

Components catalog 2013

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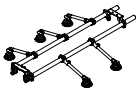
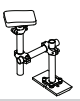
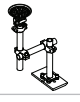

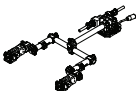
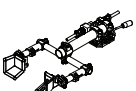


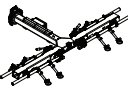
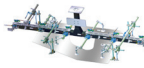


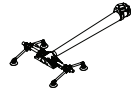
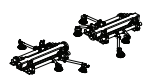

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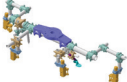



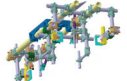


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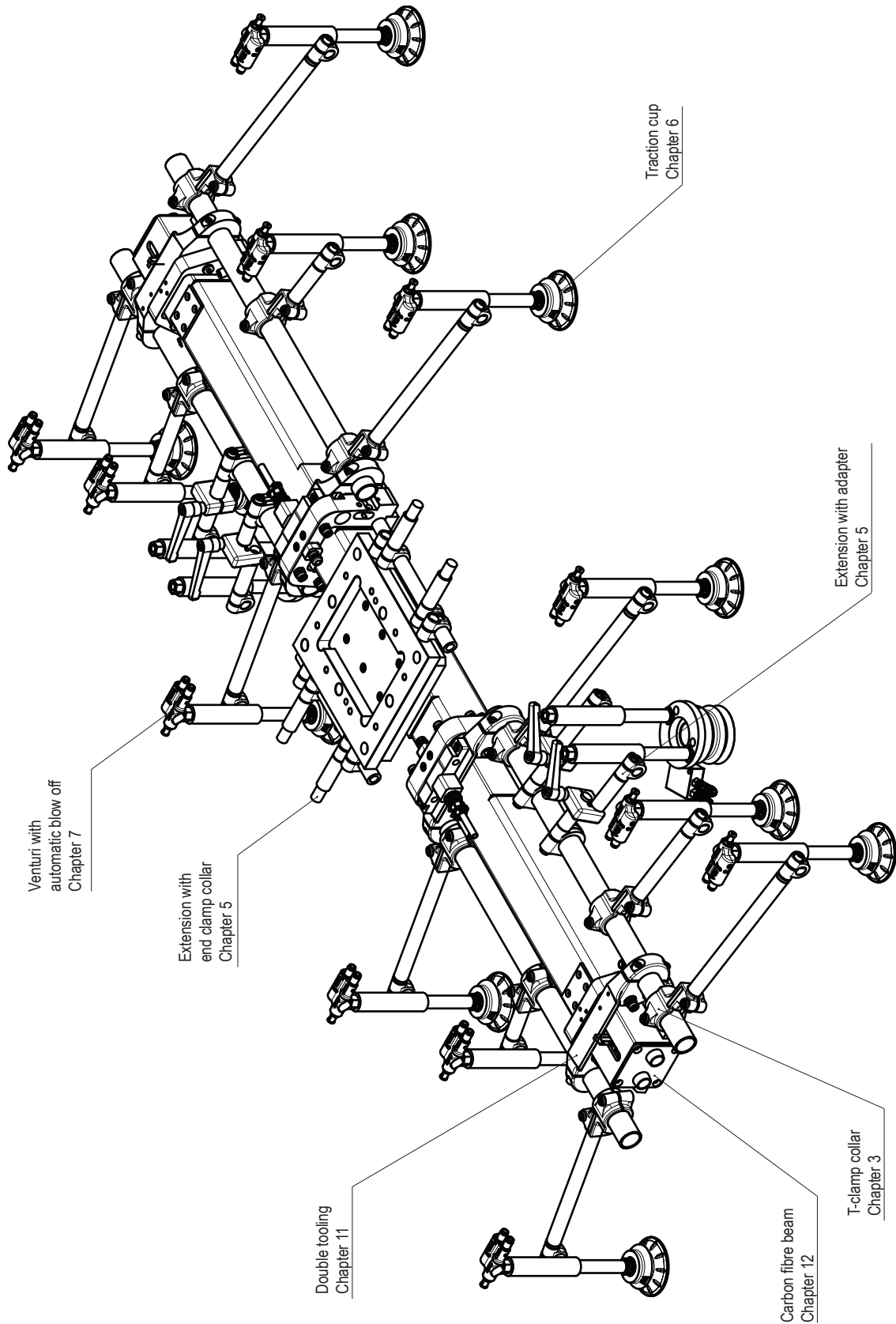
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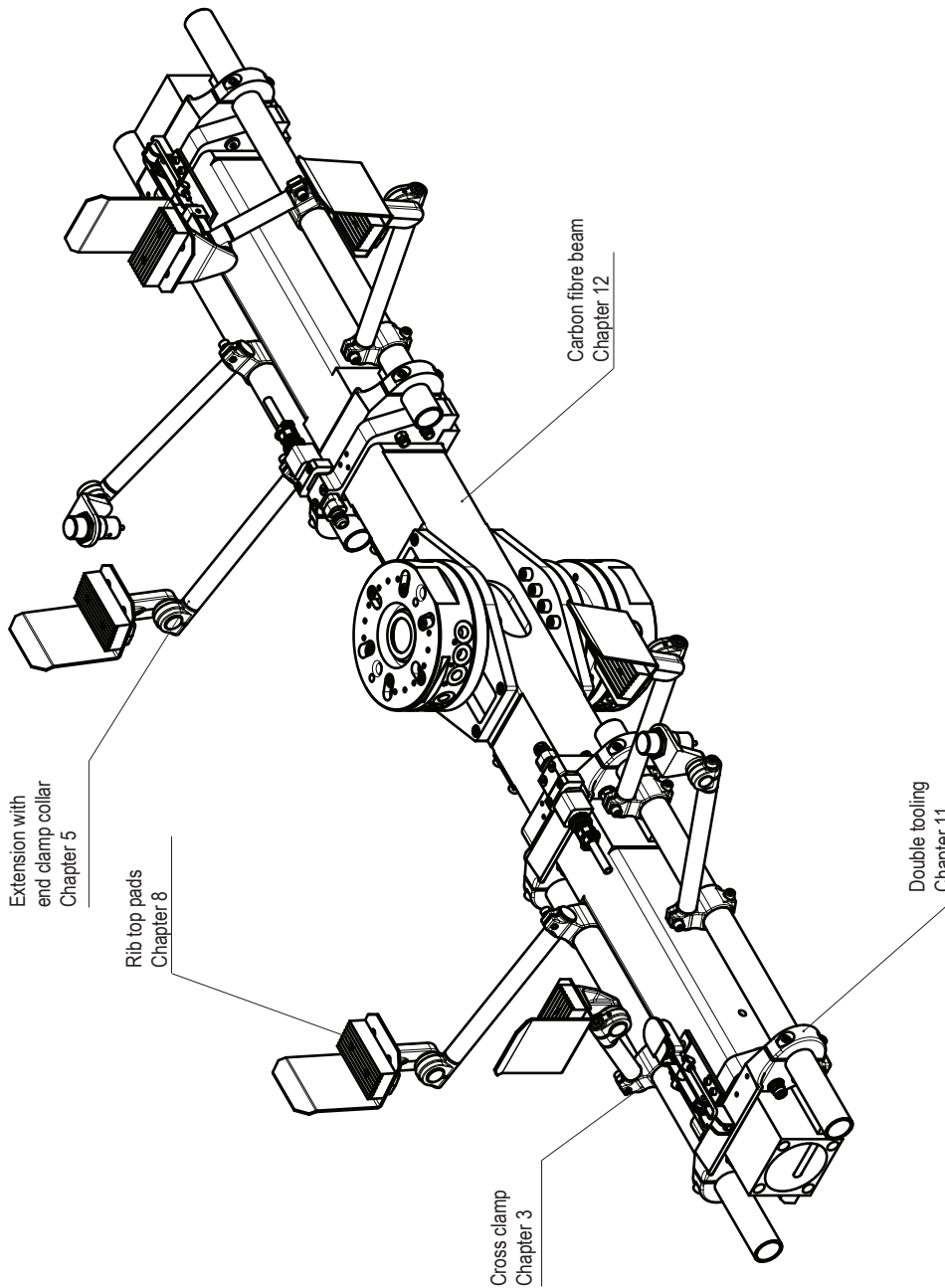
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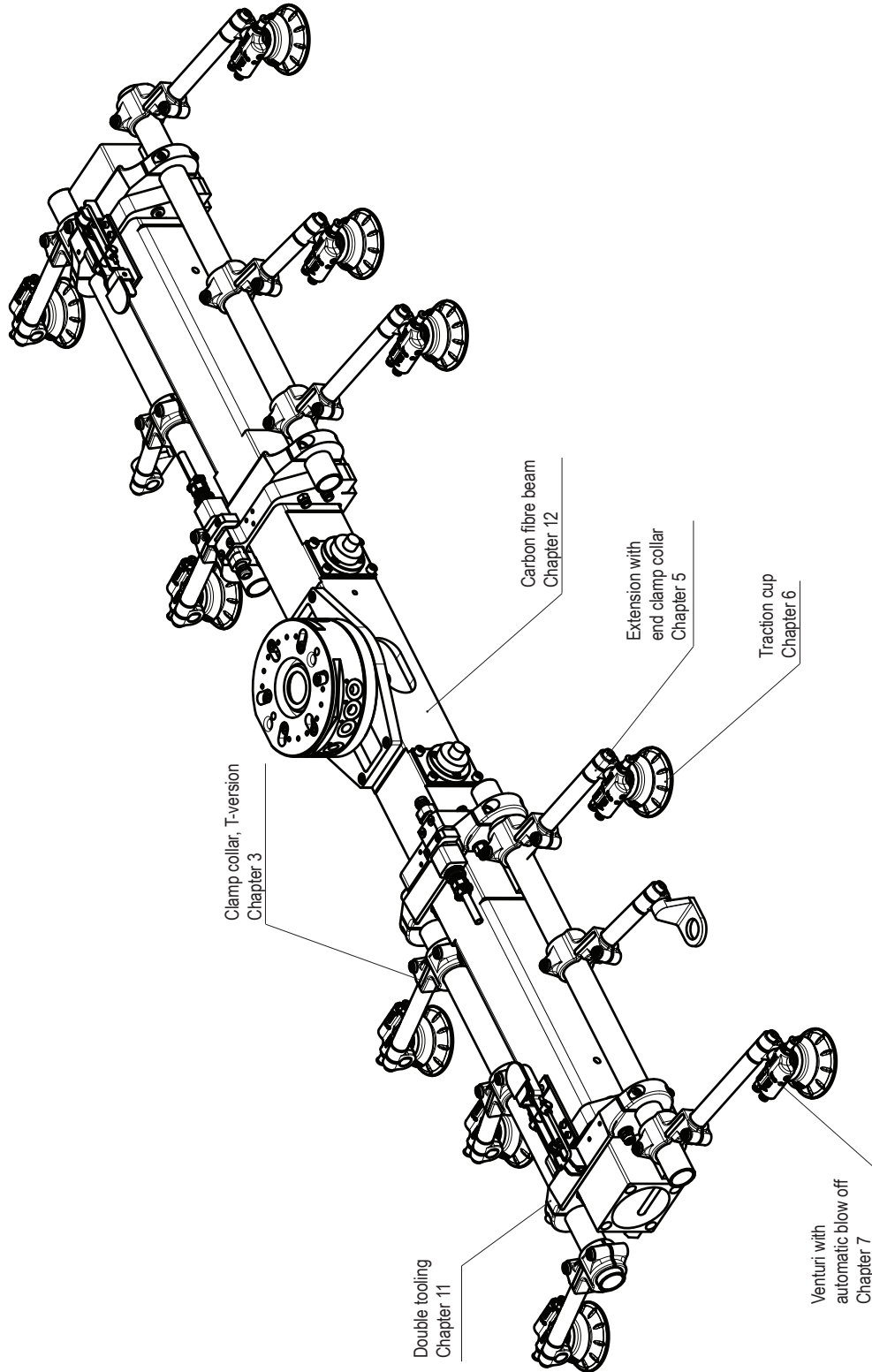


Carbon beam-Shuttle

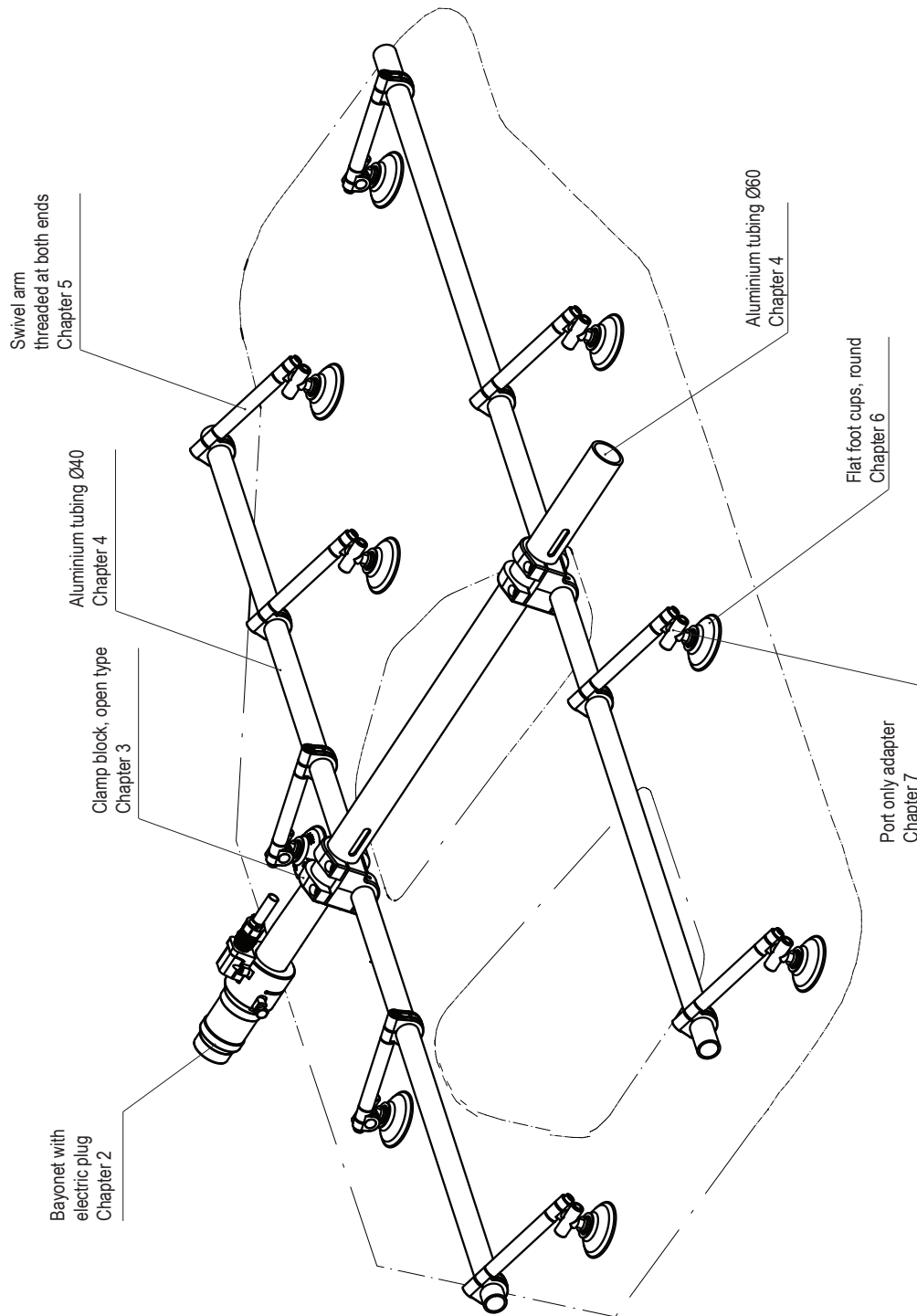




Carbon beam-Centering robot

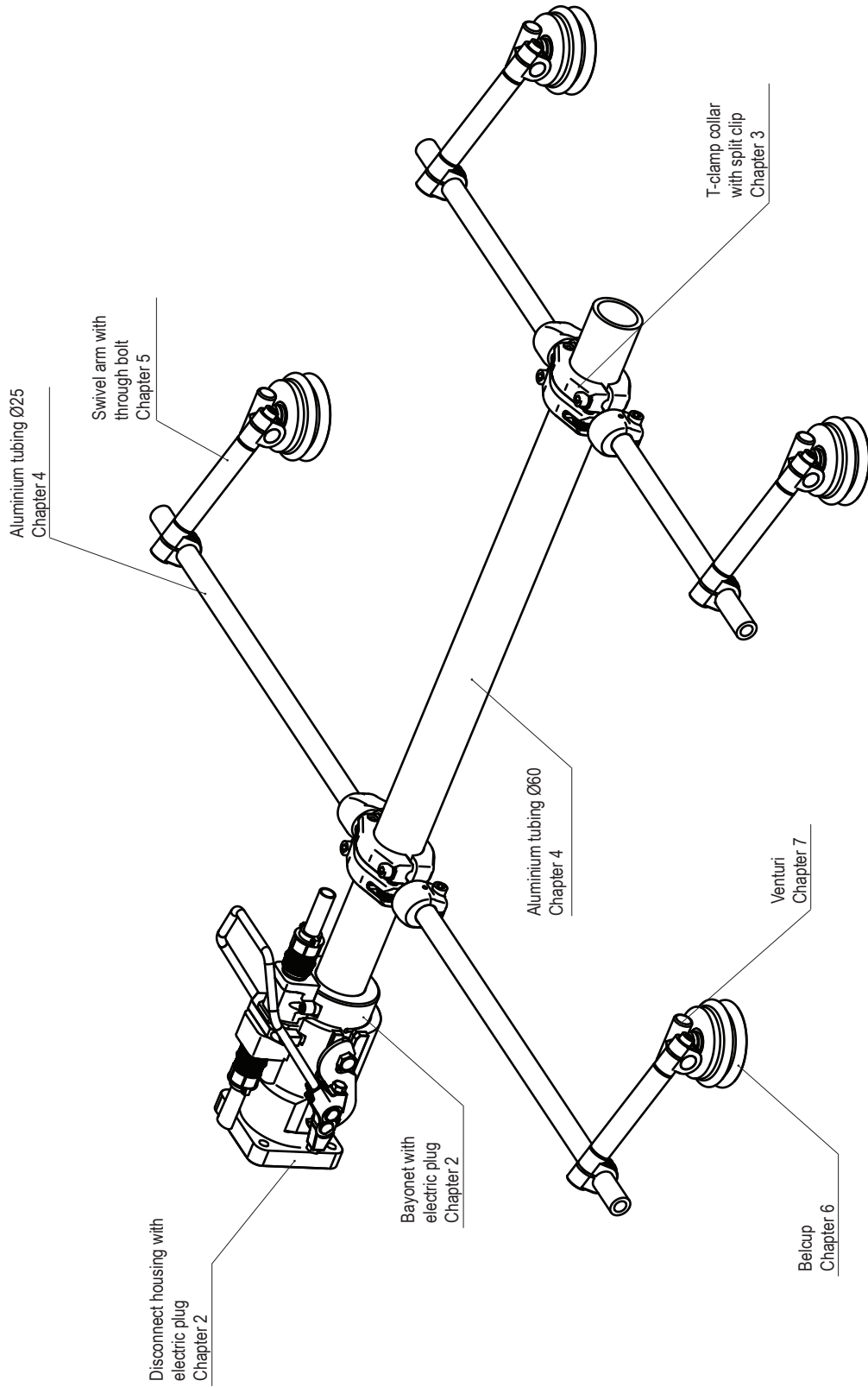


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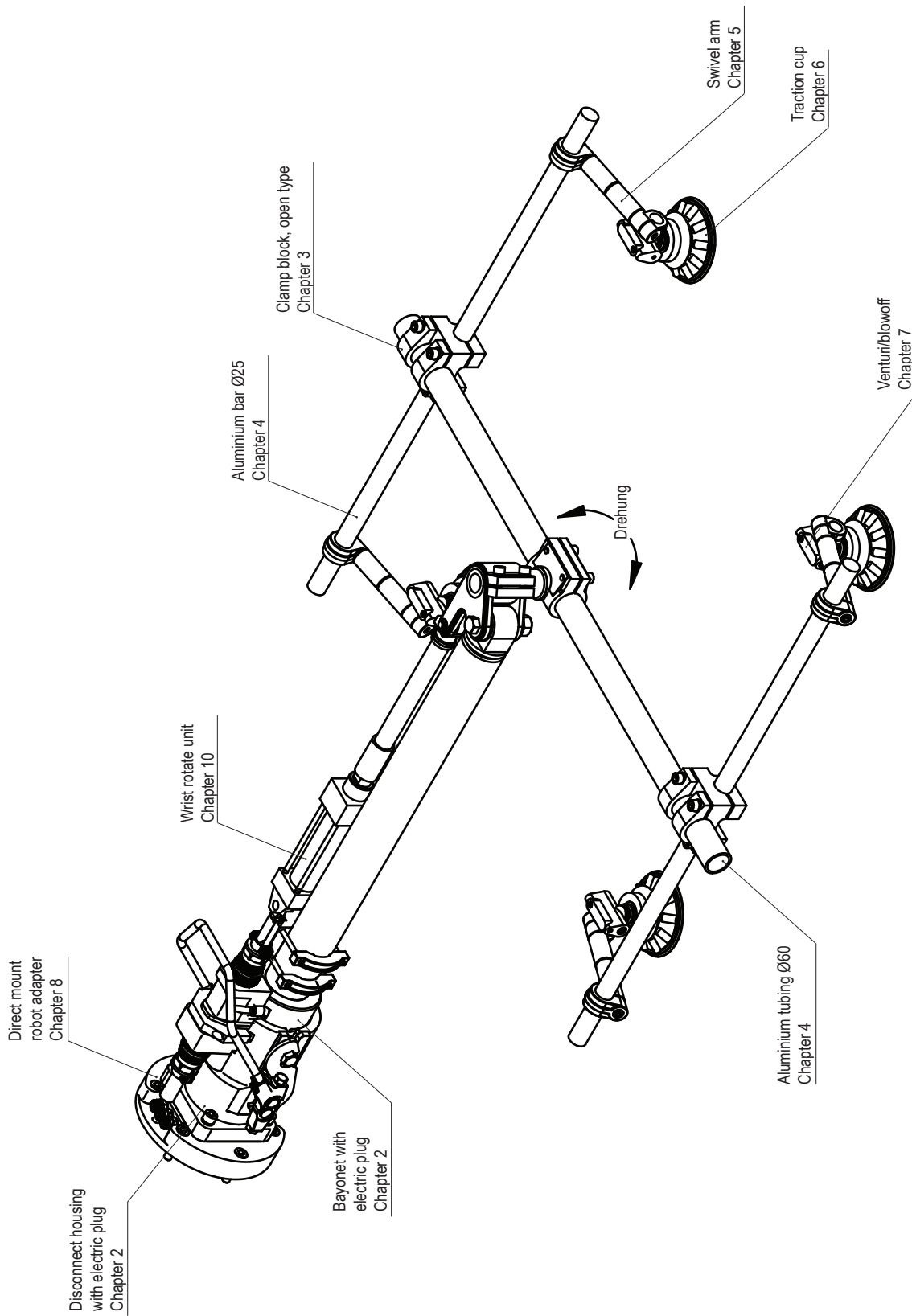




Upper Tooling series 60

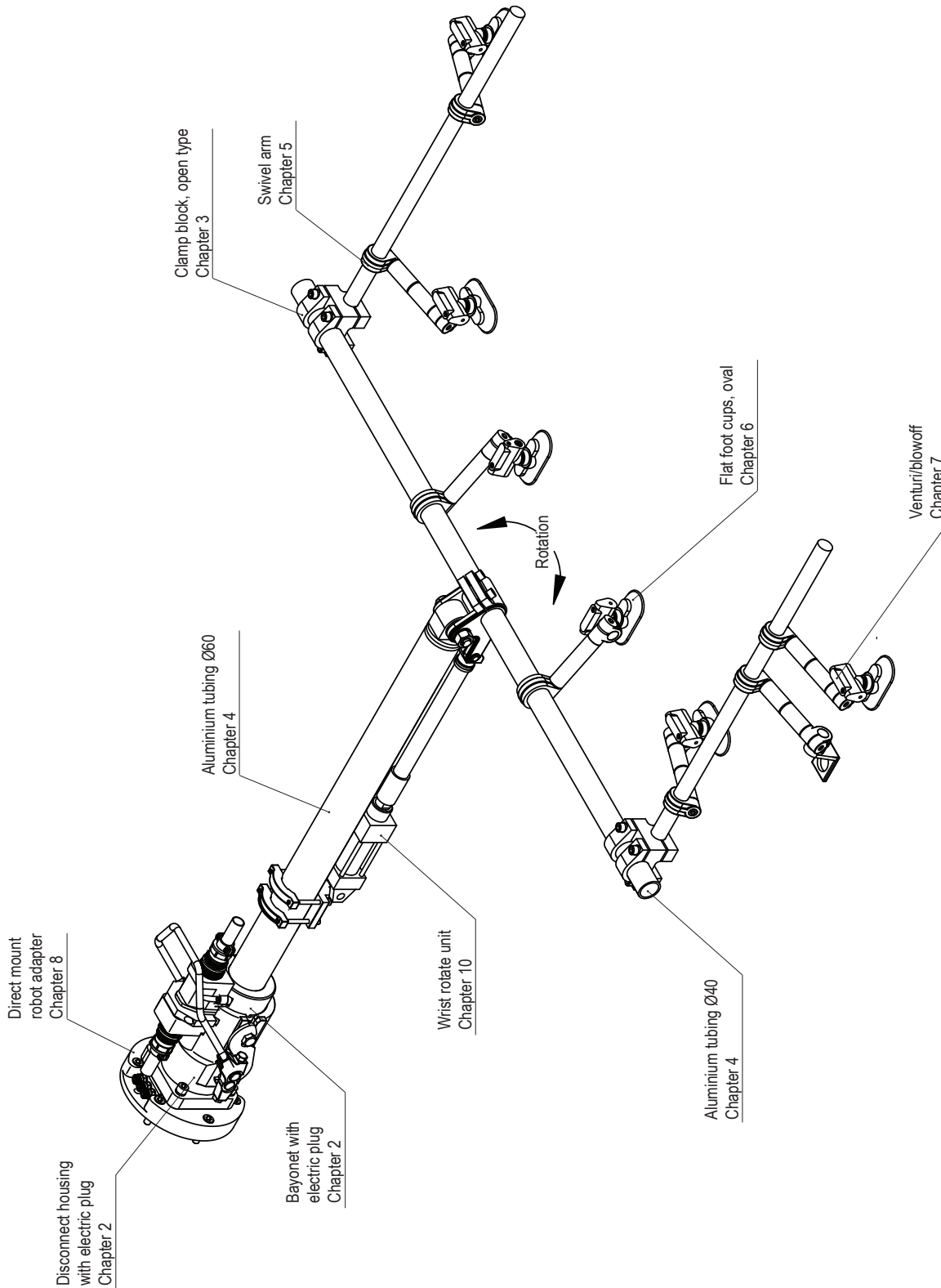


Upper Tooling series 60, 0 to 90° swivel

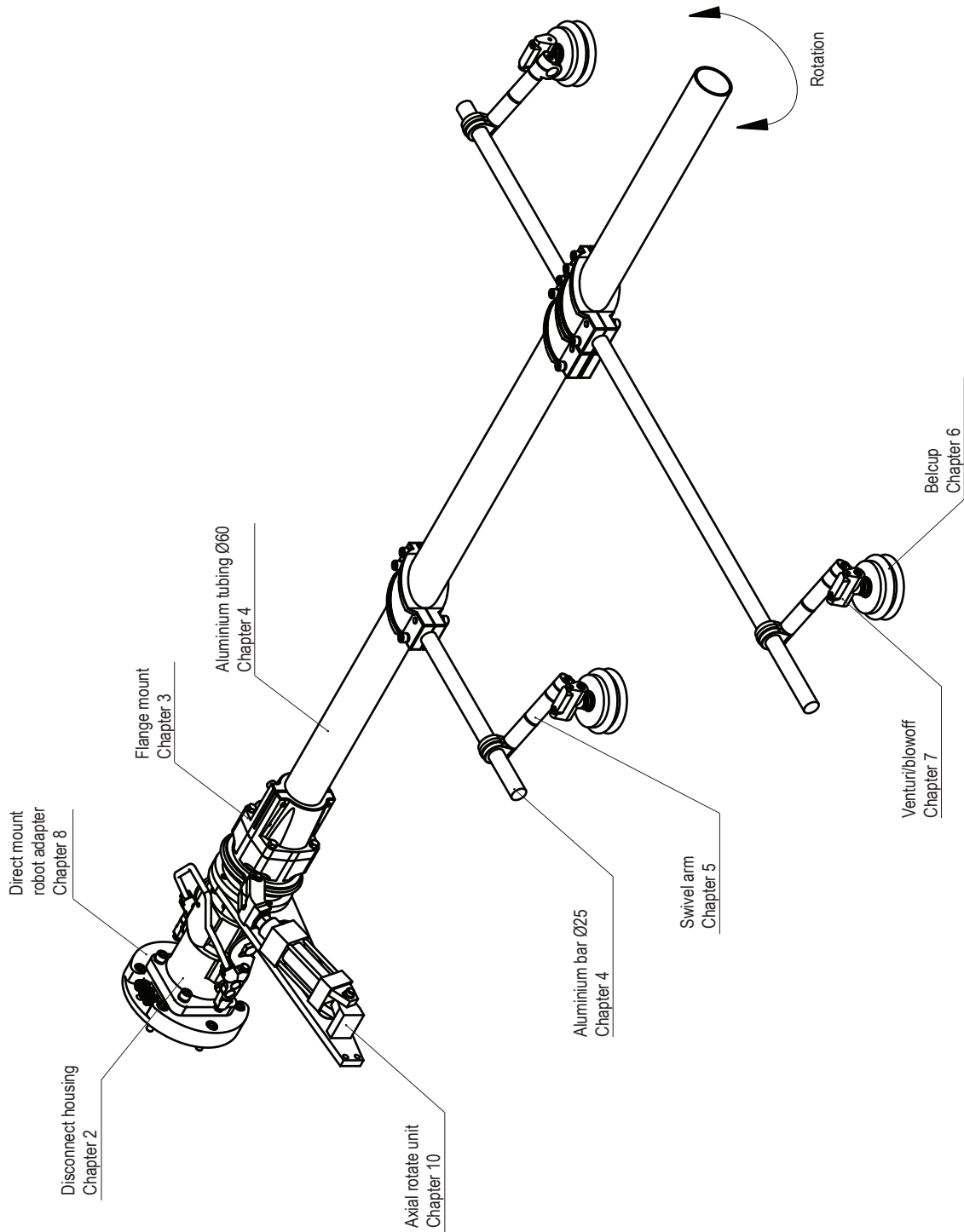




Upper Tooling series 60, 0 to 90° tilt

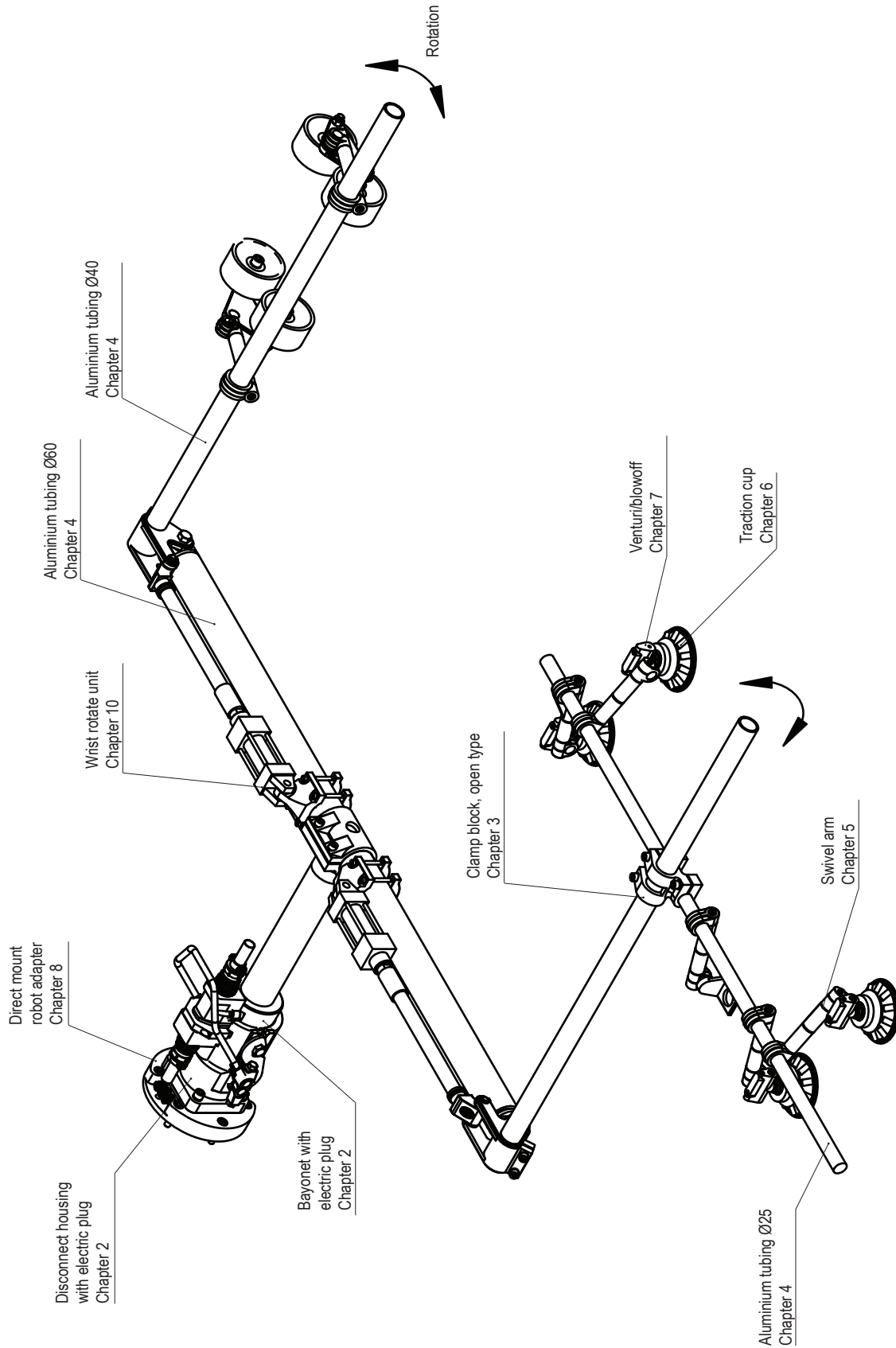


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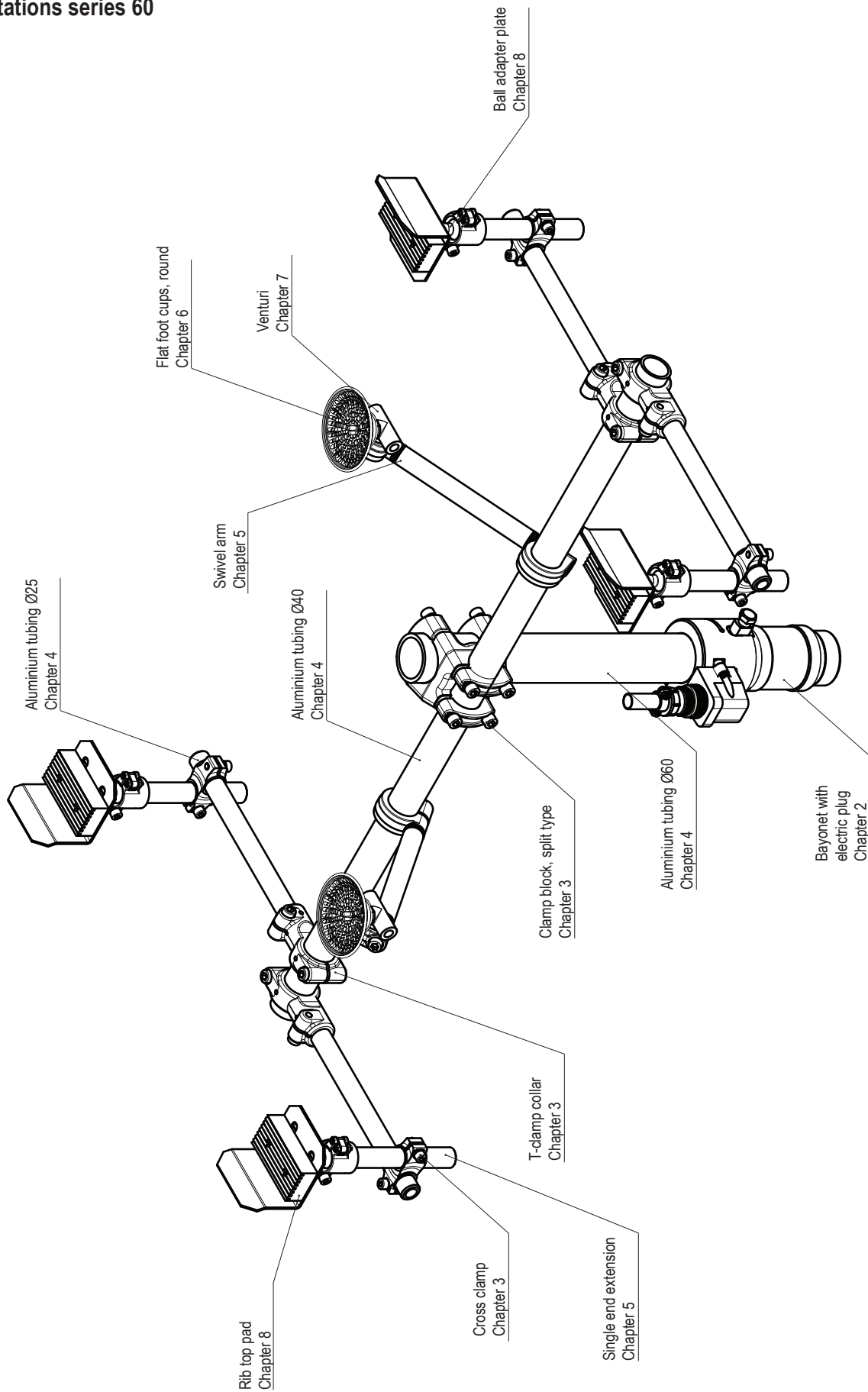




Upper Tooling series 60 with two tilt axis

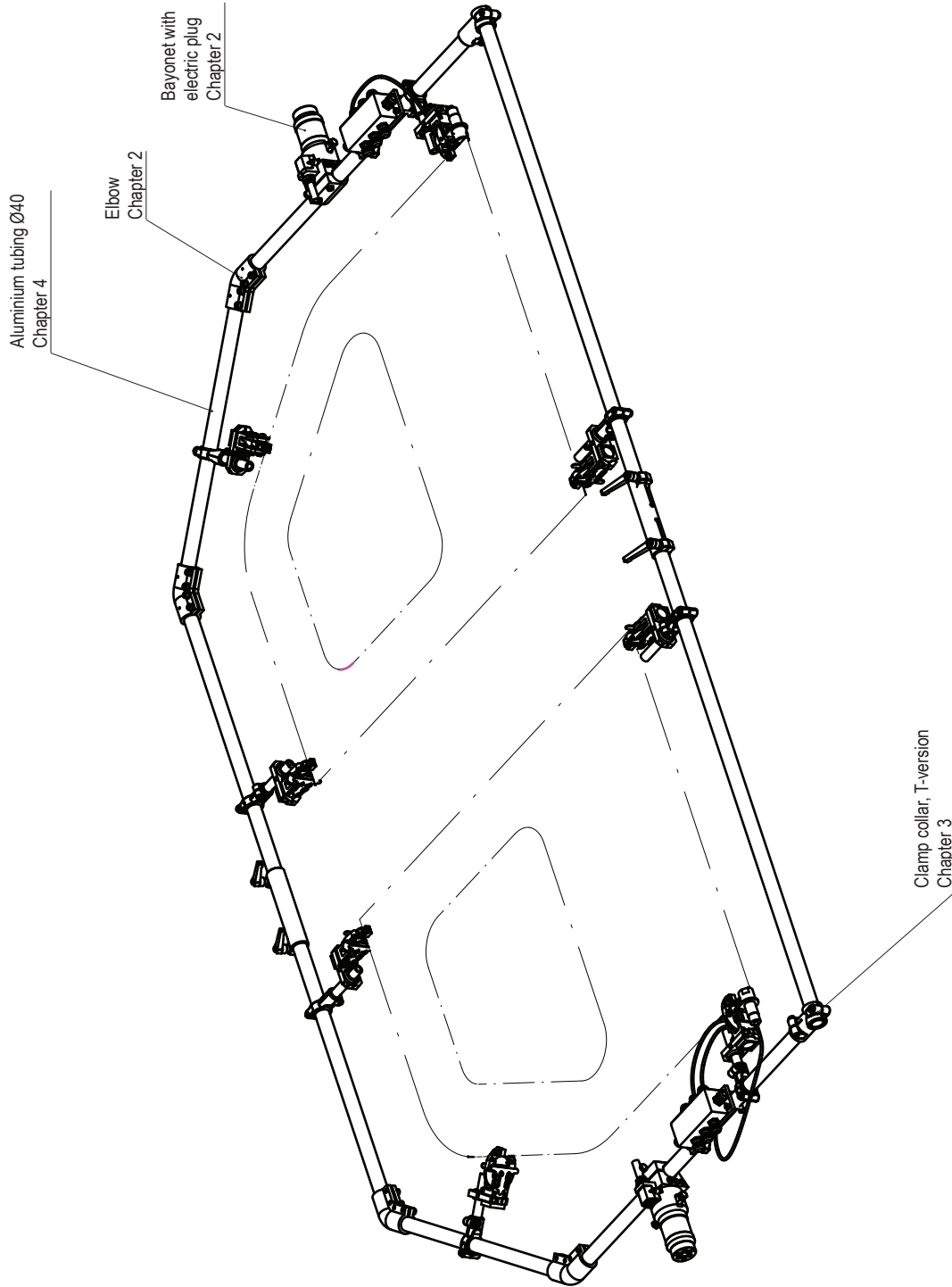


Floor stations series 60

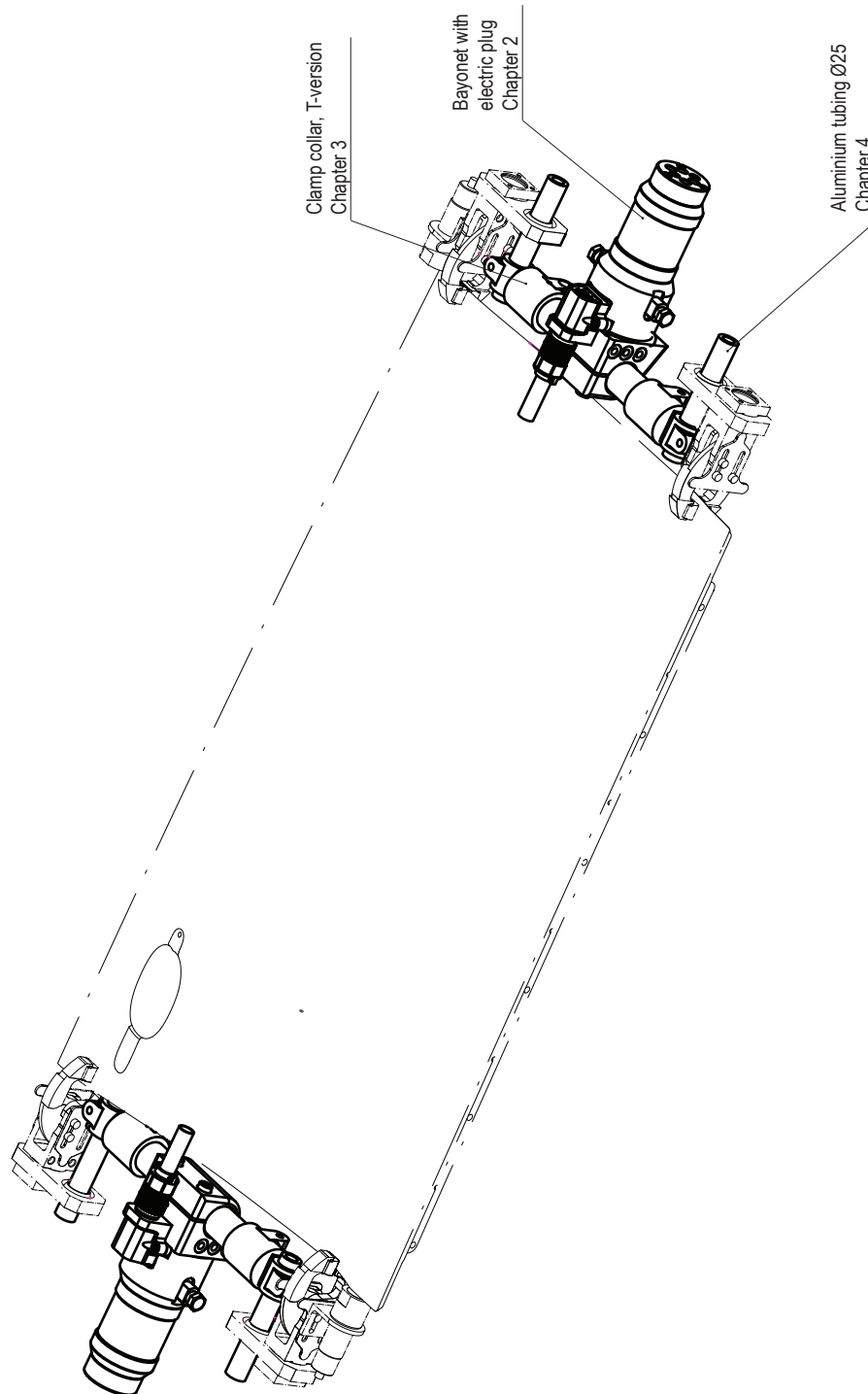




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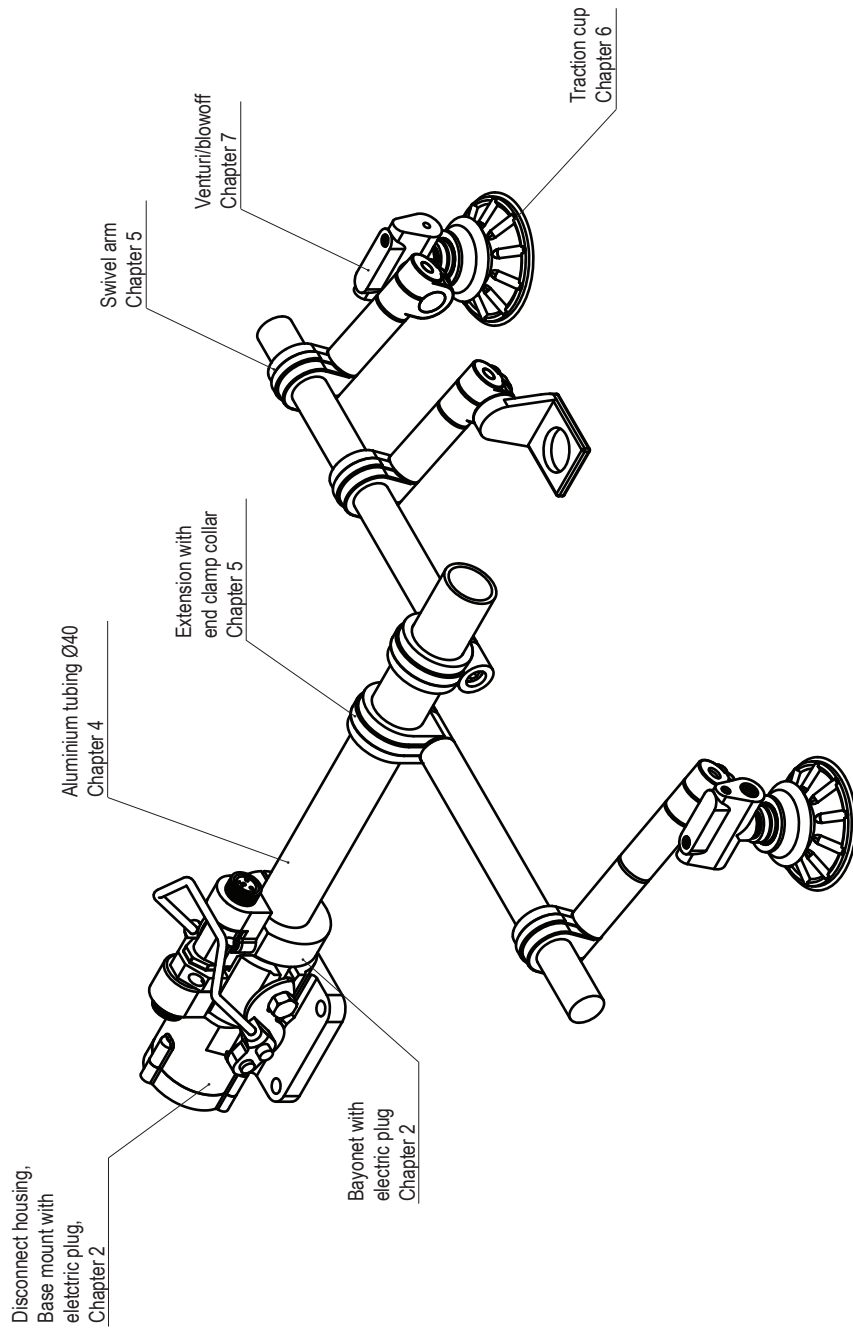


Turnover station Serie 60

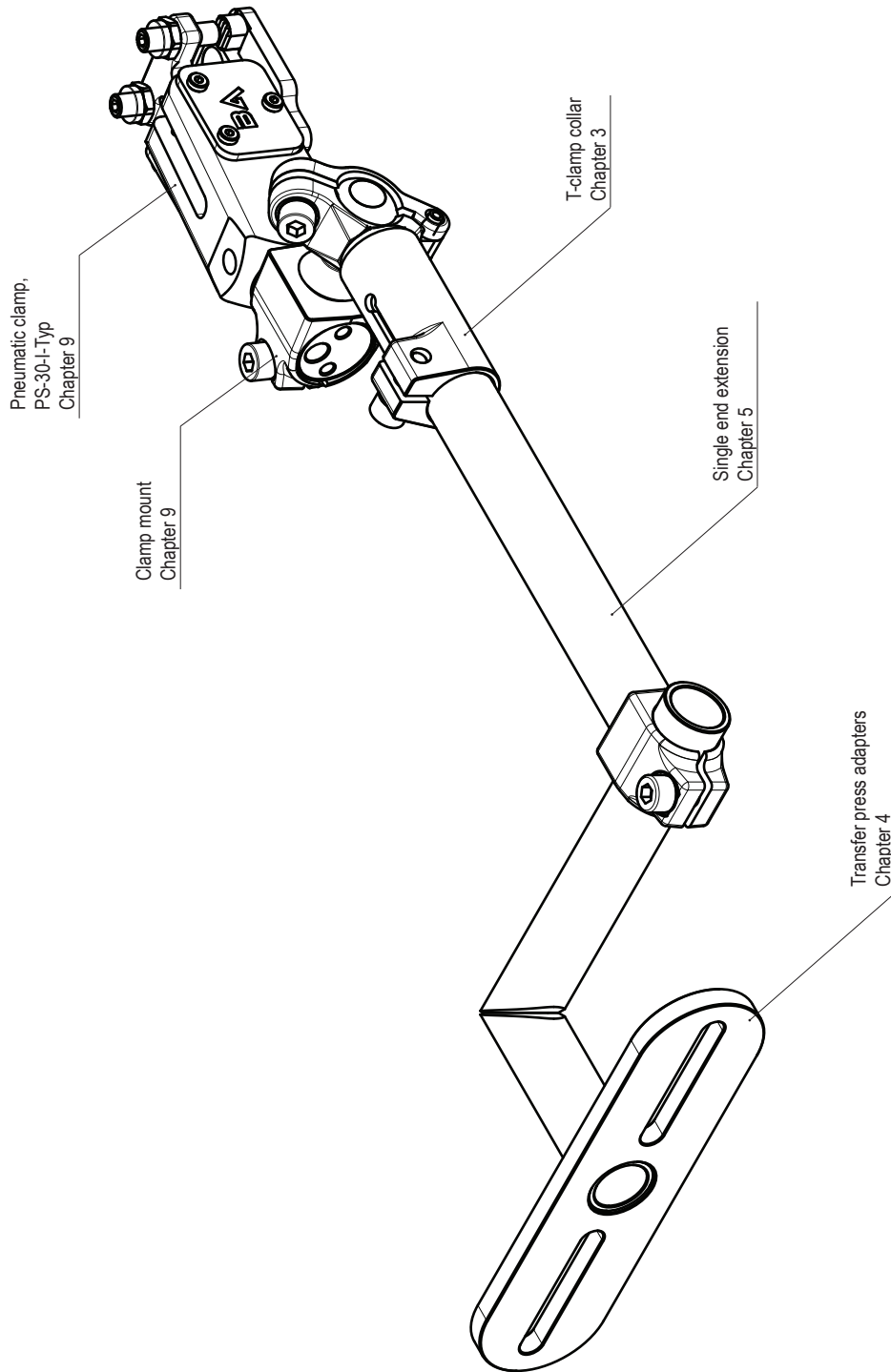




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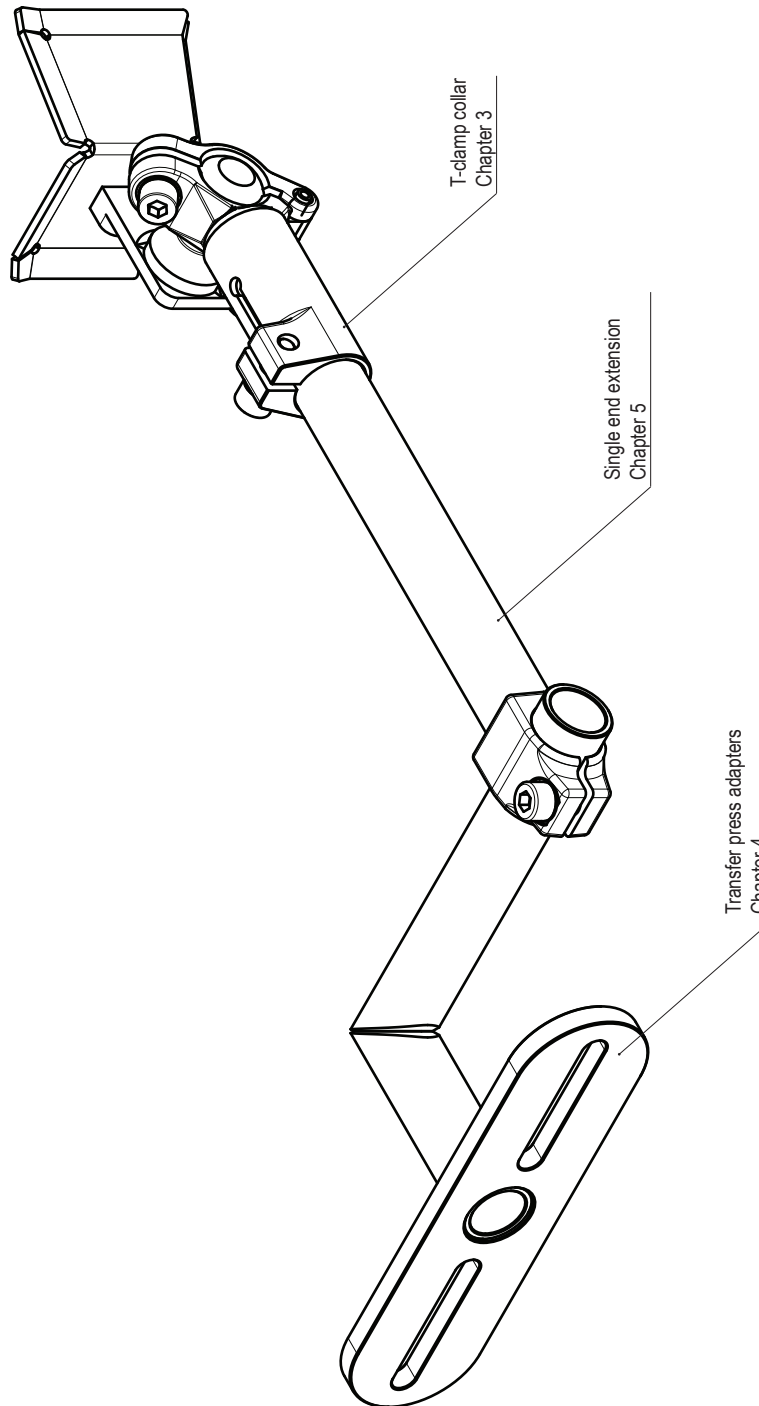


