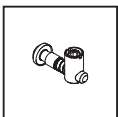


05.xxxxx.85 ■ 3.06

BV11V



05.xxxxx.86



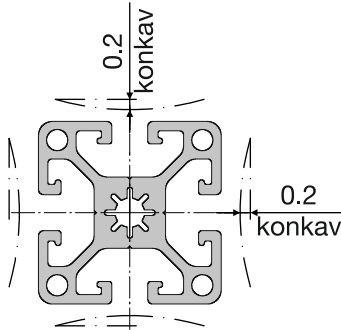
# ALU-PROFILE

## PROFILATI

## PROFILE ALUMINIOWE



### Konkavität



40x40EL-1.4      40x40L-1.55      40x40L-1N      40x40L-2N90



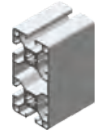
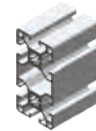
■ 2.23

■ 2.23

■ 2.23

■ 2.23

40x40L-2N180      40x80EL-2.45      40x80L-2.65      40x80L-2N



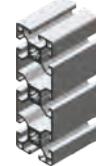
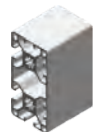
■ 2.23

■ 2.24

■ 2.24

■ 2.24

40x80L-3N      40x120L      80x80L

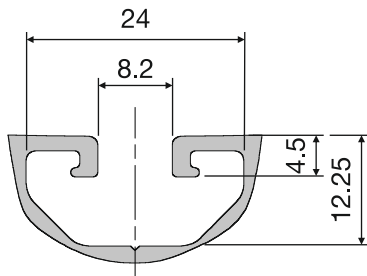


■ 2.25

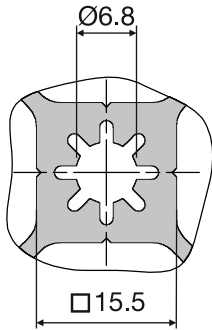
■ 2.25

■ 2.25

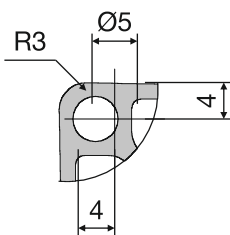
### Nut



### Kernloch



### Außenkante



2

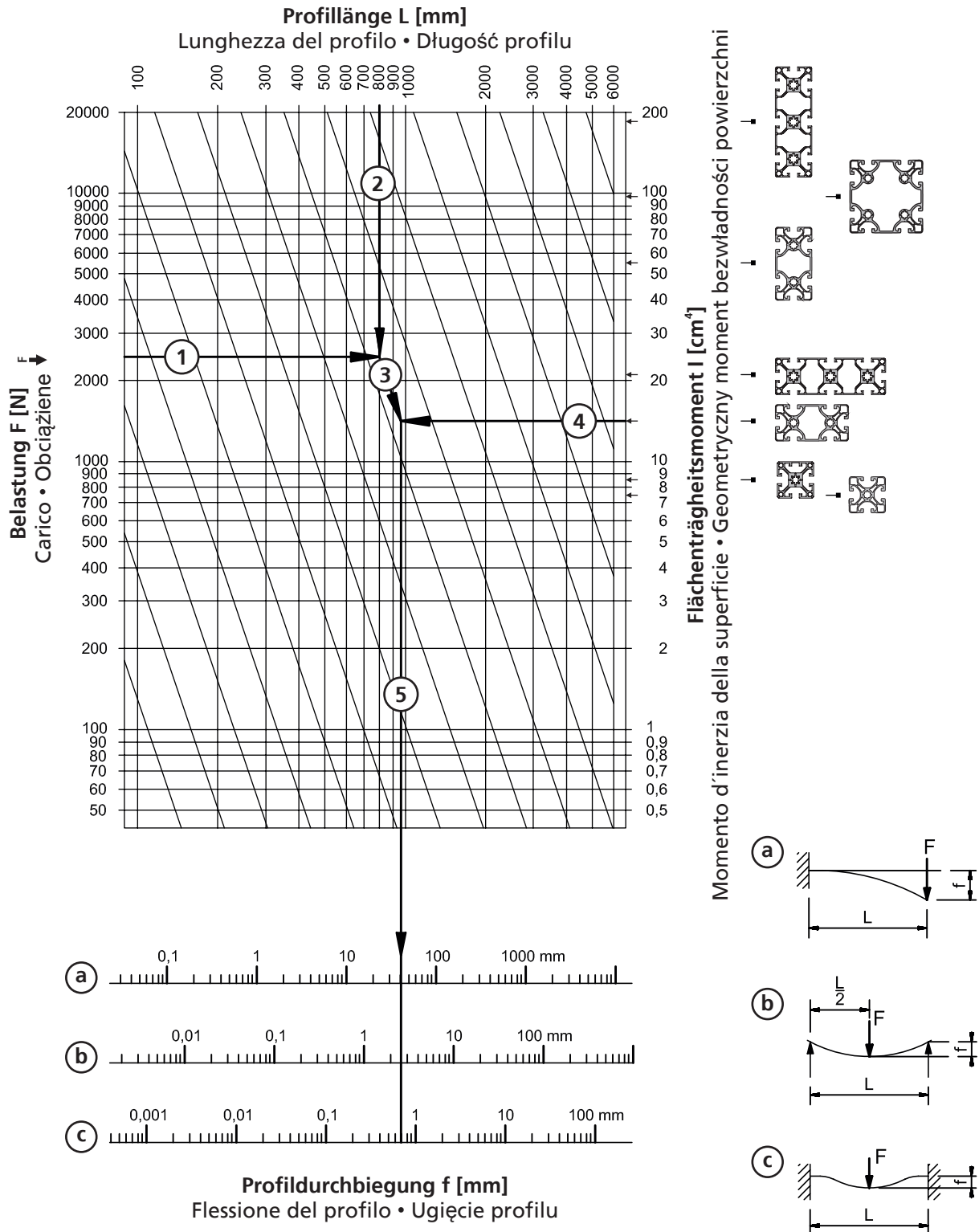
Technische Änderungen vorbehalten



**Durchbiegung der Profile**

Flessione del profilo

Ugięcie profili

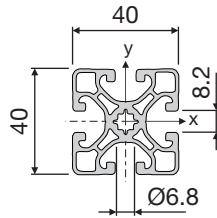
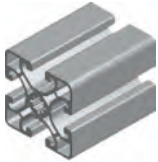




**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**40x40 EL-1.4**

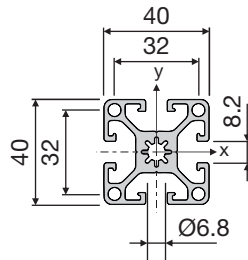
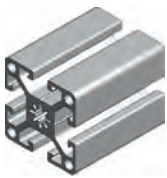


**05.02163.00**

M = 1,37 kg/m  
 $I_x = 7,42 \text{ cm}^4$   
 $W_x = 3,71 \text{ cm}^3$   
 $I_y = 7,42 \text{ cm}^4$   
 $W_y = 3,71 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**40x40 L-1.55**

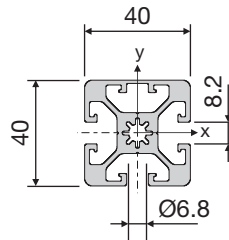


**05.01035.00**

M = 1,53 kg/m  
 $I_x = 8,40 \text{ cm}^4$   
 $W_x = 4,20 \text{ cm}^3$   
 $I_y = 8,40 \text{ cm}^4$   
 $W_y = 4,20 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**40x40 L-1N**

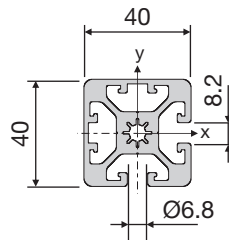


**05.01130.00**

M = 1,56 kg/m  
 $I_x = 8,73 \text{ cm}^4$   
 $W_x = 4,36 \text{ cm}^3$   
 $I_y = 8,41 \text{ cm}^4$   
 $W_y = 4,21 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**40x40 L-2N90**

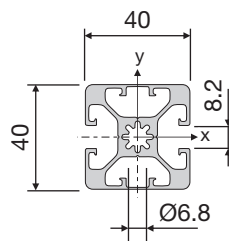
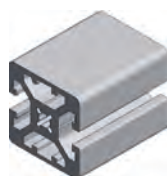


**05.01131.00**

M = 1,59 kg/m  
 $I_x = 8,74 \text{ cm}^4$   
 $W_x = 4,37 \text{ cm}^3$   
 $I_y = 8,73 \text{ cm}^4$   
 $W_y = 4,36 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**40x40 L-2N180**

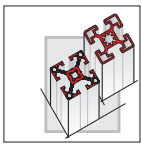


**05.01132.00**

M = 1,59 kg/m  
 $I_x = 9,06 \text{ cm}^4$   
 $W_x = 4,53 \text{ cm}^3$   
 $I_y = 8,42 \text{ cm}^4$   
 $W_y = 4,21 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

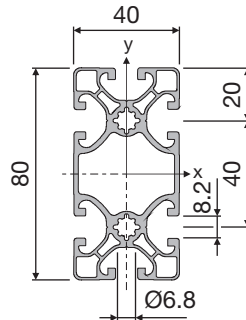
Technische Änderungen vorbehalten



**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**40x80 EL-2.45**

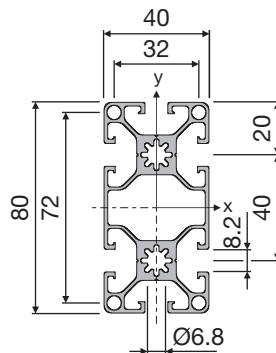


**05.02164.00**

M = 2,41 kg/m  
 $I_x = 55,44 \text{ cm}^4$   
 $W_x = 13,80 \text{ cm}^3$   
 $I_y = 14,90 \text{ cm}^4$   
 $W_y = 7,45 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

**40x80 L-2.65**

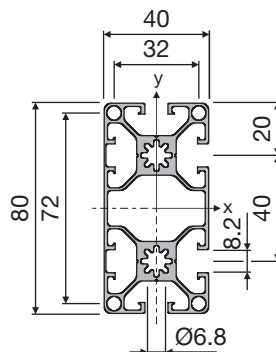
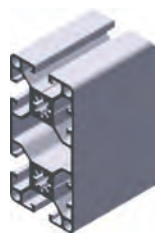


**05.01036.00**

M = 2,58 kg/m  
 $I_x = 61,26 \text{ cm}^4$   
 $W_x = 15,32 \text{ cm}^3$   
 $I_y = 14,87 \text{ cm}^4$   
 $W_y = 7,44 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

**40x80 L-2N**



**05.01037.00**

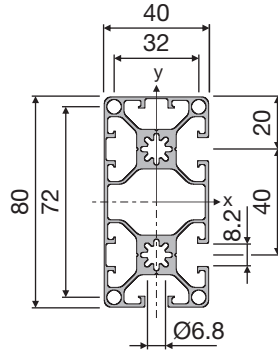
M = 2,63 kg/m  
 $I_x = 61,97 \text{ cm}^4$   
 $W_x = 15,49 \text{ cm}^3$   
 $I_y = 15,52 \text{ cm}^4$   
 $W_y = 7,76 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**40x80 L-3N**

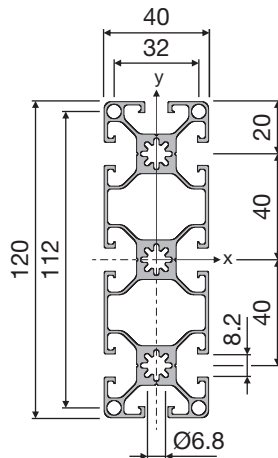


**05.01038.00**

$M = 2,65 \text{ kg/m}$   
 $I_x = 63,33 \text{ cm}^4$   
 $W_x = 15,83 \text{ cm}^3$   
 $I_y = 15,53 \text{ cm}^4$   
 $W_y = 7,77 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

**40x120 L**

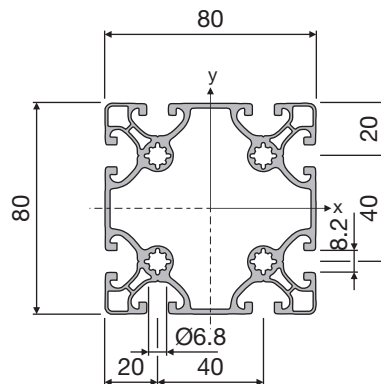
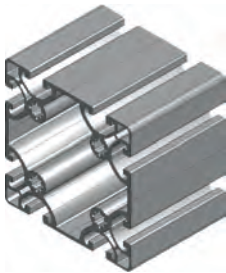


**05.01046.00**

$M = 3,66 \text{ kg/m}$   
 $I_x = 190,62 \text{ cm}^4$   
 $W_x = 31,77 \text{ cm}^3$   
 $I_y = 21,32 \text{ cm}^4$   
 $W_y = 10,36 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

**80x80 L**

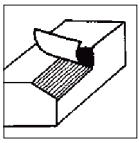


**05.02165.00**

$M = 3,62 \text{ kg/m}$   
 $I_x = 99,47 \text{ cm}^4$   
 $W_x = 24,90 \text{ cm}^3$   
 $I_y = 99,47 \text{ cm}^4$   
 $W_y = 24,90 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

Technische Änderungen vorbehalten







# PROFILBEARBEITUNG



## LAVORAZIONE DEL PROFILO


### OBRÓBKA PROFILU







 1x	 2x	 3x	 4x
<b>40x40</b>	<b>40x80</b>	<b>40x120</b>	<b>80x80</b>

	<b>05.xxxxx.09</b>
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M8x40 	<b>05.xxxxx.10</b>	M12x60 	<b>05.xxxxx.12</b>
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M8x40  M8x40	<b>05.xxxxx.11</b>	M12x60  M12x60	<b>05.xxxxx.13</b>
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 40x40	 40x80	 40x120	 80x80
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VSI 7 	<b>05.xxxxx.15</b> ■ 3.17	UNI 	<b>05.xxxxx.40</b> ■ 3.11
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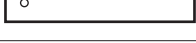
VSI 7  VSI 7	<b>05.xxxxx.16</b>	UNI  UNI	<b>05.xxxxx.41</b>
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BV14 	<b>05.xxxxx.25</b> ■ 3.06	VSA 14 	<b>05.xxxxx.45</b> ■ 3.16
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BV14  BV14	<b>05.xxxxx.26</b>	VSA 14  VSA 14	<b>05.xxxxx.46</b>
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GV14 	<b>05.xxxxx.30</b> ■ 3.02
--	---------------------------

GV14  GV14	<b>05.xxxxx.31</b>
---	--------------------


AGV 	<b>05.xxxxx.35</b> ■ 3.04
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AGV  AGV	<b>05.xxxxx.36</b>
---	--------------------

### 40x80

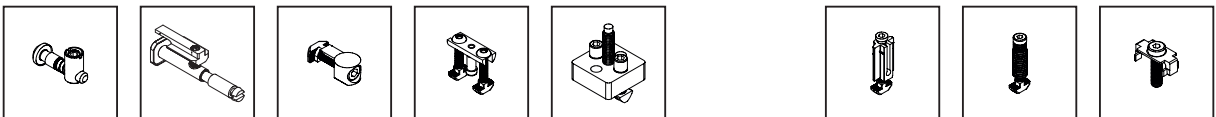
BV14V 	<b>05.xxxxx.85</b> ■ 3.06	UNI 	<b>05.xxxxx.43</b> ■ 3.11
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BV14V  BV14V	<b>05.xxxxx.86</b>	UNI  UNI	<b>05.xxxxx.44</b>
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AGV 	<b>05.xxxxx.83</b> ■ 3.04
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AGV  AKV	<b>05.xxxxx.84</b>
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Technische Änderungen vorbehalten



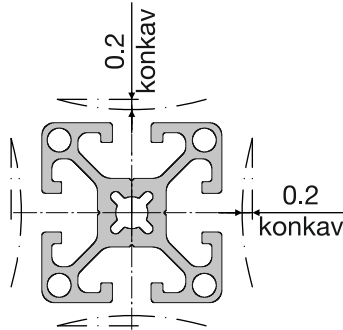
# ALU-PROFILE

## PROFILATI

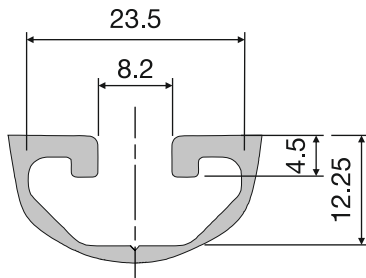
### PROFILE ALUMINIOWE



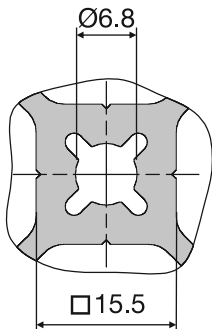
#### Konkavität



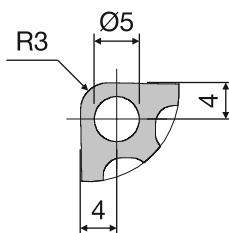
#### Nut



#### Kernloch



#### Außenkante



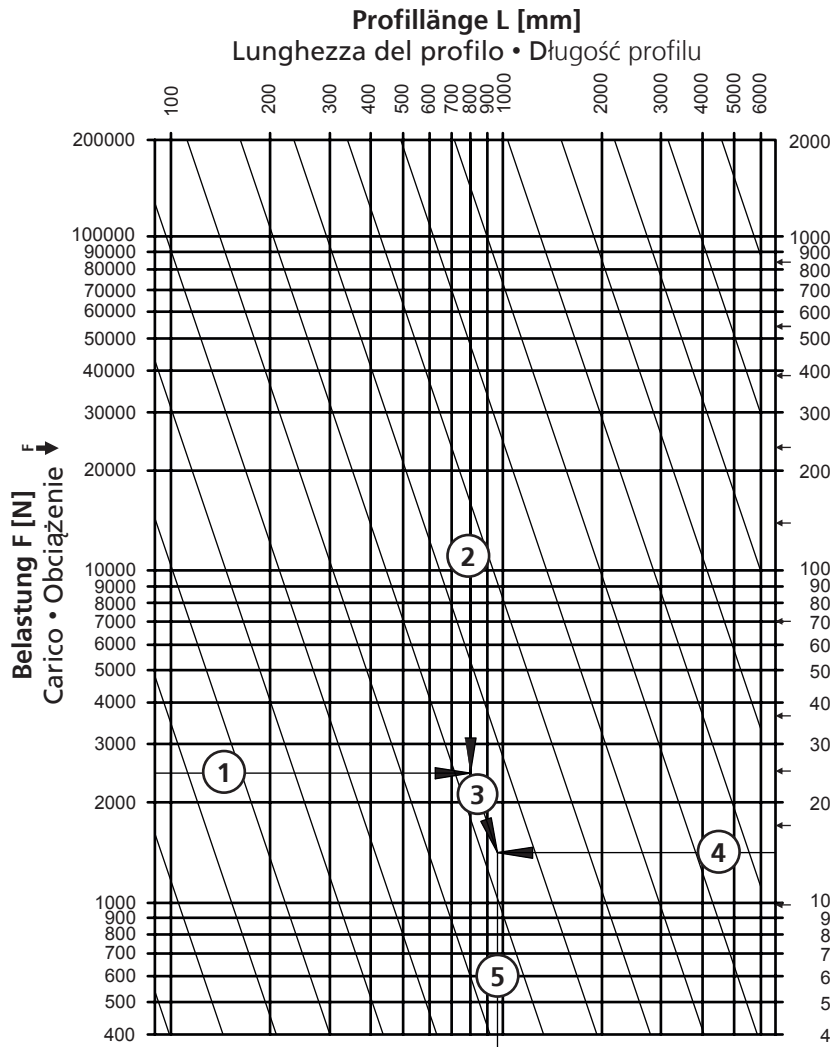
40x40N	40x40-1N	40x40-2N90	40x40-2N180
■ 2.31	■ 2.31	■ 2.31	■ 2.31
40x40N-45°	40x40N-R		
■ 2.32	■ 2.32		
40x80N	40x120N	40x160N	40x160N-4N
■ 2.32	■ 2.32	■ 2.33	■ 2.33
80x80N	80x80N-2N	80x80N-4N90	
■ 2.34	■ 2.34	■ 2.34	
80x120N	80x160N	40x40 KL	40x40 KL-180°
■ 2.35	■ 2.35	■ 2.37	■ 2.37
40R80-30°	40R80-45°	40R80-60°	40R80-90°
■ 2.36	■ 2.36	■ 2.36	■ 2.36

2

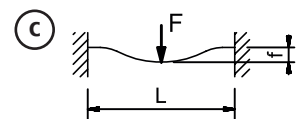
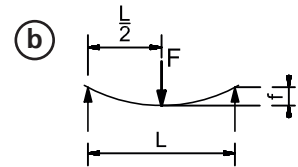
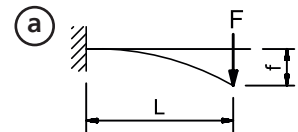
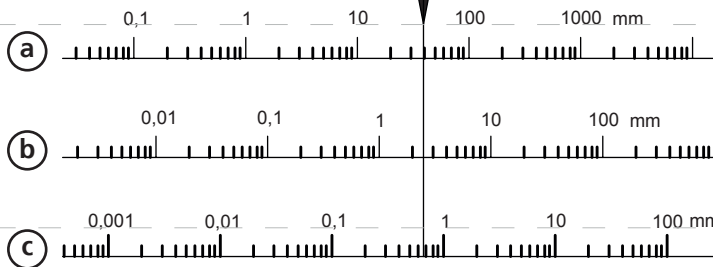
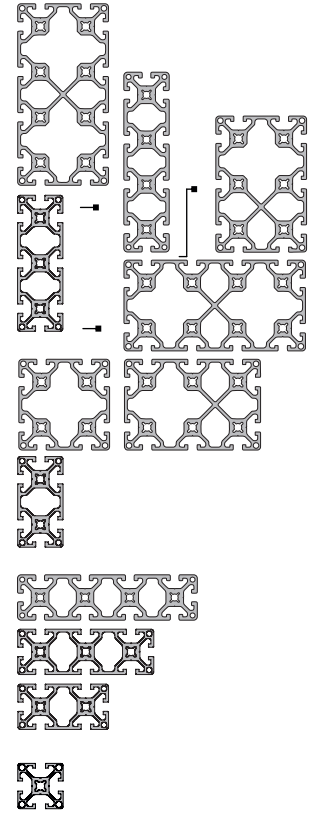
Technische Änderungen vorbehalten



**Durchbiegung der Profile**  
**Flessione del profilo**  
**Ugięcie profili**



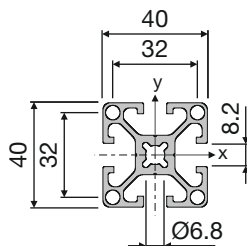
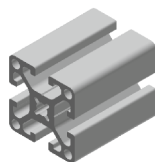
**Flächenträgheitsmoment I [cm<sup>4</sup>]**  
**Momento d'inerzia della superficie • Geometryczny moment bezwładności powierzchni**



**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**40x40 N**



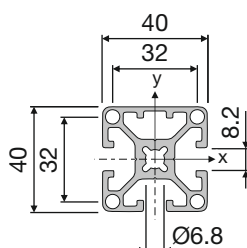
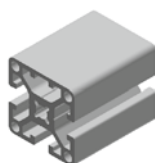
**05.01002.00**

M = 1,72 kg/m  
 $I_x = 9,66 \text{ cm}^4$   
 $W_x = 4,83 \text{ cm}^3$   
 $I_y = 9,66 \text{ cm}^4$   
 $W_y = 4,83 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

2

**40x40 N-1N**

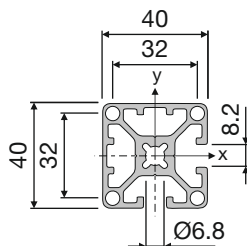
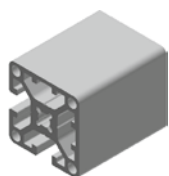


**05.01026.00**

M = 1,75 kg/m  
 $I_x = 10,06 \text{ cm}^4$   
 $W_x = 5,03 \text{ cm}^3$   
 $I_y = 9,52 \text{ cm}^4$   
 $W_y = 4,76 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**40x40 N-2N90**

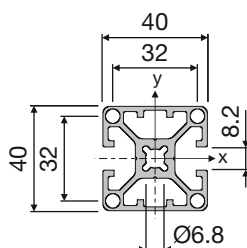
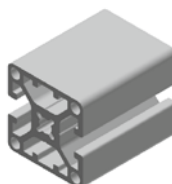


**05.01027.00**

M = 1,79 kg/m  
 $I_x = 10,07 \text{ cm}^4$   
 $W_x = 5,04 \text{ cm}^3$   
 $I_y = 10,07 \text{ cm}^4$   
 $W_y = 5,04 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**40x40 N-2N180**

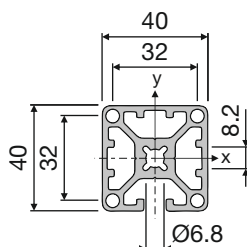
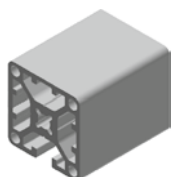


**05.01028.00**

M = 1,79 kg/m  
 $I_x = 10,61 \text{ cm}^4$   
 $W_x = 5,31 \text{ cm}^3$   
 $I_y = 9,53 \text{ cm}^4$   
 $W_y = 4,77 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**40x40 N-3N**

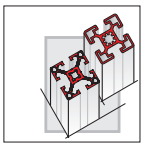


**05.01536.00**

M = 1,83 kg/m  
 $I_x = 10,62 \text{ cm}^4$   
 $W_x = 5,31 \text{ cm}^3$   
 $I_y = 10,66 \text{ cm}^4$   
 $W_y = 5,33 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

Technische Änderungen vorbehalten



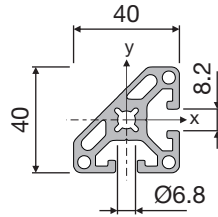
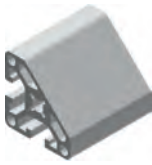
# ALU-PROFILE

## PROFILATI

## PROFILE ALUMINIOWE



### 40x40 N-45°

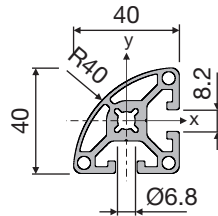
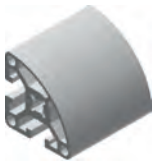


**05.01029.00**

M = 1,51 kg/m  
 $I_x = 7,50 \text{ cm}^4$   
 $W_x = 3,75 \text{ cm}^3$   
 $I_y = 7,50 \text{ cm}^4$   
 $W_y = 3,75 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

### 40x40 N-R

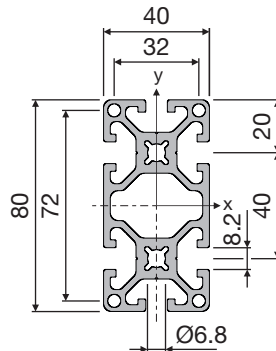


**05.01943.00**

M = 1,42 kg/m  
 $I_x = 7,02 \text{ cm}^4$   
 $W_x = 3,51 \text{ cm}^3$   
 $I_y = 7,02 \text{ cm}^4$   
 $W_y = 3,51 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

### 40x80 N

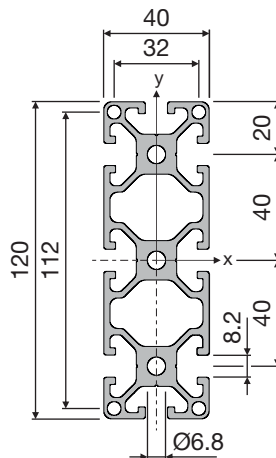
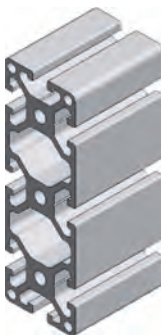


**05.01003.00**

M = 3,08 kg/m  
 $I_x = 70,34 \text{ cm}^4$   
 $W_x = 17,59 \text{ cm}^3$   
 $I_y = 18,33 \text{ cm}^4$   
 $W_y = 9,17 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

### 40x120 N



**05.01047.00**

M = 4,40 kg/m  
 $I_x = 222,16 \text{ cm}^4$   
 $W_x = 37,03 \text{ cm}^3$   
 $I_y = 27,00 \text{ cm}^4$   
 $W_y = 13,50 \text{ cm}^3$

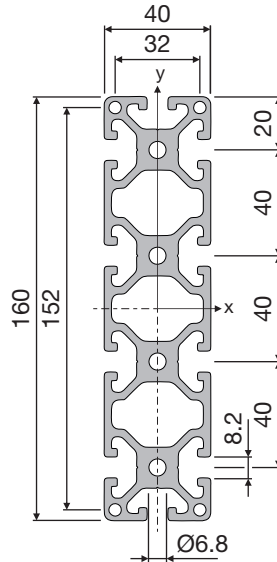
PE (m)  
 6 / 24 / 48 / 72



**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**40x160 N**

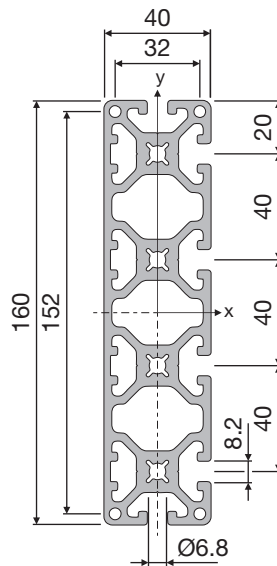


**05.01820.00**

M = 5,80 kg/m  
 $I_x = 503,40 \text{ cm}^4$   
 $W_x = 62,93 \text{ cm}^3$   
 $I_y = 37,28 \text{ cm}^4$   
 $W_y = 18,64 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

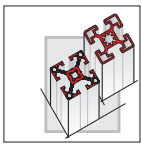
**40x160 N-4N**



**05.01819.00**

M = 6,00 kg/m  
 $I_x = 514,34 \text{ cm}^4$   
 $W_x = 64,30 \text{ cm}^3$   
 $I_y = 37,28 \text{ cm}^4$   
 $W_y = 18,64 \text{ cm}^3$

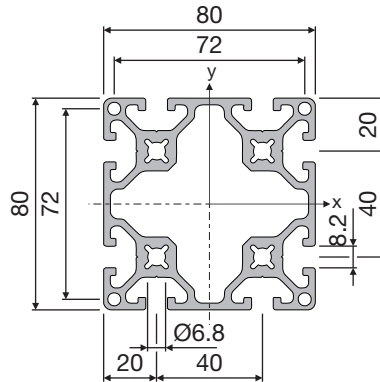
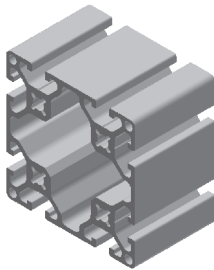
PE (m)  
 6 / 24 / 48 / 72



**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**80x80 N**

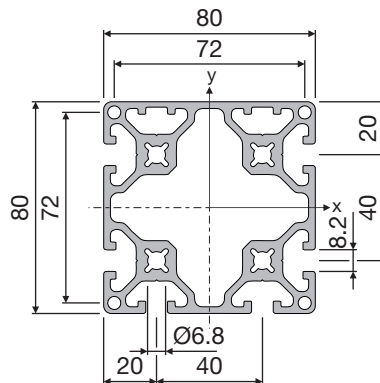
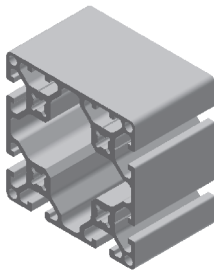


**05.01004.00**

M = 5,00 kg/m  
 $I_x = 125,70 \text{ cm}^4$   
 $W_x = 31,42 \text{ cm}^3$   
 $I_y = 125,70 \text{ cm}^4$   
 $W_y = 31,42 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

**80x80 N-2N**

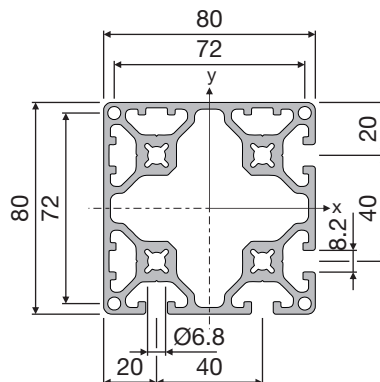
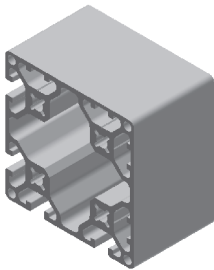


**05.01931.00**

M = 4,96 kg/m  
 $I_x = 130,31 \text{ cm}^4$   
 $W_x = 32,58 \text{ cm}^3$   
 $I_y = 126,94 \text{ cm}^4$   
 $W_y = 31,74 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

**80x80 N-4N90**



**05.01932.00**

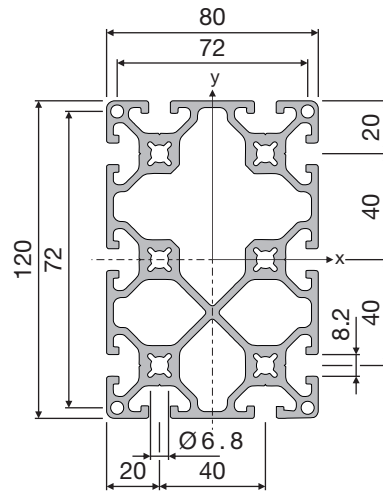
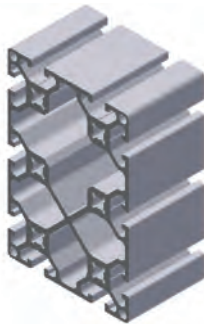
M = 5,05 kg/m  
 $I_x = 131,64 \text{ cm}^4$   
 $W_x = 32,91 \text{ cm}^3$   
 $I_y = 131,48 \text{ cm}^4$   
 $W_y = 32,87 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**80x120 N**

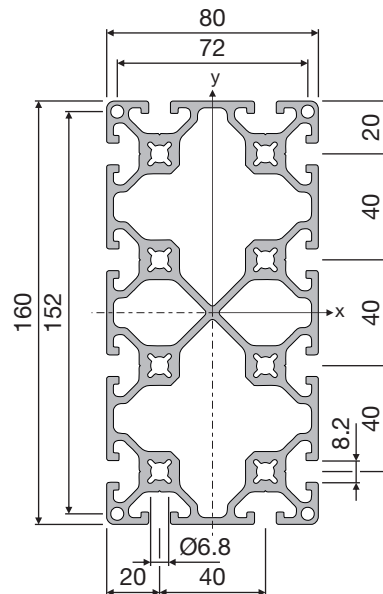
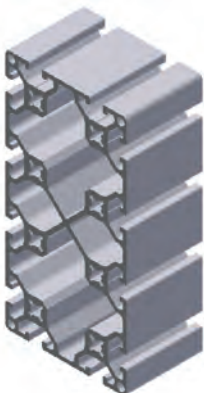


**05.01823.00**

$M = 7,16 \text{ kg/m}$   
 $I_x = 384,71 \text{ cm}^4$   
 $W_x = 64,14 \text{ cm}^3$   
 $I_y = 182,71 \text{ cm}^4$   
 $W_y = 45,68 \text{ cm}^3$

PE (m)  
 6 / 12 / 24 / 36

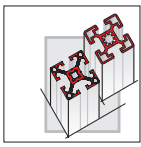
**80x160 N**



**05.01824.00**

$M = 8,86 \text{ kg/m}$   
 $I_x = 820,19 \text{ cm}^4$   
 $W_x = 102,52 \text{ cm}^3$   
 $I_y = 238,14 \text{ cm}^4$   
 $W_y = 59,54 \text{ cm}^3$

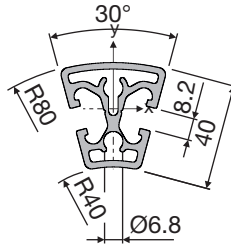
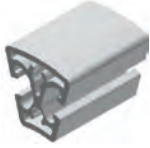
PE (m)  
 6 / 12 / 24 / 36



**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**40R80 - 30°**

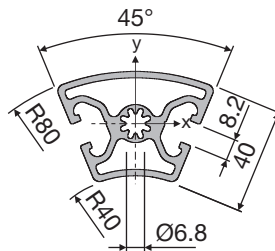


**05.01866.00**

M = 1,62 kg/m  
 $I_x = 9,76 \text{ cm}^4$   
 $W_x = 4,80 \text{ cm}^3$   
 $I_y = 4,88 \text{ cm}^4$   
 $W_y = 3,07 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**40R80 - 45°**

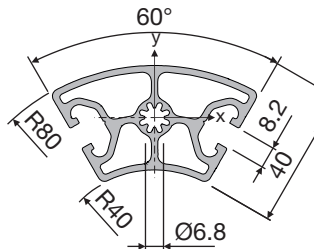


**05.01867.00**

M = 2,20 kg/m  
 $I_x = 12,50 \text{ cm}^4$   
 $W_x = 5,63 \text{ cm}^3$   
 $I_y = 19,36 \text{ cm}^4$   
 $W_y = 6,53 \text{ cm}^3$

PE (m)  
 6 / 36 / 72 / 108

**40R80 - 60°**

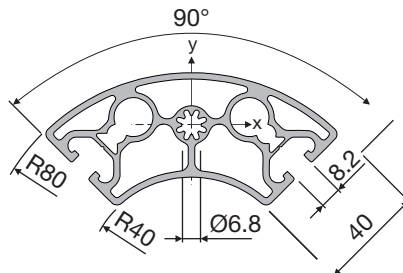


**05.01868.00**

M = 2,78 kg/m  
 $I_x = 16,45 \text{ cm}^4$   
 $W_x = 6,76 \text{ cm}^3$   
 $I_y = 41,28 \text{ cm}^4$   
 $W_y = 10,62 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

**40R80 - 90°**



**05.01869.00**

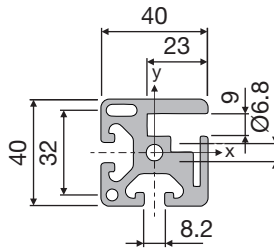
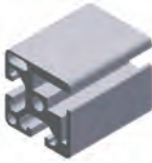
M = 3,92 kg/m  
 $I_x = 25,70 \text{ cm}^4$   
 $W_x = 9,51 \text{ cm}^3$   
 $I_y = 123,94 \text{ cm}^4$   
 $W_y = 22,42 \text{ cm}^3$

PE (m)  
 6 / 18 / 36 / 54

# ALU-PROFILE PROFILATI PROFILE ALUMINIOWE



## 40x40 KL



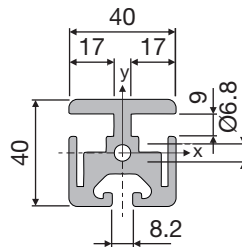
### 05.01940.00

M = 2,10 kg/m  
I<sub>x</sub> = 11,98 cm<sup>4</sup>  
W<sub>x</sub> = 5,99 cm<sup>3</sup>  
I<sub>y</sub> = 10,75 cm<sup>4</sup>  
W<sub>y</sub> = 5,38 cm<sup>3</sup>

PE (m)  
6 / 48 / 96 / 144

Klemmleiste und Schrauben nicht im Lieferumfang enthalten  
Strisce di bloccaggio e viti non sono incluse  
Listwa zaciskowa i śruby nie należą do zakresu dostawy

## 40x40 KL-180°



### 05.01942.00

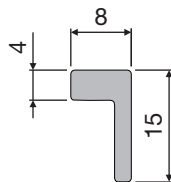
M = 2,26 kg/m  
I<sub>x</sub> = 13,05 cm<sup>4</sup>  
W<sub>x</sub> = 6,53 cm<sup>3</sup>  
I<sub>y</sub> = 11,51 cm<sup>4</sup>  
W<sub>y</sub> = 5,76 cm<sup>3</sup>

PE (m)  
6 / 48 / 96 / 144

Klemmleiste und Schrauben nicht im Lieferumfang enthalten  
Strisce di bloccaggio e viti non sono incluse  
Listwa zaciskowa i śruby nie należą do zakresu dostawy

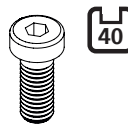
## Klemmleiste

Strisce di bloccaggio · Listwa zaciskowa

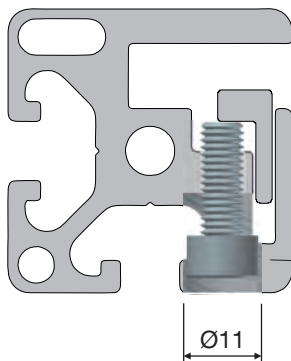


### 05.01922.00

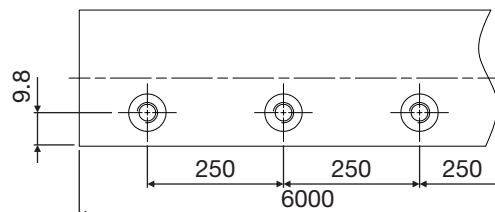
PE (m)  
6



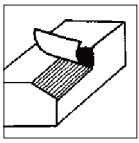
### 99.00005.00



M6x16, DIN 7984  
Bitte separat bestellen  
Ordinare separatamente  
Proszę zamawiać oddzielnie



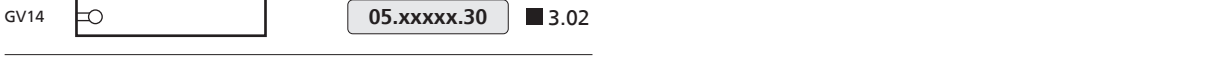
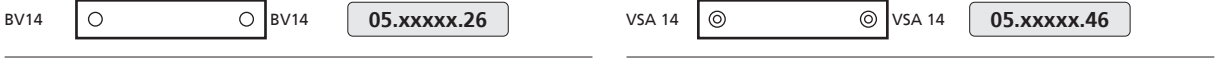
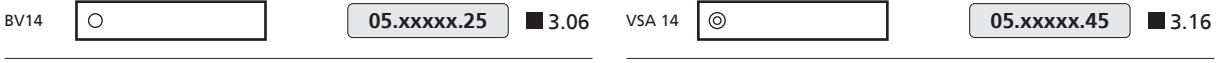
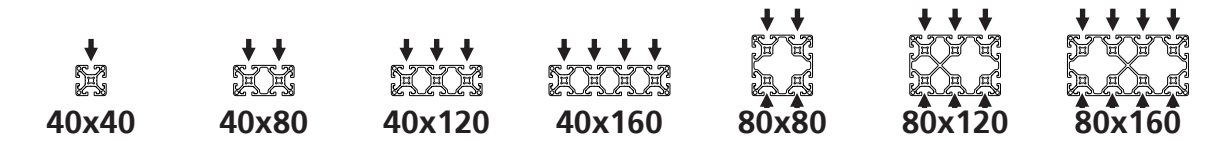
Bohrungen bereits im Profil vorhanden  
Fori già presenti nei profili  
Otwory występują już w profilu



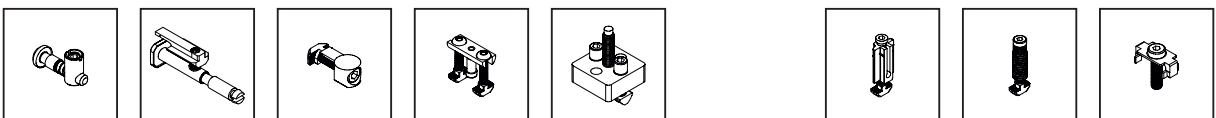
# PROFILBEARBEITUNG

## LAVORAZIONE DEL PROFILO

## OBRÓBKA PROFILU



Technische Änderungen vorbehalten



# ALU-PROFILE

## PROFILATI

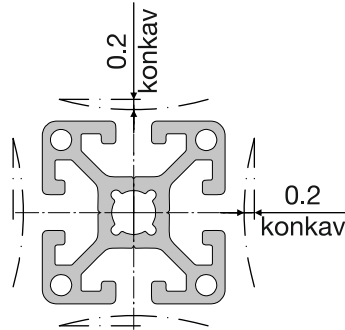
### PROFILE ALUMINIOWE



#### Konkavität

40x40 N-10K

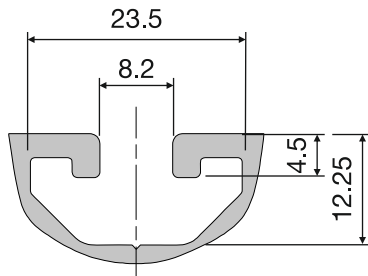
40x80 N-10K



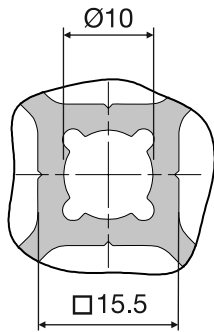
■ 2.41

■ 2.41

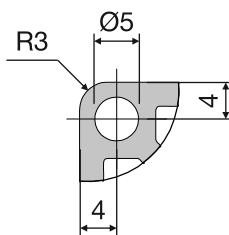
#### Nut



#### Kernloch

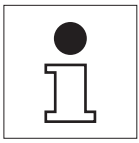


#### Außenkante



2

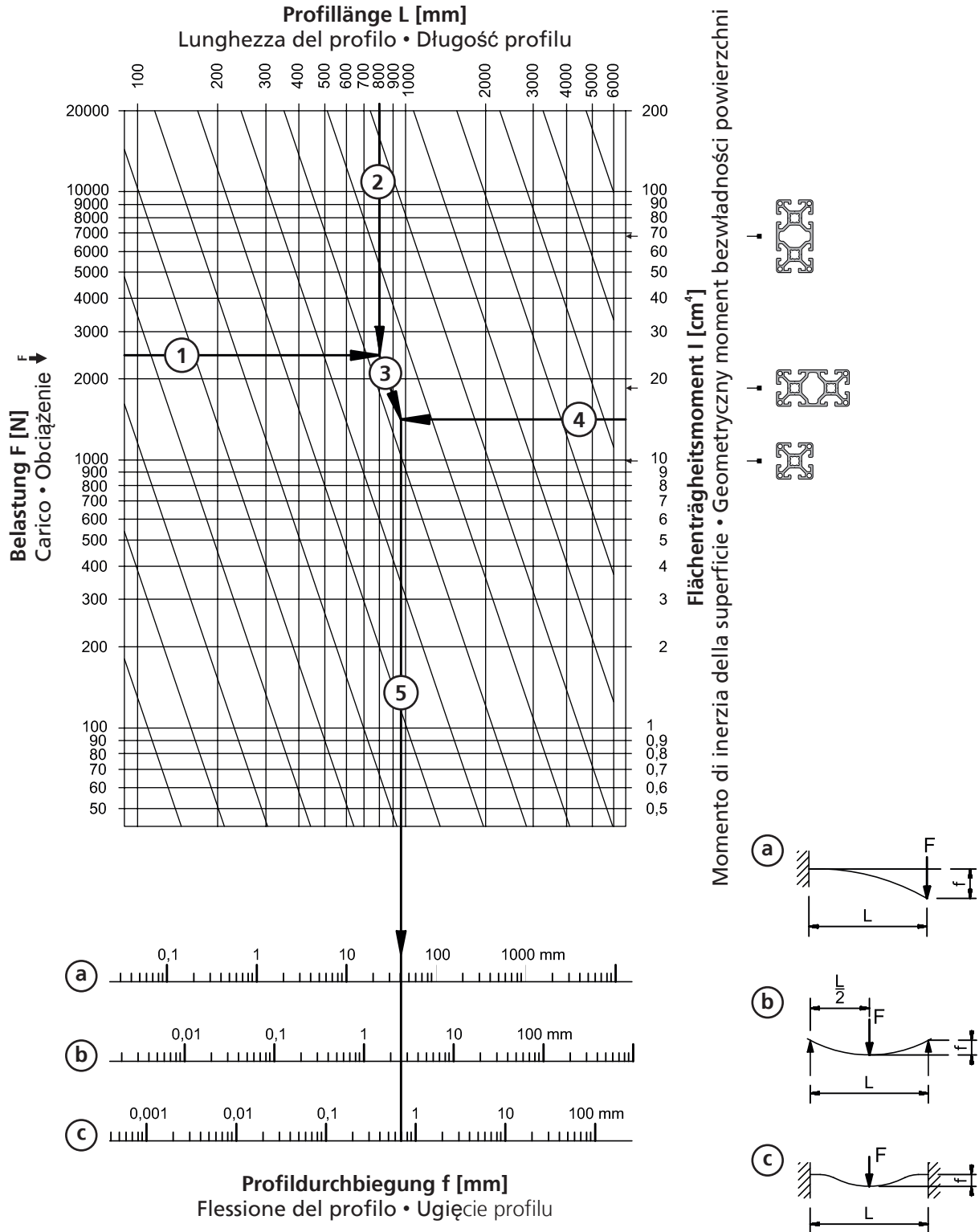
Technische Änderungen vorbehalten



**Durchbiegung der Profile**

Flessione del profilo

Ugięcie profili

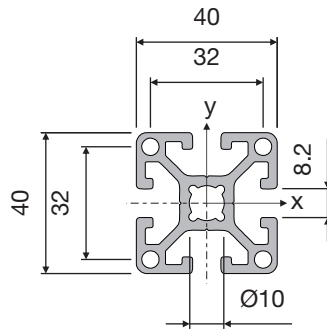
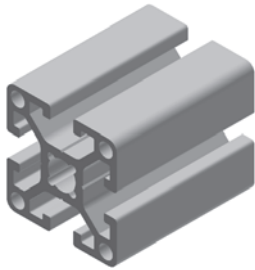




**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**40x40 N-10K**

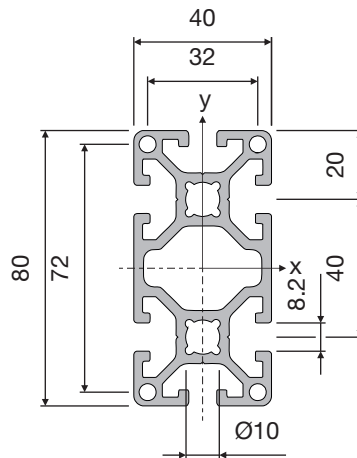
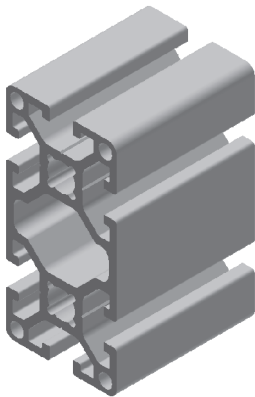


**05.01133.00**

- M = 1,60 kg/m
- $I_x = 9,46 \text{ cm}^4$
- $W_x = 4,73 \text{ cm}^3$
- $I_y = 9,46 \text{ cm}^4$
- $W_y = 4,73 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

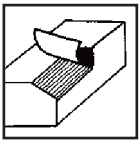
**40x80 N-10K**



**05.01134.00**

- M = 3,00 kg/m
- $I_x = 66,48 \text{ cm}^4$
- $W_x = 16,99 \text{ cm}^3$
- $I_y = 18,41 \text{ cm}^4$
- $W_y = 9,49 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72



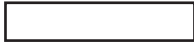
# PROFILBEARBEITUNG

## LAVORAZIONE DEL PROFILO

## OBRÓBKA PROFILU



40x40-10K



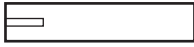
05.xxxxx.09



40x80-10K



M12x60



05.xxxxx.12

M12x60



M12x60

05.xxxxx.13



40x40-10K



40x80-10K

VSI 7



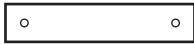
05.xxxxx.15 ■ 3.17

UNI



05.xxxxx.40 ■ 3.11

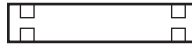
VSI 7



VSI 7

05.xxxxx.16

UNI



UNI

05.xxxxx.41

BV14



05.xxxxx.25 ■ 3.06

VSA 14



05.xxxxx.45 ■ 3.16

BV14



BV14

05.xxxxx.26

VSA 14



VSA 14

05.xxxxx.46

GV14



05.xxxxx.30 ■ 3.02

GV14



GV14

05.xxxxx.31

AGV



05.xxxxx.35 ■ 3.04

AGV



AGV

05.xxxxx.36



40x80

BV14V



05.xxxxx.85 ■ 3.06

UNI



05.xxxxx.43 ■ 3.11

BV14V



BV14V

05.xxxxx.86

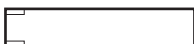
UNI



UNI

05.xxxxx.44

AGV



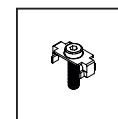
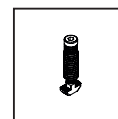
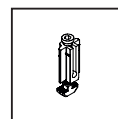
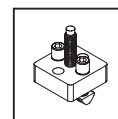
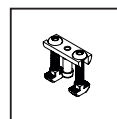
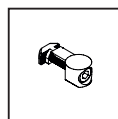
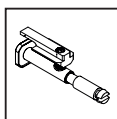
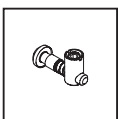
05.xxxxx.83 ■ 3.04

AGV



AKV

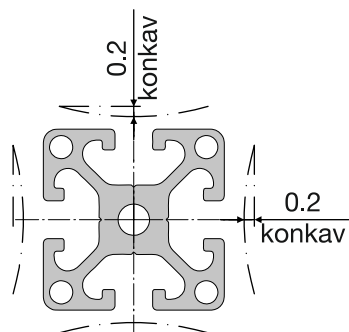
05.xxxxx.84



**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



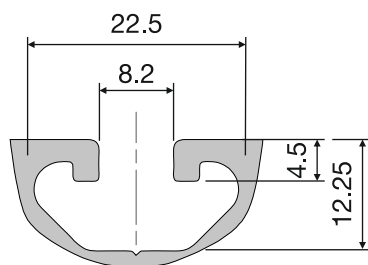
**Konkavität**



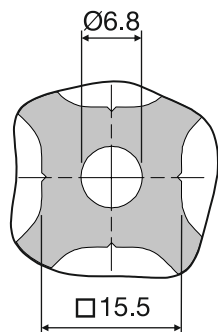
40x40MS	40x80MS	80x80MS
■ 2.45	■ 2.45	■ 2.45



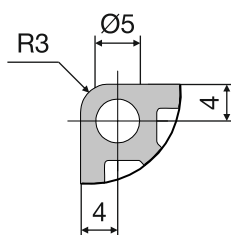
**Nut**



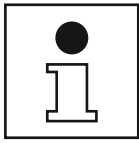
**Kernloch**



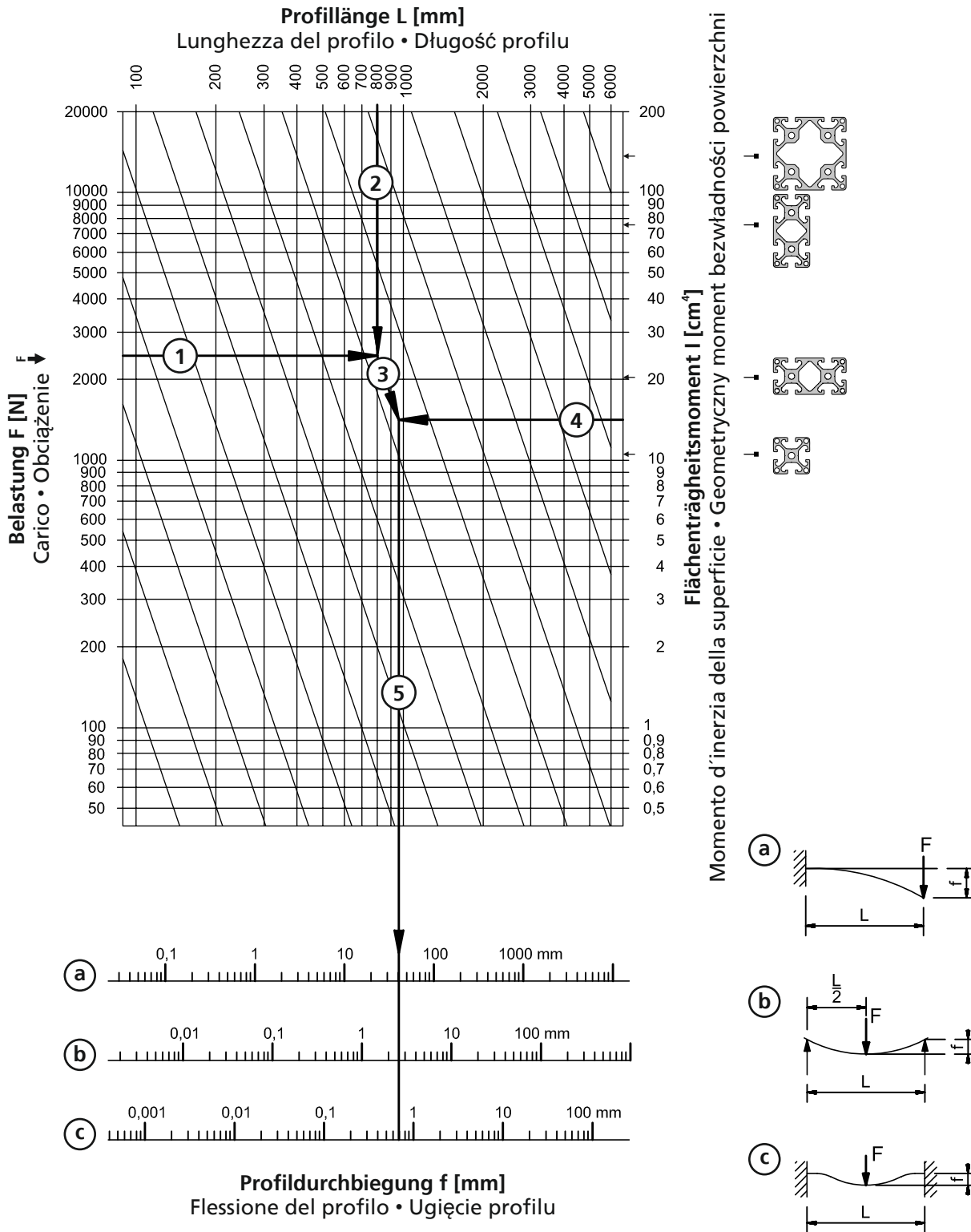
**Außenkante**



Technische Änderungen vorbehalten



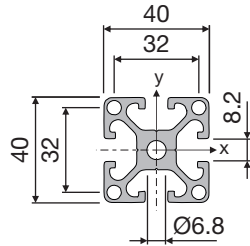
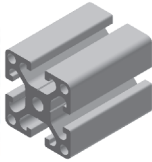
**Durchbiegung der Profile**  
**Flessione del profilo**  
**Ugięcie profili**



**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**40x40 MS**

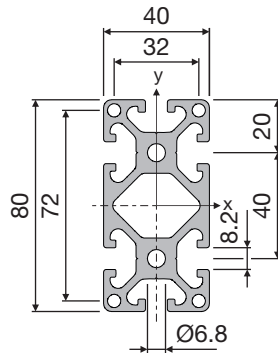
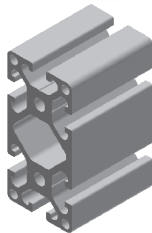


**05.01114.00**

M = 1,90 kg/m  
 $I_x = 10,52 \text{ cm}^4$   
 $W_x = 5,26 \text{ cm}^3$   
 $I_y = 10,52 \text{ cm}^4$   
 $W_y = 5,26 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**40x80 MS**

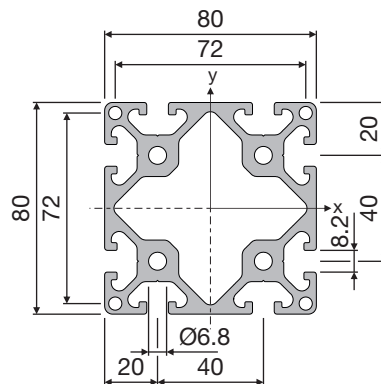
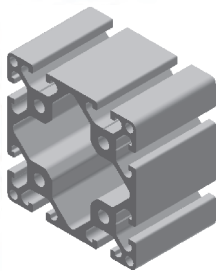


**05.01115.00**

M = 3,55 kg/m  
 $I_x = 77,43 \text{ cm}^4$   
 $W_x = 18,98 \text{ cm}^3$   
 $I_y = 21,34 \text{ cm}^4$   
 $W_y = 10,67 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

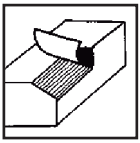
**80x80 MS**



**05.01116.00**

M = 5,66 kg/m  
 $I_x = 144,01 \text{ cm}^4$   
 $W_x = 36,00 \text{ cm}^3$   
 $I_y = 144,01 \text{ cm}^4$   
 $W_y = 36,00 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72



# PROFILBEARBEITUNG

## LAVORAZIONE DEL PROFILO

## OBRÓBKA PROFILU



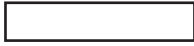
40x40



40x80



80x80



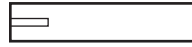
05.xxxxx.09

M8x40



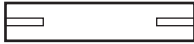
05.xxxxx.10

M12x60



05.xxxxx.12

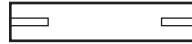
M8x40



M8x40

05.xxxxx.11

M12x60



M12x60

05.xxxxx.13



40x40



40x80



80x80

VSI 7



05.xxxxx.15

■ 3.17

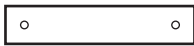
UNI



05.xxxxx.40

■ 3.11

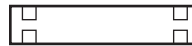
VSI 7



VSI 7

05.xxxxx.16

UNI



UNI

05.xxxxx.41

BV14



05.xxxxx.25

■ 3.06

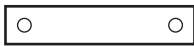
VSA 14



05.xxxxx.45

■ 3.16

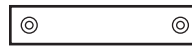
BV14



BV14

05.xxxxx.26

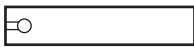
VSA 14



VSA 14

05.xxxxx.46

GV14



05.xxxxx.30

■ 3.02

GV14



GV14

05.xxxxx.31

AGV



05.xxxxx.35

■ 3.04

AGV



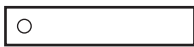
AGV

05.xxxxx.36



40x80

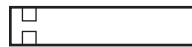
BV14V



05.xxxxx.85

■ 3.06

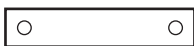
UNI



05.xxxxx.43

■ 3.11

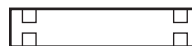
BV14V



BV14V

05.xxxxx.86

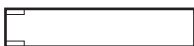
UNI



UNI

05.xxxxx.44

AGV



05.xxxxx.83

■ 3.04

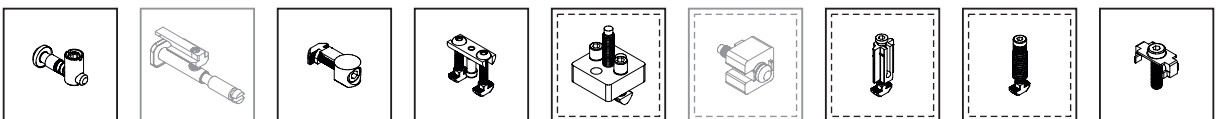
AGV



AKV

05.xxxxx.84

Technische Änderungen vorbehalten



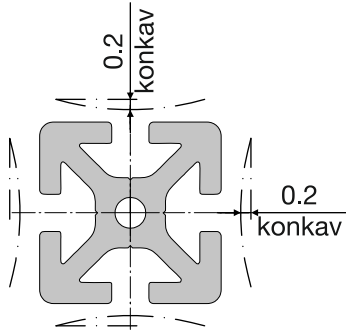
# ALU-PROFILE

## PROFILATI

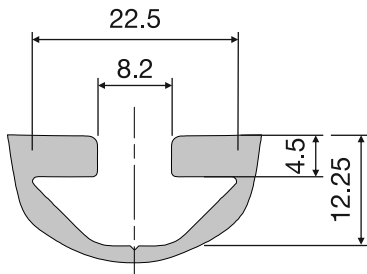
## PROFILE ALUMINIOWE



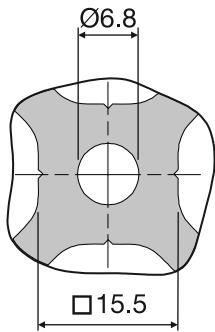
### Konkavität



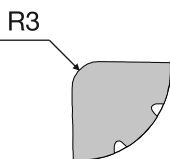
### Nut



### Kernloch



### Außenkante

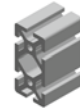


40x40S



■ 2.49

40x80S



■ 2.49

40x120S



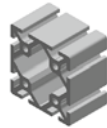
■ 2.49

40x160S



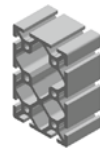
■ 2.50

80x80S



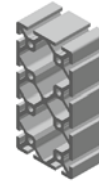
■ 2.50

80x120S



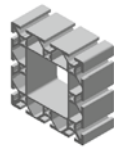
■ 2.51

80x160S



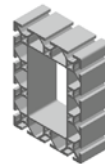
■ 2.51

120x120S



■ 2.52

120x160S



■ 2.52

2

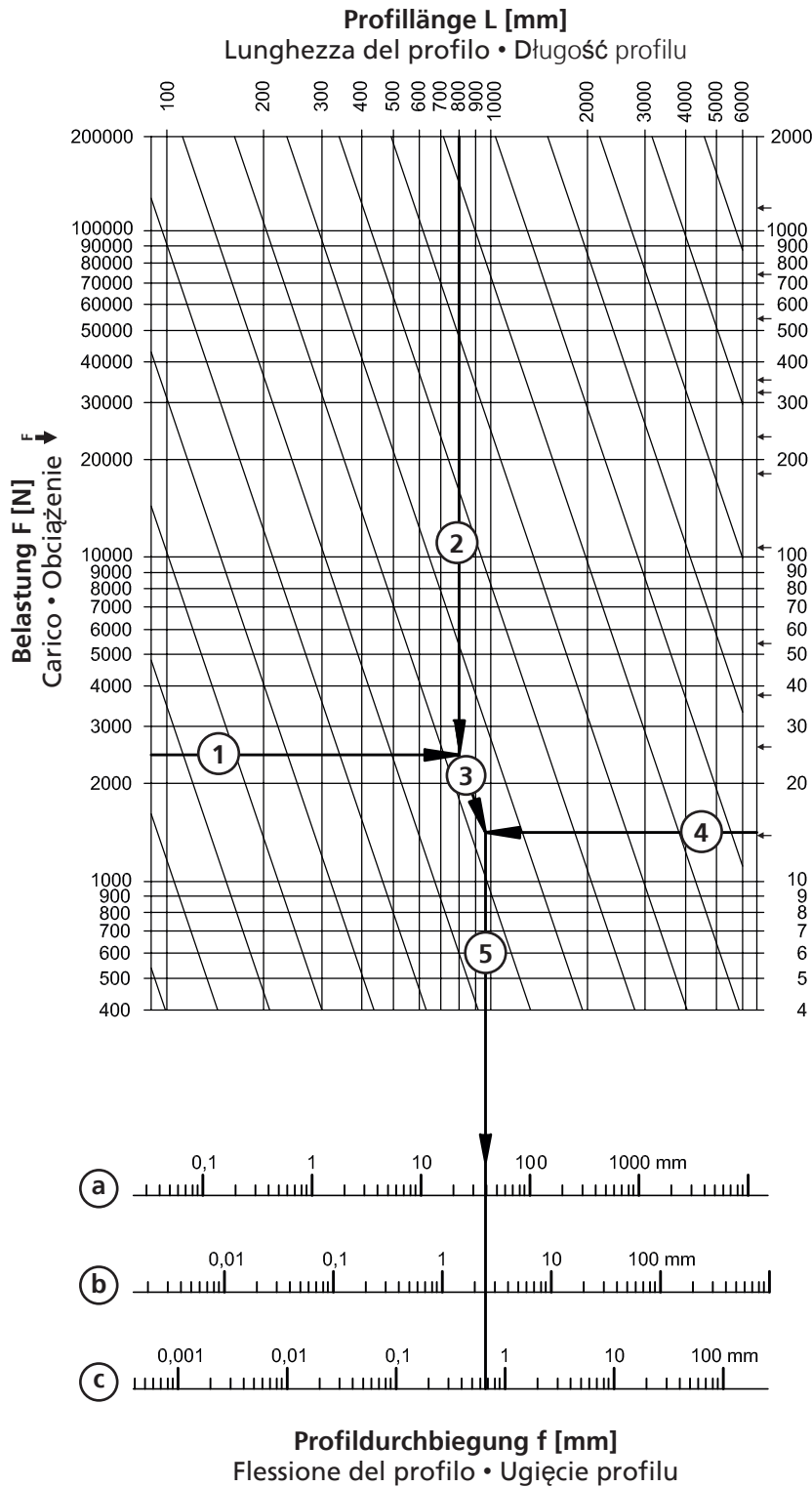
Technische Änderungen vorbehalten



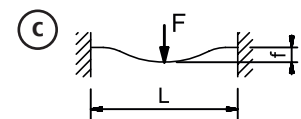
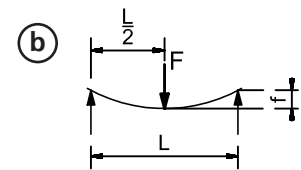
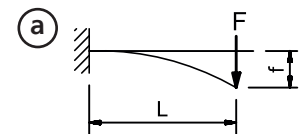
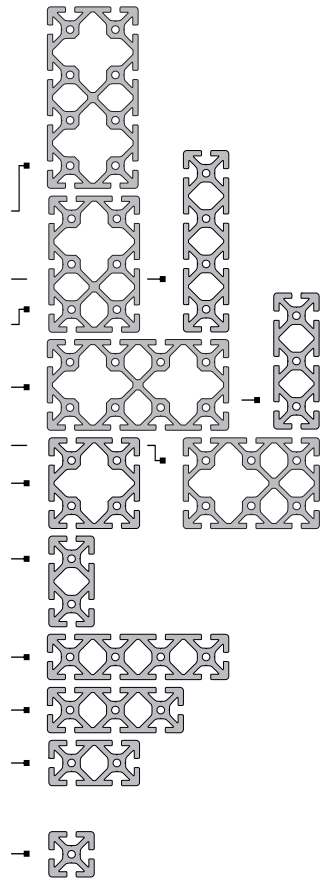
**Durchbiegung der Profile**

Flessione del profilo

Ugięcie profili

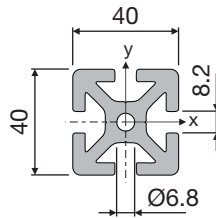
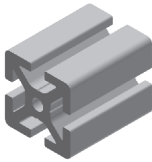


Flächenträgheitsmoment I [cm<sup>4</sup>]  
 Momento d'inerzia della superficie • Geometryczny moment bezwładności powierzchni





**40x40 S**

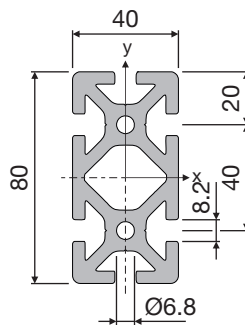
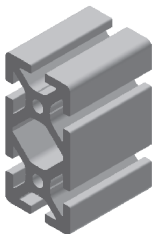


**05.01005.00**

$M = 2,45 \text{ kg/m}$   
 $I_x = 13,90 \text{ cm}^4$   
 $W_x = 6,95 \text{ cm}^3$   
 $I_y = 13,90 \text{ cm}^4$   
 $W_y = 6,95 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**40x80 S**

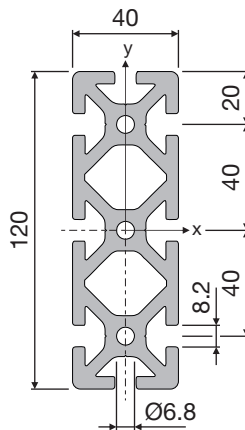


**05.01006.00**

$M = 4,38 \text{ kg/m}$   
 $I_x = 99,52 \text{ cm}^4$   
 $W_x = 24,88 \text{ cm}^3$   
 $I_y = 26,31 \text{ cm}^4$   
 $W_y = 13,16 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

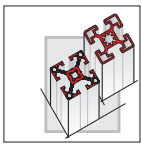
**40x120 S**



**05.01008.00**

$M = 6,33 \text{ kg/m}$   
 $I_x = 314,79 \text{ cm}^4$   
 $W_x = 153,17 \text{ cm}^3$   
 $I_y = 38,73 \text{ cm}^4$   
 $W_y = 19,80 \text{ cm}^3$

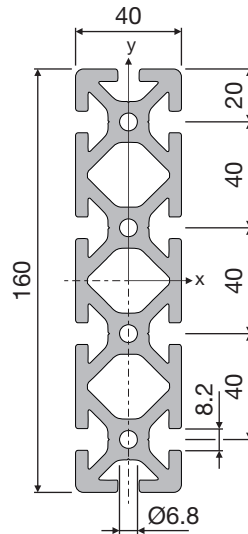
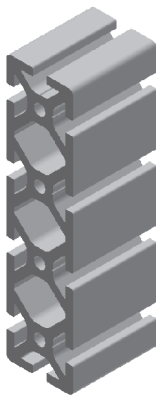
PE (m)  
 6 / 24 / 48 / 72



**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**40x160 S**

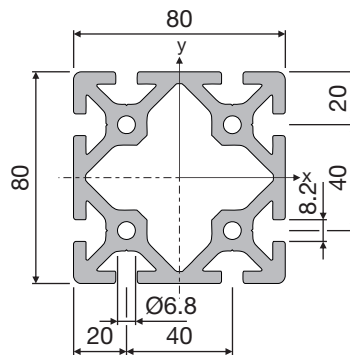
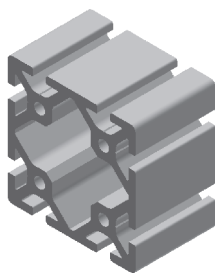


**05.01814.00**

M = 8,28 kg/m  
 $I_x = 717,64 \text{ cm}^4$   
 $W_x = 89,71 \text{ cm}^3$   
 $I_y = 51,14 \text{ cm}^4$   
 $W_y = 25,14 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

**80x80 S**



**05.01007.00**

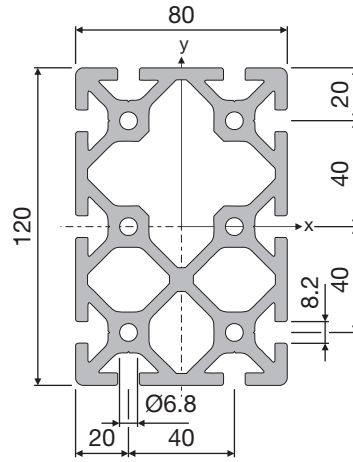
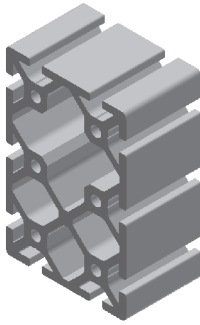
M = 6,88 kg/m  
 $I_x = 179,43 \text{ cm}^4$   
 $W_x = 44,86 \text{ cm}^3$   
 $I_y = 179,43 \text{ cm}^4$   
 $W_y = 44,86 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**80x120 S**

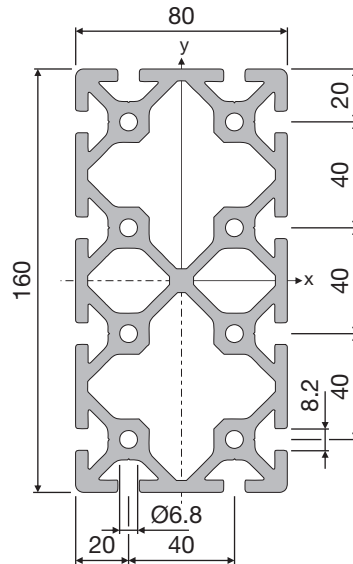
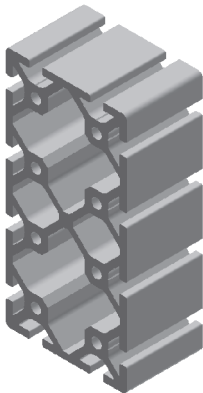


**05.01817.00**

M = 9,85 kg/m  
 $I_x = 537,80 \text{ cm}^4$   
 $W_x = 89,63 \text{ cm}^3$   
 $I_y = 255,13 \text{ cm}^4$   
 $W_y = 63,78 \text{ cm}^3$

PE (m)  
 6 / 12 / 24 / 36

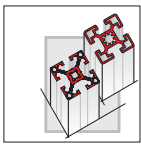
**80x160 S**



**05.01818.00**

M = 12,18 kg/m  
 $I_x = 1139,68 \text{ cm}^4$   
 $W_x = 142,46 \text{ cm}^3$   
 $I_y = 331,86 \text{ cm}^4$   
 $W_y = 82,97 \text{ cm}^3$

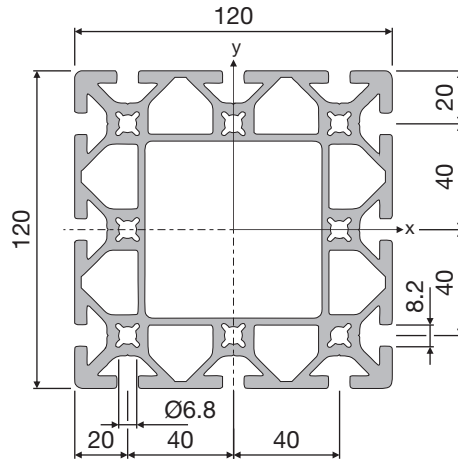
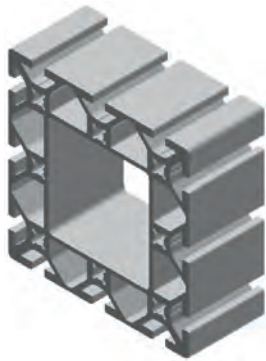
PE (m)  
 6 / 12 / 24 / 36



**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**120x120 S**

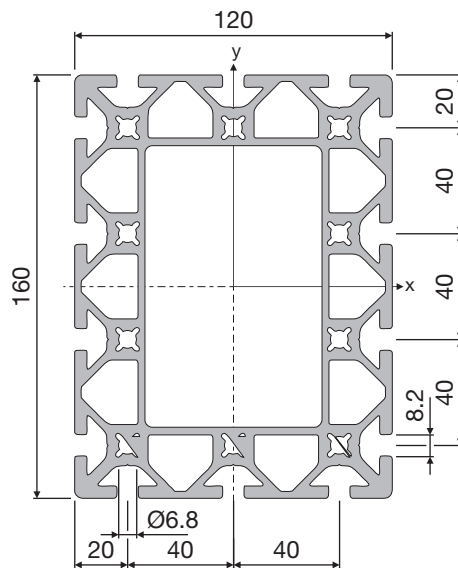


**05.01709.00**

$M = 11,13 \text{ kg/m}$   
 $I_x = 691,97 \text{ cm}^4$   
 $W_x = 115,33 \text{ cm}^3$   
 $I_y = 691,97 \text{ cm}^4$   
 $W_y = 115,33 \text{ cm}^3$

PE (m)  
 6 / 12 / 24 / 36

**120x160 S**

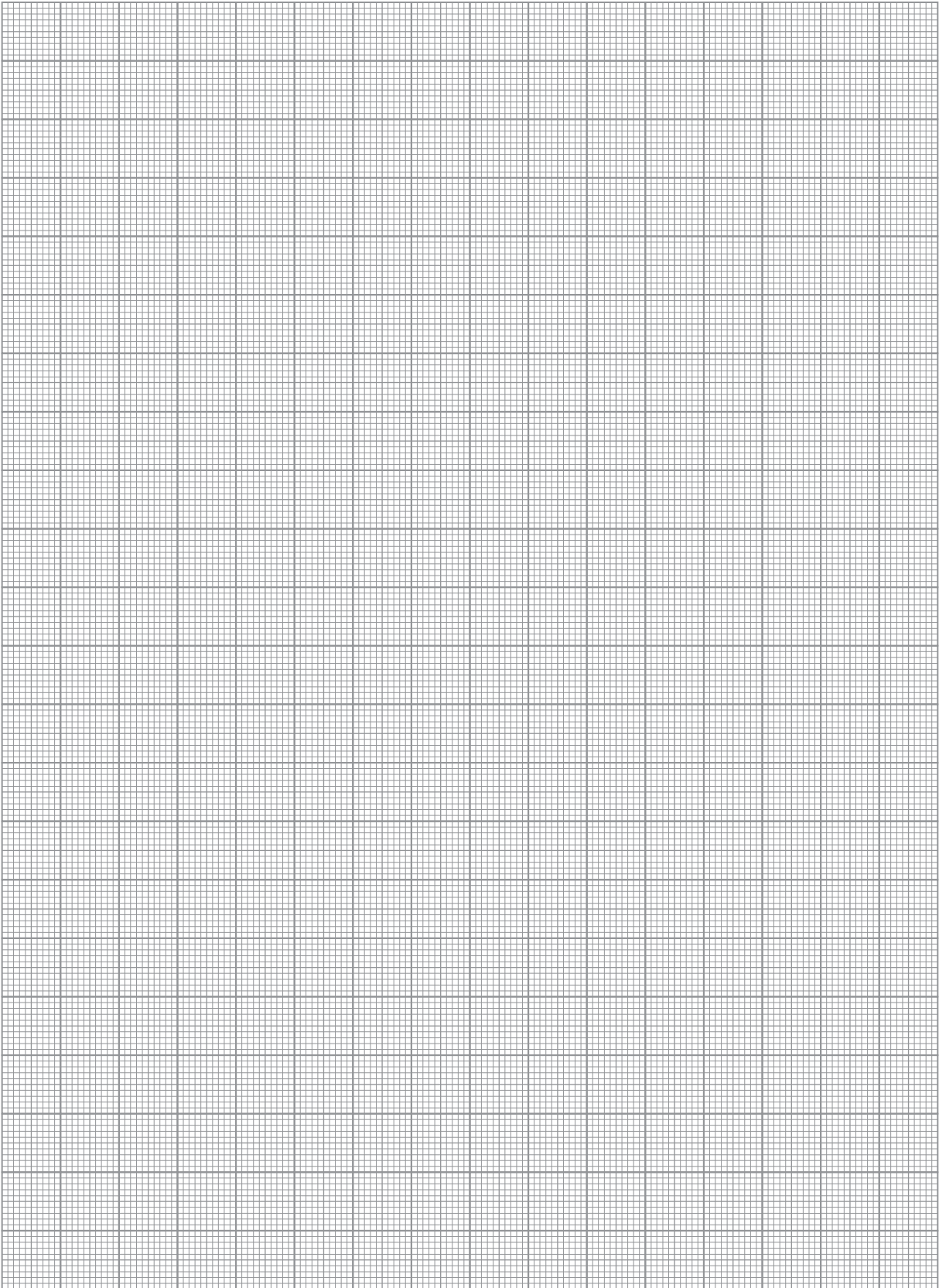


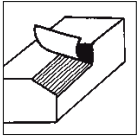
**05.01710.00**

$M = 13,48 \text{ kg/m}$   
 $I_x = 1490,66 \text{ cm}^4$   
 $W_x = 186,33 \text{ cm}^3$   
 $I_y = 883,09 \text{ cm}^4$   
 $W_y = 147,18 \text{ cm}^3$

PE (m)  
 6 / 12 / 24 / 36

Technische Änderungen vorbehalten





# PROFILBEARBEITUNG

## LAVORAZIONE DEL PROFILO

### OBRÓBKA PROFILU



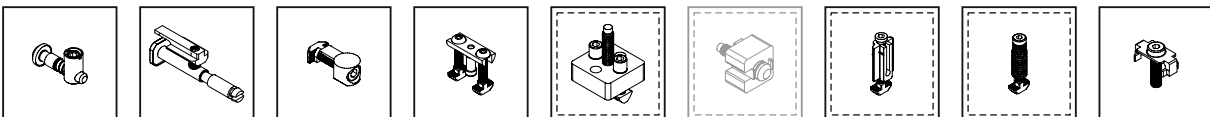
	1x	2x	3x	4x	4x	6x	8x
	<b>40x40</b>	<b>40x80</b>	<b>40x120</b>	<b>40x160</b>	<b>80x80</b>	<b>80x120</b>	<b>80x160</b>
		05.xxxxx.09					
M8x40		05.xxxxx.10		M12x60		05.xxxxx.12	
M8x40		M8x40	05.xxxxx.11	M12x60		M12x60	05.xxxxx.13

	<b>40x40</b>	<b>40x80</b>	<b>40x120</b>	<b>40x160</b>	<b>80x80</b>	<b>80x120</b>	<b>80x160</b>
VSI 7		05.xxxxx.15 ■ 3.17		UNI		05.xxxxx.40 ■ 3.11	
VSI 7		VSI 7	05.xxxxx.16	UNI		UNI	05.xxxxx.41
BV14		05.xxxxx.25 ■ 3.06		VSA 14		05.xxxxx.45 ■ 3.16	
BV14		BV14	05.xxxxx.26	VSA 14		VSA 14	05.xxxxx.46
GV14		05.xxxxx.30 ■ 3.02					
GV14		GV14	05.xxxxx.31				
AGV		05.xxxxx.35 ■ 3.04					
AGV		AGV	05.xxxxx.36				

### 40x80

BV14V		05.xxxxx.85 ■ 3.06	UNI		05.xxxxx.43 ■ 3.11		
BV14V		BV14V	05.xxxxx.86	UNI		UNI	05.xxxxx.44
AGV		05.xxxxx.83 ■ 3.04					
AGV		AKV	05.xxxxx.84				

Technische Änderungen vorbehalten



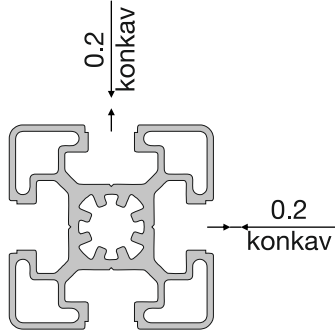
# ALU-PROFILE

## PROFILATI

## PROFILE ALUMINIOWE

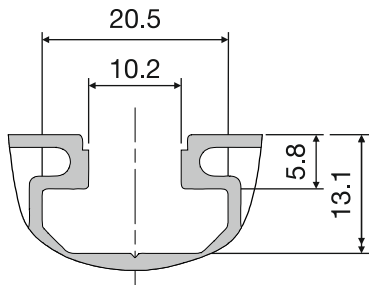


### Konkavität



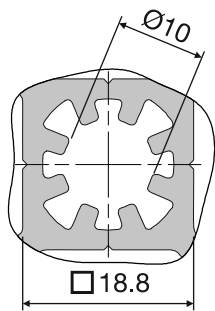
45x45EL-1.4	45x45L-1.6	45x45L-1N	45x45L-2N90
■ 2.57	■ 2.57	■ 2.57	■ 2.57

### Nut

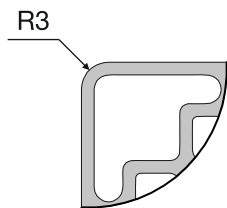


45x45L-2N180	45x45L-3N	45x45L-R	45x60L
■ 2.57	■ 2.57	■ 2.58	■ 2.58
45x90EL-2.9	60x60L	45x180L	90x180L
■ 2.58	■ 2.59	■ 2.59	■ 2.59

### Kernloch



### Außenkante

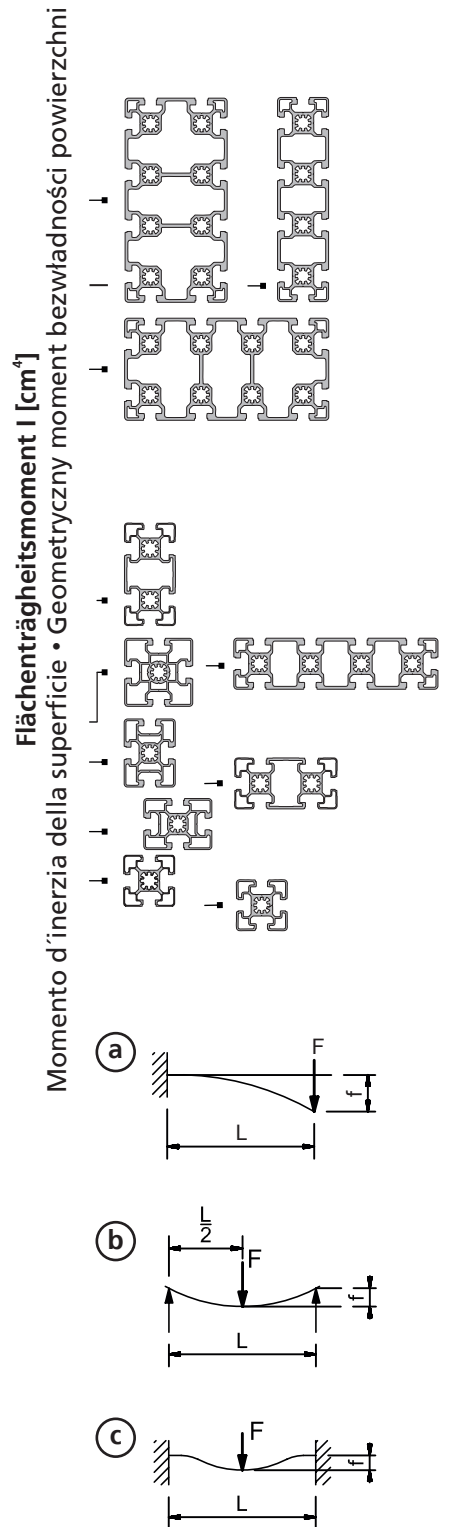
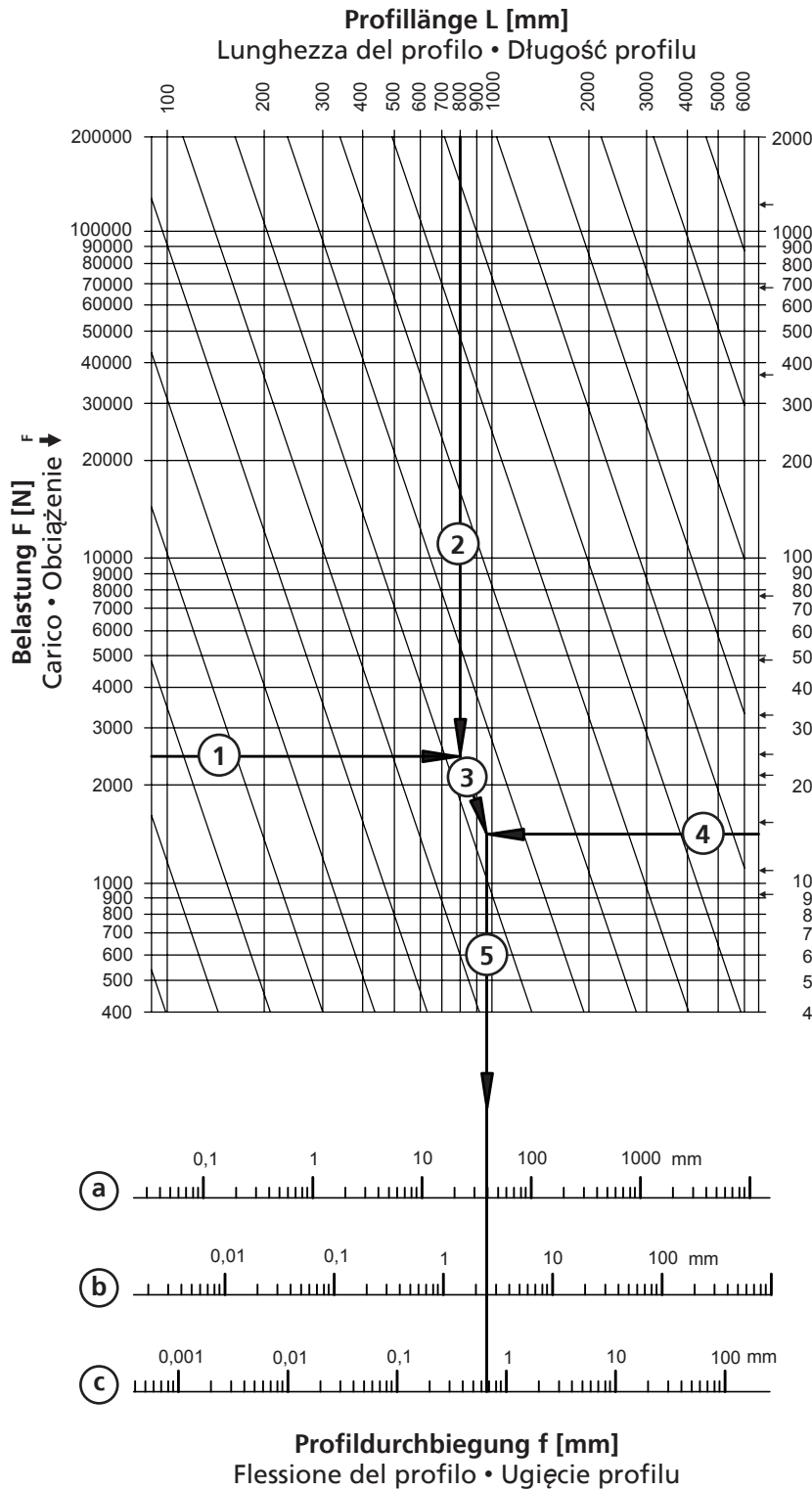


2

Technische Änderungen vorbehalten



**Durchbiegung der Profile**  
**Flessione del profilo**  
**Ugięcie profili**

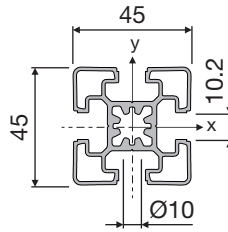
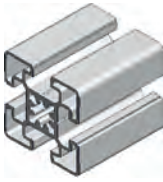




**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**45x45 EL-1.4**

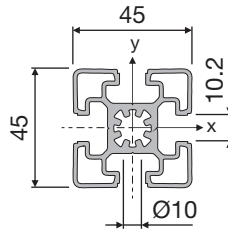
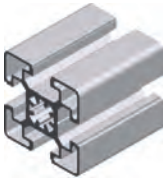


**05.01517.00**

M = 1,40 kg/m  
 $I_x = 9,28 \text{ cm}^4$   
 $W_x = 4,12 \text{ cm}^3$   
 $I_y = 9,28 \text{ cm}^4$   
 $W_y = 4,12 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**45x45 L-1.6**

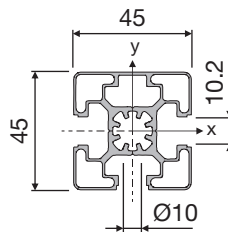
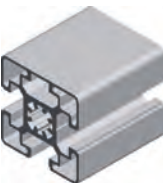


**05.01041.00**

M = 1,60 kg/m  
 $I_x = 10,17 \text{ cm}^4$   
 $W_x = 4,52 \text{ cm}^3$   
 $I_y = 10,17 \text{ cm}^4$   
 $W_y = 4,52 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**45x45 L-1N**

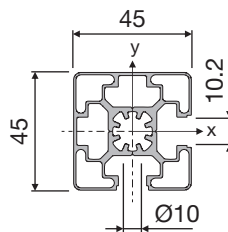
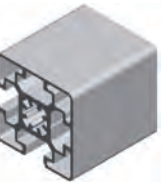


**05.01900.00**

M = 1,65 kg/m  
 $I_x = 10,95 \text{ cm}^4$   
 $W_x = 4,87 \text{ cm}^3$   
 $I_y = 10,19 \text{ cm}^4$   
 $W_y = 4,53 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**45x45 L-2N90**

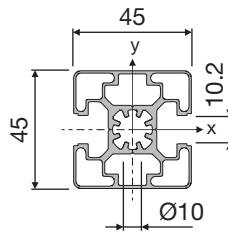
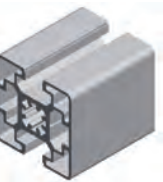


**05.01901.00**

M = 1,69 kg/m  
 $I_x = 10,97 \text{ cm}^4$   
 $W_x = 4,88 \text{ cm}^3$   
 $I_y = 10,97 \text{ cm}^4$   
 $W_y = 4,88 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**45x45 L-2N180**

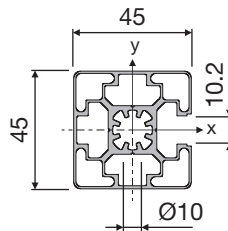
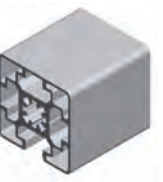


**05.01902.00**

M = 1,69 kg/m  
 $I_x = 11,73 \text{ cm}^4$   
 $W_x = 4,88 \text{ cm}^3$   
 $I_y = 10,21 \text{ cm}^4$   
 $W_y = 4,88 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

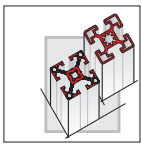
**45x45 L-3N**



**05.01903.00**

M = 1,74 kg/m  
 $I_x = 11,75 \text{ cm}^4$   
 $W_x = 4,88 \text{ cm}^3$   
 $I_y = 10,97 \text{ cm}^4$   
 $W_y = 4,88 \text{ cm}^3$

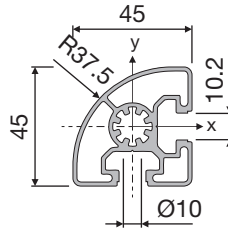
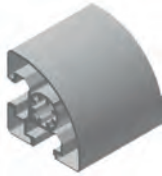
PE (m)  
 6 / 48 / 96 / 144



**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**45x45 L-R**

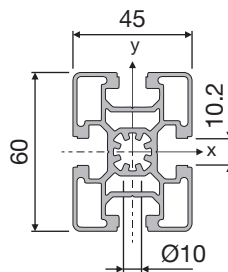
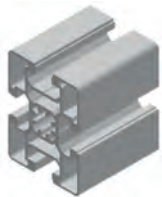


**05.01904.00**

M = 1,32 kg/m  
 $I_x = 8,19 \text{ cm}^4$   
 $W_x = 3,64 \text{ cm}^3$   
 $I_y = 8,19 \text{ cm}^4$   
 $W_y = 3,64 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**45x60 L**

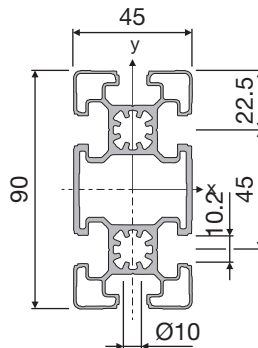
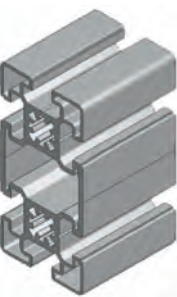


**05.01043.00**

M = 2,19 kg/m  
 $I_x = 25,14 \text{ cm}^4$   
 $W_x = 8,38 \text{ cm}^3$   
 $I_y = 14,73 \text{ cm}^4$   
 $W_y = 6,55 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

**45x90 L-2.9**



**05.01518.00**

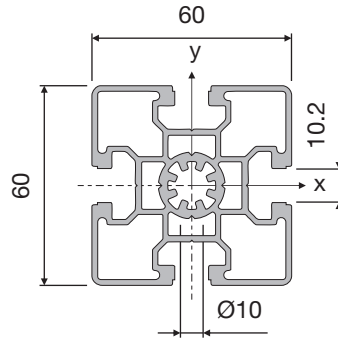
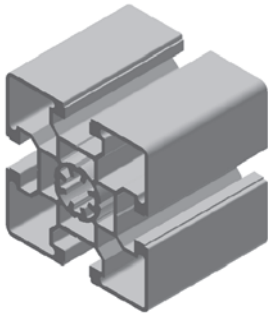
M = 2,94 kg/m  
 $I_x = 78,52 \text{ cm}^4$   
 $W_x = 17,45 \text{ cm}^3$   
 $I_y = 21,48 \text{ cm}^4$   
 $W_y = 9,55 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**60x60 L**

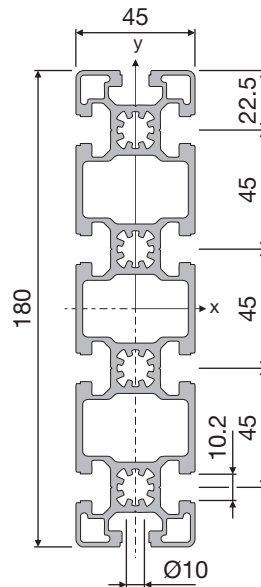
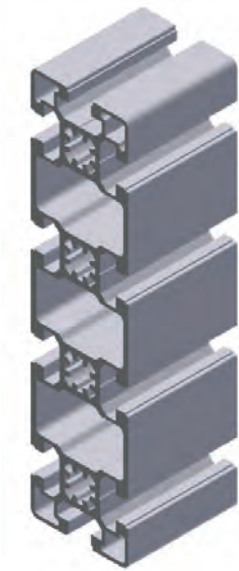


**05.01012.00**

M = 2,58 kg/m  
 $I_x = 30,01 \text{ cm}^4$   
 $W_x = 10,01 \text{ cm}^3$   
 $I_y = 30,01 \text{ cm}^4$   
 $W_y = 10,01 \text{ cm}^3$

PE (m)  
 6 / 18 / 36 / 72

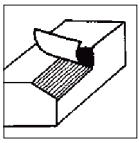
**45x180 L**



**05.01044.00**

M = 6,24 kg/m  
 $I_x = 686,62 \text{ cm}^4$   
 $W_x = 76,14 \text{ cm}^3$   
 $I_y = 49,57 \text{ cm}^4$   
 $W_y = 22,01 \text{ cm}^3$

