



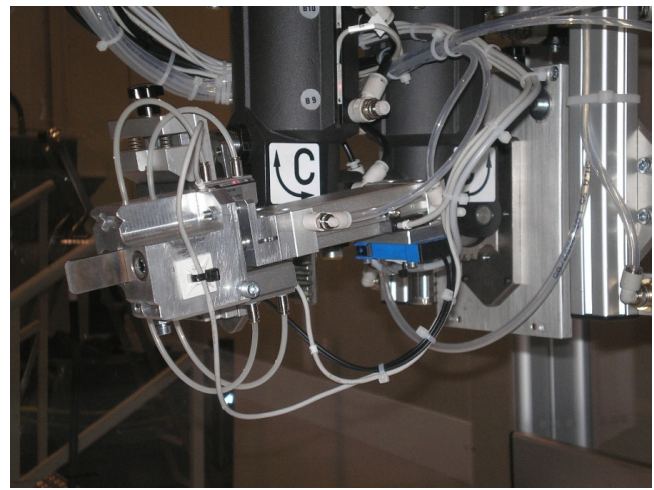
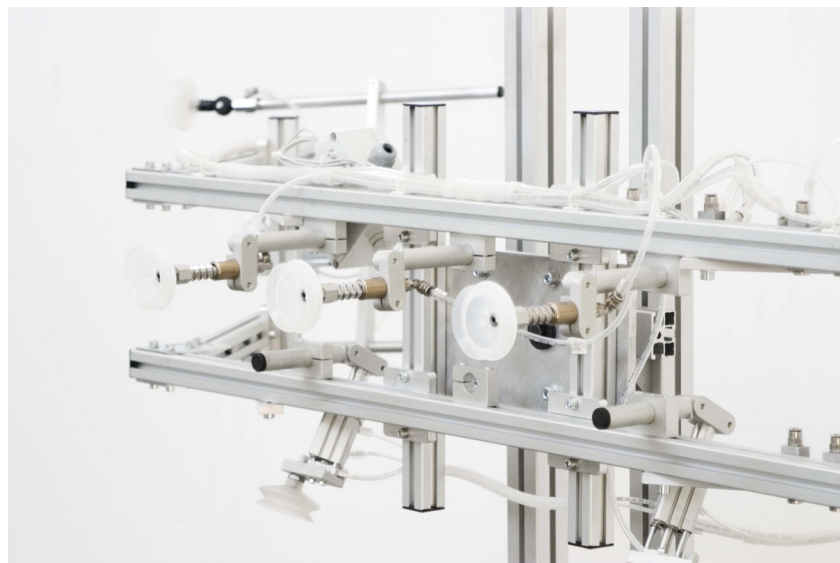
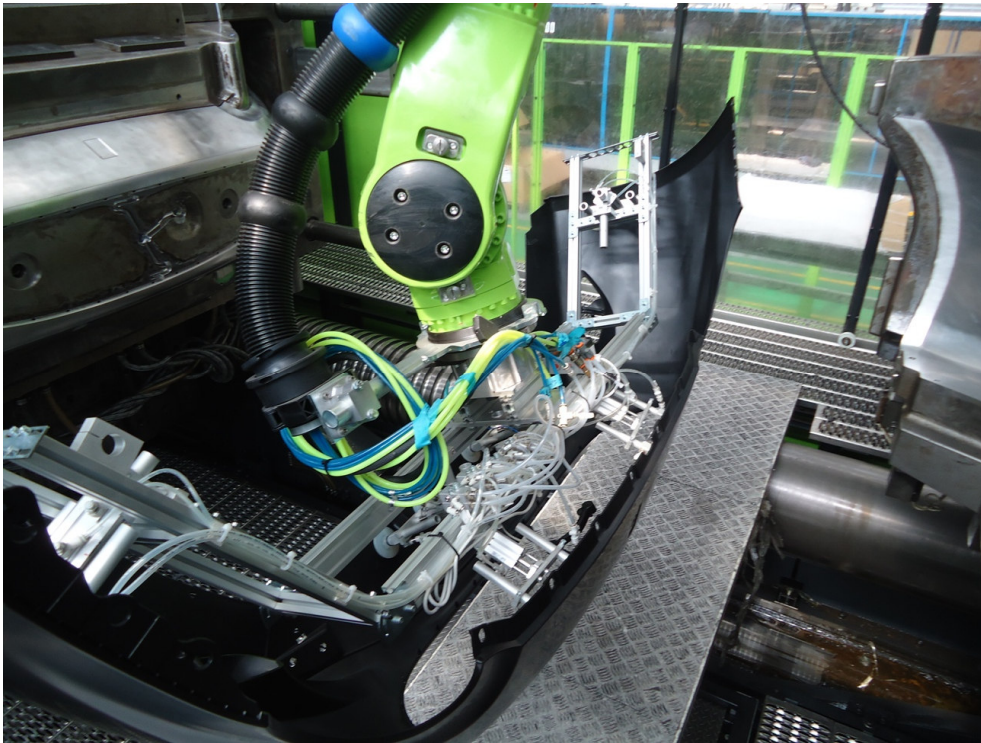
**2013**

**FP SERVICES**

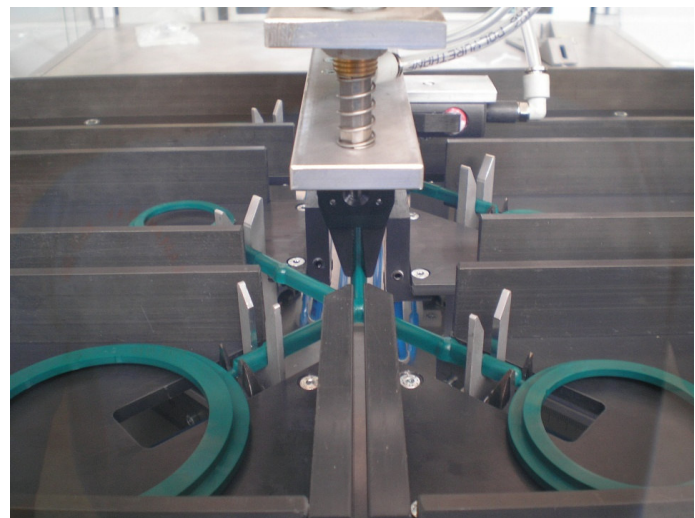
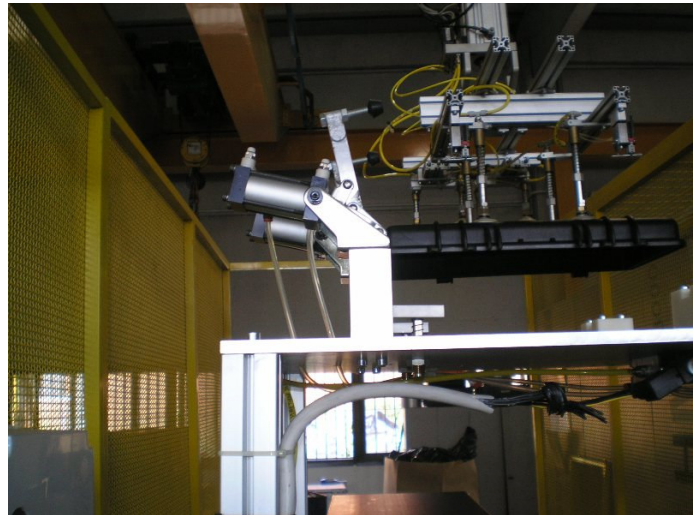
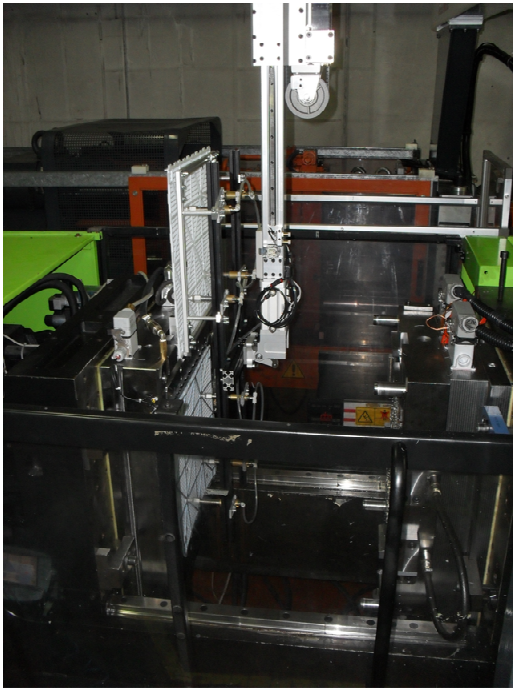


**End of Arm Tooling**

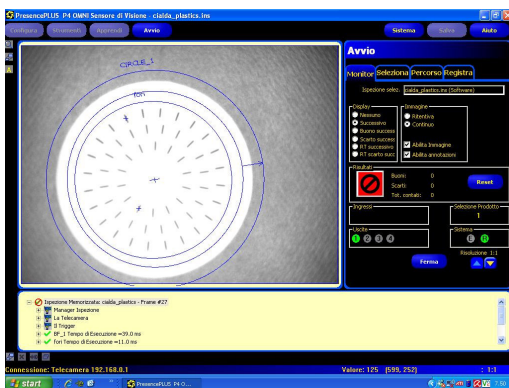
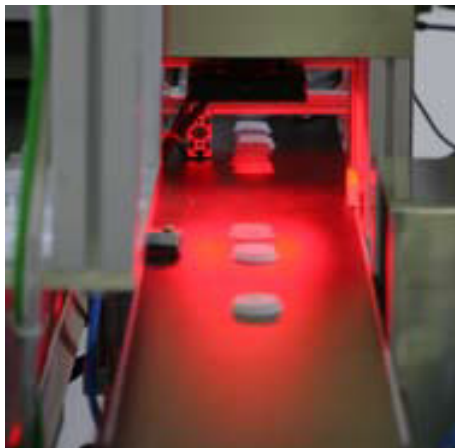
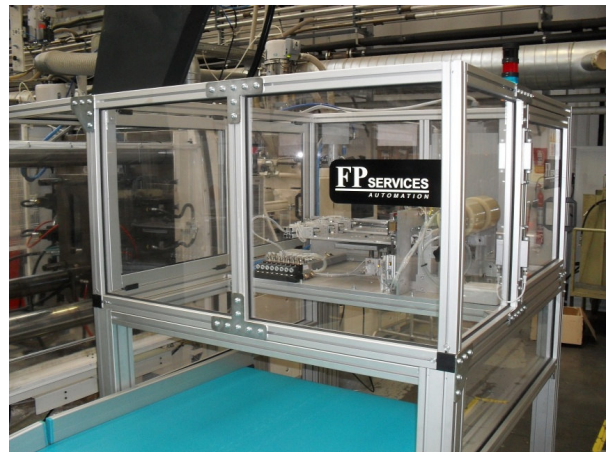




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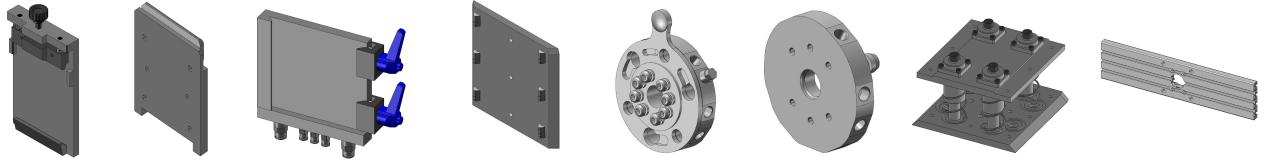
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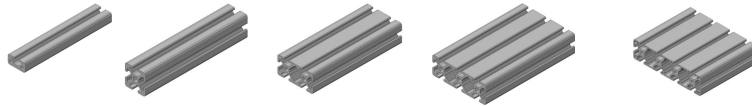
8 Quick Change Mounting

Schnellwerkzeugwechsler



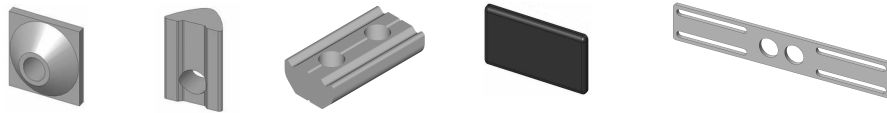
28 Profiles

Profile



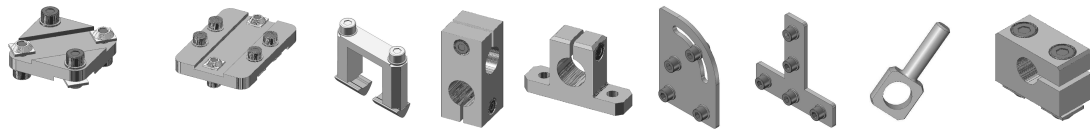
32 Profile Accessories

Profilzubehör



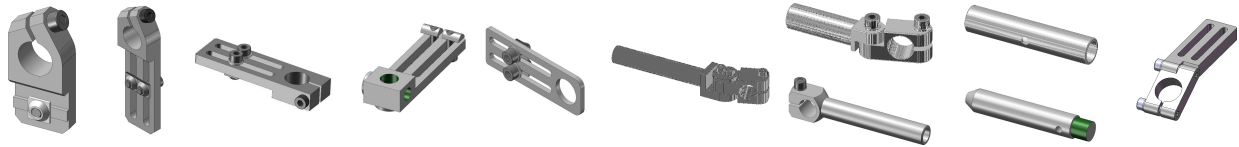
38 Profile Connectors

Profilverbinder



48 Mounting Clamps

Klemmstücke



60 Gripping Arms for Vacuum Cups

Greifarme für Sauggreifer



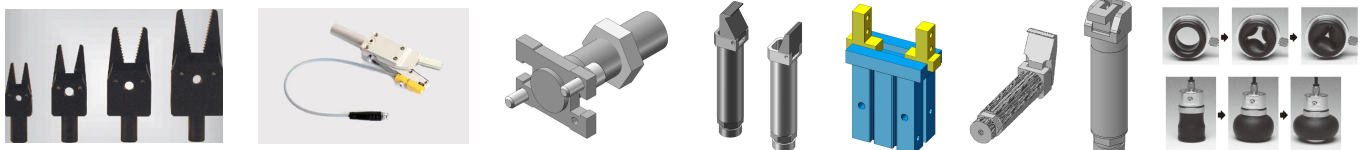
70 Vacuum Cups

Saugnapfe



90 Pneumatic Grippers

Greifzangen



02/2013

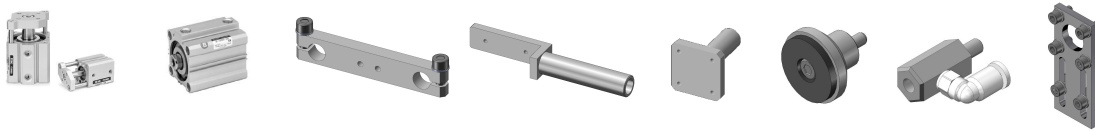
106 Air Nippers

Pneumatische Schneidzangen



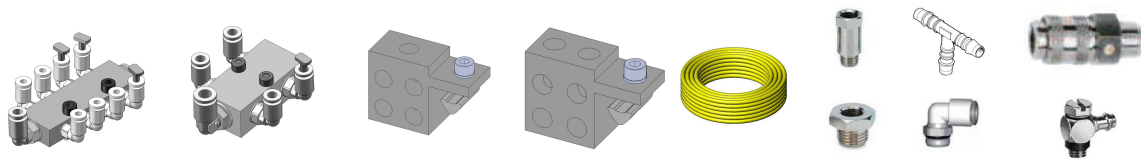
116 Cylinders

Zylinder



124 Pneumatic Connectors

Pneumatische Verbindungen



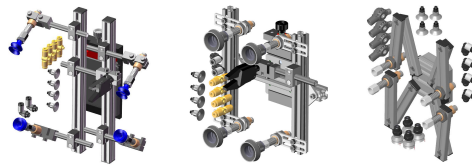
132 Sensor-Sensor Box

Sensors-Klemmenkasten



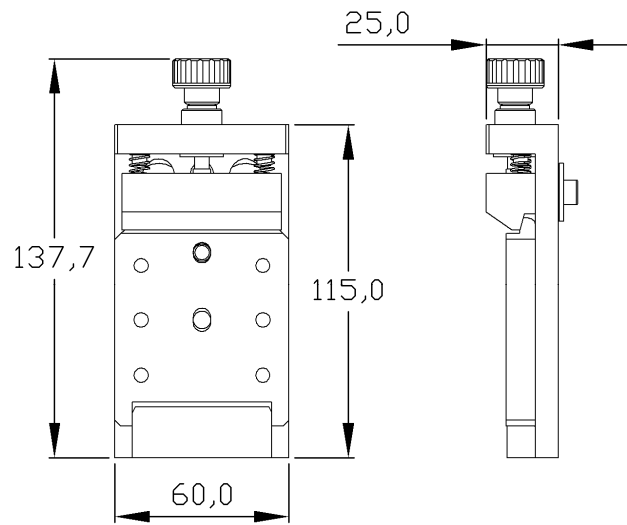
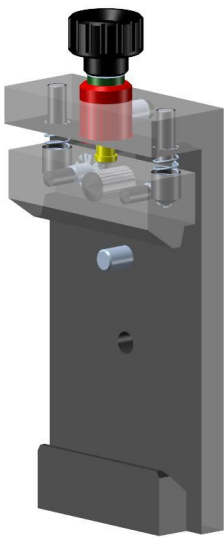
134 Kit EOAT

Robotergreifer Bausätze



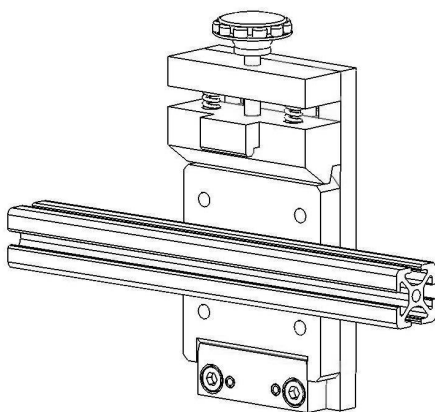
Quick Changer robot side 60 model

Schnellwerkzeugwechsler Roboterseite 60



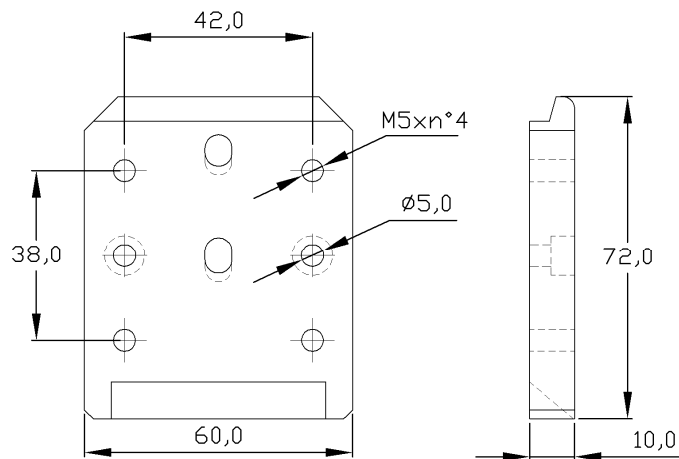
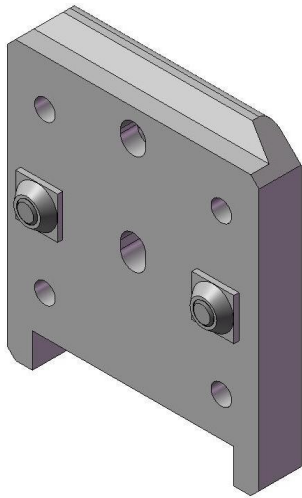
ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
CA.01.02.001	250

Application Example    Anwendungsbeispiel



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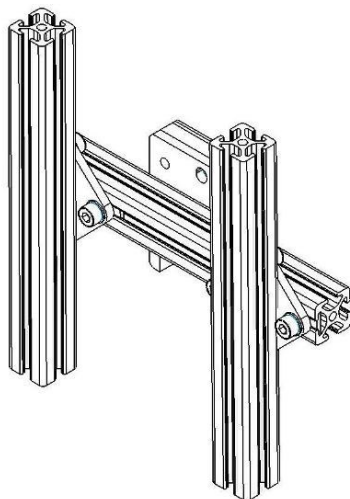


The article is provided in 3 versions with or without T-nuts channel 5-6-X

Der Artikel wird in 3 Versionen mit oder ohne Nutensteine der Baureihe 5-6-X angeboten

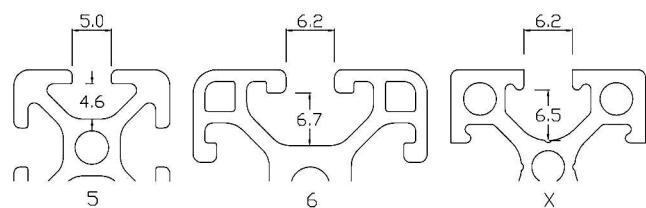
ARTICLE ARTIKEL	T-NUTS NUTENSTEIN	WEIGH GEWICHT [g]
CA.01.02.002	/	87
CA.01.02.002.5	CHANNEL 5 BAUREIHE 5	91
CA.01.02.002.6	CHANNEL 6 BAUREIHE 6	92
CA.01.02.002.X	CHANNEL X BAUREIHE X	92

Application Example Anwendungsbeispiel

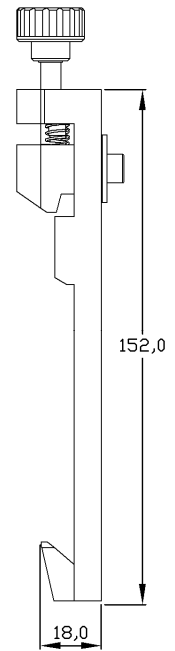
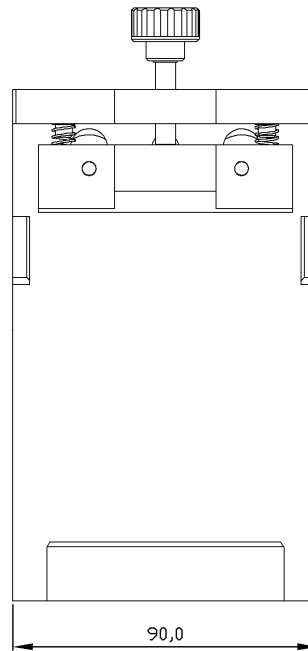
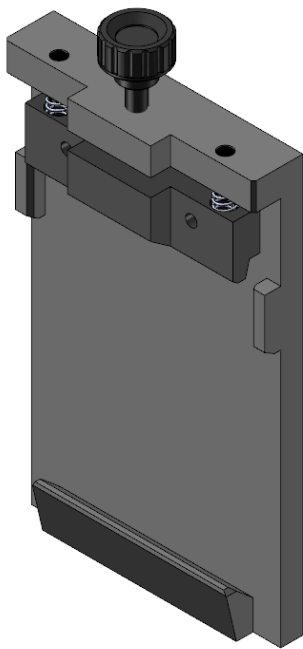


Channel

Baureihe

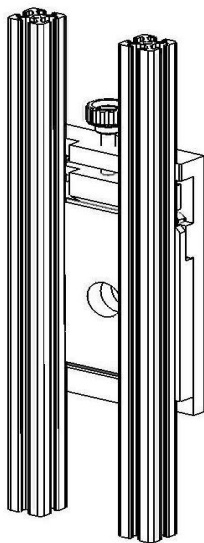


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ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
CA.01.02.007	395

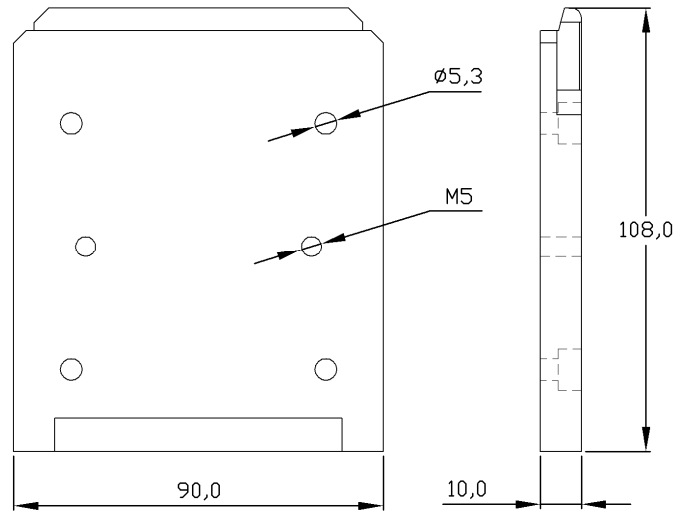
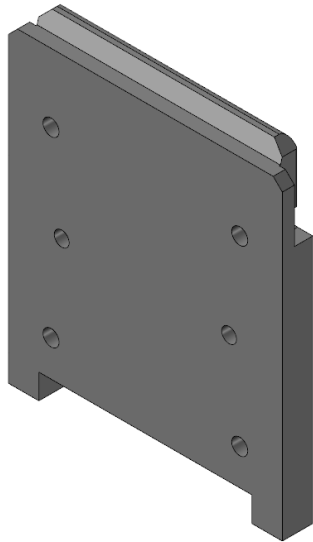
Application Example    Anwendungsbeispiel



Connect with a Click  
Befestigen Sie mit einem Klick

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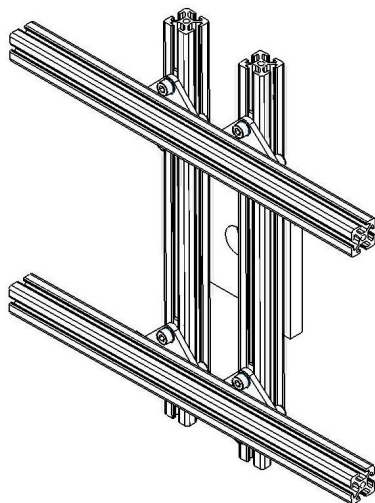
Quick Changer gripper side 90 model Schnellwerkzeugwechsler Greiferseite 90



The article is provided in 3 versions with or without T-nuts channel 5-6-X

Der Artikel wird in 3 Versionen mit oder ohne Nutensteine der Baureihe 5-6-X angeboten

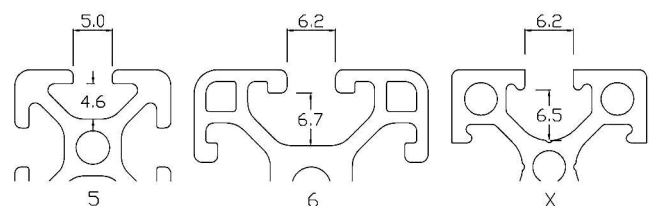
Application Example Anwendungsbeispiel



ARTICLE ARTIKEL	T-NUTS NUTENSTEIN	WEIGH GEWICHT [g]
CA.01.02.008	/	225
CA.01.02.008.5	CHANNEL 5 BAUREIHE 5	
CA.01.02.008.6	CHANNEL 6 BAUREIHE 6	
CA.01.02.008.X	CHANNEL X BAUREIHE X	

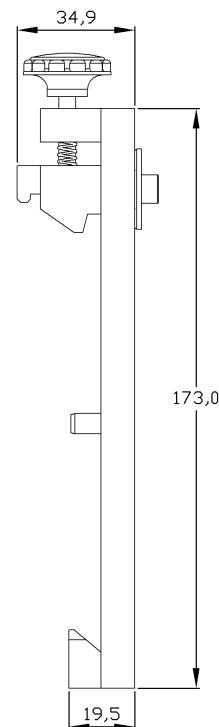
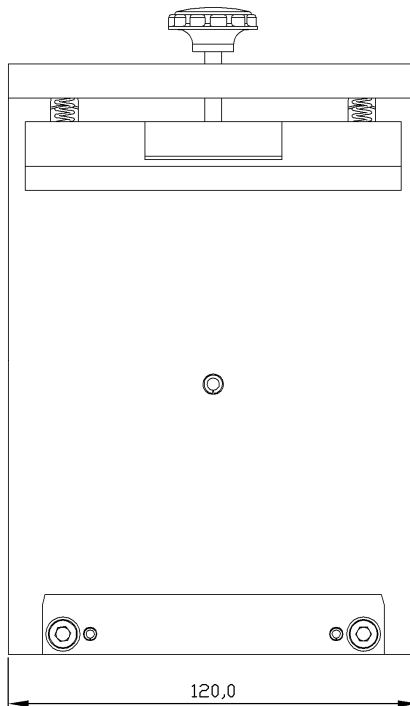
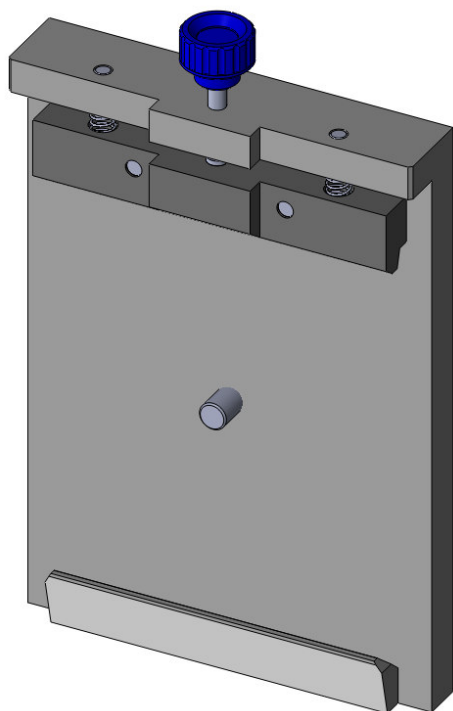
Channel

Baureihe



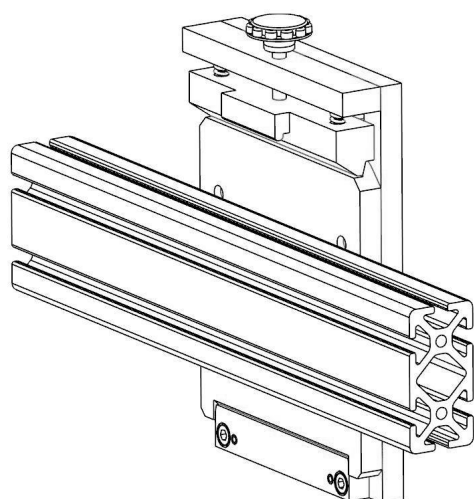
02/2013

Quick Changer robot side 120 model Schnellwerkzeugwechsler Roboterseite 120



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
CA.01.02.003	748

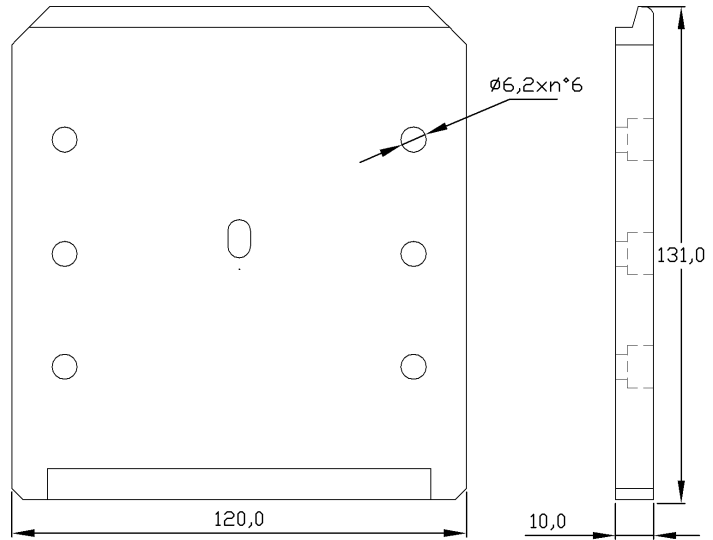
Application Example Anwendungsbeispiel



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Quick Changer gripper side 120 model

Schnellwerkzeugwechsler Greiferseite 120

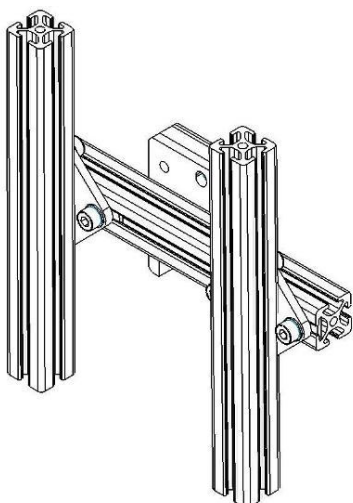


The article is provided in 3 versions with or without T-nuts channel 5-6-X

Der Artikel wird in 3 Versionen mit oder ohne Nutensteine der Baureihe 5-6-X angeboten

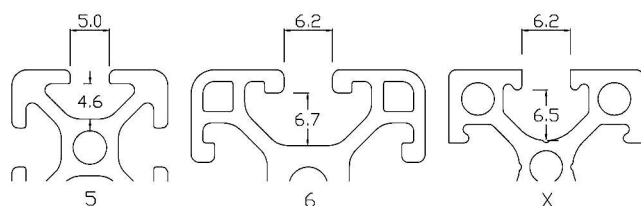
ARTICLE ARTIKEL	T-NUTS NUTENSTEIN	WEIGH GEWICHT [g]
CA.01.02.004	/	380
CA.01.02.004.5	CHANNEL 5 BAUREIHE 5	
CA.01.02.004.6	CHANNEL 6 BAUREIHE 6	
CA.01.02.004.X	CHANNEL X BAUREIHE X	

Application Example Anwendungsbeispiel



Channel

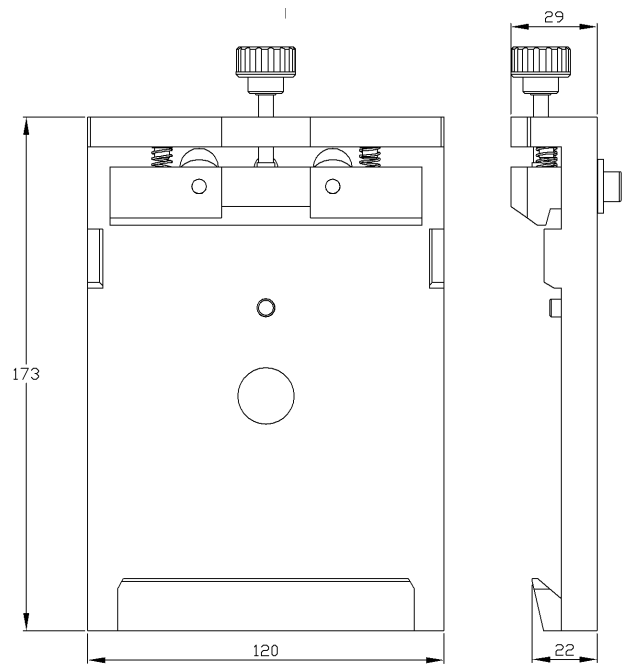
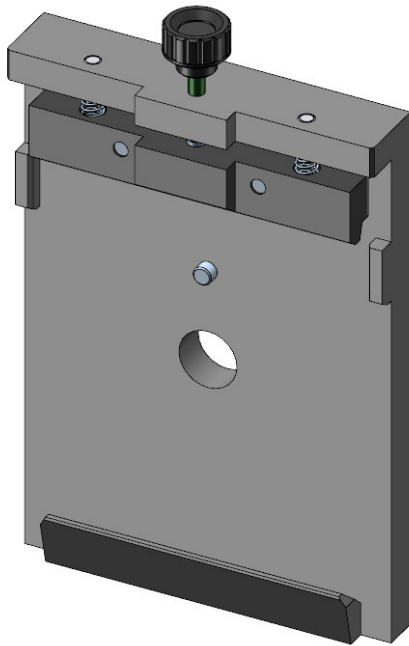
Baureihe



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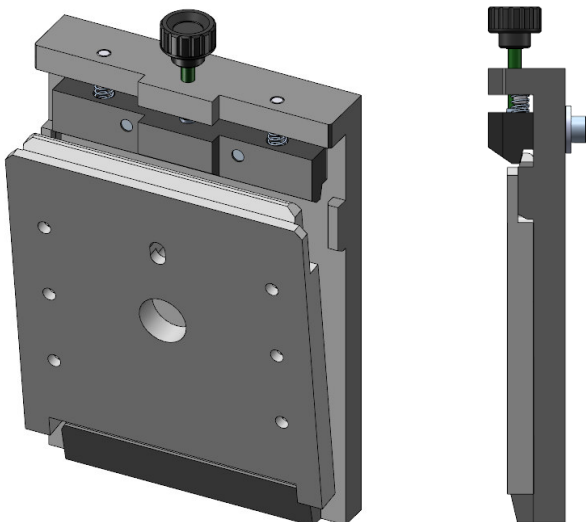
Quick Changer robot side 120 Model

Schnellwerkzeugwechsler Roboterseite 120



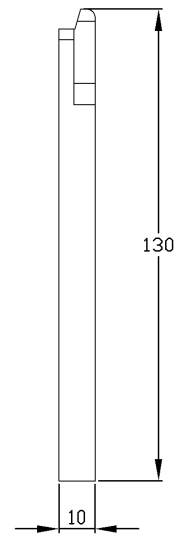
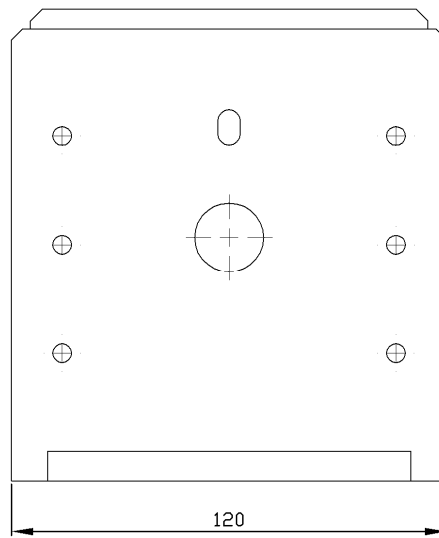
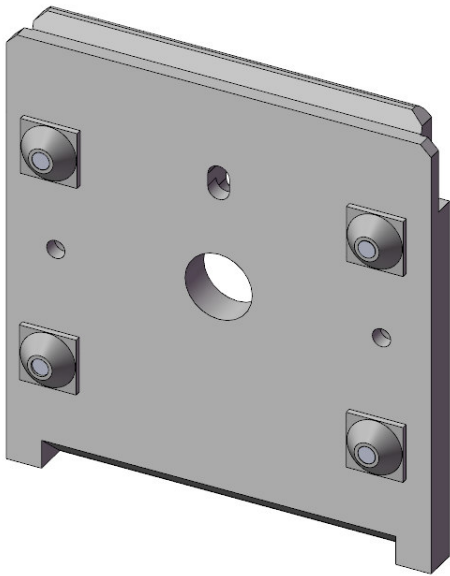
ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
CA.01.02.003B	748

Application Example    Anwendungsbeispiel



02/2013

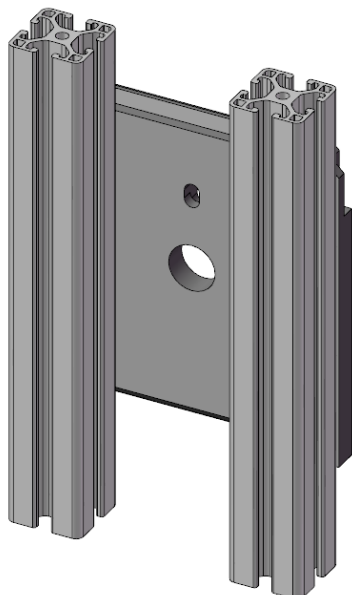
Quick Changer gripper side 120 Model Schnellwerkzeugwechsler Greiferseite 120



The article is provided in 3 versions with or without T-nuts channel 5-6-X

Der Artikel wird in 3 Versionen mit oder ohne Nutensteine der Baureihe 5-6-X angeboten

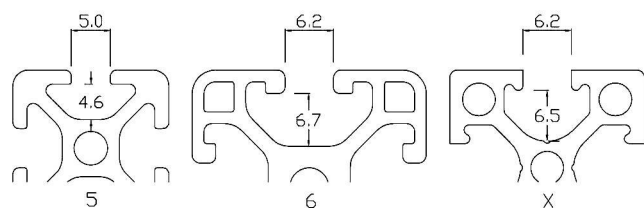
Application Example Anwendungsbeispiel



ARTICLE ARTIKEL	T-NUTS NUTENSTEIN	WEIGH GEWICHT [g]
CA.01.02.004A	/	380
CA.01.02.004A.5	CHANNEL 5 BAUREIHE 5	
CA.01.02.004A.6	CHANNEL 6 BAUREIHE 6	
CA.01.02.004A.X	CHANNEL X BAUREIHE X	

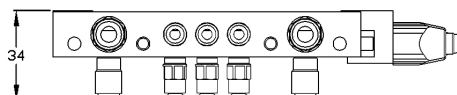
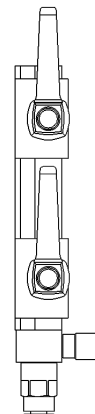
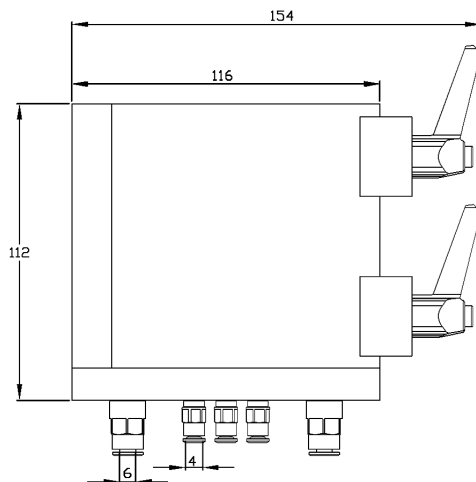
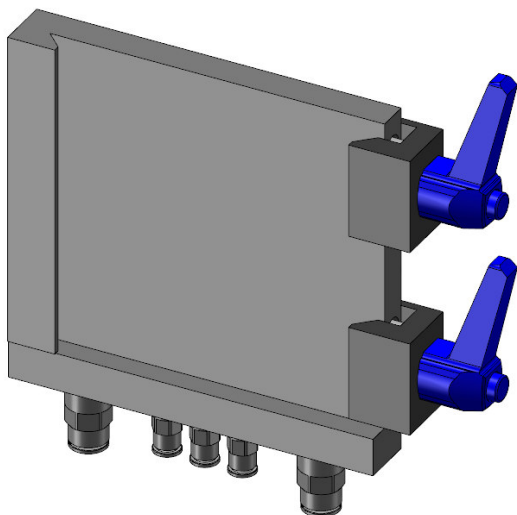
Channel

Baureihe



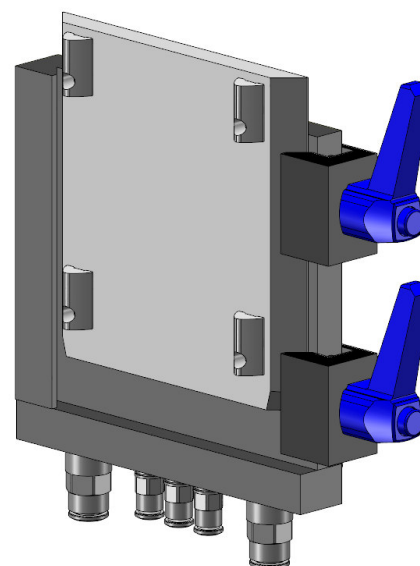
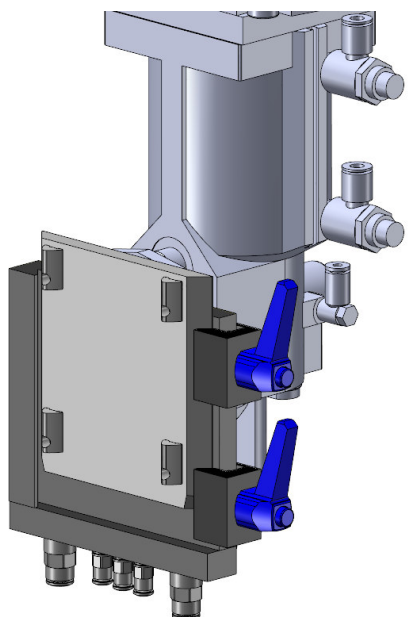
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Quick Changer mounting chuck 100 model SWM Schnellwerkzeugwechselsystem Roboterseite Modell 100



ARTICLE ARTIKEL	MODEL MODELL	WEIGHT GEWICHT [g]
CA.SWM1	100	460
CA.SWM0	60	210

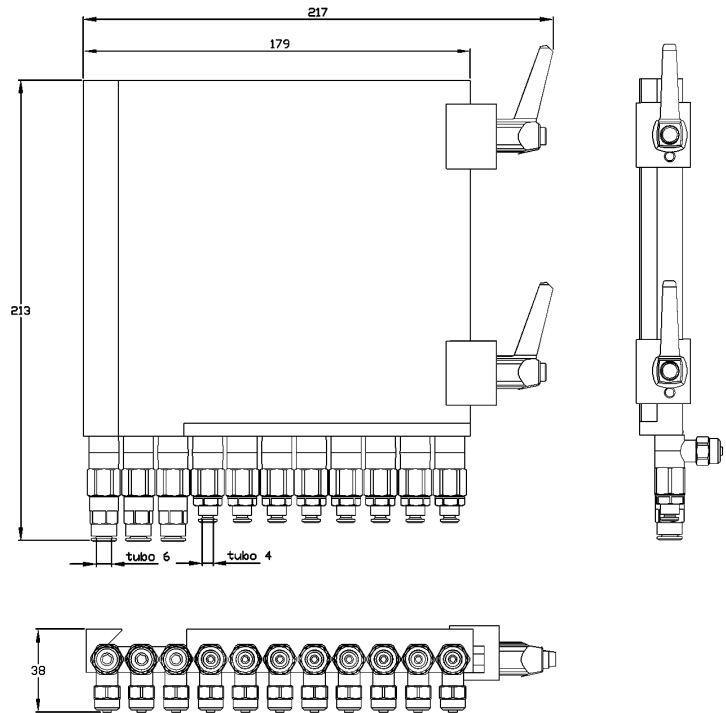
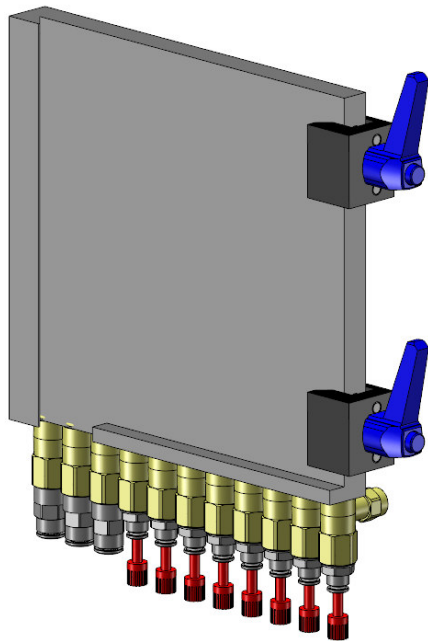
Application Example Anwendungsbeispiel



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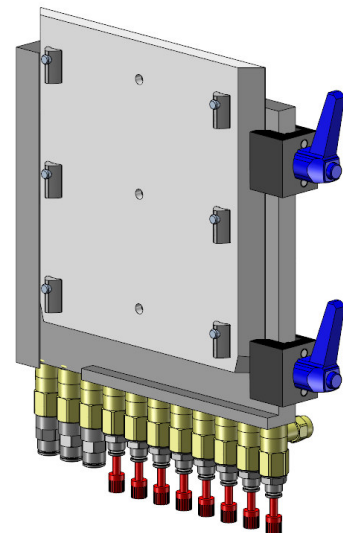
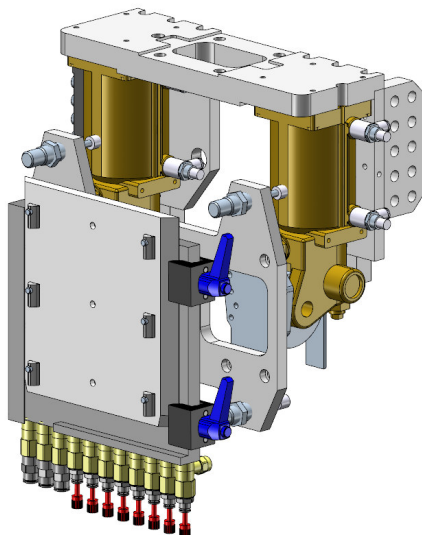


Quick Changer mounting chuck 160 model SWM Schnellwerkzeugwechselsystem Roboterseite Modell 160



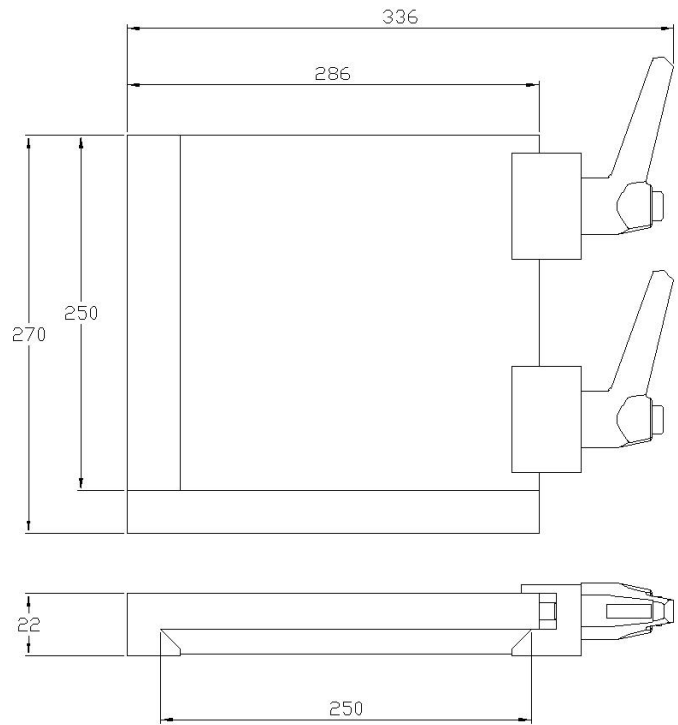
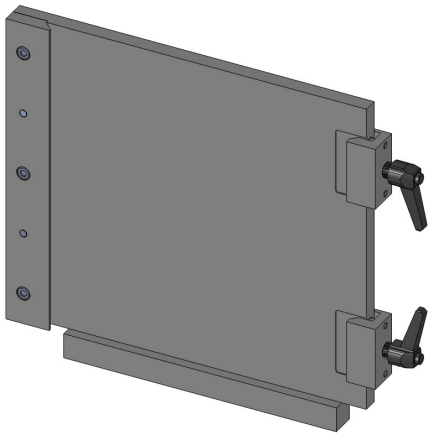
ARTICLE ARTIKEL	MODEL MODELL	WEIGHT GEWICHT [g]
CA.SWM2	160 without Air Connectors 160 ohne Luftanschlüsse	1030
CA.SWM2.7	160 with 7 Air Connectors 160 mit 7 Luftanschlüsse	1050
CA.SWM2.11	160 with 11 Air Connectors 160 mit 11 Luftanschlüsse	1070