Transfer press tooling series 25

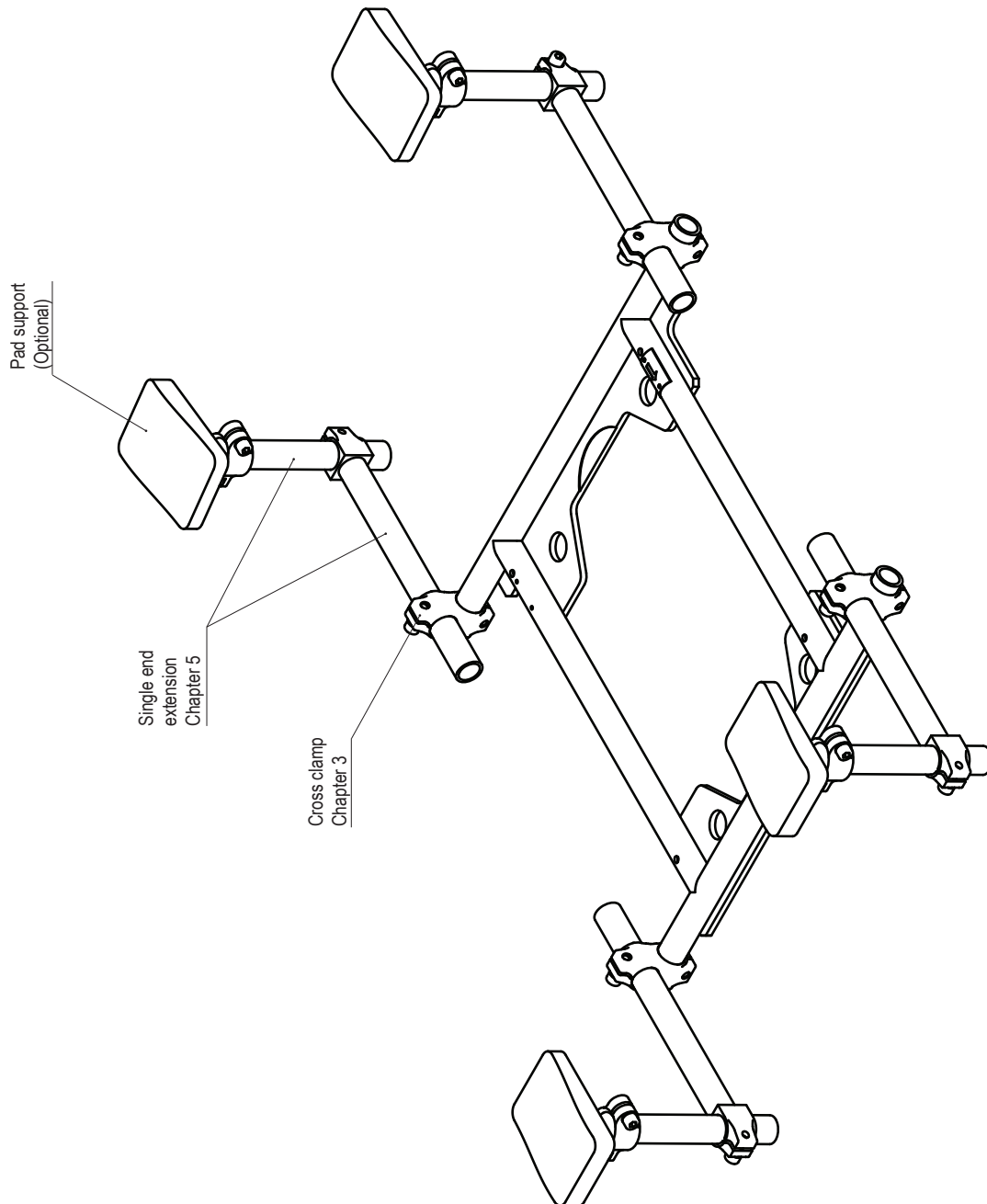




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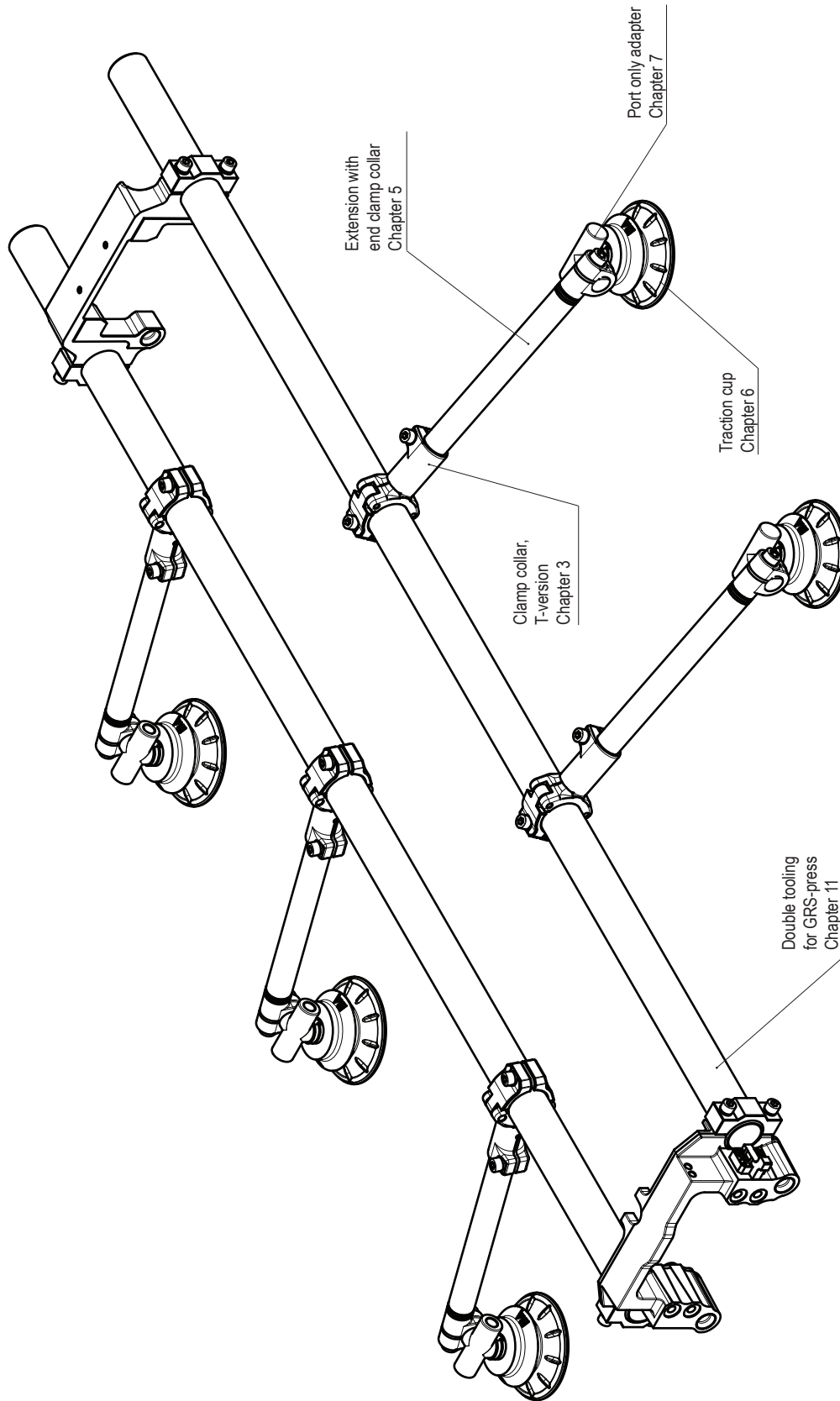


Floor station series 60

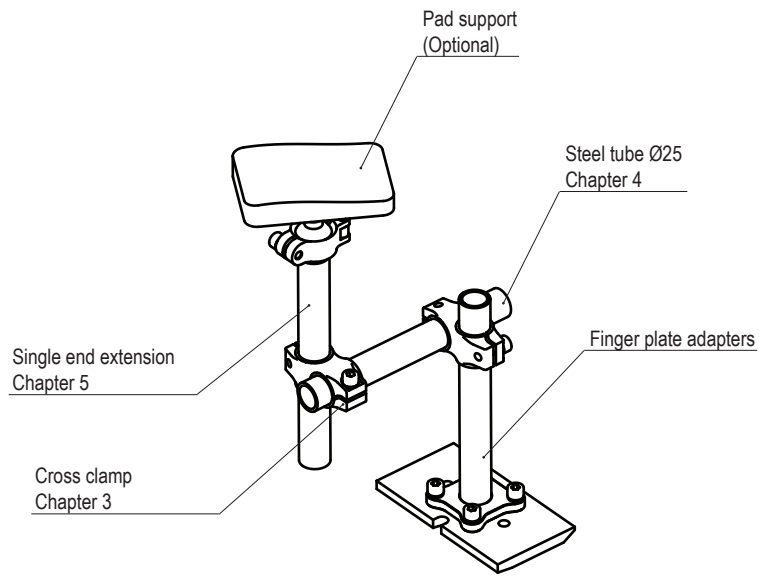




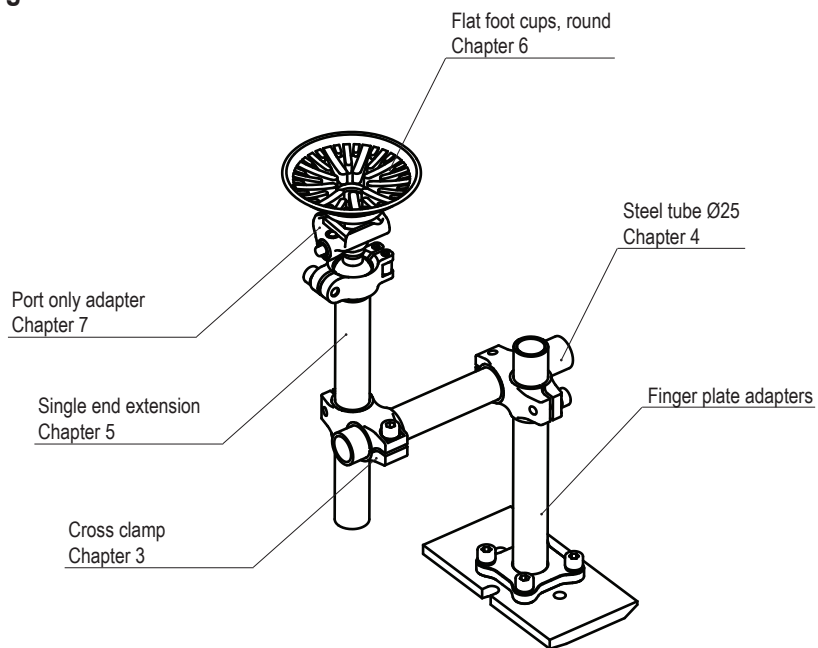
GRS press tooling series 40



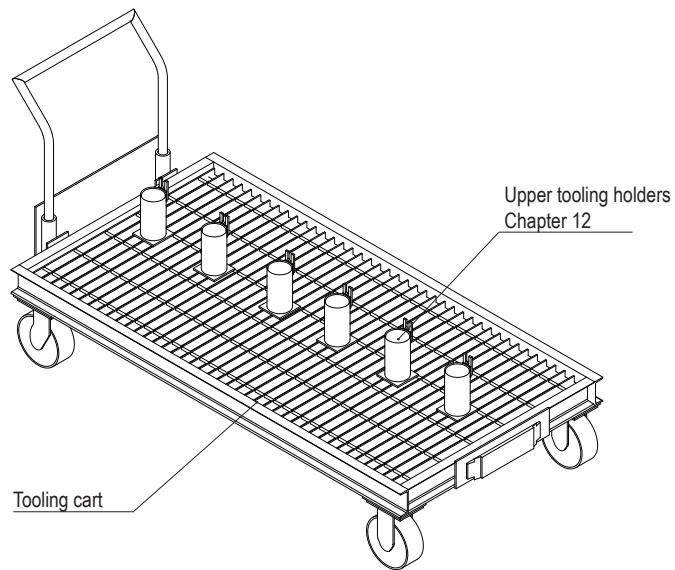
GRS press tooling



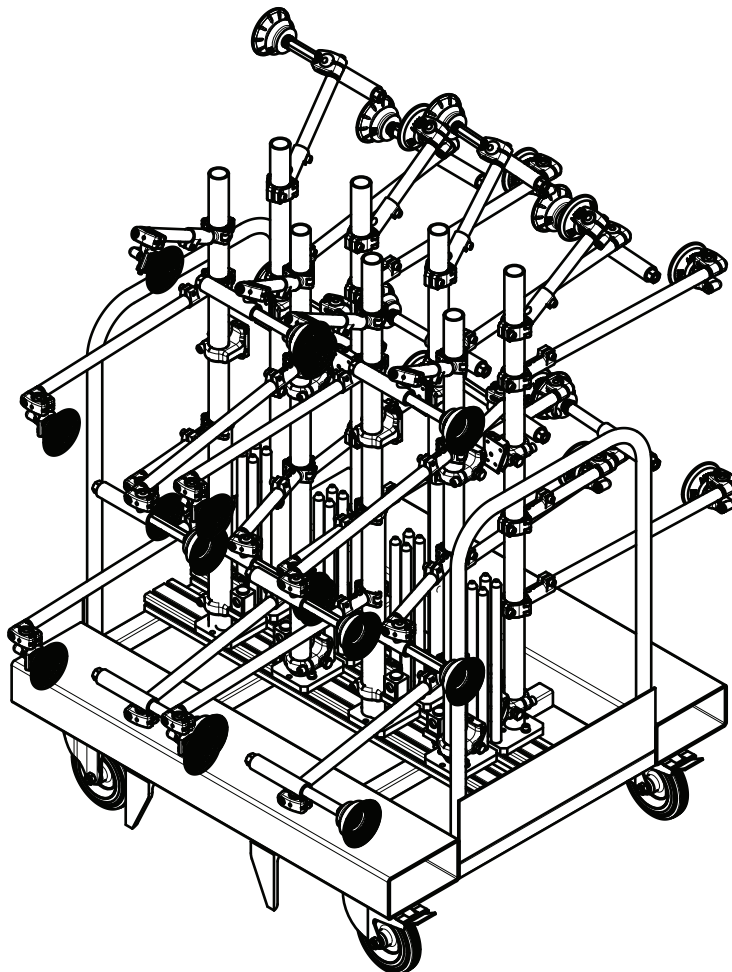
GRS press tooling



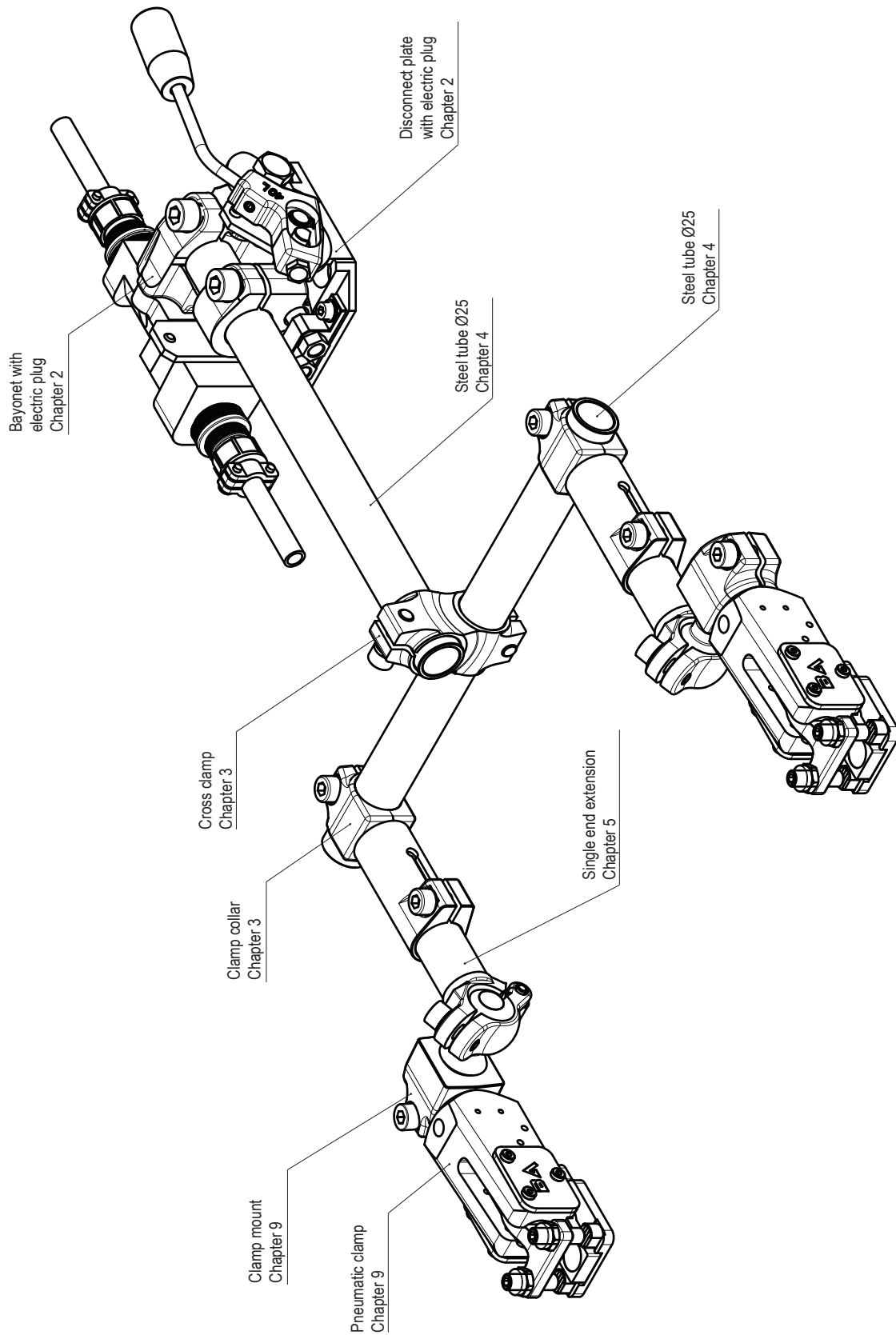
Tooling cart



Tooling cart with single tooling series 40

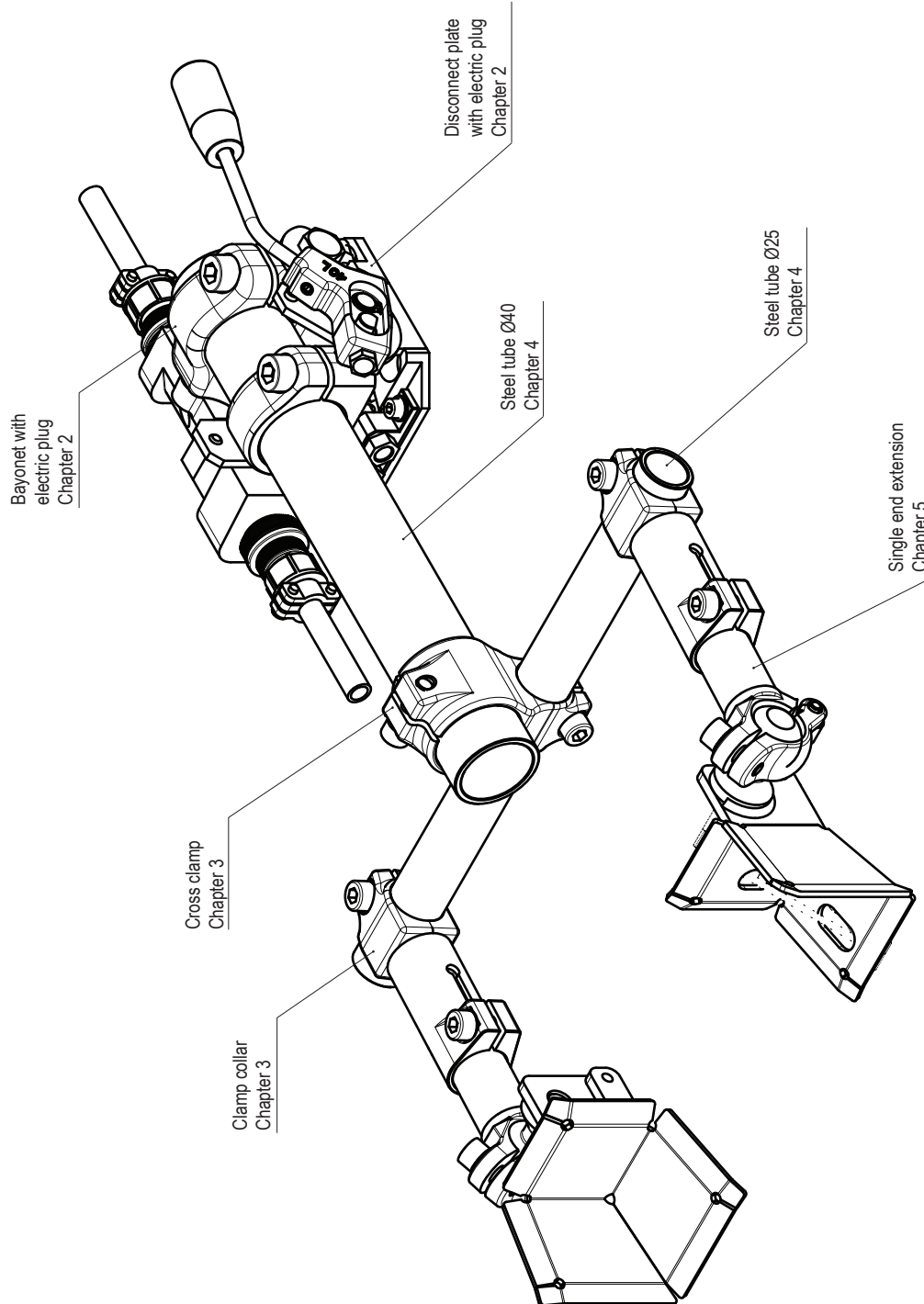


Transfer press tooling series 25

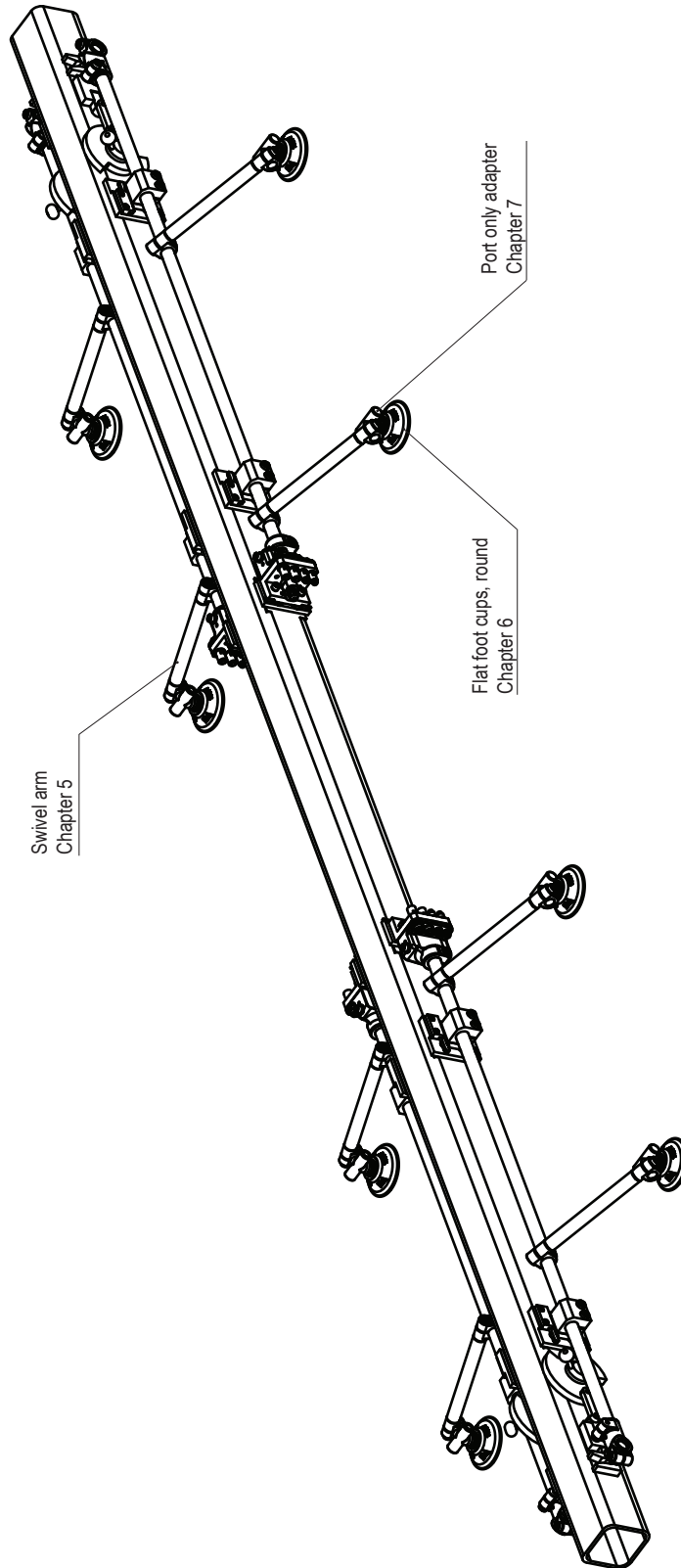




Transfer press tooling series 40

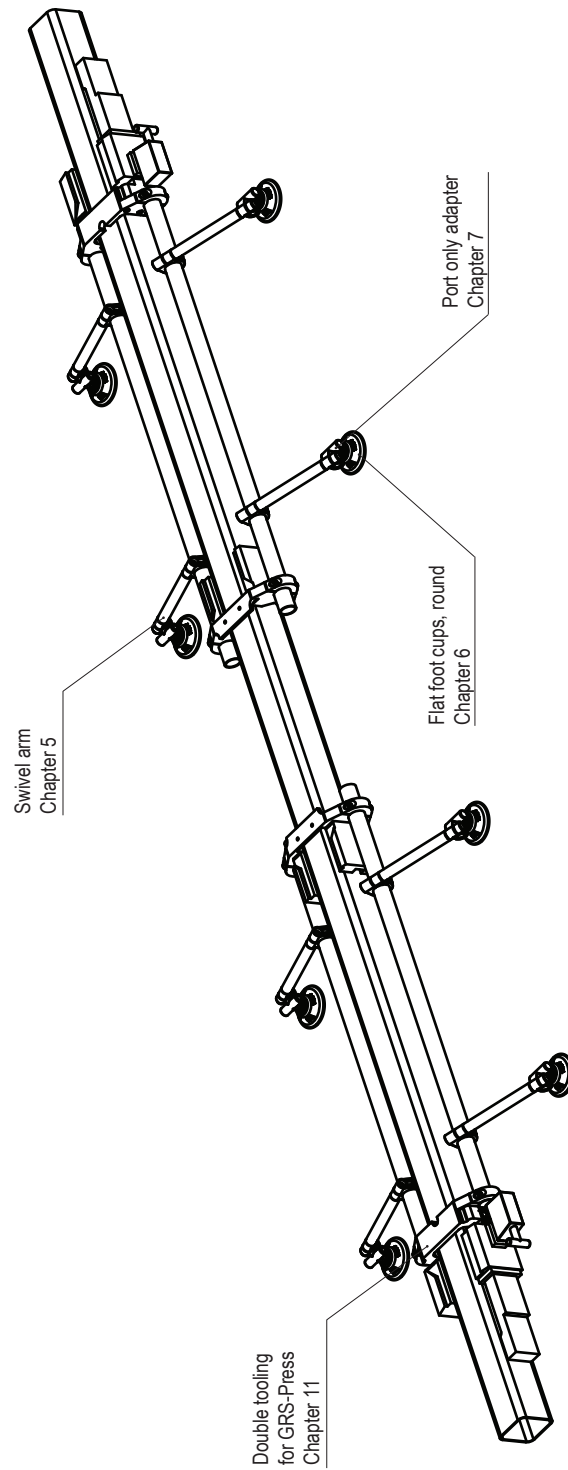


Crossbar single tooling

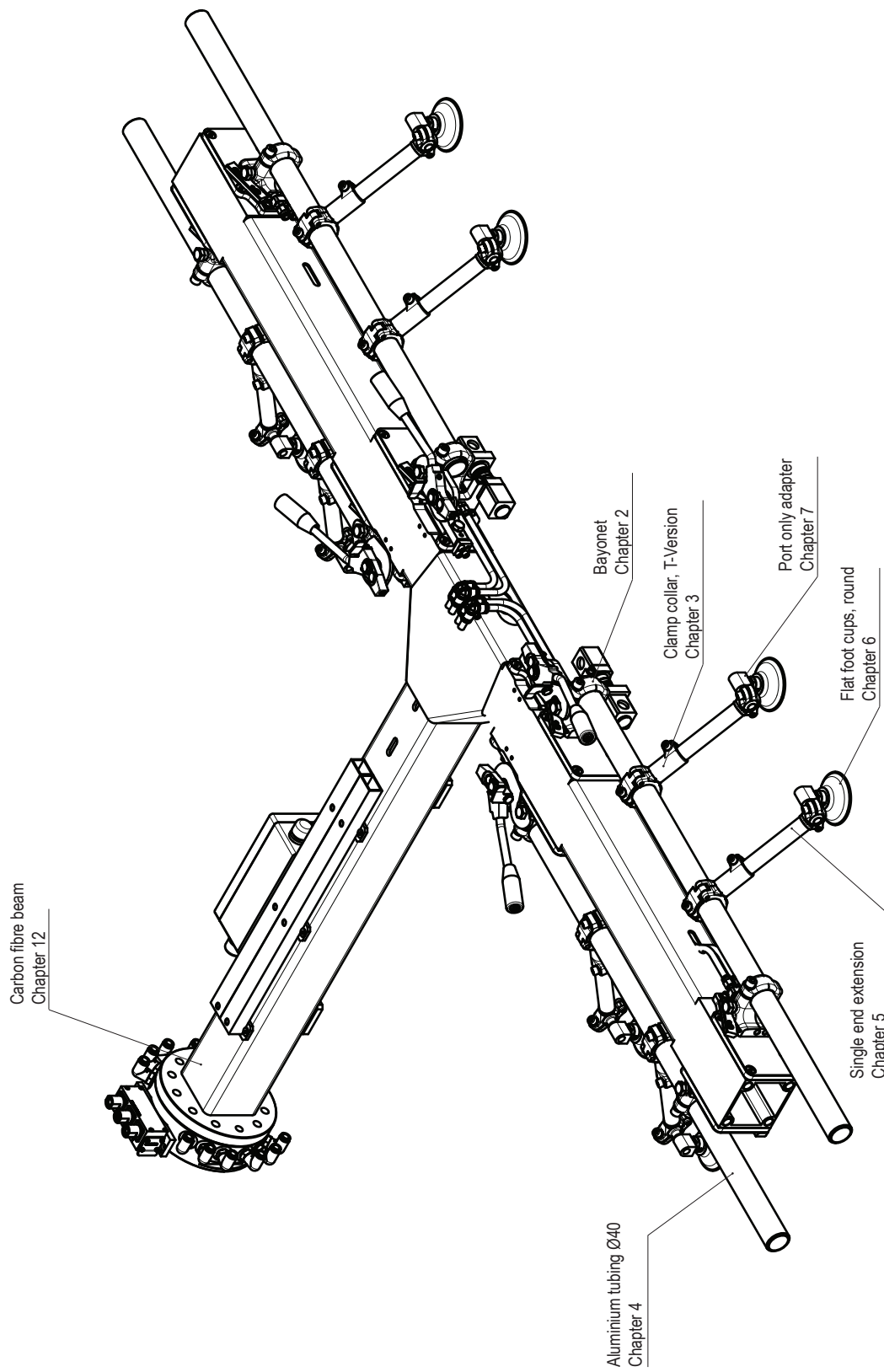




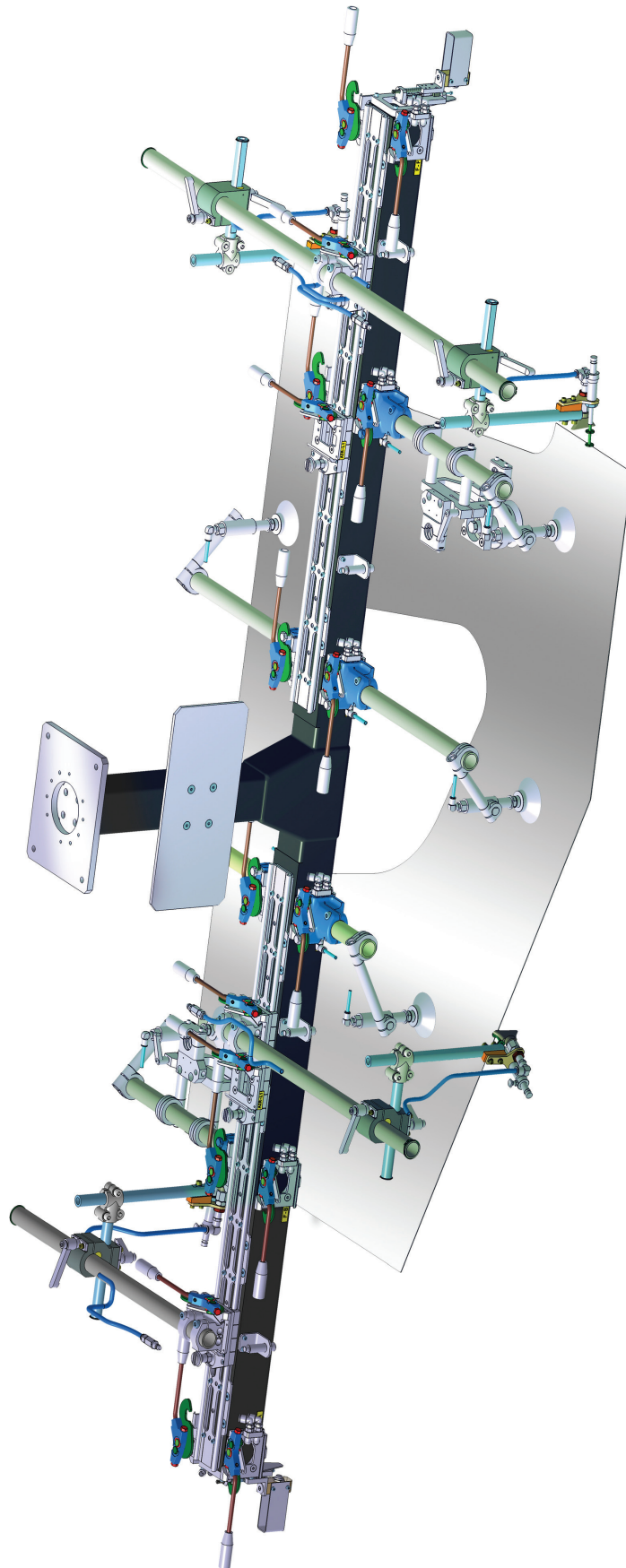
Crossbar double tooling



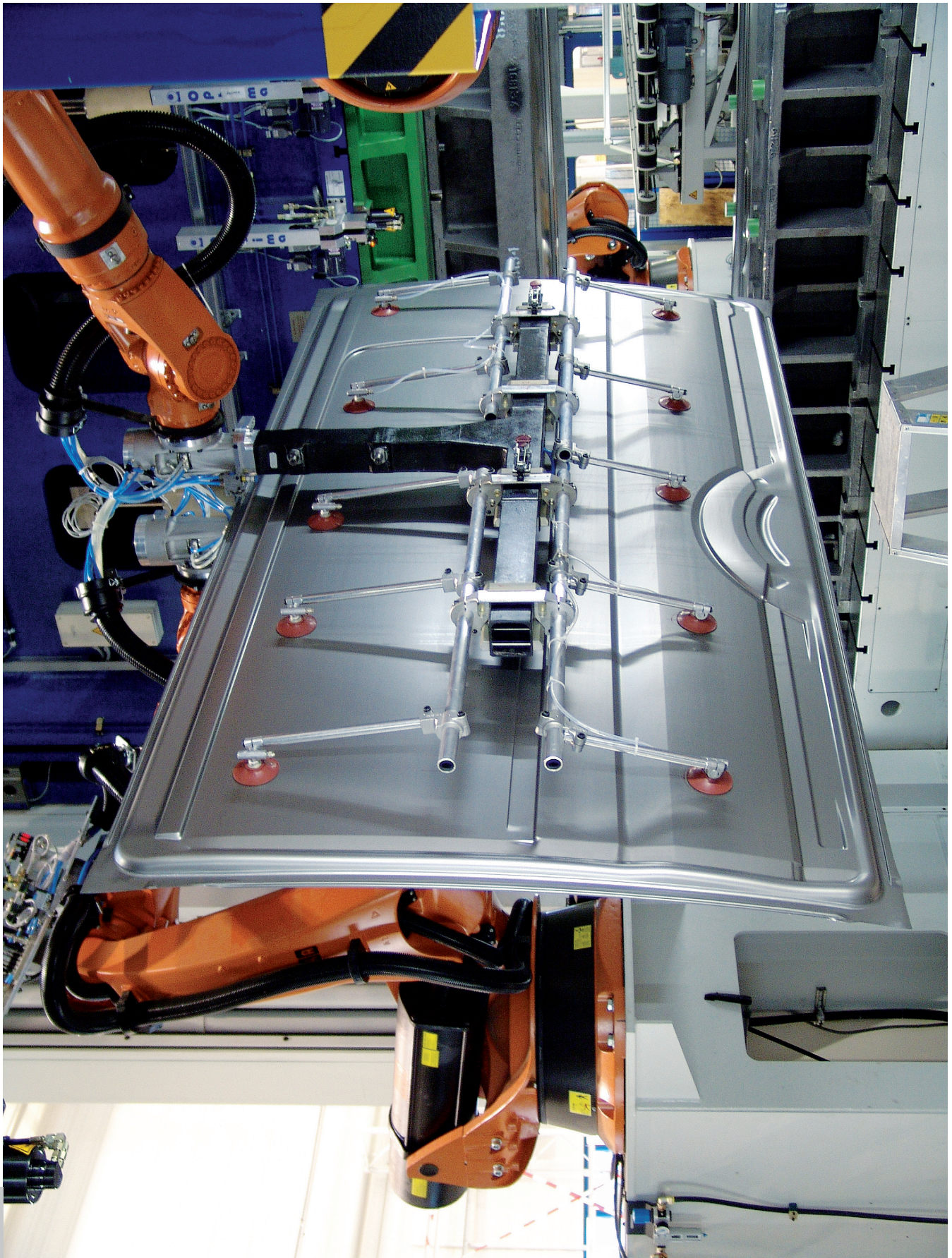
Carbon fibre T-beam with tooling series 40 and 25



Carbon fibre T-beam for destacking with multiplex tooling

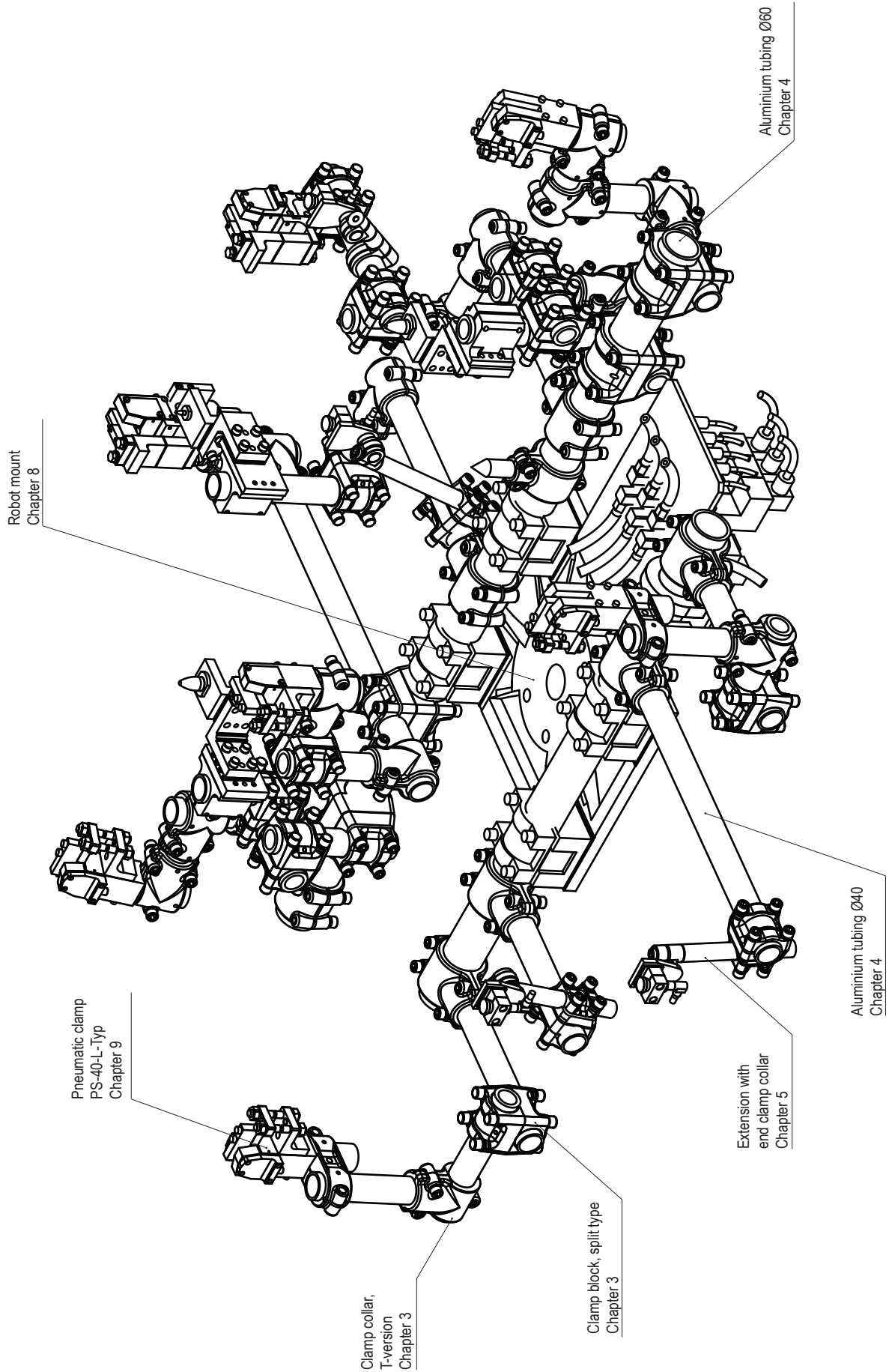


Carbon fibre T-beam with 2 port double tooling

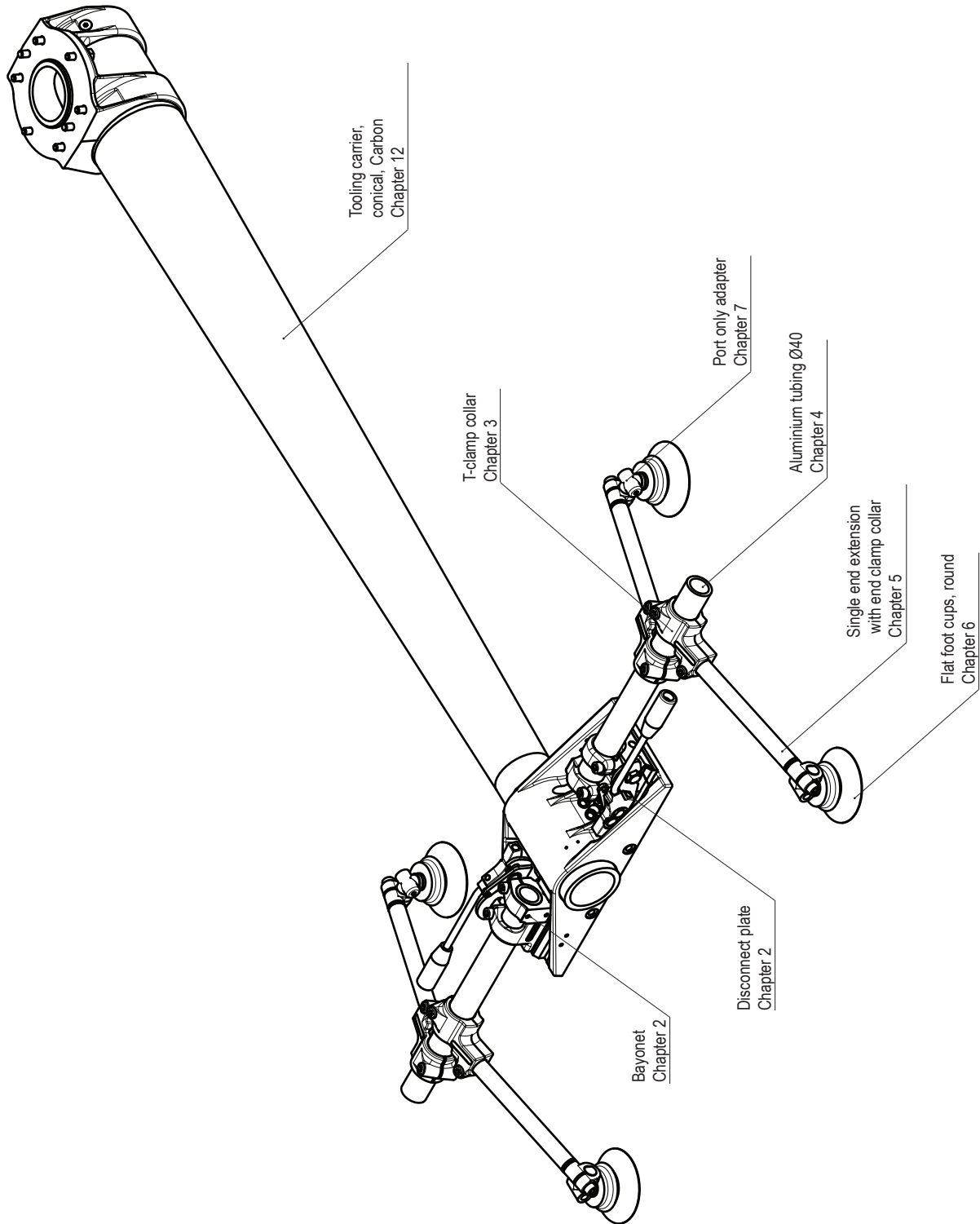




Body shop gripper

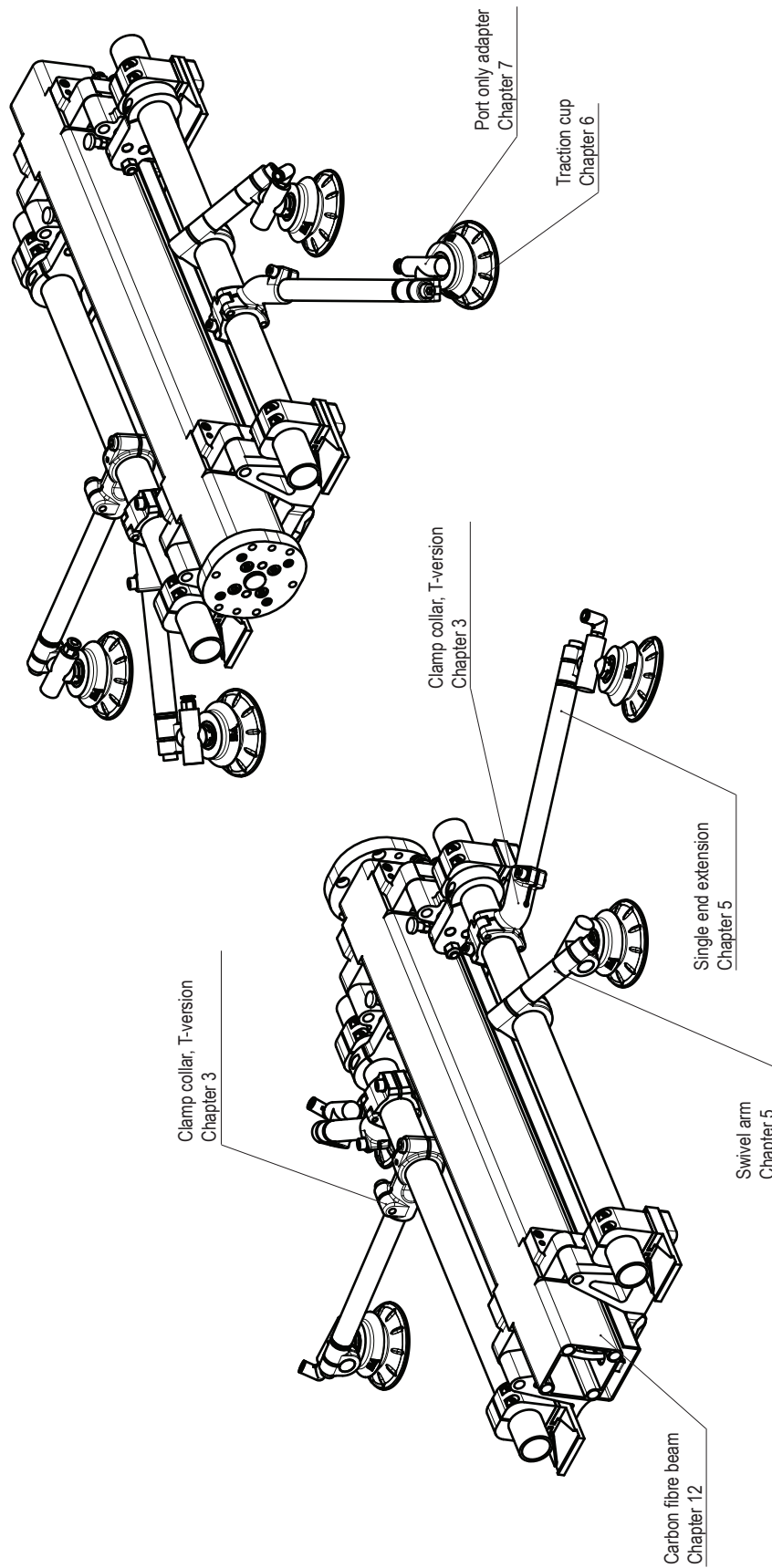


Carbon fibre tube with tooling series 40

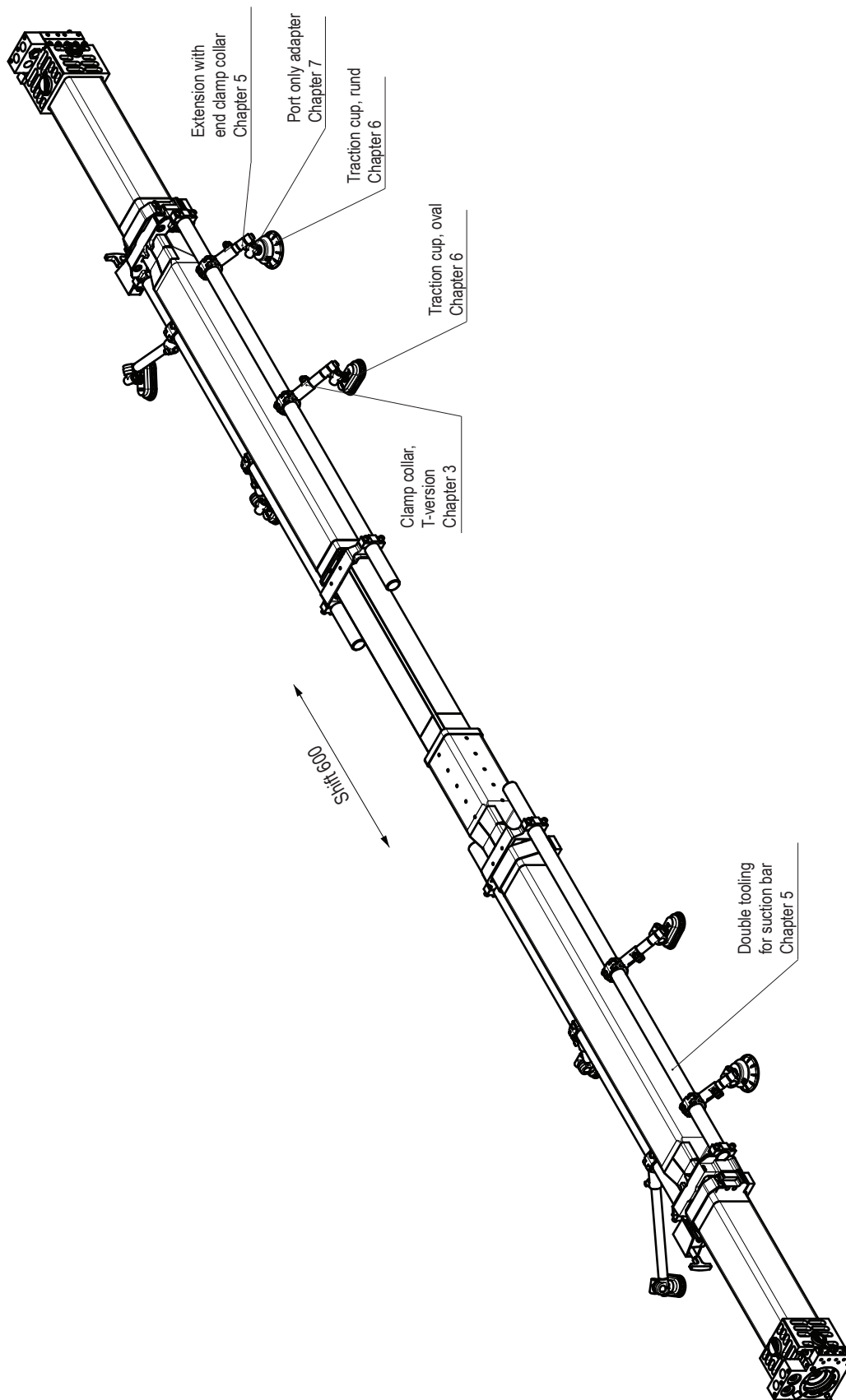




Carbon beam-Interpress

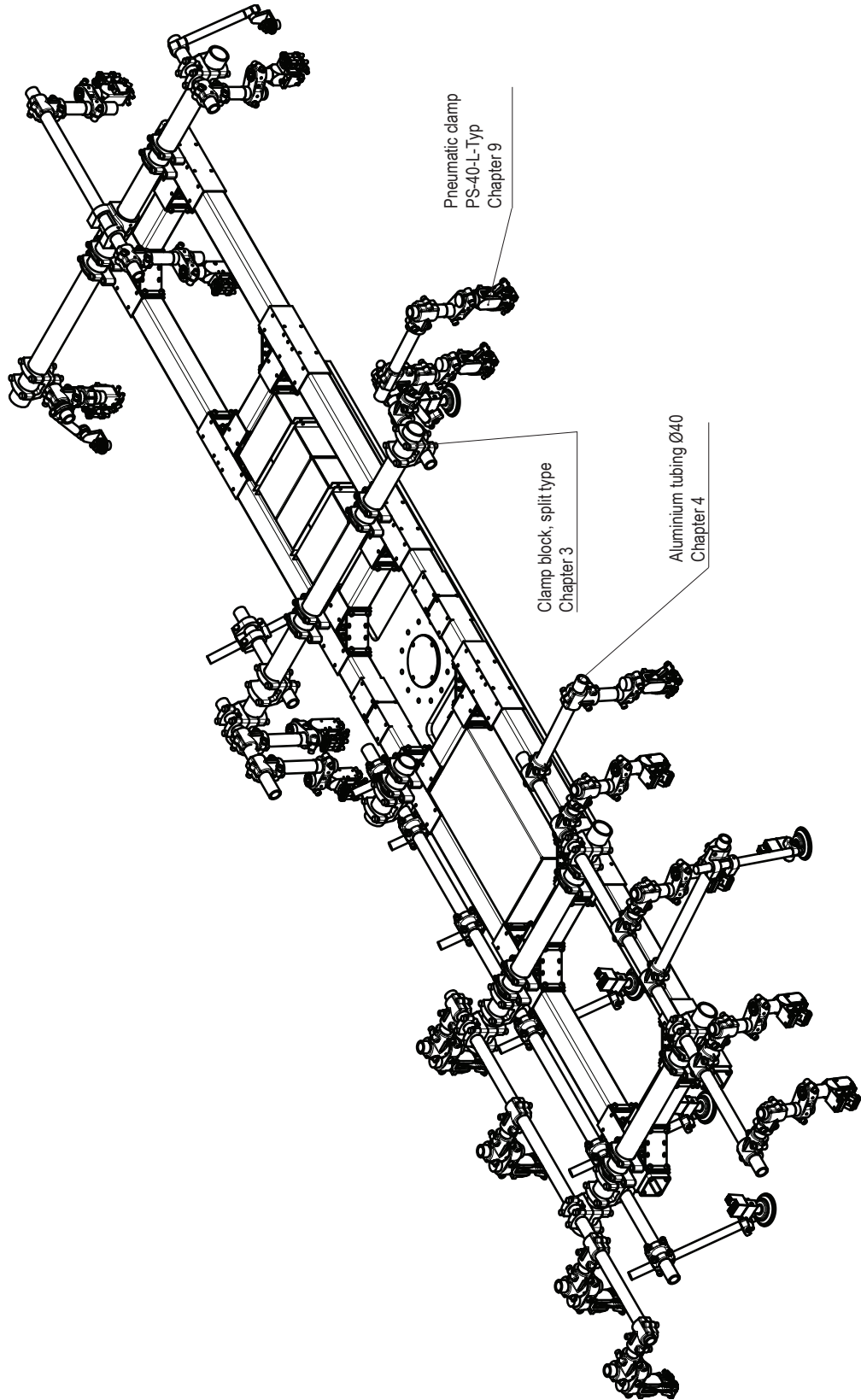


Carbon beam telescopic bar





H-frame - Carbon

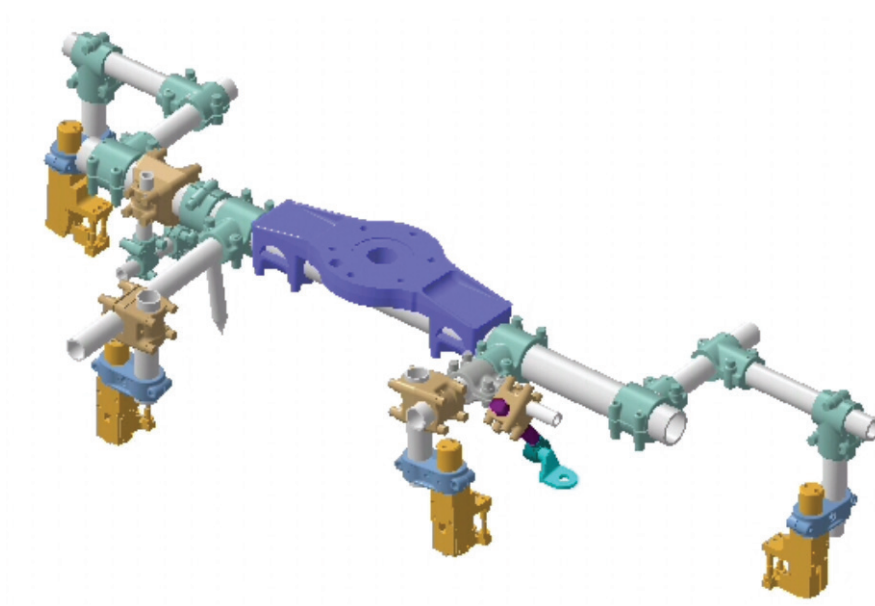


Handling gripper

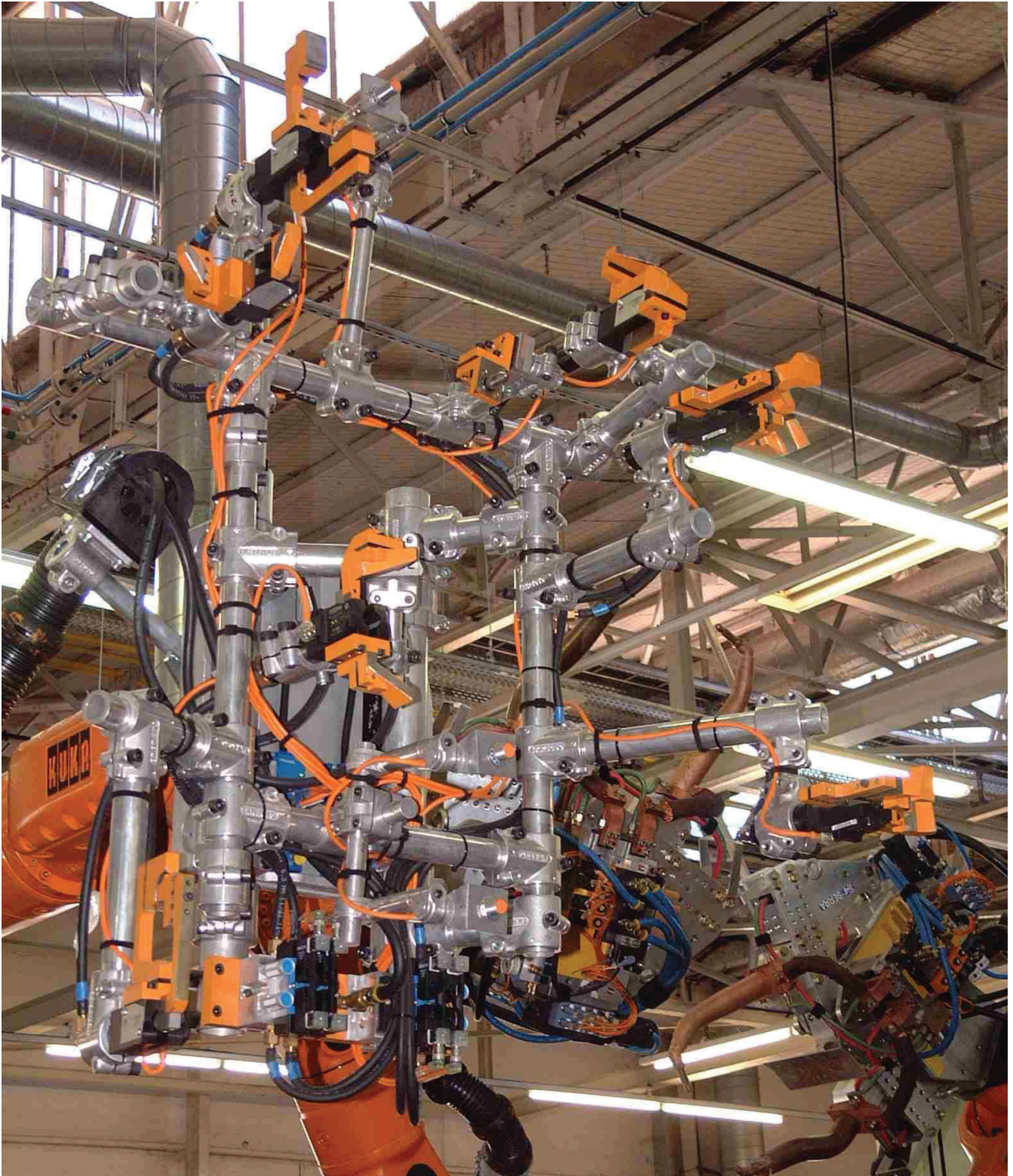
Material handling grippers are grippers for the transport of the components. The component is completely geometrically pre-fixed and all individual components and assembly groups which belong to it are attached on the component tightly. Typical applications for a handling gripper are the transport from and to:

- working stations
- deposit stations
- turning systems
- unloading systems of inlaid stations

Since the components are geometrical and pre-fixed the demands regarding the structure accuracy at handling grippers are lower than at process and geometric grippers. Regarding the lower forces which have an effect on the gripper the frame structures can be carried out easier.