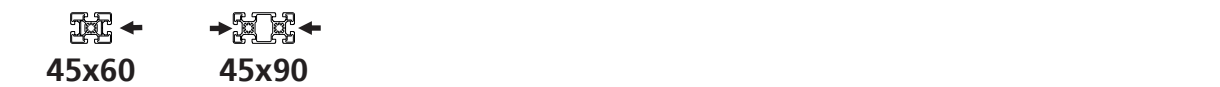
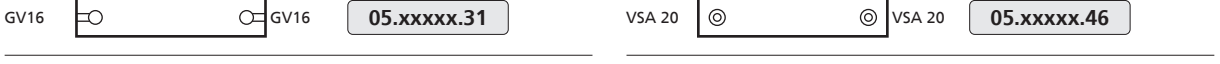
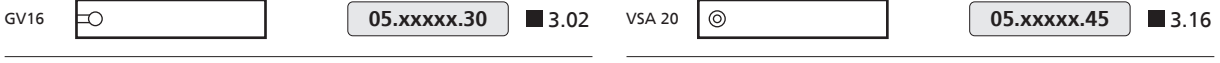
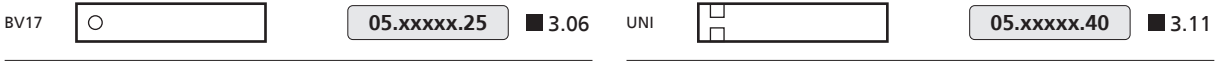
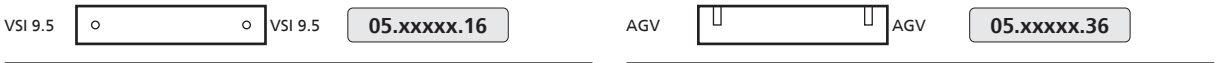
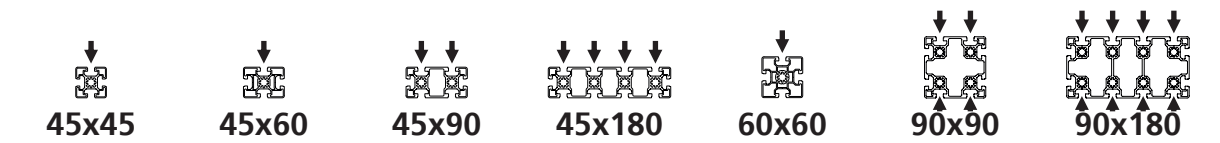
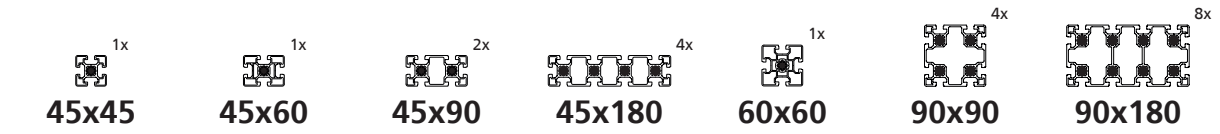
PE (m)  
 6 / 12 / 24 / 36



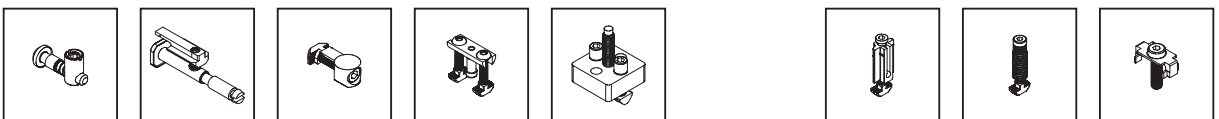
# PROFILBEARBEITUNG

## LAVORAZIONE DEL PROFILO

## OBRÓBKA PROFILU



Technische Änderungen vorbehalten



**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



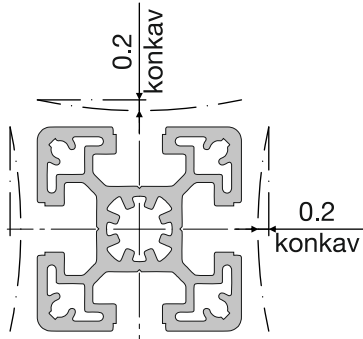
**Konkavität**

45x45N-1.9

45x60N-2.85

45x90N-3.4

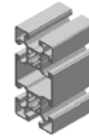
90x90N



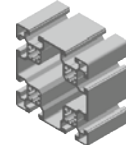
■ 2.65



■ 2.65



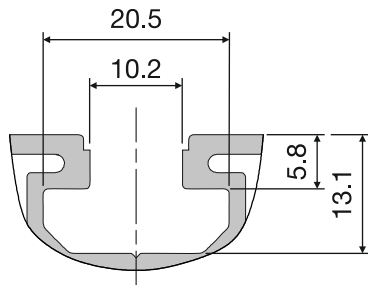
■ 2.65



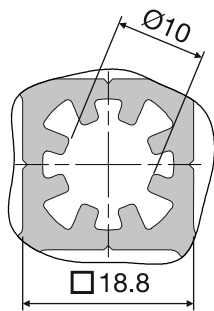
■ 2.65

2

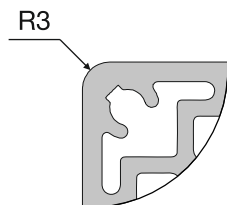
**Nut**



**Kernloch**



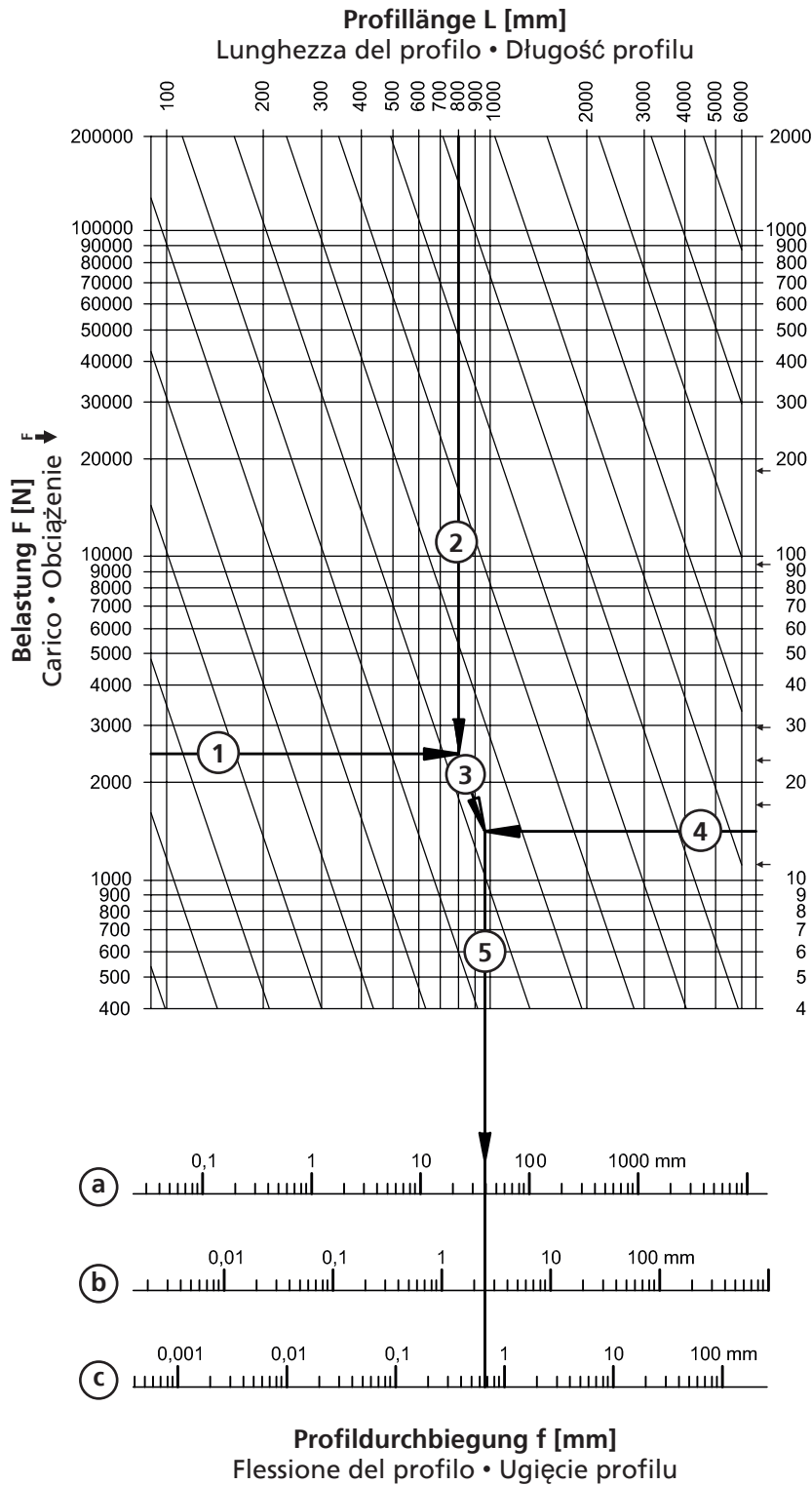
**Außenkante**



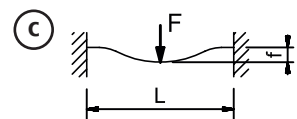
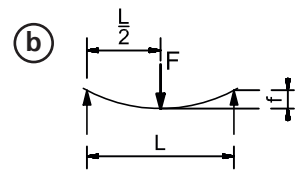
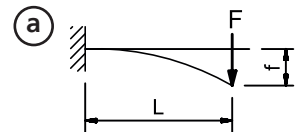
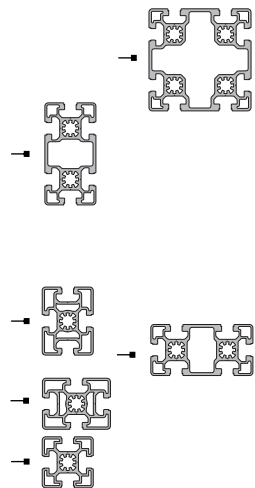
Technische Änderungen vorbehalten



**Durchbiegung der Profile**  
**Flessione del profilo**  
**Ugięcie profili**

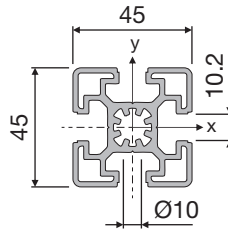
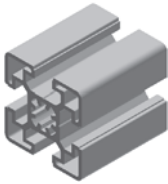


**Flächenträgheitsmoment I [cm<sup>4</sup>]**  
 Momento d'inerzia della superficie • Geometryczny moment bezwładności powierzchni



**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**

**45x45 N-1.9**

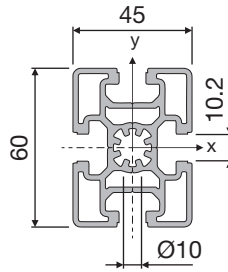
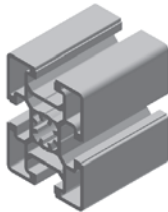


**05.01498.00**

M = 1,88 kg/m  
 $I_x = 12,95 \text{ cm}^4$   
 $W_x = 5,76 \text{ cm}^3$   
 $I_y = 12,95 \text{ cm}^4$   
 $W_y = 5,76 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**45x60 N-2.85**

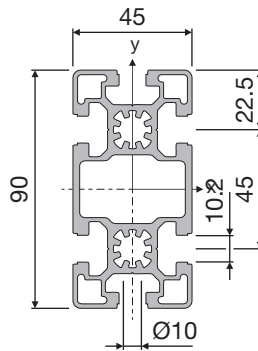
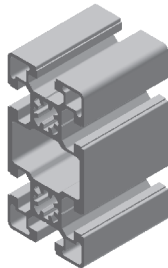


**05.01499.00**

M = 2,85 kg/m  
 $I_x = 29,72 \text{ cm}^4$   
 $W_x = 9,91 \text{ cm}^3$   
 $I_y = 17,63 \text{ cm}^4$   
 $W_y = 7,84 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

**45x90 N-3.4**

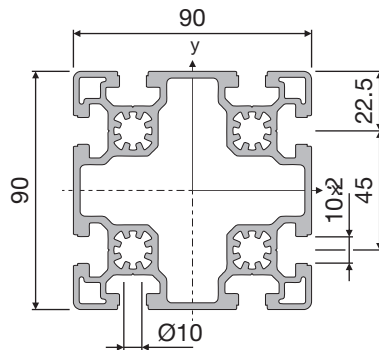
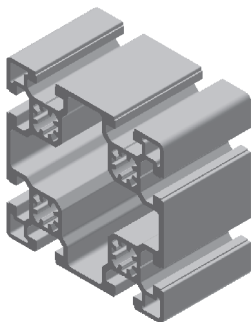


**05.01013.00**

M = 3,40 kg/m  
 $I_x = 94,84 \text{ cm}^4$   
 $W_x = 21,08 \text{ cm}^3$   
 $I_y = 24,90 \text{ cm}^4$   
 $W_y = 11,07 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

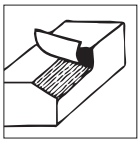
**90x90 N**



**05.01014.00**

M = 5,68 kg/m  
 $I_x = 190,13 \text{ cm}^4$   
 $W_x = 38,28 \text{ cm}^3$   
 $I_y = 190,13 \text{ cm}^4$   
 $W_y = 38,28 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72



# PROFILBEARBEITUNG

## LAVORAZIONE DEL PROFILO

### OBRÓBKA PROFILU



N  
45

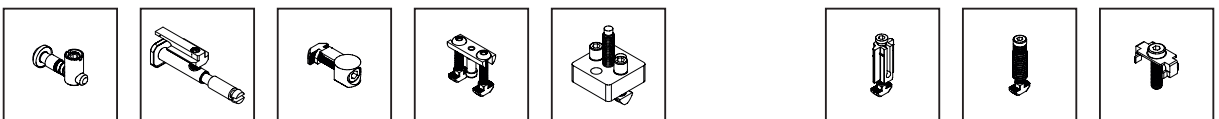
10

1x		1x		2x		4x	
45x45		45x60		45x90		90x90	
		05.xxxxx.09					
M12x60		05.xxxxx.10		M16x115		05.xxxxx.12	
M12x60		M12x60	05.xxxxx.11	M16x115		M16x115	05.xxxxx.13

↓		↓		↓ ↓		↓ ↓			
45x45		45x60		45x90		90x90			
VSI 9.5		05.xxxxx.15		■ 3.17	AGV		05.xxxxx.35	■ 3.04	
VSI 9.5		VSI 9.5	05.xxxxx.16		AGV		AGV	05.xxxxx.36	
BV17		05.xxxxx.25		■ 3.06	UNI		05.xxxxx.40		■ 3.11
BV17		BV17	05.xxxxx.26		UNI		UNI	05.xxxxx.41	
GV16		05.xxxxx.30		■ 3.02	VSA 20		05.xxxxx.45		■ 3.16
GV16		GV16	05.xxxxx.31		VSA 20		VSA 20	05.xxxxx.46	

Technische Änderungen vorbehalten





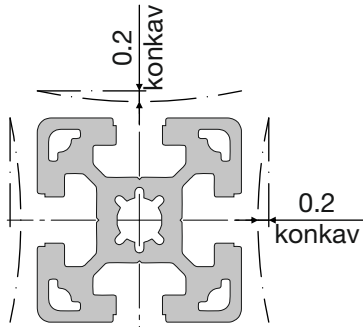
# ALU-PROFILE

## PROFILATI

## PROFILE ALUMINIOWE

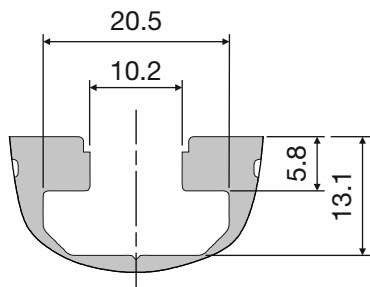


### Konkavität

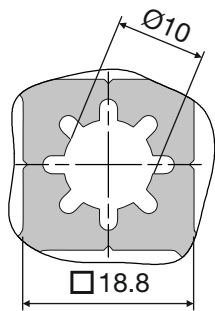


45x45MS-2.1	45x45S	45x60S	45x90S
■ 2.69	■ 2.69	■ 2.69	■ 2.69
60x60S	60x90S	90x90S	90x180S
■ 2.70	■ 2.70	■ 2.70	■ 2.71

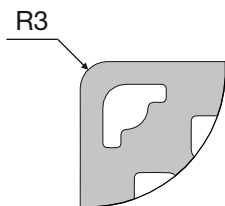
### Nut



### Kernloch



### Außenkante

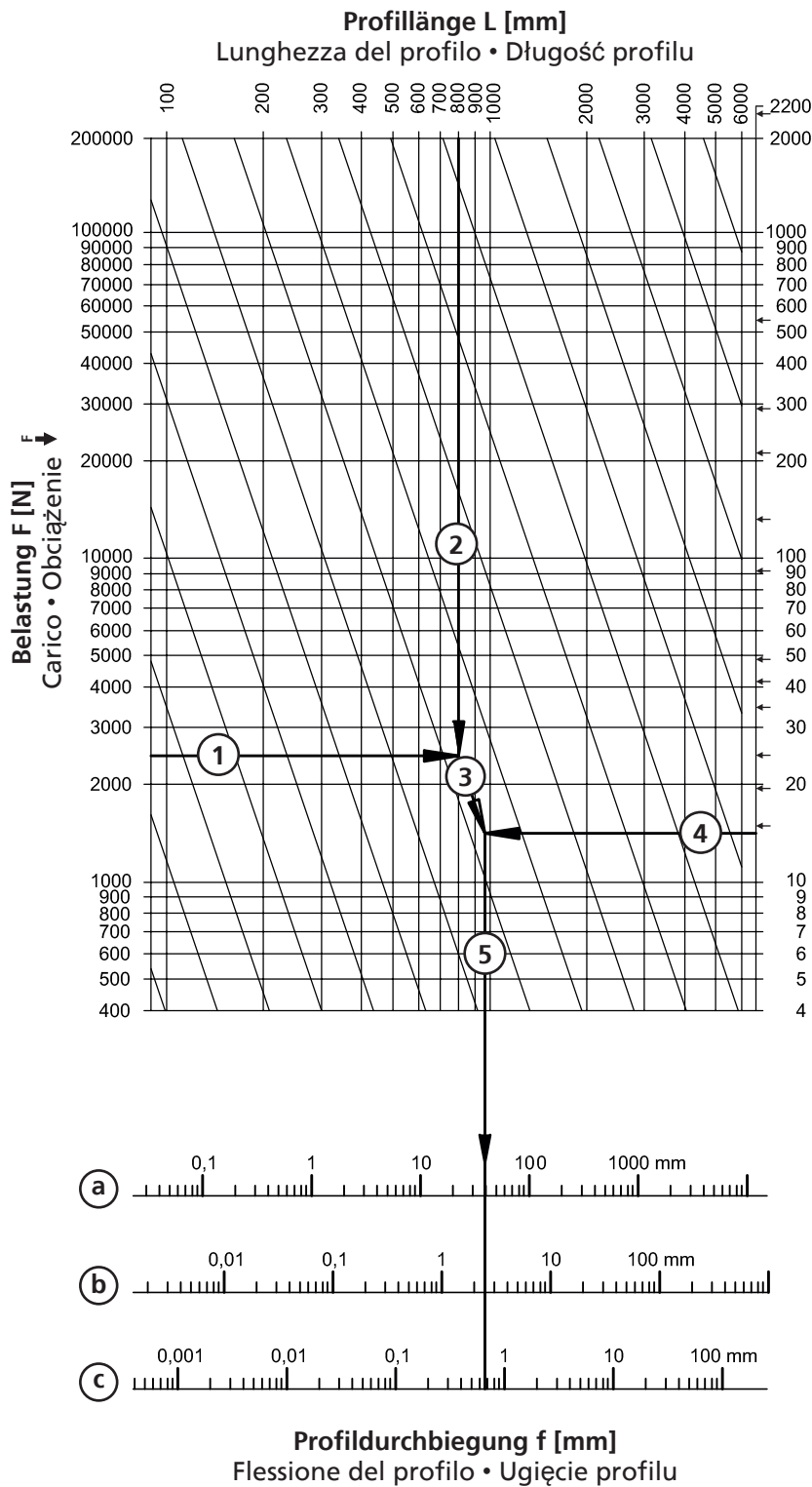




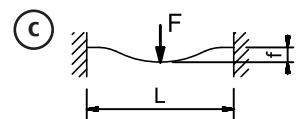
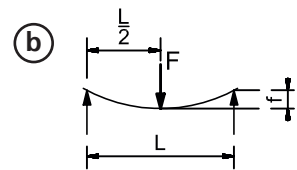
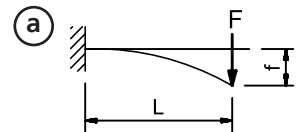
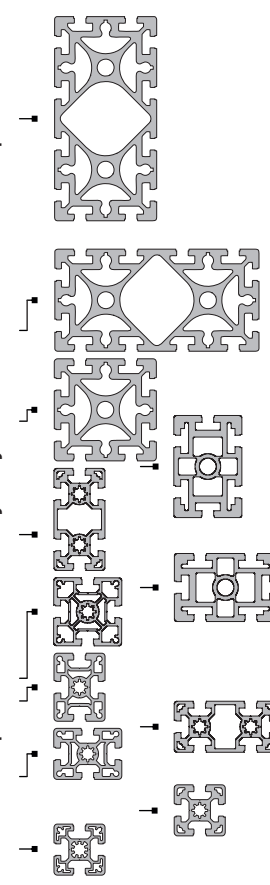
**Durchbiegung der Profile**

Flessione del profilo

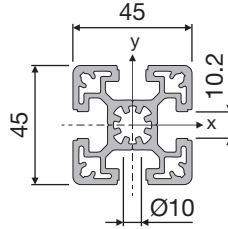
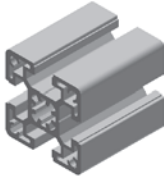
Ugięcie profili



Flächenträgheitsmoment I [cm<sup>4</sup>]  
 Momento d'inerzia della superficie • Geometryczny moment bezwładności powierzchni



**45x45 MS-2.1**

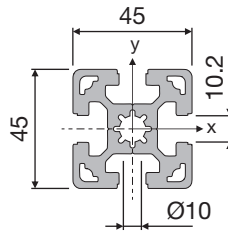
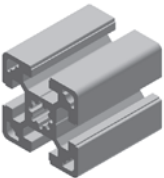


**05.01009.00**

M = 2,10 kg/m  
 $I_x = 15,56 \text{ cm}^4$   
 $W_x = 6,92 \text{ cm}^3$   
 $I_y = 15,56 \text{ cm}^4$   
 $W_y = 6,92 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**45x45 S**

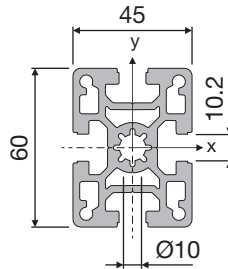
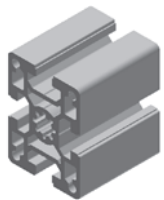


**05.01010.00**

M = 2,62 kg/m  
 $I_x = 18,95 \text{ cm}^4$   
 $W_x = 8,42 \text{ cm}^3$   
 $I_y = 18,95 \text{ cm}^4$   
 $W_y = 8,42 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**45x60 S**

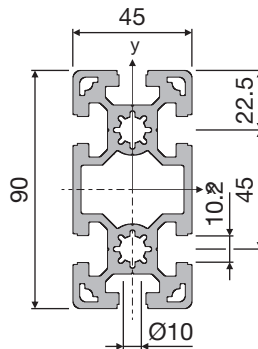
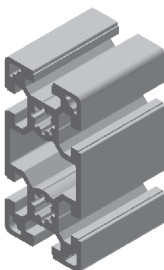


**05.01011.00**

M = 3,30 kg/m  
 $I_x = 41,06 \text{ cm}^4$   
 $W_x = 13,69 \text{ cm}^3$   
 $I_y = 23,68 \text{ cm}^4$   
 $W_y = 10,52 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

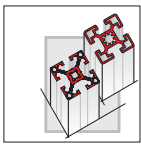
**45x90 S**



**05.01015.00**

M = 4,40 kg/m  
 $I_x = 134,96 \text{ cm}^4$   
 $W_x = 29,99 \text{ cm}^3$   
 $I_y = 33,27 \text{ cm}^4$   
 $W_y = 14,79 \text{ cm}^3$

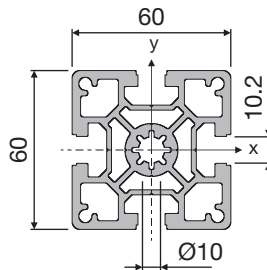
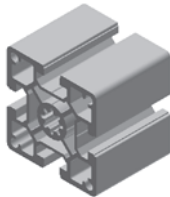
PE (m)  
 6 / 24 / 48 / 72



**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



**60x60 S**

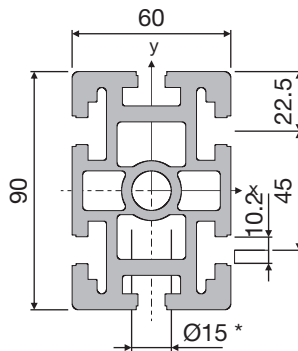
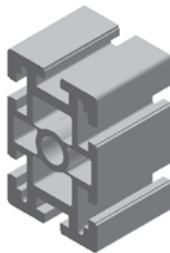


**05.01017.00**

$M = 3,82 \text{ kg/m}$   
 $I_x = 48,36 \text{ cm}^4$   
 $W_x = 16,12 \text{ cm}^3$   
 $I_y = 48,36 \text{ cm}^4$   
 $W_y = 16,12 \text{ cm}^3$

PE (m)  
 6 / 18 / 36 / 54

**60x90 S**



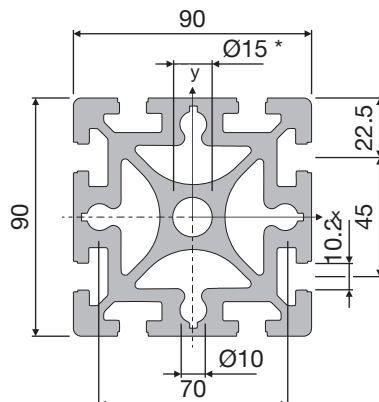
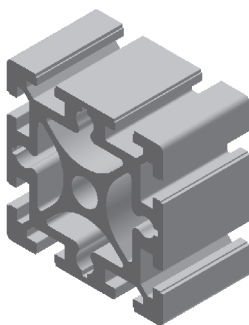
**05.01016.00**

$M = 6,87 \text{ kg/m}$   
 $I_x = 215,97 \text{ cm}^4$   
 $W_x = 47,99 \text{ cm}^3$   
 $I_y = 91,41 \text{ cm}^4$   
 $W_y = 30,47 \text{ cm}^3$

PE (m)  
 6 / 18 / 36 / 54

\*  
**Gewinde M16 im Kernloch Ø15 nur mit Gewindeformwerkzeug fertigen!**  
 Boccola M16 in foro centrale Ø 10 solo con strumento special!  
 Gwint M16 w otworze pod gwint Ø 15 wykonywać tylko narzędziem do gwintowania bezwiórowego!

**90x90 S**



**05.01018.00**

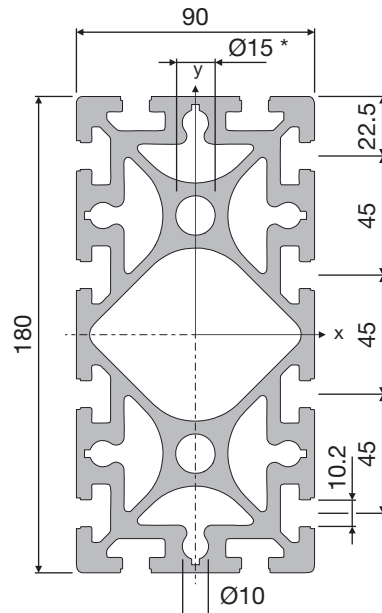
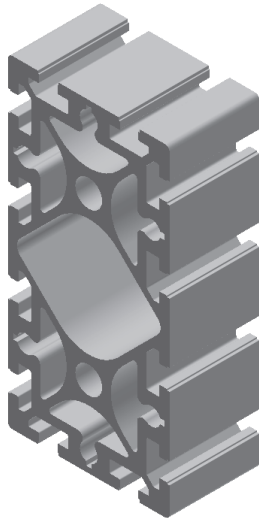
$M = 10,43 \text{ kg/m}$   
 $I_x = 298,12 \text{ cm}^4$   
 $W_x = 66,25 \text{ cm}^3$   
 $I_y = 298,12 \text{ cm}^4$   
 $W_y = 66,25 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

\*  
**Gewinde M16 im Kernloch Ø15 nur mit Gewindeformwerkzeug fertigen!**  
 Boccola M16 in foro centrale Ø 10 solo con strumento special!  
 Gwint M16 w otworze pod gwint Ø 15 wykonywać tylko narzędziem do gwintowania bezwiórowego!

**ALU-PROFILE**  
PROFILATI  
PROFILE ALUMINIOWE

**90x180 S**



**05.01019.00**

M = 17,57 kg/m  
 $I_x = 2180,42 \text{ cm}^4$   
 $W_x = 242,27 \text{ cm}^3$   
 $I_y = 557,95 \text{ cm}^4$   
 $W_y = 123,99 \text{ cm}^3$

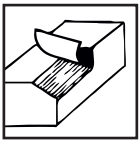
PE (m)  
6 / 12 / 24 / 36

\*

**Gewinde M16 im Kernloch Ø15 nur mit Gewindeformwerkzeug fertigen!**

**Boccola M16 in foro centrale Ø 10 solo con strumento special!**

**Gwint M16 w otworze pod gwint Ø 15 wykonywać tylko narzędziem do gwintowania bezwiórowego!**



# PROFILBEARBEITUNG

## LAVORAZIONE DEL PROFILO

## OBRÓBKA PROFILU







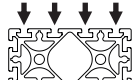


 1x	 1x	 2x	 1x	 1x	 1x	 2x
<b>45x45</b>	<b>45x60</b>	<b>45x90</b>	<b>60x60</b>	<b>60x90</b>	<b>90x90</b>	<b>90x180</b>



	<b>05.xxxxx.09</b>
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M12x60 	<b>05.xxxxx.10</b>	M16x115 	<b>05.xxxxx.12</b>
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M12x60  M12x60	<b>05.xxxxx.11</b>	M16x115  M16x115	<b>05.xxxxx.13</b>
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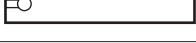
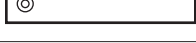
 ↓	 ↓	 ↓ ↓	 ↓	 ↓ ↓	 ↓ ↓ ↓ ↓	 ↓ ↓ ↓ ↓
<b>45x45</b>	<b>45x60</b>	<b>45x90</b>	<b>60x60</b>	<b>60x90</b>	<b>90x90</b>	<b>90x180</b>

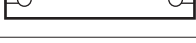
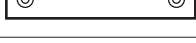
VSI 9.5 	<b>05.xxxxx.15</b> ■ 3.17	AGV 	<b>05.xxxxx.35</b> ■ 3.04
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VSI 9.5  VSI 9.5	<b>05.xxxxx.16</b>	AGV  AGV	<b>05.xxxxx.36</b>
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BV17 	<b>05.xxxxx.25</b> ■ 3.06	UNI 	<b>05.xxxxx.40</b> ■ 3.11
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BV17  BV17	<b>05.xxxxx.26</b>	UNI  UNI	<b>05.xxxxx.41</b>
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GV16 	<b>05.xxxxx.30</b> ■ 3.02	VSA 20 	<b>05.xxxxx.45</b> ■ 3.16
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GV16  GV16	<b>05.xxxxx.31</b>	VSA 20  VSA 20	<b>05.xxxxx.46</b>
---	--------------------	--	--------------------

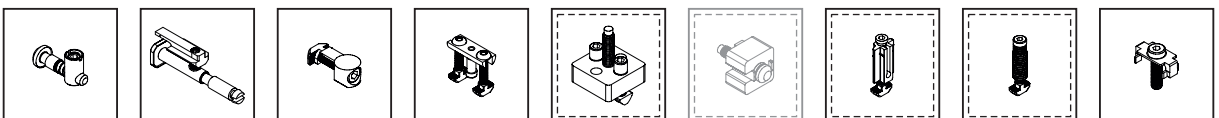
### ↔ ↔

### 45x90

BV17V 	<b>05.xxxxx.85</b> ■ 3.06	UNI 	<b>05.xxxxx.43</b> ■ 3.11
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BV17V  BV17V	<b>05.xxxxx.86</b>	UNI  UNI	<b>05.xxxxx.44</b>
---	--------------------	--	--------------------

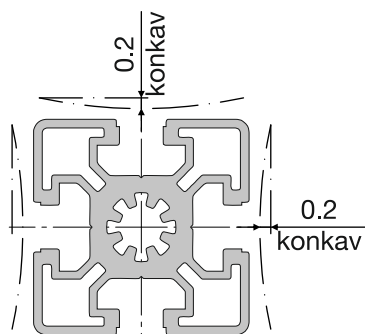
Technische Änderungen vorbehalten



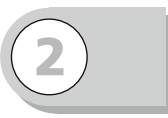
**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**



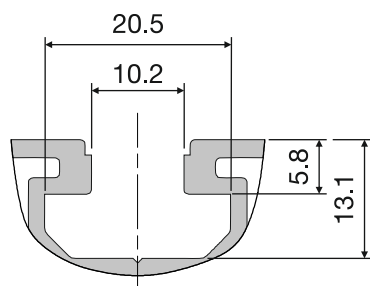
**Konkavität**



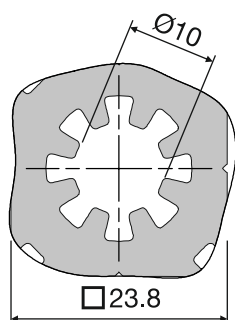
50x50L	50x100L	100x100L
■ 2.75	■ 2.75	■ 2.75



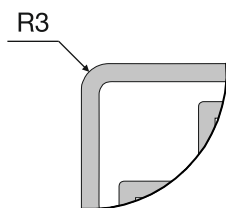
**Nut**



**Kernloch**



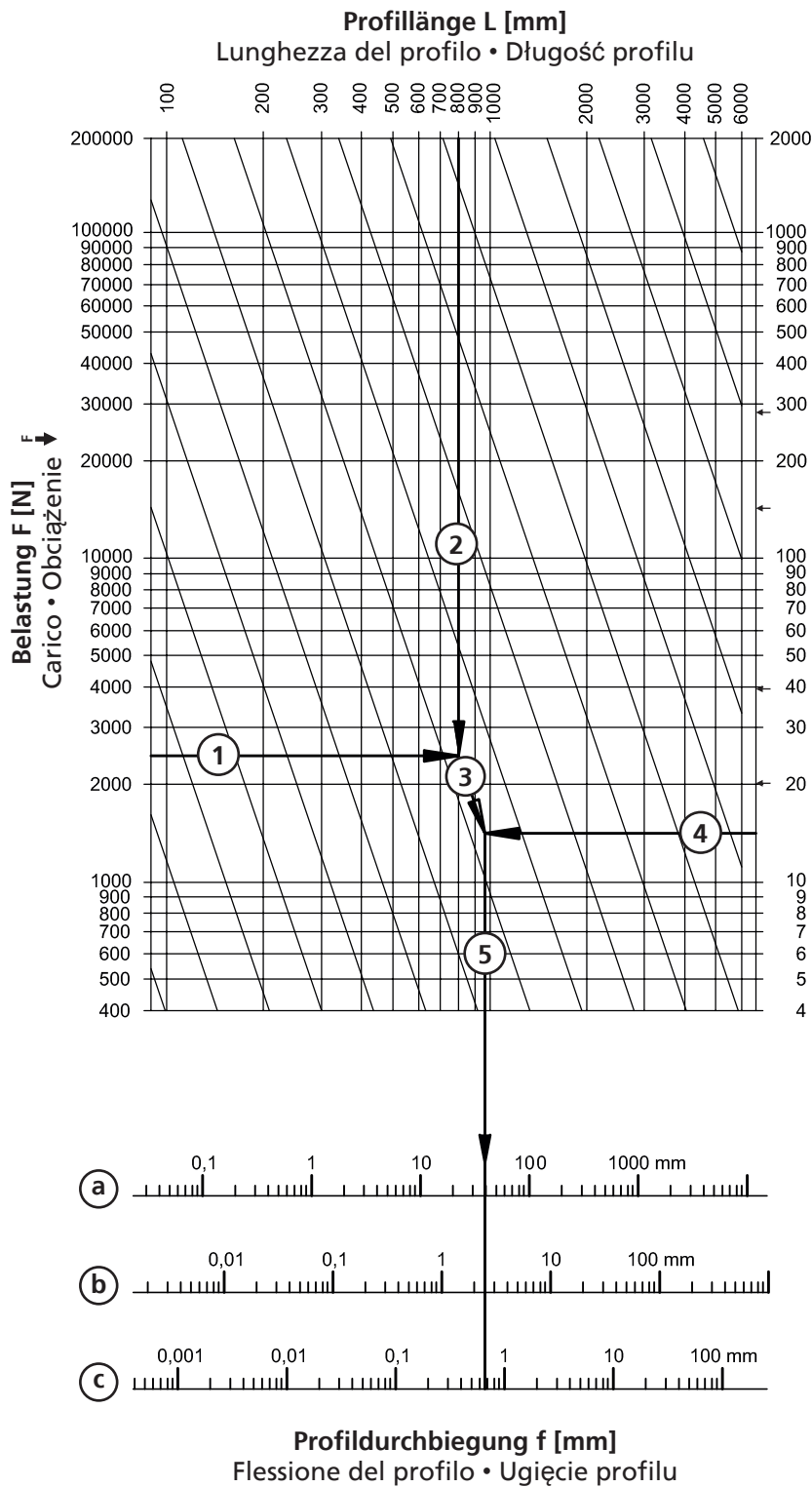
**Außenkante**



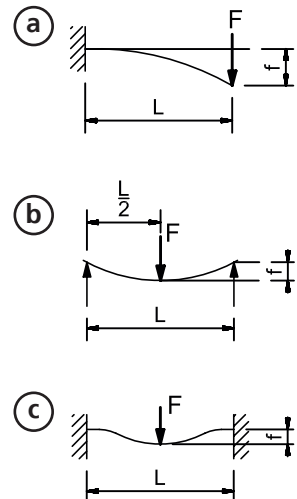
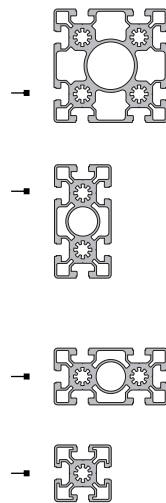
Technische Änderungen vorbehalten



**Durchbiegung der Profile**  
**Flessione del profilo**  
**Ugięcie profili**

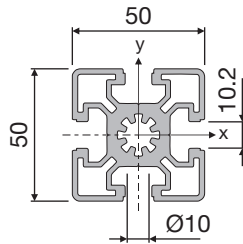
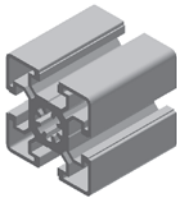


Flächenträgheitsmoment I [cm<sup>4</sup>]  
 Momento d'inerzia della superficie • Geometryczny moment bezwładności powierzchni





**50x50 L**

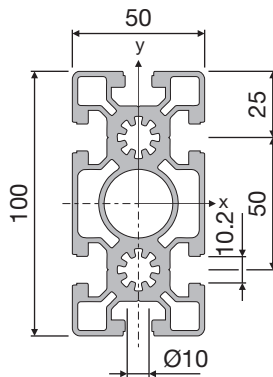
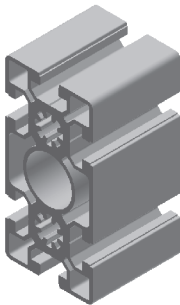


**05.01700.00**

$M = 2,52 \text{ kg/m}$   
 $I_x = 19,17 \text{ cm}^4$   
 $W_x = 7,67 \text{ cm}^3$   
 $I_y = 19,17 \text{ cm}^4$   
 $W_y = 7,67 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**50x100 L**

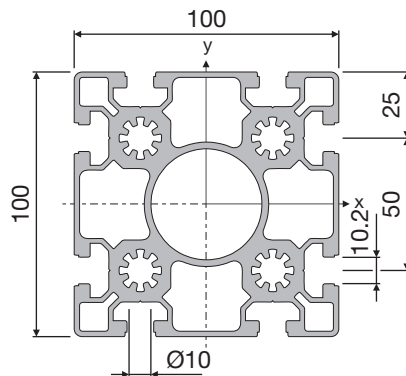
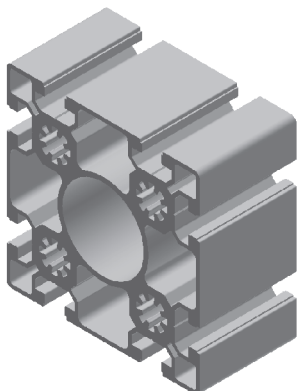


**05.01702.00**

$M = 5,00 \text{ kg/m}$   
 $I_x = 166,60 \text{ cm}^4$   
 $W_x = 33,32 \text{ cm}^3$   
 $I_y = 39,75 \text{ cm}^4$   
 $W_y = 15,90 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

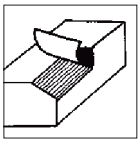
**100x100 L**



**05.01703.00**

$M = 8,28 \text{ kg/m}$   
 $I_x = 293,00 \text{ cm}^4$   
 $W_x = 58,60 \text{ cm}^3$   
 $I_y = 293,00 \text{ cm}^4$   
 $W_y = 58,60 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72



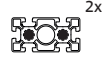
# PROFILBEARBEITUNG

## LAVORAZIONE DEL PROFILO

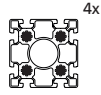
## OBRÓBKA PROFILU



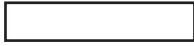
50x50



50x100

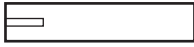


100x100



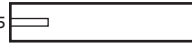
05.xxxxx.09

M12x60



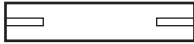
05.xxxxx.10

M16x115



05.xxxxx.12

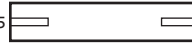
M12x60



M12x60

05.xxxxx.11

M16x115



M16x115

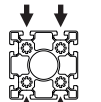
05.xxxxx.13



50x50



50x100



100x100

VSI 9.5



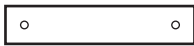
05.xxxxx.15 ■ 3.17

AGV



05.xxxxx.35 ■ 3.04

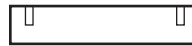
VSI 9.5



VSI 9.5

05.xxxxx.16

AGV



AGV

05.xxxxx.36

BV17



05.xxxxx.25 ■ 3.06

UNI



05.xxxxx.40 ■ 3.11

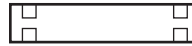
BV17



BV17

05.xxxxx.26

UNI



UNI

05.xxxxx.41

GV16



05.xxxxx.30 ■ 3.02

VSA 20



05.xxxxx.45 ■ 3.16

GV16



GV16

05.xxxxx.31

VSA 20



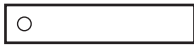
VSA 20

05.xxxxx.46



50x100

BV17V



05.xxxxx.85 ■ 3.06

UNI



05.xxxxx.43 ■ 3.11

BV17V



BV17V

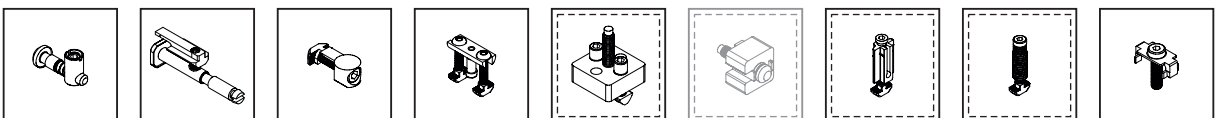
05.xxxxx.86

UNI



UNI

05.xxxxx.44



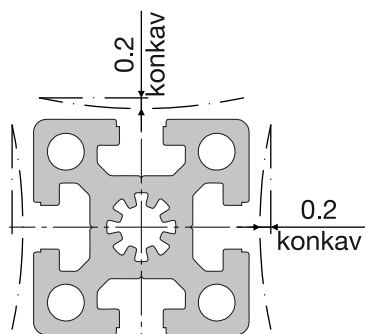
# ALU-PROFILE

## PROFILATI

## PROFILE ALUMINIOWE

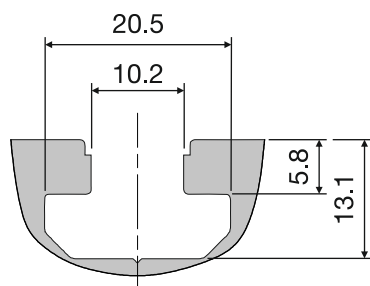


### Konkavität

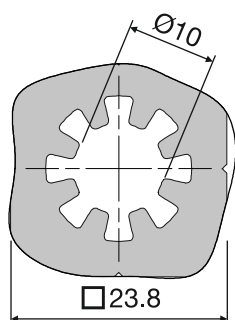


50x50S	50x100S	100x100S
■ 2.79	■ 2.79	■ 2.79

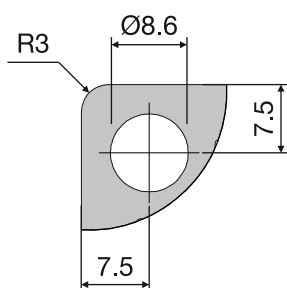
### Nut



### Kernloch

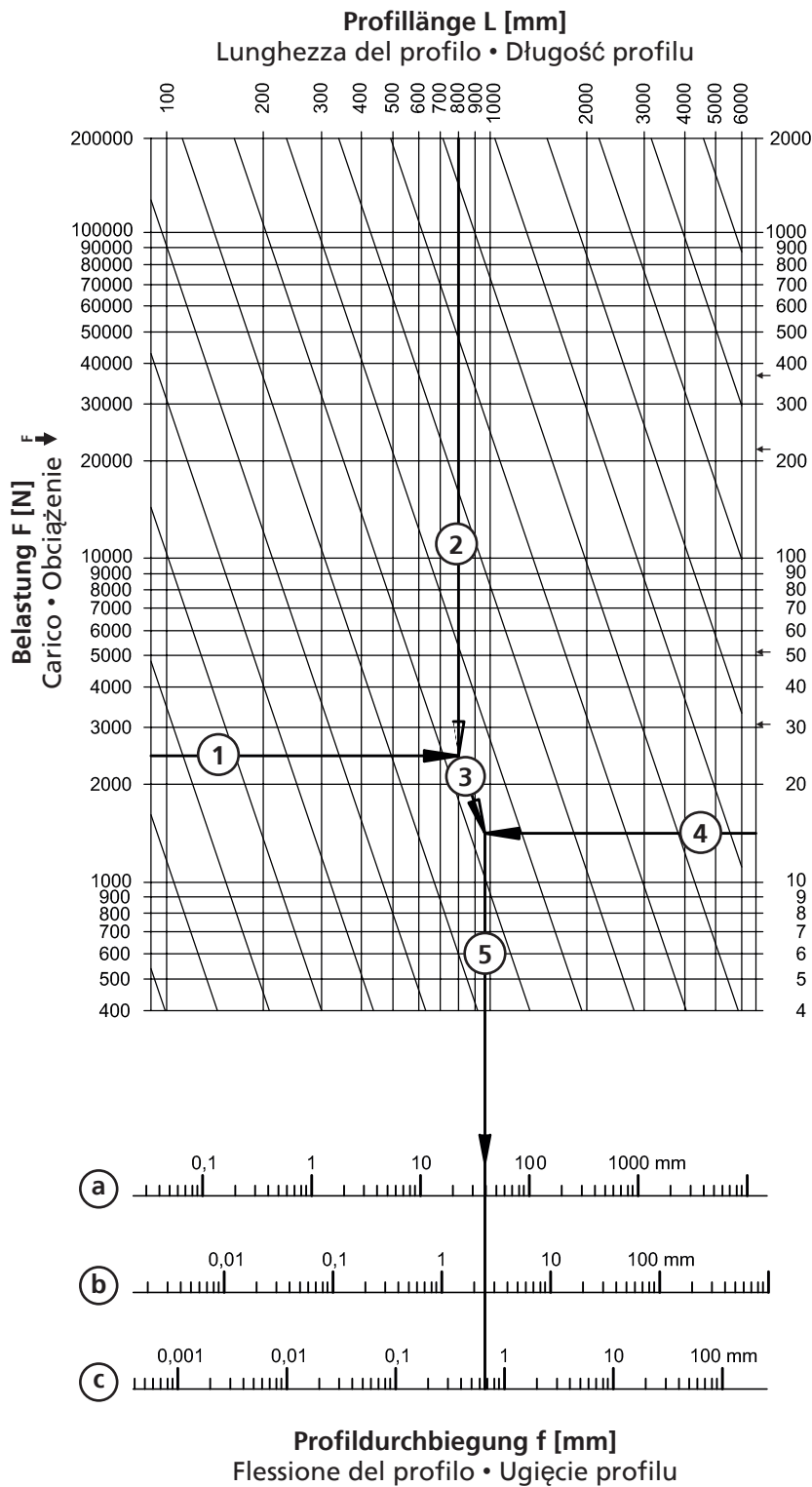


### Außenkante

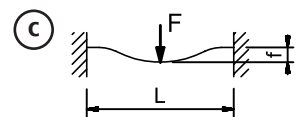
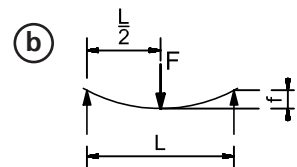
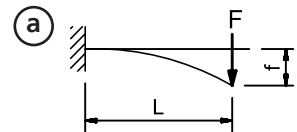
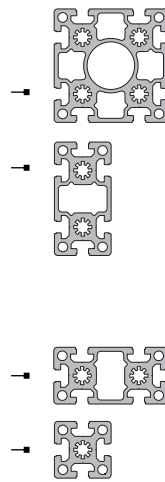




**Durchbiegung der Profile**  
**Flessione del profilo**  
**Ugięcie profili**

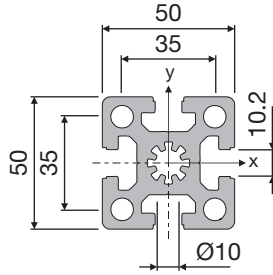
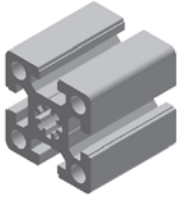


**Flächenträgheitsmoment I [cm<sup>4</sup>]**  
 Momento d'inerzia della superficie • Geometryczny moment bezwładności powierzchni



**ALU-PROFILE**  
**PROFILATI**  
**PROFILE ALUMINIOWE**

**50x50 S**

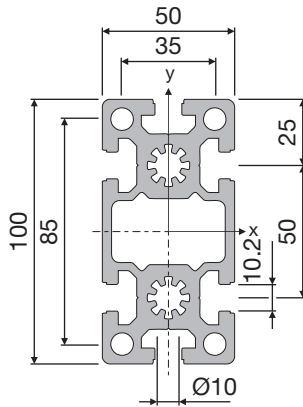
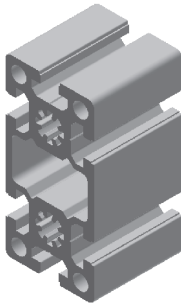


**05.01705.00**

M = 3,54 kg/m  
 $I_x = 29,62 \text{ cm}^4$   
 $W_x = 11,85 \text{ cm}^3$   
 $I_y = 29,62 \text{ cm}^4$   
 $W_y = 11,85 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**50x100 S**

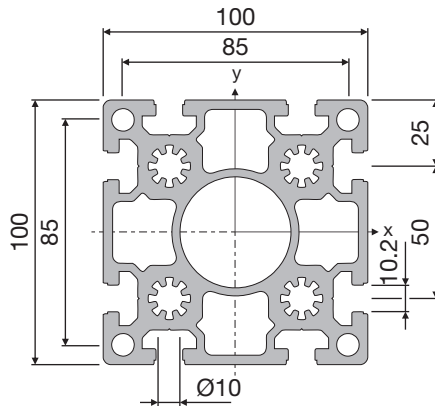
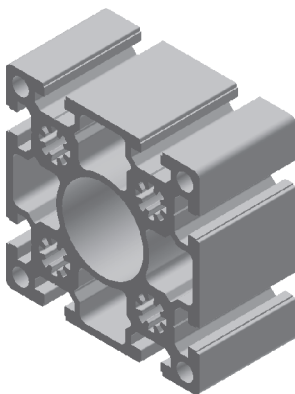


**05.01706.00**

M = 5,92 kg/m  
 $I_x = 219,85 \text{ cm}^4$   
 $W_x = 43,97 \text{ cm}^3$   
 $I_y = 52,23 \text{ cm}^4$   
 $W_y = 20,89 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72

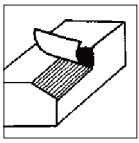
**100x100 S**



**05.01707.00**

M = 10,45 kg/m  
 $I_x = 383,00 \text{ cm}^4$   
 $W_x = 76,60 \text{ cm}^3$   
 $I_y = 383,00 \text{ cm}^4$   
 $W_y = 76,60 \text{ cm}^3$

PE (m)  
 6 / 24 / 48 / 72



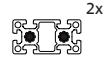
# PROFILBEARBEITUNG

## LAVORAZIONE DEL PROFILO

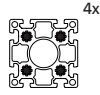
## OBRÓBKA PROFILU



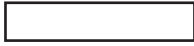
1x  
**50x50**



2x  
**50x100**



4x  
**100x100**



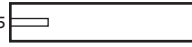
05.xxxxx.09

M12x60



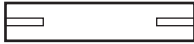
05.xxxxx.10

M16x115



05.xxxxx.12

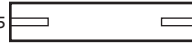
M12x60



M12x60

05.xxxxx.11

M16x115



M16x115

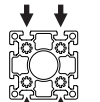
05.xxxxx.13



**50x50**



**50x100**



**100x100**

VSI 9.5



05.xxxxx.15

■ 3.17

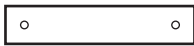
AGV



05.xxxxx.35

■ 3.04

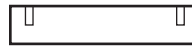
VSI 9.5



VSI 9.5

05.xxxxx.16

AGV



AGV

05.xxxxx.36

BV17



05.xxxxx.25

■ 3.06

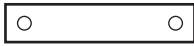
UNI



05.xxxxx.40

■ 3.11

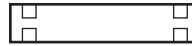
BV17



BV17

05.xxxxx.26

UNI



UNI

05.xxxxx.41

GV16



05.xxxxx.30

■ 3.02

VSA 20



05.xxxxx.45

■ 3.16

GV16



GV16

05.xxxxx.31

VSA 20



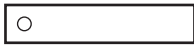
VSA 20

05.xxxxx.46



**50x100**

BV17V



05.xxxxx.85

■ 3.06

UNI



05.xxxxx.43

■ 3.11

BV17V



BV17V

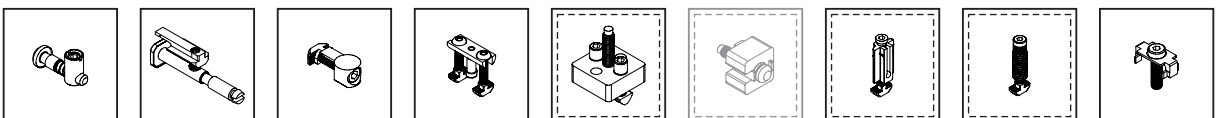
05.xxxxx.86

UNI
















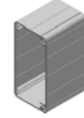
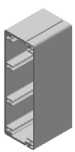
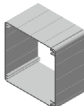
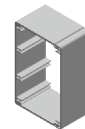


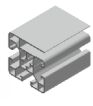
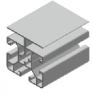
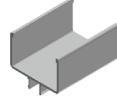
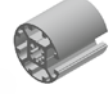

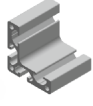
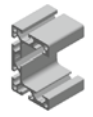
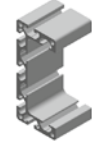



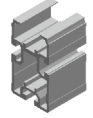


UNI

05.xxxxx.44

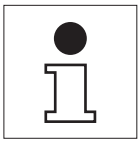


**ZUSATZ-PROFILE**  
**PROFILI ADDIZIONALI**  
**PROFILE DODATKOWE**



					
■ 2.83	■ 2.83	■ 2.83	■ 2.84	■ 2.84	■ 2.84
					
➔ ■ 8.10	➔ ■ 8.36	➔ ■ 8.15	➔ ■ 8.29	➔ ■ 8.29	➔ ■ 8.30
					
➔ ■ 9.06	➔ ■ 9.06	➔ ■ 9.06	➔ ■ 9.07	➔ ■ 9.07	➔ ■ 9.07
					
➔ ■ 11.05	➔ ■ 11.05	➔ ■ 11.05	➔ ■ 11.16	➔ ■ 11.20	
					
➔ ■ 12.02	➔ ■ 12.08	➔ ■ 12.08	➔ ■ 12.08	➔ ■ 12.07	➔ ■ 7.07
					
➔ ■ 13.02	➔ ■ 13.13	➔ ■ 13.13	➔ ■ 13.15		

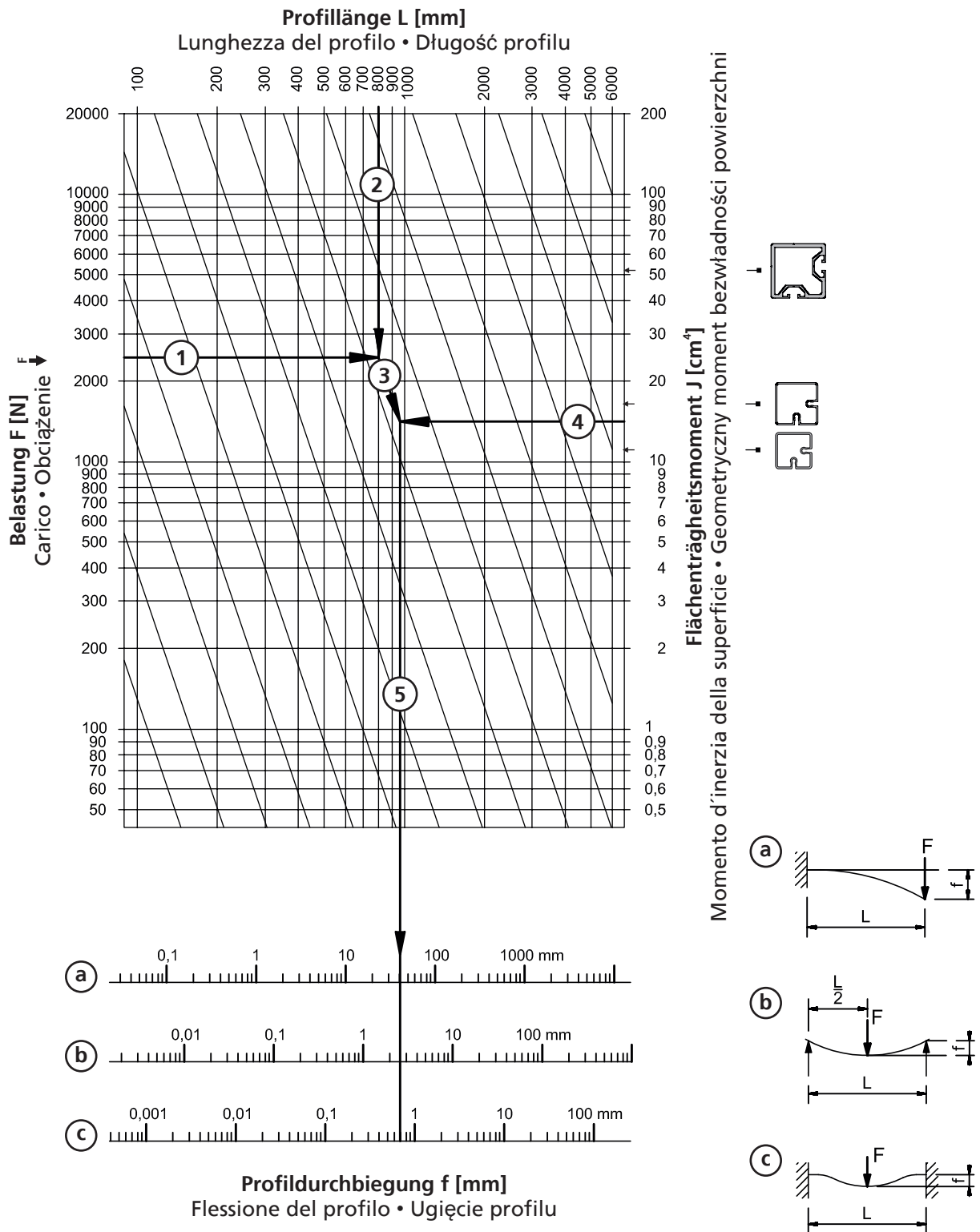
Technische Änderungen vorbehalten



### Durchbiegung der Profile

Flessione del profilo

Ugięcie profili

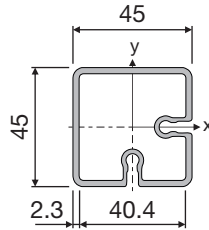




**TELESKOPPROFILE**  
**PROFILI TELESCOPICI**  
**PROFILE TELESKOPOWE**



**40/45**



**05.01946.00**

M = 1,20 kg/m  
 $I_x = 11,80 \text{ cm}^4$   
 $W_x = 5,24 \text{ cm}^3$   
 $I_y = 11,80 \text{ cm}^4$   
 $W_y = 5,24 \text{ cm}^3$

PE (m)  
 6 / 48 / 96

M8 L=65mm



**05.01971.00**

M8 x 14

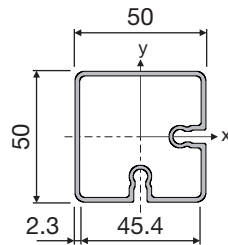


**05.01436.00**



**05.01652.00**

**45/50**



**05.01947.00**

M = 1,40 kg/m  
 $I_x = 17,07 \text{ cm}^4$   
 $W_x = 7,59 \text{ cm}^3$   
 $I_y = 17,07 \text{ cm}^4$   
 $W_y = 7,59 \text{ cm}^3$

PE (m)  
 6 / 48 / 96

M8 L=65mm



**05.01971.00**

M8 x 14

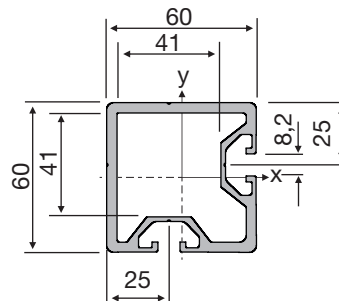


**05.01436.00**



**05.01064.00**

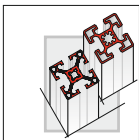
**60x60**



**05.01951.00**

M = 3,02 kg/m  
 $I_x = 52,04 \text{ cm}^4$   
 $W_x = 17,28 \text{ cm}^3$   
 $I_y = 53,06 \text{ cm}^4$   
 $W_y = 17,63 \text{ cm}^3$

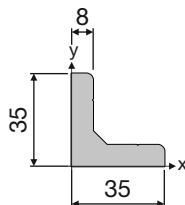
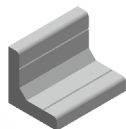
PE (m)  
 6



**WINKELPROFILE**  
**PROFILI ANGOLARI**  
**PROFILE KĄTOWE**



**35x35**

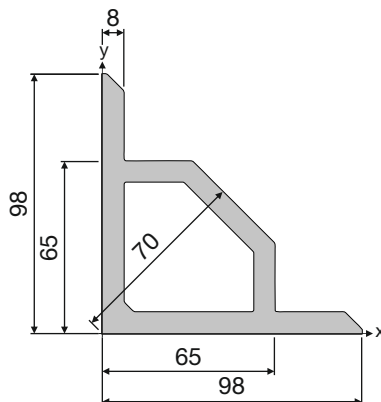
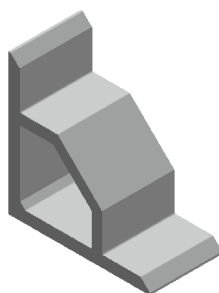


**05.01150.00**

M = 1,37 kg/m  
 $I_x = 11,84 \text{ cm}^4$   
 $W_x = 6,77 \text{ cm}^3$   
 $I_y = 11,84 \text{ cm}^4$   
 $W_y = 6,77 \text{ cm}^3$

PE (m)  
 6 / 48 / 96

**98x98**

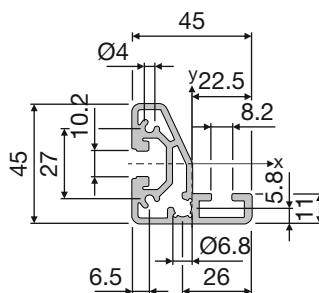
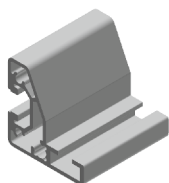


**05.01154.00**

M = 5,78 kg/m  
 $I_x = 380,13 \text{ cm}^4$   
 $W_x = 77,58 \text{ cm}^3$   
 $I_y = 380,13 \text{ cm}^4$   
 $W_y = 77,58 \text{ cm}^3$

PE (m)  
 6 / 24 / 48

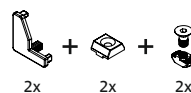
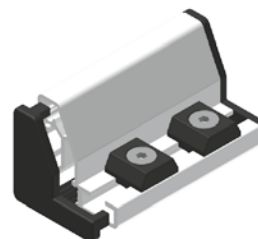
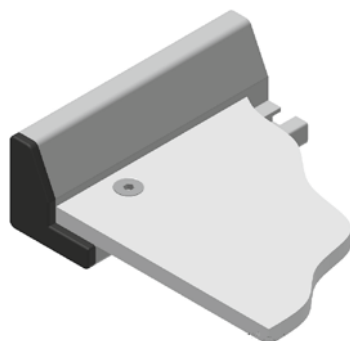
**45x45**



**05.01034.00**

M = 1,19 kg/m  
 $I_x = 9,74 \text{ cm}^4$   
 $W_x = 4,33 \text{ cm}^3$   
 $I_y = 9,28 \text{ cm}^4$   
 $W_y = 4,13 \text{ cm}^3$

PE (m)  
 6 / 48 / 96



**05.01478.00**

Technische Änderungen vorbehalten

**VERBINDER**  
ELEMENTI DI COLLEGAMENTO  
ŁĄCZNIK



■ 3.02



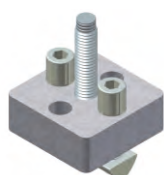
■ 3.04



■ 3.05



■ 3.06



■ 3.08



■ 3.10



■ 3.11



■ 3.12



■ 3.12.2



■ 3.13



■ 3.14



■ 3.15



■ 3.16



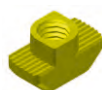
■ 3.18



■ 3.20



■ 3.22



■ 3.23



■ 3.24



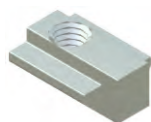
■ 3.28



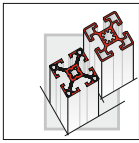
■ 3.29



■ 3.30



■ 3.30



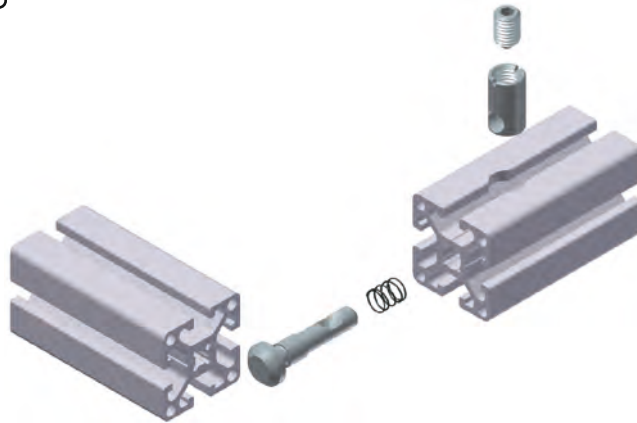
# GRUNDVERBINDER

## GIUNTI DI BASE

### ŁĄCZNIK PODSTAWOWY



**GV**



Bestehend aus:  
 Hammerbolzen St, vz.  
 Hülse St, vz.  
 Feder  
 Gewindestift

Comprendente:  
 Vite con testa a martello St, galv.  
 Canna St, galv.  
 Molla  
 Grano

Elementy składowe:  
 Sworzeń z łbem młotczkowym  
 Tuleja  
 Sprężyna  
 Wkręt bez łba

#### Innovative Vorteile

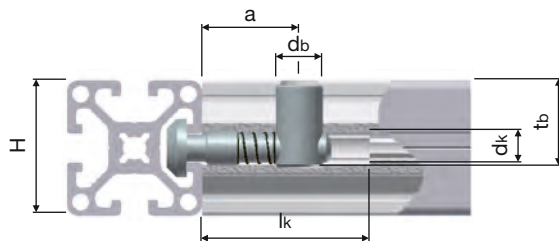
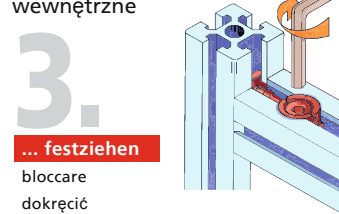
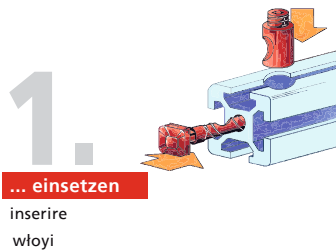
- Einfache und schnelle Montage
- Ringschneiden an Verbinderkopf (GV-0)
- Elektrisch leitfähige Verbindung
- Hohe Vielfalt der Verbinderfamilie
- Als Außen- und Innenverbindung einsetzbar

#### Vantaggi innovativi

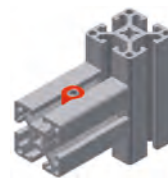
- Montaggio rapido e semplice
- Testa del connettore antiscivolo (GV-0)
- Connettore elettricamente conduttivo
- Versatilità, regolabilità, universalità nell' utilizzo
- Può essere posizionato come connettore interno od esterno

#### Nowatorskie zalety

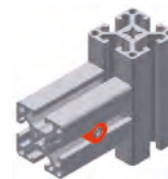
- Łatwy i szybki montaż
- Cięcia okrężne na głowicy łącznika (GV-0)
- Połączenie przewodzące elektrycznie
- Duża różnorodność rodziny łączników
- Możliwość zastosowania jako połączenie zewnętrzne i wewnętrzne



H	d <sub>b</sub>	d <sub>k</sub>	a	t <sub>b</sub>	l <sub>k</sub>
20	Ø7,5	Ø5,0	15	14,3	30
30	Ø10,5	(Ø 6,8)	18	22	-
30 <sup>load</sup>	Ø14,2	(Ø10,2)	29	20,5	-
40	Ø14,2	Ø10,2	29	26	45
40 <sup>load</sup>	Ø14,2	(Ø10,2)	29	26	-
45	Ø16,2	(Ø10,2)	29	30	-
50	Ø16,2	(Ø10,2)	29	32,5	-



Innenliegende Verbindung  
 Posizionamento come  
 connettore interno  
 Połączenie wewnętrzne



Außenliegende Verbindung  
 Posizionamento come  
 connettore esterno  
 Połączenie zewnętrzne

➔ ■ 14.01



Technische Änderungen vorbehalten

# GRUNDVERBINDER

## GIUNTI DI BASE

### ŁĄCZNIK PODSTAWOWY



5 8E 8 10

#### GV-0



	15Nm	05.01590.00
	19Nm	05.02150.00
	26Nm	05.01596.00
	30Nm	05.01351.00
	35Nm	05.01352.00
	35Nm	05.01270.00



#### GV-01



	26Nm	05.01597.00
	33Nm	05.01110.00
	38Nm	05.01112.00
	38Nm	05.01271.00



#### GV-02



	26Nm	05.01598.00
	33Nm	05.01111.00
	38Nm	05.01113.00
	38Nm	05.01272.00



#### GS-01



	26Nm	05.02243.00
	12Nm	05.01353.00
	15Nm	05.01357.00
	13Nm	05.01357.50



#### GS-02



	10Nm	05.02244.00
	12Nm	05.01354.00
	15Nm	05.01358.00
	13Nm	05.01361.00



#### GGV-01



	10Nm	05.02245.00
	12Nm	05.01585.00
	15Nm	05.01553.00
	13Nm	05.01557.00



#### GGV-02



	10Nm	05.02246.00
	12Nm	05.01586.00
	15Nm	05.01554.00
	13Nm	05.01555.00



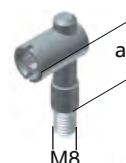
#### GST



	26Nm	05.02247.00
	33Nm	05.01355.00
	38Nm	05.01359.00
	38Nm	05.01359.50



#### GSR



	26Nm	05.02248.00
	33Nm	05.01356.00
	38Nm	05.01360.00
	38Nm	05.01360.50



#### GVP

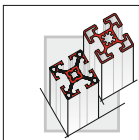


	26Nm	05.02249.00
	33Nm	05.01445.00
	38Nm	05.01556.00
	38Nm	05.01556.50



3

Technische Änderungen vorbehalten



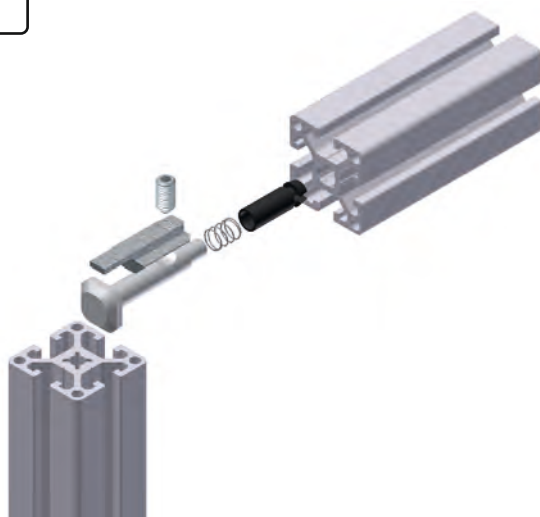
## AUTOMATIK-GV

### GIUNTI DI BASE - TIPO GV

### AUTOMATYCZNY ŁĄCZNIK PODSTAWOWY



#### AGV



Bestehend aus:  
 AGV-Stein GD-Zn  
 Druckfeder  
 Federhülse PA  
 Hammerbolzen St, vz.  
 Gewindestift

Comprendente:  
 Ancoraggio AGV GD-Zn  
 Molla  
 Manicotto della molla PA  
 Viti testa a martello  
 AGV St, galv.  
 Grano

Elementy składowe:  
 Blok AGV  
 Sprężyna naciskowa  
 Pochwa sprężyny  
 Sworzeń z łbem młotczkowym  
 Wkręt bez łba

#### Innovative Vorteile

- Sehr einfache und schnelle Montage
- Automatische Zentrierung
- Geringe Profilbearbeitung
- Verdrehgesichert durch Kopfform
- Ringschneide an Verbinderkopf
- Elektrische Leitfähigkeit
- Positionsgerechte, automatische Fügstellung

#### Vantaggi innovativi

- Montaggio facile e veloce
- Centraggio automatico
- Lavorazione minima del profilo
- Sistema anti rotazione
- Testa del connettore antiscivolo
- Connettore elettricamente conduttivo
- Correzione automatica del posizionamento congiunto

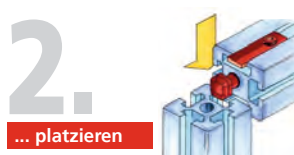
#### Nowatorskie zalety

- Bardzo łatwy i szybki montaż
- Automatyczne centrowanie
- Niewielka obróbka profilu
- Zabezpieczenie przed przekręceniem
- Dzięki kształtowi głowicy
- Cięcie okrężne na głowicy łącznika
- Przewodność elektryczna
- Prawidłowo spozycjonowane, automatyczne położenie łączenia



1. ... einschieben

inserire  
wsuwać



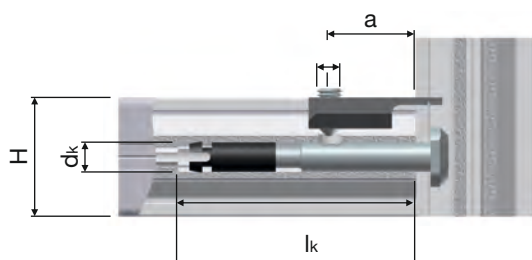
2. ... platzieren

posizionare  
umieścić



3. ... festziehen

bloccare  
dokręcić



H	d <sub>b</sub>	d <sub>k</sub>	a	l <sub>k</sub>	Nm
30 8E	Ø5,4	(Ø6,8)	18	-	10
30 8K	Ø7,6	(Ø10,2)	30	-	15
40 8	Ø7,6	Ø10 *	30	80	15
40 8	Ø7,6	(Ø10,2)	30	-	15
45 10	Ø9,6	(Ø10,2)	30	-	25
50 10	Ø9,6	(Ø10,2)	30	-	25

30 8E	05.01780.00
ohne Federhülse	
30 8K	05.02242.00
ohne Federhülse	
40 8	05.01781.10
45 10	05.01782.10
50 10	05.01782.10

\* = Aufbohren des Kernlochs mit d<sub>k</sub>

\* = Aleso punta con d<sub>k</sub>

\* = Rozwiercenie otworu pod gwint z d<sub>k</sub>



➔ ■ 14.01

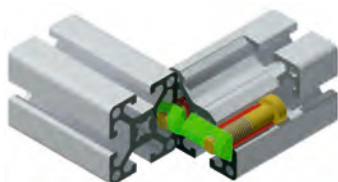
# HÜLSENVERBINDER

## GIUNTO A MANICOTTO

### TULEJA ŁĄCZĄCA



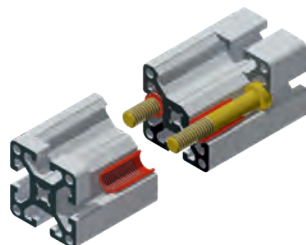
**HV**



Bestehend aus:  
Hülse, SF St, vz.  
ISO-Schraube St, vz.  
Nutenstein St, vz.

Comprendente:  
Manica, SF St, galv.  
Vite ISO St, galv.  
Blocco scorrevole St, galv.

**HV-Stoßverbinder**



Elementy składowe:  
Tuleja, SF Ac, zing.  
Śruba ISO M8x35 Ac, zing.  
Wpust przesuwny Ac, zing.

3

#### Innovative Vorteile

- Hülse selbstzentrierend durch langen Zentrierschaft
- Keine Profilbearbeitung
- Leichtes Eindrehen der Hülse durch selbstfurchende Gewindeform "FM-Spezial" und Gleit-Mo-Beschichtung
- Hohe Verbindungsfestigkeit
- Stabile, verdrehgesicherte Verbindung
- Elektrische Leitfähigkeit

#### Vantaggi innovativi

- Manico autocentrante
- No lavorazione sul profilo
- Sistema di avvitamento autofilettante "FM-Spezial" e rivestimento GleitMo (rende più facile l'avvitamento die manicotti)
- Alta stabilità del collegamento
- Sistema anti rotazione del profilo
- Elettricamente conduttivo

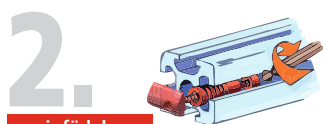
#### Nowatorskie zalety

- Samocentrująca się tuleja dzięki długiemu trzpieniowi centrującemu
- Brak obróbki profilu
- Łatwe wkręcanie tulei dzięki samogwintującemu kształtowi „FM Spezial” i molibdenowej powłoce ślizgowej
- Wysoka wytrzymałość połączenia
- Stabilne połączenie, zabezpieczone przed przekręceniem
- Przewodność elektryczna



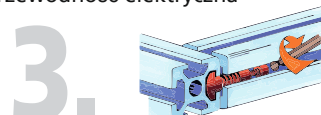
**1. ... einschrauben**

avvitare  
wkręcić



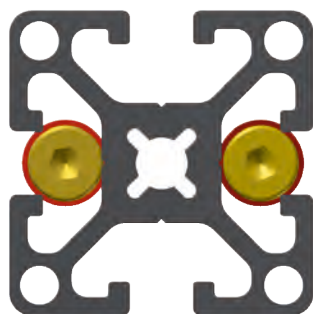
**2. ... einfädeln**

posizionare  
wprowadzić



**3. ... festziehen**

bloccare  
dokręcić



Hülsevenbinder müssen grundsätzlich **PAARWEISE** eingesetzt werden.

I connettori a manicotto devono essere usati in **COPPIA**

Tuleje łączące muszą być zasadniczo stosowane **PARAMI**.

**HV**



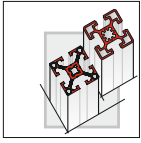
15 Nm	20	5		05.02173.10
19 Nm	30	8E		05.02127.10
22 Nm	40	8		05.02128.10 *
25 Nm	45	10		05.02129.10 *
25 Nm	45	10		05.02129.00

**HV-Stoßverbinder**

12 Nm	20	5		05.02439.00
20 Nm	40	8		05.02440.00 *
25 Nm	45	10		05.02441.00 *
				05.02126.00

\* wird benötigt Sternschlüssel-Bit SX-50

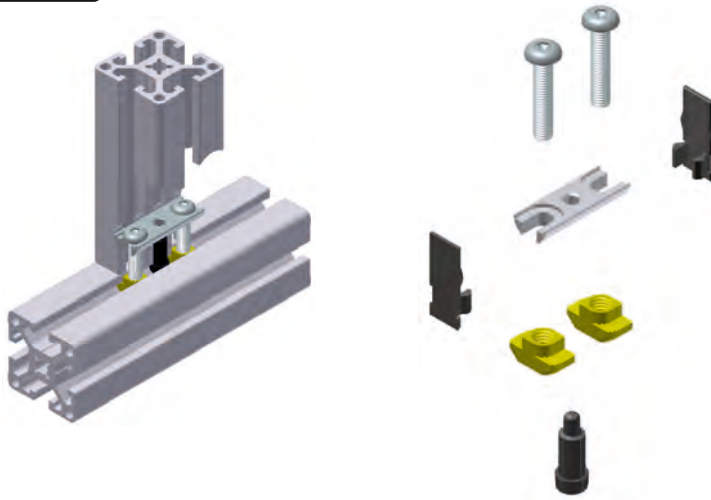
Technische Änderungen vorbehalten



# BOLZENVERBINDER GIUNTO A BULLONE ŁĄCZNIK SWORZNIOWY



**BV**



**Bestehend aus:**  
 Bolzen St, vz.  
 ISO-Schrauben  
 Hammermuttern PA  
 Fixierbolzen  
 Abdeckkappen

**Comprendente:**  
 Bulloni St, galv.  
 Viti ISO  
 Dadi a martello PA  
 Bulloni di fissaggio C

**Elementy składowe:**  
 Sworzeń Ac, zing.  
 Śruby ISO  
 Nakrętki młotkowe  
 Sworznie ustalające PA  
 Zaślepki

### Innovative Vorteile

- Sehr hohe Verbindungs- und Verdrehfestigkeit
- Selbstzentrierend durch Zentrierzapfen
- Beidseitig gleichmäßiger Anzug über Hammermuttern
- Leitfähige Verbindung durch Riefen an der Hammermutter

### Innovative advantages

- High connecting strength and twist resistance
- Centring pin for self-centring
- Even tightening on both sides with hammer nuts
- Ribbing on hammer nuts for conductive connection

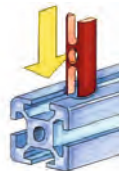
### Nowatorskie zalety

- Bardzo duża wytrzymałość połączenia i wytrzymałość na skręcanie
- Samocentrujący dzięki czopom centrującym
- Z obu stron równomierne dociągnięcie przy użyciu nakrętek młotkowych
- Połączenie przewodzące dzięki rowkom na nakrętce młotkowej

1.

**... einschieben**

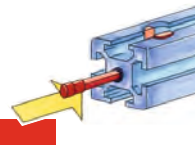
inserire  
wsunąć



2.

**... sichern**

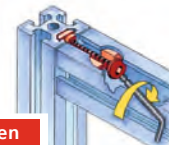
assicurare  
zabezpieczyć



3.

**... festziehen**

bloccare  
dokręcić



### Ausführung

- A** Stahl, verzinkt  
Zugfestigkeit ca. 550N/mm<sup>2</sup>
- B** Zinkdruckguss  
Zugfestigkeit ca. 300N/mm<sup>2</sup>

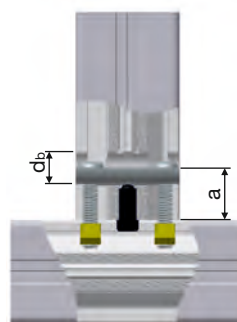
### Matières

- A** Acciaio, zincato  
Resistenza 550N/mm<sup>2</sup>
- B** Zinco pressofuso,  
Resistenza 300N/mm<sup>2</sup>

### Wersja

- A** Stal ocynkowana  
Wytrzymałość na rozciąganie ok. 550 N/mm<sup>2</sup>
- B** Cynkowy odlew ciśnieniowy  
Wytrzymałość na rozciąganie ok. 300 N/mm<sup>2</sup>

H	d <sub>b</sub>	a	Nm
30	Ø11,2	18	6
30 <sup>lock</sup>	Ø11,2	18	6
40	Ø14,2	20	22
45	Ø17,2	22,5	25
50	Ø17,2	22,5	25

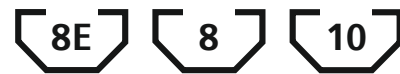


➔ ■ 14.01

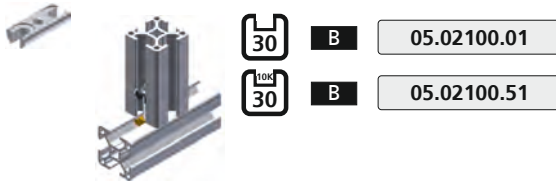




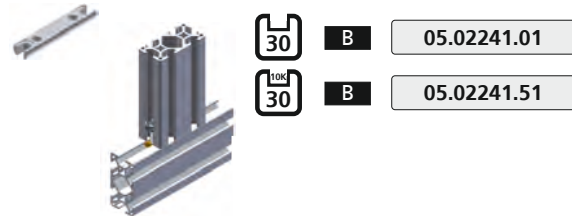
**BOLZENVERBINDER**  
GIUNTI A BULLONE  
ŁĄCZNIK SWORZNIOWY



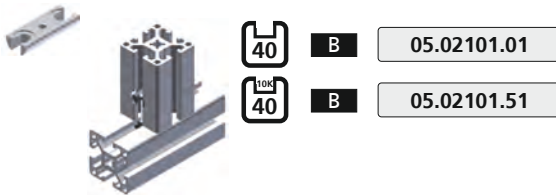
**BV Ø11 L=30**



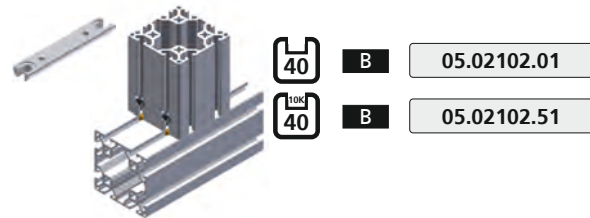
**BV Ø11 L=60**



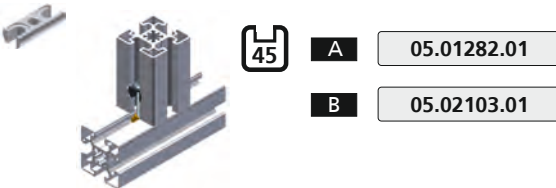
**BV Ø14 L=40**



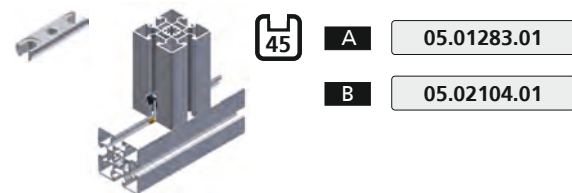
**BV Ø14 L=80**



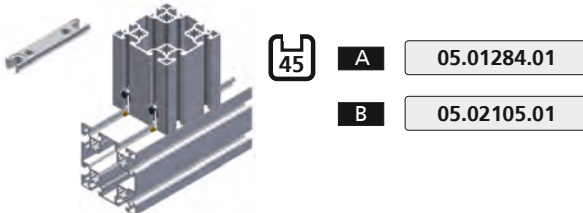
**BV Ø17 L=45**



**BV Ø17 L=60**

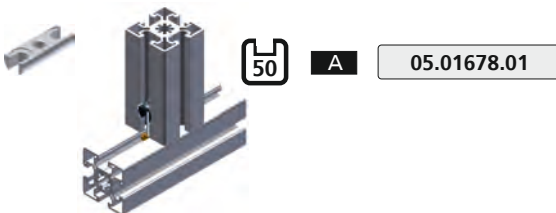


**BV Ø17 L=90**

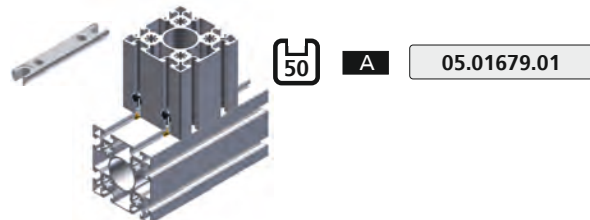


Artikel auf dieser Seite:  
PE (St.) = 10

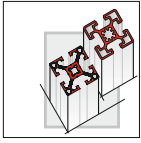
**BV Ø17 L=50**



**BV Ø17 L=100**



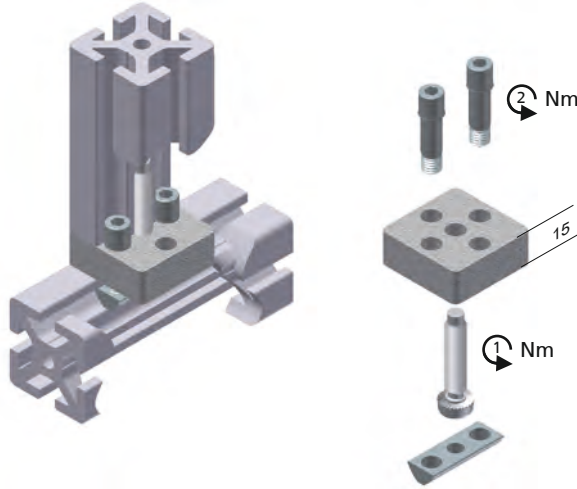
Technische Änderungen vorbehalten



# PLATTENVERBINDER GIUNTO AT ŁĄCZNIK PŁYTOWY



PV



Bestehend aus:  
 Platte GD-Zn  
 Passschraube St, vz.  
 FM-Schraube  
 Nutenstein

Comprendente:  
 Piastra GD-Zn  
 Vite di bloccaggio St, galv.  
 Viti FM  
 S

Elementy składowe:  
 Płyta GD-Zn  
 Śruba pasowana Ac, zing.  
 Śruba FM  
 Wpust przesuwny

### Innovative Vorteile

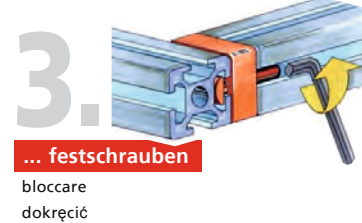
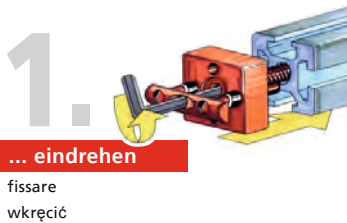
- Einfaches Verbinden ohne Profilbearbeitung
- Leichtes Eindrehen durch selbst-furchende Verbinderschraube mit "FM-Spezial"-Gewinde
- Exakte und automatische Zentrierung
- Schnelle Montage durch vormontierte Einheit
- Leitfähige Verbindung

### Vantaggi innovativi

- Facile collegamento senza lavorazione sul profilo
- Facile fissaggio, con vite di connessione autofilettante "FM-Spezial"
- Autocentraggio perfetto
- Elettricamente conduttivo

### Nowatorskie zalety

- Łatwe łączenie bez obróbki profilu
- Lekkie wkręcanie dzięki samogwintującej śrubie łączącej z gwintem „FM-Spezial”
- Dokładne i automatyczne centrowanie
- Szybki montaż dzięki wstępnie zmontowanemu zespołowi
- Połączenie przewodzące



### Ausführung

- A** Zinkdruckguß  
Zugfestigkeit ca. 300N/mm<sup>2</sup>
- B** RAL 9006

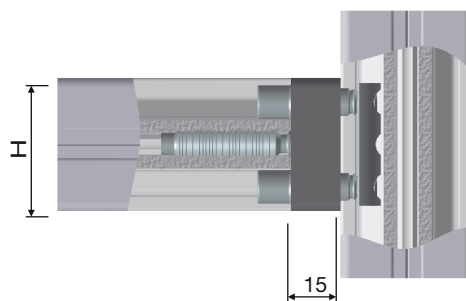
### Matières

- A** Zinco pressofuso  
Resistenza alla trazione ca. 300N/mm<sup>2</sup>
- B** RAL 9006

### Wersja

- A** Cynkowy odlew ciśnieniowy  
Wytrzymałość na rozciąganie ok. 300 N/mm<sup>2</sup>
- B** RAL 9006

H	① Nm	② Nm
40	25	22
45	35	26
50	35	26



Technische Änderungen vorbehalten

# PLATTENVERBINDER




## GIUNTI A T

## ŁĄCZNIK PŁYTOWY

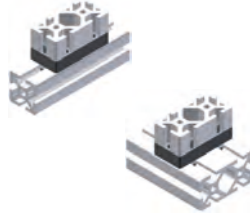






### 40x40



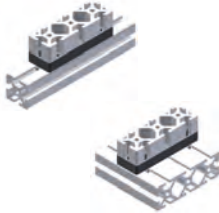
-  **A** 05.01760.00
-  **B** 05.01760.20
-  **Eine Nut offen** 05.01761.00





### 40x80



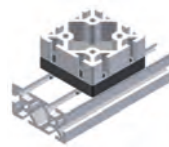
-  **A** 05.01762.00
-  **B** 05.01762.20
-  **A** 05.01762.02
-  **B** 05.01762.22



### 40x120



-  **A** 05.01689.00
-  **B** 05.01689.20
-  **A** 05.01689.02
-  **B** 05.01689.22




### 80x80



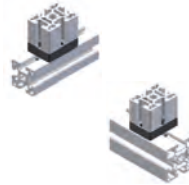
-  **A** 05.01764.00
-  **B** 05.01764.20





### 45x45



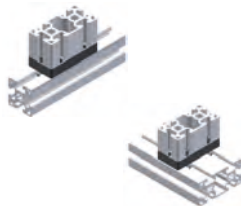
-  **A** 05.01766.00
-  **B** 05.01766.20
-  **Eine Nut offen** 05.01767.00





### 45x60



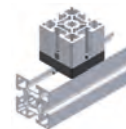
-  **A** 05.01699.00
-  **B** 05.01699.20
-  **A** 05.01768.00
-  **B** 05.01768.20



### 45x90



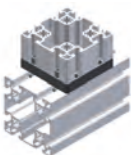
-  **A** 05.01769.00
-  **B** 05.01769.20
-  **A** 05.01769.02
-  **B** 05.01769.22


### 60x60



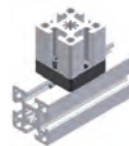
-  **A** 05.01770.00
-  **B** 05.01770.20



### 90x90



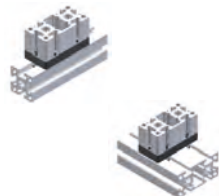
-  **A** 05.01772.00





### 50x50



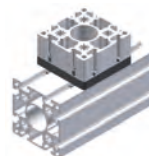
-  **A** 05.01680.00
-  **B** 05.01680.20

### 50x100

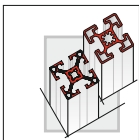


-  **A** 05.01682.00
-  **B** 05.01682.20
-  **A** 05.01682.02
-  **B** 05.01682.22

### 100x100



-  **A** 05.01683.00
-  **B** 05.01683.20

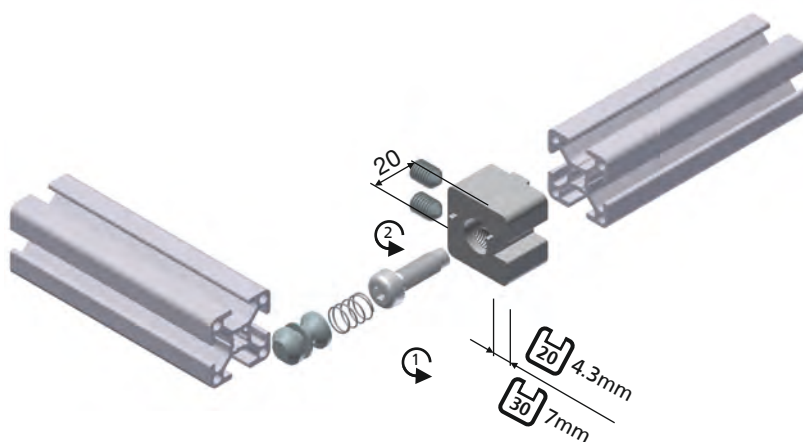


## END-VERBINDER

### GIUNTO D'ESTREMITA - TIPO END ŁĄCZNIK KOŃCOWY



END



Bestehend aus:  
Grundkörper GD-Zn  
FM-Schraube St, vz.  
Feder  
Gewindestift  
Bolzen

Comprendente:  
Grani GD-Zn  
Vite FM St, galv.  
Molla  
Grano  
Bullone guida

Elementy składowe:  
Korpus GD-Zn  
Śruba FM  
Sprężyna Ac, zing.  
Wkręt bez łba  
Sworzeń

#### Innovative Vorteile

- Einfaches verbinden
- Ohne Profilbearbeitung
- Leichtes eindrehen durch selbstfurchende Schraube
- Aufnahme von Flächenelementen

#### Vantaggi innovativi

- Facile fissaggio
- No lavorazione sul profilo
- Facile avvitamento con vite di connessione autofilettante
- Adattamento ad elementi a pannello

#### Nowatorskie zalety

- Łatwe łączenie
- Bez obróbki profilu
- Łatwe wkręcanie dzięki samogwintującej śrubie
- Mocowanie elementów powierzchniowych

#### Ausführung

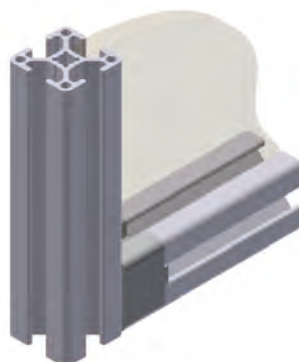
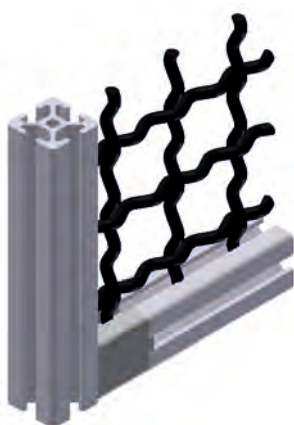
- A** GD-Zn, natur
- B** GD-Zn, RAL 9006

#### Materiali

- A** Zinco pressofuso (GD-Zn), naturale
- B** Zinco pressofuso (GD-Zn), RAL 9006

#### Wersja

- A** GD-Zn, naturalny
- B** GD-Zn, RAL 9006



**20** **5** **A** 05.01640.00  
**B** 05.01642.00

1 15 Nm

2 15 Nm

**30** **8E** **A** 05.01641.00  
**B** 05.01643.00

1 25 Nm

2 18 Nm

Technische Änderungen vorbehalten

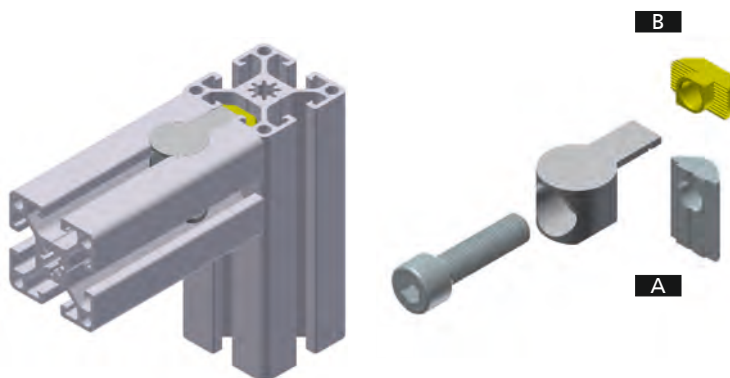
# UNI-VERBINDER

## GIUNTO - TIPO UNI

### ŁĄCZNIK UNIWERSALNY



UNI



Bestehend aus:  
 UNI-Verbinderstück GD-Zn  
 ISO-Schraube St, vz.  
 Hammermutter oder  
 Nutenstein

Comprendente:  
 Connettore UNI GD-Zn  
 Vite ISO St, galv.  
 Bulloni a martello  
 o blocco

Elementy składowe:  
 Łącznik UNI GD-Zn  
 Śruba ISO Ac, zing.  
 Nakrętka młotkowa lub wpust  
 przesuwny

3

#### Innovative Vorteile

- Für alle Profilmuten einsetzbar
- Nachträglicher Einbau
- Verdrehgesicherte Verbindung
- Leitfähige Verbindung durch Riefen an der Hammermutter
- Universell einsetzbar, da kombinierbar mit allen Nuten

#### Vantaggi innovativi

- Disponibile per tutte le cave
- Montabile a posteriori
- Sistema antirotazione del profilo
- Elettricamente conduttivo
- Compatibile con tutti i profili e tutte le scanalature

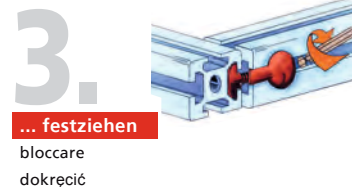
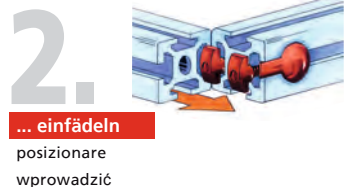
#### Nowatorskie zalety

- Możliwość zastosowania do wszystkich rowków profili
- Późniejszy dodatkowy montaż
- Połączenie zabezpieczone przed przekręceniem
- Połączenie przewodzące dzięki rowkom na nakrętce młotkowej

Verbinder sollten **PAARWEISE** eingesetzt werden

Resistenza ottimale ottenibile utilizzandoli in **COPPIA**

Łączniki powinny być używane **PARAMI**



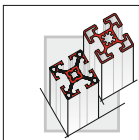
H	D <sub>b</sub>	d <sub>b</sub>	a	t <sub>b</sub>	Nm
20 5	Ø12	Ø4,3	10	8,5	5
30 8E	Ø16	Ø5,5	15	12,7	15
40 8	Ø20	Ø7	20	16	25
45 10	Ø20	Ø7	20	16	30
50 10	Ø20	Ø7	20	16	30