Application Example Anwendungsbeispiel



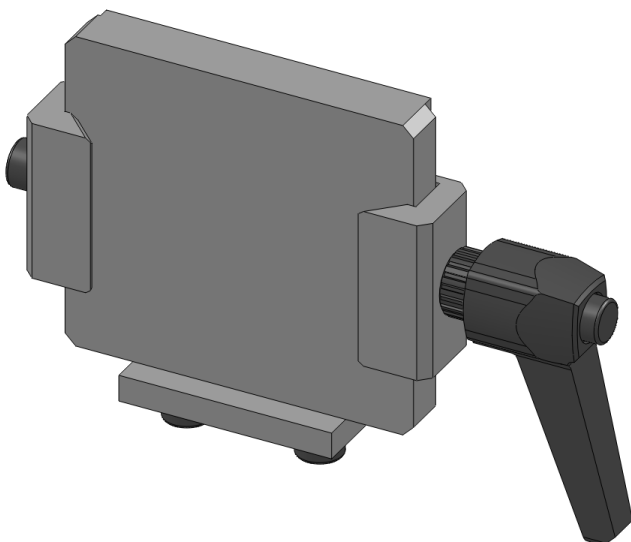
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Quick Changer mounting chuck 250 model SWM Schnellwerkzeugwechselsystem Roboterseite Modell 250



ARTICLE ARTIKEL	MODEL MODELL	WEIGHT GEWICHT [g]
CA.SWM3	250	4020

Quick Changer mounting chuck 60 model SWM Schnellwerkzeugwechselsystem Roboterseite Modell 60



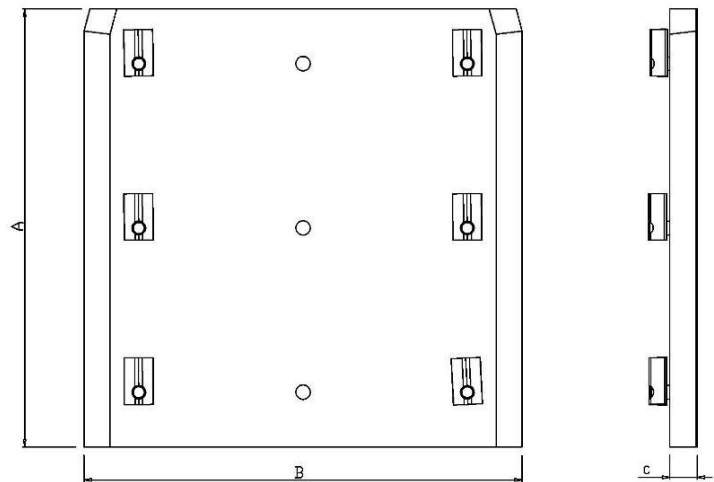
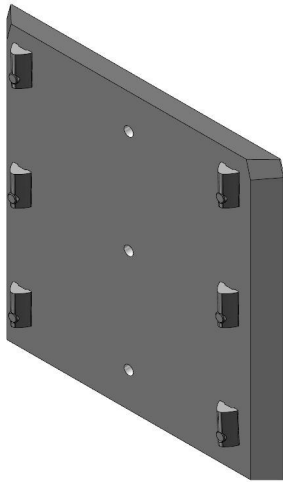
**60x60**

ARTICLE ARTIKEL	MODEL MODELL	WEIGHT GEWICHT [g]
CA.SWM0	60	210

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Quick Changer mounting plate GPM model

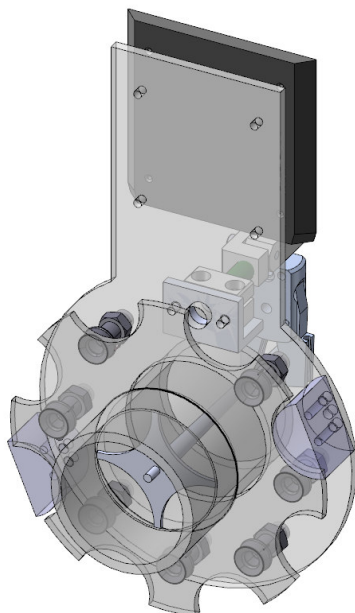
Schnellwerkzeugwechsler Greiferseite Modell GPM



Model-Modell 60 n° 4 T-nuts / Nutenstein  
 Model-Modell 100 n° 4 T-nuts / Nutenstein  
 Model-Modell 160 n° 6 T-nuts / Nutenstein  
 Model-Modell 250 n° 6 T-nuts / Nutenstein

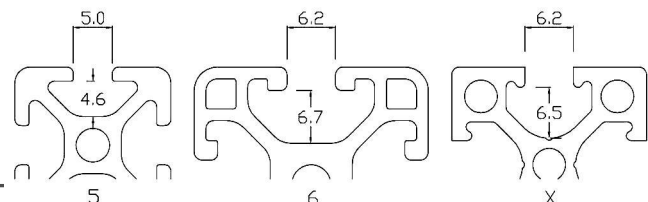
ARTICLE ARTIKEL	MODEL MODELL	T-NUTS NUTENSTEIN	A [mm]	B [mm]	C [mm]	WEIGHT GEWICHT [g]
CA.GPM0	60	/	60	60	8	66
CA.GPM1	100	/	100	100	8	200
CA.GPM2	160	/	160	160	10	600
CA.GPM3	250	/	250	250	10	938
CA.GPM0.5	60	CHANNEL 5	60	60	8	
CA.GPM1.5	100	CHANNEL 5	100	100	8	212
CA.GPM2.5	160	CHANNEL 5	160	160	10	612
CA.GPM3.5	250	CHANNEL 5	250	250	10	950
CA.GPM0.6	60	CHANNEL 6	60	60	8	
CA.GPM1.6	100	CHANNEL 6	100	100	8	220
CA.GPM2.6	160	CHANNEL 6	160	160	10	620
CA.GPM3.6	250	CHANNEL 6	250	250	10	958
CA.GPM0.X	60	CHANNEL X	60	60	8	80
CA.GPM1.X	100	CHANNEL X	100	100	8	220
CA.GPM2.X	160	CHANNEL X	160	160	10	620
CA.GPM3.X	250	CHANNEL X	250	250	10	958

Application Example  
Anwendungsbeispiel



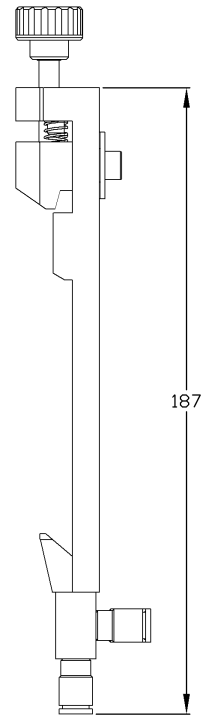
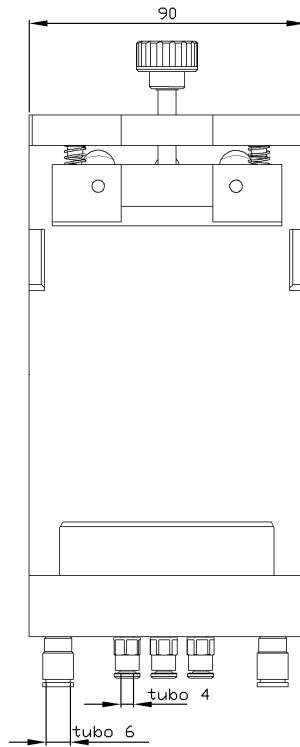
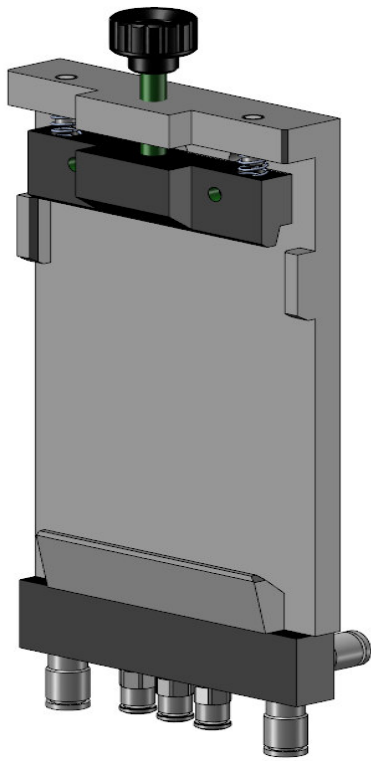
Channel

Baureihe



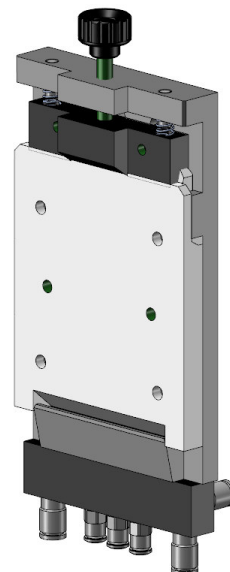
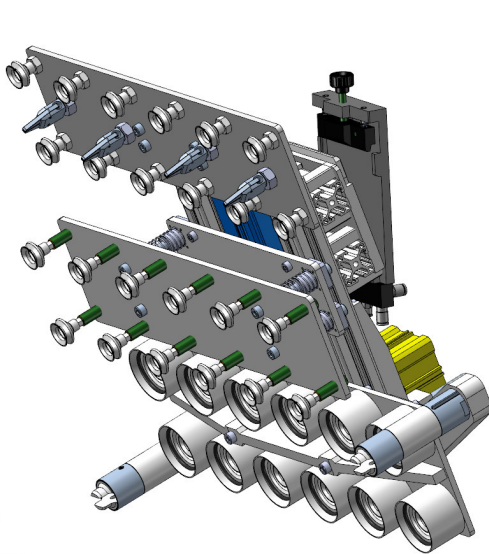
02/2013

Quick Changer robot side pneumatic model 90 Schnellwerkzeugwechsler mit Schnellkupplung Modell 90

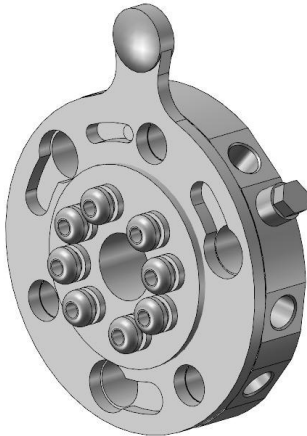


ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
CA.01.02.009	430

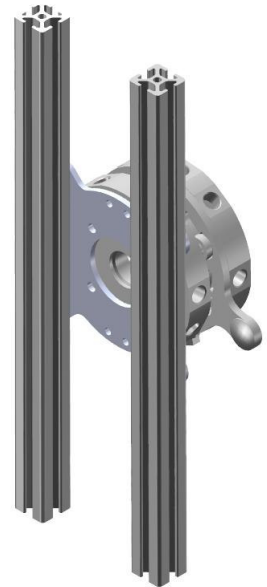
Application Example Anwendungsbeispiel



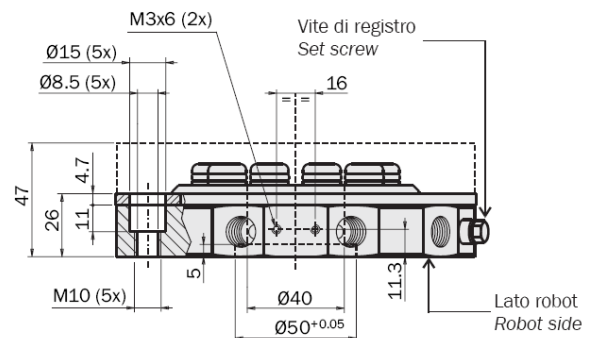
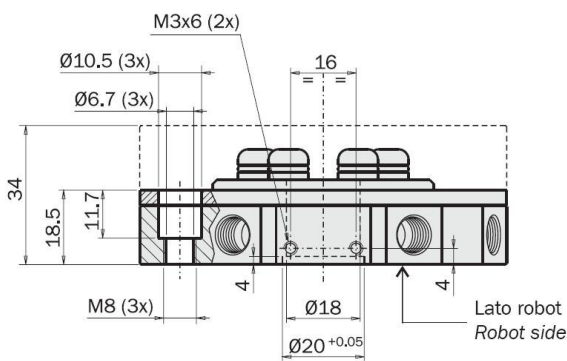
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Application Example    Anwendungsbeispiel

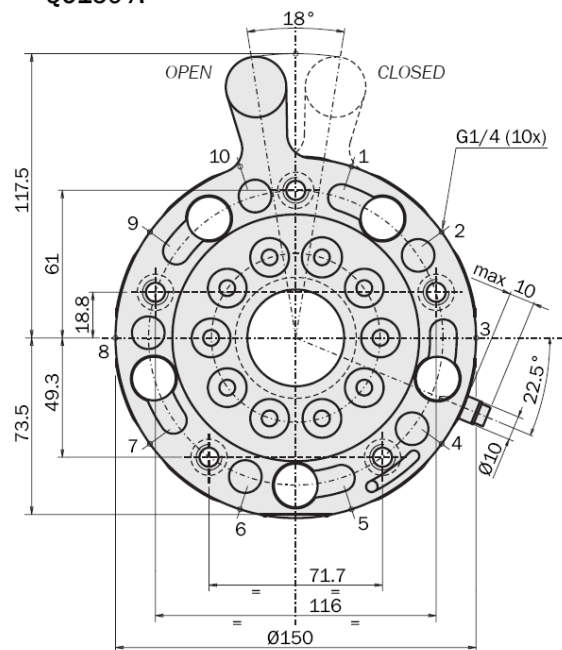
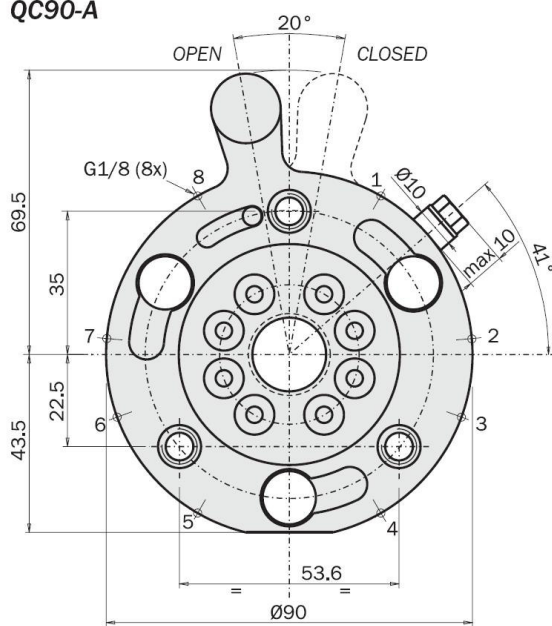


ARTICLE ARTIKEL	MODEL MODELL	WEIGHT GEWICHT [g]
CA.01.01.001	90 A	318
CA.01.01.003	150 A	1123

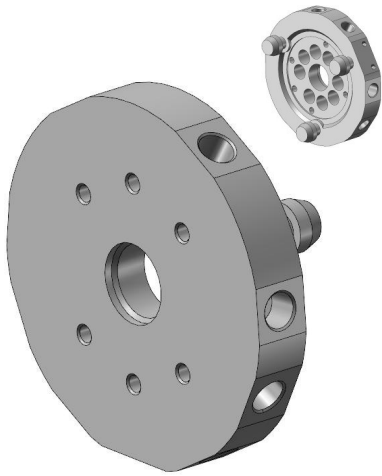


QC90-A

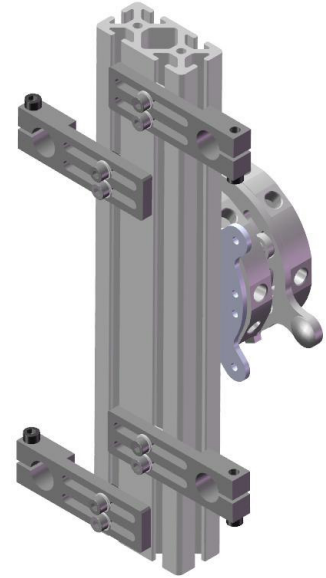
QC150-A



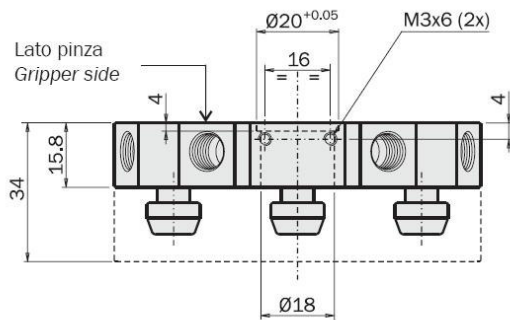
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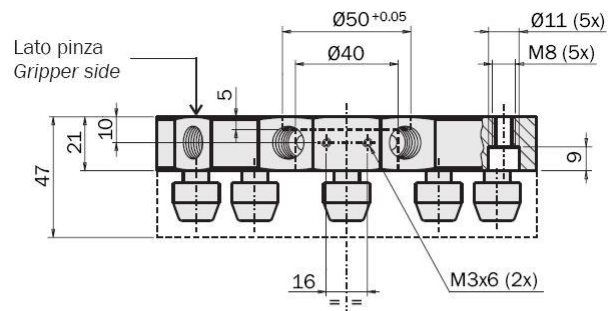
Application Example Anwendungsbeispiel



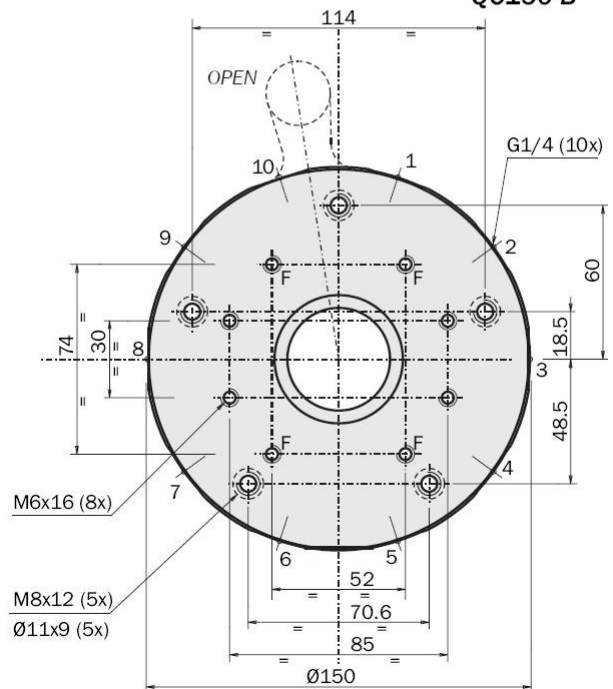
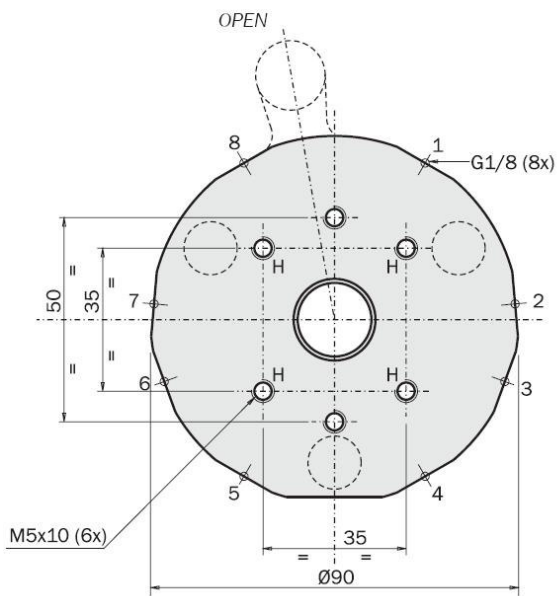
ARTICLE ARTIKEL	MODEL MODELL	WEIGHT GEWICHT [g]
CA.01.01.002	90 B	227
CA.01.01.004	150 B	827



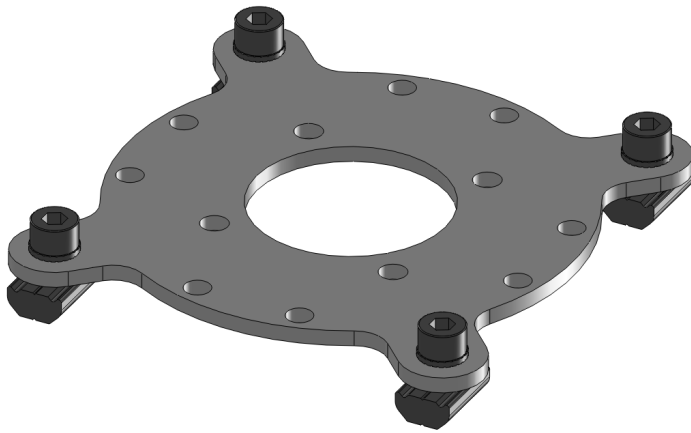
QC90-B



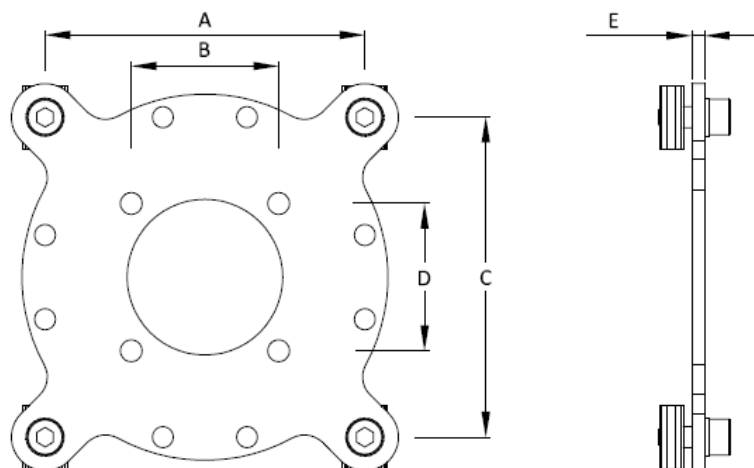
QC150-B



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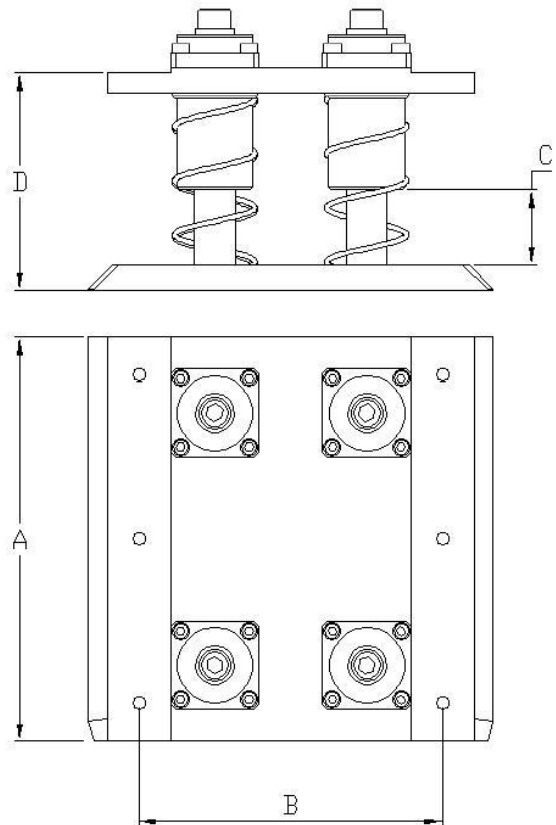
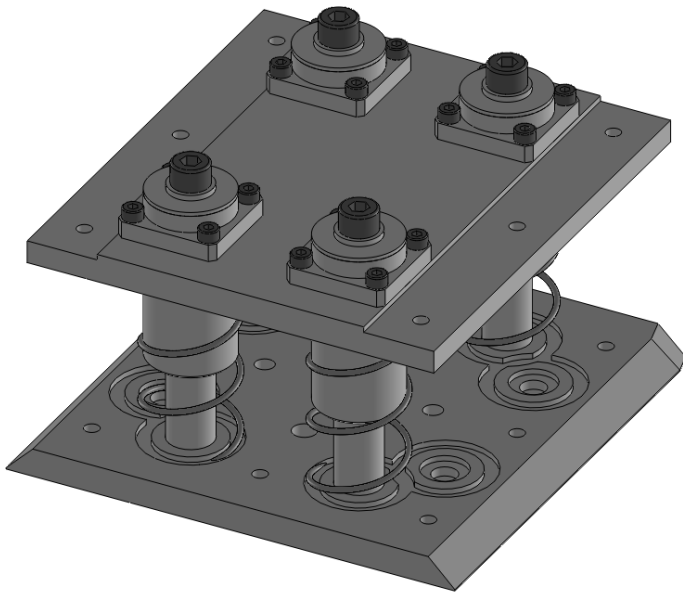
ARTICLE ARTIKEL	MODEL MODELL	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	WEIGHT GEWICHT [g]
CA.01.01.006	90	76	35	76	35	3	160
CA.01.01.007	150 B	130	52	130	52	4	490



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Ground Plate spring loaded

Greifergrundplatte gefedert

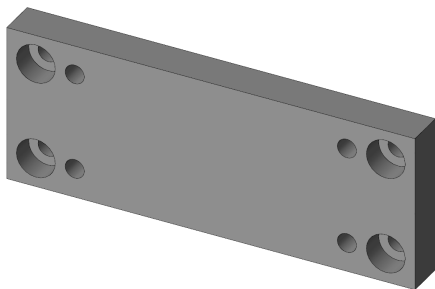


ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	D [mm]	WEIGH GEWICHT [g]
CA.GPG.1	100	70	20	51	560
CA.GPG.2	160	120	30	88	2250
CA.GPG.3	250	200	30	88	3765

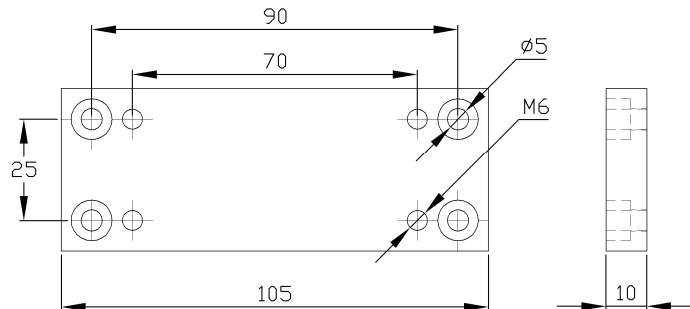
02/2013



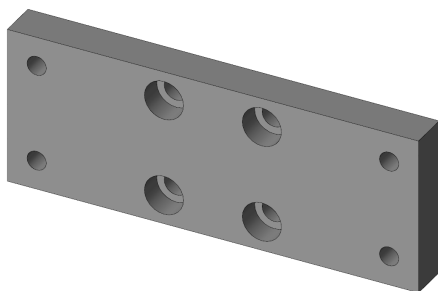
Adapter DALMASCHIO Robot - CA.01.02.009/007      Adapter Robot DALMASCHIO - CA.01.02.009/007



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
CA.01.04.003	80



Adapter DALMASCHIO Quick Changer gripper side-CA.01.02.008      Adapter Schnellwerkzeugwechsler Greifenseite DALMASCHIO-CA.01.02.008



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
CA.01.04.004	80

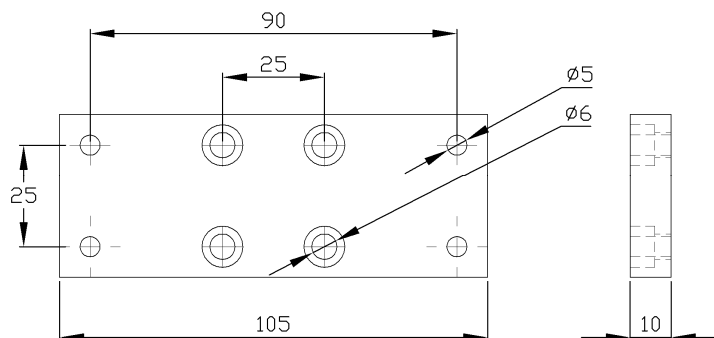
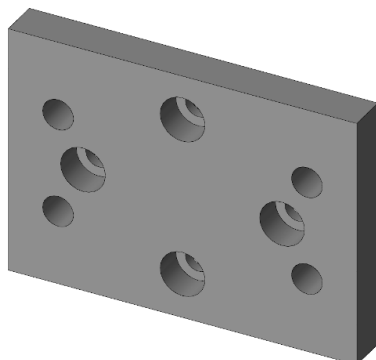
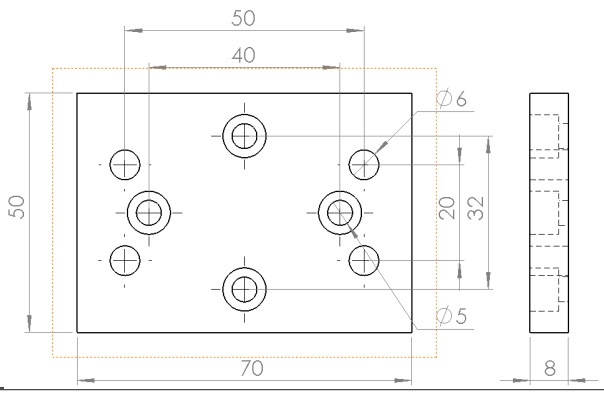


Plate Gripper side for STAR Robot      Greifergrundplatte STAR Robot



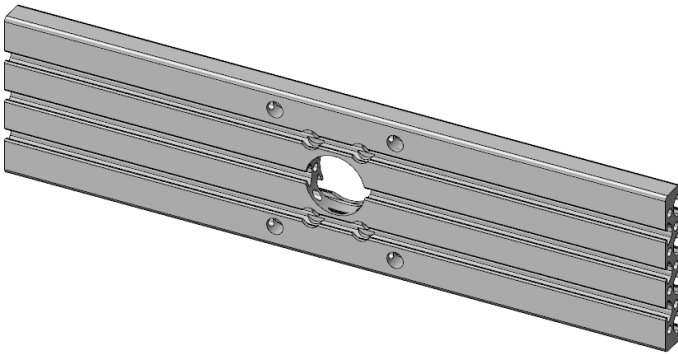
ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
CA.01.09.001	65



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Plate gripper side for SYTRAMA Robot

Greifergrundplatte SYTRAMA Robot



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
CA.01.12.001	590

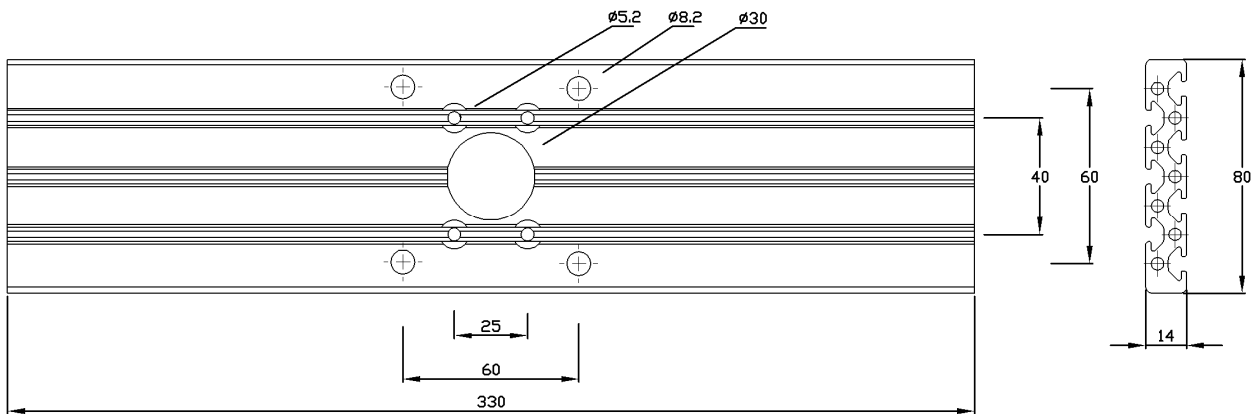
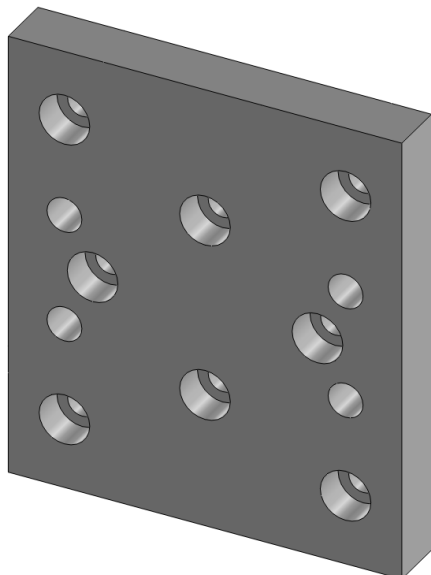
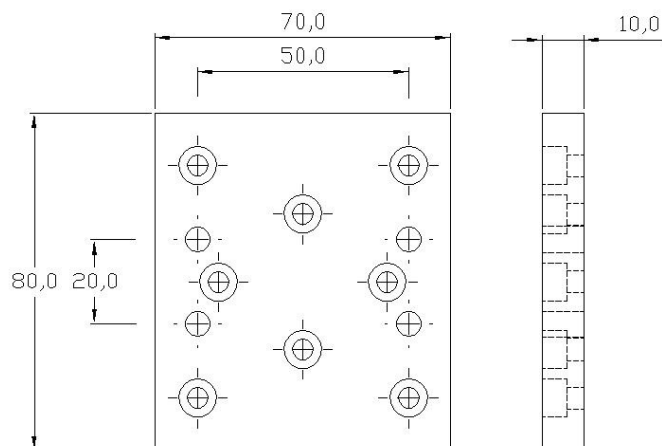


Plate gripper side for STAR Robot

Greifergrundplatte STAR Robot



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
CA.01.09.002	75

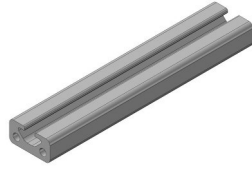
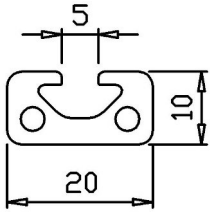


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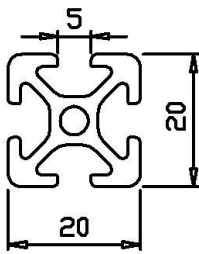


Usability T-nuts A and B

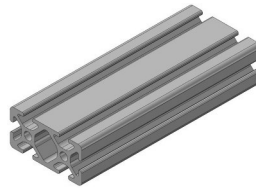
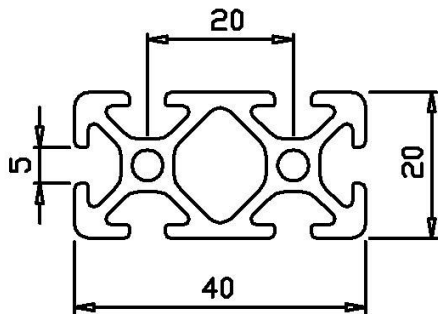
Passend für Nutensteine A und B



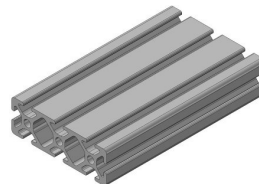
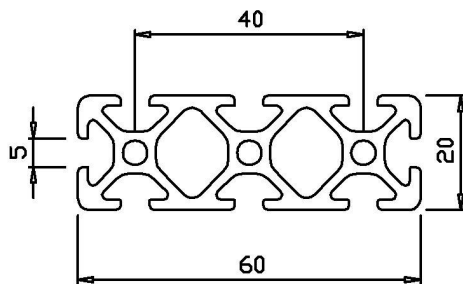
ARTICLE ARTIKEL	MODEL MODELL	LENGTH LÄNGE [mm]	WEIGHT GEWICHT [g]
CA.02.01.009	20X10	1000	350



ARTICLE ARTIKEL	MODEL MODELL	LENGTH LÄNGE [mm]	WEIGHT GEWICHT [g]
CA.02.01.001	20X20	1000	480



ARTICLE ARTIKEL	MODEL MODELL	LENGTH LÄNGE [mm]	WEIGHT GEWICHT [g]
CA.02.01.002	40X20	1000	890

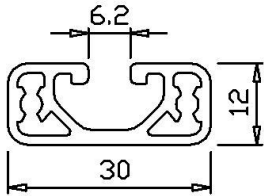


ARTICLE ARTIKEL	MODEL MODELL	LENGTH LÄNGE [mm]	WEIGHT GEWICHT [g]
CA.02.01.005	60X20	1000	1280

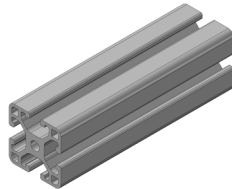
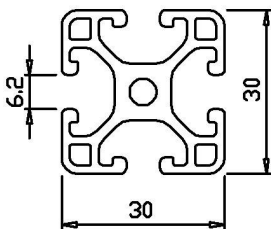
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Usability T-nuts A and B

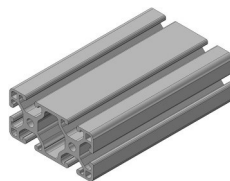
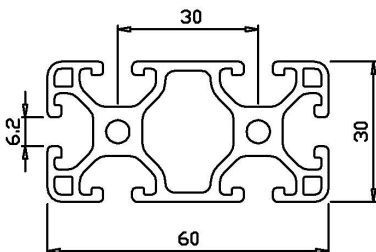
Passend für Nutensteine A und B



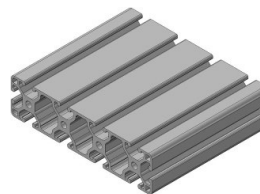
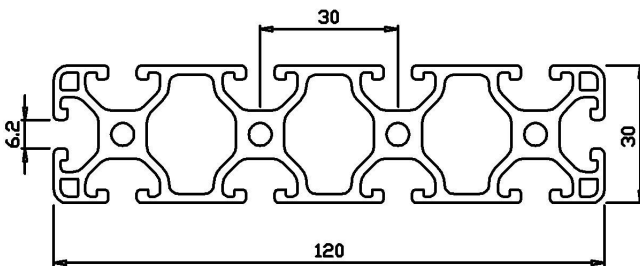
ARTICLE ARTIKEL	MODEL MODELL	LENGTH LÄNGE [mm]	WEIGHT GEWICHT [g]
CA.02.01.010	30X12	1000	430



ARTICLE ARTIKEL	MODEL MODELL	LENGTH LÄNGE [mm]	WEIGHT GEWICHT [g]
CA.02.01.003	30X30	1000	930



ARTICLE ARTIKEL	MODEL MODELL	LENGTH LÄNGE [mm]	WEIGHT GEWICHT [g]
CA.02.01.004	60X30	1000	1650

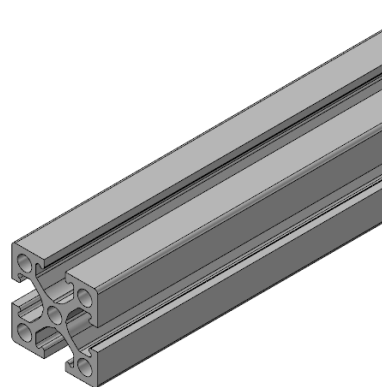
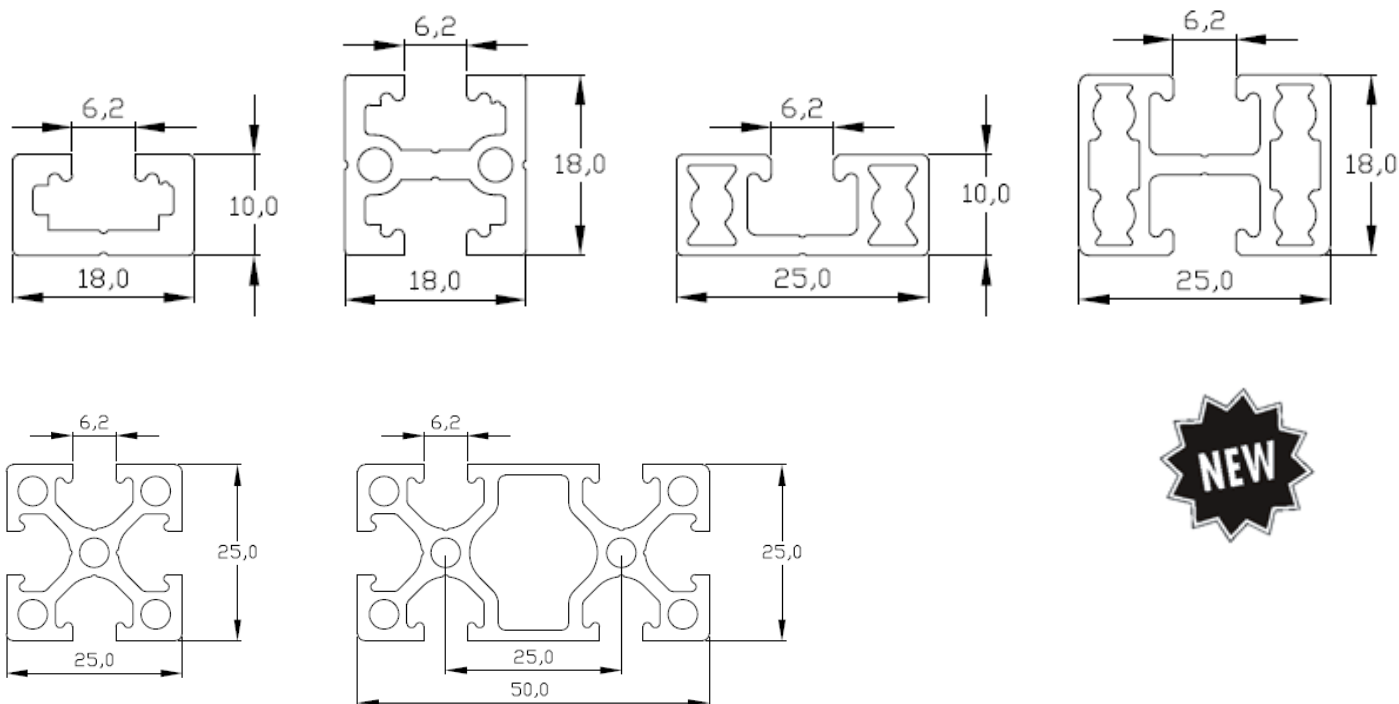


ARTICLE ARTIKEL	MODEL MODELL	LENGTH LÄNGE [mm]	WEIGHT GEWICHT [g]
CA.02.01.007	120X30	1000	3110

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Usability T-nuts A and X

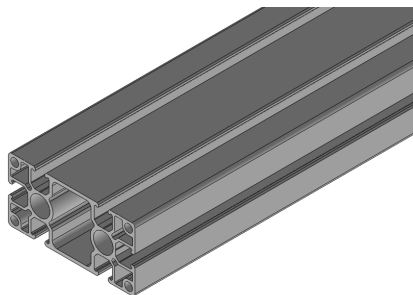
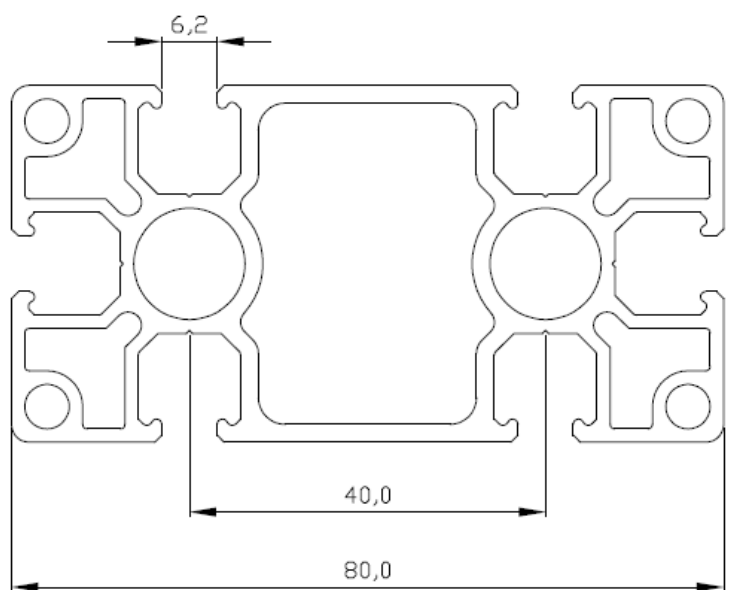
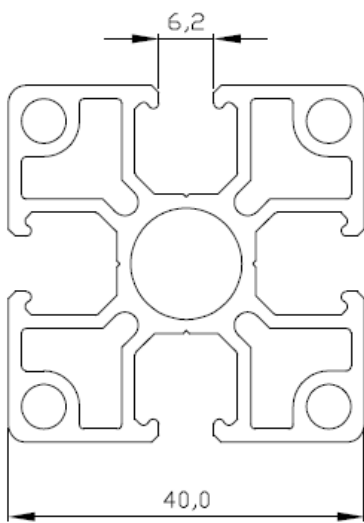
Passend für Nutensteine A und B



ARTICLE ARTIKEL	MODEL MODELL	LENGTH LÄNGE [mm]	WEIGHT GEWICHT [g]
CA.L.1810.1000	18X10	1000	242
CA.L.1810.2000	18X10	2000	484
CA.L.1818.1000	18X18	1000	390
CA.L.1818.2000	18X18	2000	780
CA.X.2510.1000	25X10	1000	290
CA.X.2510.2000	25X10	2000	580
CA.X.2518.1000	25X18	1000	400
CA.X.2518.2000	25X18	2000	800
CA.X.2525.1000	25X25	1000	628
CA.X.2525.2000	25X25	2000	1256
CA.X.2525.4000	25X25	4000	2512
CA.X.5025.1000	50X25	1000	1050
CA.X.5025.2000	50X25	2000	2100
CA.X.5025.4000	50X25	4000	4200

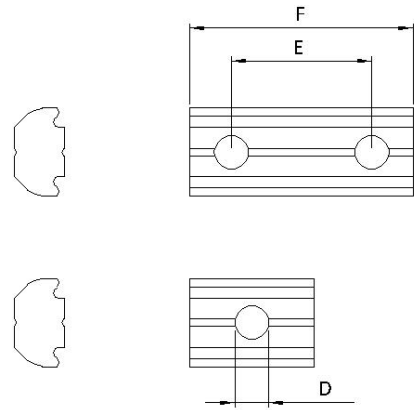
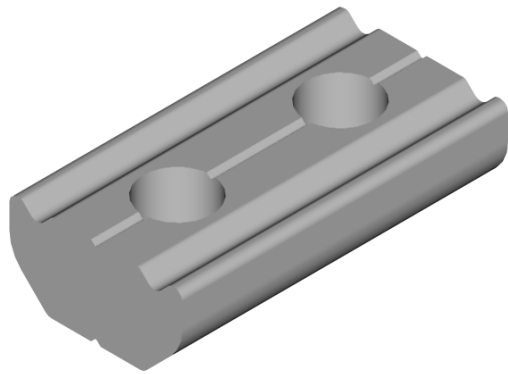
Usability T-nuts X

Passend für Nutensteine X



ARTICLE ARTIKEL	MODEL MODELL	LENGTH LÄNGE [mm]	WEIGHT GEWICHT [g]
CA.JU.4040.1000	40X40	1000	1236
CA.JU.4040.2000	40X40	2000	2472
CA.JU.8040.1000	80X40	1000	2050
CA.JU.8040.2000	80X40	2000	4100

T-Nut - X Profile Nutenstein - X Profil



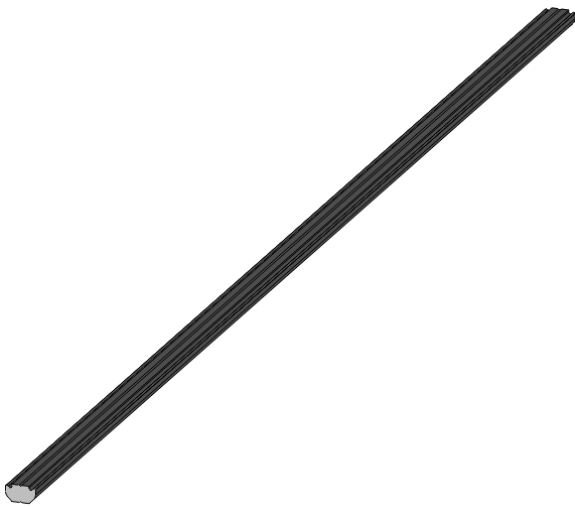
ARTICLE ARTIKEL	D	E [mm]	F [mm]	WEIGHT GEWICHT [g]
CA.GWP.4U	M4	/	/	6
CA.GWP.5U	M5	/	/	
CA.GWP.6U	M6	/	/	5
<b>new</b> → CA.GWP.4.8	M4	8	16	6
<b>new</b> → CA.GWP.4.9	M4	9	19	7
CA.GWP.4.16	M4	16	24	9
CA.GWP.4.17	M4	17		10
CA.GWP.4.25	M4	25	32	13
CA.GWP.5.10	M5	10	18	6
CA.GWP.5.11	M5	11	19	6
<b>new</b> → CA.GWP.5.12	M5	12	20	7
CA.GWP.5.15	M5	15	25	9
CA.GWP.5.17	M5	17	25	8
<b>new</b> → CA.GWP.5.20	M5	20	30	11
CA.GWP.5.22	M5	22	30	
CA.GWP.5.25	M5	25	28	13
CA.GWP.5.25.3	M5	25X2	58	23
<b>new</b> → CA.GWP.5.28	M5	28	38	
CA.GWP.5.35	M5	35	43	17
CA.GWP.5.38	M5	38	46	18

ARTICLE ARTIKEL	D	E [mm]	F [mm]	WEIGHT GEWICHT [g]
CA.GWP.5.40	M5	40	48	18
CA.GWP.5.50	M5	50	58	23
CA.GWP.5.52	M5	52	60	24
CA.GWP.5.60	M5	60	68	27
<b>new</b> → CA.GWP.6.12	M6	12	24	8
CA.GWP.6.20	M6	20	32	
CA.GWP.6.22	M6	22	32	11
CA.GWP.6.25	M6	25		
<b>new</b> → CA.GWP.6.28	M6	28	40	14
CA.GWP.6.35	M6	35	45	17
<b>new</b> → CA.GWP.6.50	M6	50	60	23
<b>new</b> → CA.GWP.6.52	M6	52	64	24
CA.GWP.6.90	M6	90	100	39

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T-Nut - X Profile Nutenstein - X Profil

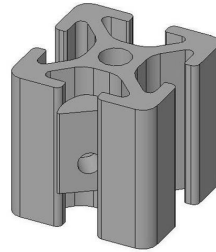
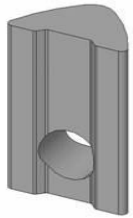


ARTICLE ARTIKEL	F [mm]	WEIGHT GEWICHT [g]
CA.GWP.500	500	
CA.GWP.1000	1000	
CA.GWP.4000	4000	

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Single T-nut for aluminium profile Nutenstein für Aluminium Profil

MOD. A

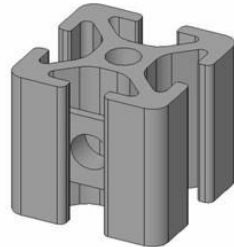


ARTICLE ARTIKEL	CHANNEL BAUREIHE	HOLE GEWINDE	MOD	WEIGHT GEWICHT [g]
CA.02.05.001	5	M3	A	2.0
CA.02.05.002	5	M4	A	2.0
CA.02.05.003	5	M5	A	2.0
CA.02.05.004	6	M4	A	4.0
CA.02.05.005	6	M5	A	4.0
CA.02.05.006	6	M6	A	4.0

Model A has the possibility of insertion alongside the channel on profiles channel 5 and 6.  
On profiles channel X the insertion is possible only at the end of the channel.