Handling gripper - Front bonnet



Process gripper

Process grippers are grippers with which the component undergoes a production process.

Individual components and assembly groups are already attached on the component tightly.

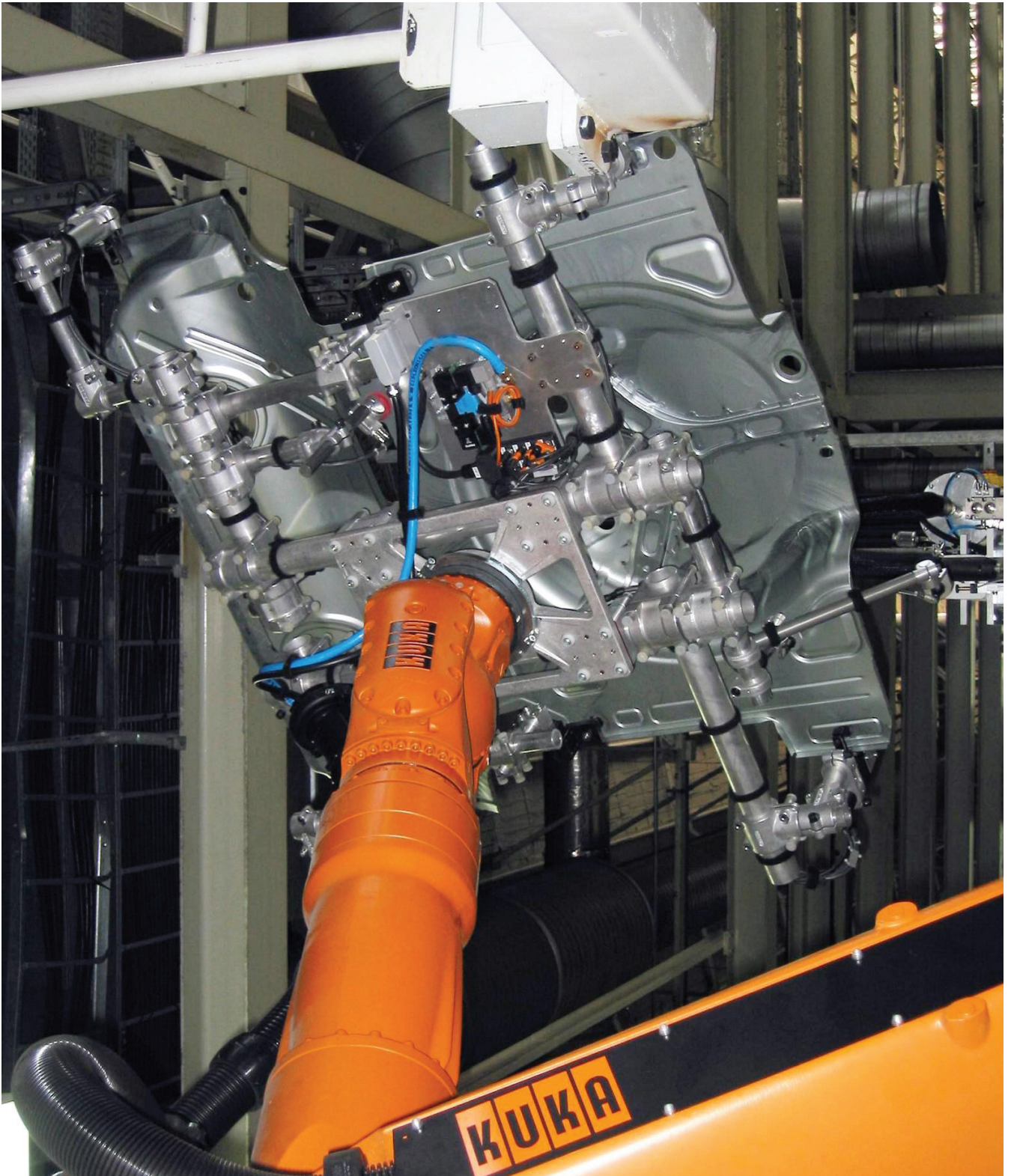
Applications for process grippers are for carrying out production operations like:

- welding
- stamping
- punching
- sticking

Regarding the high process forces which have an effect on the component (e.g. Shear force during spot welding), the tension and fixation points as well as the frame structure is more stable than at handling grippers.

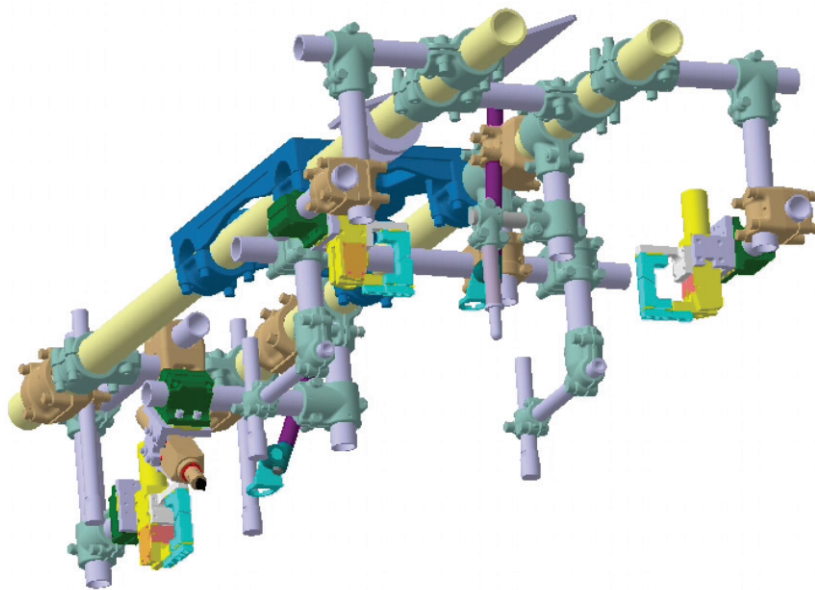


Process gripper - Floor rear



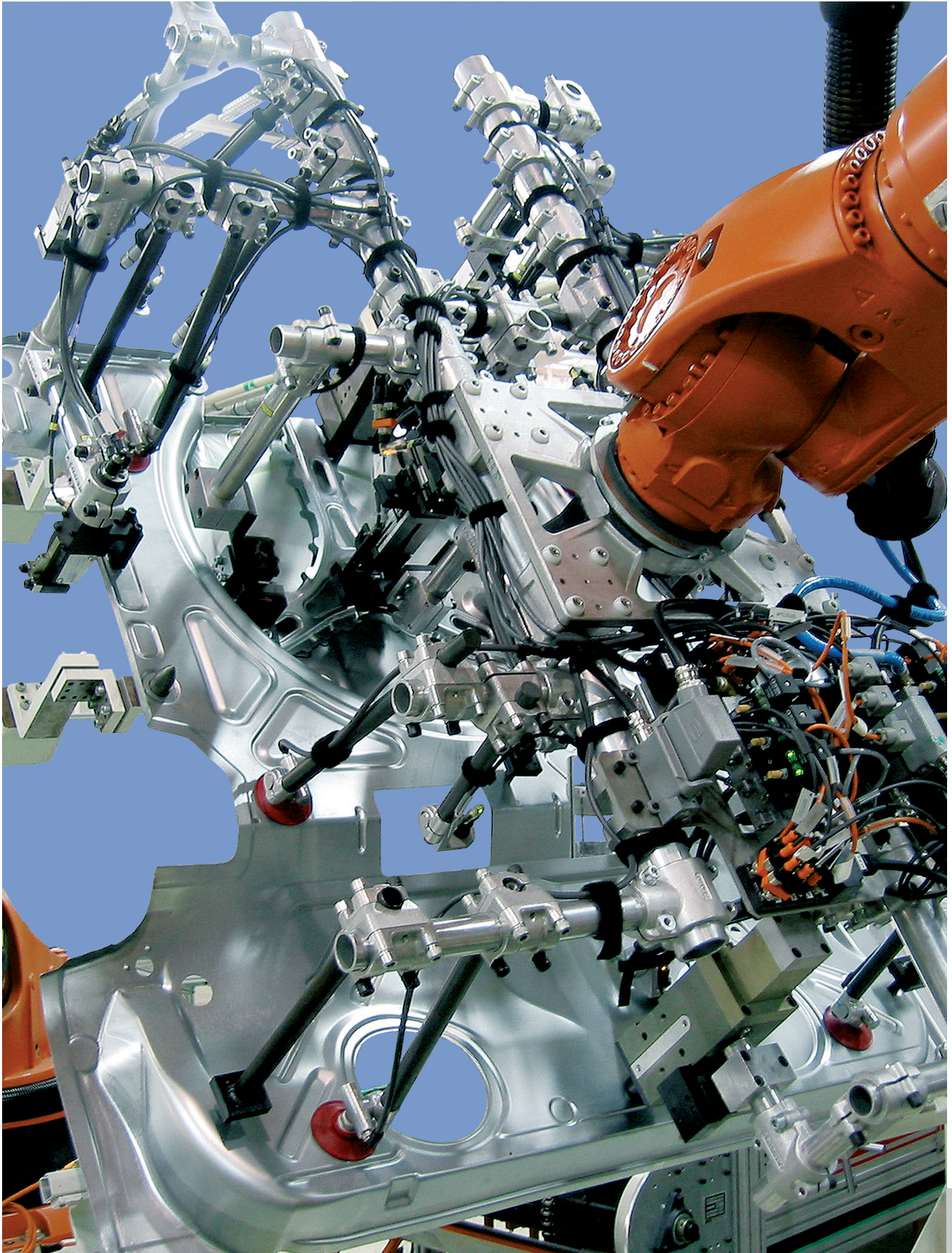
Geometri gripper

Geometric grippers are replacing the normal geometry station in the production process. On the geometric gripper the highest demands regarding the accuracy and stability are made since the gripper structure has a direct influence on the later component geometry. The individual parts and assembly groups are still not fixed on the component at the geometric gripper. Tension and positioning elements (designed correspondingly) ensure the perfect position of these parts during the production process. Usually a geometric gripper combines the inlaid function (manual or automated) with the one of a process function (e.g. welding under a pair of welding tongs).

















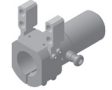

Geometri gripper - Floor rear



Subject to modification
Edition 01/2013

Flies role gripper



Picture	Designation	Page
	Exploded on disconnect housing (flange mount) and bayonet series 150 / 40	58
	Exploded on disconnect housing (base mount) and bayonet series 150 / 40	59
	Disconnect housing series 150 / 40 (flange mount)	60
	Disconnect housing series 150 / 40 (base mount)	60
	Air connection for disconnect housing series 150 / 40 (flange mount)	61
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	Bayonet series 150 / 40	62
	Bayonet series 150 / 40	62
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	Air distribution manifold for disconnect housing series 150 / 40	64
	Bayonet series 150 / 40	65
	Air distribution manifold for bayonet series 150 / 40	65
	Bayonet series 150 / 40	66














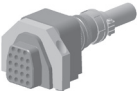



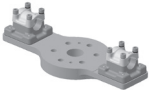
Quick release disconnects

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	Coding disk for bayonet series 150 / 40	66
	Exploded on disconnect housing (flange mount) and bayonet series 250 / 60	67
	Disconnect housing series 250 / 60 (flange mount)	68
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	Bayonet series 100 / 150 and 25 / 40	73
	Exploded on disconnect plate and bayonet series 250 / 60	74
	Exploded on disconnect plate and bayonet series 150 / 40	74
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Picture	Designation	Page
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	Bayonet series 150 / 40	76
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	Exploded of the automatic gripper quick change device, series 250 / 60, 90°	78
	Automatic gripper quick change device, 0°	79
	Automatic gripper quick change device, 90° (GSWE)	80
	Location cone for gripper quick change device series 250 / 60 (gripper side)	81
	Mounting flange for gripper quick change device series 250 / 60 (coupling side)	81
	Location cone for gripper quick change device series 250 / 60 (gripper side)	82
	Mount for electric plug for gripper quick change device series 250 / 60 (coupling side)	82
	Mounting flange for gripper quick change device series 250 / 60 (coupling side)	83
	Air connection, 6-port, gripper quick change device series 250 / 60 (gripper side)	83
	Bayonet for ABB coupling	84
	Plastic connector for ABB coupling	84
	Steel connector for ABB coupling	84
	Bayonet series 250 / 60 für KUKA coupling	85



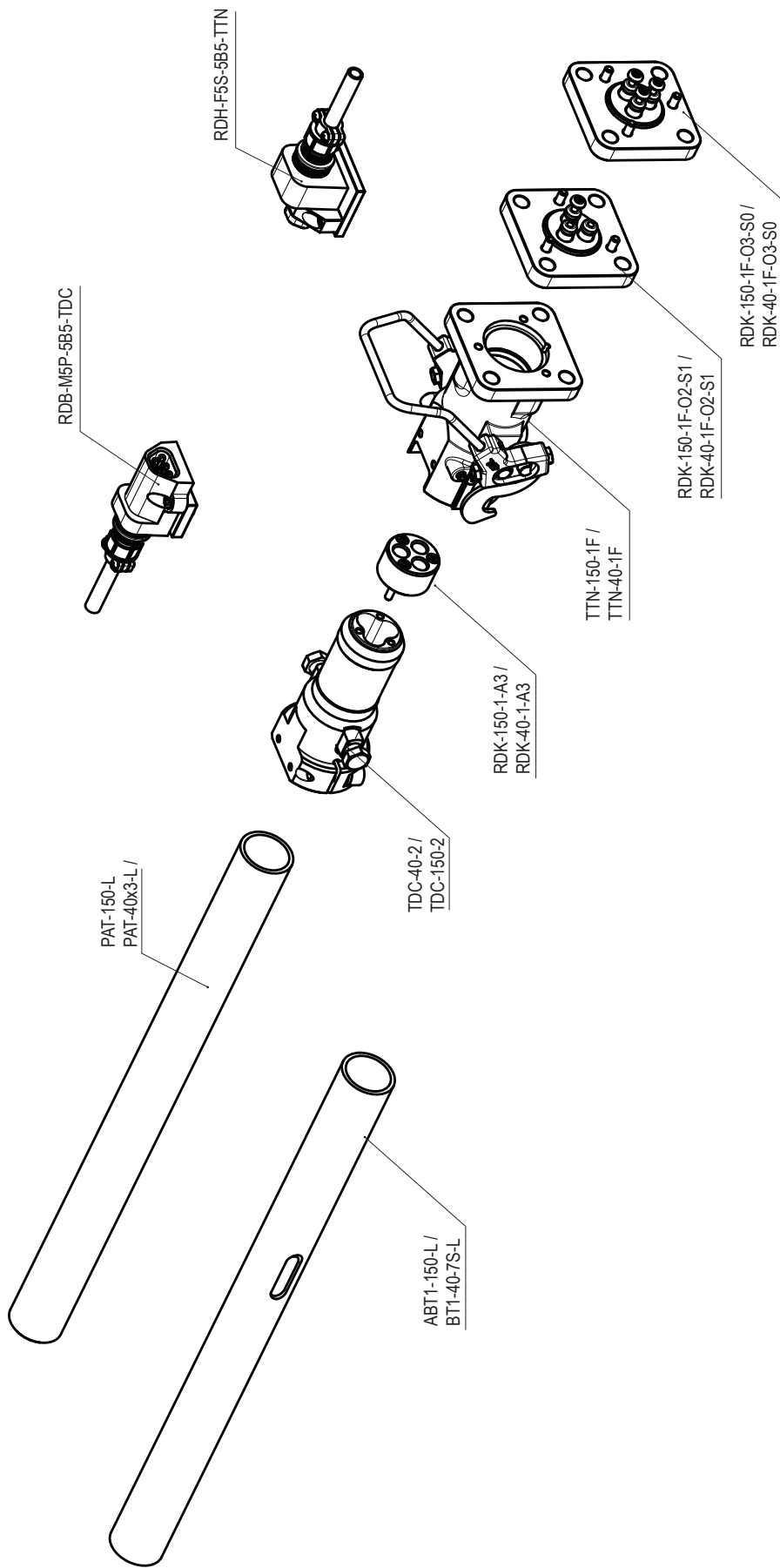
Quick release disconnects

Picture	Designation	Page
	Electric plug for KUKA coupling	85
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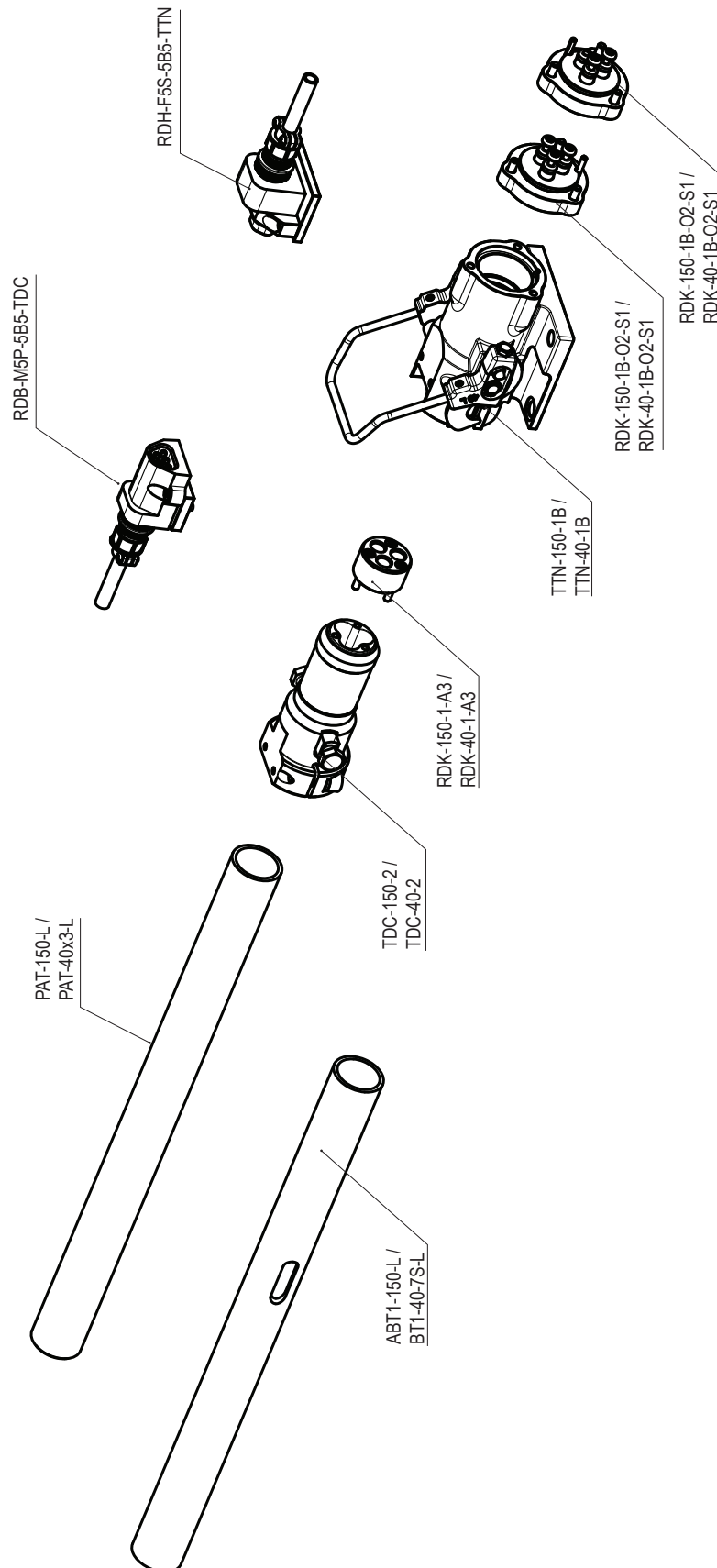
Quick release disconnects



Exploded on disconnect housing (flange mount) and bayonet series 150 / 40

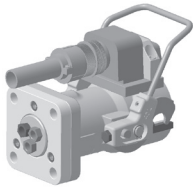


Exploded on disconnect housing (base mount) and bayonet series 150 / 40

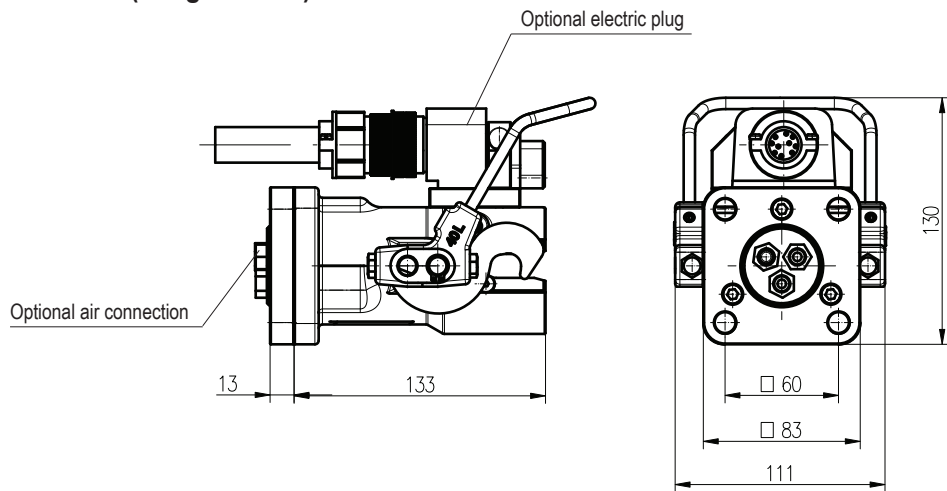




Disconnect housing series 150 / 40 (flange mount)

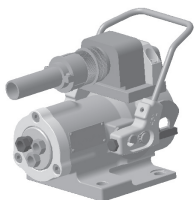


2.20 kg
Mat.: Aluminium

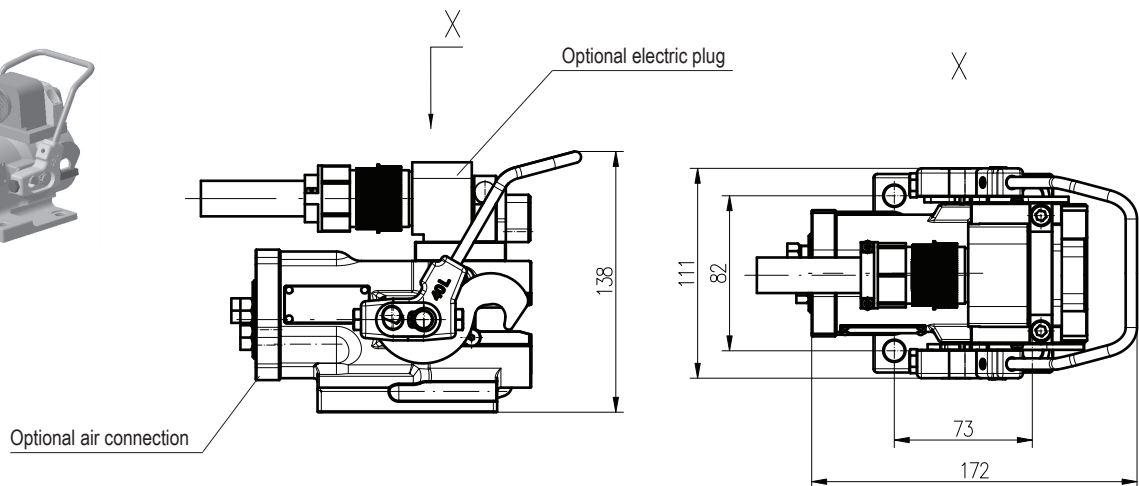


Ordering information				e.g.: TTN-150-1F-03-S1-EL5
TTN-	-	-1F	-	-
	Size		Optional air connection (Open nipple - shut off nipple)	Optional electric plug
	↓		↓	↓
	150 (1.5")		O3 - S0	EL5 (Socket for 5 pins)
	40 (40 mm)		O2 - S1	EL10 (Socket for 10 pins)

Disconnect housing series 150 / 40 (base mount)

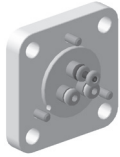


2.58 kg
Mat.: Aluminium

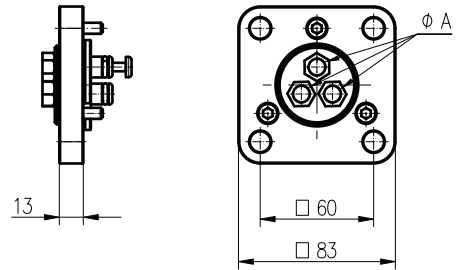


Ordering information				e.g.: TTN-150-1B-03-S1-EL5
TTN-	-	-1B	-	-
	Size		Optional air connection (Open nipple - shut off nipple)	Optional electric plug
	↓		↓	↓
	150 (1.5")		O3 - S0	EL5 (Socket for 5 pins)
	40 (40 mm)		O2 - S1	EL10 (Socket for 10 pins)

Air connection for disconnect housing series 150 / 40 (flange mount)



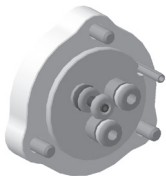
0.29 kg
Mat.: Aluminium



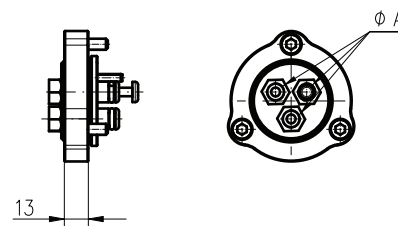
Part no.	Open nipple	Shut off nipple	Ø A
RDK-150-1F-O2-S1	O2	S1	1/8-NPT
RDK-150-1F-O3-S0	O3	S2	1/8-NPT

RDK-40-1F-O2-S1	O2	S1	G1/8
RDK-40-1F-O3-S0	O3	S1	G1/8

Air connection for disconnect housing series 150 / 40 (base mount)



0.19 kg
Mat.: Aluminium



Part no.	Open nipple	Shut off nipple	Ø A
RDK-150-1B-O2-S1	O2	S1	1/8-NPT
RDK-150-1B-O3-S0	O3	S2	1/8-NPT

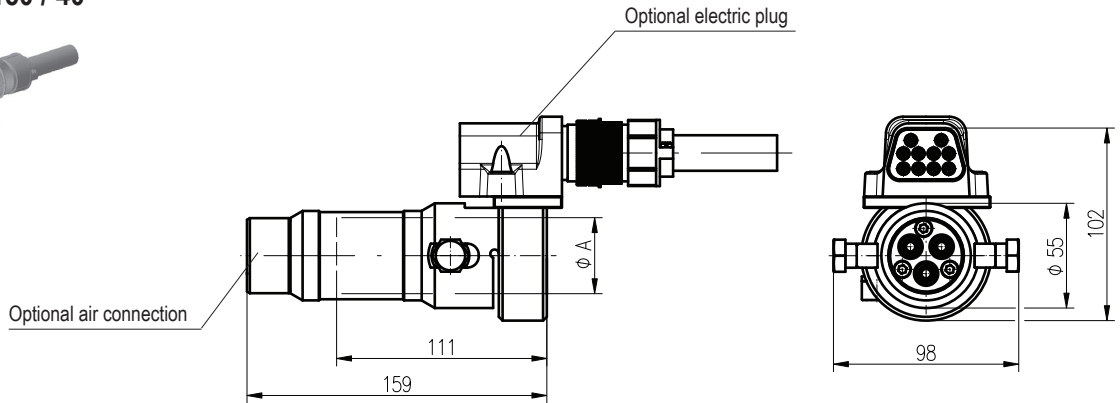
RDK-40-1B-O2-S1	O2	S1	G1/8
RDK-40-1B-O3-S0	O3	S1	G1/8



Bayonet series 150 / 40



0.96 kg
Mat.: Aluminium

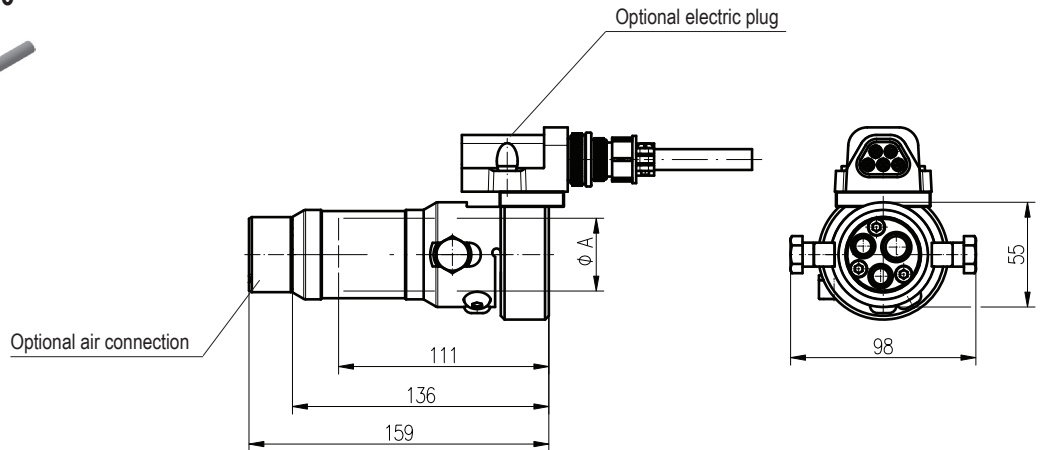


Ordering information				e.g.: TDC-150-2-A3-EL5	
TDC	-	-2	-	-	-
	Size		Optional air connection	Optional electric plug	
	↓		↓	↓	
	150 (1.5")		A3	EL5 (Plug with 5 pins)	
	40 (40 mm)			EL10 (Plug with 10 pins)	

Bayonet series 150 / 40



0.96 kg
Mat.: Aluminium

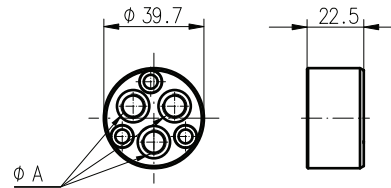


Ordering information							e.g.: TDC-150-2-K1-30-A3-EL5-HC	
TDC-	-	-2	-	-30	-	-	-	-
	Size		Optional keys		Optional air connection	Optional electric plug		
	↓		↓		↓	↓	↓	
	150 (1.5")		K1		A3 (3 Port)	EL 5 (plug with 5 pins)		HC (hard coated)
	40 (40 mm)		K2					

Air connection for bayonet series 150 / 40



0.08 kg
Mat.: Aluminium

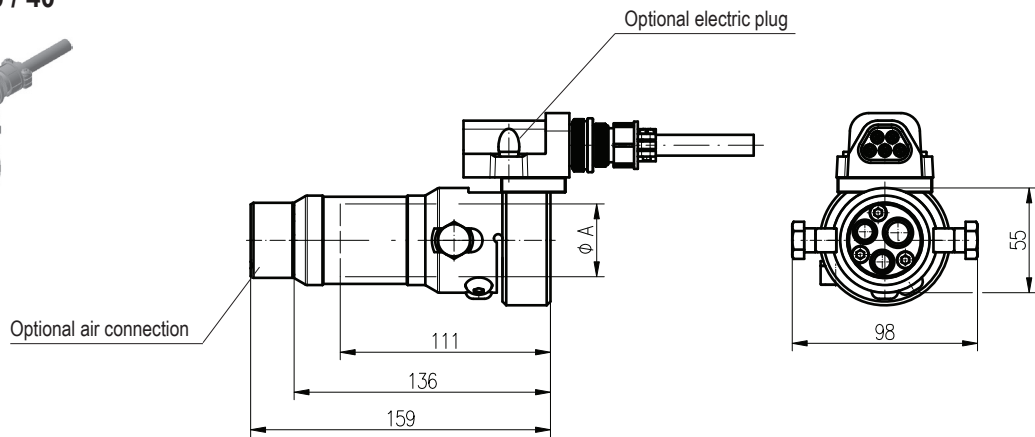


Part no.	Ø A
RDK-150-1-A3	1/8-NPT
RDK-40-1-A3	G1/8

Bayonet series 150 / 40



0.96 kg
Mat.: Aluminium



Ordering information

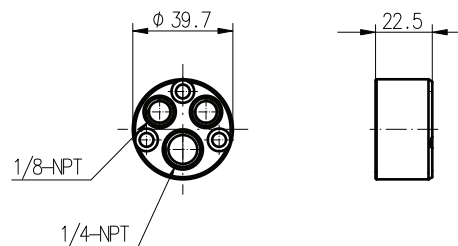
e.g.: TDC-150-2-K1-38-A3-EL5-HC

TDC-150-2	-	-38			
	Optional keys		Optional air connection	Optional electric plug	
	↓		↓	↓	↓
	K1		A3 (3 Port)	EL 5 (plug with 5 pins)	HC (hard coated)
	K2				

Air connection for bayonet series 150 / 40



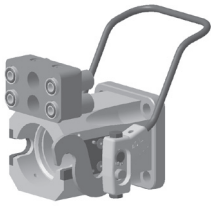
0.05 kg
Mat.: Aluminium



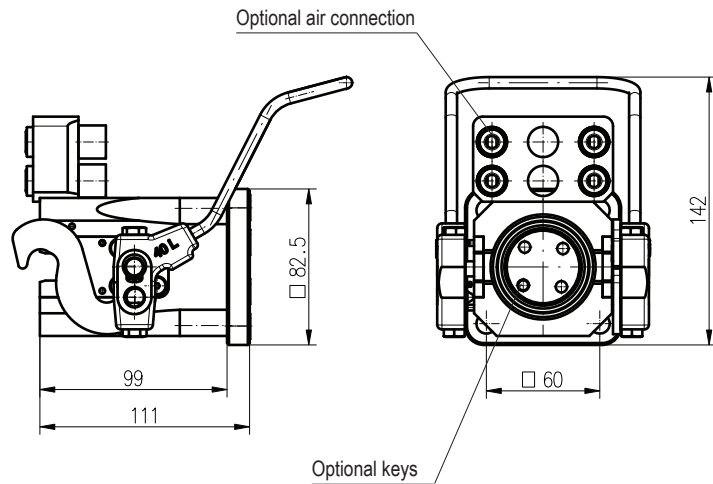
Part no.
RDK-150-1-A3-38



Disconnect housing series 150 / 40 (flang mount)



■ 1.80 kg
Mat.: Aluminium

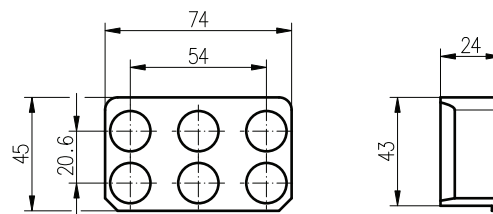


Ordering information			
			e.g.: TTN-150-A4-K1-GM
TTN-	-	-	-
	Size	Optional air connection	Optional keys
	↓	↓	↓
	150 (1.5")	A4 (4 Port)	K1
	40 (40 mm)	A6 (6 Port)	K2
			K3
			K4

Air distribution manifold for disconnect housing series 150 / 40

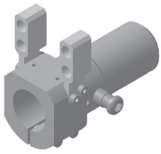


■ 0.16 kg
Mat.: Aluminium

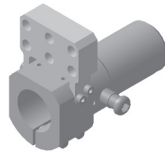


Part no.
TDC-150-GM-P004

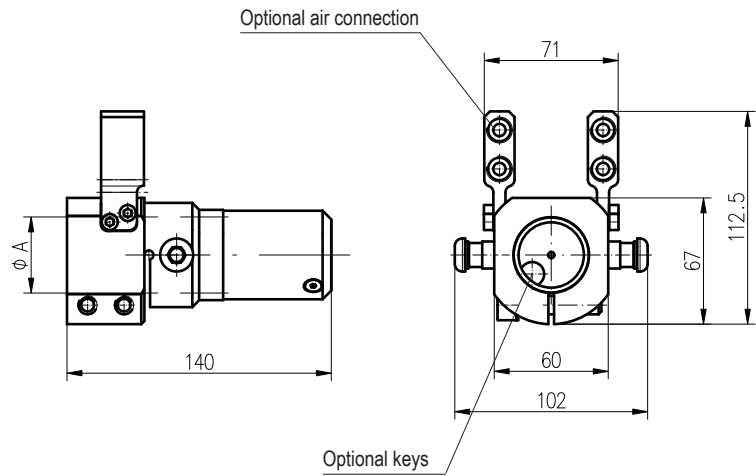
Bayonet series 150 / 40



TDC-A-A4-KX-GM
 0.53 kg
 Mat.: Aluminium



TDC-A-A6-KX-GM
 0.63 kg
 Mat.: Aluminium



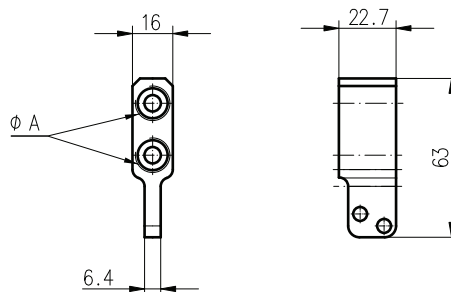
Ordering information				
TDC	-A	-	-	-GM
	Size	Optional air connection	Optional keys	
	↓	↓	↓	
	150 (1.5")	A4 (4 Port)	K1	
	40 (40 mm)	A6 (6 Port)	K2	
			K3	
			K4	

e.g.: TDC-150-A4-K1-GM

Air distribution manifold for bayonet series 150 / 40



Mat.: Aluminium

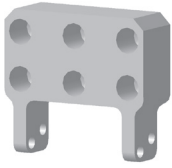


Part no.	ϕA	Weight (kg)
TDC-150-GM-P003	1/4-NPT	0.024

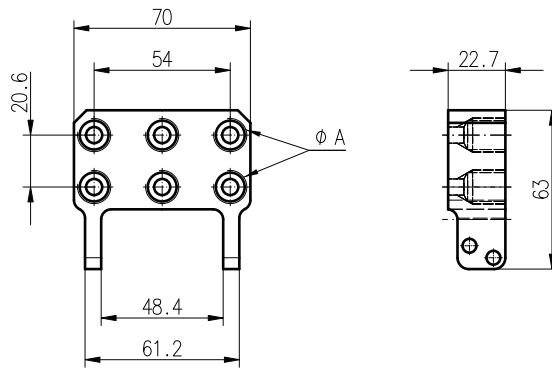
TDC-40-GM-P003	G1/4	0.024
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Bayonet series 150 / 40



Mat.: Aluminium

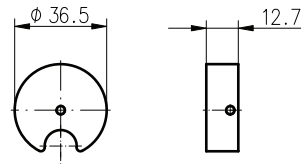


Part no.	Ø A	■ (kg)
TDC-150-GM-P004	1/4-NPT	0.165
TDC-40-GM-P004	G1/4	0.165

Coding disk for bayonet series 150 / 40

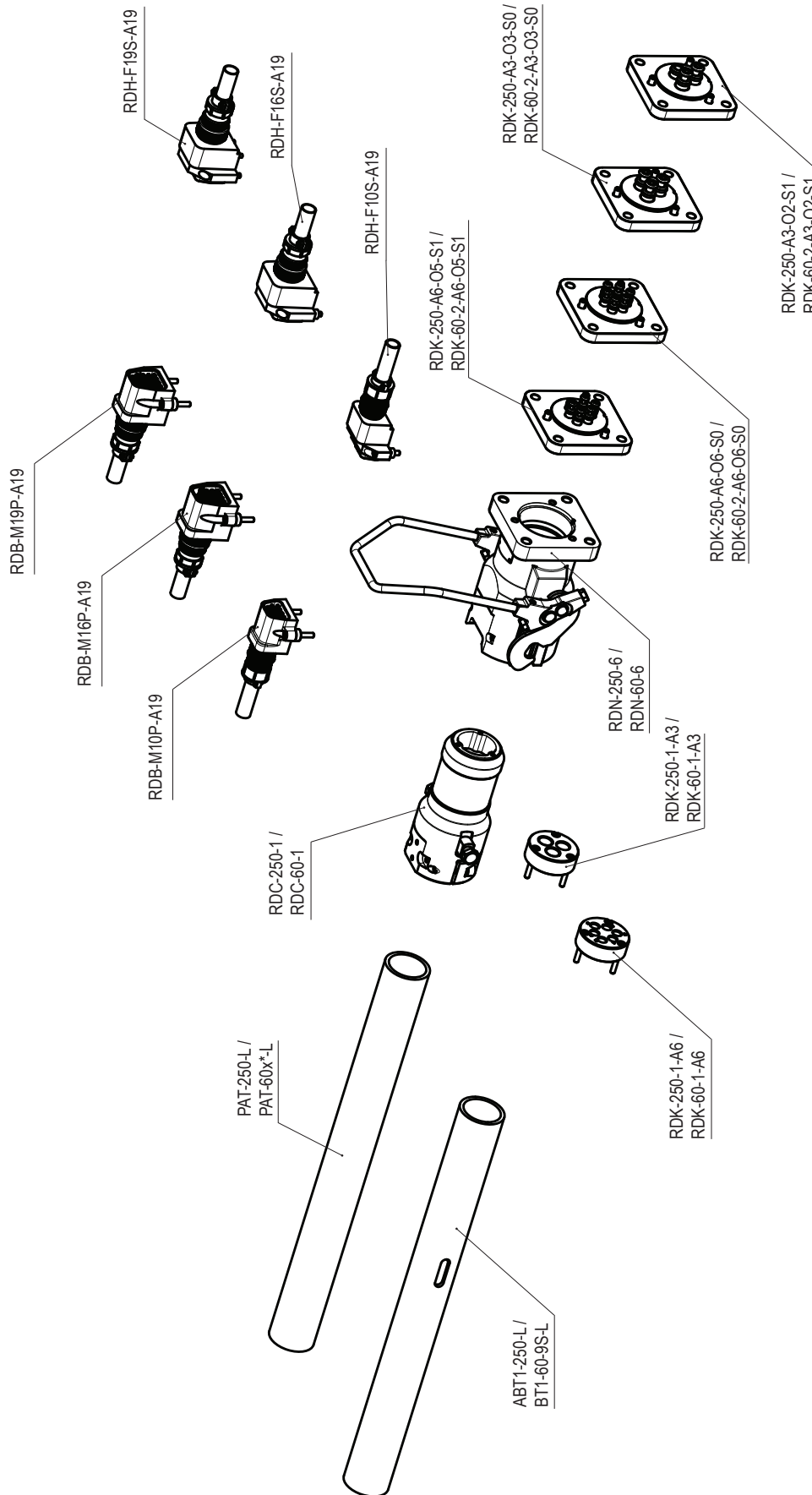


■ 0.033 kg
Mat.: Aluminium



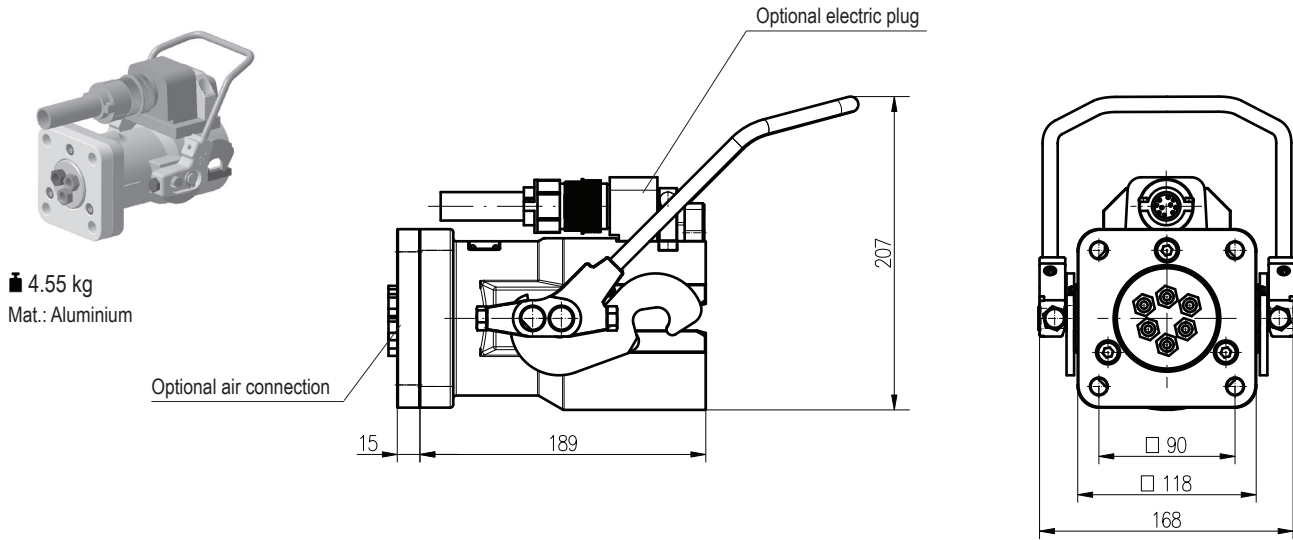
Part no.
TDC-150-GM-P005

Exploded on disconnect housing (flange mount) and bayonet series 250 / 60





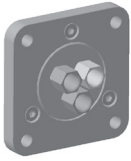
Disconnect housing series 250 / 60 (flange mount)



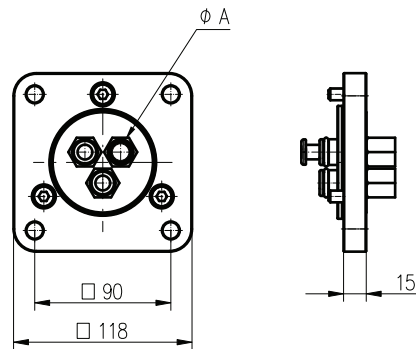
4.55 kg
Mat.: Aluminium

Ordering information				e.g.: RDN-250-6-02-S1-EL10
RDN	-	-6	-	-
	Size		Optional air connection (Open nipple - shut off nipple)	Optional electric plug
	↓		↓	↓
	250 (2.5")		O0 - S0	EL10 (Socket for 10 pins)
	60 (60 mm)		O3 - S0	EL16 (Socket for 16 pins)
			O2 - S1	EL19 (Socket for 19 pins)
			O6 - S0	
			O5 - S1	
			O4 - S2	

Air connection for disconnect housing series 250 / 60 (flange mount)



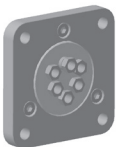
0.64 kg
Mat.: Aluminium



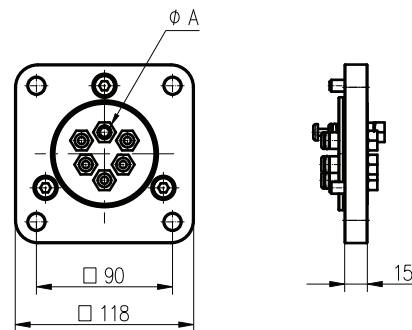
Part no.	Open nipple	Shut off nipple	Ø A
RDK-250-A3-O2-S1	O2	S1	3/8-NPT
RDK-250-A3-O3-S0	O3	S0	3/8-NPT

RDK-60-2-A3-O2-S1	O2	S1	G3/8
RDK-60-2-A3-O3-S0	O3	S0	G3/8

Air connection for disconnect housing series 250 / 60 (flange mount)



0.64 kg
Mat.: Aluminium

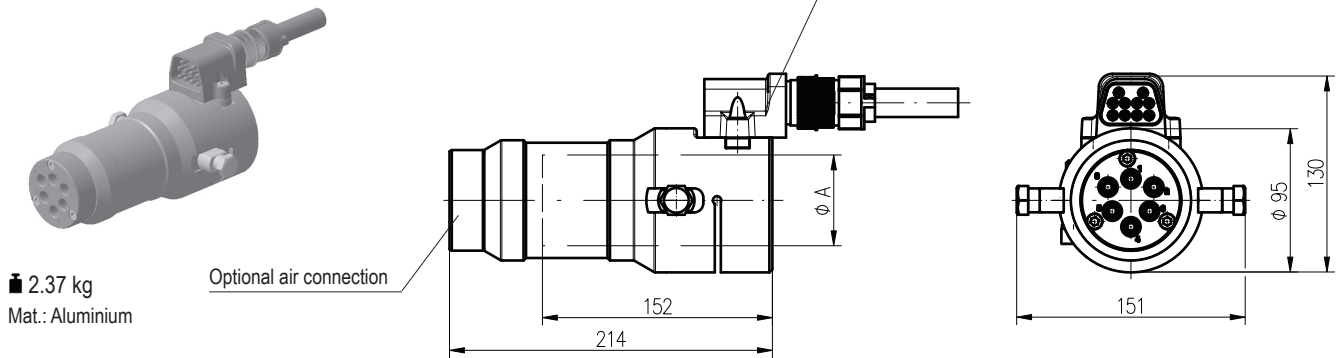


Part no.	Open nipple	Shut off nipple	Ø A
RDK-250-A6-O3-S0	O3	S0	1/8-NPT
RDK-250-A6-O2-S1	O2	S1	1/8-NPT
RDK-250-A6-O6-S0	O6	S0	1/8-NPT
RDK-250-A6-O5-S1	O5	S1	1/8-NPT
RDK-250-A6-O4-S2	O5	S2	1/8-NPT

RDK-60-2-A6-O3-S0	O3	S0	G1/8
RDK-60-2-A6-O2-S1	O2	S1	G1/8
RDK-60-2-A6-O6-S0	O6	S0	G1/8
RDK-60-2-A6-O5-S1	O5	S1	G1/8
RDK-60-2-A6-O4-S2	O5	S2	G1/8



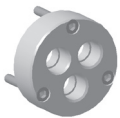
Bayonet series 250 / 60



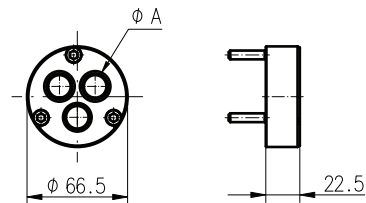
■ 2.37 kg
Mat.: Aluminium

Ordering information				e.g.: RDC-250-1-A3-EL10
RDC-	-A	-1	-	-
	Size		Optional air connection (Open nipple - shut off nipple)	Optional electric plug
	↓		↓	↓
	250 (2.5")		A3 (3 Port)	EL10 (plug with 10 pins)
	60 (60 mm)		A6 (6 Port)	EL16 (plug with 16 pins) EL19 (plug with 19 pins)

Air connection for bayonet series 250 / 60

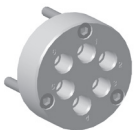


■ 0.197 kg
Mat.: Aluminium

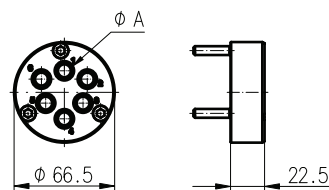


Part no.	ϕA
RDK-250-1-A3	3/8-NPT
RDK-60-1-A3	G3/8

Air connection for bayonet series 250 / 60

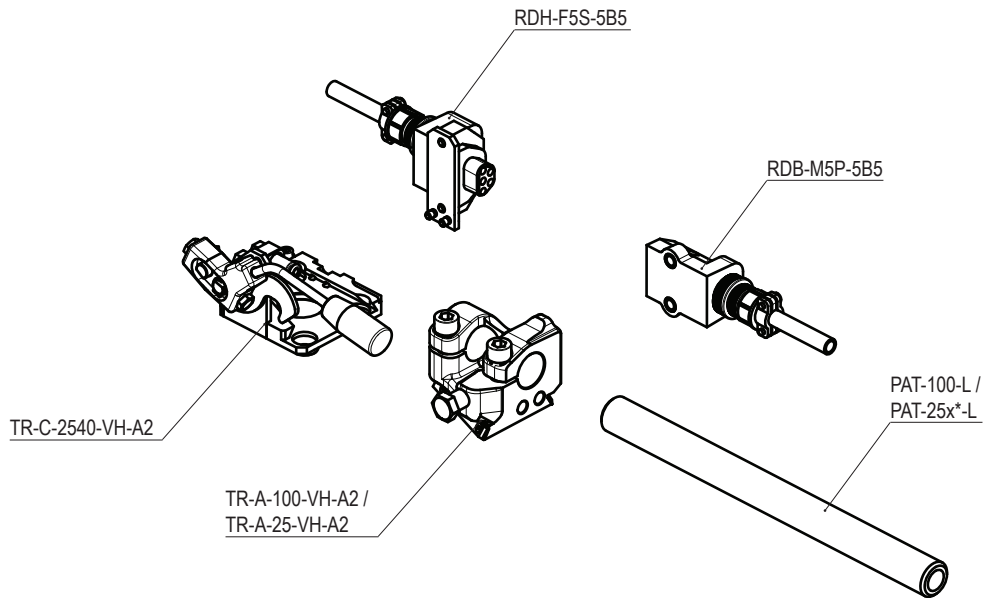


■ 0.197 kg
Mat.: Aluminium

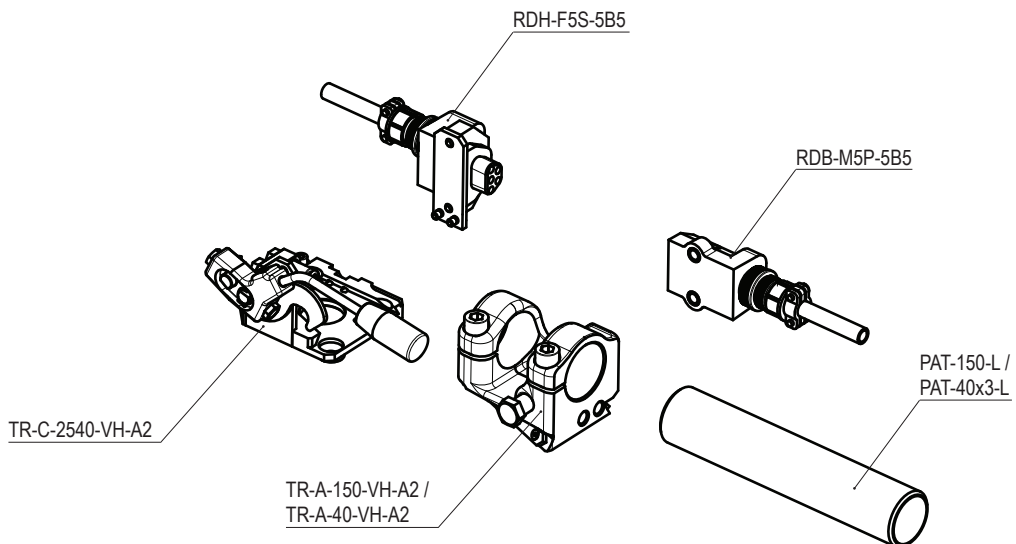


Part no.	ϕA
RDK-250-1-A6	1/8-NPT
RDK-60-1-A6	G1/8

Exploded on disconnect plate and bayonet series 100 / 25

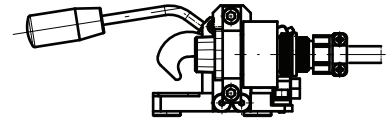
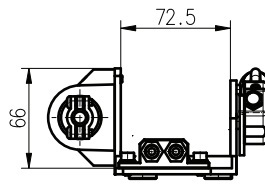
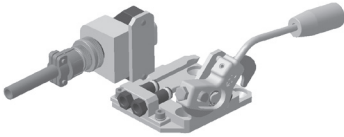