20 5	A	05.01608.00
30 8E	A	05.01609.00
	B	05.01609.50
40 8	A	05.01610.00
	B	05.01610.50
45 10	A	05.01644.00
50 10	B	05.01644.50

➔ ■ 14.01



Technische Änderungen vorbehalten



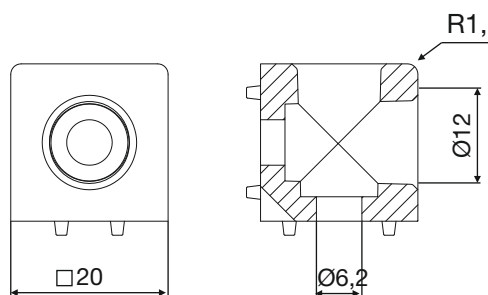
# WÜRFELVERBINDER CONNETTORE CUBICO ŁĄCZNIK KOSTKOWY



- Für verdrehgesicherte Eckverbindungen
- Keine Endenbearbeitung
- Leichtes Eindrehen durch selbstfurchende Verbinderschraube mit "FM-Spezial"-Gewinde
- Per raccordo ad angolo antirotazione
- No lavorazione sul profilo
- Facile fissaggio con vite autofilettante "FM-Spezial"
- Do połączeń narożnych zabezpieczonych przed przekręceniem
- Brak obróbki końców
- Lekkie wkręcanie dzięki samogwintującej śrubie łączącej z gwintem „FM-Spezial”

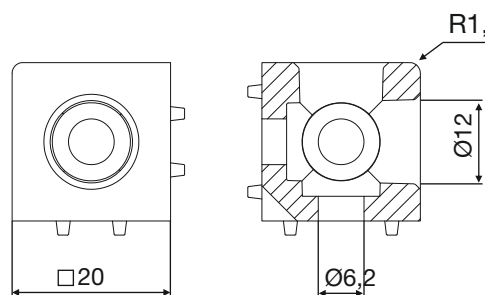


**20-90°/2**



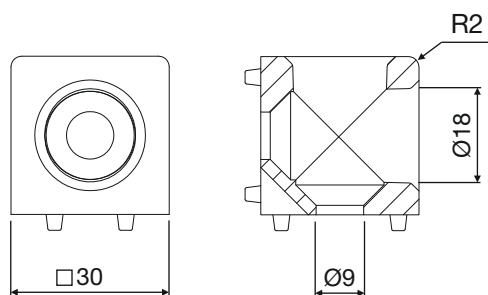
	GD-AI	RAL 9006
	05.02276.00	05.02276.20
	05.02276.05	05.02276.25

**20-90°/3**



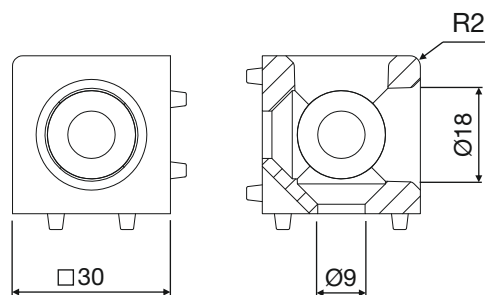
	GD-AI	RAL 9006
	05.02277.00	05.02277.20
	05.02277.05	05.02277.25

**30-90°/2**



	GD-AI	RAL 9006
	05.02203.00	05.02203.20
	05.02203.05	05.02203.25

**30-90°/3**



	GD-AI	RAL 9006
	05.02204.00	05.02204.20
	05.02204.05	05.02204.25

Technische Änderungen vorbehalten

# WÜRFELVERBINDER CONNETTORE CUBICO ŁĄCZNIK KOSTKOWY



**40-90°/2** 8

GD-AI RAL 9006

+	05.02205.00	05.02205.20
+  +	05.02205.05	05.02205.25

**40-90°/3** 8

GD-AI RAL 9006

+	05.02206.00	05.02206.20
+  +	05.02206.05	05.02206.25

**45-90°/2** 10

GD-AI RAL 9006

+	05.02209.00	05.02209.20
+  +	05.02209.05	05.02209.25

**45-90°/3** 10

GD-AI RAL 9006

+	05.02210.00	05.02210.20
+  +	05.02210.05	05.02210.25

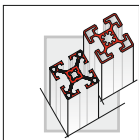
**50-90°/3** 10

GD-AI RAL 9006

+  +	05.02212.05	05.02212.25
------	-------------	-------------

3

Technische Änderungen vorbehalten



# ECKWINKEL 20, 30, 40, 45

GIUNTO ANGOLARE A 3 VIE 20, 30, 40, 45

KAŁOWNIK NAROŻNY 20,30,40,45



**A** GD-Zn

PA6

+

+

M 5x16  
 SF 8x40  
 SF 12x40

**B** GD-Zn

PA6

+

+

M 5x16  
 SF 8x40  
 SF 12x40

**C** GD-Zn

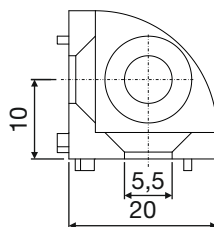
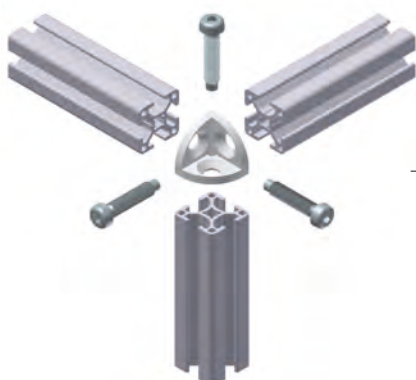
PA6

+

+

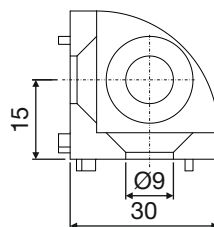
SF 8x40  
 SF 12x40

**20**    **30**



**A**    05.02080.00

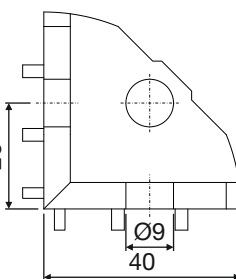
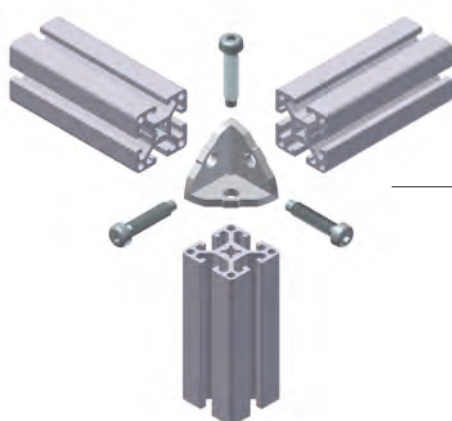
**B**    05.02080.10



**A**    05.02146.00

**B**    05.02146.10

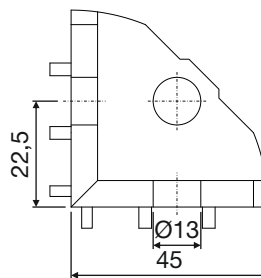
**40**    **45**



**A**    05.02147.00

**B**    05.02147.10

**C**    05.02147.20



**A**    05.02124.00

**B**    05.02124.10

Technische Änderungen vorbehalten

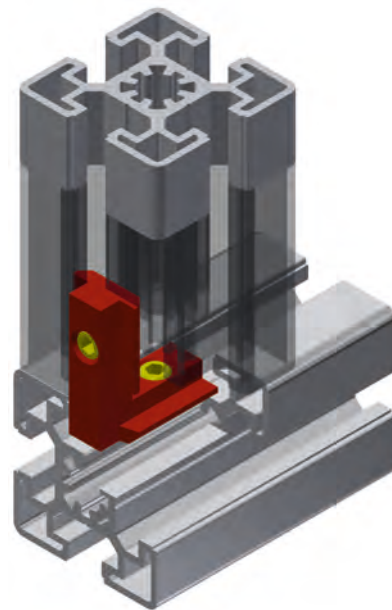
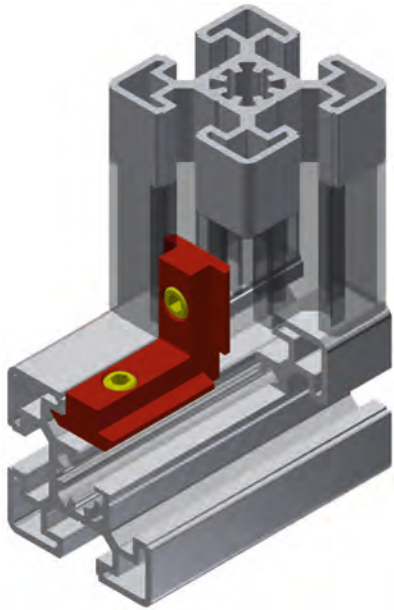


# INNENWINKEL ANGOLARE KĄTOWNIKI

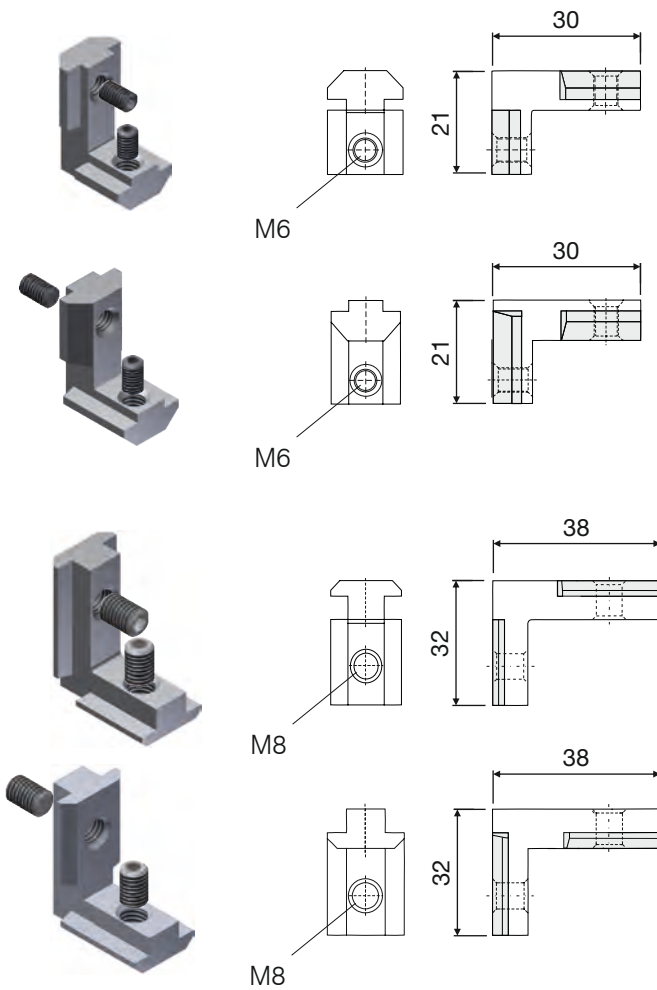


Typ **A**

Typ **M**



3



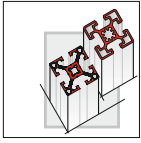
**A** 40 8 05.02389.00

**M** 40 8 05.02388.00

**A** 45 10 05.02391.00

**M** 45 10 05.02390.00

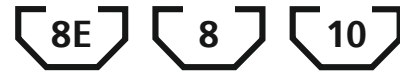
Technische Änderungen vorbehalten



# FM-SCHRAUBEN

## VITI - FM

## ŚRUBY FM



### Innovative Vorteile

- Kein Gewinde schneiden
- Selbstfurchende Gewindeform
- Hohe Verbindungsfestigkeit
- Perfektes Handling durch tiefen Innensechskant
- Hohe Sicherung durch starke Sperrverzahnung am Schraubenkopf
- Elektrisch leitfähig

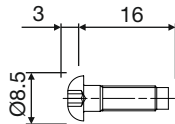
### Vantaggi innovativi

- No filettatura (filettatura superflua)
- Facile fissaggio autofilettante
- Bloccaggio impeccabile
- Profondo esagono per una perfetta avvitatura
- Forte dentatura di blocco sulla testa della vite per un'alta sicurezza
- Elettricamente conduttivo

### Nowatorskie zalety

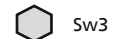
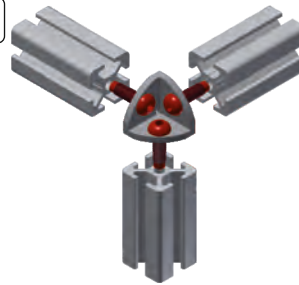
- Bez gwintowania
- Samogwintujący kształt gwintu
- Wysoka wytrzymałość połączenia
- Perfekcyjne manipulowanie dzięki głę bokiemu gniazdu sześciokątnemu
- Wysoki poziom zabezpieczenia dzięki mocnemu zazębieniu blokującemu na główce śruby
- Przewodzący elektrycznie

## SF 5x16



Anwendung

**END**

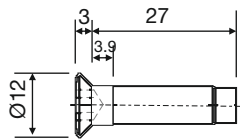


15 Nm

Festigkeitsklasse 8.8  
Strength class 8.8  
Classification de résistance 8.8

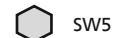
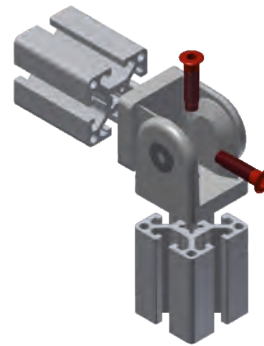
05.01126.00

## Senkschb. SF 7,1x30



Anwendung

**Gelenk**

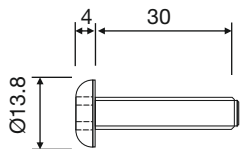


25 Nm

Festigkeitsklasse 8.8  
Strength class 8.8  
Classification de résistance 8.8

05.01538.00

## Flachkopfschb. SF 7,4x30

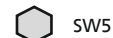
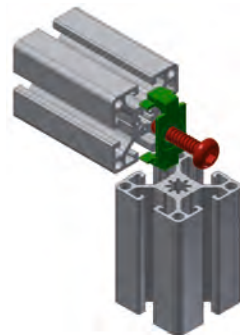


Anwendung

**VSI**

**PV**

**Gelenk**



25 Nm

Festigkeitsklasse 8.8  
Strength class 8.8  
Classification de résistance 8.8

05.01125.50

# FM-SCHRAUBEN

## VITI - FM ŚRUBY FM



### Innovative Vorteile

- Kein Gewinde schneiden
- Selbstfurchende Gewindeform
- Hohe Verbindungsfestigkeit
- Perfektes Handling durch tiefen Innensechskant
- Hohe Sicherung durch starke Sperrverzahnung am Schraubenkopf
- Elektrisch leitfähig

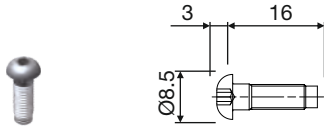
### Vantaggi innovativi

- No filettatura (filettatura superflua)
- Facile fissaggio autofilettante
- Bloccaggio impeccabile
- Profondo esagono per una perfetta avvitatura
- Forte dentatura di blocco sulla testa della vite per un'alta sicurezza
- Elettricamente conduttivo

### Nowatorskie zalety

- Bez gwintowania
- Samogwintujący kształt gwintu
- Wysoka wytrzymałość połączenia
- Perfekcyjne manipulowanie dzięki głębokiemu gniazdu sześciokątnemu
- Wysoki poziom zabezpieczenia dzięki mocnemu ząbieniu blokującemu na główce śruby

### SF 5x16



Anwendung

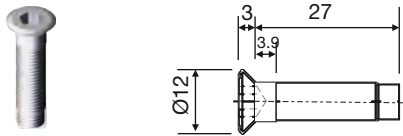
**END**



- Sw3
- 15 Nm
- Festigkeitsklasse 8.8
- Classe di resistenza 8.8
- Klasa wytrzymałości 8.8

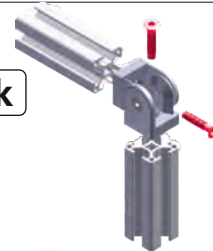
05.01126.00

### Senkschb. SF 7,1x30



Anwendung

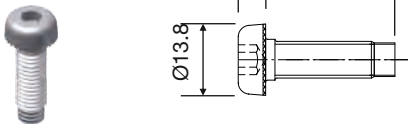
**Gelenk**



- SW5
- 25 Nm
- Festigkeitsklasse 8.8
- Classe di resistenza 8.8
- Klasa wytrzymałości 8.8

05.01538.00

### SF 8x25

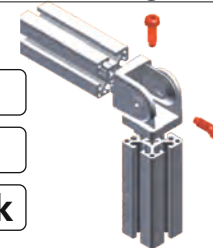


Anwendung

**VSI**

**PV**

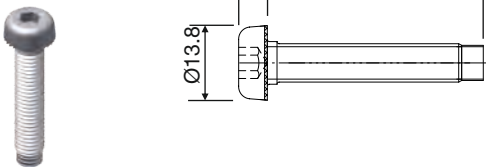
**Gelenk**



- SW5
- 25 Nm
- Festigkeitsklasse 8.8
- Classe di resistenza 8.8
- Klasa wytrzymałości 8.8

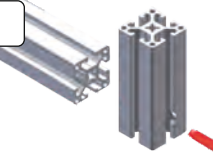
05.01124.00

### SF 8x40



Anwendung

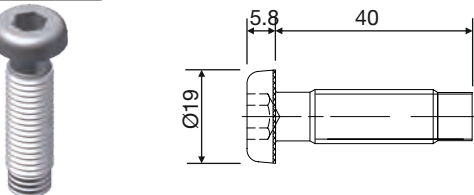
**VSA**



- SW5
- 25 Nm
- Festigkeitsklasse 8.8
- Classe di resistenza 8.8
- Klasa wytrzymałości 8.8

05.01125.00

### SF 12x40



Anwendung

**PV**

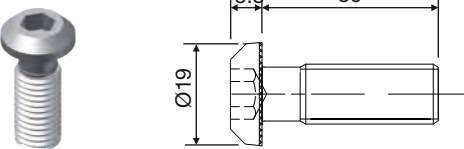
**VSI**



- Sw8
- 35 Nm
- Festigkeitsklasse 8.8
- Classe di resistenza 8.8
- Klasa wytrzymałości 8.8

05.01127.00

### M12x30\*



Anwendung

**VSI**

\*M12

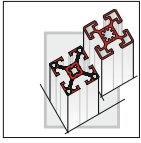


- Sw8
- 40 Nm
- Festigkeitsklasse 8.8
- Classe di resistenza 8.8
- Klasa wytrzymałości 8.8

05.01083.00

Technische Änderungen vorbehalten

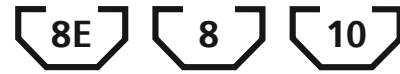
3



# GEHRUNGSVERBINDER

## GIUNTO AD ANGOLO

### ŁĄCZNIK UKOŚNY



#### Innovative Vorteile

- Gehrungsverbindung von Profilen, die unter 30° bzw. 45° gesägt sind
- Vibrationsfreie Verbindung durch Spezialschrauben

#### Vantaggi innovativi

- Assemblaggio ad angolo di 30° o 45°
- Speciali viti per collegamenti antivibrazione

#### Nowatorskie zalety

- Ukośne łączenie profili, które zostały przecięte pod kątem 30° lub 45°
- Połączenie wolne od drgań dzięki specjalnym śrubom

#### Ausführung

Stahlblech, verzinkt

#### Versione

Placche di acciaio, zincato

#### Wersja

Blacha stalowa, ocynkowana

#### Anwendungsbeispiele

Applicazioni • Przykłady zastosowań



**GEV-8**

8E  
8

6 Nm  
05.01290.00

**GEV-10**

8E  
8

10 Nm  
05.01291.00

**GEV-8-45°**

8E  
8

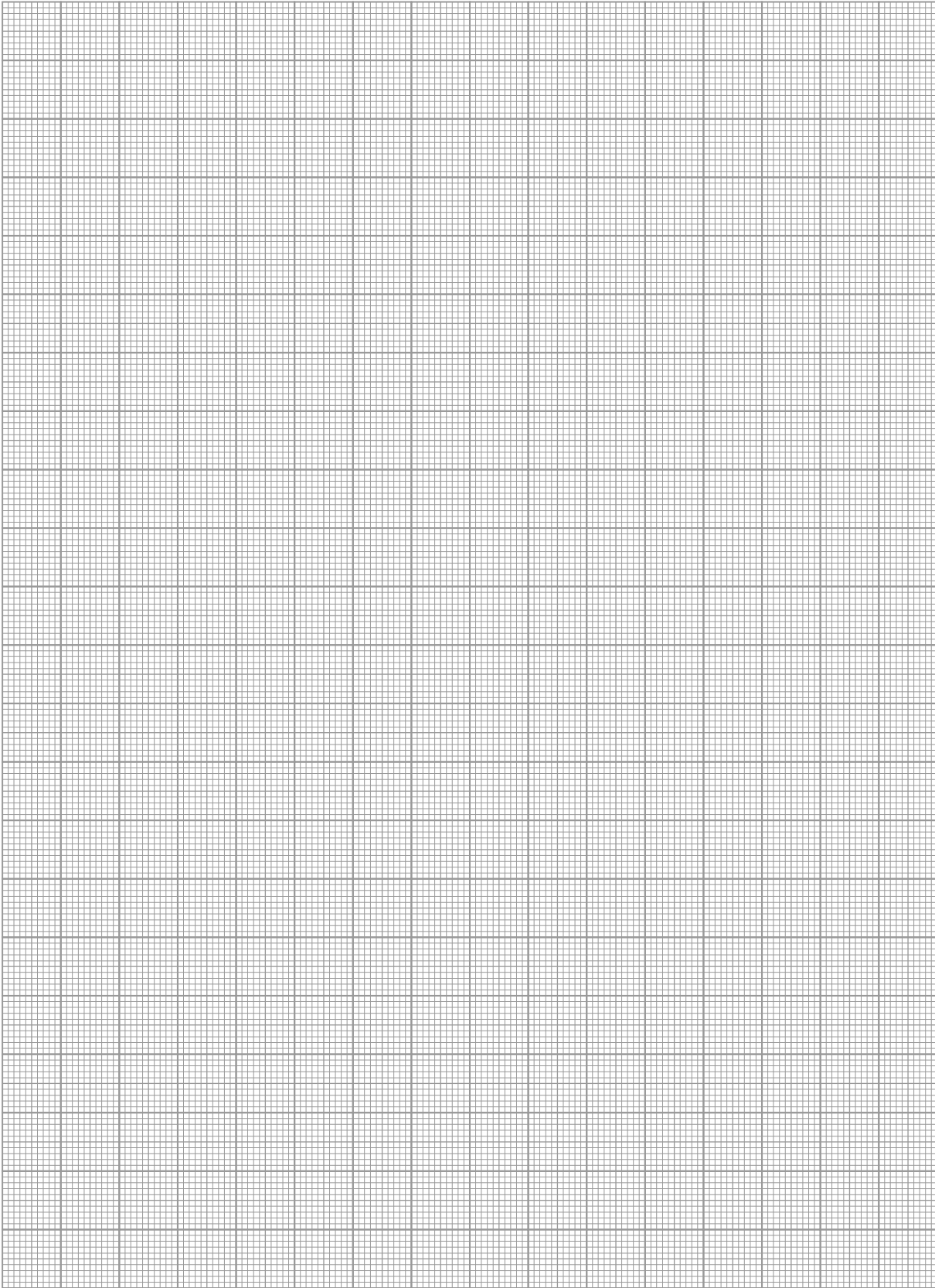
6 Nm  
05.01253.00

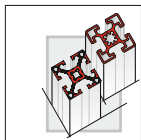
**GEV-10-45°**

8E  
8

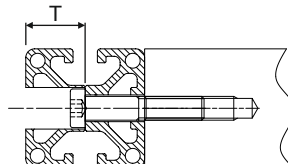
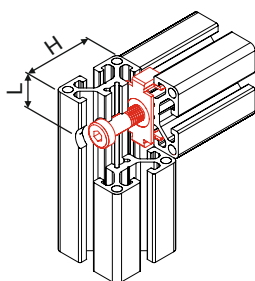
10 Nm  
05.01254.00

Technische Änderungen vorbehalten






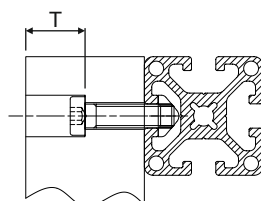
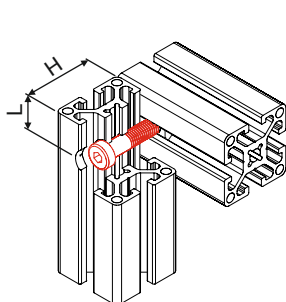





**VERBINDERSCHRAUBE AUßEN**  
**VITTI DI COLLEGAMENTO ESTERNE**  
**ŚRUBA ŁĄCZĄCA ZEWNĘTRZNA**



Verdrehsicherung  
 Dispositivo antirotazione  
 Zabezpieczenie przed przekręceniem

	H	T	L		DIN 7984		DIN 7984
<b>VSA 10</b>  Ø10 — Ø5.5	<b>5</b>	20x20	6.5	10	M 5 x 25	05.01497.00	05.02279.00
		40x40	6.5	10	M 5 x 50	05.01618.00	05.01560.00
<b>VSA 14</b>  Ø14 — Ø9	<b>8E</b>	30x30	10	15	M 8 x 40	05.01505.00	05.01137.00
	<b>8</b>	40x40	12,5	20	M 8 x 50	05.01620.00	05.01561.00
		80x80	52,5	20	M 8 x 50	05.01620.00	05.01561.00
<b>VSA 20</b>  Ø20 — Ø13	<b>10</b>	45x45	13.5	22.5	M12 x 60	05.01508.00	ISO 4762 05.01562.00
		60x60	13.5	30	M12 x 80	05.01619.00	ISO 4762
		90x90	58.5	22.5	M12 x110	05.01509.00	ISO 4762 05.01368.00



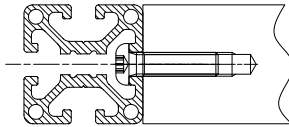
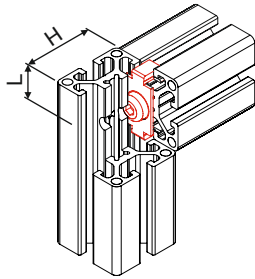
	H	T	L		DIN 7984		
<b>VSA 10</b>  Ø10 — Ø5.5	<b>5</b>	20x20	6.5	10	M 5 x 20	05.01496.00	05.01656.00
		40x40	6.5	10	M 5 x 40	05.01392.00	05.01656.00
<b>VSA 14</b>  Ø14 — Ø9	<b>8E</b>	30x30	10	15	M 8 x 25	05.01503.00	05.01870.00
	<b>8</b>	40x40	12,5	20	M 8 x 30	05.01504.00	05.01652.00
		80x80	52,5	20	M 8 x 30	05.01504.00	05.01652.00
<b>VSA 14</b>  Ø14 — Ø9	<b>10</b>	45x45	13,5	22.5	M 8 x 30	05.01504.00	05.01064.00 05.01107.00
		60x60	13.5	30	M 8 x 55	05.01649.00	05.01064.00 05.01107.00
		90x90	58.5	22.5	M 8 x 40	05.01505.00	05.01064.00 05.01107.00

Technische Änderungen vorbehalten

# VERBINDERSCHRAUBE INNEN

## VITTI DI COLLEGAMENTO INTERNE

### ŚRUBA ŁĄCZĄCA WEWNĘTRZNA



Verdrehsicherung  
Dispositivo antirotazione  
Zabezpieczenie przed przekreśnieniem



Gd-Zn



St. verz.



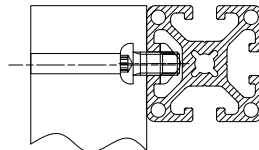
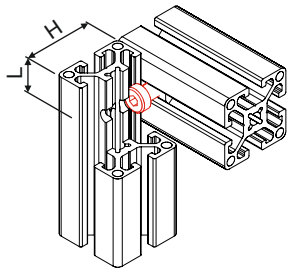
SF  
FM-Schraube



ISO 7380

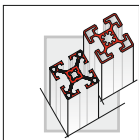
	H									
<b>VSI Ø4.3</b>		5	A	20x20	<del>XXXX</del>	SF 5 x 16	05.01362.00		M 5x 16	05.01365.00
			B	20x20	<del>XXXX</del>	SF 5 x 16	05.02201.10		M 5x 16	05.02201.20
<b>VSI Ø7</b>		8E		30x30	<del>XXXX</del>				M 8x 25	05.01136.00
			A	40x40	<del>XXXX</del>	* SF 8 x 25	05.01363.00		M 8x 25	05.01366.00
			B	40x40	<del>XXXX</del>	* SF 8 x 25	05.02202.10		M 8x 25	05.02202.20
<b>VSI Ø9.5</b>		10		45x45	<del>XXXX</del>	SF12 x 40	05.01364.00		M12x 30	05.01367.00
				90x90	<del>XXXX</del>	SF12 x 40	05.01364.00		M12x 30	05.01367.00

\* Nicht für 40x40EL, 40x80EL, 80x80EL geeignet



	H	L						
<b>VSI Ø4.3</b>		5	20x20	10	M 5 x 8	05.01400.00	05.01656.00	
			40x40	10	M 5 x 8	05.01400.00	05.01656.00	
<b>VSI Ø7</b>		8E	30x30	15	M 8 x 12	05.01419.00	05.01870.00	
			40x40	20	M 8 x 16	05.01412.00	05.01652.00	
			80x80	20	M 8 x 16	05.01412.00	05.01652.00	
<b>VSI Ø9.5</b>		10	45x45	22.5	M 8 x 16	05.01412.00	05.01064.00	05.01107.00
			60x60	30	M 8 x 16	05.01412.00	05.01064.00	05.01107.00
			90x90	22.5	M 8 x 16	05.01412.00	05.01064.00	05.01107.00

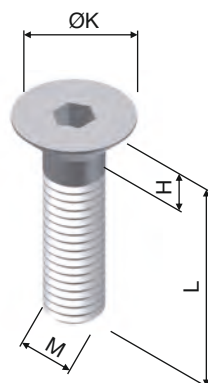
Technische Änderungen vorbehalten



# DIN / ISO-SCHRAUBEN

## VITE-DIN / ISO

### ŚRUBY DIN / ISO

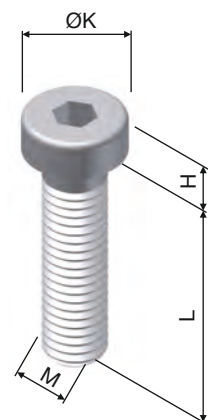


- SW3 - M5 St, vz. - Festigkeitsklasse 8.8
- SW4 - M6 Acciaio, zincato - Classe di resistenza 8.8
- SW5 - M8 Stal, ocynkowana - klasa wytrzymałości 8.8

#### ISO 10642 (DIN 7991)

M x L	ØK	H	
M5 x 8	9.5	2.75	05.02357.00
M5 x 10	9.5	2.75	05.02358.00
M5 x 12	9.5	2.75	05.02359.00

M x L	ØK	H	
M5 x 16	9.5	2.75	05.02342.00
M5 x 20	9.5	2.75	05.02343.00
M5 x 25	9.5	2.75	05.02344.00
M6 x 12	10.5	3.3	05.02345.00
M6 x 16	10.5	3.3	05.01758.00
M6 x 20	10.5	3.3	05.02346.00
M6 x 25	10.5	3.3	05.02347.00
M6 x 30	10.5	3.3	05.02348.00
M8 x 14	14	4.4	05.02349.00
M8 x 16	14	4.4	05.02350.00
M8 x 20	14	4.4	05.02351.00
M8 x 25	14	4.4	05.02352.00
M8 x 30	14	4.4	05.02353.00
M8 x 40	14	4.4	05.02354.00
M8 x 60	14	4.4	05.02355.00
M8 x 80	14	4.4	05.02356.00



- SW3 - M5 St, vz. - Festigkeitsklasse 8.8
- SW4 - M6 Acciaio, zincato - Classe di resistenza 8.8
- SW5 - M8 Stal, ocynkowana - klasa wytrzymałości 8.8

#### DIN 7984

M x L	ØK	H	
M5 x 10	8.5	3.5	05.01494.00
M5 x 16	8.5	3.5	05.01495.00
M5 x 20	8.5	3.5	05.01496.00

M x L	ØK	H	
M5 x 25	8.5	3.5	05.01497.00
M6 x 40	10	4	05.01523.00
M8 x 16	13	5	05.01500.00
M8 x 20	13	5	05.01502.00
M8 x 25	13	5	05.01503.00
M8 x 30	13	5	05.01504.00
M8 x 40	13	5	05.01505.00
M8 x 50	13	5	05.01620.00
M8 x 55	13	5	05.01649.00
M8 x 60	13	5	05.01506.00
M8 x 80	13	5	05.01507.00
M12x 60	18	12	ISO 4762 05.01508.00
M12x 80	18	12	ISO 4762 05.01619.00
M12x110	18	12	ISO 4762 05.01509.00
M16x100	24	16	ISO 4762 05.01621.00

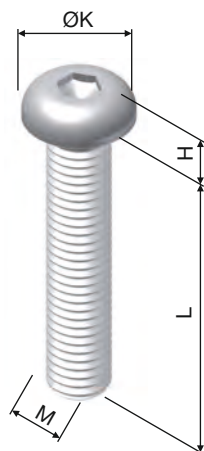
Technische Änderungen vorbehalten



# ISO-SCHRAUBEN

## VITI-ISO

### ŚRUBY ISO

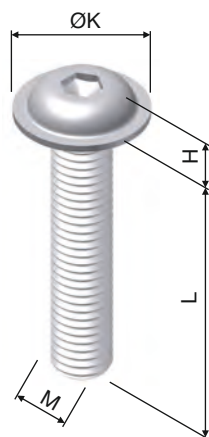


- SW3 - M5 St, vz. - Festigkeitsklasse 10.9
- SW4 - M6 Acciaio, zincato - Classe di resistenza 10.9
- SW5 - M8 Stal, ocynkowana - klasa wytrzymałości 10.9

#### ISO 7380

M x L	ØK	H	
M5 x 8	9.5	2.75	05.01400.00
M5 x 10	9.5	2.75	05.01401.00
M5 x 12	9.5	2.75	05.01402.00

M x L	ØK	H	
M5 x 16	9.5	2.75	05.01403.00
M5 x 20	9.5	2.75	05.01404.00
M5 x 25	9.5	2.75	05.01405.00
M6 x 12	10.5	3.3	05.01406.00
M6 x 16	10.5	3.3	05.01407.00
M6 x 20	10.5	3.3	05.01408.00
M6 x 25	10.5	3.3	05.01409.00
M6 x 30	10.5	3.3	05.01410.00
M8 x 14	14	4.4	05.01411.00
M8 x 16	14	4.4	05.01412.00
M8 x 20	14	4.4	05.01413.00
M8 x 25	14	4.4	05.01414.00
M8 x 30	14	4.4	05.01415.00
M8 x 40	14	4.4	05.01081.00
M8 x 60	14	4.4	05.01417.00
M8 x 80	14	4.4	05.01418.00

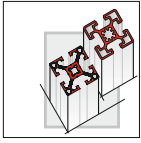


- SW3 - M5 St, vz. - Festigkeitsklasse 10.9
- SW4 - M6 Acciaio, zincato - Classe di resistenza 10.9
- SW5 - M8 Stal, ocynkowana - klasa wytrzymałości 10.9

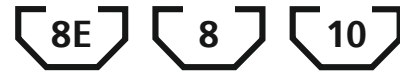
#### ähnlich ISO 7380

M x L	ØK	H	
M5 x 8	11.1	2.7	05.01425.00
M5 x 10	11.1	2.7	05.01426.00
M5 x 12	11.1	2.7	05.01427.00


M x L	ØK	H	
M5 x 16	11.1	2.7	05.01428.00
M5 x 20	11.1	2.7	05.01429.00
M5 x 25	11.1	2.7	05.01430.00
M6 x 12	13.3	3.2	05.01431.00
M6 x 16	13.3	3.2	05.01432.00
M6 x 20	13.3	3.2	05.01433.00
M6 x 25	13.3	3.2	05.01434.00
M6 x 30	13.3	3.2	05.01435.00
M8 x 14	17.8	4.3	05.01436.00
M8 x 16	17.8	4.3	05.01437.00
M8 x 20	17.8	4.3	05.01438.00
M8 x 25	17.8	4.3	05.01439.00
M8 x 30	17.8	4.3	05.01082.00
M8 x 40	17.8	4.3	05.01441.00
M8 x 60	17.8	4.3	05.01442.00
M8 x 80	17.8	4.3	05.01443.00



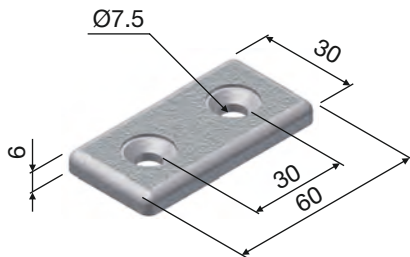
# VERBINDERLASCHEN PIASTRE COLLEGAMENTO WYPUSTKI ŁĄCZĄCE



**Erforderliche Verbinder:**  
**Connettori raccomandati:**  
**Wymagane łączniki:**

- A** Hammerschraube M8x15  05.01050.00
- B** Hammerschraube M8x20  05.01051.00
- C** ISO 10642 M6x12  05.02345.00
- D** ISO 10642 M6x16  05.01758.00
- E** ISO 10642 M8x16  05.02350.00
- F** FM-Schraube Sf8x25  05.01124.00

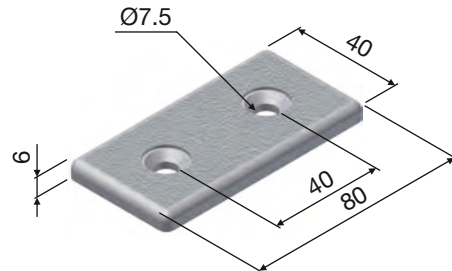
**30x60x6**



GD-Zn

**C D** 05.02073.00

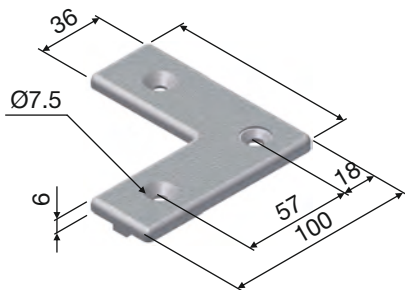
**40x80x6**



GD-Zn

**C D** 05.02033.00

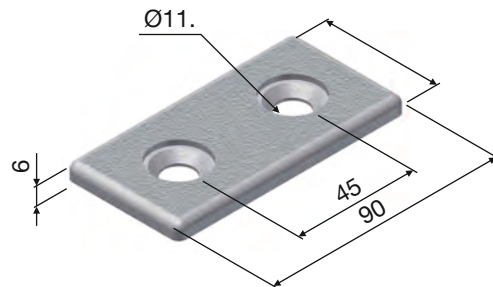
**SZ-Winkel 100x100x6**



GD-Zn

**D B** 05.02032.00

**45x90x6**





GD-Zn

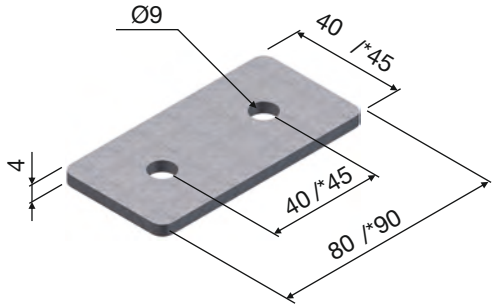
**E B** 05.02074.00

Technische Änderungen vorbehalten

# VERBINDERLASCHEN PIASTRE COLLEGAMENTO WYPUSTKI ŁĄCZĄCE





**40x80x4** **45x90x4**  

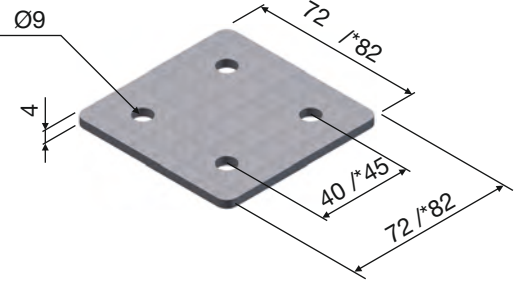


St, vz 4 mm

<b>40x80x4</b>	<b>B</b>	05.01570.00
<b>*45x90x4</b>	<b>B</b>	05.01571.00


**Knotenplatte 80, 90**  

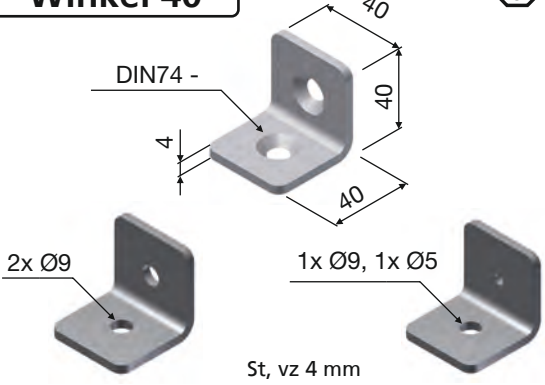
Pannelo 80,90 · Węzłówka 80,90



St, vz 4 mm

<b>80x80x4</b>	<b>B</b>	05.01568.00
<b>*90x90x4</b>	<b>B</b>	05.01569.00

**Winkel 40** 





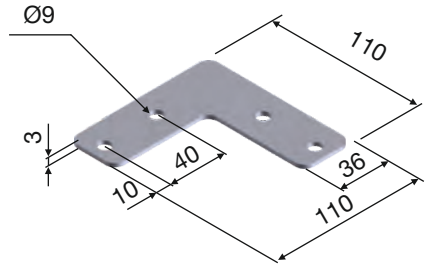
DIN74 -  
St, vz 4 mm

<b>E</b>	05.01572.00
----------	-------------

2x Ø9      1x Ø9, 1x Ø5



St, vz 4 mm	<b>A</b>	<b>A</b>	St, vz 4 mm
05.01809.00			05.01808.00

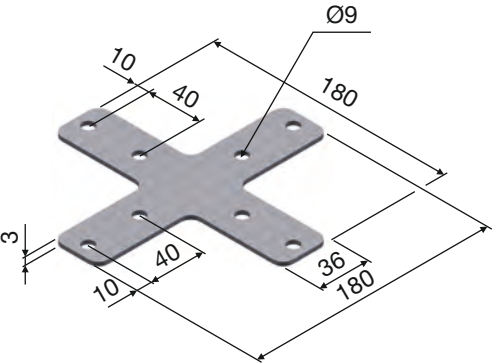
**Winkelplatte 90°**  



St, vz 3 mm



<b>B</b>	05.01160.00
----------	-------------

**Kreuzplatte**  

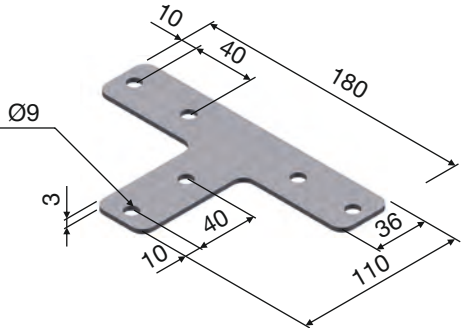


St, vz 3 mm

<b>B</b>	05.01162.00
----------	-------------

**T-Platte**  

T-panello · Plyta T

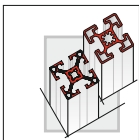


St, vz 3 mm

<b>B</b>	05.01161.00
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Technische Änderungen vorbehalten

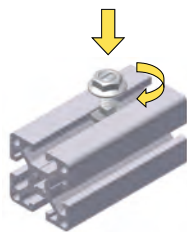




# HAMMERSCHRAUBE

## VITE TESTA A MARTELLO

### ŚRUBA Z ŁBEM MŁOTECZKOWYM



#### Innovative Vorteile

- Für nachträgliche Befestigungen in Alu-Profilen
- Für leichte bis mittlere Belastungen
- Leichte und schnelle Montage
- Kostengünstige Verbindung

#### Vantaggi innovativi

- Per un montaggio successivo sui profili di alluminio
- Per carichi leggeri-medi
- Montaggio facile e veloce
- Connettore economico

#### Nowatorskie zalety

- Do późniejszego mocowania w profilach aluminiowych
- Do małych i średnich obciążeń
- Łatwy i szybki montaż
- Niedrogie łączenie

#### Ausführung

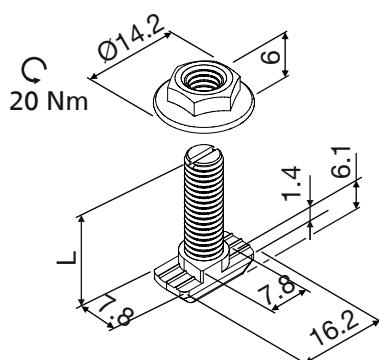
Stahl, verzinkt  
Festigkeitsklasse 8.8

#### Materiale

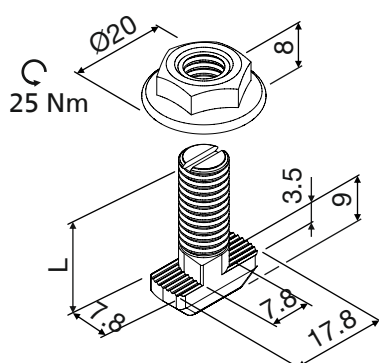
Acciaio, zincato  
Classe di resistenza 8.8

#### Wersja

Stal ocynkowana  
Klasa wytrzymałości 8.8



8E	8	M6x16	05.02140.00	VA
		M6x20	05.02141.00	05.02141.50
		M6x25	05.02142.00	05.02142.50



8	10	M8x15	05.01050.00	VA
		M8x20	05.01051.00	05.01051.50 *
		M8x25	05.01052.00	05.01052.50 *
		M8x30	05.01053.00	05.01053.50 *
		M8x40	05.01054.00	05.01054.50 *
		M8x50	05.01055.00	*Nur für Nut 10
		M8x60	05.01056.00	
		M8x80	05.01057.00	



#### Abdeckkappe für Flanschmutter M8 - PE

Copriado M8 - PE  
Zaślepka do nakrętki kołnierkowej M8-PE

05.01059.00

#### Flanschmutter M6 - St, vz.

Dado M6 - acciaio, zincato  
Nakrętka kołnierkowa M6 - stal, ocynk

05.02237.00

#### Flanschmutter M8 - St, vz.

Dado M8 - acciaio, zincato  
Nakrętka kołnierkowa M8 - stal, ocynk

05.02238.00

# HAMMERMUTTER

## DADO A MARTELLO

### NAKRĘTKA MŁOTKOWA



#### Innovative Vorteile

- Universell einsetzbarer Verbinder
- Einlegbar an beliebiger Stelle in Profilnut
- Geriffelte Oberfläche zum Durchbrechen der Eloxalschicht

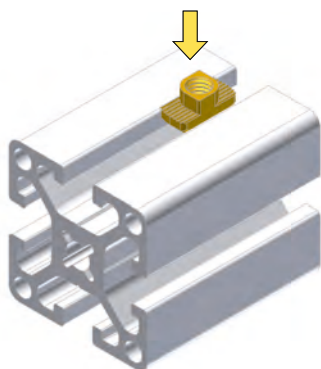
#### Vantaggi innovativi

- Elementi di giunzione universali
- Posizionabile in ogni punto della scanalatura del profilo
- anodizzazione distruggere

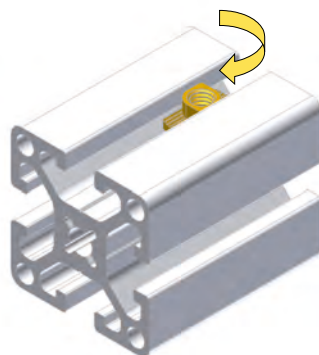
#### Nowatorskie zalety

- Łączniki uniwersalnego zastosowania
- Możliwość włożenia w dowolnym miejscu w rowku profilu
- Żłobkowana powierzchnia w celu przebicia powłoki anodowanej

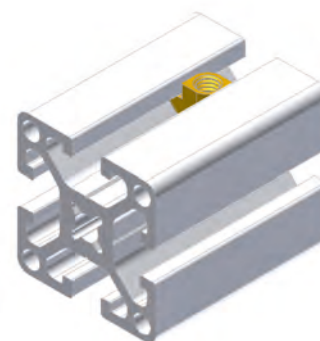
**1. ... einschieben**  
inserire  
wsunąć



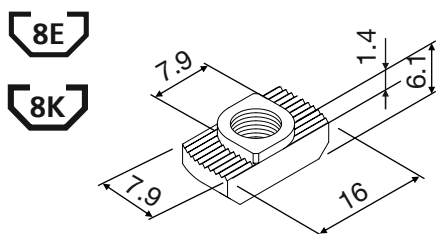
**2. ... verdrehen**  
ruotare  
przekręcić



**3. ... fertig!**  
fissare  
gotowe

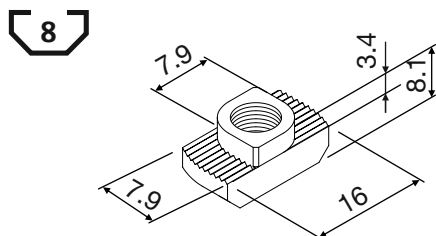


3



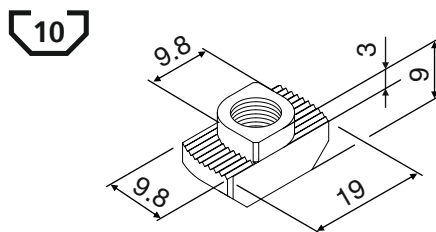
30

		St, vz	VA
M4	4 Nm	05.01102.00	
M5	6 Nm	05.01103.00	
M6	10 Nm	05.01104.00	05.01104.50



40

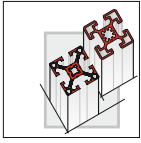
M4	4 Nm	05.01660.00
M5	6 Nm	05.01661.00
M6	10 Nm	05.01662.00



45

M4	4 Nm	05.01138.00	
M5	6 Nm	05.01105.00	
M6	10 Nm	05.01106.00	05.01106.50
M8	25 Nm	05.01107.00	05.01107.50

Technische Änderungen vorbehalten



# VERBINDER

## ELEMENTI DI COLLEGAMENTO

### ŁĄCZNIK



### Gewindeplättchen 5

- Für leichte Belastungen
- Stirnseitig in Profil einlegbar

**Ausführung: Stahl vergütet**  
M4 = blau verzinkt  
M5 = schwarz verzinkt

### Piastra filettata 5

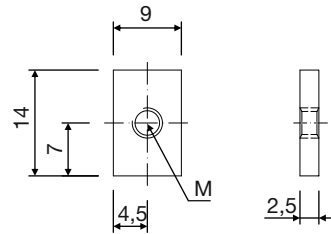
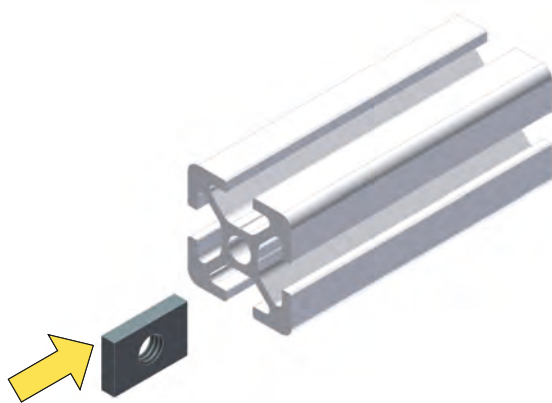
- Per carichi leggeri
- Inseribile nel lato anteriore del profilo

**Materiale: Acciaio zincato**  
M4 = blu zincato  
M5 = nero zincato

### Płytki gwintowane 5

- Do małych obciążeń
- Z możliwością włożenia do profilu od strony czoła

**Wersja: Stal ulepszana cieplnie**  
M4 = niebieska ocynkowana  
M5 = czarna ocynkowana



		St, vz.
	M4	3 Nm 05.01842.00
	M5	3 Nm 05.01843.00

### Einschiebemutter 5

- Für leichte Belastungen
- Stirnseitig in das Profil einlegbar

**Ausführung: Stahl vergütet**  
M4 = blau verzinkt  
M5 = schwarz verzinkt

### Insert nut 5

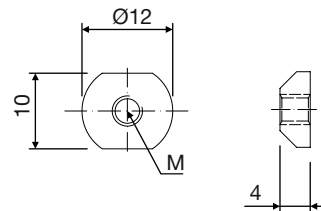
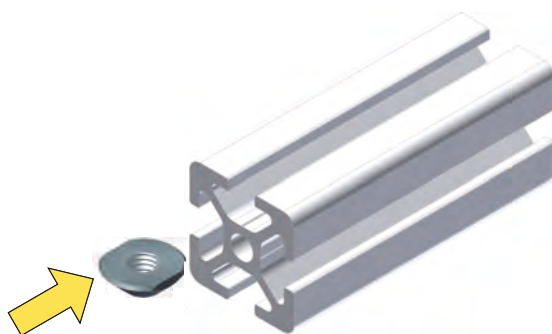
- Per carichi leggeri
- Inseribile nel lato anteriore del profilo

**Materiale: Acciaio zincato**  
M4 = blu zincato  
M5 = nero zincato

### Nakrętki wsuwane 5

- Do małych obciążeń
- Z możliwością włożenia do profilu od strony czoła

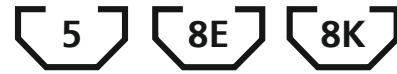
**Wersja: Stal ulepszana cieplnie**  
M4 = niebieska ocynkowana  
M5 = czarna ocynkowana



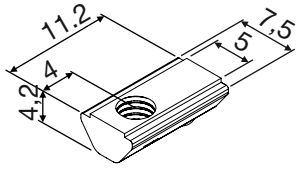
		St, vz.
	M4	3 Nm 05.01840.00
	M5	3 Nm 05.01841.00

Technische Änderungen vorbehalten

**NUTENSTEIN 20, 30**  
 CHIOCCIOLE SERIE PROFIL 20, 30  
 WPUST PRZESUWNY 20, 30

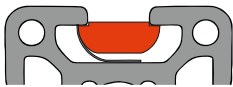
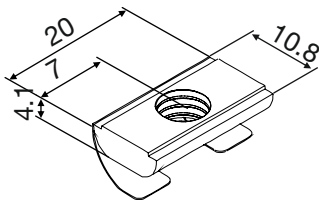


**Nutenstein halbrund**



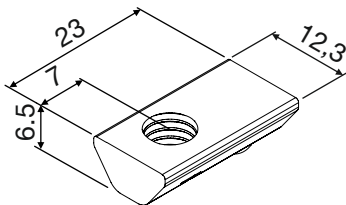
		St, vz
5	M4	3 Nm <input type="text" value="05.01655.00"/>
	M5	4,5 Nm <input type="text" value="05.01656.00"/>

**Nutenstein halbrund**



		St, vz
8K	M4	3 Nm <input type="text" value="05.02423.00"/>
	M5	6 Nm <input type="text" value="05.02424.00"/>
	M6	12 Nm <input type="text" value="05.02425.00"/>
	M8	23 Nm <input type="text" value="05.02426.00"/>

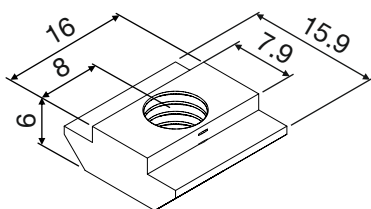
**Nutenstein halbrund**



		St, vz
8E	M5	6 Nm <input type="text" value="05.01872.00"/>
	M6	12 Nm <input type="text" value="05.01871.00"/>
	M8	23 Nm <input type="text" value="05.01870.00"/>

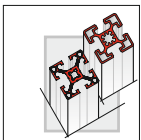
Nicht geeignet für Nut 8K

**Nutenstein T-Form**



		St, vz
8E	M4	4 Nm <input type="text" value="05.01472.10"/>
	M5	8 Nm <input type="text" value="05.01471.10"/>
	M6	10 Nm <input type="text" value="05.01470.10"/>
	M8	30 Nm <input type="text" value="05.01469.10"/>

Technische Änderungen vorbehalten



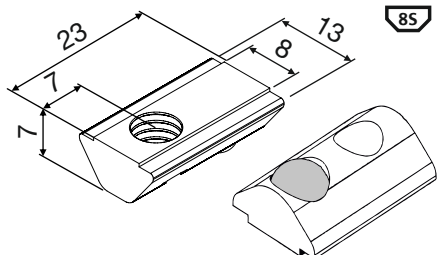
# NUTENSTEIN 40

## CHIOCCIOLA SERIE PROFILO 40

### WPUST PRZESUWNY 40

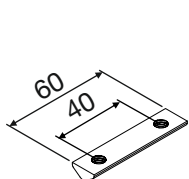


### Nutenstein halbrund

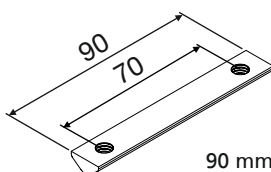


	St, vz	VA
M4	4 Nm 05.01063.00	
M5	8 Nm 05.01654.00	05.01654.50
M6	14 Nm 05.01653.00	05.01653.50
M8	25 Nm 05.01652.00	05.01652.50

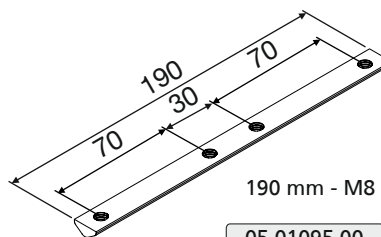
**8E** Nur stirnseitig einsetzbar  
Inseribile solo dal lato anteriore del profilo



60 mm - M8  
05.01093.00

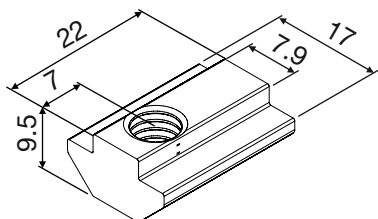


90 mm - M8  
05.01094.00

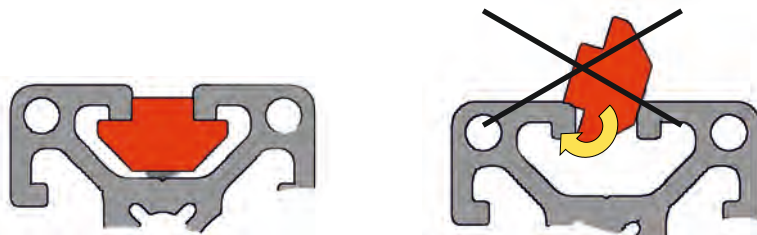


190 mm - M8  
05.01095.00

### Nutenstein T-Form - schwer



	St, vz	VA
M5	8 Nm 05.01087.00	
M6	14 Nm 05.01088.00	
M8	34 Nm 05.01089.00	05.01089.50



Technische Änderungen vorbehalten



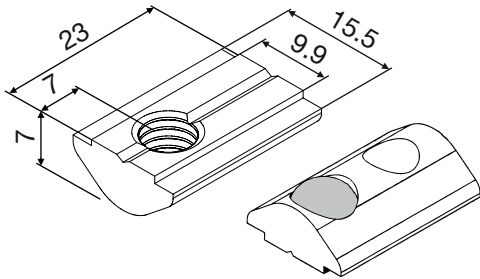
# NUTENSTEIN 45

## CHIOCCIOLA SERIE PROFILO 45

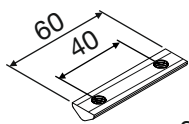
### WPUST PRZESUWNY 45



#### Nutenstein halbrund

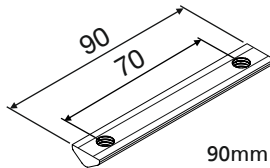


		⌚	St, vz	VA
	M5	10 Nm	05.01066.00	05.01066.50
	M6	16 Nm	05.01065.00	05.01065.50
	M8	28 Nm	05.01064.00	05.01064.50



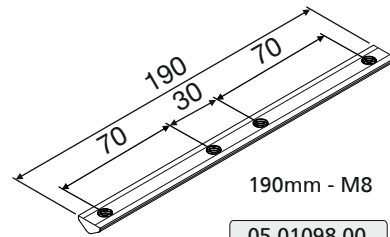
60mm - M8

05.01096.00



90mm - M8

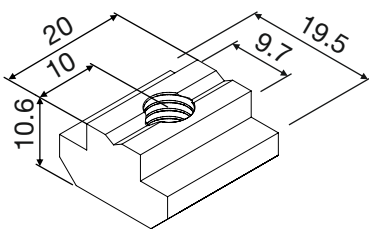
05.01097.00



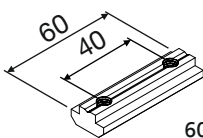
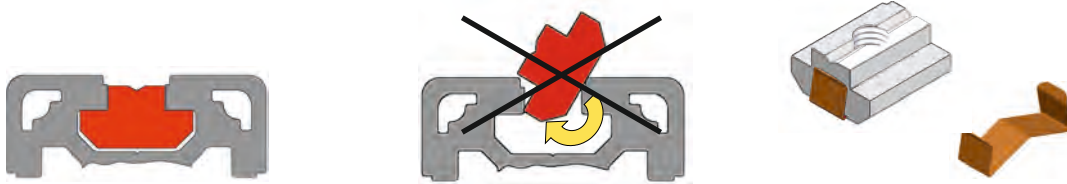
190mm - M8

05.01098.00

#### Nutenstein T-Form

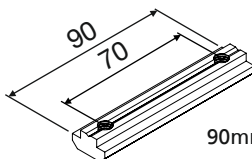


		⌚	St, vz	VA
	M5	12 Nm	05.01069.00	
	M6	21 Nm	05.01068.00	
	M8	42 Nm	05.01067.00	05.01067.50
	Feder • Molla • Sprężyna			05.01080.00



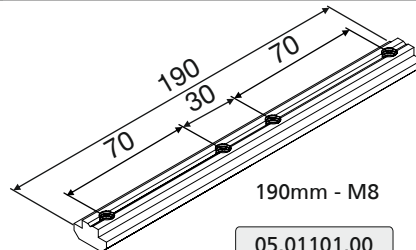
60mm - M8

05.01099.00



90mm - M8

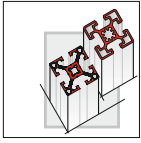
05.01100.00



190mm - M8

05.01101.00

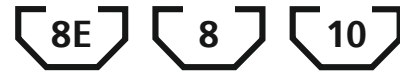
Technische Änderungen vorbehalten



# VERBINDER

## ELEMENTI DI COLLEGAMENTO

### ŁĄCZNIK



### Einschiebemutter

- Hoher Traganteil der Auflagefläche
- Durch Feder in der Nut fixiert
- Universelles Element für 3 Nut-Typen
- Stirnseitig in Profil einziehbar

**Ausführung**  
Stahl, verzinkt

### Chiocciolate piane

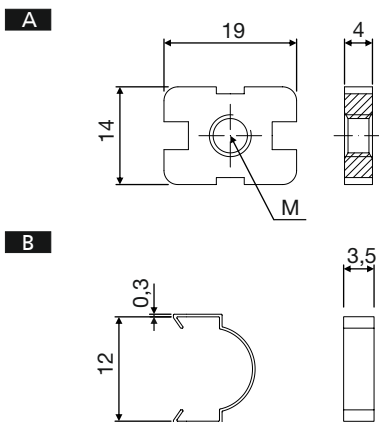
- Ampia superficie d'appoggio del cuscinetto
- Fissaggio nella scanalatura per mezzo della molla
- Universale per i tre tipi di scanalatura
- Inseribile nella estremità del profilo

**Materiale**  
acciaio, zincato

### Nakrętki wsuwane

- Duży udział nośny powierzchni przylegania
- Unieruchomiony w rowku przez sprężynę
- Element uniwersalny dla 3 typów rowka
- Z możliwością wsunięcia do profilu od strony czoła

### Einschiebemutter



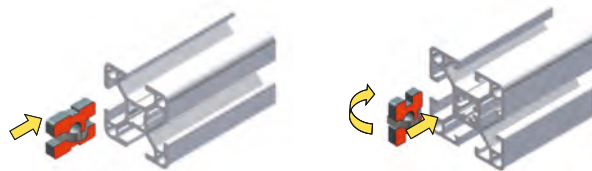
Typ	Sk	SE	8	10	M
M4	3 Nm	05.01885.00	05.01885.10		
M5	5 Nm	05.01886.00	05.01886.10		
M6	10 Nm	05.01887.00	05.01887.10		
M8	15 Nm	05.01888.00	05.01888.10		



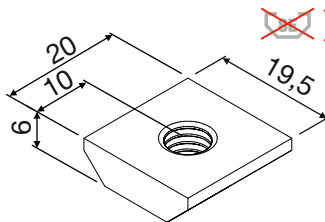
A + B

Feder • Molla • Sprężyna

05.01889.00



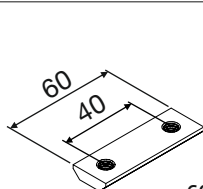
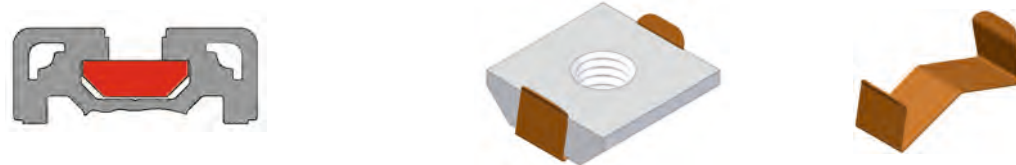
### Nutenstein flach



Typ	M	St, vz	Sk
M4	5 Nm	05.01221.00	8k, 8E, 8, 10
M5	10 Nm	05.01072.00	
M6	14 Nm	05.01071.00	
M8	26 Nm	05.01070.00	

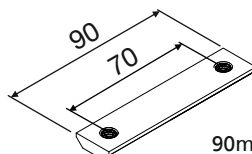
Feder • Molla • Sprężyna

05.01080.00



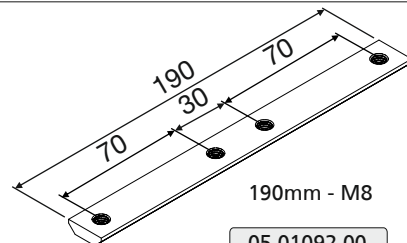
60mm - M8

05.01090.00



90mm - M8

05.01091.00



190mm - M8

05.01092.00

Technische Änderungen vorbehalten

**Gewindehülse SF**

- Kein Gewindeschneiden
- Die selbstfurchende Gewindeform "FM-Spezial" erleichtert das Eindrehen
- Selbstzentrierend durch Zentrierschaft
- Einfache Montage durch Inbus-schlüssel
- Innengewinde metrisch

**Boccola filettata SF**

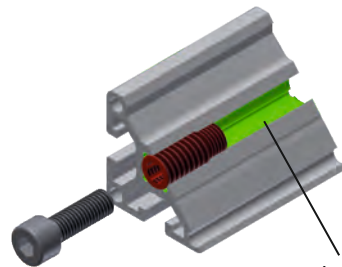
- Nessuna lavorazione
- Facile fissaggio grazie alla vite autofilettante con filetto a spirale "FM-Spezial" e rivestimento GleitMo
- Autocentrante
- Facile montaggio con chiave a brugola
- Filettatura interna metrica

**Tuleja gwintowana SF**

- Bez gwintowania
- Samogwintujący kształt gwint „FM Spezial” ułatwia wkręcanie
- Samocentrująca dzięki trzpieniowi centrującemu
- Łatwy montaż przy użyciu klucza imbusowego
- Gwint wewnętrzny metryczny



Quer oder Stirnseitig einsetzbar



Kernloch Ø10

30 40 45 50



SW 1/4"



05.01369.00

05.01040.00

**Gewindeeinsätze**

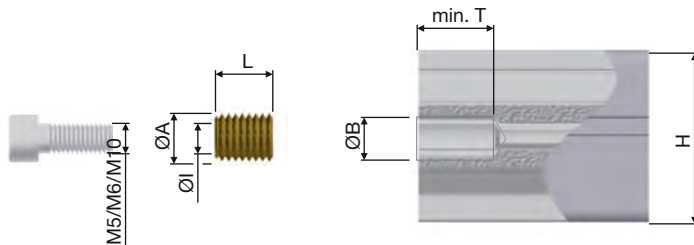
- Kein Gewindeschneiden
- Außengewinde metrisch
- Stahl, einsatzgehärtet, verzinkt

**Inserti filettati**

- Nessuna lavorazione
- Filettatura esterna metrica
- Acciaio zincato

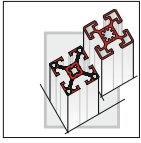
**Wkładki do gwintów**

- Bez gwintowania
- Gwint zewnętrzny metryczny
- Stal, utwardzana dyfuzyjnie, ocynkowana



H	ØA	ØI	L	ØB	min.T		
30	8	M5	10	7,5	13	05.01370.00	05.01374.00
40	10	M6	14	9,2	17	05.01371.00	05.01375.00
40 45	12	M8	15	11,2	19	05.01372.00	05.01376.00
45	14	M10	18	13,2	22	05.01373.00	05.01377.00
45	16	M12	22	15,2	27	05.01398.00	05.01399.00

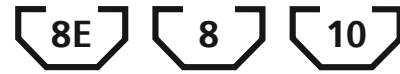
Technische Änderungen vorbehalten



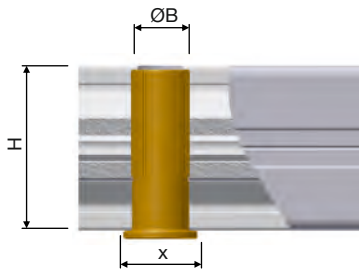
# VERBINDER

## ELEMENTI DI COLLEGAMENTO

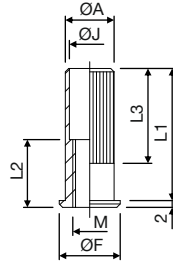
### ŁĄCZNIK



#### Gewindehülse



#### Boccola filettata a pressione



#### Tuleja gwintowana



\* ohne Bund  
senza collare  
bez kołnierza oporowego

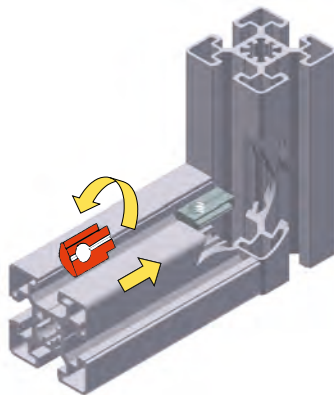
\*\*durchgehend  
continuo  
przechodząca

H	M	ØB	ØA	ØJ	ØF	L1	L2	L3	
	M 8	11	11,3	9	15	29	15	16	05.01421.00
	M10	14	14,4	12	18	39	20	26	05.01422.00
	M12	14	14,4	13	18	39	20	26	05.01423.00
	M12	17	17,4	13	20	44	20	32	05.01424.00
	M16	20	20,4	17	-*	54	32	-**	05.01420.00

#### Verdrehsicherung

#### Anti rotazione

#### Zabezpieczenie przed przekręceniem



DIN 916

St, vz.

05.02271.00

DIN 916

St, vz.

05.02273.00

DIN 916

St, vz.

05.02275.00










Technische Änderungen vorbehalten

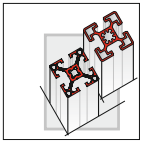
# WINKEL UND GELENKE

## ANGOLARI E GIUNTI

### KĄTOWNIKI I PRZEGUBY



 ■ 4.02	 ■ 4.02	 ■ 4.03	 ■ 4.03
 ■ 4.03	 ■ 4.04	 ■ 4.04	 ■ 4.04
 ■ 4.05	 ■ 4.06	 ■ 4.06	 ■ 4.06
 ■ 4.07	 ■ 4.07	 ■ 4.08	 ■ 4.08
 ■ 4.09	 ■ 4.10	 ■ 4.11	 ■ 4.12
 ■ 4.12	 ■ 4.12	 ■ 4.13	 ■ 4.13

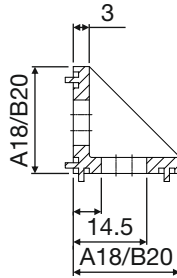
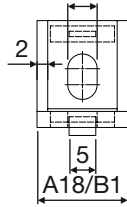
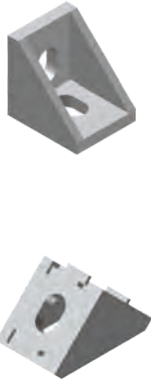


**WINKEL 20, 30**  
**ANGOLARI 20, 30**  
**KAŹOWNIK 20,30**



**18x18x18**  
**A**

**20x20x17**  
**B**



**A** 05.01222.00

**B** 05.01256.00



**A** 05.01222.05

**B** 05.01256.05



**A** 05.01285.00

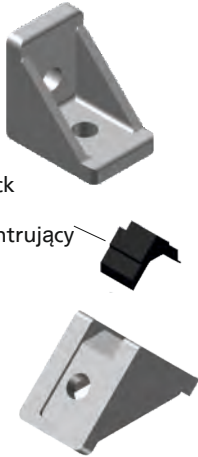
**B** 05.01145.00



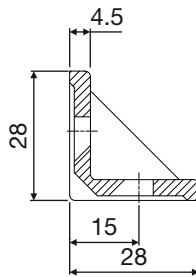
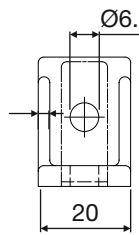
**A** 05.01222.10

**B** 05.01256.10

**20x28x28**



Zentrierstück  
 Centraggio  
 Element centrujący



05.01255.00



05.01255.20



05.01255.05



05.01255.05



05.01255.10



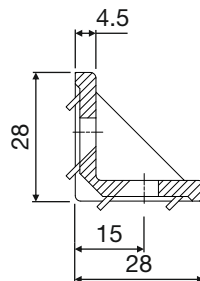
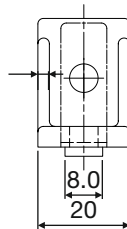
05.01255.15



05.01255.25

**20x28x28 mit Zentrierfahnen**

Con centraggio · z wypustkami centrującymi



05.01257.00



05.01257.05



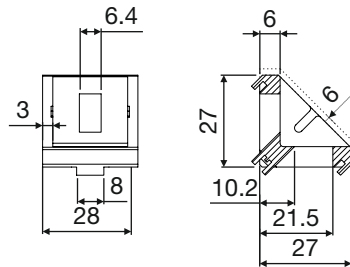
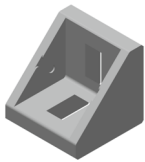
05.01257.10

Technische Änderungen vorbehalten

**WINKEL 30, 40**  
**ANGOLARI 30, 40**  
**КАТОВНИК 30,40**



**28x27x27**



05.01108.00



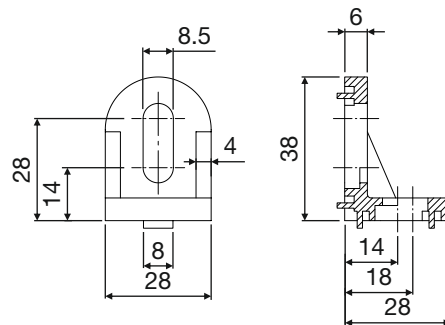
05.01109.00



05.01108.05



**R 28x38**

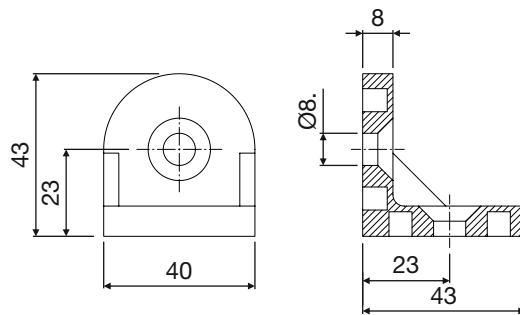
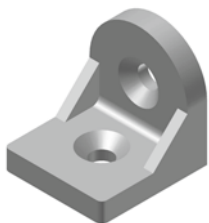


05.01129.00



05.01129.05

**R 40x43**



05.01085.00

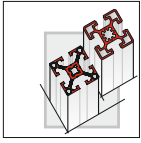


05.01085.05



05.01085.10

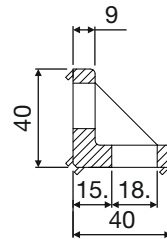
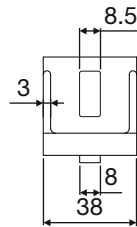
Technische Änderungen vorbehalten



**WINKEL 40**  
**ANGOLARI 40**  
**КАТОВНИК 40**



**38x40x40**

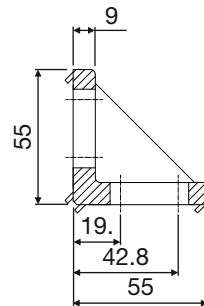
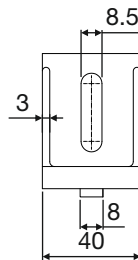


05.01250.00



05.01250.05

**40x55x55**

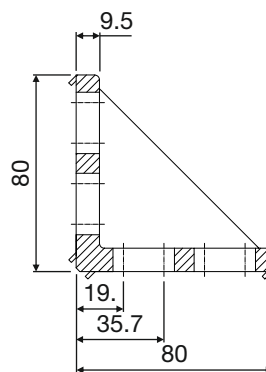
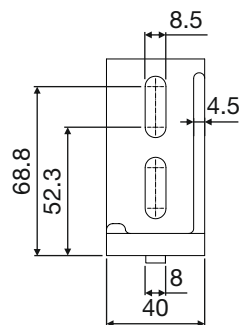
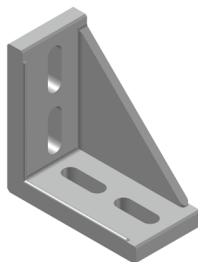


05.01251.00



05.01251.05

**40x80x80**



05.01252.00



05.01252.05

Technische Änderungen vorbehalten



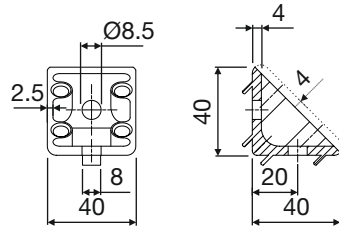
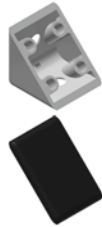
# WINKEL MIT ABDECKKAPPE

## ANGOLARI CON CUFFIA

## KĄTOWNIK Z POKRYWĄ



**40x40x40**



05.01980.00

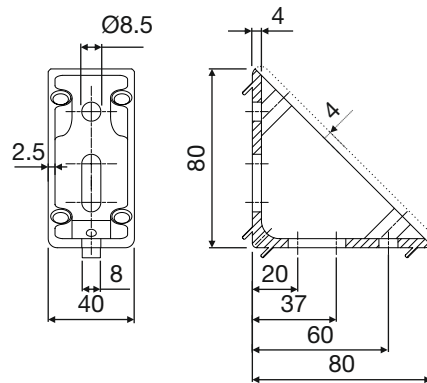
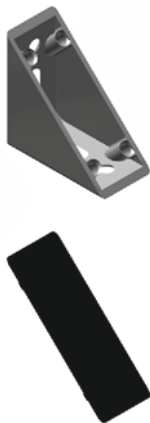


05.01985.00



05.01980.05

**40x80x80**



05.01981.00

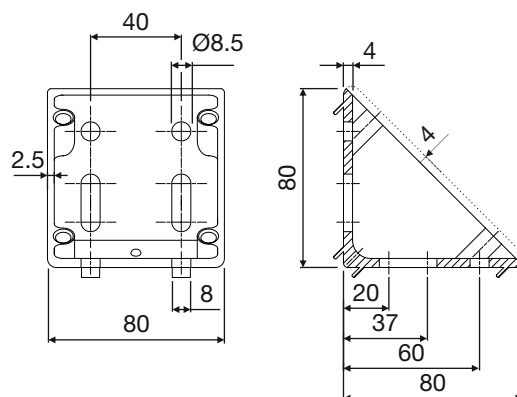
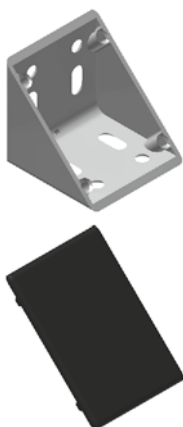


05.01986.00



05.01981.05

**80x80x80**



05.01982.00

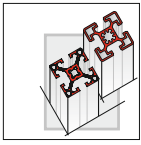


05.01987.00



05.01982.05

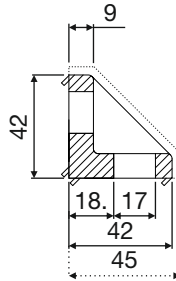
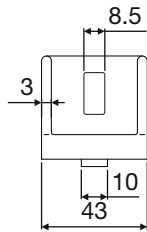
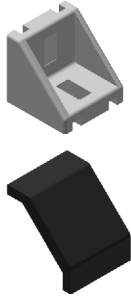
Technische Änderungen vorbehalten



**WINKEL 45**  
**ANGOLARI 45**  
**КАТОВНИК 45**



**43x42x42**



05.01144.00



05.01144.05

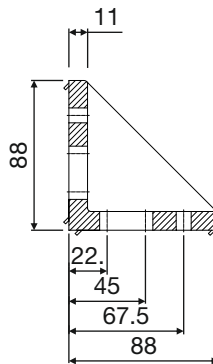
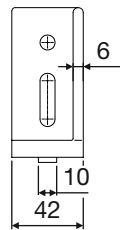


05.01140.00



05.01144.10

**42x88x88**

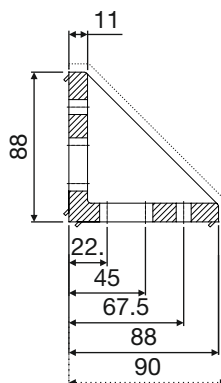
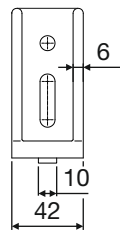
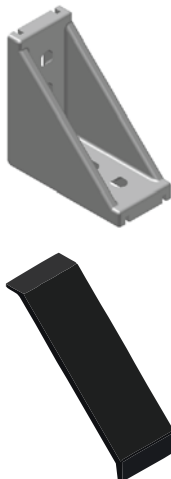


05.01152.00



05.01152.05

**42x88x88 2-stegig**



05.01142.00



05.01142.05



05.01143.00



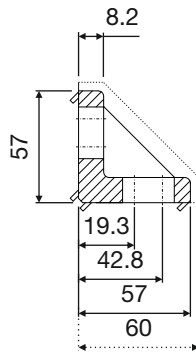
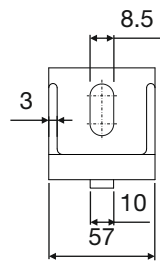
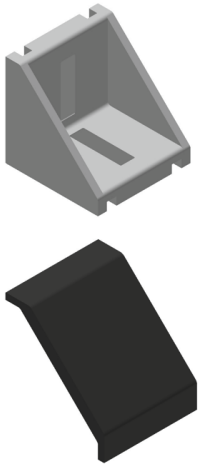
05.01142.10

Technische Änderungen vorbehalten

**WINKEL 45**  
**ANGOLARI 45**  
**КАТОВНИК 45**



**57x57x57**



05.01148.00



05.01148.05



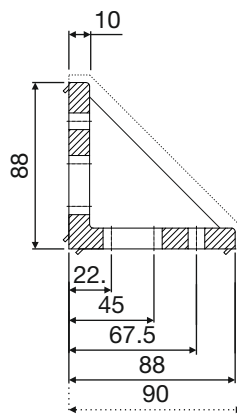
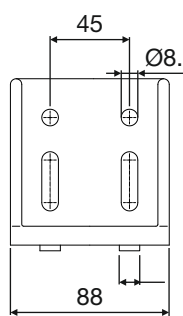
05.01141.00



05.01148.10



**88x88x88**



05.01153.00



05.01153.05

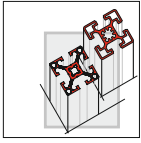


05.01139.00



05.01153.10

Technische Änderungen vorbehalten



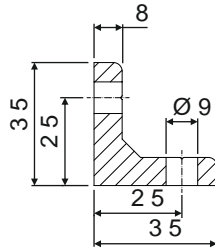
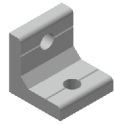
# ALUWINKEL

## ANGOLARI ALLUMINIO

### KĄTOWNIK ALUMINIOWY



#### 35x35



**A**

05.01157.00

**B**

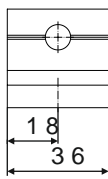
05.01158.00

**C**

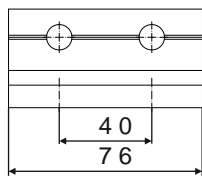
05.01159.00

➔ 2.84

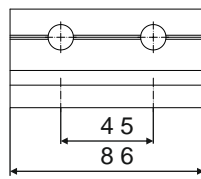
**A**



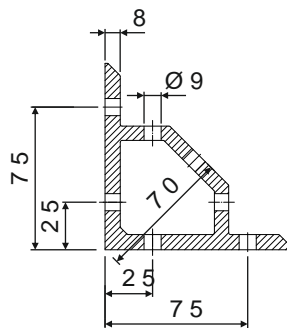
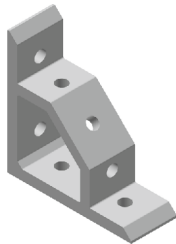
**B**



**C**



#### 98x98



**A**

05.01155.00

**B**

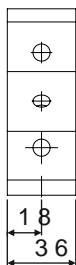
05.01156.00

**C**

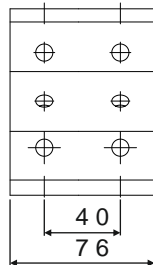
05.01239.00

➔ 2.84

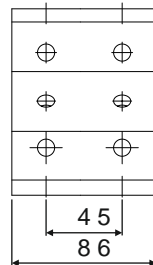
**A**



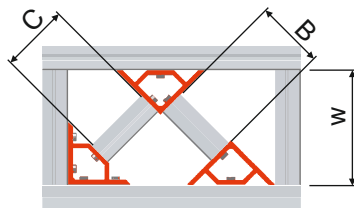
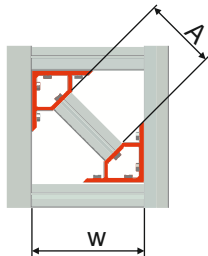
**B**



**C**



Technische Änderungen vorbehalten



Ermittlung der Strebenlänge:

Calcolo della lunghezza del traverso:

Ustalenie długości podpory ukośnej

$$A = \sqrt{2W^2} - 140$$

$$B = \sqrt{2W^2} - 148$$

$$C = \sqrt{2W^2} - 148$$

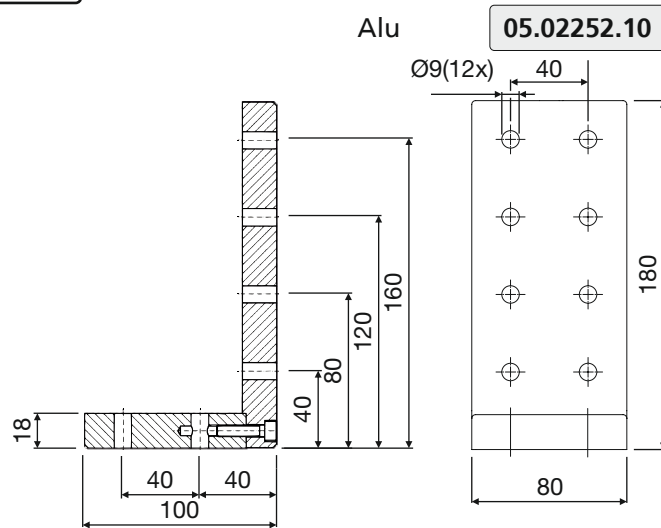
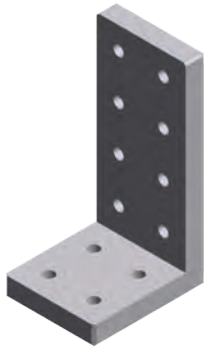
# ANSCHRAUBWINKEL / WINKELKONSOLE

ANGOLARI DI SUPPORTO

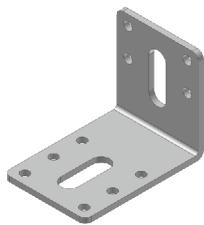
KĄTOWNIK PRZYKRĘCANY / WSPORNIK KĄTOWY



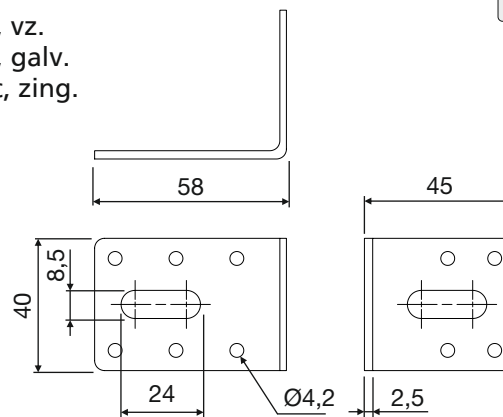
## Winkelkonsole 80x180



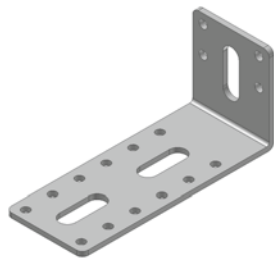
## Anschraubwinkel 58x40



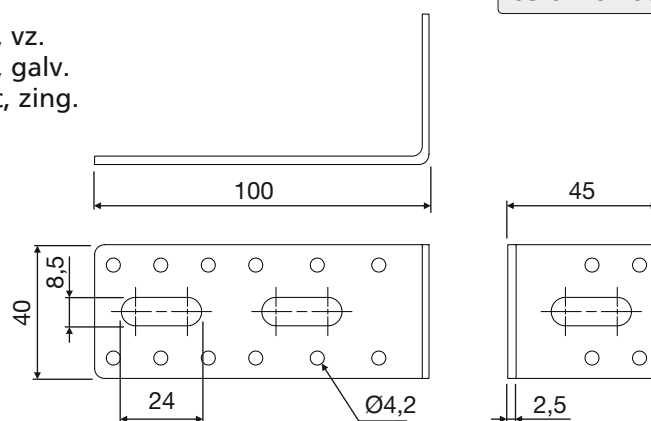
St, vz.  
St, galv.  
Ac, zing.



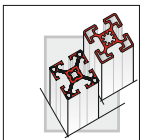
## Anschraubwinkel 100x40



St, vz.  
St, galv.  
Ac, zing.



Technische Änderungen vorbehalten



# WINKELVERBINDERELEMENT-2

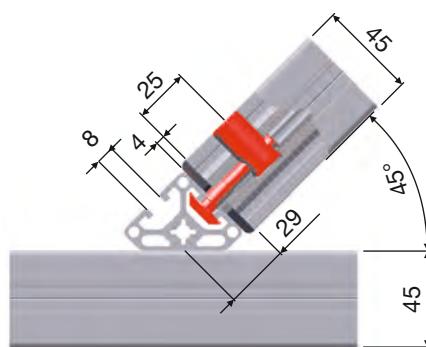
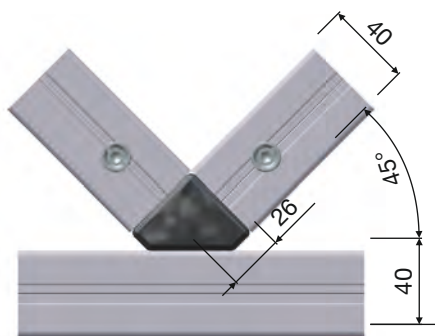
## ELEMENTI PER ANGOLO-2

### KĄTOWY ELEMENT ŁĄCZĄCY 2

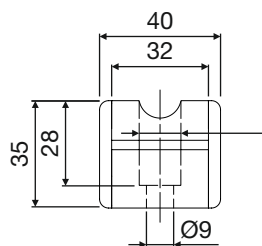


**8** Beidseitige Anwendung möglich  
Possibile applicazione su due lati  
Możliwość obustronnego stosowania

**10** Nur einseitige Anwendung möglich  
Possibile solo applicazione da un lato  
Możliwość tylko jednostronnego stosowania



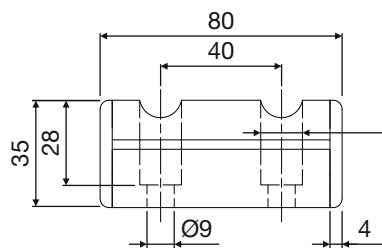
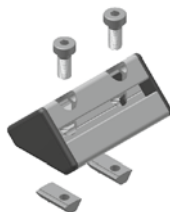
**8/40-2**



**8** 05.01574.00

- 1x
- 2x
- 1x
- 1x

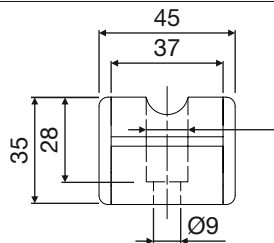
**8/80-2**



**8** 05.01575.00

- 1x
- 2x
- 2x
- 2x

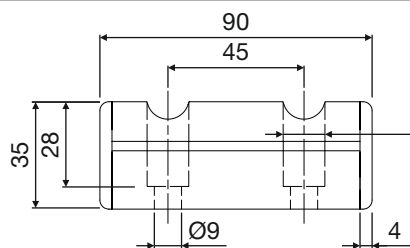
**10/45-2**



**10** 05.01576.00

- 1x
- 2x
- 1x
- 1x

**10/90-2**



**10** 05.01577.00

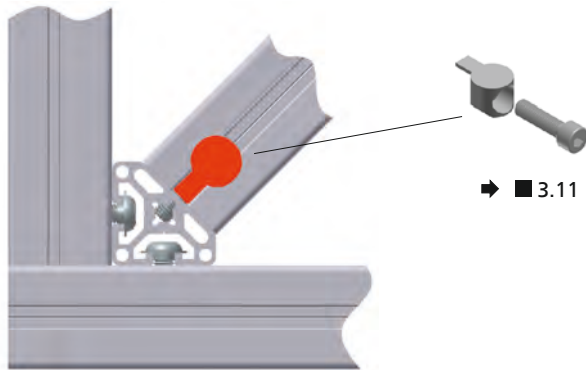
- 1x
- 2x
- 2x
- 2x

Technische Änderungen vorbehalten

# WINKELVERBINDERELEMENT-1

## ELEMENTI PER ANGOLO-1

### KĄTOWY ELEMENT ŁĄCZĄCY 1



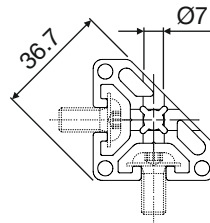
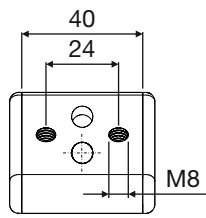
Die Querstrebe wird durch zwei UNI-Verbinder (Zentrierfahnen abgebrochen) befestigt.

La traverse sono fissate da due giunti UNI.

Belka poprzeczna mocowana jest przez dwa łączniki UNI (wypustki centrujące odłamane).



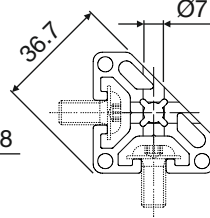
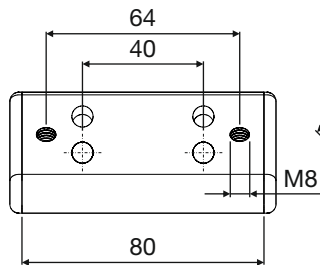
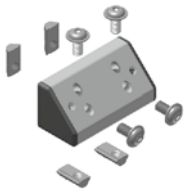
#### 8/40-1



05.01578.00

- 1x
- 2x
- 2x
- 2x

#### 8/80-1

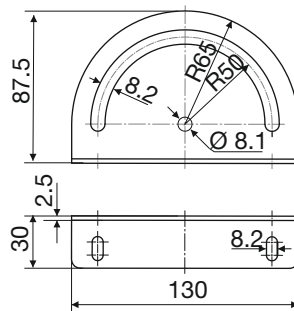


05.01579.00

- 1x
- 2x
- 4x
- 4x

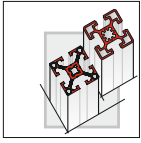
#### Schwenkwinkel 180°

Angolo 180° · Kąt odchylenia 180°

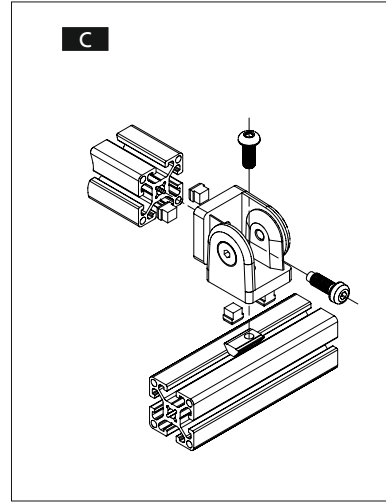
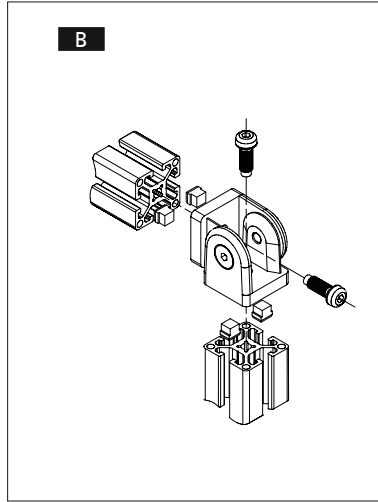
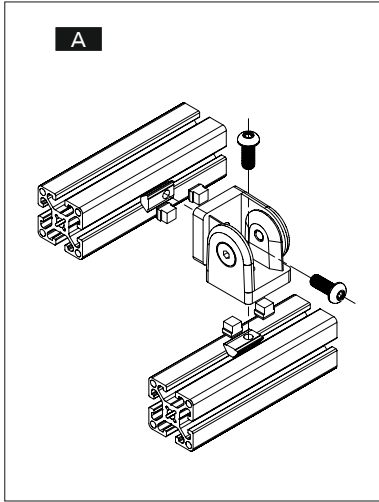


05.01258.00

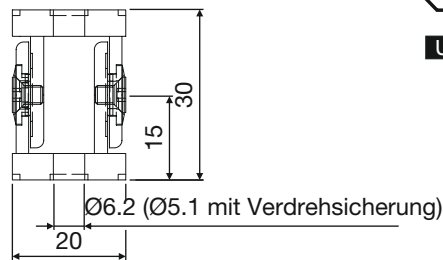
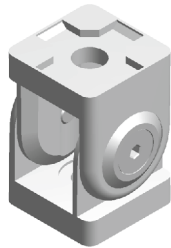
Technische Änderungen vorbehalten



# GELENKE SNODI PRZEGUBY



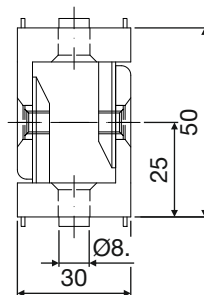
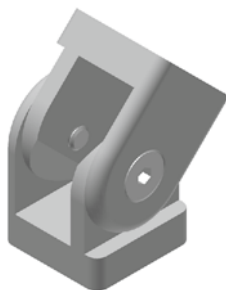
## 20x20



GD-Al, RAL 9006	05.01558.00
5 A	05.01558.05
5 B	05.01558.06
5 C	05.01558.07
Universal	05.01558.20

GD-Al, RAL 9006 +	05.01558.50
-------------------	-------------

## 30x30



GD-Zn	05.01855.00
8E A	05.01855.05
8E B	05.01855.06
8E C	05.01855.07
Universal	05.01855.20

RAL 9006	05.01852.00
Universal	05.01852.20

GD-Zn +	05.01855.50
RAL 9006 +	05.01852.50

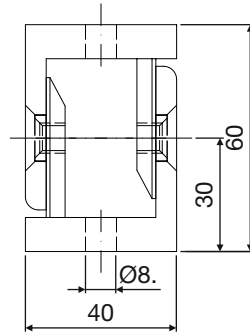
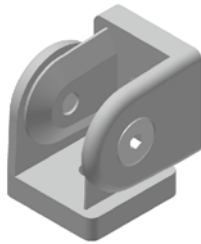
Technische Änderungen vorbehalten



# GELENKE SNODI PRZEGUBY

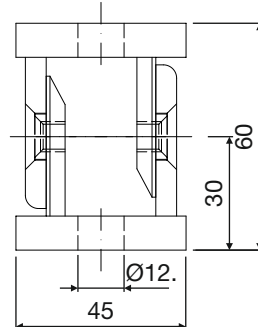


## 40x40



	05.01856.00
<b>A</b>	05.01856.05
<b>B</b>	05.01856.06
<b>C</b>	05.01856.07
<b>Universal</b>	05.01856.20
	05.01853.00
<b>Universal</b>	05.01853.20
+	05.01856.50
+	05.01853.50

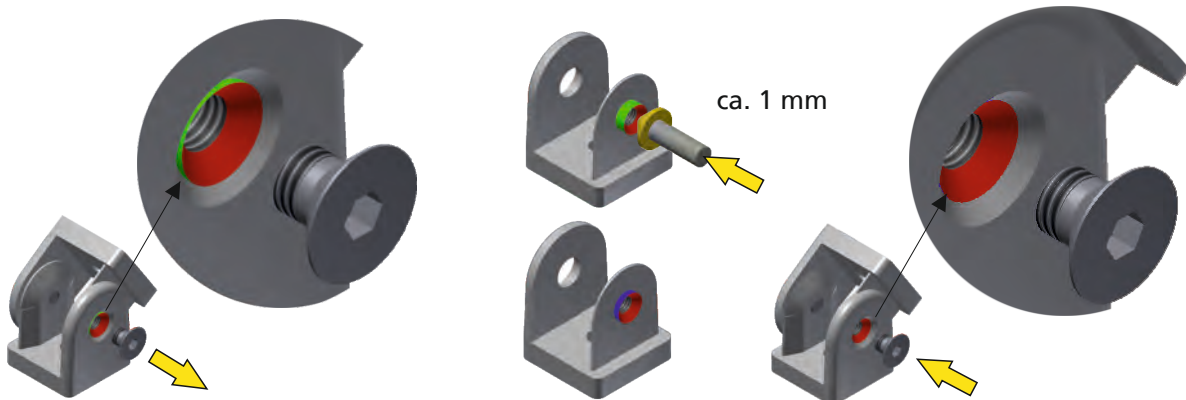
## 45x45



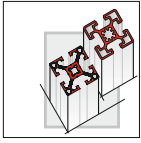
	05.01857.00
<b>A</b>	05.01857.05
<b>B</b>	05.01857.06
<b>C</b>	05.01857.07
<b>Universal</b>	05.01857.20
	05.01854.00
<b>Universal</b>	05.01854.20
+	05.01857.50
+	05.01854.50

### Feststellen der Gelenke 30, 40 und 45

Um Gelenke feststellen zu können, müssen Sie die innenliegende Senkung (rot), um ca. 1 mm mit einem Kegelsenker nachsenken. Erst dann kann die Schraube, die beiden Gelenkhälften zusammenklemmen.