Modell A kann man bei Profilen der Baureihe 5 und 6 von oben in die Nut einschwenken.  
Bei Profilen der Baureihe X ist das Einfügen nur am Ende der Nut möglich.

MOD. B and X



ARTICLE ARTIKEL	CHANNEL BAUREIHE	HOLE GEWINDE	MOD	WEIGHT GEWICHT [g]
CA.02.05.007	5	M5	B	2.0
CA.02.05.008	6	M5	B	4.0
CA.02.05.009	6	M6	B	4.0
CA.02.05.010	X	M5	X	4.0
CA.02.05.011	X	M4	X	4.0

MOD. B und X

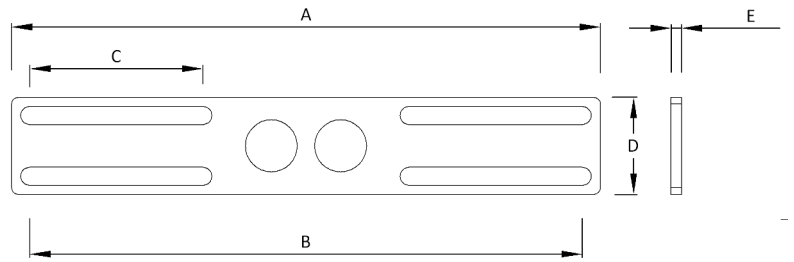
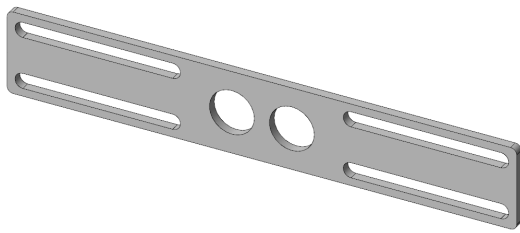
Model B has the possibility of insertion only at the end of the channel .

Modell B kann nur am Ende der Nut eingefügt werden.

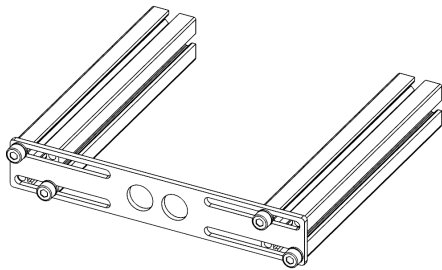
Flat Straight Connector EPL Endplatte

Complete Screw Kit

Mit Schraubensatz

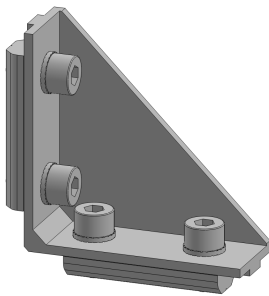
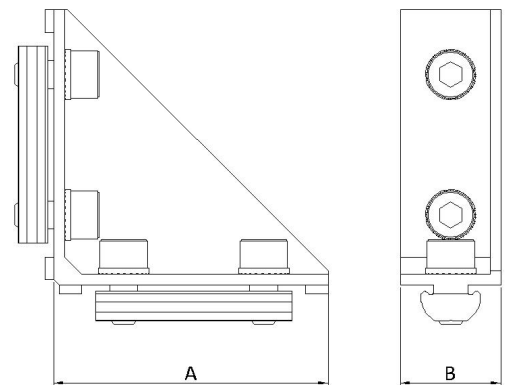
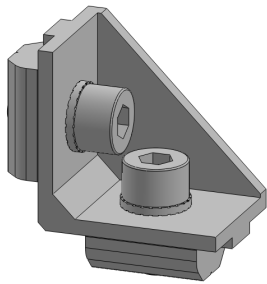


Application Example  
Anwendungsbeispiel



ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	PROFILE PROFIL	WEIGHT GEWICHT [g]
CA.EPL.25.170	170	159	50	28	2	25X25	48
CA.EPL.25.220	220	209	50	28	2	25X25	60
CA.EPL.25.270	270	259	60	28	2	25X25	69
CA.EPL.25.320	320	309	75	28	2	25X25	85
CA.EPL.50.25.170	170	159	50	53	2	50X25	100
CA.EPL.50.25.220	220	209	50	53	2	50X25	130
CA.EPL.50.25.270	270	259	50	53	2	50X25	162
CA.EPL.50.25.320	320	309	50	53	2	50X25	192

Angle bracket for Profile channel X Profilendkappen für Profil Baureihe X



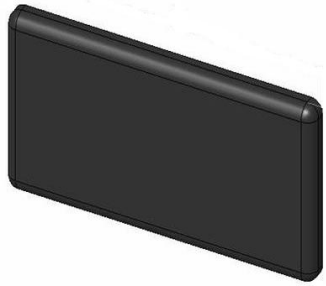
ARTICLE ARTIKEL	A	B	WEIGHT GEWICHT [g]
CA.WIV.X.25	25	18	33
CA.WIV.X.50	49	18	82
CA.WIV.JU.40	40	40	120
CA.WIV.JU.80	80	40	370

06/2013 **new** **new**

02/2013

Plug for Profile channel 5 and 6

Profilendkappen für Profil Baureihe 5 und 6



ARTICLE ARTIKEL	PROFILE PROFIL	WEIGHT GEWICHT [g]
CA.02.03.001	20X20	1.2
CA.02.03.002	40X20	5.0
CA.02.03.003	30X30	2.6
CA.02.03.004	60X30	5.2
CA.02.03.005	60X20	3.3
CA.02.03.007	120X30	7.0
CA.02.03.009	20X10	1.0
CA.02.03.010	30X12	1.3

Plug for Profile channel X

Profilendkappen für Profil Baureihe X



**12/2013**

**new** →

**new** →

**new** →

**new** →

**06/2013**

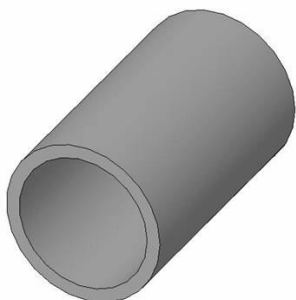
**new** →

**new** →

ARTICLE ARTIKEL	KIT PCS/STÜCK	PROFILE PROFIL	WEIGHT GEWICHT [g]
CA.ADK.L.1810	10	18X10	0.9
CA.ADK.L.1818	10	18X18	1.5
CA.ADK.X.2510	10	25X10	1.0
CA.ADK.X.2518	10	25X18	2.0
CA.ADK.X.2525	10	25X25	1.5
CA.ADK.X.5025	10	50X25	3.0
CA.ADK.JU.4040	10	40X40	3.8
CA.ADK.JU.8040	10	80X40	8.0

02/2013

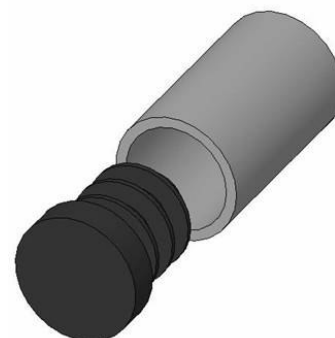
Steel Tube Stahl - Rohr



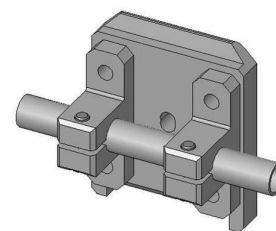
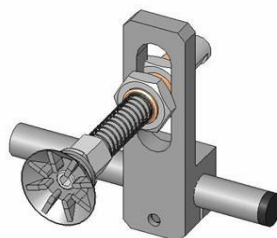
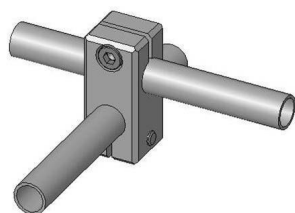
ARTICLE ARTIKEL	DIAMETER DURCHMESSER [mm]	LENGTH LÄNGE [mm]	THICKNESS STÄRKE [mm]	WEIGHT GEWICHT [g]
CA.02.02.001	Ø12	1000	1	275
CA.02.02.002	Ø16	1000	1	376
CA.02.02.003	Ø20	1000	1.5	695

Plug for Steel Tube Rohrendkappen

ARTICLE ARTIKEL	D. TUBE D. ROHR [mm]	WEIGHT GEWICHT [g]
CA.02.04.001	Ø12	1.0
CA.02.04.002	Ø16	1.2
CA.02.04.003	Ø20	1.8

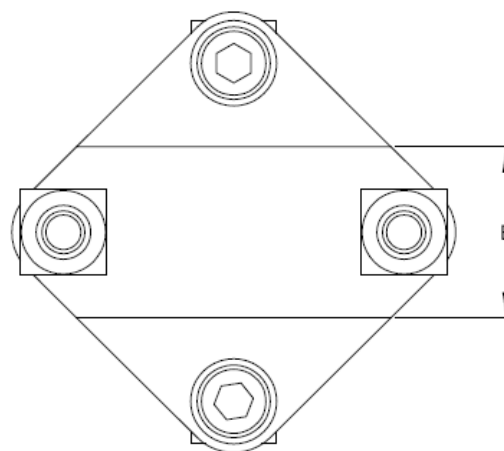
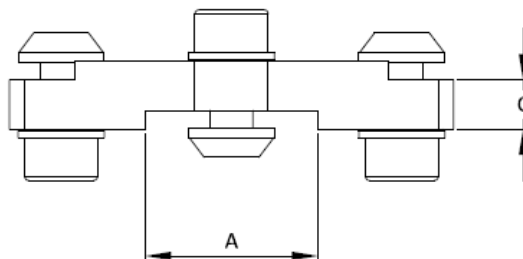
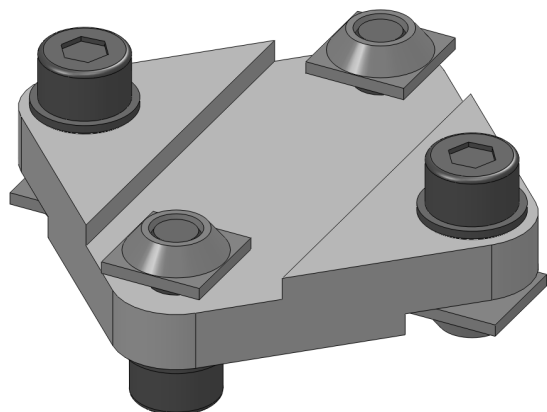


Application Example Anwendungsbeispiel



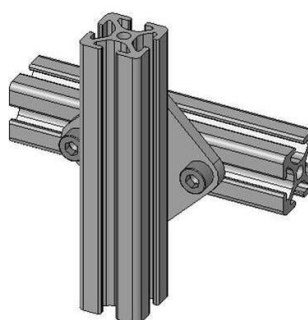
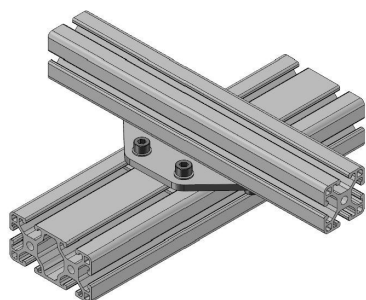
02/2013

Cross Joint Connector for Profile channel 5 and 6 Kreuzplatte für Profil Baureihe 5 und 6



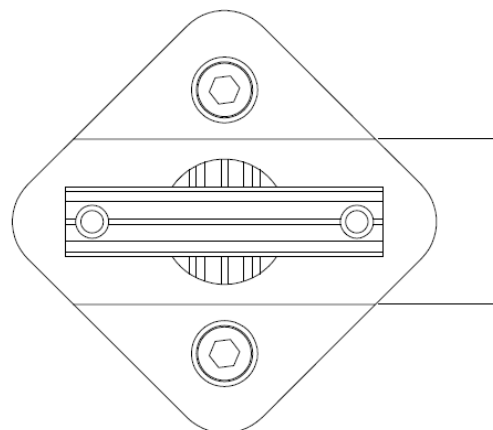
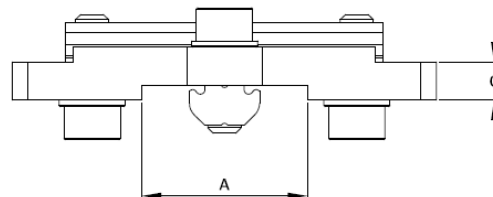
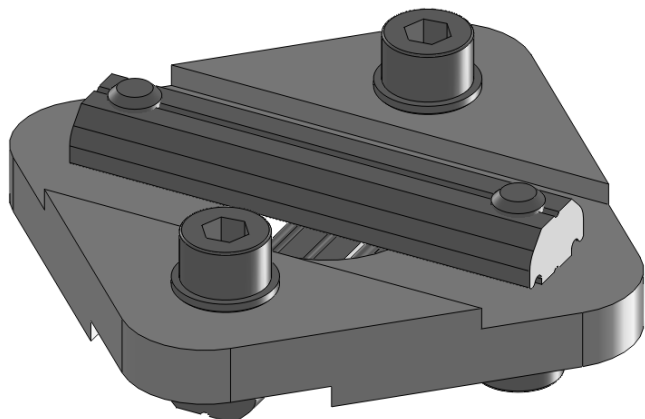
ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	Channel Baureihe	WEIGHT GEWICHT [g]
CA.03.01.001	20	20	6	5	34
CA.03.01.002	20	30	6	5-6	65
CA.03.01.003	30	30	6	6	63
CA.03.01.004	40	20	6	5	70
CA.03.01.005	60	30	6	6	148
CA.03.01.006	60	60	6	6	160
CA.03.01.006.5	60	60	6	5	160
CA.03.01.007	60	20	6	5	80

Application Example Anwendungsbeispiel



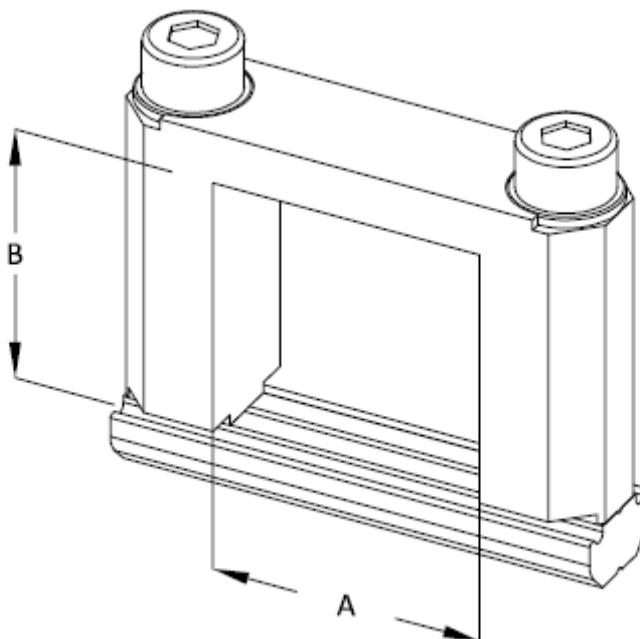
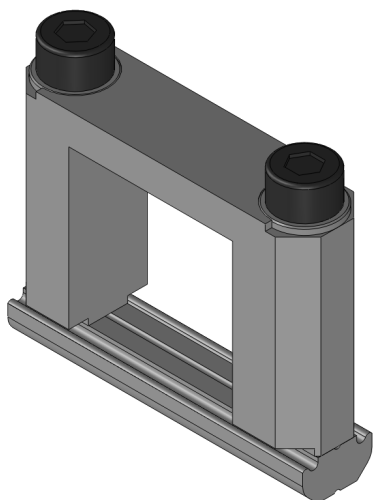
02/2013

Cross Joint Connector for Profile channel X Kreuzplatte für Profil Baureihe X



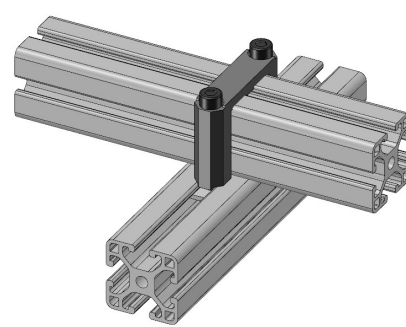
	ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	WEIGHT GEWICHT [g]
<b>new</b> →	CA.KPLL.1818	18	18	4	40
<b>new</b> →	CA.KPLX.2518	25	18	4	40
	CA.KPLX.2525	25	25	6	74
	CA.KPLX.5025	50	25	6	79
	CA.KPLX.5050	50	50	6	108
	CA.KPLJU.4040	40	40	6	103
<b>new</b> →	CA.KPLJU.4025	40	25	6	98
<b>new</b> →	CA.KPLJU.8040	80	40	6	190
<b>new</b> →	CA.KPLJU.8080	80	80	6	300

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	ARTICLE ARTIKEL	A [mm]	B [mm]	WEIGHT GEWICHT [g]
<b>new</b> →	CA.KBVL.1810	18	10	23
<b>new</b> →	CA.KBVL.1818	18	18	27
<b>new</b> →	CA.KBVX.2510	25	10	34
<b>new</b> →	CA.KBVX.2518	25	18	42
	CA.KBVX.2525	25	25	34
<b>new</b> →	CA.KBVX.2550	25	50	75
	CA.KBVX.5025	50	25	65
	CA.03.14.20	20	20	25
	CA.03.14.30	30	30	40
	CA.03.14.40.6	40	40	85
	CA.03.14.40.X	40	40	93
	CA.KBVJU.4040	40	40	93
<b>new</b> →	CA.KBVJU.4080	40	80	130
<b>new</b> →	CA.KBVJU.8040	80	40	105

Application Example Anwendungsbeispiel

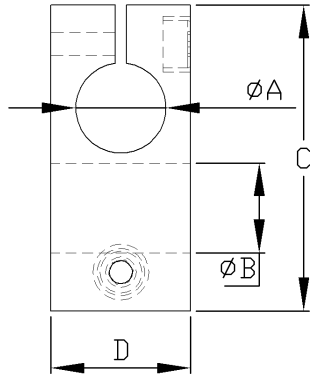
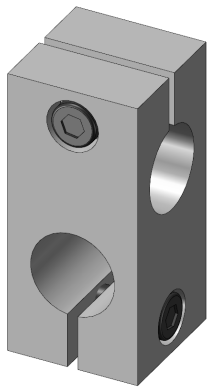


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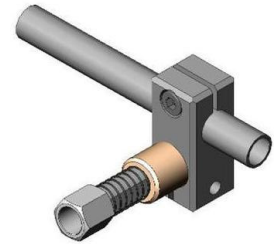
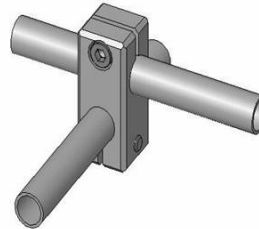
Cross Connector

Kreuzplatte



Application Example

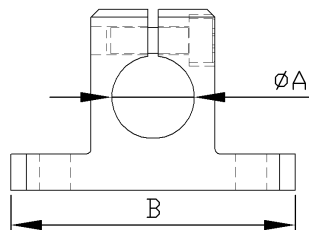
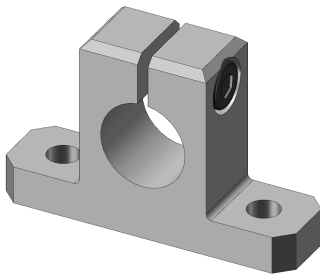
Anwendungsbeispiel



ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	D [mm]	WEIGHT GEWICHT [g]
CA.03.03.001	Ø16	Ø16	45	25	30
CA.03.03.002	Ø12	Ø16	45	25	35
CA.03.03.003	Ø12	Ø12	45	20	38
CA.03.03.004	Ø16	Ø20	55	30	50
CA.03.03.005	Ø20	Ø20	55	30	45
CA.03.03.006					

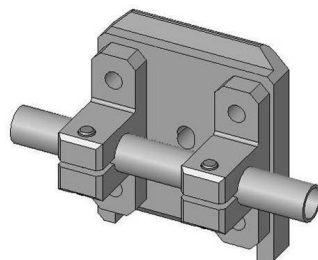
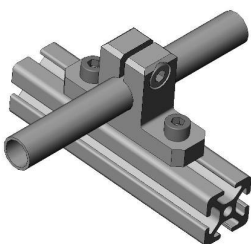
Omega Connector

Omega-Verbindung



Application Example

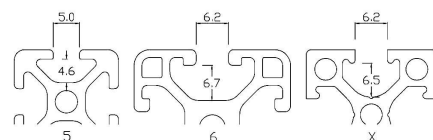
Anwendungsbeispiel



ARTICLE ARTIKEL	CHANNEL BAUREIHE	A [mm]	B [mm]	WEIGHT GEWICHT [g]
CA.03.07.001	/	Ø12	55	30
CA.03.07.002	/	Ø16	55	42
CA.03.07.003	/	Ø20	70	55
CA.03.07.001.5	5	Ø12	55	35
CA.03.07.002.5	5	Ø16	55	50
CA.03.07.003.5	5	Ø20	70	63
CA.03.07.001.6	6	Ø12	55	37
CA.03.07.002.6	6	Ø16	55	52
CA.03.07.003.6	6	Ø20	70	66
CA.03.07.001.X	X	Ø12	55	35
CA.03.07.002.X	X	Ø16	55	50
CA.03.07.003.X	X	Ø20	70	63

Channel

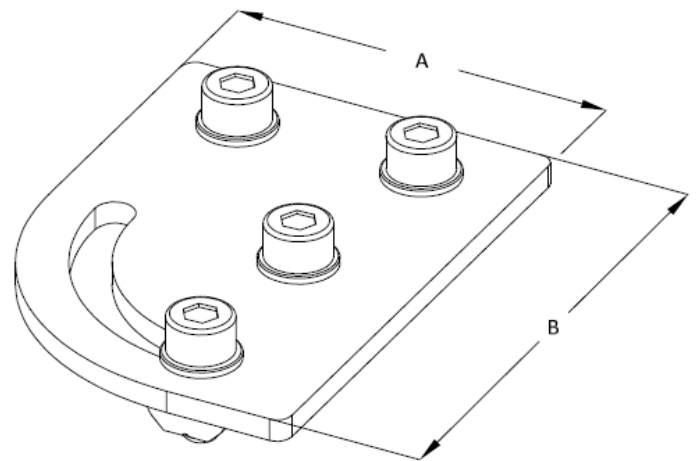
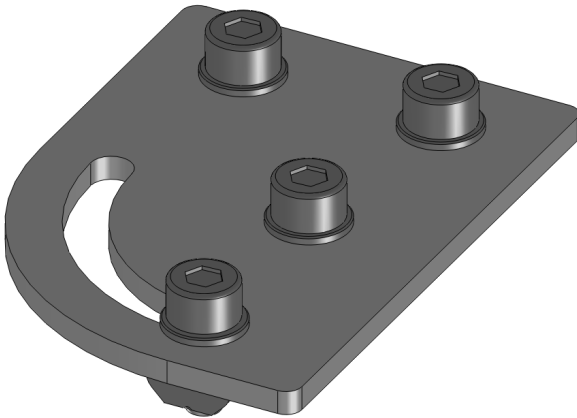
Baureihe



02/2013

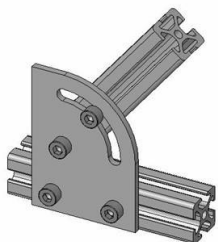
0-90° Adjustable Support Joint Connector

0-90° Profilverbinder verstellbar



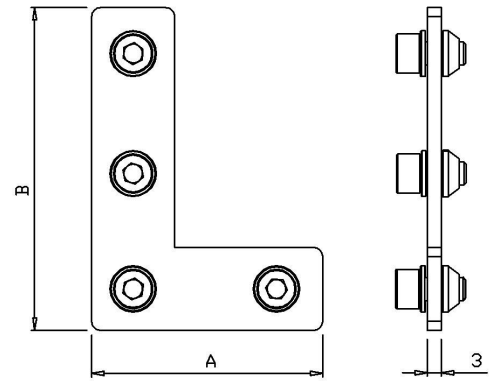
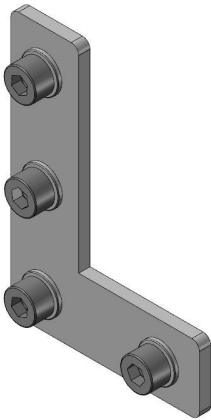
ARTICLE ARTIKEL	A [mm]	B [mm]	PROFILE PROFIL	WEIGHT GEWICHT [g]
CA.03.10.001	50	69	20X20	62
CA.03.10.002			20X20	76
CA.03.10.005	60	84	30X30	72
CA.VBW.X.0.90	50	70	25X25	68
CA.VBW.JU.0.90	80	120	40X40	150

Application Example    Anwendungsbeispiel

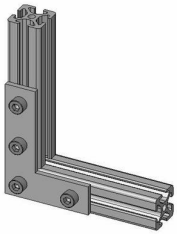


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L-Style support joint connector Profilverbinder Winkel-Form



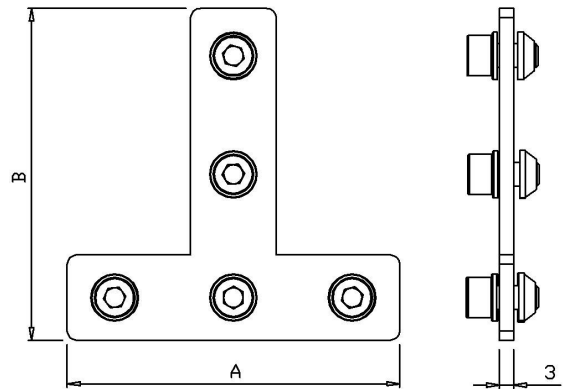
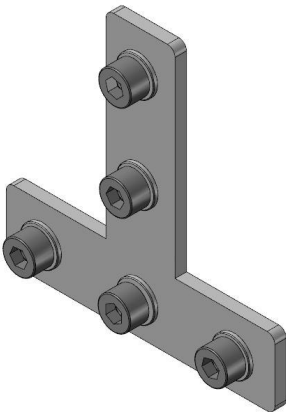
Application Example Anwendungsbeispiel



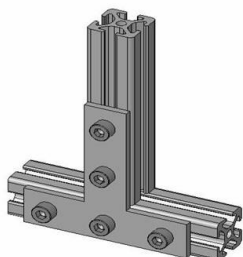
**new** →  
**new** →

ARTICLE ARTIKEL	A [mm]	B [mm]	PROFILE PROFIL	WEIGHT GEWICHT [g]
CA.03.10.003	45	70	20X20	42
CA.03.10.007	60	90	30X30	53
CA.VBL.50.75	50	75	25X25	48
CA.VBL.50.50	50	50	25X25	44
CA.VBL.80.80	80	80	40X40	86
CA.VBL.80.120	80	120	40X40	120

T-style support joint connector Profilverbinder T-Form



Application Example Anwendungsbeispiel



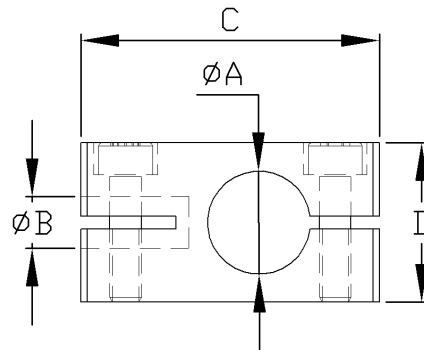
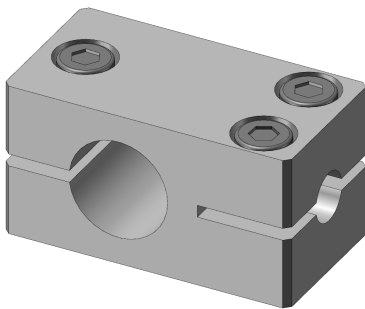
**new** →

ARTICLE ARTIKEL	A [mm]	B [mm]	PROFILE PROFIL	WEIGHT GEWICHT [g]
CA.03.10.004	70	70	20X20	50
CA.03.10.006				
CA.03.10.008	90	90	30X30	64
CA.VBT.X.50.75	75	75	25X25	58
CA.VBT.JU.80.120	80	120	40X40	120

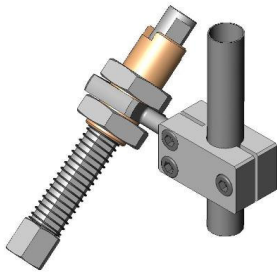
02/2013

Toggle loop cross connection

Winkelöse Kreuzverbindung



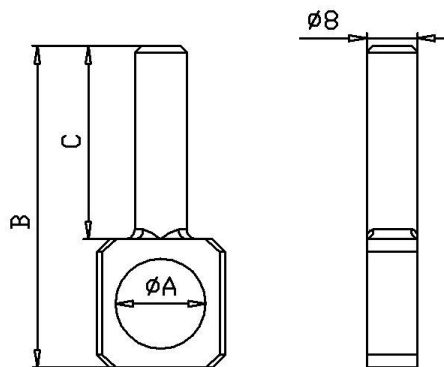
Application Example Anwendungsbeispiel



ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	D [mm]	WEIGHT GEWICHT [g]
CA.03.11.001	Ø12	Ø8	43	20	35
CA.03.11.002	Ø16	Ø8	47	25	40
CA.03.11.003	Ø20	Ø8	54	25	43

Toggle loop

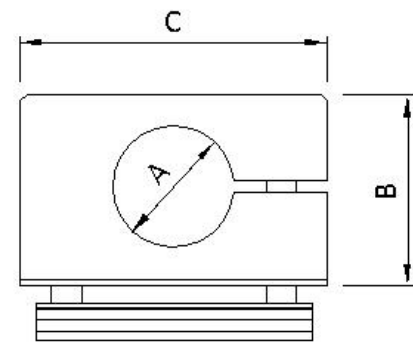
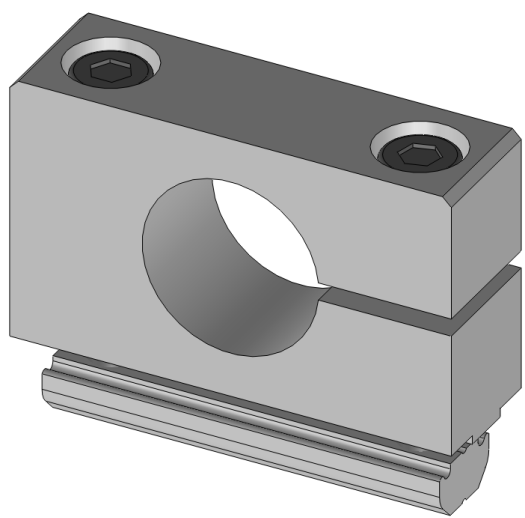
Winkelöse



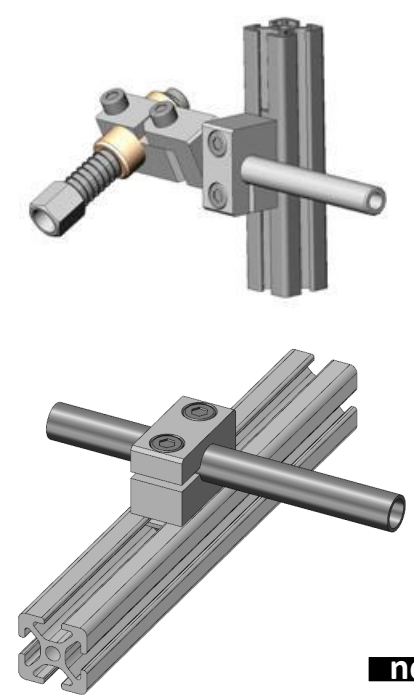
ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	WEIGHT GEWICHT [g]
CA.05.07.001	Ø10	45	30	30
CA.05.07.002	Ø14	50	30	30
CA.05.07.003	Ø20	55	30	40

02/2013

Cross Joint Connector Tube Winkelverbindung Profil-Rohr

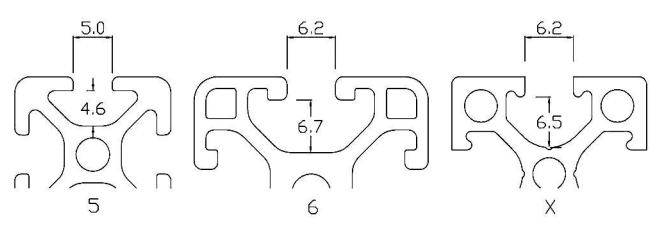


Application Example Anwendungsbeispiel



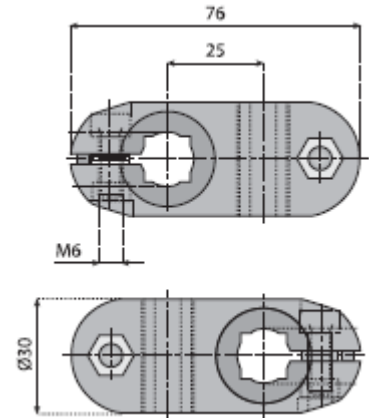
ARTICLE ARTICOLO	PROFILE Baureihe	A [mm]	B [mm]	C [mm]	WEIGHT PESO [g]
CA.03.12.001.5	5	Ø10	20	30	20
CA.03.12.002.5	5	Ø12	25	35	30
CA.03.12.003.5	5	Ø16	25	40	32
CA.03.12.004.5	5	Ø20	35	50	66
CA.03.12.004.X	X				
CA.03.12.005.5	5	Ø14	20	34	22
CA.03.12.001.6	6	Ø10	20	30	24
CA.03.12.002.6	6	Ø12	25	35	34
CA.03.12.003.6	6	Ø16	25	40	36
CA.03.12.004.6	6	Ø20	35	50	62
CA.03.12.004.X	X	Ø20	35	50	62
CA.03.12.005.6	6	Ø14	20	34	23
CA.KVB.L10	X	Ø10	16	25	22
CA.KVB.X14	X	Ø14	19	34	28
CA.KVB.X20	X	Ø20	26	40	68
CA.KVB.JU20	JU	Ø20	31	50	44

Channel Baureihe

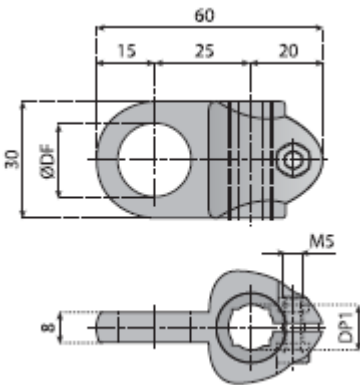


02/2013

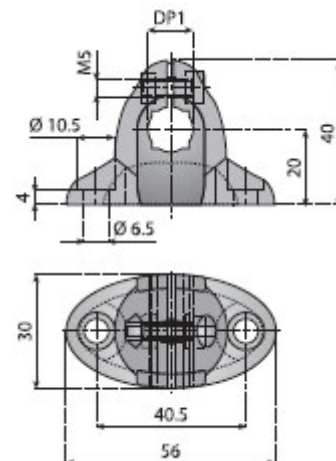
Polymer Plastic Cross Connector for Square Tube      Kunststoff Kreuzklemmstück für Vierkantrohr



ARTICLE ARTIKEL	DESCRIPTION BESCREIBUNG
CA.03.15.1212	Polymer Plastic Cross Connector for Square Tube d.12-12 Kunststoff Kreuzklemmstück für Vierkantrohr d.12-12



ARTICLE ARTIKEL	DESCRIPTION BESCREIBUNG	DP1 [mm]	DF [mm]
CA.03.15.1210	Corner Support d.12-10 Kunststoff Saugerhalter für Vierkantrohr d.12-10	12	10
CA.03.15.1214	Corner Support d.12-14 Kunststoff Saugerhalter für Vierkantrohr d.12-14	12	14



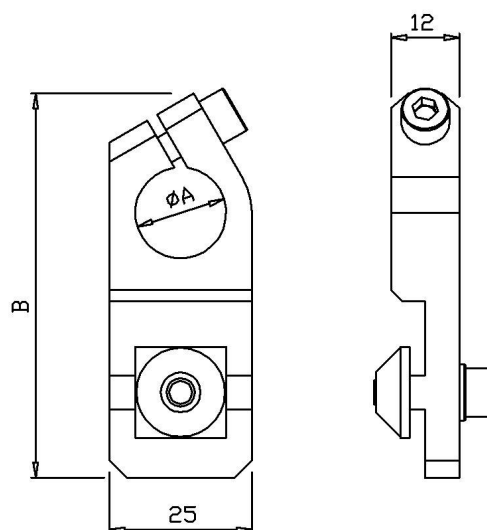
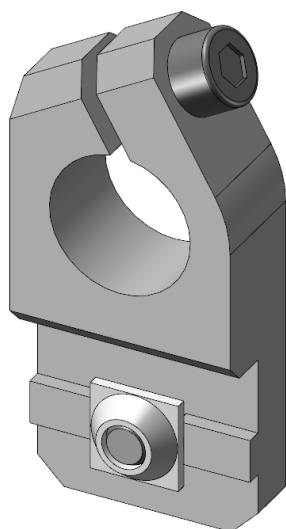
ARTICLE ARTIKEL	DESCRIPTION BESCREIBUNG	DP1 [mm]
CA.03.15.12	Polymer Plastic Omega Connector for Square Tube d.12 Kunststoff Klemmstück für Vierkantrohr d.12	12

02/2013



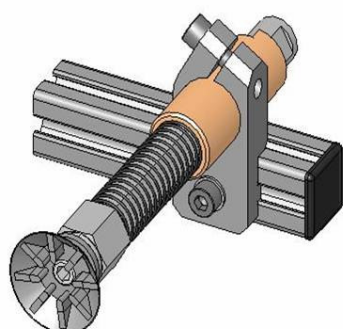
## Angle Clamp

## Winkelklemmstück



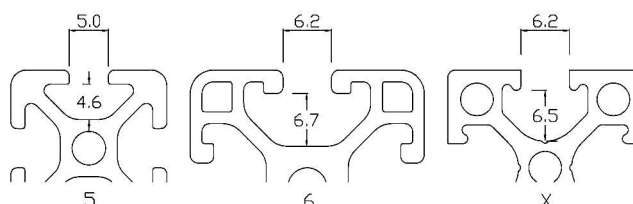
ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	T-NUTS NUTENSTEIN	WEIGHT GEWICHT [g]
CA.04.01.001	$\phi 16$	57.5	25	5	24
CA.04.01.002	$\phi 20$	57.5	25	5	28
CA.04.01.003	$\phi 16$	67.5	25	6	30
CA.04.01.004	$\phi 20$	67.5	25	6	20
CA.WST.10	$\phi 10$	49.5	15	X	25
CA.WST.10.5	$\phi 10$	49.5	15	5	
CA.WST.14	$\phi 14$	56.5	20	X	25
CA.WST.20	$\phi 20$	67.5	25	X	30

### Application Example Anwendungsbeispiel



Channel

Baureihe

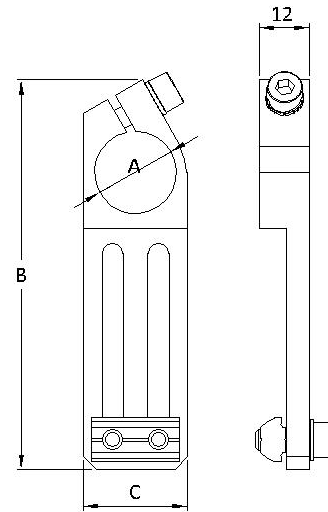
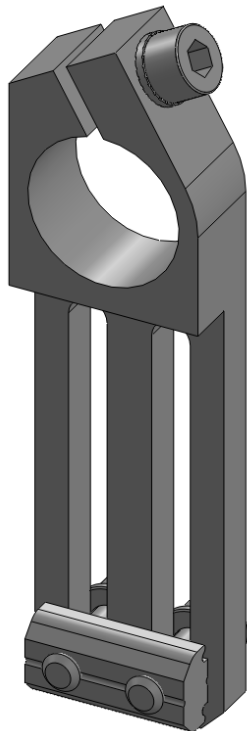


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Long Angle Clamp

Winkelklemmstück lang



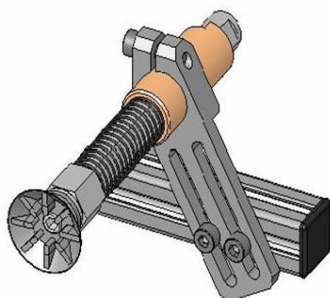
**new** →

**new** →

**new** →

ARTICLE ARTIKEL	T-NUTS NUTENSTEIN	A [mm]	B [mm]	C [mm]	WEIGH GEWICHT [g]
CA.WSL.1040.U	/				
CA.WSL.1040.U.X	X	∅10	77,5	16	22
CA.WSL.1440.U.X	X	∅14			
CA.WSL.1450.U	/				
CA.WSL.1450.U.X	X	∅14	99,5	20	36
CA.WSL.2060.U	/				
CA.WSL.2060.U.X	X	∅20			
CA.WSL.2070.U.X	X	∅20	126,5	25	73
CA.04.02.001	/	∅16	96	25	22
CA.04.02.001.5	5	∅16	96	25	26
CA.04.02.001.6	6	∅16	96	25	30
CA.04.02.001.X	X	∅16	96	25	30
CA.04.02.002	/	∅20	96	25	21
CA.04.02.002.5	5	∅20	96	25	25
CA.04.02.002.6	6	∅20	96	25	29
CA.04.02.002.X	X	∅20	96	25	29
CA.04.02.003	/	∅14	96	25	22
CA.04.02.003.5	5	∅14	96	25	26
CA.04.02.003.6	6	∅14	96	25	30
CA.04.02.003.X	X	∅14	96	25	30
CA.04.02.004	/	∅10	96	20	21
CA.04.02.004.5	5	∅10	96	20	25
CA.04.02.004.6	6	∅10	96	20	29
CA.04.02.004.X	X	∅10	96	20	29

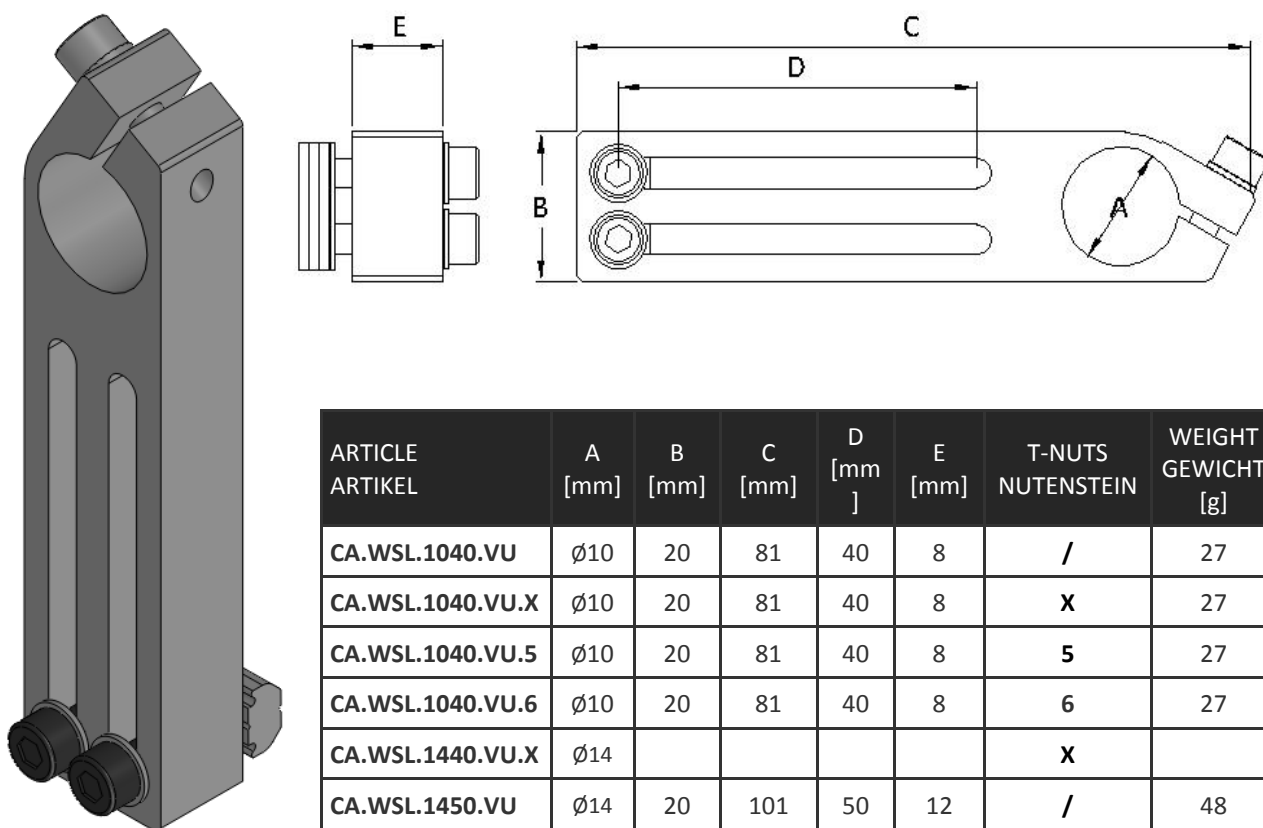
Application Example Anwendungsbeispiel



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Angle clamp extremely stable

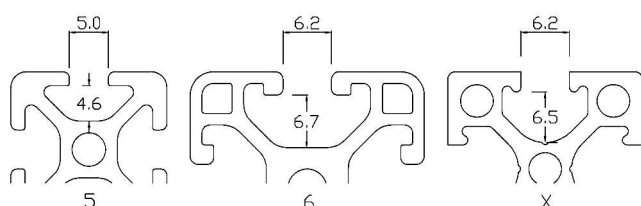
Winkelklemmstück Extrem Stabile



ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	D [mm ]	E [mm]	T-NUTS NUTENSTEIN	WEIGHT GEWICHT [g]
CA.WSL.1040.VU	∅10	20	81	40	8	/	27
CA.WSL.1040.VU.X	∅10	20	81	40	8	X	27
CA.WSL.1040.VU.5	∅10	20	81	40	8	5	27
CA.WSL.1040.VU.6	∅10	20	81	40	8	6	27
CA.WSL.1440.VU.X	∅14					X	
CA.WSL.1450.VU	∅14	20	101	50	12	/	48
CA.WSL.1450.VU.X	∅14	20	101	50	12	X	48
CA.WSL.1450.VU.5	∅14	20	101	50	12	5	48
CA.WSL.1450.VU.6	∅14	20	101	50	12	6	48
CA.WSL.2060.VU	∅20	25	116	60	15	/	78
CA.WSL.2060.VU.X	∅20	25	116	60	15	X	78
CA.WSL.2060.VU.5	∅20	25	116	60	15	5	78
CA.WSL.2060.VU.6	∅20	25	116	60	15	6	78
CA.WSL.2070.VU	∅20	25	126	70	15	/	105
<b>new</b> → CA.WSL.2070.VU.X	∅20	25	126	70	15	X	105
CA.WSL.2080.VU	∅20	25	136	80	15	/	115
<b>new</b> → CA.WSL.2080.VU.X	∅20	25	136	80	15	X	115

Channel

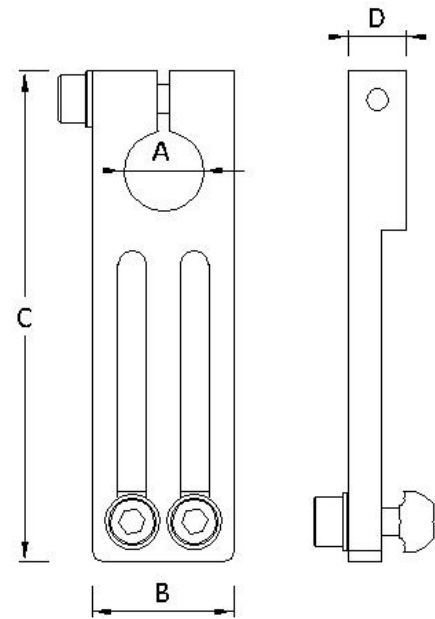
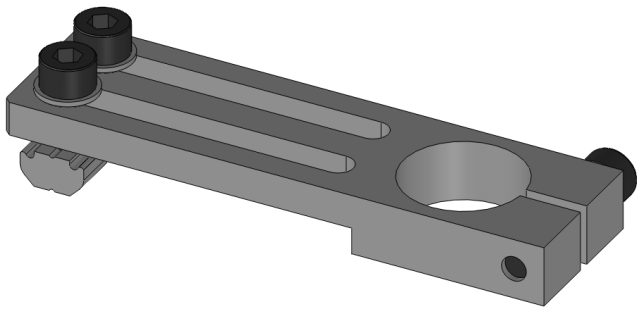
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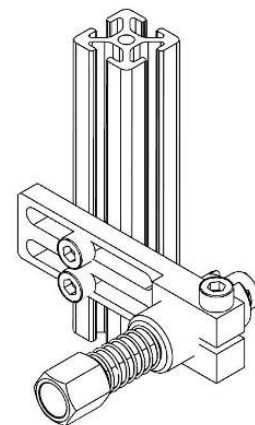
## Universal Long Angle Clamp

## Winkelklemmstück lang



ARTICLE ARTIKEL	T-NUTS NUTENSTEIN	A [mm]	B [mm]	C [mm]	D [mm]	WEIGHT GEWICHT [g]
CA.04.02.10	/	∅10	20	75	10	18
CA.04.02.10.5	5	∅10	20	75	10	24
CA.04.02.10.6	6	∅10	20	75	10	26
CA.04.02.10.X	X	∅10	20	75	10	26
CA.04.02.12	/	∅12	20	75	10	14
CA.04.02.12.5	5	∅12	20	75	10	20
CA.04.02.12.6	6	∅12	20	75	10	22
CA.04.02.12.X	X	∅12	20	75	10	22
CA.04.02.14	/	∅14	25	86	10	39
CA.04.02.14.5	5	∅14	25	86	10	41
CA.04.02.14.6	6	∅14	25	86	10	43
CA.04.02.14.X	X	∅14	25	86	10	43
CA.04.02.16	/	∅16	25	86	10	26
CA.04.02.16.5	5	∅16	25	86	10	28
CA.04.02.16.6	6	∅16	25	86	10	32
CA.04.02.16.X	X	∅16	25	86	10	32
CA.04.02.20	/	∅20	25	90	10	24
CA.04.02.20.5	5	∅20	25	90	10	26
CA.04.02.20.6	6	∅20	25	90	10	28
CA.04.02.20.X	X	∅20	25	90	10	28
CA.04.02.30	/	∅30	35	140	15	90
CA.04.02.30.6	6	∅30	50	151	15	144
CA.04.02.30.X	X	∅30	50	151	15	144

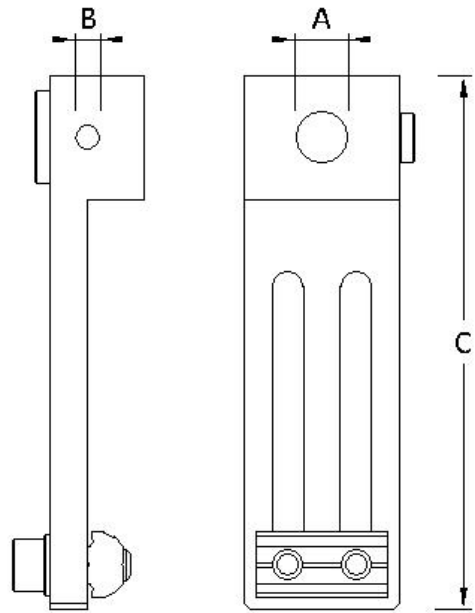
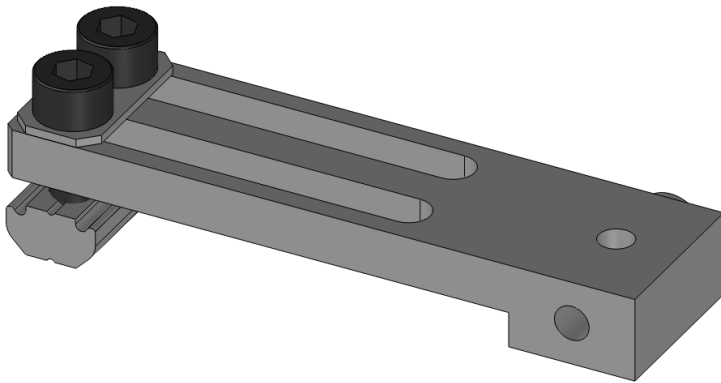
### Application Example Anwendungsbeispiel