Exploded on disconnect plate and bayonet series 150 / 40

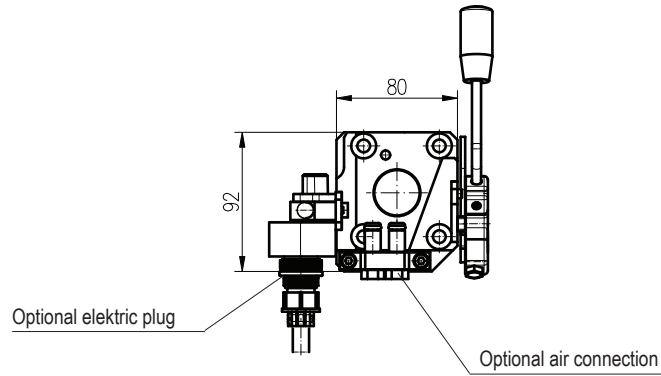




Disconnect plate series 25 /40



Material: Aluminium

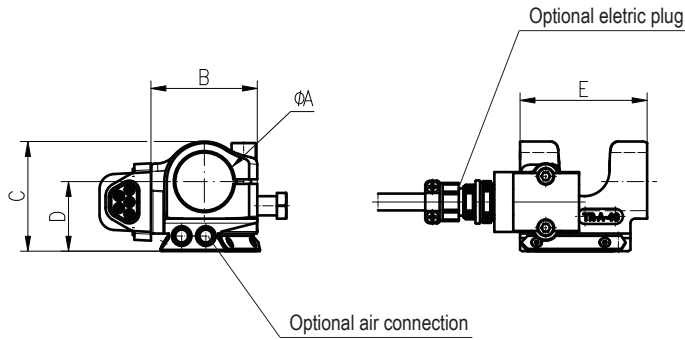


Ordering information		e.g.: TR-C-2540-VH-A2-EL5
TR-C-2540-VH	-	-
	Optional air connection	Optional electric plug
	↓	↓
	A2	EL5 (Socket for 5 pins)
	(Open nipple - shut off nipple)	
	↓	
	O0 - S2	

Bayonet series 100 / 150 and 25 / 40



Material: Aluminium



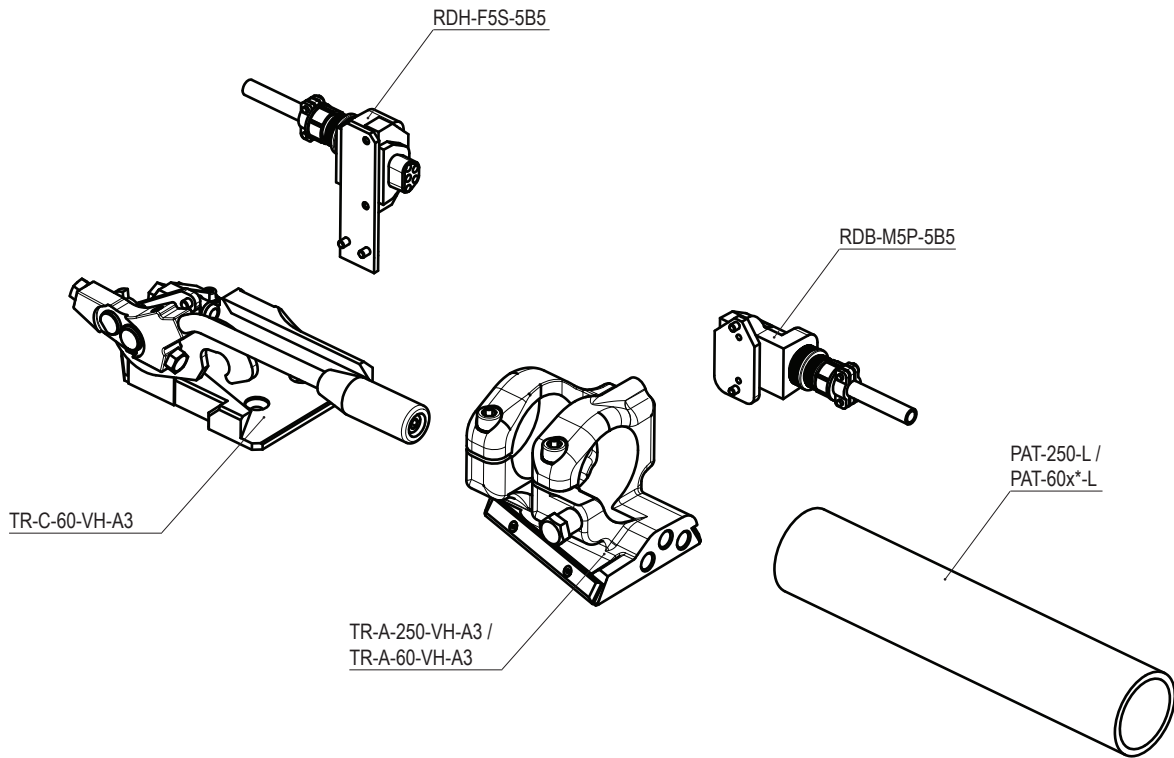
Part no.	Ø A	B	C	D	E	■ (kg)
TR-A-100-VH-A2-EL5	1.0"	70	55.5	35	71	0.60
TR-A-150-VH-A2-EL5	1.5"	73	72.5	46	84	0.68

TR-A-25-VH-A2-EL5	25	70	55.5	35	71	0.60
TR-A-40-VH-A2-EL5	40	73	72.5	46	84	0.68

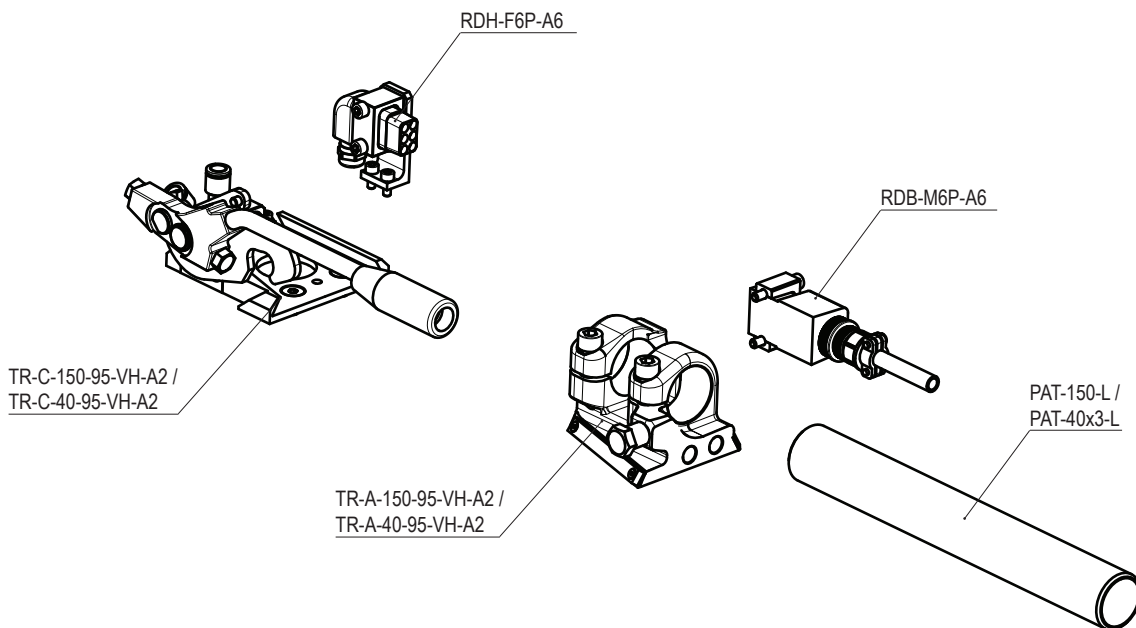
Ordering information					e.g.: TR-A-100-VH-A2-EL5
TR-A-	- A	-VH	-	-	
	Size		Option air connection	Optional electric plug	
	↓		↓	↓	
	100 (1.0")		A2	EL 5 (plug with 5 pin)	
	150 (1.5")				
	25 (25 mm)				
	40 (40 mm)				



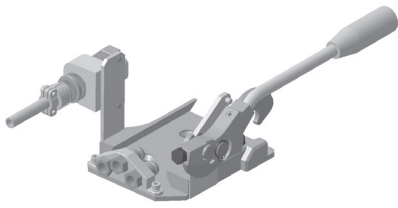
Exploded on disconnect plate and bayonet series 250 / 60



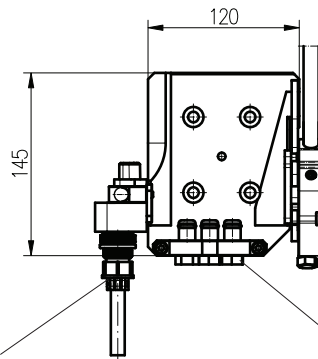
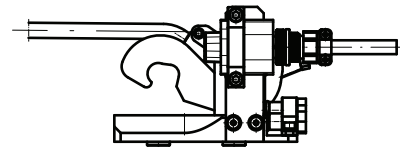
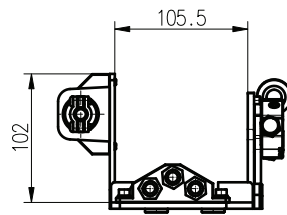
Exploded on disconnect plate and bayonet series 150 / 40



Disconnect plate series 250 / 60



Material: Aluminium

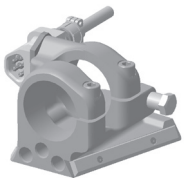


Optional electric plug

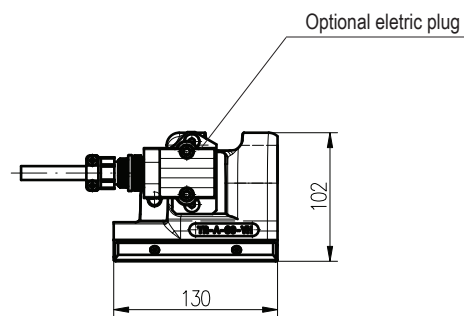
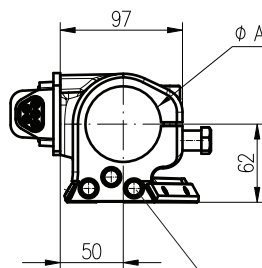
Optional air connection

Ordering information		e.g.: TR-C-60-VH-A3-EL5
TR-C-60-VH	-	-
	Optional air connection	Optional electric plug
	↓	↓
	A3	EL 5 (plug with 5 pin)
	A5	

Bayonet series 250 / 60



Material: Aluminium

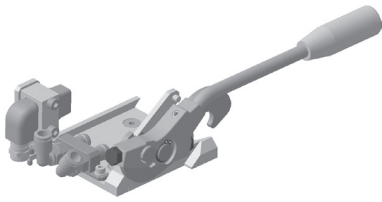


Optional air connection

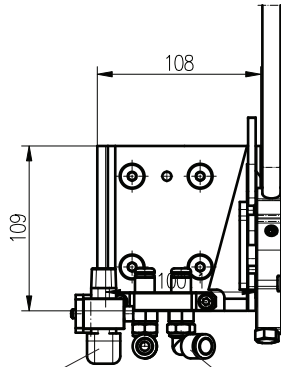
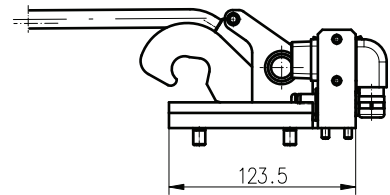
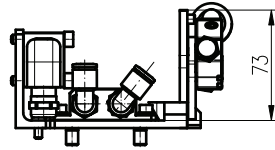
Ordering information		e.g.: TR-A-250-VH-A3-EL5		
TR-A-	- A	- VH	-	-
	Size		Option air connection	Optional electric plug
	↓		↓	↓
	250 (2.5")		A3	EL 5 (Socket for 5 pin)
	60 (60 mm)			



Disconnect plate series 150 / 40



Material: Aluminium

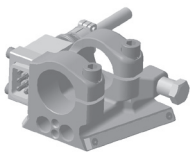


Optional electric plug

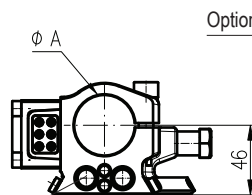
Optional air connection

Ordering information				e.g.: TR-C-150-VH-A2-EL6	
TR-C-	- A	-95-VH	-	-	-
	Size		Option air connection	Optional electric plug	
	↓		↓	↓	
	150 (1.5")		A2	EL 6 (Socket for 6 pin)	
	40 (40 mm)				

Bayonet series 150 / 40

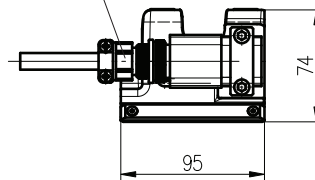


Material: Aluminium



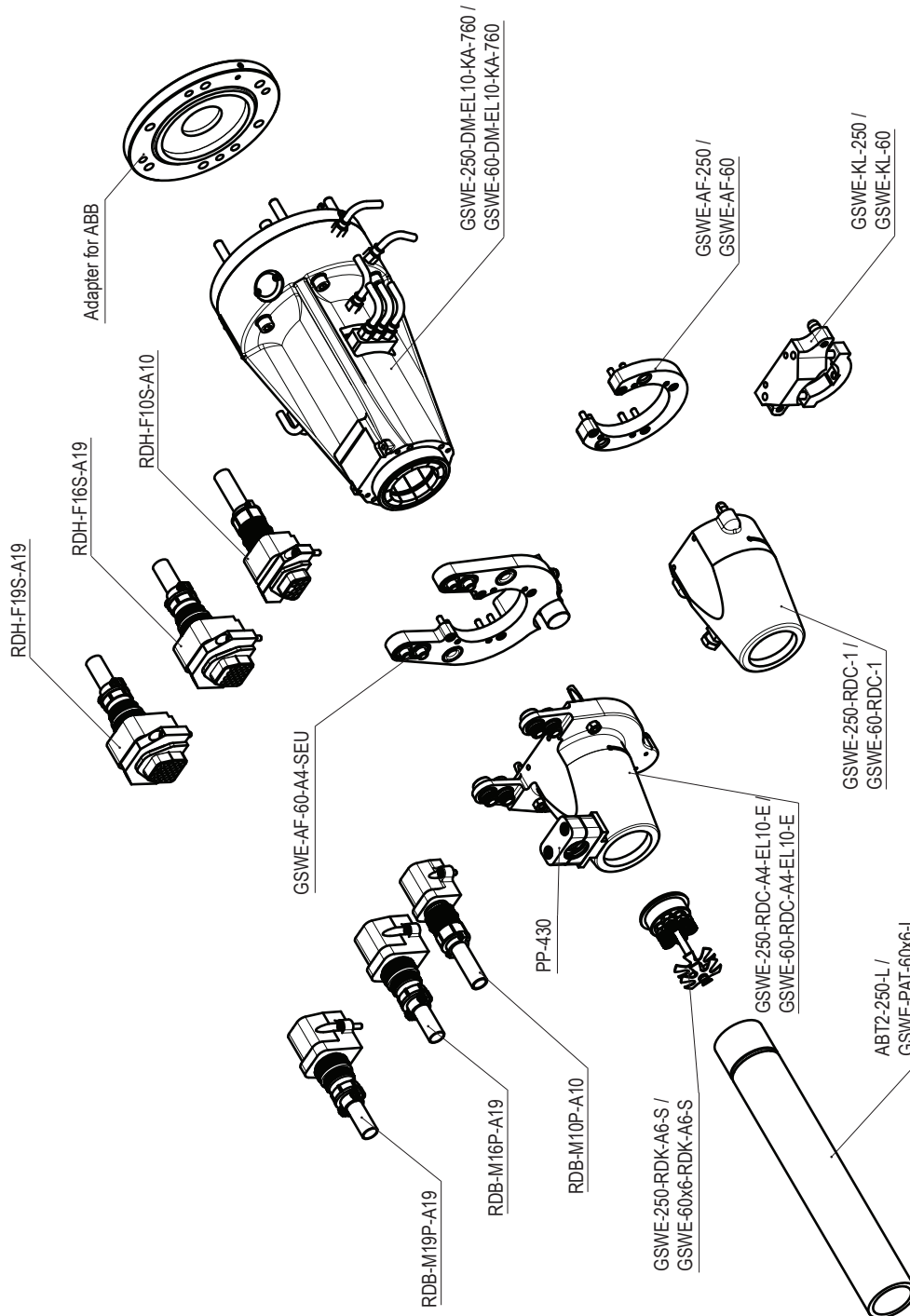
Optional electric plug

Optional air connection



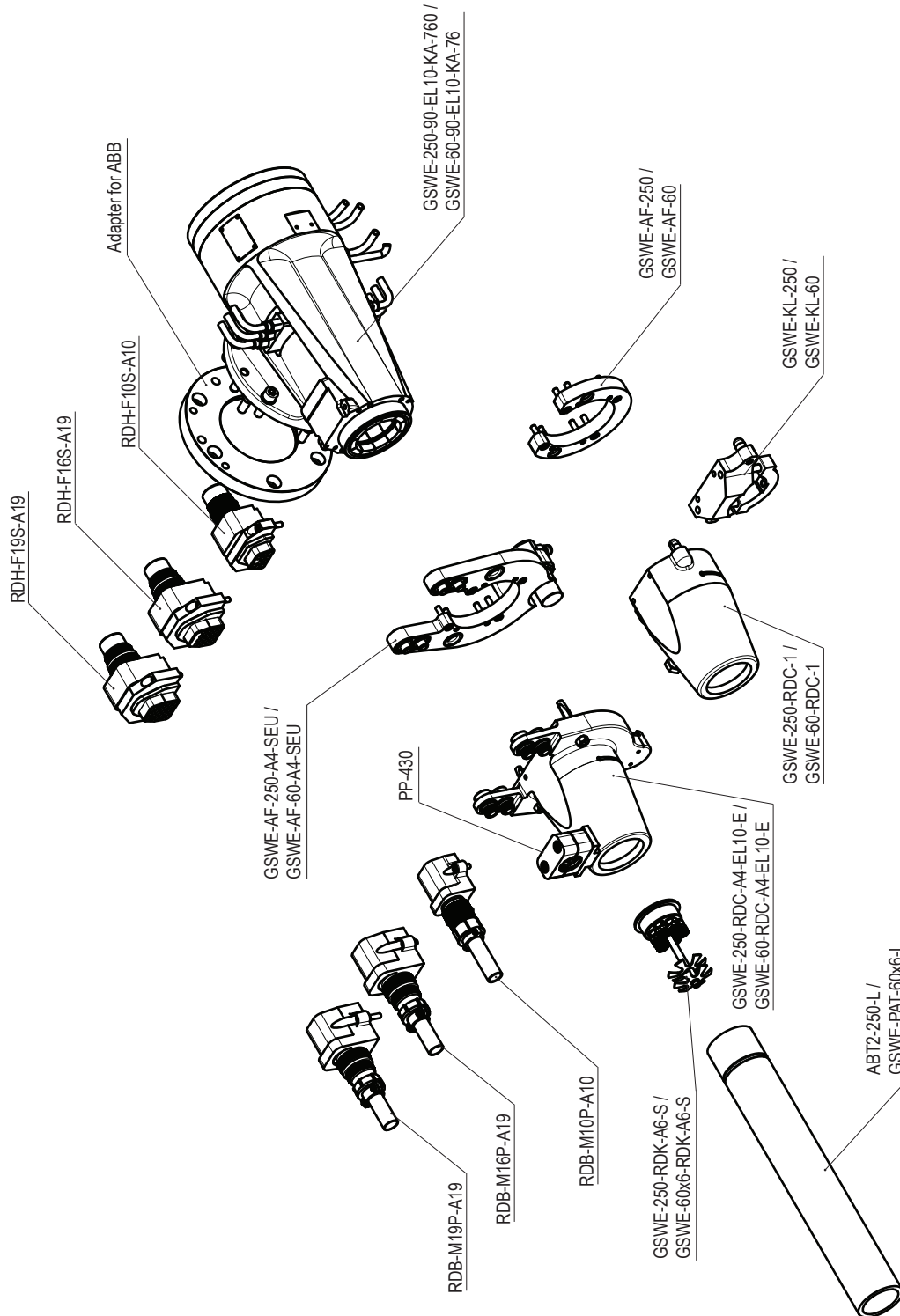
Ordering information				e.g.: TR-A-150-VH-A2-EL6	
TR-A-	- A	-95-VH	-	-	-
	Size		Option air connection	Optional electric plug	
	↓		↓	↓	
	150 (1.5")		A2	EL 6 (plug with 6 pin)	
	40 (40 mm)				

Exploded of the automatic gripper quick change device, series 250 / 60, 0°

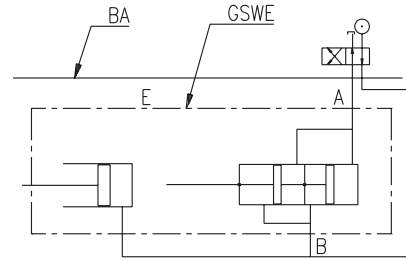
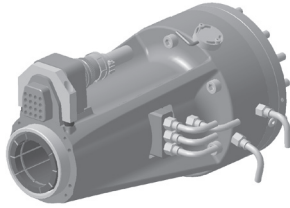




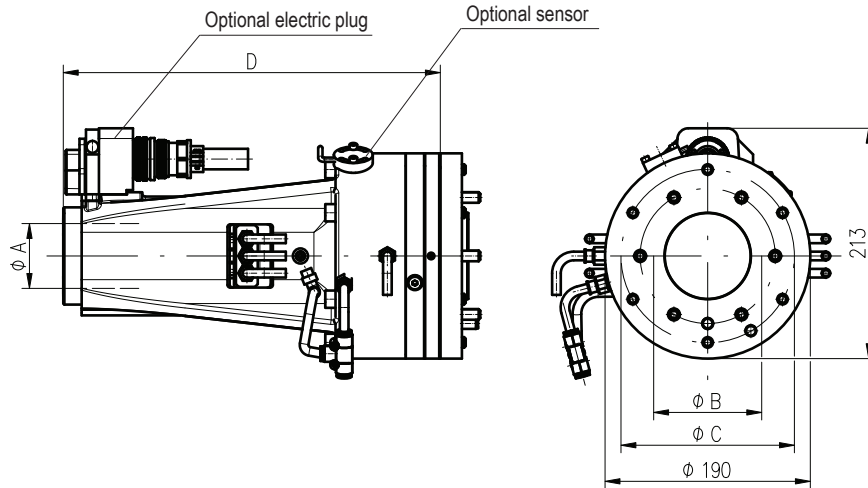
Exploded of the automatic gripper quick change device, series 250 / 60, 90°



Automatic gripper quick change device, 0°



Mat.: Aluminium



Part no.	Ø A	Ø B	Ø C	D	■ (kg)
GSWE-250-DM-EL**-ABB64	2.5"	80	125	369	19.0
GSWE-250-DM-EL**-KA760	2.5"	100	160	349	18.3

GSWE-60-DM-EL**-ABB64	60	80	125	369	19.0
GSWE-60-DM-EL**-KA760	60	100	160	349	18.3

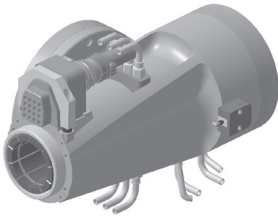
Ordering information

e.g.: GSWE-250-DM-EL10-KA760-S

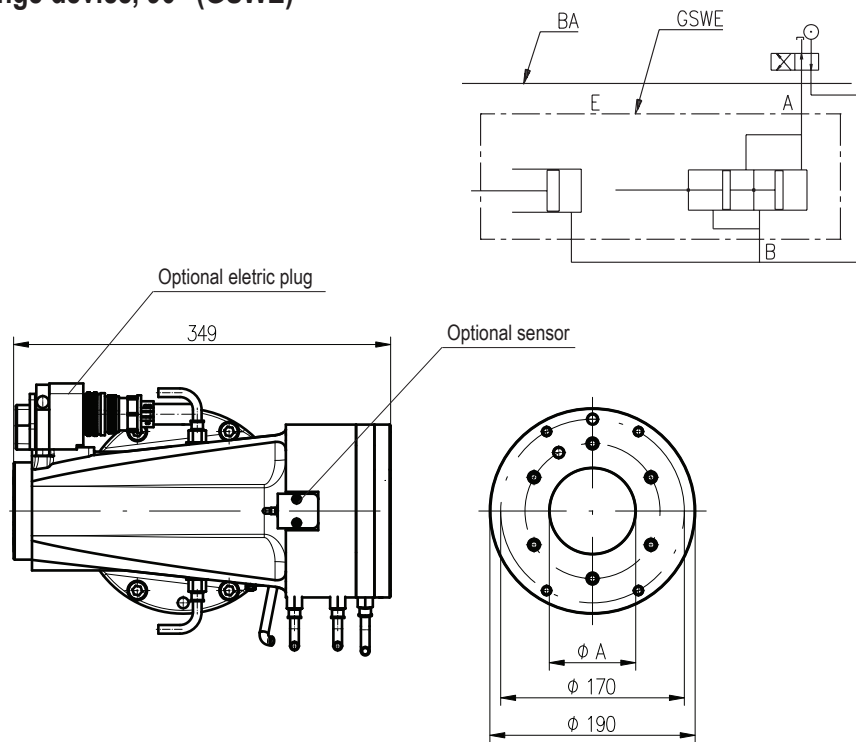
GSWE	-	-DM	-		
	Size		Optional electric plug	Robot type	Optional sensor
	↓		↓	↓	↓
	250 (2.5")		EL 10 (Socket 10 pin)	ABB64	S
	60 (60 mm)		EL 16 (Socket 16 pin)	KA760	
			EL 19 (Socket 19 pin)		



Automatic gripper quick change device, 90° (GSWE)



Mat.: Aluminium

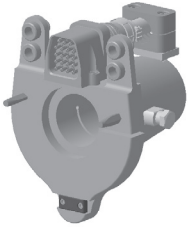


Part no.	Ø A	Ø B	Ø C	D	■ (kg)
GSWE-250-90-EL**-ABB64	2.5"	80	125	369	19.0
GSWE-250-90M-EL**-KA760	2.5"	100	160	349	18.3

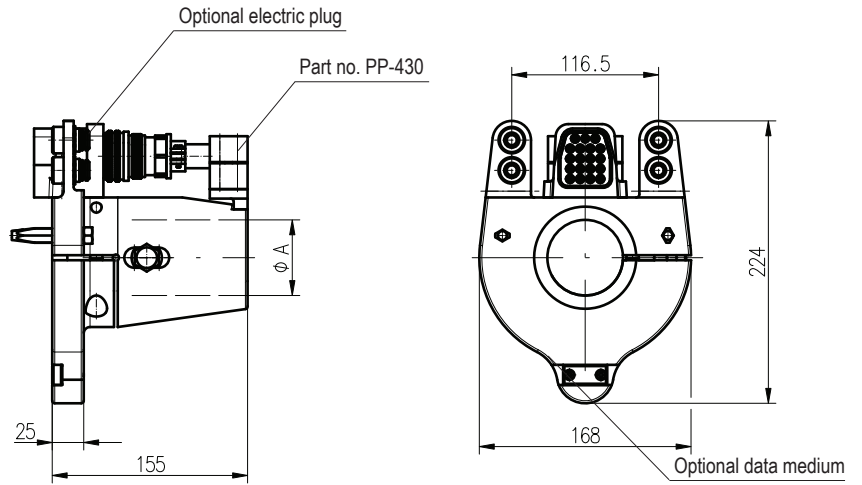
GSWE-60-90-EL**-ABB64	60	80	125	369	19.0
GSWE-60-90-EL**-KA760	60	100	160	349	18.3

Ordering information			e.g.: GSWE-250-90-EL10-KA760-S		
GSWE	-	-90	-		
	Size		Optional electric plug	Robot type	Optional sensor
	↓		↓	↓	↓
	250 (2.5")		EL 10 (Socket 10 pin)	ABB64	S
	60 (60 mm)		EL 16 (Socket 16 pin)	KA760	
			EL 19 (Socket 19 pin)		

Location cone for gripper quick change device series 250 / 60 (gripper side)



Material: Aluminium

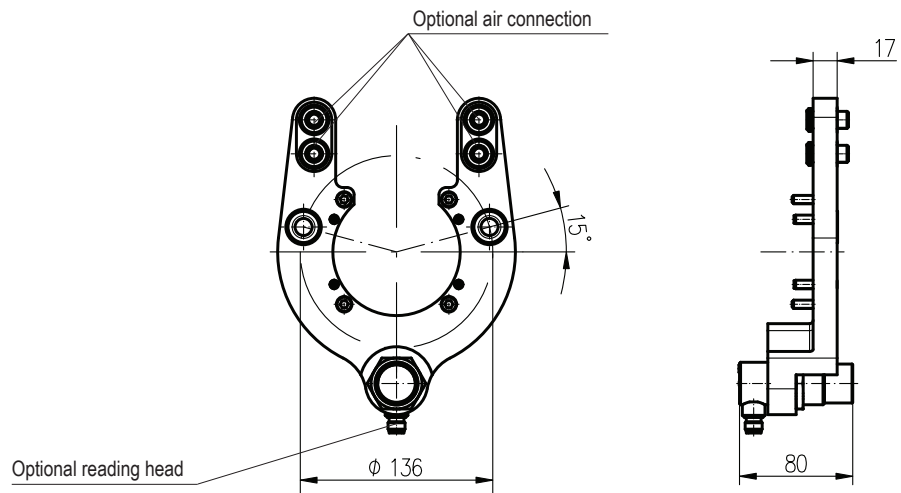


Ordering information			e.g.: GSWE-250-RDC-A4-EL10-E		
GSWE	-A	-RDC	-	-	
	Size		Optional air connection	Option electric plug	Optional data medium
	↓		↓	↓	↓
	250 (2.5")		A4 (4 Port)	EL 10 (Socket for 10 pins)	E (Eprom)
	60 (60 mm)			EL 16 (Socket for 16 pins)	
				EL 19 (Socket for 19 pins)	

Mounting flange for gripper quick change device series 250 / 60 (coupling side)



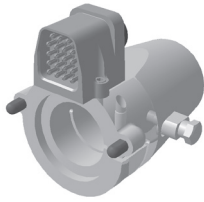
1.06 kg
Material: Aluminium



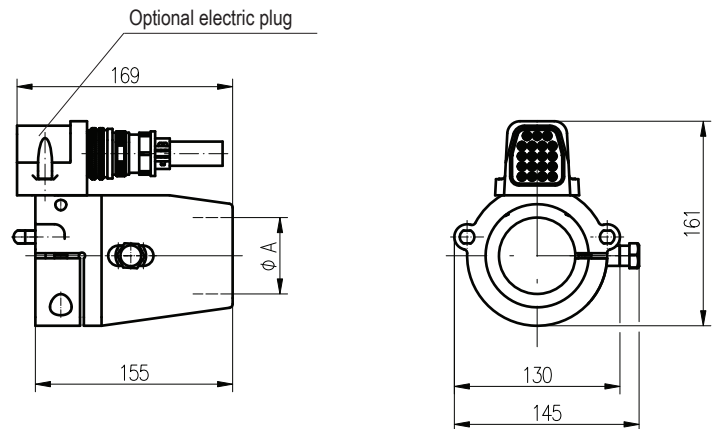
Ordering information			e.g.: GSWE-250-AF-A4-SEU	
GSWE	-	-AF	-	-
	Diameter		Optional air connection	Optional reading head
	↓		↓	↓
	250 (2.5")		A4 (4 Port)	SEU
	60 (60 mm)			



Location cone for gripper quick change device series 250 / 60 (gripper side)



Material: Aluminium

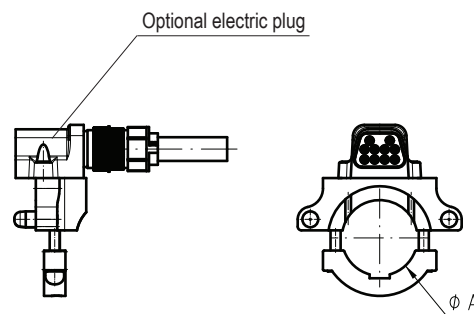


Ordering information		e.g.: GSWE-250-RDC-1-EL10	
GSWE	-A	-RDC-1	-
	Size		Optional electric plug
	↓		↓
	250 (2.5")		EL 10 (Socket for 10 pins)
	60 (60 mm)		EL 16 (Socket for 16 pins)
			EL 19 (Socket for 19 pins)

Mount for electric plug for gripper quick change device series 250 / 60 (coupling side)



Material: Aluminium

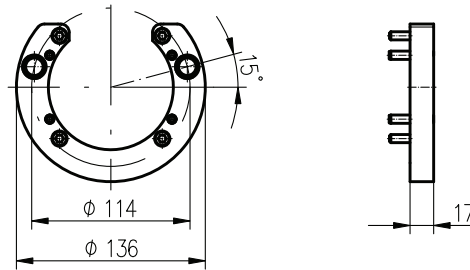


Ordering information		e.g.: GSWE-KL-250-EL10	
GSWE-KL	-A	-	-
	Size		Optional electric plug
	↓		↓
	250 (2.5")		EL 10 (Socket for 10 pins)
	60 (60 mm)		EL 16 (Socket for 16 pins)
			EL 19 (Socket for 19 pins)

Mounting flange for gripper quick change device series 250 / 60 (coupling side)



0.28 kg
Material: Aluminium



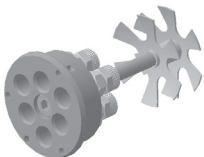
Part no.

GSWE-AF-250*

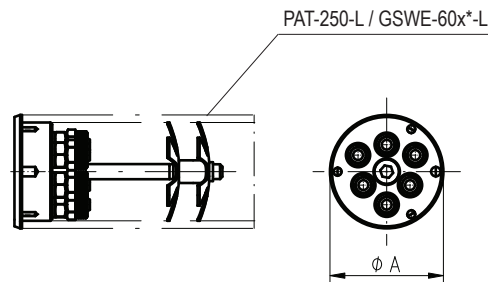
GSWE-AF-60*

* mating tube

Air connection, 6-port, gripper quick change device series 250 / 60 (gripper side)



0.25 kg
Material: Aluminium



Part no.

GSWE-250-RDK-A6-S

For use with PAT-250-L

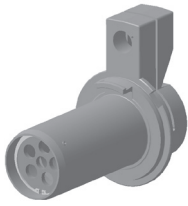
GSWE-60x5-RDK-A6-S

For use with GSWE-60x*-L

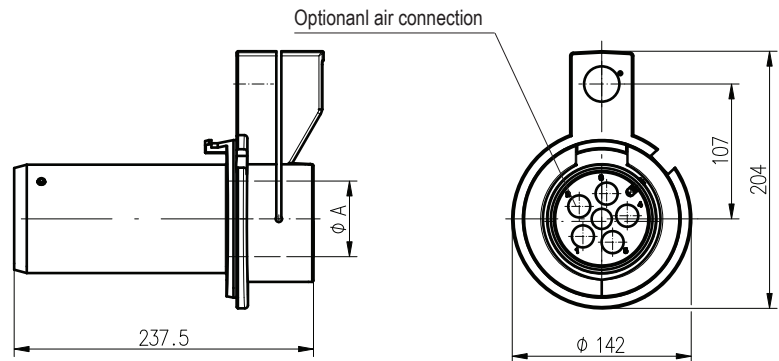
GSWE-60x6-RDK-A6-S



Bayonet for ABB coupling



Material: Aluminium



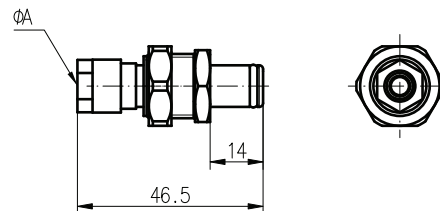
Ordering information		
VDC	-A	-
	Size	Optional air connection
	↓	↓
	150 (1.5°)	A2 (2 Port)
	250 (2.5°)	A4 (4 Port)
	300 (3.0°)	A5 (5 Port)
	40 (40 mm)	
	60 (60 mm)	
	76 (76 mm)	

e.g.: VDC-250-A4

Plastic connector for ABB coupling



0.02 kg
Material: Plastic

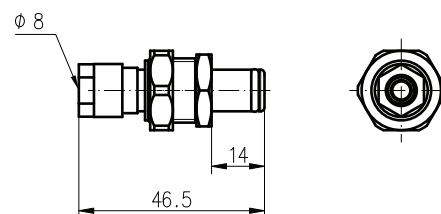


Part no.	ϕA
PLC-400-M8-VT	8
PLC-400-M10-VT	10

Steel connector for ABB coupling

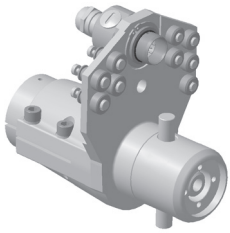


0.06 kg
Material: Plastic

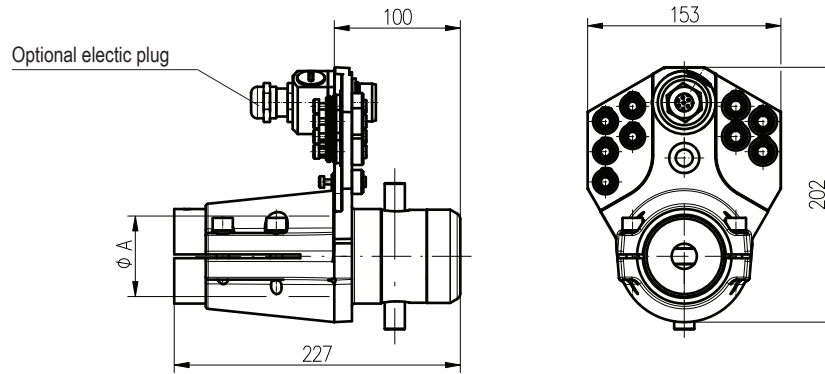


Part no.
PLC-400-M8-ST

Bayonet series 250 / 60 für KUKA coupling



Material: Aluminium



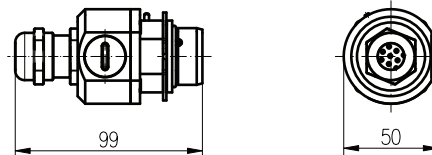
Part no.	Ø A	■ (kg)
SWA-819-250	2.5"	3.82
SWA-819-250-EL16	2.5"	3.93

SWA-819-60	60	3.82
SWA-819-60-EL16	60	3.93

Electric plug for KUKA coupling



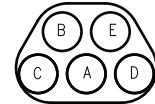
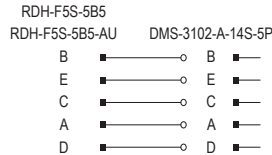
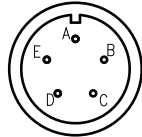
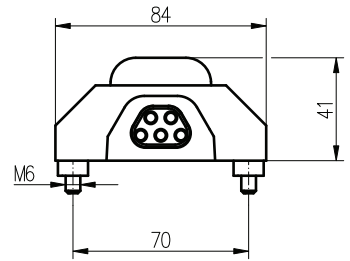
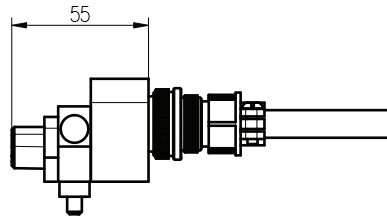
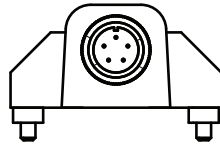
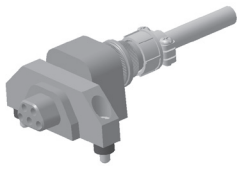
■ 0.09 kg
Material: Plastic



Part no.
RDB-MC16-SWA

Quick release disconnects

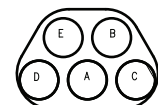
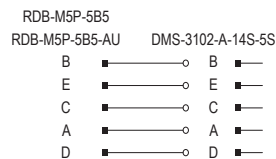
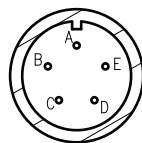
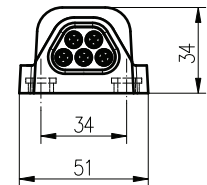
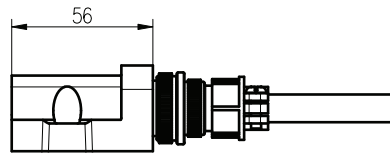
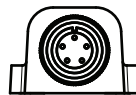
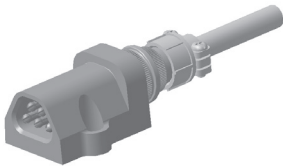
Electrical outlet, 5-PIN



Part no.	Receptacle	⚖ (kg)
RDH-F5S-5B5	5 Sockets	0.192
RDH-F5S-5B5-AU*	5 Sockets	0.192

*AU = gold plated insert bushes

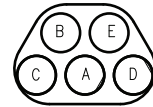
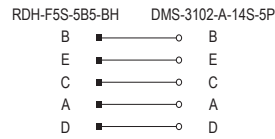
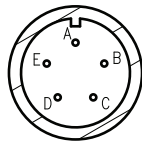
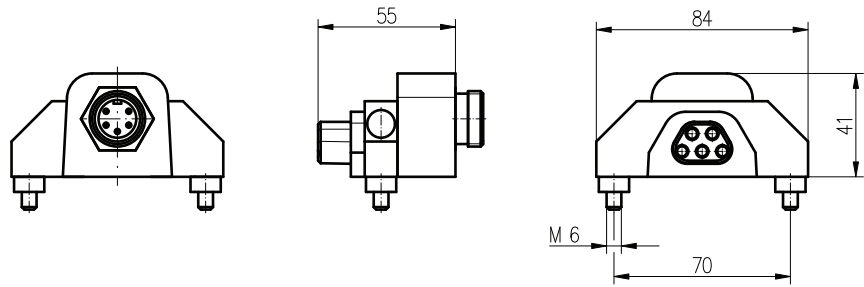
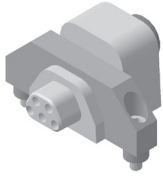
Electric plug, 5-PIN



Part no.	Receptacle	⚖ (kg)
RDB-M5P-5B5	5 Pins	0.19
RDB-M5P-5B5-AU*	5 Pins	0.19

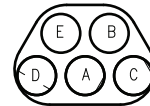
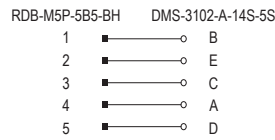
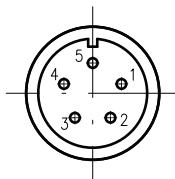
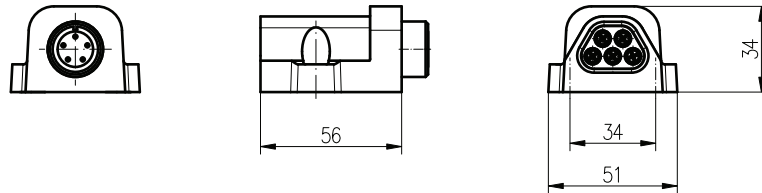
*AU = gold plated insert bushes

Electrical outlet, 5-PIN



Part no.	Receptacle	⚖ (kg)
RDH-F5S-5B5-BH	5 Sockets	0.192

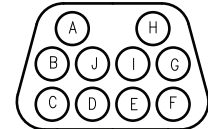
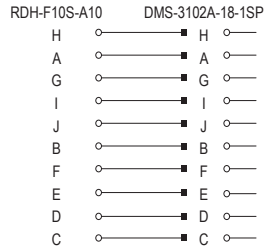
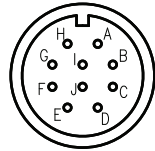
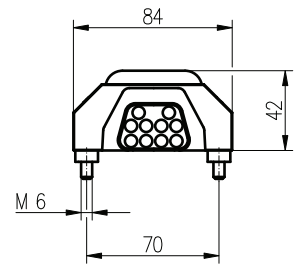
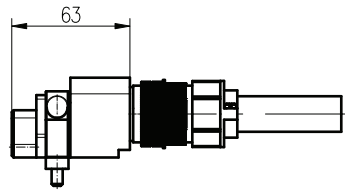
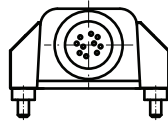
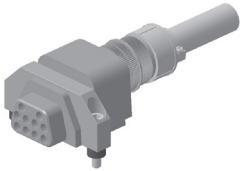
Electric plug, 5-PIN



Part no.	Receptacle	⚖ (kg)
RDB-M5P-5B5-BH	5 Pins	0.19

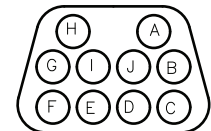
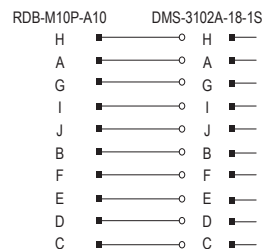
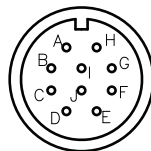
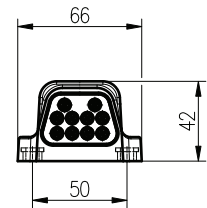
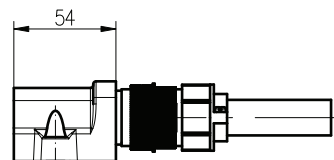
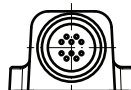
Quick release disconnects

Electrical outlet, 10-PIN



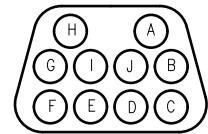
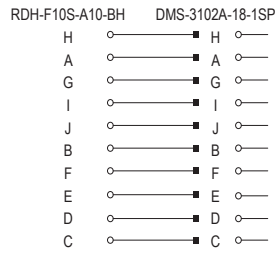
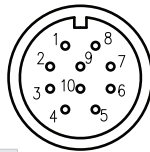
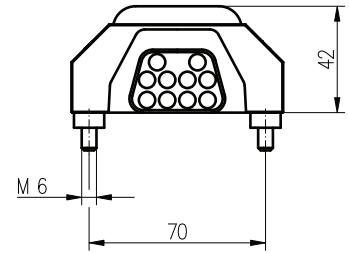
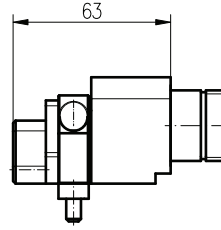
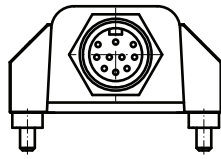
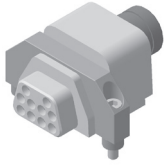
Part no.	Receptacle	⚖ (kg)
RDH-F10S-A10	10 Socket	0.192

Electric plug, 10-PIN



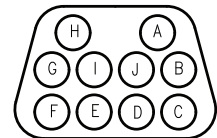
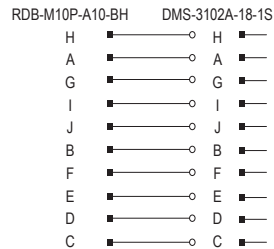
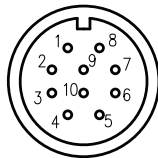
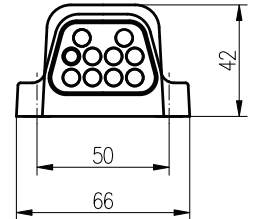
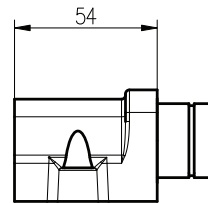
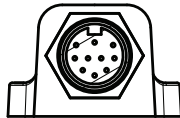
Part no.	Receptacle	⚖ (kg)
RDB-M10P-A10	10 Pins	0.19

Electrical outlet, 10-PIN



Part no.	Receptacle	■ (kg)
RDH-F10S-A10-BH	10 Socket	0.192

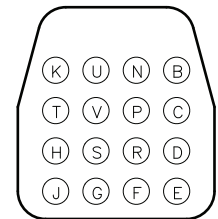
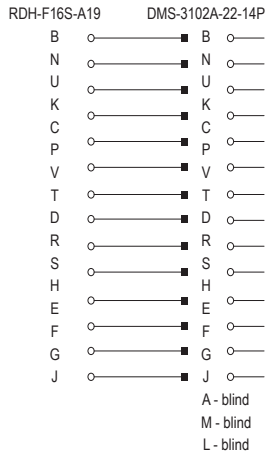
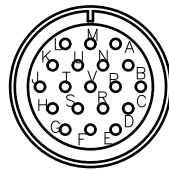
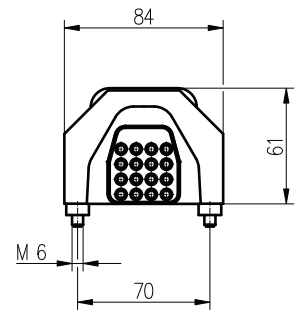
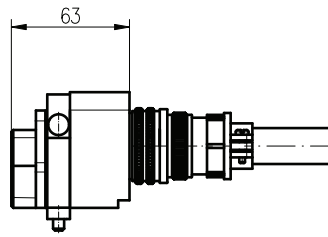
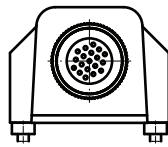
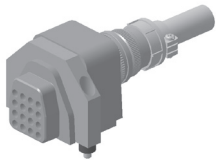
Electric plug, 10-PIN



Part no.	Receptacle	■ (kg)
RDB-M10P-A10-BH	10 Pins	0.19

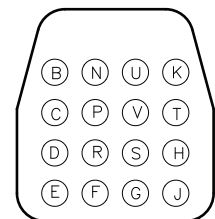
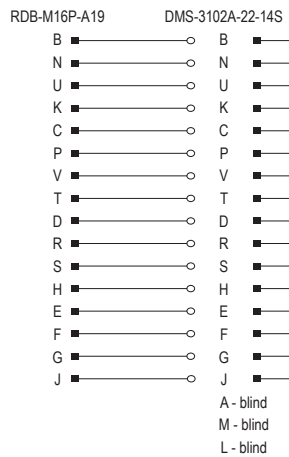
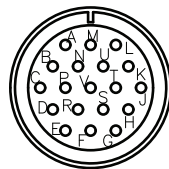
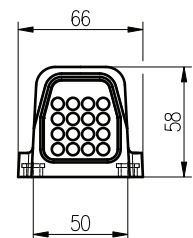
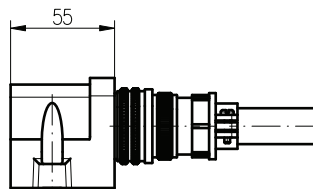
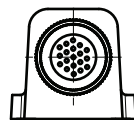
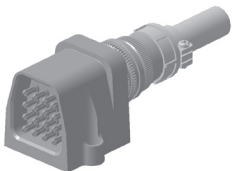


Electrical outlet, 16-PIN



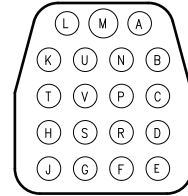
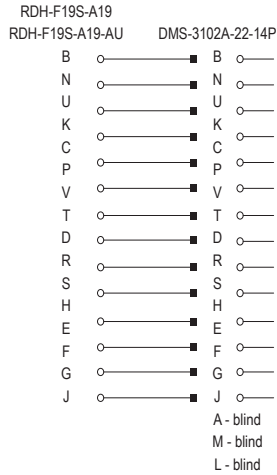
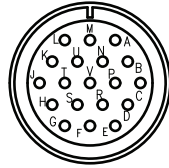
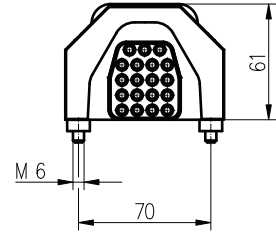
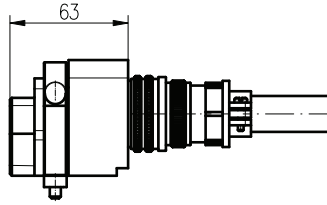
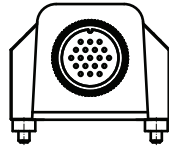
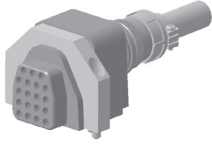
Part no.	Receptacle	■ (kg)
RDH-F16S-A19	16 Socket	0.22

Electric plug, 16-PIN



Part no.	Receptacle	■ (kg)
RDB-M16P-A19	16 Pins	0.22

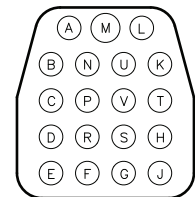
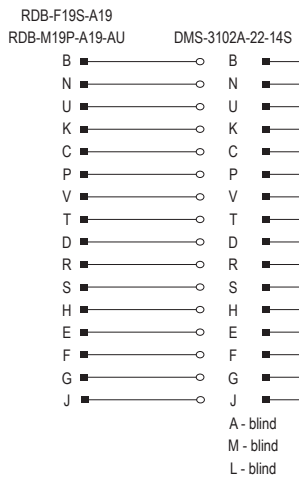
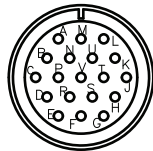
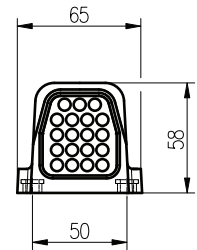
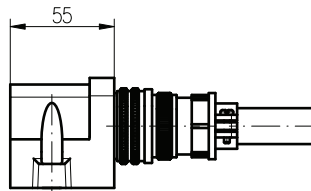
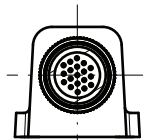
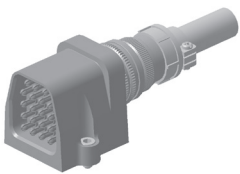
Electrical outlet, 19-PIN



Part no.	Receptacle	■ (kg)
RDH-F19S-A19	19 Socket	0.22
RDH-F19S-A19-AU*	19 Socket	0.22

*AU = gold plated insert bushes

Electric plug, 19-PIN

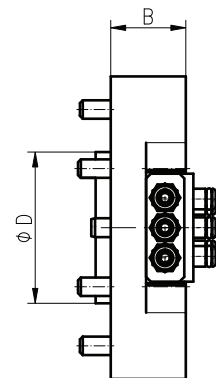
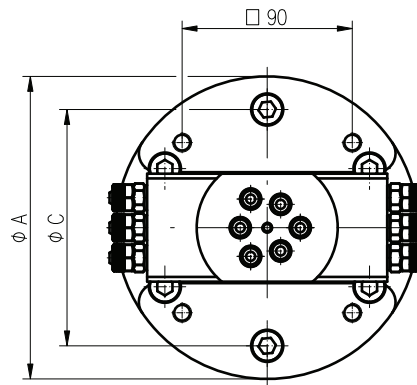
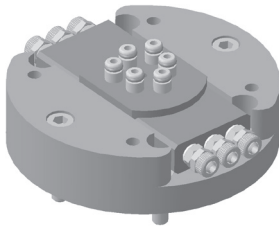


Part no.	Receptacle	■ (kg)
RDB-M19P-A19	19 Pins	0.22
RDB-M19P-A19-AU*	19 Pins	0.22

*AU = gold plated insert bushes



Direct mount robot adapter series 250 / 60



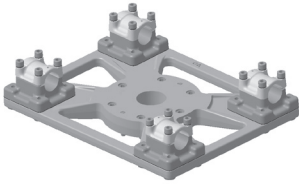
Part no.	Ø A	B	Ø C	D	■ (kg)	Robot model
ABB60-DM-	160	40	125	80	1.47	ABB IRB 6000
ABB64-DM-	160	40	125	80	1.47	ABB IRB 6400
CMX58-DM-	160	40	100	70	0.99	ACMA X58
FA400-DM-	160	40	125	60	0.99	FANUC M-400
FA420-DM-	160	40	125	60	0.99	FANUC S-420
FA500-DM-	160	40	125	60	0.99	FANUC M-500
FA900-DM-	160	40	125	80	1.47	FANUC S-900
KW150-DM-	160	40	92	55	0.99	KAWASAKI UK-150
KA760-DM-	190	32	160	100	1.76	KUKA760
MMNY300-DM-	229	40	200	160	2.04	MOTOMAN NY300
MMK100-DM-	152	40	125	63	1.47	MOTOMAN K100
Custom-DM-	-	-	-	-	-	-

Ordering information

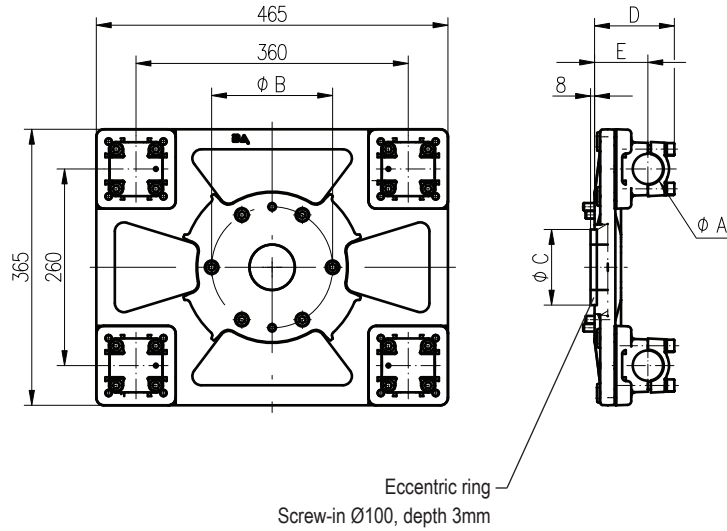
e.g.: KA760-DM-RD60-A3

	-DM-RD		-
		Size	Optional air connection
↓		↓	↓
ABB60		250 (2.5")	A3 (3Port)
ABB64		60 (60 mm)	A6 (6Port)
CMX58			
FA700			
FA420			
FA500			
FA900			
KW150			
MMNY300			
MMK100			