Technische Änderungen vorbehalten



# WINKEL UND GELENKE ANGOLARI E GIUNTI KĄTOWNIKI I PRZEGUBY



### Innovative Vorteile:

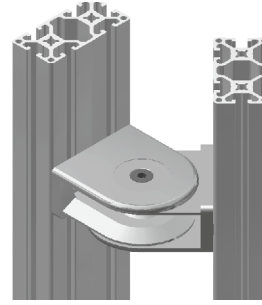
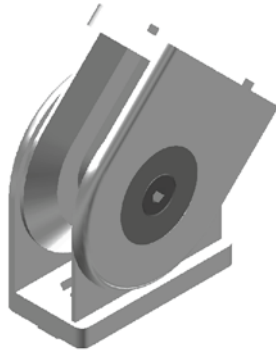
- Mit einstellbarer Friktion zur stufenlosen Regulierung des Reibungswiderstandes bzw. zur Fixierung in einer definierten Position

### Vantaggi innovativi

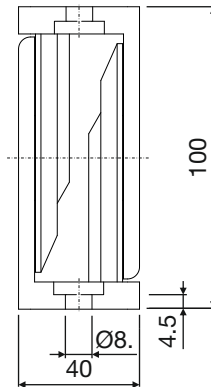
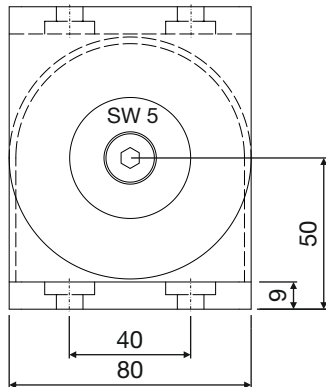
- Con frizione regolabile, permettono la regolazione progressiva della resistenza all'attrito o la fissazione in una posizione specifica

### Nowatorskie zalety

- Z nastawianym tarciem do bezstopniowej regulacji oporu tarcia bądź do unieruchomienia w zdefiniowanej pozycji.



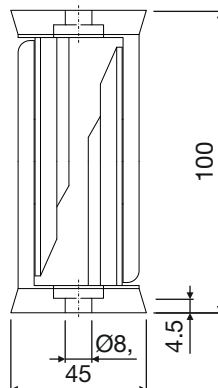
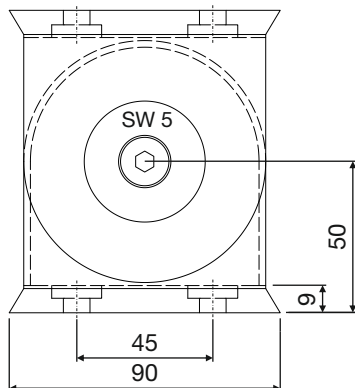
## 40x80



	<b>05.01564.00</b>
<b>A</b>	<b>05.01564.05</b>
<b>B</b>	<b>05.01564.06</b>
<b>C</b>	<b>05.01564.07</b>

+	<b>05.01564.50</b>
---	--------------------

## 45x90



	<b>05.01565.00</b>
<b>A</b>	<b>05.01565.05</b>
<b>B</b>	<b>05.01565.06</b>
<b>C</b>	<b>05.01565.07</b>

+	<b>05.01565.50</b>
---	--------------------

Technische Änderungen vorbehalten

# RÄDER, FÜSSE, PLATTEN

PIEDI, RUOTE, PIASTRE

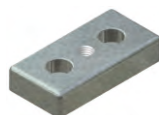
ELEMENTY PODŁOGOWE (KOŁA, NOGI), PŁYTY



■ 5.02



■ 5.04



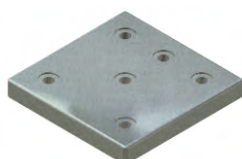
■ 5.06



■ 5.08



■ 5.10



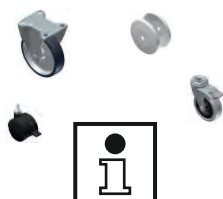
■ 5.12



■ 5.13



■ 5.13



■ 5.14



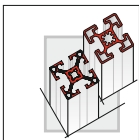
■ 5.17



■ 5.18



■ 5.20



# GEWINDEFÜSSE KUNSTSTOFFTELLER

## PIEDI SNODATI CON BASE IN PLASTICA

### NOGI GWINTOWANE TALERZE Z TWORZYWA SZTUCZNEGO



**Ø20**

Starr  
fisso  
nieruchomy

M 5 x 39  
05.01479.00

**Ø30**

M 8 x 69  
05.01480.00

M 8 x 109  
05.01481.00

M10 x 74  
05.01482.00

M10 x 119  
05.01483.00

**Ø40/Ø45**

M 8 x 69  
Ø40 05.01484.00

M 8 x 109  
Ø40 05.01485.00

M10 x 74  
Ø40 05.01486.00

M10 x 119  
Ø40 05.01487.00

M 8 x 30  
Ø45 05.01208.00

M10 x 30  
Ø45 05.01209.00

M12 x 95  
Ø40 05.01488.00

M12 x 129  
Ø40 05.01489.00

**Ø58**

M12 x 95  
05.01490.00

M12 x 129  
05.01491.00

M16 x 95  
05.01492.00

M16 x 129  
05.01493.00

**Ø80**

M12 x 95  
05.01625.00

M12 x 129  
05.01626.00

M16 x 95  
05.01627.00

M16 x 129  
05.01628.00

**GewindefüÙe mit Kunststoffteller**  
**Piede snodato con base in plastica**  
**Nogi gwintowane z telerami z tworzywa sztucznego**

- Ausführungen**  
Teller PA, schwarz  
Gewindespindel Stahl, verzinkt
- Materiale**  
base PA, nero  
stelo acciaio, zincato
- Wersje**  
Talerz PA, czarny  
Wałek z gwintem stal, ocynkowana

**F<sub>max</sub> ↓**

M8 =	4000 N
M10 =	6000 N
M12 =	8000 N
M16 =	10000 N

**Dämpfungsring**  
**Anello ammortizzatore**  
**Pierścien tŁumiący**

Ø30 05.01480.90  
Ø40 05.01484.90  
Ø58 05.01490.90  
Ø80 05.01625.90

Neigung bis zu 15° möglich  
Inclinazione max. 15°  
Możliwe nachylenie do 15°

Technische Änderungen vorbehalten

# GEWINDEFÜSSE STAHLTELLER

## PIEDI SNODATI CON BASE IN ACCIAIO

## NOGI GWINTOWANE, TALERZE STALOWE



**Ø30**

M 8 x 65

**A** 05.01450.00

**Ø44**

M12 x 85

**A** 05.01204.00

**B** 05.01452.00

M12 x 145

**A** 05.01205.00

**B** 05.01453.00

M16 x 85

**A** 05.01235.00

**B** 05.01237.00

M16 x 145

**A** 05.01236.00

**B** 05.01238.00

**Ø58**

M12 x 85

**A** 05.01454.00

**B** 05.01458.00

M12 x 145

**A** 05.01455.00

**B** 05.01459.00

M16 x 85

**A** 05.01456.00

**B** 05.01460.00

M16 x 145

**A** 05.01457.00

**B** 05.01461.00

**Ø90**

M16 x 85

**A** 05.01206.00

**B** 05.01462.00

M16 x 145

**A** 05.01207.00

**B** 05.01463.00

**GewindefüÙe mit Stahlteiler**  
**Piede snodato con base in acciaio**  
**Nogi gwintowane z talerzem stalowym**

• **Ausführungen**

Teller **A** Stahl, verzinkt  
**B** Stahl, schwarz beschichtet

Gewindespindel Stahl verzinkt

• **Materiale**

base **A** acciaio, zincato M8 = 5000N  
**B** acciaio, verniciato nero M10= 8000N

TStelo acciaio, zincato M12=10000N  
M16=20000N

• **Wersje**

Talerz **A** Stal, ocynkowana  
**B** tal, powlekana na czarno

Walek gwintowany S stal ocynkowana

**F<sub>max</sub>** ↓

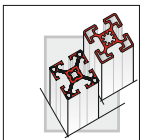
**Dämpfungsring**  
**Anello ammortizzatore**  
**Pierścien tŁumiący**

**Ø44** 05.01465.00

**Ø58** 05.01466.00

**Ø90** 05.01467.00

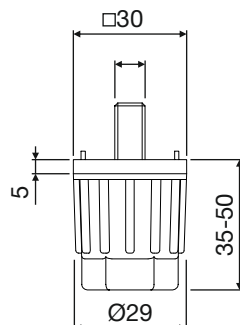
Technische Änderungen vorbehalten



# HÖHENVERSTELLER

## PIEDI AD ALTEZZA REGOLABILE

### REGULATORY WYSOKOŚCI

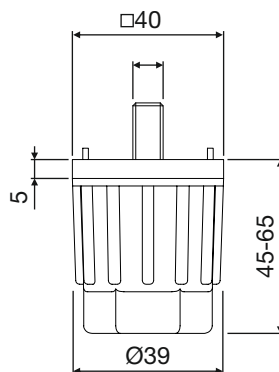
**30****8E**1500N  
**F<sub>max</sub>** ↓**A**

05.01468.00

**B****8E**

1x

05.01870.00

PA 6  
schwarz**40****8**1500N  
**F<sub>max</sub>** ↓**A**

05.01464.00

**B****8**

1x

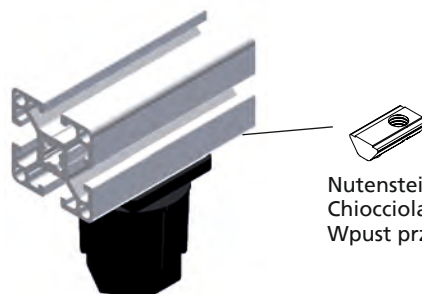
05.01652.00

PA 6  
schwarz

**Anbau an Profilstirnseite**  
Montaggio all'estremità del profilo  
Montaż do czołowej strony profilu

**A**

**Anbau an Profilmutter**  
Montaggio nella scanalatura  
Montaż do rowka profilu

**B**

Nutenstein  
Chiocciola  
Wpust przesuwny

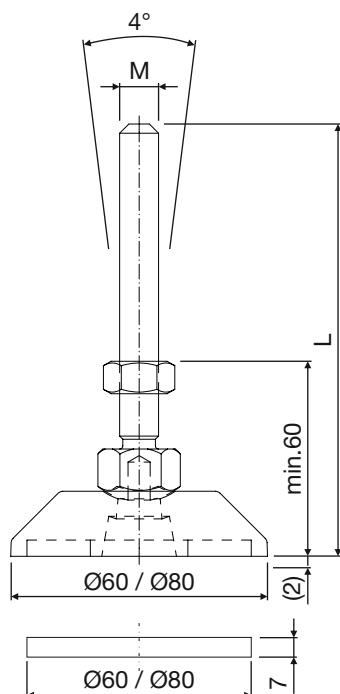
Technische Änderungen vorbehalten

### Gewindefuß mit Trapezsteller

Piede snodato · Noga gwintowana z talerzem trapezowym

Ø 60: 25 kN  
 Ø 80: 30 kN

**F<sub>max</sub>** ↓



• **Ausführung**

Teller Zinkdruckguss, schwarz beschichtet  
 Gewindespindel Stahl, verzinkt; (VA)

• **Materiale**

Piastra Zinco pressofuso, nero verniciato a polvere acciaio, zincato; (VA)  
 Stelo

• **Wersja**

Talerz cynkowy odlew ciśnieniowy, powlekany na czarno  
 Walek z gwintem stal, ocynkowana; (VA)

Ø60	M 12 x 86	05.02379.00	Ø80	M 12 x 130	05.02381.00
	M 12 x 120	05.02380.00		M 12 x 160	05.02382.00
				M 16 x 130	05.02383.00
				M 16 x 130 (VA)	05.02383.50
				M 16 x 160	05.02384.00
Ø60		05.02379.90		M 16 x 230	05.02385.00
Ø80		05.02381.90			

Dämpfungsring

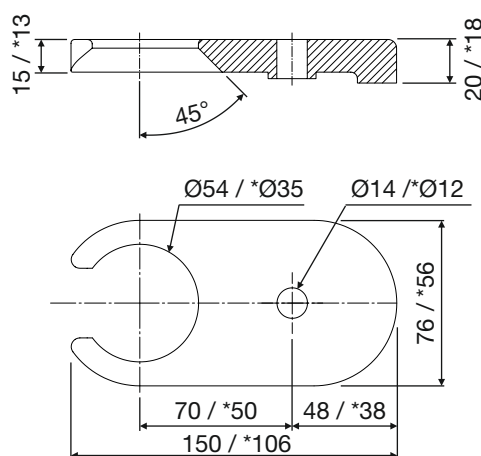
Anello ammortizzatore

Pierścień tłumiący

5

### Klemmlasche für Kunststoff- und Trapezsteller

Fissaggio a terra · Wypustka zaciskowa do talerzy z tworzywa sztucznego i talerzy trapezowych

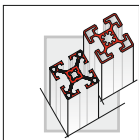


Gd-Zn

schwarz  
 nero  
 czarny

Ø 60\* 05.01346.00

Ø 80 05.01347.00



# TRANSPORT- UND FUSSPLATTEN

## PIASTRE DI CHIUSURA

### PLYTY TRANSPORTOWE I PODSTAWY



**20x40**

Profil stirnseitig

	M5x20 (2x)	ISO 4762		
Profilnut	M5x8 (2x)	ISO 4762		
	Nutenstein	5 M5 (2x)	M8	St, vz. <b>05.01826.00</b>

**40x40**

Profil stirnseitig

	M5x20 (4x)	ISO 4762	M8	St, vz. <b>05.01827.00</b>
Profilnut	M5x10 (4x)	ISO 4762	M10	<b>05.01828.00</b>
	Nutenstein	5 M5 (4x)		

**30x60**

Profil stirnseitig

	M8x20 (2x)	ISO 4762	M8	St, vz. <b>05.01844.00</b>
Profilnut	M8x10 (2x)	ISO 4762	M10	<b>05.01845.00</b>
	Nutenstein	8E M8 (2x)	M12	<b>05.01846.00</b>

**60x60**

Profil stirnseitig

	M8x20 (4x)	ISO 4762	M8	St, vz. <b>05.01695.00*</b>
Profilnut	M8x10 (4x)	ISO 4762	M10	<b>05.01696.00*</b>
	Nutenstein	8E M8 (4x)	M12	<b>05.01697.00*</b>

\* auf Anfrage

**40x80**

Profil stirnseitig

	M8x20 (2x)	ISO 4762	M10	GD-Zn <b>05.01225.00</b>
Profilnut	M8x10 (2x)	ISO 4762	M12	<b>05.01226.00</b>
	Nutenstein	8E M8 (2x)	M16	<b>05.01227.00</b>

**80x80**

Profil stirnseitig

	M8x20 (4x)	ISO 4762	M10	GD-Zn <b>05.01228.00</b>
Profilnut	M8x10 (4x)	ISO 4762	M12	<b>05.01229.00</b>
	Nutenstein	8E M8 (4x)	M16	<b>05.01230.00</b>

Technische Änderungen vorbehalten



# TRANSPORT- UND FUSSPLATTEN

## PIASTRE DI CHIUSURA

## PLYTY TRANSPORTOWE I PODSTAWY



**45x90**

Profil stirnseitig - M8x20 (2x) ISO 4762  
 - M8x15 (2x) ISO 4762  
 - Nutenstein 10 M8 (2x)  
 - Scheibe ISO 7090 Ø8,4 (2x)

GD-Zn

Profilnut

M10	05.01294.00
M12	05.01295.00
M16	05.01296.00

**90x90**

Profil stirnseitig - M8x20 (4x) ISO 4762  
 - M8x15 (4x) ISO 4762  
 - Nutenstein 10 M8 (4x)  
 - Scheibe ISO 7090 Ø8,4 (4x)

GD-Zn

Profilnut

M10	05.01297.00
M12	05.01298.00
M16	05.01299.00

**50x100**

Profil stirnseitig - M8x20 (2x) ISO 4762  
 - M8x15 (2x) ISO 4762  
 - Nutenstein 10 M8 (2x)  
 - Scheibe ISO 7090 Ø8,4 (2x)

St, vz.

Profilnut

M12	05.01685.00
M16	05.01686.00

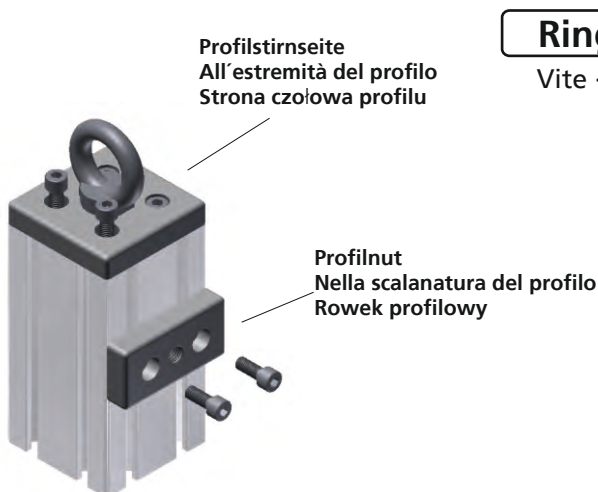
**100x100**

Profil stirnseitig - M8x20 (4x) ISO 4762  
 - M8x15 (4x) ISO 4762  
 - Nutenstein 10 M8 (4x)  
 - Scheibe ISO 7090 Ø8,4 (4x)

St, vz.

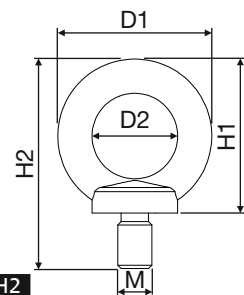
Profilnut

M12	05.01687.00
M16	05.01688.00



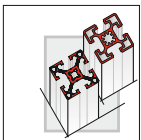
### Ringschrauben

Vite · Śruby pierścieniowe



M	D1	D2	H1	H2	
M 8	Ø36	Ø20	36	9	05.01446.00
M10	Ø45	Ø25	45	62	05.01447.00
M12	Ø54	Ø30	53	73.5	05.01448.00
M16	Ø63	Ø35	62	89	05.01449.00

Technische Änderungen vorbehalten



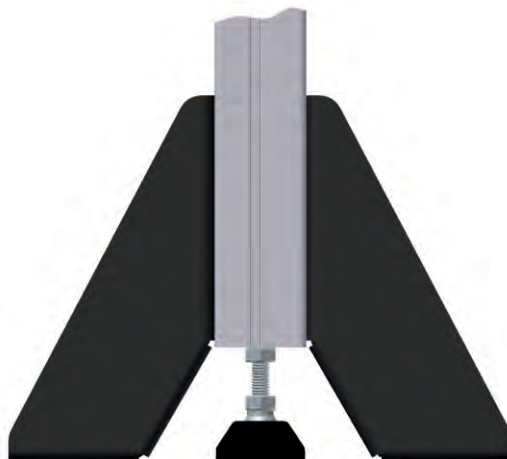
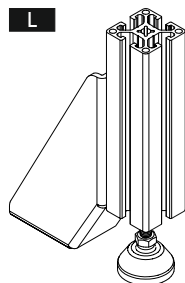
# FUNDAMENTWINKEL

## ANGOLARE DI FONDAZIONE

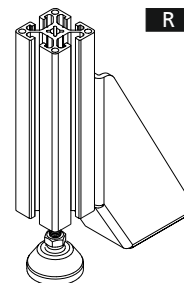
### KĄTOWNIKI FUNDAMENTOWE



Ausführung links  
Versione sinistra  
Wersja lewa



Ausführung rechts  
Versione destra  
Wersja prawa



Stahl, schwarz beschichtet  
Acciaio, nero santinato  
Stal, czarny powlekana



Befestigung mit  
Hammerschrauben

Fissaggio con viti con  
testa a martello

Zamocowanie za  
pomocą śrub z łbem  
młotczkowym

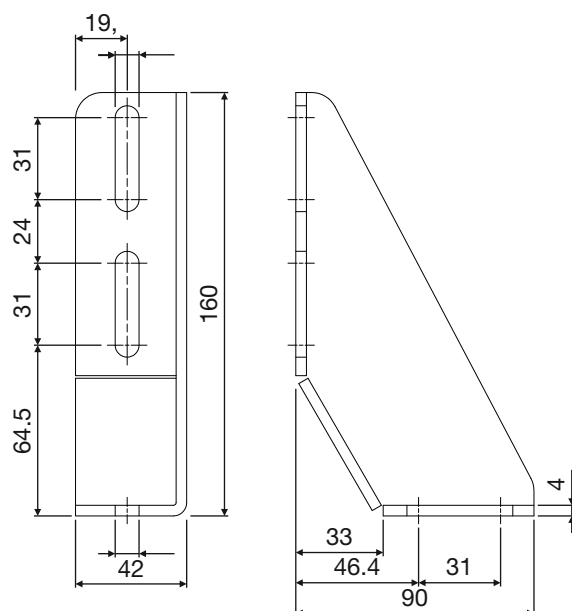


Fundamentschraube  
separat bestellen

Vite di ancoraggio  
ordinare separatamente

Śruba fundamentowa  
zamawiać oddzielnie

160



**R** 05.01168.00

**R** +  2x 05.01168.05

**L** 05.01169.00

**L** +  2x 05.01169.05

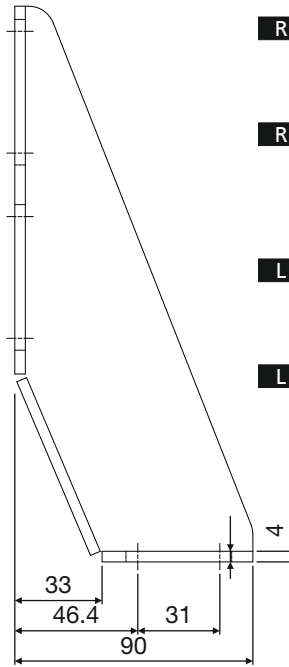
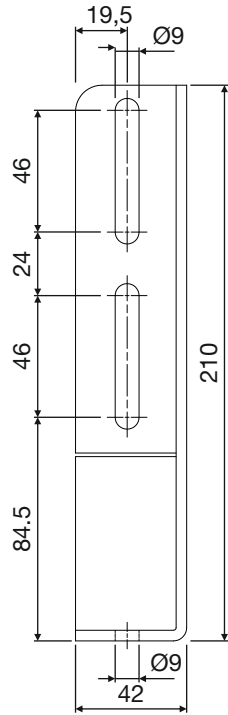
 1x 05.01172.00

Technische Änderungen vorbehalten

**FUNDAMENTWINKEL**  
**ANGOLARE DI FONDAZIONE**  
**KĄTOWNIKI FUNDAMENTOWE**



**210**



**R**

05.01170.00

**R** + 2x

05.01170.05

**L**

05.01171.00

**L** + 2x

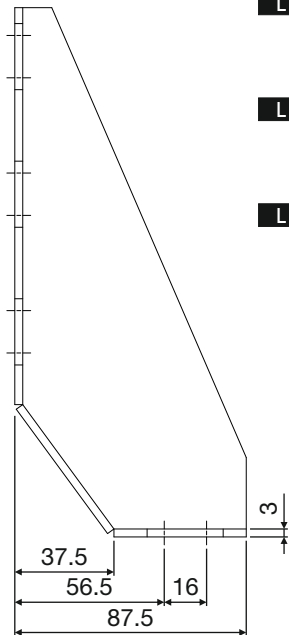
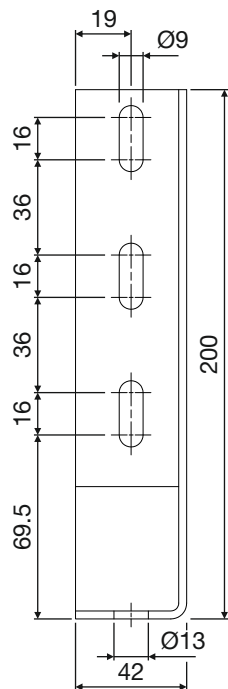
05.01171.05



05.01172.00

1x

**ECO**



**L**

05.01174.00

**L** + 3x

05.01174.05

**L** + 3x + 1x

05.01174.50



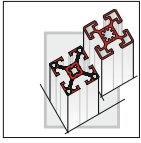
05.01172.00

1x

Stahl, verzinkt  
 Acciaio, zincato  
 Stal ocynkowana

Technische Änderungen vorbehalten

**5**



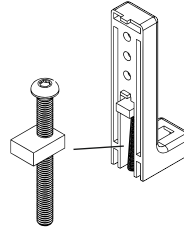
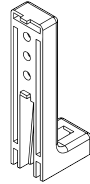
# BODENWINKEL

## ANGOLARE DI FONDAZIONE

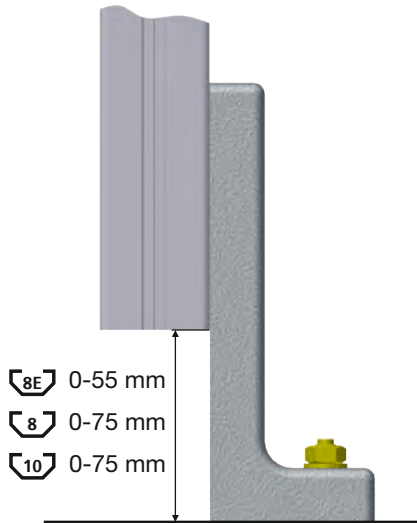
### KĄTOWNIKI PODŁOGOWE



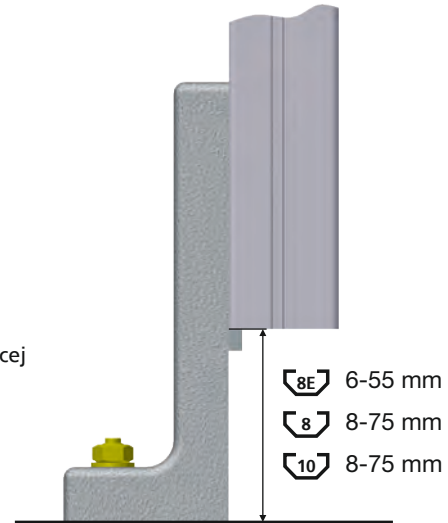
Bodenwinkel ohne Stellschraube  
Angolo di ancoraggio senza vite regolabile  
Kątownik podłogowy bez śruby



Bodenwinkel mit Stellschraube  
Angolo di ancoraggio con vite regolabile  
Kątownik podłogowy ze śrubą nastawczą



Befestigung mit  
Verbinderschraube  
Fissaggio con vite di  
conessione ISO  
Zamocowanie za  
pomocą śruby łączącej



GD-Zn blank  
naturale  
błyszczący

schwarz  
nero  
czarny

05.xxxxx.0x

05.xxxxx.1x



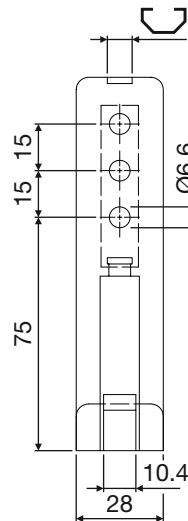
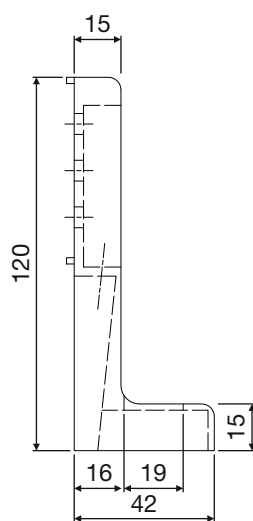
Fundamentschraube  
separat bestellen

05.01172.00

Vite di ancoraggio  
ordinare separatamente

Śruba fundamentowa  
zamawiać oddzielnie

30x120



05.02225.x0



05.02225.x5



05.02225.x6



05.02199.x0



05.02199.x5

Technische Änderungen vorbehalten

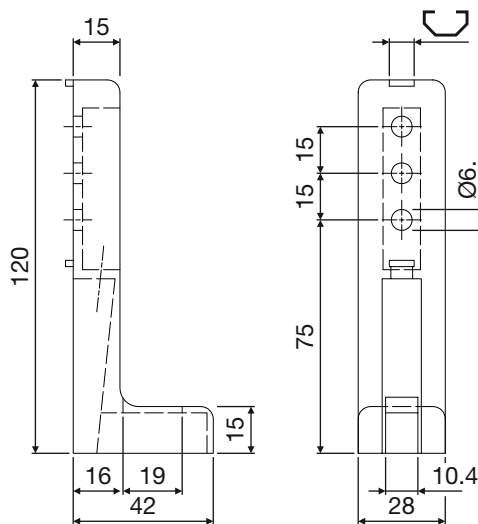
# BODENWINKEL

## ANGOLARE DI FONDAZIONE

### KĄTOWNIKI PODŁOGOWE

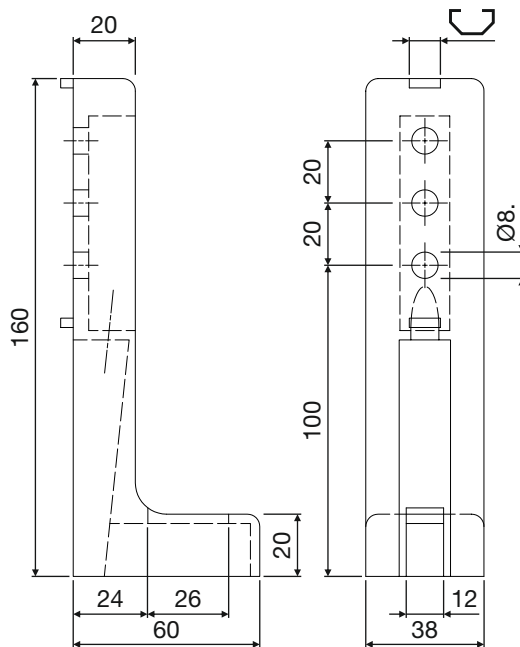


**30x120**



- 05.02226.x0
- 05.02226.x5
- 05.02226.x6
- 05.02200.x0
- 05.02200.x5

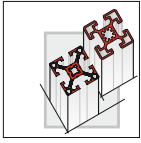
**40x160**



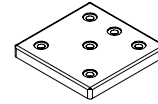
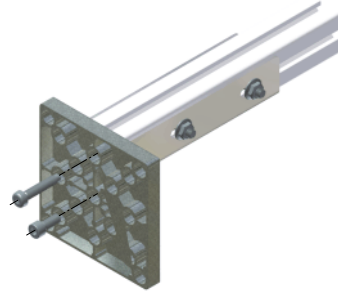
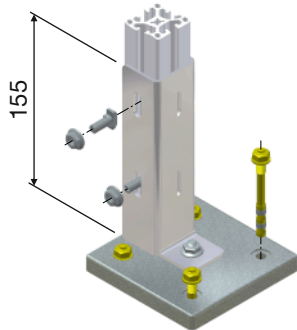
- 05.02227.x0
- 05.02227.x5
- 05.02229.x0
- 05.02229.x5
- 05.02228.x0
- 05.02228.x5
- 05.02230.x0
- 05.02230.x5

5

Technische Änderungen vorbehalten



# BODENPLATTEN PIASTRE DI BASE PŁYTY PODŁOGOWE



Bodenplatte  
Base a Piastra  
Płyta podłogowa  
GD-Zn



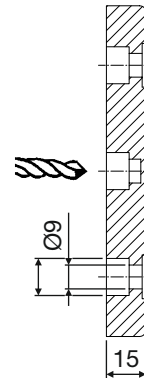
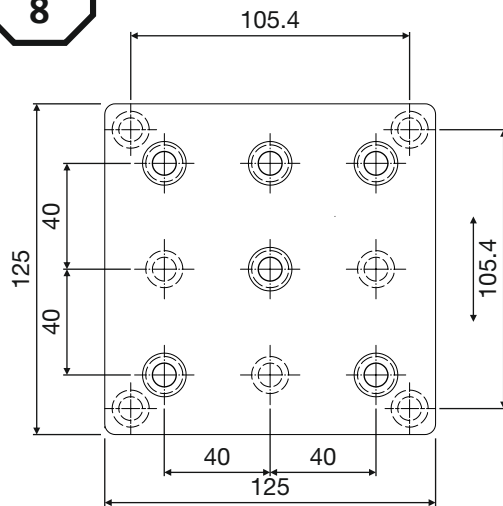
Stützwinkel  
Staffa di supporto  
Kątownik  
podporowy

St, vz

Vielseitige Anordnung der Profile  
40x40, 40x80 und 80x80 bzw.  
45x45, 45x90 und 90x90 möglich.

Disposizione versatile dei profili 40x40,  
40x80, e 80x80 o 45x45, 45x90 et  
90x90.

Wszelchstronne możliwości  
rozmieszczenia profili 40x40, 40x80 i  
80x80 bądź 45x45, 45x90 i 90x90.



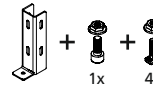
05.02040.00



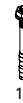
05.01125.00



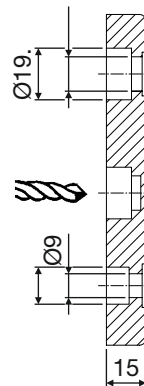
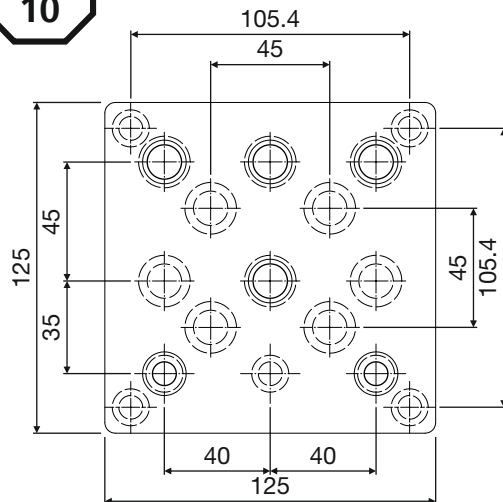
05.02042.00



05.02042.05



05.01172.00



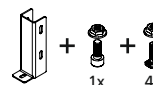
05.02041.00



05.01127.00



05.02043.00



05.02043.05



05.01172.00

Technische Änderungen vorbehalten

# RÄDER, FÜSSE, PLATTEN

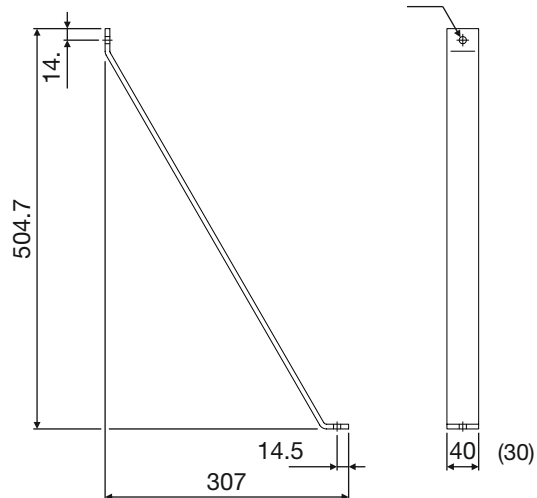
PIEDI; RUOTE; PIASTRE

ELEMENTY PODŁOGOWE (KOŁA, NOGI), PŁYTY



## Stützstrebe

Braccio di supporto · Podpory



Stahl, verzinkt  
Acciaio, zincato  
Stal ocynkowana



B=30 mm

05.02376.00

+ 05.02376.05



B=40 mm

05.02038.00

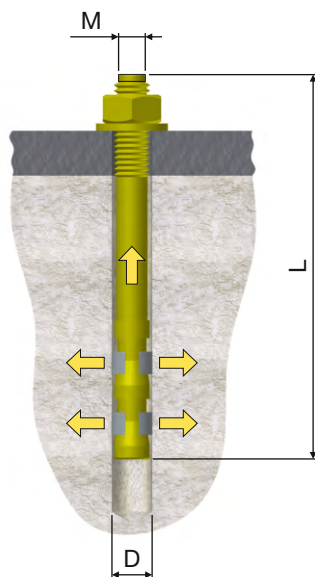
+ 05.02038.05



5

## Fundamentschraube

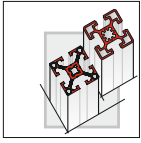
Vite di ancoraggio · Śruba fundamentowa



Stahl, verzinkt  
Acciaio, zincato  
Stal ocynkowana

M	L	D	
M8	86	Ø9	05.01172.00
M12	156	Ø13	05.01033.00

Technische Änderungen vorbehalten



# TRANSPORT- UND LENKROLLEN



## RUOTE

## ROLKI TRANSPORTOWE I SAMONASTAWCZE







**A**



$\varnothing$ [mm]	$F_{max}$ ↓ [N]	$F_{max}$ ↓ [N]		Varianten Wariant Warianty
Ø50	500	1500	➡ ■ 5.17	 





**B**



Ø75	600	1800	➡ ■ 5.18	 
Ø100	700	2100	➡ ■ 5.18	 




**C**



Ø80	600	1800	➡ ■ 5.19	 
Ø125	1000	3000	➡ ■ 5.19	 

**D**



Ø80	1250	3750	➡ ■ 5.20	 
Ø125	1500	4500	➡ ■ 5.20	
Ø160	3000	9000	➡ ■ 5.20	

Technische Änderungen vorbehalten



# TRANSPORT- UND LENKROLLEN

## RUOTE

## ROLKI TRANSPORTOWE I SAMONASTAWCZE



Rolle für geringe Lasten und glatte Böden geeignet.

**Ausführung:** Kunststoff PA 6

Ruote adattabili per carichi leggeri e superfici uniformi.

**Fmateriale:** Plastica Pa 6

Rolka przeznaczona do niewielkich obciążeń i gładkich podłóg.

**Wykonanie:** tworzywo sztuczne Pa 6

Kostengünstige Rolle für leichte bis mittlere Lasten bei Industrieböden.

**Gehäuse:** Stabiles Stahlblech, gepresst, verzinkt-chromatiert  
**Drehkranz:** Zweifache Kugellagerung, minimales Spiel, für leichtgängigen Lauf  
**Achse:** Stahl verzinkt, Gleitlagerung  
**Rad:** Vollgummi, grau, 80° Shore A

**Radkörper:** Polyamid, schwarz

Ruote economiche per carichi leggeri/medi su pavimentazione industriale.

**Corpo:** lamiera di acciaio robusto pressato, zincato-cromato  
**Anello del cuscinetto:** Doppio cuscinetto a sfera, gioco minimo per un facile movimento  
**Asse:** Acciaio zincato, cuscinetto liscio  
**Ruote:** gomma vulcanizzata, grigia, 80° Shore A  
**Wheel casing:** Polyamide, black

Niedroga rolka do małych lub średnich obciążeń w przypadku podłóg przemysłowych.  
**Obudowa:** stabilna blacha stalowa, wytlaczana, ocynkowana-chromianowana  
**Wieniec obrotowy:** podwójne łożysko kulkowe, minimalny luz, dla zapewnienia łatwości obracania się: stal ocynkowana, łożysko ślizgowe  
**Koło:** ogumienie pełne, szare, twardość 80° wg Shore'a A  
**Korpus koła:** poliamid, czarny

Rolle in guter Qualität für leichte bis mittlere Lasten bei Industrieböden.

**Gehäuse:** Stabiles Stahlblech, gepresst, verzinkt-chromatiert  
**Drehkranz:** Zweifache Kugellagerung, minimales Spiel, für leichtgängigen Lauf  
**Achse:** Stahl verzinkt, Kugellagerung  
**Rad:** Vollgummi, grau, 80° Shore A

**Radkörper:** Polyamid, schwarz

Ruote di buona qualità per carichi leggeri/medi su pavimentazione industriale.

**Corpo:** lamiera di acciaio robusto pressato, zincato-cromato  
**Anello del cuscinetto:** Doppio cuscinetto a sfera, gioco minimo per un facile movimento  
**Asse:** Acciaio zincato, cuscinetto a sfera  
**Ruote:** gomma vulcanizzata, grigia, 80° Shore A  
**Corpo della ruota:** Polyamide, nero

Rolka o dobrej jakości, do małych lub średnich obciążeń w przypadku podłóg przemysłowych.  
**Obudowa:** stabilna blacha stalowa, wytlaczana, ocynkowana - chromianowana  
**Wieniec obrotowy:** podwójne łożysko kulkowe, minimalny luz, dla zapewnienia łatwości obracania się  
**Oś:** stal ocynkowana, łożysko kulkowe  
**Koło:** ogumienie pełne, szare, twardość 80° wg Shore'a A  
**Korpus koła:** poliamid, czarny

Stabile, robuste Rolle für mittlere bis schwere Lasten.

**Gehäuse:** Stabiles Stahlblech, gepresst, verzinkt-chromatiert  
**Drehkranz:** Zweifache Kugellagerung, minimales Spiel, für leichtgängigen Lauf  
**Achse:** Stahl verzinkt, Gleitlagerung  
**Rad:** Vollgummi, grau, 98° Shore A, abriebfest  
**Radkörper:** Polyamid, hellgrau

Ruote stabili e robuste per carichi medi/pesanti.

**Corpo:** Lamiera di acciaio robusto pressato, zincato-cromato  
**Anello del cuscinetto:** Doppio cuscinetto a sfera, gioco minimo per un facile movimento  
**Asse:** Acciaio zincato, cuscinetto liscio  
**Ruote:** Poliuretano, grigio 98° shore A, resistenza all'usura  
**Corpo della ruota:** polyamide, grigio chiaro

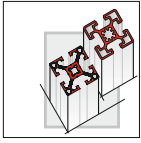
Stabilna, wytrzymała rolka do średnich i dużych obciążeń.

**Obudowa:** stabilna blacha stalowa, wytlaczana, ocynkowana - chromianowana  
**Wieniec obrotowy:** podwójne łożysko kulkowe, minimalny luz, dla zapewnienia łatwości obracania się  
**Oś:** stal ocynkowana, łożysko ślizgowe  
**Koło:** ogumienie pełne, szare, twardość 98° wg Shore'a A, odporne na ścieranie  
**Korpus koła:** poliamid, jasnoszary

Fahr-Stopp-Rolle mit besten Laufeigenschaften und hoher Belastbarkeit für einen sicheren Stand.

Ruota STOP&GO, eccellenti proprietà di rotolamento e alta capacità di carico, offrono una grande stabilità in sicurezza.

Rolka do jazdy z możliwością zatrzymania, zapewniająca najlepsze właściwości ruchowe i wysoką obciążalność dla zapewnienia stabilności.



## TRANSPORT- UND LENKROLLEN

### RUOTE

### ROLKI TRANSPORTOWE I SAMONASTAWCZE



**A**



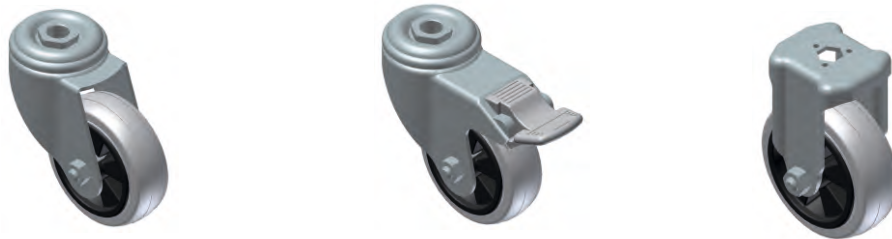
■ 5.17

**B**



■ 5.18

**C**

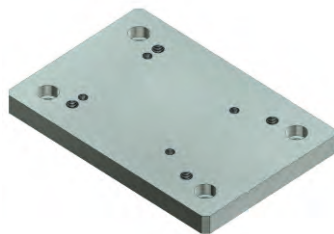


■ 5.19

**D**



■ 5.20



■ 5.24

Technische Änderungen vorbehalten

# DOPPELROLLE MIT / OHNE FESTSTELLER

RUOTE DOPPIE CON / SENZA FRENO

PODWÓJNA ROLKA Z USTALACZEM / BEZ USTALACZA



## Ø50 - stirnseitig

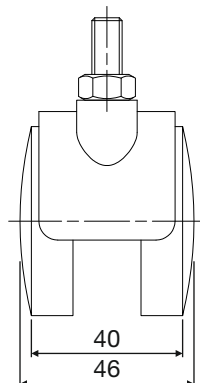
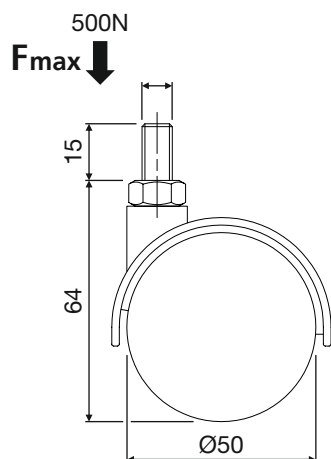
Ø50 montaggio di testa · Ø50 od strony czoła



05.01211.00



05.01213.00



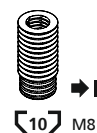
Anbausatz  
Kit di montaggio  
Zestaw montażowy



05.01248.00



05.01248.10



3.29

M8

05.01372.00

## Ø50 - nutseitig

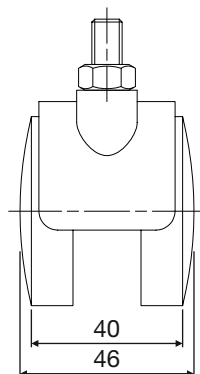
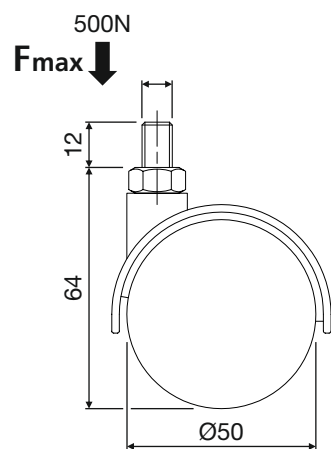
Ø50 montaggio in cava · Ø50 od strony rowka



05.01210.00



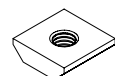
05.01212.00



Anbausatz  
Kit di montaggio  
Zestaw montażowy



05.01249.00

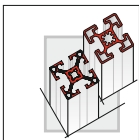


3.28

05.01070.00

Technische Änderungen vorbehalten

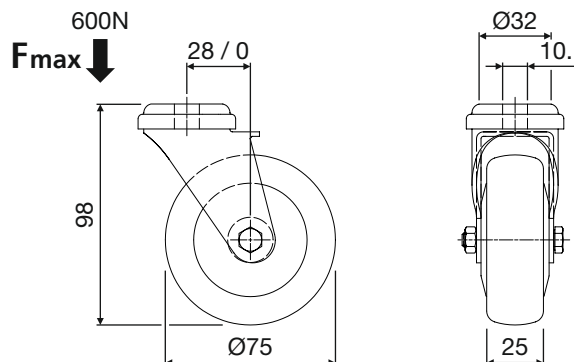
5



**ROLLEN MIT RÜCKENLOCH**  
**RUOTE GIREVOLI CON FORO CENTRALE**  
**ROLKA Z OTWOREM Z TYŁU**

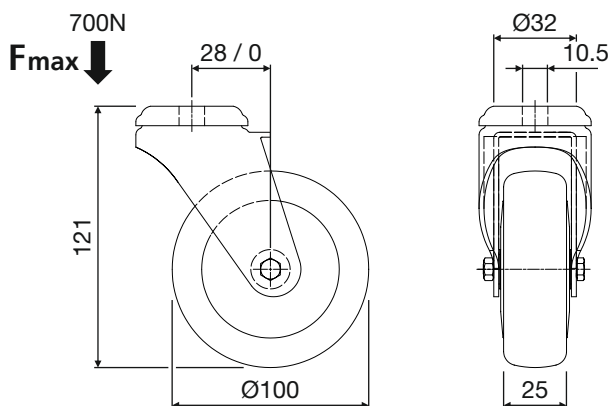


**Ø75**



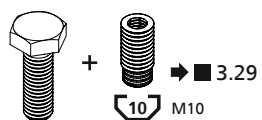
- 05.01241.00**
- 05.01975.00**
- 05.01240.00**
- 05.01976.00**
- 05.01242.00**
- 05.01977.00**

**Ø100**



- 05.01244.00**
- 05.01978.00**
- 05.01243.00**
- 05.01979.00**

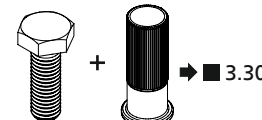
**Anbausatz Profilstirnseite**  
 Kit di montaggio di testa  
 Zestaw do montażu od strony czoła profilu



M8x40  
 M10x40

**05.01998.00**  
**05.01999.00**

**Anbausatz Profilvernut**  
 Kit di montaggio in cava  
 Zestaw do montażu w rowku profilu



M8x30  
 M10x40

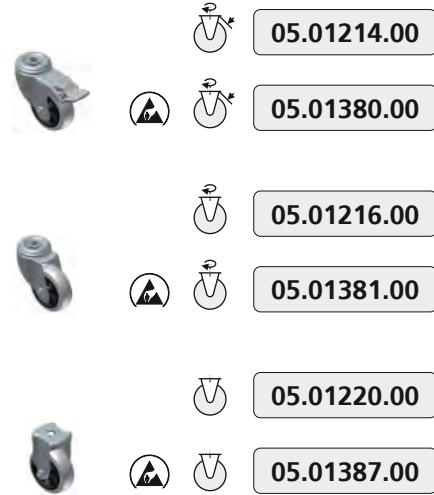
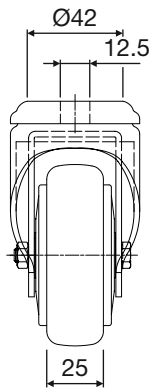
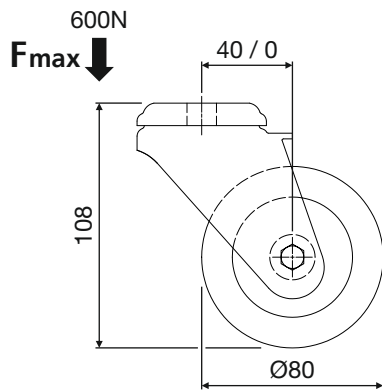
**05.01681.00**  
**05.01997.00**

Technische Änderungen vorbehalten

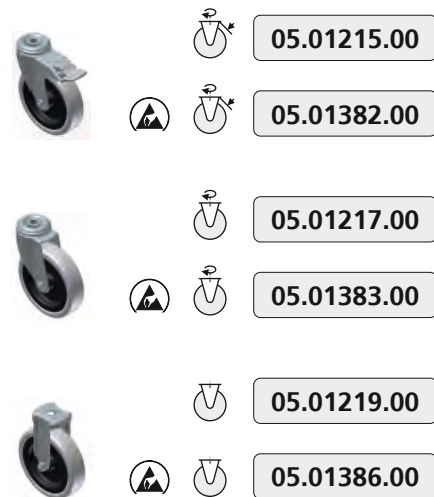
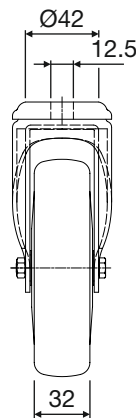
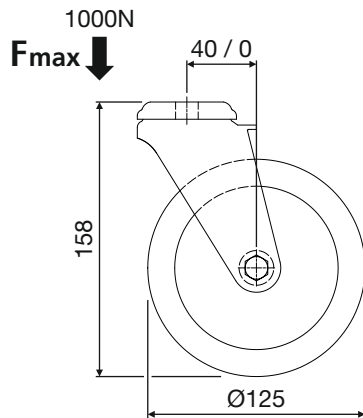
**ROLLEN MIT RÜCKENLOCH**  
**RUOTE GIREVOLI CON FORO CENTRALE**  
**ROLKA Z OTWOREM Z TYŁU**



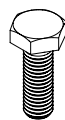
**Ø80**



**Ø125**



**Anbausatz Profilstirnseite**  
 Kit di montaggio di testa  
 Zestaw do montażu od strony czoła profilu



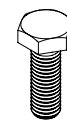
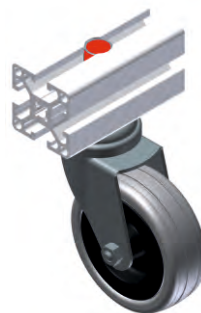
8 M12x30

10 M12x45

8 05.01218.00

10 05.01218.10

**Anbausatz Profilmutter**  
 Kit di montaggio in cava  
 Zestaw do montażu w rowku profilu



+ 3.30

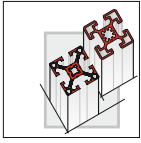
8 M12x45

10 M12x45

8 05.01384.00

10 05.01384.10

Technische Änderungen vorbehalten

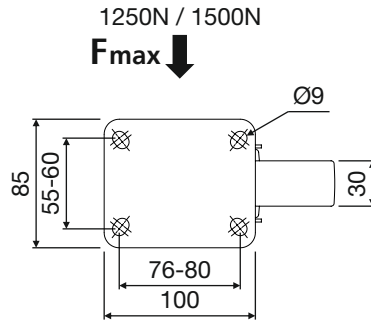
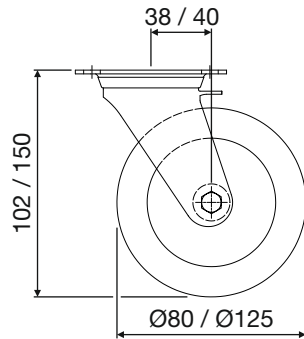


**ROLLEN MIT ANSCHRAUBPLATTE**  
**RUOTE CON PIASTRA**  
**ROLKA Z PRZYKRĘCANĄ PŁYTĄ**



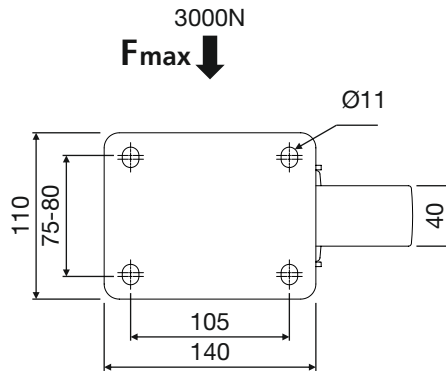
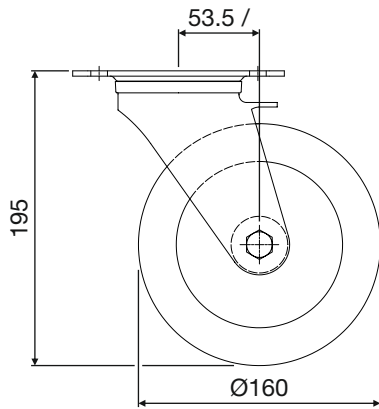
**Ø80**  
A

**Ø125**  
B



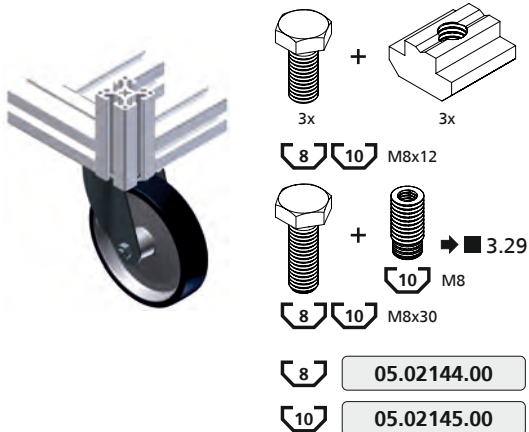
- A** 05.01549.00
- B** 05.01246.00
- A** 05.01548.00
- B** 05.01245.00
- B** 05.01247.00

**Ø160**

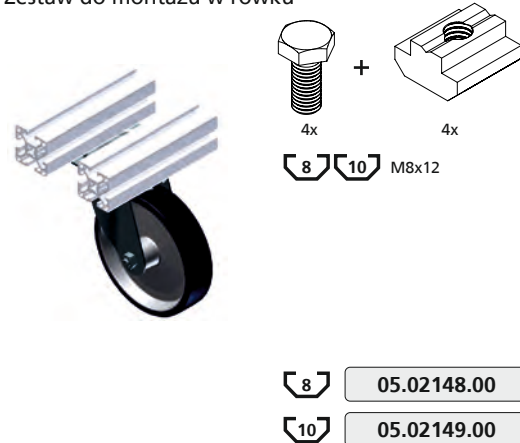


- 05.01521.00
- 05.01520.00
- 05.01522.00

**Anbausatz Profilstirnseite**  
 Kit di montaggio di testa  
 Zestaw do montażu od strony czoła profilu



**Anbausatz Profilitnut**  
 Kit di montaggio in cava  
 Zestaw do montażu w rowku



Technische Änderungen vorbehalten

**FADENSCHUTZ**  
**PROTEZIONE RUOTE**  
**OCHRONA NICI**



**Ø75** → ■ 5.18

Stahl, verzinkt  
 Acciaio, zincato  
 Stal ocynkowana

 **05.01524.00**

**Ø80** → ■ 5.19

Stahl, verzinkt  
 Acciaio, zincato  
 Stal ocynkowana

 **05.01525.00**

**Ø100** → ■ 5.18

Stahl, verzinkt  
 Acciaio, zincato  
 Stal ocynkowana

 **05.01526.00**

**Ø125** → ■ 5.19

Stahl, verzinkt  
 Acciaio, zincato  
 Stal ocynkowana

 **05.01527.00**

**Ø125** → ■ 5.20

Stahl, verzinkt  
 Acciaio, zincato  
 Stal ocynkowana

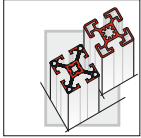
 **05.01529.00**

**Ø160** → ■ 5.20

Stahl, verzinkt  
 Acciaio, zincato  
 Stal ocynkowana

 **05.01539.00**

Technische Änderungen vorbehalten



# ANSCHRAUBPLATTE

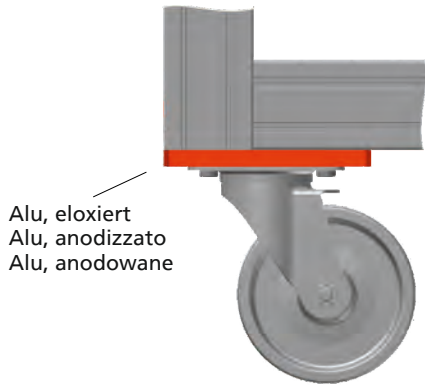
## PIASTRA DI INTERFACCIA RUOTE

### PLĘTA PRZYKRĘCANA

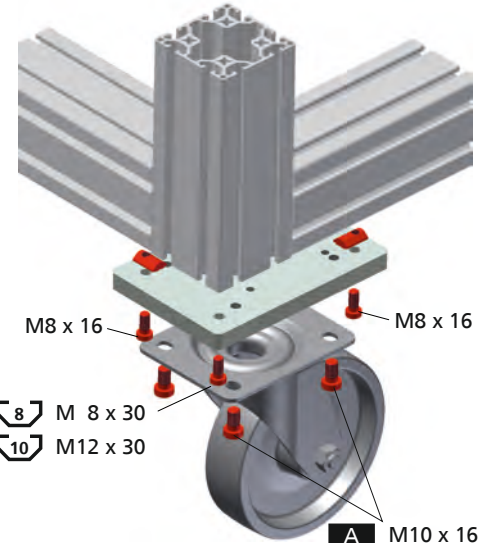


### Anwendung

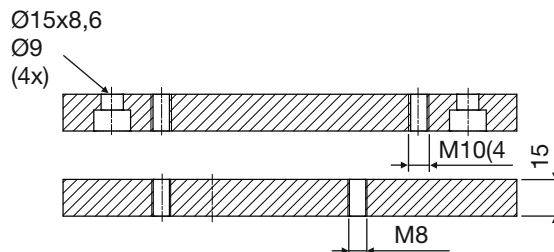
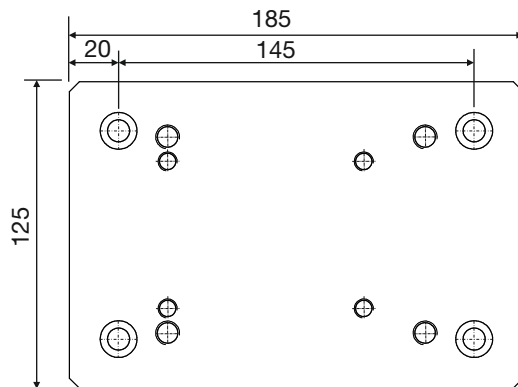
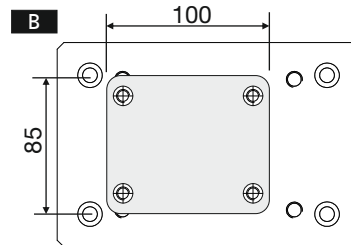
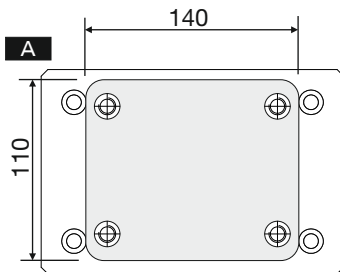
Applicazione · Zastosowanie



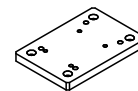
Alu, eloxiert  
Alu, anodizzato  
Alu, anodowane



M8 x 16  
M8 x 16  
M 8 x 30  
M12 x 30  
A M10 x 16  
B M8 x 16

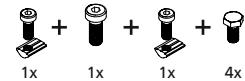


➔ 5.20



05.01582.00

Anbausatz  
Kit di montaggio  
Zestaw montażowy

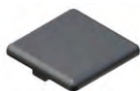


A	8	05.01583.00
B	8	05.01583.10
A	10	05.01584.00
B	10	05.01584.10

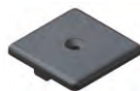
Technische Änderungen vorbehalten



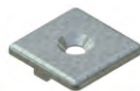
**ZUBEHÖR**  
ACCESSORI  
AKCESORIA



■ 6.02



■ 6.04



■ 6.05



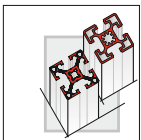
■ 6.06



■ 6.07



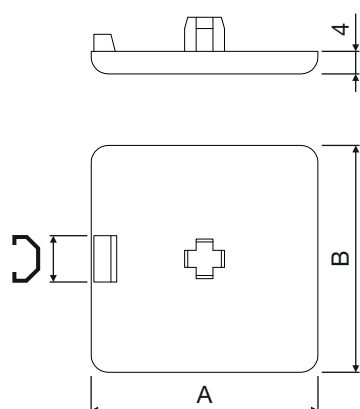
■ 6.08



**ABDECKKAPPEN KUNSTSTOFF**  
**CUFFIE DI PLASTICA**  
**ZAŚLEPKI TWORZYWO SZTUCZNE**



**Typ A**



PA 6 schwarz  
 nero  
 czarny



16	8S	A x B	
		16 x 40	05.01740.00
		16 x 80	05.01741.00
		16 x 120	05.01748.00
		16 x 160	05.01747.00

20	5	A x B	
		10 x 20	05.02270.00
		20 x 20	05.01742.00
		20 x 40	05.01743.00
		40 x 40	05.01744.00

30	8E	A x B	
		30 x 30	05.01183.00
		30 x 60	05.01587.00
		30 x 30-R	05.01773.00

10K 30	8K	A x B	
		30 x 30	05.02125.00
		30 x 60	2x 30x30

40	8	A x B	
		40 x 40	05.01175.00
		40 x 80	05.01176.00
		40 x 120	05.01786.00
		40 x 160	05.01188.00
		80 x 80	05.01177.00
		80 x 120	05.01787.00
		80 x 160	05.01785.00
		40 x 40-R	05.01728.00
		40 x 40-45°	05.01745.00

R 40	8	A x B	
		40R80-30°	05.01724.00
		40R80-45°	05.01725.00
		40R80-60°	05.01726.00
		40R80-90°	05.01727.00
		40 x 40	05.01311.00
		40 x 80	05.01312.00

Technische Änderungen vorbehalten

**ABDECKKAPPEN KUNSTSTOFF**  
**CUFFIE DI PLASTICA**  
**ZASLEPKI TWORZYWO SZTUCZNE**



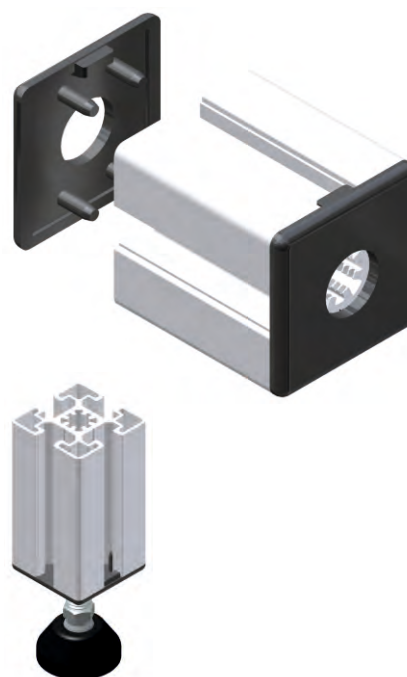
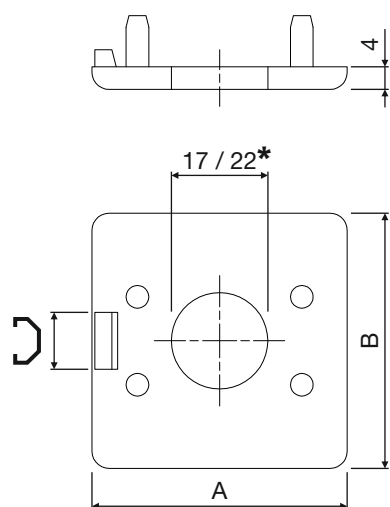
45 x 45	05.01178.00
45 x 60	05.01179.00
45 x 90	05.01180.00
45 x 180	05.02371.00
60 x 60	05.01181.00

60 x 90	05.01738.00
90 x 90	05.01182.00
90 x 90S	05.01739.00
45 x 45-R	05.01774.00



50 x 50	05.01720.00
50 x 100	05.01721.00
100x100	2x 50x100

**Typ B**



PA 6  
 schwarz  
 nero  
 czarny

6

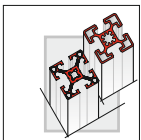


A x B	
45 x 45	05.01184.00
45 x 60	05.01185.00
60 x 60	05.01345.00

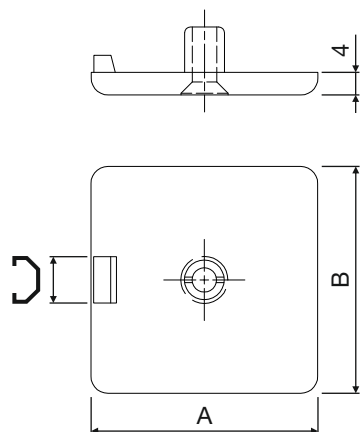


A x B	
50 x 50	05.01723.00

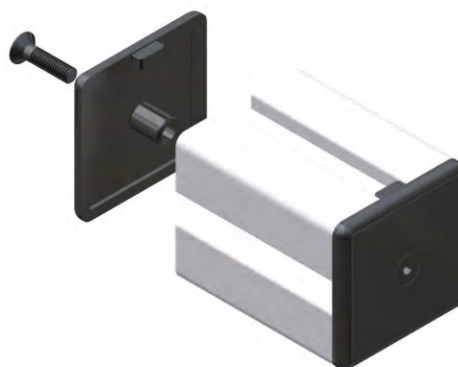
Technische Änderungen vorbehalten



**ABDECKKAPPEN EINSCHLAGSCHRAUBE**  
**CUFFIE CON VITI DI FISSAGGIO**  
**ZAŚLEPKI ŚRUBA WTŁACZANA**



M4 x 16

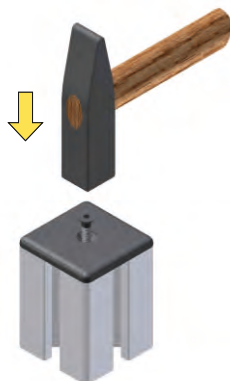


PA 6  
 schwarz  
 nero  
 czarny

**1. ... platzieren**  
 posizionare  
 umieścić



**2. ... einschlagen**  
 inserire  
 wbić



**3. ... lösen**  
 avvitare  
 zwalnianie



30

8E



A x B

30 x 30 05.01775.00

30 x 60 05.01779.00

40

8



A x B

40 x 40 05.01776.00

40 x 80 05.01777.00

80 x 80 05.01778.00

45

10

45 x 45 05.01788.00

45 x 60 05.01789.00

45 x 90 05.01790.00

60 x 60 05.01791.00

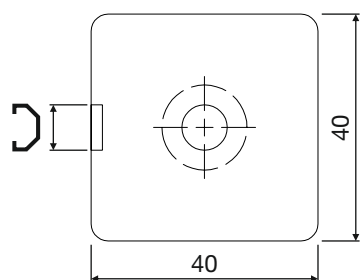
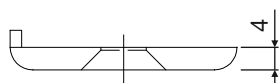
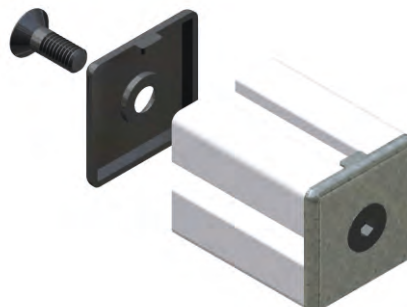
90 x 90 05.01792.00





Technische Änderungen vorbehalten

**ABDECKKAPPEN ZINKDRUCKGUSS**  
**CUFFIE ZINCO PRESSOFUSO**  
**ZAŚLEPKI CYNKOWY ODLEW CIŚNIENIOWY**



SF 7.1 x 16

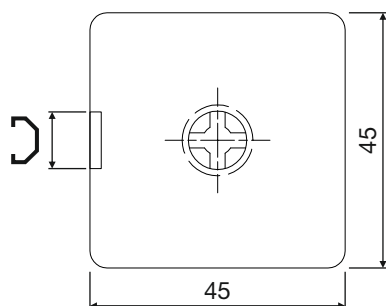
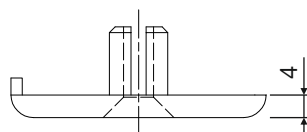
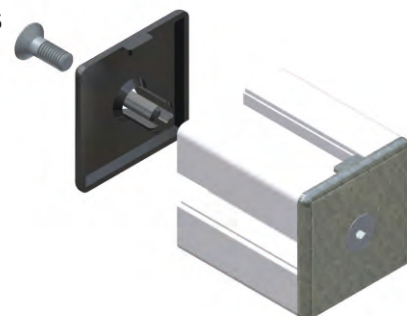






- \* **A** GD-Zn natur naturale naturalny  +  1x **05.01734.05**
- \* **B** GD-Zn schwarz nero czarny  +  1x **05.01735.05**

\* Nicht geeignet für Profil: 40x40 EL 1.4  
 Non adatto ai profili:  
 Nie nadaje się do profilu:



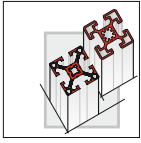
M6 x 16



- \* **A** GD-Zn natur naturale naturalny  +  1x **05.01736.05**
- \* **B** GD-Zn schwarz nero czarny  +  1x **05.01737.05**

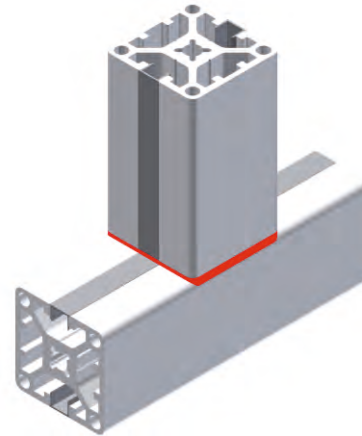
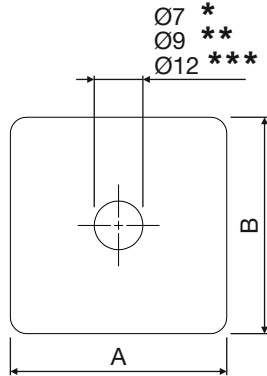
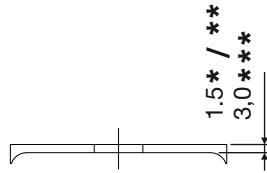
Technische Änderungen vorbehalten





# RADIUSAUSGLEICH

DISTANZIALE DI COMPENSAZIONE RAGGIO  
KOMPENSACJA PROMIENIOWA

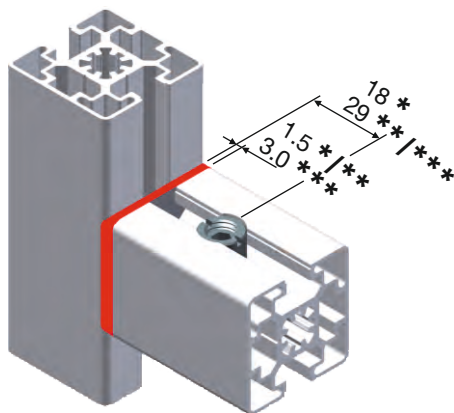


PA 6  
lichtgrau  
grigio chiaro  
jasnoszary

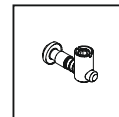
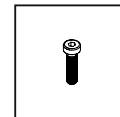
30	8E	*	30 x 30	05.01690.00
----	----	---	---------	-------------

40	8	**	40 x 40	05.01691.00
----	---	----	---------	-------------

45	10	***	45 x 45	05.01719.00
----	----	-----	---------	-------------



Maße bei der Profilbearbeitung berücksichtigen  
Tenere conto delle dimensioni per la lavorazione del profilo  
Uwzględnić wymiary podczas obróbki profilu  
➡ ■ 3.02 / ➡ ■ 3.16



Technische Änderungen vorbehalten

# SCHIENENGLEITER

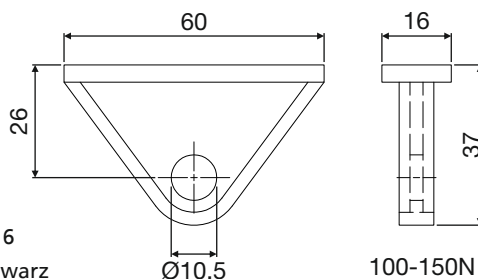
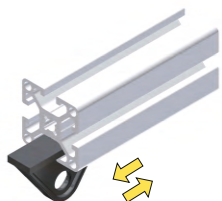
## GANCIO SCORREVOLE

## ŚLIZGACZ SZYNOWY



### Schiengleiter

Gancio scorrevole · Ślizgacz szynowy



PA 6  
schwarz  
nero  
czarny

100-150N  
**F<sub>max</sub>** ↓

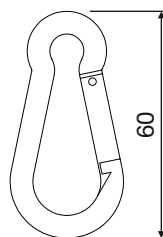


05.01192.00

6

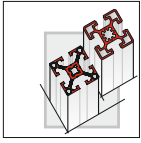
### Karabinerhaken

Moschettone · Karabińczyk



05.01193.00

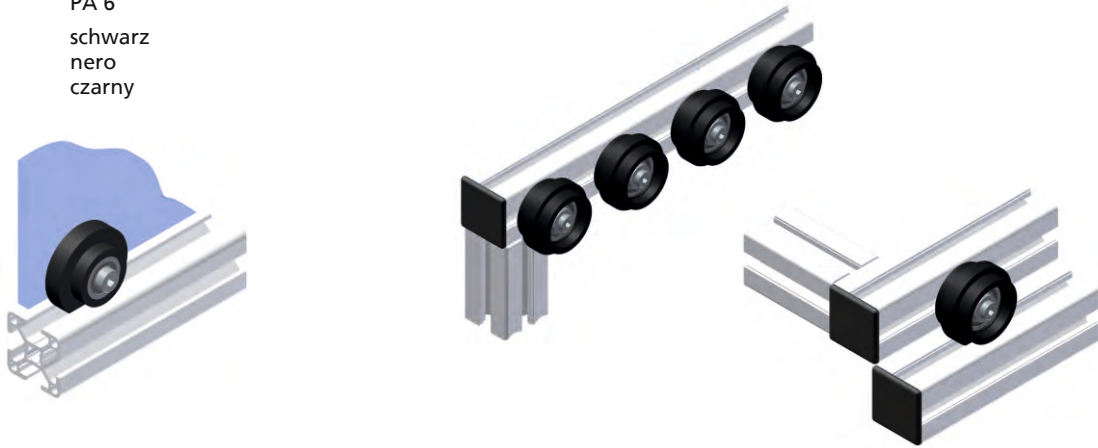
Technische Änderungen vorbehalten



**LAUFROLLEN**  
**RULLI**  
**KRAŹKI BIEŻNE**



PA 6  
 schwarz  
 nero  
 czarny



**Typ A**

50N  
**F<sub>max</sub>** ↓

Gleitlager  
 Cuscinetto a strisciamento  
 łożysko ślizgowe

**05.01624.00**

**Typ B**

150N  
**F<sub>max</sub>** ↓

Kugellager  
 Cuscinetto a sfera  
 łożysko kulkowe

**05.01622.00**

**Typ C**

150N  
**F<sub>max</sub>** ↓

Kugellager  
 Cuscinetto a sfera  
 łożysko kulkowe

**05.01623.00**

**Typ D**

150N  
**F<sub>max</sub>** ↓

Kugellager  
 Cuscinetto a sfera  
 łożysko kulkowe

**05.01638.00**

Technische Änderungen vorbehalten



# FLÄCHENELEMENTE

## PANNELLI

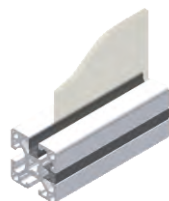
### ELEMENTY POWIERZCHNIOWE



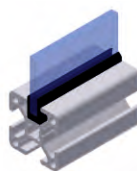
NEW



■ 7.02



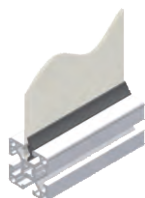
■ 7.03



■ 7.04



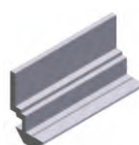
■ 7.05



■ 7.06



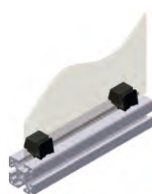
■ 7.06



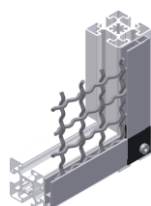
■ 7.07



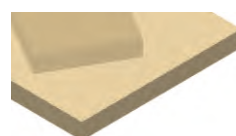
■ 7.08



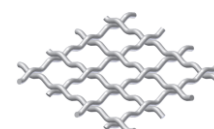
■ 7.09



■ 7.10



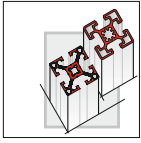
■ 7.12



■ 7.14

7

Technische Änderungen vorbehalten



# ABDECKPROFILE

## PROFILI DI COPERTURA

## PROFILE MASKUJĄCE



### Innovative Vorteile

- Schließen der Profilfläche
- Verdeckte Kabel- bzw. Pneumatikschlauch-Durchführung
- Weitere Farben auf Anfrage

### Vantaggi innovativi

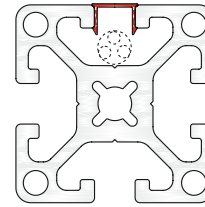
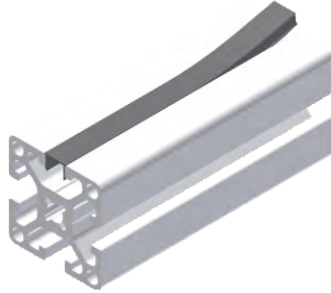
- Sigilla la scalanatura
- Copre il passaggio di cavi o di tubi pneumatici
- Su richiesta disponibili altri colori

### Nowatorskie zalety

- Zamknięcie powierzchni profilu
- Maskowane prowadzenie kabla lub węży pneumatycznego
- Inne kolory na zapytanie

### Anwendungsbeispiele

Applicazioni • Przykłady zastosowań



### Kunststoff-Plastic-PVC

RAL

Profile	Material	Color 1	Color 2	Color 3	RAL	Code
8E 8K 	PP	schwarz	nero	czarny	9011	05.02232.00
		lichtgrau	grigio chiaro	jasnoszary	7035	05.02233.00
		gelb	giallo	żółty	1018	05.02234.00
		alufarbig lackiert	alu, laccato	lakierowany na kolor aluminium	9006	05.02233.10
8 	PP	schwarz	nero	czarny	9011	05.02235.00
		lichtgrau	grigio chiaro	jasnoszary	7035	05.02236.00
		alufarbig lackiert	alu, laccato	lakierowany na kolor aluminium	9006	05.02236.10
10 	PVC	schwarz	nero	czarny	9011	05.01198.00
		lichtgrau	grigio chiaro	jasnoszary	7035	05.01698.00
		wasserblau	blu mare	jasnoniebieski	5021	05.01197.10
	PP	verkehrsblau	traffic blue	niebieski	5017	05.01197.20
		alufarbig lackiert	alu, laccato	lakierowany na kolor aluminium	9006	05.01698.10

### Aluminium

8E 8K 						05.01964.00
8 						05.01965.00

Technische Änderungen vorbehalten

# ABDECK- UND EINFASSPROFILE

## GUARNIZIONE INSERIMENTO CAVA E COPERTURA

## PROFILE OSŁONOWE I OBRÓBKOWE



### Innovative Vorteile

- Schließen der Profilfläche
- Sicherer Halt für Flächenelemente

### Vantaggi innovativi

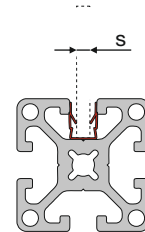
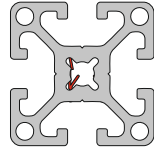
- Sigilla la scalanatura
- Mantiene e fissa elementi di superficie

### Nowatorskie zalety

- Zamknięcie powierzchni profilu
- Bezpieczne zamocowanie dla elementów powierzchniowych

### Anwendungsbeispiele

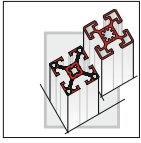
Applicazioni • Przykłady zastosowań



						RAL	
5		PP	schwarz	nero	noir	9011	05.01847.00
			natur	natural	naturalny		05.01848.00
8E		PP	schwarz	nero	czarny	9011	05.01836.00
8K			natur	naturale	naturalny		05.01832.00
		PP+TPE	schwarz	nero	czarny	9011	05.01859.00
			natur	naturale	naturalny		05.01865.00
8		PP	schwarz	nero	czarny	9011	05.01837.00
			natur	naturale	naturalny		05.01833.00
			gelb	giallo	żółty	1023	05.01831.00
		PP	natur	naturale	naturalny		05.01865.00
10		PP+TPE	schwarz	nero	czarny	9011	05.01830.00
		PE	schwarz	nero	czarny	9011	05.01187.00
		PVC	grau	grigore	szary		05.01049.00



Technische Änderungen vorbehalten



# DICHTPROFILE

## PROFILO DI ISOLAMENTO

## PROFILI USZCZELNIAJĄCE



### Innovative Vorteile

- Aufnahme von Scheiben und Flächen-elementen
- Konstruktion von dichten Flächen-elementen
- Einfache und schnelle Montage
- Material: TPE, schwarz
- 65 Shore
- PE: 50 m

### Vantaggi innovativi

- Inserimento di pannelli e altri elementi di superficie
- Isolamento
- Montaggio facile e veloce
- Materiale: TPE, nero 65 Shore
- Confezione (unità): 50 m

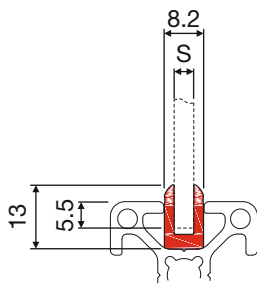
### Nowatorskie zalety

- Mocowanie szyb i elementów powierzchniowych
- Konstrukcja szczelnych elementów powierzchniowych
- Łatwy i szybki montaż
- Materiał: TPE, czarny, twardość 65<sup>wg</sup> Shore'a
- Opak.jedn.: 50 m

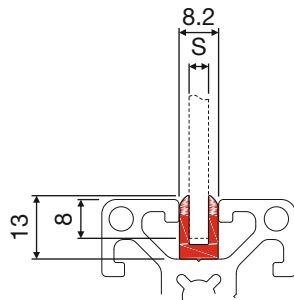
### Anwendungsbeispiele

Applicazioni • Przykłady zastosowań

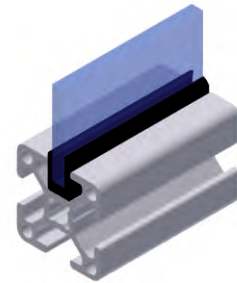
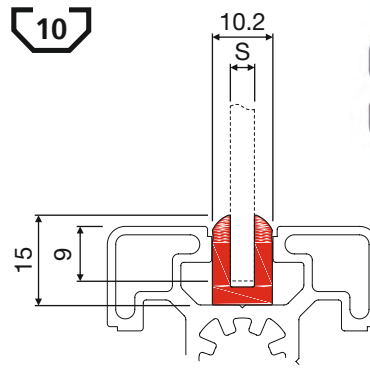
8E



8

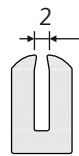


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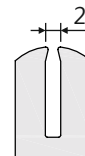
8E

8

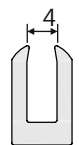


05.02067.00

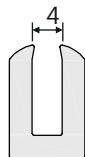
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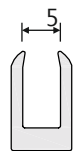
05.02070.00



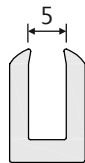
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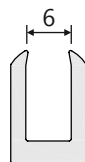
05.02071.00



05.02069.00



05.02072.00



05.02075.00

Technische Änderungen vorbehalten

# DICHTPROFILE

## PROFILO DI ISOLAMENTO

## PROFILE USZCZELNIAJĄCE



### Innovative Vorteile

- Verhindern das Austreten von Staub
- Für den Einsatz in Schwenktüren geeignet
- Einfache und schnelle Montage
- Material: NBR, schwarz
- 60 Shore
- PE: 50 m

### Vantaggi innovativi

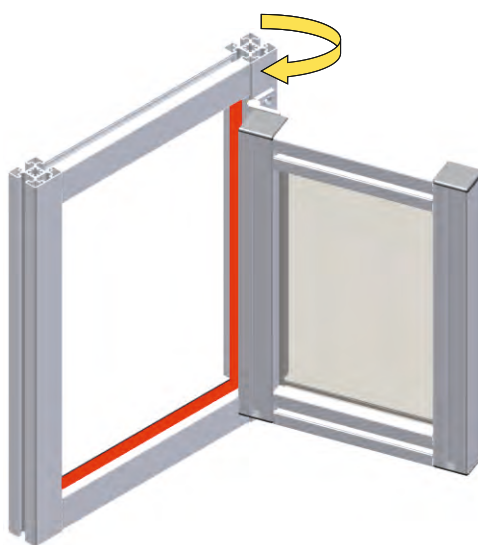
- Protezione e tenuta alla polvere
- Adatto per l'impiego di porte a battente
- Montaggio facile e veloce
- Materiale: NBR, nero 60 Shore
- Confezione (unità): 50 m

### Nowatorskie zalety

- Zapobieganie wydostawaniu się pyłu
- Nadają się do stosowania w drzwiach uchylnych
- Łatwy i szybki montaż
- Materiał: NBR, czarny, twardość 60° wg Shore'a
- Opak. jedn.: 50 m

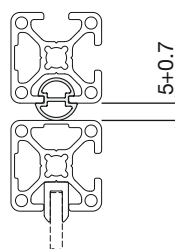
### Anwendungsbeispiele

Applicazioni • Przykłady zastosowań



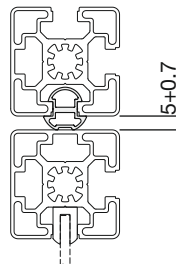
7

8E



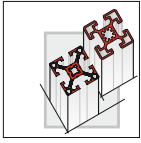
05.01850.00

10



05.01851.00

Technische Änderungen vorbehalten



# FLÄCHENELEMENTE

## GUARNIZIONE A LABRO

## ELEMENTY POWIERZCHNIOWE

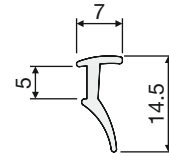
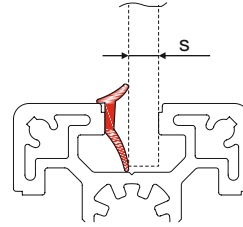
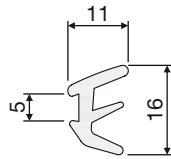
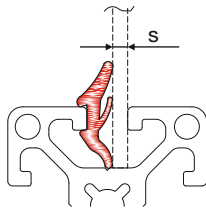


### Dichtprofile

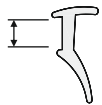
- Konstruktion von dichten Flächenelementen
- Einfache und schnelle Montage
- Material: TPE, schwarz 65 Shore
- PE: 50 m

#### Anwendungsbeispiele

Applicazioni • Przykłady zastosowań



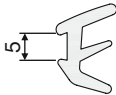
**8E**



s = 2-4

05.01875.00

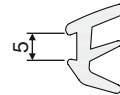
**8**



s = 2-4

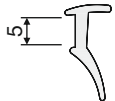
05.02192.00

**10**



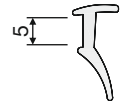
s = 4-6

05.02192.00



s = 4-6

05.02193.00



s = 6-8

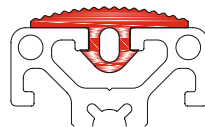
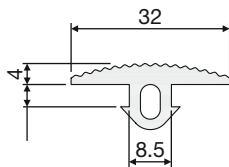
05.02193.00

### Abdeckprofil Riffelgummi

- Rutschsichere Auflage
- Schutz des Profils vor Beschädigung
- Material: NBR, schwarz 65 Shore
- PE: 50 m

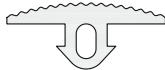
#### Anwendungsbeispiele

Applicazioni • Przykłady zastosowań



**8**

**10**



05.02194.00

### Gomma di protezione per scanatura del profilo

- Materiale antiscivolo
- Protezione al danneggiamento del profilo
- Materiale: NBR, nero 65 Shore
- Confezione (unità): 50 m

### Profil osłonowy z gumy żłobkowej

- Nakładka przeciwpoślizgowa
- Ochrona profilu przed uszkodzeniem
- Materiał: NBR, czarny, twardość 65° wg Shore'a
- Opak. jedn.: 50 m

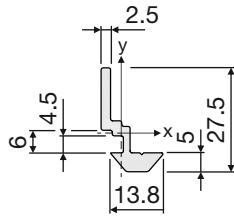
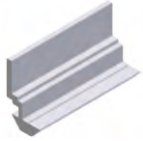


Technische Änderungen vorbehalten

# WINKELLEISTE

## GUIDE AD ANGOLO

### LISTWA KĄTOWA



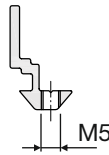
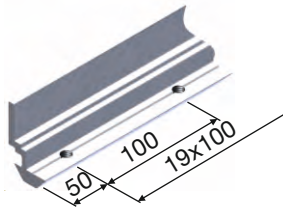
**05.01874.00**

M = 1,62 kg/m  
 $I_x = 9,98 \text{ cm}^4$   
 $W_x = 4,80 \text{ cm}^3$   
 $I_y = 6,38 \text{ cm}^4$   
 $W_y = 3,19 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

### Varianten

Wariant · Warianty



**A**

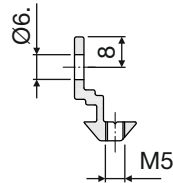
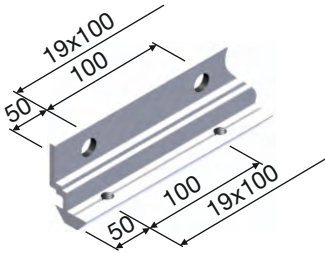
**05.01874.50**

Winkelleiste mit Gewindebohrungen

Guide ad angolo con fori filettati

Listwa kątowa z gwintowanymi otworami

PE (m)  
 1



**B**

**05.01874.51**

Winkelleiste mit Gewinde- und Befestigungsbohrungen

Guide ad angolo con fori filettati e fori di fissaggio

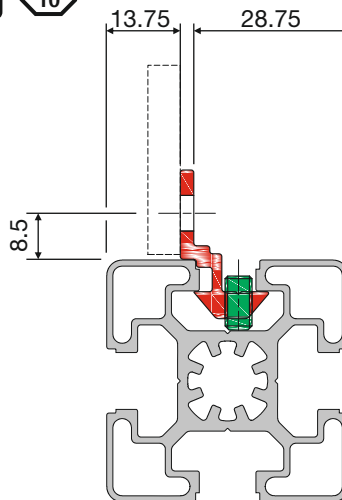
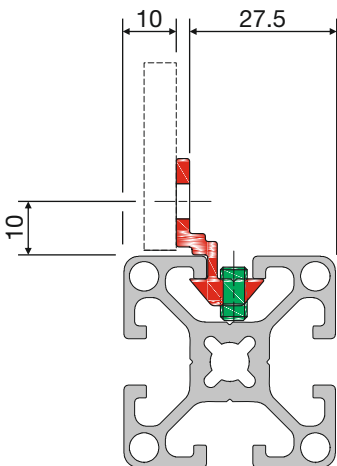
Listwa kątowa z otworami gwintowanymi i do mocowania

PE (m)  
 1

7

### Anwendung

Applicazione · Zastosowanie

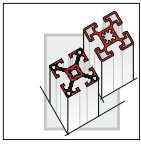


Befestigung mit Gewindestift  
 DIN 913 - M5x10

Fissaggio con viti  
 DIN 913 - M5x10

Zamocowanie za pomocą  
 wkręta bez łba  
 DIN 913 - M5x10

Technische Änderungen vorbehalten



# ANSCHRAUBHALTER VARIOFIX UCHWYT PRZYKRĘCANY



### Innovative Vorteile

- Besonders geeignet für leichte Bleche, Acrylscheiben usw.
- Unterschiedliche Abstände zur Profilkante durch Einsatz von Zwischenplatten
- Material: PA, schwarz

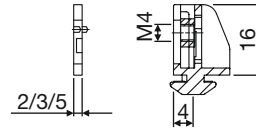
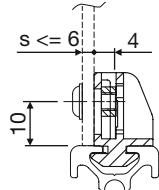
### Vantaggi innovativi

- Particolarmente adatto per pannelli di metallo leggeri, pannelli acrilici etc.
- Fissaggio a bordo del profilo utilizzando piastre distanziali
- Materiale: PA, nero

### Nowatorskie zalety

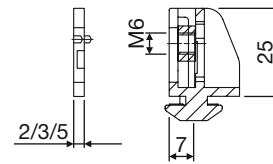
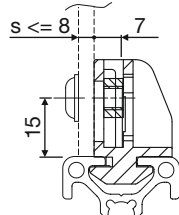
- Nadaje się szczególnie do lekkich blach, szyb akrylowych itd.
- Różne odstępki od krawędzi profilu dzięki zastosowaniu płyt pośrednich
- Materiał: PA, czarny

5



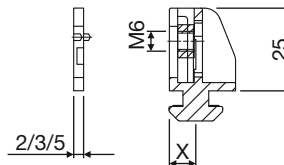
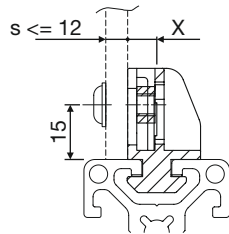
05.01838.00

8E



05.01314.00

8



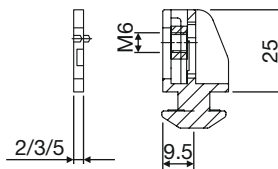
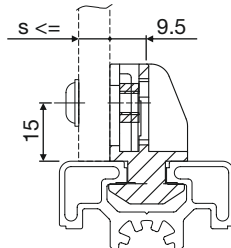
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05.01315.00

X = 14

05.01318.00

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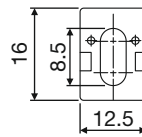
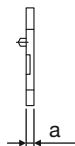


05.01316.00

## Zwischenplatten

Piastre distanziali · Płyty pośrednie

5



a = 2

05.02195.00

a = 3

05.02196.00

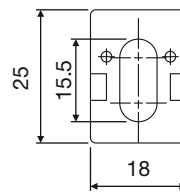
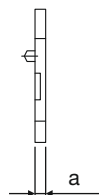
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8E

8

10



a = 2

05.01324.00

a = 3

05.01317.00

a = 5

05.01325.00

Technische Änderungen vorbehalten



# KLEMMHALTER MORSETTI UCHWYT ZACISKOWY



## Innovative Vorteile

- Besonders geeignet für leichte Bleche, Acrylscheiben usw.
- Unterschiedliche Abstände zur Profilkante durch Einsatz des Schiebers
- Material: PA, schwarz

## Anwendungsbeispiele

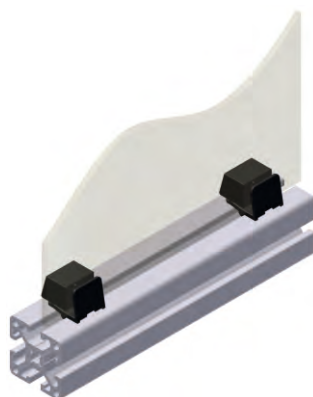
Applicazione • Zastosowanie

## Vantaggi innovativi

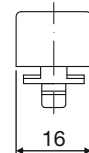
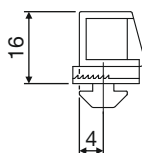
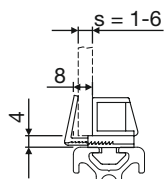
- Particolarmente adatto per pannelli leggeri, piastre acriliche, etc.
- Spaziatura alternativa a bordo del profilo utilizzando dispositivo di scorrimento
- Materiale: PA, nero

## Nowatorskie zalety

- Nadaje się szczególnie do lekkich blach, szyb akrylowych itd.
- Różne odstępki od krawędzi profilu dzięki zastosowaniu suwaka
- Materiał: PA, czarny

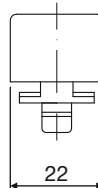
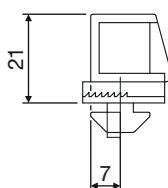
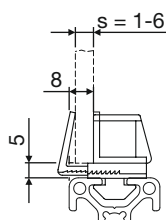


5



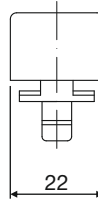
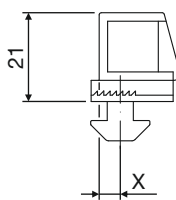
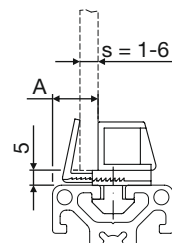
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8E



05.01319.00

8



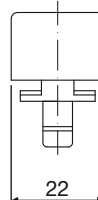
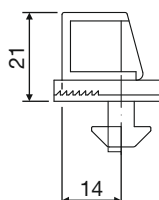
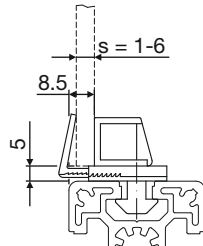
A = 15; X = 5

05.01320.00

A = 8.5; X = 11.5

05.01321.00

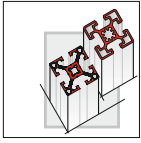
10



05.01322.00

Technische Änderungen vorbehalten

7



# GITTEREINFASSPROFIL

## PROFILATO PER GABBIA DI PROTEZIONE

## PROFIL DO MOCOWANIA KRATY



### Innovative Vorteile:

- Aufnahme von Wellgitter 30x30x3 und 40x40x4
- Besonders stabil durch tiefen Einschub
- Einfache und schnelle Montage

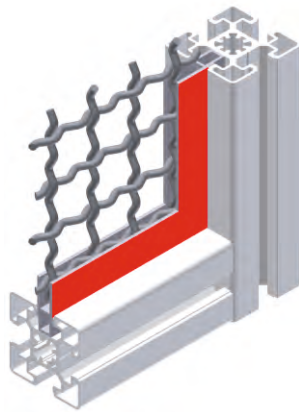
### Vantaggi innovativi

- Fissaggio per rete ondulata 30x30x3 e 40x40x4
- La cava profonda garantisce una tenuta sicura
- Montaggio facile e veloce

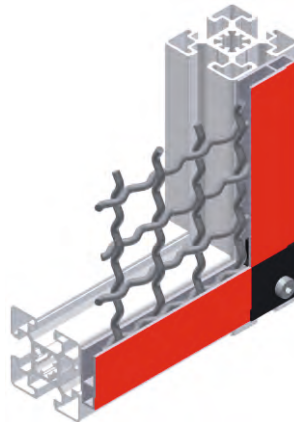
### Nowatorskie zalety

- Mocowanie krat falistych 30x30x3 i 40x40x4
- Bardzo stabilny dzięki głębokiemu wsunięciu
- Łatwy i szybki montaż