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Long Mounting Bracket for Vacuum Cup

Winkelklemmstück lang für Vakuumsauger



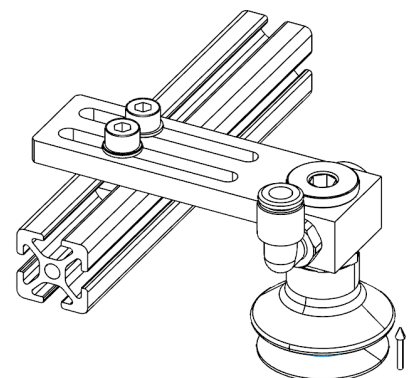
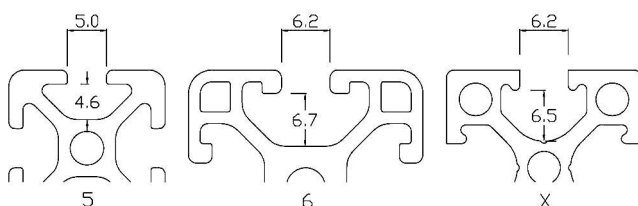
ARTICLE ARTIKEL	A	B	C [mm]	T-NUTS NUTENSTEIN	WEIGHT GEWICHT [g]
CA.WLS.14.18.5	1/4"	1/8"	86	5	28
CA.WLS.14.18.6	1/4"	1/8"	86	6	32
CA.WLS.14.18.X	1/4"	1/8"	86	X	32
CA.WLS.18.M5.5	1/8"	M5	86	5	28
CA.WLS.18.M5.6	1/8"	M5	86	6	32
CA.WLS.18.M5.X	1/8"	M5	86	X	32
CA.WLS.M5.M5.5	M5	M5	75	5	25
CA.WLS.M5.M5.6	M5	M5	75	6	29
CA.WLS.M5.M5.X	M5	M5	75	X	29
CA.WLS.18.18.5	1/8"	1/8"	86	5	28
CA.WLS.18.18.6	1/8"	1/8"	86	6	28
CA.WLS.18.18.X	1/8"	1/8"	86	X	28

Application Example

Anwendungsbeispiel

Channel

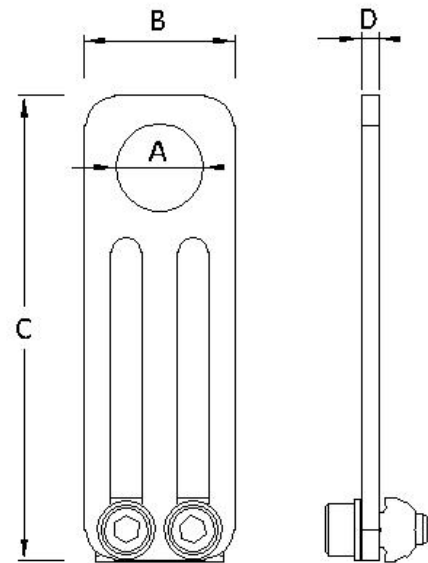
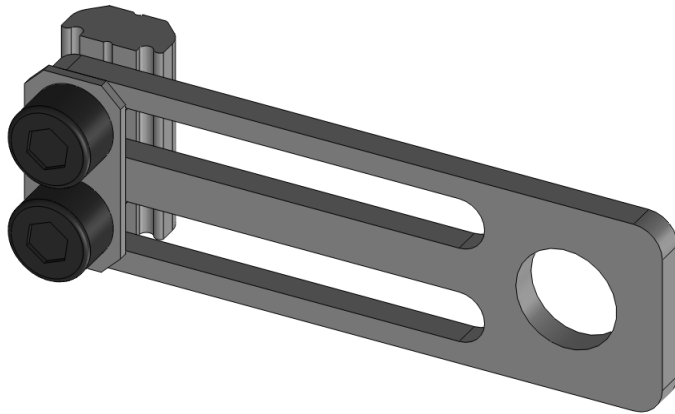
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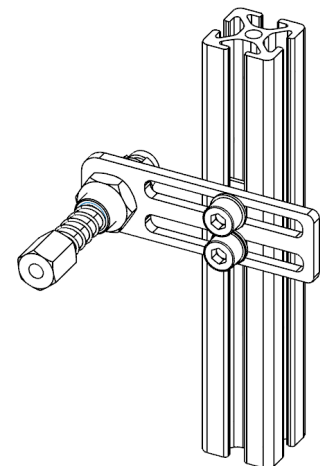
Mounting Bracket

Befestigungsplatte



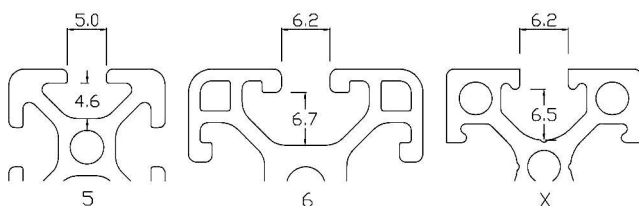
ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	D [mm]	T-NUTS NUTENSTEIN	WEIGHT GEWICHT [g]
CA.04.20.10	∅10	20	66	3	/	18
CA.04.20.10.5	∅10	20	66	3	5	20
CA.04.20.10.6	∅10	20	66	3	6	23
CA.04.20.10.X	∅10	20	66	3	x	23
CA.04.20.14	∅14	25	77	3	/	29
CA.04.20.14.5	∅14	25	77	3	5	32
CA.04.20.14.6	∅14	25	77	3	6	33
CA.04.20.14.X	∅14	25	77	3	x	33
CA.04.20.20	∅20	30	93	3	/	42
CA.04.20.20.5	∅20	30	93	3	5	43
CA.04.20.20.6	∅20	30	93	3	6	47
CA.04.20.20.X	∅20	30	93	3	x	47

Application Example Anwendungsbeispiel



Channel

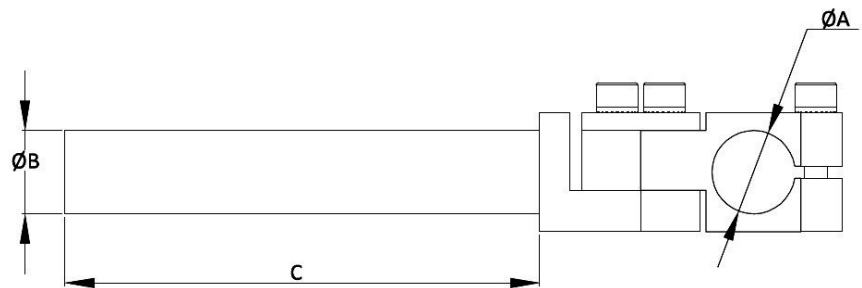
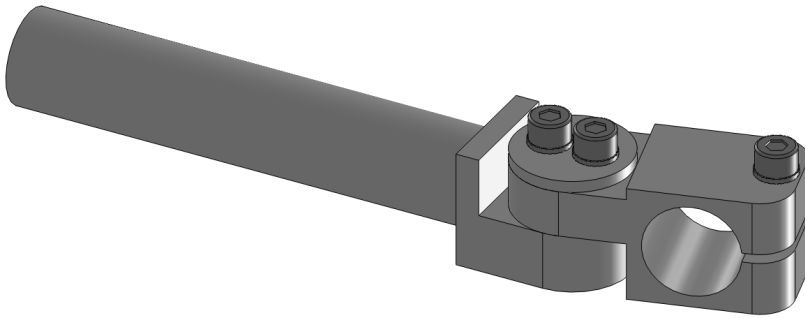
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Elbow Arm

Gelenkarm

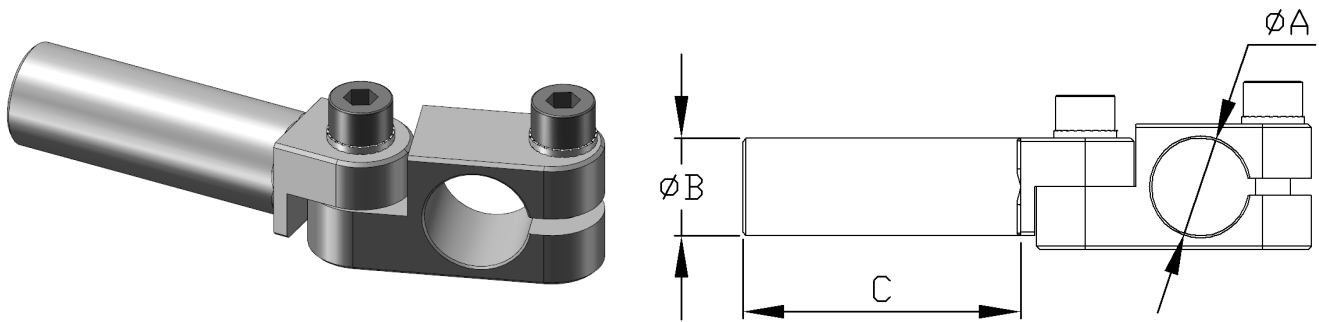


ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	WEIGHT GEWICHT [g]
CA.GVR.1010.30	10	10	30	27
CA.GVR.1010.60	10	10	60	32
CA.GVR.1010.90	10	10	90	36
CA.GVR.1414.40	Ø14	Ø14	40	54
CA.GVR.1414.80	Ø14	Ø14	80	62
CA.GVR.1414.120	Ø14	Ø14	120	75
CA.GVR.2020.50	Ø20	Ø20	50	88
CA.GVR.2020.100	Ø20	Ø20	100	103
CA.GVR.2020.150	Ø20	Ø20	150	119

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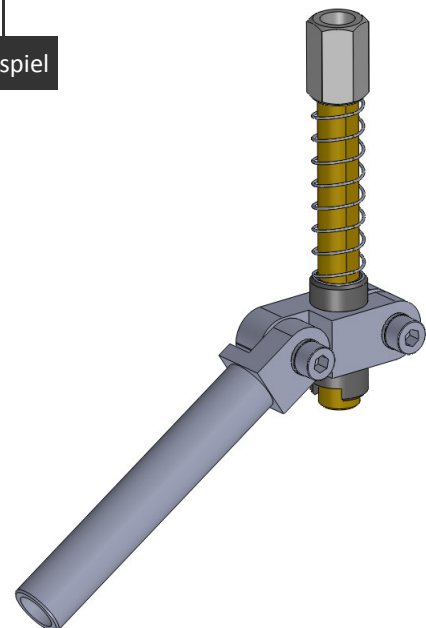
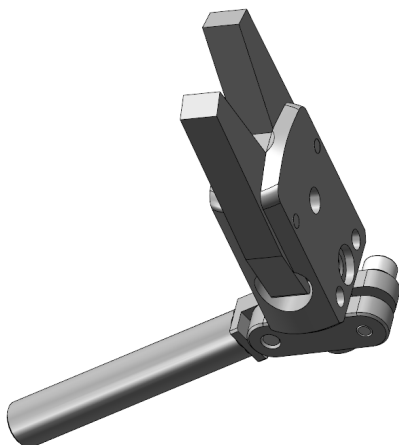
Elbow Arm

Gelenkarm



ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	WEIGHT GEWICHT [g]
CA.GLA.1010	Ø10	Ø10	60	20
CA.GLA.1010	Ø10	Ø10	60	
CA.GLA.1010.90	Ø10	Ø10	90	25
CA.GLA.1212	Ø12	Ø12	60	22
CA.GLA.1414	Ø14	Ø14	80	42
CA.GLA.1414.40	Ø14	Ø14	40	
CA.GLA.1414.80	Ø14	Ø14	80	
CA.GLA.1414.120	Ø14	Ø14	120	45
CA.GLA.1616	Ø16	Ø16	80	50
CA.GLA.2020	Ø20	Ø20	100	90
CA.GLA.2020.50	Ø20	Ø20	50	75
CA.GLA.2020.150	Ø20	Ø20	150	105
CA.GLA.2030	Ø20	Ø30	100	210
CA.GLA.3030	Ø30	Ø30	100	

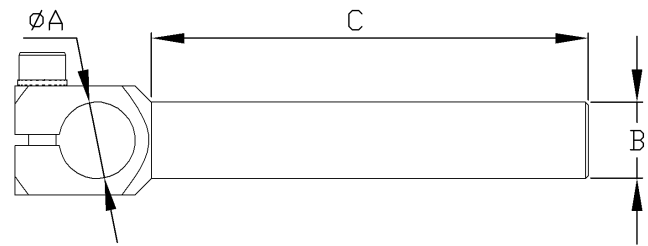
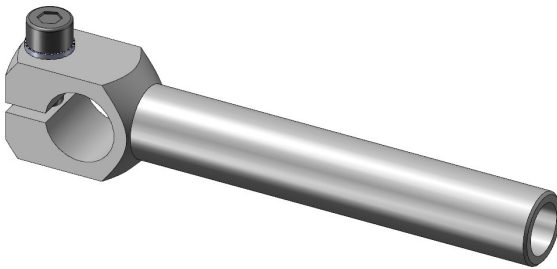
Application Example    Anwendungsbeispiel



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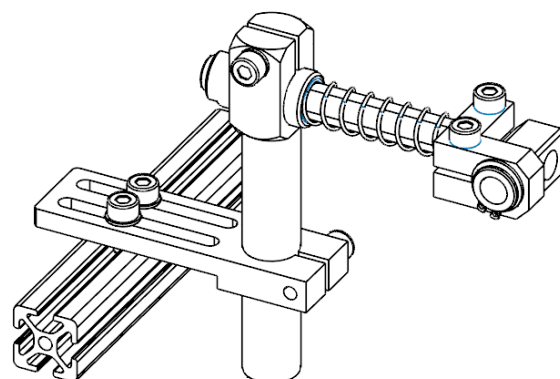
Clamp Leg

Winkelarm mit Klemm-



	ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	WEIGHT GEWICHT [g]
<b>new</b> →	CA.WKA.10.10.30	∅10	∅10	30	10
	CA.WKA.10.10.50	∅10	∅10	50	12
<b>new</b> →	CA.WKA.10.10.60	∅10	∅10	60	15
	CA.WKA.10.10.90	∅10	∅10	90	20
<b>new</b> →	CA.WKA.14.14.40	∅14	∅14	40	21
	CA.WKA.14.14.80	∅14	∅14	80	30
	CA.WKA.14.14.120	∅14	∅14	120	40
	CA.WKA.16.16.80	∅16	∅16	80	35
	CA.WKA.16.16.120	∅16	∅16	120	45
	CA.WKA.20.20.50	∅20	∅20	50	55
	CA.WKA.20.20.80	∅20	∅20	80	60
	CA.WKA.20.20.100	∅20	∅20	100	85
	CA.WKA.20.20.150	∅20	∅20	150	105

Application Example Anwendungsbeispiel



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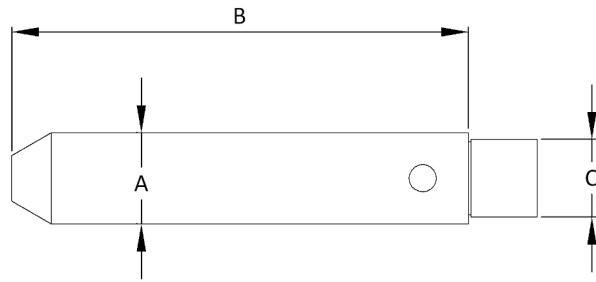
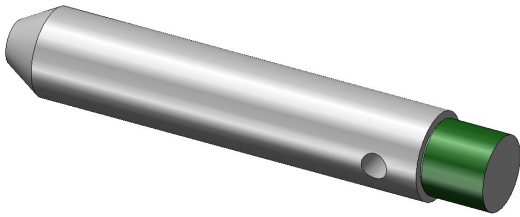


ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	T-NUTS NUTENSTEIN	WEIGHT GEWICHT [g]
CA.KSW.14.X					
CA.KSW.20.JU					
CA.KSW.20.X					
CA.04.08.001					
CA.04.08.002					
CA.04.08.003					
CA.04.09.002					

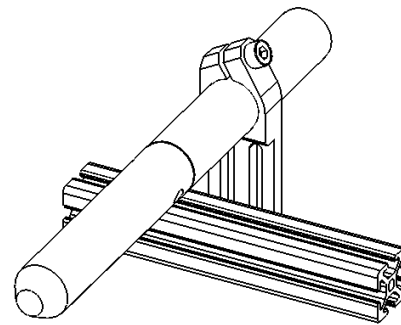
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## Centering Pin

## Zentrierbolzen



### Application Example Anwendungsbeispiel

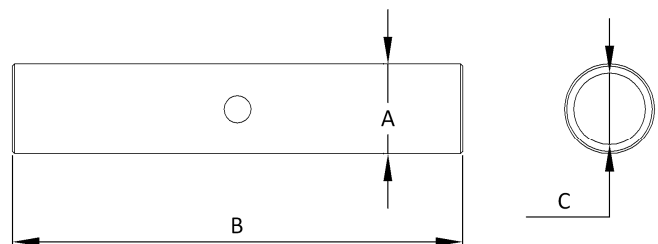
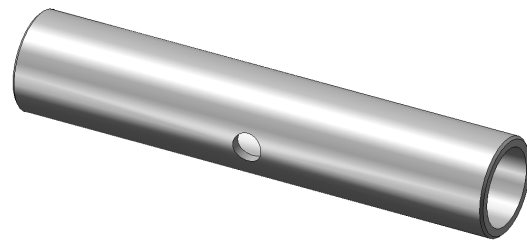


ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	WEIGHT GEWICHT [g]
CA.ZTB.1060	∅10	60	M8X1	7
CA.ZTB.1480	∅14	80	M12X1	18
CA.ZTB.20100	∅20	100	M17X1	37

## Extension Tube

## Verlängerungsrohr

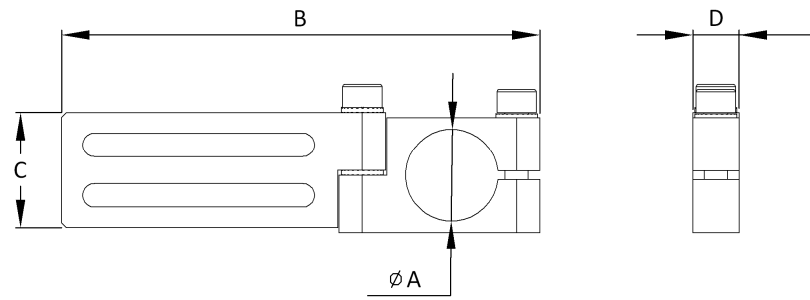
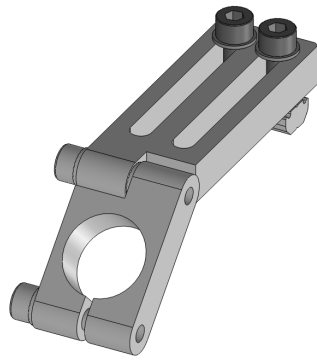
ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	WEIGHT GEWICHT [g]
CA.VLR.10.30	∅10	30		3
CA.VLR.10.60	∅10	60	M8X1	8
CA.VLR.10.90	∅10	90		
CA.VLR.14.40	∅14	40		
CA.VLR.14.80	∅14	80	M12X1	15
CA.VLR.14.120	∅14	120		
CA.VLR.20.50	∅20	50		
CA.VLR.20.100	∅20	100	M17X1	29
CA.VLR.20.150	∅20	150		



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## Swivel Head Long Angle Clamp

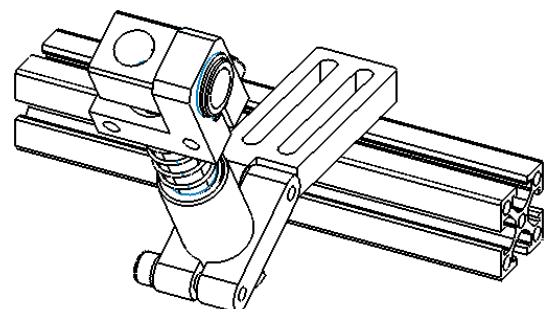
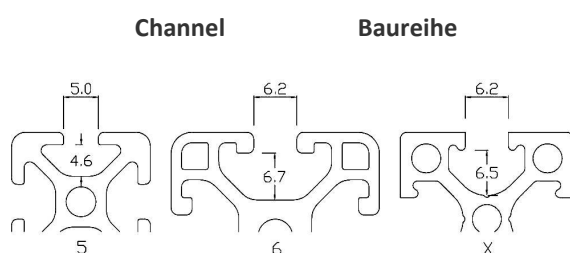
## Winkelklemmstück mit Gelenk



ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	D [mm]	T-NUTS NUTEN- STEIN	WEIGHT GEWICH T [g]
CA.WSL.GA.10	$\phi 10$	85	20	10	/	37
CA.WSL.GA.10.5	$\phi 10$	85	20	10	5	35
CA.WSL.GA.10.6	$\phi 10$	85	20	10	6	40
CA.WSL.GA.10.X	$\phi 10$	85	20	10	X	40
CA.WSL.GA.14	$\phi 14$	88	25	10	/	36
CA.WSL.GA.14.5	$\phi 14$	88	25	10	5	50
CA.WSL.GA.14.6	$\phi 14$	88	25	10	6	54
CA.WSL.GA.14.X	$\phi 14$	88	25	10	X	54
CA.WSL.GA.16	$\phi 16$	103	25	10	/	55
CA.WSL.GA.16.5	$\phi 16$	103	25	10	5	60
CA.WSL.GA.16.6	$\phi 16$	103	25	10	6	64
CA.WSL.GA.16.X	$\phi 16$	103	25	10	X	64
CA.WSL.GA.20	$\phi 20$	103	25	10	/	
CA.WSL.GA.20.5	$\phi 20$	103	25	10	5	
CA.WSL.GA.20.6	$\phi 20$	103	25	10	6	120
CA.WSL.GA.20.X	$\phi 20$	103	25	10	X	120
CA.WSL.GA.30	$\phi 30$	164	50	15	/	
CA.WSL.GA.30.6	$\phi 30$	164	50	15	6	180
CA.WSL.GA.30.X	$\phi 30$	164	50	15	X	180

Application Example  
Anwendungsbeispiel

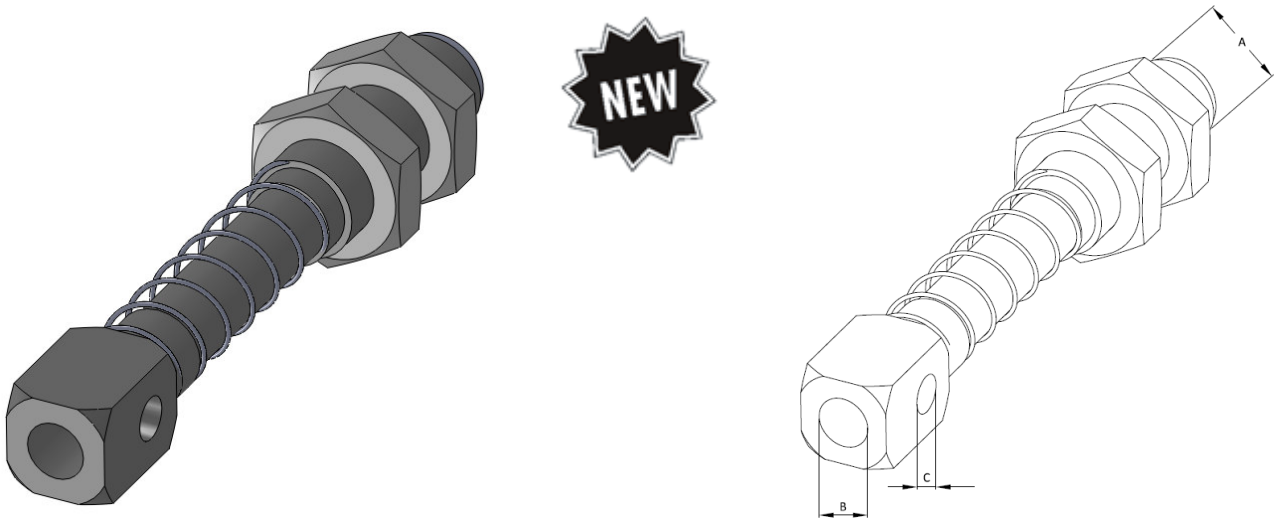
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Suspension swivel Threaded Shaft

Greifarm Gefedert Drehbar mit Gewindeschaft

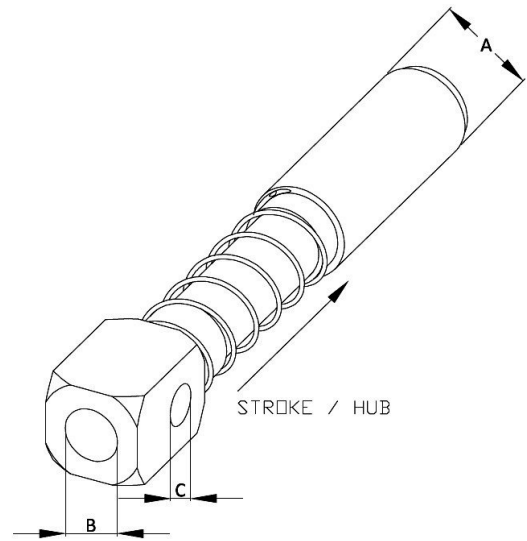
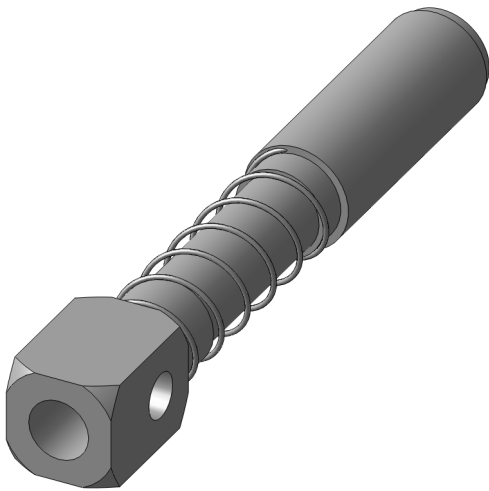


Anodized Aluminium/ Aluminium eloxiert

ARTICLE ARTIKEL	A [mm]	B	C	STROKE HUB [mm]	WEIGHT GEWICHT [g]
CA.GGDG.10050510	M10X1.25	M5	M5	10	10
CA.GGDG.10050530	M10X1.25	M5	M5	10	12
CA.GGDG.14181815	M14X1.5	1/8"	1/8"	15	27
CA.GGDG.14181840	M14X1.5	1/8"	1/8"	40	31
CA.GGDG.20141820	M20X1.5	1/4"	1/8"	20	51
CA.GGDG.20141850	M14X1.5	1/4"	1/8"	40	70

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Suspension swivel Greifarm Gefedert Drehbar



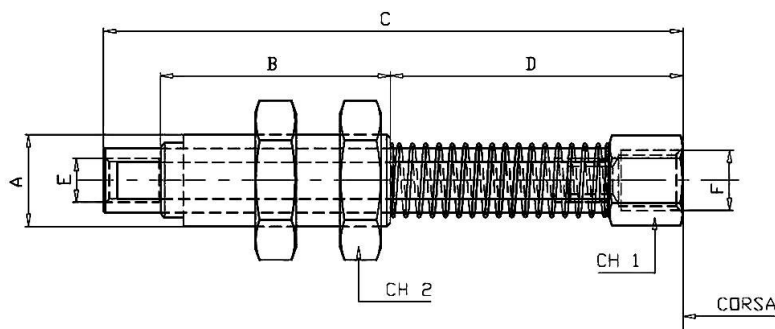
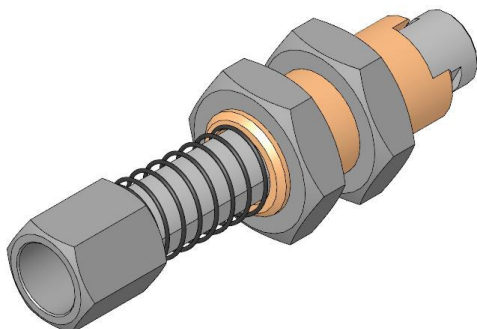
Anodized Aluminium/ Aluminium eloxiert

ARTICLE ARTIKEL	A [mm]	B	C	STROKE HUB [mm]	WEIGHT GEWICHT [g]
CA.GGD.10050510	∅10	M5	M5	10	6
CA.GGD.10050530	∅10	M5	M5	10	8
CA.GGD.14181815	∅14	1/8"	1/8"	15	14
CA.GGD.14181840	∅14	1/8"	1/8"	40	28
CA.GGD.20141820	∅20	1/4"	1/8"	20	66
CA.GGD.20141850	∅20	1/4"	1/8"	40	81

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Suspension not Rotated Threaded Shaft

Greifarm gefedert, verdrehsichert, Gewindebefestigung



ARTICLE ARTIKEL	A	B [mm]	C [mm]	D [mm]	E	F	CH1	CH2	STROKE HUB [mm]	WEIGHT GEWICHT [g]
CA.05.01.001	M14x1.5	30	94	61	M5	1/8"	13	19	38	50
CA.05.01.002	M20x1.5	50	126	73	1/8"	1/4"	17	27	48	142
CA.05.01.003	M14x1.5	30	70	37	M5	1/8"	13	19	17	41
CA.05.01.004	M20x1.5	50	101	47	1/8"	1/4"	17	27	25	126
CA.05.01.005	M10x1.25	26	71	42	M5	M5	13	14	20	35
CA.05.01.005.N										35
CA.05.01.006	M10x1.25	26	61	32	M5	M5	13	14	10	30
CA.05.01.006.N										30
CA.05.01.007										70
CA.05.01.008	M12x1.25	26	71	42	M5	1/8"	10	17	10	35
CA.05.01.009	M12x1.25	26	61	32	M5	1/8"	10	17	20	40
CA.05.01.50	M14x1.5	30	120	70	M5	1/8"	13	19	50	65
CA.05.01.75	M14x 1.5	30	150	100	M5	1/8"	13	19	75	90
CA.05.01.100	M14x1.5	30	190	140	M5	1/8"	13	19	100	130

**Schedule/ Einzelteile:**

Spring/Feder

Sliding Parts/gleitenden Teile

Terminal Part/Anschluss-Teil

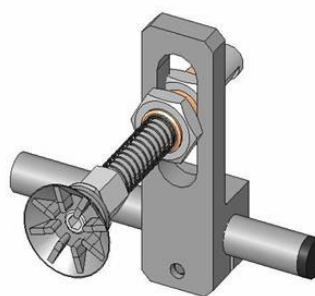
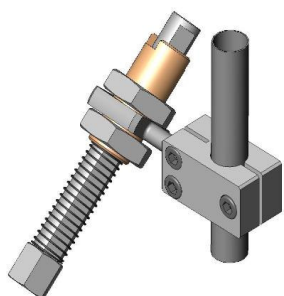
Steel/Stahl

Chrome-plated Brass/Messing verchromt

Anodized Aluminium/ Aluminium eloxiert

Application Example

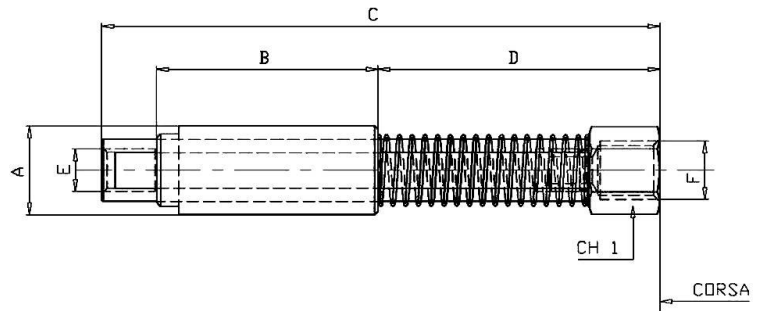
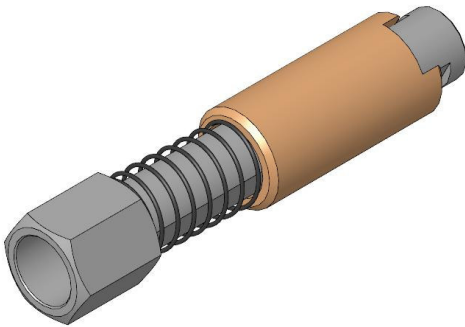
Anwendungsbeispiel



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Suspension not Rotated Clambe Shaft

Greifarm gefedert, verdrehsichert, Klemmbefestigung



ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	D [mm]	E	F	CH1	STROKE HUB [mm]	WEIGHT GEWICHT [g]
CA.05.02.001	∅16	30	94	61	M5	1/8"	13	38	58
CA.05.02.002	∅20	50	126	73	1/8"	1/4"	17	48	145
CA.05.02.003	∅16	30	70	37	M5	1/8"	13	17	53
CA.05.02.004	∅20	50	101	47	1/8"	1/4"	17	25	128
CA.05.02.005	∅12	26	71	42	M5	M5	13	20	35
CA.05.02.006	∅12	26	61	32	M5	M5	13	10	30
CA.05.02.007	∅12	26	71	42	M5	1/8"	13	20	35
CA.05.02.008	∅12	26	61	32	M5	1/8"	13	10	30
CA.05.02.009	∅10	26	71	42	M5	M5	13	20	32
CA.05.02.009.6N									32
CA.05.02.010	∅10	26	61	32	M5	M5	13	10	28
CA.05.02.010.6N									28
CA.05.02.011	∅14	30	94	61	M5	1/8"	13	38	52
CA.05.02.012	∅14	30	70	37	M5	1/8"	13	17	48

**Schedule/Einzelteile:**

Spring/Feder

Sliding Parts/gleitenden Teile

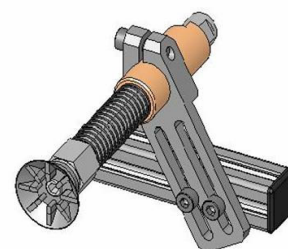
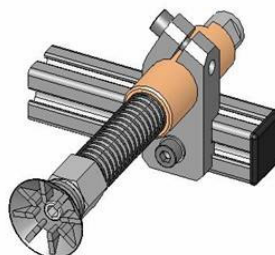
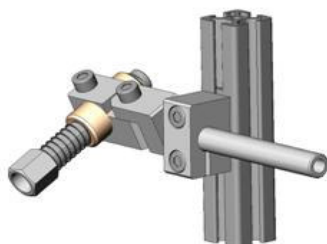
Terminal Part/Anschluss-Teil

Steel/Stahl

Chrome-plated Brass/Messing verchromt

Anodized Aluminium/ Aluminium eloxiert

**Application Example Anwendungsbeispiel**

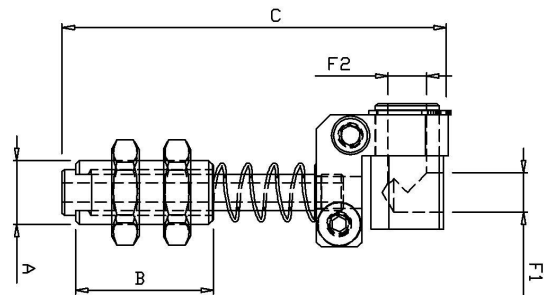
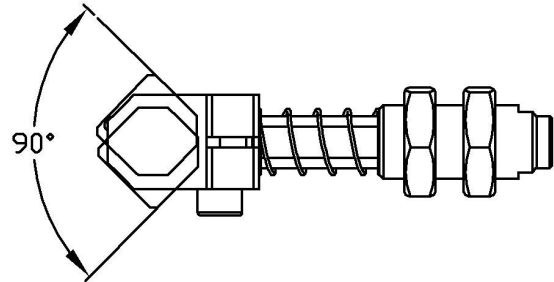
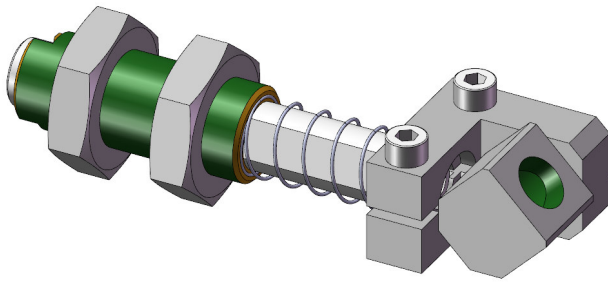


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Adjustable Suspension

Greifarm Gefedert und Verdrehgesichert



ARTICLE ARTIKEL	A	B [mm]	C [mm]	F1 [mm]	F2 [mm]	STROKE HUB [mm]	WEIGHT GEWICHT [g]
CA.GGSM100515	M10x1,25	26	70	M5	M5	10	35
CA.GGSM141815	M14x1,5	30	88	1/8"	1/8"	17	67
CA.GGSM141840	M14x1,5	30	115	1/8"	1/8"	38	77
CA.GGSM201425	M20x1,5	50	124	1/4"	1/8"	25	170
CA.GGSM201445	M20x1,5	50	142	1/4"	1/8"	48	187

**Schedule/Einzelteile:**

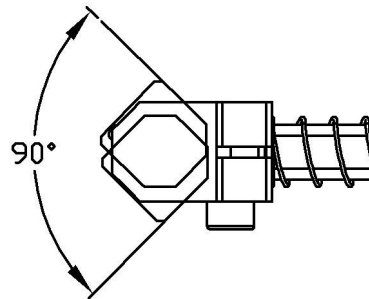
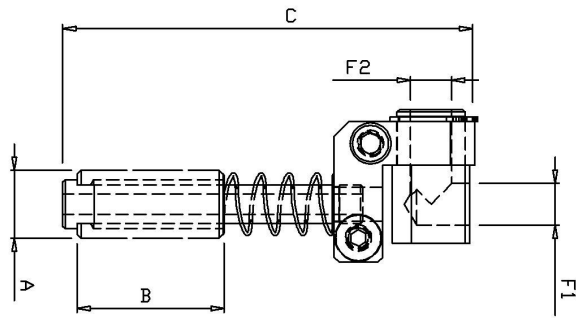
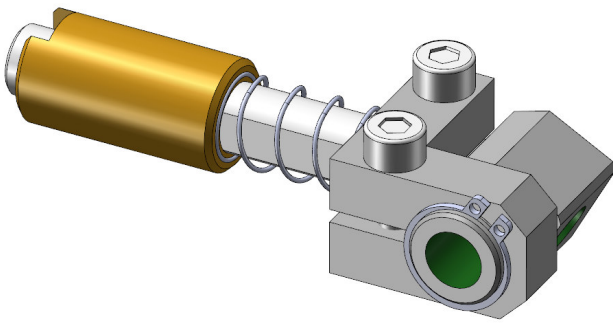
Spring/Feder  
Sliding Parts/gleitenden Teile  
Terminal Part/Anschluss-Teil

Steel/Stahl  
Chrome-plated Brass/Messing verchromt  
Anodized Aluminium/ Aluminium eloxiert

02/2013

Adjustable Suspension Clambe Shaft

Greifarm Gefedert und Verdrehgesichert



ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	F1 [mm]	F2 [mm]	STROKE HUB [mm]	WEIGHT GEWICHT [g]
CA.GGS100515	Ø10	26	70	M5	M5	10	35
CA.GGS100520	Ø10						
CA.GGS120515	Ø12	26	70	M5	M5	10	40
CA.GGS141815	Ø14	30	88	1/8"	1/8"	17	70
CA.GGS141840	Ø14	30	115	1/8"	1/8"	38	80
CA.GGS161815	Ø16	30	88	1/8"	1/8"	17	70
CA.GGS161840	Ø16	30	115	1/8"	1/8"	38	83
CA.GGS201425	Ø20	50	124	1/4"	1/8"	25	170
CA.GGS201445	Ø20	50	142	1/4"	1/8"	48	187

**Schedule/Einzelteile:**

Spring/Feder

Sliding Parts/gleitenden Teile

Terminal Part/Anschluss-Teil

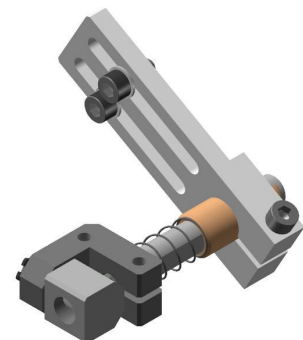
Steel/Stahl

Chrome-plated Brass/Messing verchromt

Anodized Aluminium/ Aluminium eloxiert

Application Example

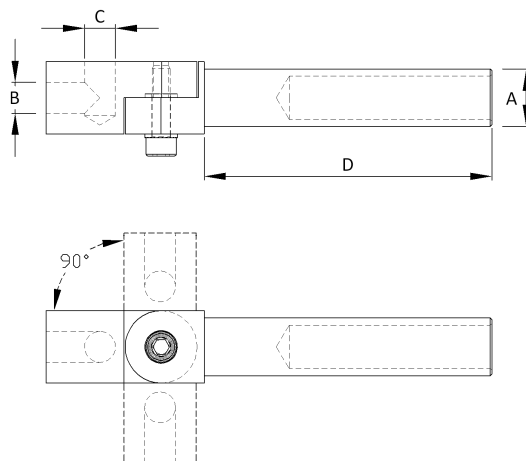
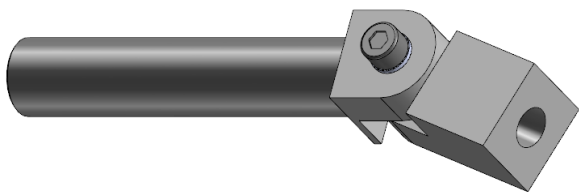
Anwendungsbeispiel



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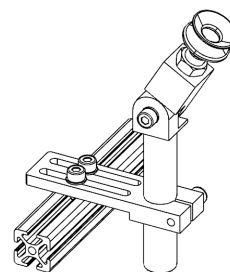
## Elbow Arm for Vacuum Cup

## Gelenkarm für Sauggreifer



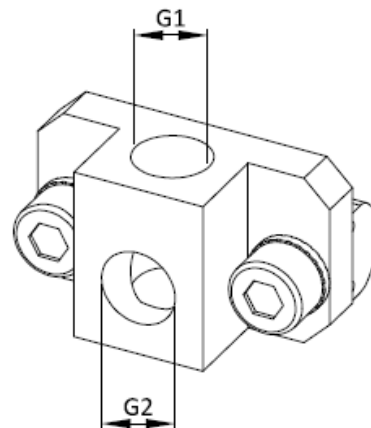
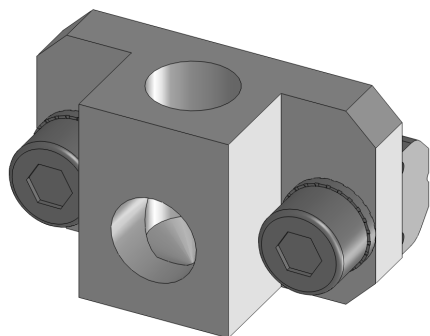
ARTICLE ARTIKEL	A [mm]	B	C	D [mm]	WEIGHT GEWICHT [g]
CA.GGE.10.M5.M5	∅10	M5	M5	60	22
CA.GGE.14.18.18	∅14	1/8"	1/8"	80	42
CA.GGE.16.18.18	∅16	1/8"	1/8"	80	50
CA.GGE.20.14.18	∅20	1/4"	1/8"	100	80
CA.GGE.20.18.18	∅20	1/8"	1/8"	100	84
CA.GGE.20.14.14	∅20	1/4"	1/4"	100	78
CA.GGE.20.14.14.150	∅20	1/4"	1/4"	150	155

## Application Example Anwendungsbeispiel



## Direct connector for vacuum cup

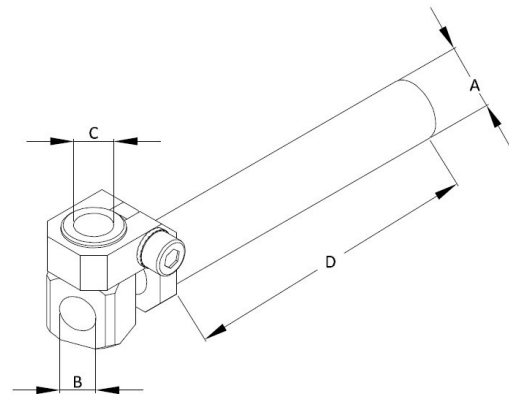
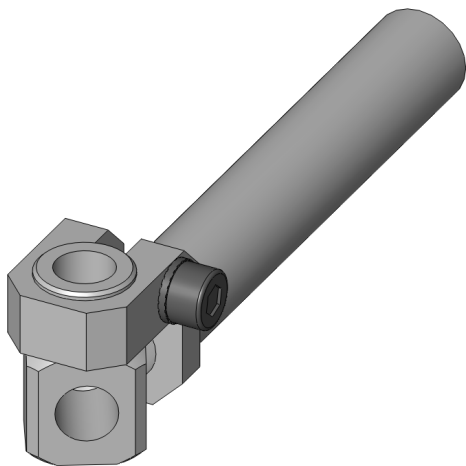
## Sauggreifer Befestigungsstück



ARTICLE ARTIKEL	G1	G2	WEIGHT GEWICHT [g]
CA.SGB.5.5.X	M5	M5	16
CA.SGB.18.18.X	1/8"	1/8"	30
CA.SGB.14.14.X	1/4"	1/4"	57
CA.WSD.L.M5.M5			
CA.WSD.X.18.18			
CA.WSD.X.14.18			

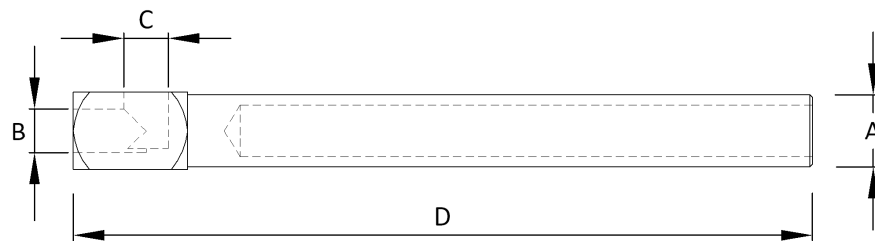
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**Elbow Arm for Vacuum Cup** **Gelenkarm für Sauggreifer**



ARTICLE ARTIKEL	A [mm]	B	C	D [mm]	WEIGHT GEWICHT [g]
CA.GGB.10050530	∅10	M5	M5	30	14
CA.GGB.10050560	∅10	M5	M5	60	17
CA.GGB.10050590	∅10	M5	M5	90	20
CA.GGB.14181840	∅14	1/8"	1/8"	40	29
CA.GGB.14181880	∅14	1/8"	1/8"	80	38
CA.GGB.141818120	∅14	1/8"	1/8"	120	45
CA.GGB.20141850	∅20	1/4"	1/8"	50	56
CA.GGB.201418100	∅20	1/4"	1/8"	100	70
CA.GGB.201418150	∅20	1/4"	1/8"	150	87

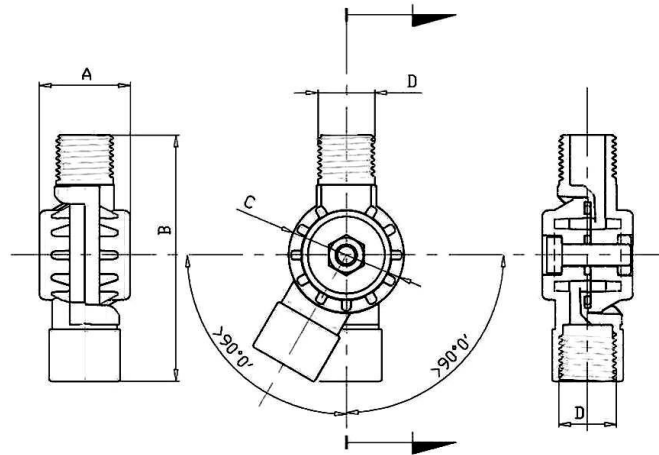
**Leg for Vacuum Cup** **Greifarm für Sauggreifer**



ARTICLE ARTIKEL	A [mm]	B	C	D [mm]	WEIGHT GEWICHT [g]
CA.GSE.10.M5.M5	∅10	M5	M5	106	15
CA.GSE.10M5M560	∅10				
CA.GSE.14.18.18	∅14	1/8"	1/8"	122	36
CA.GSE.14.18.18.40	∅14	1/8"	1/8"	40	12
CA.GSE.14.18.18.80	∅14	1/8"	1/8"	80	24
CA.GSE.16.18.18	∅16	1/8"	1/8"	123	42
CA.GSE.20.14.18	∅20	1/4"	1/8"	133	68
CA.GSE.20.14.18.50	∅20	1/4"	1/8"	50	26

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Elbow Arm Gelenkverbindung mit Luftdurchführung



ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	D	WEIGHT GEWICHT [g]
CA.07.01.001	15	44	Ø21	1/8"	3
CA.07.01.002	21	56.8	Ø26.6	1/4"	9

**Realized in acetal resin.**

It's completely aligned with the suspension for vacuum cup.

**The fluid passes through it.**

Avoid cluttered near the suction fittings.

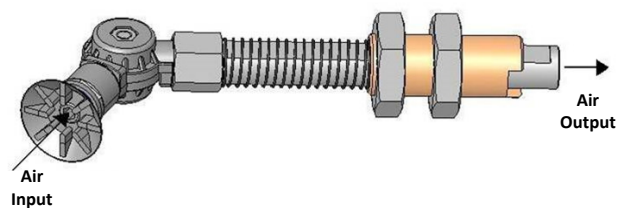
**Hergestellt aus Acetalharz.**

Zur Aufnahme von Sauggreifern vorgesehen.

**Mit Luftdurchführung.**

Ohne zusätzliche Schläuche bis zum Saugnapf.

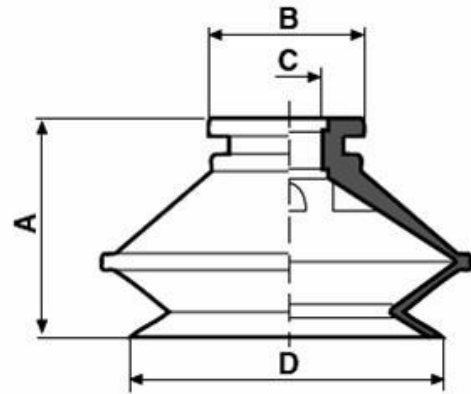
Application Example Anwendungsbeispiel



02/2013

Silicone Vacuum Cup 1,5 bellows CA.08.01

Silikon Balgensauger 1,5 CA.08.01



ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	D [mm]	F [kg]	WEIGHT GEWICHT [g]
CA.08.01.001	17	8	3.8	Ø11	0.47	1.0
CA.08.01.002	19.5	8	3.8	Ø16	0.75	1.5
CA.08.01.003	20	14.5	5	Ø20	1.5	2.5
CA.08.01.004	26	20	6.5	Ø30	2.6	6
CA.08.01.005	28	20	6.5	Ø40	4.9	10
CA.08.01.006	35	27	10.5	Ø50	8.5	20

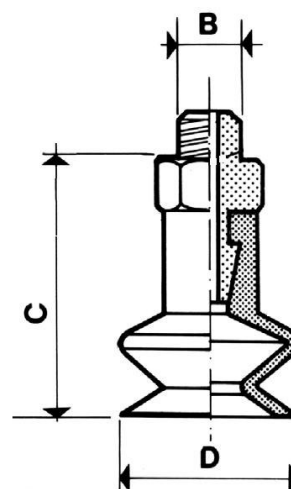
The vacuum cups CA.08.01 1,5 bellows are available only in **silicone** and usable for the sampling of particulates both **flat** and **shaped**, and thanks to the inside supports these vacuum cups can be used also for the **vertical sampling**.