Robot mount series 150 / 40 and 250 / 60 with in solution

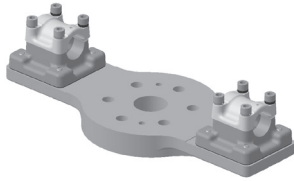


Mat.: Aluminium

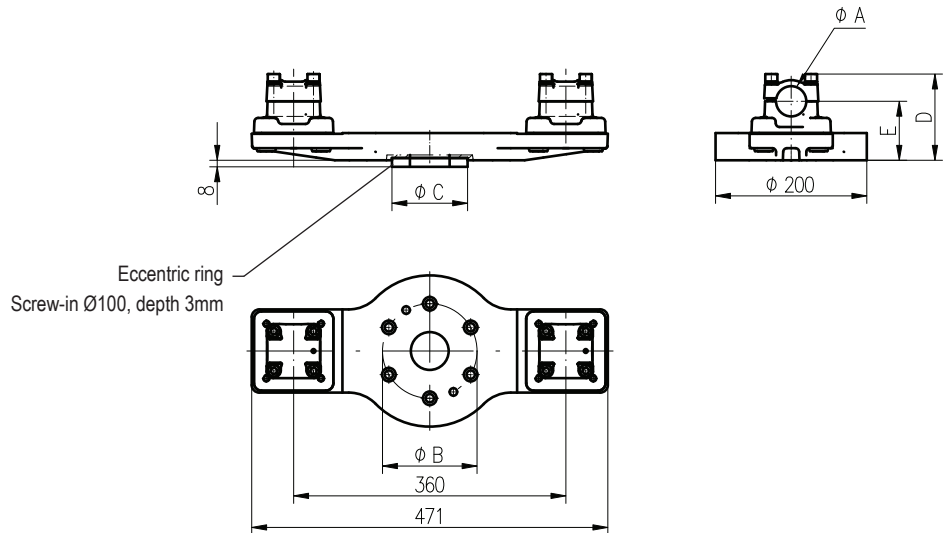


Part no.	Ø A	Ø B	Ø C	D	E	■ (kg)	Robot model
PLR-D-150-125-A	1.5"	125	80	105	71	11.0	ABB IRB-6400
PLR-D-150-160-A	1.5"	125	100	105	71	11.0	KUKA 760
PLR-D-250-125-A	2.5"	160	80	128	85	12.0	ABB IRB 6400
PLR-D-250-160-A	2.5"	160	100	128	85	11.0	KUKA 760
PLR-D-150-*-A	1.5"	-	-	105	71	11.0	**
PLR-D-250-*-A	1.5"	-	-	128	85	12.0	**
PLR-D-40-125-A	40	125	80	105	71	11.0	ABB IRB-6400
PLR-D-40-160-A	40	125	100	105	71	11.0	KUKA 760
PLR-D-60-125-A	60	160	80	128	85	12.0	ABB IRB 6400
PLR-D-60-160-A	60	160	100	128	85	11.0	KUKA 760
PLR-D-40-*-A	40	-	-	105	71	11.0	**
PLR-D-60-*-A	60	-	-	128	85	12.0	**

Robot mount series 150 / 40 and 250 / 60 with in solution



Mat.: Aluminium








Part no.	Ø A	Ø B	Ø C	D	E	⚖ (kg)	Robot model
PLR-E-150-125-A	1.5"	125	80	105	79	11.0	ABB IRB-6400
PLR-E-150-160-A	1.5"	125	100	105	79	11.0	KUKA 760
PLR-E-250-125-A	2.5"	160	80	128	93	12.0	ABB IRB 6400
PLR-E-250-160-A	2.5"	160	100	128	93	11.0	KUKA 760
PLR-E-150-*-A	1.5"	-	-	105	79	11.0	**
PLR-E-250-*-A	1.5"	-	-	128	93	12.0	**
PLR-E-40-125-A	40	125	80	105	79	11.0	ABB IRB-6400
PLR-E-40-160-A	40	125	100	105	79	11.0	KUKA 760
PLR-E-60-125-A	60	160	80	128	93	12.0	ABB IRB 6400
PLR-E-60-160-A	60	160	100	128	93	11.0	KUKA 760
PLR-E-40-*-A	40	-	-	105	79	11.0	**
PLR-E-60-*-A	60	-	-	128	93	12.0	**

Including fastening material (screws and straight pins) and eccentric ring


* With turned groove for eccentric ring and without geometry of drill holes for robot mount

** Please indicate on all inquiries or orders the necessary position of the drill holes for the robot connection

Picture	Designation	Page
	Flange mount	99
	Flange mount, split type	99
	Flange mount, split type	100
	Flange mount	100
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	Elbow 45°	101
	Elbow 90°	101
	Clamp block, split type	102
	Clamp block, open type	102
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	Clamp collar, T-version, split type	103
	Clamp collar, T-version, split type	104
	Clamp collar, T-version	104
	Clamp block for boom extension	105
	Cross clamp	105
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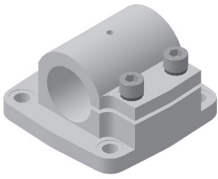
Picture	Designation	Page
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	Clamp collar, T-version	106
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	Cross clamp	107
	Parallel clamp	107
	T-clamp collar, with split clip	108
	Reducer bush	108
	Base clamp collar	109
	Clamp collar	109
	T-clamp collar	110
	T-clamp collar	110
	T-clamp collar	110
	T-clamp collar	111
	T-clamp collar	111
	T-clamp collar	111
	Cross clamp	112



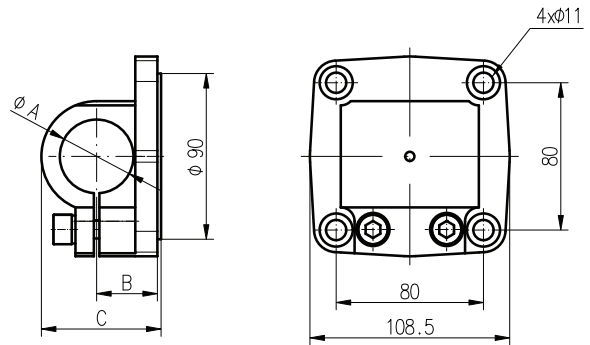
Picture	Designation	Page
	Parallel clamp	112



Flange mount



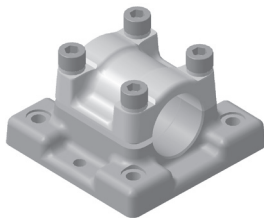
Mat.: Aluminium



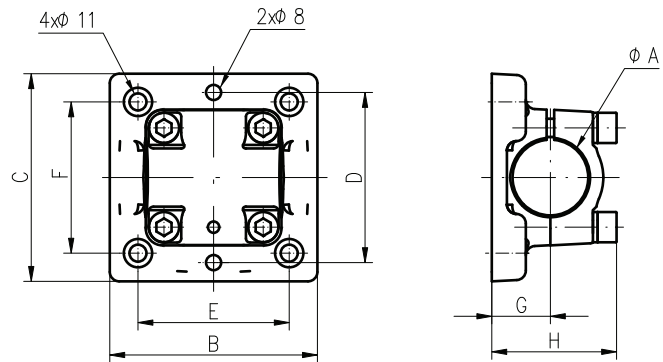
Part no.	Ø A	B	C	■ (kg)
GFA-150	1.5"	33	65	0.77
GFA-250	2.5"	55	96	1.20

GFA-40	40	33	65	0.77
GFA-60	60	55	96	1.20

Flange mount, split type



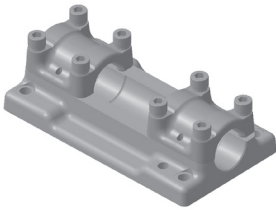
Mat.: Aluminium



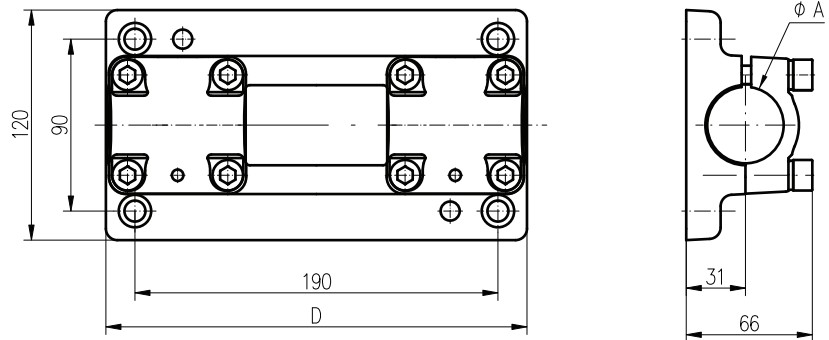
Part no.	Ø A	B	C	D	E	F	G	H	■ (kg)
GFAR-150-110	1.5"	110	110	90.0	80	80	31	66	0.77
GFAR-250-150	2.5"	150	100	72.5	123	76	44	67	1.20

GFAR-40-110	40	110	110	90.0	80	80	31	66	0.77
GFAR-60-150	60	150	100	72.5	123	76	44	67	1.20

Flange mount, split type



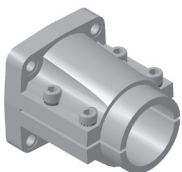
Mat.: Aluminium



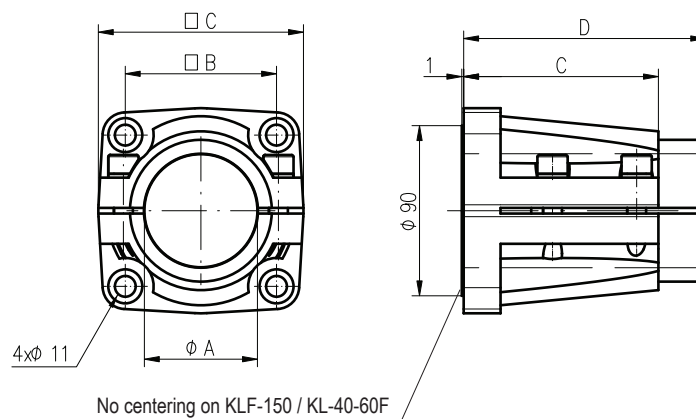
Part no.	Ø A	B	C	D	■ (kg)
GFAR-150-220-C	1.5"	31	66	220	1.70
GFAR-250-265-A	2.5"	44	87	265	2.70

GFA-40-220-C	40	31	66	220	1.70
GFA-60-265-A	60	44	87	265	2.70

Flange mount



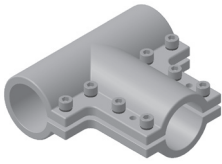
Mat.: Aluminium



Part no.	Ø A	B	C	D	■ (kg)
KLF-150	1.5"	60	84	91	1.20
KLF-250	2.5"	80	109	129	1.52

KL-40-60F	40	60	84	91	1.20
KL-60-80F	60	80	109	129	1.52

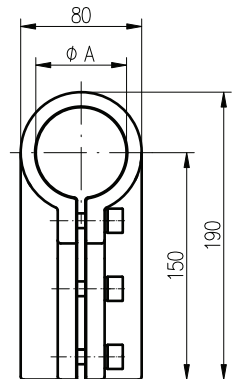
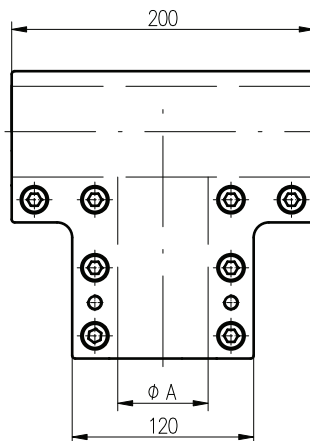
Cross boom adapter with outside clamping



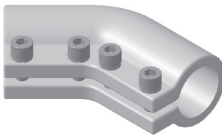
Mat.: Aluminium

Part no.	Ø A	■ (kg)
DC-250250-BBA	1.5"	2.05

DC-6060-BBA	60	2.05
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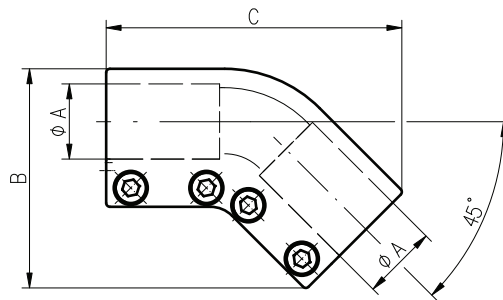
Elbow 45°



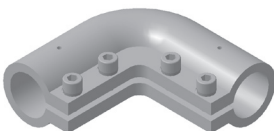
Mat.: Aluminium

Part no.	Ø A	B	C	■ (kg)
DC-150150-45	1.5"	116	156	0.73
DC-250250-45	2.5"	165	229	1.73

DC-4040-45	40	116	156	0.73
DC-6060-45	60	165	229	1.73



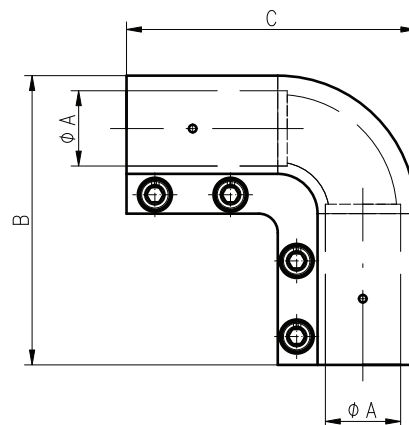
Elbow 90°



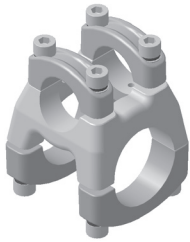
Mat.: Aluminium

Part no.	Ø A	B	C	■ (kg)
DC-150150-90	1.5"	153	153	1.06
DC-250250-90	2.5"	190	190	1.73

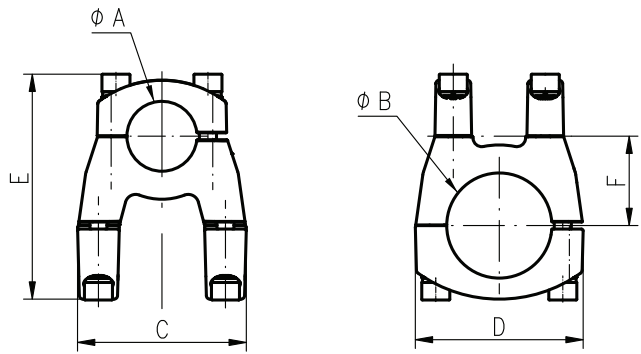
DC-4040-90	40	153	153	1.06
DC-6060-90	60	190	190	1.73



Clamp block, split type



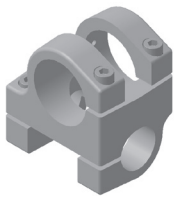
Mat.: Aluminium



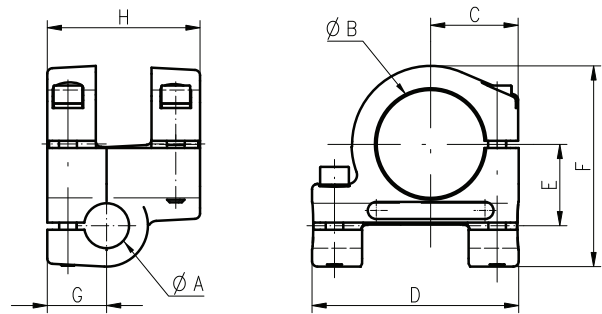
Part no.	Ø A	Ø B	C	D	E	F	■ (kg)
KLR-100-100	1.0"	1.0"	57	57	79	28.0	0.44
KLR-100-150	1.0"	1.5"	72	72	98	34.0	0.65
KLR-100-250	1.0"	2.5"	95	95	118	45.5	1.10
KLR-150-150	1.5"	1.5"	76	76	112	41.0	0.76
KLR-150-250	1.5"	2.5"	96	96	129	51.0	1.22
KLR-250-250	2.5"	2.5"	99	99	147	61.0	1.63

KLR-25-25	25	25	57	57	79	28.0	0.44
KLR-25-40	25	40	72	72	98	34.0	0.65
KLR-25-60	25	60	95	95	118	45.5	1.10
KLR-40-40	40	40	76	76	112	41.0	0.76
KLR-40-60	40	60	96	96	129	51.0	1.22
KLR-60-60	60	60	99	99	147	61.0	1.63

Clamp block, opten type



Mat.: Aluminium



Part no.	Ø A	Ø B	C	D	E	F	G	H	■ (kg)
KLO-100-100	1.0"	1.0"	30	70	28	79.5	33	66	0.44
KLO-100-150	1.0"	1.5"	49	100	35	89	33	85	0.65
KLO-100-250	1.0"	2.5"	49	115	45.5	112	33	85	1.10
KLO-150-150	1.5"	1.5"	49	100	45.5	107	42.5	85	0.76
KLO-150-250	1.5"	2.5"	49	115	52.7	124	42.5	85	1.22
KLO-250-250	2.5"	2.5"	53	119	65	152	53	112	1.63

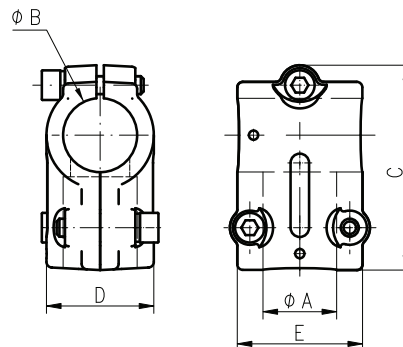
KLO-25-25	25	25	30	70	28	79.5	33	66	0.44
KLO-25-40	25	40	49	100	35	89	33	85	0.73
KLO-25-60	25	60	49	115	45.5	112	33	85	0.92
KLO-40-40	40	40	49	100	45.5	107	42.5	85	0.44
KLO-40-60	40	60	49	115	52.7	124	42.5	85	0.70
KLO-60-60	60	60	53	119	65	152	53	112	1.60



Clamp collar, T-version, split type



Mat.: Aluminium



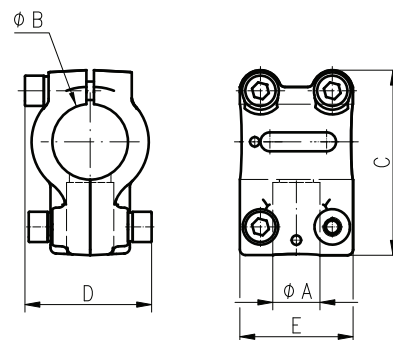
Part no.	Ø A	Ø B	C	D	E	■ (kg)
TKR-100-100	1.0"	1.0"	77	57	58	0.25
TKR-100-250	1.0"	2.5"	115	79	59	0.50
TKR-150-100	1.5"	1.0"	102	65	75	0.46
TKR-150-150	1.5"	1.5"	111	63	76	0.54

TKR-16-16	16	16	47	32	36	0.05
TKR-25-25	25	25	77	57	58	0.25
TKR-25-60	25	60	115	79	59	0.50
TKR-40-25	40	25	102	65	75	0.46
TKR-40-40	40	40	111	63	76	0.54

Clamp collar, T-version, split type



Mat.: Aluminium



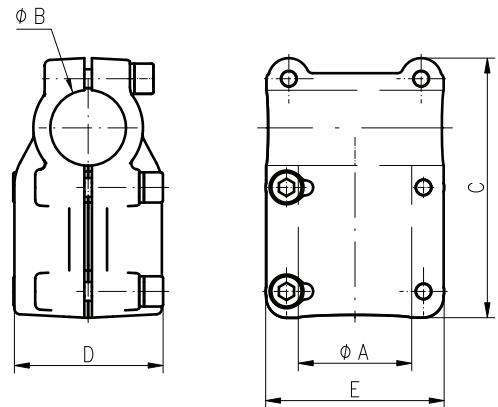
Part no.	Ø A	Ø B	C	D	E	■ (kg)
TKR-100-150	1.0"	1.5"	97	64	60	0.50
TKR-150-250	1.5"	2.5"	125	78	76	0.82

TKR-25-40	25	40	97	64	60	0.50
TKR-40-60	40	60	125	78	76	0.82

Clamp collar, T-version, split type



Mat.: Aluminium



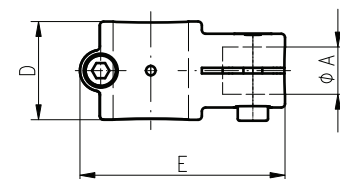
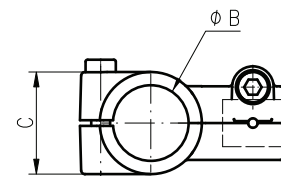
Part no.	Ø A	Ø B	C	D	E	■ (kg)
TKR-250-100	2.5"	1.0"	125	79	94	0.67
TKR-250-150	2.5"	1.5"	137	78	94	0.72
TKR-250-250	2.5"	2.5"	160	79	94	1.166

TKR-25-40-A	25	40	148	64	60	0.67
TKR-60-25	60	25	125	79	94	0.67
TKR-60-40	60	40	137	78	94	0.72
TKR-60-60	60	60	160	79	94	1.16

Clamp collar, T-version



Mat.: Aluminium



Part no.	Ø A	Ø B	C	D	E	■ (kg)
TK-100-100	1.0"	1.0"	38	38	95.0	0.26
TK-100-150	1.0"	1.5"	52	54	108.0	0.34
TK-150-100	1.5"	1.0"	39	54	113.0	0.28
TK-150-150	1.5"	1.5"	54	54	126.5	0.45

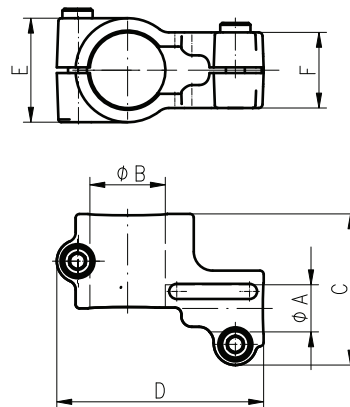
TK-25-25	25	25	38	38	95.0	0.26
TK-25-40	25	40	52	54	108.0	0.34
TK-40-25	40	25	39	54	113.0	0.28
TK-40-40	40	40	54	54	126.5	0.45



Clamp block for boom extension



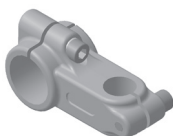
Mat.: Aluminium



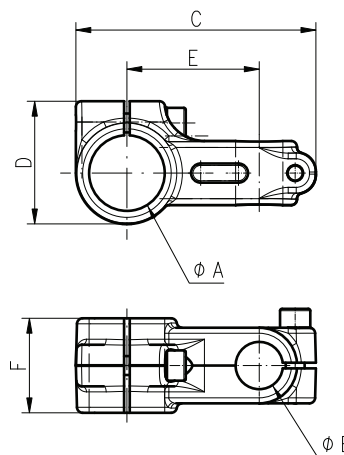
Part no.	Ø A	Ø B	C	D	E	F	■ (kg)
TK-100-150-O	1.0"	1.5"	80.0	109.5	55	50	0.38

TK-25-40-O	25	40	80.0	109.5	55	50	0.38
TK-25-300-O	25	76.2	80.0	150.5	94	55	0.68
TK-40-300-O	40	76.2	88.5	169.5	94	55	0.69

Cross clamp



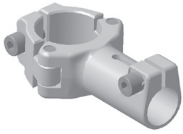
Mat.: Aluminium



Part no.	Ø A	Ø B	C	D	E	F	■ (kg)
KK-100-100	1.0"	1.0"	87	52	35	40	0.227
KK-150-100	1.5"	1.0"	127	65	70	50	0.407

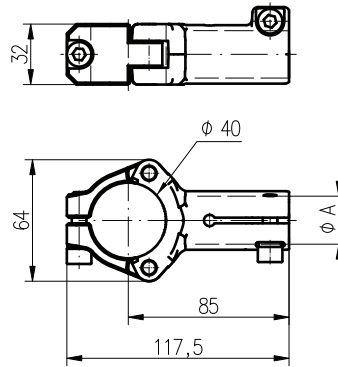
KK-16-16	16	16	49	22	17	22	0.026
KK-25-25	25	25	87	52	35	40	0.227
KK-40-25	40	25	127	65	70	50	0.407
KK-40-40	40	40	133	63	70	50	0.30

Clamp collar, T-version



Mat.: Aluminium

Part no.	Ø A	■ (kg)
TKA-20-2Z40-70	20	0.256
TKA-25-2Z40-70	25	0.257

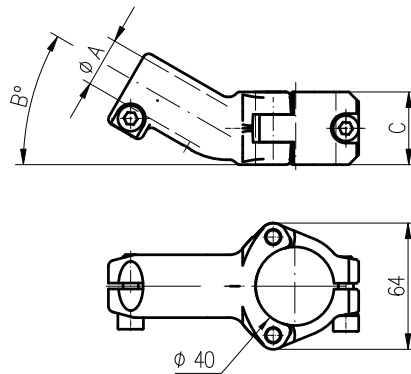


Clamp collar, T-version



Mat.: Aluminium

Part no.	Ø A	B°	C	■ (kg)
TKA-20-2Z40-W30-L	20	30°	32	0.205
TKA-25-2Z40-W30-L	25	30°	37	0.240
TKA-20-2Z40-W45-L	20	45°	32	0.210
TKA-25-2Z40-W45-L	25	45°	37	0.240

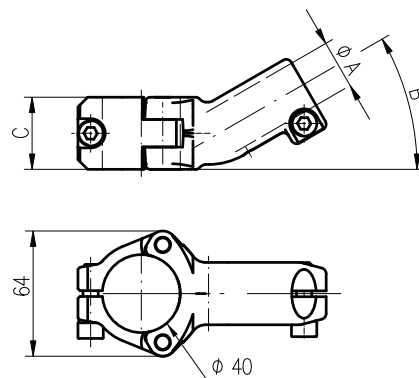


Clamp collar, T-version



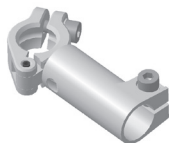
Mat.: Aluminium

Part no.	Ø A	B°	C	■ (kg)
TKA-20-2Z40-W30-R	20	30°	32	0,205
TKA-25-2Z40-W30-R	25	30°	37	0,240
TKA-20-2Z40-W45-R	20	45°	32	0,210
TKA-25-2Z40-W45-R	25	45°	37	0,240

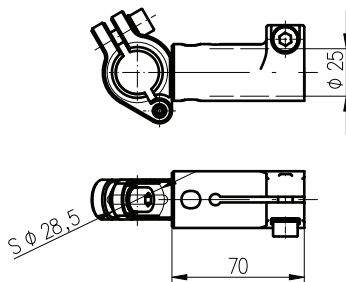




Clamp collar

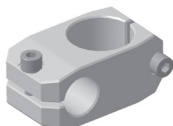


Mat.: Aluminium

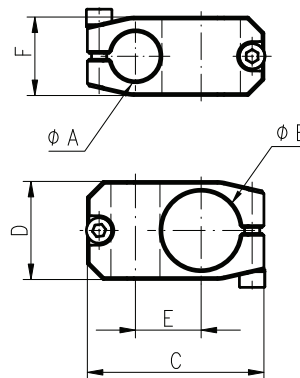


Part no.	Weight (kg)
TKA-25-K28-70	0.12

Cross clamp

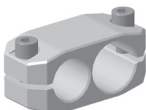


Mat.: Aluminium

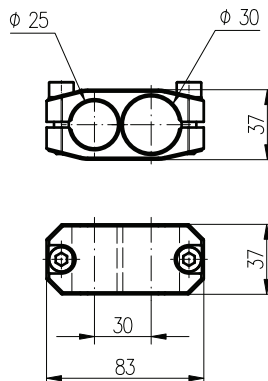


Part no.	Ø A	Ø B	C	D	E	F	Weight (kg)
KKA-20-20	20	20	65	27	21	27	0.10
KKA-20-40	20	40	85	47	31	40	0.11
KKA-19-25	19	25	67.5	30	23	30	0.10
KKA-25-25	25	25	75	32	26.0	32	0.10
KKA-25-30	25	30	80	37	28.5	32	0.11
KKA-25-40	25	25	90	50	33.5	40	0.23
KKA-30-30	30	30	85	37	31	37	0.13

Parallel clamp

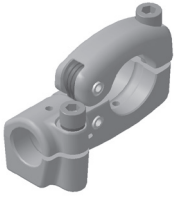


Mat.: Aluminium

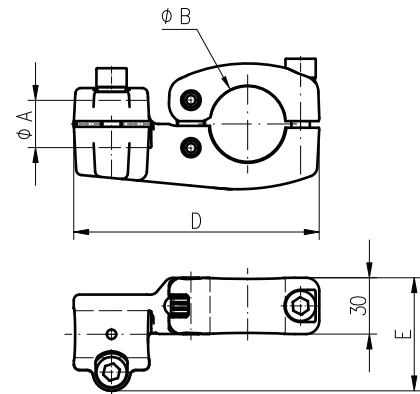


Part no.	Weight (kg)
PKA-25-30	0.18

T-clamp collar, with split clip



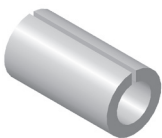
Mat.: Aluminium



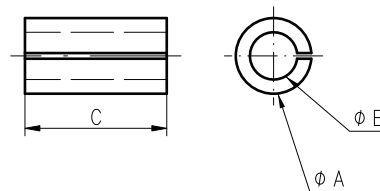
Part no.	Ø A	Ø B	C	D	E	■ (kg)
KLH-100-150	1.0"	1.5"	66.5	130	60.0	0.47
KLH-100-250	1.0"	2.5"	90.0	153	54.5	0.58
KLH-150-250	1.5"	2.5"	91.0	153	60.0	0.63

KLH-25-40	25	40	66.5	130	60.0	0.47
KLH-25-60	25	60	90.0	153	54.5	0.58
KLH-40-60	40	60	91.0	153	60.0	0.63

Reducer bush



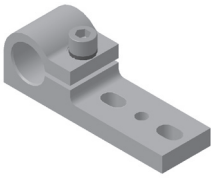
Mat.: Aluminium



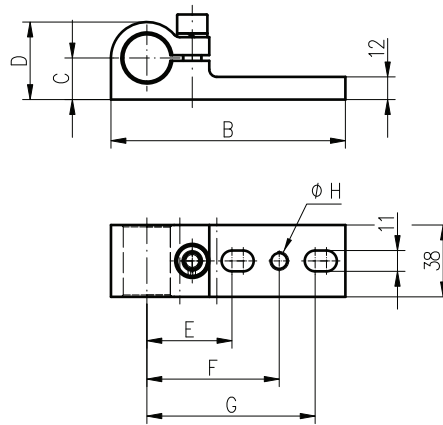
Part no.	Ø A	Ø B	C	■ (kg)
CB-150-100	1.5"	1.0"	76	0.16
CB-250-150	2.5"	1.5"	102	0.22

CB-40-25	40	25	76	0.16
CB-4445-40	44.45	40	38	0.22
CB-50-40	50	40	102	0.22
CB-60-40	60	40	102	0.43
CB-60-50	60	50	102	0.25

Base clamp collar



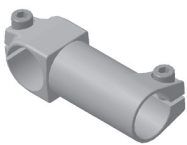
Mat.: Aluminium



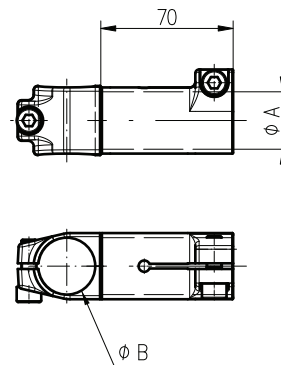
Part no.	Ø A	B	C	D	E	F	G	■ (kg)
BK-00-100	1.0"	125	22	41	45	-	89	0.24
BK-00-150	1.5"	138	29	56	45	-	96.5	0.29

BK-00-25	25	125	22	41	45	-	89	0.24
BK-00-25-M8	25	125	22	41	45	70	89	0.23
BK-00-25-M10	25	125	22	41	45	70	89	0.23
BK-00-40	40	138	29	56	46.5	-	96.5	0.29

Clamp collar

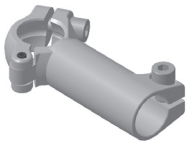


Mat.: Steel

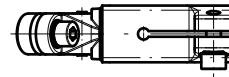
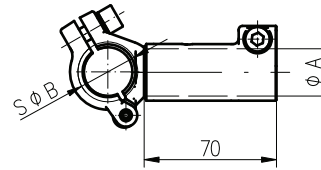


Part no.	Ø A	Ø B	■ (kg)
TKS-25-25-70	25	25	0.22
TKS-30-30-70	30	30	0.36

T-clamp collar

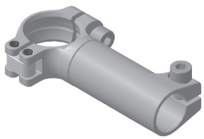


Mat.: Steel

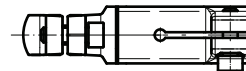
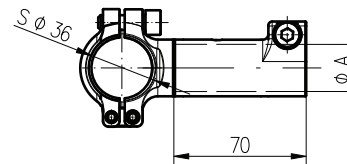


Part no.	Ø A	S Ø B	■ (kg)
TKS-20-K28-70	20	28.5	0.23
TKS-20-K32-70	20	32.0	0.24
TKS-25-K28-70	25	28.5	0.40
TKS-25-K32-70	25	32.0	0.34

T-clamp collar

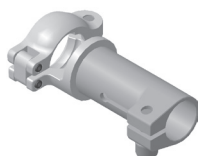


Mat.: Steel



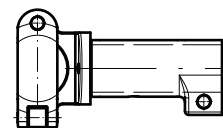
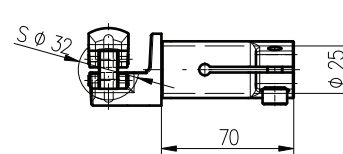
Part no.	Ø A	■ (kg)
TKS-20-K36-70	20	0.28
TKS-25-K36-70	25	0.38
TKS-30-K28-70	30	0.39

T-clamp collar



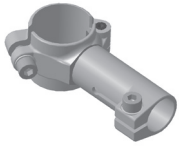
■ 0.40 kg

Mat.: Steel



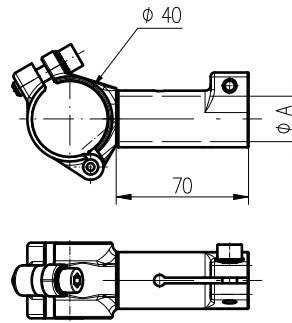
Part no.
TKS-00-25-K32-70

T-clamp collar

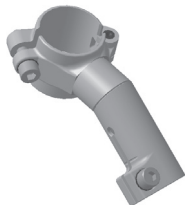


Mat.: Steel

Part no.	Ø A	■ (kg)
TKS-20-Z40-70	20	0.30
TKS-25-Z40-70	25	0.32
TKS-30-Z40-70	30	0.36

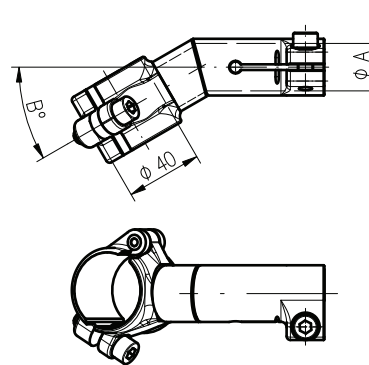


T-clamp collar



Mat.: Steel

Part no.	Ø A	B°	■ (kg)
TKS-20-Z40-W30-L	20	30	0.38
TKS-25-Z40-W30-L	25	30	0.38
TKS-20-Z40-W45-L	20	45	0.38
TKS-25-Z40-W45-L	25	45	0.38

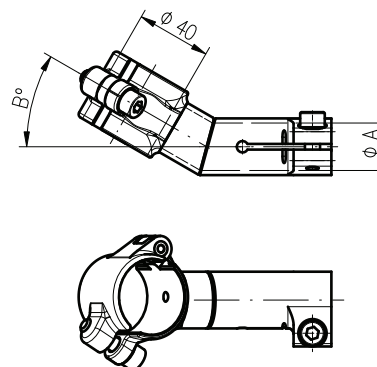


T-clamp collar

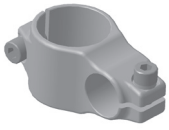


Mat.: Steel

Part no.	Ø A	B°	■ (kg)
TKS-20-Z40-W30-R	20	30	0.38
TKS-25-Z40-W30-R	25	30	0.38
TKS-20-Z40-W45-R	20	45	0.38
TKS-25-Z40-W45-R	25	45	0.38



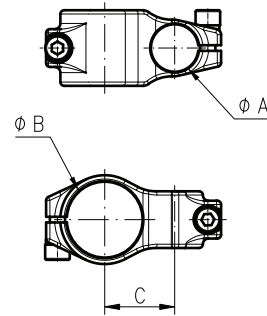
Cross clamp



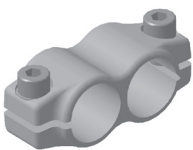
Mat.: Steel

Part no.	Ø A	Ø B	C	■ (kg)
KKS-20-150	20	1.5"	37	0.28

KKS-16-16	16	16	18	0.06
KKS-20-20	20	20	22.5	0.14
KKS-20-25	20	25	25.5	0.18
KKS-20-30	20	30	28	0.20
KKS-20-40	20	40	37	0.28
KKS-25-25	25	25	27.5	0.20
KKS-25-30	25	30	29.7	0.22
KKS-25-40	25	40	31	0.26
KKS-25-50	25	50	38.5	0.40
KKS-25-60	25	60	32	0.50
KKS-30-30	30	30	32	0.28
KKS-40-40	40	40	47.5	0.41
KKS-40-50	40	50	44	0.40

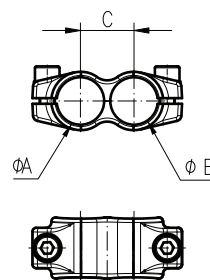








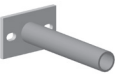


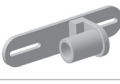


Parallel clamp









Mat.: Steel

Part no.	Ø A	Ø B	C	■ (kg)
PKS-20-20	20	20	22.5	0.14
PKS-20-30	20	30	28	0.16
PKS-25-25	25	25	28.35	0.20
PKS-30-30	30	30	32	0.21

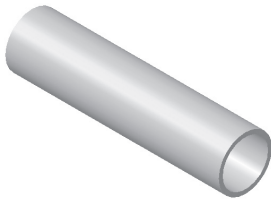


Picture	Designation	Page
	Aluminium tubing	113
	Aluminium bar	113
	Carbon fiber tube	114
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	Aluminium tube for GSWE	115
	Boom with air supply	115
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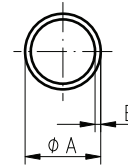
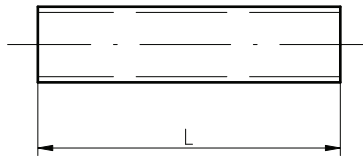
Picture	Designation	Page
	Support for idle station	121
	Support for template mount	121
	Centering pin	122
	Centering pin	122
	GT press adapter	123
	Carrier tube for ISI 4-pin adapter	123



Aluminium tubing



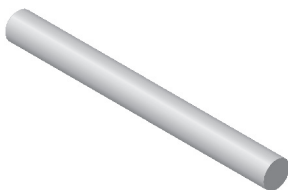
Mat.: Aluminium



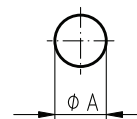
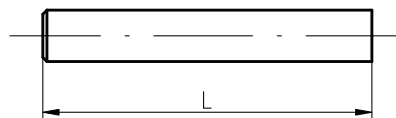
Ordering information		
e.g.: PAT-150-150 / PAT-40x3-150		
PAT	-AxB	-L
	Diameter x wall thickness	Length
	↓	↓
	100 (1.0" x 0.25")	150 - 6000 (25 mm increments)
	150 (1.5" x 0.18")	
	150 (1.5" x 0.25")	
	250 (2.5" x 0.25")	
	16 x 3	
	25 x 5	
	40 x 3	
	40 x 6	
	60 x 5	
	60 x 6	
	60 x 8	

Part no.	kg/m
PAT-100x0.25	0.99
PAT-150x0.18	1.73
PAT-150x0.25	1.82
PAT-250x0.25	1.35
PAT-16x3	0.349
PAT-25x5	0.895
PAT-40x3	1.143
PAT-40x6	1.826
PAT-60x5	2.461
PAT-60x6	2.899
PAT-60x8	3.723

Aluminium bar



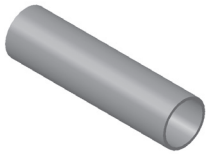
1.389 kg/m
Mat.: Aluminium



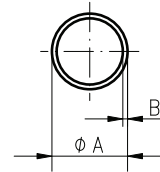
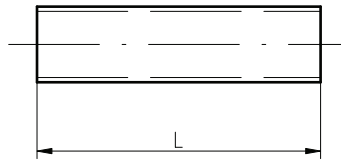
Ordering information		
e.g.: PAB-100-150 / PAB-25-150		
PAB	-A	-L
	Diameter	Length
	↓	↓
	100 (1.0")	150 - 3000 (25 mm increments)
	25	

Part no.	kg/m
PAB-100	1.398
PAB-25	1.398

Carbon fiber tube



Mat.: Carbon

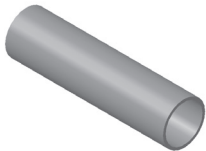


Ordering information		
PCT	-AxB	-L
	Diameter x wall thickness	Length
↓	↓	↓
	100 (1.0" x 0.25")	150 - 1200 (50 mm increments)
	150 (1.5" x 0.25")	150 - 3000 (50 mm increments)
	250 (2.5" x 0.25")	150 - 3000 (50 mm increments)
	25 x 5	150 - 6000 (50 mm increments)
	40 x 5	150 - 6000 (50 mm increments)
	60 x 5	150 - 6000 (50 mm increments)

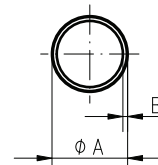
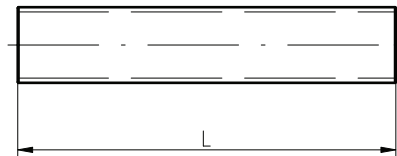
e.g.: PCT-150-150 / PCT-40x5-150

Part no.	Ⓢ (kg)
PCT-100	0.37
PCT-150	0.71
PCT-250	1.35
PCT-25x5	0.37
PCT-40x5	0.71
PC T-60x5	1.35

Steel tube



Mat.: Steel



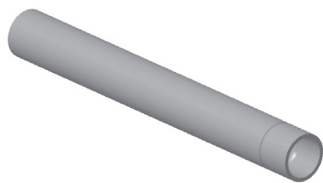
Ordering information		
PST	-AxB	-L
	Diameter x wall thickness	Length
↓	↓	↓
	16 x 2.5	150 - 6000 (25 mm increments)
	20 x 1.5	
	20 x 2.5	
	25 x 1.5	
	25 x 2.5	
	30 x 2.5	
	40 x 2.5	
	60 x 3.0	

e.g.: PAT-150-150 / PAT-40x3-150

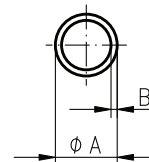
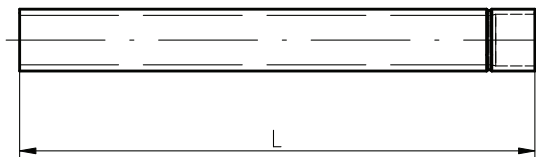
Part no.	Ⓢ (kg)
PST-16 x 2.5	0.83
PST-20 x 1.5	0.68
PST-20 x 2.5	1.08
PST-25 x 1.5	0.87
PST-25 x 2.5	1.39
PST-30 x 2.5	1.69
PST-40 x 2.5	2.30
PST-60 x 3.0	4.20



Aluminium tube for GSWE



Mat.: Aluminium

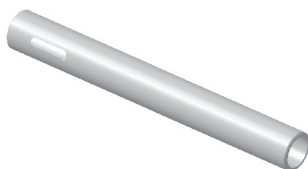


Ordering information		
GSWE-PAT	-A x B	-L
	Diameter	Length
	↓	↓
	60 x 5	150 - 6000 (100 mm Stufung)
	60 x 6	
	60 x 8	

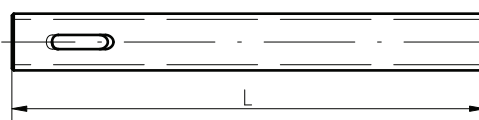
e.g.: GSWE-PAT-60x5-1000

Part no.	kg/m
GSWE-PAT-60x5	2.461
GSWE-PAT-60x6	2.899
GSWE-PAT-60x8	3.723

Boom with air supply



Mat.: Aluminium



Ordering information		
ABT1	-A	-L
	Diameter	Length
	↓	↓
	150 (1.5")	150 - 3000 (150mm increments)
	250 (2.5")	

e.g.: BT1-40-7S-1000

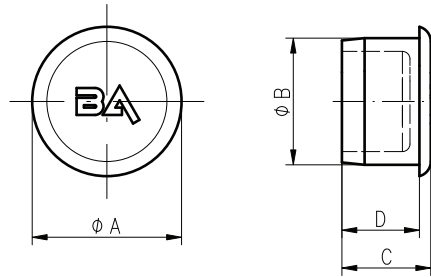
Ordering information		
BT1	-A	-L
	Diameter	Length
	↓	↓
	40-7S	150 - 3000 (150mm increments)
	60-6S	

e.g.: BT1-40-7S-1000

Plastic cover

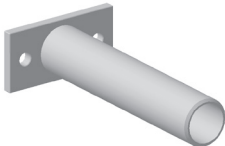


Mat.: Plastic

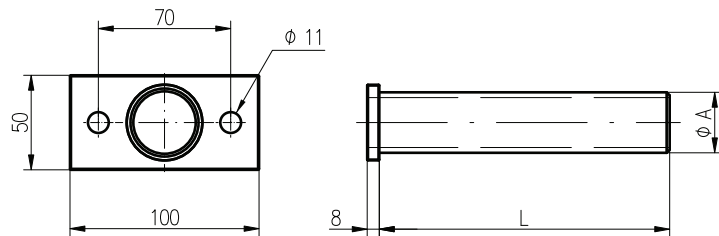


Part no.	ϕA	ϕB	C	D	☐ (kg)
KAB-16x3	16	9.5	13.5	12.0	0.002
KAB-25x5	25	14.5	15.0	13.0	0.003
KAB-40x3	40	34.5	20.5	23.5	0.011
KAB-40x6	40	27.5	20.5	23.5	0.009
KAB-60x5	60	49.5	20.0	23.0	0.020
KAB-60x6	60	47.5	20.0	23.0	0.019

Finger plate adapters



Mat.: Aluminium



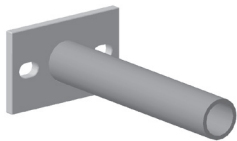
Ordering information

e.g.: STA-15-40-200

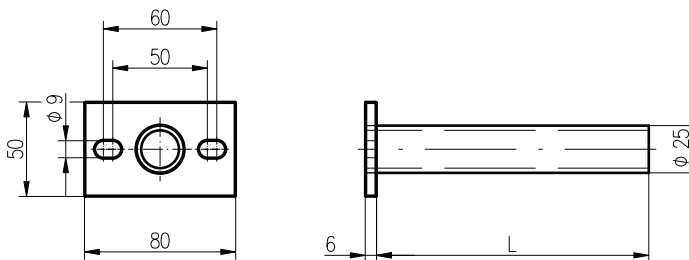
STA-15	-A	-L
	Diameter	Length
	↓	↓
	25	100 - 500 (50mm increments)
	40	Other lengths upon request



Finger plate adapters



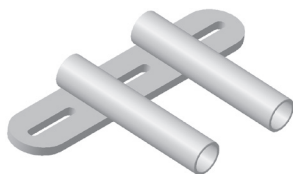
Mat.: Steel



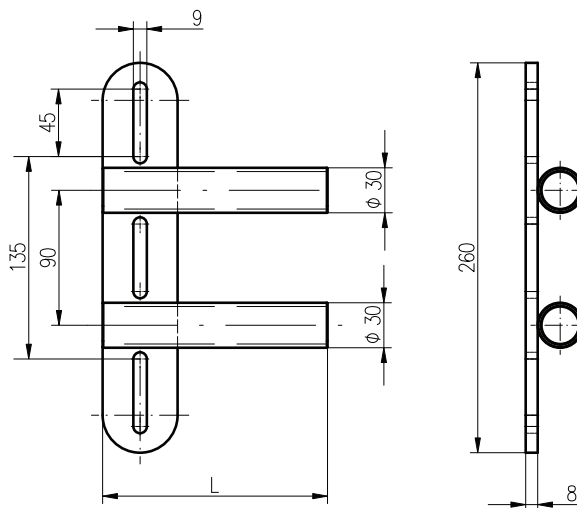
Ordering information		e.g.: STS-S-00-25-200
STS-S-00-25	-L	
	Length	
	↓	
	100 - 500 (50mm increments)	

Other lengths upon request

Transfer press adapters



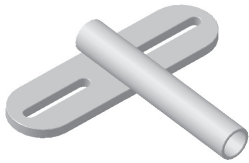
Mat.: Steel



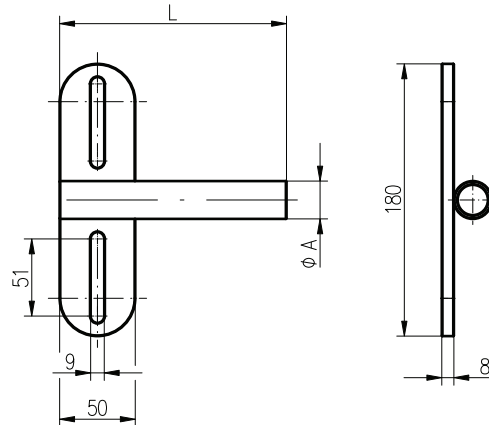
Ordering information		e.g.: ITS-90-30-30-150
ITS-90-30-30	-L	
	Length	
	↓	
	100 - 300 (50mm increments)	

Other lengths upon request

Transfer press adapters



Mat.: Steel

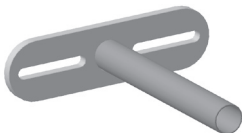


Ordering information

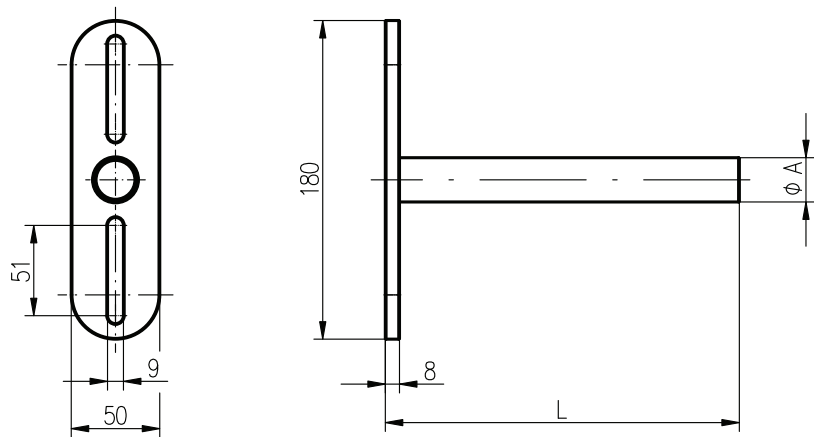
e.g.: ITS-25-90-150

ITS-	-A	-90	-L
	Diameter		Length
	↓		↓
	20		100 - 400 (50mm increments)
	25		Other lengths upon request
	30		

Transfer press adapters



Mat.: Steel



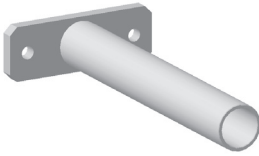
Ordering information

e.g.: ITS-25-00-150

ITS-	-A	-00	-L
	Diameter		Length
	↓		↓
	20		100 - 500 (50mm increments)
	25		
	30		

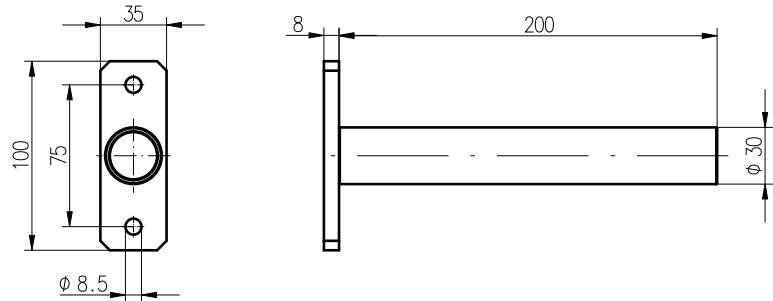


Transfer press adapters

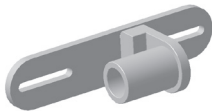


Mat.: Steel

Part no.
ITS-00-35-30-200

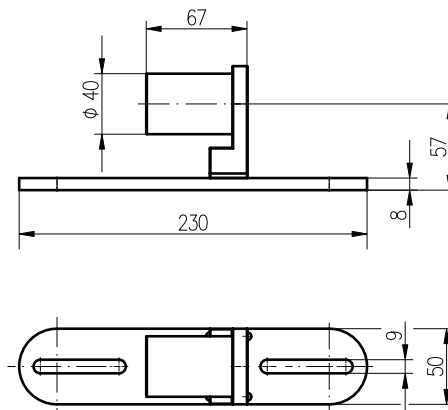


Transfer press adapters



1.23 kg
Mat.: Steel

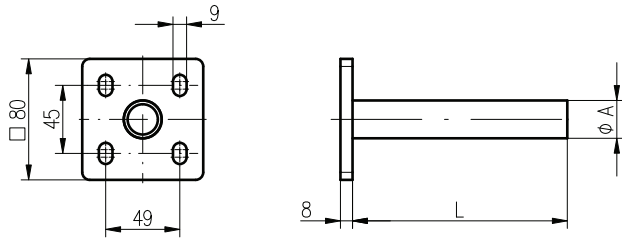
Part no.
ITS-40-LR-230



Transfer press adapters

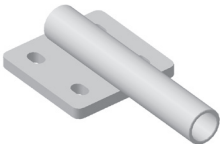


Mat.: Steel

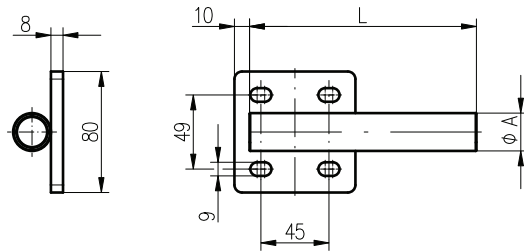


Ordering information			e.g.: STS-00-25-150-GD
STS-00	-A	-L	
	Diameter	Length	
	↓	↓	
	16	100 - 400 (50mm increments)	
	20		
	25		
	30		

Transfer press adapters



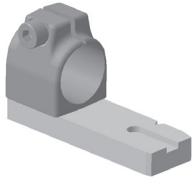
Mat.: Steel



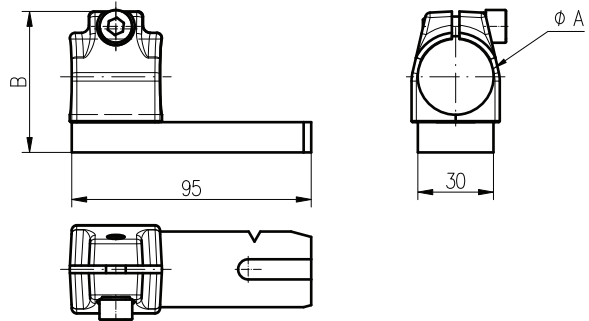
Ordering information				e.g.: STS-90-25-150-GD
STS-90	-A	-L	-GD	
	Diameter	Length		
	↓	↓		
	16	100 - 400 (50mm increments)		
	20			
	25			
	30			



Support for idle station

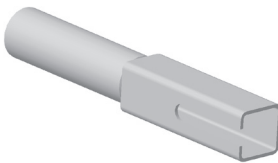


Mat.: Steel

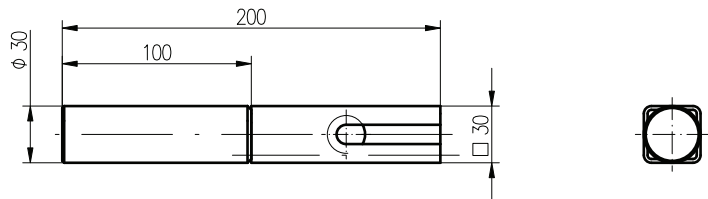


Part no.	Ø A	B	■ (kg)
BKS-00-25	25	52.5	0.37
BKS-00-30	30	56.0	0.40

Support for template mount

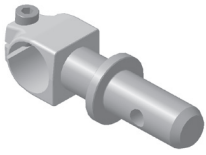


■ 0.82 kg
Mat.: Aluminium



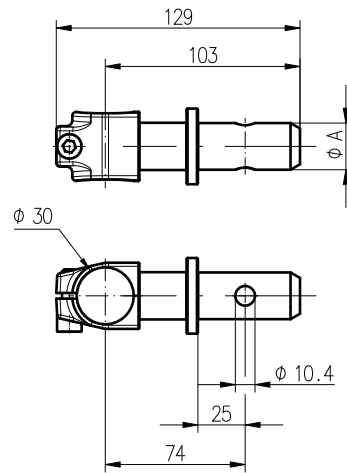
Part no.
ITA-00-30-30-100

Centering pin

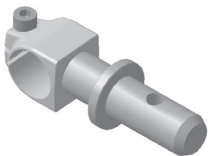


Mat.: Steel

Part no.	Ø A	■ (kg)
BKS-00-30-20	19.7	0.41
BKS-00-30-25	24.7	0.47

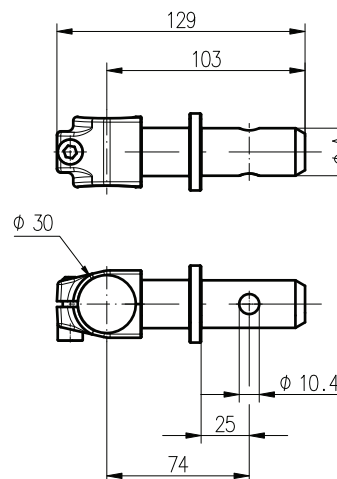


Centering pin



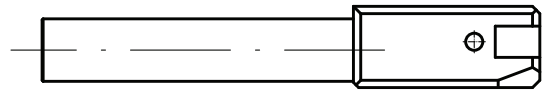
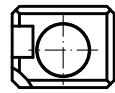
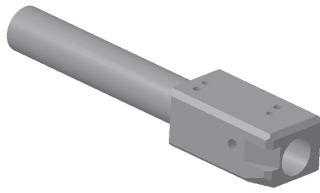
Mat.: Steel