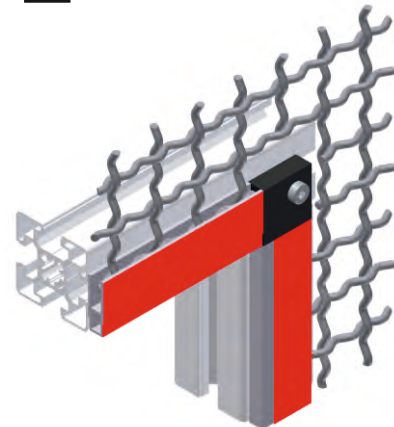
A



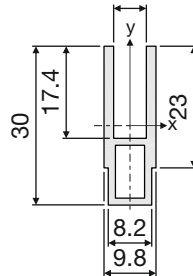
B



C



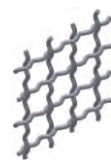
30x10



05.01117.00

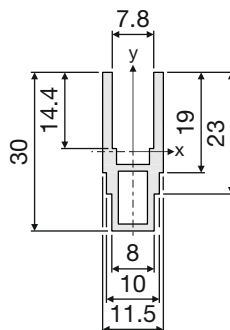
M = 0,32 kg/m

PE (m)  
6 / 30 / 60



➔ 30x30x3

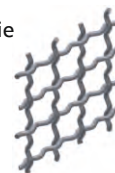
30x12



05.01118.00

M = 0,35 kg/m

Auf Anfrage  
Su richiesta  
Na zapytanie

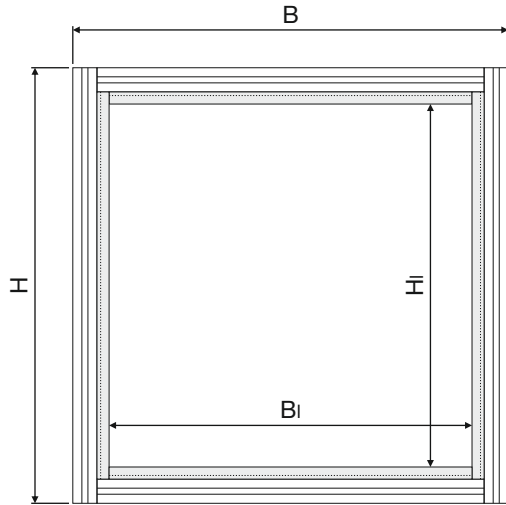




➔ 40x40x4

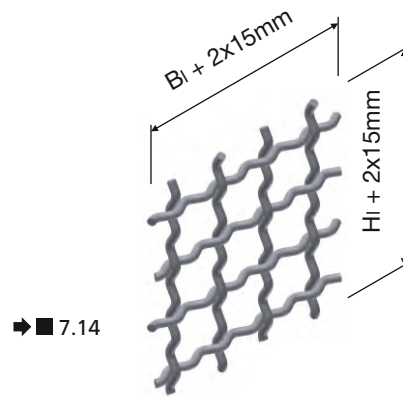
Technische Änderungen vorbehalten

# GITTEREINFASSPROFIL

## PROFILATO PER GABBIA DI PROTEZIONE PROFIL DO MOCOWANIA KRATY



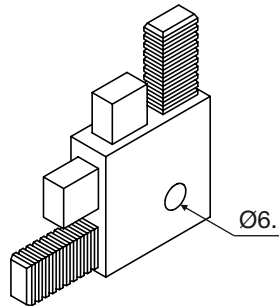
-   $B_i = B - 2 \times 63 \text{ mm}$     $H_i = H - 2 \times 63 \text{ mm}$
-   $B_i = B - 2 \times 62 \text{ mm}$     $H_i = H - 2 \times 62 \text{ mm}$



### Eckelemente

Corner elements · Élément d'angle

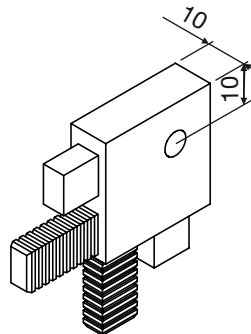
→ **B**



**05.01146.00**

- NBR, schwarz  
60 Shore
- NBR, nero  
60 Shore
- NBR, czarny  
60 Shore

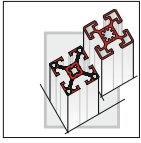
→ **C**



**05.01147.00**

- NBR, schwarz  
60 Shore
- NBR, nero  
60 Shore
- NBR, czarny  
60 Shore

Technische Änderungen vorbehalten



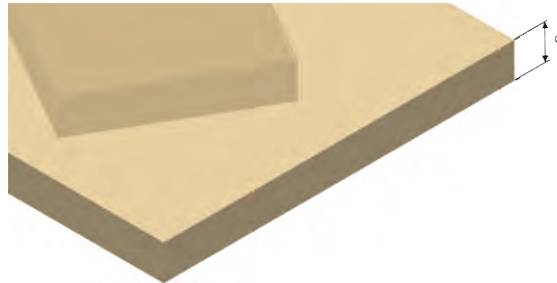
# FLÄCHENELEMENTE PANNELLI ELEMENTY POWIERZCHNIOWE



## Geschlossene Flächenelemente

## Pannelli di chiusura

## Zamknięte elementy powierzchniowe



### Polycarbonat

- Markenname: Makrolon
- Gute Schlagfestigkeit und Zähigkeit
- Sehr gute optische Eigenschaften
- 1mm:  $m = 1.2 \text{ kg/m}^2$
- Klar oder rauchfarben getönt
- Maße auf Anfrage  
 $s = 2, 3, 4, 5, 6, 8, 10, 12 \text{ mm}$

### Policarbonato

- Tipo: Makrolon, Lexan
- Buona resistenza all'impatto e resilienza
- Proprietà ottiche molto buone
- 1 mm:  $m = 1.2 \text{ kg/m}^2$
- Trasparente o opacizzato
- Dimensioni su richiesta

### Poliwęglan

- Marka: Makrolon
- Dobra wytrzymałość udarowa i ciągliwość
- Bardzo dobre właściwości optyczne
- 1 mm:  $m = 1.2 \text{ kg/m}^2$
- Przezroczysta lub dymiona
- Wymiary na zapytanie

### PMMA

- Markenname: Plexiglas
- Gute chemische Beständigkeit
- 1mm:  $m = 1.18 \text{ kg/m}^2$
- Klar oder rauchfarben getönt
- Maße auf Anfrage  
 $s = 2, 3, 4, 5, 6, 8, 10, 12 \text{ mm}$

### PMMA

- Tipo: Plexiglas
- Buona resistenza chimica
- 1mm:  $m = 1.18 \text{ kg/m}^2$
- Trasparente o opacizzato
- Dimensioni su richiesta  
 $s = 2, 3, 4, 5, 6, 8, 10, 12 \text{ mm}$

### PMMA

- Marka: Plexiglas
- Dobra odporność chemiczna
- 1mm:  $m = 1.18 \text{ kg/m}^2$
- Przezroczysta lub dymiona
- Wymiary na zapytanie  
 $s = 2, 3, 4, 5, 6, 8, 10, 12 \text{ mm}$

### Vollkunststoff

- Hohe Abrieb- und Schlagfestigkeit
- Geeignet für hochbeanspruchte Verkleidungen
- Hohe Temperaturbeständigkeit
- 1mm:  $m = 1.4 \text{ kg/m}^2$
- Farben ähnlich RAL auf Anfrage  
4 mm nur ähnlich RAL 7035
- Maße auf Anfrage  
 $s = 4, 6, 8 \text{ mm}$

### Plastica piena

- Alta resistenza all'usura e a botte
- Adatta a pannelli altamente sollecitati
- Alta resistenza termica
- 1mm:  $m = 1.4 \text{ kg/m}^2$
- Colori simili a RAL su richiesta  
4mm solo simili a RAL 7035
- Dimensioni su richiesta  
 $s = 4, 6, 8 \text{ mm}$

### Całkowicie z tworzywa sztucznego

- Wysoka odporność na ścieranie i wytrzymałość udarowa
- Odpowiednie na osłony narażone na duże obciążenia
- Wysoka odporność na działanie temperatury
- 1mm:  $m = 1.4 \text{ kg/m}^2$
- Kolory podobne do RAL na zapytanie; 4 mm tylko podobne do RAL 7035

### Hartfaserplatte

- Farbe: weiß
- Maße auf Anfrage

$s = 4, 5 \text{ mm}$

### Panello in fibra

- Colore: bianco
- Dimensioni su richiesta

$s = 4, 5 \text{ mm}$

### Płyta pilśniowa twarda

- Kolor: biały
- Wymiary na zapytanie

$s = 4, 5 \text{ mm}$

### FOREX-Platten

- Farbe: weiß / RAL-Farben auf Anfrage
- Maße auf Anfrage  
 $s = 3, 4, 5, 6, 8 \text{ mm}$

### PVC Espanso FOREX

- Colore: bianco / colori simili a RAL su richiesta
- Dimensioni su richiesta  
 $s = 3, 4, 5, 6, 8 \text{ mm}$

### Płyty FOREX

- Kolor: biały / kolory RAL na zapytanie
- Wymiary na zapytanie  
 $s = 3, 4, 5, 6, 8 \text{ mm}$

### Spanplatte

- Preiswertes Flächenelement
- Mittlere mechanische Eigenschaften
- Farben: weiß, lichtgrau (RAL 7035)
- Maße auf Anfrage  
s = 6, 8 mm

### Pannelli in truciolato

- Pannelli economici
- Medie proprietà meccaniche
- Colori: bianco, grigio chiaro (RAL 7035)
- Dimensioni su richiesta  
s = 6, 8 mm

### Płytką mocująca

- Niedrogi element powierzchniowy
- Średnie właściwości mechaniczne
- Kolory: biały, jasnoszary (RAL 7035)
- Wymiary na zapytanie  
s = 6, 8 mm

### Blech

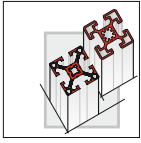
- Werkstoff: Aluminium, Stahl, VA
- Oberflächen: blank, eloxiert oder beschichtet
- 1mm (Al): m = 2.7 kg/m<sup>2</sup>
- 1mm (St): m = 7.9 kg/m<sup>2</sup>
- 1mm (VA): m = 8.0 kg/m<sup>2</sup>
- Farben nach RAL auf Anfrage
- Maße auf Anfrage  
s = 2, 3 mm

### Pannelli in metallo

- Materiale: Alluminio, acciaio, inox
- Superfici: naturale, anodizzato o satinato
- 1mm (Al): m = 2.7 kg/m<sup>2</sup>
- 1mm (St): m = 7.9 kg/m<sup>2</sup>
- 1mm (VA): m = 8.0 kg/m<sup>2</sup>
- RAL colori su richiesta
- Dimensioni su richiesta  
s = 2, 3 mm

### Blacha

- Materiał duminium, stal, VA
- Powierzchnie: błyszcząca, anodowana lub powlekana
- 1mm (Al): m = 2.7 kg/m<sup>2</sup>
- 1mm (St): m = 7.9 kg/m<sup>2</sup>
- 1mm (VA): m = 8.0 kg/m<sup>2</sup>
- Kolory według RAL na zapytanie
- Wymiary na zapytanie  
s = 2, 3 mm



# FLÄCHENELEMENTE PANNELLI ELEMENTY POWIERZCHNIOWE



## Wellgitter

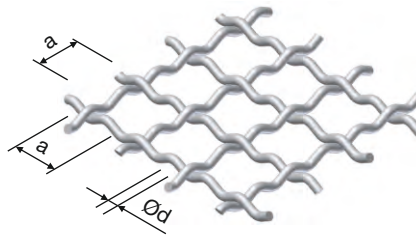
- Hohe Festigkeit des Stahdrahtes
- Geeignet für beanspruchte Sicherheitseinrichtungen
- Bieten Schutz vor Durchgreifen bzw. großen Teilen
- Oberfläche: verzinkt oder beschichtet
- Farben: schwarz;  
weitere Farben auf Anfrage

## Rete ondulata

- Filo d'acciaio ad alta resistenza
- Adatto per installazioni di sicurezza soggette ad elevati stress
- Offre protezione solo contro l'intrusione o per grossi pezzi
- Superficie: zincata o vernicata
- Colori: nero,  
altri colori su richiesta

## Kratka falista

- Wysoka wytrzymałość drutu stalowego
- Odpowiednia dla urządzeń zabezpieczających narażonych na obciążenia
- Zapewnienie tylko ochrony przed ingerencją bądź dużymi elementami
- Powierzchnia: ocynkowana lub powlekana
- Kolory: czarny,  
inne kolory na zapytanie



### Wellgitter 30

- $a \times a \times \text{Ød}$   
30 x 30 x 3
- $m = 3.69 \text{ kg/m}^2$
- Maße auf Anfrage

### Rete ondulata 30

- $a \times a \times \text{Ød}$   
30 x 30 x 3
- $m = 3.69 \text{ kg/m}^2$
- Dimensioni su richiesta

### Kratka falista 30

- $a \times a \times \text{Ød}$   
30 x 30 x 3
- $m = 3.69 \text{ kg/m}^2$
- Wymiary na zapytanie

### Wellgitter 40

- $a \times a \times \text{Ød}$   
40 x 40 x 4
- $m = 4.92 \text{ kg/m}^2$
- Maße auf Anfrage

### Rete ondulata 40

- $a \times a \times \text{Ød}$   
40 x 40 x 4
- $m = 4.92 \text{ kg/m}^2$
- Dimensioni su richiesta

### Kratka falista 40

- $a \times a \times \text{Ød}$   
40 x 40 x 4
- $m = 4.92 \text{ kg/m}^2$
- Wymiary na zapytanie

# TÜREN UND TÜRELEMENTE

## PORTE ED ACCESSORI

### DRZWI I ELEMENTY DRZWI



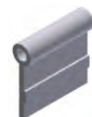
■ 8.02



■ 8.04



■ 8.08



■ 8.10



■ 8.12



■ 8.13



■ 8.14



■ 8.15



■ 8.16



■ 8.19



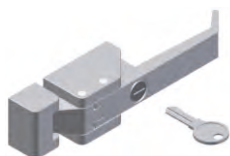
■ 8.20



■ 8.21



■ 8.22



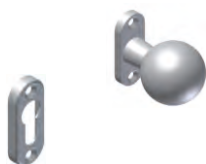
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■ 8.24



■ 8.25



■ 8.26



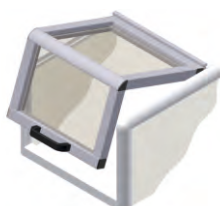
■ 8.28



■ 8.30



■ 8.32



■ 8.33



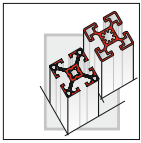
■ 8.34



■ 8.35



■ 8.36



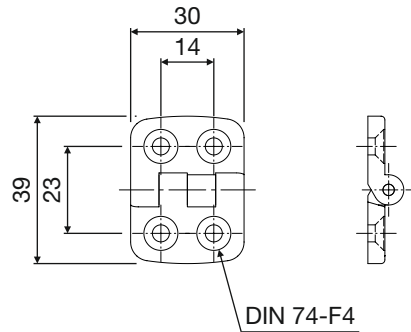
**SCHARNIERE**  
**CERNIERE**  
**ZAWIASY**



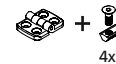
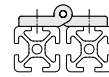
**20x20**



PA schwarz  
nero  
czarny



20 / 20



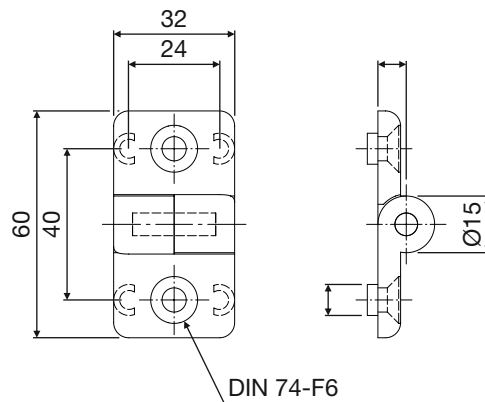
05.01300.05

4x

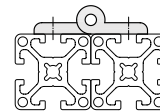
**32x60**



PA schwarz  
nero  
czarny



40 / 40



05.01630.05

2x



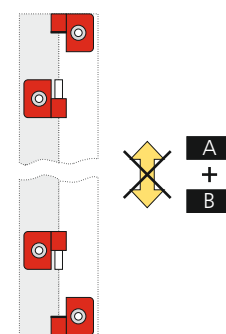
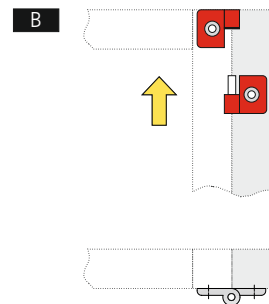
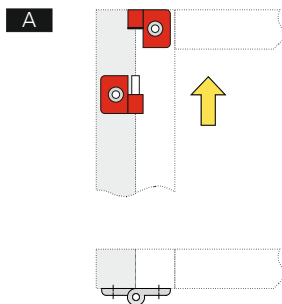
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2x

Aushängbare Tür  
**LINKS / LINKS**  
Porte smontabili  
**SINISTRA / SINISTRA**  
Drzwi z możliwością wyjęcia zawiasów  
**LEWE / LEWE**

Aushängbare Tür  
**RECHTS / RECHTS**  
Porte smontabili  
**DESTRA / DESTRA**  
Drzwi z możliwością wyjęcia zawiasów  
**PRAWO / PRAWO**

Nicht aushängbare Tür  
**LINKS / RECHTS**  
Porte non smontabili  
**SINISTRA / DESTRA**  
Drzwi bez możliwości wyjęcia z zawiasów  
**LEWE / PRAWO**



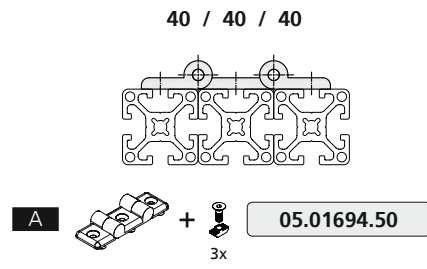
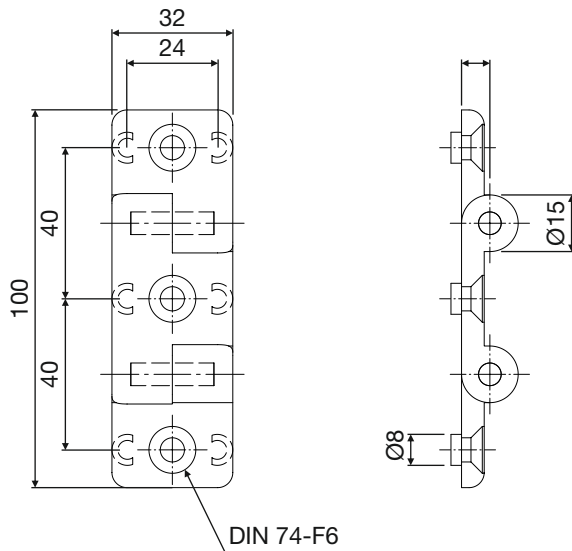
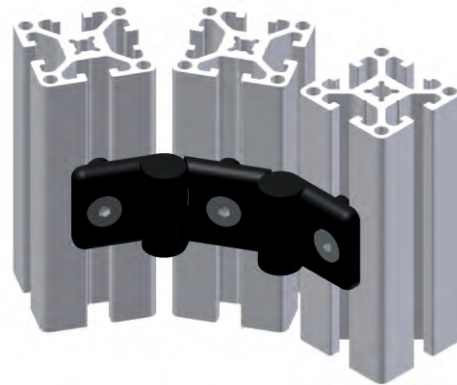
Technische Änderungen vorbehalten



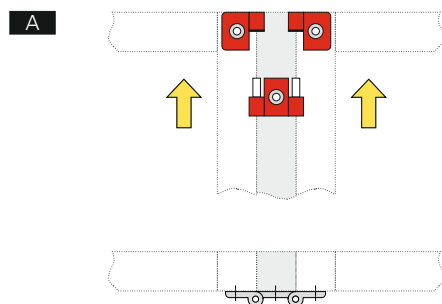
**DOPPELSCHARNIER**  
**CERNIERA DOPPIA**  
**ZAWIAS PODWÓJNY**



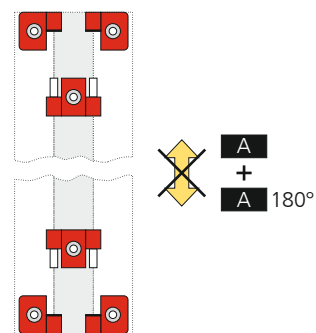
PA schwarz  
 nero  
 czarny



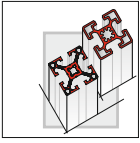
Aushängbare Türen  
 Porte smontabili  
 Drzwi z możliwością wyjęcia z zawiasów



Nicht aushängbare Türen  
 (180° gedreht)  
 Porte non smontabili  
 (ruotate di 180°)  
 Drzwi bez możliwości wyjęcia z zawiasów  
 (obrócone o 180°)



Technische Änderungen vorbehalten

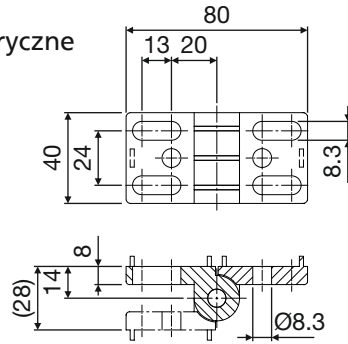


**SCHARNIERE**  
**CERNIERE**  
**ZAWIAS**



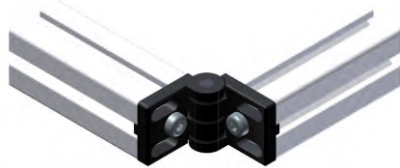
**40 Zn, symmetrisch**

40 Zn, simmetrico · 40 Zn, symetryczne



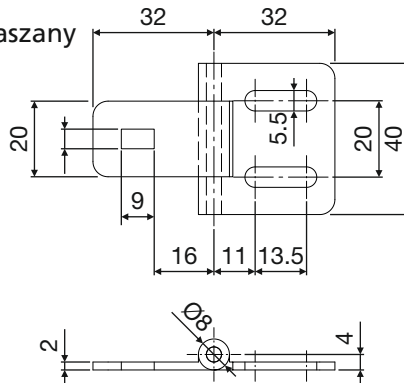
05.01639.00

Zinkdruckguss, schwarz  
Zinco pressofuso, nero  
Cynkowy odlew ciśnieniowy, czarny



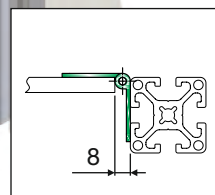
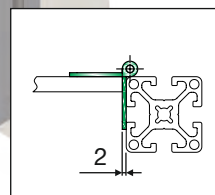
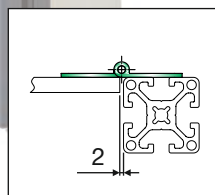
**Blechscharnier**

Foglio cerniera in metallo · Zawias blaszany



05.01119.00

Stahl, schwarz beschichtet  
Acciaio, nero rivestito  
Stal, powlekana na czarno



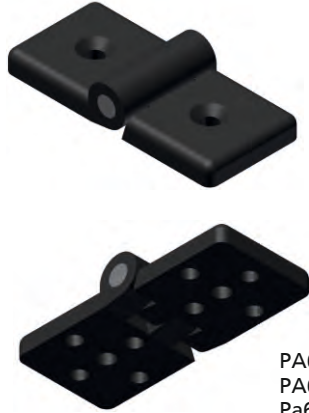
Technische Änderungen vorbehalten

**SCHARNIERE**  
CERNIERE  
ZAWIAS

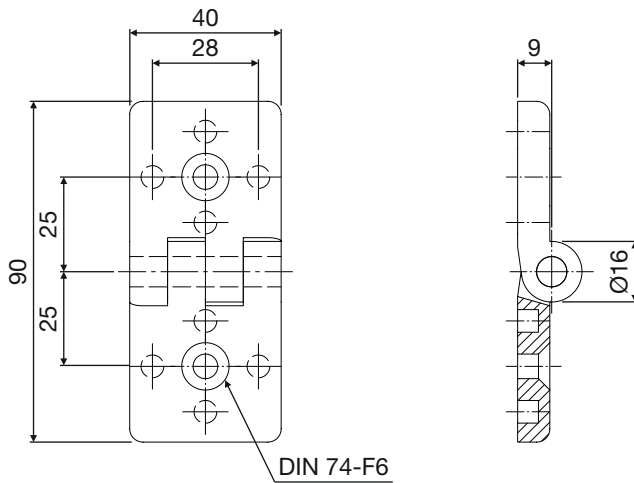


**45, symmetrisch**

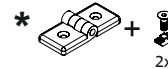
45, simmetrico · 45, symetryczny



PA6, schwarz  
PA6, nero  
Pa6 czarny



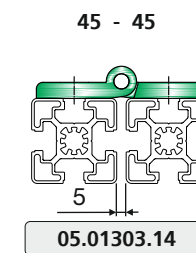
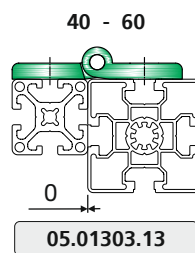
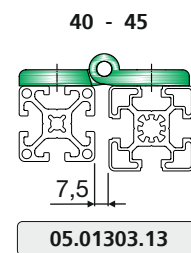
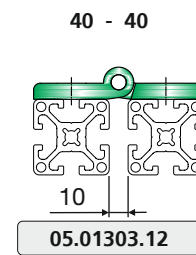
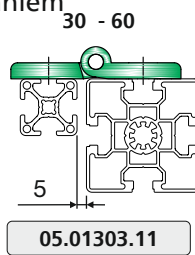
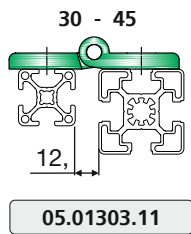
05.01303.00



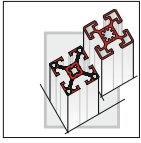
\* 05.01303.xx  
2x

**\*Mit Befestigung**

\*Con kit di montaggio · \*Z zamocowaniem



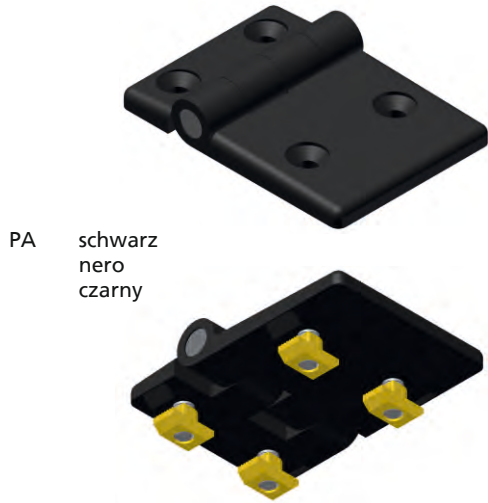
Technische Änderungen vorbehalten



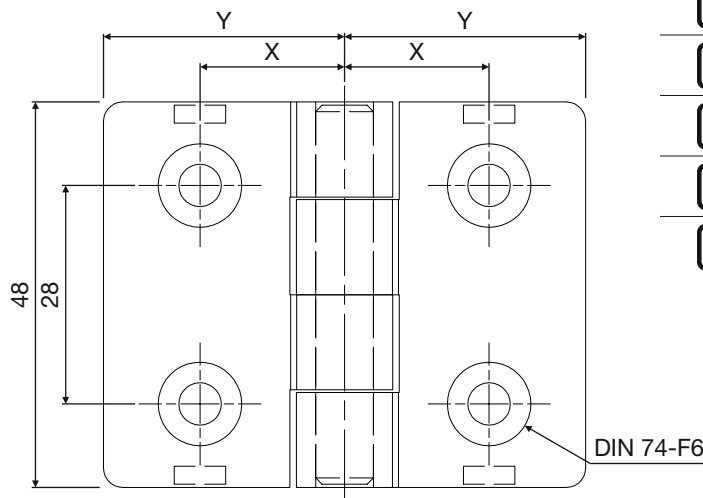
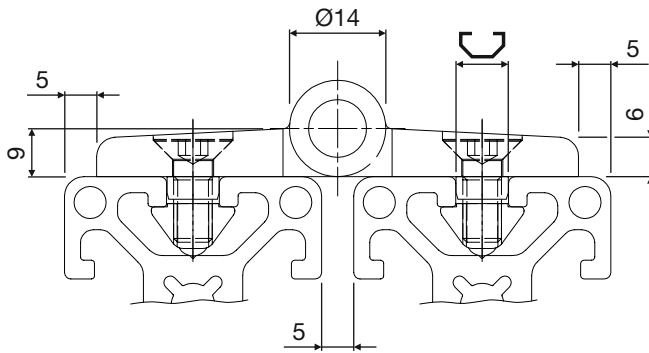
# KUNSTSTOFF-SCHARNIER-SYSTEM

## CERNIERA IN PLASTICA

### ZAWIASÓW Z TWORZYWA SZTUCZNEGO



PA  
schwarz  
nero  
czarny



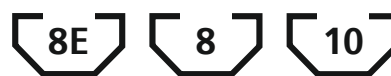
		X	Y
		17.5	27.5
		22.5	37.5
		25	42.5
		27.5	47.5
		32.5	57.5

Technische Änderungen vorbehalten

# KUNSTSTOFF-SCHARNIER-SYSTEM

## CERNIERA IN PLASTICA

### ZAWIASÓW Z TWORZYWA SZTUCZNEGO



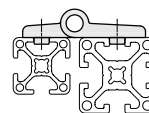
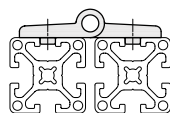
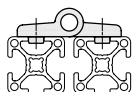
30

40

30 / 30

40 / 40

30 / 40



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05.02303.00

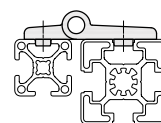
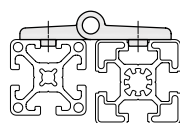
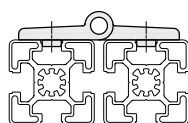
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45

45 / 45

40 / 45

30 / 45



05.02306.00

05.02305.00

05.02304.00

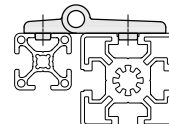
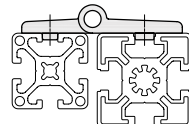
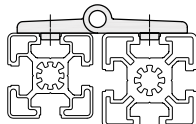
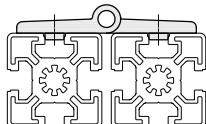
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50 / 50

45 / 50

40 / 50

30 / 50



05.02310.00

05.02309.00

05.02308.00

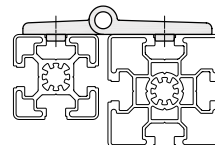
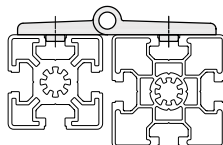
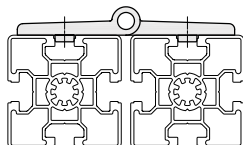
0502307.00

60

60 / 60

50 / 60

45 / 60



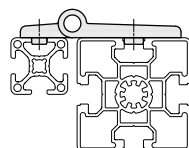
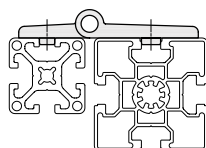
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05.02314.00

05.02313.00

40 / 60

30 / 60

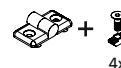


05.02312.00

05.02311.00

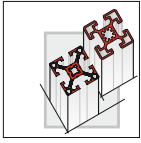


05.0xxxx.00



05.0xxxx.05

Technische Änderungen vorbehalten



# ALU-SCHARNIER-SYSTEM

## CERNIERA IN ALLUMINIO

### SYSTEM ZAWIASÓW Z ALUMINIUM



#### Innovative Vorteile

- Kräftige und robuste Ausführung aus Strangpressprofil
- Leichtgängige Drehbewegung durch Gleitbuchsen
- Werkstoff: AlMgSi0,5
- Farbe: Natur eloxiert

#### Vantaggi innovativi

- Modello robusto ricavato da estruso
- Boccola di scorrimento per un facile movimento rotazionale
- Materiale: AlMgSi0,5
- Colore: anodizzato, naturale alluminio

#### Nowatorskie zalety

- Mocne i wytrzymałe wykonanie z profilu wytłaczanego
- Swobodny ruch obrotowy dzięki tulejom ślizgowym
- Materiał: AlMgSi0,5
- Kolor: naturalne anodowane

Befestigungssatz bestehend aus:

- ISO 10642 M6
- Fixierbolzen
- Hammermutter M6

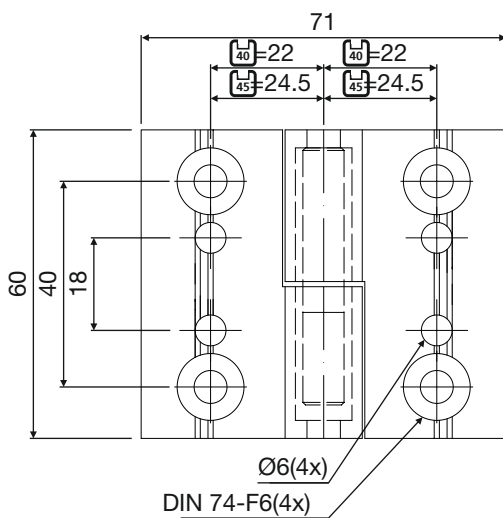
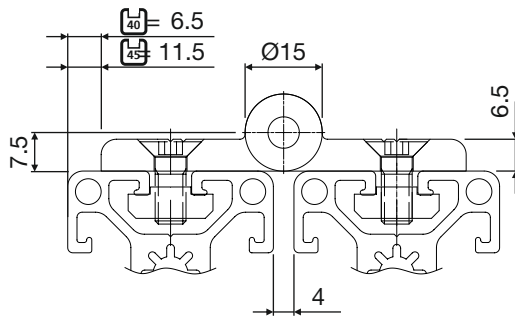
Kit di fissaggio comprendente:

- ISO 10642 M6
- Bullone di fissaggio
- Dado a martello M6

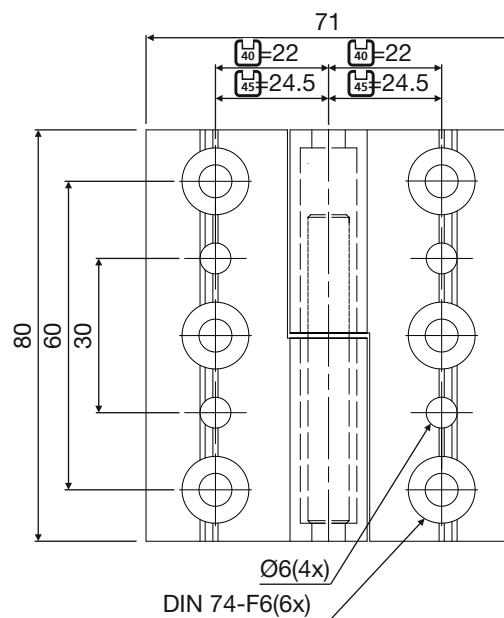
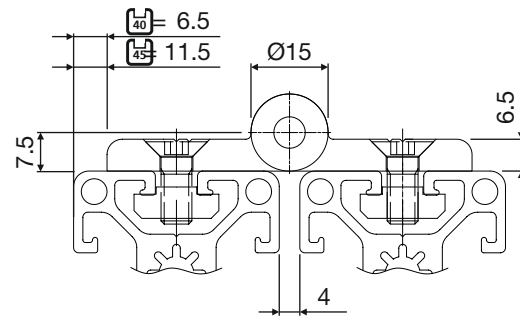
Zestaw mocujący obejmujący:

- ISO 10642 M6
- Sworznie ustalające
- Nakrętka młotkowa M6

**L=60**



**L=80**



Technische Änderungen vorbehalten

# ALU-SCHARNIER-SYSTEM

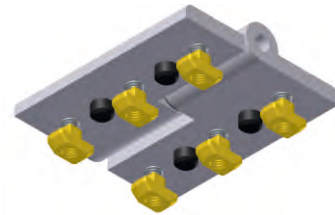
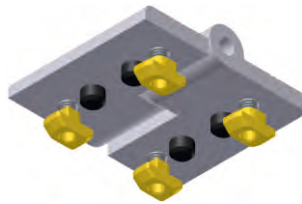
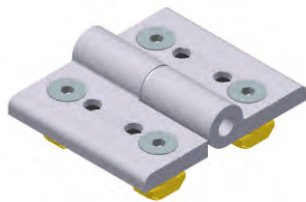
## CERNIERE IN ALLUMINIO

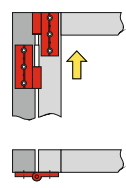
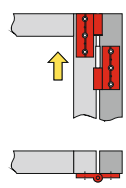
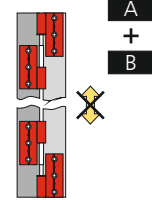
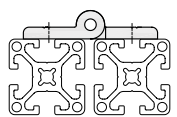
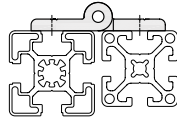
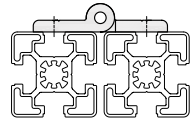
### SYSTEM ZAWIASÓW Z ALUMINIUM



**L=60**

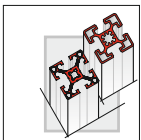
**L=80**



	<b>A</b>	<b>B</b>	<b>C</b>
	<p>Aushängbare Tür <b>LINKS / LINKS</b> Porta smontabile <b>SINISTRA / SINISTRA</b> Drzwi z możliwością wyjęcia z zawiasów <b>LEWE / LEWE</b></p>  <p>L</p>	<p>Aushängbare Tür <b>RECHTS / RECHTS</b> Porta smontabile <b>DESTRA / DESTRA</b> Drzwi z możliwością wyjęcia z zawiasów <b>PRAWO / PRAWO</b></p>  <p>L</p>	<p>Nicht aushängbare Tür, <b>LINKS / RECHTS</b> Porta non smontabile <b>SINISTRA / DESTRA</b> Drzwi bez możliwości wyjęcia z zawiasów <b>LEWE / PRAWO</b></p>  <p>L</p>
<p><b>40 - 40</b></p> 	<p>60 <b>05.01732.00</b></p> <p>80 <b>05.01634.00</b></p> <p>inkl. Bef.satz <b>xx.xxxxx.05</b></p>	<p>60 <b>05.01733.00</b></p> <p>80 <b>05.01632.00</b></p> <p>inkl. Bef.satz <b>xx.xxxxx.05</b></p>	<p><b>C = 1x A + 1x B</b></p>
<p><b>45 - 40</b></p> 	<p>60 <b>05.02152.00</b></p> <p>80 <b>05.02154.00</b></p> <p>inkl. Bef.satz <b>xx.xxxxx.05</b></p>	<p>60 <b>05.02153.00</b></p> <p>80 <b>05.02155.00</b></p> <p>inkl. Bef.satz <b>xx.xxxxx.05</b></p>	<p><b>C = 1x A + 1x B</b></p>
<p><b>45 - 45</b></p> 	<p>60 <b>05.02056.00</b></p> <p>80 <b>05.02108.00</b></p> <p>inkl. Bef.satz <b>xx.xxxxx.05</b></p>	<p>60 <b>05.02057.00</b></p> <p>80 <b>05.02109.00</b></p> <p>inkl. Bef.satz <b>xx.xxxxx.05</b></p>	<p><b>C = 1x A + 1x B</b></p>

8

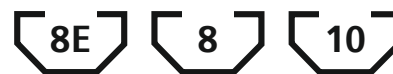
Technische Änderungen vorbehalten



# SCHARNIERLAPPENPROFILE

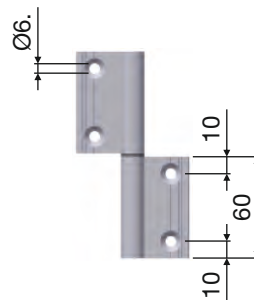
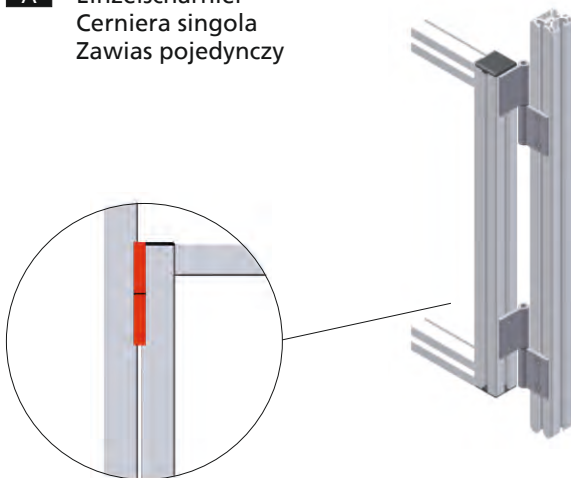
## CERNIERA INTERNA

### ZAWIASY SKRZYDEŁKOWE



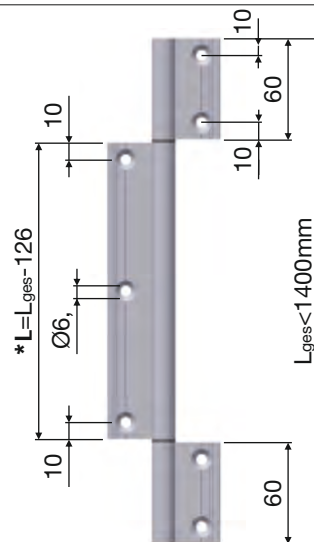
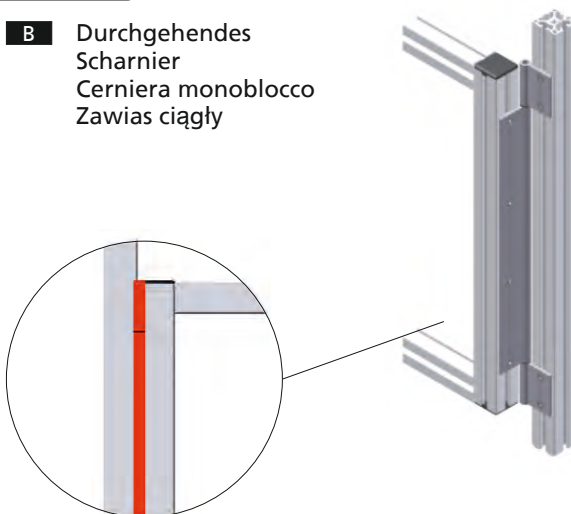
#### Typ A

- A** Einzelscharnier  
Cerniera singola  
Zawias pojedynczy



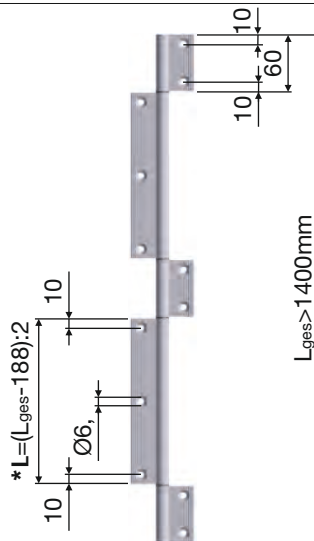
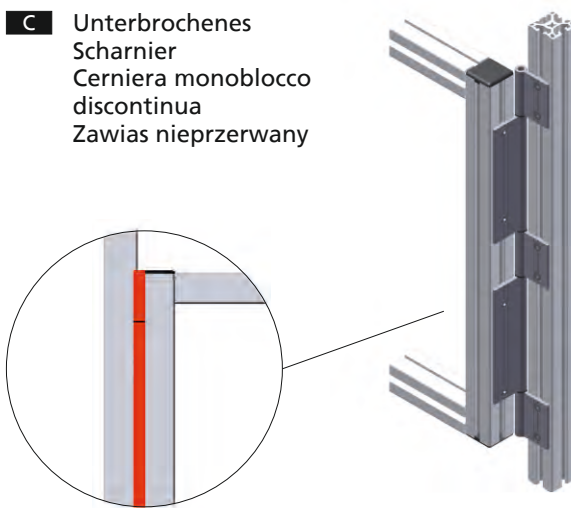
#### Typ B

- B** Durchgehendes Scharnier  
Cerniera monoblocco  
Zawias ciągły



#### Typ C

- C** Unterbrochenes Scharnier  
Cerniera monoblocco discontinua  
Zawias nieprzerwany



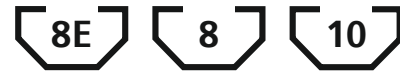
Technische Änderungen vorbehalten



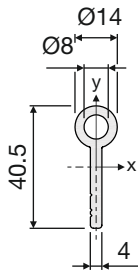
# SCHARNIERLAPPENPROFILE

## CERNIERA INTERNA

### ZAWIASY SKRZYDEŁKOWE



**30**

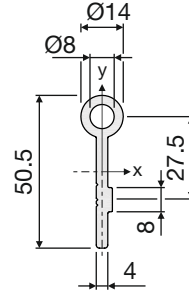


**05.01807.00**

M = 0,55 kg/m  
 $I_x = 3,04 \text{ cm}^4$   
 $W_x = 1,50 \text{ cm}^3$   
 $I_y = 0,18 \text{ cm}^4$   
 $W_y = 0,26 \text{ cm}^3$

PE (m)  
 3  
 Aluminium, eloxiert  
 Alluminio, anodizzato  
 Aluminium, anodowane

**40/45**



**05.02231.00**

M = 0,68 kg/m  
 $I_x = 5,92 \text{ cm}^4$   
 $W_x = 2,35 \text{ cm}^3$   
 $I_y = 0,19 \text{ cm}^4$   
 $W_y = 0,28 \text{ cm}^3$

PE (m)  
 6 / 60 / 120  
 Aluminium, eloxiert  
 Alluminio, anodizzato  
 Aluminium, anodowane

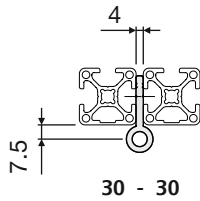
**Kunststoffring Ø14**  
 t= 1 mm, PA 6.6

**05.01876.00**

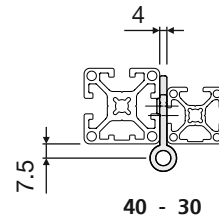
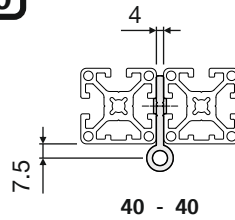
**Steckerstift 8x80**

**05.01878.00**

**30**



**40**



**A** 05.02283.05

**B** 05.02284.05

+ 1x 05.01807.50 \*L= mm

**C** 05.02285.05

+ 2x 05.01807.50 \*L= mm

**A** 05.02286.05

**B** 05.02287.05

+ 1x 05.02231.50 \*L= mm

**C** 05.02288.05

+ 2x 05.02231.50 \*L= mm

**A** 05.02289.05

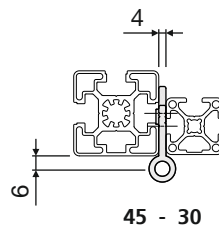
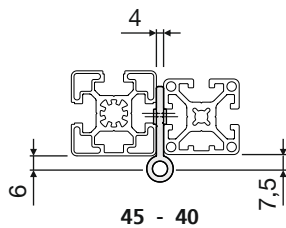
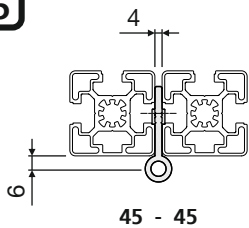
**B** 05.02290.05

+ 1x 05.01807.50 \*L= mm

**C** 05.02291.05

+ 2x 05.01807.50 \*L= mm

**45**



**A** 05.02292.05

**B** 05.02293.05

+ 1x 05.02231.51 \*L= mm

**C** 05.02294.05

+ 2x 05.02231.51 \*L= mm

**A** 05.02295.05

**B** 05.02296.05

+ 1x 05.02231.51 \*L= mm

**C** 05.02297.05

+ 2x 05.02231.51 \*L= mm

**A** 05.02298.05

**B** 05.02299.05

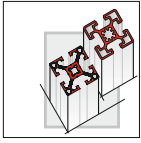
+ 1x 05.02231.51 \*L= mm

**C** 05.02300.05

+ 2x 05.02231.51 \*L= mm

Technische Änderungen vorbehalten

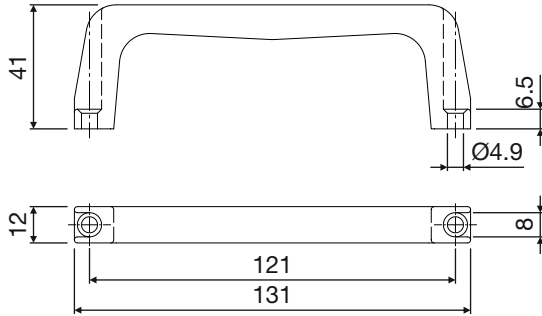
8



**BÜGELGRIFFE**  
**MANIGLIA FISSA**  
**UCHWYTY KABŁĄKOWE**



**L=121**

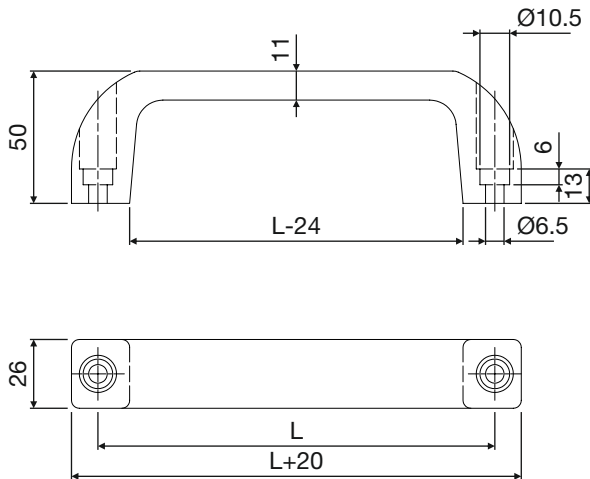


PA 6  
 schwarz  
 nero  
 czarny



**05.01665.00**

**L=122/L=150**



PA 6  
 schwarz  
 nero  
 czarny

**L=122**

		<b>05.01223.00</b>
	+	<b>05.01223.13</b>
	+  2x	<b>05.01223.11</b>
	+  2x	<b>05.01223.12</b>

**L=150**

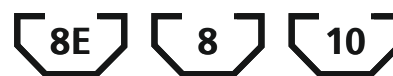
		<b>05.01224.00</b>
	+	<b>05.01224.13</b>
	+  2x	<b>05.01224.11</b>
	+  2x	<b>05.01224.12</b>

Technische Änderungen vorbehalten

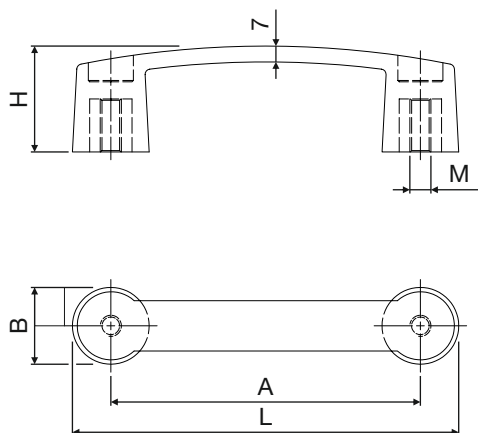
# BÜGELGRIFFE

## MANIGLIA FISSA

### UCHWYTY KABŁĄKOWE



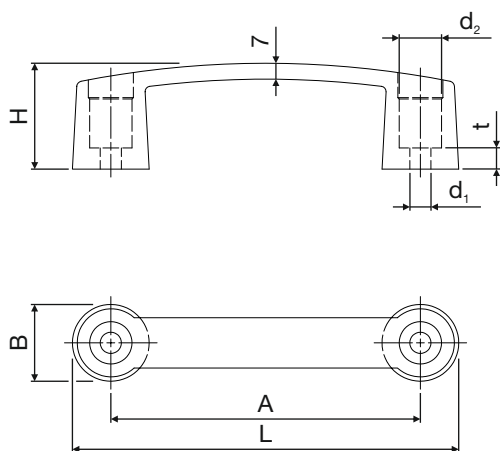
#### Typ A



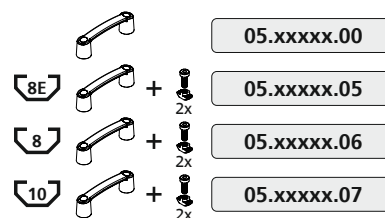
PA 6  
schwarz  
nero  
czarny

L	A	B	H	M	
120	94	26	35	M6	05.01667.00
145	117	29	40	M8	05.01668.00
163	132	31	45	M8	05.01669.00
213	180	35	50	M8	05.01670.00

#### Typ B



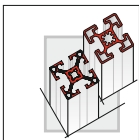
PA 6  
schwarz  
nero  
czarny



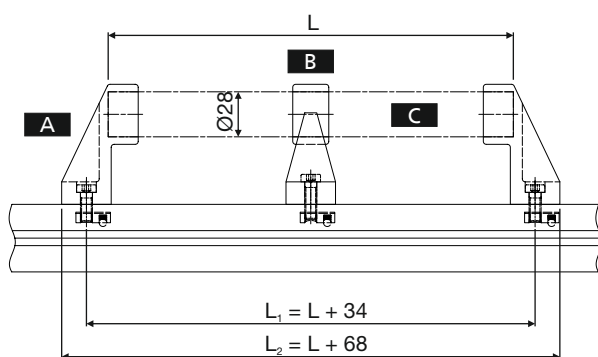
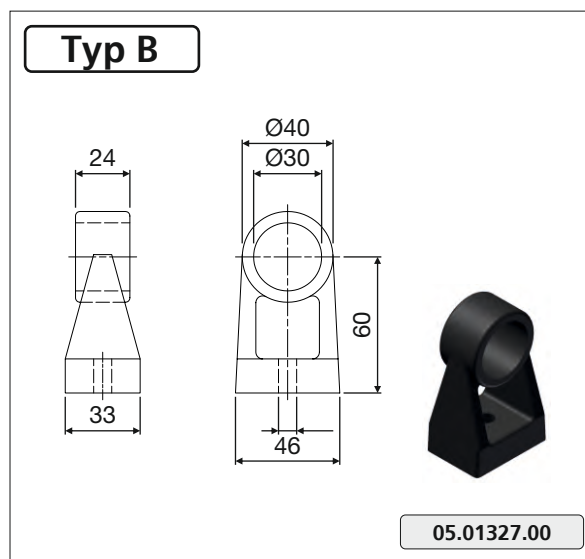
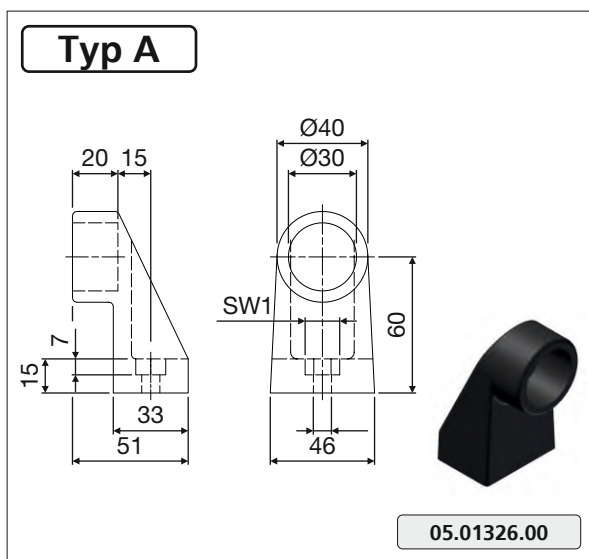
L	A	B	H	d <sub>1</sub>	d <sub>2</sub>	t	
120	94	26	35	Ø6.5	Ø12.5	4	05.01671.xx
145	117	29	40	Ø8.5	Ø16.5	8	05.01672.xx
163	132	31	45	Ø8.5	Ø16.5	9	05.01673.xx
213	180	35	50	Ø8.5	Ø16.5	12	05.01674.xx

Technische Änderungen vorbehalten





**HANDGRIFF VARIABLE GRIFFLÄNGEN**  
**MANIGLIA A LUNGHEZZA VARIABILE**  
**UCHWYT RĘCZNY O ZMIENNEJ DŁUGOŚCI**



**C** L = 266 mm 05.01328.01

L = 366 mm 05.01328.02

L = 466 mm 05.01328.03

L = 566 mm 05.01328.04

L = 666 mm 05.01328.05

L = 766 mm 05.01328.06

L = 2500 mm 05.01328.00

**Ausführung:**

- A** Griff: Endstück  
Werkstoff: PA  
Farbe: Schwarz
- B** Griff: Mittenstück  
Werkstoff: PA  
Farbe: Schwarz  
  
Zu empfehlen ab  
L=566 mm
- C** Stahlrohr  
Werkstoff: PVC ummantelt  
Farbe: Schwarz

**Materiale:**

- A** Estremità della maniglia  
Materiale: PA  
Coulore: nero
- B** Parte centrale della maniglia  
Materiale: PA  
Coulore: nero  
Raccomandato a partire da  
**L = 566 mm**
- C** Tubo d'acciaio  
Materiale: PVC rivestito  
Coulore: nero

**Wersja:**

- A** Element końcowy uchwytu  
Materiał: PA  
Kolor: czarny
- B** Element środkowy uchwytu  
Materiał: PA  
Kolor: czarny  
Zalecany od  
**L = 566 mm**
- C** Rura stalowa  
Materiał: PVC w osłonie ochronnej  
Kolor: czarny

Technische Änderungen vorbehalten

# GRIFFPROFIL

## PROFILO A MANIGLIA

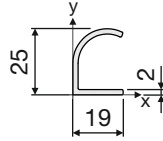
## PROFIL UCHWYTU



### Griffprofil

Profilo a maniglia · Profil uchwyty

05.01032.00

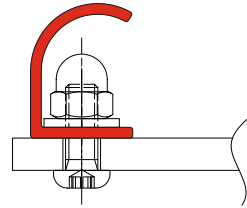


M = 0,29 kg/m  
 $I_x = 2,28 \text{ cm}^4$   
 $W_x = 1,82 \text{ cm}^3$   
 $I_y = 0,91 \text{ cm}^4$   
 $W_y = 0,47 \text{ cm}^3$

PE (m)  
6 / 24 / 48 / 72

### Anwendung

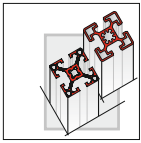
Applicazione · Zastosowanie



8



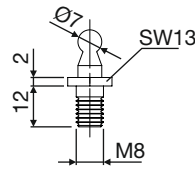
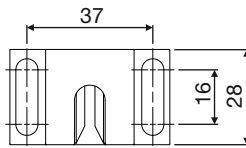
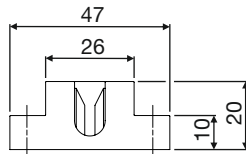
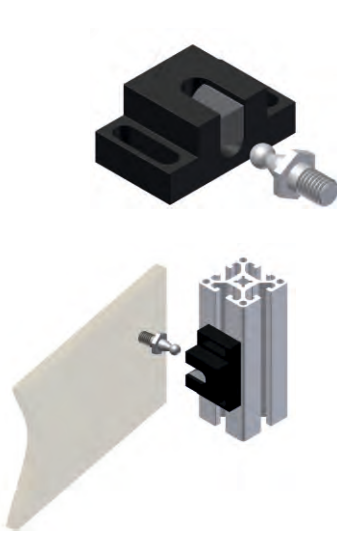
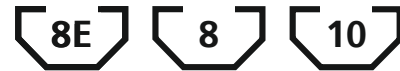
Technische Änderungen vorbehalten



# KUGELSCHNÄPPER

## CLIP A SFERA

## ZATRZASK KULISTY



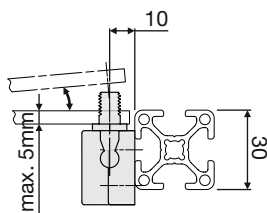
**05.02316.00**

PA schwarz, glasfaserverstärkt,  
Verschluss von Schiebe- und  
Schwenktüren

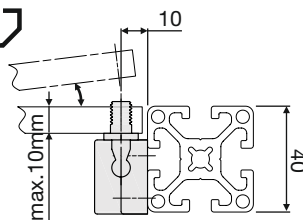
PA, nero, rinforzato con fibre di  
vetro  
Chiusura di porte scorrevole e  
battente

PA, czarny, wzmocniony  
włóknem szklanym,  
Zamknięcie drzwi przesuwnych i  
uchylnych

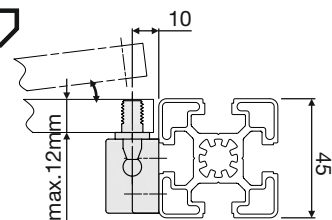
8E



8

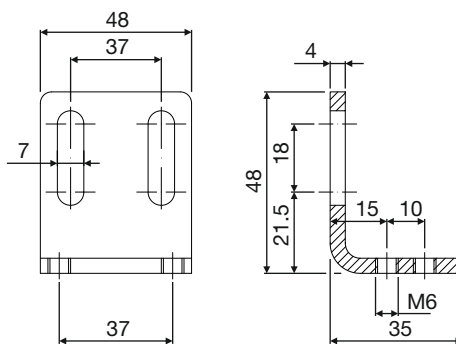
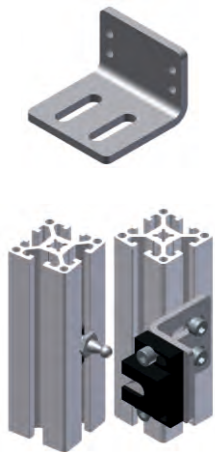


10



## Winkel

Staffa di supporto · Kątownik



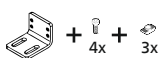
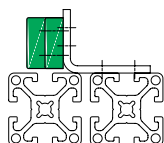
**05.02317.00**

St, verzinkt  
Der Befestigungswinkel ist in  
den Profilreihen 40, 45 und  
50 universell einsetzbar

Acciaio, zincato  
La piastra di fissaggio può  
essere usata universalmente  
nelle serie di profilo: 40,45 e  
50

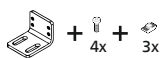
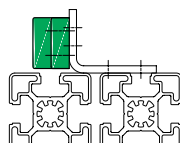
Stal, ocynkowana  
Kątownik mocujący może być  
używany uniwersalnie w  
profilach serii 40, 45 i 50

8 / 8



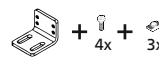
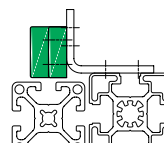
**05.02317.11**

10 / 10



**05.02317.12**

8 / 10



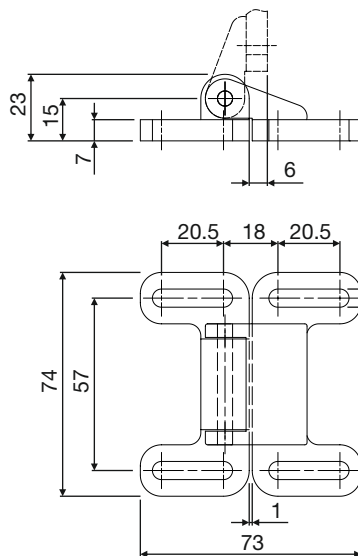
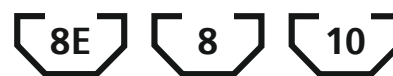
**05.02317.13**

Technische Änderungen vorbehalten

# DOPPELKUGELSCHNÄPPER PA

## SISTEMA DI CHIUSURA A SFERE PA

### PODWÓJNY ZATRZASK KULISTY PA



**05.02318.00**

PA, glasfaserverstärkt  
Universeller Schnellverschluss  
für Klappen, Schiebe- und  
Schwenktüren mit und ohne  
Rahmen.

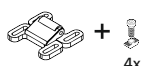
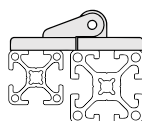
PA, rinforzato con fibre di  
vetro  
Dispositivo di chiusura  
universale, veloce per porte  
scorrevoli o oscillanti con o  
senza telai.

PA, wzmocniony włóknem  
szklanym  
Uniwersalne szybkie  
zamknięcie dla kłap, drzwi  
przesuwanych i uchylnych, z  
ramą

### Befestigung

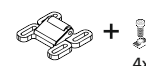
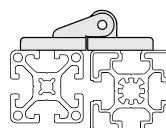
Fissaggio · Zamocowanie

30 / 40



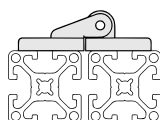
05.02318.11

40 / 45



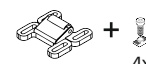
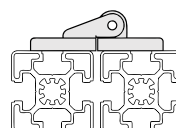
05.02318.13

40 / 40



05.02318.12

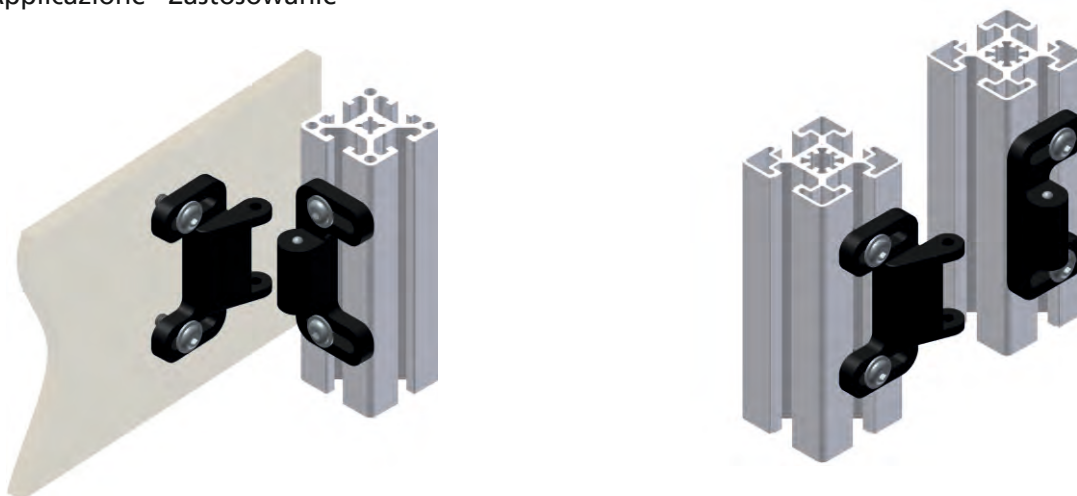
45 / 45



05.02318.14

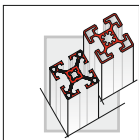
### Anwendung

Applicazione · Zastosowanie

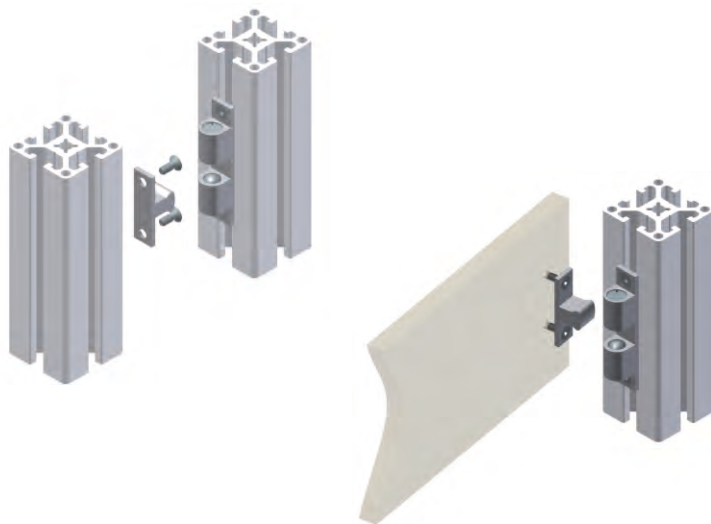


Technische Änderungen vorbehalten

8



**DOPPELKUGELSCHNÄPPER MS**  
**SISTEMA DI CHIUSURA A SFERE MS**  
**PODWÓJNY ZATRZASK KULISTY MS**



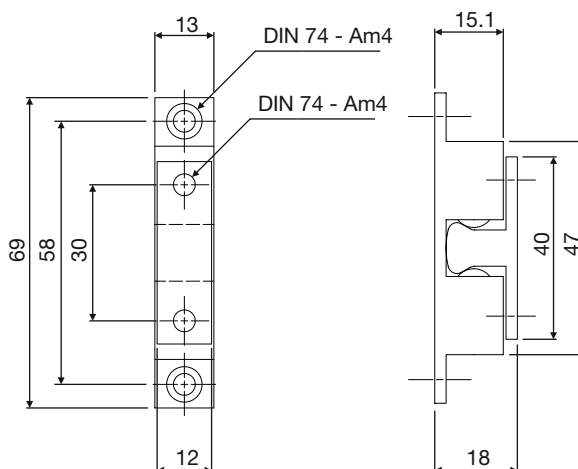
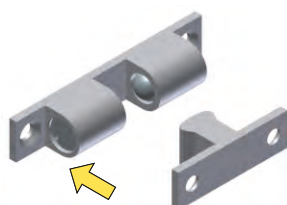
**05.02319.00**

Messing, verchromt,  
 Einrastdruck verstellbar, zwei  
 Anwendungsmöglichkeiten  
 0° / 90°

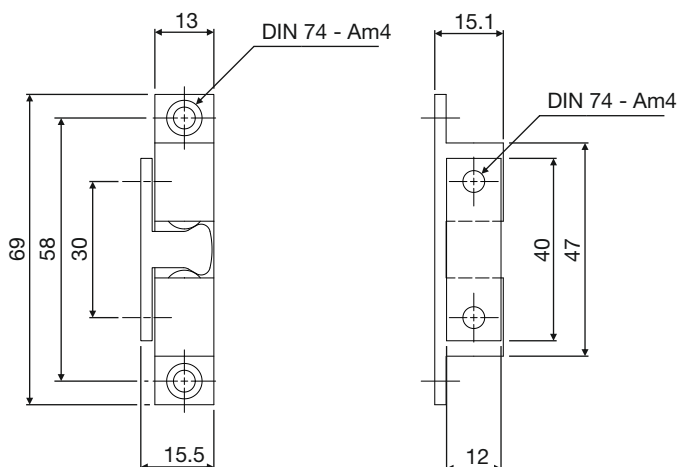
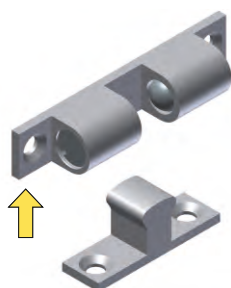
Ottone, cromato  
 Pressione di chiusura  
 regolabile, due possibilità di  
 applicazione 0°/90°

Mosiądz, chromowany  
 Możliwość regulacji nacisku  
 zatrzaśnięcia, dwie  
 możliwości zastosowania 0°/90

**0°**



**90°**



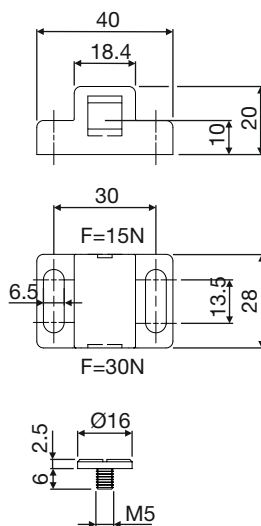
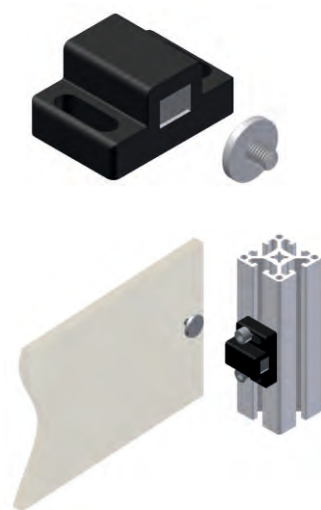
Technische Änderungen vorbehalten



# MAGNETVERSCHLUSS PA

## CHIUSURA MAGNETICA PA

### ZAMNIĘCIE MAGNETYCZNE PA

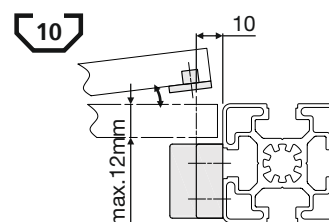
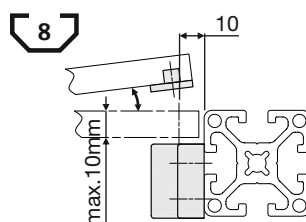
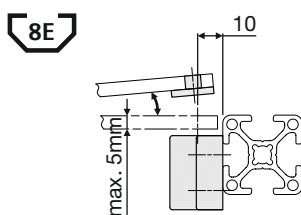


**05.01650.00**

PA, glasfaserverstärkt  
Geeignet zur Zuhaltung von  
Schiebe- und Schwenktüren;  
unterschiedliche Haltekraft  
des Magnetverschlusses

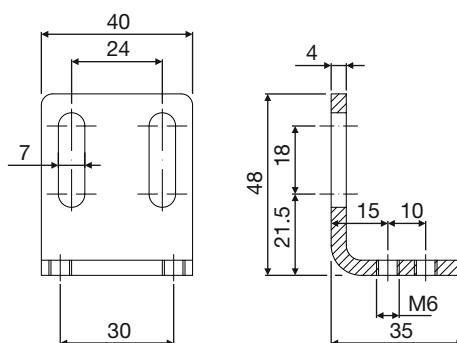
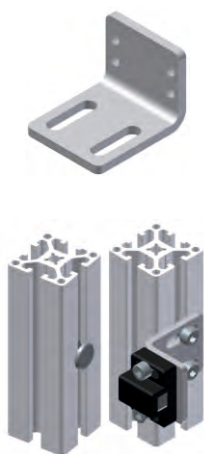
PA, rinforzato con fibre di  
vetro  
Dispositivo magnetico adatto  
per porte scorrevoli e a  
battente due forze di ritenuta

PA, wzmocniony włóknem  
szklanym Odpowiednie do  
zapadki utrzymującej drzwi  
przesuwne i uchylne Różna siła  
przytrzymująca  
zamknięcia magnetycznego



## Winkel

Angalori · Kątownik

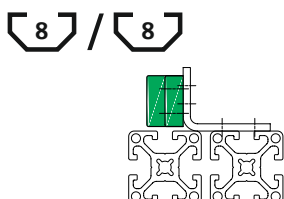


**05.01651.00**

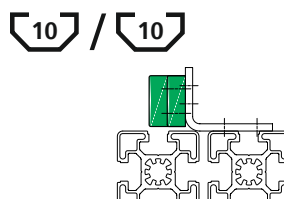
St, verzinkt  
Der Befestigungswinkel ist in  
den Profilreihen 40,45 und  
50 universell einsetzbar

Acciaio, zincato  
La piastra di fissaggio può  
essere usata universalmente  
nei profili della serie 40,45 e  
50.

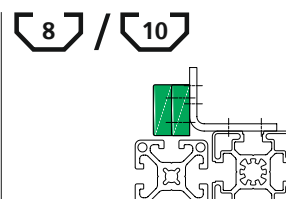
Stal, ocynkowana  
Kątownik mocujący może być  
używany uniwersalnie w  
profilach serii 40, 45 i 50



+ 4x + 3x **05.01651.11**

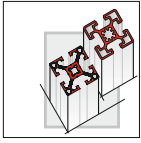


+ 4x + 3x **05.01651.12**



+ 4x + 3x **05.01651.13**

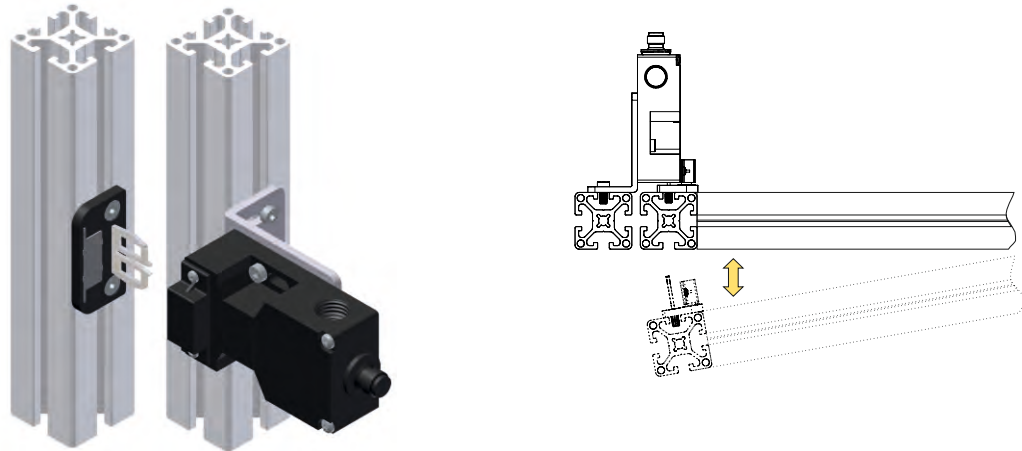
Technische Änderungen vorbehalten



# SICHERHEITSSCHALTER

## INTERRUTTORE DI SICUREZZA

### WYŁĄCZNIK BEZPIECZEŃSTWA



#### Innovative Vorteile

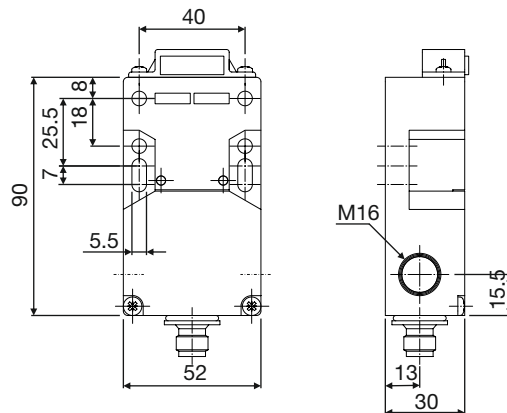
- Zum sicheren Verschießen von Schutzgittern, Hauben und Türen um die erforderliche Betriebssicherheit zu gewährleisten
- Durch Langloch universelle Anordnung möglich
- Einsatz in der Profilreihe 40,45 und 50 möglich

#### Vantaggi innovativi

- Per la chiusura di sicurezza di porte e altri dispositivi
- Asola per l'applicazione universale
- Applicazione possibile con le serie di profili 40,45 e 50

#### Nowatorskie zalety

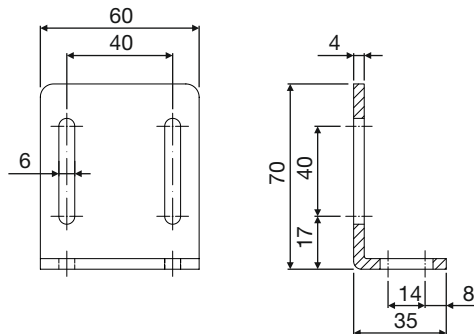
- Do bezpiecznego zamykania siatek ochronnych, pokryw i drzwi w celu zagwarantowania wymaganego bezpieczeństwa eksploatacyjnego
- Dzięki otworowi wzdłużnemu możliwość uniwersalnego rozmieszczenia
- Możliwość zastosowania w profilach



05.02050.00

#### Winkel

Angalori · Kątownik



05.02054.00



05.02054.11



05.02054.12



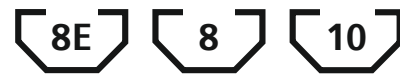
05.02054.13

Technische Änderungen vorbehalten

# POTENTIALAUSGLEICH

## BATTUTE PORTA

## WYRÓWNIANIE POTENCJAŁU



### Potentialausgleich

05.01542.00



Bestehend aus:

Hammerschraube	St, vz.
ISO-Scheibe	St, vz.
Zahnscheibe	St, vz.
Flanschmutter	St, vz.
Ringkabelschuh	St

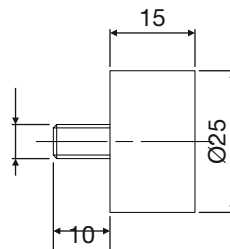
Comprendente:

Vite a t	St, galv.
Rondelle ISO	St, galv.
Disco dentato	St, galv.
Dado	St, galv.
Cavo	St

Elementy składowe:

Śruba	Ac, zing.
Śruba ISO	Ac, zing.
Podkładka zębata	Ac, zing.
Nakrętka kołnierzowa	Ac, zing.
pięścieniowa końcówka	Ac

### Typ A



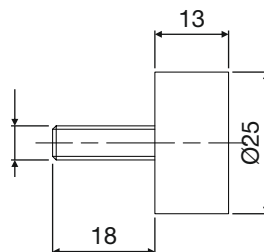
05.01510.00

Gummi, schwarz  
50-55 Shore

Gomma, nero  
50-55 Shore

czarna guma  
50-55 Shore

### Typ B



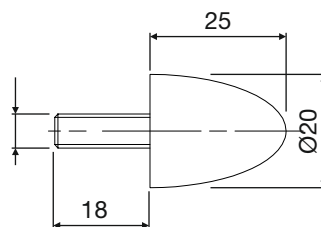
05.01511.00

Gummi, schwarz  
50-55 Shore

Gomma, nero  
50-55 Shore

czarna guma  
50-55 Shore

### Typ C



05.01512.00

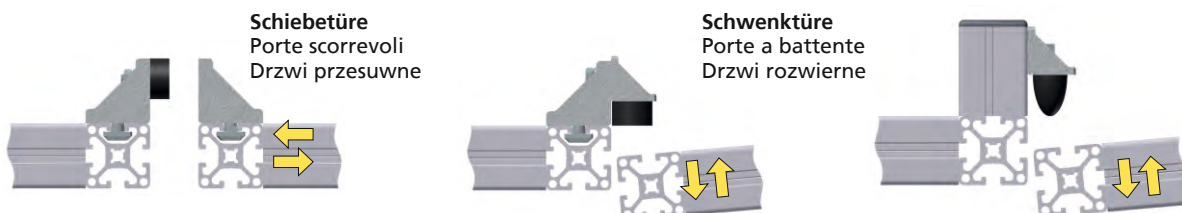
Gummi, schwarz  
50-55 Shore

Gomma, nero  
50-55 Shore

czarna guma  
50-55 Shore

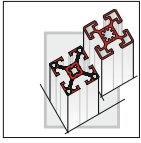
### Anwendung

Applicazione · Zastosowanie



Technische Änderungen vorbehalten



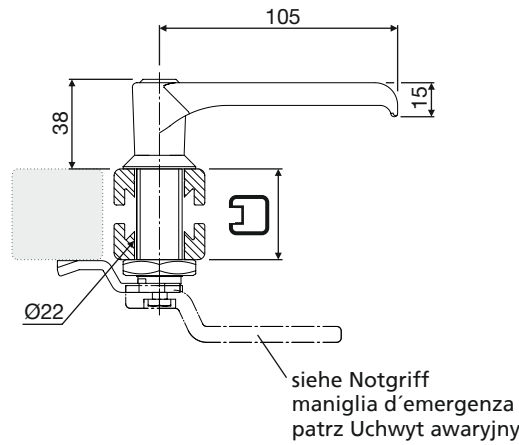


# GRIFFE, SCHLÖSSER MANIGLIE, SERRATURE UCHWYTY, ZAMKI



## Klinkengriff

Maniglia con chiavistello · Uchwyt klamkowy



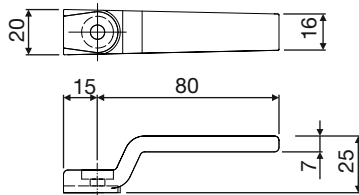
- 05.02060.00
- 05.02062.00
- 05.02065.00



- 05.02061.00
- 05.02063.00
- 05.02066.00

## Notgriff

Maniglia di emergenza · Uchwyt awaryjny



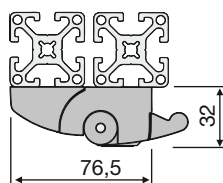
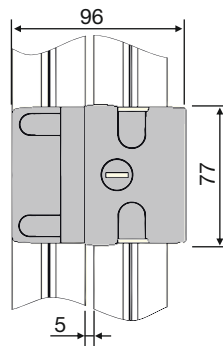
GD-Zn, RAL 3032

05.02064.00

## Fallenverschluss

serratura · Zamknięcie zatrzaskowe

05.02133.00



Aluminiumdruckguss,  
schwarz, pulverbeschichtet

Die-cast aluminium,  
black powder cated

Aluminiowy odlew ciśnieniowy,  
czarny, powlekany proszkowo

Fallenverschluss mit Schloss,  
gleichschließend

Lock for uniform locking

Zamknięcie zatrzaskowe z zamkiem,  
zamykane tym samym kluczem

Technische Änderungen vorbehalten

# KNIEHEBELVERSCHLUSS

## CHIUSURA A GINOCCHIO

### ZAMKNIĘCIE DŹWIGNIĄ KOLANOWĄ



#### Innovative Vorteile

- Für Türen und Fenster
- Mit Anpressdruck schließbar

#### Vantaggi innovativi

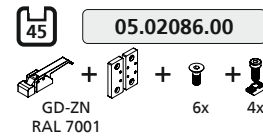
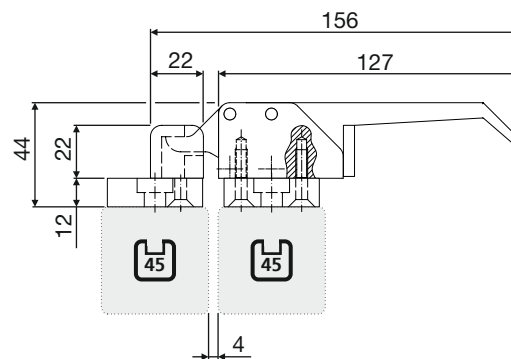
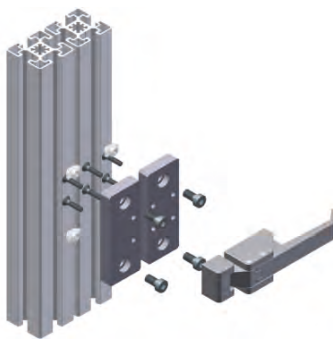
- Per porte e finestre
- Chiusura a pressione

#### Nowatorskie zalety

- Do drzwi i okien
- Zamykane przez docisk

### ohne Schloss

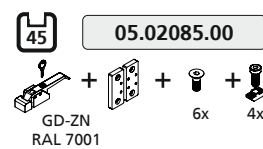
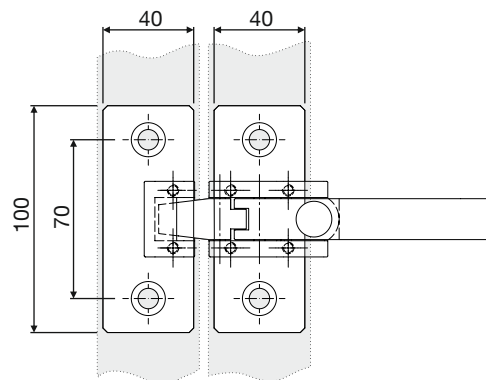
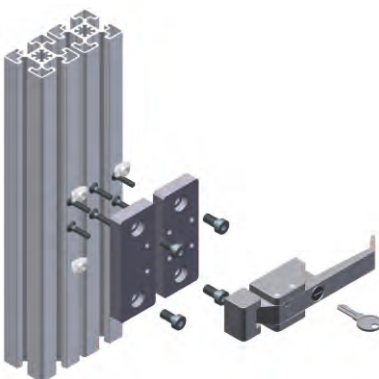
senza serratura · bez zamka



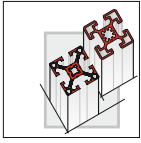
8

### mit Schloss

con serratura · z zamkiem



Technische Änderungen vorbehalten

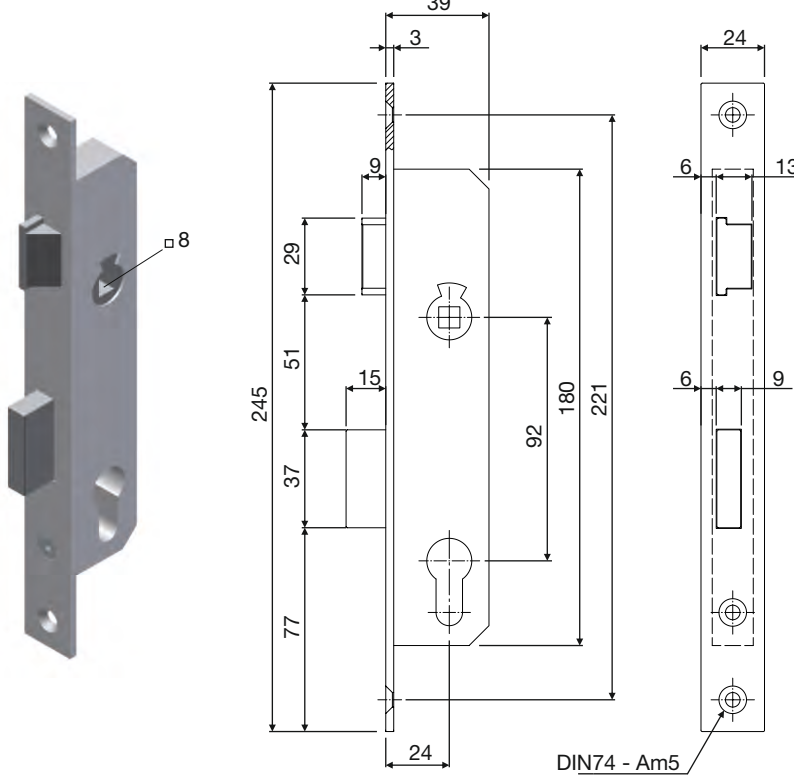


# TÜRSCHLOSS SERRATURA ZAMEK DRZWI



## Einsteckschloss

Serratura ad incasso · Zamek wtykany



Ausführung rechts

Lato destro  
Wersja prawa

05.02320.00

Ausführung links

Lato sinistro  
Wersja lewa

05.02320.50

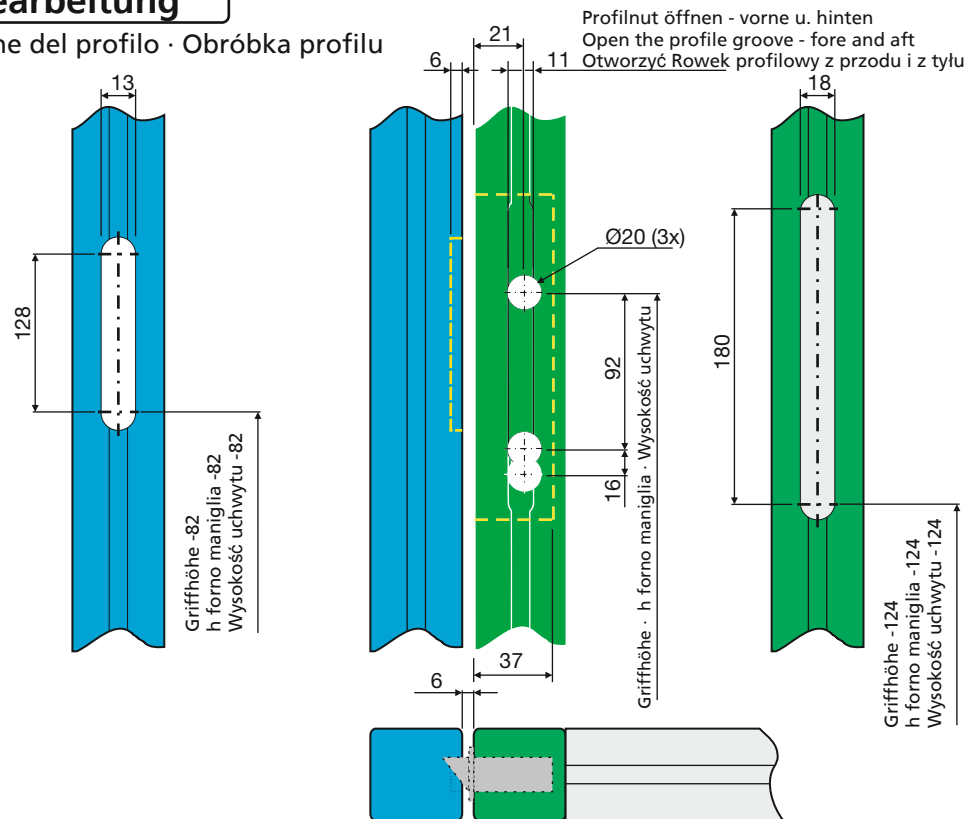
Einsteckschloss, Stahl vz.  
Für Schließzylinder von  
Schwenktüren mit  
Profilrahmen aus Profil 40x40  
und 40x80

Serratura ad incasso, acciaio  
zincato con serratura a  
cilindro per porte oscillanti  
con cornice del profilo di  
40x40 o 40x80

Zamek wtykany, stal  
ocynowana Do drzwi  
rozwiernych z wkładką  
bębenkową - rama z profili

## Profilbearbeitung

Lavorazione del profilo · Obróbka profilu



Technische Änderungen vorbehalten

# TÜRSCHLOSS

## SERRATURA

### ZAMEK DRZWI

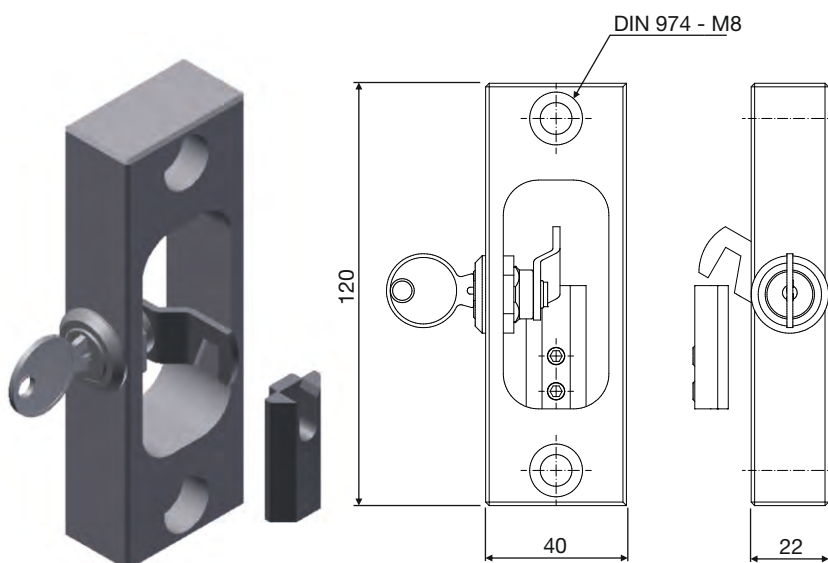


#### Schiebetürschloss

Serratura per porte scorrevoli · Zamek drzwi przesuwnych

 links **05.02394.00**

 rechts **05.02394.10**



**Ausführung rechts**  
Lato destro  
Wersja prawa

**Ausführung links**  
Lato sinistro  
Wersja lewa

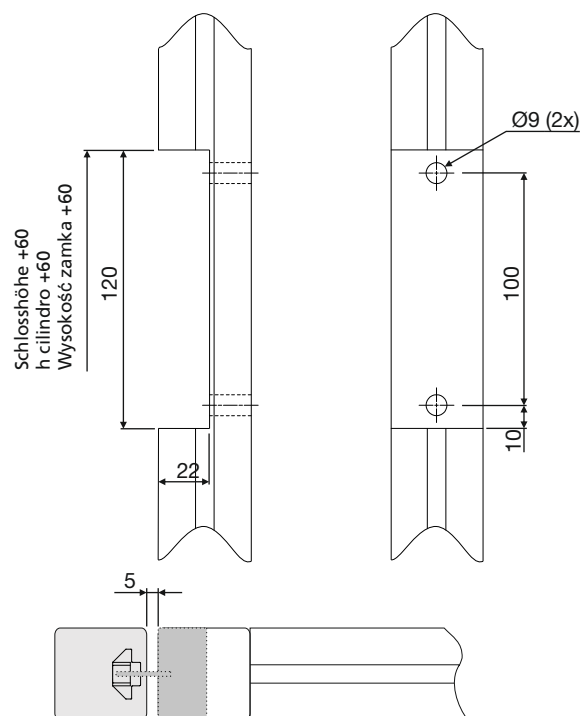
Schiebetürschloss,  
Alu, eloxiert E6ev1, mit  
Drehriegel; für Schiebetüren  
mit Profilrahmen aus Profil  
40x40

Serratura ad incasso per  
porte scorrevoli, alluminio,  
anodizzata, con cilindro di  
chiusura. Per porte scorrevoli  
con cornice del profilo di  
40x40

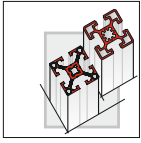
Zamek drzwi przesuwnych z  
anodowanego aluminium z  
rygłem obrotowym – drzwi  
przesuwne z ramą z profili  
40x40

#### Profilbearbeitung

Lavorazione del profilo · Obróbka profilu



Technische Änderungen vorbehalten



# TÜRSCHLOSS ZUBEHÖR

## SERRATURA ACCESSORI

### ZAMEK DRZWI, AKCESORIA



#### Innovative Vorteile:

- Individuelle Auswahl und Kombinationen
- Einheitliches System
- Komplette Serie aus Aluminium, eloxiert
- Elemente sind für Schiebetüren geeignet

#### Vantaggi innovativi

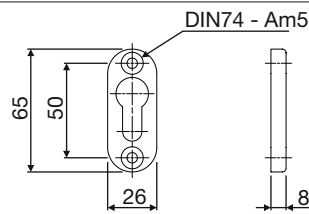
- Scelte e combinazioni individuali
- Sistema standard
- Serie completa fatta di alluminio anodizzato
- Gli elementi sono adatti per porte a scorrimento e per porte oscillanti

#### Nowatorskie zalety

- Indywidualny wybór i łączenia
- Jednolity system
- Kompletna seria z anodowanego aluminium
- Elementy nadają się do drzwi przesuwanych

### Schlüsselschild

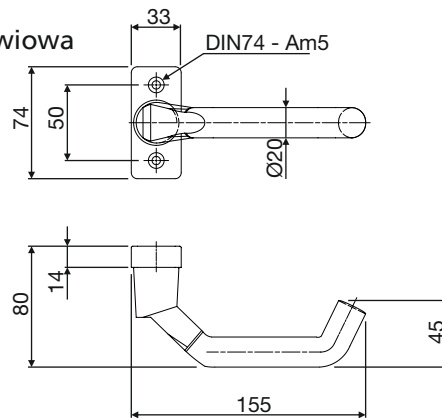
Mostrina · Rozeta klucza



05.02322.00

### Türdrücker

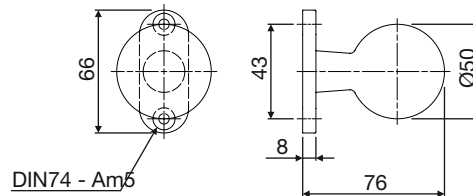
Maniglia da porta · Klamka drzwiowa



05.02323.00

### Türknoopf Ø50, drehbar

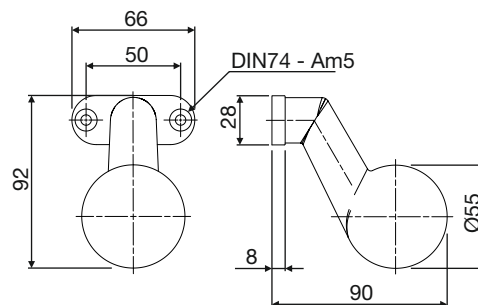
Pomello da porta Ø50, girevole · Gałka drzwiowa Ø50, obrotowa



05.02324.00

### Türknoopf Ø55, starr

Pomello da porta Ø55, rigido · Gałka drzwiowa Ø 55, sztywna



05.02325.00



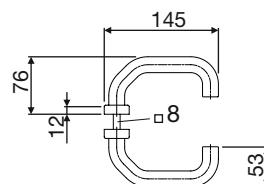
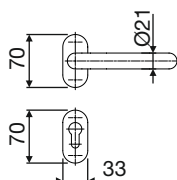
# TÜRSCHLOSS KOMPLETTE GARNITUR

## SERRATURA KIT COMPLETO

### ZAMEK DRZWI KOMPLETNY ZESTAW



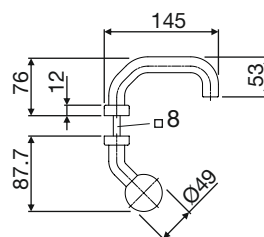
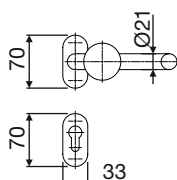
#### Typ 1



- ohne Schließzylinder
- senza serratura
- bez wkładki bębnekowej

05.02326.00

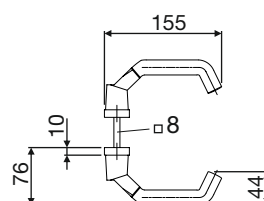
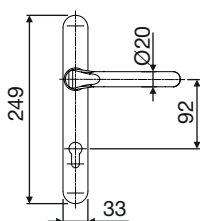
#### Typ 2



- ohne Schließzylinder
- senza serratura
- bez wkładki bębnekowej

05.02327.00

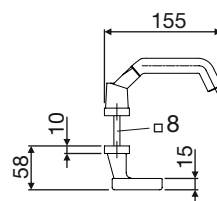
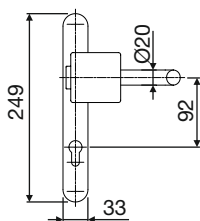
#### Typ 3



- ohne Schließzylinder
- senza serratura
- bez wkładki bębnekowej

05.02328.00

#### Typ 4



- ohne Schließzylinder
- senza serratura
- bez wkładki bębnekowej

05.02329.00

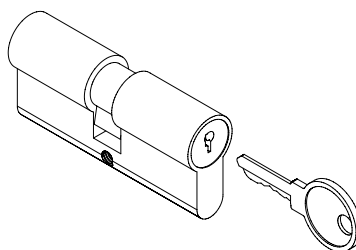
#### Schließzylinder

Serratura a cilindro · Wkładka bębnekowa

Schließzylinder für Schwenktüren mit Profilrahmen aus Profil 40x40 und 40x80

Serratura a cilindro per porte ad oscillamento con cornice del profilo di 40x40 or 40x80

Wkładka bębnekowa do drzwi uchylnych z ramą z profili 40x40 i 40x80



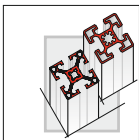
- gleichschließend
- con chiavi uguali
- zamykane tym samym kluczem

05.02330.00

- verschieden schließend
- con chiavi diverse
- zamykane różnymi kluczami

05.02331.00

Technische Änderungen vorbehalten



# SCHIEBETÜRPROFIL

## PROFILO PER PORTE SCORREVOLI

## PROFIL DRZWI PRZESUWNYCH



### Merkmale:

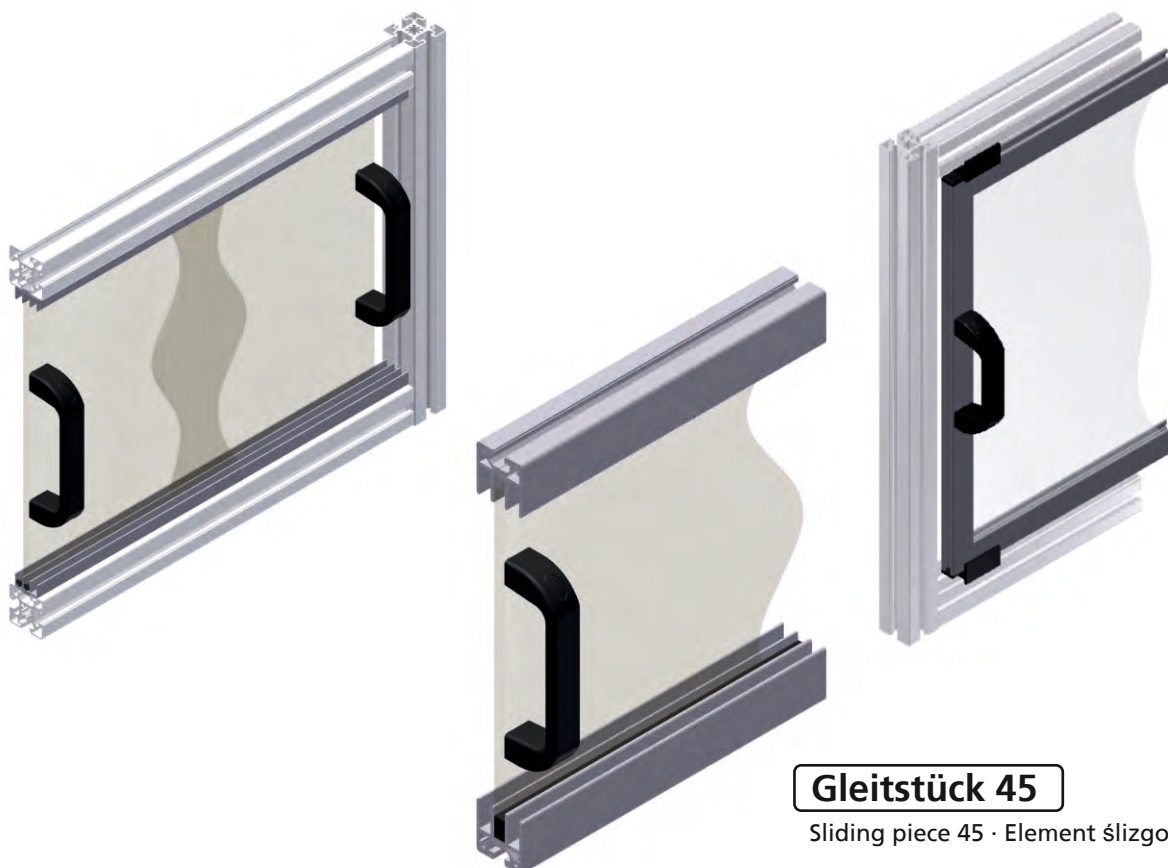
Schiebetüren und -fenster sichern Maschinen und Einrichtungen und schützen vor Staub und Schmutz.