Die Vakuumsauger CA.08.01 1.5 sind nur in Silikon erhältlich, zur Entnahme von ebenen bzw. verformten Teilen. Kann auch für die vertikale Entnahme benutzt werden.

02/2013

Complete Vacuum Cup with Adapter and Insert

Saugnapf mit Adapter und Einsatz

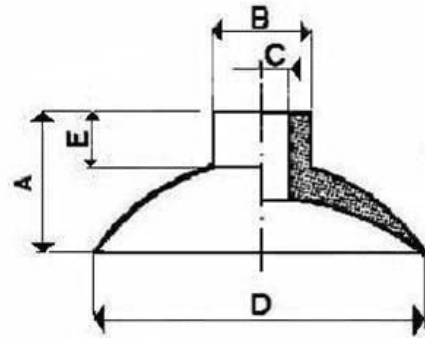
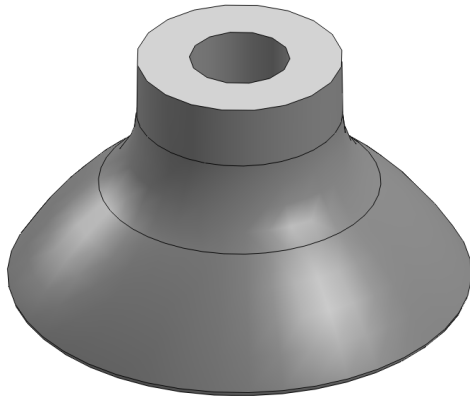


D [mm]	ARTICLE ARTIKEL	VACUUM CUP SAUGNAPF	NIPPLE NIPPEL	C [mm]	B [mm]	WEIGHT GEWICHT [g]
11	KIT.08.01.D11.4	CA.08.01.001	CA.08.09.004	22	M5	2
11	KIT.08.01.D11.9	CA.08.01.001	CA.08.09.009	22	1/8"	4
16	KIT.08.01.D16.4	CA.08.01.002	CA.08.09.004	24	M5	3
16	KIT.08.01.D16.9	CA.08.01.002	CA.08.09.009	24	1/8"	5
20	KIT.08.01.D20.1	CA.08.01.003	CA.08.09.001.AL	25	1/8"	5
30	KIT.08.01.D30.2	CA.08.01.004	CA.08.09.002.AL	31	1/8"	19
40	KIT.08.01.D40.2	CA.08.01.005	CA.08.09.002.AL	32	1/8"	23
50	KIT.08.01.D50.3	CA.08.01.006	CA.08.09.003	39	1/4"	24

### Nipples Nippel

	D. VACUUM CUP D. SAUGNAPF	THREAD GEWINDEGANG	MATERIAL MATERIAL	ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
	11-16	M5	Aluminium	CA.08.09.004	1
	11-16	1/8"	Aluminium	CA.08.09.009	3
	20	1/8"	Aluminium	CA.08.09.001.AL	2
	30-40	1/8"	Aluminium	CA.08.09.002.AL	12
	50	1/4"	Plastic Kunststoff	CA.08.09.003	4

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ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [kg]	WEIGHT GEWICHT [g]
CA.08.03.001	8	∅3	1.5	∅6	6	0.07	0.1
CA.08.03.002	8	∅5	3	∅8	6	0.10	0.2
CA.08.03.003	11	∅8	4	∅10	8	0.17	0.3
CA.08.03.004	11	∅8	4	∅12	8	0.25	0.5
CA.08.03.005	12	∅8	4	∅15	8	0.40	0.7
CA.08.03.006	13	∅8	4	∅20	8.5	0.74	1.0
CA.08.03.007	16	∅12	6	∅25	10	1.25	2.0
CA.08.03.008	16	∅12	6	∅30	10	1.70	2.5
CA.08.03.009	17	∅15	10	∅35	10	2.35	3.0
CA.08.03.010	20	∅15	10	∅45	10	4.0	5.0
CA.08.03.011	22	∅15	10	∅60	5	6.85	8.0

The flat vacuum cups CA.08.03 are available only in silicone and usable for the sampling of flat and a little round particulars , they resist the lateral

Die breit Saugnäpfe CA.08.03 sind abrufbar nur aus Silikon und benutzbar, um **breit und wenig gerundet** Einzelheiten auszuprobieren, sie halten die laterale Badspannung aus und sie können senkrecht abgehandelt werden.

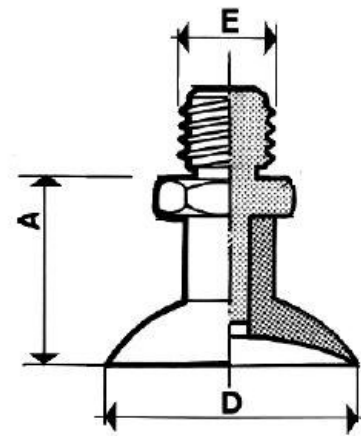


Kit 08.03

Kit 08.03

Complete Vacuum Cup with Adapter and Insert

Saugnapf mit Adapter und Einsatz



D [mm]	ARTICLE ARTIKEL	VACUUM CUP SAUGNAPF	NIPPLE NIPPEL	A [mm]	E [mm]	WEIGHT GEWICHT [g]
6	KIT.08.03.D06.5	CA.08.03.001	CA.08.09.005	12	M5	2
8	KIT.08.03.D08.6	CA.08.03.002	CA.08.09.006	12	M5	2
10	KIT.08.03.D10.4	CA.08.03.003	CA.08.09.004	15	M5	2
10	KIT.08.03.D10.9	CA.08.03.003	CA.08.09.009	16	1/8"	4
12	KIT.08.03.D12.4	CA.08.03.004	CA.08.09.004	15	M5	2
12	KIT.08.03.D12.9	CA.08.03.004	CA.08.09.009	16	1/8"	4
15	KIT.08.03.D15.4	CA.08.03.005	CA.08.09.004	16	M5	3
15	KIT.08.03.D15.9	CA.08.03.005	CA.08.09.009	17	1/8"	5
20	KIT.08.03.D20.4	CA.08.03.006	CA.08.09.004	17	M5	2
20	KIT.08.03.D20.9	CA.08.03.006	CA.08.09.009	18	1/8"	5
25	KIT.08.03.D25.10	CA.08.03.007	CA.08.09.010	21	1/8"	6
30	KIT.08.03.D30.10	CA.08.03.008	CA.08.09.010	21	1/8"	7
35	KIT.08.03.D35.11	CA.08.03.009	CA.08.09.011	22	1/8"	8
45	KIT.08.03.D45.11	CA.08.03.010	CA.08.09.011	25	1/8"	10
60	KIT.08.03.D60.11	CA.08.03.011	CA.08.09.011	28	1/8"	13

Nipples  
Nippel

	D. VACUUM CUP D. SAUGNAPF	THREAD GEWINDEGANG	ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
	6	M5	CA.08.09.005	2
	8	M5	CA.08.09.006	2
	10-12 15-20	1/8" M5	CA.08.09.009 CA.08.09.004	3 1
	25-30	1/8"	CA.08.09.010	4
	35-45-60	1/8"	CA.08.09.011	5

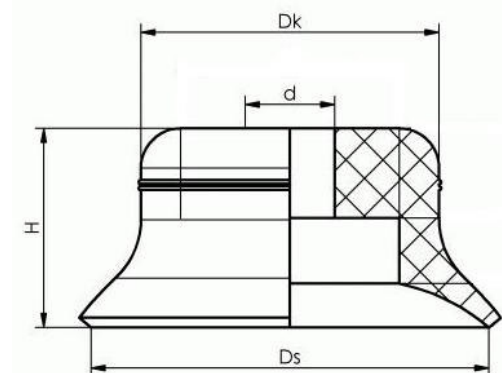
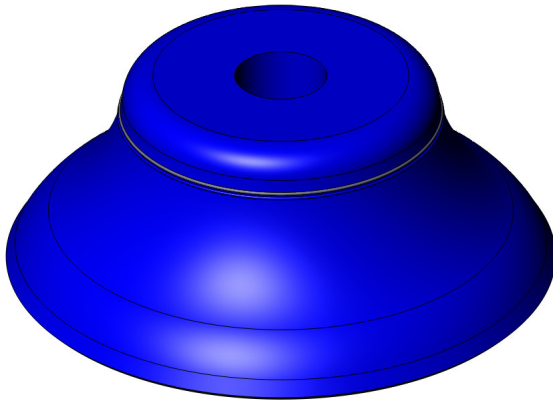
02/2013

HT1 Flat Vacuum Cup CA.08.29

HT1 Flachsauger CA.08.29

No Marking of Workpieces

Sauggreifer abdruckarm



ARTICLE ARTIKEL	Ds [mm]	H [mm]	d [mm]	Dk [mm]	F [N]	WEIGHT GEWICHT [g]
CA.08.29.001	Ø5	6.5	Ø4.0	Ø7.5	0.75	0.2
CA.08.29.002	Ø6	6.5	Ø4.0	Ø7.5	1.2	0.3
CA.08.29.003	Ø8	7.0	Ø4.0	Ø8.0	2.3	0.3
CA.08.29.004	Ø10	7.5	Ø4.0	Ø8.5	4.0	0.4
CA.08.29.005	Ø15	8.0	Ø4.5	Ø12.0	9.0	0.7
CA.08.29.006	Ø20	10.0	Ø4.5	Ø15.0	15.5	1.5
CA.08.29.007	Ø25	14.0	Ø6.0	Ø16.0	26.5	1.7
CA.08.29.008	Ø30	12.0	Ø6.0	Ø14.5	34.0	3.3
CA.08.29.009	Ø35	14.0	Ø6.0	Ø20.5	44.0	6.0
CA.08.29.010	Ø40	14.0	Ø6.0	Ø24.0	57.7	7.5
CA.08.29.011	Ø50	15.0	Ø8.0	Ø28.5	91.0	11
CA.08.29.012	Ø60	18.0	M10X1.25-IG	Ø38.5	125.0	24
CA.08.29.013	Ø80	18.0	M10X1.25-IG	Ø52.0	260.0	53

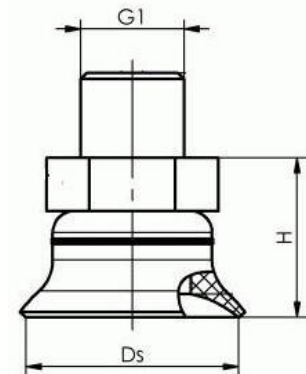
02/2013

Kit 08.29

Kit 08.29

Complete Vacuum Cup with Adapter and Insert

Saugnapf mit Adapter und Einsatz



Ds [mm]	ARTICLE ARTIKEL	VACUUM CUP SAUGNAPF	NIPPLE NIPPEL	H [mm]	G1 [mm]	WEIGHT GEWICHT [g]
5	KIT.08.29.D05	CA.08.29.001	CA.08.09.014	11.5	M5	1
6	KIT.08.29.D06	CA.08.29.002	CA.08.09.014	11.5	M5	1
8	KIT.08.29.D08	CA.08.29.003	CA.08.09.014	12	M5	1
10	KIT.08.29.D10	CA.08.29.004	CA.08.09.014	12.5	M5	2
15	KIT.08.29.D15	CA.08.29.005	CA.08.09.015	13	1/8"	5
20	KIT.08.29.D20	CA.08.29.006	CA.08.09.016	15	1/8"	6
25	KIT.08.29.D25	CA.08.29.007	CA.08.09.017	19	1/8"	7
30	KIT.08.29.D30	CA.08.29.008	CA.08.09.017	17	1/8"	8
35	KIT.08.29.D35	CA.08.29.009	CA.08.09.017	19	1/8"	10
40	KIT.08.29.D40	CA.08.29.010	CA.08.09.017	30	1/8"	12
50	KIT.08.29.D50	CA.08.29.011	CA.08.09.018	20	1/8"	15
60	KIT.08.29.D60	CA.08.29.012	CA.08.09.018	23	1/4"	29
80	KIT.08.29.D80	CA.08.29.013	CA.08.09.019	25	1/4"	58

Nipples  
Nippel

	D. VACUUM CUP D. SAUGNAPF	THREAD GEWINDEGANG	ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
	5-6-8-10	M5	CA.08.09.014	1
	15	1/8"	CA.08.09.015	4
	20	1/8"	CA.08.09.016	4
	25-30-35-40	1/8"	CA.08.09.017	4
	50	1/8"	CA.08.09.018	5
	60-80	1/4"	CA.08.09.019	5

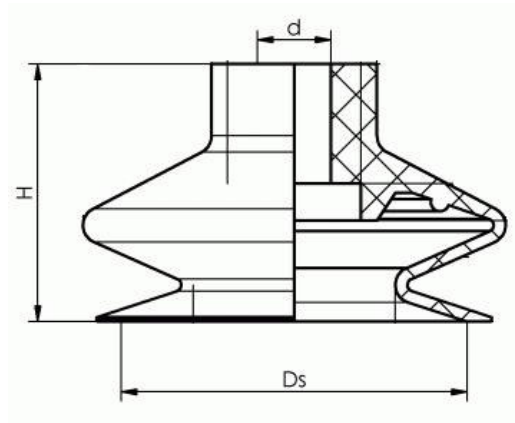
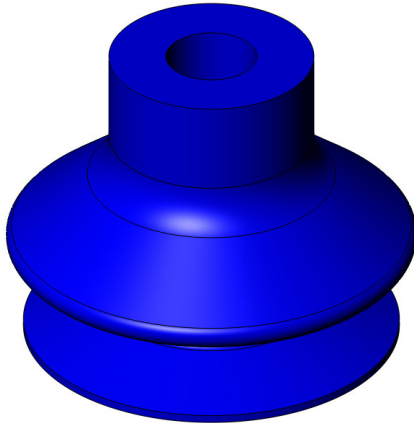
02/2013

HT1 Vacuum Cup 1,5 bellows CA.08.31

HT1 Balgensauger 1,5 balg CA.08.31

No Marking of Workpieces

Sauggreifer abdruckarm



ARTICLE ARTIKEL	Ds [mm]	H [mm]	d [mm]	F [N]	WEIGHT GEWICHT [g]
CA.08.31.012	Ø6	9	3.7	0.40	0.4
CA.08.31.001	Ø11	16	Ø3.8	0.95	1.0
CA.08.31.002	Ø14	15.5	Ø3.8	1.20	1.0
CA.08.31.003	Ø16	19.5	Ø3.8	2.30	1.3
CA.08.31.004	Ø20	15.7	Ø3.8	4.70	1.6
CA.08.31.005	Ø22	19.0	Ø3.8	5.70	2.3
CA.08.31.006	Ø25	23.0	Ø3.8	5.30	2.7
CA.08.31.007	Ø33	27.0	Ø8.0	13.60	7.4
CA.08.31.008	Ø43	27.6	Ø8.0	22.80	12
CA.08.31.009	Ø53	34	Ø8.0	51.30	19
CA.08.31.010	Ø63	34	Ø8.0	85.0	
CA.08.31.011	Ø78	47	Ø12.0	137.4	92

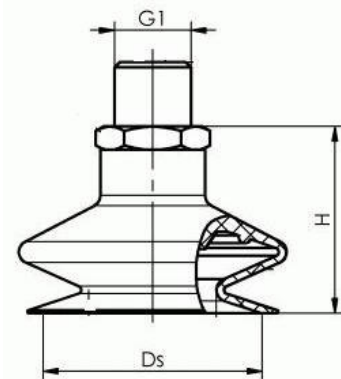
02/2013

Kit 08.31

Kit 08.31

Complete Vacuum Cup with Adapter and Insert

Saugnapf mit Adapter und Einsatz



Ds [mm]	ARTICLE ARTIKEL	VACUUM CUP SAUGNAPF	NIPPLE NIPPEL	H [mm]	G1 [mm]	WEIGHT GEWICHT [g]
11	KIT.08.31.D11.4	CA.08.31.001	CA.08.09.004	22	M5 1/8"	2
11	KIT.08.31.D11.9	CA.08.31.001	CA.08.09.009			4
14	KIT.08.31.D14.4	CA.08.31.002	CA.08.09.004	22	M5 1/8"	2
14	KIT.08.31.D14.9	CA.08.31.002	CA.08.09.009			4
16	KIT.08.31.D16.4	CA.08.31.003	CA.08.09.004	25	M5 1/8"	2
16	KIT.08.31.D16.9	CA.08.31.003	CA.08.09.009			5
20	KIT.08.31.D20.4	CA.08.31.004	CA.08.09.004	23	M5 1/8"	3
20	KIT.08.31.D20.9	CA.08.31.004	CA.08.09.009			5
22	KIT.08.31.D22.4	CA.08.31.005	CA.08.09.004	25	M5 1/8"	3
22	KIT.08.31.D22.9	CA.08.31.005	CA.08.09.009			6
25	KIT.08.31.D25.4	CA.08.31.006	CA.08.09.004	28	M5 1/8"	4
25	KIT.08.31.D25.9	CA.08.31.006	CA.08.09.009			6
33	KIT.08.31.D33.11	CA.08.31.007	CA.08.09.011	31	1/8" 1/4"	12
33	KIT.08.31.D33.21	CA.08.31.007	CA.08.09.021			15
43	KIT.08.31.D43.11	CA.08.31.008	CA.08.09.011	32	1/8" 1/4"	17
43	KIT.08.31.D43.21	CA.08.31.008	CA.08.09.021			19
53	KIT.08.31.D53.11	CA.08.31.009	CA.08.09.011	38	1/8" 1/4"	24
53	KIT.08.31.D53.21	CA.08.31.009	CA.08.09.021			27
63	KIT.08.31.D63.21	CA.08.31.010	CA.08.09.021	51	1/4"	
78	KIT.08.31.D78.21	CA.08.31.011	Ca.08.09.024	62	1/4"	99

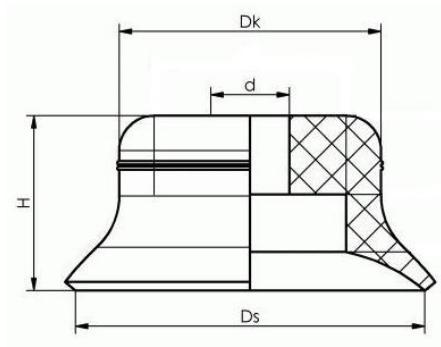
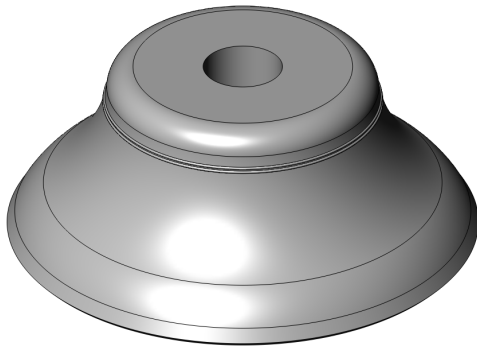
Nipples  
Nippel

	D. VACUUM CUP D. SAUGNAPF	THREAD GEWINDEGANG	ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
	11-14-16-20-22-25	1/8" M5	CA.08.09.009 Ca.08.09.004	3 1
	33-43-53	1/8"	CA.08.09.011	5
	33-43-53-63-78	1/4"	CA.08.09.021 CA.08.09.024	7

02/2013

Silicone Flat Vacuum Cup CA.08.28

Silikon Flachsauger CA.08.28



ARTICLE ARTIKEL	Ds [mm]	H [mm]	d [mm]	Dk [mm]	F [N]	WEIGHT GEWICHT [g]
CA.08.28.001	Ø5	6.5	Ø4.0	Ø7.5	0.75	0.1
CA.08.28.002	Ø6	6.5	Ø4.0	Ø7.5	1.2	0.1
CA.08.28.003	Ø8	7.0	Ø4.0	Ø8.0	2.3	0.2
CA.08.28.004	Ø10	7.5	Ø4.0	Ø8.5	4.0	0.2
CA.08.28.005	Ø15	8.0	Ø4.5	Ø12.0	9.0	0.6
CA.08.28.006	Ø20	10.0	Ø4.5	Ø15.0	15.5	1.4
CA.08.28.007	Ø25	14.0	Ø6.0	Ø16.0	26.5	2.8
CA.08.28.008	Ø30	12.0	Ø6.0	Ø14.5	34.0	3.0
CA.08.28.009	Ø35	14.0	Ø6.0	Ø20.5	44.0	6.1
CA.08.28.010	Ø40	14.0	Ø6.0	Ø24.0	57.7	7.6
CA.08.28.011	Ø50	15.0	Ø8.0	Ø28.5	91.0	11
CA.08.28.012	Ø60	18.0	M10X1.25-IG	Ø38.5	125.0	24
CA.08.28.013	Ø80	18.0	M10X1.25-IG	Ø52.0	260.0	52

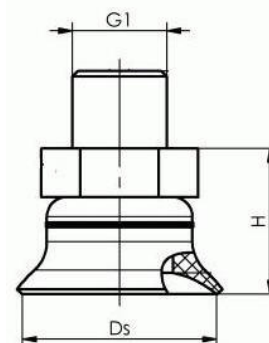
02/2013

Kit 08.28

Kit 08.28

Complete Vacuum Cup with Adapter and Insert

Saugnapf mit Adapter und Einsatz



Ds [mm]	ARTICLE ARTIKEL	VACUUM CUP SAUGNAPF	NIPPLE NIPPEL	H [mm]	G1 [mm]	WEIGHT GEWICHT [g]
5	KIT.08.28.D05	CA.08.28.001	CA.08.09.014	11.5	M5	1
6	KIT.08.28.D06	CA.08.28.002	CA.08.09.014	11.5	M5	1
8	KIT.08.28.D08	CA.08.28.003	CA.08.09.014	12	M5	1
10	KIT.08.28.D10	CA.08.28.004	CA.08.09.014	12.5	M5	1
15	KIT.08.28.D15	CA.08.28.005	CA.08.09.015	13	1/8"	5
20	KIT.08.28.D20	CA.08.28.006	CA.08.09.016	15	1/8"	6
25	KIT.08.28.D25	CA.08.28.007	CA.08.09.017	19	1/8"	7
30	KIT.08.28.D30	CA.08.28.008	CA.08.09.017	17	1/8"	7
35	KIT.08.28.D35	CA.08.28.009	CA.08.09.017	19	1/8"	10
40	KIT.08.28.D40	CA.08.28.010	CA.08.09.017	30	1/8"	12
50	KIT.08.28.D50	CA.08.28.011	CA.08.09.018	20	1/8"	15
60	KIT.08.28.D60	CA.08.28.012	CA.08.09.019	23	1/4"	29
80	KIT.08.28.D80	CA.08.28.013	CA.08.09.019	25	1/4"	60

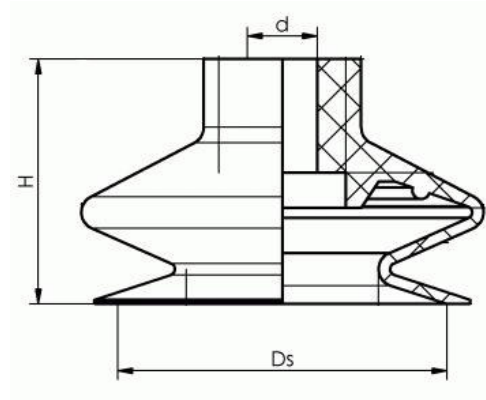
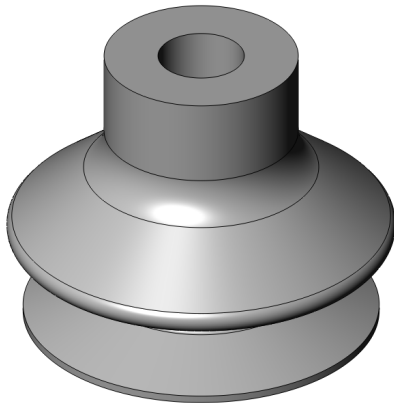
Nipples  
Nippel

	D. VACUUM CUP D. SAUGNAPF	THREAD GEWINDEGANG	ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
	5-6-8-10	M5	CA.08.09.014	1
	15	1/8"	CA.08.09.015	4
	20	1/8"	CA.08.09.016	4
	25-30-35-40	1/8"	CA.08.09.017	4
	50	1/8"	CA.08.09.018	5
	60-80	1/4"	CA.08.09.019	5

02/2013

Silicone Vacuum Cup 1,5 bellows CA.08.30

Silikon Balgensauger 1,5 balg CA.08.30



ARTICLE ARTIKEL	Ds [mm]	H [mm]	d [mm]	F [N]	WEIGHT GEWICHT [g]
CA.08.30.012	Ø6	9	3.7	0.4	0.4
CA.08.30.001	Ø11	16	Ø5	2.4	0.9
CA.08.30.002	Ø14	16	Ø5	3.5	1.1
CA.08.30.003	Ø16	19	Ø5	3.7	1.3
CA.08.30.004	Ø20	16	Ø4.7	7.7	1.5
CA.08.30.005	Ø25	23	Ø4.7	11	2.9
CA.08.30.006	Ø33	27.5	Ø8	19.2	7.3
CA.08.30.007	Ø43	28	Ø8	28	9.9
CA.08.30.008	Ø53	34	Ø8	59	17
CA.08.30.009	Ø63	34	Ø8	82	24
CA.08.30.010	Ø78	46.8	Ø12	152	87

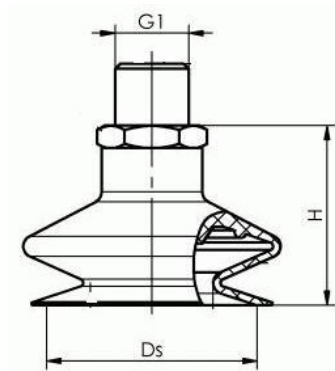
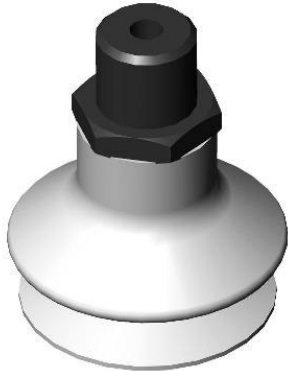


Kit 08.30

Kit 08.30

Complete Vacuum Cup with Adapter and Insert

Saugnapf mit Adapter und Einsatz



Ds [mm]	ARTICLE ARTIKEL	VACUUM CUP SAUGNAPF	NIPPLE NIPPEL	H [mm]	G1 [mm]	WEIGHT GEWICHT [g]
11	<b>KIT.08.30.D11.4</b>	CA.08.30.001	CA.08.09.004	22	M5 1/8"	2
11	<b>KIT.08.30.D11.9</b>	CA.08.30.001	CA.08.09.009			4
14	<b>KIT.08.30.D14.4</b>	CA.08.30.002	CA.08.09.004	22	M5 1/8"	2
14	<b>KIT.08.30.D14.9</b>	CA.08.30.002	CA.08.09.009			5
16	<b>KIT.08.30.D16.4</b>	CA.08.30.003	CA.08.09.004	25	M5 1/8"	2
16	<b>KIT.08.30.D16.9</b>	CA.08.30.003	CA.08.09.009			5
20	<b>KIT.08.30.D20.4</b>	CA.08.30.004	CA.08.09.004	23	M5 1/8"	3
20	<b>KIT.08.30.D20.9</b>	CA.08.30.004	CA.08.09.009			5
25	<b>KIT.08.30.D25.4</b>	CA.08.30.005	CA.08.09.004	28	M5 1/8"	4
25	<b>KIT.08.30.D25.9</b>	CA.08.30.005	CA.08.09.009			6
33	<b>KIT.08.30.D33.11</b>	CA.08.30.006	CA.08.09.011	31	1/8" 1/4"	12
33	<b>KIT.08.30.D33.21</b>	CA.08.30.006	CA.08.09.021			15
43	<b>KIT.08.30.D43.11</b>	CA.08.30.007	CA.08.09.011	32	1/8" 1/4"	15
43	<b>KIT.08.30.D43.21</b>	CA.08.30.007	CA.08.09.021			17
53	<b>KIT.08.30.D53.11</b>	CA.08.30.008	CA.08.09.011	38	1/8" 1/4"	22
53	<b>KIT.08.30.D53.21</b>	CA.08.30.008	CA.08.09.021			24
63	<b>KIT.08.30.D63.11</b>	CA.08.30.009	CA.08.09.011	51	1/4"	29
63	<b>KIT.08.30.D63.21</b>	CA.08.30.009	CA.08.09.021			31
78	<b>KIT.08.30.D78.24</b>	CA.08.30.010	CA.08.09.024	62	1/4"	

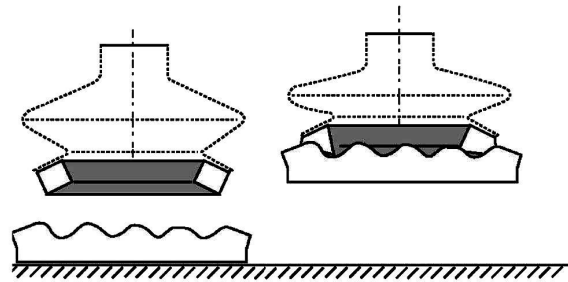
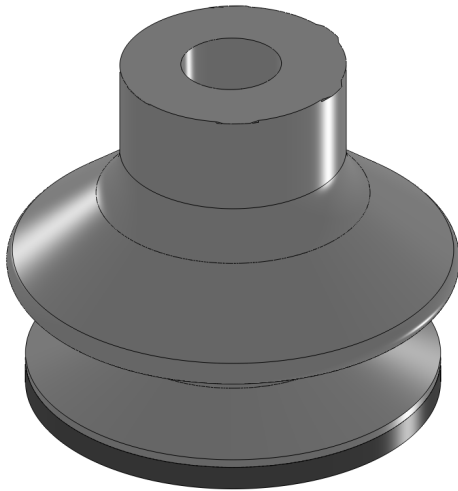
Nipples  
Nippel

	D. VACUUM CUP D. SAUGNAPF	THREAD GEWINDEGANG	ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
	11-14-16-20-25	1/8"	CA.08.09.009	3
		M5	CA.08.09.004	1
	33-43-53-63	1/8"	CA.08.09.011	5
		1/4"	CA.08.09.021	7
		78	CA.08.09.024	

02/2013

Silicone Vacuum Cup 1,5 bellows with Soft Ring CA.08.26

Silikon Balgensauger 1,5 balg mit Soft Ring CA.08.26



\*Articles not available in stock.  
Delivery times 2 weeks.

\*Artikeln nicht eraltlich im Lager.  
Lieferzeiten 2 woche.

ARTICLE ARTIKEL	DIAMETER DURCHMESSER [mm]	F [N]	WEIGHT GEWICHT [g]
CA.08.26.D20.AS	20	9	1.8
CA.08.26.D25.AS	25	11	3.2
CA.08.26.D33.AS	33	19.2	7.7
CA.08.26.D43.AS	43	28	15
CA.08.26.D53.AS	53	59	24
CA.08.26.D63.AS*	63	82	
CA.08.26.D78.AS*	78	152	85

These vacuum cups models can be put on **irregular surfaces or with sinking**, they are realized sticking **silicone soft ring** on vacuum cups CA.08.30. The sticking will be ensured only if it is made by the producer. For the dimentions, take as a reference the previous series, adding 3mm for the ring thickness.

Diese Saugnäpfe können an irreguläre Oberflächen oder mit Senkung gelegt werden, sie werden durch das Einbrennen des Anschlaringes an Saugnäpfe CA.08.30 gemacht. Das Einbrennen wird abgesichert werden nur wenn es von der Erzeuger gemacht wird. Für die Ausmaße, nehmen Sie wie Referzierung die früher Baureihe an, plus 3mm für die Dicke des Ringes.

Kit 08.26

Kit 08.26

Complete Vacuum Cup with Adapter and Insert

Saugnapf mit Adapter und Einsatz

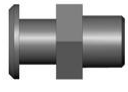


D [mm]	ARTICLE ARTIKEL	VACUUM CUP SAUGNAPF	NIPPLE NIPPEL	WEIGHT GEWICHT [g]
20	KIT.08.26.D20.4	CA.08.26.D20.AS	CA.08.09.004	3
20	KIT.08.26.D20.9	CA.08.26.D20.AS	CA.08.09.009	5
25	KIT.08.26.D25.4	CA.08.26.D25.AS	CA.08.09.004	5
25	KIT.08.26.D25.9	CA.08.26.D25.AS	CA.08.09.009	7
33	KIT.08.26.D33.11	CA.08.26.D33.AS	CA.08.09.011	13
33	KIT.08.26.D33.21	CA.08.26.D33.AS	CA.08.09.021	15
43	KIT.08.26.D43.11	CA.08.26.D43.AS	CA.08.09.011	20
43	KIT.08.26.D43.21	CA.08.26.D43.AS	CA.08.09.021	22
53	KIT.08.26.D53.11	CA.08.26.D53.AS	CA.08.09.011	29
53	KIT.08.26.D53.21	CA.08.26.D53.AS	CA.08.09.021	31
63*	KIT.08.26.D63.11	CA.08.26.D63.AS	CA.08.09.011	41
63*	KIT.08.26.D63.21	CA.08.26.D63.AS	CA.08.09.021	43
78*	KIT.08.26.D78.24	CA.08.26.D78.AS	CA.08.09.24	

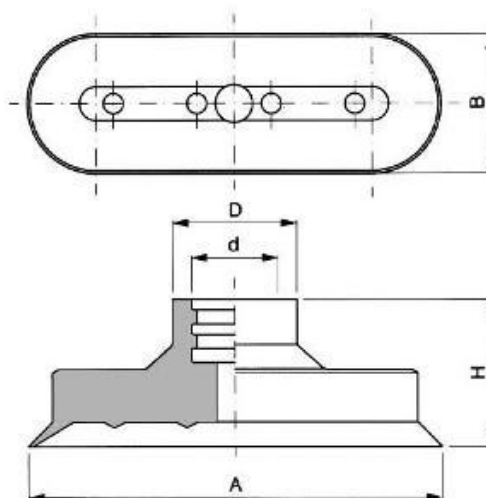
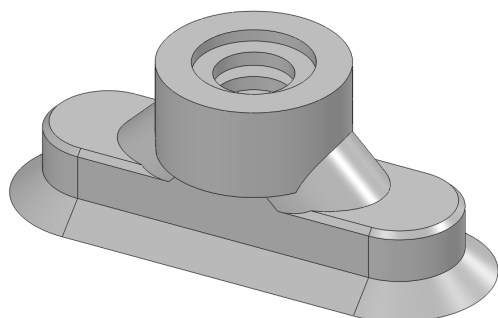
\*Articles not available in stock.  
Delivery times 2 weeks.

\*Artikeln nicht eraltlich im Lager.  
Lieferzeiten 2 woche.

Nipples  
Nippel

	D. VACUUM CUP D. SAUGNAPF	THREAD GEWINDEGANG	ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
	20-25	1/8" M5	CA.08.09.009 CA.08.09.004	3 1
	33-43-53-63	1/8"	CA.08.09.011	5
	33-43-53-63	1/4"	CA.08.09.021	7
	78	1/4"	CA.08.09.024	

02/2013



ARTICLE ARTIKEL	A [mm]	B [mm]	D [mm]	d [mm]	H [mm]	F [N]	WEIGHT GEWICHT [g]
CA.08.27.001	24	8	∅12	∅5	12	8	1.3
CA.08.27.002	30	10	∅12	∅5	12	12.2	1.3
CA.08.27.003	36	12	∅12	∅5	12	20	1.7
CA.08.27.004	45	15	∅17	∅11	21	28	4.3
CA.08.27.005	60	20	∅18	∅11	21	50	8.2
CA.08.27.006	75	25	∅18	∅11	21	78	18



For a major no-undermining security, it's possible to use the security circle. This is optional, so request at the time of the order.

Um ein größer keine Unterspülung Betriebsschutz zu haben, ist es möglich, um Zweiohrklemme zu benutzen. Das ist fakultativ, daher fragen Sie ab, wenn Sie die Auftragsbestätigung machen.

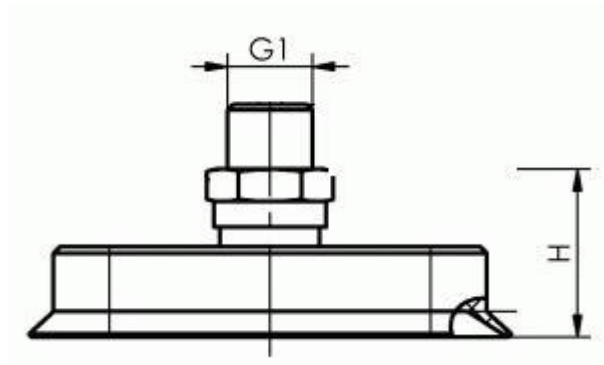
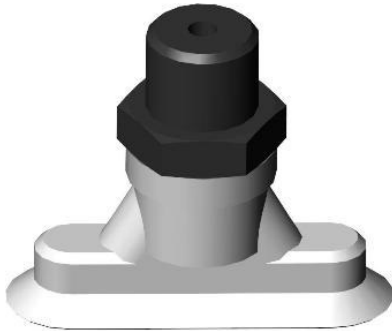
02/2013

Kit 08.27

Kit 08.27



Complete Vacuum Cup with Adapter and Insert

Saugnapf mit Adapter und Einsatz



LENGTH LÄNGE	ARTICLE ARTIKEL	VACUUM CUP SAUGNAPF	NIPPLE NIPPEL	H [mm]	G1 [mm]	WEIGHT GEWICHT [g]
24	KIT.08.27.L24.1A	CA.08.27.001	CA.08.09.001.AL	17	1/8"	4
30	KIT.08.27.L30.1A	CA.08.27.002	CA.08.09.001.AL	17	1/8"	4
36	KIT.08.27.L36.1A	CA.08.27.003	CA.08.09.001.AL	17	1/8"	4
45	KIT.08.27.L45.13	CA.08.27.004	CA.08.09.013	26	1/4"	22
60	KIT.08.27.L60.13	CA.08.27.005	CA.08.09.013	26	1/4"	26
75	KIT.08.27.L75.13	CA.08.27.006	CA.08.09.013	26	1/4"	36

## Nipples Nippel

	LENGTH LÄNGE	THREAD GEWINDEGANG	ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
	24-30-36	1/8"	CA.08.09.001.AL	2
	45-60-75	1/4"	CA.08.09.013	18
	24-30-36	1/8"	CA.08.09.015	4

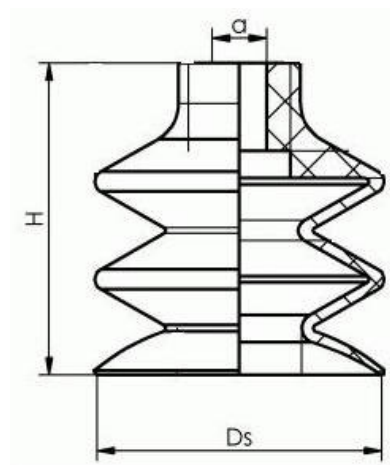
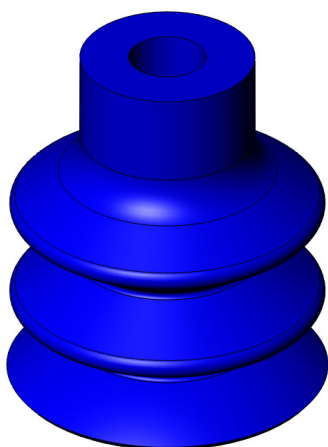
02/2013

HT1 Vacuum Cup 2,5 bellows CA.08.32

HT1 Balgensauger 2,5 balg CA.08.32

No Marking of Workpieces

Sauggreifer abdruckarm



ARTICLE ARTIKEL	Ds [mm]	H [mm]	d [mm]	F [N]	WEIGHT GEWICHT [g]
CA.08.32.D09	Ø09	15	Ø4	0.7	0.7
CA.08.32.D12	Ø12	21	Ø4	0.9	1.2
CA.08.32.D14	Ø14	23	Ø4	1.2	1.5
CA.08.32.D20	Ø20	22	Ø4	3.8	2.2
CA.08.32.D25	Ø25	34	Ø4	4.5	4.0
CA.08.32.D32	Ø32	37	Ø8	12.0	7.0
CA.08.32.D42	Ø42	46	Ø8	13.6	14

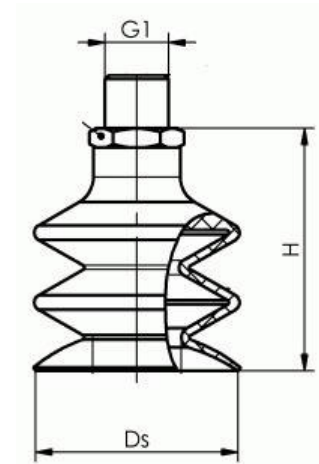
02/2013

Kit 08.32

Kit 08.32

Complete Vacuum Cup with Adapter and Insert

Saugnapf mit Adapter und Einsatz



Ds [mm]	ARTICLE ARTIKEL	VACUUM CUP SAUGNAPF	NIPPLE NIPPEL	H [mm]	G1 [mm]	WEIGHT GEWICHT [g]
9	KIT.08.32.D09.26	CA.08.32.D09	CA.08.09.026	20	M5	2
12	KIT.08.32.D12.4	CA.08.32.D12	CA.08.09.004	26	M5	2
12	KIT.08.32.D12.9	CA.08.32.D12	CA.08.09.009	27	1/8"	5
14	KIT.08.32.D14.4	CA.08.32.D14	CA.08.09.004	27	M5	3
14	KIT.08.32.D14.9	CA.08.32.D14	CA.08.09.009	28	1/8"	5
20	KIT.08.32.D20.4	CA.08.32.D20	CA.08.09.004	27	M5	3
20	KIT.08.32.D20.9	CA.08.32.D20	CA.08.09.009	28	1/8"	6
25	KIT.08.32.D25.4	CA.08.32.D25	CA.08.09.004	39	M5	5
25	KIT.08.32.D25.9	CA.08.32.D25	CA.08.09.009	40	1/8"	8
32	KIT.08.32.D32.11	CA.08.32.D32	CA.08.09.011	39	1/8"	12
32	KIT.08.32.D32.21	CA.08.32.D32	CA.08.09.021	41	1/4"	14
42	KIT.08.32.D42.11	CA.08.32.D42	CA.08.09.011	48	1/8"	19
42	KIT.08.32.D42.21	CA.08.32.D42	CA.08.09.021	50	1/4"	21

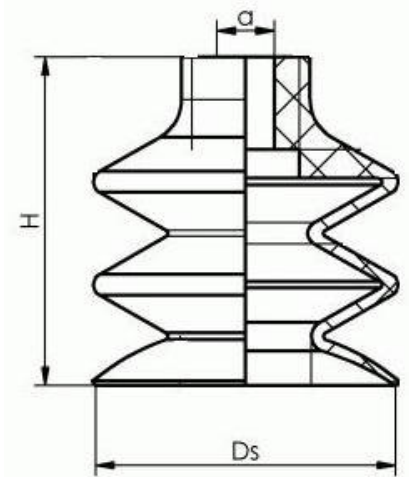
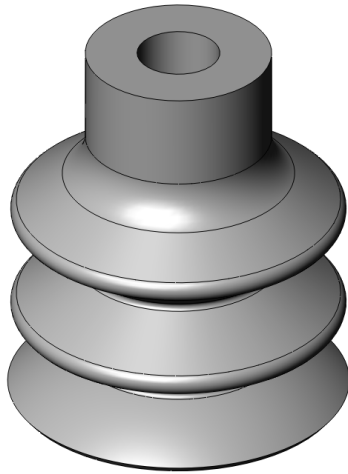
Nipples  
Nippel

	Ds [mm]	THREAD GEWINDEGANG	ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
	11-14-20-25	1/8"	CA.08.09.009	3
		M5	CA.08.09.004	1
	32-42	1/8"	CA.08.09.011	5
	32-42	1/4"	CA.08.09.021	7

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Silicone Vacuum Cup 2,5 bellows CA.08.33

Silikon Balgensauger 2,5 balg CA.08.33



ARTICLE ARTIKEL	Ds [mm]	H [mm]	d [mm]	F [N]	WEIGHT GEWICHT [g]
CA.08.33.D5	Ø5	14	Ø3.5	0.15	0.2
CA.08.33.D7	Ø7	14	Ø4	0.1	0.3
CA.08.33.D9	Ø9	15	Ø4	0.68	0.6
CA.08.33.D12	Ø12	21	Ø4	0.9	1.2
CA.08.33.D14	Ø14	23	Ø4	1.2	1.5
CA.08.33.D20	Ø20	22	Ø4	3.8	2.2
CA.08.33.D25	Ø25	34	Ø4	4.5	4.0
CA.08.33.D32	Ø32	37	Ø8	12.0	8.6
CA.08.33.D42	Ø42	46	Ø8	13.6	18
CA.08.33.D52	Ø52	49	Ø8	27	35
CA.08.33.D60	Ø60				48

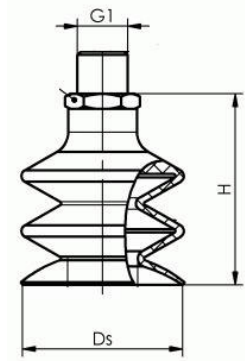


Kit 08.33

Kit 08.33


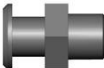
Complete Vacuum Cup with Adapter and Insert

Saugnapf mit Adapter und Einsatz



Ds [mm]	ARTICLE ARTIKEL	VACUUM CUP SAUGNAPF	NIPPLE NIPPEL	H [mm]	G1 [mm]	WEIGHT GEWICHT [g]
5	<b>KIT.08.33.D5.25</b>	CA.08.33.D5	CA.08.09.025	19	M5	1
7	<b>KIT.08.33.D7.26</b>	CA.08.33.D7	CA.08.09.026	19	M5	1
9	<b>KIT.08.33.D9.26</b>	CA.08.33.D9	CA.08.09.026	20	M5	2
12	<b>KIT.08.33.D12.4</b>	CA.08.33.D12	CA.08.09.004	26	M5	3
12	<b>KIT.08.33.D12.9</b>	CA.08.33.D12	CA.08.09.009	27	1/8"	5
14	<b>KIT.08.33.D14.4</b>	CA.08.33.D14	CA.08.09.004	27	M5	3
14	<b>KIT.08.33.D14.9</b>	CA.08.33.D14	CA.08.09.009	28	1/8"	5
20	<b>KIT.08.33.D20.4</b>	CA.08.33.D20	CA.08.09.004	27	M5	3
20	<b>KIT.08.33.D20.9</b>	CA.08.33.D20	CA.08.09.009	28	1/8"	6
25	<b>KIT.08.33.D25.4</b>	CA.08.33.D25	CA.08.09.004	39	M5	5
25	<b>KIT.08.33.D25.9</b>	CA.08.33.D25	CA.08.09.009	40	1/8"	7
32	<b>KIT.08.33.D32.11</b>	CA.08.33.D32	CA.08.09.011	39	1/8"	14
32	<b>KIT.08.33.D32.21</b>	CA.08.33.D32	CA.08.09.021	41	1/4"	16
42	<b>KIT.08.33.D42.11</b>	CA.08.33.D42	CA.08.09.011	48	1/8"	23
42	<b>KIT.08.33.D42.21</b>	CA.08.33.D42	CA.08.09.021	50	1/4"	25
52	<b>KIT.08.33.D52.11</b>	CA.08.33.D52	CA.08.09.011	51	1/8"	40
52	<b>KIT.08.33.D52.21</b>	CA.08.33.D52	CA.08.09.021	53	1/4"	42

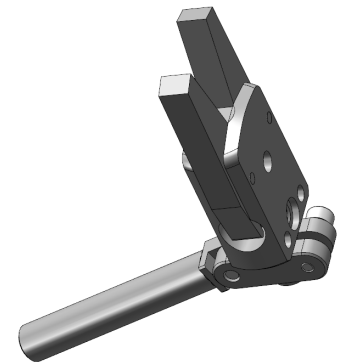
Nipples  
Nippel

	Ds [mm]	THREAD GEWINDEGANG	ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
	5	M5	<b>CA.08.09.025</b>	1
	7 - 9	M5	<b>CA.08.09.026</b>	1
	11-14-20-25	1/8"	<b>CA.08.09.009</b>	3
		M5	<b>CA.08.09.004</b>	1
	32-42-52	1/8"	<b>CA.08.09.011</b>	5
	32-42-52	1/4"	<b>CA.08.09.021</b>	7

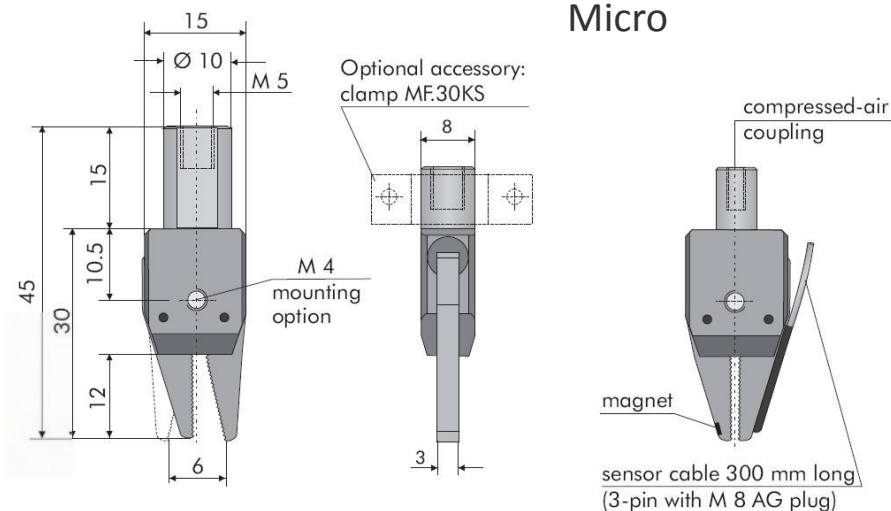
02/2013

## Sprue Gripper

## Anguss-Greifzangen



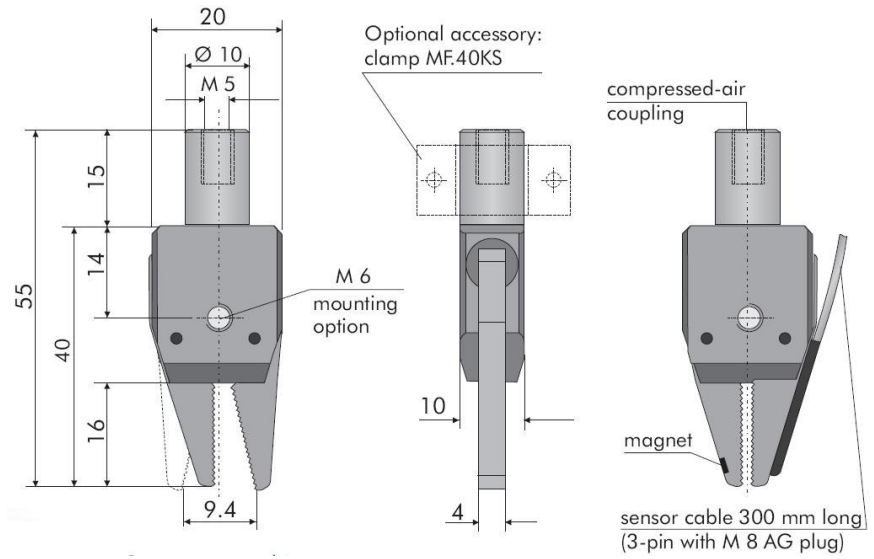
ARTICLE ARTIKEL	MODEL MODELL	WEIGHT GEWICHT [g]
CA.09.03.MAXI	No-selfcentering sprue gripper open 16.3mm with opening spring Nicht selbstzentrierende Anguss-Winkelgreifzangen 16.3mm mit 2 Backen	37
CA.09.03.MAXI.S	No-selfcentering sprue gripper open 16.3mm with opening spring+sensor Nicht selbstzentrierende Anguss-Winkelgreifzangen 16.3mm mit 2 Backen+Sensor	37
CA.09.03.MIDI	No-selfcentering sprue gripper open 14mm with opening spring Nicht selbstzentrierende Anguss-Winkelgreifzangen 14mm mit 2 Backen	23
CA.09.03.MIDI.S	No-selfcentering sprue gripper open 14mm with opening spring+sensor Nicht selbstzentrierende Anguss-Winkelgreifzangen 14mm mit 2 Backen+Sensor	23
CA.09.03.MINI	No-selfcentering sprue gripper open 9,4mm with opening spring Nicht selbstzentrierende Anguss-Winkelgreifzangen 9.4mm mit 2 Backen	14
CA.09.03.MINI.S	No-selfcentering sprue gripper open 9,4mm with opening spring+sensor Nicht selbstzentrierende Anguss-Winkelgreifzangen 9.4mm mit 2 Backen+Sensor	14
CA.09.03.MICRO	No-selfcentering sprue gripper open 6mm with opening spring Nicht selbstzentrierende Anguss-Winkelgreifzangen 6mm mit 2 Backen	8
CA.09.03.MICRO.S	No-selfcentering sprue gripper open 6mm with opening spring+sensor Nicht selbstzentrierende Anguss-Winkelgreifzangen 6mm mit 2 Backen+Sensor	8