Part no.	Ø A	■ (kg)
BKS-90-30-20	19.7	0.41
BKS-90-30-25	24.7	0.47

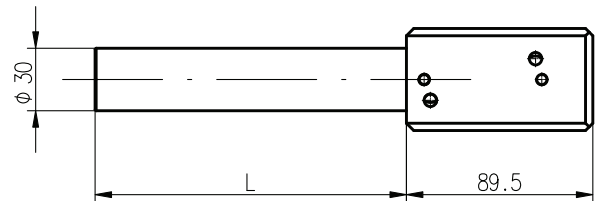




GT press adapter

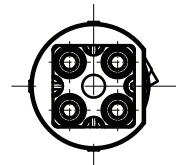
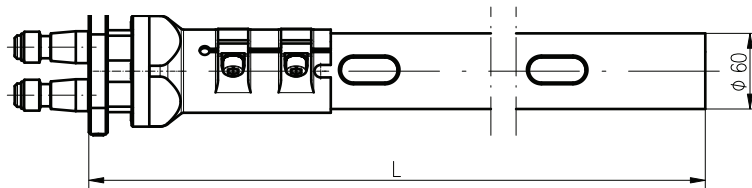
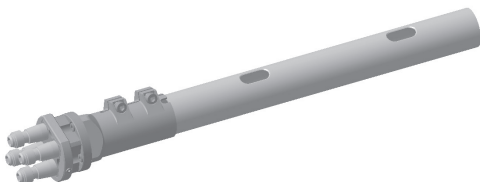


Mat.: Steel



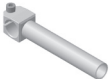
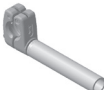



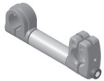


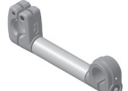

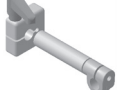




















Part no.	L	█ (kg)
ITA-30-39-90-100	100	1.09
ITA-30-39-90-150	150	1.18
ITA-30-39-90-200	200	1.26

Carrier tube for ISI 4-pin adapter



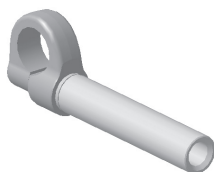
Ordering information		e.g.: ISI-4S-60-1000
ISI-4S-60	-L	
	Length	
	↓	
		400 -1500 (100mm increments)

Picture	Designation	Page
	Extension with end clamp	127
	Extension with end clamp	127
	Extension with end clamp	128
	Extension with end clamp collar	128
	Extension with end clamp collar	129
	Swivel arm threaded at both ends	129
	Swivel arm threaded at both ends	130
	Swivel arm threaded at both ends	131
	Swivel arm with through bolt	132
	Swivel arm with through bolt	133
	Swivel arm with through bolt	134
	Swivel arm with through bolt	134
	Extension, threaded at one end and adapter	135
	Extension with end clamp collar	135
	Extension, threaded at one end	136
	Extension, threaded at one end	136

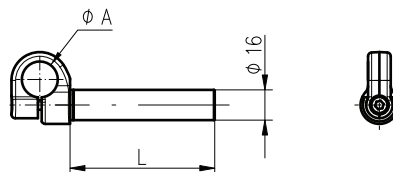
Picture	Designation	Page
	Extension, threaded at one end plug-in type	137
	Extension, threaded at both end	137
	Extension, threaded at both ends	137
	Extension with through hole	138
	Extension with through hole	138
	Extension, with thread	139
	Extension, with thread	139
	End clamp collar, with bore	140
	End clamp collar, with bore	140
	End clamp collar, with split clip	141
	End clamp collar, with split clip	141
	Single end extension, 90°	142
	Single end extension, with split clip	142
	Single end extension, with split clip	143
	Single end extension, with split clip	143



Extension with end clamp



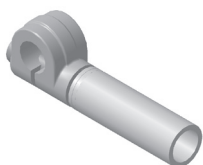
Mat.: Aluminium



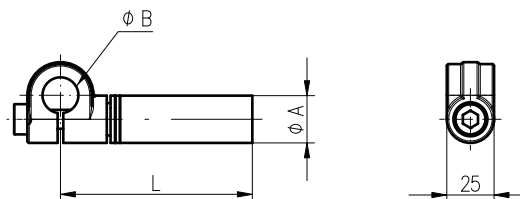
Part no.	Ø A
ES16-16-*	16
ES16-19-*	19
ES16-20-*	20
ES16-25-*	25

Ordering information			e.g.: ES16-19-150
ES16	-B	-L	
	Diameter	*Length	
	↓	↓	
	16	25, 50 - 350	(25 mm increments)
	19		
	20		
	25		

Extension with end clamp



Mat.: Aluminium



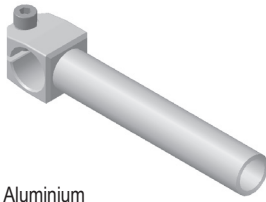
Part no.	Ø A	Ø B
ES100-75-*	1.0"	0.75"
ES100-100-*	1.0"	1.0"
ES100-150-*	1.0"	1.5"
ES100-250-*	1.0"	2.5"

Part no.	Ø A	Ø B
ES25-19-*	25	19
ES25-25-*	25	25
ES25-40-*	25	40
ES25-60-*	25	60
ES25-19-M8-*	25	19
ES25-25-M8-*	25	25

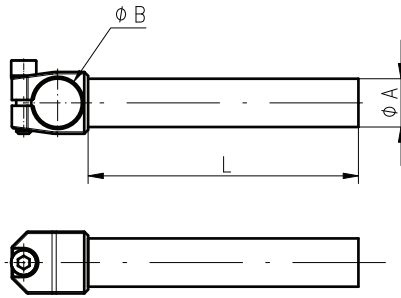
Ordering information			e.g.: ES100-100-200
ES100	-B	-L	
	Diameter	*Length	
	↓	↓	
	75	200	
	100	400	
	150	600	
	250	other lengths upon request	

Ordering information			e.g.: ES25-100-200
ES25	-B	-L	
	Diameter	*Length	
	↓	↓	
	75	200	
	100	400	
	150	600	
	250	other lengths upon request	

Extension with end clamp



Mat.: Aluminium



Part no.	Ø A	Ø B
ESA-90-25-25-*	25	25
ESA-90-30-30-*	30	30

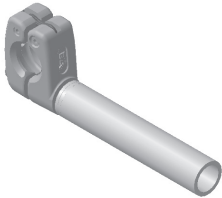
Ordering information

e.g.: ESA-90-25-100-200

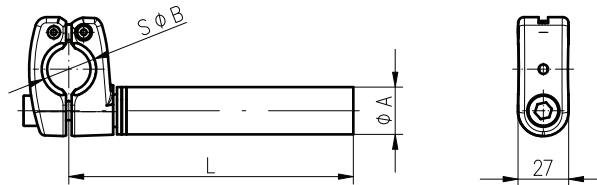
ESA-90	-A	-B	-L
	Diameter	Diameter	*Length
	↓	↓	↓
	25	25	200
	30	30	400
			600

other lengths upon request

Extension with end clamp collar



Mat.: Aluminium



Part no.	Ø A	S Ø B
ES100-K28-*	1.0"	28.5
ES100-K32-*	1.0"	32.0

Part no.	Ø A	S Ø B
ES25-K28-*	25	28.5
ES25-K32-*	25	32.0

Ordering information

e.g.: ES100-K28-200

ES100	-A	-L
	Diameter	*Length
	↓	↓
	K28	200
	K32	400
		600

other lengths upon request

Ordering information

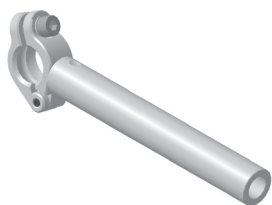
e.g.: ES25-K28-200

ES25	-A	-L
	Diameter	*Length
	↓	↓
	K28	200
	K32	400
		600

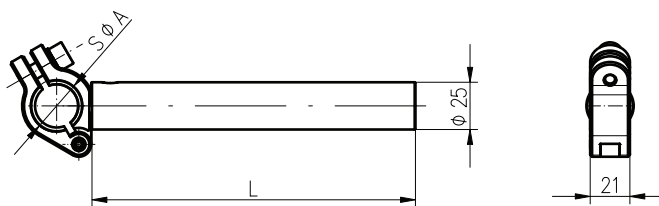
other lengths upon request



Extension with end clamp collar



Mat.: Aluminium

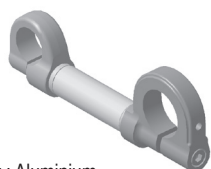


Part no.	SØ A
ESA-90-25-K28-*	28.5
ESA-90-25-K32-*	32.0

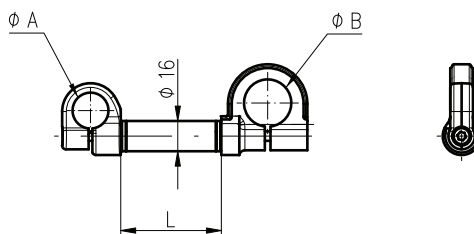
Ordering information		
e.g.: ESA-90-25-K28-200		
ESA-90-25	-A	-L
	Diameter	*Length
	↓	↓
	K28	200
	K32	400
		600

other lengths upon request

Swivel arm threaded at both ends



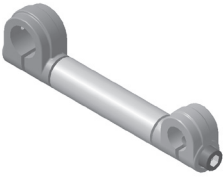
Mat.: Aluminium



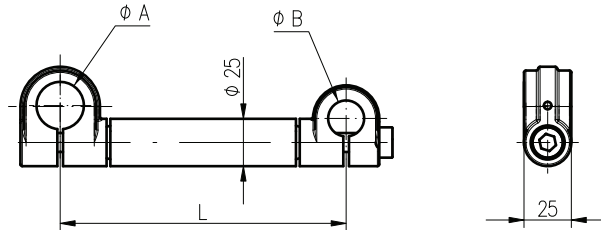
Part no.	Ø A	Ø B
ED16-16-16-*	16	16
ED16-16-19-*	16	19
ED16-16-20-*	16	20
ED16-16-25-*	16	25
ED16-20-20-*	20	20
ED16-20-25-*	25	25
ED16-25-16-*	25	16
ED16-25-19-*	25	19
ED16-25-20-*	25	20

Ordering information		
e.g.: ED25-19-150-200		
ED16	-A-B	-L
	Diameter	*Length
	↓	↓
	16-16	25, 50 - 350 (25 mm increments)
	16-19	
	16-20	
	16-25	
	20-20	
	20-25	
	25-16	
	25-19	
	25-20	

Swivel arm threaded at both ends



Mat.: Aluminium



Part no.	ϕA	ϕB
ED100-100-75-*	1.0"	0.75"
ED100-100-100-*	1.0"	1.0"
ED100-150-75*	1.5"	0.75"
ED100-150-100-*	1.5"	1.0"
ED100-150-150-*	1.5"	1.5"
ED100-250-75-*	2.5"	0.75"
ED100-250-100-*	2.5"	1.0"
ED100-250-150-*	2.5"	1.5"

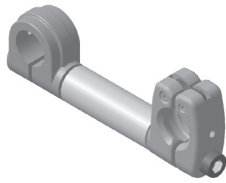
Part no.	ϕA	ϕB
ED25-25-19-*	25	19
ED25-25-25-*	25	25
ED25-40-19-*	40	19
ED25-40-25-*	40	25
ED25-40-40-*	40	40
ED25-60-19-*	60	19
ED25-60-25-*	60	25
ED25-60-40-*	60	40

Ordering information		
e.g.: ED100-100-150-200		
ED100	-A-B	-L
	Diameter	*Length
	↓	↓
	100-75	75 - 400 (25 mm increments)
	100-100	
	150-75	
	150-100	
	150-150	
	250-75	
	250-100	
	250-150	

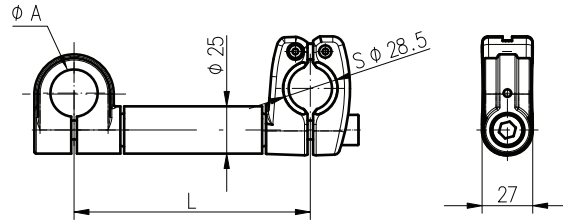
Ordering information		
e.g.: ED25-19-150-200		
ED25	-A-B	-L
	Diameter	*Length
	↓	↓
	25-19	75 - 400 (25 mm increments)
	25-25	
	40-19	
	40-25	
	40-40	
	60-19	
	60-25	
	60-40	



Swivel arm threaded at both ends



Mat.: Aluminium



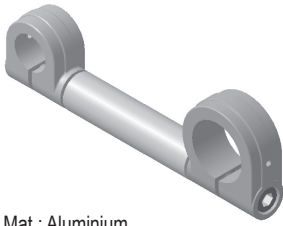
Part no.	ϕA
ED100-100-K28-*	1.0"
ED100-150-K28-*	1.5"

Part no.	ϕA
ED25-25-K28-*	25
ED25-40-K28-*	40

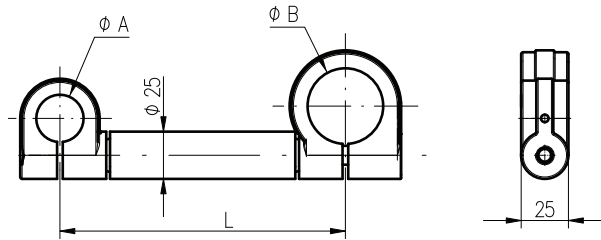
Ordering information			
e.g.: ED100-100-K28-200			
ED100	-A	-K28	-L
	Diameter		*Length
	↓		↓
	100		75 - 400 (25 mm increments)
	150		

Ordering information			
e.g.: ED25-25-K28-200			
ED25	-A	-K28	-L
	Diameter		*Length
	↓		↓
	25		75 - 400 (25 mm increments)
	40		

Swivel arm with through bolt



Mat.: Aluminium



Part no.	Ø A	Ø B
SA100-75-100-*	0.75"	1.0"
SA100-75-150-*	0.75"	1.5"
SA100-100-75-*	1.0"	0.75"
SA100-100-100-*	1.0"	1.0"
SA100-100-150-*	1.0"	1.5"
SA100-150-75*	1.5"	0.75"
SA100-150-100-*	1.5"	1.0"
SA100-150-150-*	1.5"	1.5"

Part no.	Ø A	Ø B
SA25-19-20-*	19	20
SA25-19-25-*	19	25
SA25-19-40-*	19	40
SA25-20-19-*	20	19
SA25-20-40-*	20	40
SA25-25-19-*	25	19
SA25-25-25-*	25	25
SA25-25-40-*	25	40
SA25-40-19-*	40	19
SA25-40-20-*	40	20
SA25-40-25-*	40	25
SA25-40-40-*	40	40

Ordering information		
SA100	-A-B	-L
	Diameter	*Length
	↓	↓
	75-100	75 - 200 (25 mm increments)
	75-150	
	100-75	
	100-100	
	100-150	
	150-75	
	150-100	
	150-150	

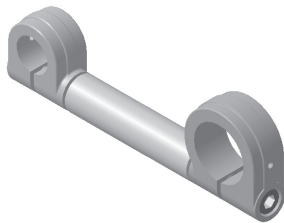
e.g.: SA100-100-150-200

Ordering information		
SA25	-A-B	-L
	Diameter	*Length
	↓	↓
	19-20	75- 200 (25 mm increments)
	19-25	
	19-40	
	20-19	
	20-40	
	25-19	
	25-25	
	25-40	
	40-19	
	40-20	
	40-25	
	40-40	

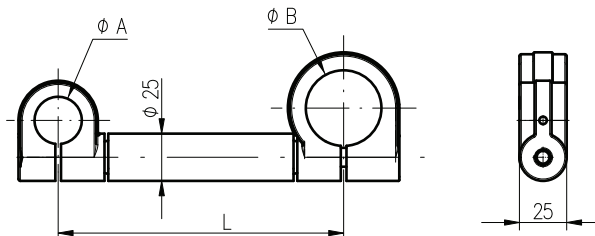
e.g.: SA25-25-40-200



Swivel arm with through bolt



Mat.: Aluminium



Part no.	Ø A	Ø B
SA100-75-250-*	0.75"	2.5"
SA100-100-250*	1.0"	2.5"
SA100-150-250-*	1.5"	2.5"
SA100-250-75-*	2.5"	0.75"
SA100-250-100-*	2.5"	1.0"
SA100-250-150-*	2.5"	1.5"

Part no.	Ø A	Ø B
SA25-19-60-*	19	60
SA25-25-60-*	25	60
SA25-40-60-*	40	60
SA25-60-19-*	60	19
SA25-60-25-*	60	25
SA25-60-40-*	60	40

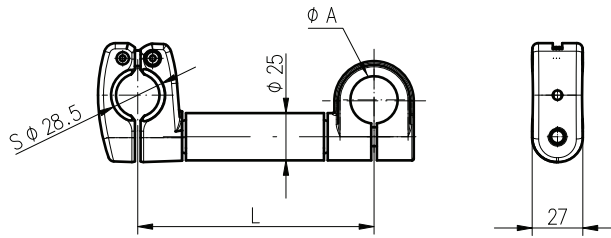
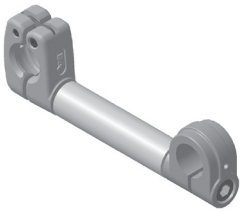
Ordering information		
SA100	-A-B	-L
	Diameter	*Length
	↓	↓
	75-250	75 (L = 80 mm)
	100-250	100 (L = 105 mm)
	150-250	125 (L = 130 mm)
	250-75	150 (L = 155 mm)
	250-100	175 (L = 180 mm)
	250-150	200 (L = 205 mm)

e.g.: SA100-100-250-200

Ordering information		
SA25	-A-B	-L
	Diameter	*Length
	↓	↓
	19-60	75 (L = 80 mm)
	25-60	100 (L = 105 mm)
	40-60	125 (L = 130 mm)
	60-19	150 (L = 155 mm)
	60-25	175 (L = 180 mm)
	60-40	200 (L = 205 mm)

e.g.: SA25-25-60-200

Swivel arm with through bolt



Mat.: Aluminium

Part no.	ϕA
SA100-100-K28-*	1.0"
SA100-150-K28-*	1.5"
SA100-250-K28-*	2.5"

Part no.	ϕA
SA25-25-K28-*	25
SA25-40-K28-*	40
SA25-60-K28-*	60

Ordering information

e.g.: SA100-100-K28-200

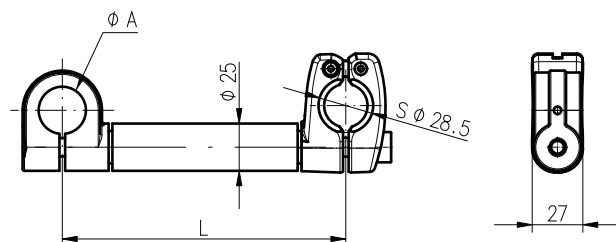
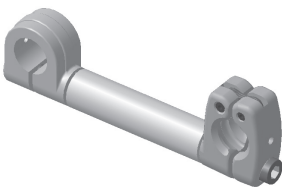
SA100	-A	-K28	-L
	Diameter		*Length
	↓		↓
	100		75 - 200 (25 mm increments)
	150		
	250		

Ordering information

e.g.: SA25-25-K28-200

SA25	-A	-K28	-L
	Diameter		*Length
	↓		↓
	25		75 - 200 (25 mm increments)
	40		
	60		

Swivel arm with through bolt



Mat.: Aluminium

Part no.	ϕA
SA100-K28-100-*	1.0"
SA100-K28-150-*	1.5"
SA100-K28-250-*	2.5"

Part no.	ϕA
SA25-K28-25-*	25
SA25-K28-40-*	40
SA25-K28-60-*	60

Ordering information

e.g.: SA100-K28-100-200

SA100-K28	-A	-L
	Diameter	*Length
	↓	↓
	100	75- 200 (25 mm increments)
	150	
	250	

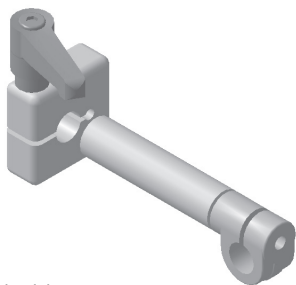
Ordering information

e.g.: SA25-K28-25-200

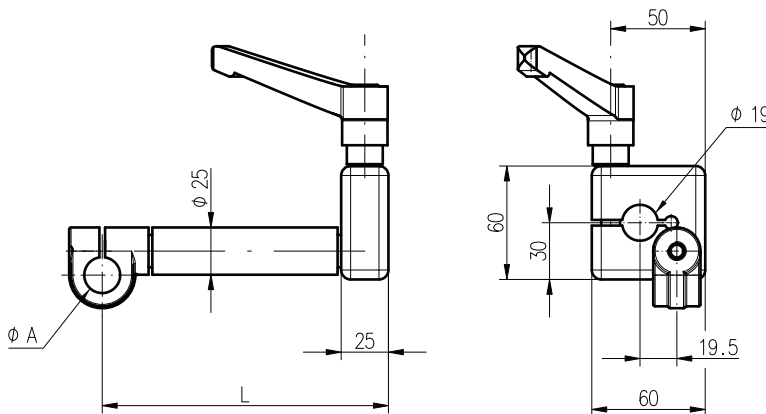
SA25-K28	-A	-L
	Diameter	*Length
	↓	↓
	25	75 - 200 (25 mm increments)
	40	
	60	



Extension, threaded at one end and adapter



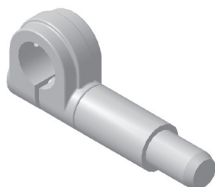
Mat.: Aluminium



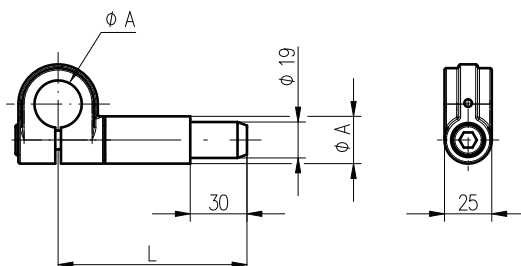
Ordering information			e.g.: ES100-75-200-L
ES100-75	-L	-	
	*Length		
	↓		↓
	50 - 200 (25 mm increments)		R (Right-hand execution) L (Left-hand execution)

Ordering information			e.g.: ES25-19-200-L
ES25-19	-L	-	
	*Length		
	↓		↓
	50 - 200 (25 mm increments)		R (Right-hand execution) L (Left-hand execution)

Extension with end clamp collar



Mat.: Aluminium



Part no.	ϕA
ES100-75-*S	0.75"
ES100-100-*S	1.0"
ES100-150-*S	1.5"

Part no.	ϕA
ES25-19-*S	19
ES25-25-*S	25
ES25-40-*S	40

Ordering information				e.g.: ES100-75-200-S
ES100	-A	-L	-S	
	Diameter	*Length		
	↓	↓		↓
	75	200		Plug in type
	100	400		
	150	600		

other lengths upon request

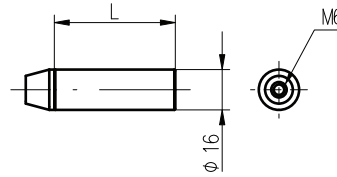
Ordering information				e.g.: ES25-19-200-S
ES25	-A	-L	-S	
	Diameter	*Length		
	↓	↓		↓
	19	200		Plug in type
	25	400		
	40	600		

other lengths upon request

Extension, threaded at one end



Mat.: Aluminium

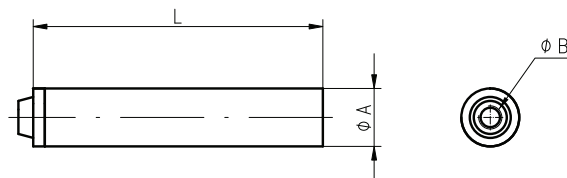


Ordering information		e.g.: SS16-100-L
SS16-T	-L	
	*Length	
	↓	
		50 - 400 (50 mm increments)

Extension, threaded at one end



Mat.: Aluminium



Part no.	Ø A
SS100-T-L	1.0"
SS100-T-M8-L	1.0"

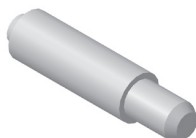
Part no.	Ø A
SS25-T-L	25
SS25-T-M8-L	25

Ordering information		e.g.: SS100-100-L
SS100-T	-L	
SS100-T-M8-		
	*Length	
	↓	
		50 - 400 (50 mm increments)

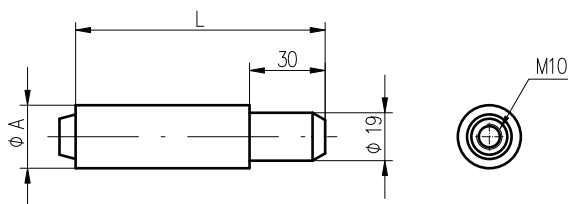
Ordering information		e.g.: SS25-100-L
SS25-T	-L	
SS25-T-M8		
	*Length	
	↓	
		50 - 400 (50 mm increments)



Extension, threaded at one end plug-in type



Mat.: Aluminium



Part no.	Ø A
SS100-T*	1.0"

Part no.	Ø A
SS25-T*	25

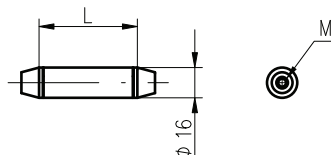
Ordering information			e.g.: SS100-T-200-S
SS100-T	-L	-S	
	*Length		
	↓	↓	
	75 - 275 (25 mm increments)	plug-in type	

Ordering information			e.g.: SS25-T-200-S
SS25-T	-L	-S	
	*Length		
	↓	↓	
	75 - 275 (25 mm increments)	plug-in type	

Extension, threaded at both end



Mat.: Aluminium

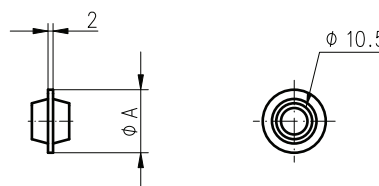


Ordering information		e.g.: DS16-100-L
DS16-T	-L	
	*Length	
	↓	
	50 - 300 (50 mm increments)	

Extension, threaded at both ends



Mat.: Aluminium



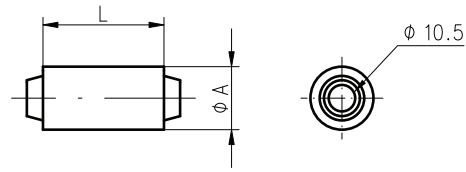
Part no.	Ø A
DS100-H-002	1.0"

Part no.	Ø A
DS25-H-002	25

Extension with through hole



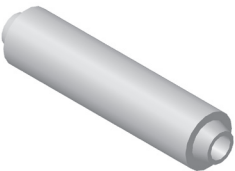
Mat.: Aluminium



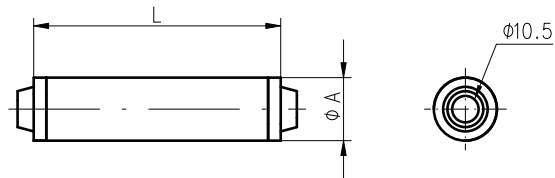
Part no.	Ø A	L
DS100-H-025	1.0"	23
DS100-H-050	1.0"	48

Part no.	Ø A	L
DS25-H-025	25	23
DS25-H-050	25	48

Extension with through hole



Mat.: Aluminium



Part no.	Ø A
DS100-H-L*	1.0"

Part no.	Ø A
DS25-H-L*	25

Ordering information		e.g.: DS100-H-200
DS100-H	-L	
	*Length	
	↓	
	75 (L = 73 mm)	
	100 (L = 98 mm)	
	125 (L = 123 mm)	
	150 (L = 148 mm)	
	175 (L = 173 mm)	
	200 (L = 198 mm)	
	225 (L = 223 mm)	
	250 (L = 248 mm)	
	275 (L = 273 mm)	
	300 (L = 298 mm)	

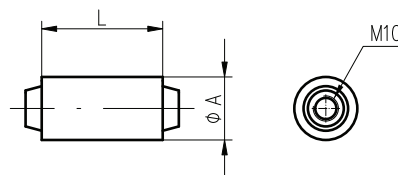
Ordering information		e.g.: DS25-H-200
DS25-H	-L	
	*Length	
	↓	
	75 (L = 73 mm)	
	100 (L = 98 mm)	
	125 (L = 123 mm)	
	150 (L = 148 mm)	
	175 (L = 173 mm)	
	200 (L = 198 mm)	
	225 (L = 223 mm)	
	250 (L = 248 mm)	
	275 (L = 273 mm)	
	300 (L = 298 mm)	



Extension, with thread



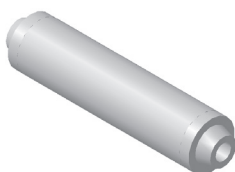
Mat.: Aluminium



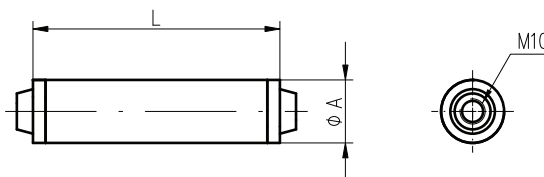
Part no.	Ø A	L
DS100-T-025	1.0"	23
DS100-T-050	1.0"	48

Part no.	Ø A	L
DS25-T-025	25	23
DS25-T-050	25	48

Extension, with thread



Mat.: Aluminium



Part no.	Ø A
DS100-T-*	1.0"

Part no.	Ø A
DS25-T-*	25

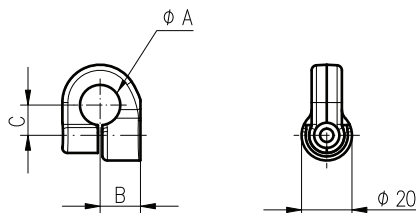
Ordering information		e.g.: DS100-T-200
DS100-T	-L	
	*Length	
	↓	
	75 (L = 73 mm)	
	100 (L = 98 mm)	
	125 (L = 123 mm)	
	150 (L = 148 mm)	
	175 (L = 173 mm)	
	200 (L = 198 mm)	
	225 (L = 223 mm)	
	250 (L = 248 mm)	
	275 (L = 273 mm)	
	300 (L = 298 mm)	

Ordering information		e.g.: DS25-T-200
DS25-T	-L	
	*Length	
	↓	
	75 (L = 73 mm)	
	100 (L = 98 mm)	
	125 (L = 123 mm)	
	150 (L = 148 mm)	
	175 (L = 173 mm)	
	200 (L = 198 mm)	
	225 (L = 223 mm)	
	250 (L = 248 mm)	
	275 (L = 273 mm)	
	300 (L = 298 mm)	

End clamp collar, with bore



Mat.: Aluminium

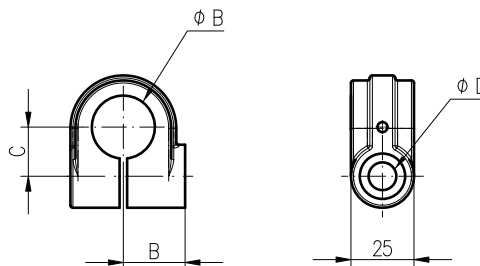


Part no.	Ø A	Ø B	C	■ (kg)
ECH16-14	14	16.5	10.5	0.014
ECH16-16	16	16.0	12.0	0.018
ECH16-20	20	20.0	13.5	0.018
ECH16-25	25	24.5	17.5	0.037

End clamp collar, with bore



Mat.: Aluminium



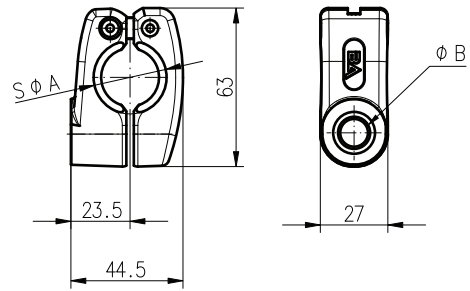
Part no.	Ø A	Ø B	C	D	■ (kg)
ECH100-75	1.0"	0.75"	12.7	10.5	0.06
ECH100-100	1.0"	1.0"	19.5	10.5	0.08
ECH100-150	1.0"	1.5"	26.0	10.5	0.12
ECH100-250	1.0"	2.5"	36.0	10.5	0.17

ECH25-19	25	19	12.7	10.5	0.06
ECH25-19-M8	25	19	12.7	8.5	0.06
ECH25-20	25	20	19.5	10.5	0.06
ECH25-25	25	25	19.5	10.5	0.08
ECH25-25-M8	25	25	19.5	8.5	0.08
ECH25-30	25	30	23.0	10.5	0.09
ECH25-32	25	32	23.0	10.5	0.09
ECH25-34	25	34	23.0	10.5	0.11
ECH25-40	25	40	26.0	10.5	0.12
ECH25-4445	25	44.45	28.3	10.5	0.14
ECH25-60	25	60	36.0	10.5	0.17

End clamp collar, with split clip



Mat.: Aluminium



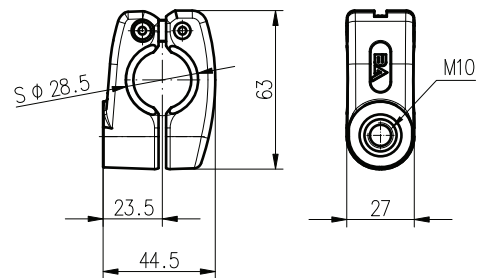
Part no.	S Ø A	Ø B	■ (kg)
ECH25-K28	28.5	10.5	0.13
ECH25-K28-M8	28.5	8.5	0.13
ECH25-K32-M8	32.0	8.5	0.13

End clamp collar, with split clip



■ 0.13 kg

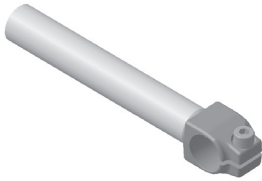
Mat.: Aluminium



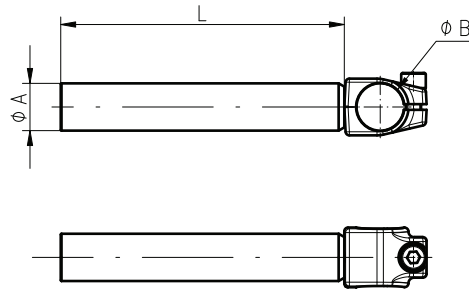
Part no.

ECT25-K28

Single end extension, 90°



Mat.: Steel

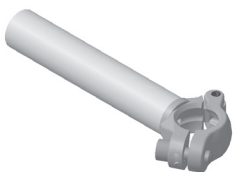


Ordering information

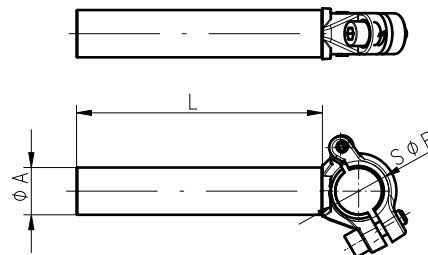
e.g.: ESS-90-25-25-200

ESS-90	-A	-	-L
	Diameter	Diameter	Length
	↓	↓	↓
	16	16	200
	20	20	400
	25	25	600
	30	30	other lengths upon request
		40	

Single end extension, with split clip



Mat.: Steel



Ordering information

e.g.: ESS-90-25-K28-200

ESS-90	-A	-	-L
	Diameter	Diameter	Length
	↓	↓	↓
	20	K28	200
	25	K32	400
	30		600

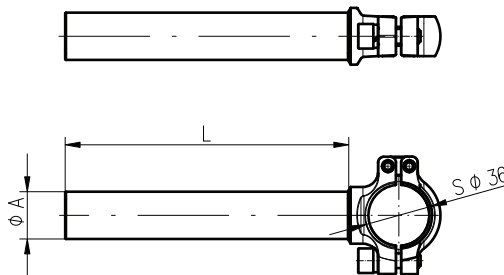
other lengths upon request



Single end extension, with split clip



Mat.: Steel



Ordering information			
ESS-90	-A	-K36	-L
	Diameter		Length
	↓		↓
	20		200
	25		400
	30		600

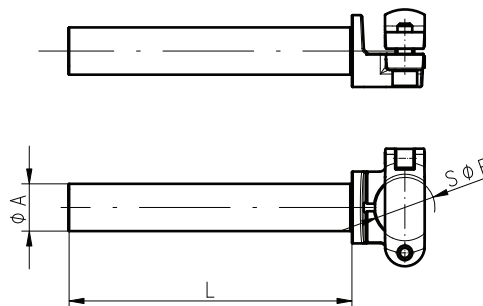
e.g.: ESS-90-25-K36-200

other lengths upon request

Single end extension, with split clip



Mat.: Steel










Ordering information			
ESS-00	-A	-	-L
	Diameter	Diameter	Length
	↓	↓	↓
	20	K28	200
	25	K32	400
	30	K36	600

e.g.: ESS-00-25-K28-200

other lengths upon request



Picture	Designation	Page
	Flat foot cups, round	149
	Flat foot cups, oval	149
	Traction cups, round	150
	Traction cups, oval	150
	Belcups, round	151
	Deep dish cups, round	151
	Outer contour cups, oval	152

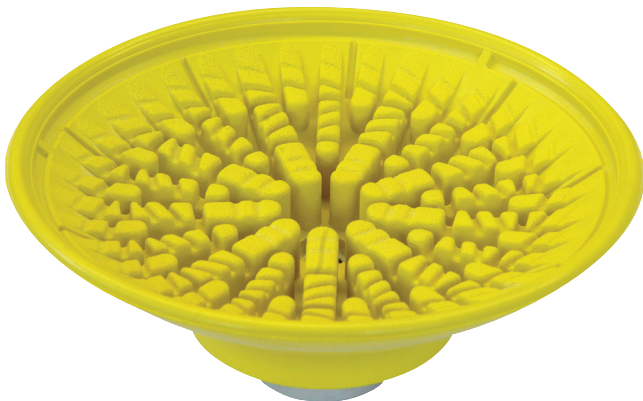
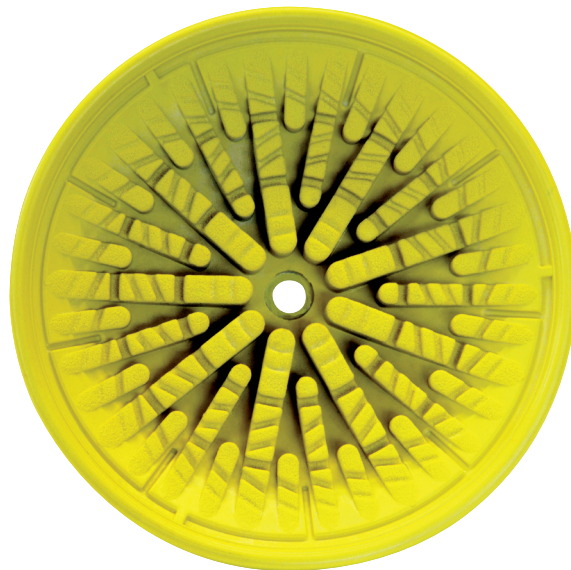
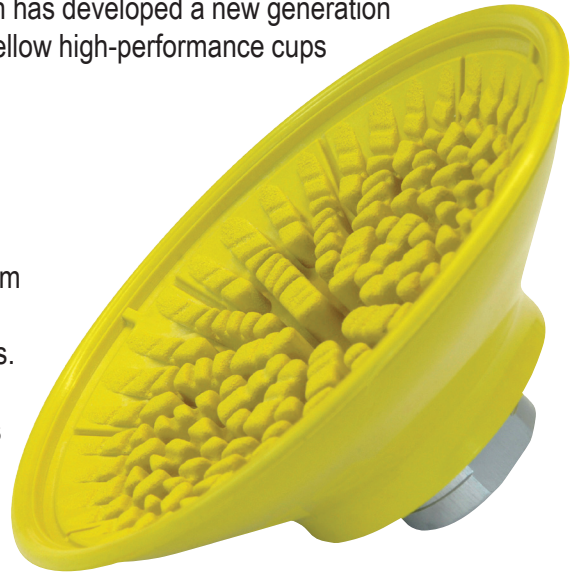
New, progressive vacuum cups for your press shop

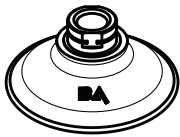


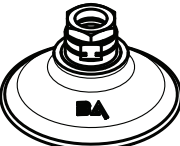
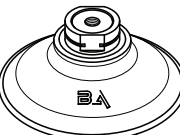
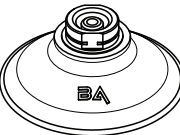
Servo-press machines and the newest automation technologies have accelerated production processes in press shops. Higher manipulation speed as a result of this upgrade demands vacuum cups with higher adhesion and friction forces. In order to meet these criteria, Bilsing Automation has developed a new generation of Vacuum cups. This new generation represented by light yellow high-performance cups offers the following advantages:

- Very high adhesion power resisting transverse forces
- Better ability to drive away oil in contact areas
- Optimal adjustment with components' outlines
- No surface damage on components as a result of vacuum performance
- Parts' position maintained even at emergency switch offs.

These advantages improve production security, increase its efficiency and the release of components from your press machines

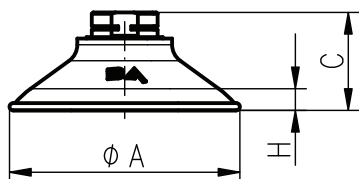
Contact us (call 586.463.0686) for more information on our new high-performance vacuum cups!



Connection Description		Mount
	G 3/8" internal thread	B
	3/8-NPT internal thread	B-*-NA
	C-Mount	C
	G 3/8" internal thread with SW22 Jam nut with SW22 (height = 6mm)	F
	M8 internal thread with SW22	J
	M10 male thread (enclosed separately)	Q



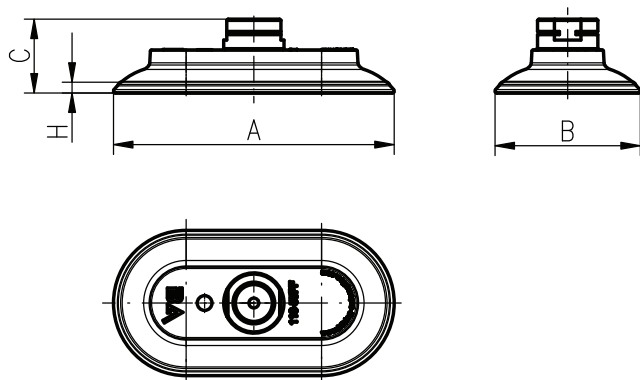
Flat foot cups, round



Part no.	Ø A	C	H*	■ (kg)
30PF	33	36.0	3	0.056
60PF	62	34.0	6	0.028
80PF	84	35.0	8	0.045
100PF	101	40.5	10	0.158
125PF	127	48.5	11	0.153

*Operating height

Flat foot cups, oval



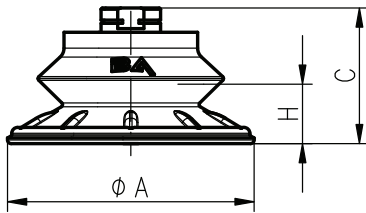
Part no.	Ø A	B	C	H*	■ (kg)
60-30PF	64	34	28	4.5	0.013
80-40PF	84	44	29	4.5	0.047
110-55PF	114	59	30	5.0	0.067

*Operating height

Ordering information			e.g.: 80PF-B-55
Size	Mount*	Hardness in Shore	
↓	↓	↓	
30PF	B	30 (green)	
60PF	C	45 (red)	
80PF	F	55 (yellow)	
100PF	J	60 (black)	
125PF	Q	WF2** (black)	
60-30PF	*See page 150 for vacuum cup mounts		**High temperature resistant up to 250°C
80-40PF			
110-55PF			

Ordering information				e.g.: 80PF-B-45-NA
Size	Mount*	Hardness in Shore	-NA	
↓	↓	↓		
30PF	B	30 (green)		
60PF	*See page 150 for vacuum cup mounts	45 (red)		
80PF		55 (yellow)		
100PF		60 (black)		
125PF		WF2** (black)		
60-30PF	**High temperature resistant up to 250°C			
80-40PF				
110-55PF				

Traction cups, round



Part no.	Ø A	C	H*	■ (kg)
40HT	40.0	40.0	9.5	0.024
60HT	60.5	49.5	14.5	0.055
80HT	81.0	46.5	19.5	0.050
100HT	100.0	53.0	23.0	0.102
115HT	112.0	53.0	19.0	0.110
140HT	140.0	53.0	22.0	0.193

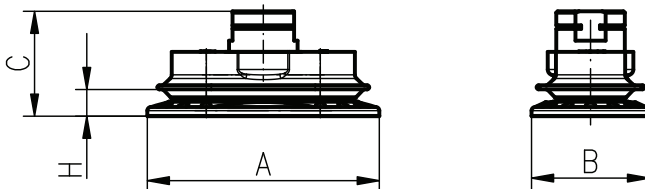
*Operating height

Traction cups, oval



Part no.	Ø A	C	H*	■ (kg)
60-30HT	63	34.0	6.0	0.039
80-40HT	82	36.5	9.5	0.048
110-55HT	114	43.5	13.0	0.097

*Operating height



Ordering information

e.g.: 80HT-B-55

Size	Mount*	Hardness in Shore
↓	↓	↓
40HT	B	30 (green)
60HT	C	45 (red)
80HT	F	55 (yellow)
100HT	J	60 (black)
	Q	WF2** (black)
60-30HT	*See page 150 for vacuum cup mounts	**High temperature resistant up to 250°C
80-40HT		
110-55HT		

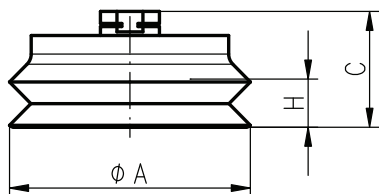
Ordering information

e.g.: 80HT-B-55-NA

Size	Mount*	Hardness in Shore	-NA
↓	↓	↓	
40HT	B <small>*See page 150 for vacuum cup mounts</small>	30 (green)	
60HT		45 (red)	
80HT		55 (yellow)	
100HT		60 (black)	
		WF2** (black)	
60-30HT		**High temperature resistant up to 250°C	
80-40HT			
110-55HT			



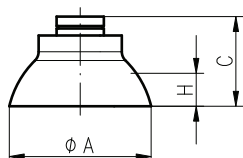
Belcups, round



Part no.	Ø A	C	H*	█ (kg)
30BT	30.5	40.0	12.6	0.010
40BT	41.5	36.0	10.0	0.038
50BT	53.0	48.5	19.5	0.061
75BT	75.0	48.5	18.0	0.093
100BT	100.0	48.0	18.5	0.160
125BT	124.0	48.0	18.0	0.254

*Operating height

Deep dish cups, round



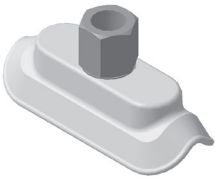
Part no.	Ø A	C	H	█ (kg)
50DM	50	28	11	0.060
75DM	75	40	17	0.089
100DM	100	46	25	0.116

*Operating height

Ordering information			e.g.: 75BT-B-60-NA
Size	Mount*	Hardness in Shore	
↓	↓	↓	
30BT	B	30 (green)	
40BT	C	45 (red)	
50BT	F	55 (yellow)	
75BT	J	60 (black)	
100BT	Q	WF2** (black)	
125BT	*See page 150 for vacuum cup mounts	**High temperature resistant up to 250°C	
50DM			
75DM			
100DM			

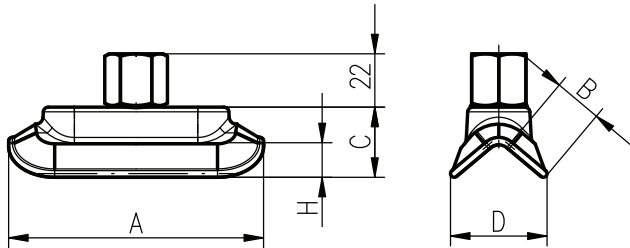
Ordering information				e.g.: 75BT-B-60-NA
Size	Mount*	Hardness in Shore	-NA	
↓	↓	↓		
30BT	B	30 (green)		
40BT	*See page 150 for vacuum cup mounts	45 (red)		
50BT		55 (yellow)		
75BT		60 (black)		
100BT		WF2** (black)		
125BT		**High temperature resistant up to 250°C		
50DM				
75DM				
100DM				

Outer contour cups, oval



Part no.	Ø A	B	C	D	H*	■ (kg)
50-15DM	50	15	17	23	10	0.074
75-20DM	72	20	20	25	12	0.081
100-25DM	101	25	26	39	14	0.091

*Operating height












Ordering information			e.g.: 75BT-B-55
Size	Mount*	Hardness in Shore	
↓	↓	↓	
50-15DM	B	30 (green)	
75-20DM	C	45 (red)	
100-25DM	F	55 (yellow)	
	J	60 (black)	
	Q	WF2** (black)	
*See page 150 for vacuum cup mounts		**High temperature resistant up to 250°C	

Ordering information				e.g.: 75BT-B-60-NA
Size	Mount*	Hardness in Shore	-NA	
↓	↓	↓		
50-15DM	B	30 (green)		
75-20DM	*See page 150 for vacuum cup mounts	45 (red)		
100-25DM		55 (yellow)		
		60 (black)		
		WF2** (black)		
		**High temperature resistant up to 250°C		

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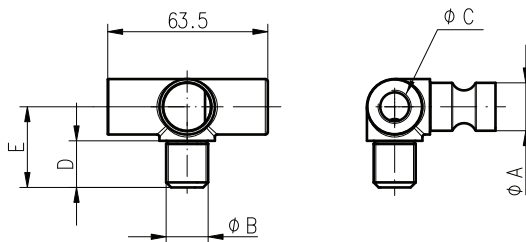
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Port only adapter

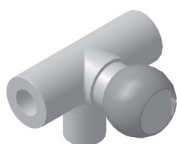


Mat.: Aluminium

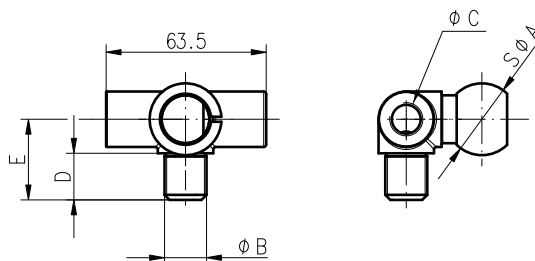


Part no.	Ø A	Ø B	Ø C	D	E	■ (kg)
PA-75-3/8-NPT	0.75"	3/8-NPT	1/4-NPT	14.0	27.5	0.08
PA-19-G1/4	19	G 1/4	G1/4	14.0	27.5	0.08
PA-19-G3/8	19	G 3/8	G1/4	18.5	32.0	0.08

Port only adapter



Mat.: Aluminium

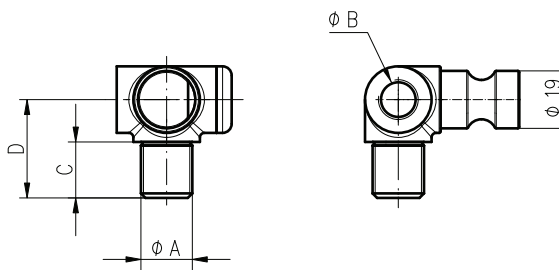


Part no.	SØ A	Ø B	Ø C	D	E	■ (kg)
PA-K28-3/8-NPT	28.5	3/8-NPT	1/4-NPT	14.0	27.5	0.107
PA-K28-G1/4	28.5	G 1/4	G1/4	14.0	27.5	0.107
PA-K28-G3/8	28.5	G 3/8	G1/4	18.5	32.0	0.111
PA-K32-G3/8	32.0	G3/8	G1/4	18.5	32.0	0.105

Port only adapter

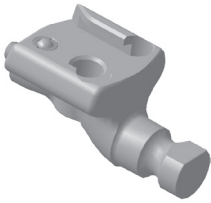


Mat.: Aluminium

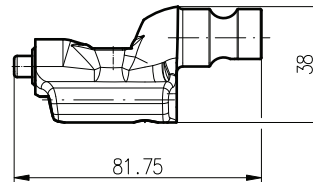
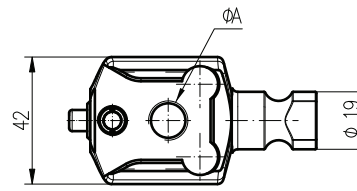


Part no.	Ø A	Ø B	C	D	■ (kg)	Shut-off plug
PA-19-LR-G3/8	G 3/8	G 1/4	18.5	32.0	0.06	VS-1/4-I6KT
PA-19-LR-G1/4	G 1/4	G 1/4	15.0	28.5	0.06	VS-1/4-I6KT
PA-19-LR-G3/8-B	G 3/8	G 3/8	15.0	28.5	0.06	VS-3/8-I6KT

Port only adapter for vacuum cups with C-mount



Mat.: Aluminium

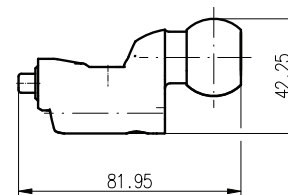
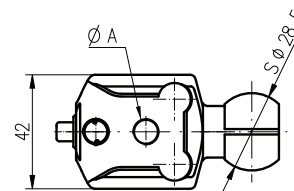


Part no.	Ø A	■ (kg)
PA-75-C-1/4-NPT	1/4-NPT	0.08
PA-19-C-G1/8	G1/8	0.09
PA-19-C-G1/4	G1/4	0.11

Port only adapter for vacuum cups with C-mount

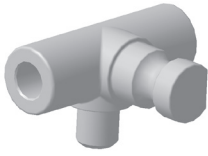


Mat.: Aluminium

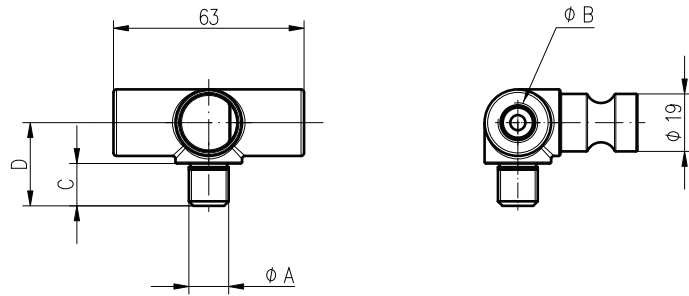


Part no.	Ø A	Ø B	■ (kg)
PA-75-C-1/4-NPT-K28	1/4-NPT	80.7	0.11
PA-K28-C-G1/8	G1/8	81.95	0.09
PA-K28-C-G1/4	G1/4	81.6	0.11

Venturi

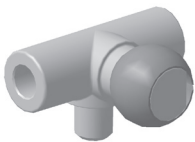


Mat.: Aluminium

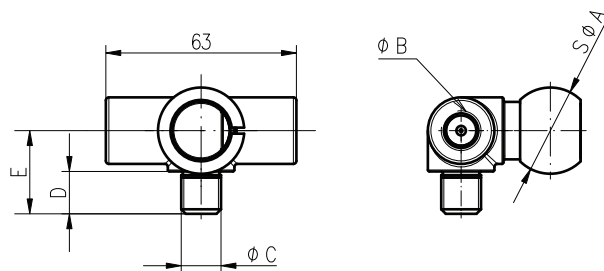


Part no.	ϕA	ϕB	C	D	■ (kg)
VMA-75-3/8-NPT	3/8-NPT	1/4-NPT	18.5	32.0	0.098
VMA-19-G1/4	G1/4	G1/4	14.0	27.5	0.107
VMA-19-G3/8	G3/8	G1/4	18.5	32.0	0.098

Venturi

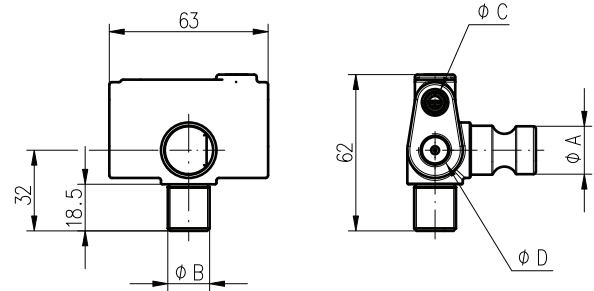


Mat.: Aluminium



Part no.	S ϕA	ϕB	C	D	E	■ (kg)
VMA-K28-3/8-NPT	28.5	1/4-NPT	1/4-NPT	18.5	32.0	0.110
VMA-K28-G1/4	28.5	G1/4	G1/4	14.0	27.5	0.107
VMA-K28-G3/8	28.5	G1/4	G3/8	18.5	32.0	0.111
VMA-K32-G1/4	32.0	G1/4	G1/4	14.0	27.5	0.110

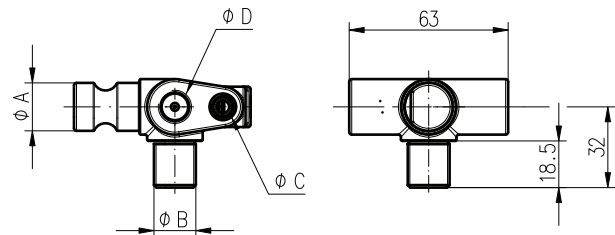
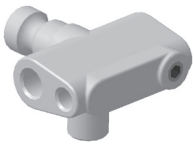
Venturi with blowoff



Mat.: Aluminium

Part no.	Ø A	Ø B	Ø C	Ø D	■ (kg)
VMA-75-BO-3/8-NPT	0.75"	3/8-NPT	1/8-NPT	1/4-NPT	0.153
VMA-19-BO-G1/4	19	G1/4	G1/8	G1/4	0.153
VMA-19-BO-G3/8	19	G3/8	G1/8	G1/4	0.153

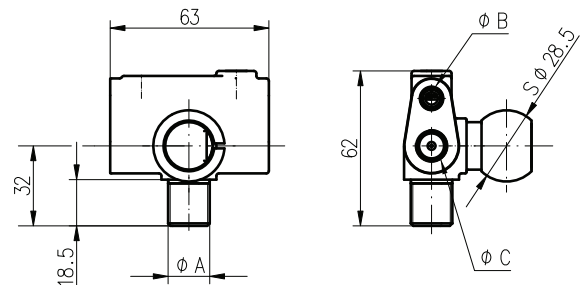
Venturi with blowoff, low profile



Mat.: Aluminium

Part no.	Ø A	Ø B	Ø C	Ø D	■ (kg)
VMA-75-BO-3/8-NPT-LP	0.75"	3/8-NPT	1/8-NPT	1/4-NPT	0.153
VMA-19-BO-G1/4-LP	19	G1/4	G1/8	G1/4	0.153
VMA-19-BO-G3/8-LP	19	G3/8	G1/8	G1/4	0.153