### Caratteristiche

Le porte e finestre scorrevoli proteggono le attrezzature e i macchinari da polvere e sporco.

### Cechy

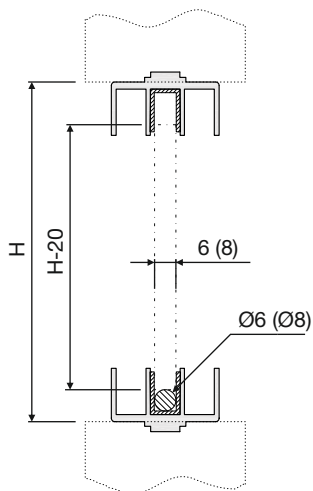
Drzwi i okna przesuwne zabezpieczają maszyny i urządzenia i chronią przed pyłem i zabrudzeniem.



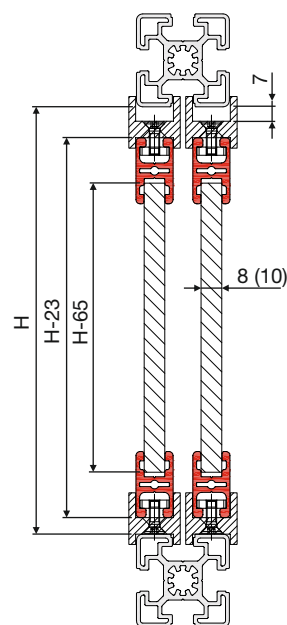
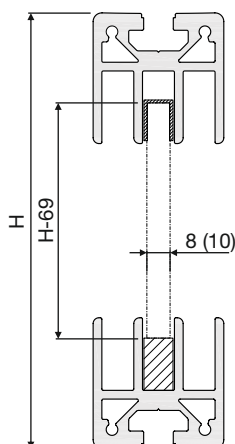
### Gleitstück 45

Sliding piece 45 · Element ślizgowy 45

### 30x15



### 45x45



Technische Änderungen vorbehalten

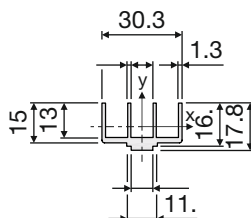
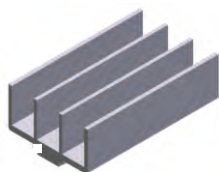
# SCHIEBETÜRPROFIL

## PROFILO PER PORTE SCORREVOLI

## PROFIL DRZWI PRZESUWNYCH



**30x15**

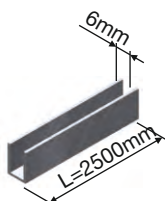


**05.01048.00**

M = 0,42 kg/m

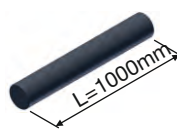
PE (m)  
6

Aluminium, eloxiert  
Alluminio, anodizzato  
Aluminium, anodowane



**05.01049.00**

Reduzierprofil  
Riduzione del profilo  
Profil redukcyjny



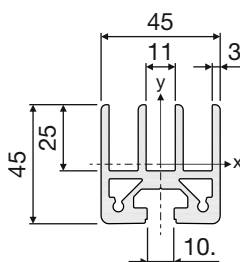
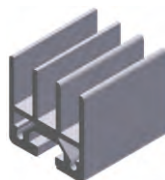
**05.02336.00**

Ø6mm, PE

**05.02337.00**

Ø8mm, PE

**45x45**

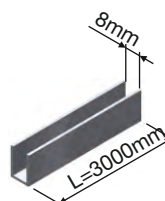


**05.01599.00**

M = 2,12 kg/m

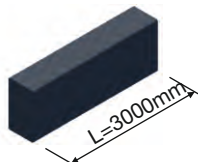
PE (m)  
6 / 36 / 72

Aluminium, eloxiert  
Alluminio, anodizzato  
Aluminium, anodowane



**05.02338.00**

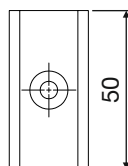
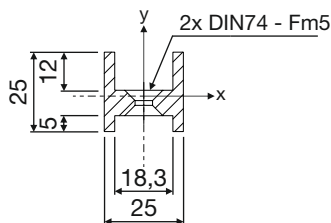
Führungsprofil oben  
Profilo guida, in alto  
Profil prowadzący na górze



**05.02339.00**

10x18 mm, PE

**Gleitstück 45**



**05.02053.01**



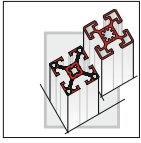
**05.02053.05**



PE-HD, schwarz  
PE-HD, nero  
PE-HD, czarny

Technische Änderungen vorbehalten

8



# PROFILRAHMEN FÜR SCHIEBEFENSTER

## PROFILO A CORNICE FINESTRE A SCORRIMENTO

### RAMA Z PROFILI Z OKNEM PRZESUWNYM



#### Merkmale:

Klemmprofil 18x32 zum Bau von leichten Rahmen, für Schiebe- und Hubfenster.

Flächenelemente mit 10 mm Dicke können direkt eingebaut werden. Flächenelemente von 2-8 mm werden mit Einfassprofil eingebaut.

#### Caratteristiche

Profilo 18x32 per la realizzazione di cornici di peso leggero, per finestre a scorrimento e finestre a ghigliottina.

Il pannello, di 10 mm può essere installato direttamente. I pannelli da 2-8 mm sono installati con profilo di scorrimento.

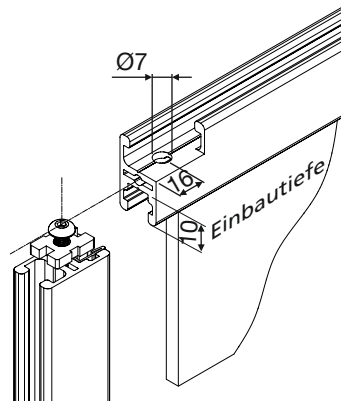
#### Cechy

Profil zaciskowy 18x32 do budowy lekkich ram dla okien przesuwnych i podnoszonych.

Elementy powierzchniowe o grubości 10 mm mogą być montowane bezpośrednio. Elementy powierzchniowe o grubości 2-8 mm montowane są z profilem

### Befestigung

Fissaggio · Zamocowanie



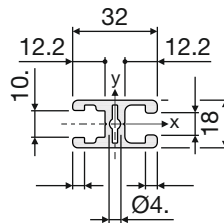
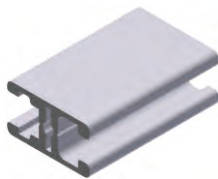
→ ■ 3.19  
05.01408.00



→ ■ 3.28  
05.01887.00

### Klemmprofil 18x32

Profilo 18x32 · Profil zaciskowy 18x32



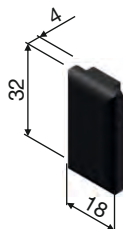
05.01711.00

M = 0,67 kg/m  
I<sub>x</sub> = 11,00 cm<sup>4</sup>  
W<sub>x</sub> = 12,22 cm<sup>3</sup>  
I<sub>y</sub> = 18,52 cm<sup>4</sup>  
W<sub>y</sub> = 11,58 cm<sup>3</sup>

PE (m)  
6 / 18 / 36 / 54

### Abdeckkappe 18x32

Cuffia 18x32 · Zaślepka 18x32

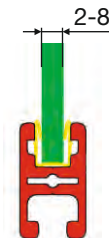


05.01749.00

PA schwarz  
nero  
czarny

### Einfassprofil

Profilo di bloccaggio · Profil obróbkowy



→ ■ 7.03

05.01830.00

# SCHIEBEFENSTER MIT PROFILRAHMEN

## FINESTRA SCORREVOLE CON PROFILO A CORNICE

### OKNO PRZESUWNE Z RAMĄ Z PROFILI



#### Merkmale:

Schiebefenster mit Profilrahmen aus Klemmprofil 18x32 und Schiebegleiter-Sätzen.

Die Befestigung erfolgt durch Einrasten eines Federbolzens in die Montagebohrung Ø7 des Klemmprofils 18x32. Das Gleitstück kann durch eine zusätzliche Bohrung Ø7 an beliebiger Stelle fixiert werden.

Es können wahlweise 1 oder 2 Schiebefenster in einer Profilvernuth 8 geführt werden. Die Gleitstücke bilden einen Mitnehmer des zweiten Fensters.

#### Caratteristiche

Finestra scorrevole con profilo a cornice 18x32 e elementi di scorrimento.

Il fissaggio si effettua con cilindro a molla nel foro di montaggio ø7 del profilo 18x32. L'elemento di scorrimento può essere fissato nel punto richiesto utilizzando un foro addizionale ø7.

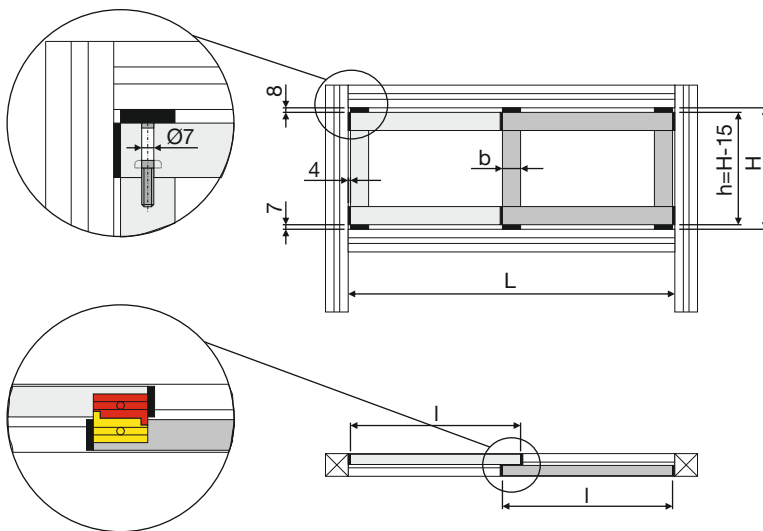
La scelta di 1 o 2 finestre a ghigliottina può essere effettuata nei profili con cava 8. Gli elementi di scorrimento formano un fermo per la seconda finestra. Il peso consentito di una finestra è di massimo 10 kg.

#### Cechy

Okno przesuwne z ramą z profilu zaciskowego 18x32 i zestawami ślizgów przesuwnych.

Zamocowanie następuje przez zatrzaśnięcie sworznia sprężystego w otworze montażowym Ø 7 profilu zaciskowego 18x32. Element ślizgowy można unieruchomić w dowolnym miejscu przez dodatkowy otwór Ø 7.

W jednym rowku profilu 8 można prowadzić do wyboru 1 lub 2 okna przesuwne. Element ślizgowy stanowią zabierak drugiego okna.



Das zulässige Gewicht eines Fensters beträgt max. 10 kg.

Il massimo peso di una finestra è di max. 10 kg.

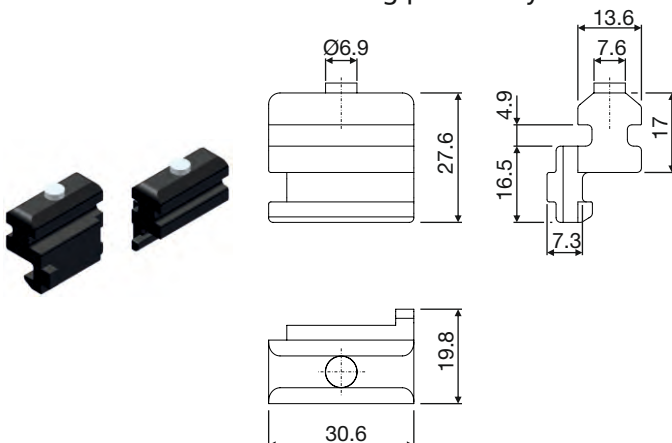
Dopuszczalna masa okna wynosi maks. 10 kg.

$$l = \frac{L - 8 + (n - 1)b}{n}$$

N = Anzahl  
Numero  
Liczba

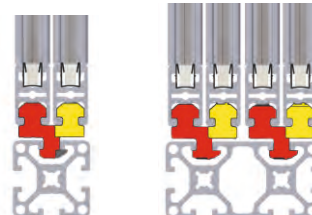
### Schiebegleiter

Pattini di scorrimento · Ślizg przesuwny

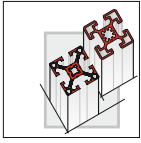


05.02340.00

Satz für Schiebetür-Führung besteht aus 2x rechts und 2x links  
Tracking set for sliding windows consists of 2x right and 2x left  
Zestaw do prowadzenia drzwi przesuwnych składa się z 2 ślizgów prawych i 2 ślizgów lewych



Technische Änderungen vorbehalten



# FALTTÜREN

## PORTE A LIBRO

### DRZWI SKŁADANE



#### Merkmale:

Das Falttürelement ist für gleichzeitige Dreh- und Gleitbewegungen ausgelegt und hat eine sehr hohe Lebensdauer.

Max. Biegemoment M: 20 Nm  
Max. Gewichtsbelastung F: 120 N

#### Caratteristiche

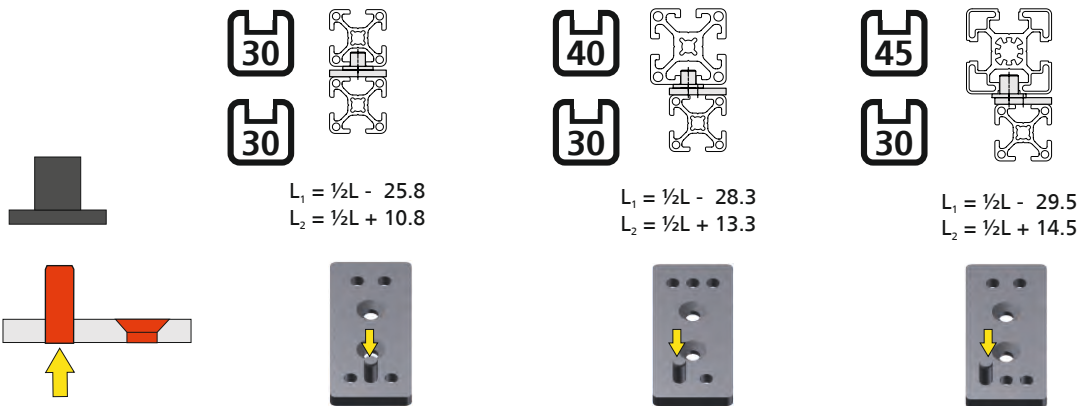
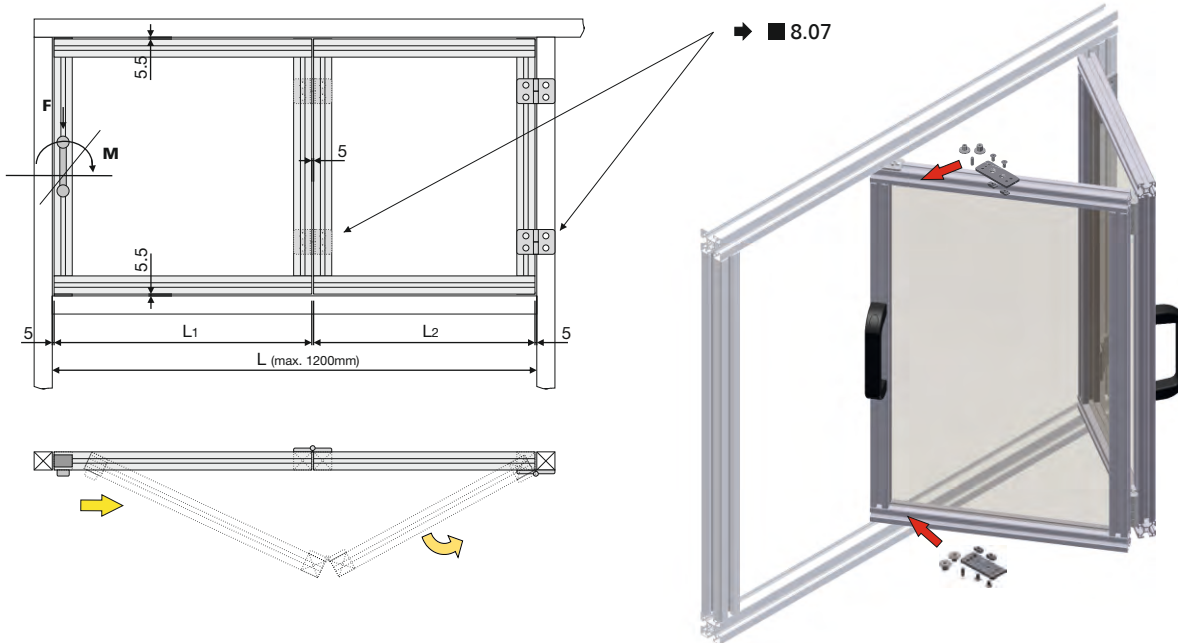
Gli elementi della porta a libro sono progettati per rotazioni simultanee e per movimento di scorrimento delle porte e hanno una durata molto lunga.

Momento di flessione M: 20 Nm  
Carico massimo F: 120 N

#### Cechy

Element drzwi składanych przystosowany jest do jednoczesnych ruchów obrotowych i przesuwnych i ma bardzo długi okres użytkowania.

Maks. moment zginający M: 20 Nm  
Maks. obciążenie F: 120 N



### Falttürelement

Elementi per porta a libro · Element drzwi składanych

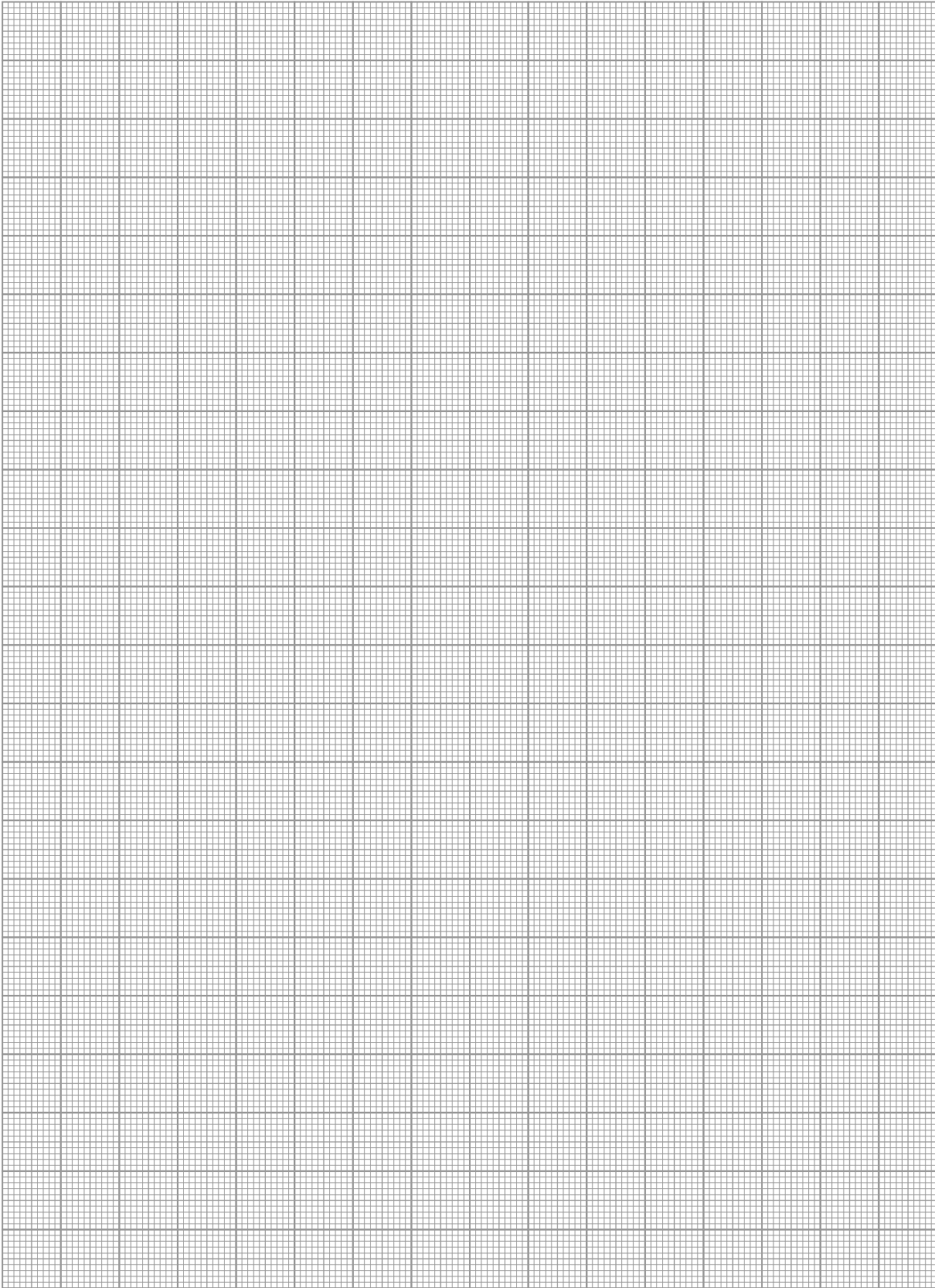


05.01600.00

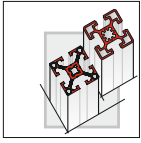


Technische Änderungen vorbehalten

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# SCHWENKTÜREN PORTE A BATTENTE DRZWI ROZWIERNE



### Merkmale:

FM Schwenktüren sind mit stabilen Alu-Scharnieren ausgerüstet. Das reichhaltige Zubehör ermöglicht eine vielfältige Ausführung.

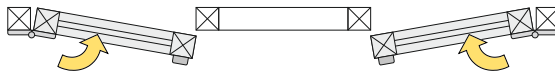
### Caratteristiche

Le porte a battente FM sono equipaggiate di cerniere in alluminio robuste. La diversità degli accessori permette un'ampia varietà di applicazioni.

### Cechy

Drzwi rozwierne FM wyposażone są w stabilne zawiasy aluminiowe. Bogate wyposażenie dodatkowe umożliwia różnorodne wykonanie.

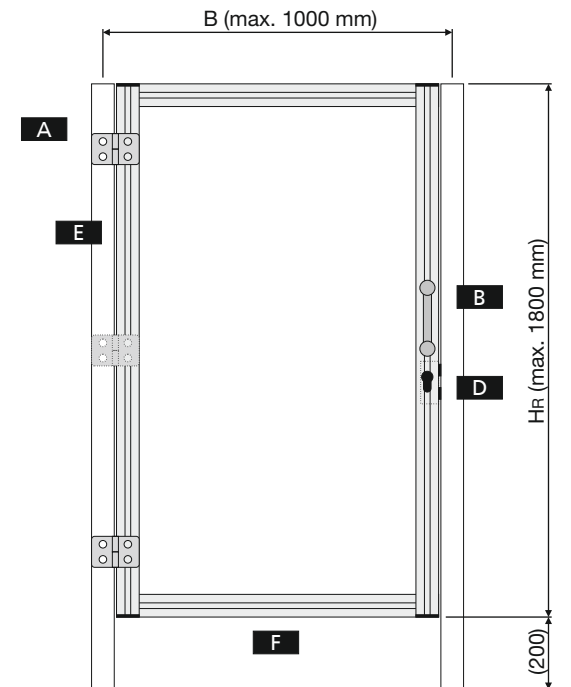
**Ausführung links**  
Versione sinistra  
Wersja lewa



**Ausführung rechts**  
Versione destra  
Wersja prawa

## Anwendung

Applicazione · Zastosowanie



**A** Scharniere  
Cerniere  
Zawiasy → ■ 8.08

**B** Griffe  
Maniglie  
Uchwyty → ■ 8.13

**C** Haltesysteme  
Sistema di tenuta  
Systemy zatrzymywania → ■ 8.20

**D** Schließsysteme  
Sistema di chiusura  
Systemy zamknięć → ■ 8.22

**E** Geeignete Stützen → ■ 11.05  
Supporti adattabili  
Odpowiednie podpory

**F** Empfohlene Profilreihen  
Serie di profilo  
Zalecane serie profili

 → ■ 2.27

 → ■ 2.53

B	x	H	
750		1800	05.05071.20
850		1800	05.05072.20
1000		1800	05.05073.20



# SCHIEBETÜREN

## PORTE SCORREVOLI

## DRZWI PRZESUWNE



### Merkmale:

FM Schiebetüren mit einem Alu C-Schiennenprofil und leichtgängigen Rollenwagen. Die untere Zusatzführung über eine Führungsrolle sichert die Tür gegen Ausschwenken.

### Caratteristiche

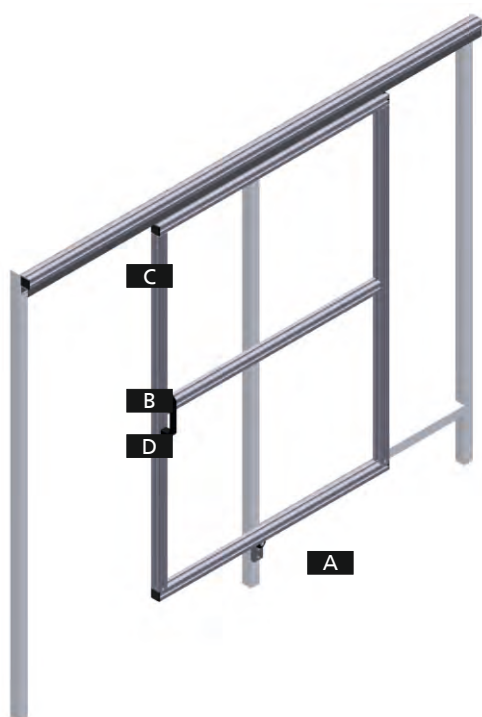
Porte scorrevoli FM equipaggiate di profilo in alluminio C e di un sistema di movimentazione estremamente efficiente. L'addizionale guida inferiore previene che la porta vada fuori sede.

### Cechy

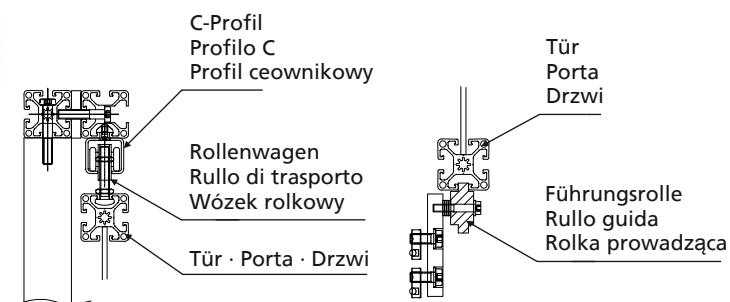
Drzwi przesuwne FM z aluminiowym, szynowym profilem ceownikowym i swobodnie poruszającym się wózkiem rolkowym. Dodatkowe dolne prowadzenie przez rolkę prowadzącą zabezpiecza drzwi przed wychyleniem.

## Anwendung

Applicazione · Zastosowanie

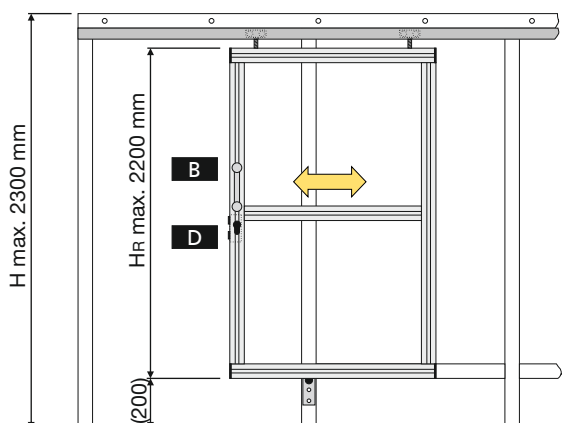


- A** Lauffrollen → ■ 6.08  
Rulli  
Rolki bieżne
- B** Griffe → ■ 8.13  
Maniglie  
Uchwyty
- C** Haltesysteme → ■ 8.20  
Sistema di tenuta  
Systemy zatrzymywania
- D** Schließsysteme → ■ 8.22  
Sistema di serraggio  
Systemy zamknięć

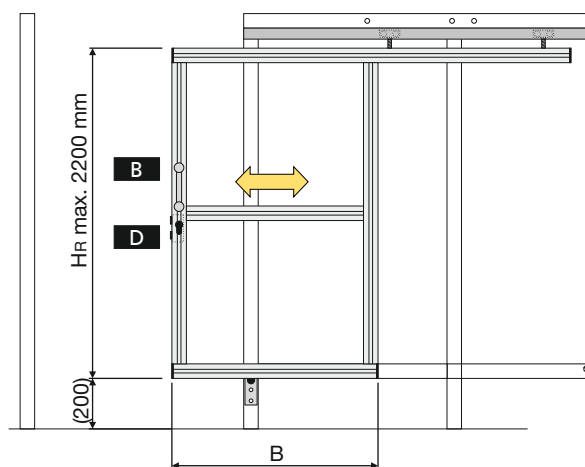


8

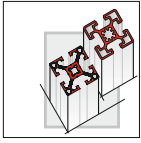
## Typ 1



## Typ 2



Technische Änderungen vorbehalten



# SCHARNIERPROFIL OHNE PROFILRAHMEN

## PROFILO A CERNIERA SENZA PROFILO

### PROFIL ZAWIASOWY BEZ RAMY PROFILOWEJ



#### Merkmale:

- Scharnier für frei tragende Flächenelemente ohne Spalt zum Anschluss-Profil.

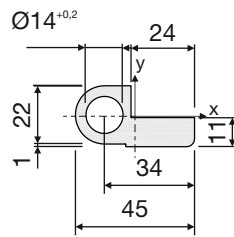
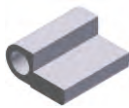
#### Caratteristiche

- Cerniera in alluminio, permette il montaggio dei pannelli senza cornice in profilo

#### Cechy

- Zawias do samonośnych elementów powierzchniowych bez szczeliny do profilu przyłączeniowego

**45x22**

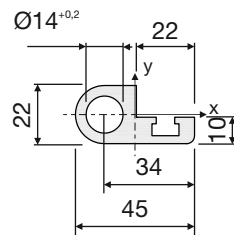
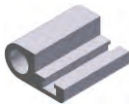


**05.01948.00**

M = 1,40 kg/m  
 $I_x = 2,50 \text{ cm}^4$   
 $W_x = 2,27 \text{ cm}^3$   
 $I_y = 8,10 \text{ cm}^4$   
 $W_y = 3,60 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**45x22**



**05.01949.00**

M = 1,23 kg/m  
 $I_x = 2,24 \text{ cm}^4$   
 $W_x = 2,03 \text{ cm}^3$   
 $I_y = 6,84 \text{ cm}^4$   
 $W_y = 3,04 \text{ cm}^3$

PE (m)  
 6 / 36 / 72 / 108



Endstück komplett



**05.01304.40**

**L**

Kit completo

**05.01305.40**

**R**

Element końcowy kompletny



**05.01304.45**

**L**

**05.01305.45**

**R**

8.15

**05.01949.10** L= mm



120°



110°

Technische Änderungen vorbehalten

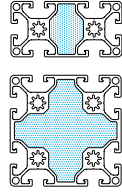
**INSTALLATIONSELEMENTE**  
**ELEMENTI DI INSTALLAZIONE**  
**ELEMENTY INSTALACYJNE**



8



■ 9.02

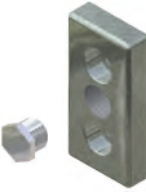
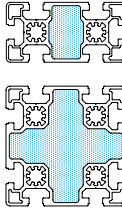


■ 9.03

10



■ 9.04



■ 9.05



■ 9.06



■ 9.06



■ 9.06



■ 9.07



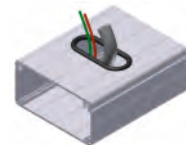
■ 9.07



■ 9.07



■ 9.08



■ 9.09



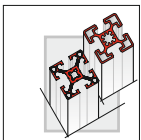
■ 9.10



■ 9.10

9

Technische Änderungen vorbehalten



# LUFTFÜHRUNGSELEMENTE 40

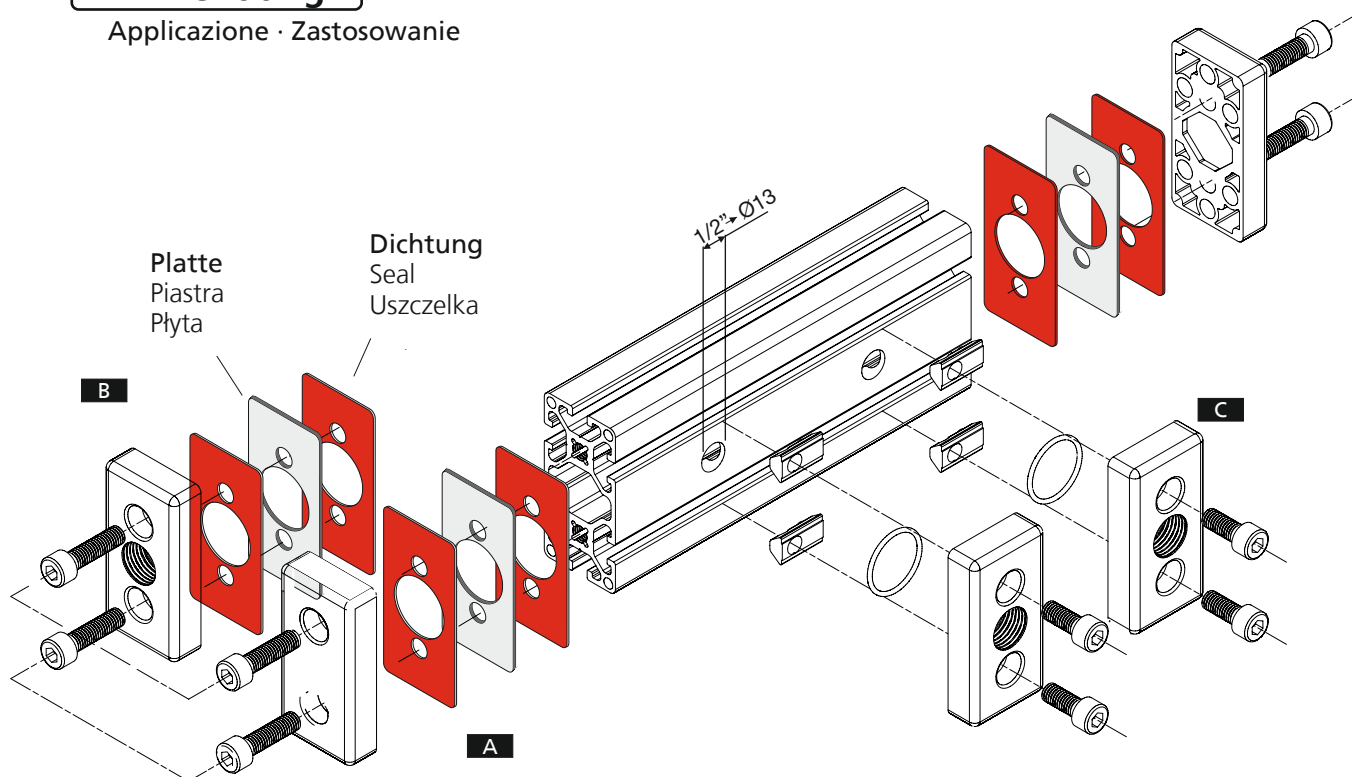
ELEMENTI PER PASSAGGIO DELL'ARIA 40

ELEMENTY PROWADZĄCE POWIETRZE 40

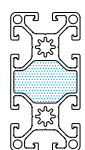


## Anwendung

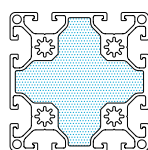
Applicazione · Zastosowanie



max. 8 bar



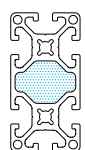
6.8 cm<sup>2</sup>



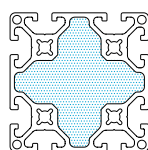
27 cm<sup>2</sup>



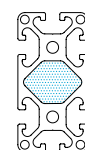
max. 10 bar



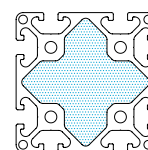
6.3 cm<sup>2</sup>



26.7 cm<sup>2</sup>



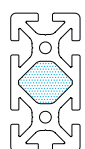
5.7 cm<sup>2</sup>



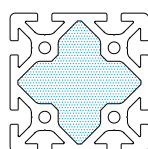
25.4 cm<sup>2</sup>



max. 12 bar



5.1 cm<sup>2</sup>



24.6 cm<sup>2</sup>

Technische Änderungen vorbehalten

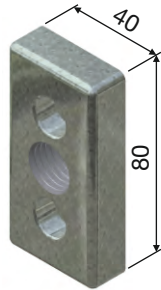
# LUFTFÜHRUNGSELEMENTE 40

## ELEMENTI PER PASSAGGIO DELL'ARIA 40

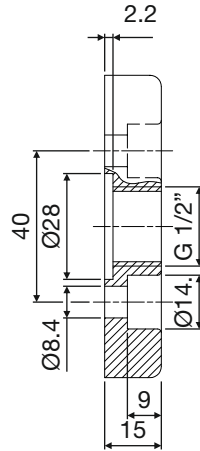
## ELEMENTY PROWADZĄCE POWIETRZE 40



### 40x80



GD-Zn



Platte  
Piastra  
Płyta



05.01570.00

Dichtung  
Seal  
Uszczelka



05.00796.00

A



+



05.00791.10

2x

B



+



05.00799.10

2x

C



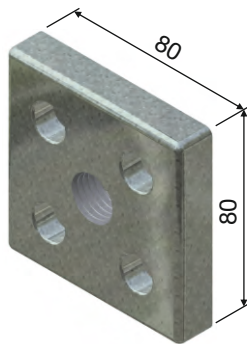
+



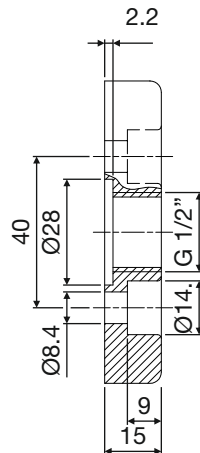
05.00799.20

2x

### 80x80



GD-Zn



Platte  
Piastra  
Płyta



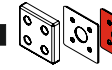
05.02374.00

Dichtung  
Seal  
Uszczelka



05.00801.00

A



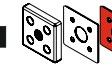
+



05.00793.10

4x

B



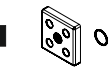
+



05.00800.10

4x

C



+



05.00800.20

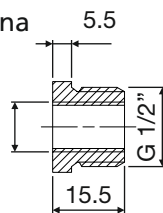
4x

### Reduzierstück

Raccordo riduzione · Kształtka redukcyjna



SW24



1/2" → 3/8"

05.00750.00

1/2" → 1/4"

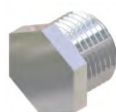
05.00751.00

1/2" → 1/8"

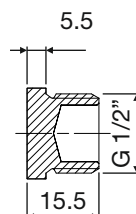
05.00752.00

### Verschlussstück

Tappo · Element zamykający



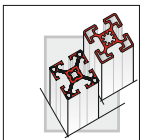
SW24



1/2"

05.00753.00

Technische Änderungen vorbehalten



# LUFTFÜHRUNGSELEMENTE 45

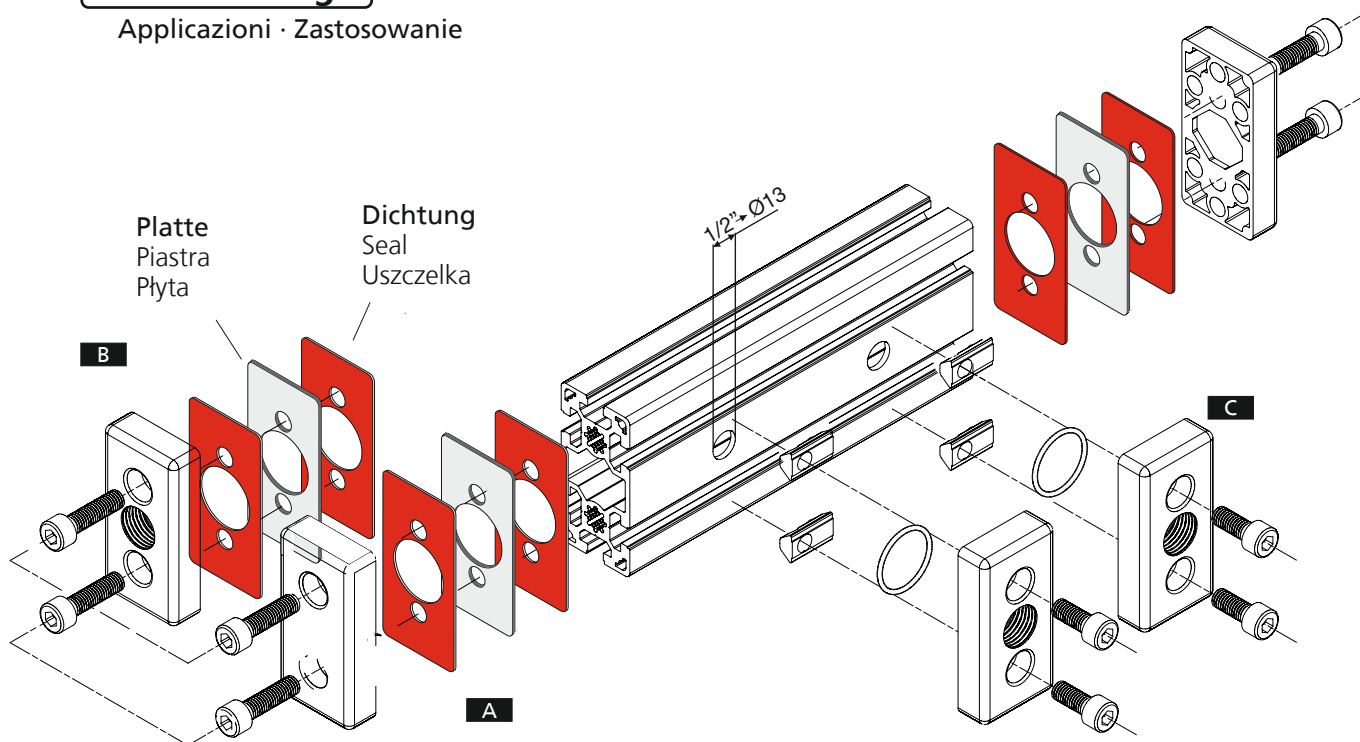
ELEMENTI PER PASSAGGIO DELL'ARIA 45

ELEMENTY PROWADZĄCE POWIETRZE 45

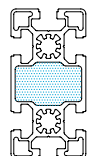


## Anwendung

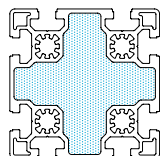
Applicazioni · Zastosowanie



max. 8 bar



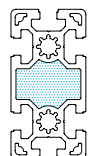
9.3 cm<sup>2</sup>



34.7 cm<sup>2</sup>



max. 12 bar



8.8 cm<sup>2</sup>

Technische Änderungen vorbehalten

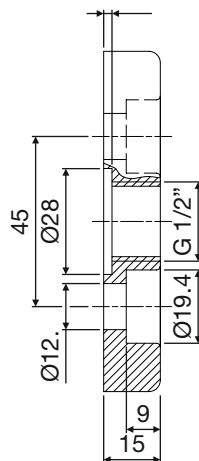
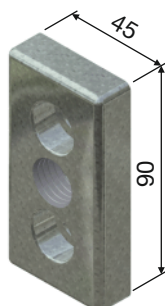
# LUFTFÜHRUNGSELEMENTE 45

## ELEMENTI PER PASSAGGIO DELL'ARIA 45

### ELEMENTY PROWADZĄCE POWIETRZE 45



**45x90**



Platte  
Piastra  
Płyta **05.01571.12**

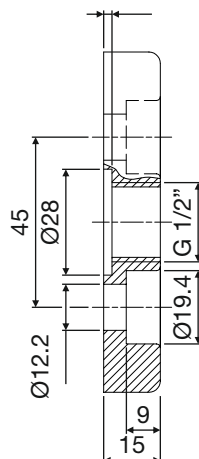
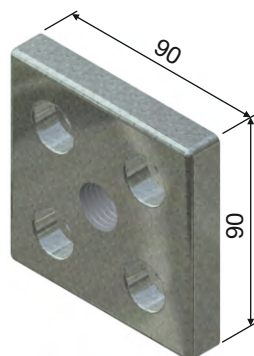
Dichtung  
Seal  
Uszczelka **05.00759.00**

**A** + **05.00755.10**  
2x

**B** + **05.00757.10**  
2x

**C** + **05.00757.20**  
2x

**90x90**



Platte  
Piastra  
Płyta **05.02375.00**

Dichtung  
Seal  
Uszczelka **05.00760.00**

**A** + **05.00756.10**  
4x

**B** + **05.00758.10**  
4x

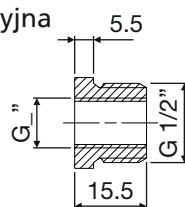
**C** + **05.00758.20**  
4x

**Reduzierstück**

Raccordo riduzione · Kształtka redukcyjna



SW24



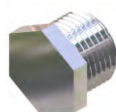
1/2" → 3/8" **05.00750.00**

1/2" → 1/4" **05.00751.00**

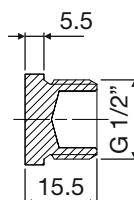
1/2" → 1/8" **05.00752.00**

**Verschlussstück**

Tappo · Element zamykający

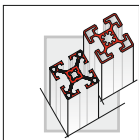


SW24



1/2" **05.00753.00**

Technische Änderungen vorbehalten



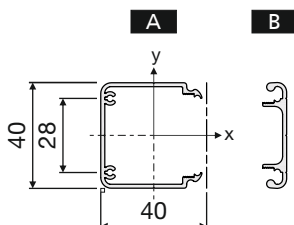
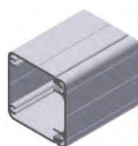
# KABELKANALPROFILE

## CANALINA PER CAVI

### PROFILE KANAŁÓW KABLOWYCH



**40x40**



**A**

**05.02025.00**

M = 0,53 kg/m  
 $I_x = 5,16 \text{ cm}^4$   
 $W_x = 2,58 \text{ cm}^3$   
 $I_y = 3,10 \text{ cm}^4$   
 $W_y = 1,55 \text{ cm}^3$



PE (m)  
 6 / 24 / 48

**B**

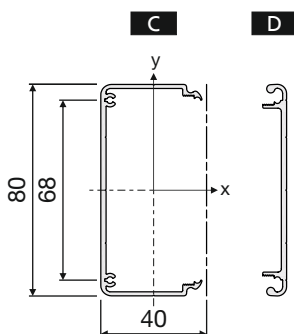
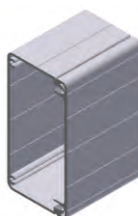
**05.02026.00**

M = 0,30 kg/m  
 $I_x = 1,95 \text{ cm}^4$   
 $W_x = 0,97 \text{ cm}^3$   
 $I_y = 0,06 \text{ cm}^4$   
 $W_y = 0,04 \text{ cm}^3$



PE (m)  
 6 / 24 / 48

**40x80**



**C**

**05.02027.00**

M = 0,78 kg/m  
 $I_x = 27,11 \text{ cm}^4$   
 $W_x = 6,77 \text{ cm}^3$   
 $I_y = 4,03 \text{ cm}^4$   
 $W_y = 2,01 \text{ cm}^3$



PE (m)  
 6 / 12 / 24 / 48

**D**

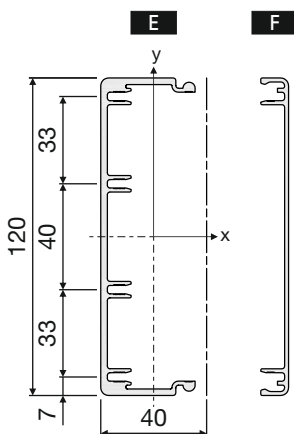
**05.02028.00**

M = 0,54 kg/m  
 $I_x = 13,24 \text{ cm}^4$   
 $W_x = 3,31 \text{ cm}^3$   
 $I_y = 0,08 \text{ cm}^4$   
 $W_y = 0,05 \text{ cm}^3$



PE (m)  
 6 / 12 / 24 / 48

**40x120**



**E**

**05.02214.00**

M = 1,60 kg/m  
 $I_x = 115,69 \text{ cm}^4$   
 $W_x = 19,28 \text{ cm}^3$   
 $I_y = 5,43 \text{ cm}^4$   
 $W_y = 2,72 \text{ cm}^3$



PE (m)  
 3 / 30

**F**

**05.02216.00**

M = 0,66 kg/m  
 $I_x = 40,69 \text{ cm}^4$   
 $W_x = 6,78 \text{ cm}^3$   
 $I_y = 0,16 \text{ cm}^4$   
 $W_y = 0,10 \text{ cm}^3$



PE (m)  
 3 / 30

Technische Änderungen vorbehalten



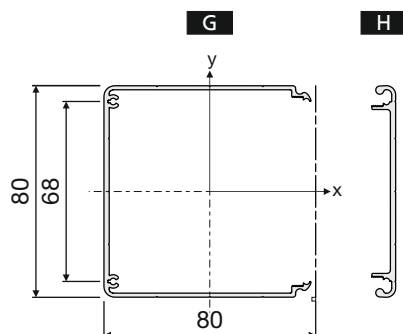
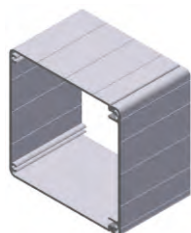
# KABELKANALPROFILE

## CANALINA PER CAVI

## PROFILE KANAŁÓW KABLOWYCH



**80x80**



**G**

**05.02029.00**

M = 1,10 kg/m  
 $I_x = 45,47 \text{ cm}^4$   
 $W_x = 11,37 \text{ cm}^3$   
 $I_y = 27,85 \text{ cm}^4$   
 $W_y = 6,96 \text{ cm}^3$

PE (m)  
 6 / 24 / 48



**H**

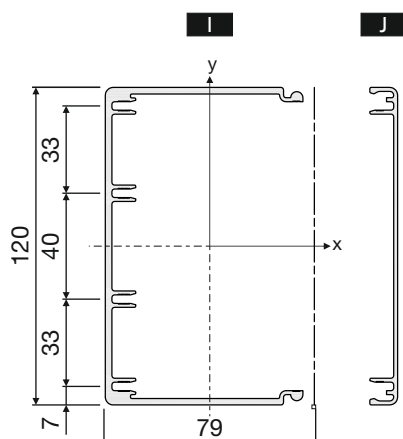
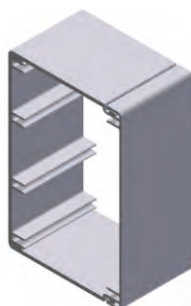
**05.02028.00**

M = 0,54 kg/m  
 $I_x = 13,24 \text{ cm}^4$   
 $W_x = 3,31 \text{ cm}^3$   
 $I_y = 0,08 \text{ cm}^4$   
 $W_y = 0,05 \text{ cm}^3$

PE (m)  
 6 / 24 / 48



**80x120**



**I**

**05.02215.00**

M = 2,12 kg/m  
 $I_x = 182,32 \text{ cm}^4$   
 $W_x = 30,39 \text{ cm}^3$   
 $I_y = 42,56 \text{ cm}^4$   
 $W_y = 10,64 \text{ cm}^3$

PE (m)  
 3 / 30



**J**

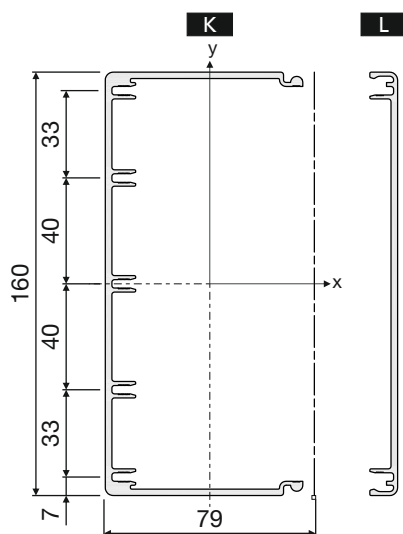
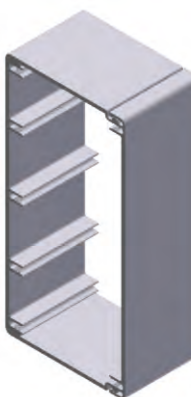
**05.02216.00**

M = 0,66 kg/m  
 $I_x = 40,69 \text{ cm}^4$   
 $W_x = 6,78 \text{ cm}^3$   
 $I_y = 0,16 \text{ cm}^4$   
 $W_y = 0,10 \text{ cm}^3$

PE (m)  
 3 / 30



**80x160**



**K**

**05.02217.00**

M = 2,43 kg/m  
 $I_x = 349,85 \text{ cm}^4$   
 $W_x = 43,73 \text{ cm}^3$   
 $I_y = 45,36 \text{ cm}^4$   
 $W_y = 11,34 \text{ cm}^3$

PE (m)  
 3 / 30



**L**

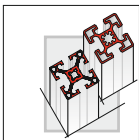
**05.02218.00**

M = 1,19 kg/m  
 $I_x = 109,37 \text{ cm}^4$   
 $W_x = 13,67 \text{ cm}^3$   
 $I_y = 0,18 \text{ cm}^4$   
 $W_y = 0,10 \text{ cm}^3$

PE (m)  
 3 / 30



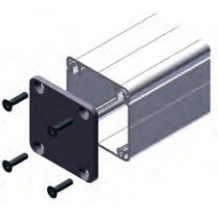
Technische Änderungen vorbehalten



**KABELKANAL ABDECKKAPPEN**  
**CANALINA PER CAVI COPERTURA**  
**CANIVEAU CLAPET DE COUVERCLE**



**40x40**



St, vz. 3 mm

DIN 7991  
M3x8 (4x)

99.00500.00

05.02219.00

VA 3 mm

05.02219.10

**40x80**



St, vz. 3 mm

DIN 7991  
M3x8 (4x)


99.00500.00

05.02222.00

VA 3 mm

05.02222.10

**40x120**



PA, 4 mm

DIN 7984  
M4x12 (4x)

99.00095.00

05.02269.00

**80x80**



St, vz. 3 mm

DIN 7991  
M3x8 (4x)

99.00500.00

05.02268.00

**80x120**




PA, 4 mm

DIN 7984  
M4x12 (4x)

99.00095.00

05.02223.00

**80x160**



PA, 4 mm

DIN 7984  
M4x12 (4x)

99.00095.00

05.02224.00

Technische Änderungen vorbehalten

# KABELDURCHFÜHRUNGEN

## CANALINA PER CAVI

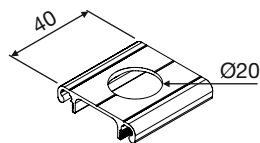
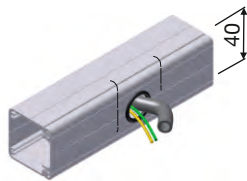
## PASSE-CABLES



### Innovative Vorteile

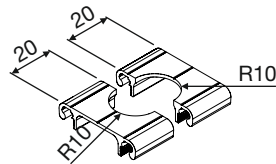
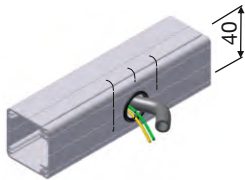
- Einfaches Verlegen von Leitungen
- Deckt scharfe Schnittkanten ab
- Geschützte Ausleitung von Kabeln und Schläuchen
- Typ B und Typ D für nachträglichen Leitungseinbau geeignet

### Typ A



05.02156.00

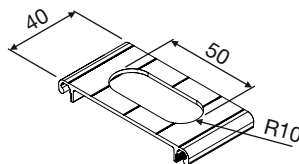
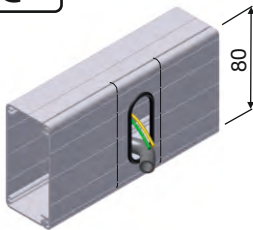
### Typ B



05.02157.00

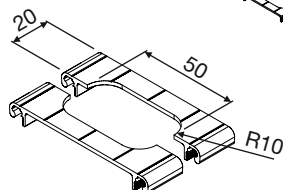
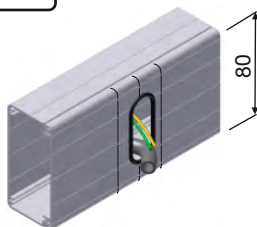
Für nachträglichen Einbau geeignet

### Typ C



05.02158.00

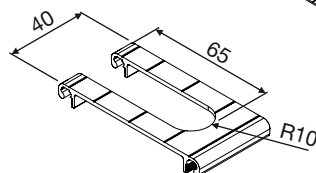
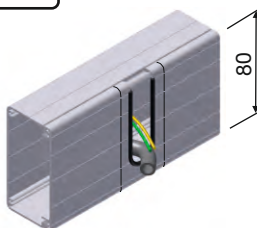
### Typ D



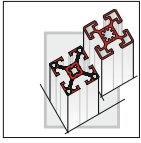
05.02159.00

Für nachträglichen Einbau geeignet

### Typ E



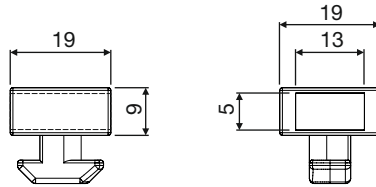
05.02160.00



# INSTALLATIONSELEMENTE PROGRAMMA D'INSTALLAZIONE AKCESORIA



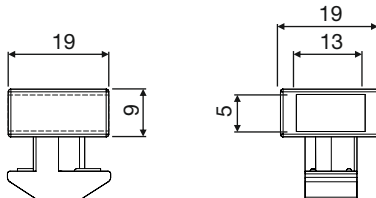
## Kabelhalter



**8** 05.01528.00

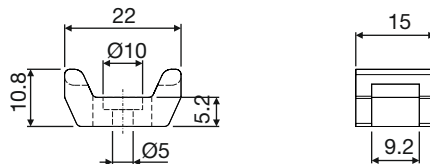
Kunststoff PA,  
glasfaserverstärkt

Plastique, PA, renforcé  
fibres de verre



**10** 05.01530.00

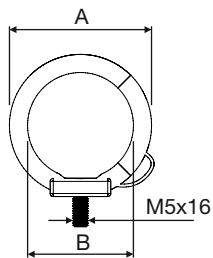
Kunststoff PA,  
glasfaserverstärkt



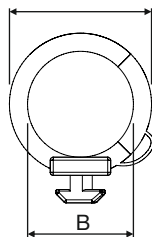
05.01531.00

Kunststoff PA,  
glasfaserverstärkt

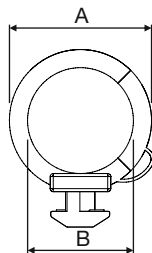
## IR-Quick



	A	B	
IR-Quick 15F - S	28.5	17	05.01264.00
IR-Quick 25F - S	36.5	25	05.01265.00
IR-Quick 35F - S	47.5	35	05.01266.00
IR-Quick 45F - S	56.5	45	05.01267.00



<b>8</b>	A	B	
IR-Quick 15F - 8	28.5	17	05.01275.00
IR-Quick 25F - 8	36.5	25	05.01276.00
IR-Quick 35F - 8	47.5	35	05.01277.00
IR-Quick 45F - 8	56.5	45	05.01278.00



<b>10</b>	A	B	
IR-Quick 15F - 10	28.5	17	05.01260.00
IR-Quick 25F - 10	36.5	25	05.01261.00
IR-Quick 35F - 10	47.5	35	05.01262.00
IR-Quick 45F - 10	56.5	45	05.01263.00

Technische Änderungen vorbehalten

# ECO-ROHR EASY&QUICK

## TUBO ECO EASY&QUICK

### RURA ECOEASY&QUICK



Das System für Ihren **KVP: Kontinuierlichen Verbesserungs Prozess** und Ihre Kanban-Systeme als Lösung Ihrer Logistik-Prozesse

#### Merkmale:

- Einfache Planung
- Wenige Werkzeuge
- Leichte Montage
- Flexible Erweiterungen
- Wiederverwendbarkeit der Produkte
- Umweltfreundliche Produkte
- Anbindung an das FM-Aluprofil-system

The system for your **CIP: Continuous Improvement Process** and the Kanban systems as solution for your logistics processes

#### Caratteristiche

- pianificazione semplice
- pochi strumenti
- assemblaggio semplice
- espansione flessibile
- riutilizzabilità dei prodotti
- prodotti ecologici
- Connection to the FM aluminium profile system

System dla **PCU: Procesu Ciągłego Ulepszania** i systemów Kanban jako rozwiązanie procesów logistycznych

#### Cechy

- Łatwe planowanie
- Mało narzędzi
- Łatwy montaż
- Elastyczne rozszerzenia
- Możliwość ponownego wykorzystania produktów
- Produkty przyjazne dla środowiska
- Podłączenie do systemu profili aluminiowych FM



■ 10.02



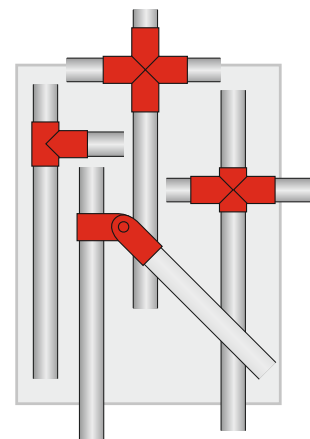
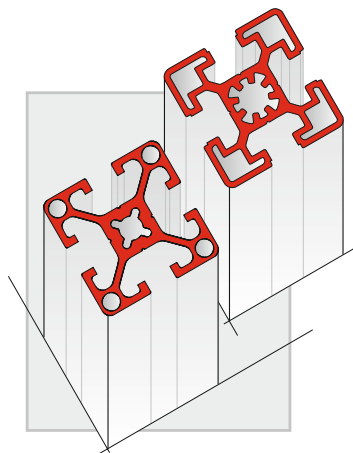
■ 10.03



■ 10.04



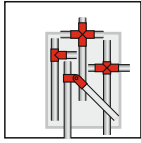
■ 10.06



... Aluminiumprofil trifft auf ECO-Rohr ...

... Aluminium profile meets ECO pipe ...

... Profil aluminiowy napotyka rurę ECO ...



# ECO-ROHR SYSTEM

## TUBO ECO-SYSTEM

### SYSTEM RUROWY ECO



Artikel Nr. Item No. Article No.	Typ Type Typé	Ø mm	t mm	Farbe Colour Couleur	Gewicht Weight Poids	HV
08.00010.00	KUMA-Rohr	28	1	Lichtgrau Light grey Gris clair	0,73 kg/m	90
08.00017.00	KUMA-Rohr	28	1	Dunkelgrau Dark grey Gris foncé	0,73 kg/m	90
08.00016.00	KUMA-Rohr	28	1	Enzianblau Blue (dark) Bleu (noir)	0,73 Kg/m	90
08.00004.00	KUMA-Rohr	28	1	Weiß White Blanc	0,73 Kg/m	90
08.00314.00	KUMA-Rohr	28	1	Rot Red Rouge	0,73 Kg/m	90
08.00315.00	KUMA-Rohr	28	1	Gelb Yellow Jaune	0,73 Kg/m	90
08.00011.00	KUMA-Rohr	28	1	Grün Green Vert	0,73 Kg/m	90
08.00008.00	KUMA-Rohr	28	2	Lichtgrau Light grey Gris clair	1,35 kg/m	90
08.00018.00	KUMA-Rohr	28	2	Dunkelgrau Dark grey Gris foncé	1,35 kg/m	90
08.00007.00	KUMA-Rohr	28	2	Enzianblau Blue (dark) Bleu (noir)	1,35 kg/m	90
08.00005.00	KUMA-Rohr	28	2	Weiß White Blanc	1,35 kg/m	90
08.00013.00	KUMA-ESD	28	1	Schwarz Black Noir	0,72 kg/m	90
08.00029.00	KUMA-ESD Winkelrohr	28	1	Schwarz Black Noir	0,77 kg/m	90
08.00021.00	KUMA-ESD	28	2	Schwarz Black Noir	1,35 kg/m	90
08.00022.00	KUMA-Rohr	28	2	Rot Red Rouge	1,35 kg/m	90
08.00026.00	KUMA- Gleit-Rohr	28	1	Enzianblau Blue (dark) Bleu (noir)	0,77 kg/m	90
08.00027.00	KUMA- Gleit-Rohr	28	1	Lichtgrau Light grey Gris clair	0,77 kg/m	90
08.00003.00	KUMA- Gleit-Rohr	28	2	Lichtgrau Light grey Gris clair	1,35 kg/m	90
08.00009.00	KUMA-ESD Gleit-Rohr	28	1	Schwarz Black Noir	0,77 kg/m	90
08.00019.00	KUMA-ESD Flach-Rohr	28	1	Schwarz Black Noir	0,77 kg/m	90
08.00019.10	KUMA Flach-Rohr	28	1	Grau grey Gris	0,77 kg/m	90
08.00020.00	KUMA-Rohr	32	1	Lichtgrau Light grey Gris clair	0,87 kg/m	90
08.00001.00	NICO	28	0,8	Silber Silver Argent	0,55 kg/m	210
08.00002.00	NICO	28	1,2	Silber Silver Argent	0,79 kg/m	210
08.00023.00	NICO	32	0,8	Silber Silver Argent	0,66 kg/m	210

Technische Änderungen vorbehalten

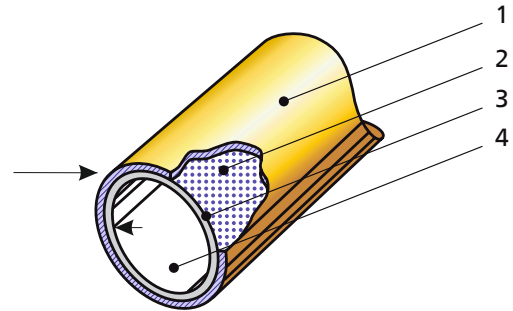
## KUMA-ROHR

### TUBI IN ACCIAIO · RURA KUMA

Stahlrohr mit Kunststoffmantel (ABS)

Tubo di acciaio con guaina in plastica (ABS)

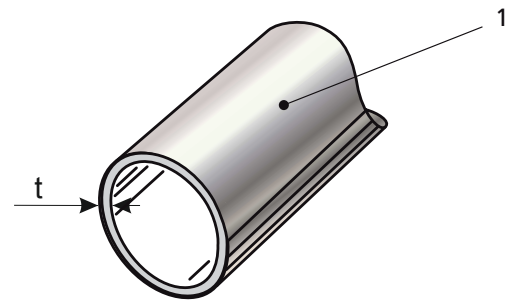
Rura stalowa z osłoną z tworzywa sztucznego (ABS)



- |  |  |
|--|--|
| 1 ABS-Mantel<br>guaina in plastica<br>Osłona ABS | 2 Stahlrohr-Oberfläche<br>superficie del tubo in acciaio<br>Powierzchnia rury stalowej |
| 3 Stahlrohr<br>tubo di acciaio<br>Rura stalowa   | 4 Rostfrei-Beschichtung<br>rivestimento inossidabil<br>Powłoka nierdzewna              |

## NICO-ROHR

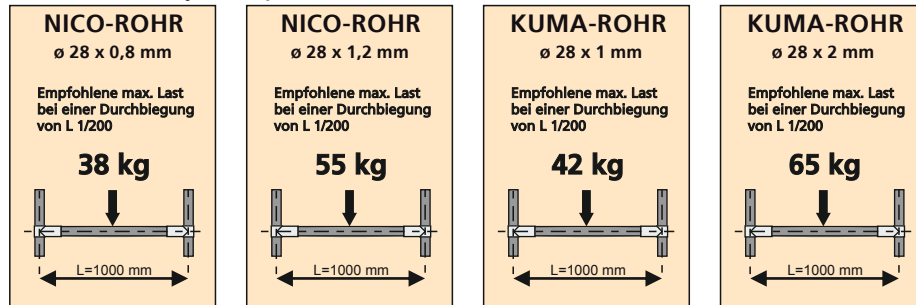
### TUBI NICO · RURA NICO



- 1 Stahlrohr, hoch glänzend  
mit Indoor-Korrosionsschutz  
tubo in acciaio, lucido con  
protezione interna anticorrosione  
Rura stalowa o wysokim połysku z  
wewnętrzzną ochroną przeciwkorozyjną

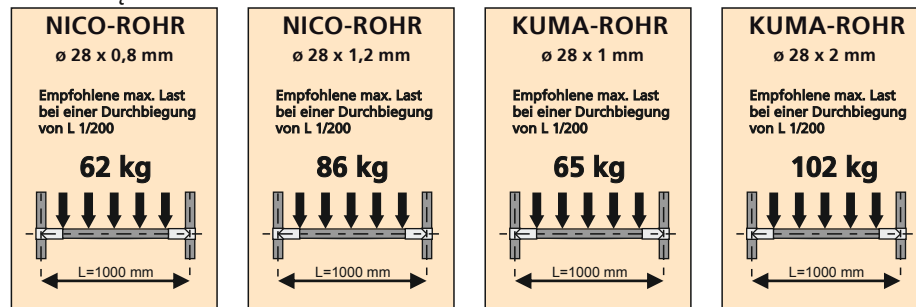
**PUNKTLAST**

Carico concentrato · Obciążenie punktowe



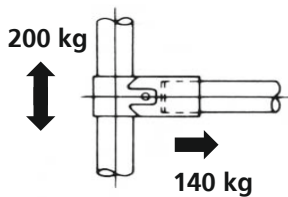
**STRECKENLAST**

Carico lineare · Obciążenie odcinkowe



**Zulässige Verbinderbelastungen**

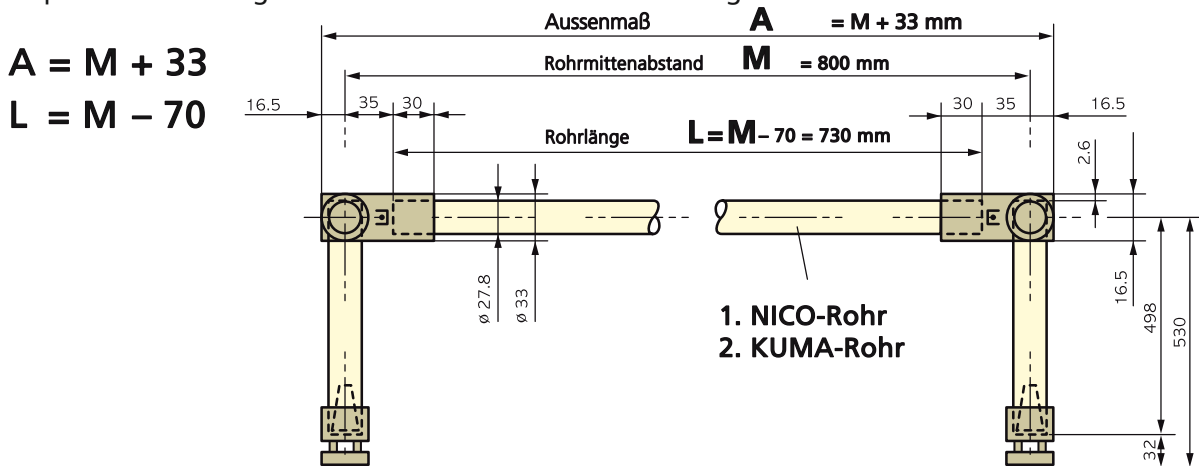
carichi ammessi per giunti per tubi KUMA · Dopuszczalne obciążenia łączników

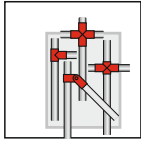


Max. ruhende Last horizontal und vertikal  
 carico statico massimo orizzontale et verticale  
 Maks. obciążenie nieruchome poziomo i pionowo

**Planung der Rohrlängen Ø28**

pianificare le lunghezze dei tubi Ø28 · Planowanie długości rur Ø28





# ECO-ROHR SYSTEM VERBINDER

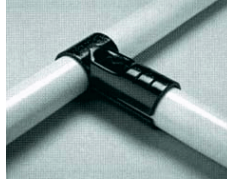
## ECO PIPE SYSTEM CONNECTOR

### KITS DE FIXATION ECO-MECANO

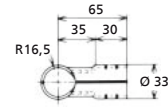


#### Rohr-T-Verbinder

Giunti per tubi T · Rurowy łącznik T



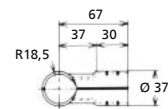
Ø 28 mm



HJ-1

08.00030.xx

Ø 32 mm

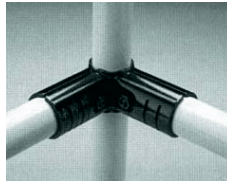
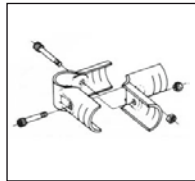


WJ-1

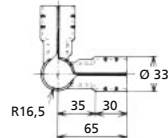
08.00031.xx

#### Rohr-Eckverbinder

Connettori ad angolo · Rurowy łącznik narożny



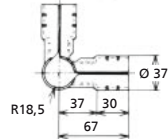
Ø 28 mm



HJ-2

08.00032.xx

Ø 32 mm

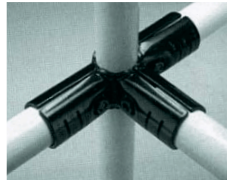
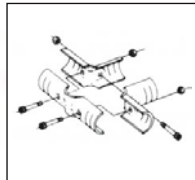


WJ-2

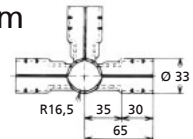
08.00033.xx

#### Rohr-T-Kreuzverbinder

Giunto a croce T · Rurowy łącznik krzyżowy T



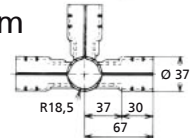
Ø 28 mm



HJ-3

08.00034.xx

Ø 32 mm

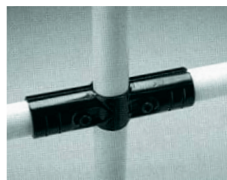
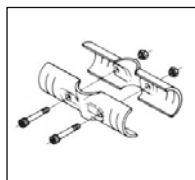


WJ-3

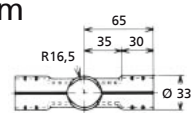
08.00035.xx

#### Rohr-Kreuzverbinder

Giunto a croce · Rurowy łącznik krzyżowy



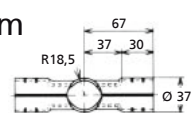
Ø 28 mm



HJ-4

08.00036.xx

Ø 32 mm

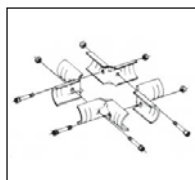


WJ-4

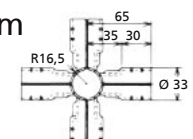
08.00037.xx

#### Rohr-Sternverbinder

Giunto a stella · Rurowy łącznik gwiazdowy



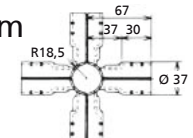
Ø 28 mm



HJ-5

08.00038.xx

Ø 32 mm



WJ-5

08.00039.xx

Technische Änderungen vorbehalten

**08.00xxx.00**  
silber-vernickelt  
argento nichelato · srebrny, niklowany

**08.00xxx.10**  
schwarz beschichtet, chromfrei  
verniciato nero · czarna powlekana



# ECO-ROHR SYSTEM VERBINDER

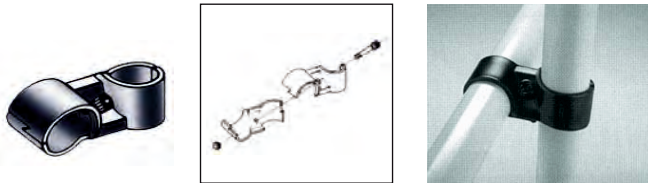
## CONNETTORI TUBI

## ŁĄCZNIKI SYSTEMU RUROWEGO ECO

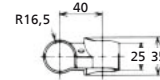


### Rohr-Kreuzverbinder HV

Giunto a croce HV · Rurowy łącznik krzyżowy HV



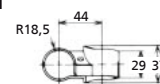
Ø 28 mm



HJ-6

08.00040.xx

Ø 32 mm

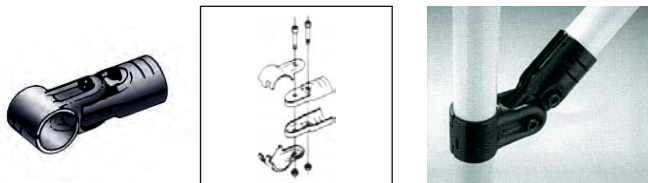


WJ-6

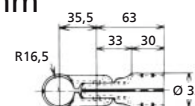
08.00041.xx

### Rohr-Gelenkverbinder

Giunto in diagonale · Rurowy łącznik przegubowy



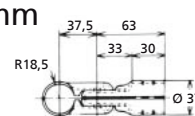
Ø 28 mm



HJ-7

08.00042.xx

Ø 32 mm

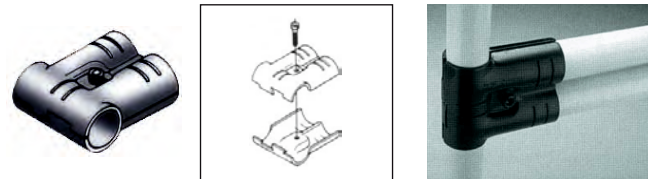


WJ-7

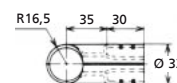
08.00043.00

### Rohr-T-Parallelverbinder

Connettori paralleli T · Rurowy łącznik równoległy T



Ø 28 mm

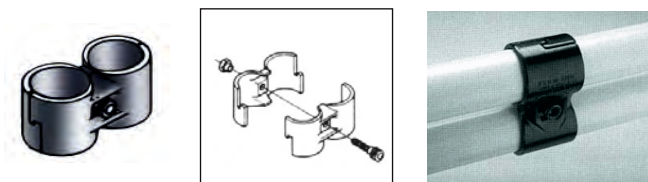


HJ-9

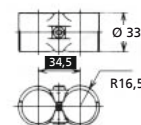
08.00044.xx

### Rohr-Parallelverbinder

Connettori paralleli · Rurowy łącznik równoległy



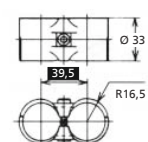
Ø 28 mm



HJ-10

08.00046.xx

Ø 28 mm

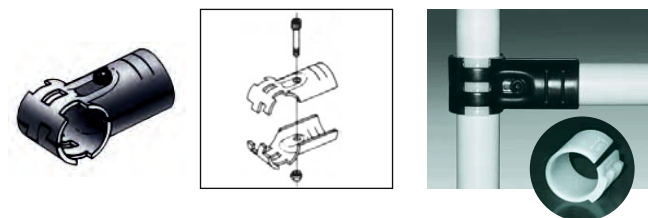


HJ-12

08.00050.00

### Gleit-Verbinder

Giunto scorrevole · Łącznik ślizgowy



Ø 28 mm

HJ-11

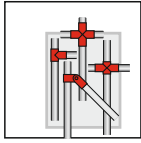
08.00048.xx

08.00xxx.00  
silber-vernickelt  
argento nichelato · srebrny, niklowany

08.00xxx.10  
schwarz-chromatiert  
verniciato nero · czarna powlekana

Technische Änderungen vorbehalten

10



# ECO-ROHR SYSTEM VERBINDER

## CONNETTORI TUBI

### ŁĄCZNIKI SYSTEMU RUROWEGO ECO



Einfach das ECO-Rohrstecksystem mit dem Aluminiumsystem kombinieren, so können Sie die Vorteile beider Systeme nutzen.

Easy to connect the ECO-pipe system with the Alu profile system. So you can use all the advantages from both systems.

Umożliwiają proste połączenie rurowego systemu wtykowego ECO z systemem aluminiowym, co pozwala wykorzystać zalety obu systemów.

### VS - Verbindung

Artikel Nr.	TYP	Ø	□	U
08.00399.00	ALU / NICO / KUMA 1mm	28	40	8
08.00399.00	ALU / NICO / KUMA 1 mm	28	45	10

**INFO**

### Winkelverbindung

Artikel Nr.	TYP	Ø	A	□	U
08.00398.05	ALU / NICO / KUMA 1 mm	28	16	40	8
08.00398.05	ALU / NICO / KUMA 1 mm	28	13,5	45	10

**INFO**

Technische Änderungen vorbehalten

# ECO-ROHR SYSTEM ZUBEHÖR

## ACCESSORI

### AKCESORIA SYSTEMU RUROWEGO ECO



#### Rohr Profil T - teilbare Verbindungen

Artikel Nr.	TYP	Ø	A	☒	☒
08.00400.00	NICO / KUMA 1/2 mm	28	35	40/45	8 10

**INFO**

#### Rohr Profil T - feste Verbindungen

Artikel Nr.	TYP	Ø	A	☒	☒
08.00153.00	NICO / KUMA 1/2 mm	28	5	40/45	8 10

**INFO**

#### Laschenverbindung

Artikel Nr.	TYP	☒	☒
08.00492.00	KUMA-Rohr ø 28 x 1,0 mm	40/45	8 10
08.00493.00	KUMA-Rohr ø 28 x 2,0 mm	40/45	8 10
08.00494.00	NICO-Rohr ø 28 x 0,8 mm	40/45	8 10
08.00495.00	NICO-Rohr ø 28 x 1,2 mm	40/45	8 10

**INFO**

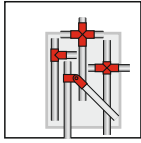
Einschlagwerkzeug für Federkralle M6  
 Driver tool for spring-loaded M6  
 Narzędzie do wbijania z pazurem sprężynowym M6  
 Art.Nr.: 08.00496.00

10

Technische Änderungen vorbehalten



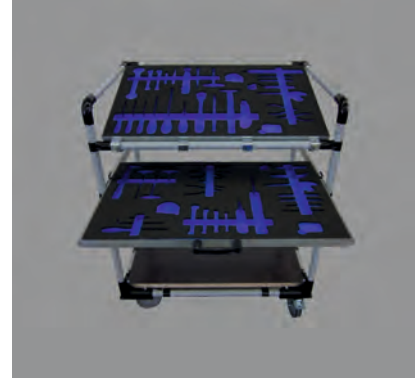
Einbau nur in Profilrahmen da begrenzte Auszugsfestigkeit  
 Only for installation in profiled frame because of limited extraction force



**ECO-ROHR SYSTEM ANWENDUNG**  
**APPLICAZIONE**  
**ZASTOSOWANIE**



**Anwendungsbeispiele**



Technische Änderungen vorbehalten



Für mehr Informationen  
 bitte separaten Katalog  
 anfordern!

ECO-Rohr

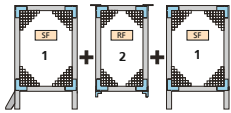
Please request separate  
 catalogue for more  
 information!

ECO-Rohr

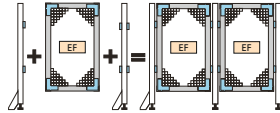
Aby uzyskać więcej  
 informacji, proszę zamówić  
 oddzielny katalog!

ECO-Rohr

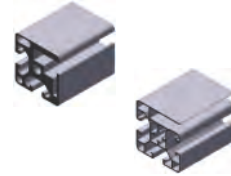
**SCHUTZ- UND TRENNSYSTEME**  
**SISTEMA DI PROTEZIONE E DI SEPARAZIONE**  
**SYSTEMY OCHRONNE I ROZDZIELAJĄCE**



■ 11.02



■ 11.06



■ 11.05



■ 11.10



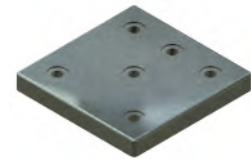
■ 11.11



■ 11.12



■ 11.13



➔ ■ 5.12



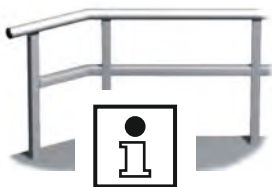
➔ ■ 5.13



➔ ■ 8.34



■ 11.26



■ 11.19



■ 11.20



■ 11.21



■ 11.22



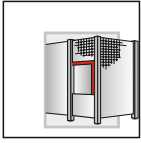
■ 11.23



■ 11.24



■ 11.25



# SCHUTZZAUNSYSTEM RB

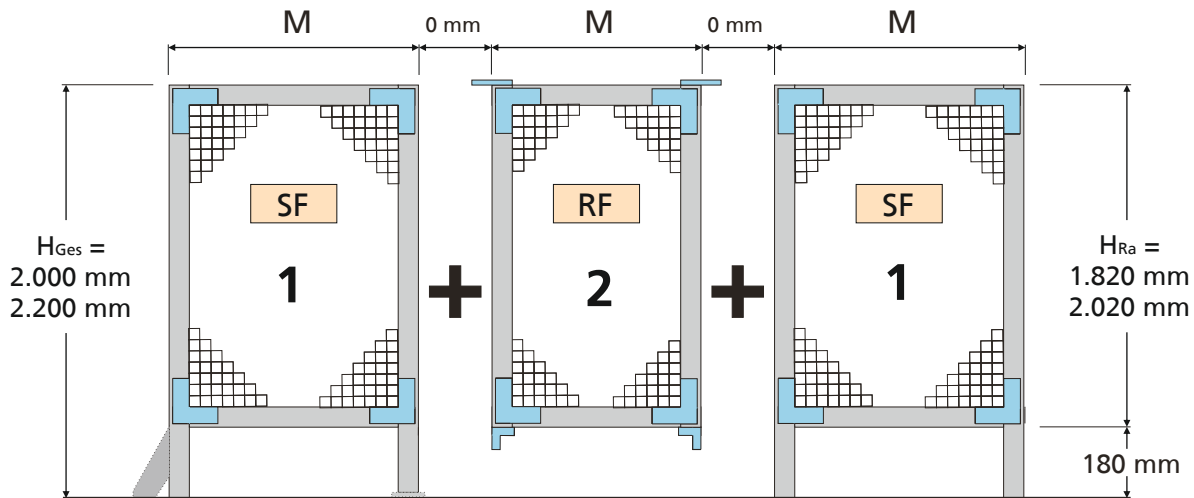
PROTEZIONE CON SISTEMA DI RECINZIONE

SYSTEM OGRODZENIA OCHRONNEGO



## Prinzipskizze

Abbozzo · Szkic zasadniczy



- **Einfache Montage**  
Facile montaggio  
Łatwy montaż

- **Günstigeres System**  
System economico  
Tańszy system

- **Kein Spaltmaß**  
No gap  
Brak wymiaru szczeliny

### Merkmale:

- Minimaler konstruktiver Aufwand durch Rasterbreiten
- Komplett vormontierte Ständerfelder (SF) und Rahmenfelder (RF)

### Größen:

**Standardhöhe:** H = 2.000 mm  
**Optional:** H = 2.200 mm

**Breiten ab Lager:**  
M = 750 / 1.000 / 1.250 / 1.500 mm

**Rasterbreiten:**  
M = 300 – 2.000 mm im 50 mm Raster

### Flächenelement:

**Basiselement:**  
Verzinktes Wellgitter  
40 x 40 x 4 mm

### Caratteristiche:

- Semplice la progettazione e il sistema di montaggio
- I pannelli principali (SF e RF) sono preassemblati

### Dimensioni:

**h standard:** H = 2.000 mm  
**Opzionale:** H = 2.200 mm

**Larghezza standard a magazzino:**  
M = 750 / 1.000 / 1.250 / 1.500 mm

**Larghezza standard:**  
From M = 300 - 2.000 mm with con distanza 50mm

### Pannello interno:

**Standard:**  
rete ondulata 40x40 filo Ø4, zincata

### Cechy:

- Minimalne nakłady konstrukcyjne dzięki szerokościom rastrów
- Kompletnie, wstępnie zmontowane pola stojakowe (SF) i pola ramowe (RF)

### Wielkości:

**Wysokość standardowa:** H=2.000 mm  
**Opcjonalnie:** H=2.200 mm

**Szerokości dostępne z magazynu:**  
M = 750 / 1.000 / 1.250 / 1.500 mm

**Szerokości rastra:**  
De M = 300 - 2.000 mm est d'une z krokiem 50 mm

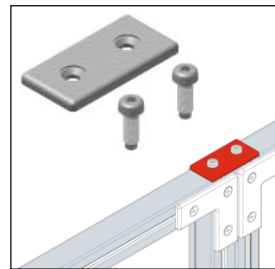
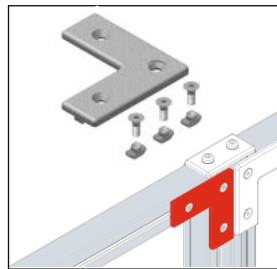
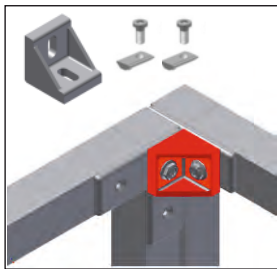
### Element powierzchniowy:

**Element podstawowy:**  
Ocynkowana krata falista

# SCHUTZZAUNSYSTEM RB

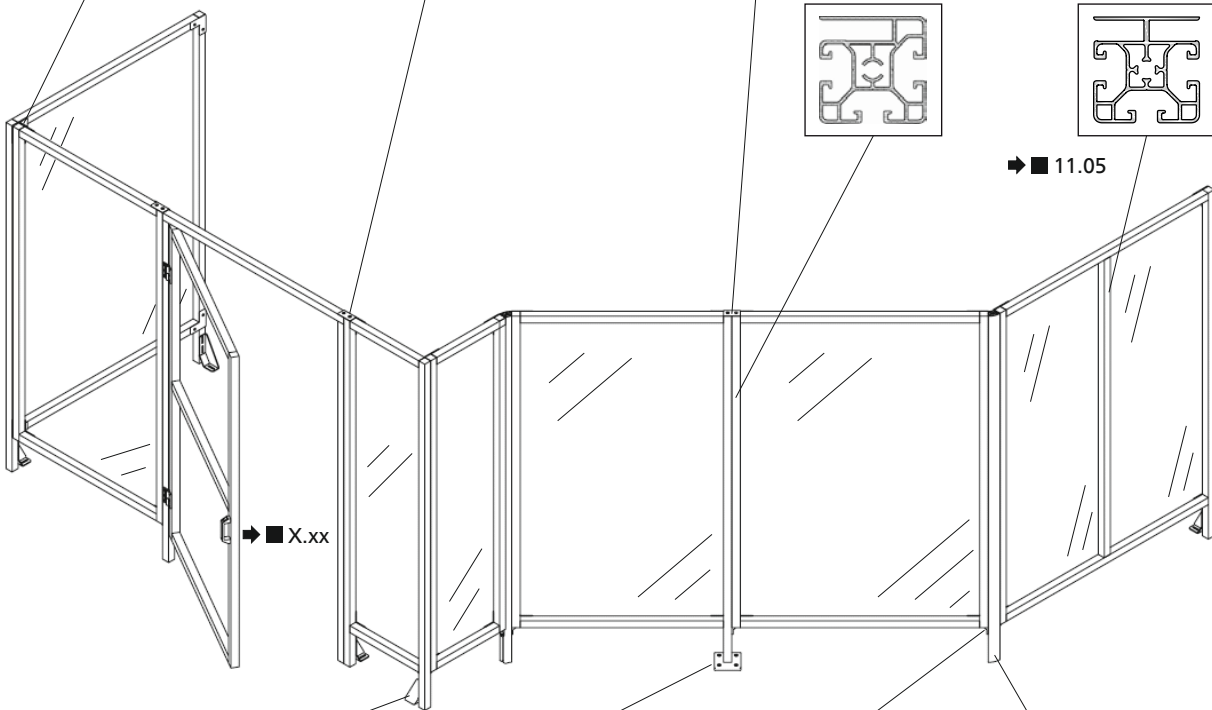
## PROTEZIONE CON SISTEMA DI RECINZIONE

### SYSTEM OGRODZENIA OCHRONNEGO



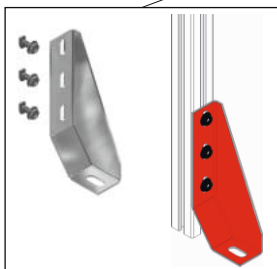
➔ ■ 3.21

➔ ■ 3.20

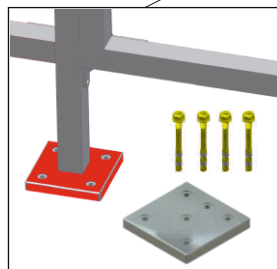


➔ ■ X.xx

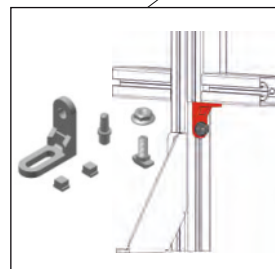
➔ ■ 11.05



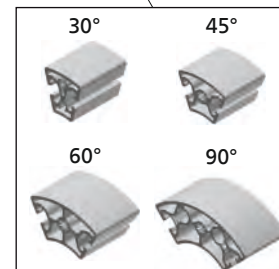
➔ ■ 5.09

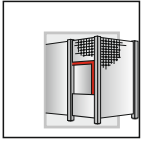


➔ ■ 5.12



➔ ■ 11.12





# SCHUTZZAUNSYSTEM RB

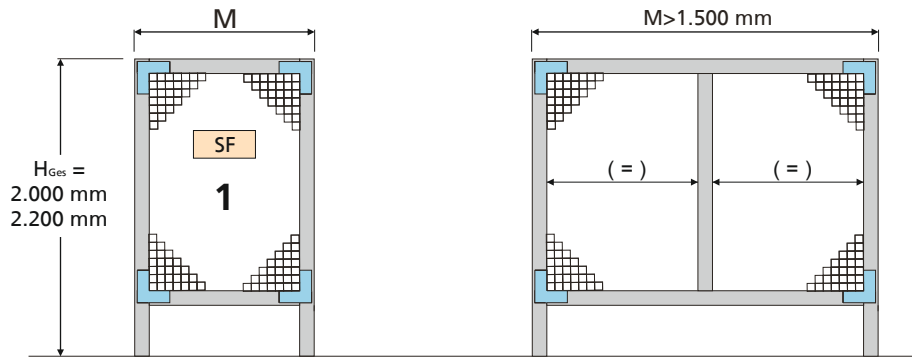
PROTEZIONE CON SISTEMA DI RECINZIONE

SYSTEM OGRODZENIA OCHRONNEGO



## Ständerfelder - SF

Pannello (SF) · Pola stojakowe - SF



SF ab Lager · SF a magazzino · SF z magazynu

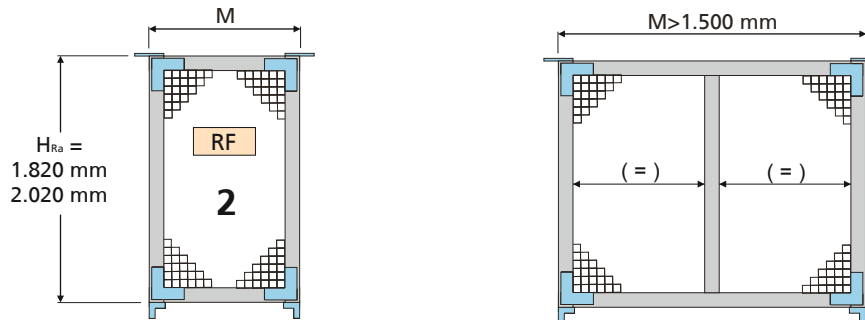
Rasterbreiten (50 mm) · Larghezze dei moduli · Szerokości rastrular

H <sub>Ges</sub>	M (mm)	Art.Nr.
2.000 mm	750	05.05021.12
	1.000	05.05021.17
	1.250	05.05021.22
	1.500	05.05021.27
2.200 mm	750	05.05221.12
	1.000	05.05221.17
	1.250	05.05221.22
	1.500	05.05221.27

H <sub>Ges</sub>	M	Art.Nr.
2.000 mm	xy	05.05021.xy
2.200 mm	xy	05.05221.xy
xy = M : 50 - 3		
Bsp: M = 800 mm → xy = 800:50-3 = 11		
300 mm ≤ M ≤ 2000 mm		

## Rahmenfelder - RF

Pannelli in sospensione (RF) · Pola ramowe - RF



RF ab Lager · RF a magazzino · RF z magazynu

Rasterbreiten (50 mm) · Larghezze dei moduli · Szerokości rastrular

H <sub>Ges</sub>	M (mm)	Art.Nr.
2.000 mm	750	05.05022.12
	1.000	05.05022.17
	1.250	05.05022.22
	1.500	05.05022.27
2.200 mm	750	05.05222.12
	1.000	05.05222.17
	1.250	05.05222.22
	1.500	05.05222.27

H <sub>Ges</sub>	M	Art.Nr.
2.000 mm	xy	05.05022.xy
2.200 mm	xy	05.05222.xy
xy = M : 50 - 3		
Bsp: M = 800 mm → xy = 800:50-3 = 11		
300 mm ≤ M ≤ 2000 mm		

Technische Änderungen vorbehalten



# SCHUTZZAUNPROFILE

## PROFILI PER RECINZIONI

## PROFILE OGRODZENIA OCHRONNEGO



### Innovative Vorteile:

- Einfache Montage ohne Profilbearbeitung
- Stabile Aufnahme der Wellgitter 40x40x4 ohne zusätzliche Klemmelemente
- Steigerung der Stabilität durch FM-Schutzzaunwinkel mit Zentrierfahnen

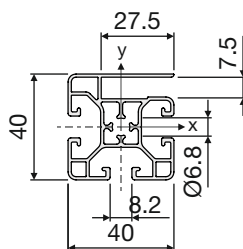
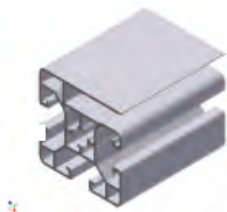
### Vantaggi innovativi:

- Facile montaggio senza
- fissaggio robusto della rete ondulata 40 x 40 x 4 senza ulteriori elementi di bloccaggio
- Maggiore stabilità dei pannelli con le piastre angolari con alette di centraggio

### Nowatorskie zalety:

- Prosty montaż bez obróbki profilu
- Stabilne zamocowanie kraty falistej 40 x 40 x 4 bez dodatkowych elementów zaciskowych
- Zwiększenie stabilności dzięki kątownikom do ogrodzeń ochronnych FM z wypustkami centrującymi