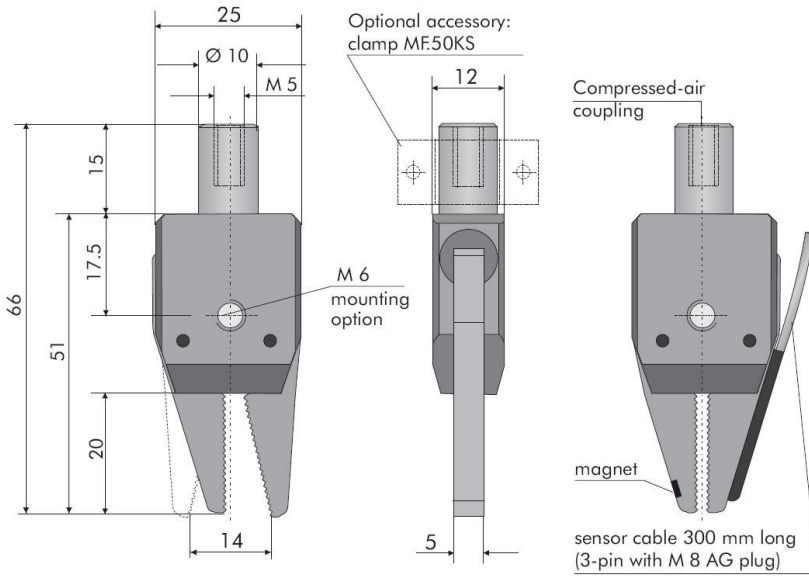
02/2013

Sprue Gripper Anguss-Greifzangen

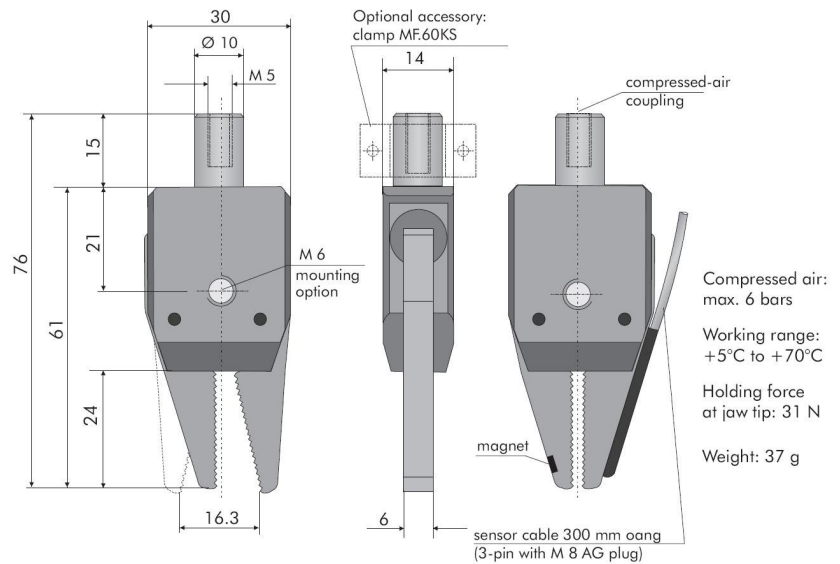
Mini



Midi



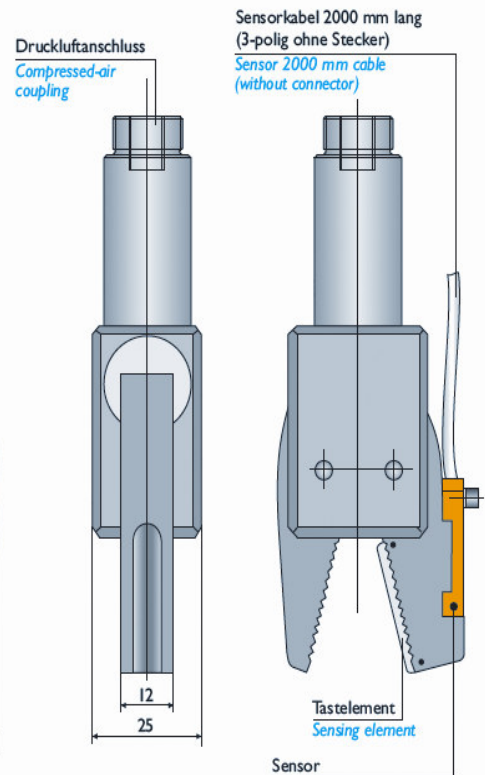
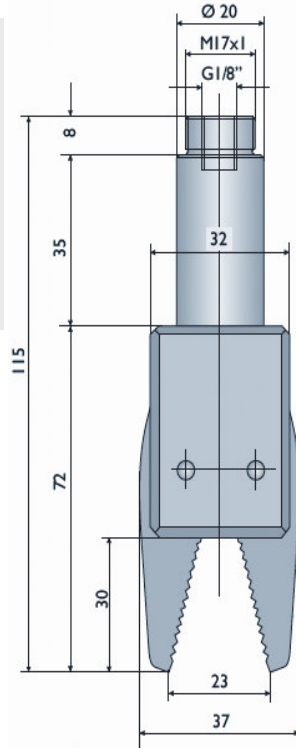
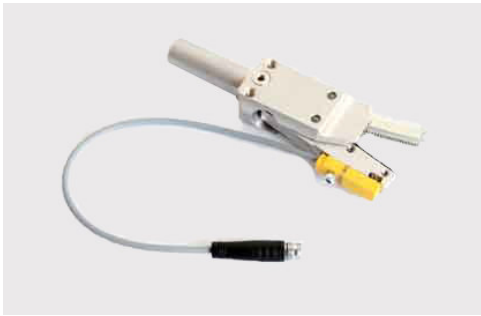
Maxi



Compressed air:  
max. 6 bars  
Working range:  
+5°C to +70°C  
Holding force  
at jaw tip: 31 N  
Weight: 37 g

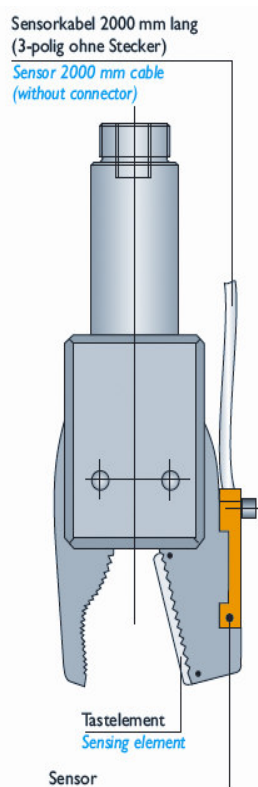
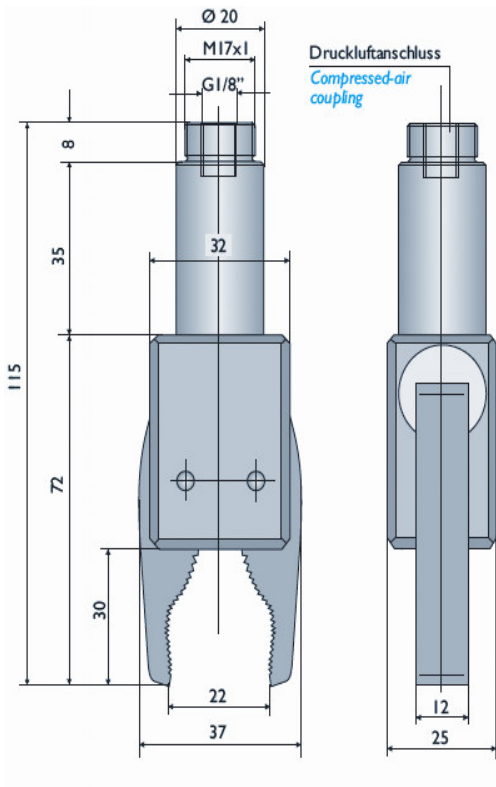
02/2013

Sprue Gripper DD Anguss-Greifzangen DD



CA.DD3020

CA.DD3020.S



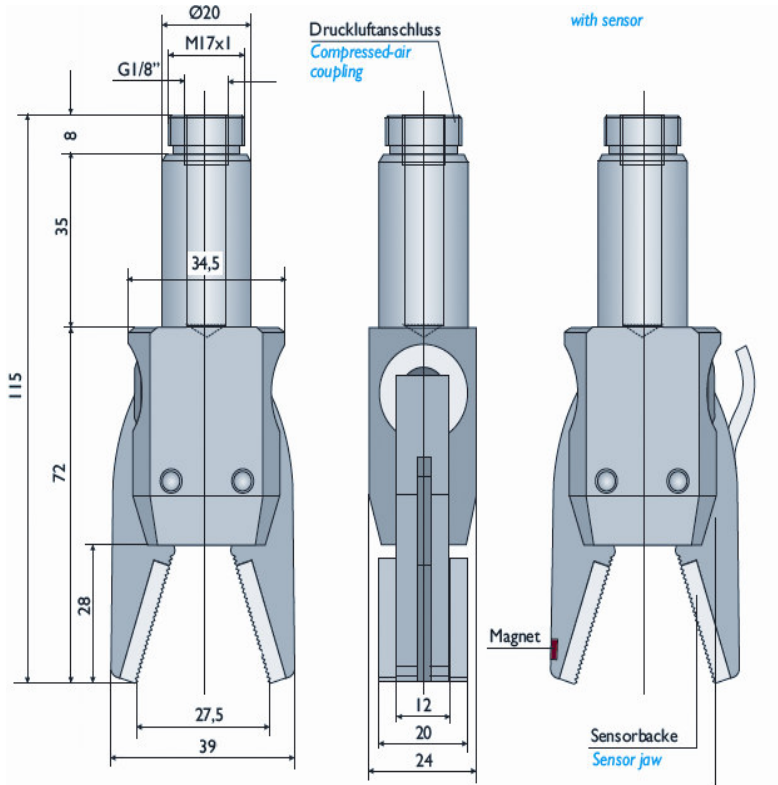
CA.DD4020

CA.DD4020.S

02/2013

Sprue Gripper DD

Anguss-Greifzangen DD



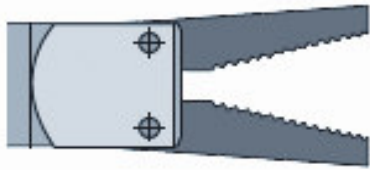
CA.DD5020

CA.DD5020.S

02/2013

Sprue Gripper DD Anguss-Greifzangen DD

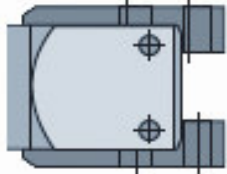
**CA.DD2011D**



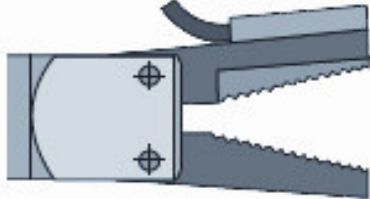
**CA.DD2022D**



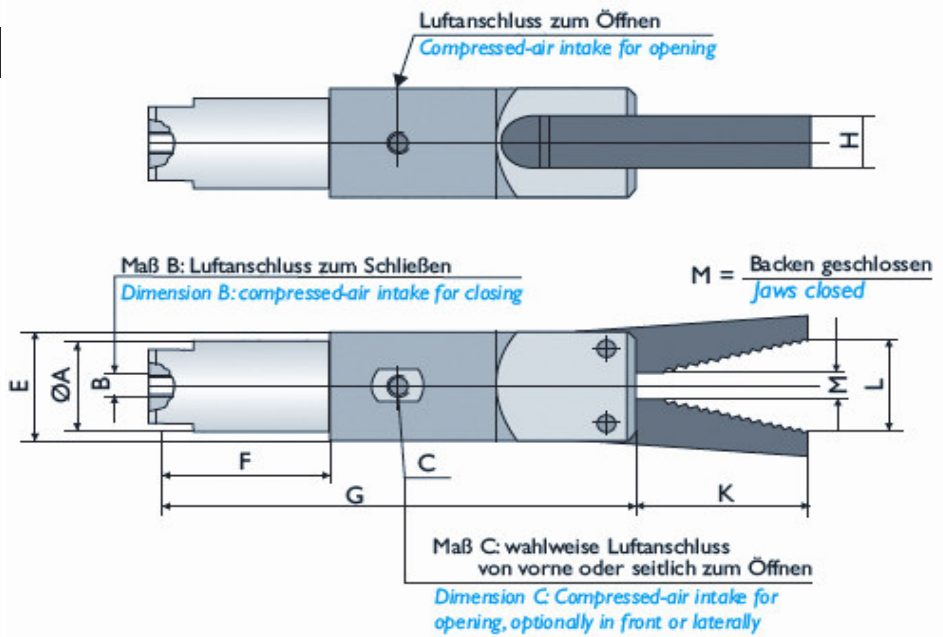
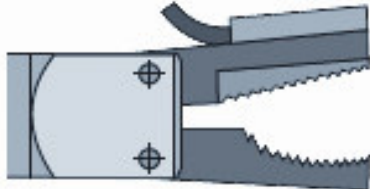
**CA.DD2033D**



**CA.DD2041DS**



**CA.DD2042DS**

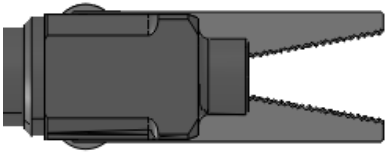


ARTICLE ARTIKEL	A [mm]	B	C	E [mm]	F [mm]	G [mm]	H [mm]	K [mm]	L [mm]	M [mm]	Holding force (6bar)	WEIGHT GEWICHT [g]
CA.DD2011D	Ø20	M5	M5	25	30	100	12	34	22	1	120	156
CA.DD2022D	Ø20	M5	M5	25	30	100	12	34	22	1	120	150
CA.DD2033D	Ø20	M5	M5	25	30	100	12	7	30	6	120	132
CA.DD2041DS	Ø20	M5	M5	25	30	100	12	34	18	2	120	180
CA.DD2042DS	Ø20	M5	M5	25	30	100	12	34	18	2	120	177

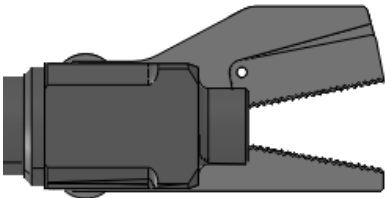
02/2013

Sprue Gripper DD Anguss-Greifzangen DD

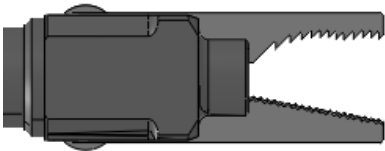
**CA.DD20.16R**



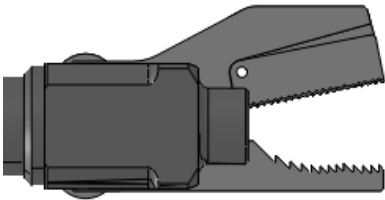
**CA.DD20.16S**



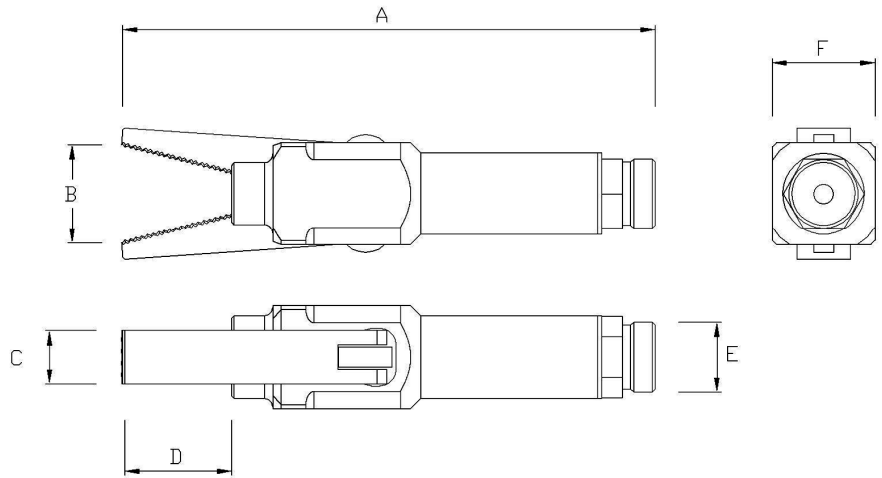
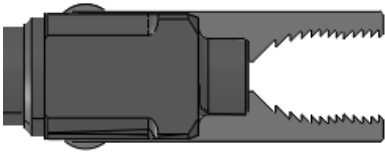
**CA.DD20.16K**



**CA.DD20.16W**



**CA.DD20.16E**



**CA.DD20.16P**

ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	WEIGHT GEWICHT [g]
CA.DD20.16P							
CA.DD20.16R	130	23.5	13	27	∅20	25	160
CA.DD20.16S	130	18	13	27	∅20	25	165
CA.DD20.16K	130	17	13	27	∅20	25	170
CA.DD20.16W	130	21.5	13	27	∅20	25	170
CA.DD20.16E	130	16	13	27	∅20	25	165

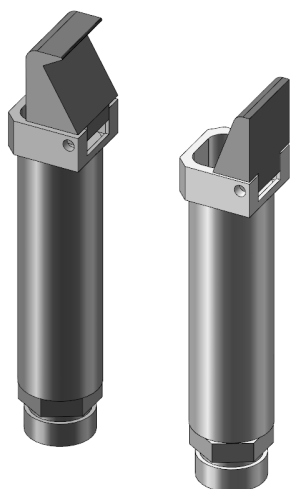
**new** →  
**new** →  
**new** →  
**new** →

**12/2013**

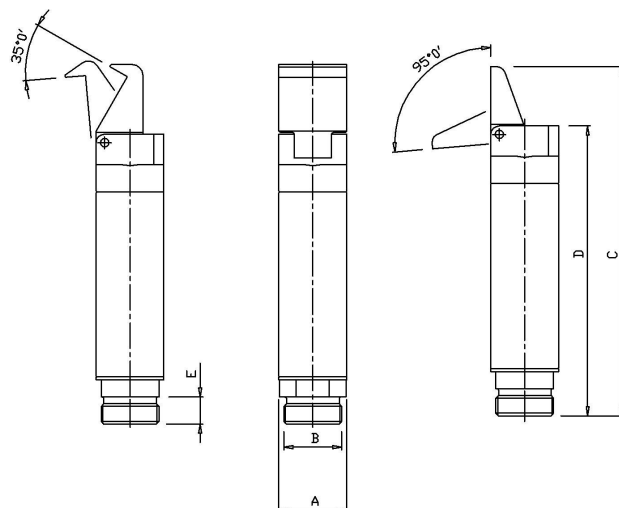
02/2013

## One Finger Angular Pneumatic Gripper

## Pneumatische Ein-Finger-Winkelgreifer



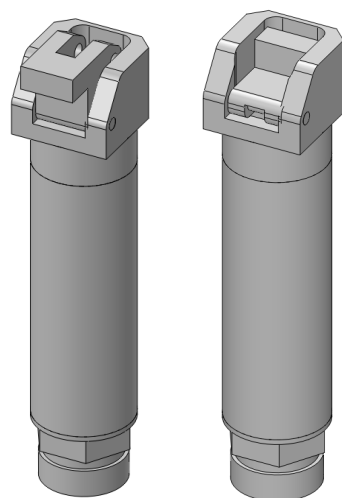
35°  
95°



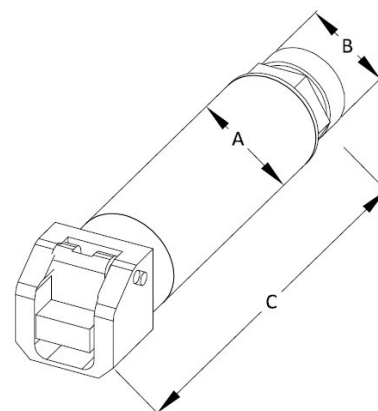
ARTICLE ARTIKEL	MODEL MODELL	A [mm]	B	C [mm]	D [mm]	E [mm]	WEIGHT GEWICHT [g]
<b>CA.GRF.2035</b>	D. 20 Stroke 35° D. 20 Hub 35°	Ø20	M17X1	106	72	8	65
<b>CA.GRF.2095</b>	D. 20 Stroke 95° D. 20 Hub 95°	Ø20	M17X1	103	72	8	60
<b>CA.GRF.1435</b>	D. 14 Stroke 35° D. 14 Hub 35°	Ø14	M12X1	74	50	5.5	25
<b>CA.GRF.1495</b>	D. 14 Stroke 95° D. 14 Hub 95°	Ø14	M12X1	72	50	5.5	25

## One Finger Angular Pneumatic Gripper

## Pneumatische Ein-Finger-Winkelgreifer



90°

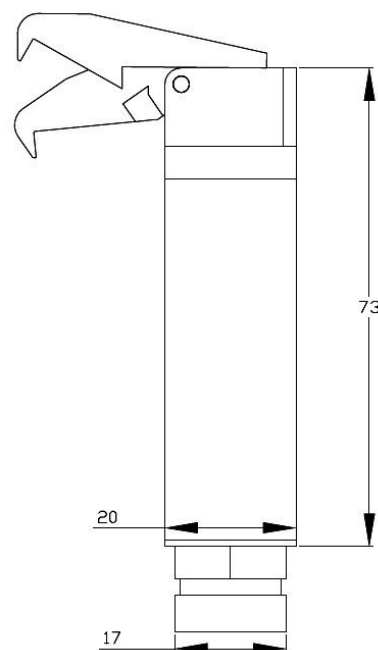
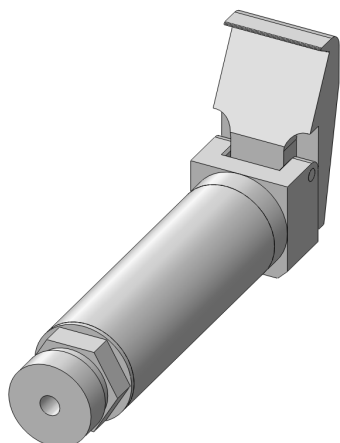


ARTICLE ARTIKEL	MODEL MODELL	A [mm]	B	C [mm]	WEIGHT GEWICHT [g]
<b>CA.GRF.2090</b>	D. 20 Stroke 90° D. 20 Hub 90°	Ø20	M17X1	84	65
<b>CA.GRF.1490</b>	D. 14 Stroke 90° D. 14 Hub 90°	Ø14	M12X1	64	25

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One Finger Angular Pneumatic Gripper      Pneumatische Ein-Finger-Winkelgreifer



**CA.GRF.2035.WE**

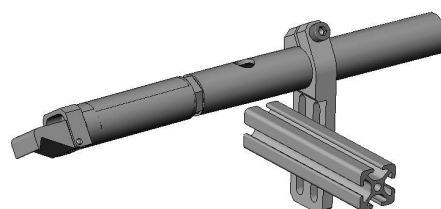
ARTICLE ARTIKEL	MODEL MODELL	WEIGHT GEWICHT [g]
<b>CA.GRF.2035.WE</b>	D. 20 stroke 35° D. 20 Hub 35°	76

Extention Tube      Verlängerungsrohr



Application Example      Anwendungsbeispiel

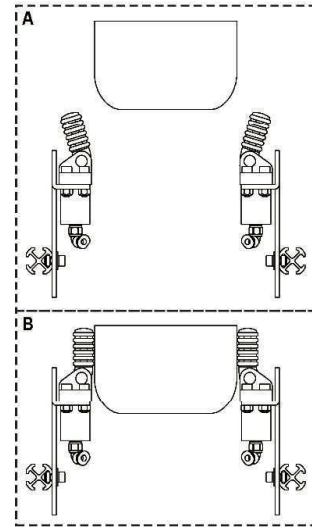
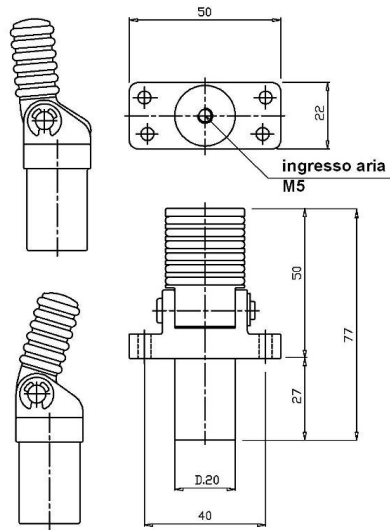
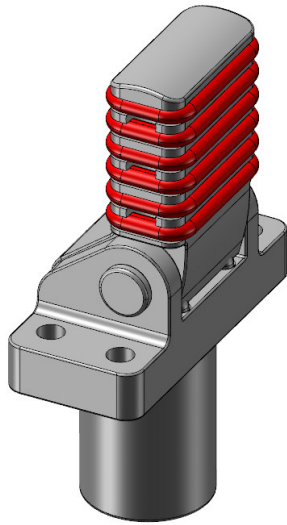
ARTICLE ARTIKEL	MODEL MODELL	WEIGHT GEWICHT [g]
<b>CA.VLR.14.80</b>	Extention Tube D.14 M12x1 L 80 Prolunga D.14 M12x1 L 80	15
<b>CA.VLR.20.100</b>	Extention Tube D. 20 M17x1 L 100 Prolunga D. 20 M17x1 L 100	29



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One Finger Angular Pneumatic Gripper for Clamping

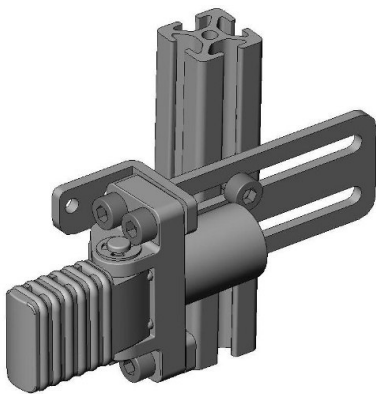
Pneumatische Einfinger-Winkelgreifer



ARTICLE ARTIKEL	MODEL MODELL	WEIGHT GEWICHT [g]
CA.09.04.010	OR SILICONE	30

Kit.09.04.10.5

Kit.09.04.10.5



Kit.09.04.010.5

COMPONENTS KOMPONENTEN	DESCRIPTION BESCHREIBUNG	QUANTITY STÜCKZAHL
CA.09.04.010	Plastic Gripper Finger with O-RING in Silicone	1
CA.04.16.001	Gripper Mounting Bracket Klemmstück für Greiffinger	1
V.TCE.4X12	Screw TCE 4 x 12 Bolzen TCE 4 x 12	6
D.4	Screw Nut d.4 Schraubenmutter d. 4	4
CA.02.05.002	Sliding T-nut M4 Stülpmutter M4	2

Available also T-nuts channel 6  
Auch für nutstein Baureihe 6 erhältlich

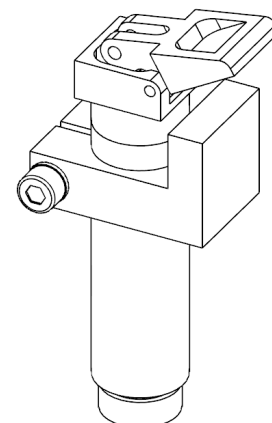
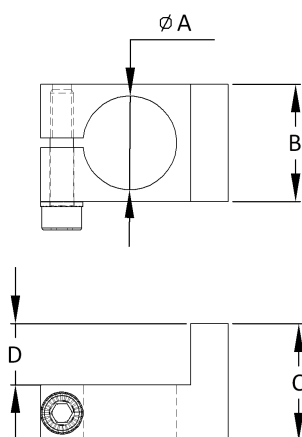
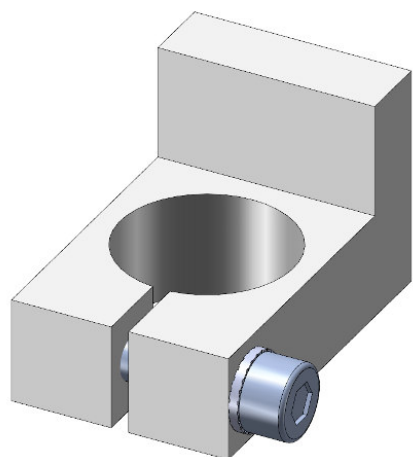
Cod. **Kit.09.04.010.6**  
Cod. **Kit.09.04.010.6**

Available also T-nuts channel X  
Auch für nutstei Baureihe X erhältlich

Cod. **Kit.09.04.010.X**  
Cod. **Kit.09.04.010.X**

Gripper Stop

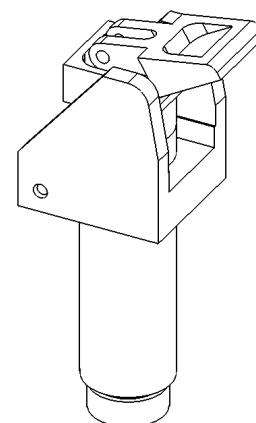
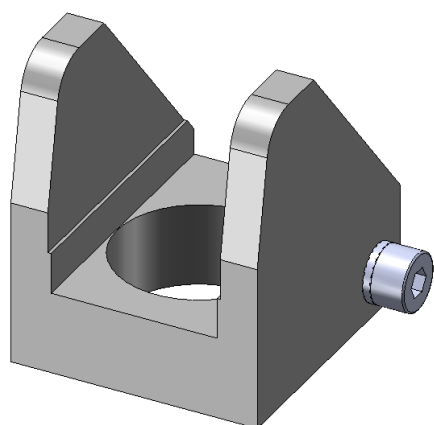
Anschlagstück für Greifer



ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	D [mm]	WEIGHT GEWICHT [g]
CA.ANS.14	Ø14	20	25	13	18
CA.ANS.20	Ø20	25	25	13	14

Gripper Guide

Zentrierstück für Greifer

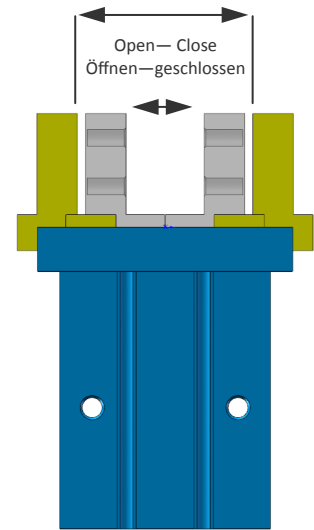
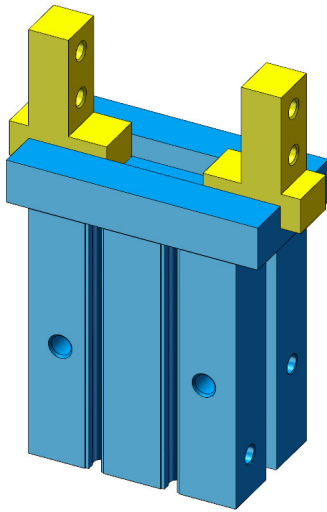


ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
CA.ZTS.20	20
CA.ZTS.14	15

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Parallel Gripper CA.09.05

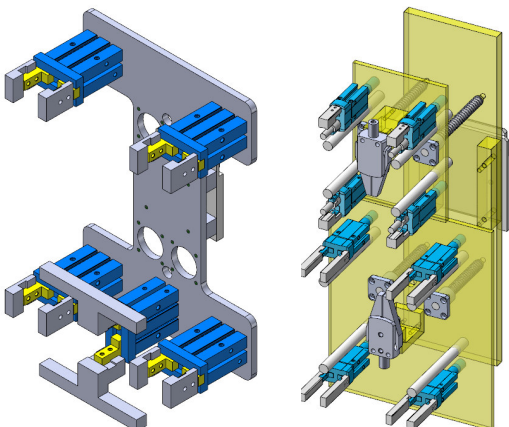
Parallelgreifer CA.09.05



ARTICLE ARTIKEL	MODEL MODELL	WEIGHT GEWICHT [g]	Closing total gripping force Gesamtsspannkraft	Open—Close Öffnen—geschlossen	WEIGHT GEWICHT [g]
CA.09.05.009	D.10 Double Acting D.10 Doppeltwirkend	60	17 N	15,2 ( 11,2 )	60
CA.09.05.010	D.16 Double Acting D.16 Doppeltwirkend	135	45 N	20,9 ( 14,9 )	135
CA.09.05.011	D.20 Double Acting D.20 Doppeltwirkend	270	66 N	26,3 ( 16,3 )	270
CA.09.05.012	D.25 Double Acting D.25 Doppeltwirkend	470	104 N	33,3 ( 19,3 )	470

Magnetic proximity switches  
Magnetische nahungssensoren

Application Example Anwendungsbeispiel



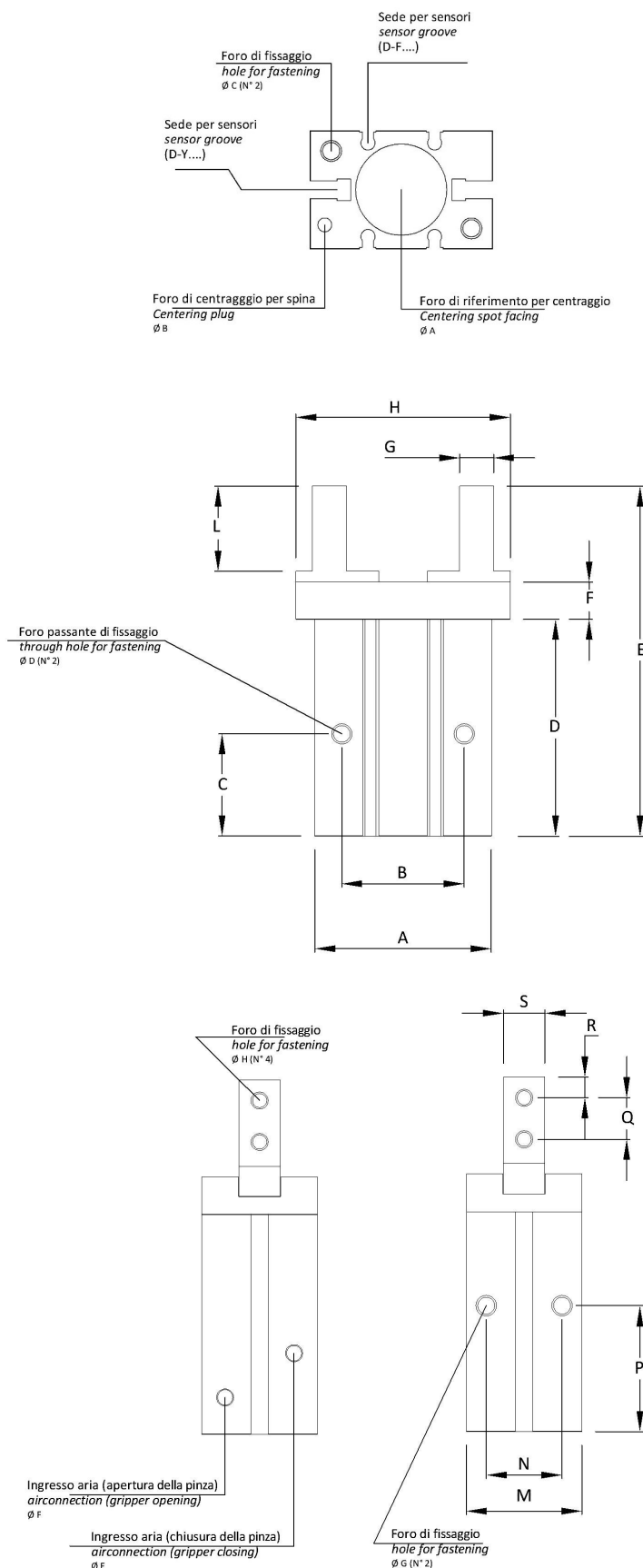
ARTICLE ARTIKEL	BL - BK out BW +	VOLTAGE	GRIPPERS GREIFER
CA.14.01.001	3 WIRES (PNP)	6 - max 30 v dc	10
CA.14.01.008	3 WIRES (PNP)	24 V-12 V	16-20-25
SMC.D-M9PL*	3 WIRES (PNP)	24 V-12 V	16-20-25

\* The highest thoroughness

\* Die höchste Genauigkeit

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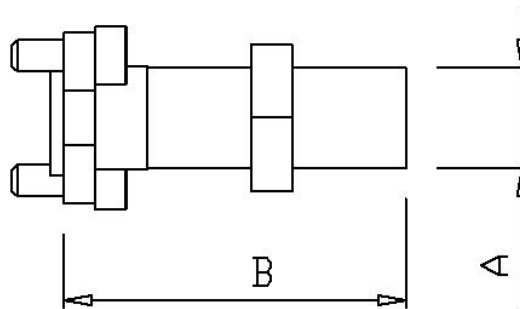
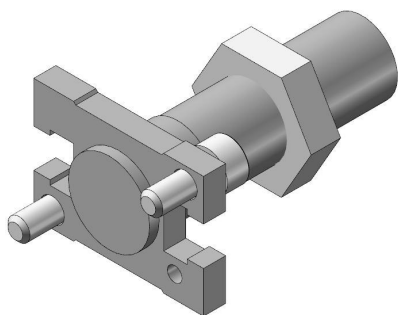
	D.10	D.16	D.20	D.25
A [mm]	23	30.6	42	52
B [mm]	16	24	30	36
C [mm]	23	24.5	29	30
D [mm]	37.8	42.5	52.8	63.6
E [mm]	57	67.3	84.8	102.7
F [mm]	6	7.5	9.5	11
G [mm]	4	5	8	10
H [mm]	29	38	50	63
L [mm]	12	15	20	25
M [mm]	16.4	23.6	27.6	33.6
N [mm]	11.4	16	18.6	22
P [mm]	27	30	35	36.5
Q [mm]	5.7	7	9	12
R [mm]	3	4	5	6.
S [mm]	5	8	10	12
∅ A	11 HP Prof. 2	17 H9 Prof. 2	21 H9 Prof. 3	26 H9 Prof. 3.5
∅ B	2H9	3H9	4H9	4 H9
C	M3	M4	M5	M6
D	M3-2.6	M4-3.4	M5-4.3	M6-5.1
E	M3	M5	M5	M5
F	M3	M5	M5	M5
G	M3	M4	M5	M6
H	M2.5	M3	M4	M5



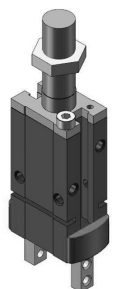
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Adapter for Parallel Gripper

Adapter für Parallelgreifer



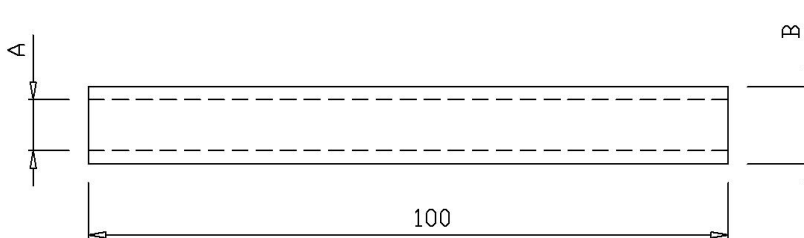
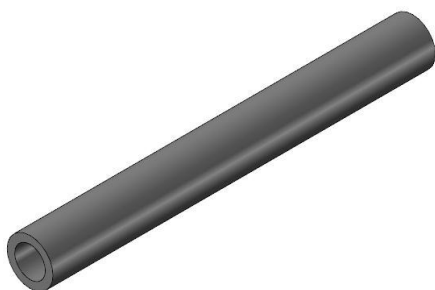
Application Example Anwendungsbeispiel



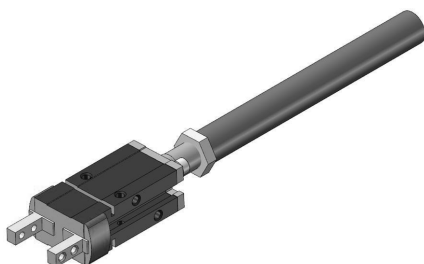
ARTICLE ARTIKEL	MODEL MODELL	A	B [mm]	WEIGHT GEWICHT [g]
CA.09.10.001	Adapter d. 10	1/8"	34	9
CA.09.10.002	Adapter d. 16	1/8"	40	14
CA.09.10.003	Adapter d. 20	1/8"	41	21
CA.09.10.004	Adapter d. 25	M15x1	44	45

Extension Tube

Verlängerungsrohr



Application Example Anwendungsbeispiel



ARTICLE ARTIKEL	MODEL MODELL	A	B [mm]	WEIGHT GEWICHT [g]
CA.09.12.001	Extension Tube 10-16-20	1/8"	Ø12	16
CA.09.12.002	Extension Tube 25	M15X1	Ø20	116

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Inflatable Gripper for Outside Diameters

Aufblasbare Greifer für Außendurchmesser

**Airpicker & Airgripper®** **Firestone®**

Air Pressure 0 MPa

Air Pressure 0.05 MPa

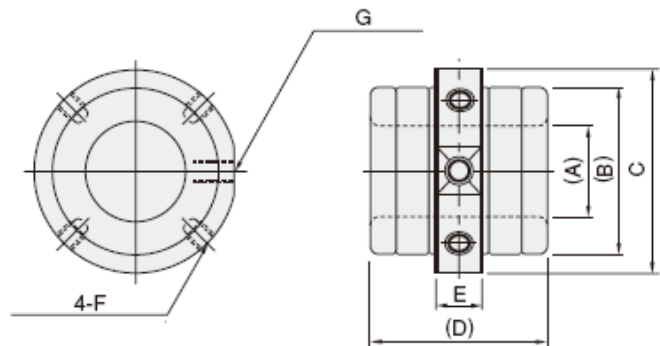
Air Pressure 0.1 MPa



ARTICLE ARTIKEL	FIRESTONE CODE	APPLICABLE INNER DIAMETER OF THE WORKPIECE (mm)	(A) [mm]	(B) [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	WEIGHT GEWICHT [g]
CA.09.13.05.15 CA.09.13.05.15.S	WP1M585001 WP1M585005	5-15 mm	∅19	∅33	∅40	36	10	5MA	5MA	60
CA.09.13.10.25 CA.09.13.10.25.S	WP1M585002 WP1M585006	10-25 mm	∅27	∅48	∅60	48	13	6MA	6MA	145
CA.09.13.15.35 CA.09.13.15.35.S	WP1M585003 WP1M585007	15-35 mm	∅37	∅58	∅70	52	14	6MA	6MA	210
CA.09.13.20.45 CA.09.13.20.45.S	WP1M585004 WP1M585008	20-45 mm	∅48	∅69	∅80	56	15	8MA	1/8"	285

.S = In silicon.

.S = Aus silikon.



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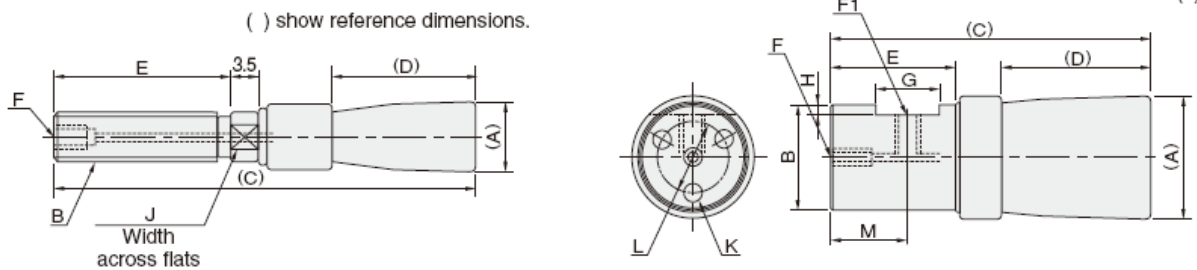
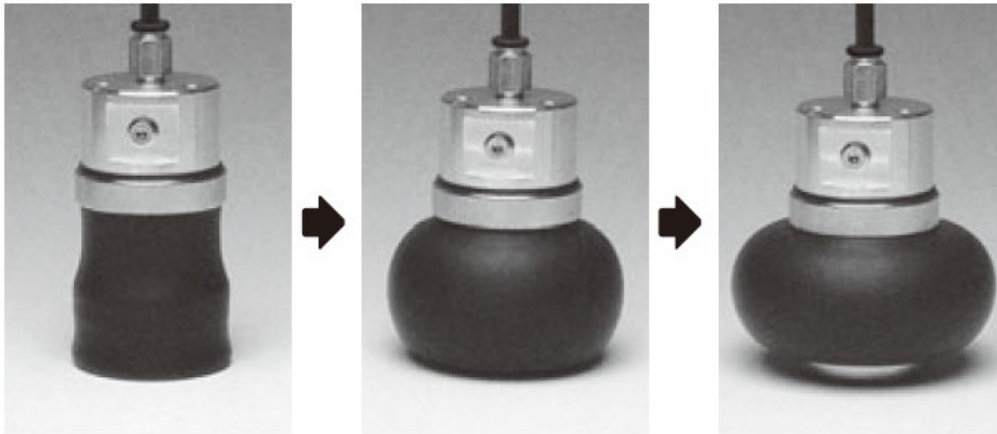
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**Airpicker & Airgripper® Firestone®**

Air Pressure 0 MPa

Air Pressure 0.15 MPa

Air Pressure 0.30 MPa



ARTICLE ARTIKEL	FIRESTONE CODE	(A) [mm ]	B [mm]	(C) [mm]	(D) [mm]	E [mm]	F	F1	G [mm]	H [mm]	J [mm]	K	L [mm]	M [mm]	APPLICABLE INNER DIAMETER OF THE WORPIECE (mm)	WEIGHT GEWICHT [g]
CA.09.14.06	WP1M58001	ø8	6MA	51	17.5	21	3MA	/	/	/	5	/	/	/	8.5-10 mm	8
CA.09.14.07	WP1M58002	ø9.5	6MA	51	17.5	21	3MA	/	/	/	6	/	/	/	10-12 mm	12
CA.09.14.09	WP1M58003	ø11	M8X1.25	51	17.5	21	5MA	/	/	/	8	/	/	/	12-17 mm	17
CA.09.14.10	WP1M58004	ø14	ø10	52	21	22	5MA	5MA	12	2	/	/	/	14	16-21 mm	28
CA.09.14.14 CA.09.14.14.S	WP1M58005 WP1M58024	ø19	ø14	56	22	22	5MA	5MA	12	2	/	/	/	14	21-27 mm	60
CA.09.14.17 CA.09.14.17.S	WP1M58006 WP1M58025	ø22	ø17	56	22	22	5MA	5MA	12	2	/	/	/	14	24-32 mm	85
CA.09.14.19 CA.09.14.19.S	WP1M58007 WP1M58018	ø25	ø19	55	22	22	5MA	5MA	12	2	/	/	/	14	28-36 mm	105
CA.09.14.22 CA.09.14.22.S	WP1M58008 WP1M58026	ø27	ø22	64	28	25	5MA	5MA	14	2	/	/	/	15	30-44 mm	160
CA.09.14.25 CA.09.14.25.S	WP1M58009 WP1M58019	ø29	ø25	76	34	30	5MA	5MA	15	2.5	/	/	/	18.5	32-52 mm	245
CA.09.14.35 CA.09.14.35.S	WP1M58011	ø41	ø34	71	42	17.5	6MA	1/8"	/	/	/	/	/	12	45-65 mm	180
CA.09.14.45	WP1M58012	ø51	ø44	90	52	26	6MA	6MA	18	3	/	3-6MA	ø32	13	58-85 mm	370
CA.09.14.55	WP1M58013	ø63	ø54	101	53	35	6MA	6MA	20	3	/	3-6MA	ø40	15	70-105 mm	610

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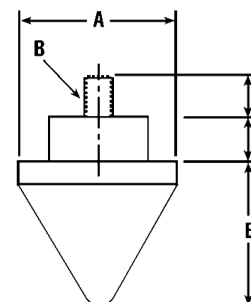
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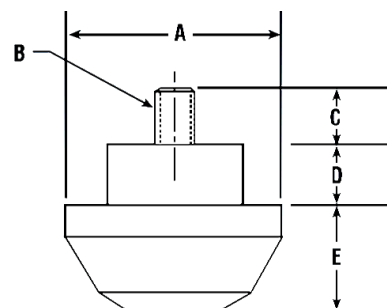
### Nose cones

In order to centre an air picker end-effector and protect the rubber from abrasion during insertion, FPservices offers nose cones. These nose cones are easily screwed into the metal body.

CA.09.16.001 model



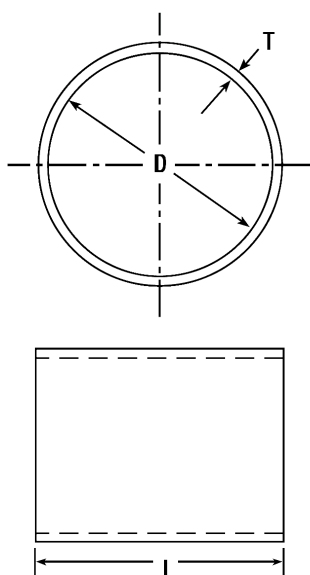
CA.09.16.002/009 models



ARTICLE ARTIKEL	FIRESTONE CODE	RELATIVE AIRPICKER	A [mm]	B THREAD	C [mm]	D [mm]	E [mm]
CA.09.16.001	WP13581006	CA.09.14.10	14.7	8-32	5.6	4.8	12.7
CA.09.16.002	WP13581016	CA.09.14.14 CA.09.14.14.S	19.8	10-24	6.4	7.9	14.0
CA.09.16.003	WP13581017	CA.09.14.17 CA.09.14.17.S	22.9	10-24	6.4	7.9	14.0
CA.09.16.004	WP13581018	CA.09.14.19 CA.09.14.19.S	27.9	10-24	6.4	7.9	14.0
CA.09.16.005	WP13581019	CA.09.14.22 CA.09.14.22.S	28.7	10-24	7.4	7.9	14.0
CA.09.16.006	WP13581020	CA.09.14.25 CA.09.14.25.S	29.7	1/4-20	7.4	7.9	14.0
CA.09.16.007	WP13581021	CA.09.14.35 CA.09.14.35.S	42.7	1/4-20	7.4	7.9	17.3
CA.09.16.008	WP13581022	CA.09.14.45	51.6	1/4-20	7.4	7.9	17.3
CA.09.16.009	WP13581023	CA.09.14.55	63.8	1/4-20	7.4	7.9	17.3

### Protective sleeves

In order to protect the rubber blader from abrasive surfaces, FPservices offers neoprene protective sleeves.