Venturi with blowoff

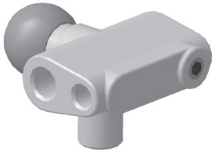


Mat.: Aluminium

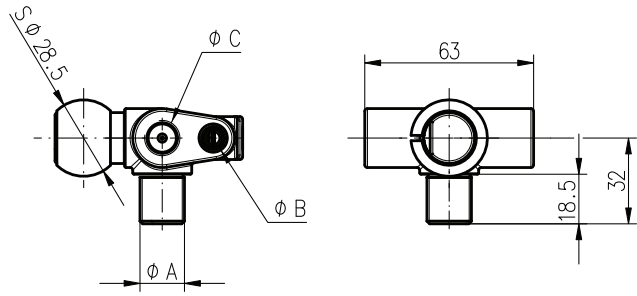
Part no.	Ø A	Ø B	Ø C	■ (kg)
VMA-K28-BO-3/8-NPT	3/8-NPT	1/8-NPT	1/4-NPT	0.21
VMA-K28-BO-G1/4	G1/4	G1/8	G1/4	0.20
VMA-K28-BO-G3/8	G3/8	G1/8	G1/4	0.21



Venturi with blowoff, low profile

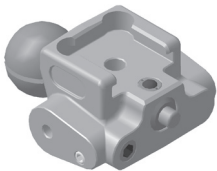


Mat.: Aluminium

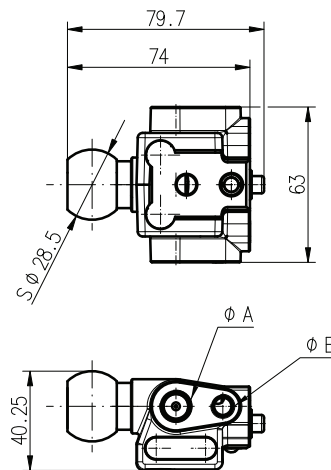


Part no.	Ø A	Ø B	Ø C	■ (kg)
VMA-K28-BO-3/8-NPT-LP	3/8-NPT	1/8-NPT	1/4-NPT	0.21
VMA-K28-BO-G1/4-LP	G1/4	G1/8	G1/4	0.20
VMA-K28-BO-G3/8-LP	G1/4	G1/8	G1/4	0.21

Venturi with blowoff for vacuum cups with C-mount



Mat.: Aluminium

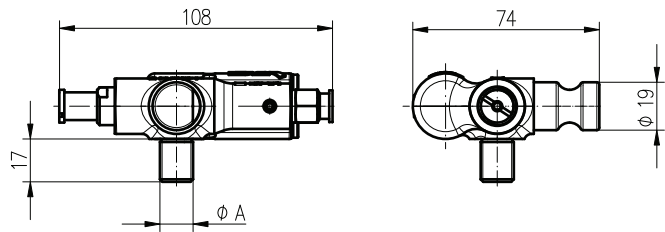


Part no.	Ø A	Ø B	■ (kg)
VMA-K28-BO-C-NPT	1/4-NPT	1/8-NPT	0.22
VMA-K28-BO-C	G1/4	G1/8	0.22

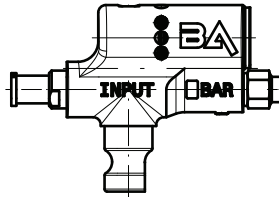
Venturi automatic ventilation



Mat.: Aluminium



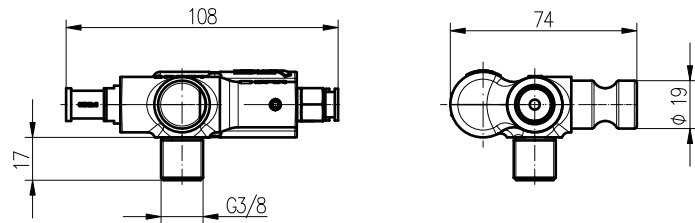
Part no.	$\varnothing A$	$\varnothing B$	■ (kg)
VMA-75-ABO-3/8-NPT	0.75"	3/8-NPT	0.164
VMA-19-ABO3-G1/4	19	G1/4	0.130
VMA-19-ABO3-G3/8	19	G3/8	0.164



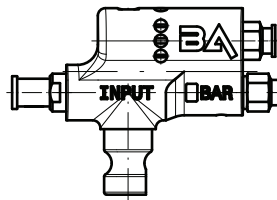
Venturi pneumatic ventilation



■ 0.164 kg
Mat.: Aluminium



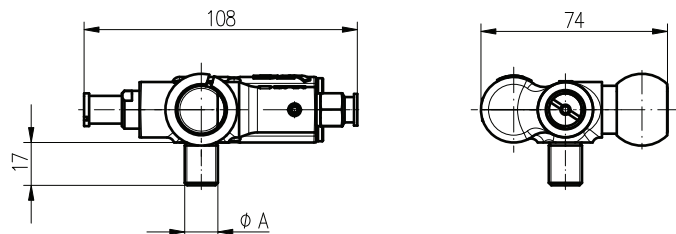
Part no.
VMA-19-MBO6-G3/8



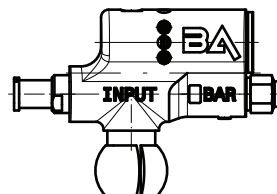
Venturi automatic ventilation



Mat.: Aluminium

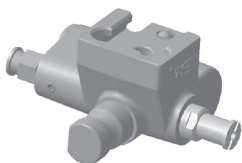


Part no.	$\varnothing A$	■ (kg)
VMA-K28-ABO-G1/4	G 1/4	0.189
VMA-K28-ABO-G3/8	G 3/8	0.213



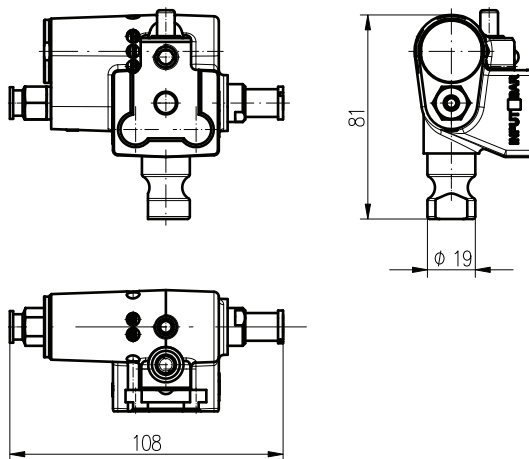


Venturi automatic ventilation

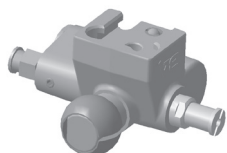


0.26 kg
Mat.: Aluminium

Part no.
VMA-19-ABO6-C

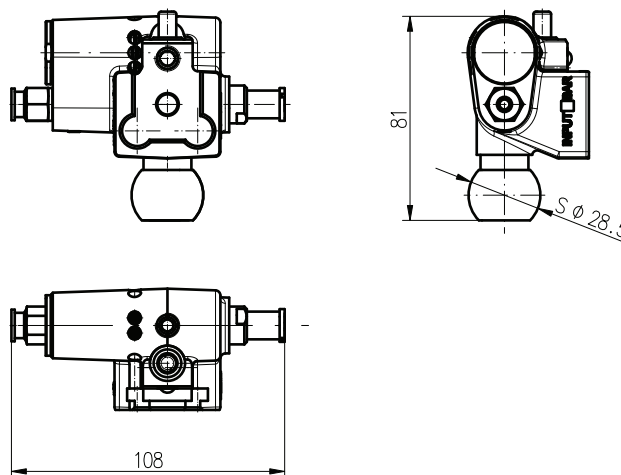


Venturi automatic ventilation

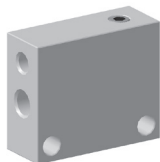


0.32 kg
Mat.: Aluminium

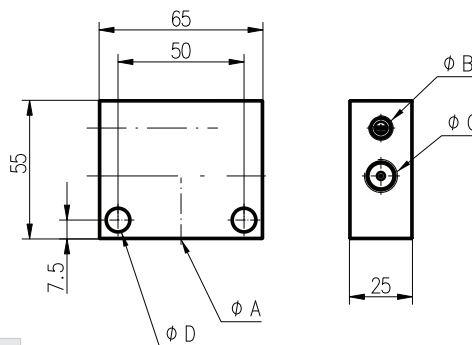
Part no.
VMA-K28-ABO-C



Venturi



Mat.: Aluminium



Part no.	ϕA	ϕB	ϕC	ϕD	Weight (kg)
VVB-8-BO	3/8-NPT	1/8-NPT	1/4-NPT	M8	0.233
VMA-8-BO-G3/8	G3/8	G1/8	G1/4	M8	0.233
VMA-8-BO-G3/8-9	G3/8	G1/8	G1/4	9	0.233

Venturi, Technical Data

Technical Data

Description	Unit	Value
Feed pressure. max.	MPa	0.7
Temperature range	°C	-10...80
Weight	g	ca. 160
Material		AL, NBR, PA, SS

Conversion

Pressure bar	Value
1	100.000 Pa
1	100 kPa
1	0.1m Pa

Vacuum flow

Feed pressure	Air consumption	Vacuum flow (NI*/s) at different vacuum levels (-kPa)										Max. Vacuum	
		0	10	20	30	40	50	60	70	80	-kPa		
MPa	NI/s												
0.17	0.29	0.57	0.40	0.22	0.15	0.07	-	-	-	-	-	-	49
0.22	0.34	0.64	0.48	0.29	0.20	0.14	0.08	0.02	-	-	-	-	64
0.314	0.44	0.68	0.60	0.44	0.27	0.19	0.14	0.10	0.06	0.03			90

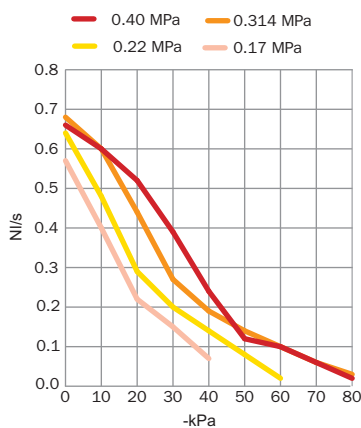
Evacuation time

Feed pressure	Air consumption	Evacuation time (NI*/s) to reach different vacuum levels (-kPa)									Max. Vacuum
		10	20	30	40	50	60	70	80	-kPa	
MPa	NI/s										
0.17	0.29	0.28	0.56	1.13	2.13	-	-	-	-	49	
0.22	0.34	0.20	0.42	0.85	1.50	2.30	3.00	-	-	64	
0.314	0.44	0.17	0.32	0.58	1.10	1.80	2.70	4.00	6.40	90	

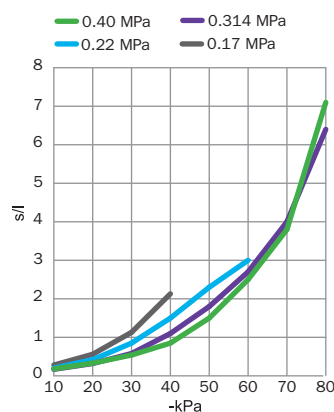
Blow flow

Feed pressure	Air consumption	Blow off (NI*/s) at different pressure levels (-kPa)												Max. Vakuu
		0	20	40	60	70	80	90	100	110	120	130	140	
MPa	NI/s													
0.6	0.75	1.37	1.36	1.13	1.12	1.03	1.03	1.03	1.03	1.00	0.95	0.86	0.79	1.40

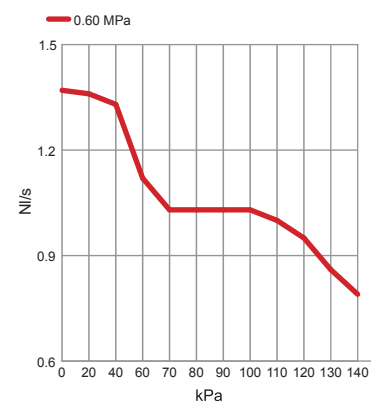
Vacuum flow



Evacuation time



Blow off



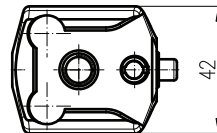
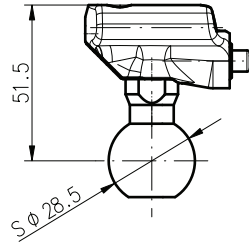


Port only adapter for vacuum cups with C-mount



■ 0.18 kg
Mat.: Aluminium

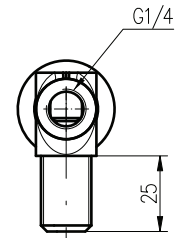
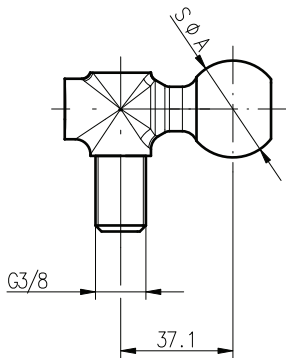
Part no.
KGL-K28-C



Cup mount adapter with air

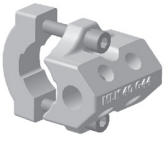


Mat.: Aluminium

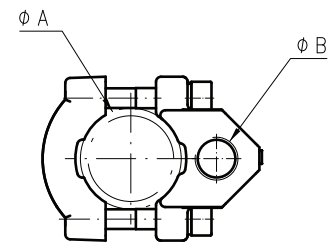
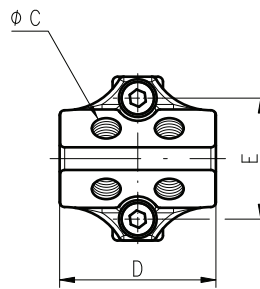


Partz no.	S Ø A	■ (kg)
KGL-PA-K28-AL-P001	28.5	0.071
KGL-PA-K32-AL-P001	32.0	0.088

Air distribution manifold

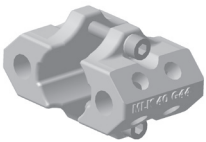


Mat.: Aluminium

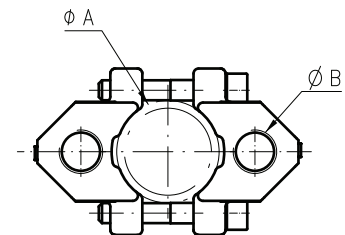
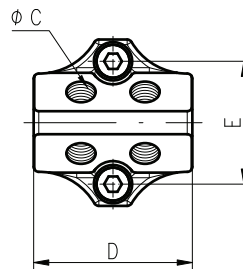


Part no.	Ø A	Ø B	C	D	E	■ (kg)
MLK-150-G44	1.5"	3/8-NPT	1/4-NPT	62	48	0.27
MLK-250-G44	2.5"	3/8-NPT	1/4-NPT	65	70	0.33
MLK-150-G44-01	1.5"	3/8-NPT	1/4-NPT	62	48	0.27
MLK-40-G44	40	G3/8	G1/4	62	48	0.27
MLK-40-G44-01	40	G3/8	G1/4	62	48	0.27
MLK-60-G44	60	G3/8	G1/4	65	70	0.33

Air distribution manifold



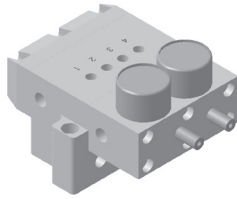
Mat.: Aluminium



Part no.	Ø A	Ø B	Ø C	D	E	■ (kg)
MLK-150-G44-02	1.5"	3/8-NPT	1/4-NPT	62	48	0.38
MLK-250-G44-01	2.5"	3/8-NPT	1/4-NPT	65	70	0.49
MLK-40-G44-2	40	G3/8	G1/4	62	48	0.38
MLK-60-G44-2	60	G3/8	G1/4	65	70	0.49

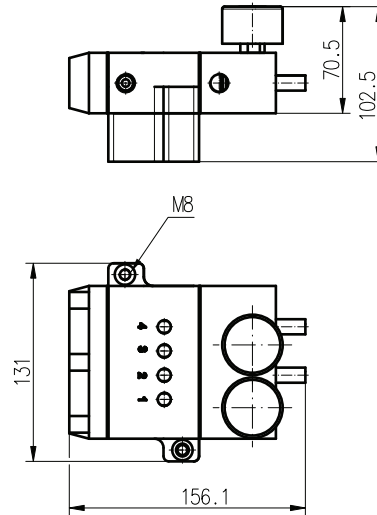


Multiport vacuum generator



1.59 kg
Mat.: Aluminium

Part no.
MG4-G8M

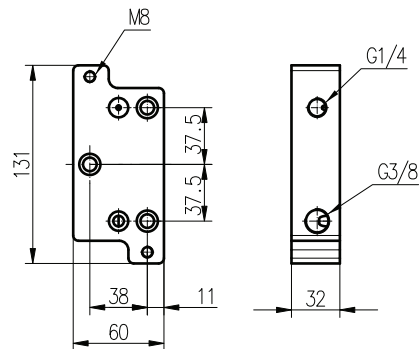


Base plate vacuum generator



0.531 kg
Mat.: Aluminium

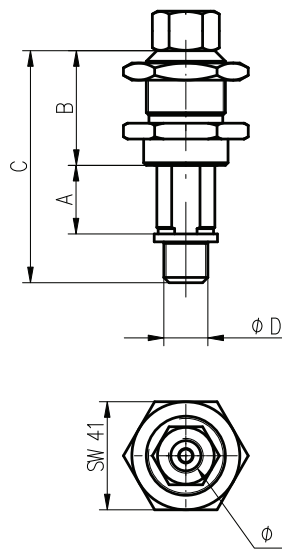
Part no.
MG4-G8M-04



Spring cup mounts



Mat.: Aluminium



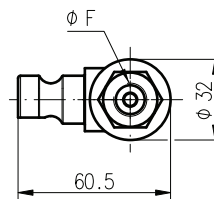
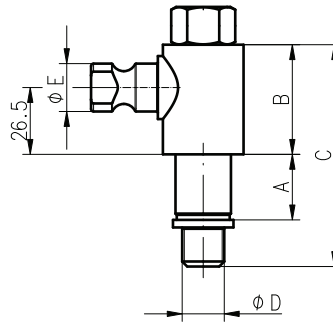
non rotating / rotating

Part no.	A Travel	B	C	Ø D	Ø E	■ (kg)
RCM-100-NR / RCM-100	19	43.5	88.0	3/8-NPT	1/4-NPT	0.17
RCM-150-NR / RCM-150	40	82.5	145.5	3/8-NPT	1/4-NPT	0.25
RCM-300-NR / RCM-300	75	142.0	246.5	3/8-NPT	1/4-NPT	0.32
RCM-19-NR / RCM-19	19	43.5	88.0	G3/8	G1/4	0.17
RCM-19-NR-A / RCM-19-A	19	43.5	88.0	G1/4	G1/4	0.17
RCM-19-W-NR	19	43.5	88.0	G3/8	G1/4	0.17
RCM-19-W-NR-A	19	43.5	88.0	G1/4	G1/4	0.17
RCM-40-NR / RCM-40	40	82.5	145.5	G3/8	G1/4	0.25
RCM-40-NR-A / RCM-40-A	40	82.5	145.5	G1/4	G1/4	0.25
RCM-40-W-NR	40	82.5	145.5	G3/8	G1/4	0.25
RCM-40-W-NR-A	40	82.5	145.5	G1/4	G1/4	0.25
RCM-75-NR / RCM-75	75	142.0	246.5	G3/8	G1/4	0.32
RCM-75-NR-A / RCM-75-A	75	142.0	246.5	G1/4	G1/4	0.32
RCM-75-W-NR	75	142.0	246.5	G3/8	G1/4	0.32
RCM-75-W-NR-A	75	142.0	246.5	G1/4	G1/4	0.32
RCM-95-NR / RCM-95	95	142.0	261.0	G3/8	G1/4	0.47
RCM-95-NR-A / RCM-95-A	95	142.0	261.0	G1/4	G1/4	0.47
RCM-95-W-NR	95	142.0	261.0	G3/8	G1/4	0.47
RCM-95-W-NR-A	95	142.0	261.0	G1/4	G1/4	0.47

Spring cup mounts



Mat.: Aluminium



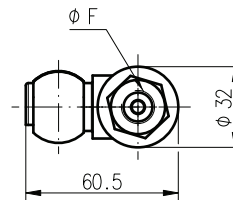
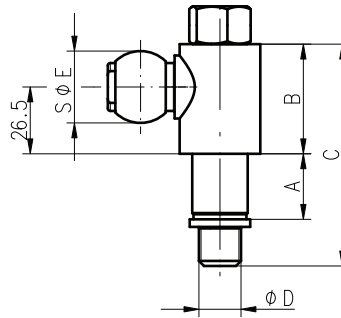
non rotating / rotating

Part no.	A Travel	B	C	Ø D	Ø E	Ø F	■ (kg)
SCM-100-G14-NR / SCM-100-G14	19	43.5	88.0	3/8-NPT	0.75"	1/4-NPT	0.13
SCM-150-G14-NR / SCM-150-G14	40	82.5	145.5	3/8-NPT	0.75"	1/4-NPT	0.25
SCM-300-G14-NR / SCM-300-G14	75	142.0	246.5	3/8-NPT	0.75"	1/4-NPT	0.32
SCM-375-G14-NR / SCM-375-G14	101	142.0	261.6	3/8-NPT	0.75"	1/4-NPT	0.47
SCM-19-G14-NR / SCM-19-G14	19	43.5	88.0	G3/8	19	G1/4	0.17
SCM-19-G14-NR-A / SCM-19-G14-A	19	43.5	88.0	G1/4	19	G1/4	0.17
SCM-40-G14-NR / SCM-40-G14	40	82.5	145.5	G3/8	19	G1/4	0.25
SCM-40-G14-NR-A / SCM-40-G14-A	40	82.5	145.5	G1/4	19	G1/4	0.25
SCM-75-G14-NR / SCM-75-G14	75	142.0	246.5	G3/8	19	G1/4	0.32
SCM-75-G14-NR-A / SCM-75-G14-A	75	142.0	246.5	G1/4	19	G1/4	0.32
SCM-95-G14-NR / SCM-95-G14	95	142.0	261.0	G3/8	19	G1/4	0.47
SCM-95-G14-NR-A / SCM-95-G14-A	95	142.0	261.0	G1/4	19	G1/4	0.47

Spring cup mounts



Mat.: Aluminium

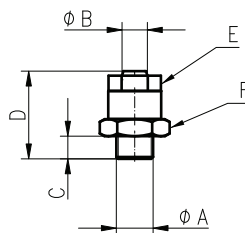
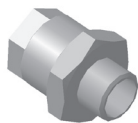


non rotating / rotating

Part no.	A Travel	B	C	Ø D	SØ E	Ø F	■ (kg)
SCM-100-G14-K28-NR / SCM-100-G14-K28	19	43.5	88.0	3/8-NPT	28.5	1/4-NPT	0.13
SCM-150-G14-K28-NR / SCM-150-G14-K28	40	82.5	145.5	3/8-NPT	28.5	1/4-NPT	0.25
SCM-300-G14-K28-NR / SCM-300-G14-K28	75	142.0	246.5	3/8-NPT	28.5	1/4-NPT	0.32
SCM-375-G14-K28-NR / SCM-375-G14-K28	101	142.0	261.6	3/8-NPT	28.5	1/4-NPT	0.47
SCM-19-G14-K28-NR / SCM-19-G14-K28	19	43.5	88.0	G3/8	28.5	G1/4	0.17
SCM-19-G14-K28-NR-A / SCM-19-G14-K28-A	19	43.5	88.0	G1/4	28.5	G1/4	0.17
SCM-19-G14-K32-NR / SCM-19-G14-K32	19	43.5	88.0	G3/8	32.0	G1/4	0.17
SCM-40-G14-K28-NR / SCM-40-G14-K28	40	82.5	145.5	G3/8	28.5	G1/4	0.25
SCM-40-G14-K28-NR-A / SCM-40-G14-K28-A	40	82.5	145.5	G1/4	28.5	G1/4	0.25
SCM-40-G14-K32-NR / SCM-40-G14-K32	40	82.5	145.5	G3/8	32.0	G1/4	0.25
SCM-75-G14-K28-NR / SCM-75-G14-K28	75	142.0	246.5	G3/8	28.5	G1/4	0.32
SCM-75-G14-K28-NR-A / SCM-75-G14-K28-A	75	142.0	246.5	G1/4	28.5	G1/4	0.32
SCM-75-G14-K32-NR / SCM-75-G14-K32	75	142.0	246.5	G3/8	32.0	G1/4	0.32
SCM-95-G14-K28-NR / SCM-95-G14-K28	95	142.0	261.0	G3/8	28.5	G1/4	0.47
SCM-95-G14-K32-NR / SCM-95-G14-K32	95	142.0	261.0	G1/4	32.0	G1/4	0.47

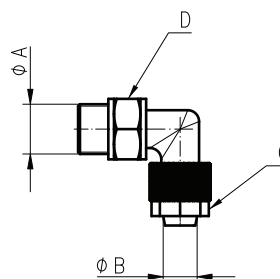
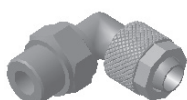


Straight screw, coupling, rotatable



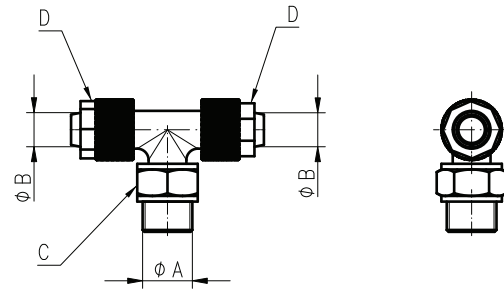
Part no.	Ø A	Ø B	C	D	E	F	■ (kg)
GEV-1/8-6x4-SCH	G 1/8	6	5.5	24.0	SW10	SW13	0.017
GEV-1/8-8x6-SCH	G 1/8	8	6.0	23.5	SW12	SW13	0.023
GEV-1/8-8x6-SCH-SW15	G 1/8	8	6.0	26.0	SW12	SW15	0.023
GEV-1/8-10x8-SCH	G 1/8	10	6.0	26.0	SW14	SW14	0.026
GEV-1/4-6x4-SCH	G 1/4	6	8.0	25.5	SW10	SW17	0.015
GEV-1/4-8x6-SCH	G 1/4	8	8.0	25.5	SW12	SW17	0.025
GEV-1/4-10x8-SCH	G 1/4	10	8.0	29.0	SW14	SW16	0.029
GEV-3/8-6x4-SCH	G 3/8	6	8.0	27.0	SW12	SW16	0.032
GEV-3/8-8x6-SCH	G 3/8	8	7.5	28.0	SW12	SW19	0.029
GEV-3/8-10x8-SCH	G 3/8	10	8.0	30.0	SW19	SW14	0.035

Angled screw-in plug, rotatable



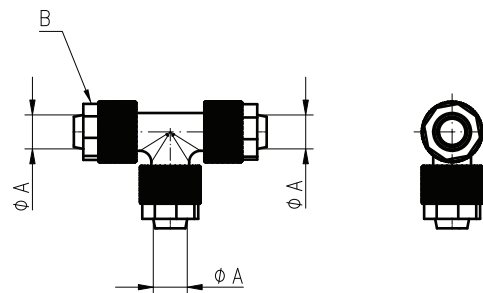
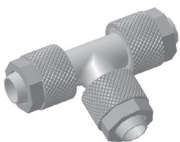
Part no.	Ø A	Ø B	C	D	■ (kg)
WEVD1/8-6x4-SCH	G 1/8	6	SW10	SW14	0.023
WEVD-1/8-8x6-SCH	G 1/8	8	SW13	SW12	0.030
WEVD-1/4-6x4-SCH	G 1/4	6	SW10	SW16	0.030
WEVD-1/4-8x6-SCH	G 1/4	8	SW12	SW16	0.033
WEVD-1/4-10x8-SCH	G 1/4	10	SW14	SW16	0.043

T-type screw-in plug, rotatable



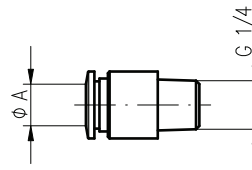
Part no.	Ø A	Ø B	C	D	■ (kg)
TEVDZ-1/8-6x4-SCH	G 1/8	6	SW14	SW10	0.033
TEVDZ-1/4-6x4-SCH	G 1/4	6	SW17	SW12	0.038
TEVDZ-1/4-8x6-SCH	G 1/4	8	SW16	SW14	0.045
TEVDZ-1/4-10x8-SCH	G 1/4	10	SW17	SW12	0.052

T-connector



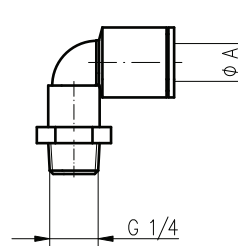
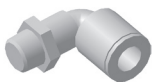
Part no.	Ø A	B	■ (kg)
TVB-6x4-SCH	6	SW14	0.030
TVB-8x6-SCH	8	SW16	0.037
TVB-10x8-SCH	10	SW17	0.049

Push-in connector



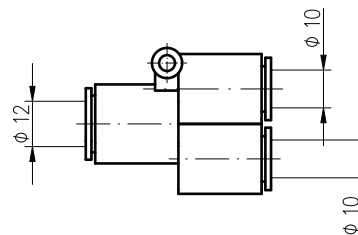
Part no.	ϕA	B	■ (kg)
KQ2S10-02S	10	G 1/4	0.012
KQ2S12-02S	12	G 1/4	0.023

Push-in L-connector



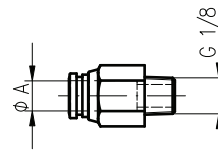
Part no.	ϕA	B	■ (kg)
KQ2L10-02S	10	G 1/4	0.026
KQ2L12-02S	12	G 1/4	0.028

Push-in Y-connector



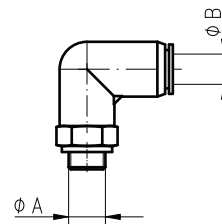
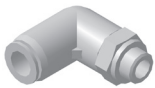
Part no.	■ (kg)
KQ2U10-12	0.027

Push-in connector



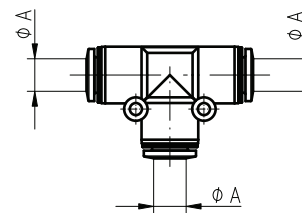
Part no.	ϕA	■ (kg)
QS-1/8-6	6	0.009
QS-1/8-8	8	0.015

Push-in L-connector



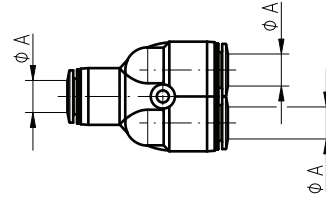
Part no.	ϕA	ϕB	■ (kg)
QSL-1/8-6	G 1/8	6	0.014
QSL-1/8-8	G 1/8	8	0.018
QSL-1/4-6	G 1/4	6	0.022
QSL-1/4-8	G 1/4	8	0.027

Push-in T-connector



Part no.	ϕA	■ (kg)
QST-1/8-6	6	0.009
QST-1/8-8	8	0.015

Push-in Y-connector



Part no.	ϕA	■ (kg)
QSY-6	6	0.011
QSY-8	8	0.016

Pneumatic tube



Plasting tubing, standard
 Ambient temperature: -35° ...60°C
 Temperature dependent operating pressure: -0,95...+10 bar
 Material: polyurethane

Part no.	Outside- ϕ	Inside- ϕ	Color
PUN-6x1-BL	6	4	blue
PUN-6x1-GE	6	4	yellow
PUN-6x1-GN	6	4	green
PUN-6x1-RT	6	4	red
PUN-6x1-SI	6	4	silver
PUN-6x1-SW	6	4	black
PUN-8x1.25-BL	8	5.7	blue
PUN-8x1.25-GE	8	5.7	yellow
PUN-8x1.25-GN	8	5.7	green
PUN-8x1.25-RT	8	5.7	red
PUN-8x1.25-SI	8	5.7	silver
PUN-8x1.25-SW	8	5.7	black
PUN-10x1.5-BL	10	7	blue
PUN-10x1.5-GE	10	7	yellow
PUN-10x1.5-GN	10	7	green
PUN-10x1.5-RT	10	7	red
PUN-10x1.5-SI	10	7	silver
PUN-10x1.5-SW	10	7	black
PUN-12x2-SI	12	8	silver














Pneumatic tube








Plastic tubing, standard
 Ambient temperature: -20°...60°C
 operating pressure at 20°C : 0,8MPa
 Material: polyurethane

Part no.	Outside-Ø	Inside-Ø	Color
TU0604BU	6	4	blue
TU0604C	6	4	clear
TU0604R	6	4	red
TU0805BU	8	5	blue
TU0805C	8	5	clear
TU0805G	8	5	green
TU0805R	8	5	red
TU0805W	8	5	white
TU0805Y	8	5	yellow
TU1065BU	10	6.5	blue
TU1208BU	12	8	blue

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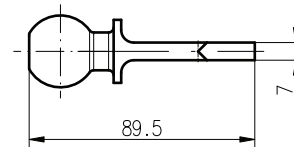
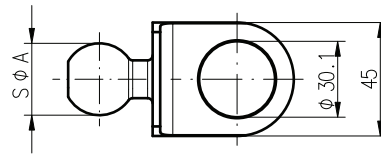
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Holder for spring cup mounts and proximity switch mounts



Mat.: Aluminium

Part no.	Ø A	■ (kg)
SAPA-I-30-K28	28.5	0.067
SAPA-I-30-K32	32.0	0.076

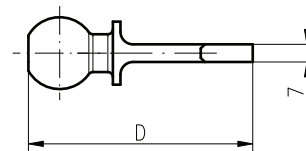
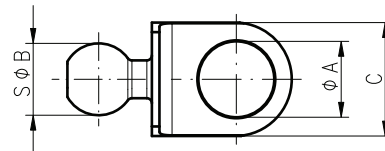


Holder for spring cup mounts and proximity switch mounts



Mat.: Steel

Part no.	Ø A	Ø B	C	D	■ (kg)
SAPS-I-30-K28	30.1	28.5	45	89.5	0.187
SAPS-I-30-K32	30.1	32.0	45	89.5	0.216
SAPS-I-M2015-K28	M20x1.5	28.5	34	76.0	0.153

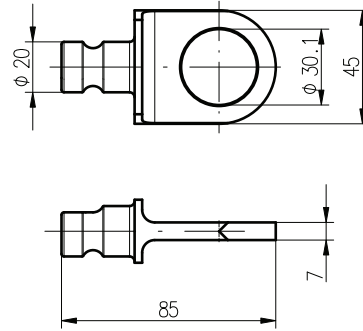


Holder for spring cup mounts and proximity switch mounts



0.06 kg
Mat.: Aluminium

Part no.
SAPA-I-30-B20

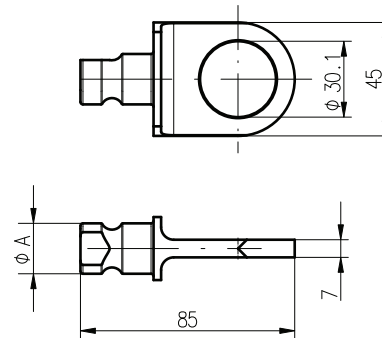


Holder for spring cup mounts and proximity switch mounts

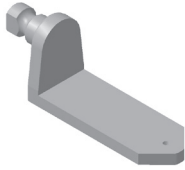


Mat.: Steel

Part no.	Ø A	■ (kg)
SAPS-I-30-B19	19	0.174
SAPS-I-30-B20	20	0.174

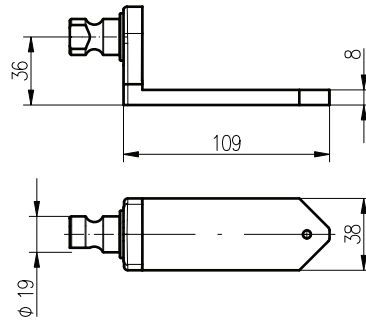


Proximity switch mounts



■ 0.16 kg
Mat.: Aluminium

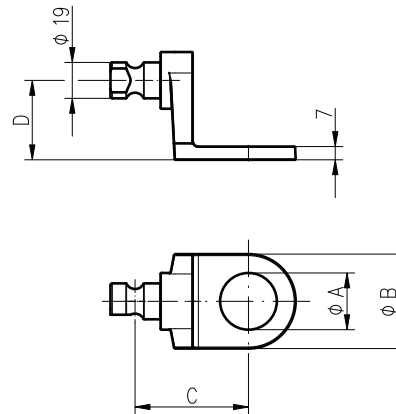
Part no.
SAP-NJ50



Proximity switch mounts



■ 0.16 kg
Mat.: Aluminium

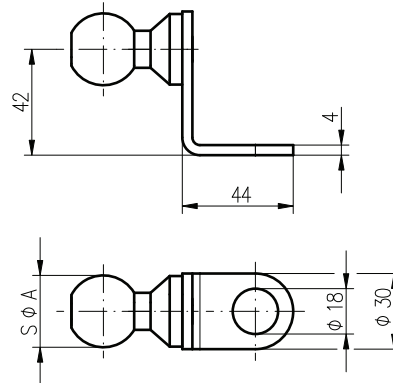


Part no.	Ø A	Ø B	C	D	■ (kg)
SAPA-18	18	50	60	42	0.13
SAPA-30	30	50	60	42	0.14
SAPA-36	36	50	60	42	0.11
SAPA-42	42	60	67.5	38	0.13
SAPA-47	47	67	67.0	38	0.14

Proximity switch mounts



Mat.: Steel

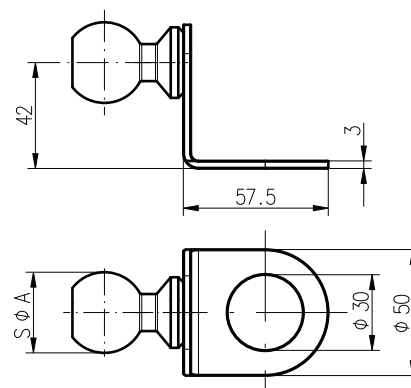


Part no.	SØ A	■ (kg)
SAPS-18-K28	28.5	0.18
SAPS-18-K32	32.0	0.23
SAPS-18-K36	36.0	0.25

Proximity switch mounts



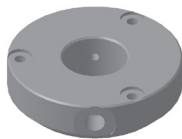
Mat.: Steel



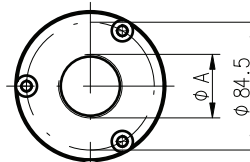
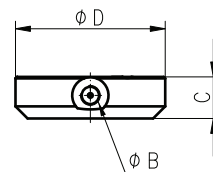
Part no.	SØ A	■ (kg)
SAPS-30-K28	28.5	0.21
SAPS-30-K32	32.0	0.24
SAPS-30-K36	36.0	0.27



Adapter for double blank detector

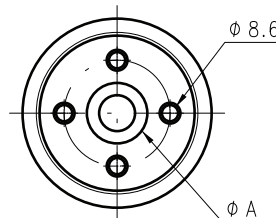
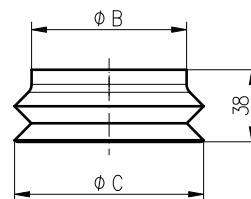


Mat.: Aluminium



Part no.	Ø A	Ø B	C	Ø D	■ (kg)
825SM-4215-3/8-NPT	M42x1.5	3/8-NPT	27.5	99	0.44
825SM-54075-3/8-NPT	M54x0.75	3/8-NPT	25.0	120	0.56
825SM-1810-G1/4	M18x1.0	G1/4	27.5	99	0.26
825SM-3015-G3/8	M30x1.5	G3/8	27.5	99	0.23
825SM-4215-G3/8	M42x4.5	G3/8	27.5	99	0.44
825SM-54075-G3/8	M54x0.75	G3/8	25.0	120	0.56

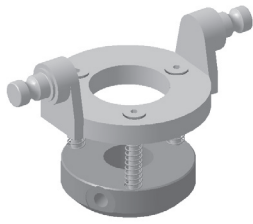
Vacuum cups for double blank detector



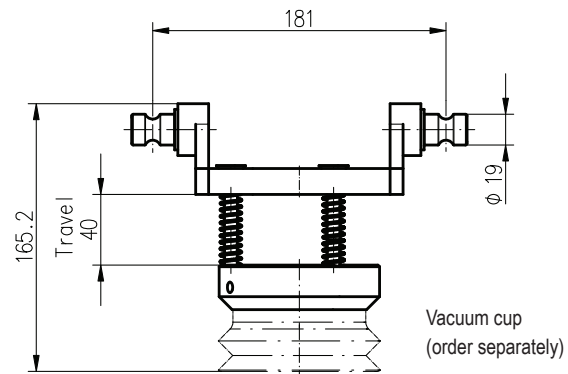
Part no.	Ø A	Ø B	Ø C	■ (kg)
100BT-4215-*	42	85	100	0.12
125BT-4215-*	54	109	125	0.20

Ordering information		e.g.: 100BT-4215-
55		
Size	Hardness in Shore	
↓	↓	
100BT-4215	30 (green)	
125BT-4215	45 (red)	
	55 (yellow)	
	60 (black)	

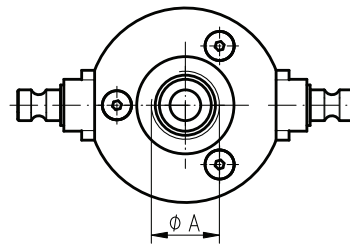
Adapter for spring-mounted double blank detector



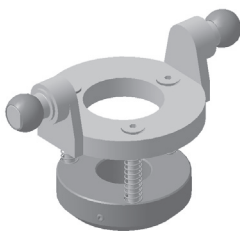
Mat.: Aluminium



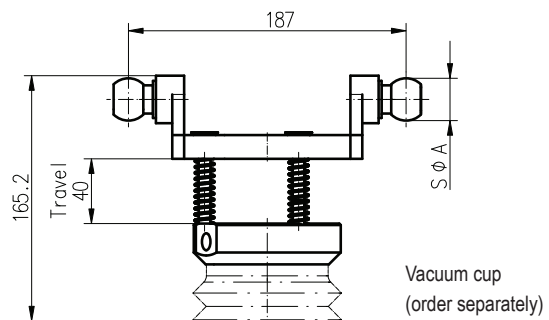
Part no.	Ø A	■ (kg)
825SM-0000-01	-	1.34
825SM-1810-01	M18x1.0	1.21
825SM-3015-01	M30x1.5	1.85
825SM-4215-01	M42x1.5	1.15
825SM-54075-01	M54x0.75	1.06



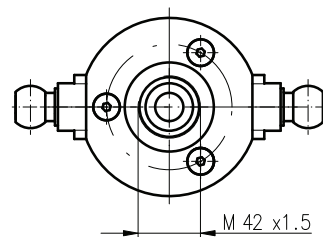
Adapter for spring-mounted double blank detector



Mat.: Aluminium

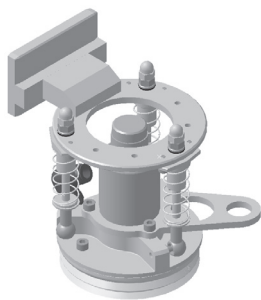


Part no.	SØ A	■ (kg)
825SM-4215-01-K28	28.5	1.15
825SM-4215-01-K32	32.0	1.30

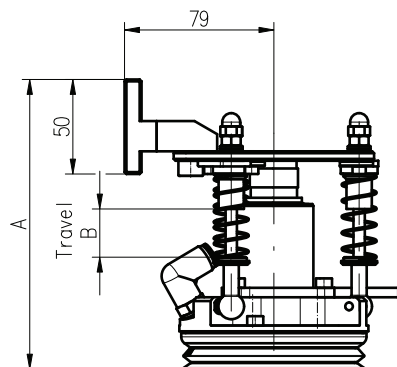




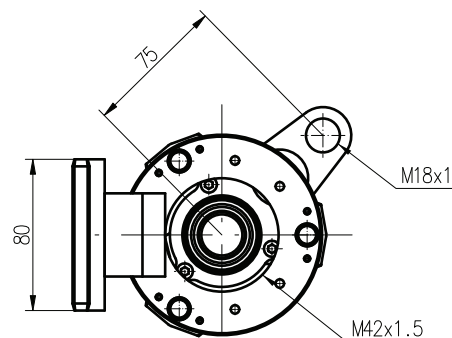
Spring-mounted double blank detector with belcup



Mat.: Aluminium



Part no.	A	B	Ⓜ (kg)
825SM-4215-DBT*	153.2	25.5	0.726
825SM-4215-DBT100*	227.5	100.0	0.838

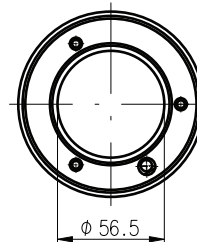
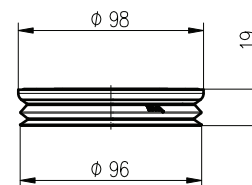


Ordering information		e.g.: 825SM-4215-DBT-55
825SM-4215	-	-
	Size	Hardness in Shore
	↓	↓
	DBT	30 (green)
	DBT100	45 (red)
		55 (yellow)
		60 (black)
		WF2** (black)
**High temperature resistant up to 250°C		

Belcup for Spring-mounted double blank detector

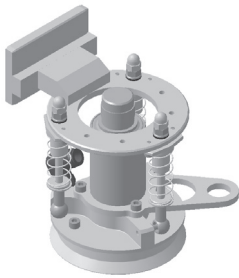


Part no.	Ⓜ (kg)
100DBT-4215*	0.726

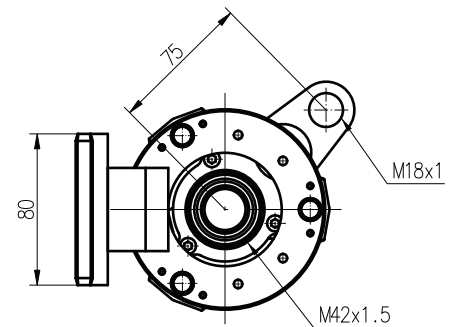
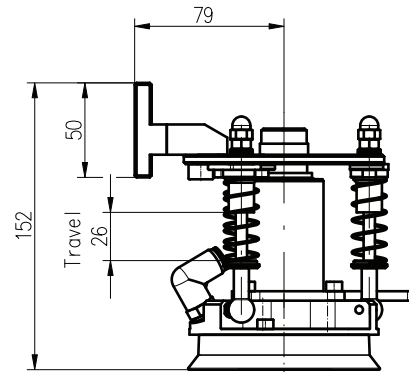


Ordering information		e.g.: 100DBT-4215-55
100DBT-4215	Hardness in Shore	
	↓	
	30 (green)	
	45 (red)	
	55 (yellow)	
	60 (black)	
	WF2** (black)	
**High temperature resistant up to 250°C		

Spring-mounted double blank detector with flat foot cup



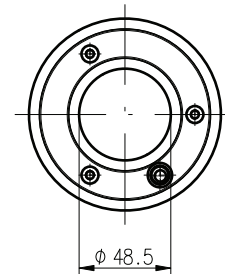
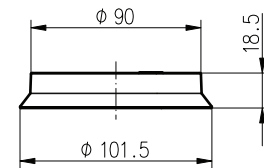
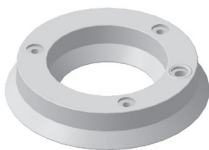
Mat.: Aluminium



Part no.	☐ (kg)
825SM-4215-DBTF-*	0.708

Ordering information		e.g.: 825SM-4215-DBTF-55
825SM-4215-DBTF	-	
	Hardness in Shore	
	↓	
	30 (green)	
	45 (red)	
	55 (yellow)	
	60 (black)	
	WF2** (black)	
	**High temperature resistant up to 250°C	

Flat foot cup for Spring-mounted double blank detector

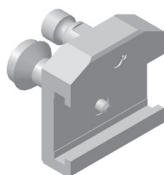


Part no.	☐ (kg)
100DBTF-4215-*	0.726

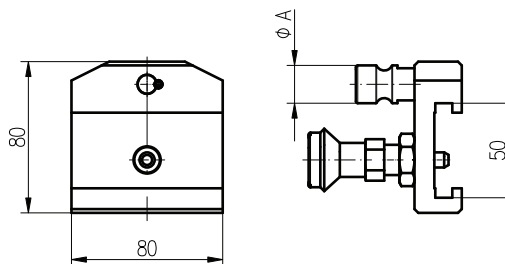
Ordering information		e.g.: 100DBTF-4215-55
100DBTF-4215	-	
	Hardness in Shore	
	↓	
	30 (green)	
	45 (red)	
	55 (yellow)	
	60 (black)	
	WF2** (black)	
	**High temperature resistant up to 250°C	



Holder for spring-mounted double blank detector



Mat.: Aluminium

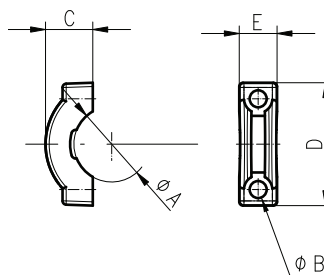


Part no.	Ø A	■ (kg)
825SM-4215-05-AP	19	0.32
825SM-4215-05-AP-B20	20	0.32

Clamp

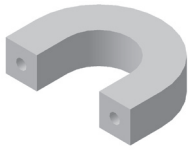


Mat.: Aluminium

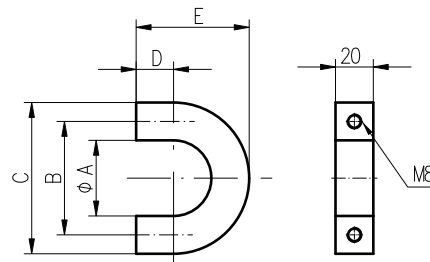


Part no.	Ø A	Ø B	C	D	E	■ (kg)
TR-150-31	1.5"	M8	25	65	20	0.05
TR-150-31-03	1.5"	Ø9	25	65	20	0.05
TR-250-31-02	2.5"	M8	30	90	20	0.07
TR-250-31-03	2.5"	Ø9	30	90	17	0.07
TR-40-31	40	M8	25	65	20	0.05
TR-40-31-03	40	Ø9	25	65	20	0.05
TR-60-31	60	M8	30	90	20	0.07
TR-60-31-02	60	M8	30	90	20	0.07
TR-60-31-03	60	Ø9	30	90	17	0.07

Clamp

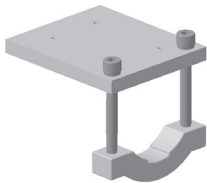


Mat.: Aluminium

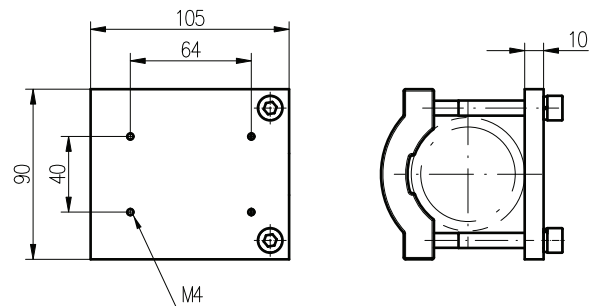


Part no.	Ø A	B	C	D	E	■ (kg)
TR-150-31-02	1.5"	60	80	19.8	59.8	0.14
TR-250-31-04	2.5"	86	100	29.8	79.8	0.20
TR-40-31-02	40	60	80	19.8	59.8	0.14
TR-60-31-04	60	86	100	29.8	79.8	0.20

Mounting plate for e-distributor

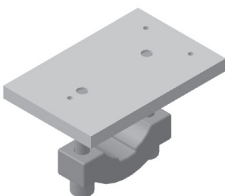


■ 0.33 kg
Mat.: Aluminium

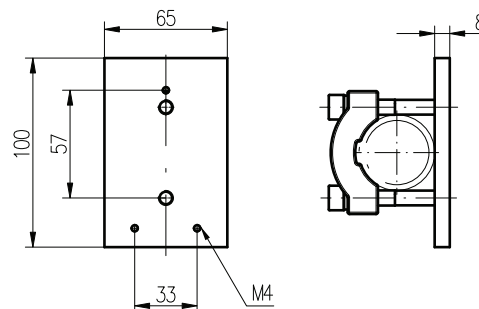


Part no.	A
PL-105-250	73
PL-105-60	70

Mounting plate for e-distributor



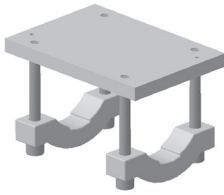
■ 0.245 kg
Mat.: Aluminium



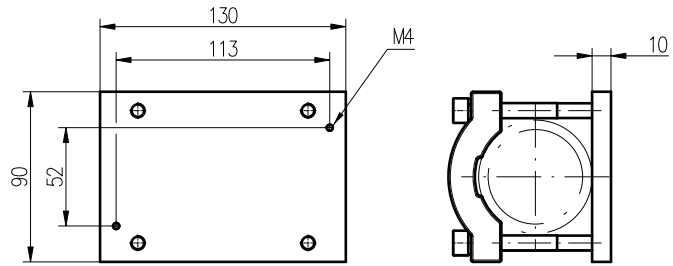
Part no.
PL-100-40-S



Mounting plate for e-distributor

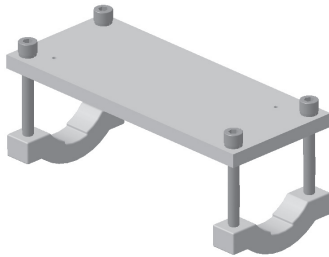


■ 0.33 kg
Mat.: Aluminium

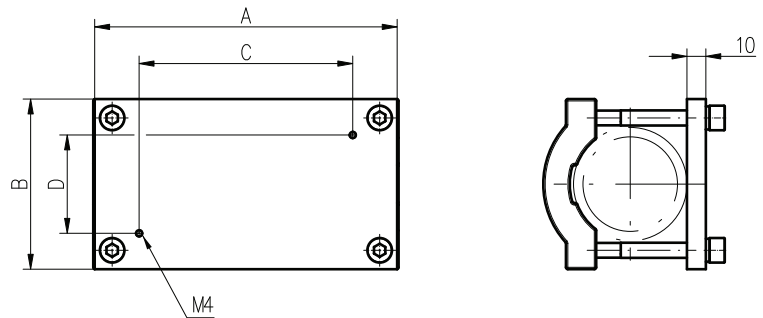


Part no.	A
PL-130-250	73
PL-130-60	70

Mounting plate for e-distributor

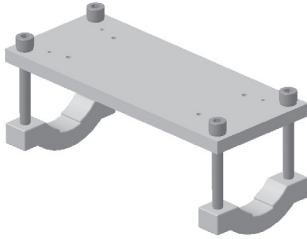


Mat.: Aluminium



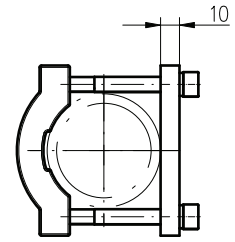
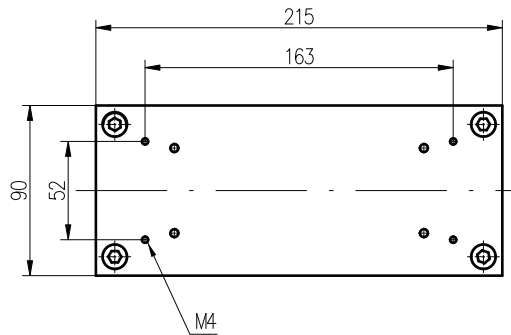
Part no.	A	B	C	D	■ (kg)
PL-160-250	160	250	113	52	0.54
PL-215-150	215	150	157	52	0.52
PL-215-250	215	250	157	52	0.57
PL-160-60	160	60	113	52	0.54
PL-215-40	215	40	157	52	0.52
PL-215-60	215	60	157	52	0.57

Mounting plate for e-distributor

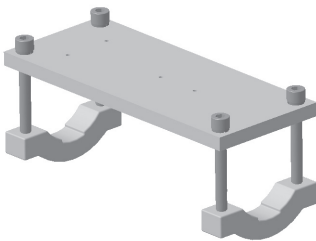


0.67 kg
Mat.: Aluminium

Part no.	A
PL-215-250-DC	73
PL-215-60-DC	70

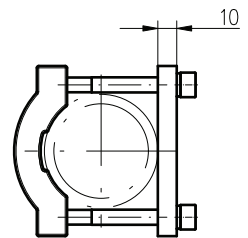
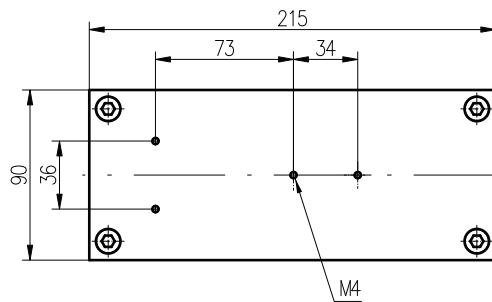


Mounting plate for e-distributor



0.67 kg
Mat.: Aluminium

Part no.	A
PL-215-250-S	73
PL-215-60-S	70

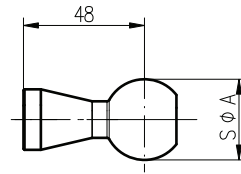




Ball mount

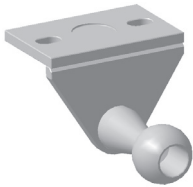


Mat.: Aluminium

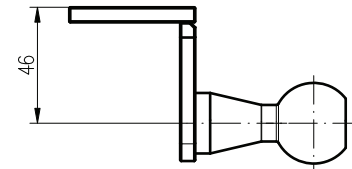


Part no.	S ØA	█ (kg)
KGL-PL-K28-P002	28.5	0.16
KGL-PL-K32-P002	32.0	0.15
KGL-PL-K36-P002	36.0	0.15

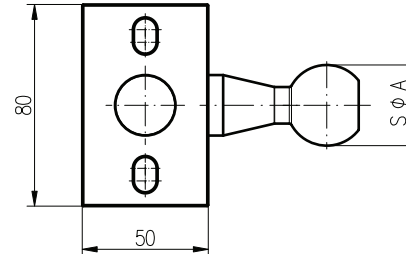
Ball adapter plate



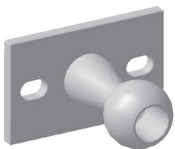
Mat.: Aluminium



Part no.	S ØA	█ (kg)
KGL-PL-00-K28	28.5	0.46
KGL-PL-00-K32	32.0	0.47
KGL-PL-00-K36	36.0	0.49

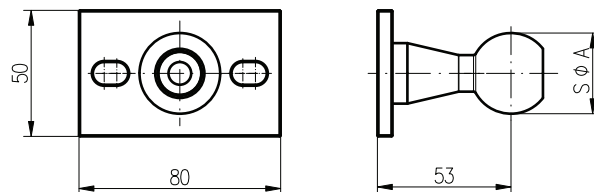


Ball adapter plate



Mat.: Aluminium

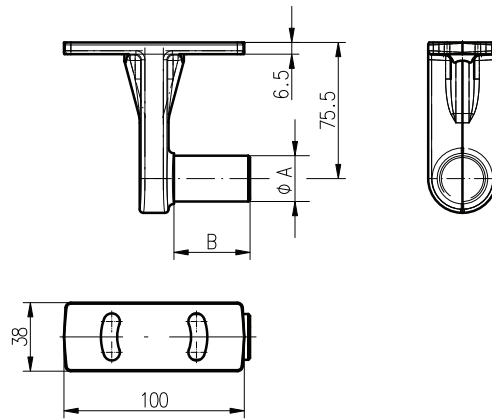
Part no.	S ØA	█ (kg)
KGL-PL-90-K28	28.5	0.34
KGL-PL-90-K32	32.0	0.35
KGL-PL-90-K36	36.0	0.37