### 40x40

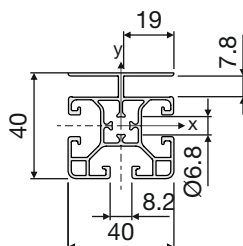
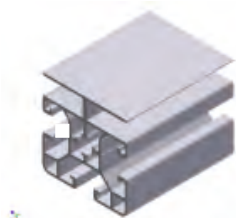


### 05.02024.00

M = 1,01 kg/m  
 $I_x = 6,17 \text{ cm}^4$   
 $W_x = 3,09 \text{ cm}^3$   
 $I_y = 5,88 \text{ cm}^4$   
 $W_y = 2,94 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

### 40x40 - 180°



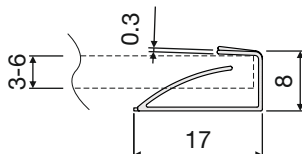
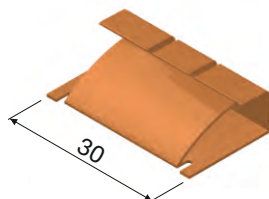
### 05.02023.00

M = 0,99 kg/m  
 $I_x = 6,04 \text{ cm}^4$   
 $W_x = 3,02 \text{ cm}^3$   
 $I_y = 5,41 \text{ cm}^4$   
 $W_y = 2,70 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

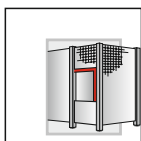
### Federklemmelement

Molla di bloccaggio · Element zacisku sprężynowego



### 05.02031.00

Federstahl  
 Molla in acciaio  
 Stal sprężynowa



# SCHUTZZAUNSYSTEM CLASSIC

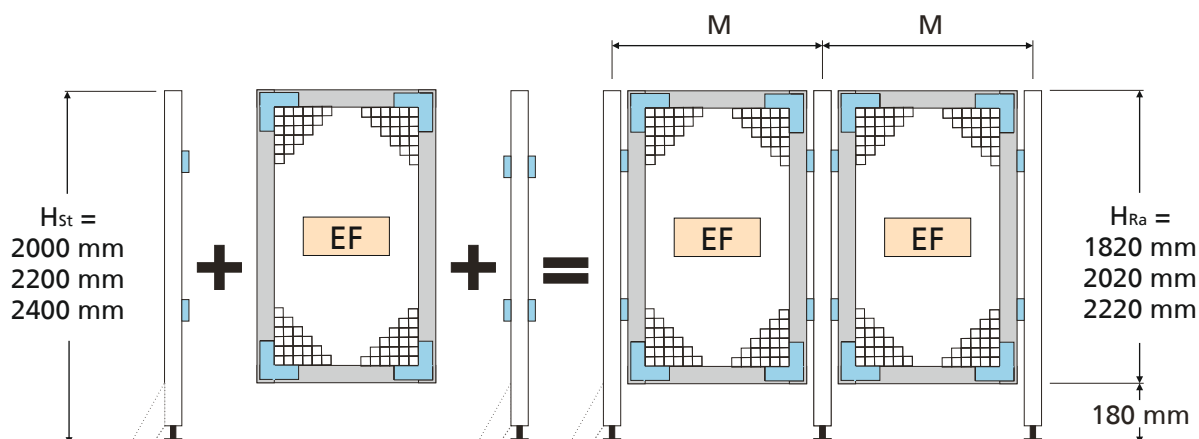
## PROTEZIONE CON SISTEMA DI RECINZIONE

## SYSTEM OGRODZENIA OCHRONNEGO



### Prinzipskizze

Abbozzo · Szkic zasadniczy



- **Universelle Anordnung**  
Disposizione universali  
Universalne rozmieszczenie

- **Vielseitig und variabel**  
versatile e flessibili  
Wszec stronność i elastyczność

- **Automobil-sicherheit**  
Sicurezza Automotive  
Bezpieczeństwo pojazdów

#### Merkmale:

- Durch spezielle Einhängung schneller Zugang zum geschützten Objekt
- Umfangreiches Zubehörangebot
- Auch mit umlaufender Strebe oben lieferbar

#### Größen:

**Standardhöhe:** H = 2.000 mm  
**Optional:** H = 2.200 mm  
H = 2.400 mm

#### **Breiten ab Lager:**

M = 750 / 1.000 / 1.250 / 1.500 mm

#### **Standardbreiten:**

M = 300 – 2.000 mm im 50 mm Raster

#### Flächenelement:

#### **Basiselement:**

Verzinktes Wellgitter; 40x40x4 mm

#### Caratteristiche:

- Fissaggio speciale per un accesso più rapido all'interno della protezione
- Adatto per la protezione nel settore automotive
- Disponibile anche rinforzi superiori

#### Dimensioni:

**h standard:** H = 2.000 mm  
**Opzionale:** H = 2.200 mm  
H = 2.400 mm

#### **Larghezza standard a magazzino:**

M = 750 / 1.000 / 1.250 / 1.500 mm

#### **Larghezza standard:**

From M = 300 - 2.000 mm with con distanza 50mm

#### Pannello interno:

#### **Standard:**

rete ondulata 40x40 filo Ø4, zincata

#### Cechy:

- Dzięki specjalnemu zaczepowi szybki dostęp do chronionego obiektu
- Bogata oferta wyposażenia dodatkowego
- Dostępny również z górnym zastrzałem na obwodzie

#### Wielkości:

**Wysokość standardowa:** H=2.000 mm  
**Opjonalnie:** H=2.200 mm  
H=2.400 mm

#### **Szerokości dostępne z magazynu:**

M = 750 / 1.000 / 1.250 / 1.500 mm

#### **Szerokości rastra:**

De M = 300 - 2.000 mm est d'une z krokiem 50 mm

#### Element powierzchniowy:

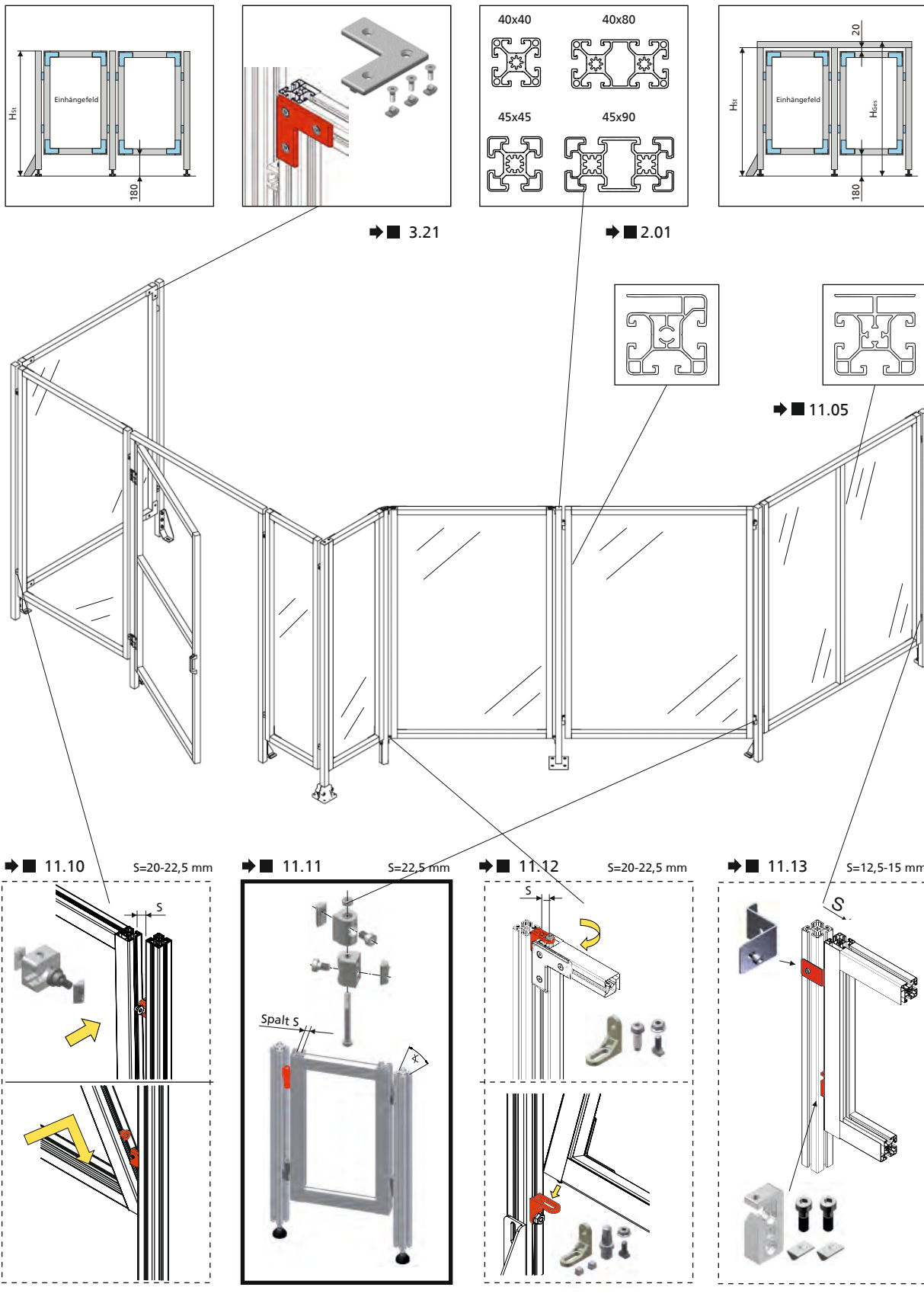
#### **Element podstawowy:**

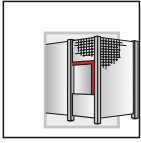
Ocynkowana krata falista

# SCHUTZZAUNSYSTEM CLASSIC

## PROTEZIONE CON SISTEMA DI RECINZIONE

## SYSTEM OGRODZENIA OCHRONNEGO





# SCHUTZZAUNSYSTEM CLASSIC

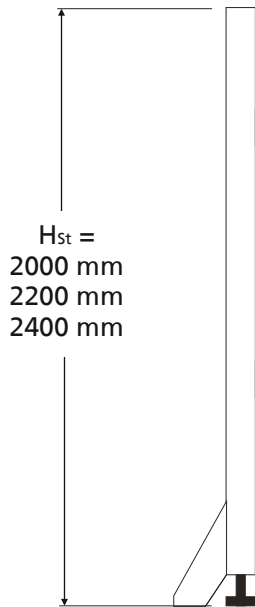
## PROTEZIONE CON SISTEMA DI RECINZIONE

## SYSTEM OGRODZENIA OCHRONNEGO



### System-Stützen

Piantone · Podpory systemowe



1		40 x 40 L - 1,55 kg/m 05.01035.00
5		40 x 80 L - 2,63 kg/m 05.01036.00
3		45 x 45 L - 1,70 kg/m 05.01041.00
7		45 x 90 L - 2,90 kg/m 05.01518.00

➔ ■ 2.01

### Typ 1

➔ ■ 5.08



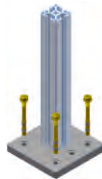
### Typ 2

➔ ■ 5.10



### Typ 3

➔ ■ 5.12



### Typ 5



Bestellnummer · Codici d'ordine · Numery katalogowe

05.05 □ 51. □ □

Fußausführung · Staffa di fissaggio · Wersja z nogą

- 1 = Typ 1
- 2 = Typ 2
- 3 = Typ 3
- 5 = Typ 5

Stützenprofil · profilo per piantone · Profil wspornikowy

- 1 = 40 x 40 L
- 5 = 40 x 80 L
- 3 = 45 x 45 L
- 7 = 45 x 90 L

Stützenhöhe · altezza profilo · Wysokość podpory

- 0 = 2.000 mm
- 2 = 2.200 mm
- 4 = 2.400 mm

Bestellbeispiel: 05.05251.33

Stützenhöhe 2.200 mm, Stützenprofil = 45x45 L, Fußausführung = Typ 3

Esempio: 05.05251.33

Altezza profilo 2.200 mm, piantone = 45x45 L, staffa di fissaggio = Typ 3

Przykład zamówienia: 05.05251.33

Wysoko podpory 2.200 mm, Profil wspornikowy = 45x45 L, Wersja z nogą = Typ 3

# SCHUTZZAUNSYSTEM CLASSIC

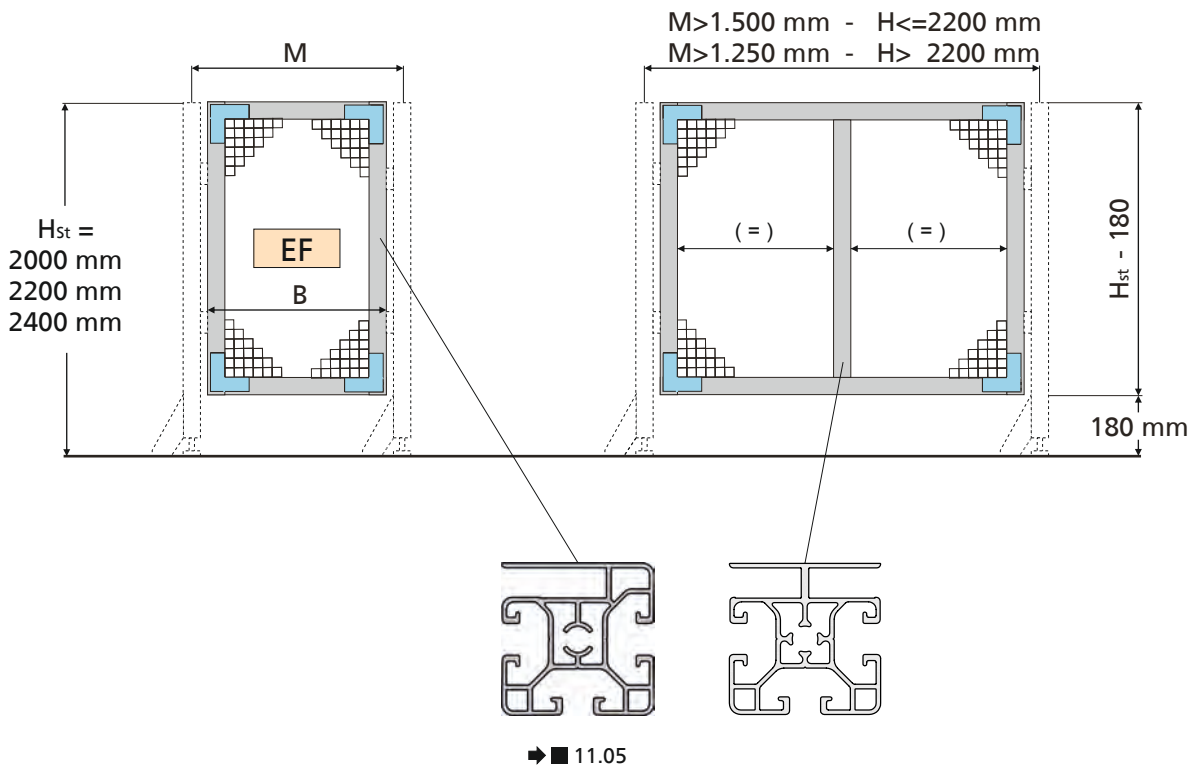
## PROTEZIONE CON SISTEMA DI RECINZIONE

## SYSTEM OGRODZENIA OCHRONNEGO



### Einhängfelder - EF

Pannelli in sospensione (EF) · Pola do zawieszania - E



EF ab Lager · EF a magazzino · EF z magazynu

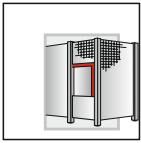
H <sub>Ges</sub>	M (mm)	Art.Nr.
2.000 mm	750	05.05052.12
	1.000	05.05052.17
	1.250	05.05052.22
	1.500	05.05052.27
2.200 mm	750	05.05252.12
	1.000	05.05252.17
	1.250	05.05252.22
	1.500	05.05252.27
2.400 mm	750	05.05452.12
	1.000	05.05452.17
	1.250	05.05452.22
	1.500	05.05452.27

Rasterbreiten · Larghezze dei moduli · Szerokości rastrular

H <sub>Ges</sub>	M	Art.Nr.
2.000 mm	xy	05.05052.xy
2.200 mm	xy	05.05252.xy
2.400 mm	xy	05.05452.xy
xy = M : 50 - 3		
Bsp: M = 800 mm → xy = 800:50-3 = 11		
300 mm ≤ M ≤ 2000 mm		

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Technische Änderungen vorbehalten



# SCHUTZZAUNSYSTEM CLASSIC

## PROTEZIONE CON SISTEMA DI RECINZIONE

### SYSTEM OGRODZENIA OCHRONNEGO



### Classic - Einhängung

Pannelli in sospensione classico · Zawieszenie Classic

#### Merkmale:

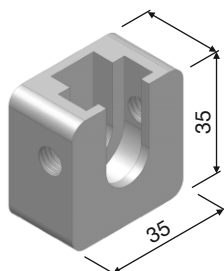
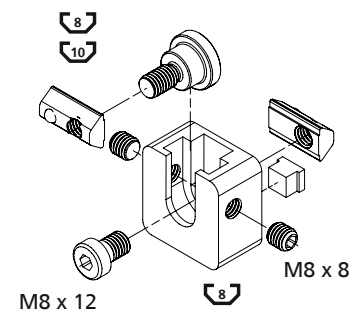
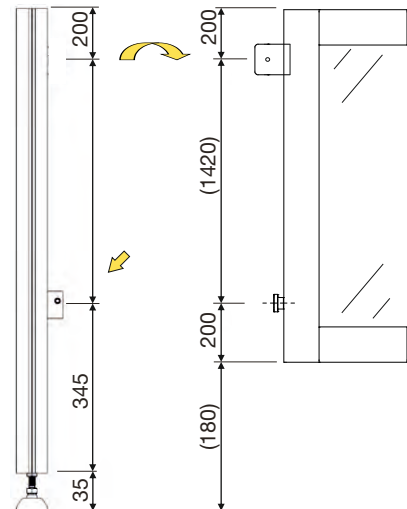
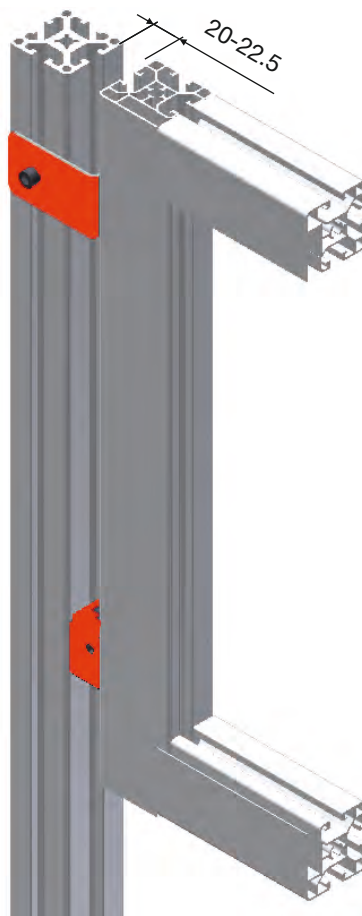
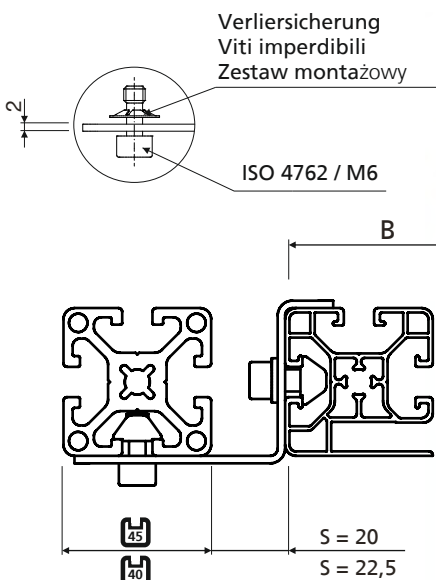
- Durch spezielle Einhängung schneller Zugang zum geschützten Objekt
- Entspricht Maschinenrichtlinie 2006 / 42 / EG
- Einfacher und schneller Aufbau
- Ein - Mann Montage
- Spaltmaß S = 22,5 (20) mm

#### Caratteristiche:

- Special suspension for faster access to protected object
- Utilizabile per direttiva macchine 2006/42/EG
- Facile da montare
- Può essere assemblato da un operatore
- Distanza S = 22,5 (20) mm

#### Cechy:

- Dzięki specjalnemu zaczepowi szybki dostęp do chronionego obiektu
- Zgodny z dyrektywą w sprawie maszyn 2006/42/WE
- Łatwy i szybki montaż
- Montaż przez jedną osobę
- Wymiar szczeliny S = 22,5 (20) mm



Technische Änderungen vorbehalten

8		+ Anbausatz set di fissaggio Zestaw montażowy	05.02014.40
8		+ Anbausatz set di fissaggio Zestaw montażowy	05.02052.05
10		+ Anbausatz set di fissaggio Zestaw montażowy	05.02014.20
10		+ Anbausatz set di fissaggio Zestaw montażowy	05.02052.20

# SCHUTZZAUNSYSTEM CLASSIC

## PROTEZIONE CON SISTEMA DI RECINZIONE

## SYSTEM OGRODZENIA OCHRONNEGO



### Winkeleinhängung

Elementi di sospensione snodati · Zawieszenie kątowe

#### Merkmale:

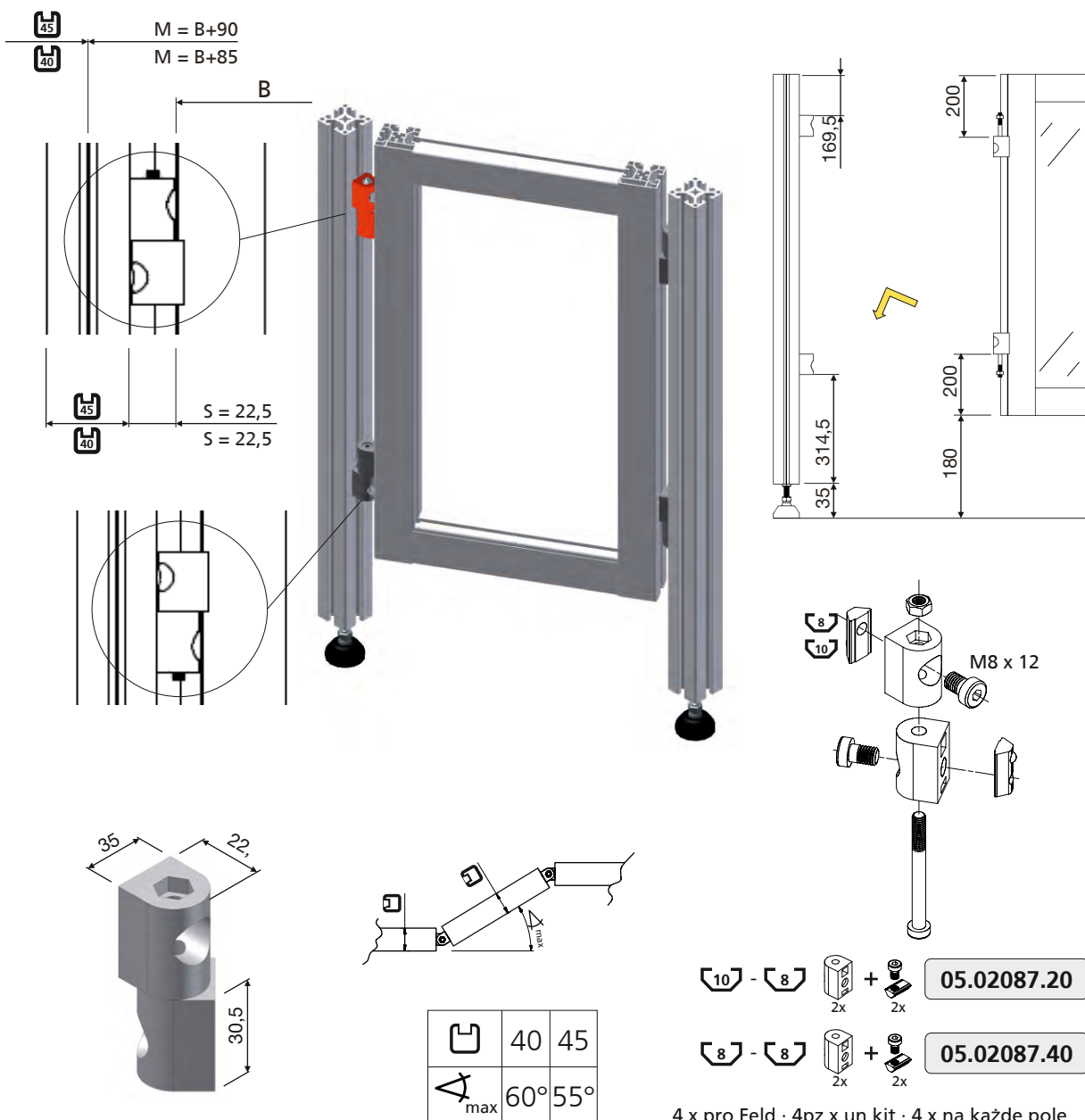
- Stützen können bis zu 60°(55°) axial verdreht und somit in eine nicht rechteckige Anordnung gebracht werden
- Sehr stabile Einhängung
- Spaltmaß S = 22,5 mm

#### Caratteristiche:

- I pannelli possono ruotare rispetto ai piantoni di 60°(55°)
- Sospensione solida
- Distanza S = 22,5 mm

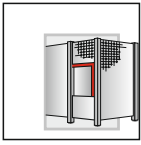
#### Cechy:

- Podpory można przekręcić osiowo o maksymalnie 60° (55°) i w ten sposób ustawić w położeniu nie prostokątym
- Bardzo stabilne zawieszenie
- Wymiar szczeliny S = 22,5 mm



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Technische Änderungen vorbehalten



# SCHUTZZAUNSYSTEM UNI

## PROTEZIONE CON SISTEMA DI RECINZIONE

### SYSTEM OGRODZENIA OCHRONNEGO



### ECO Schutzzaunwinkel

Fissaggio dei pannelli con angolare ECO · Kątownik ogrodzenia ochronnego ECO

#### Merkmale:

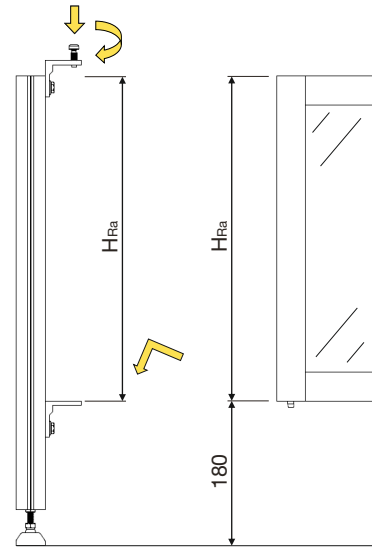
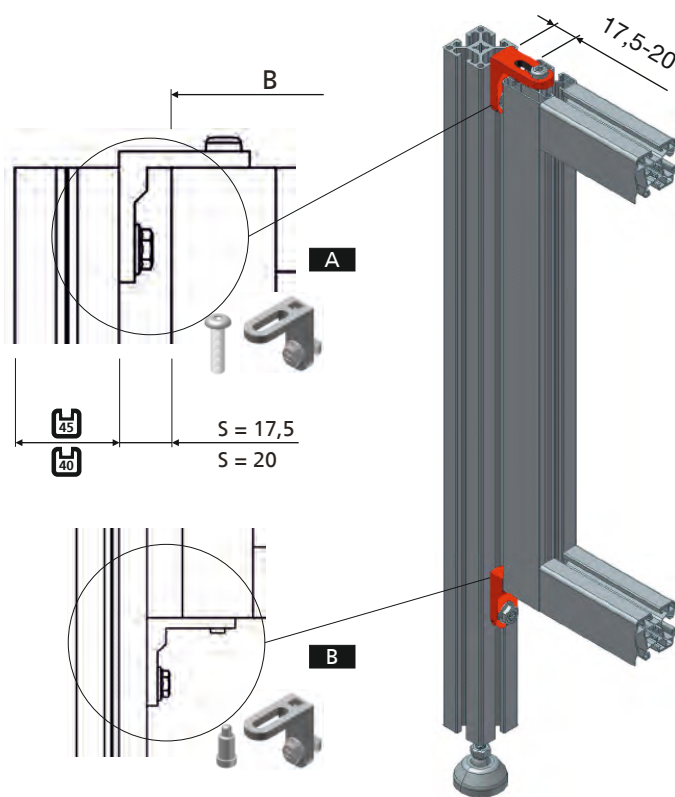
- Einhängfelder (EF) und Stützen können unter variablem Winkel montiert werden
- Einhängfelder (EF) werden bei der Montage eingehängt und mit dem Winkel oben befestigt
- Spaltmaß  $S = 20$  (17,5) mm

#### Caratteristiche:

- Pannelli (EF) e piantoni possono essere montati con angolazioni diverse
- Montaggio con vite speciale FM
- Distanza  $S = 20$  (17,5) mm

#### Caracteristiques:

- Pola do zawieszania (EF) i podpory mogą być montowane pod zmiennym kątem
- Podczas montażu pola do zawieszania (EF) zaczepiane są na dole i mocowane na górze za pomocą kątownika
- Wymiar szczeliny  $S = 20$  (17,5) mm



FM-Schraube  
Viti FM  
Śruba FM



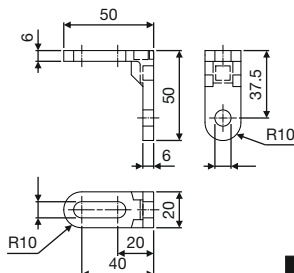
Einhängebolzen  
Perno di sospensione  
Sworzeń zawieszany



Zentrierstück  
Centraggio  
Element centrujący



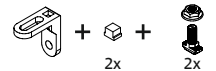
Winkel  
Angolare  
Kątownik



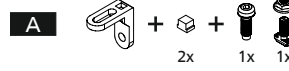
GD-Zn



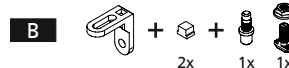
05.02034.00



05.02034.20



05.02034.10



05.02034.30

- A** 2 x pro Feld · 2pz x un kit · 2 x na każde pole
- B** 2 x pro Feld · 2pz x un kit · 2 x na każde pole

Technische Änderungen vorbehalten



# EINHÄNGEBAUWEISE CLASSIC

## FISSAGGIO CON SISTEMA DI RECINZIONE

### KONSTRUKCJA ZAWIESZANA



#### ECO-Einhängung

Pannelli in sospensione ECO · Zawieszenie ECO

#### Merkmale:

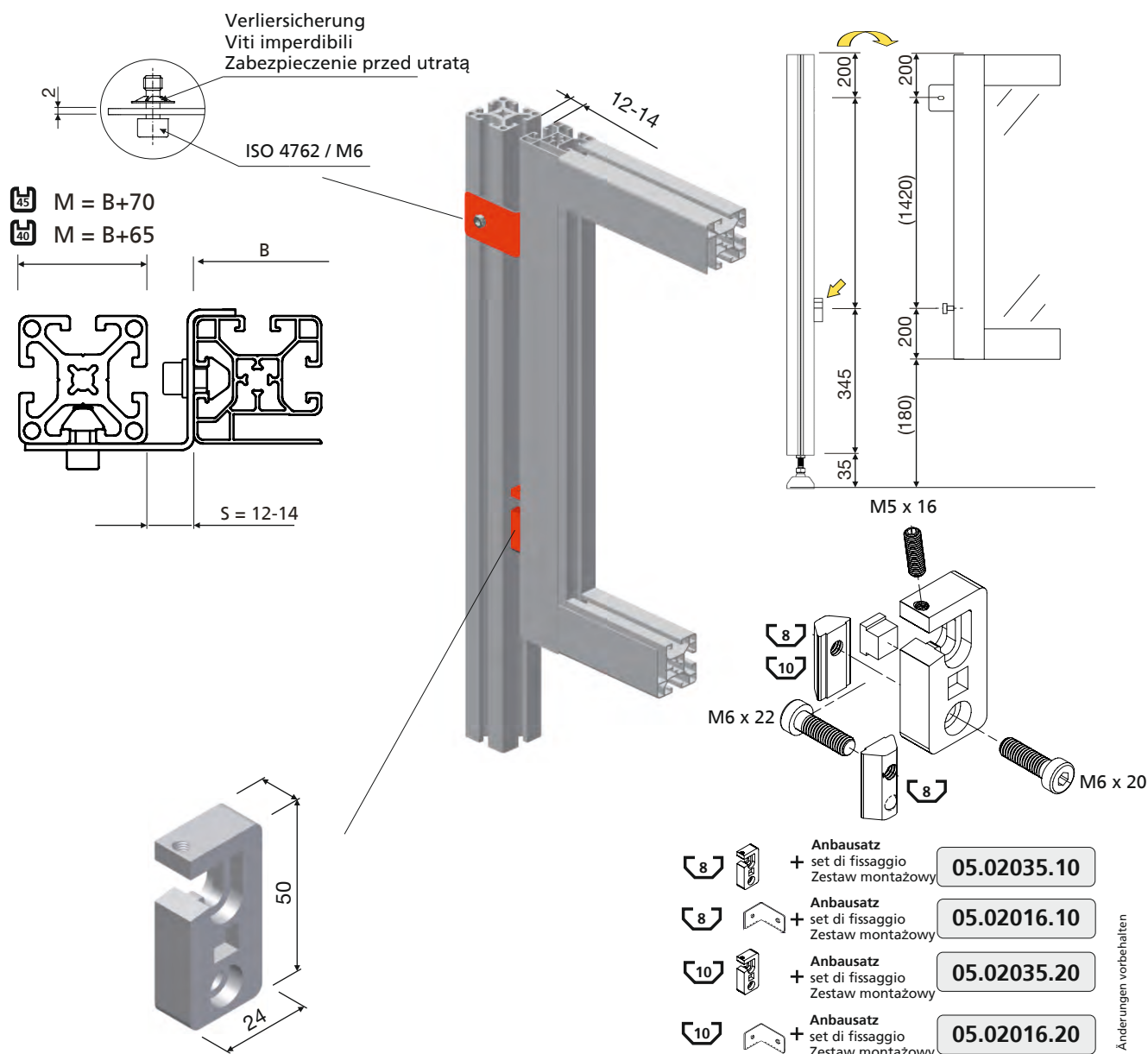
- Durch spezielle Einhängung, schneller Zugang zum geschützten Objekt
- Einfacher und schneller Aufbau
- Entspricht Maschinenrichtlinie 2006 / 42 / EG
- Ein - Mann - Montage
- Spaltmaß S = 12-14 mm

#### Caratteristiche:

- Fissaggio speciale per un accesso più rapido all'interno della protezione
- Assemblaggio semplice e veloce
- Utilizabile per direttiva macchine 2006/42/EG
- Può essere assemblato da un operatore
- Distanza S = 12-14 mm

#### Cechy:

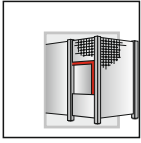
- Dzięki specjalnemu zaczepowi szybki dostęp do chronionego obiektu
- Łatwy i szybki montaż
- Odpowiada dyrektywie w sprawie maszyn 2006/42/WE
- Montaż przez jedną osobę
- Niewielki wymiar szczeliny 12-14 mm



11

Technische Änderungen vorbehalten

2 x pro Feld · 2pz x un kit · 2 x na każde pole



# SCHUTZZAUNSYSTEM

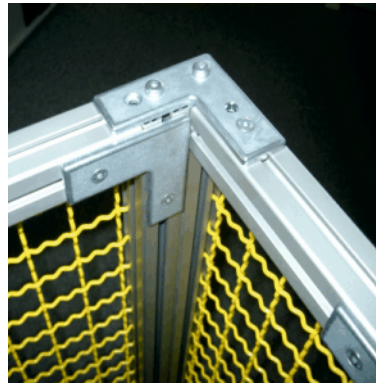
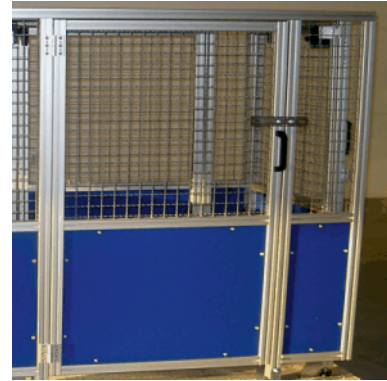
PROTEZIONE CON SISTEMA DI RECINZIONE

SYSTEM OGRODZENIA OCHRONNEGO



## Anwendungsbeispiele

Esempi di applicazioni · Przykłady zastosowań



Für mehr Informationen bitte separaten Katalog anfordern!

Schutzzaunkatalog

Si prega di richiedere catalogo separato per maggiori informazioni!

Catalogo protezioni

Aby uzyskać więcej informacji, proszę zamówić oddzielny katalog!

Katalog ogrodzeń ochronnych

Technische Änderungen vorbehalten

# SCHALLSCHUTZ

## INSONORIZZAZIONE

## IZOLACJA DŹWIĘKOWA



Laute Lärmquellen müssen mit geeigneten Schalldämmverkleidungen umbaut werden, um die Personenschutzvorschriften zu erfüllen.

FM SYSTEME bietet mit der modularen Dämmplatte in Verbindung mit dem Clips-Einfassprofil sowie dem Aluprofilsystem Baureihe 45 ein kostengünstiges Gesamtsystem.

### Innovative Vorteile:

- Erleichterte Planung durch Standardelemente
- Schneller und effizienter Aufbau der Schallschutzkabinen
- Schall-Absorption und Schalldämmung in einem Element
- Einbau von Schallschutz-Fenstern möglich
- Planung und Ausführung durch FM Systeme möglich

Le fonti di rumore devono essere protette con appositi pannelli di isolamento acustico al fine di soddisfare le norme di tutela del personale.

FM SYSTEME offre un sistema completo composto da pannelli isolanti modulari in combinazione con una clip per profilo della serie 45.

### Vantaggi innovativi:

- pianificazione facile con elementi standard
- Veloce ed efficiente costruzione delle cabine di isolamento acustico
- Assorbimento acustico e insonorizzazione ottimale
- Possibile l'installazione di finestre
- Progettazione e installazione da System FM

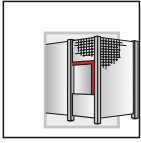
Aby spełnić wymagania określone przepisami dotyczącymi ochrony osób, należy obudować głośne źródła hałasu odpowiednimi osłonami z izolacją akustyczną.

Firma FM SYSTEME oferuje niedrogi system składający się z modułowej płyty izolacyjnej w połączeniu z klipsowym profilem obróbkowym oraz systemem profili aluminiowych serii 45.

### Nowatorskie zalety:

- Ułatwione planowanie dzięki standardowym elementom
- Szybki i efektywny montaż kabin dźwiękoszczelnych
- Absorpcja i tłumienie dźwięku w jednym elemencie
- Możliwość montażu okien dźwiękoszczelnych
- Możliwe zaprojektowanie i wykonanie przez FM Systeme



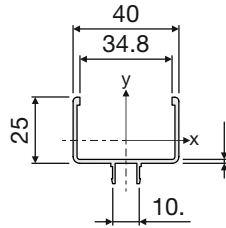


**SCHALLSCHUTZ**  
**ISOLAMENTO ACUSTICO**  
**IZOLACJA DŹWIĘKOWA**



**Clip-Einlassprofil**

Clip di fissaggio profilo · Klipsowy profil obróbkowy

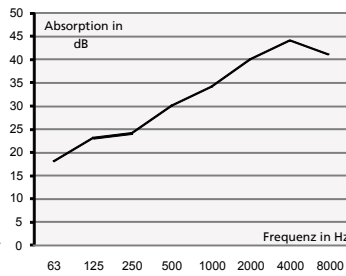
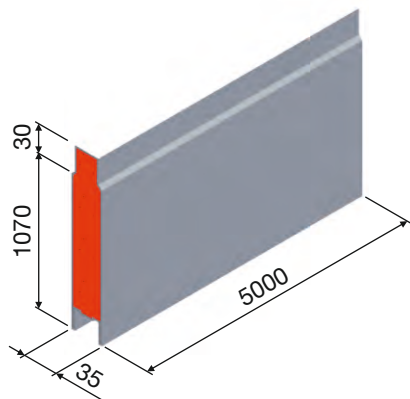


**05.02250.00**

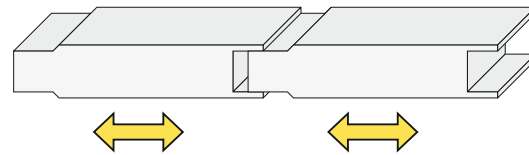
M = 0,41 kg/m

**Schalldämmplatte**

Pannello di insonorizzazione · Płyta izolacji dźwiękowej

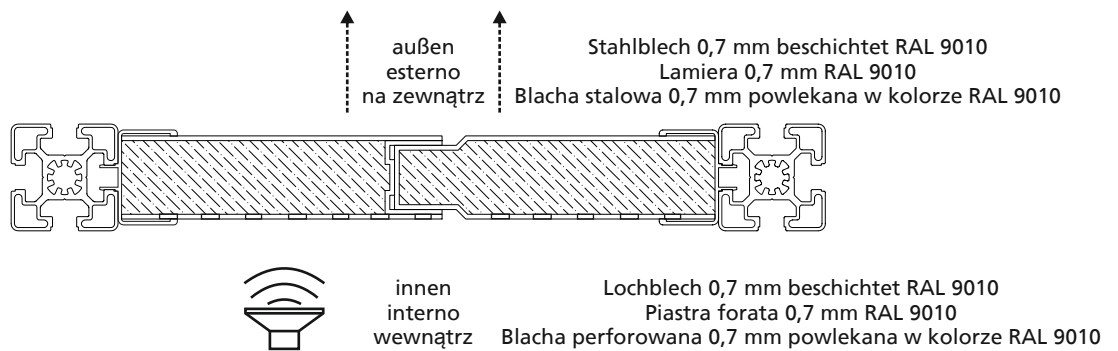


**05.02251.00**



**Querschnitt**

sezione · Przekrój



Technische Änderungen vorbehalten

# RUNDPROFILSYSTEM Ø48

## PROFILO TONDO Ø48

### SYSTEM PROFILI OKRĄGŁYCH Ø48



- Formschönes Design
- Im Außen- u. Innenbereich einsetzbar
- Aufnahme von verschiedenen Flächenelementen
- Als Handlauf und als Maschinenabtrennung
- Für Geländer an Treppen, Podesten, Balkone

- Design elegante
- Adatto per uso interno ed esterno
- Utilizabile con pannelli di vario tipo
- corrimano per scale
- Per ringhiere sulle scale, rampe e balconi

- Estetyczne wzornictwo
- Możliwość stosowania wewnątrz i na zewnątrz
- Mocowanie różnych elementów powierzchniowych
- Jako poręcz i jako oddzielenie maszyny
- Na balustrady schodów, podestów, balkonów



■ 11.20



■ 11.21



■ 11.22



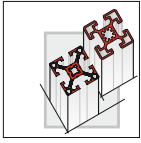
■ 11.24



■ 11.23



■ 11.25

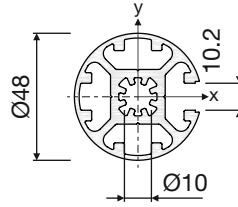


**RUNDPROFILE Ø48**  
**PROFILO TONDO Ø48**  
**SYSTEM PROFILI OKRĄGLYCH Ø48**



10

**Ø48-3N**

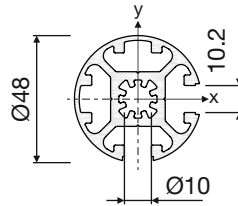
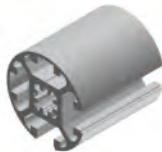


**05.02090.00**

M = 2,03 kg/m  
 $I_x = 11,71 \text{ cm}^4$   
 $W_x = 4,88 \text{ cm}^3$   
 $I_y = 12,82 \text{ cm}^4$   
 $W_y = 5,34 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**Ø48-2N90°**

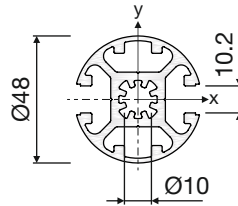
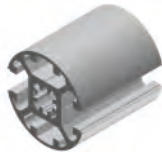


**05.02091.00**

M = 1,97 kg/m  
 $I_x = 10,65 \text{ cm}^4$   
 $W_x = 4,43 \text{ cm}^3$   
 $I_y = 12,79 \text{ cm}^4$   
 $W_y = 5,32 \text{ cm}^3$

PE (m)  
 3

**Ø48-2N180°**

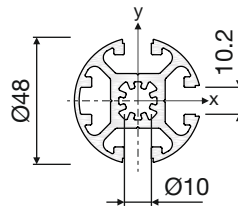


**05.02092.00**

M = 1,97 kg/m  
 $I_x = 10,65 \text{ cm}^4$   
 $W_x = 4,43 \text{ cm}^3$   
 $I_y = 12,79 \text{ cm}^4$   
 $W_y = 5,32 \text{ cm}^3$

PE (m)  
 6 / 48 / 96 / 144

**Ø48-1N**

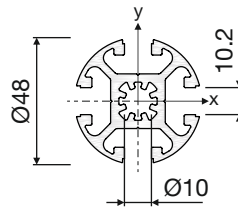


**05.02093.00**

M = 1,92 kg/m  
 $I_x = 11,66 \text{ cm}^4$   
 $W_x = 4,85 \text{ cm}^3$   
 $I_y = 10,62 \text{ cm}^4$   
 $W_y = 4,42 \text{ cm}^3$

PE (m)  
 3

**Ø48**

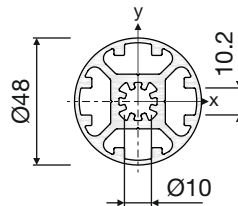


**05.02088.00**

M = 1,86 kg/m  
 $I_x = 11,60 \text{ cm}^4$   
 $W_x = 4,42 \text{ cm}^3$   
 $I_y = 11,60 \text{ cm}^4$   
 $W_y = 4,42 \text{ cm}^3$

PE (m)  
 3

**Ø48-4N**



**05.02089.00**

M = 2,09 kg/m  
 $I_x = 12,83 \text{ cm}^4$   
 $W_x = 5,35 \text{ cm}^3$   
 $I_y = 12,83 \text{ cm}^4$   
 $W_y = 5,35 \text{ cm}^3$

PE (m)  
 3

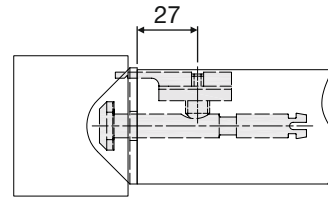
Technische Änderungen vorbehalten

**VERBINDUNGSELEMENTE**  
**ELEMENTI DI CONNESSIONE**  
**ELEMENTY ŁĄCZĄCE**

**AGV**



➔ ■ 3.04

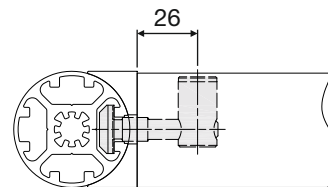


05.01782.00

**GV**

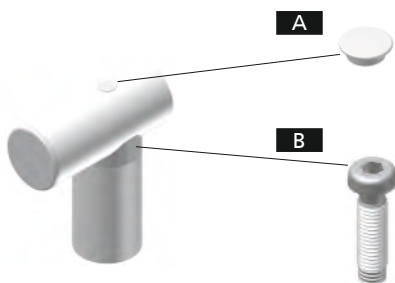


➔ ■ 3.02



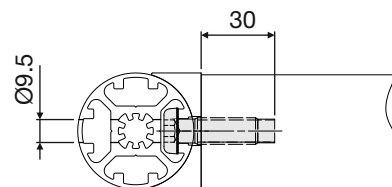
05.01352.00

**SF 12x40**



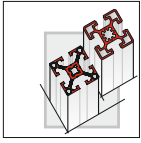
➔ ■ 3.18

PA 6  
 lichtgrau  
 grigio chiaro  
 jasnoszary



**A** 05.01023.00

**B** 05.01127.00

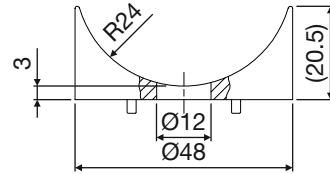


**ZUBEHÖR**  
ACCESSORI  
AKCESORIA



**Radienausgleich Ø48**

Compensatore per tubo Ø48 · Kompensacja wyokrągłej Ø48

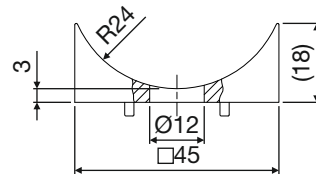
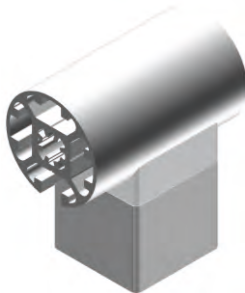


PA 6  
lichtgrau  
grigio chiaro  
jasnoszary

**05.02094.00**

**Radienausgleich 45x45**

Compensatore per profilo 45x45 · Kompensacja wyokrągłej 45x45

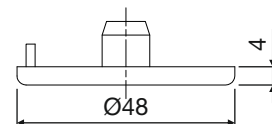
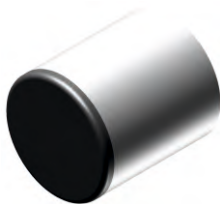


PA 6  
lichtgrau  
grigio chiaro  
jasnoszary

**05.02095.00**

**Abdeckkappe Ø48**

Cuffia Ø48 · Zaślepka Ø48



PA 6  
lichtgrau  
grigio chiaro  
jasnoszary

**05.02097.00**

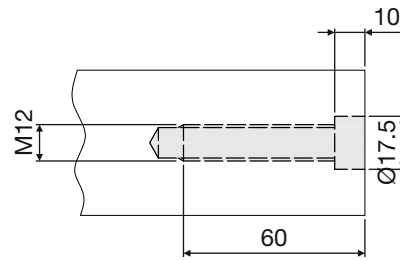
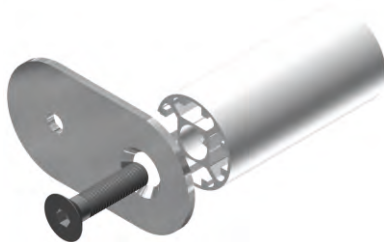
Technische Änderungen vorbehalten



**BODENBLECHE**  
PIASTRE  
BLACHY PODŁOGOWE



10

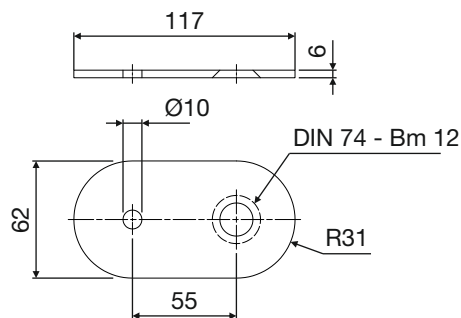


VA  
elektropoliert  
acciaio inox  
polerowane elektrolitycznie

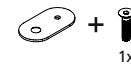


05.01172.00

62x117

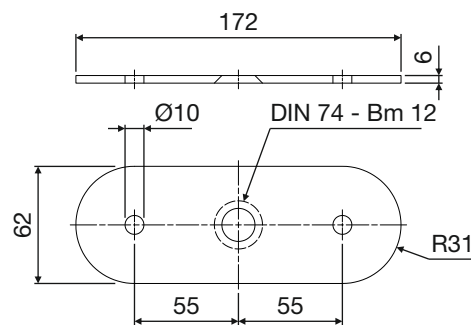


05.02280.00

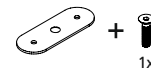


05.02280.05

62x172

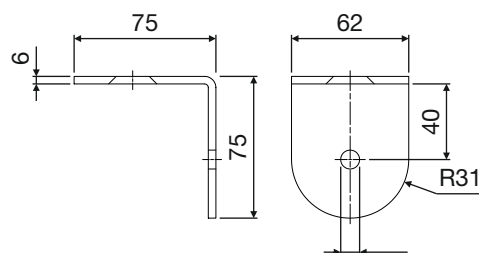


05.02281.00

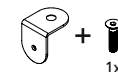


05.02281.05

90° - 62x75x75



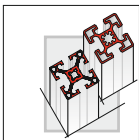
05.02282.00



05.02282.05

Technische Änderungen vorbehalten

11



# BODENBEFESTIGUNG

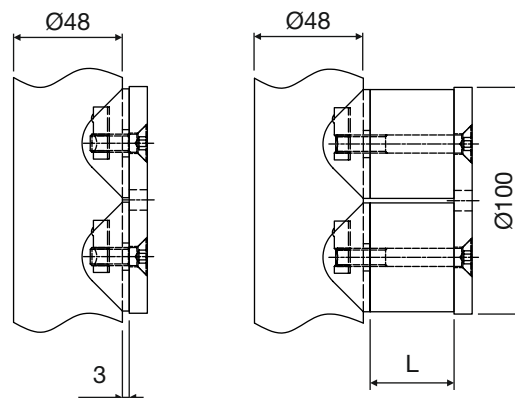
## STAFFE DI FISSAGGIO

### MOCOWANIE DO PODŁOGI

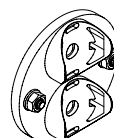


#### Wandbefestigung Ø100

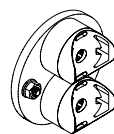
BASE · Zamocowanie ścienne



VA  
elektropoliert  
acciaio inox  
polerowane elektrolitycznie



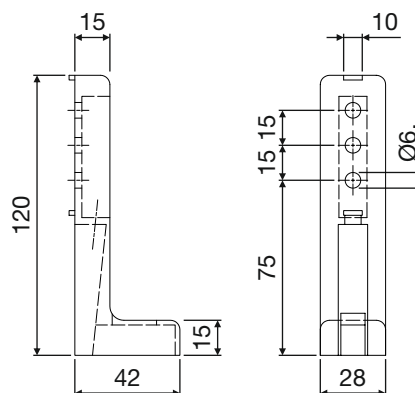
05.02346.00



L= mm 05.02372.00

#### Bodenwinkel 30x120 - 10

Staffa 30x120 - 10 · Kątownik podłogowy 30x120 - 10



GD-Zn  
Blank  
Singolo  
Błyszczący



+  
2x

05.02199.05



1x

05.01172.00

➔ ■ 5.06

Technische Änderungen vorbehalten

# BEFESTIGUNGEN FLÄCHENELEMENTE

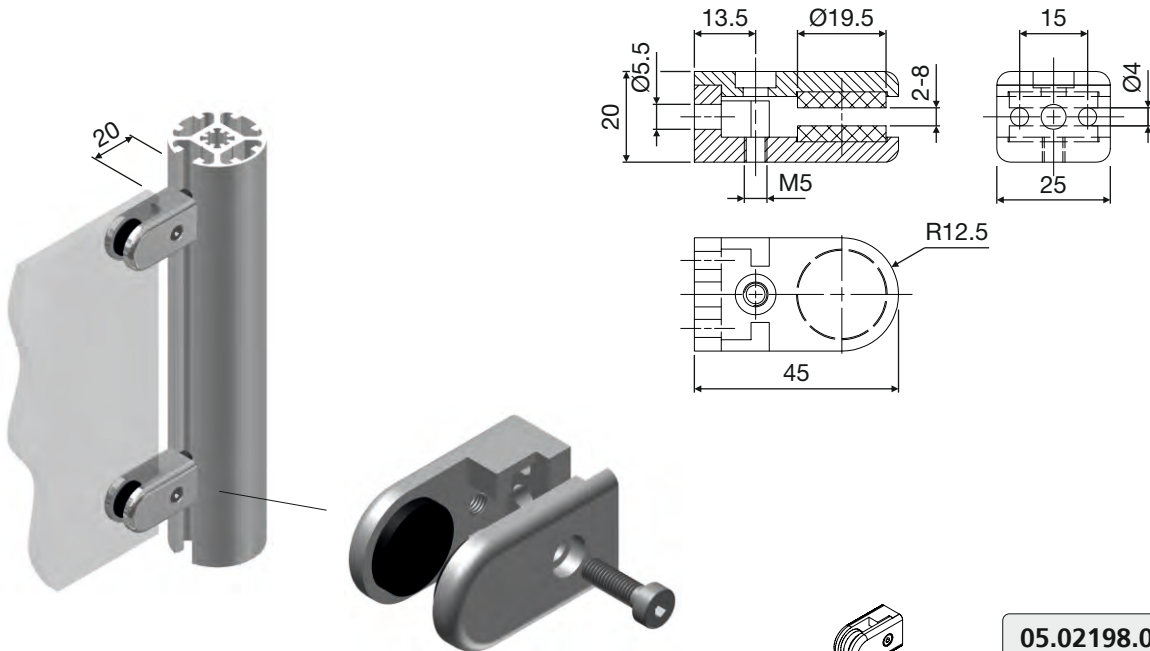
ELEMENTI FISSAGGIO PANNELLI

ZAMOCOWANIA ELEMENTÓW POWIERZCHNIOWYCH

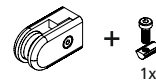


## Glashalter

Vetro · PUCHWYT do szkła



05.02198.00

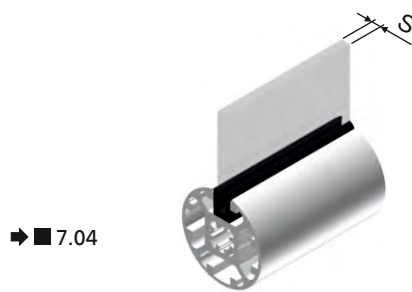


05.02198.05

1x

## Dichtprofil

Guarnizione di tenuta · Profil uszczelniający



→ ■ 7.04

S

2 mm 05.02070.00

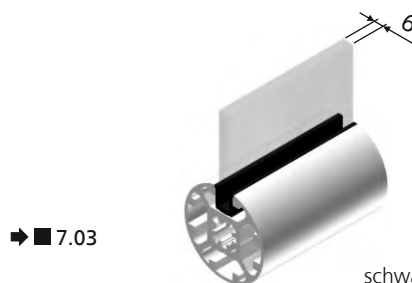
4 mm 05.02071.00

5 mm 05.02072.00

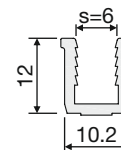
6 mm 05.02075.00

## Abdeck- und Einfassprofil

Copertura e riduzione cava profilo · Profil osłonowy i obróbkowy



→ ■ 7.03



schwarz

nero

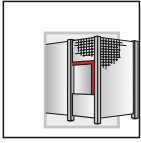
czarny

9011

05.01187.00

Technische Änderungen vorbehalten

11



# SCHUTZZAUNSYSTEM RIEGEL

## SISTEMA INTERBLOCCO PORTE PROTEZIONI

## SYSTEM OGRODZENIA OCHRONNEGO RIEGEL



### Merkmale:

- Geeignet für Euchner Sicherheits-schalter der Serie TZ und NZ
- Für rechts und links anschlagende Türen und Fenster
- Anbau an Nut 8 und Nut 10
- Für Schwenk- und Schiebetüren geeignet

### Caratteristiche:

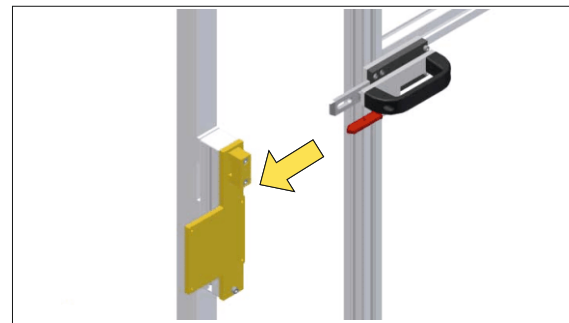
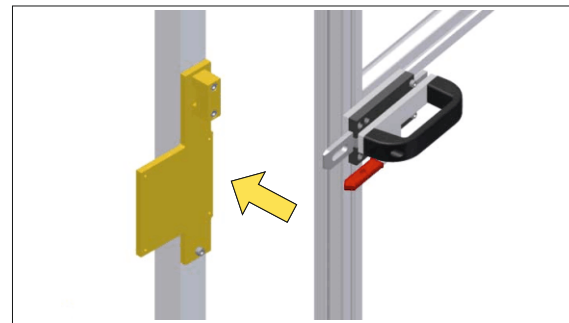
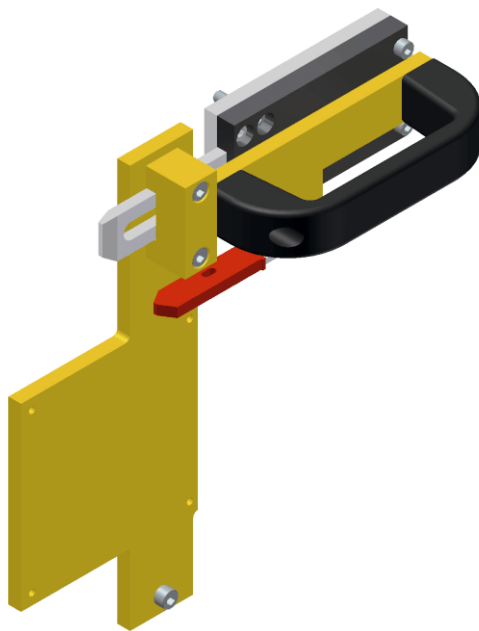
- Adatto per interruttori di sicurezza Euchner della serie TZ e NZ
- Per porte chiusura destra o sinistra
- Adatto montaggio cava8 e cava10
- Adatto per porte a battente e scorrevoli

### Cechy:

- Odpowiedni dla wyłącznika bezpieczeństwa Euchner serii TZ i NZ
- Dla drzwi i okien mocowanych z prawej i z lewej strony
- Montaż na rowku 8 i 10
- Nadaje się do drzwi uchylnych i przesuwnych

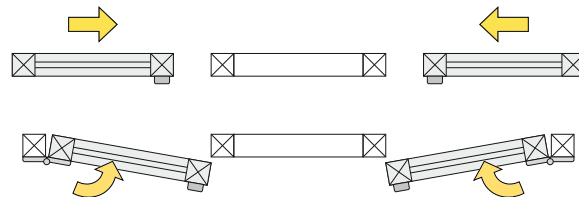
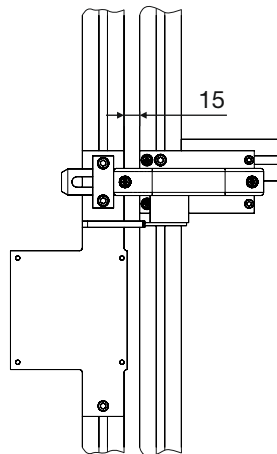
## Anwendung

Applicazione · Zastosowanie



## Ausführung

Esecuzione · Wersja



**Anschlag links**  
Chiusura sinistra  
Ogranicznik z lewej strony

05.02039.10

**Anschlag rechts**  
Chiusura destra  
Ogranicznik z prawej

05.02039.00

Technische Änderungen vorbehalten

# LINEARFÜHRSYSTEM

## GUIDA LINEARE

### SYSTEM PROWADNIC LINIOWYCH



■ 12.04



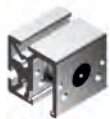
■ 12.04



■ 12.04



■ 12.05



■ 12.05



■ 12.05



■ 12.06



■ 12.06



■ 12.06



■ 12.08



■ 12.08



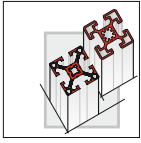
■ 12.08



■ 12.09



■ 12.09



# LINEARFÜHRUNGSSYSTEM

## GUIDA LINEARE

### SYSTEM PROWADNIC LINIOWYCH



#### Innovative Vorteile:

- System zum Aufbau von Führungsschlitten und Lineareinheiten für spielfrei laufende Systeme in Verbindung mit Welle Ø14
- Ein geschliffener Führungsradius erlaubt eine hohe Kraftübertragung zur Welle

#### Vantaggi innovativi:

- Systeme for the installation of linear guiding systems in connection with axle Ø14
- A grounded radius allows a high power transmission to the axle

#### Nowatorskie zalety

- System do suwaków prowadzących i zespołów liniowych dla systemów pracujących bez luzu w połączeniu z wałem Ø 14
- Szlifowany promień prowadzący umożliwia przenoszenie dużych sił na wał

## Anwendungen

Applicazione · Zastosowania

#### Zul. empfohlene Lasten:

F1 = 1500 N  
F2 = 3000 N  
F3 = 1500 N

#### Carico utile:

F1 = 1500 N  
F2 = 3000 N  
F3 = 1500 N

#### Dop. zalecane obciążenia:

F1 = 1500 N  
F2 = 3000 N  
F3 = 1500 N

#### Laufleistung bei max. Last:

10.000 km

#### Durata max a pieno carico:

10.000 km

#### Przebieg przy maks. obciążeniu:

10.000 km

#### Max. Geschwindigkeit:

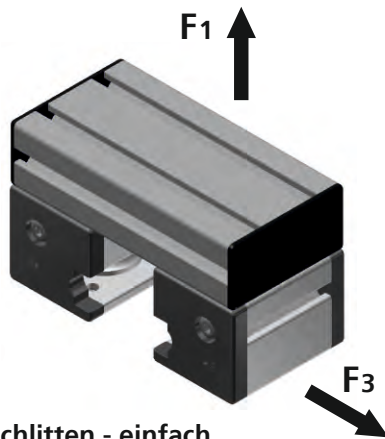
10 m/sec

#### Velocità:

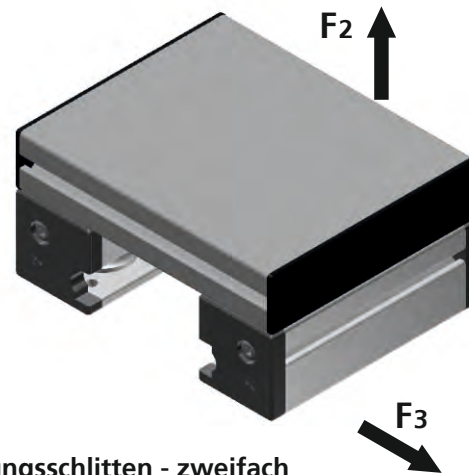
10 m/sec

#### Maks. prędkość:

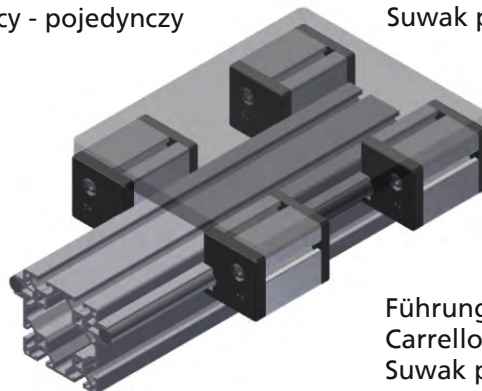
10 m/sec



Führungsschlitten - einfach  
Carrello due cuscinetti  
Suwak prowadzący - pojedynczy



Führungsschlitten - zweifach  
Carrello quattro cuscinetti  
Suwak prowadzący - podwójny

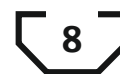


Führungsschlitten - individuell  
Carrello cuscinetti singoli  
Suwak prowadzący indywidualny

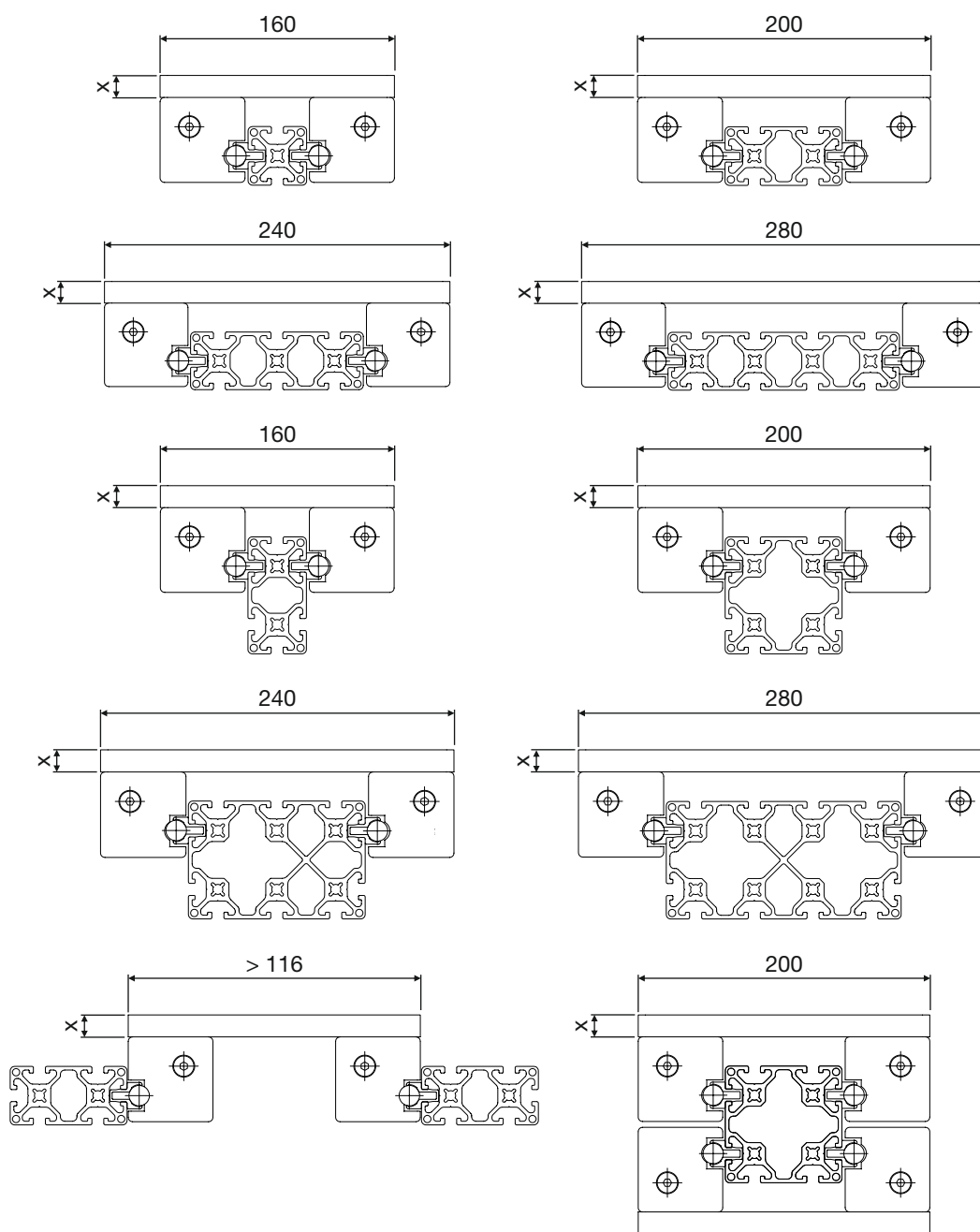
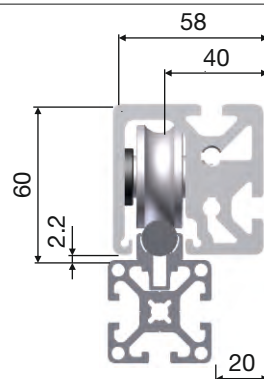
# LINEARFÜHRUNGSSYSTEM

## GUIDA LINEARE

### SYSTEM PROWADNIC LINIOWYCH

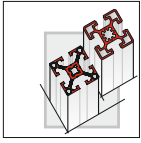


- Grundkonstruktionen aus Profilen der Profilreihe 40 / Nut 8 mit Rollenführung auf Welle Ø14
- Costruzioni di base in profilati 40 / scanalatura del profilato 8 con guida a sfere su albero Ø14
- Konstrukcje podstawowe z profili serii 40 / rowek 8 z prowadnicą rolkową na wale Ø 14



12

Technische Änderungen vorbehalten



# LINEARFÜHRUNGSSYSTEM

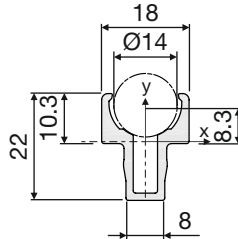
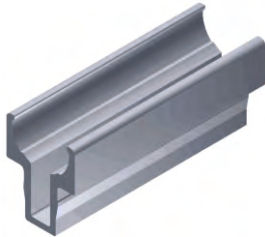
## GUIDA LINEARE

### SYSTEM PROWADNIC LINIOWYCH



### Wellenklemmprofil

Clip supporto albero · Profil zaciskowy wału

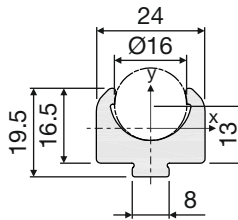
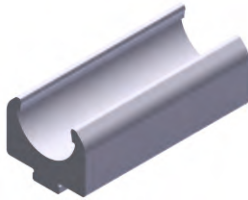


8 10 05.01030.00

M = 0,31 kg/m  
 $I_x = 0,39 \text{ cm}^4$   
 $W_x = 0,35 \text{ cm}^3$   
 $I_y = 0,38 \text{ cm}^4$   
 $W_y = 0,34 \text{ cm}^3$

PE (m)  
 3 / 6

### Ø 16

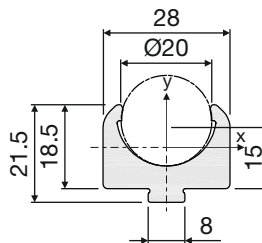
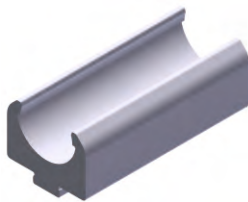


8 10 05.02130.00

M = 2,20 kg/m  
 $I_x = 12,50 \text{ cm}^4$   
 $W_x = 5,63 \text{ cm}^3$   
 $I_y = 19,36 \text{ cm}^4$   
 $W_y = 6,53 \text{ cm}^3$

PE (m)  
 6 / 48 / 96

### Ø 20



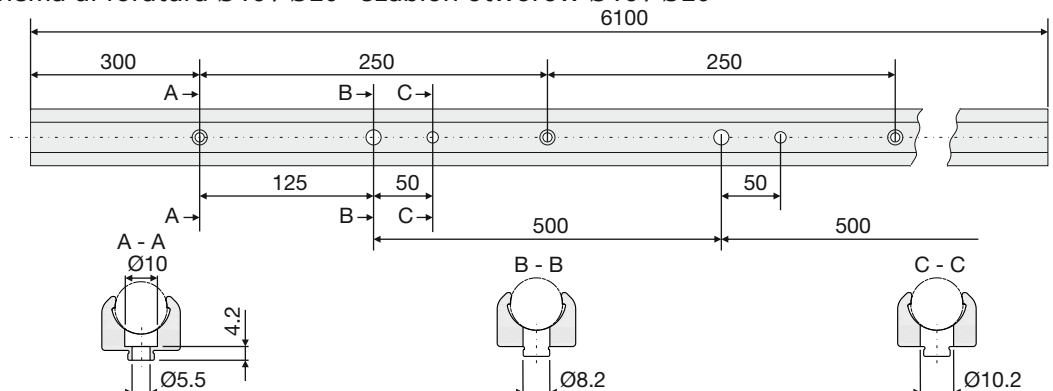
8 10 05.02131.00

M = 2,78 kg/m  
 $I_x = 16,45 \text{ cm}^4$   
 $W_x = 6,76 \text{ cm}^3$   
 $I_y = 41,28 \text{ cm}^4$   
 $W_y = 10,62 \text{ cm}^3$

PE (m)  
 6 / 48 / 96

### Bohrbild Ø16 / Ø20

Schema di foratura Ø16 / Ø20 · Szablon otworów Ø16 / Ø20



Technische Änderungen vorbehalten



# LINEARFÜHRUNGSSYSTEM

## GUIDA LINEARE

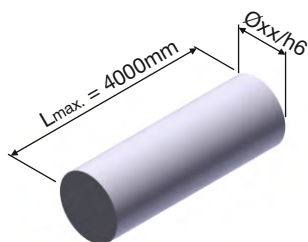
### SYSTEM PROWADNIC LINIOWYCH



8

#### Welle Ø14, Ø16, Ø20

Albero Ø14, Ø16, Ø20 · Wał Ø14, Ø16, Ø20



#### Welle

- CF53, gehärtet, geschliffen
- Härte 59+6 HRC
- Rauheit Ra = 0,35µm

#### Albero

- CF53, temprato, rettificato
- Durezza 59+6 HRC
- Rugosità Ra=0.35µm

#### Wał

- CF53, hartowany, szlifowany
- Twardość 59+6 HRC
- Chropowatość Ra=0,35µm

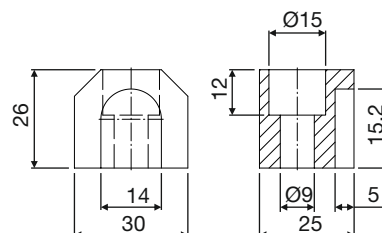
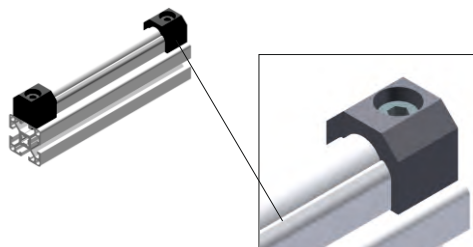
Ø14 05.01031.00

Ø16 05.02134.00

Ø20 05.02135.00

#### Wellenendstück

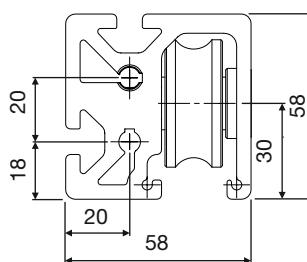
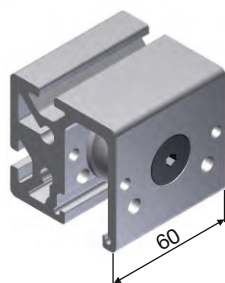
Battuta assiale · Czap końcowy wału



05.02136.05

#### Lagereinheit 8 Ø14 - einfach

Unità cuscinetto singolo · Zespół łożyskowy pojedynczy

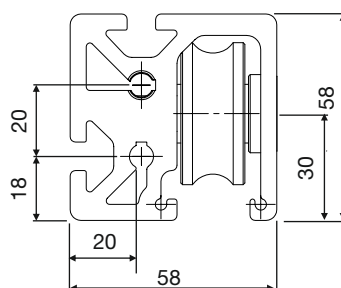
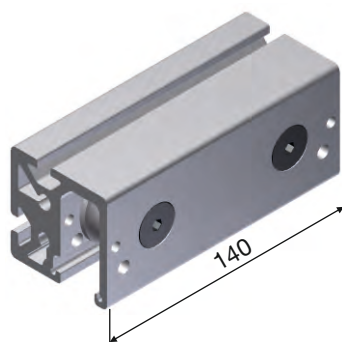


zentrisch 05.02403.00

exzentrisch 05.02404.00

#### Lagereinheit 8 Ø14 - zweifach

Unità cuscinetto doppio · Zespół łożyskowy podwójny

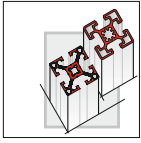


zentrisch 05.02405.00

exzentrisch 05.02406.00

Technische Änderungen vorbehalten

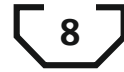
12



# LINEARFÜHRUNGSSYSTEM

## GUIDA LINEARE

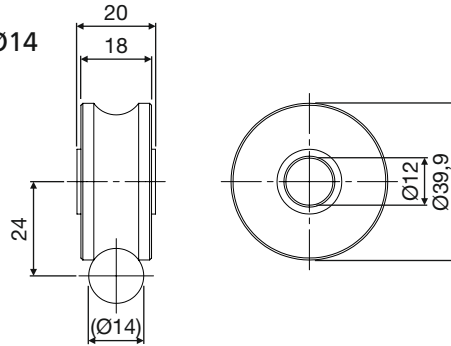
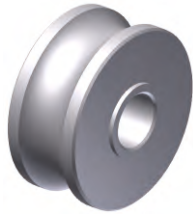
### SYSTEM PROWADNIC LINIOWYCH



#### Laufrolle Ø14

Rulli Ø14 · Krążek bieżny Ø14

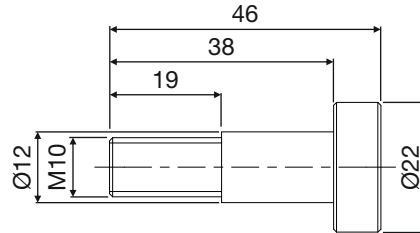
05.02408.00



#### Lagerbolzen 8 Ø14 - zentrisch

Vite per cuscinetto · Sworzeń łożyskowy wycentrowany

05.02409.00

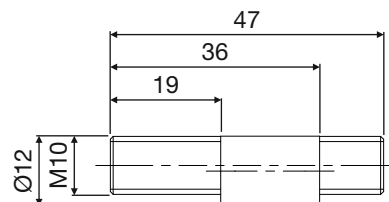


- Stahl, schwarz
- Acciaio, nero
- Stal, czarna

#### Lagerbolzen 8 Ø14 - exzentrisch

Vite per cuscinetto eccentrica · Sworzeń łożyskowy mimośrodkowy

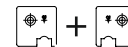
05.02410.00



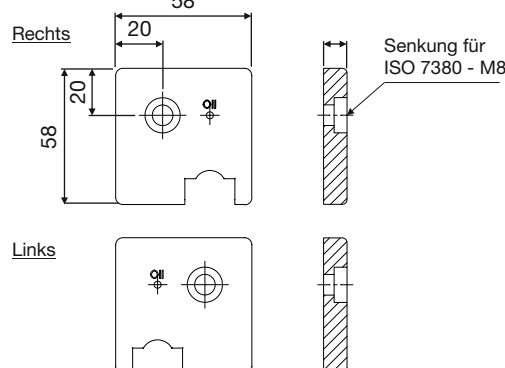
- Stahl, schwarz
- Zur nachträglichen, spielfreien Einstellung der Lagereinheit
- Acciaio, nero
- Per regolazione precaric carrello
- Stal, czarna
- Do późniejszego, pozbawionego luzu nastawienia zespołu łożyskowego

#### Abstreif- und Schmiereinheit 8 Ø14

unità di lubrificazione · Zespół zgarniająco -smarujący



05.02407.00



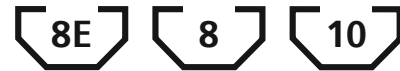
- PA-GF, schwarz
- Schutz und Schmierung der Lagereinheit
- PA-GF, nero
- Protezione e lubrificazione del cuscinetto
- PA-GF, czarny
- Ochrona i smarowanie zespołu łożyskowego

Technische Änderungen vorbehalten

# SCHLITTENSYSTEM

## SISTEMA DI SCORRIMENTO

## SYSTEM SUWAKA



### Innovative Vorteile:

- Verschieben und bewegen
- Verändern und einstellen
- Justieren und positionieren
- Manuell oder angetrieben
- Robust und hoch belastbar
- Platzsparend und formschön
- Flexibel und preisgünstig

### Vantaggi innovativi:

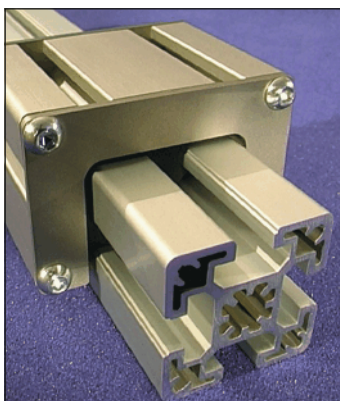
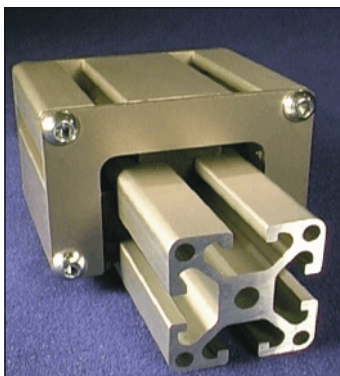
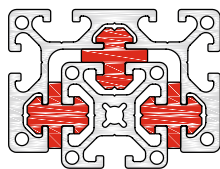
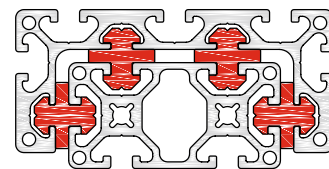
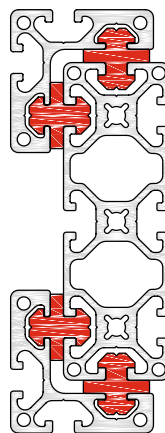
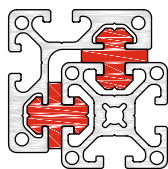
- Facile movimentazione
- Facile regolazione
- Posizione e allineato
- Manuale o motorizzato
- Robusto ed estremamente resistente
- Ingombri ridotti
- Economico e flessibile

### Atouts novateurs:

- Przesuwanie i poruszanie
- Zmiana i nastawianie
- Regulacja i pozycjonowanie
- Ręcznie lub z napędem
- Wytrzymały i z możliwością dużego obciążenia
- Zajmujący mało miejsca i estetyczny
- Elastyczny i niedrogi

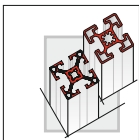
## Anwendungen

Applicazione · Zastosowania



12

Technische Änderungen vorbehalten



# SCHLITTENPROFILE

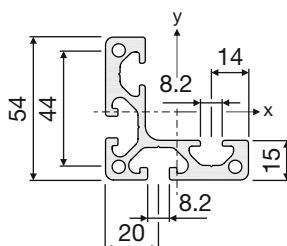
## PROFILI DI SCORRIMENTO

### PROFILE SUWAKA



### Eckschlitten 40

Profilo ad angolo da 40 · Suwak narożny 40



05.01714.00

M = 1,91 kg/m

$I_x = 24,35 \text{ cm}^4$

$W_x = 9,02 \text{ cm}^3$

$I_y = 24,35 \text{ cm}^4$

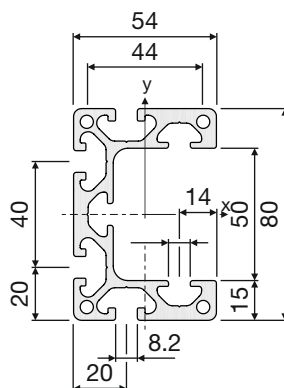
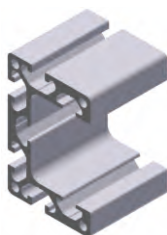
$W_y = 9,02 \text{ cm}^3$

PE (m)

6 / 24 / 48 / 72

### U-Schlitten 40/80

Profilo a U da 40/80 · Suwak ceowy 40/80



05.01715.00

M = 3,14 kg/m

$I_x = 97,75 \text{ cm}^4$

$W_x = 24,44 \text{ cm}^3$

$I_y = 37,58 \text{ cm}^4$

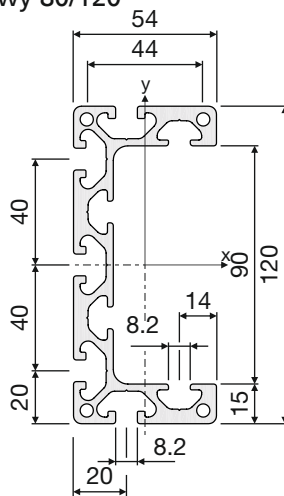
$W_y = 13,92 \text{ cm}^3$

PE (m)

6 / 18 / 36 / 54

### U-Schlitten 80/120

Profilo a U da 80/120 · Suwak ceowy 80/120



05.01716.00

M = 3,91 kg/m

$I_x = 272,30 \text{ cm}^4$

$W_x = 45,38 \text{ cm}^3$

$I_y = 49,81 \text{ cm}^4$

$W_y = 18,45 \text{ cm}^3$

PE (m)

6 / 18 / 36 / 54

Technische Änderungen vorbehalten

### Abdeckkappen

Cuffia · Zaśleпки



05.01890.10



05.01891.10



05.01892.10

### Gleitprofile

Pattini · Profile ślizgowe

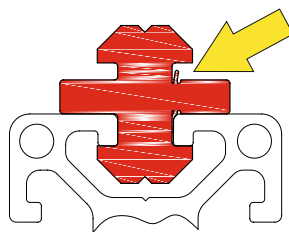


Die an den seitlichen Gleitflächen angebrachten Lippen, gleichen die Toleranzen ( $\pm 0,2\text{mm}$ ) der Aluprofile aus und ermöglichen somit ein gleichmäßiges Verschieben.

Il labbro situato sulla superficie di scorrimento laterale compensa le tolleranze dei profili di alluminio e consentono una migliore scorrevolezza.