ARTICLE ARTIKEL	FIRESTONE CODE	RELATIVE AIRPICKER	T [mm]	D [mm]	I [mm]
CA.09.15.001	WP13581500	CA.09.14.14 CA.09.14.14.S	1.3	18	38
CA.09.15.002	WP13581501	CA.09.14.17 CA.09.14.17.S	1.3	20	38
CA.09.15.003	WP13581502	CA.09.14.19 CA.09.14.19.S	1.3	23	38
CA.09.15.004	WP13581503	CA.09.14.22 CA.09.14.22.S	1.3	25	44
CA.09.15.005	WP13581504	CA.09.14.25 CA.09.14.25.S	2.1	27	54
CA.09.15.006	WP13581505	CA.09.14.35 CA.09.14.35.S	2.1	37	64
CA.09.15.007	WP13581506	CA.09.14.45	2.1	47	73
CA.09.15.008	WP13581507	CA.09.14.55	2.1	57	79

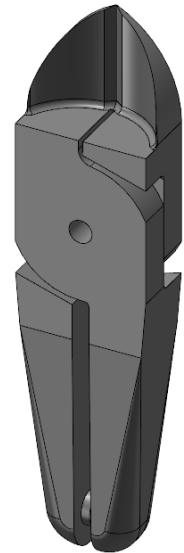
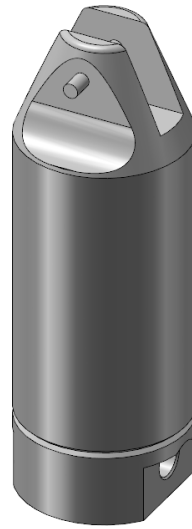
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Air Nipper Actuators VS Angusschneidzange

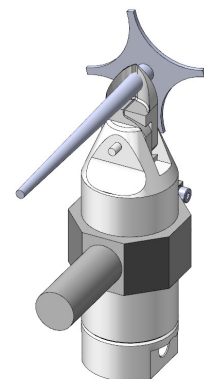
Complete Air Nipper with Actuators and Blades

Angusschneidzange mit Schneideinsätzen



ARTICLE ARTIKEL	MODEL MODELL	BLADES SCHNEIDEINSÄTZE	A [mm]	B [mm]	F IN CLOSING	WEIGHT GEWICHT [g]
CA.10.01.002	∅75 GN-50	CA.10.02.001-002-003	∅75	169	232 Nm	1100
CA.10.01.004	∅56 GN-30	CA.10.02.001-002-003	∅56	155	300 Nm	480
CA.10.01.006	∅45 GN-20	CA.10.02.004-005-006	∅45	120	134 Nm	263
CA.10.01.008	∅36 GN-10	CA.10.02.007-008-009	∅36	106	76 Nm	157
CA.10.01.010	∅30 GN-05	CA.10.02.010-.011-012	∅30	87	22 Nm	102

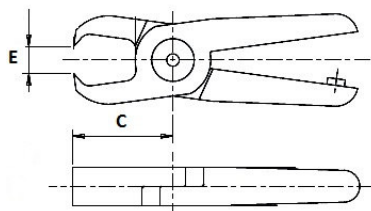
Application Example Anwendungsbeispiel



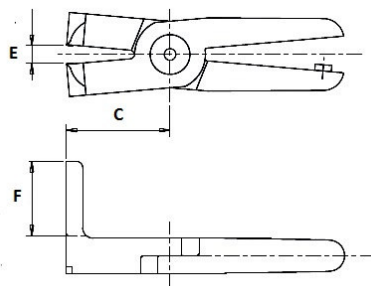
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ARTICLE ARTIKEL	MODEL MODELL	C [mm]	E [mm]	F [mm]	NIPPER SCHNEIDZÄNGE	WEIGHT GEWICHT [g]
CA.10.02.001	G.N30PF deep angle	58	16-26.5	/	GN-30 GN-50	388
CA.10.02.002	G.N30AP standard	67	17.5-29.5	/	GN-30 GN-50	380
CA.10.02.003	G.N30AJ inline	52	10.5-22	/	GN-30 GN-50	377
CA.10.02.004	G.N20PF deep angle	35	11.5	/	GN-20	124
CA.10.02.005	G.N20AP standard	35	11.5	/	GN-20	118
CA.10.02.006	G.N20AJ inline	35	12	/	GN-20	121
CA.10.02.013	G.N20AJL inline Opening 15.4	65	15.4	/	GN-20	220
CA.10.02.007	G.N10LPF deep angle	35	6.5	/	GN-10	112
CA.10.02.008	G.N10LAP standard	36	6.5	/	GN-10	115
CA.10.02.009	G.N10AJ inline	35	5.5	/	GN-10	117
CA.10.02.010	G.N5PF deep angle	24	4	/	GN-05	35
CA.10.02.011	G.N5AP standard	24	4	/	GN-05	34
CA.10.02.012	G.N5AJ inline	24	4	/	GN-05	33
CA.10.02.014	G.N20AE cutting off	28	8.5	/	GN-20	135
CA.10.02.015	G.N30AE cutting off	45	12.5-20	/	GN-30 GN-50	395
CA.10.02.016	G.N10AE cutting off	28.5	5	/	GN-10	120
CA.10.02.017	G.N10AA style	60.8	10	35	GN-10	165
CA.10.02.018	G.N20AA style	60.5	15	35	GN-20	185
CA.10.02.019	G.N30AA-30° style	76	20-34	50	GN-30 GN-50	385
CA.10.02.020	G.N30AA-60° style	55	15-26	32	GN-30 GN-50	390
CA.10.02.021	G.N20AL style	40	11	17	GN-20	190
CA.10.02.022	G.N30AL style	50	13-22	35	GN-30 GN-50	455

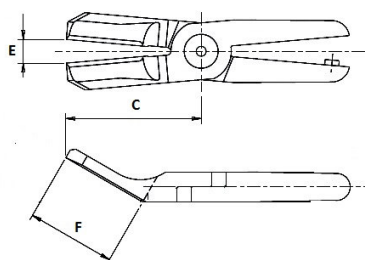
AE style



AL style



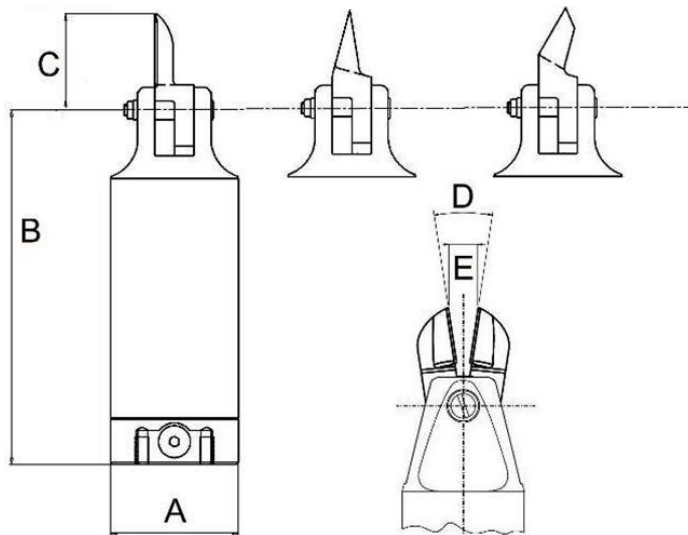
AA style



Inline

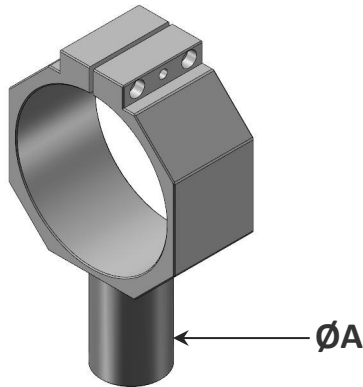
Standard

Deep angle

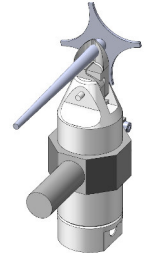


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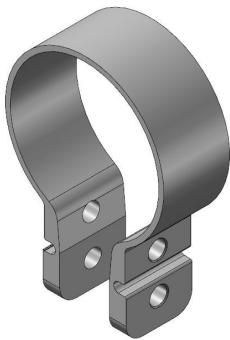
Mounting Bracket for Actuators Klemmstück aus Aluminium



ARTICLE ARTIKEL	AIR NIPPER SCHNEIDZÄNGE	A [mm]	WEIGHT GEWICHT [g]
CA.04.10.10	Ø10		
CA.04.10.20	Ø20		
CA.04.10.30	Ø30	Ø20	90
CA.04.10.36	Ø36	Ø20	95
CA.04.10.45	Ø45	Ø20	100
CA.04.10.56	Ø56	Ø20	110
CA.04.10.75	Ø75	Ø30	250



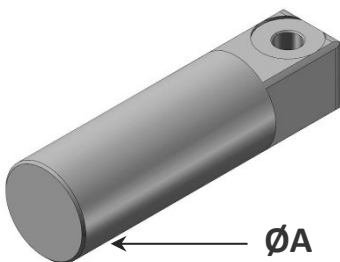
Mounting Bracket for Actuators Klemmstück aus Stahl



ARTICLE ARTIKEL	AIR NIPPER SCHNEIDZÄNGE	WEIGHT GEWICHT [g]
CA.04.10.007	Ø30	69
CA.04.10.006	Ø36	75
CA.04.10.005	Ø45	80
CA.04.10.004	Ø56	102



Hinge with Stud Gelenkhalter mit Rohr

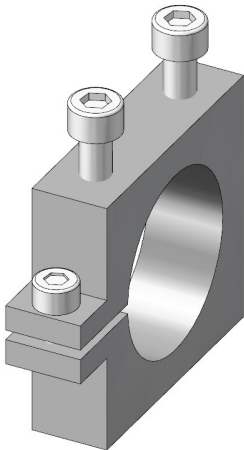


ARTICLE ARTIKEL	A [mm]	WEIGHT GEWICHT [g]
CA.04.12.001	Ø20	56
CA.04.12.002	Ø30	82

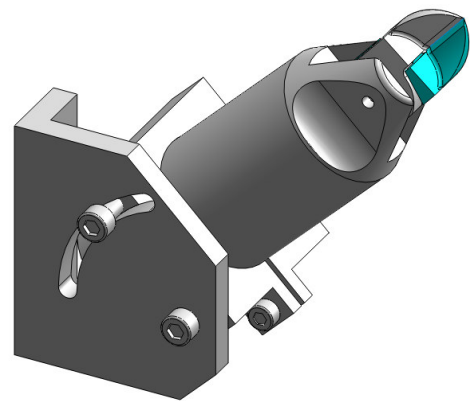
02/2013

Swivel Bracket for Actuator

Schwenkbock

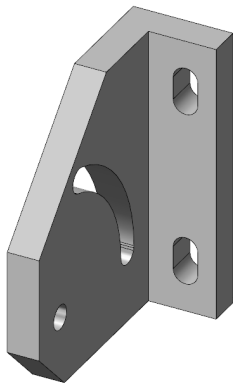


ARTICLE ARTIKEL	AIR NIPPER SCHNEIDZÄNGE	WEIGHT GEWICHT [g]
CA.04.10.30.1	Ø30	60
CA.04.10.36.1	Ø36	71
CA.04.10.45.1	Ø45	90
CA.04.10.56.1	Ø56	106
CA.04.10.75.1	Ø75	160



Support for Swivel Bracket

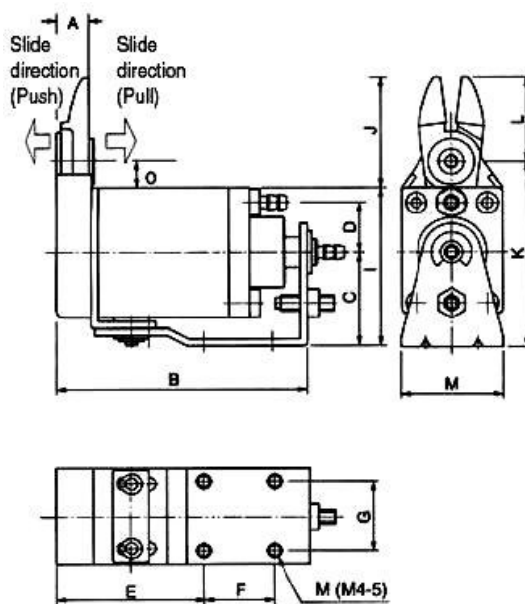
Lagerung für Schwenkbock



ARTICLE ARTIKEL	AIR NIPPER SCHNEIDZÄNGE	WEIGHT GEWICHT [g]
CA.04.10.30.2	Ø30	103
CA.04.10.36.2	Ø36	111
CA.04.10.45.2	Ø45	125
CA.04.10.56.2	Ø56	167
CA.04.10.75.2	Ø75	222

Sliding Air Nipper Horizontal-Type GT-NY

Angusschneider-Einfahr-und Schneidfunktion GT-NY



ARTICLE ARTIKEL	MODEL MODELL	CUTTING CAPACITY [mm]	WEIGHT [g]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	M	I [mm]	J [mm]	K [mm]	L [mm]	M [mm]
CA.10.05.001 CA.10.05.001.R	GT-NY05 GT-NY05R	3.0	155	8.6	75.9	21.6	13.3	40.9	25	15	M4	39.1	30.5	47.6	22	23
CA.10.05.002 CA.10.05.002.R	GT-NY10 GT-NY10R	3.5	210	8.8	82.1	26.1	13.8	42.1	30	20	M4	44	31.6	51.6	24	28
CA.10.05.003 CA.10.05.003.R	GT-NY15 GT-NY15R	4.0	319	10.2	93	30	16	48	35	25	M4	50.5	34.5	58	27	33
CA.10.05.004 CA.10.05.004.R	GT-NY25 GT-NY25R	5.0	580	12.5	108.5	35	18.5	54.5	40	30	M5	58.5	41.5	69	31	42

Two models, are available with rear sliding movement and with ahead sliding movement marked with letter "R".

**Units are not prearranged for using reversible blades.**

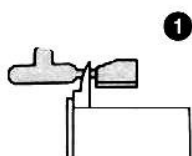
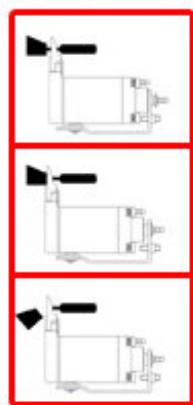
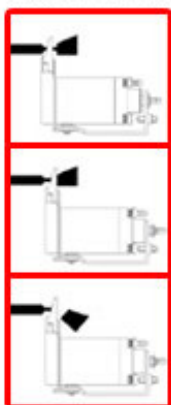
On this kind unit it's possible to adjust the blades opening from 3 mm to 7 mm.



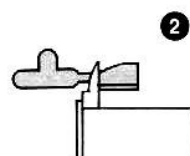
Keep attention: the unit is always considered without blades which must be chosen between the artiche CA.10.07.NY...

**PULL TYPE**

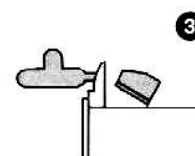
**PUSH TYPE**



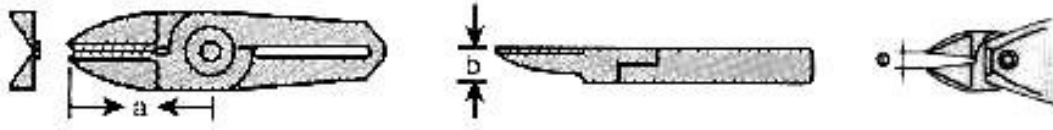
The work piece is set



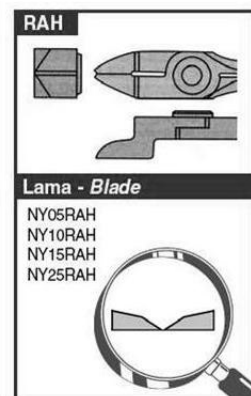
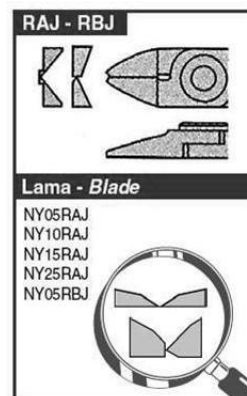
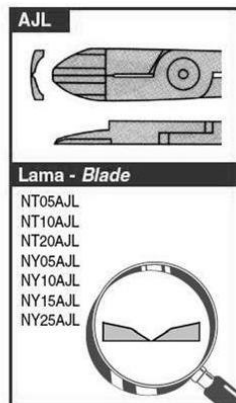
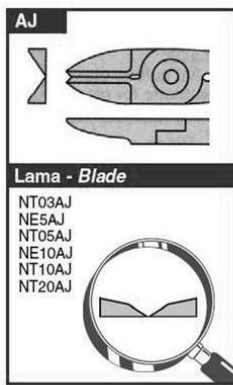
The main body slides and the blade closely adheres to the work piece



Cut without leaving burrs



NIPPER	TYPE	ARTICLE	CUT	Dimension mm				Cutting capacity	
				a	b	d	e	plastic	plastic fiber
GT-NY05	PULL	CA.10.07.NY05AJ	Straight	22.0	7.0	10.5	4.0	3.0	2.0
	PULL	CA.10.07.NY05AJL	Straight Long	31.0	7.0	10.5	5.5	2.8	1.6
GT-NY05R	PUSH	CA.10.07.NY05RAJ	Straight	22.0	7.0	10.5	4.0	3.0	2.0
	PUSH	CA.10.07.NY05RAH	Crank	30.0	12.0	10.5	5.0	3.0	2.0
GT-NY10	PULL	CA.10.07.NY10AJ	straight	24.0	7.2	12.0	6.0	3.5	2.3
	PULL	CA.10.07.NY10AJL	Straight Long	33.0	7.2	12.0	8.0	3.2	2.1
GT-NY10R	PUSH	CA.10.07.NY10RAJ	Straight	24.0	7.2	12.0	6.0	3.5	2.3
	PUSH	CA.10.07.NY10RAH	Crank	32.0	12.2	12.0	7.0	3.5	2.3
GT-NY15	PULL	CA.10.07.NY15AJ	Straight	27.0	8.2	13.0	8.0	4.0	2.6
	PULL	CA.10.07.NY15AJL	Straight Long	38.0	8.2	13.0	11.0	3.7	2.3
GT-NY15R	PUSH	CA.10.07.NY15RAJ	Straight	27.0	8.2	13.0	8.0	4.0	2.6
	PUSH	CA.10.07.NY15RAH	Crank	35.0	13.2	13.0	9.0	4.0	2.6
GT-NY25	PULL	CA.10.07.NY25AJ	Straight	31.0	10.0	16.0	9.0	5.0	3.4
	PULL	CA.10.07.NY25AJL	Straight Long	46.0	10.0	16.0	13.0	4.7	3.0
GT-NY25R	PUSH	CA.10.07.NY25RAJ	Straight	31.0	10.0	16.0	9.0	5.0	3.4
	PUSH	CA.10.07.NY25RAH	Crank	42.0	16.0	16.0	12.0	5.0	3.4

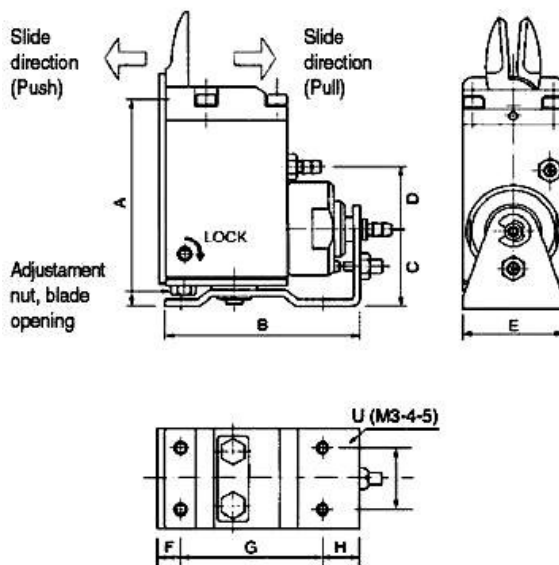


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Sliding Air Nipper Vertical-Type GT-NT

Angussschneider-Einfahr-und Schneidfunktion GT-NT

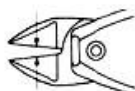


ARTICLE ARTIKEL	MODEL MODELL	CUTTING CAPACITY [mm]	WEIGHT [g]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]	U
CA.10.06.001 CA.10.06.001.R	GT-NT03-4 GT-NT03R-4	1.5	178	63.1	62	23.1	15	19	7	43	12	14	M3
CA.10.06.002 CA.10.06.002.R	GT-NT05-4 GT-NT05R-4	2.5	325	66.1	64	25.1	20	32	7	45	12	20	M4
CA.10.06.003 CA.10.06.003.R	GT-NT10-6 GT-NT10R-6	3.5	515	83.1	73	29.1	21	38	8	53	12	24	M4
CA.10.06.004 CA.10.06.004.R	GT-NT20-6 GT-NT20R-6	5.0	930	96.1	103	33.1	21.9	44	10	80	13	28	M5

Two models, are available with rear sliding movement and with ahead sliding movement marked with letter "R".

**Units are prearranged for using reversible blades.**

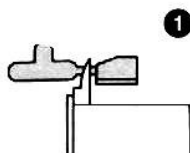
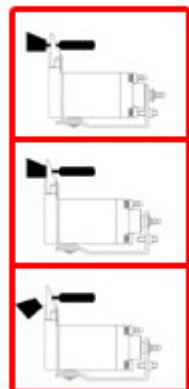
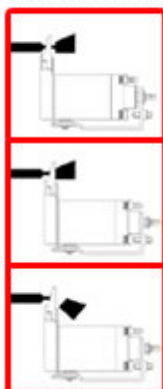
On this kind unit it's possible to adjust the blades opening from 3 mm to 7 mm.



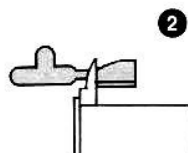
Keep attention: the unit is always considered without blades which must be chosen between the artiche CA.10.07.NT...

**PULL TYPE**

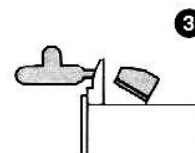
**PUSH TYPE**



The work piece is set

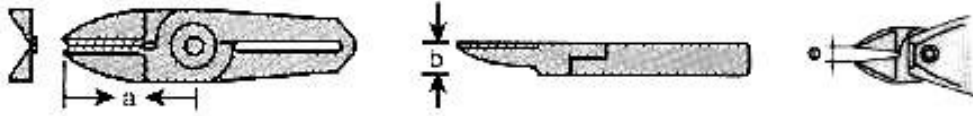


The main body slides and the blade closely adheres to the work piece

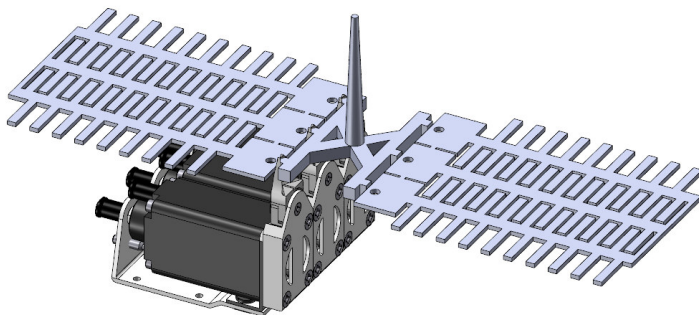
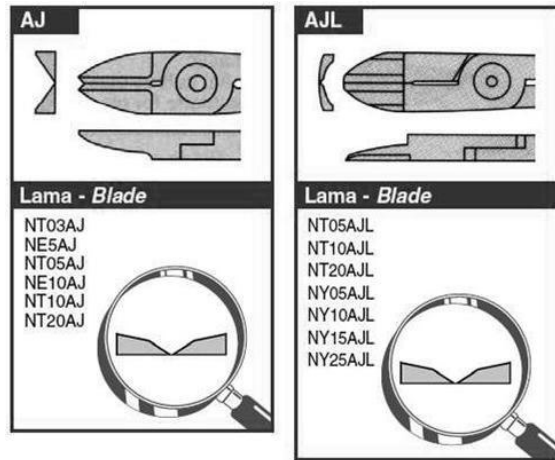


Cut without leaving burrs

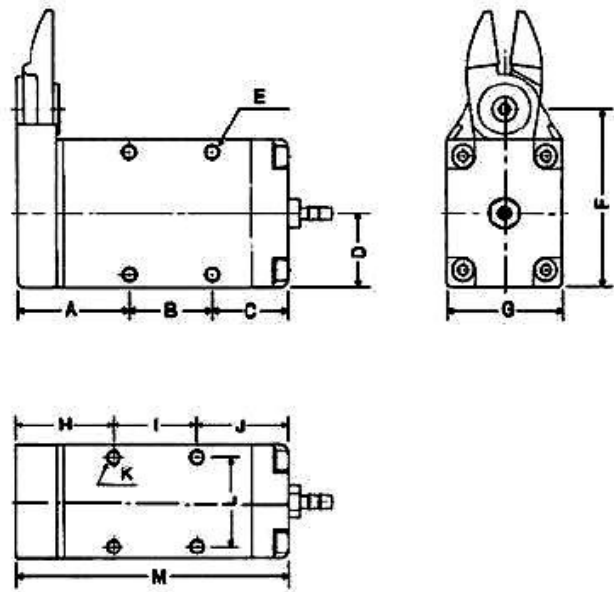
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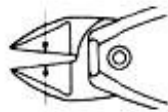
NIPPER	ARTICLE	CUT	Dimension mm				Cutting capacity	
			a	b	d	e	plastic	plastic fiber
GT-NT03	CA.10.07.NT03AJ	Straight	24.0	7.0	11.0	3.0	1.5	1.0
	CA.10.07.NT03AJT	Straight Thin	24.0	7.0	11.0	3.0	1.5	1.0
GT-NT05	CA.10.07.NT05AJ	Straight	29.0	7.0	15.0	6.0	2.5	1.5
	CA.10.07.NT05AJL	Straight Long	36.0	7.0	15.0	7.0	2.0	1.3
GT-NT10	CA.10.07.NT10AJ	Straight	35.0	9.0	17.0	7.0	3.05	2.3
	CA.10.07.NT10AJL	Straight Long	47.0	9.0	17.0	9.0	3.0	2.0
GT-NT20	CA.10.07.NT20AJ	Straight	40.0	12.0	20.0	9.0	5.0	3.4
	CA.10.07.NT20AJL	Straight Long	57.0	12.0	20.0	12.0	4.5	3.2



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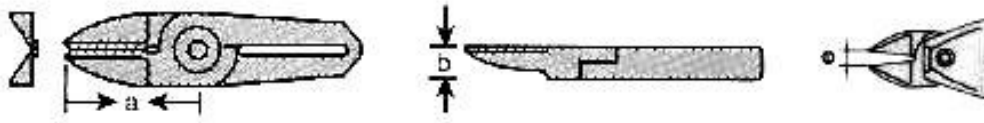


ARTICLE ARTIKEL	MODEL MODELL	CUTTING CAPACITY [mm]	WEIGHT [g]	A [mm]	B [mm]	C [mm]	D [mm]	E	F [mm]	G [mm]	H [mm]	I [mm]	J [mm]	K	L [mm]	M [mm]
CA.10.09.001	GT-NF05	3.0	101	25.9	17	17	15.5	M3	39.5	23	21.9	17	21	M3	18	59.9
CA.10.09.002	GT-NF10	3.5	143	27.1	20	18	18	M3.5	43.5	28	23.1	20	22	M3.5	22	65.1
CA.10.09.003	GT-NF15	4.0	219	29	25	19	20.5	M4	48.5	33	25	25	23	M4	26	73



Keep attention: the unit is always considered without blades which must be chosen between the artiche CA.10.07.NY...

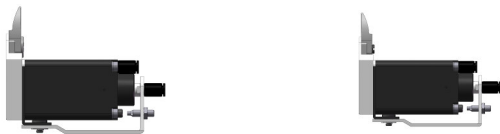
Blades for GT-NF Schneideinsätze für GT-NF



NIPPER	TYPE	ARTICLE	CUT	Dimension mm				Cutting capacity	
				a	b	d	e	plastic	plastic fiber
GT-NF05	standard	CA.10.07.NY05AJ	straight	22.0	7.0	10.5	4.0	3.0	2.0
	standard	CA.10.07.NY05AJL	Straight long	31.0	7.0	10.5	5.5	2.8	1.6
	R	CA.10.07.NY05RAJ	straight	22.0	7.0	10.5	4.0	3.0	2.0
	R	CA.10.07.NY05RAH	Crank	30.0	12.0	10.5	5.0	3.0	2.0
GT-NF10	standard	CA.10.07.NY10AJ	straight	24.0	7.2	12.0	6.0	3.5	2.3
	standard	CA.10.07.NY10AJL	Straight long	33.0	7.2	12.0	8.0	3.2	2.1
	R	CA.10.07.NY10RAJ	straight	24.0	7.2	12.0	6.0	3.5	2.3
	R	CA.10.07.NY10RAH	Crank	32.0	12.2	12.0	7.0	3.5	2.3
GT-NF15	standard	CA.10.07.NY15AJ	straight	27.0	8.2	13.0	8.0	4.0	2.6
	standard	CA.10.07.NY15AJL	Straight long	38.0	8.2	13.0	11.0	3.7	2.3
	R	CA.10.07.NY15RAJ	straight	27.0	8.2	13.0	8.0	4.0	2.6
	R	CA.10.07.NY15RAH	Crank	35.0	13.2	13.0	9.0	4.0	2.6

Blades are not prearranged for using reversible.

**Standard type**                      **R type**



**AJ**

**Lama - Blade**

NT03AJ  
NE5AJ  
NT05AJ  
NE10AJ  
NT10AJ  
NT20AJ

**AJL**

**Lama - Blade**

NT05AJL  
NT10AJL  
NT20AJL  
NY05AJL  
NY10AJL  
NY15AJL  
NY25AJL

**RAJ - RBJ**

**Lama - Blade**

NY05RAJ  
NY10RAJ  
NY15RAJ  
NY25RAJ  
NY05RBJ

**RAH**

**Lama - Blade**

NY05RAH  
NY10RAH  
NY15RAH  
NY25RAH

02/2013

Anti-rotational Cylinders Kompaktzylinder verdrehgesichert

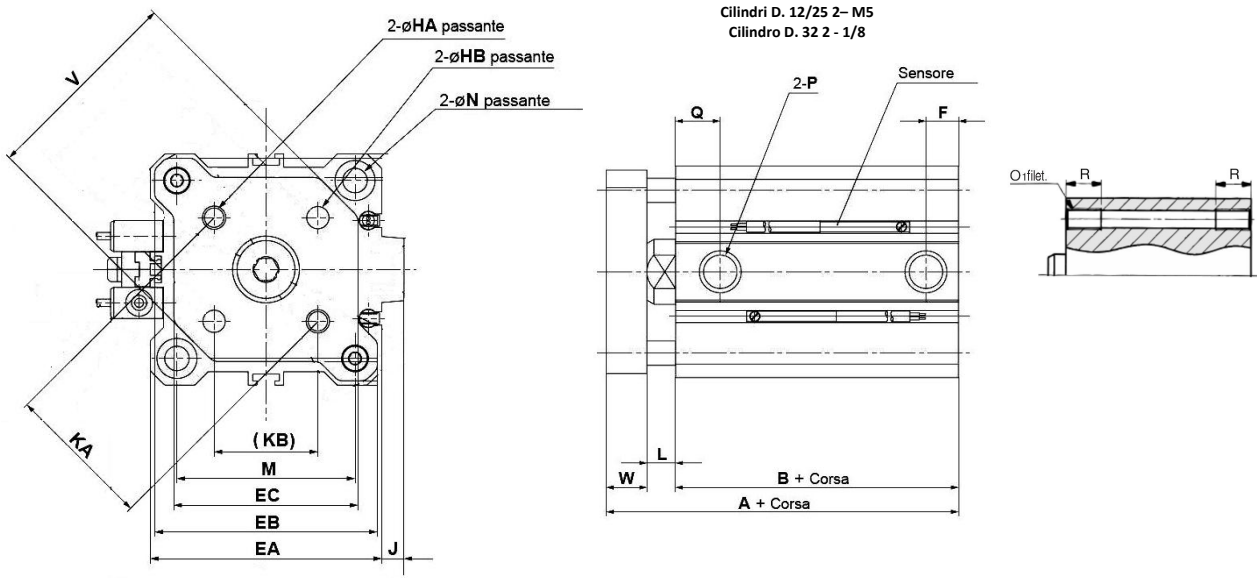


Optional proximity magnetic sensors:

- CA.14.01.008 Sensor with PNP cable, magneto-resistive normally open;
- CA.14.01.009 Sensor with REED cable, 2 wires normally open.

Sensori opzionali:

- CA.14.01.008 Sensor mit PNP kabel, magnetowiderstande normalerweise geöffnet;
- CA.14.01.009 Sensor mit REED kabel, drähte normalerweise geöffnet.



ARTICLE ARTIKEL	Ø [mm]	STROKE HUB [mm]	A [mm]	B [mm]	EA [mm]	EB [mm]	F [mm]	HA	HB [mm]	KA [mm]	KB [mm]	L [mm]	M [mm]	Q [mm]	V [mm]	W [mm]	O1	R [mm]
CA.11.17.001	12	10	36.5	27	25	24	5	M3	3	10	7.1	3.5	15.5	7.5	14.9	6	M4	7
CA.11.17.002	12	20	46.5	37	25	24	5	M3	3	10	7.1	3.5	15.5	7.5	14.9	6	M4	7
CA.11.17.003	16	10	36.5	27	29	28	5	M3	3	14	9.9	3.5	20	7.5	20	6	M4	7
CA.11.17.004	16	20	46.5	37	29	28	5	M3	3	14	9.9	3.5	20	7.5	20	6	M4	7
CA.11.17.005	20	10	42	29.5	36	34	5.5	M4	4	17	12	4.5	25.5	9	26	8	M6	10
CA.11.17.006	20	20	52	39.5	36	34	5.5	M4	4	17	12	4.5	25.5	9	26	8	M6	10
CA.11.17.007	25	10	45.5	32.5	40	38	5.5	M5	5	22	15.6	5.0	28	11	30	8	M6	10
CA.11.17.008	25	20	55.5	42.5	40	38	5.5	M5	5	22	15.6	5	28	11	30	8	M6	10
CA.11.17.009	32	10	50	33	45	43	7.5	M5	5	28	19.8	7	34	10.5	38	10	M6	10
CA.11.17.010	32	20	60	43	45	43	7.5	M5	5	28	19.8	7	34	10.5	38	10	M6	10

Available with the stroke 5-15-25-30

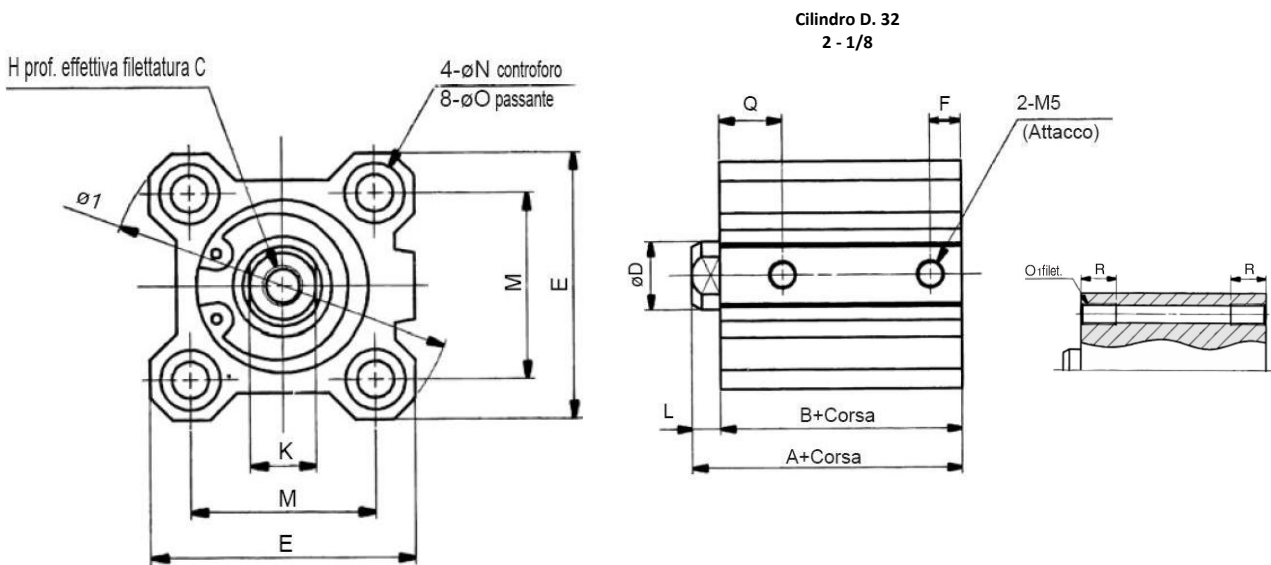
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Compact Cylinders Kompaktzylinder



Optional proximity magnetic sensors:  
 - CA.14.01.008 Sensor with PNP cable, magnetoresistive normally open;  
 - CA.14.01.009 Sensor with REED cable, 2 wires normally open.

Sensori opzionali:  
 - CA.14.01.008 Sensor mit PNP kabel, magnetowiderstande normalerweise geöffnet;  
 - CA.14.01.009 Sensor mit REED kabel, drähte normalerweise geöffnet.

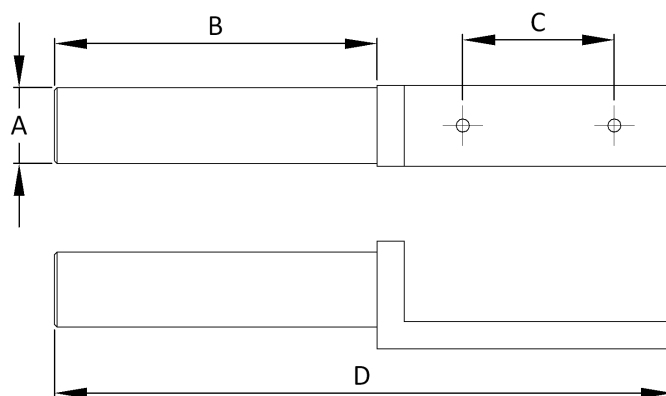
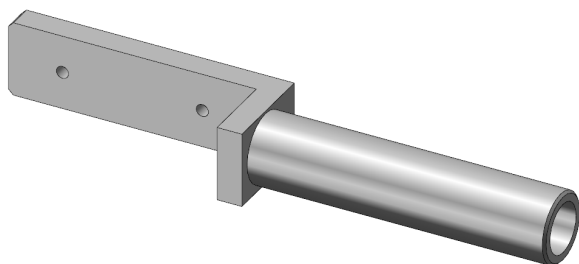


ARTICLE ARTIKEL	∅ [mm]	STROKE HUB [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	H	I [mm]	K [mm]	L [mm]	M [mm]	N [mm]	O [mm]	Q [mm]
CA.11.18.001	12	10	20.5	17	6	6	25	5	M3	32	5	3.5	15.5	3.5	6.5	7.5
CA.11.18.002	12	20	20.5	17	6	6	25	5	M3	32	5	3.5	15.5	3.5	6.5	7.5
CA.11.18.003	16	10	22	18.5	8	8	29	5.5	M4	38	6	3.5	20	3.5	6.5	8
CA.11.18.004	16	20	22	18.5	8	8	29	5.5	M4	38	6	3.5	20	3.5	9	8
CA.11.18.005	20	10	24	19.5	7	10	36	5.5	M5	47	8	4.5	25.5	3.5	9	9
CA.11.18.006	20	20	24	19.5	7	10	36	5.5	M5	47	8	4.5	25.5	3.5	9	9
CA.11.18.007	25	10	27.5	22.5	12	12	40	5.5	M6	52	10	5	28	3.5	9	11
CA.11.18.008	25	20	27.5	22.5	12	12	40	5.5	M6	52	10	5	28	3.5	9	11
CA.11.18.009	32	10	40	33	13	16	45	7.5	1/8	60	14	7	34	5.5	9	10.5
CA.11.18.010	32	20	40	33	13	16	45	7.5	1/8	60	14	7	34	5.5	9	10.5

Available with the stroke 5-15-25-30

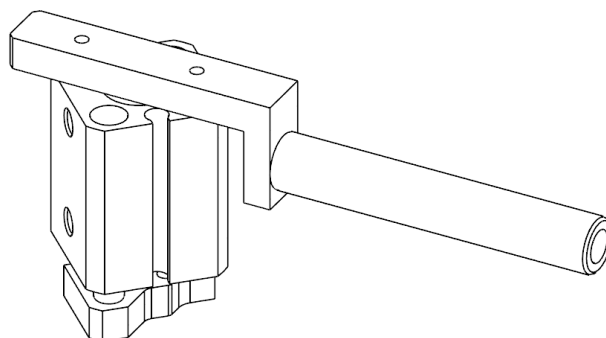
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L-style Bracket for Cylinder Adapter für Hubzylinder



ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	D [mm]	CYLINDER HUBZYLINDER	WEIGHT GEWICHT [g]
CA.GAZ.12.10.60	∅10	60	21.9	110	CA.11.17.001 CA.11.17.002	19
CA.GAZ.16.14.60	∅14	60	28.2	115	CA.11.17.003 CA.11.17.004	31
CA.GAZ.20.20.60	∅20	60	36.1	125	CA.11.17.005 CA.11.17.006	56
CA.GAZ.25.20.60	∅20	60	39.6	130	CA.11.17.007 CA.11.17.008	59
CA.GAZ.32.20.60	∅20	60	48.1	140	CA.11.17.009 CA.11.17.010	62

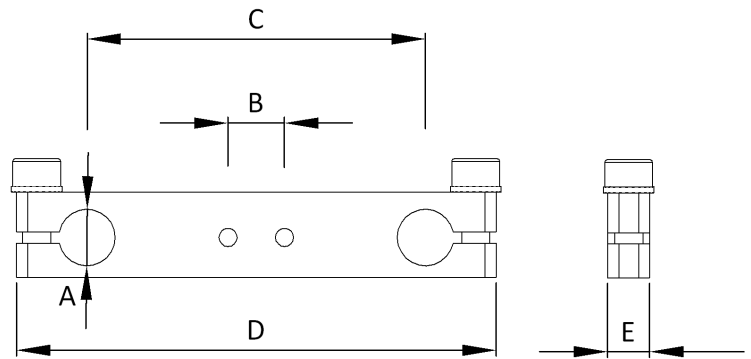
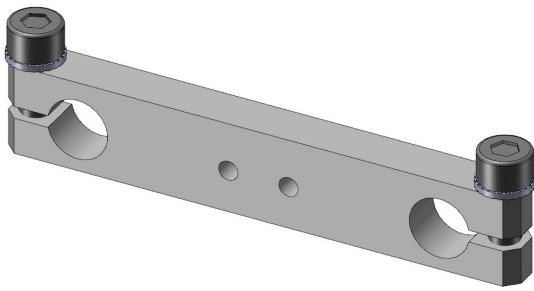
Application Example Anwendungsbeispiel



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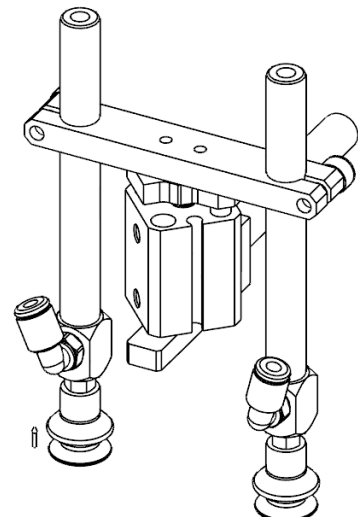
Bracket for Cylinders

Klemmbrücke für Hubzylinder mit Brücke



ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	ANTI-ROTATIONAL CYLINDER HUBZYLINDER MIT BRÜCKE	WEIGHT GEWICHT [g]
CA.KBH.12.10.60	Ø10	10	60	85	8	CA.11.17.001 CA.11.17.002	25
CA.KBH.16.14.90	Ø14	14	90	121	8	CA.11.17.003 CA.11.17.004	50
CA.KBH.16.16.125	Ø16	14	125	156	8	CA.11.17.003 CA.11.17.004	80
CA.KBH.20.14.90	Ø14	17	90	121	8	CA.11.17.005 CA.11.17.006	50
CA.KBH.20.16.125	Ø16	17	125	156	8	CA.11.17.005 CA.11.17.006	80
CA.KBH.25.16.125	Ø16	22	125	156	8	CA.11.17.007 CA.11.17.008	80
CA.KBH.32.20.125	Ø20	28	125	159	8	CA.11.17.009 CA.11.17.010	75

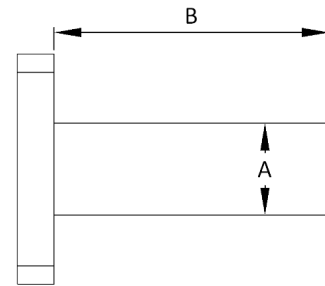
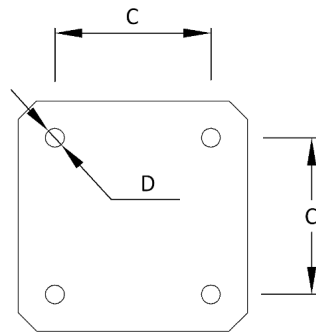
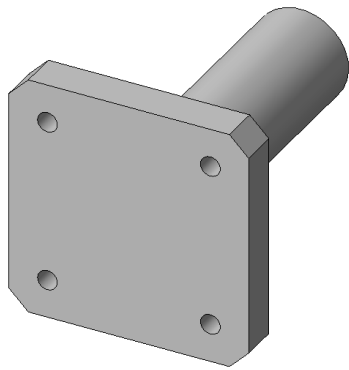
Application Example Anwendungsbeispiel



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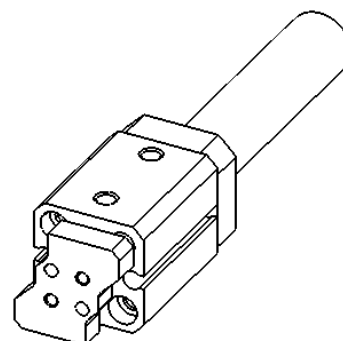


Parallel Bracket for Cylinder Adapterplatte mit Schaft



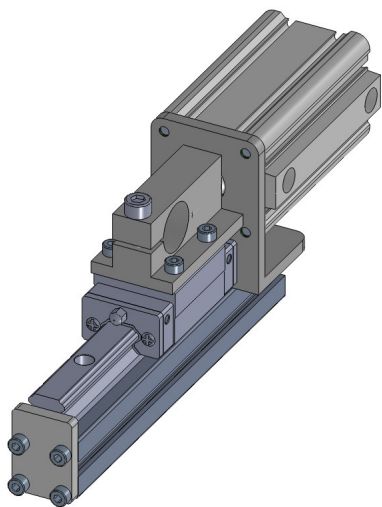
ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	D [mm]	CYLINDER ZYLINDER	WEIGHT GEWICHT [g]
CA.ADZ.12.14	Ø14	60	15.5	M3	CA.11.17.001 CA.11.17.002 CA.11.18.001 CA.11.18.002	19
CA.ADZ.16.14	Ø14	60	19.9	M3	CA.11.17.003 CA.11.17.004 CA.11.18.003 CA.11.18.004	25
CA.ADZ.20.14	Ø14	60	25.5	M4	CA.11.17.005 CA.11.17.006 CA.11.18.005 CA.11.18.006	32
CA.ADZ.25.20	Ø20	60	28.0	M4	CA.11.17.007 CA.11.17.008 CA.11.18.007 CA.11.18.008	56
CA.ADZ.32.20	Ø20	60	34.0	M5	CA.11.17.009 CA.11.17.010 CA.11.18.009 CA.11.18.010	64

Application Example Anwendungsbeispiel

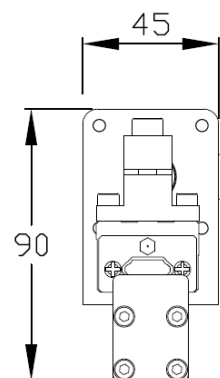
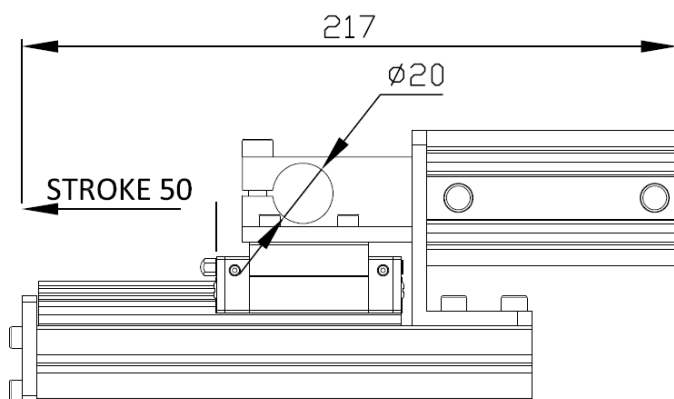


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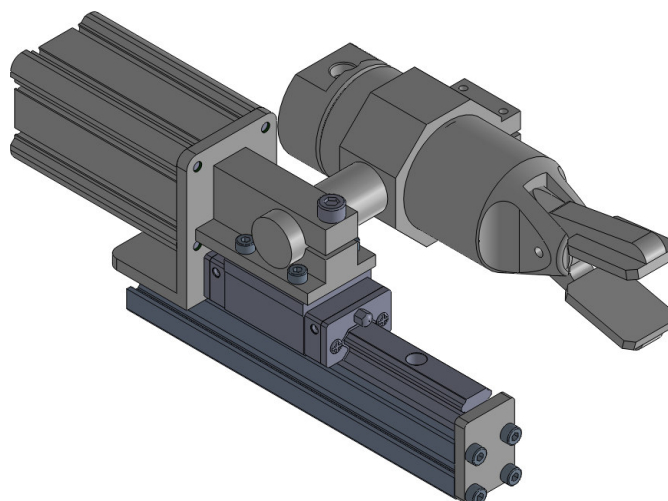
Slide Unit Hubeinheit Linearführung für rund



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]
CA.HEH.20.50	/
CA.HEH.20.75	
CA.HEH.20.100	
CA.HEH.30.50	

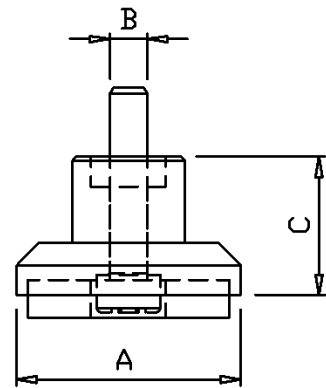
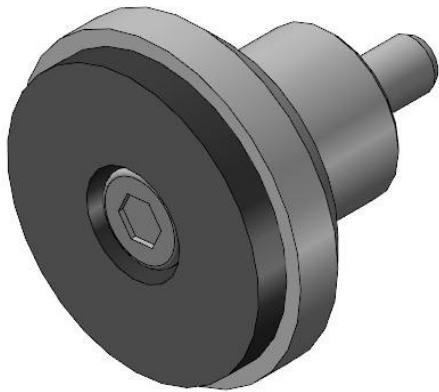


Application Example Anwendungsbeispiel

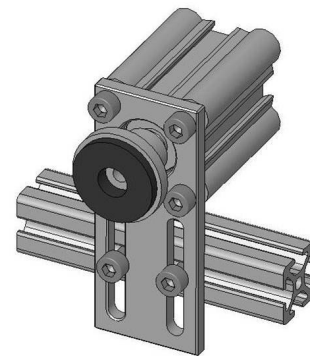


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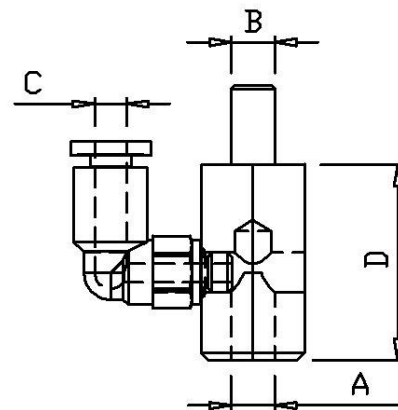
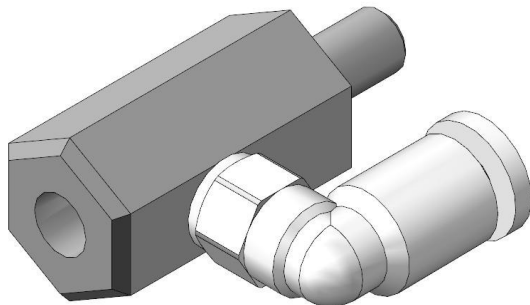
Cylinder Buffer Druckplatte



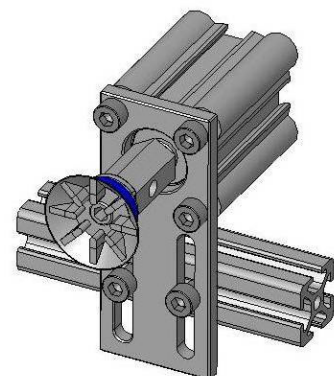
ARTICLE ARTIKEL	A [mm]	B	C [mm]	CYLINDER ZYLINDER	WEIGHT GEWICHT [g]
CA.11.04.001	∅20	M3	14	12	15
CA.11.04.002	∅25	M4	15	16	20
CA.11.04.003	∅30	M5	18	20	40
CA.11.04.004	∅35	M6	19	25	80
CA.11.04.005	∅40	M8	20	32	100



Cylinder-Suction Cup Connector Verbindungen Zylinder-Sauger



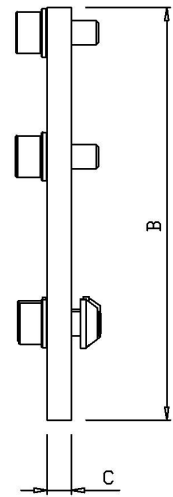
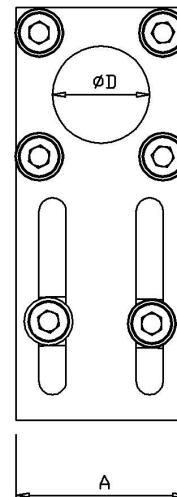
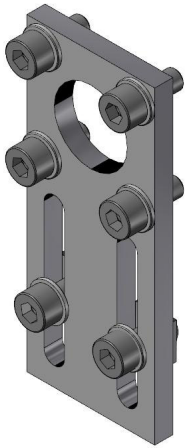
ARTICLE ARTIKEL	A	B	C [mm]	CYLINDER ZYLINDER	WEIGHT GEWICHT [g]
CA.11.15.001	1/8"	M4	∅4	Bore 16 Größe 16	13
CA.11.15.002	1/8"	M6	∅4	Bore 25 Größe 25	15
CA.11.15.003	1/4"	M6	∅6	Bore 25 Größe 25	24
CA.11.15.004	1/8"	M5	∅4	Bore 20 Größe 20	21
CA.11.15.005	1/4"	M8	∅6	Bore 32 Größe 32	22



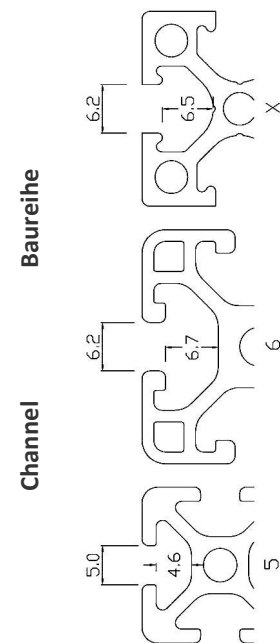
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## Cylinder Connector

## Verbindungen Profil-Zylinder



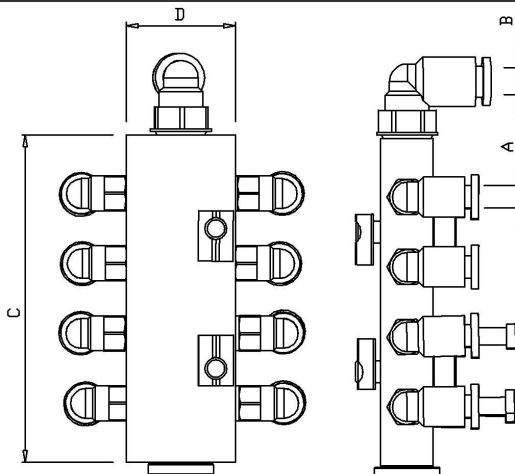
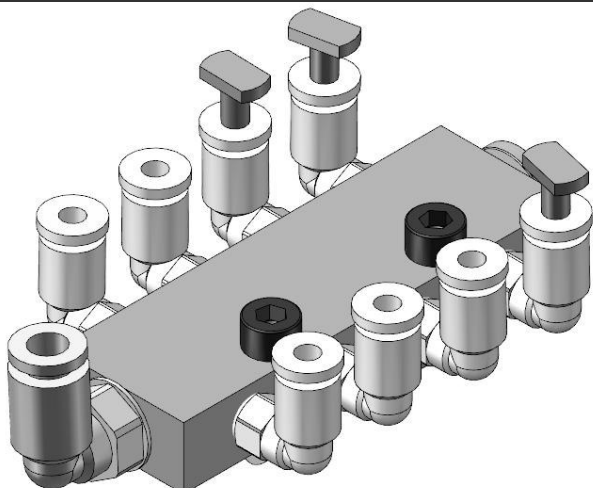
ARTICLE ARTIKEL	A [mm]	B [mm]	C [mm]	D [mm]	T-NUTS NUTENSTEIN	CYLINDER ZYLINDER	WEIGHT GEWICHT [g]
CA.11.08.001	30	81	5	Ø14	/	12	18
CA.11.08.001.5	30	81	5	Ø14	CHANNEL 5 BAUREIHE 5	12	25
CA.11.08.001.6	30	81	5	Ø14	CHANNEL 6 BAUREIHE 6	12	28
CA.11.08.001.X	30	81	5	Ø14	CHANNEL X BAUREIHE X	12	28
CA.11.08.002	32	87	5	Ø18	/	16	18
CA.11.08.002.5	32	87	5	Ø18	CHANNEL 5 BAUREIHE 5	16	25
CA.11.08.002.6	32	87	5	Ø18	CHANNEL 6 BAUREIHE 6	16	28
CA.11.08.002.X	32	87	5	Ø18	CHANNEL X BAUREIHE X	16	28
CA.11.08.003	34	107	5	Ø22	/	20	20
CA.11.08.003.5	34	107	5	Ø22	CHANNEL 5 BAUREIHE 5	20	27
CA.11.08.003.6	34	107	5	Ø22	CHANNEL 6 BAUREIHE 6	20	30
CA.11.08.003.X	34	107	5	Ø22	CHANNEL X BAUREIHE X	20	30
CA.11.08.004	42	116	5	Ø28	/	25	25
CA.11.08.004.5	42	116	5	Ø28	CHANNEL 5 BAUREIHE 5	25	32
CA.11.08.004.6	42	116	5	Ø28	CHANNEL 6 BAUREIHE 6	25	35
CA.11.08.004.X	42	116	5	Ø28	CHANNEL X BAUREIHE X	25	35
CA.11.08.005	47	124	5	Ø32	/	32	38
CA.11.08.005.5	47	124	5	Ø32	CHANNEL 5 BAUREIHE 5	32	45
CA.11.08.005.6	47	124	5	Ø32	CHANNEL 6 BAUREIHE 6	32	48
CA.11.08.005.X	47	124	5	Ø32	CHANNEL X BAUREIHE X	32	48



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Kit Air Manifold 9 IN-OUT

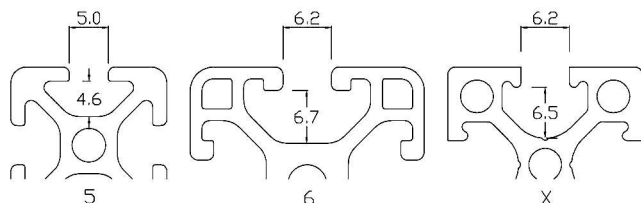
Kit Verteilerblock 9 Anschlüsse



ARTICLE ARTIKEL	N° IN-OUT N° ANSCHLÜSSE	T-NUTS NUTENSTEIN	A [mm]	B [mm]	C [mm]	D [mm]	WEIGHT GEWICHT [g]
KIT.13.02.003	9	/	Ø4	Ø6	75	20	104
KIT.13.02.003.5	9	CHANNEL 5 BAUREIHE 5	Ø4	Ø6	75	20	113
KIT.13.02.003.6	9	CHANNEL 6 BAUREIHE 6	Ø4	Ø6	75	20	117
KIT.13.02.003.X	9	CHANNEL X BAUREIHE X	Ø4	Ø6	75	20	117
KIT.13.02.004	9	/	Ø6	Ø8	120	30	
KIT.13.02.004.5	9	CHANNEL 5 BAUREIHE 5	Ø6	Ø8	120	30	
KIT.13.02.004.6	9	CHANNEL 6 BAUREIHE 6	Ø6	Ø8	120	30	
KIT.13.02.004.X	9	CHANNEL X BAUREIHE X	Ø6	Ø8	120	30	
KIT.13.02.007	9	/	Ø4	Ø4	75	20	103
KIT.13.02.007.5	9	CHANNEL 5 BAUREIHE 5	Ø4	Ø4	75	20	112
KIT.13.02.007.6	9	CHANNEL 6 BAUREIHE 6	Ø4	Ø4	75	20	116
KIT.13.02.007.X	9	CHANNEL X BAUREIHE X	Ø4	Ø4	75	20	116
KIT.13.02.008	9	/	Ø6	Ø6	120	30	113
KIT.13.02.008.5	9	CHANNEL 5 BAUREIHE 5	Ø6	Ø6	120	30	122
KIT.13.02.008.6	9	CHANNEL 6 BAUREIHE 6	Ø6	Ø6	120	30	126
KIT.13.02.008.X	9	CHANNEL X BAUREIHE X	Ø6	Ø6	120	30	126

Channel

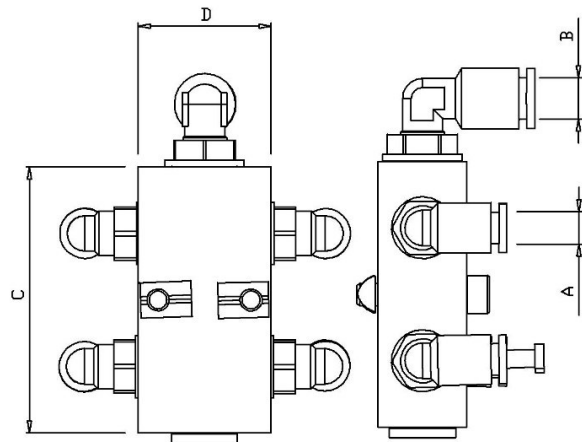
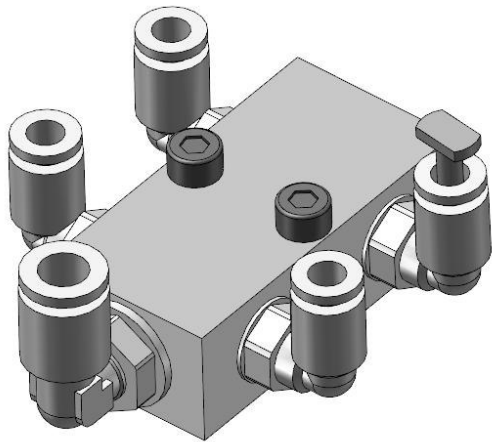
Baureihe



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Kit Air Manifold 5 IN-OUT

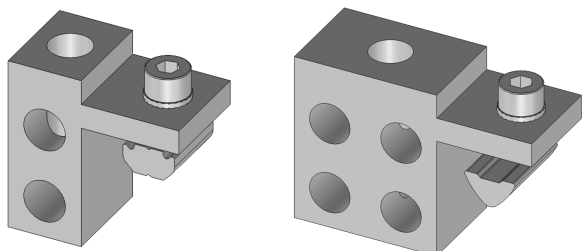
Kit Verteilerblock 5 Anschlüsse



ARTICLE ARTIKEL	N° IN-OUT N° ANSCHLÜSSE	T-NUTS NUTENSTEIN	A [mm]	B [mm]	C [mm]	D [mm]	WEIGHT GEWICHT [g]
KIT.13.02.001	5	/	Ø4	Ø6	75	20	63
KIT.13.02.001.5	5	CHANNEL 5 BAUREIHE 5	Ø4	Ø6	75	20	72
KIT.13.02.001.6	5	CHANNEL 6 BAUREIHE 6	Ø4	Ø6	75	20	76
KIT.13.02.001.X	5	CHANNEL X BAUREIHE X	Ø4	Ø6	75	20	76
KIT.13.02.002	5	/	Ø6	Ø8	120	30	
KIT.13.02.002.5	5	CHANNEL 5 BAUREIHE 5	Ø6	Ø8	120	30	
KIT.13.02.002.6	5	CHANNEL 6 BAUREIHE 6	Ø6	Ø8	120	30	
KIT.13.02.002.X	5	CHANNEL X BAUREIHE X	Ø6	Ø8	120	30	
KIT.13.02.005	5	/	Ø4	Ø4	75	20	67
KIT.13.02.005.5	5	CHANNEL 5 BAUREIHE 5	Ø4	Ø4	75	20	76
KIT.13.02.005.6	5	CHANNEL 6 BAUREIHE 6	Ø4	Ø4	75	20	80
KIT.13.02.005.X	5	CHANNEL X BAUREIHE X	Ø4	Ø4	75	20	80
KIT.13.02.006	5	/	Ø6	Ø6	120	30	67
KIT.13.02.006.5	5	CHANNEL 5 BAUREIHE 5	Ø6	Ø6	120	30	76
KIT.13.02.006.6	5	CHANNEL 6 BAUREIHE 6	Ø6	Ø6	120	30	80
KIT.13.02.006.X	5	CHANNEL X BAUREIHE X	Ø6	Ø6	120	30	80
KIT.13.02.009	5	/	Ø3	Ø4	75	20	
KIT.13.02.009.5	5	CHANNEL 5 BAUREIHE 5	Ø3	Ø4	75	20	
KIT.13.02.009.6	5	CHANNEL 6 BAUREIHE 6	Ø3	Ø4	75	20	
KIT.13.02.009.X	5	CHANNEL X BAUREIHE X	Ø3	Ø4	75	20	

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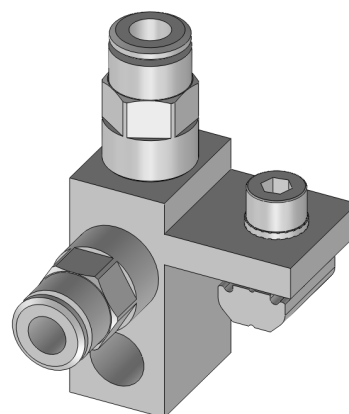
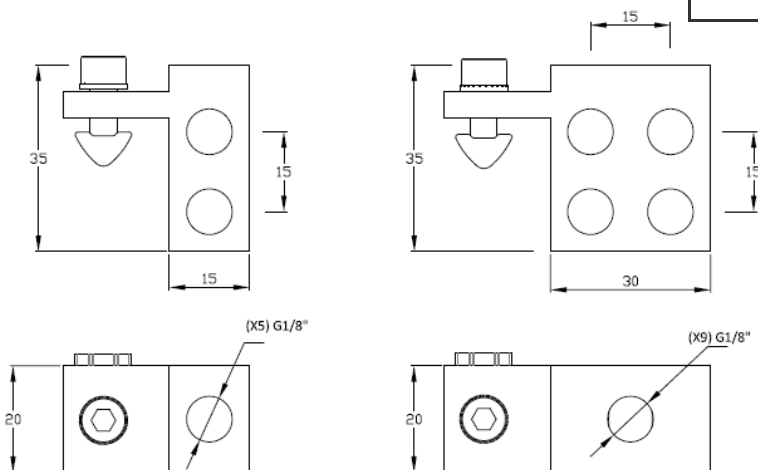
Side Manifold Block (1 Channel) Verteilerblock (1 Kanal)



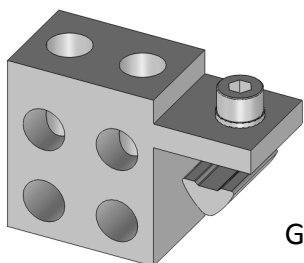
G 1/8" X

G 1/8" X

ARTICLE ARTIKEL	N° IN-OUT N° ANSCHLÜSSE	T-NUTS NUTENSTEIN	WEIGHT GEWICHT [g]
CA.VTB.X.141818	5	CHANNEL X BAUREIHE X	30
CA.VTB.X.181818	9	CHANNEL X BAUREIHE X	50
CA.VTB.JU.141818	5	CHANNEL JU BAUREIHE JU	
CA.VTB.JU.181818	9	CHANNEL JU BAUREIHE JU	

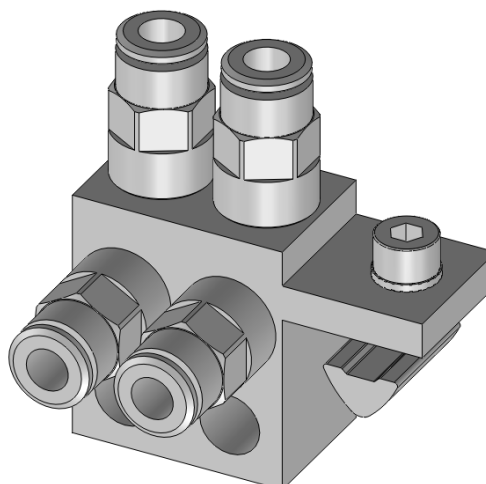
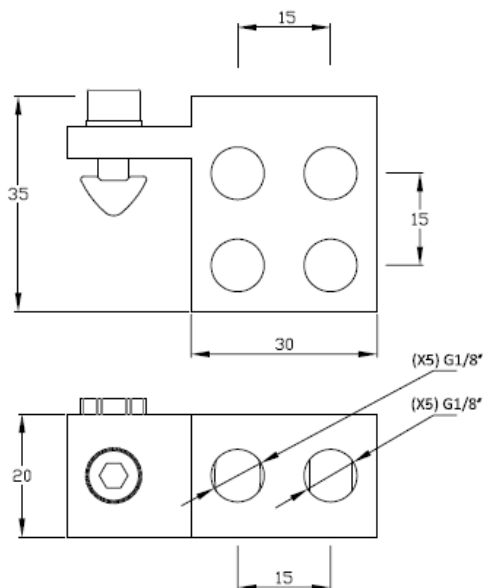


Side Manifold Block (2 Channel) Verteilerblock (2 Kanäle)



G 1/8" 5+5

ARTICLE ARTIKEL	N° IN-OUT N° ANSCHLÜSSE	T-NUTS NUTENSTEIN	WEIGHT GEWICHT [g]
CA.VTB.X.281818	5+5	CHANNEL X BAUREIHE X	30
CA.VTB.JU.281818	5+5	CHANNEL JU BAUREIHE JU	



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PU Tube

Polyurethanrohr



ARTICLE ARTIKEL	ØOUTSIDE AÜBENSEITE [mm]	ØINSIDE IINENSEITE [mm]	COLOR FARB	LENGTH LÄNGE [mt]
CA.15.01.001	4	2.5	BLUE BLAU	25
CA.15.01.002	6	4	BLUE BLAU	25
CA.15.01.003	6	4	YELLOW GELB	25
CA.15.01.004	4	2.5	YELLOW GELB	25
CA.15.01.005	8	5.5	YELLOW GELB	25
CA.15.01.006	6	4	RED ROT	25
CA.15.01.007	4	2.5	RED ROT	25
CA.15.01.008	8	5.5	RED ROT	25
CA.15.01.009	6	4	NEUTRAL NEUTRAL	25
CA.15.01.010	4	2.5	NEUTRAL NEUTRAL	25
CA.15.01.011	3	1.5	NEUTRAL NEUTRAL	25
CA.15.01.012	8	5.5	NEUTRAL NEUTRAL	25

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Adapters Adapter

Reduction M-F

Reduzierstück AG-IG



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	DIMENSIONS DIMENSIONEN	
		M	F
CA.08.14.001	8	1/8"	M5
CA.08.14.002	7	1/8"	M6
CA.08.14.003	11	1/4"	1/8
CA.08.14.004	16	1/4"	M6

Nipple



Doppelnippel

ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	DIMENSIONS DIMENSIONEN
CA.08.14.005	8	1/8"
CA.08.14.006	16	1/4"
CA.08.14.011	8	M5 - 1/8"
CA.08.14.012	14	1/8 - 1/4"

Extention M-F

Gerade Steckverschraubung



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	DIMENSIONIS DIMENSIONEN	
		Thread Gewinde	h
CA.08.14.007	15	1/8"	16
CA.08.14.008	30	1/8"	36
CA.08.14.009	28	1/4"	27
CA.08.14.010	47	1/4"	43

Reducing Union Long

Reduzierstück



ARTICLE	WEIGHT GEWICHT [g]	DIMENSIONIS DIMENSIONEN	
		M	F
CA.08.14.018	7	M5 - 1/8"	
CA.08.14.019	14	1/8 - 1/4"	

Plug with O-ring

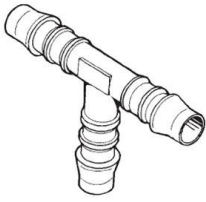
Verschlussto-



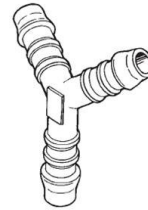
ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	DIMENSIONIS DIMENSIONEN
CA.08.14.013	2	M5
CA.08.14.014	5	1/8"
CA.08.14.015	11	1/4"

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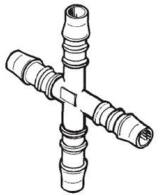
Plastic Hose Fittings Nippelverbindung kunststoff



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	MODEL MODELL
CA.12.04.001	1	T Tube Ø 4 T Rohr Ø 4
CA.12.04.002	1	T Tube Ø 6 T Rohr Ø 6
CA.12.04.012	2	T Tube Ø 8 T Rohr Ø 8



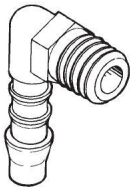
ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	MODEL MODELL
CA.12.04.003	1	Y Tube Ø 4 Y Rohr Ø 4
CA.12.04.004	1	Y Tube Ø 6 Y Rohr Ø 6
CA.12.04.013		Y Tube Ø 8 Y Rohr Ø 8



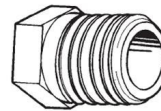
ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	MODEL MODELL
CA.12.04.005	1	K Tube Ø 6 K Rohr Ø 6



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	MODEL MODELL
CA.12.04.006	1	Inline Ø 6 1/8" Gerade lang Ø 6 1/8"
CA.12.04.007	2	Inline Ø 6 1/4" Gerade lang Ø 6 1/4"



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	MODEL MODELL
CA.12.04.008	2	L Tube Ø 6 1/8" L Rohr Ø 6 1/8"
CA.12.04.009	9	L Tube Ø 6 1/4" L Rohr Ø 6 1/4"



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	MODEL MODELL
CA.12.04.010	1	Plug 1/8" Stöpsel 1/8"
CA.12.04.011	2	Plug 1/4" Stöpsel 1/4"

Metal hose fittings Nippelverbindung metall

Inline

Gerade lang



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	MODEL MODELL
CA.12.05.M5AU3	3	Inline Tube 3 M5 Gerade lang Rohr 3 M5
CA.12.05.M5AU4	2	Inline Tube 4 M5 Gerade lang Rohr 4 M5
CA.12.05.M5AU6	2	Inline Tube 6 M5 Gerade lang Rohr 6 M5

Elbow Fitting

Winkelstück



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	MODEL MODELL
CA.12.05.M5ALHU3		Elbow Tube 3 M5 Winkel Rohr 3 M5
CA.12.05.M5ALHU4	4	Elbow Tube 4 M5 Winkel Rohr 4 M5
CA.12.05.M5ALHU6	5	Elbow Tube 6 M5 Winkel Rohr 6 M5

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## Quick Hose Connectors Schnellsteckverbindungen

Plastic Elbow Fitting

Winkelsteckverschraubung



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	MODEL MODELL	
CA.12.05.001	5	Tube Ø4 Rohr Ø4	M5
CA.12.05.002	6	Tube Ø6 Rohr Ø6	M5
CA.12.05.003	8	Tube Ø6 Rohr Ø6	1/8"
CA.12.05.038	11	Tube Ø6 Rohr Ø6	1/4"
CA.12.05.040	7	Tube Ø4 Rohr Ø4	1/8"

Y Plastic Fitting

Y Steckverbindung



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	MODEL MODELL		
CA.12.05.004	7	Ø4	Ø4	Ø4
CA.12.05.005	10	Ø6	Ø6	Ø6
CA.12.05.006	7	Ø4	Ø6	Ø4
CA.12.05.007	11	Ø6	Ø8	Ø6

T Swivelling Fitting

T Steckverschraubung



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	MODEL MODELL	
CA.12.05.028	7	Tube Ø4 Rohr Ø4	M5
CA.12.05.029	9	Tube Ø4 Rohr Ø4	1/8"
CA.12.05.030	11	Tube Ø6 Rohr Ø6	1/8"
CA.12.05.031	9	Tube Ø6 Rohr Ø6	M5

Y Double Plastic Fitting

Y-Doppelsteckverbindung



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	MODEL MODELL	
CA.12.05.008	12	1 x Ø6	4 x Ø4
CA.12.05.009	17	1 x Ø8	4 x Ø6

Inline Male Fitting

Gerade Steckverschraubung



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	MODEL MODELL	
CA.12.05.015	5	Tube Ø4 Rohr Ø4	M5
CA.12.05.016	8	Tube Ø6 Rohr Ø6	M5
CA.12.05.017	9	Tube Ø6 Rohr Ø6	1/8
CA.12.05.023	1	Tube Ø3 Rohr Ø3	M3
CA.12.05.024	2	Tube Ø3 Rohr Ø3	M5
CA.12.05.044	10	Tube Ø4 Rohr Ø4	1/8

Metallic Elbow Fitting

Winkelsteckverschraubung



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	MODEL MODELL	
CA.12.05.018	10	Tube Ø4 Rohr Ø4	M5
CA.12.05.019	19	Tube Ø6 Rohr Ø6	1/8
CA.12.05.020	16	Tube Ø6 Rohr Ø6	M5
CA.12.05.021	3	Tube Ø3 Rohr Ø3	M3
CA.12.05.022	6	Tube Ø3 Rohr Ø3	M5

Y Metallic Fitting

Y Steckverbindung



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	MODEL MODELL		
CA.12.05.034	5	Ø3	Ø3	Ø3

Brass Reduction Fitting

Messing Reduzierung



Ø Tube  
Ø Rohr

ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	MODEL MODELL	
CA.12.05.035	2	Tube 3 - Male 4 Rohr 3 - Zapfen 4	
CA.12.05.042	6	Tube 4 - Male 6 Rohr 4 - Zapfen 6	

Ø Male  
Ø Zapfen

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Quick Hose Connectors Schnellsteckverbindungen

Flow control

Durchflussregler



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	MODEL MODELL	
CA.12.05.RF1806	15	Tube Ø6 Rohr Ø6	1/8"
CA.12.05.RF1804	15	Tube Ø4 Rohr Ø4	1/8"
CA.12.05.RFM504	7	Tube Ø4 Rohr Ø4	M5
CA.12.05.RFM506	7	Tube Ø6 Rohr Ø6	M5

Male Plug

Stopfen



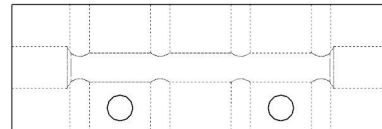
ARTICLE	WEIGHT GEWICHT [g]	MODEL MODELL
CA.12.05.036	1	Fitting Ø4 Verschraubung Ø4
CA.12.05.037	1	Fitting Ø6 Verschraubung Ø6

Manifold Block

Verteilerblock



Inputs  
A  
Eingänge  
A



Inputs  
A  
Eingänge  
A

Outputs B  
Ausgänge B

Outputs B  
Ausgänge B

ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	INPUTS A EINGÄNGE A	OUTPUTS B AUSGÄNGE B
CA.13.02.001	31	2 - 1/8"	4 - M5
CA.13.02.002	67	2 - 1/4"	4 - 1/8"
CA.13.02.003	52	2 - 1/8"	8 - M5
CA.13.02.004	153	2 - 1/4"	8 - 1/8"

Quick Realise Coupling

Pneumatik Schnellschlußkupplung Weiblich



ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	MODEL MODELL	
CA.12.06.001	29	Tube Ø6 Rohr Ø6	1/8"
CA.12.06.003	8	Tube Ø4 Rohr Ø4	M5

Quick Realise Plug

Stecknippel mit Schlauchverbinder



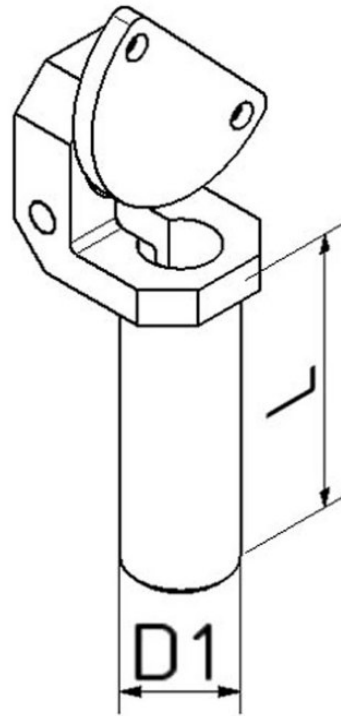
ARTICLE ARTIKEL	WEIGHT GEWICHT [g]	MODEL MODELL	
CA.12.06.002	17	Tube Ø6 Rohr Ø6	1/8"
CA.12.06.004	5	Tube Ø4 Rohr Ø4	M5

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ARTICLE ARTIKEL	POWER SUPPLY	INPUTS	OUTPUTS
<b>CA.19.02.002</b>	24 V dc (+/- 10%)	Maximum 2 PNP, NPN or dry contact (NO or NC) sensor switched by jumper	1up to 2 PNP, NPN or dry contact (NO ) outputs switched by jumpers
<b>CA.19.02.004</b>	24 V dc (+/- 10%)	Maximum 4 PNP, NPN or dry contact (NO or NC) sensor switched by jumper	1up to 4 PNP, NPN or dry contact (NO ) outputs switched by jumpers
<b>CA.19.02.06</b>	24 V dc (+/- 10%)	Maximum 6 PNP, NPN or dry contact (NO or NC) sensor switched by jumper	1up to 6 PNP, NPN or dry contact (NO ) outputs switched by jumpers
<b>CA.19.02.08</b>	24 V dc (+/- 10%)	Maximum 8 PNP, NPN or dry contact (NO or NC) sensor switched by jumper	1up to 8 PNP, NPN or dry contact (NO ) outputs switched by jumpers

ARTICLE ARTIKEL			
CA.ATK.10.10.30			
CA.ATK.10.10.60			
CA.ATK.10.10.90			
CA.ATK.10.14.40			
CA.ATK.10.14.80			
CA.ATK.10.14.120			

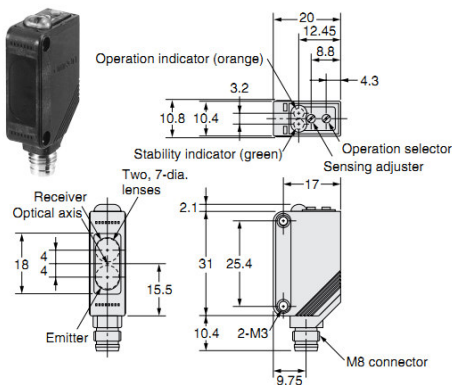


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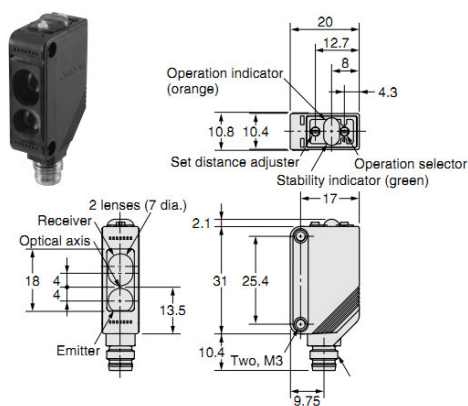
ARTICLE ARTIKEL	OMRON CODE	SENSING DISTANCE	SENSOS TYPE	SHAPE
OM.E3Z-D86.OMS	E3Z-D86	5 to 100 mm (wide view)	Diffuse reflective	
OM.E3Z-LL86.OMS	E3Z-LL86	20 to 40 mm (Min. distance set) 20 to 300 mm (Max. distance set)	Distance settable	
OM.E3Z-LS86.OMS	E3Z-LS86		Distance settable	
OM.E3Z-LT86.OMS	E3Z-LT86		Through beam	
OM.E3Z-R86.OMS	E3Z-R86		Retroreflective model	

\*1 the number between parentheses indicate the minimum required distance

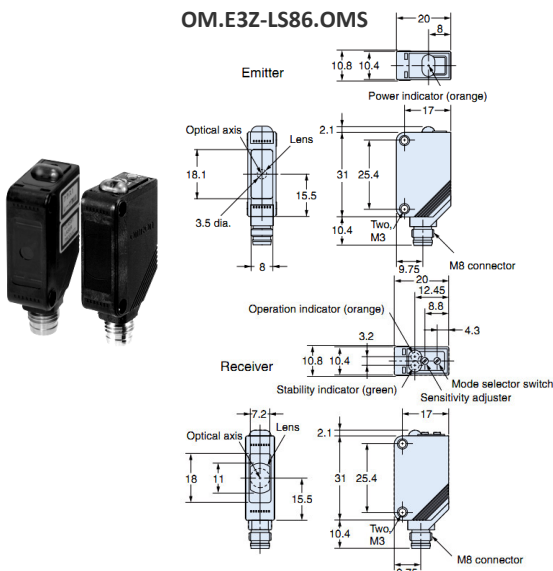
OM.E3Z-D86.OMS  
OM.E3Z-R86.OMS



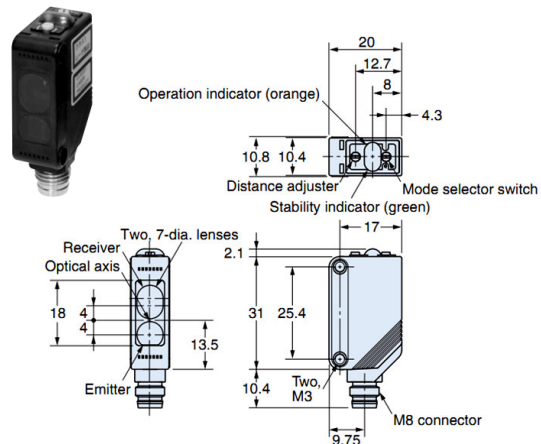
OM.E3Z-LS86.OMS



OM.E3Z-LS86.OMS



OM.E3Z-LL86.OMS



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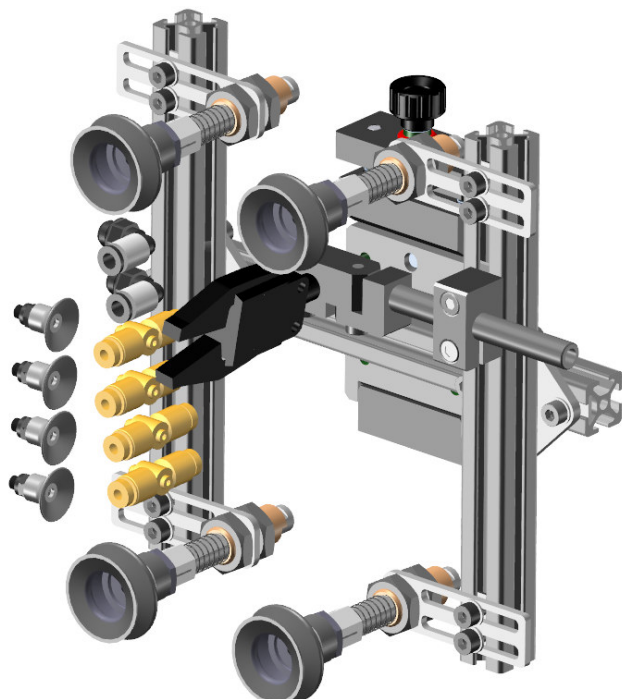


KIT.60.C

KIT.60.C

Work Area 300x300

Arbeitsbereich 300x300



COMPONENTS	DESCRIPTION	QUANTITY
CA.01.02.001A	Quick Changer robot side 60 model	1
CA.01.02.002.5A	Quick Changer Gripper side 60 model with T-nuts channel 5	1
CA.02.05.007	T-nuts channel 5 M5	4
V.TCE5X10	Screw 5x10	4
CA.02.01.001	Profile 20x20 channel 5 (mt)	1
CA.03.01.001	Cross Joint Connector 20x20	2
CA.03.12.001.5	Cross Joint Connector Tube d.10/ T-nut channel 5	1
CA.04.19.001	Elbow Gripper Arm d.10-10	1
CA.04.20.10.5	Long Mounting Bracket d. 10 T-nuts channel 5	4
CA.05.01.005	Suspension not Rotated M10x1.25 Stroke 20 Threaded Shaft	4
KIT.08.03.D20.4	Spherical Silicone Vacuum Cup d. 20 with Nipple	4
KIT.08.01.D16.4	Silicone Vacuum Cup d. 20 bellows with Nipple	4
CA.12.05.028	T Fitting Tube 4 M5	4
CA.12.05.001	L Fitting Tube 4 M5	2
CA.09.03.002	Pneumatic Sprue Gripper	1

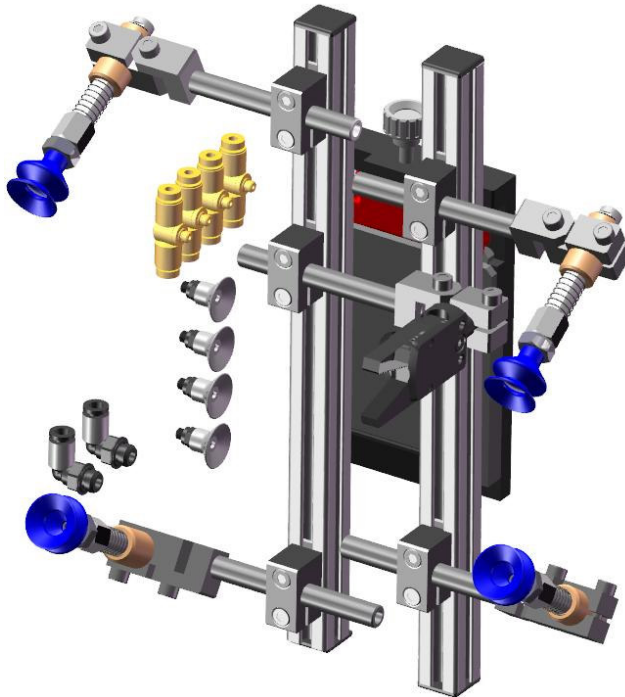
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KIT.90.C

KIT.90.C

Work Area 400x400

Arbeitsbereich 400x400



COMPONENTS	DESCRIPTION	QUANTITY
CA.01.02.007	Quick Changer robot side 90 model	1
CA.01.02.008.5	Quick Changer gripper side 90 model with T-nuts channel 5	1
CA.02.05.007	T-nuts channel 5 M5	4
V.TCE5X12	Screw 5x12	4
CA.02.01.001	Profile 20x20 channel 5 (mt)	1
CA.03.12.002.5	Cross Joint Connector Tube d. 12 T-nuts channel 5	4
CA.03.12.001.5	Cross Joint Connector Tube d. 10 T-nuts channel 5	1
CA.04.19.001	Elbow Gripper Arm d.10-10	1
CA.04.19.004	Elbow Gripper Arm d.12-16	4
CA.05.02.001	Suspension not Rotated d.16 Stroke 38 Threaded Shaft	4
KIT.08.03.D30.10	Spherical Silicone Vacuum Cup d. 30 with Nipple	4
KIT.08.01.D30.2	Silicone Vacuum Cup d. 20 bellows with Nipple	4
CA.12.05.031	T Fitting Tube 6 M5	4
CA.12.05.002	L Fitting Tube 6 M5	2
CA.09.03.002	Pneumatic Sprue Gripper	1

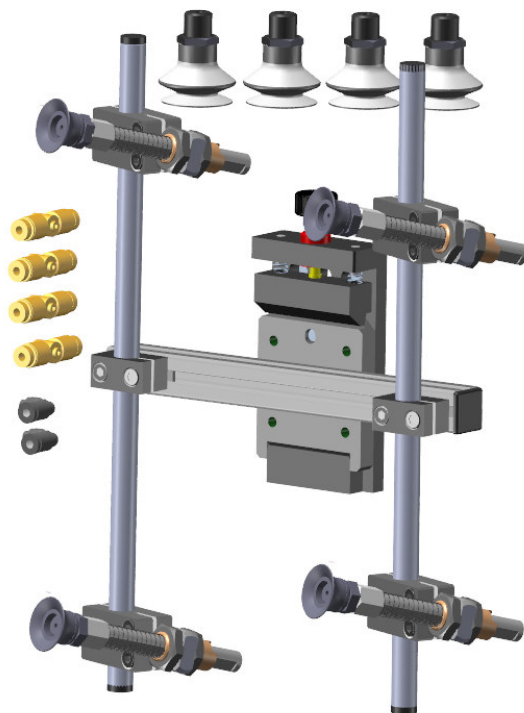
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KIT.60.M.C

KIT.60.M.C

Work Area 500x300

Arbeitsbereich 500x300

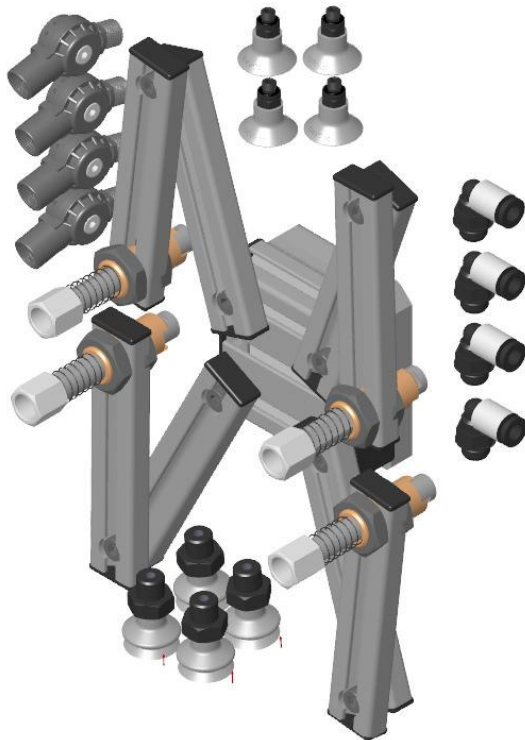


COMPONENTS	DESCRIPTION	QUANTITY
CA.01.02.001A	Quick Changer robot side 60 model	1
CA.01.02.002.5	Quick Changer gripper side 60 model with T-nuts channel 5	1
CA.02.05.007	T-nuts channel 5 M5	4
V.TCE5X10	Screw 5x10	4
CA.02.01.001	Profile 20x20 channel 5 (mt)	0.5
CA.03.12.002.5	Cross Joint Connector Tube d. 12 T-nuts channel 5	2
CA.03.11.001	Cross Clamp d.12 for Toogle Loop	4
CA.05.07.001	Toggle Loop d.14	4
CA.05.01.001	Suspension not Rotated M14x1.5 Stroke 38 Threaded Shaft	4
KIT.08.03.D20.9	Spherical Silicone Vacuum Cup d. 20 with Nipple	4
KIT.08.01.D20.1	Silicone Vacuum Cup d. 20 bellows with Nipple	4
CA.12.05.028	T-style Fitting d.4 M5	4
CA.12.05.001	L-style Fitting d.4 M5	2
CA.02.02.001	Steel Tube d. 12 (mt)	1

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Work Area 400X400

Arbeitsbereich 400X400



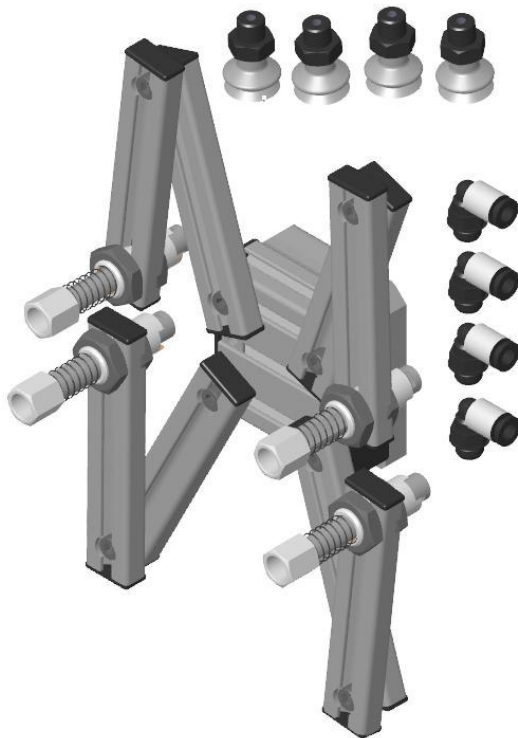
COMPONENTS	DESCRIPTION	QUANTITY
CA.02.01.005	Profile 60x20 (mt)	0.12
CA.02.01.009	Profile 20x10 (mt)	0.8
CA.02.05.007	T-nuts channel 5 M5	12
CA.02.03.009	Plug 20x10	16
CA.02.03.005	Plug 60x20	2
CA.05.01.003	Suspension not Rotated M14x1.5 Stroke 17 Threaded Shaft	4
CA.12.05.002	Plastic 90° Fitting d.6 M5	4
CA.07.01.001	Elbow Arm 1/8" Female 1/8" Male	4
CA.12.04.004	Y-style Plastic Hose Fitting d.6/4	3
V.TCE5X10	Screw 5x10	10
KIT.08.03.D20.9	Spherical Silicone Vacuum Cup d. 20 with Nipple	4
KIT.08.01.D20.1	Silicone Vacuum Cup d. 20 bellows with Nipple	4

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Spider.Micro Kreuzschlüssel .Micro

Work Area 200X200

Arbeitsbereich 200X200



COMPONENTS	DESCRIPTION	QUANTITY
CA.02.01.005	Profile 60x20 (mt)	0.10
CA.02.01.008	Profile 16X8.5 (mt)	0.8
CA.02.05.007	T-nuts channel 5 M5	12
CA.02.03.008	Plug 16X8.5	16
CA.02.03.005	Plug 60x20	2
CA.05.01.005	Suspension not Rotated M10x1.25 Stroke 20 Threaded Shaft	4
CA.12.05.001	Plastic 90° Fitting d.4 M5	4
CA.12.05.008	Y-style Double Fitting 1x6 4x4	1
V.TCE5X10	Screw 5x10	10
KIT.08.01.D11.4	Spherical Silicone Vacumm Cup d. 11 with Nipple	4

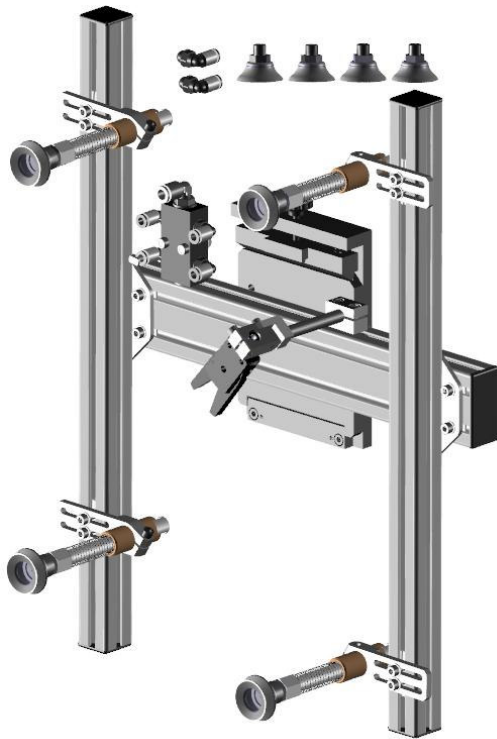
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KIT.120.C

KIT.120.C

Work Area 450X500

Arbeitsbereich 450X500



COMPONENTS	DESCRIPTION	QUANTITY
CA.01.02.003	Quick Changer robot side 120 model	1
CA.01.02.004.6	Quick Changer gripper side 120 model with T-nuts channel 6	1
CA.02.01.004	Profile 60x30 channel 6 (mt)	0.5
CA.02.01.003	Profile 30x30 channel 6 (mt)	1
CA.02.05.008	T nuts channel 6 M5	4
CA.03.01.005	Cross Joint Connector for Profile 30x60	2
Ca.04.02.002.6	Long Angle Clamp D.20 for Profile channel 6	4
CA.05.02.002	Suspension not Rotated d.20 Stroke 48 Threaded Shaft	4
KIT.08.01.D50.3	Silicone Vacuum Cup d. 50 bellows with Nipple	4
CA.03.12.001.6	Cross Joint Connector Tube d.10/ T-nut channel 6	1
CA.04.19.001	Elbow Gripper Arm d.10-10	1
CA.09.03.002	Pneumatic Sprue Gripper	1
KIT.13.02.006	Kit Air Manifold 5 IN-OUT with Connections	1
CA.12.05.001	Plastic 90° Fitting d.4 M5	1
CA.12.05.003	Plastic 90° Fitting d.6 1/8"	4
KIT.08.03.D45.11	Spherical Silicone Vacuum Cup d. 45 with Nipple	4
CA.08.14.001	Reduction 1/4" Male 1/8" Female	4

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