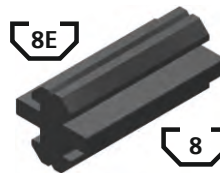
Wargi umieszczone na bocznych powierzchniach ślizgowych wyrównują tolerancje ( $\pm 0,2\text{mm}$ ) profili aluminiowych i w ten sposób umożliwiają równomierne

PE-HD  
 schwarz  
 antistatisch



■ 12.08

05.01896.00  
 PE=2000 mm



05.01896.01

L=49 mm

05.01896.02

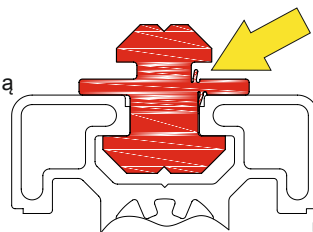
L=99 mm

05.01896.03

L=199 mm

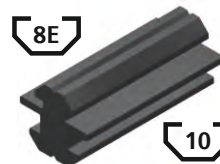
05.01896.04

L=299 mm



■ 12.07

05.01897.00  
 PE=2000 mm



05.01897.01

L=49 mm

05.01897.02

L=99 mm

05.01897.03

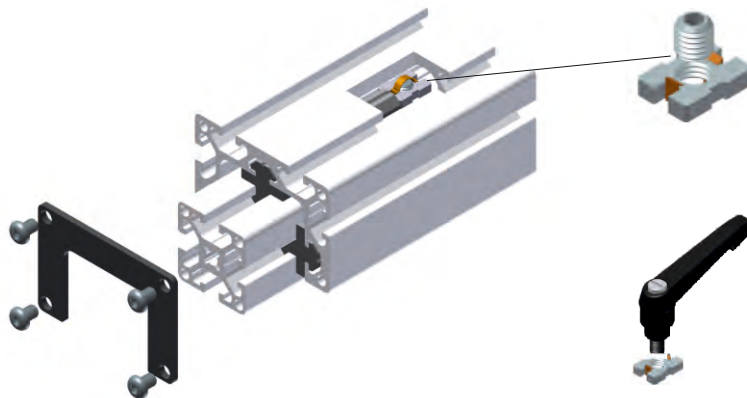
L=199 mm

05.01897.04

L=299 mm

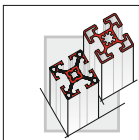
### Fixierung für Gleitprofil

Bloccaggio per scorrevoli · Blokada profilu ślizgowego



05.01895.00

05.01895.05



# GLEITPROFILE 8E

## PATTINI 8E

### PROFILE ŚLIZGOWE 8E



**8E / 8E** Beidseitiger Kopf  
doppia testa · głowica z obu stron

PE-HD  
schwarz  
antistatisch

PE= 2.000 mm  
**05.01880.00**

**8E / 10** Beidseitiger Kopf, für Profil 45  
doppia testa, profile 45 ·  
głowica z obu stron, profilu 45

PE-HD  
schwarz  
antistatisch

PE= 2.000 mm  
**05.01897.00**

**8E / 8E** einseitiger Kopf, mittiger Steg  
testa su un lato centraggio opposto ·  
głowica jednostronna, mostek usytuowany centralnie

PE-HD  
schwarz  
antistatisch

PE= 2.000 mm  
**05.01881.00**

**8E** einseitiger Kopf, Plan 5mm  
testa su un lato corpo 5mm ·  
głowica jednostronna, płaszczyna 5 mm

PE-HD  
schwarz  
antistatisch

PE= 2.000 mm  
**05.01898.00**

**8E / 8E** einseitiger Kopf, exzentrischer Steg  
testa su un lato centraggio opposto eccentrico ·  
głowica jednostronna, mostek mimośrodkowy

PE-HD  
schwarz  
antistatisch

PE= 2.000 mm  
**05.01882.00**

Technische Änderungen vorbehalten

# GLEITPROFILE 8

## PATTINI 8

### PROFILE ŚLIZGOWE 8



**8 / 8** beidseitiger Kopf  
doppia testa · głowica z obu stron

PE-HD  
schwarz  
antistatisch

PE= 2000 mm  
**05.01341.00**

**8 / 8E** beidseitiger Kopf, für Profil 30  
doppia testa, profile 30 ·  
głowica z obu stron, profilu 30

PE-HD  
schwarz  
antistatisch

PE= 2000 mm  
**05.01896.00**

**8 / 8** einseitiger Kopf, mittiger Steg  
testa su un lato centraggio opposto ·  
głowica jednostronna, mostek usytuowany centralnie

PE-HD  
schwarz  
antistatisch

PE= 2000 mm  
**05.01884.00**

**8** einseitiger Kopf, plan 10 mm  
testa su un lato corpo 10 mm ·  
głowica jednostronna, płaszczyna 10 mm

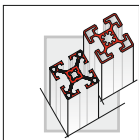
PE-HD  
schwarz  
antistatisch

PE= 2000 mm  
**05.01335.00**

**8 / 8** einseitiger Kopf, exzentrischer Steg  
testa su un lato centraggio opposto eccentrico ·  
głowica jednostronna, mostek mimośrodkowy

PE-HD  
schwarz  
antistatisch

PE= 2000mm  
**05.01879.00**



# GLEITPROFILE 10

## PATTINI 10

### PROFILE ŚLIZGOWE 10



**10 / 10** beidseitiger Kopf  
doppia testa · głowica z obu stron

PE-HD  
schwarz  
antistatisch

PE= 2000 mm  
**05.01336.00**

**10 / 8** beidseitiger Kopf  
doppia testa · głowica z obu stron

PE-HD  
schwarz  
antistatisch

PE= 2000 mm  
**05.01337.00**

**10 / 10** einseitiger Kopf, mittiger Steg  
testa su un lato centraggio opposto ·  
głowica jednostronna, mostek usytuowany centralnie

PE-HD  
schwarz  
antistatisch

PE= 2000 mm  
**05.01899.00**

**10 / 8** einseitiger Kopf, mittiger Steg  
testa su un lato centraggio opposto ·  
głowica jednostronna, mostek usytuowany centralnie

PE-HD  
schwarz  
antistatisch

PE= 2000 mm  
**05.01338.00**

**10 / 10** einseitiger Kopf, exzentrischer Steg  
testa su un lato centraggio opposto eccentrico ·  
głowica jednostronna, mostek mimośrodkowy

PE-HD  
schwarz  
antistatisch

PE= 2000 mm  
**05.01339.00**

**10** einseitiger Kopf, Plan 10mm  
testa su un lato corpo 10mm ·  
głowica jednostronna, płaszczyna 10 mm

PE-HD  
schwarz  
antistatisch

PE= 2000 mm  
**05.01340.00**

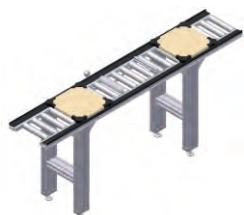
Technische Änderungen vorbehalten



# FÖRDERSTRECKENELEMENTE

## TRASPORTATORI

### ELEMENTY PRZENOŚNIKÓW



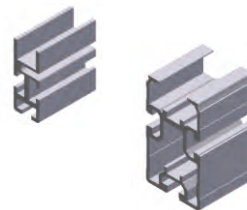
■ 13.02



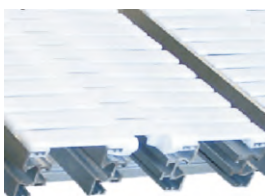
■ 13.04



■ 13.08



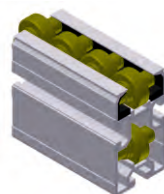
■ 13.10



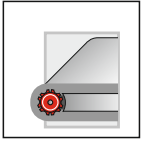
■ 13.12



■ 13.14



■ 13.16



# ECO-ROLL ECO-ROLL ECO-ROLL



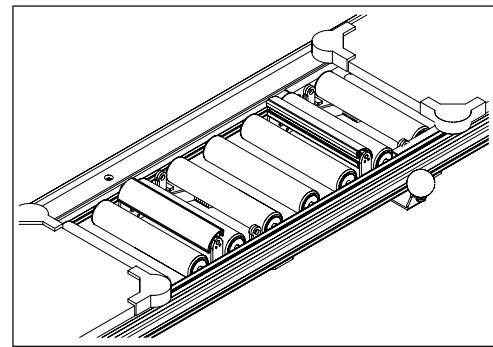
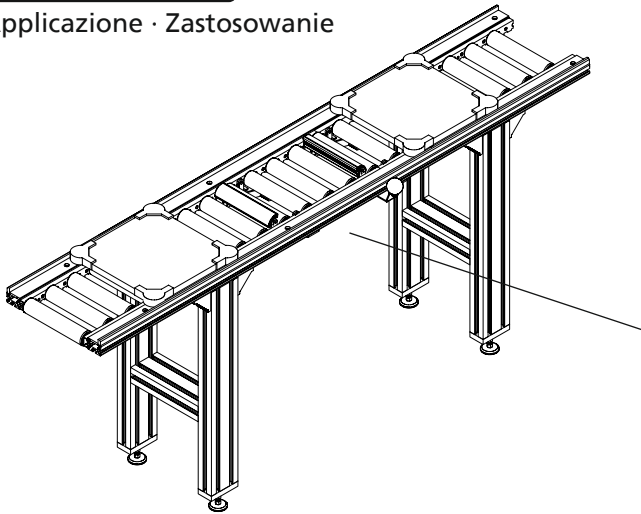
- Werkstückträger-Transport und -Verkettungen von Handarbeitsplätzen
- Ab WT = 400 mm auch mit angetriebenen Rollen erhältlich
- Anlagenausführungen mit Kurven, Eckstationen und Ausschleusungen auf Anfrage

- Trasportatore folle per connessione postazioni manuali
- Disponibile a magazzino con pallets=400mm e rulli motorizzati
- Su richiesta versione con curve, stazioni d'angolo e stazioni di uscita

- Transport uchwytów elementów obrabianych i łączenie ręcznych stanowisk roboczych
- Dostępne również z napędzanymi rolkami dla UEO powyżej 400 mm
- Wersje urządzenia z łukami, stanowiskami narożnymi i odprowadzeniami na zapytanie

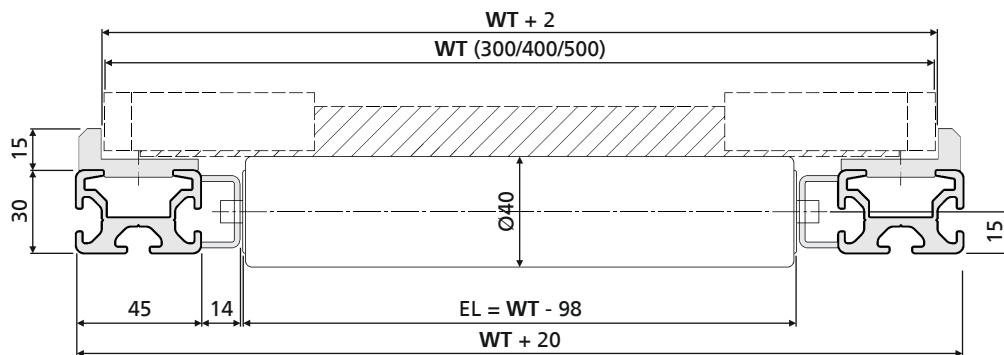
## Anwendung

Applicazione · Zastosowanie



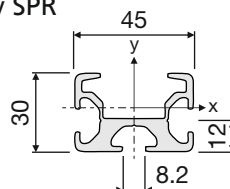
## Querschnitt

Sezione · Przekrój



## Streckenprofil SPR

Sezione profilo SPR · Profil odcinkowy SPR



05.01021.00

M = 1,36 kg/m  
I<sub>x</sub> = 4,55 cm<sup>4</sup>  
W<sub>x</sub> = 2,02 cm<sup>3</sup>  
I<sub>y</sub> = 10,97 cm<sup>4</sup>  
W<sub>y</sub> = 7,32 cm<sup>3</sup>

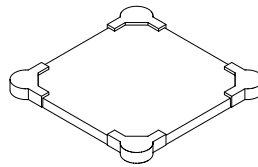
PE (m)  
6 / 24 / 48 / 72

Technische Änderungen vorbehalten

### Werkstückträger - WT

Nastro trasportatore · Uchwyt elementu obrabianego

Holzplatte mit Kunststoffecken  
Pallet in legno con angolari in plastica  
Płyta drewniana z narożnikami z tworzywa sztucznego



WT

300 x 300 03.00510.00

300 x 400 03.00511.00

400 x 400 03.00512.00

400 x 500 03.00513.00

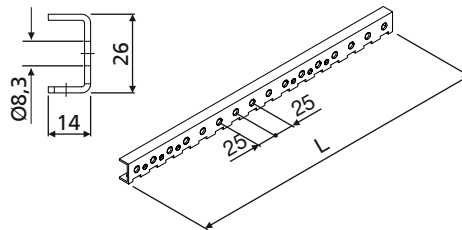
500 x 500 03.00514.00

### Rollenhalter

Supporto rulli · Uchwyt rolki

$$n = \frac{L}{200}$$

n = Anzahl der Anbausätze  
Quantità  
Liczba zestawów montażowych



L

600 03.00517.06

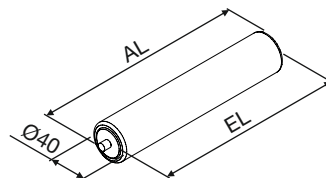
800 03.00517.08

1000 03.00517.00

### Rollen

Rulli · Rolki

Einfache Montage und Demontage durch Federachse  
Facile montaggio  
Łatwy montaż i demontaż dzięki sprężynowej osi

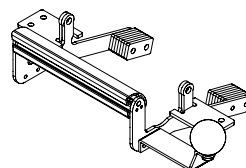


Rollen in der Ausführung Stahl und Kunststoff auf Anfrage erhältlich

### Stopper

Fermo removibile · Stoper

Manuelle Betätigung notwendig  
Movimentazione manuale  
Konieczne ręczne uruchomienie



WT

300 03.00540.30

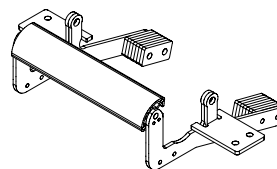
400 03.00540.40

500 03.00540.50

### Rücklaufsperr

Blocco anti-ritirno · Blokada ruchu wstecznego

Automatisch durch Gegengewicht  
Ritorno automatico  
Automatycznie dzięki przeciwważarowi



WT

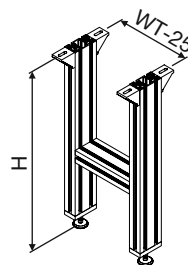
300 03.00541.30

400 03.00541.40

500 03.00541.50

### Stützen

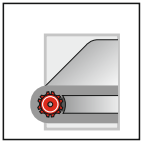
Supporto · Podpory



Stützenvariante aus Aluprofil 45x90L, Abmaße nach Kundenwunsch

Supporto in profilo di alluminio 45x90 dimensioni

Wariant podpory z profilu aluminiowego 45x90L, wymiary według życzenia klienta



# FM-ROLLENBAHN

## TASPORTATORI A RULLI FM

### PRZENOŚNIK ROLKOWY FM



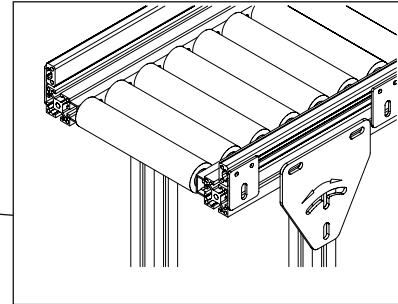
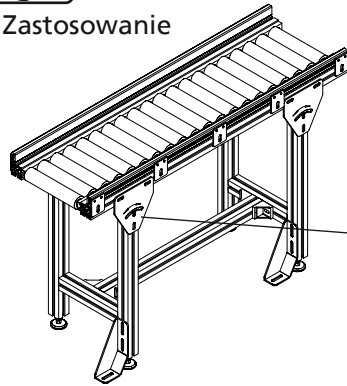
- Schwerkraft-Rollenbahn für Teile- und Behältertransport
- Ab B = 400mm auch mit angetriebenen Rollen erhältlich

- Rulliere a gravità
- A partire con larghezza =400. Disponibile con rulli motorizzati

- Grawitacyjny przenośnik rolkowy do transportu elementów i pojemników
- Od B = 400 mm dostępny również z napędzanymi rolkami

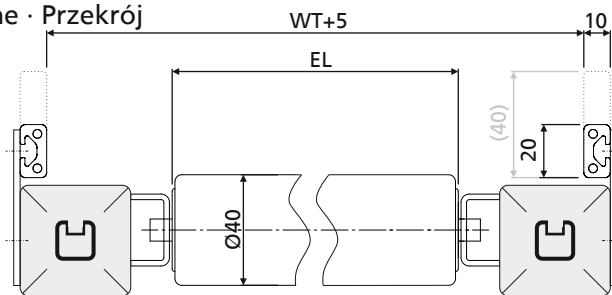
### Anwendung

Applicazione · Zastosowanie



### Querschnitt

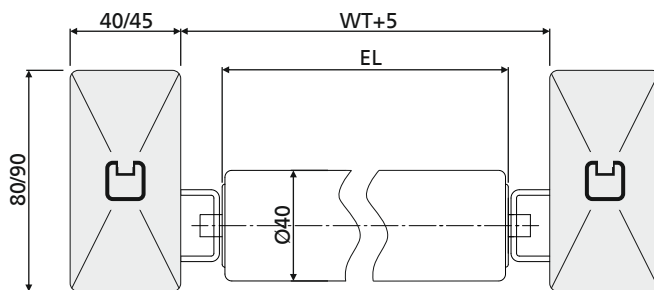
Sezione · Przekrój



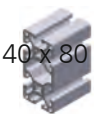
40 x 40 N → ■ 2.29



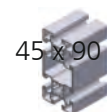
45 x 45 L → ■ 2.55



40 x 80 N → ■ 2.30



45 x 90 L → ■ 2.56



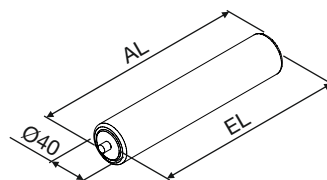
### Rollen

Rulli · Rolki

Einfache Montage und Demontage durch Federachse

Facile montaggio

Łatwy montaż i demontaż dzięki sprężynowej osi



Rollen in der Ausführung Stahl und Kunststoff auf Anfrage erhältlich

Rulli in acciaio in plastica disponibili a richiesta

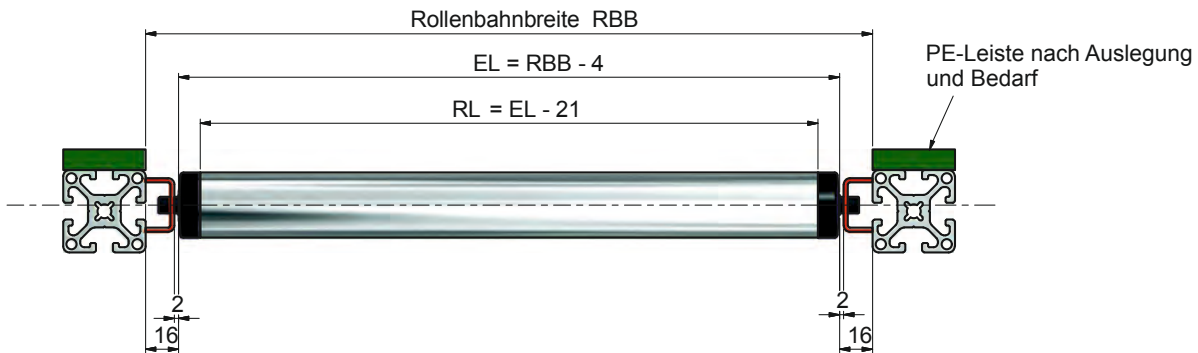
Na zapytanie dostępne rolki w wersji stalowej i z tworzywa sztucznego

# FM-ROLLENBAHN

TASPORTATORI A RULLI FM  
PRZENOŚNIK ROLKOWY FM

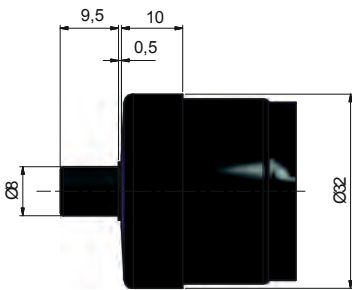


## FM-Rollenbahn mit FM-Schwerkraftrolle



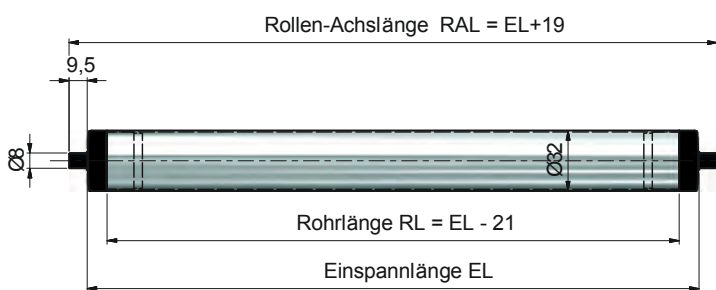
## Rollenlager mit Federachse

08.00663.00



## Tragrolle komplett

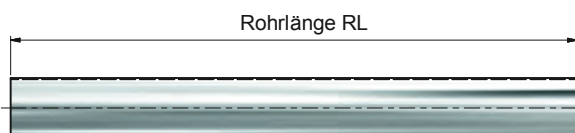
08.00664.xx



## NICO-Rohr

Tubo NICO · Rurowy NICO

NICO-Rohr  
Edelstahlrohr Ø 32 mm



Technische Änderungen vorbehalten

13

# FM-ROLLENBAHN

## TASPORTATORI A RULLI FM PRZENOŚNIK ROLKOWY FM

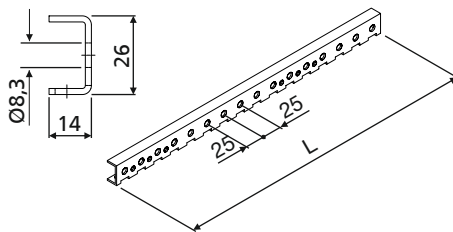


### Rollenhalter

Supporto rulli · Uchwyt rolki

$$n = \frac{L}{200}$$

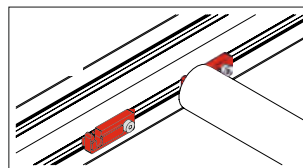
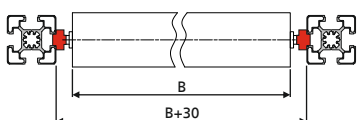
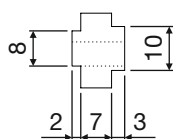
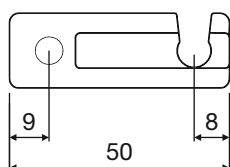
n = Anzahl der Anbausätze  
Quantità  
Liczba zestawów montażowych



L	Code
600	03.00517.06
800	03.00517.08
1000	03.00517.00

### Rollenaufnahme

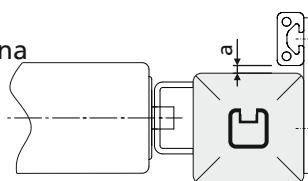
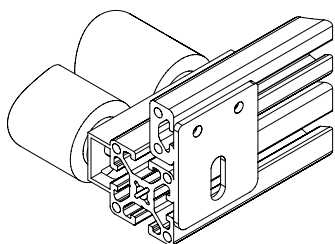
Supporto di rulli · Uchwyt rolki



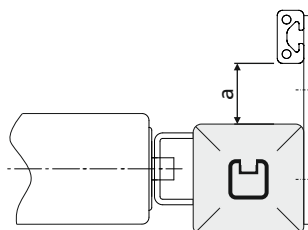
	05.01754.30
	05.01754.40
	05.01754.50

### Seitenführung

Guida laterale · Prowadnica boczna



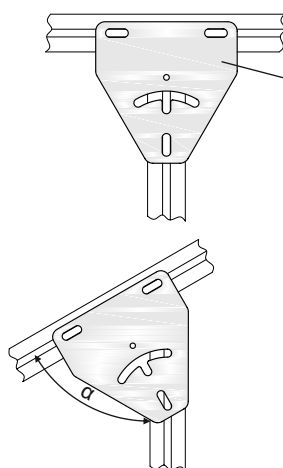
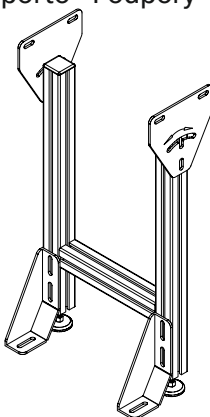
Spaltmaß a max. 10 mm  
Distanza (a) max 10 mm  
Wymiar szczeliny a maks. 10 mm



Spaltmaß a von 17 bis 32 mm  
Distanza (a) 17 to 32 mm  
Wymiar szczeliny a 17 à 32 mm

### Stützen

Supporto · Podpory



Halteblech inkl. Befestigungssatz  
Piastra di fissaggio con kit di  
montaggio  
Wspornik blaszany wraz z zestawem  
mocującym

03.00880.05

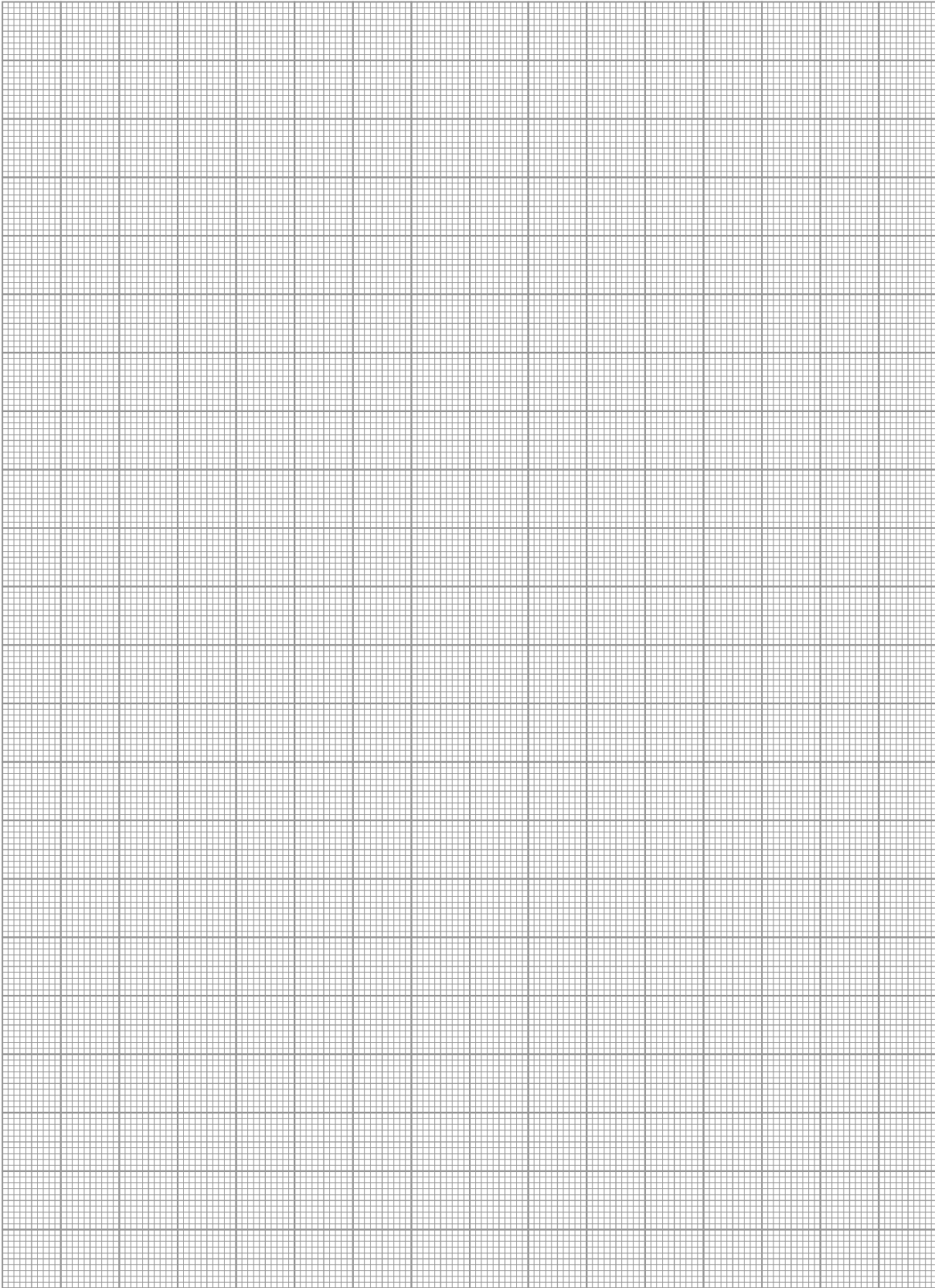
Bandneigung von  $\alpha$  90° bis  $\alpha$  60°.  
Neigungsverstellung von max. 30°

Inclinazione da 90° a 60°  
Regolazione massima della  
inclinazione 30°

Nachylenie taśmy od 90° do 60°  
Przestawienie nachylenia wynoszące  
maks. 30°

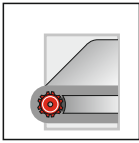
Technische Änderungen vorbehalten

**NOTIZEN**  
NOTE  
NOTATKI



Technische Änderungen vorbehalten

13



# ECO-ROLLENSCHIENEN

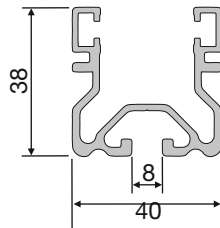
## RULLIERA ECO

### SZYNY ROLKOWE ECO



### Alu-Profilschienen

profilo di alluminio per rulli · Aluminiowe szyny profilowe



08.00299.00

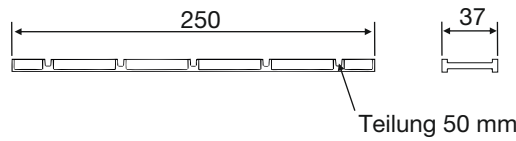
PE (m)  
6

### Achsaufnahme

Supporto · Zamocowanie osi

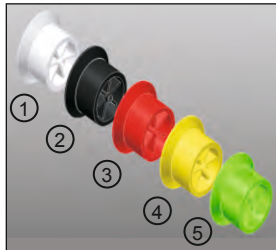


PA 6



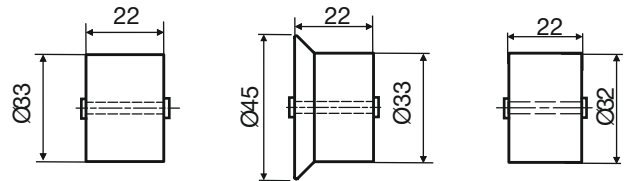
08.00313.00

### Rollen



Achse  
Asse:  
Oś

08.00298.00

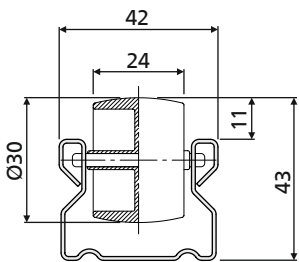


1 Weiß	White	Blanc	08.00293.00	08.00294.00	-----
2 ESD	ESD	ESD	08.00293.10	08.00294.10	-----
3 Rot	Red	Rouge	08.00293.20	08.00294.20	-----
4 Gelb	Yellow	Jaune	08.00293.30	08.00294.30	-----
5 Grün	Green	Verte	08.00293.40	08.00294.40	-----
6 Nico	Nico	Nico	-----	-----	08.00292.00

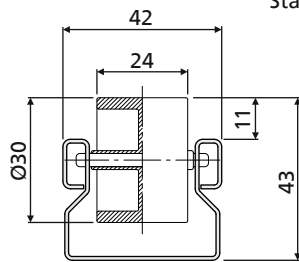
### Profilschienen

Rulliere · Szyny profilowe

Stahl, verzinkt  
Acciaio zincato  
Stal ocynkowana

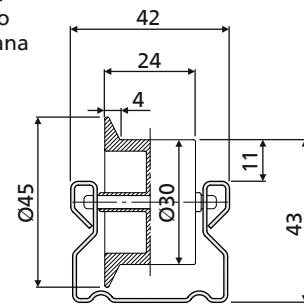


Typ 40 - A 08.00090.00



Typ 40 - B 08.00091.00

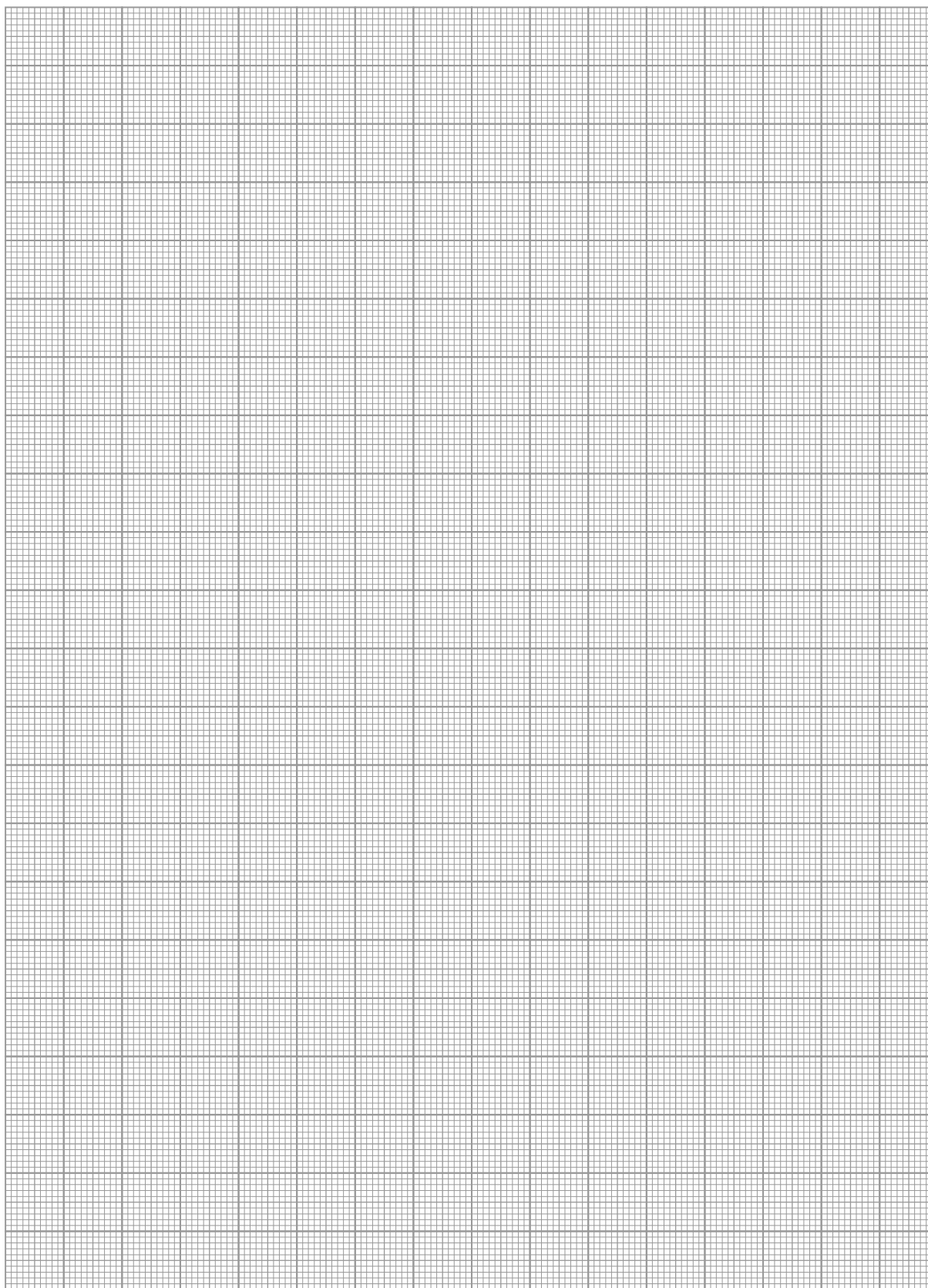
Typ 40 - B / ESD 08.00093.00



Typ 40 - B mit Bord 08.00092.00

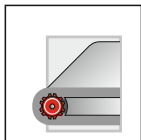


**NOTIZEN**  
NOTE  
NOTATKI



Technische Änderungen vorbehalten

13



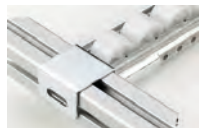
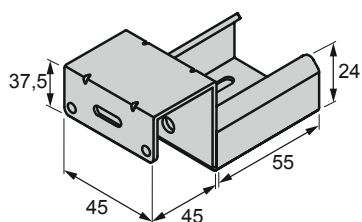
# ZUBEHÖR ROLLENBAHNEN

## ACCESSORI RULLIERE

## AKCESORIA DO PRZENOŚNIKÓW ROLKOWYCH

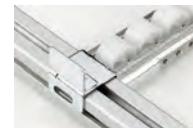
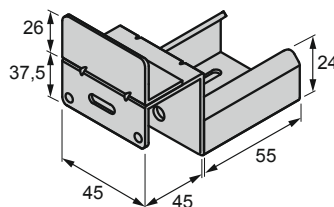


### RSV-45-1A



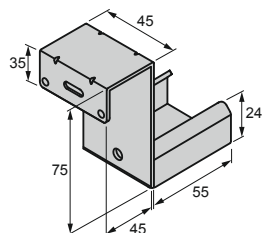
08.00111.00

### RSV-45-3A



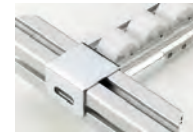
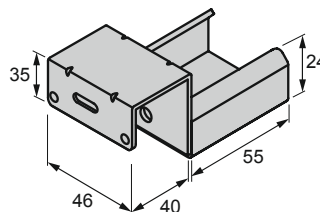
08.00113.00

### RSV-45-4A



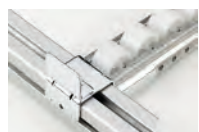
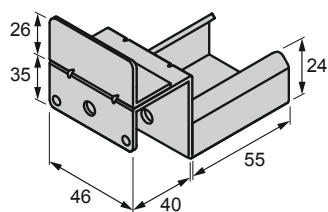
08.00115.00

### RSV-40-1A



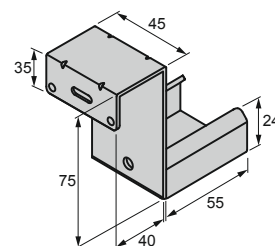
08.00127.00

### RSV-40-3A



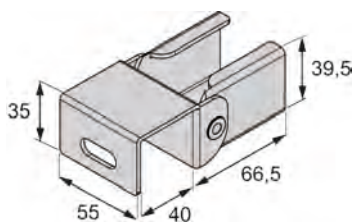
08.00107.00

### RSV-40-4A



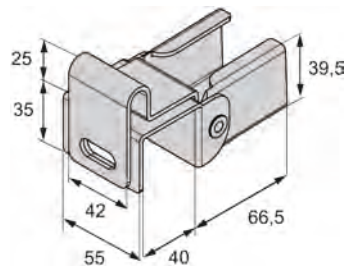
08.00125.00

### RSV-40-5A



08.00710.00

### RSV-40-6A



08.00711.00

Technische Änderungen vorbehalten

# ZUBEHÖR ROLLENBAHNEN

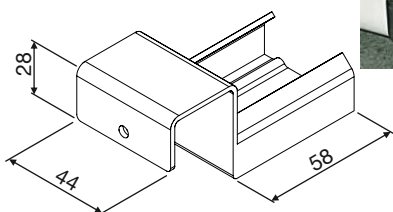
## ACCESSORI RULLIERE

## AKCESORIA DO PRZENOŚNIKÓW ROLKOWYCH



### Schienenaufnahme

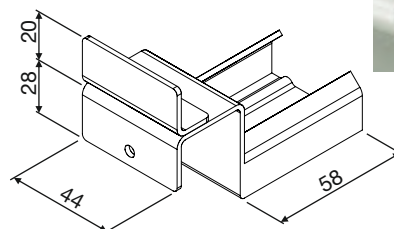
Supporto rulliera ·  
Uchwyt szyny



08.00100.00

### mit Stopper

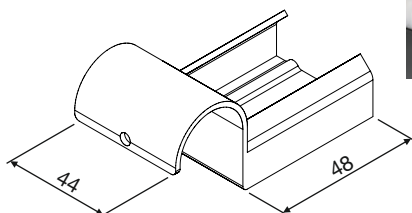
Supporto rulliera con stop · Ze stoperem



08.00102.00

### Schienenaufnahme HR

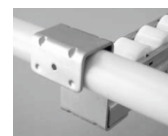
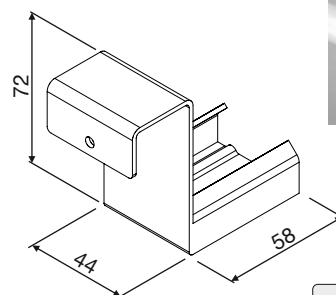
Supporto rulliera HR ·  
Uchwyt szyny HR



08.00108.00

### mit Stopper

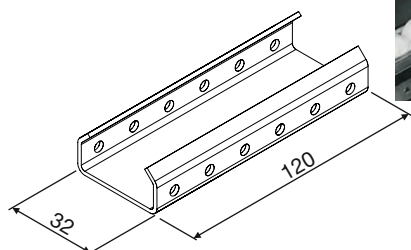
Supporto rulliera con stop · Ze stoperem



08.00114.00

### Schienenverbinder

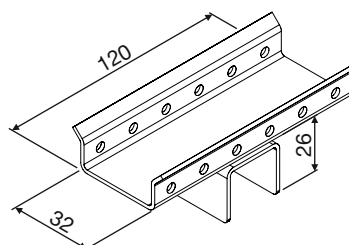
elemento di giunzione rulliera lungo ·  
łącznik szyn



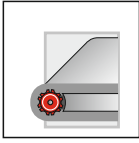
08.00104.00

### mit Aufsatz

con supporto ·  
z nasadką



08.00106.00



# BANDFÖRDERER

## NASTRI TRASPORTATORI

## PRZENOŚNIKI TAŚMOWE



### Merkmale:

- Transport von Teilen, Behältern und Werkstückträgern
- Gewichte von 0 bis 100 kg
- Förderbreite von 30 bis 2500 mm
- Förderbandqualität
  - Kunststoffkette
  - Keilriemengurte
  - Zahnriemen
  - Drahtgliedergurte
- Seitenführungs-Systeme mit:
  - Alu-Profil
  - Kunststoff-Leisten und Rundstange
  - VA-Rundstangen
  - Standardhalter aus Kunststoff und VA
- Bandkörper
  - Alu-Profile und Stahlblechauflagen
  - VA-Blechkanalbauweise
- Bandgeschwindigkeit von 0 bis 30 m/min

### Caratteristiche:

- Trasporto di parti, contenitori e pallets
- Pesi da 0 a 100Kg
- Larghezza nastro da 30 a 2500 mm
- Tipi di nastri
  - Nastro in plastica
  - Nastro trapezoidale
  - Catena in plastica (cinghie dentate)
  - Nastro metallico
- Sistemi di guida laterali con:
  - Profilati
  - Plastica con barra tonda
  - Todino inox
  - Supporto standard in plastica e inox
- Corpo del nastro
  - Profili alluminio e supporto inox
  - Costruzione in lamiera in acciaio inox
- Velocità 0 bis 30 m/min

### Cechy:

- Transport elementów, pojemników i uchwytów elementu obrabianego
- Masy od 0 do 100 kg
- Szerokość przenoszenia od 30 do 2500 mm
- Typ taśmy przenośnikowej
  - łańcuch z tworzywa sztucznego
  - taśmy z pasów klinowych
  - pasy zębate
  - taśmy z plecionki stalowej
- Systemy prowadnic bocznych z:
  - profilem aluminiowym
  - listwami z tworzywa sztucznego i okrągłymi drążkami
  - okrągłymi drążkami ze stali nierdzewnej VA
  - standardowym uchwytem z tworzywa sztucznego i stali nierdzewnej VA
- Korpus przenośnika taśmowego
  - profile aluminiowe i nakładki z blachy stalowej
  - konstrukcja z krawędzią blaszaną ze stali nierdzewnej VA
- Prędkość taśmy od 0 do 30 m/min

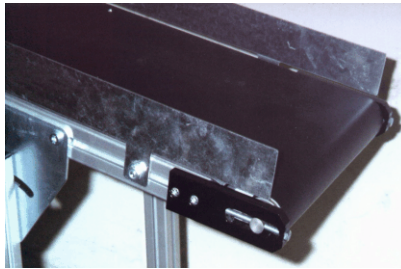
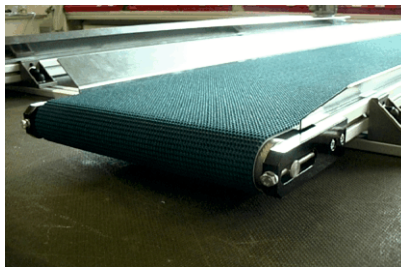
Preise auf Anfrage

Prezzo a richiesta

Ceny na zapytani

## Anwendungen

Applicazione · Zastosowania



Technische Änderungen vorbehalten

# BANDFÖRDERER

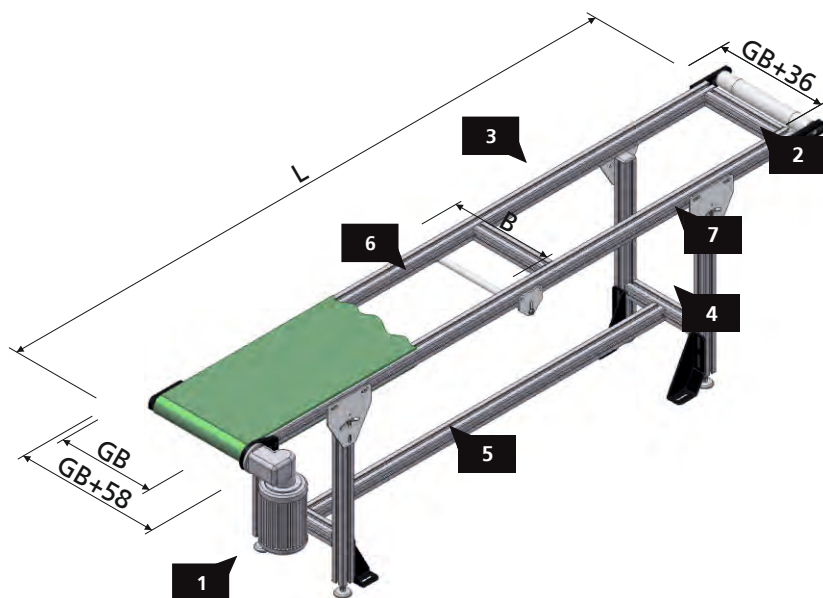
## NASTRI TRASPORTATORI

## PRZENOŚNIKI TAŚMOWE



### Darstellung

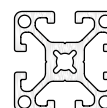
Rappresentazione · Ilustracja



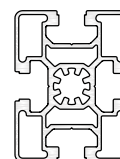
#### BF 30



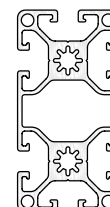
#### BF 40



#### BF 60L



#### BF 80L



<b>1</b>	Antrieb	Motore	Napęd
<b>2</b>	Umlenkung	Rinvio	Mechanizm nawrotu
<b>3</b>	Bandstrecke	Sezione nastro	Odcinek taśmy
<b>4</b>	Bandstütze	Supporto	Podpora taśmy
<b>5</b>	Verbindungsstrebe	Rinforzo struttura	Zastrzały łączące
<b>6</b>	Stützrolle	Supporto rulli	Rolka podporowa
<b>7</b>	Halteblech	Piastra di fissaggio	Wspornik blaszany

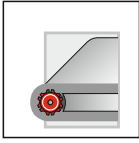
### Technische Daten

Caratteristiche tecniche · Dane techniczne

	Bandlänge L Lunghezza nastro Długość taśmy L	Gurtbreite (mm) Larghezza nastro (mm) Szerokość pasa (mm)	Bandbelastung (gesamt) Carico (totale) Obciążenie (totale)	Bandgeschwindigkeit Velocità Prędkość taśmy
<b>BF 30</b>	500-4.000 mm	100 / 150 / 200 / 250 / 300 / 400 / 500	< GB=250: max. 5kg/m (Max. 15 kg) > GB=250: max. 10kg/m (Max. 30 kg)	5,4m/min , 7,3m/min 13,1m/min , 11,5m/min 15,4m/min
<b>BF 40</b>	500-4.000 mm	100 / 150 / 200 / 250 / 300 / 400 / 500	< GB=250: max. 5kg/m (Max. 20 kg) > GB=250: max. 10kg/m (Max. 40 kg)	6,5m/min , 9,8m/min 13,1m/min
<b>BF 60L</b>	1.000-6.000 mm	100 / 150 / 200 / 250 / 300 / 400 / 500	< GB=400: max. 15kg/m (Max. 90 kg) > GB=400: max. 20kg/m (Max. 120 kg)	7,5m/min , 9,4m/min 13,2m/min , 18,8m/min
<b>BF 80L</b>	1.000-12.000 mm	100 / 150 / 200 / 250 / 300 / 400 / 500	< GB=500: max. 5kg/m (Max. 15 kg) > GB=500: max. 40kg/m (Max. 400 kg)	8,3m/min , 9,8m/min 12,4m/min , 15,5m/min 19,6 m/min

Technische Änderungen vorbehalten

13



# 3D-KETTENFÖRDERER

## TRASPORTATORE A CATENA 3D

## PRZENOŚNIKI ŁAŃCUCHOWE 3D



### **Merkmale:**

Geeignet für den universellen und flexiblen Transport von vielen Produkten im:

#### **Direkttransport**

z.B. Lagerringe, Verzahnungsteile, Schachteln, Flaschen, Kartons, usw.

#### **Werkstückträger Systeme**

Für leichte Teile bei universellen Förderverlauf wie Kurven, Umlenkstationen, Kurven, Steigungen, Gefällstrecken, usw.

#### **Baukastensystem**

Mit allen erforderlichen Elementen wie Antriebsstationen, Umlenkstationen, Kurven, Bogenrädern, Vereinzeler, Stopper, Fixierstation, usw.

### **Caratteristiche:**

Idoneo per trasporto universale e flessibile di un gran numero di prodotti:

#### **Trasporto diretto**

Ad esempio: cuscinetti, ingranaggi, scatole, bottiglie, cartoni, ecc

#### **Nastro trasportatore**

adatto per particolari leggeri con curve, pendenze, etc.

#### **Sistema modulare**

Con tutti gli elementi necessari: come le stazioni di trasmissione, curve, separatori, tappi, stazioni di fissaggio etc.

### **Cechy:**

Nadaje się do uniwersalnego i elastycznego transportu wielu produktów:

#### **Transport bezpośredni**

np. pierścienie smarowe, elementy uzębień, pudełka, butelki, kartony itd.

#### **Systemy uchwytów elementu**

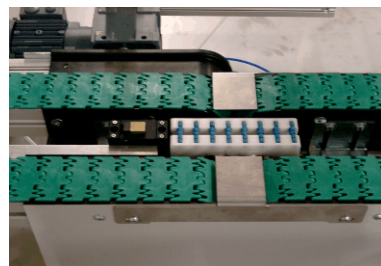
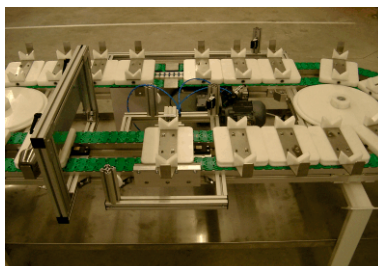
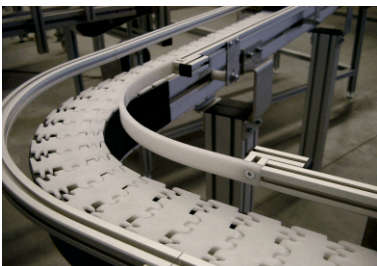
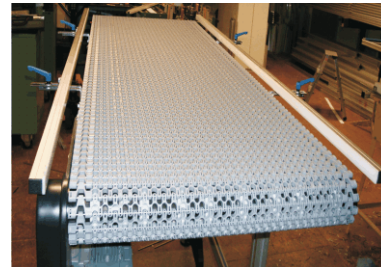
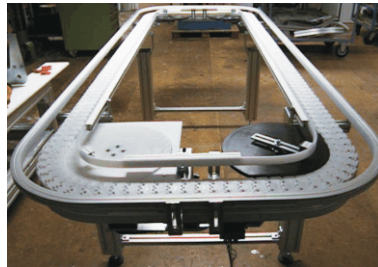
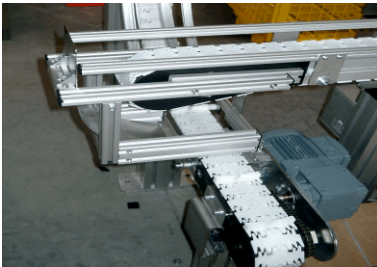
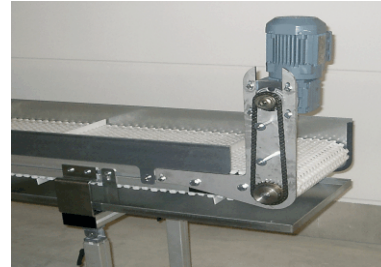
obrabanego do lekkich elementów przy uniwersalnym przebiegu przenośnika, jak łuki, wzniesienia, odcinki spadku itd.

#### **Systemy modułowny**

Teilegewichte Peso die pezzi Masy elementów	Bandgeschwindigkeit Velocità Prędkość taśmy	Umgebungstemperatur Temperatura Temperatura otoczenia
1-15 (20) kg	6-12 (15) m/min	5-60° C

## Anwendungen

Applicazione · Zastosowania



Technische Änderungen vorbehalten

# 3D-KETTENFÖRDERER

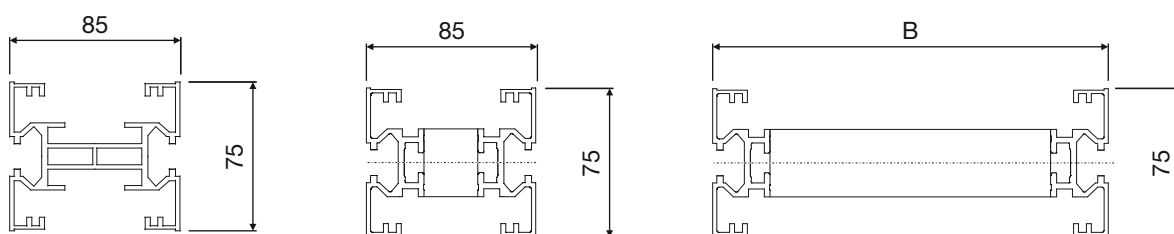
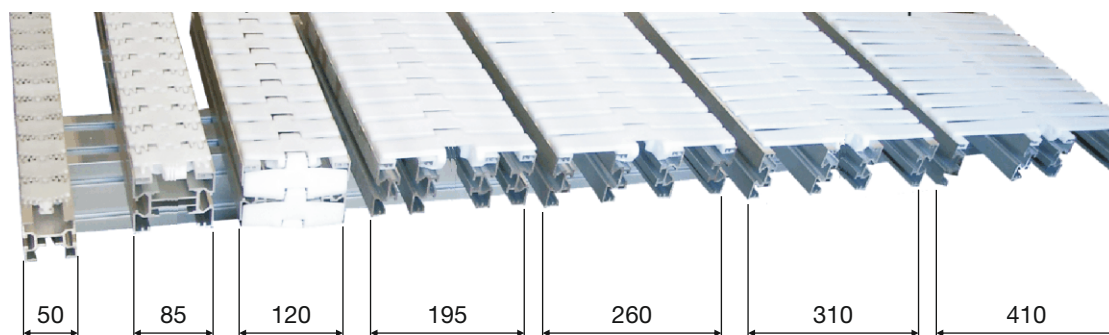
## TRASPORTATORE A CATENA 3D

## PRZENOŚNIKI ŁAŃCUCHOWE 3D



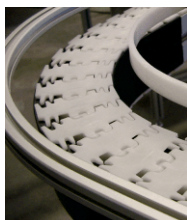
### Führungsprofil

profili disponibili · Profil prowadzący

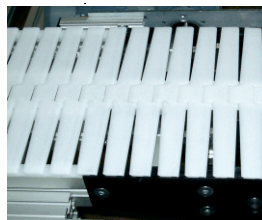


### Typ

Type · Type



Typ FK-3 Kunststoffkette  
 Type FK-3 Nastro in plastica  
 Type FK-3 łańcuch z tworzywa sztucznego



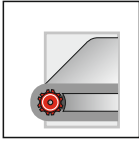
Typ FG-3 Kunststoffglieder

### Auslegungsdaten

Caratteristiche · Dane obliczeniowe

Typ	Kettenbreite Larghezza della catena Szerokość łańcucha	Führungsprofil (BxH) dimensioni profilo (BxH) Profil prowadzący (BxH)	R min (mm)	
FK-3	48	50 x 50	150	300
FK-3	64	70 x 75	200	400
FK-3	82	85 x 75	200	400
FK-3	89	90 x 75	500	500
FK-3	114	120 x 75	200	400
FG-3	82	85 x 75	150	400
FG-3	112	120 x 75	200	400
FG-3	209	215 x 75	350	400
FG-3	311	320 x 75	600	500
FG-3	373	380 x 75	700	500
FG-3	453	460 x 75	850	500
FG-3	577	585 x 75	1.100	600
FG-3	618	625 x 75	1.200	600

Technische Änderungen vorbehalten



# DOPPELGURT BAND DG-0/DG-2

## TWIN BELT DG-0 / DG-2

### PRZENOŚNIK DWUPASOWY DG-0 / DG-2



#### Merkmale:

- Werkstückträgersystem als Automatisierungsförderer
- Komplettsystem mit Vereinzeler, Stopper, Hub-Quertransport, Hubstation, Indexierstation, Drehstationen, usw.
- Sonderausführungen nach Aufgabenstellung

#### Caratteristiche:

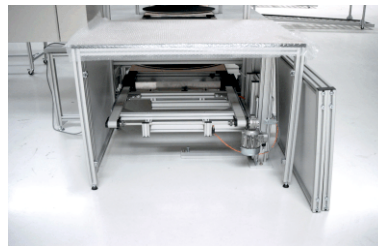
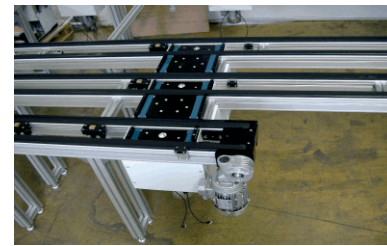
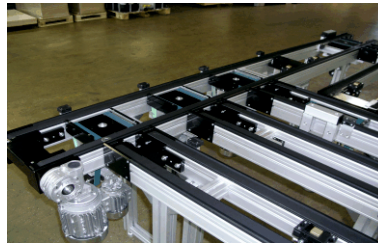
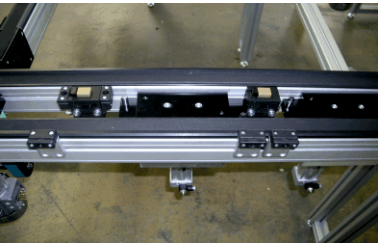
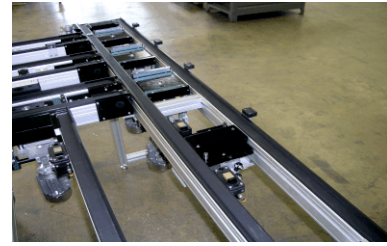
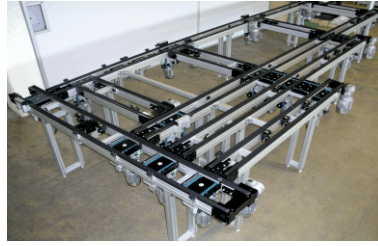
- Sistema di trasporto automatico con pallets
- Sistema completo con singolarizzatore, postazione di sollevamento, stazione di ritorno, etc.
- A richiesta soluzioni fuori standard

#### Cechy:

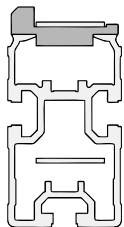
- System uchwytów elementu obrabianego jako przenośnik automatyzacyjny
- Kompletny system z modułem liniującym, stoperem, podnoszącym przenośnikiem poprzecznym, stanowiskiem podnoszenia, stanowiskiem indeksowania, stanowiskami obrotu itd.
- Wersje specjalne odpowiednie do wykonywanych zadań

## Anwendungen

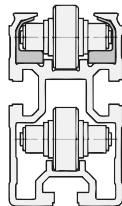
Applicazione · Zastosowania



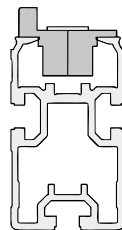
## DG-2: 1 Profil - 4 Systeme



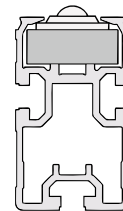
➔ ■ 13.12



➔ ■ 13.13



➔ ■ 13.18



Technische Änderungen vorbehalten



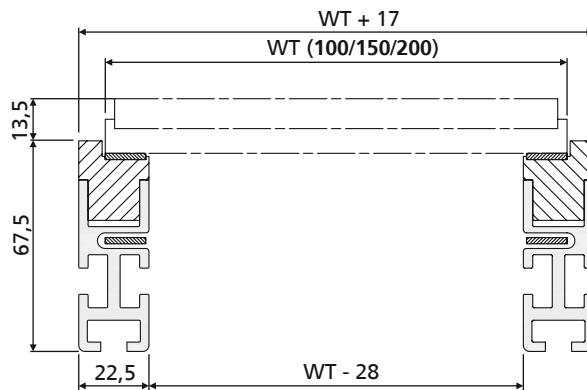
# DOPPELGURT BAND DG-0 / DG-2

## TWIN BELT DG-0 / DG-2

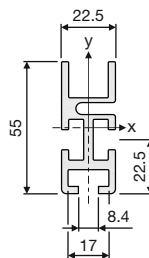
## PRZENOŚNIK DWUPASOWY DG-0 / DG-2



### DG-0



### Förderprofil DG-0



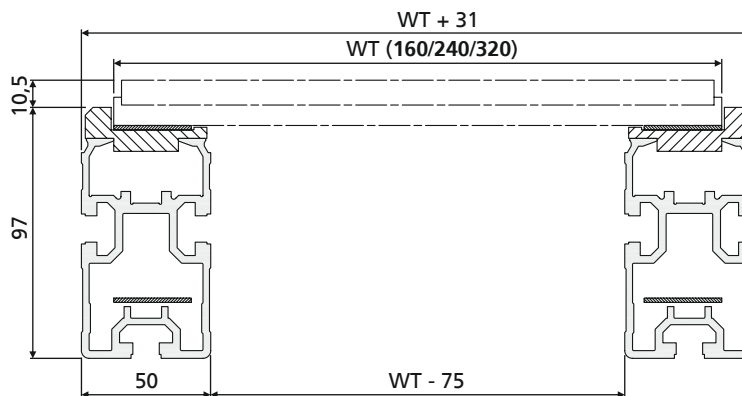
**02.00068.00**

M = 1,35 kg/m

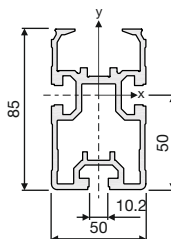
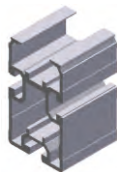
PE (m)

6 / 48 / 96 / 144

### DG-2



### Förderprofil DG-2



**05.01020.00**

M = 3,09 kg/m

PE (m)

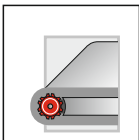
6 / 24 / 48 / 72

### Technische Daten

Technical details · Caractéristiques techniques

Typ	Werkstückträger Nastro trasportatore Uchwyt elementu obrabianego	Bandgeschwindigkeit Velocità Prędkość taśmy	Nutzlasten Carico utile Obciążenia użytkowe
DG-0	100x100 / 150x150 / 200x200	9, 12, 15 m/min	1-3 kg
DG-2	160x160 / 240x240 / 320x320		3-20 kg

Technische Änderungen vorbehalten



# FRIKTIONSROLLENBAHN

## TRASPORTATORE A RULLI FRIZIONATI

### PRZENOŚNIK Z ROLKAMI CIERNYMI



#### Merkmale:

- Staurollenbahn mit außenliegenden, abgedeckten Friktionselementen (geeignet für Nassbereich)
- Werkstückdirekt-Transport mit Vulkollan-Rollenbeschichtung:  
Bsp.: - Zylinderkopf  
- Motorenblock  
- Bremscheiben  
- Kupplungsscheiben, usw.
- Behälter-Transporte im Bereich Waschmaschinen
- Werkstückträger-Transporte G bis 250 kg
- Geschwindigkeiten V bis 6 m/min
- Vereinzeler, Stopper, Indexierstation, Weichen, Drehstationen, Flipper, Hubstationen, Speicherfunktion
- Angepasste Förderrollenausführung  
- Vulkolanbeschichtet  
- Gekantete Rollen  
- VA-Rollen
- Verschiedene Seitenführungssysteme
- Stützenkonstruktion mit:  
- Alu-Profilen  
- Stahlstützen  
- Tropfwannen
- Hub-Quer-Einheit
- Drehtische

#### Caratteristiche:

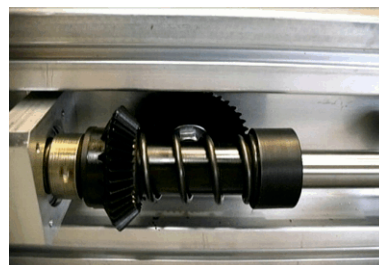
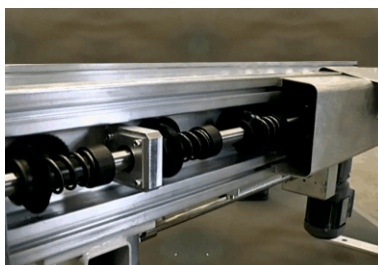
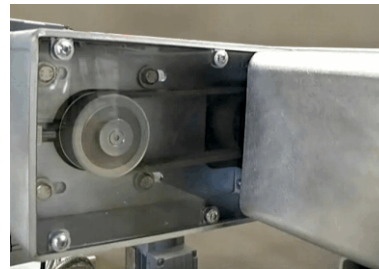
- Trasportatore ad accumulo con rulli frizionati. Trasmissione carterizzata. (Adatto ad ambiente umido)
- Trasporto diretto del pezzo su rulli vulcanizzati.  
E.g.: - testate  
- motori  
- dischi freno  
- dischi frizione etc.
- Il trasporto di contenitori nella zona di lavaggi
- Nastro trasportatore G bis 250 kg
- Velocità max. v=6m/min
- SSeparator, stopper, stazione di indicizzazione, i punti, le stazioni di svolta, pinne, stazioni di sollevamento, funzione di memoria
- Trasportatore costruito secondo le esigenze del cliente  
- Rulli vulcanizzati  
- Rulli inclinati  
- Rullo acciaio inox
- Vari sistemi di guida laterali
- Supporti costruiti in:  
- profili di alluminio  
- acciaio inox  
- vaschette
- Sollevatore trasversale
- Reversibile

#### Cechy:

- Spiężeniowy przenośnik rolkowy z położonymi na zewnątrz, osłoniętymi elementami ciernymi (odpowiedni do użytkowania w obszarze mokrym)
- Bezpośredni transport elementu obrabianego z rolkami z powłoką z wulkanolanu.  
Przykład: - głowica cylindrowa  
- blok silnika  
- tarcze hamulcowe  
- tarcze sprzęgła itd.
- Transporty pojemników w strefie pralek
- Transporty uchwytów elementu obrabianego G do 250 kg
- Prędkości v do 6 m/min
- Moduł liniujący, stoper, stanowisko indeksowania, zwrotnice, stanowiska obrotu, flipper, stanowiska podnoszenia, funkcja zapamiętywania
- Dopasowane wykonanie rolek przenośnika  
- z powłoką z wulkanolanu  
- zagięte rolki  
- rolki ze stali nierdzewnej VA
- Różne systemy prowadnic bocznych
- Konstrukcja wsporcza z:  
- profilami aluminiowymi  
- podporami stalowymi  
- wannami ociekowymi
- Zespołem podnośnego przenoszenia poprzecznego
- stoły obrotowe

## Anwendungen

Applicazione · Zastosowania



Technische Änderungen vorbehalten

# FRIKTIONSROLLENBAHN

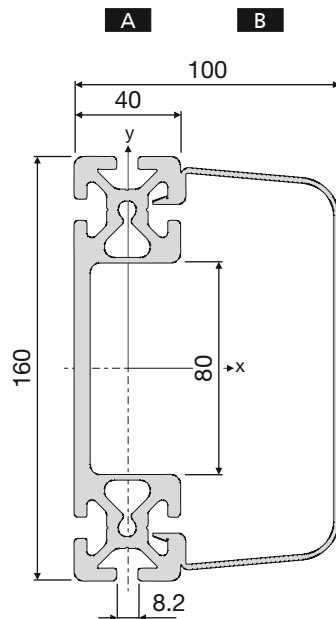
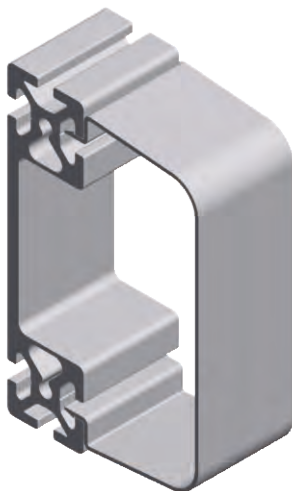
## TRASPORTATORE A RULLI FRIZIONATI

## PRZENOŚNIK Z ROLKAMI CIERNYMI



### Rollenbahnprofil

profilo rulliera ·  
Profil przenośnika rolkowego



**05.01983.00**

M= 6,20 kg/m

PE (m)  
6 / 12 / 24 / 36



**05.01937.00**

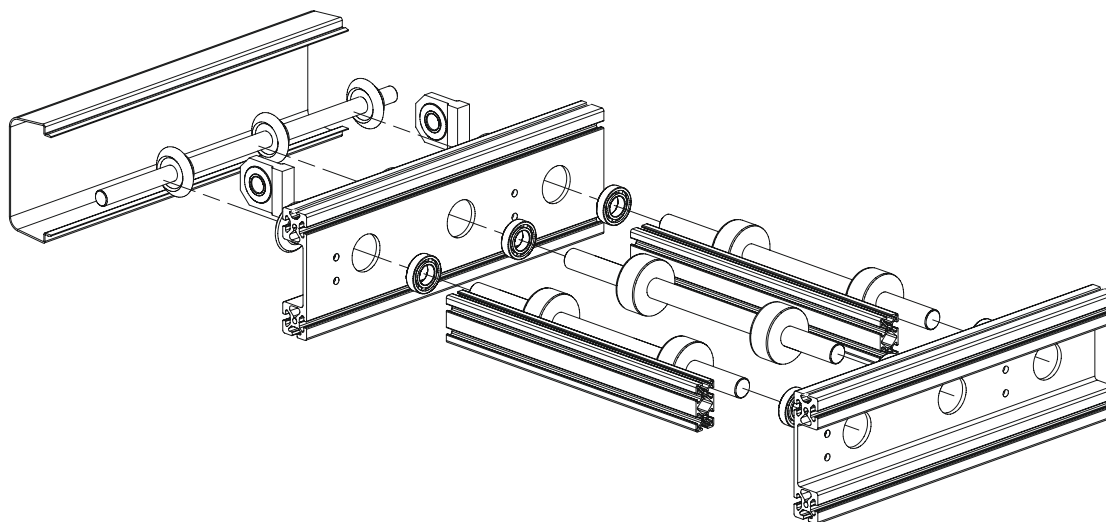
M= 6,20 kg/m

PE (m)  
6 / 12 / 24 / 36



**05.01938.00**

Abdeckung  
Cuffia  
Zaślepka



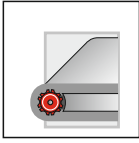
### Technische Daten

Caratteristiche tecniche · Dane techniczne

Bahnbreite L Larghezza trasportatore Szerokość taśmy	Ø Rollen Ø Rollu Ø rolek	Rollenteilung Passo rullo Podziałka rolek	Max. Bel. / Rolle Carico massimo per rullo Maks. obciążenie na rolkę	Max. Stückgewicht massimo peso per pezzo Maks. masa jednostkowa
200-1200 mm	nach Bedarf	110 mm / 140 mm Sonder /speciale/Specjalna	100 kg	300 kg

Technische Änderungen vorbehalten

13



## STAUKETTENTRANSFER SK-4

### SISTEMA TRASPORTO A CATENA SK-4

### SPIĘTRZENIOWY PRZENOŚNIK ŁAŃCUCHOWY SK-4



#### Merkmale:

- Werkstückträgersystem als Automatisierungsförderer
- Komplettsystem mit Vereinzeler, Stopper, Hub-Quertransport, Hubstation, Indexierstation, Drehstationen, usw.
- Sonderausführungen nach Aufgabenstellung
- Geeignet für Automatikumläufe
- Teilautomatische Umläufe
- Manuelle Schiebestrecken
- Für Wt's / Paletten / Behälter

#### Caratteristiche:

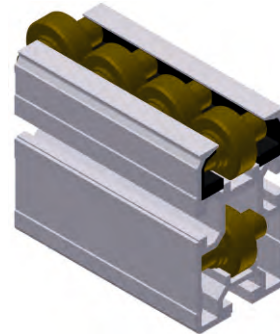
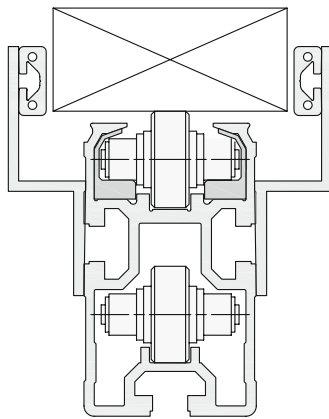
- Sistema di trasporto automatizzato
- Sistema completo con separatore, fermo, ascensore, stazione di sollevamento
- Versioni speciali a seconda delle esigenze
- Adatto per i circuiti semi-automatici
- Circuiti semi-automatici
- Tracce a spinta manuale
- Per trasferire WPC / pallets / contenitori

#### Cechy:

- System uchwytów elementu obrabianego jako przenośnik automatyzacyjny
- Kompletny system z modułem liniującym, stoperem, podnoszącym przenośnikiem poprzecznym, stanowiskiem podnoszenia, stanowiskiem indeksowania, stanowiskami obrotu itd.
- Wersje specjalne odpowiednie do wykonywanych zadań.
- Odpowiedni do obiegu automatycznych
- Obiegi półautomatyczne
- Odcinki ręcznego przesuwania
- Do UEO / palet / pojemników

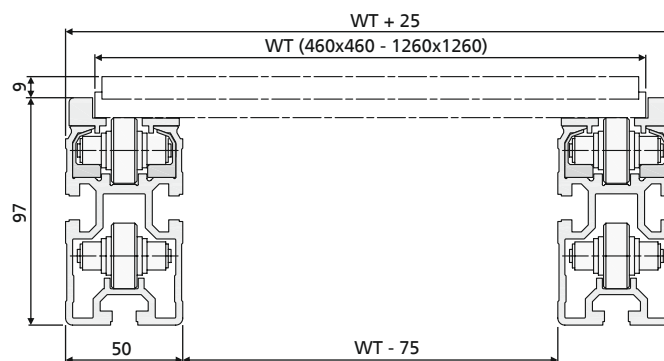
## Anwendungen

Applicazione · Zastosowania



## Systemquerschnitt SK-4

Sezione trasversale del sistema SK-4 · Przekrój systemu SK-4



## Technische Daten

Caratteristiche tecniche · Dane techniczne

Typ	Werkstückträger Nastro trasportatore Uchwyt elementu	Bandgeschwindigkeit Velocità Prędkość taśmy	Nutzlasten Carico utile Obciążenia użytkowe
<b>SK-4</b>	460 x 460 - 1.260 x 1.260 mm	6 - 12 m/min	25 - 160 kg

# ROLLENEINSATZ ELEMENTI A RULLO WKŁAD ROLKOWY



## Innovative Vorteile:

- Wirtschaftliche Lösung für manuelle Schiebetransporte
- Schnelle und leichte Montage durch Einschnappkante
- zulässige Last 15N pro Element

- Einsatz:  
Streckenprofil SPR → ■ 13.01  
und  
Transferprofil DG-2 → ■ 13.13

## Ausführung

- PA, antistatisch, schwarz

## Vantaggi innovativi:

- Soluzione economica per trasporto a gravità (manuale)
- Montaggio facile e veloce con bordi a scatto
- Carico ammissibile 15N per elemento

- Applicazione:  
Profilo a rullo SPR → ■ 13.01  
e  
Profilo di trasporto DG-2 → ■ 13.13

## Materiale

- PA, antistatico, nero

## Cechy:

- Ekonomiczne rozwiązanie dla transportów z ręcznym przesuwaniem
- Szybki i łatwy montaż dzięki zatrzaszkującej się krawędzi
- Dopuszczalne obciążenie 15N na element

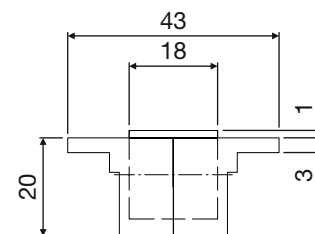
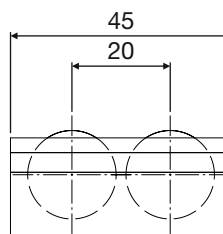
- Zastosowanie:  
profil odcinkowy SPR → ■ 13.01  
i  
Profil transferowy DG-2 → ■ 13.13

## Wersja

- PA, antyelektrostatyczny, czarny

## ohne Bord

Senza bordo · Bez burty

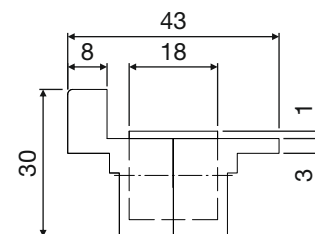
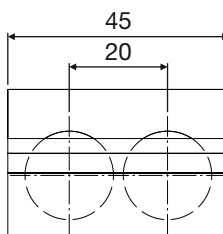
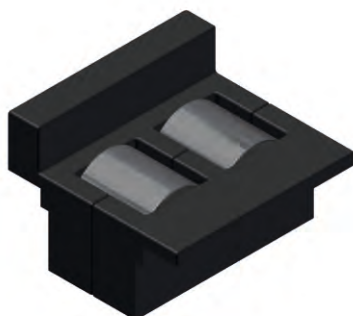


antistatisch  
antistatico  
antyelektrostatyczny

05.01191.00

## mit Bord

Con bordord · z burty

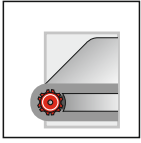


antistatisch  
antistatico  
antyelektrostatyczny

05.01189.00

Technische Änderungen vorbehalten

13

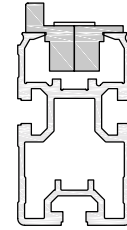
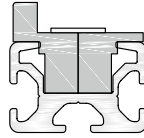
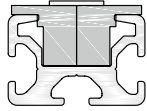


**ROLLENEINSATZ**  
ELEMENTI A RULLO  
WKŁAD ROLKOWY



**Anwendungen**

Applicazione · Zastosowania



**WERKZEUGE UND VORRICHTUNGEN**  
STRUMENTI E DISPOSITIVI  
NARZĘDZIA I PRZYRZĄDY



20



■ 14.02

30



■ 14.03

40

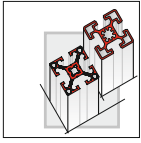


■ 14.04

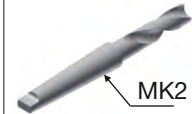
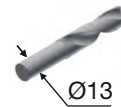
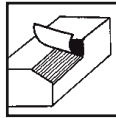
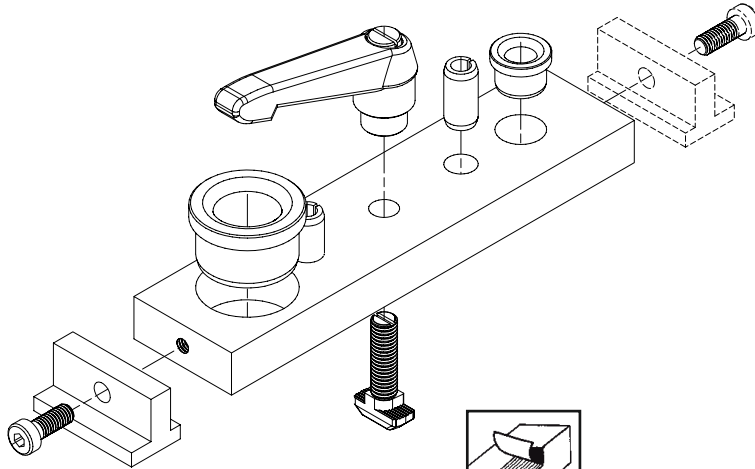
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■ 14.05



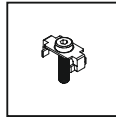
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STRUMENTI E DISPOSITIVI  
NARZĘDZIA I PRZYRZĄDY



**5-VS-10**



05.01793.00



➔ ■ 3.16



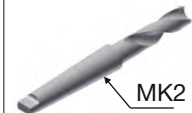
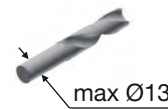
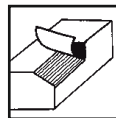
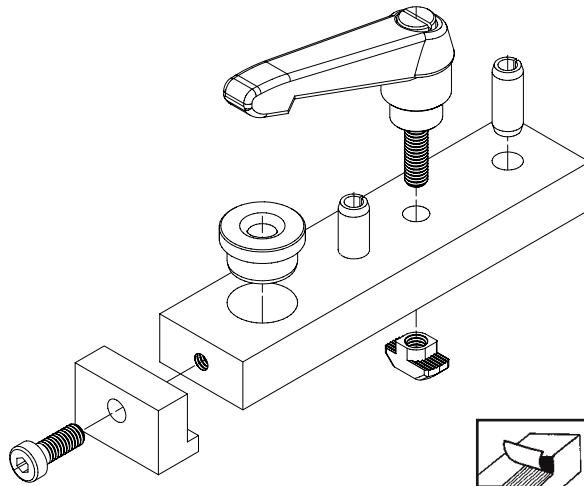
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05.02358.00



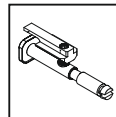
**WERKZEUGE UND VORRICHTUNGEN**  
**STRUMENTI E DISPOSITIVI**  
**NARZĘDZIA I PRZYRZĄDY**



**8E-AGV-5.4**



05.01274.00



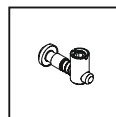
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**8E-GV-10.5**



05.02162.00



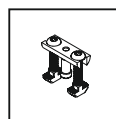
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**8E-BV-11**



05.01390.00



➔ ■ 3.06



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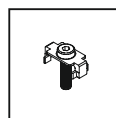


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**8E-VS-14**



05.01288.00



➔ ■ 3.16



05.02362.00

05.02362.02



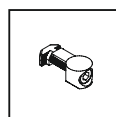
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**8E-UNI-16**



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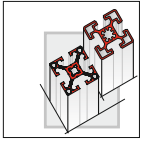


➔ ■ 3.11

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Technische Änderungen vorbehalten

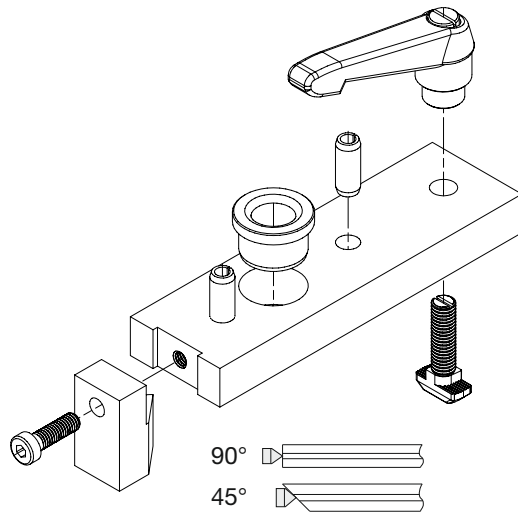


**WERKZEUGE UND VORRICHTUNGEN**  
**STRUMENTI E DISPOSITIVI**  
**NARZĘDZIA I PRZYRZĄDY**

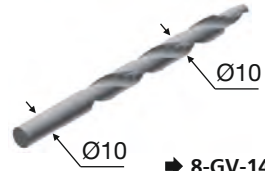


40

8



Kernlochbohrer  
 Punta  
 Wiertło do otworów pod gwint



➔ 8-GV-14

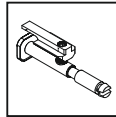
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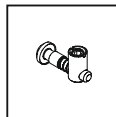
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**8-GV-14**



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➔ ■ 3.02

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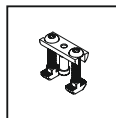
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➔ 8-VS-14

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➔ ■ 3.06



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05.02185.10

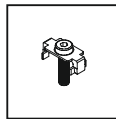
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**8-VS-14**



➔ 8-BV-14

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➔ ■ 3.16



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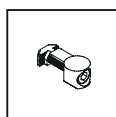
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**8-UNI-20**



➔ 10-UNI-20

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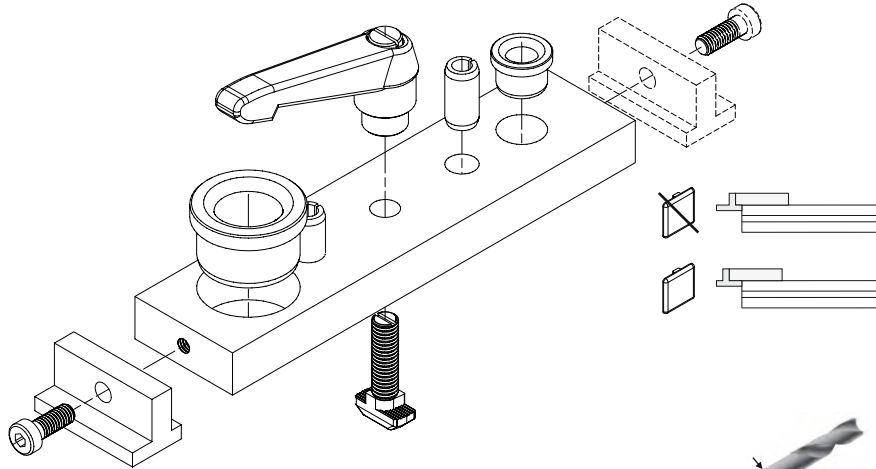
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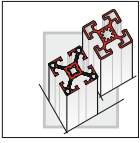
Technische Änderungen vorbehalten

**WERKZEUGE UND VORRICHTUNGEN**  
**STRUMENTI E DISPOSITIVI**  
**NARZĘDZIA I PRZYRZĄDY**

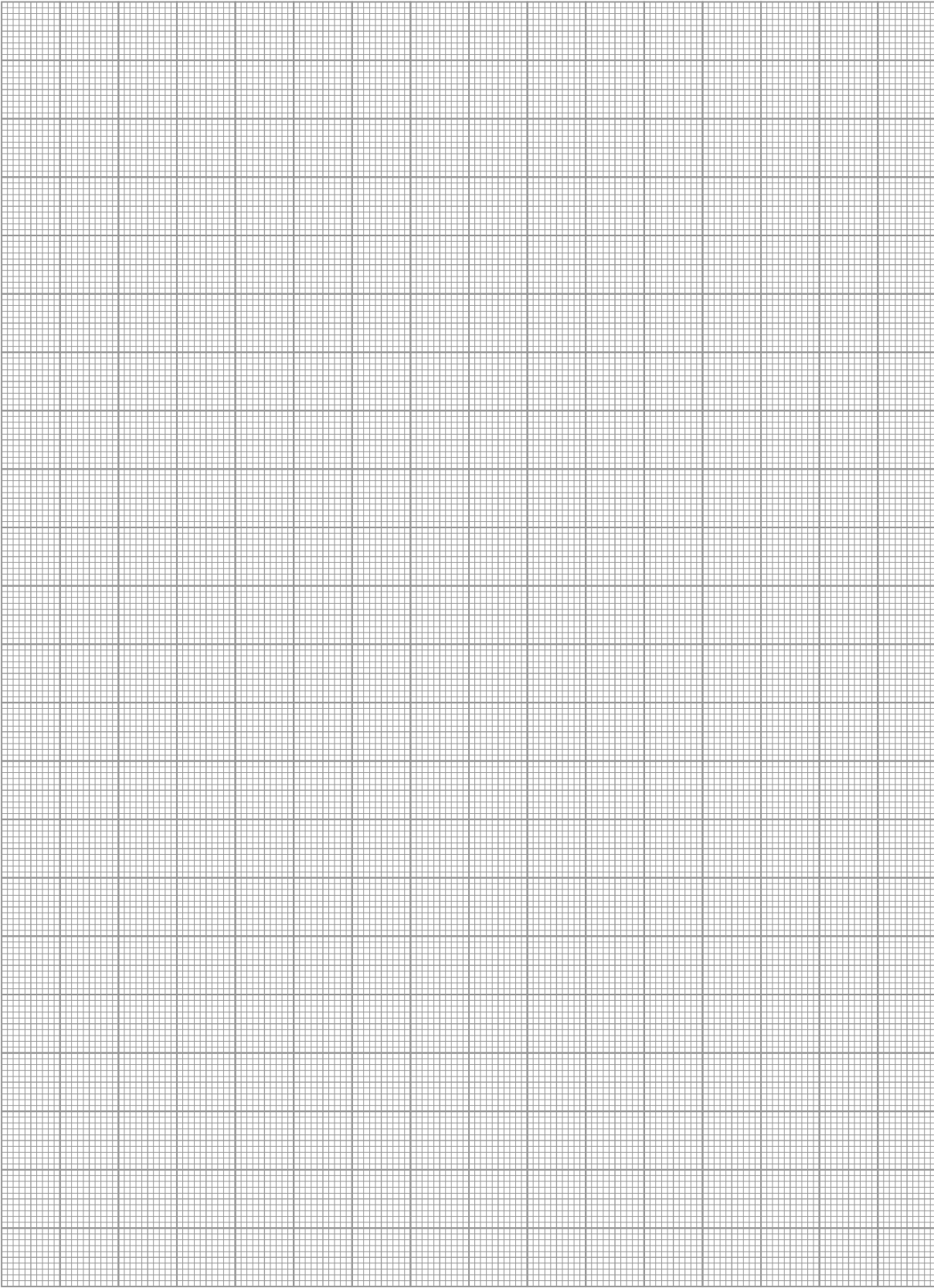


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Technische Änderungen vorbehalten



**NOTIZEN**  
NOTE  
NOTATKI



Technische Änderungen vorbehalten

**ÜBERSICHT BESTELNUMMERN**  
LISTA DIE CODICI D'ORDINE  
PRZEGLĄD NUMERÓW ZAMÓWIEŃ

---



**D**



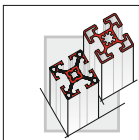
■ 15.11

**IT**



**PL**





# ÜBERSICHT BESTELLNUMMERN

## INDICE

### PRZEGLĄD NUMERÓW ZAMÓWIENÍ



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Technische Änderungen vorbehalten

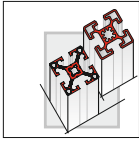
# ÜBERSICHT BESTELNUMMERN

## INDICE

## PRZEGLĄD NUMERÓW ZAMÓWIEŃ



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05.01152.05 4.06	05.01197.10 7.02	05.01243.00 5.18	05.01283.01 3.07
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05.01153.05 4.07	05.01198.00 7.02	05.01245.00 5.20	05.01285.00 4.02
05.01153.10 4.07	05.01204.00 5.03	05.01246.00 5.20	05.01288.00 14.03
05.01154.00 2.84	05.01205.00 5.03	05.01247.00 5.20	05.01290.00 3.14
05.01155.00 4.08	05.01206.00 5.03	05.01248.00 5.17	05.01291.00 3.14
05.01156.00 4.08	05.01207.00 5.03	05.01248.10 5.17	05.01294.00 5.07
05.01157.00 4.08	05.01210.00 5.17	05.01249.00 5.17	05.01295.00 5.07
05.01158.00 4.08	05.01211.00 5.17	05.01250.00 4.04	05.01296.00 5.07
05.01159.00 4.08	05.01212.00 5.17	05.01250.05 4.04	05.01297.00 5.07
05.01160.00 3.21	05.01213.00 5.17	05.01251.00 4.04	05.01298.00 5.07
05.01161.00 3.21	05.01214.00 5.19	05.01251.05 4.04	05.01299.00 5.07
05.01162.00 3.21	05.01215.00 5.19	05.01252.00 4.04	05.01300.05 8.02
05.01163.00 4.09	05.01216.00 5.19	05.01252.05 4.04	05.01303.00 8.05
05.01164.00 4.09	05.01217.00 5.19	05.01253.00 3.14	05.01303.11 8.05
05.01168.00 5.08	05.01218.00 5.19	05.01254.00 3.14	05.01303.12 8.05
05.01168.05 5.08	05.01218.10 5.19	05.01255.00 4.02	05.01303.13 8.05
05.01169.00 5.08	05.01219.00 5.19	05.01255.05 4.02	05.01303.14 8.05
05.01169.05 5.08	05.01220.00 5.19	05.01255.10 4.02	05.01304.40 8.36
05.01170.00 5.09	05.01221.00 3.28	05.01255.15 4.02	05.01304.45 8.36
05.01170.05 5.09	05.01222.00 4.02	05.01255.20 4.02	05.01305.40 8.36
05.01171.00 5.09	05.01222.05 4.02	05.01255.25 4.02	05.01305.45 8.36
05.01171.05 5.09	05.01222.10 4.02	05.01256.00 4.02	05.01311.00 6.02
05.01172.00 5.08	05.01223.00 8.12	05.01256.05 4.02	05.01312.00 6.02
05.01172.00 2.13	05.01223.11 8.12	05.01256.10 4.02	05.01314.00 7.08
05.01174.00 5.09	05.01223.12 8.12	05.01257.00 4.02	05.01315.00 7.08
05.01174.05 5.09	05.01223.13 8.12	05.01257.05 4.02	05.01316.00 7.08
05.01174.50 5.09	05.01224.00 8.12	05.01258.00 4.11	05.01317.00 7.08
05.01175.00 6.02	05.01224.11 8.12	05.01260.00 9.10	05.01318.00 7.08
05.01176.00 6.02	05.01224.12 8.12	05.01261.00 9.10	05.01319.00 7.09
05.01177.00 6.02	05.01224.13 8.12	05.01262.00 9.10	05.01320.00 7.09
05.01178.00 6.03	05.01225.00 5.06	05.01263.00 9.10	05.01321.00 7.09
05.01179.00 6.03	05.01226.00 5.06	05.01264.00 9.10	05.01322.00 7.09
05.01180.00 6.03	05.01227.00 5.06	05.01265.00 9.10	05.01324.00 7.08
05.01181.00 6.03	05.01228.00 5.06	05.01266.00 9.10	05.01325.00 7.08
05.01182.00 6.03	05.01229.00 5.06	05.01267.00 9.10	05.01326.00 8.14
05.01183.00 6.02	05.01230.00 5.06	05.01270.00 3.03	05.01327.00 8.14
05.01184.00 6.03	05.01235.00 5.03	05.01271.00 3.03	05.01328.00 8.14
05.01185.00 6.03	05.01236.00 5.03	05.01272.00 3.03	05.01328.01 8.14
05.01187.00 7.03	05.01237.00 5.03	05.01274.00 14.03	05.01328.02 8.14



# ÜBERSICHT BESTELLNUMMERN

## INDICE

### PRZEGLĄD NUMERÓW ZAMÓWIEŃ



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05.01328.04	8.14	05.01382.00	5.19	05.01438.00	3.19	05.01480.90	5.02
05.01328.05	8.14	05.01383.00	5.19	05.01439.00	3.19	05.01481.00	5.02
05.01328.06	8.14	05.01384.00	5.19	05.01441.00	3.19	05.01482.00	5.02
05.01335.00	12.11	05.01386.00	5.19	05.01442.00	3.19	05.01483.00	5.02
05.01336.00	12.12	05.01387.00	5.19	05.01443.00	3.19	05.01484.00	5.02
05.01337.00	12.12	05.01390.00	14.03	05.01445.00	3.03	05.01484.90	5.02
05.01338.00	12.12	05.01400.00	3.17	05.01446.00	5.07	05.01485.00	5.02
05.01339.00	12.12	05.01400.00	3.19	05.01447.00	5.07	05.01486.00	5.02
05.01340.00	12.12	05.01401.00	3.19	05.01448.00	5.07	05.01487.00	5.02
05.01341.00	12.11	05.01402.00	3.19	05.01449.00	5.07	05.01488.00	5.02
05.01345.00	6.03	05.01403.00	3.19	05.01450.00	5.03	05.01489.00	5.02
05.01346.00	5.05	05.01404.00	3.19	05.01452.00	5.03	05.01490.00	5.02
05.01347.00	5.05	05.01405.00	3.19	05.01453.00	5.03	05.01490.90	5.02
05.01351.00	3.03	05.01406.00	3.19	05.01454.00	5.03	05.01491.00	5.02
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05.01356.00	3.03	05.01411.00	3.19	05.01459.00	5.03	05.01496.00	3.18
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05.01358.00	3.03	05.01413.00	3.19	05.01462.00	5.03	05.01499.00	2.65
05.01359.00	3.03	05.01414.00	3.19	05.01463.00	5.03	05.01500.00	3.18
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05.01360.00	3.03	05.01417.00	3.19	05.01465.00	5.03	05.01503.00	3.18
05.01360.50	3.03	05.01418.00	3.19	05.01466.00	5.03	05.01504.00	3.18
05.01361.00	3.03	05.01419.00	3.16	05.01467.00	5.03	05.01505.00	3.18
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05.01364.00	3.17	05.01422.00	3.30	05.01470.10	3.25	05.01507.00	3.18
05.01365.00	3.17	05.01423.00	3.30	05.01471.10	3.25	05.01508.00	3.18
05.01366.00	3.17	05.01424.00	3.30	05.01472.10	3.25	05.01509.00	3.18
05.01367.00	3.17	05.01425.00	3.19	05.01475.00	4.14	05.01510.00	8.21
05.01368.00	3.16	05.01426.00	3.19	05.01475.05	4.14	05.01511.00	8.21
05.01369.00	3.29	05.01427.00	3.19	05.01475.06	4.14	05.01512.00	8.21
05.01370.00	3.29	05.01428.00	3.19	05.01475.07	4.14	05.01517.00	2.57
05.01371.00	3.29	05.01429.00	3.19	05.01475.50	4.14	05.01518.00	2.58
05.01372.00	3.29	05.01430.00	3.19	05.01476.00	4.14	05.01520.00	5.20
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05.01374.00	3.29	05.01432.00	3.19	05.01476.06	4.14	05.01522.00	5.20
05.01375.00	3.29	05.01433.00	3.19	05.01476.07	4.14	05.01523.00	3.18
05.01376.00	3.29	05.01434.00	3.19	05.01476.50	4.14	05.01524.00	5.21
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05.01380.00	5.19	05.01436.00	3.19	05.01479.00	5.02	05.01526.00	5.21

Technische Änderungen vorbehalten



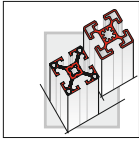
# ÜBERSICHT BESTELNUMMERN

## INDICE

## PRZEGLĄD NUMERÓW ZAMÓWIEŃ



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05.01529.00	5.21	05.01586.00	3.03	05.01643.00	3.10	05.01674.06	8.13
05.01530.00	9.10	05.01587.00	6.02	05.01644.00	3.11	05.01674.07	8.13
05.01531.00	9.10	05.01590.00	3.03	05.01644.50	3.11	05.01678.01	3.07
05.01538.00	3.15	05.01591.00	3.03	05.01645.00	2.09	05.01679.01	3.07
05.01539.00	5.21	05.01592.00	3.03	05.01646.00	2.09.1	05.01680.00	3.09
05.01542.00	8.21	05.01593.00	3.03	05.01649.00	3.18	05.01680.20	3.09
05.01545.00	3.03	05.01594.00	3.03	05.01650.00	8.19	05.01681.00	5.18
05.01548.00	5.20	05.01596.00	3.03	05.01651.00	8.19	05.01682.00	3.09
05.01549.00	5.20	05.01597.00	3.03	05.01651.11	8.19	05.01682.02	3.09
05.01553.00	3.03	05.01598.00	3.03	05.01651.12	8.19	05.01682.20	3.09
05.01554.00	3.03	05.01599.00	8.29	05.01651.13	8.19	05.01682.22	3.09
05.01555.00	3.03	05.01600.00	8.32	05.01652.00	3.26	05.01683.00	3.09
05.01556.00	3.03	05.01602.00	2.09	05.01652.50	3.26	05.01683.20	3.09
05.01556.50	3.03	05.01603.00	2.09	05.01653.00	3.26	05.01685.00	5.07
05.01557.00	3.03	05.01605.00	2.09	05.01653.50	3.26	05.01686.00	5.07
05.01558.00	4.12	05.01606.00	2.09.1	05.01654.00	3.26	05.01687.00	5.07
05.01558.05	4.12	05.01607.00	2.09.2	05.01654.50	3.26	05.01688.00	5.07
05.01558.06	4.12	05.01608.00	3.11	05.01655.00	3.25	05.01689.00	3.09
05.01558.07	4.12	05.01609.00	3.11	05.01656.00	3.25	05.01689.02	3.09
05.01558.20	4.12	05.01609.50	3.11	05.01658.00	2.09.1	05.01689.20	3.09
05.01558.50	4.12	05.01610.00	3.11	05.01659.00	2.09.2	05.01689.22	3.09
05.01560.00	3.16	05.01610.50	3.11	05.01660.00	3.23	05.01690.00	6.06
05.01561.00	3.16	05.01618.00	3.16	05.01661.00	3.23	05.01691.00	6.06
05.01562.00	3.16	05.01619.00	3.18	05.01662.00	3.23	05.01694.05	8.03
05.01565.00	4.14	05.01620.00	3.18	05.01663.00	2.09.2	05.01695.00	5.06
05.01565.50	4.14	05.01621.00	3.18	05.01664.00	2.09.2	05.01696.00	5.06
05.01568.00	3.21	05.01622.00	6.08	05.01665.00	8.12	05.01697.00	5.06
05.01569.00	3.21	05.01623.00	6.08	05.01667.00	8.13	05.01698.00	7.02
05.01570.00	3.21	05.01624.00	6.08	05.01668.00	8.13	05.01699.00	3.09
05.01570.00	9.03	05.01625.00	5.02	05.01669.00	8.13	05.01699.20	3.09
05.01571.00	3.21	05.01625.90	5.02	05.01670.00	8.13	05.01700.00	2.75
05.01571.12	9.05	05.01626.00	5.02	05.01671.00	8.13	05.01702.00	2.75
05.01572.00	3.21	05.01627.00	5.02	05.01671.05	8.13	05.01703.00	2.75
05.01574.00	4.10	05.01628.00	5.02	05.01671.06	8.13	05.01705.00	2.79
05.01575.00	4.10	05.01629.05	8.02	05.01671.07	8.13	05.01706.00	2.79
05.01576.00	4.10	05.01630.05	8.02	05.01672.00	8.13	05.01707.00	2.79
05.01577.00	4.10	05.01632.00	8.09	05.01672.05	8.13	05.01709.00	2.52
05.01578.00	4.11	05.01632.05	8.09	05.01672.06	8.13	05.01710.00	2.52
05.01579.00	4.11	05.01634.00	8.09	05.01672.07	8.13	05.01711.00	8.30
05.01582.00	5.24	05.01634.05	8.09	05.01673.00	8.13	05.01714.00	12.08
05.01583.00	5.24	05.01638.00	6.08	05.01673.05	8.13	05.01715.00	12.08
05.01583.10	5.24	05.01639.00	8.04	05.01673.06	8.13	05.01716.00	12.08
05.01584.00	5.24	05.01640.00	3.10	05.01673.07	8.13	05.01719.00	6.06



# ÜBERSICHT BESTELNUMMERN INDICE PRZEGLĄD NUMERÓW ZAMÓWIEŃ



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05.01721.00	6.03	05.01769.00	3.09	05.01829.00	5.06	05.01857.20	4.13
05.01722.00	6.03	05.01769.02	3.09	05.01830.00	7.03	05.01857.50	4.13
05.01723.00	6.03	05.01769.20	3.09	05.01831.00	7.03	05.01859.00	7.03
05.01724.00	6.02	05.01769.22	3.09	05.01832.00	7.03	05.01865.00	7.03
05.01725.00	6.02	05.01770.00	3.09	05.01833.00	7.03	05.01866.00	2.36
05.01726.00	6.02	05.01770.20	3.09	05.01836.00	7.03	05.01867.00	2.36
05.01727.00	6.02	05.01772.00	3.09	05.01837.00	7.03	05.01868.00	2.36
05.01728.00	6.02	05.01772.20	3.09	05.01838.00	7.08	05.01869.00	2.36
05.01732.00	8.09	05.01773.00	6.02	05.01839.00	7.09	05.01870.00	3.25
05.01732.05	8.09	05.01774.00	6.03	05.01840.00	3.24	05.01871.00	3.25
05.01733.00	8.09	05.01775.00	6.04	05.01841.00	3.24	05.01872.00	3.25
05.01733.05	8.09	05.01776.00	6.04	05.01842.00	3.24	05.01874.00	7.07
05.01734.05	6.05	05.01777.00	6.04	05.01843.00	3.24	05.01874.50	7.07
05.01735.05	6.05	05.01778.00	6.04	05.01844.00	5.06	05.01874.51	7.07
05.01736.05	6.05	05.01779.00	6.04	05.01845.00	5.06	05.01875.00	7.06
05.01737.05	6.05	05.01780.00	3.04	05.01846.00	5.06	05.01876.00	8.11
05.01738.00	6.03	05.01781.10	3.04	05.01847.00	7.03	05.01878.00	8.11
05.01739.00	6.03	05.01782.00	11.21	05.01848.00	7.03	05.01879.00	12.11
05.01740.00	6.02	05.01782.10	3.04	05.01850.00	7.05	05.01880.00	12.10
05.01741.00	6.02	05.01785.00	6.02	05.01851.00	7.05	05.01881.00	12.10
05.01742.00	6.02	05.01786.00	6.02	05.01852.00	4.12	05.01882.00	12.10
05.01743.00	6.02	05.01787.00	6.02	05.01852.20	4.12	05.01884.00	12.11
05.01744.00	6.02	05.01788.00	6.04	05.01852.50	4.12	05.01885.00	3.28
05.01745.00	6.02	05.01789.00	6.04	05.01853.00	4.13	05.01885.10	3.28
05.01747.00	6.02	05.01790.00	6.04	05.01853.20	4.13	05.01886.00	3.28
05.01748.00	6.02	05.01791.00	6.04	05.01853.50	4.13	05.01886.10	3.28
05.01749.00	8.30	05.01792.00	6.04	05.01854.00	4.13	05.01887.00	3.28
05.01754.30	13.05	05.01793.00	14.02	05.01854.20	4.13	05.01887.10	3.28
05.01754.40	13.05	05.01805.00	2.06	05.01854.50	4.13	05.01888.00	3.28
05.01754.50	13.05	05.01806.00	2.05	05.01855.00	4.12	05.01888.10	3.28
05.01758.00	3.18	05.01807.00	8.11	05.01855.05	4.12	05.01889.00	3.28
05.01760.00	3.09	05.01807.50	8.11	05.01855.06	4.12	05.01890.10	12.09
05.01760.20	3.09	05.01808.00	3.21	05.01855.07	4.12	05.01891.10	12.09
05.01761.00	3.09	05.01809.00	3.21	05.01855.20	4.12	05.01892.10	12.09
05.01762.00	3.09	05.01813.00	2.05	05.01855.50	4.12	05.01895.00	12.09
05.01762.02	3.09	05.01814.00	2.50	05.01856.00	4.13	05.01895.05	12.09
05.01762.20	3.09	05.01817.00	2.51	05.01856.05	4.13	05.01896.00	12.09
05.01762.22	3.09	05.01818.00	2.51	05.01856.06	4.13	05.01896.00	12.11
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05.01764.20	3.09	05.01820.00	2.33	05.01856.20	4.13	05.01896.02	12.09
05.01766.00	3.09	05.01823.00	2.35	05.01856.50	4.13	05.01896.03	12.09
05.01766.20	3.09	05.01824.00	2.35	05.01857.00	4.13	05.01896.04	12.09
05.01767.00	3.09	05.01826.00	5.06	05.01857.05	4.13	05.01897.00	12.09
05.01768.00	3.09	05.01827.00	5.06	05.01857.06	4.13	05.01897.00	12.10

Technische Änderungen vorbehalten

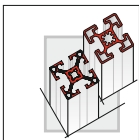
# ÜBERSICHT BESTELNUMMERN

## INDICE

### PRZEGLĄD NUMERÓW ZAMÓWIEŃ



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Technische Änderungen vorbehalten

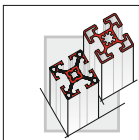
# ÜBERSICHT BESTELNUMMERN

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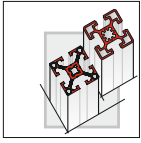
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Abdeckkappen Zinkdruckguss	6.05	Höhenversteller	5.04	Schallschutz	11.15
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Einhängung	11.10	Nutenstein	3.25	<b>U</b>	
Einschiebemutter	3.24 / 3.28			Uni - Verbinder	3.11
Endverbinder	3.10	<b>P</b>			
		Plattenverbinder	3.08	<b>V</b>	
<b>F</b>		Pneumatikplatten	9.03	Verbinderlaschen	3.20
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Fallenverschluss	8.22	Potentialausgleich	8.21	Verbinderschraube innen	3.17
Falldüreselement	8.32	Profile 16S	2.03	Verdrehsicherung	3.30
Flächenelemente	7.12	Profile 20	2.07	Vollkunststoff	7.12
Flanschmutter	3.22	Profile 30	2.11		
FM - Schrauben	3.15	Profile 30- 10K	2.17	<b>W</b>	
Förderprofile DG 0, DG - 2	13.13	Profile 40- 10K	2.39	Wandbefestigung	11.24
Förderstreckenelemente	13.01	Profile 40L	2.21	Welle	12.05
Forexplatten	7.12	Profile 40MS	2.43	Wellenklemmprofil	12.04
Friktionsrollenbahn	13.14	Profile 40N	2.29	Wellgitter	7.14
Fundamentschraube	5.13	Profile 40S	2.47	Winkel	4.01
Fundamentwinkel	5.08	Profile 45L	2.55	Winkeleinhängung	11.11
Fußplatten	5.06	Profile 45N	2.63	Winkelkonsole	4.09
		Profile 45S	2.67	Winkelleiste	7.07
<b>G</b>		Profile 50L	2.73	Winkelplatte	3.21
Gehrungsverbinder	3.14	Profile 50S	2.77	Winkelprofile	2.84
Gelenke	4.12	Profilschienen	13.06	Winkelverbindererelement	4.10
Gewindeeinsätze	3.29			Würfelvebinder	3.12
Gewindefüße Kunststoffteller	5.02	<b>R</b>			
Gewindefüße Stahlsteller	5.03	Radienausgleich	11.22	<b>Z</b>	
Gewindehülse	3.30	Radiusausgleich	6.06	Zusatzprofile	2.81
Gewindehülse SF	3.29	Ringschraube	5.07	Zwischenplatten	7.08
Gewindeplättchen	3.24	Roller mit Anschraubplatte	5.20	Zylinderkopfschrauben	3.18
Gittereinfassprofil	7.10	Roller mit Rückenloch	5.18		
Glashalter	11.25	Rollenbahn	13.04		
Gleitprofil	12.10	Rollenbahnprofil	13.15		
Griffprofil	8.15	Rolleneinsatz	13.17		
Grundverbinder	3.02	Rollenhalter	13.05		
Gummipuffer	8.21	Rollenschienen	13.06		
		Rücklaufsperr	13.03		



**NOTIZEN**  
ANNOTAZIONI  
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Technische Änderungen vorbehalten



**NOTIZEN**  
ANNOTAZIONI  
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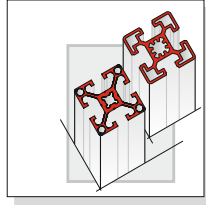


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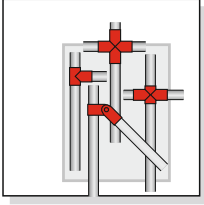
A large, empty grid area for taking notes, consisting of a fine grid of small squares. The grid is bounded by a thin black line on the top and bottom.



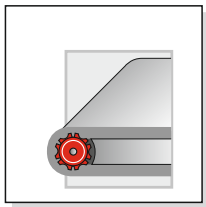
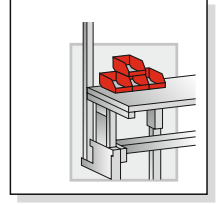
## ALUPROFIL-SYSTEM



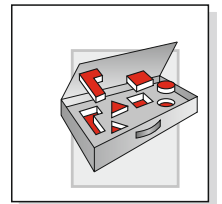
## ECO-ROHR-STECKSYSTEM



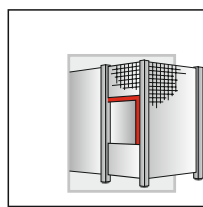
## ARBEITSPLATZ-SYSTEM



## FÖRDERTECHNIK



**MySHADOWBOARD**



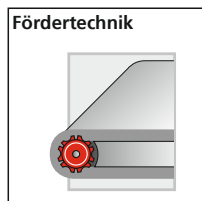
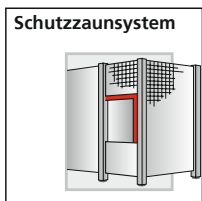
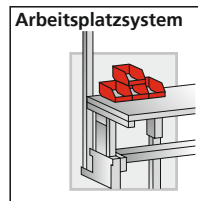
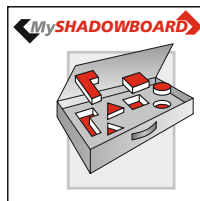
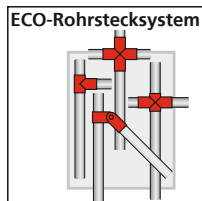
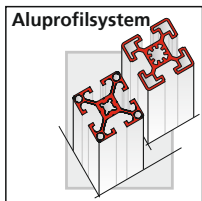
## SCHUTZZAUN-SYSTEM



## DAS UNTERNEHMEN MIT SYSTEM-DIENSTLEISTUNG



[www.fm-systeme.com](http://www.fm-systeme.com)



VERTRIEB  
SALES  
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KONTAKT  
CONTACT  
CONTATTO



BRIEFING  
BRIEFING  
BRIEFING



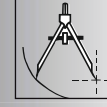
INFORMATION  
INFORMATION  
INFORMAZIONI



PLANUNG  
PLANNING  
PIANIFICAZIONE



KALKULATION  
CALCULATION  
CALCOLO



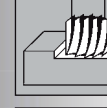
ENTWICKLUNG  
DEVELOPMENT  
SVILUPPO



KONSTRUKTION  
CONSTRUCTION  
COSTRUZIONE



PRODUKTION  
PRODUCTION  
PRODUZIONE



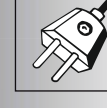
BEARBEITUNG  
PROCESSING  
ELABORAZIONE



MONTAGE  
ASSEMBLY  
ASSEMBLAGGIO



LIEFERUNG  
DELIVERY  
CONSEGNA



INBETRIEBNAHME  
IMPLEMENTING  
ATTUAZIONE

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