Shovel adapters



Mat.: Steel

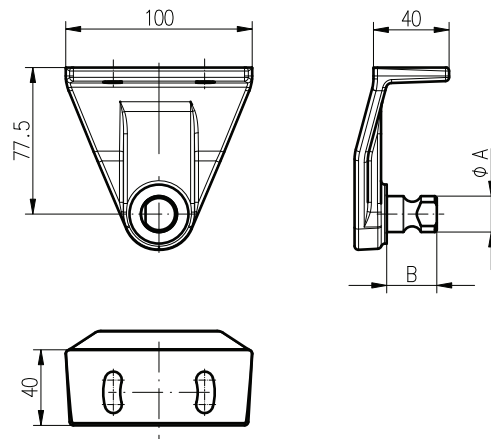


Part no.	Ø A	B	■ (kg)
EST-90-100-410	0.75"	26.5	0.26
EST-90-19-410	19	26.5	0.22
EST-90-25-410	25	42.2	0.26

Shovel adapters

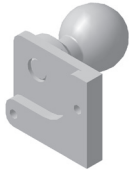


Mat.: Steel

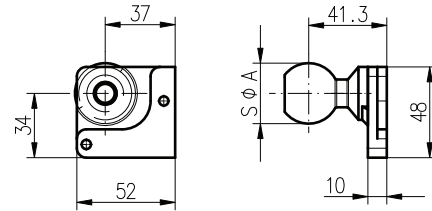


Part no.	Ø A	B	■ (kg)
EST-00-075	0.75"	26.5	0.24
EST-00-100	1.0"	42.5	0.26
EST-00-19-410	19	26.5	0.24
EST-00-25-410	25	26.5	0.26

Shovel mounts

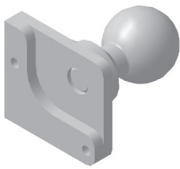


Mat.: Steel

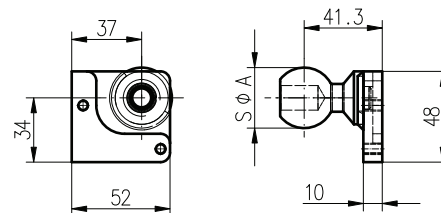


Part no.	SØ A	^a (kg)
SH-K28-L	28.5	0.270
SH-K32-L	32.0	0.299
SH-K36-L	36.0	0.321

Shovel mounts



Mat.: Steel

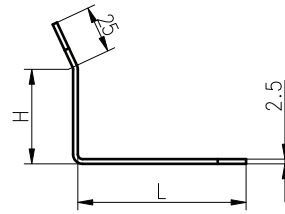


Part no.	SØ A	^a (kg)
SH-K28-R	28.5	0.270
SH-K32-R	32.0	0.299
SH-K36-R	36.0	0.321

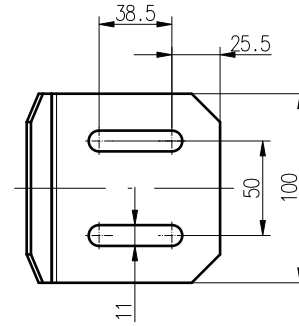
Nest guides



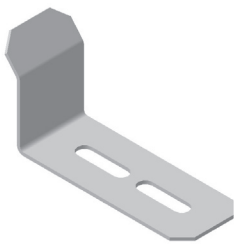
Mat.: Steel



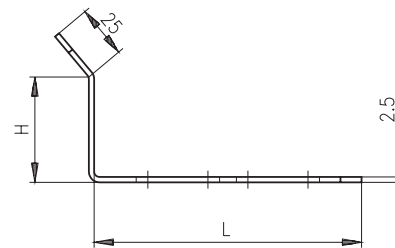
Ordering information		e.g.: NPG-410S-89-50
NPG-410S	-L	-H
	Length	Height
	↓	↓
	89	(25 - 100) 25mm increments
	114	
	133	
	165	



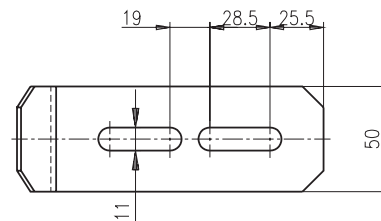
Nest guides



Mat.: Steel

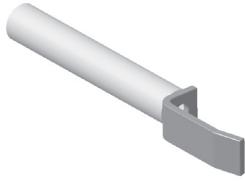


Ordering information		e.g.: NPG-410E-127-50
NPG-410E	-L	-H
	Length	Height
	↓	↓
	127	(25 - 100) 25mm increments
	152	
	178	
	203	

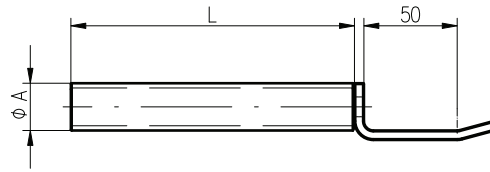




Nest pad guide

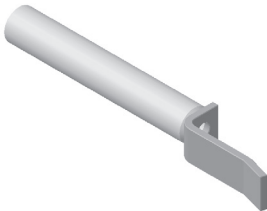


Mat.: Steel

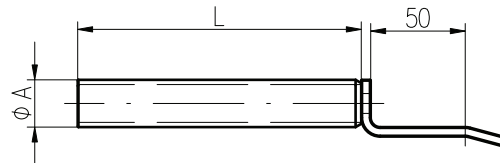


Ordering information				e.g.: NPG-410-25-50-200	
NPG-410	-A	-50	-L		
	Diameter		Length		
	↓		↓		
	20		150 - 400 (50mm increments)		
	25				
	30				

Nest pad guide

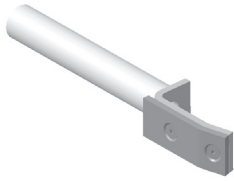


Mat.: Steel

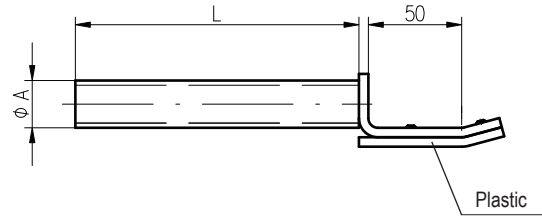


Ordering information					e.g.: NPG-410-25-50-200-B	
NPG-410	-A	-50	-L		-B	
	Diameter		Length			
	↓		↓			
	20		150 - 400 (50mm increments)			
	25					
	30					

Nest pad guide



Mat.: Steel

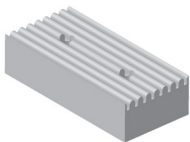


Ordering information

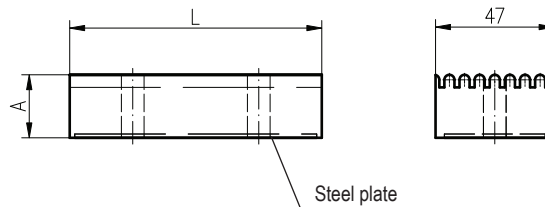
e.g.: NPG-410-25-50-200-A

NPG-410	-A	-50	-L	-A
	Diameter		Length	
	↓		↓	
	20		150 - 400 (50mm increments)	
	25			
	30			

Rib top pads



Mat.: NBR



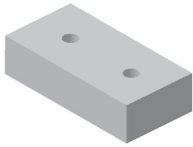
Ordering information

e.g.: RT-25-150-45

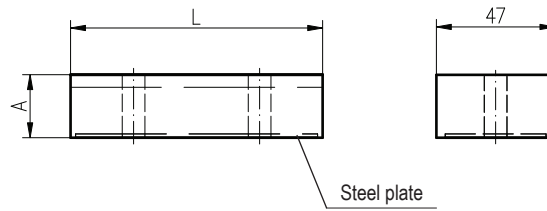
RT	-A	-L	-
	Height	Length	Durometer
	↓	↓	↓
	12	100 - 300 (50mm increments)	30 (green)
	25		45 (red)
	50		60 (black)
	75		



Smooth top pads







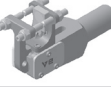

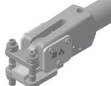
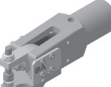




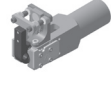
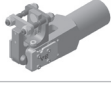
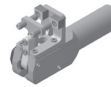

Mat.: NBR



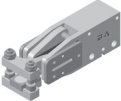
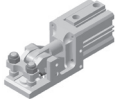

Ordering information			
ST	-A	-L	-
	Height	Lenght	Dujrometer
	↓	↓	↓
	12	100 - 300 (50mm increments)	30 (green)
	25		45 (red)
	50		60 (black)
	75		


e.g.: ST-25-150-45





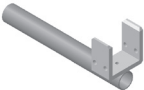
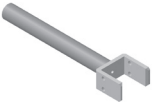
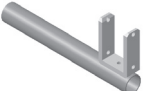
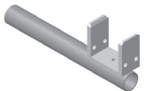
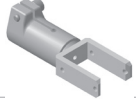




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	Pneumatik clamp, PS-30-L	206
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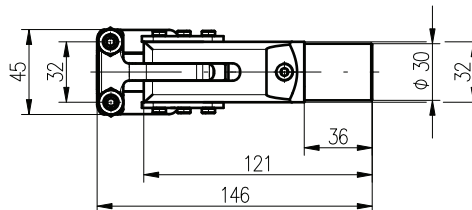
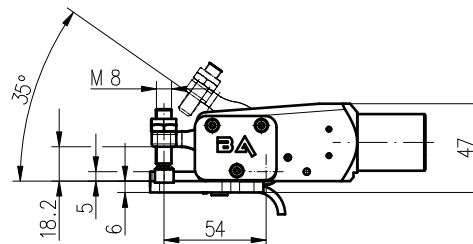
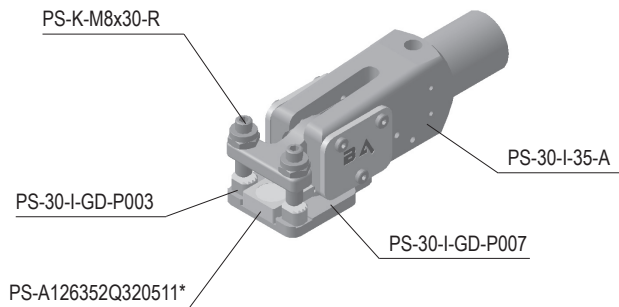
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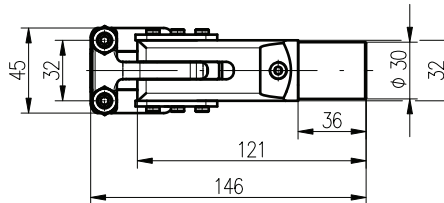
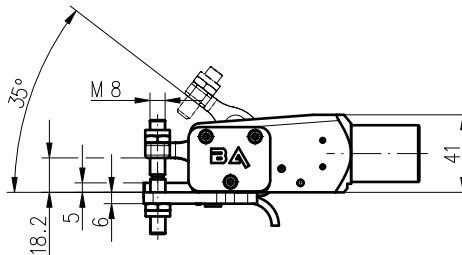
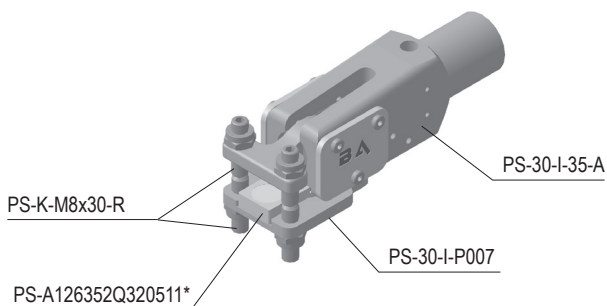
Pneumatic clamp, PS-30-I-35



Part no.	☐ (kg)
PS-30-I-35-K-B	0.569
PS-30-I-35-K-B-S*	0.576

* with Sensor

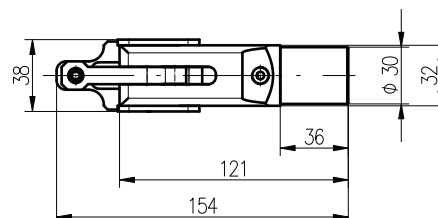
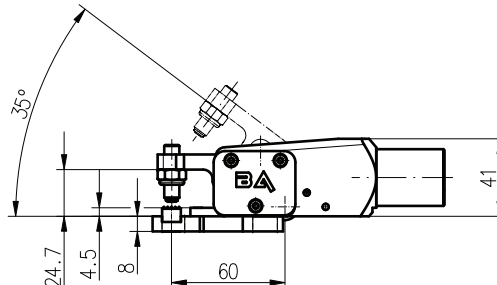
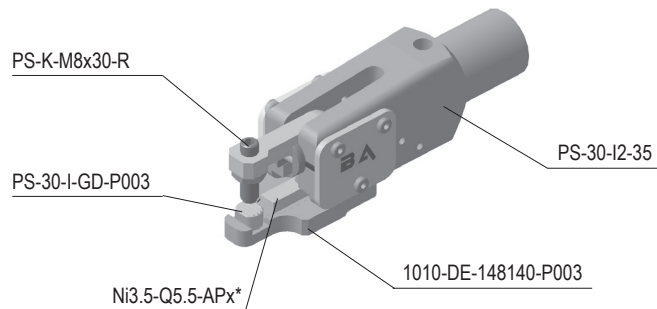
Pneumatic clamp, PS-30-I-35



Part no.	☐ (kg)
PS-30-I-35-K-K	0.571
PS-30-I-35-K-K-S*	0.578

* with Sensor

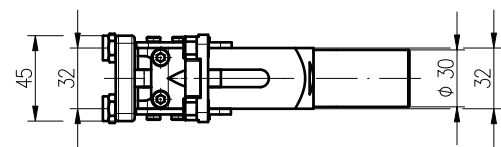
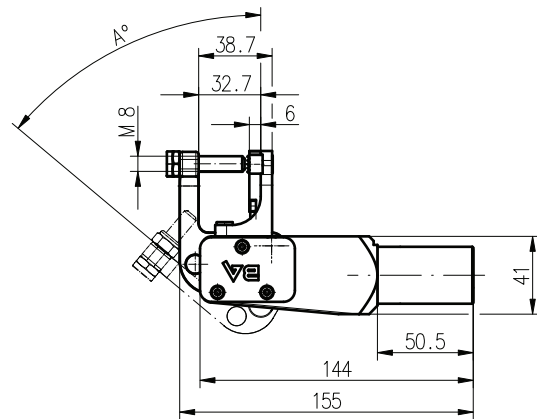
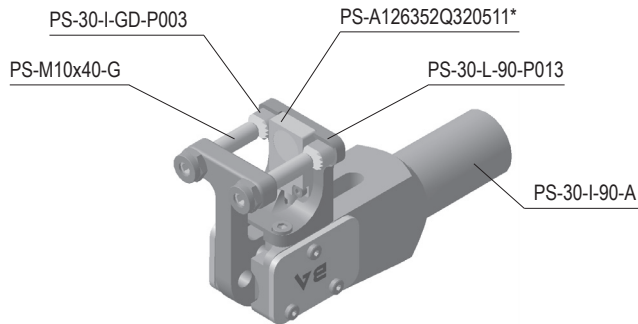
Pneumatic clamp, PS-30-I-35



Part no.	☐ (kg)
PS-30-I2-35-K-B	0.555
PS-30-I2-35-K-B-S*	0.562

* with Sensor

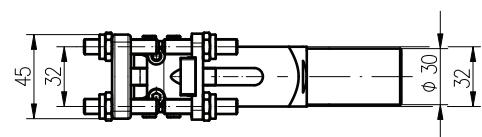
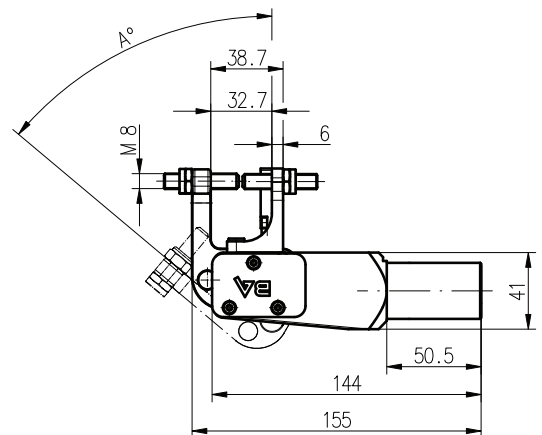
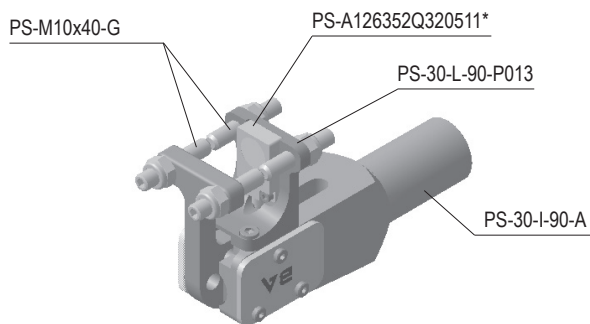
Pneumatik clamp, PS-30-L



Part no.	A°	■ (kg)
PS-30-L-50-K-B	50	0.614
PS-30-L-50-K-B-S*	50	0.621
PS-30-L-90-K-B	90	0.614
PS-30-L-90-K-B-S*	90	0.621

*with Sensor

Pneumatik clamp, PS-30-L

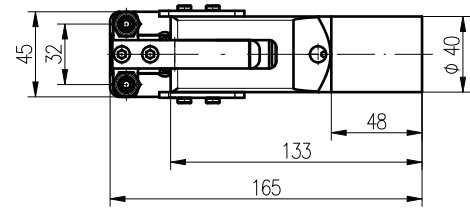
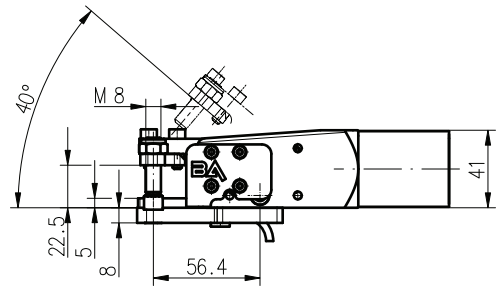
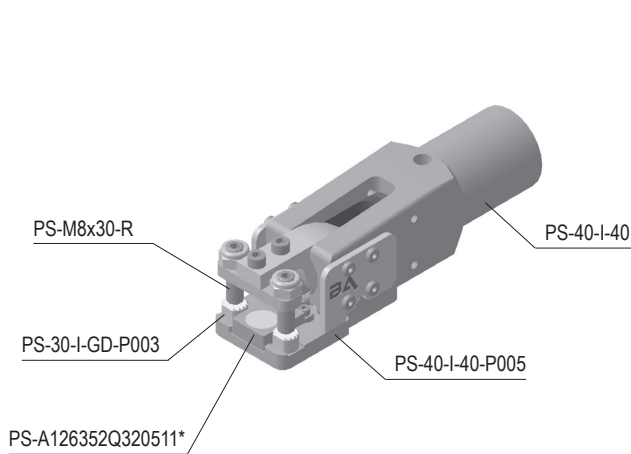


Part no.	■ (kg)
PS-30-L-50-K-K	0.685
PS-30-L-50-K-K-S*	0.666
PS-30-L-90-K-K	0.685
PS-30-L-90-K-K-S*	0.666

*with Sensor



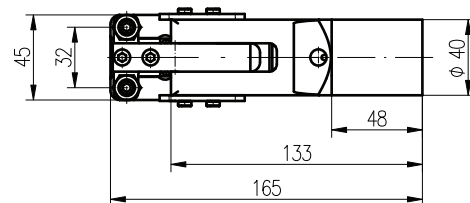
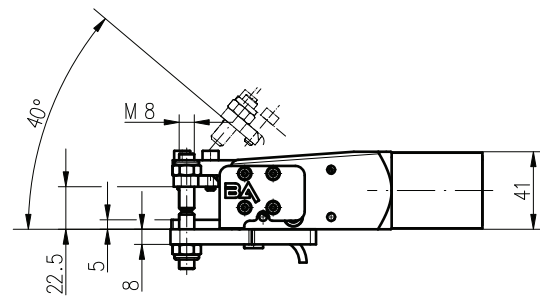
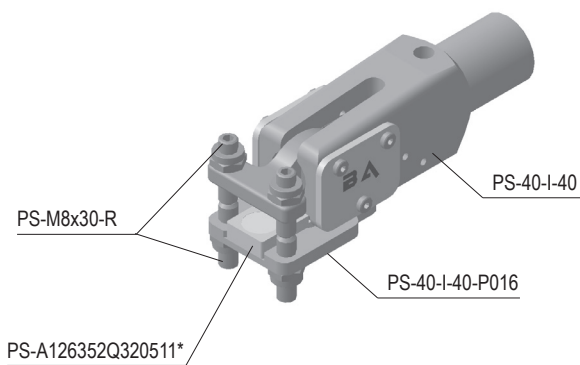
Pneumatik clamp, PS-40-I-40



Part no.	☐ (kg)
PS-40-I-40-K-B	0.569
PS-40-I-40-K-B-S*	0.576

*with Sensor

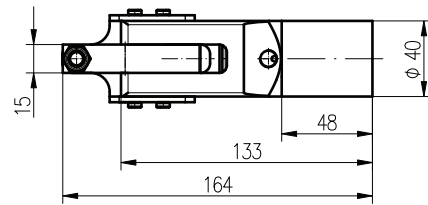
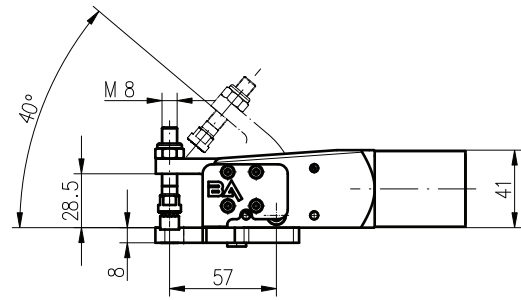
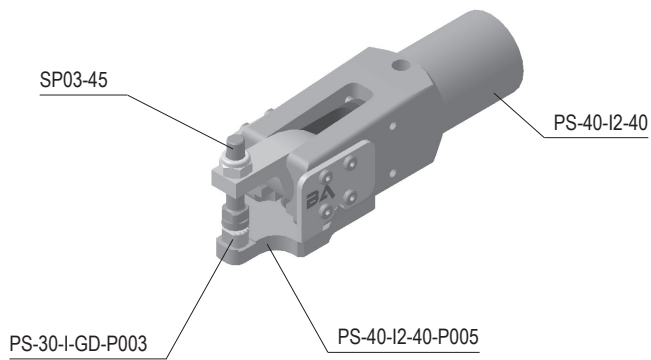
Pneumatik clamp, PS-40-I-40



Part no.	☐ (kg)
PS-40-I-40-K-K	1.00
PS-40-I-40-K-K-S*	1.03

*with Sensor

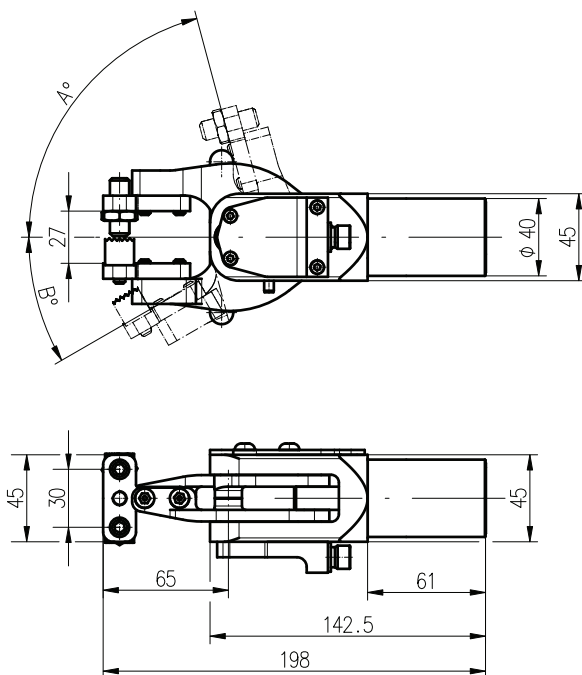
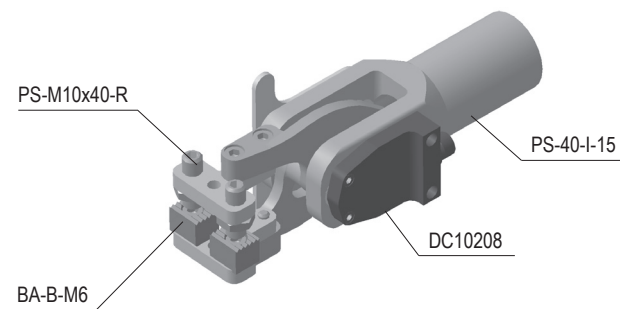
Pneumatik clamp, PS-40-I2-40



Part no.	■ (kg)
PS-40-I2-40-SP03-B	1.10



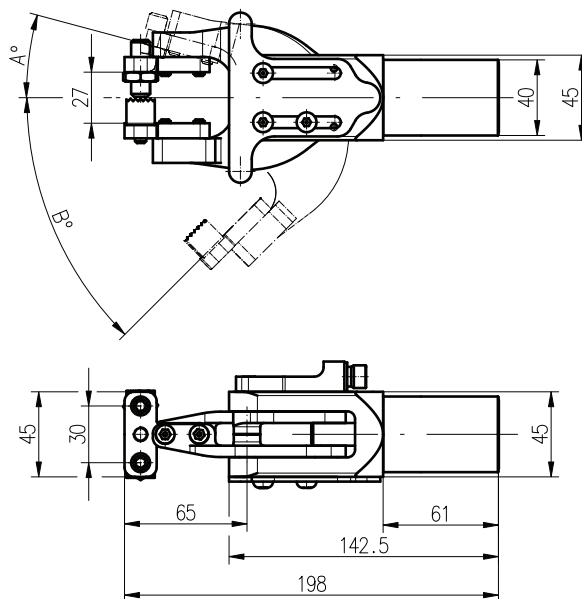
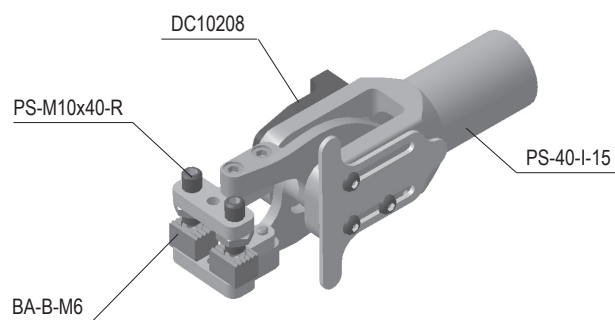
Pneumatik clamp, PS-40-I-40



Part no.	A°	B°	☼ (kg)
PS-40-I-15-15-T-K-B-SL	15	15	1.00
PS-40-I-15-60-T-K-B-SL	15	60	1.20
PS-40-I-75-75-T-K-B-SL	75	75	1.20

*with Sensor
SL: Sensor left

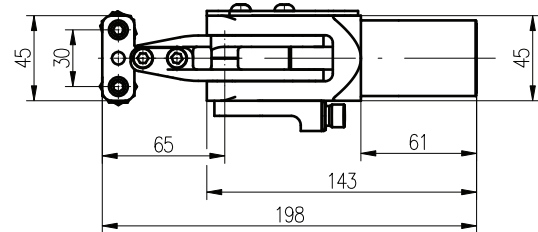
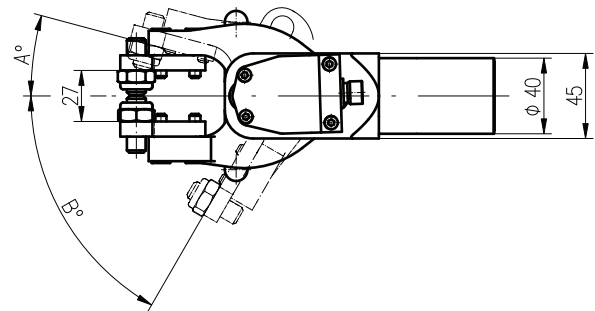
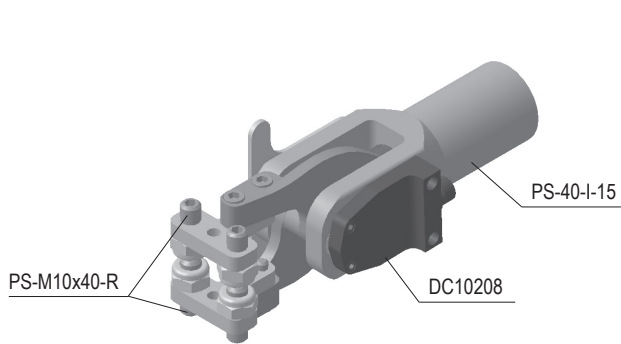
Pneumatik clamp, PS-40-I



Part no.	A°	B°	☼ (kg)
PS-40-I-15-15-T-K-B-SR	15	15	1.00
PS-40-I-15-60-T-K-B-SR	15	60	1.20
PS-40-I-75-75-T-K-B-SR	75	75	1.20

*with Sensor
SR: Sensor right

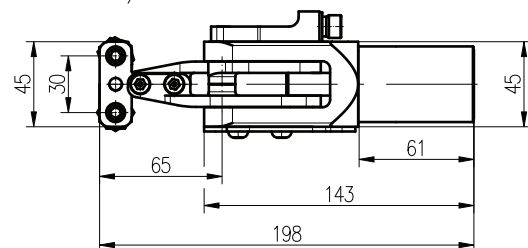
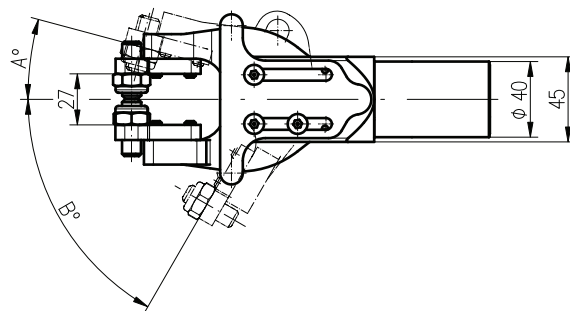
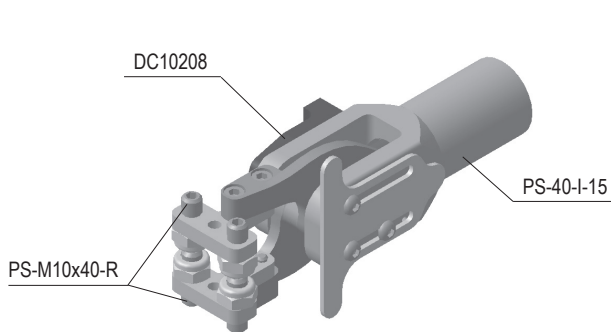
Pneumatik clamp, PS-40-I



Part no.	A°	B°	■ (kg)
PS-40-I-15-15-T-K-K-SL	15	15	1.00
PS-40-I-15-60-T-K-K-SL	15	60	1.20
PS-40-I-75-75-T-K-K-SL	75	75	1.20

*with Sensor
SL: Sensor left

Pneumatik clamp, PS-40-I

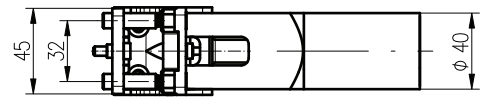
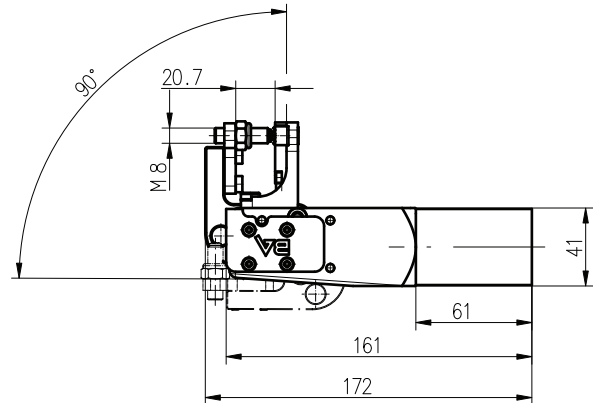
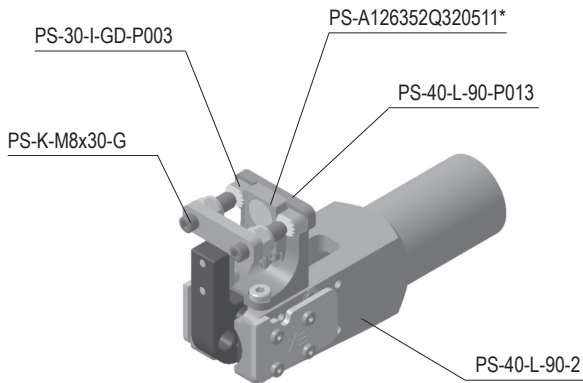


Part no.	A°	B°	■ (kg)
PS-40-I-15-15-T-K-K-SR	15	15	1.00
PS-40-I-15-60-T-K-K-SR	15	60	1.20
PS-40-I-75-75-T-K-K-SR	75	75	1.20

*with Sensor
SR: Sensor right



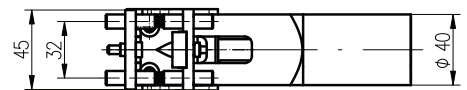
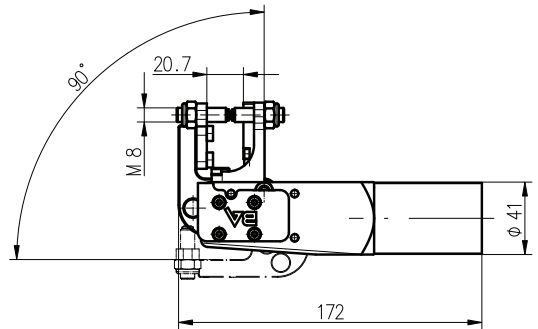
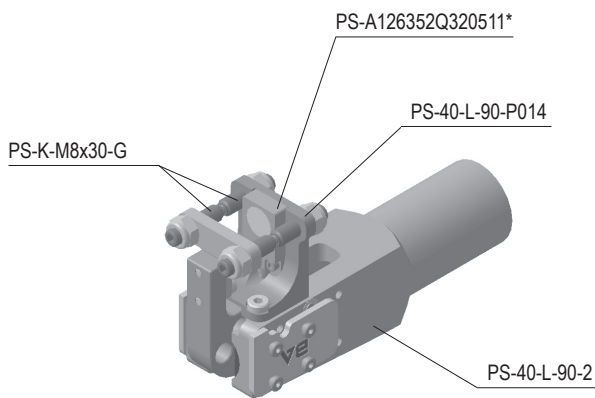
Pneumatic clamp, PS-40-L-Typ



Part no.	■ (kg)
PS-40-L-90-2-K-B	0.85
PS-40-L-90-2-K-B-S*	0.86

* with Sensor

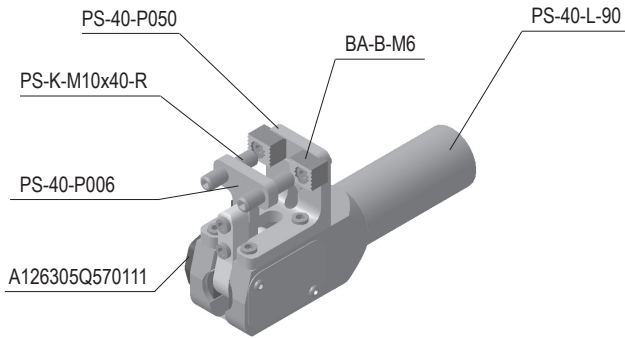
Pneumatic clamp, PS-40-L-Typ



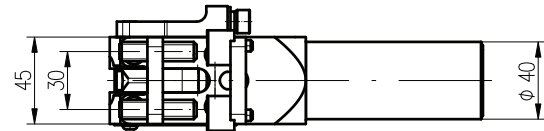
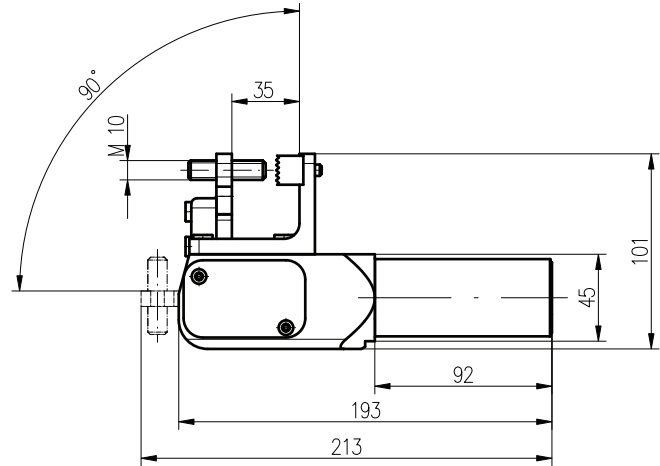
Part no.	■ (kg)
PS-40-L-90-2-K-K	0.85
PS-40-L-90-2-K-K-S*	0.86

* with Sensor

Pneumatic clamp, PS-40-L-Typ



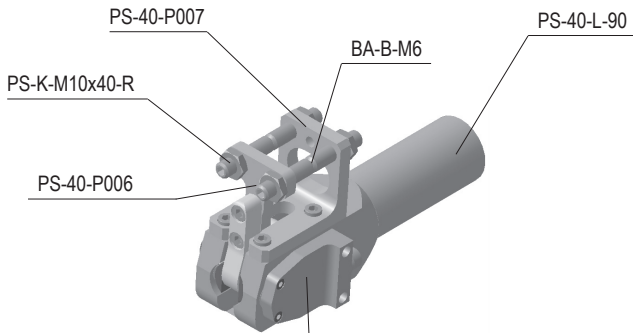
show: PS-40-L-90-K-B-SL



Part no.	■ (kg)
PS-40-L-90-K-B	1.54
PS-40-L-90-K-B-SL*	1.6
PS-40-L-90-K-B-SR*	1.6

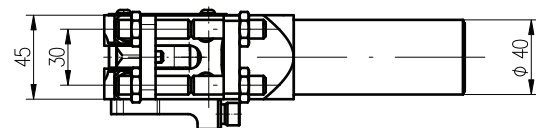
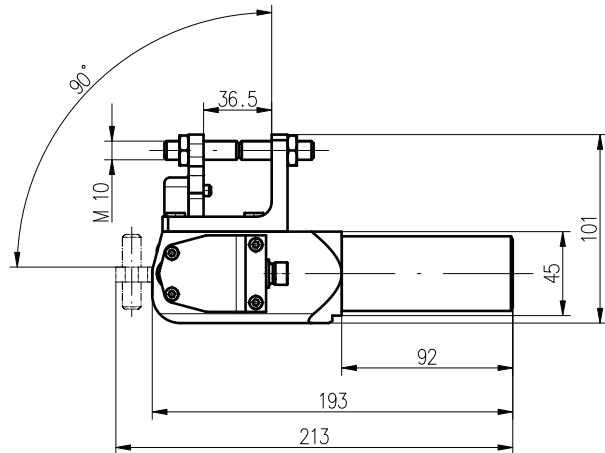
*with Sensor
SL: Sensor left
SR: Sensor right

Pneumatic clamp, PS-40-L-Typ



A126305Q570111

show: PS-40-L-90-K-K-SR

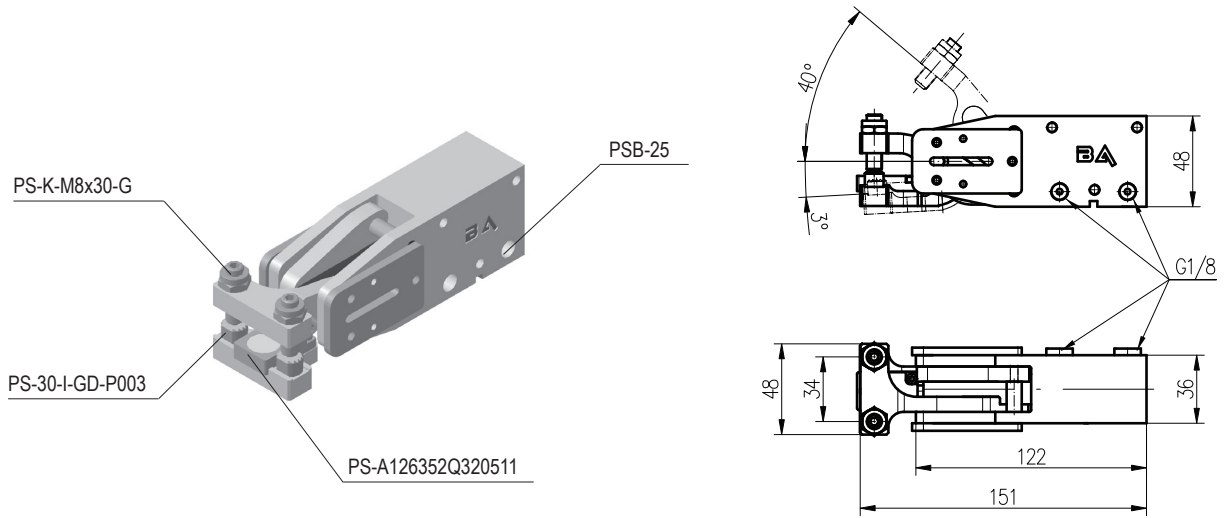


Part no.	■ (kg)
PS-40-L-90-K-K	1.54
PS-40-L-90-K-K-SL*	1.6
PS-40-L-90-K-K-SR*	1.6

*with Sensor
SL: Sensor left
SR: Sensor right



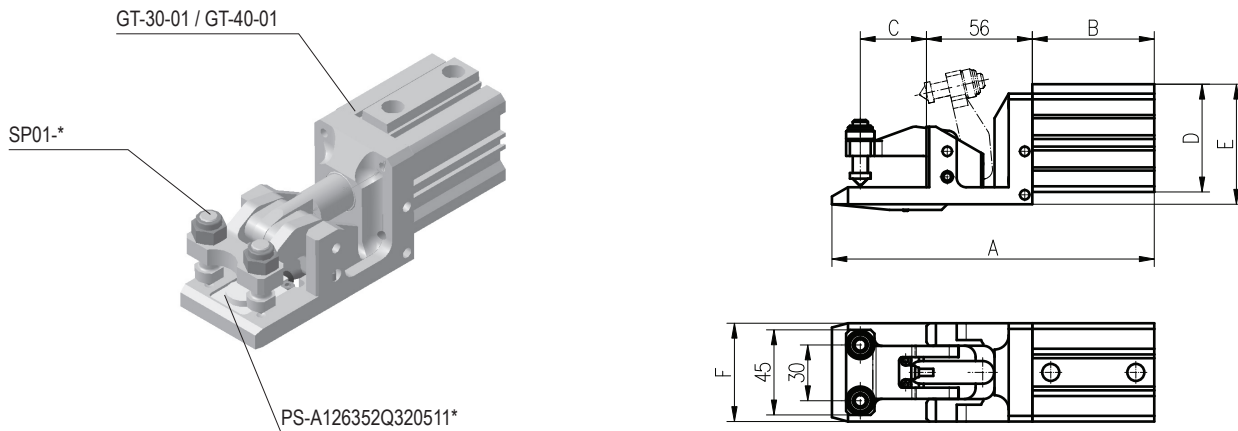
Pneumatic clamp, PSB-Typ



Part no.	☐ (kg)
PSB-01-40-3-K-B	0.58
PSB-01-40-3-K-B-S*	0.69

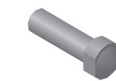
* with Sensor

Pneumatik clamp, GT-30-01 and GT-40-01

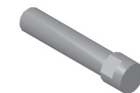


Part no.	A	B	C	D	E	F	📦 (kg)
GT-30-01	144.0	53.0	25	49.5	59.5	45	0.85
GT-40-01	170.5	64.5	35	57.0	63.5	52	0.95

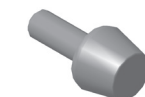
Gripper jaw



SP01



SP03



SP12

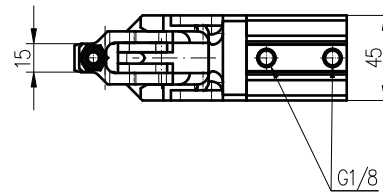
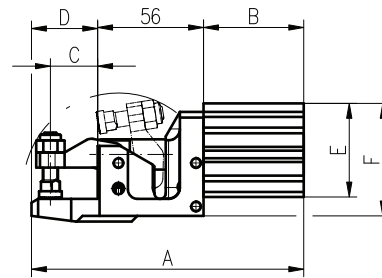
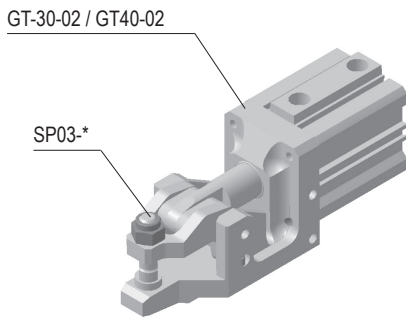
Ordering information

e.g.: GT-40-01-SP01-S

GT-	-	-	
	Optional size	Optional gripper jaw	Optional sensor
	↓	↓	↓
	30-01	SP01	S
	40-01	SP03	
		SP12	

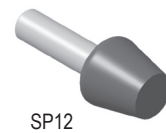
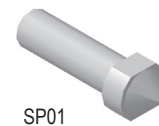


Pneumatic clamp, GT-30-02 and GT-40-02



Part no.	A	B	C	D	E	F	■ (kg)
GT-30-02	144.0	53.0	25	35	49.5	59.5	1.10
GT-40-02	165.5	64.5	35	49	52.0	63.5	1.30

Gripper jaw

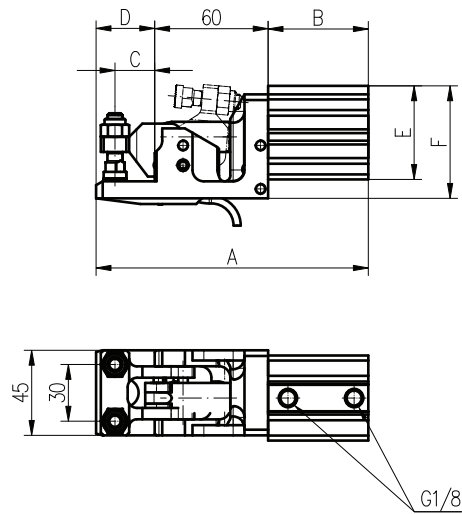
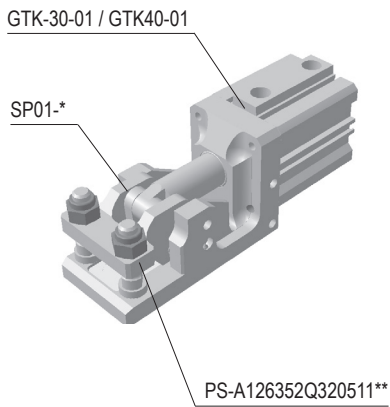


Ordering information

e.g.:GT-40-02-SP03

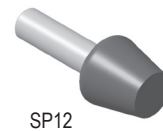
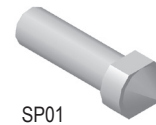
GT	-	-
	Optional Size	Optional Gripper jaw
	↓	↓
	30-02	SP01
	40-02	SP03
		SP12

Pneumatik clamp, GTK-30-01 and GT-K40-01



Part no.	A	B	C	D	E	F	📦 (kg)
GTK-30-01	144.0	53.0	21	31	49.5	59.5	1.10
GTK-40-01	165.5	59.5	31	46	57.0	63.5	1.30

Gripper jaw



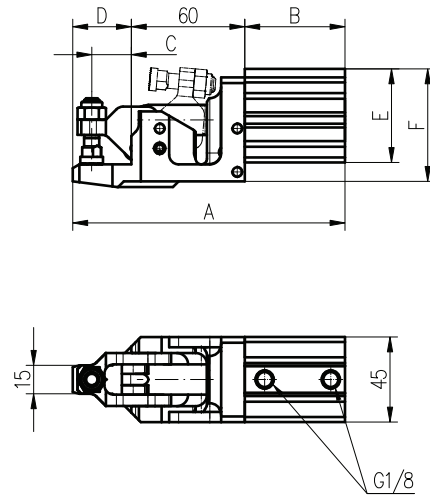
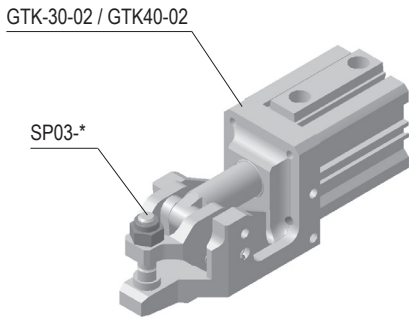
Ordering information

e.g.: GTK-40-01-SP01-S

GTK	-	-	-
	Optional Size	Optional Gripper jaw	Optional Sensor
	↓	↓	↓
	30-01	SP01	S**
	40-01	SP03	
		SP12	

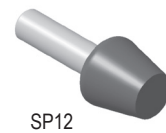
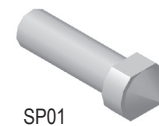


Pneumatik clamp, GTK-30-01 and GT-K40-01



Part no.	A	B	C	D	E	F	⚖️ (kg)
GTK-30-02	144.0	53.0	21	31	49.5	59.5	1.10
GTK-40-02	165.5	59.5	31	46	57.0	63.5	1.30

Gripper jaw



Ordering information			
GTK	-	-	-
	Optional Size	Optional Gripper jaw	Optional Sensor
	↓	↓	↓
	30-02	SP01	S
	40-02	SP03	
		SP12	

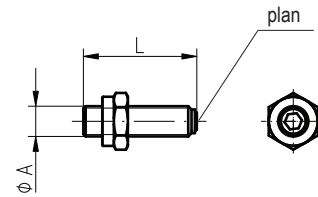
e.g.:GTK-40-02-SP03

Ball screw

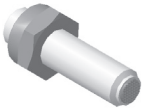


Mat.: Steel

Part no.	Ø A	L	■ (kg)
PS-K-M8x25-G	M8	25	0.007
PS-K-M8x30-G	M8	30	0.007
PS-K-M10x40-G	M10	40	0.010

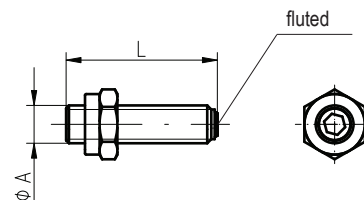


Ball screw

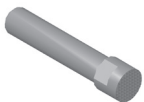


Mat.: Steel

Part no.	Ø A	L	■ (kg)
PS-K-M8x25-R	M8	25	0.007
PS-K-M8x30-R	M8	30	0.007
PS-K-M10x40-R	M10	40	0.010

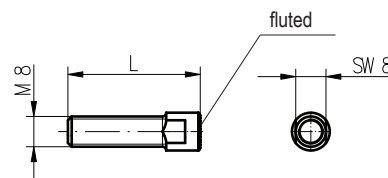


Clamping top



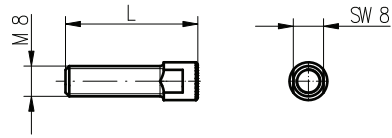
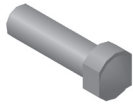
Mat.: Steel

Part no.	L	■ (kg)
SP03-23	23	0.011
SP03-30	30	0.014
SP03-35	35	0.016
SP03-45	45	0.020
SP03-55	55	0.024





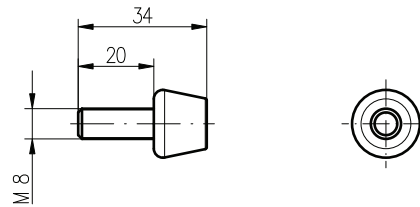
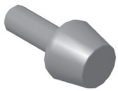
Gripper jaw



Mat.: Steel

Part no.	L	⚖️ (kg)
SP01-35	35	0.015
SP01-45	45	0.019

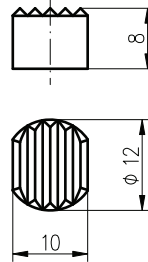
Gripper jaw



Part no.

SP12-43

Gripper jaw



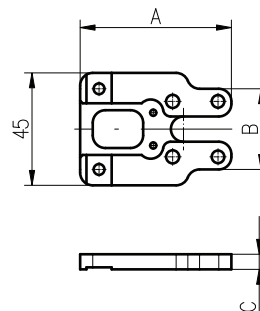
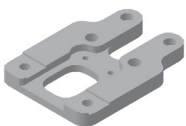
⚖️ 0.007 kg

Mat.: Steel

Part no.

PS-30-I-GD-P003

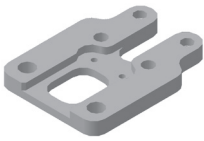
Gripper jaw



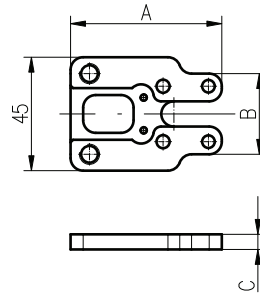
Mat.: Steel

Part no.	A	B	C	⚖️ (kg)
PS-30-I-GD-P007	60	32	6	0.06
PS-40-I-40-P005	77	38	8	0.11

Gripper jaw

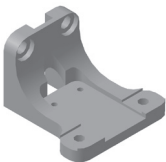


Mat.: Steel



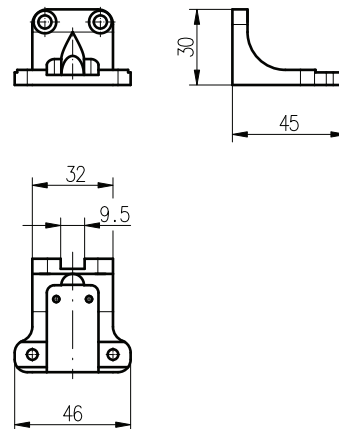
Part no.	A	B	C	■ (kg)
PS-30-I-P007	60	32	6	0.06
PS-40-I-40-P016	77	38	8	0.11

Gripper jaw

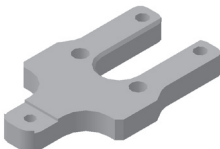


■ 0.09 kg
Mat.: Steel

Part no.
PS-30-L-90-P013

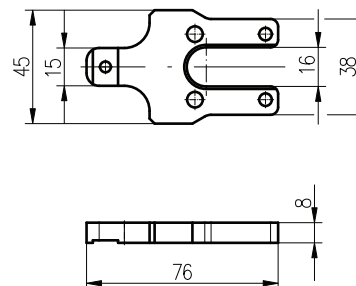


Gripper jaw

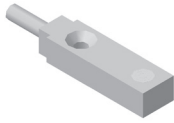


■ 0.113 kg
Mat.: Steel

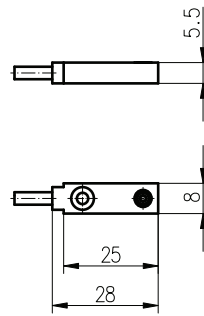
Part no.
PS-40-I2-40-P005



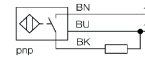
Sensor



Part no.	📦 (kg)
Ni3,5-Q-5,5-AP6X	0.057



Connection diagram
PNP

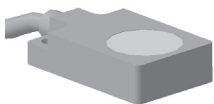


Rated operating distance Sn

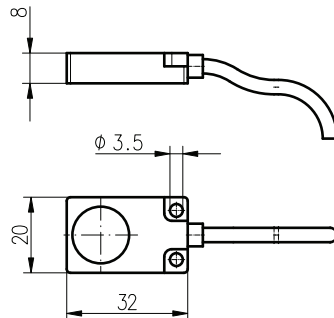
Mounting condition	3.5 mm non-flush
Assured sensing range	(0,81 x Sn) mm
Correction factors	St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.3
Repeatability	≤ 2 %
Temperaturdrift	10 %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	10...30VDC
Residual ripple	≤ 10 % U _{ss}
DC rated operational current	≤ 150 mA
No-load current I ₀	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I _e	≤ 1.8 V
Wire breakage /	
Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, PNP

Switching frequency	2 kHz
Design rectangular,	Q5.5
Dimensions	28x 8x 5.5 mm
Housing material Plastic,	PP-GF20
Tightening torque fixing screw	0.5 Nm
Connection	cable
Cable quality	3 mm, LiFY-11Y, PUR, 2 m
Cable cross section	3 x 0.14 mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Switching state	LED yellow

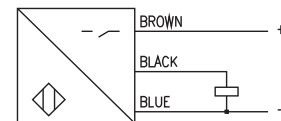
Sensor



Part no.	📦 (kg)
PS-A126352Q32511	0.07



Connection diagram
PNP



Electrical Data

Supply voltage	10-30 V DC
Maximum load current	200 mA
Maximum load current	< 20 mA
Voltage drop	< 2 V
Current requirements	< 70 μA
Temperature range	-25 to 70° C
Hysteresis	3 to 15 %
Repetition accuracy	< 5 %

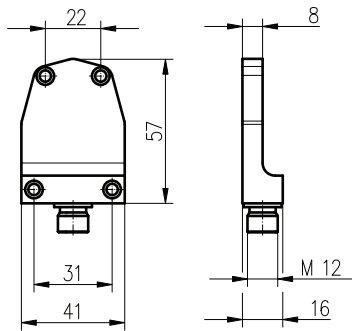
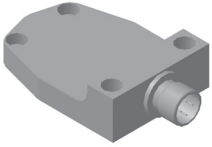
Particular protections

- Short circuit protection
- Overload protection
- Reverse polarity protection
- Power on pulse suppression
- IP 67

Output state visualisation LEDs

- Green LED (Power)
- Yellow LED (closed)
- Connection
- Cable section 3 x 0,034mm²
- Cable length 2m

Sensor



Connection diagram
PNP



Part no.	■ (kg)
A-126305Q570111	0.04

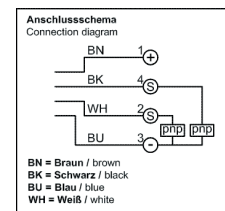
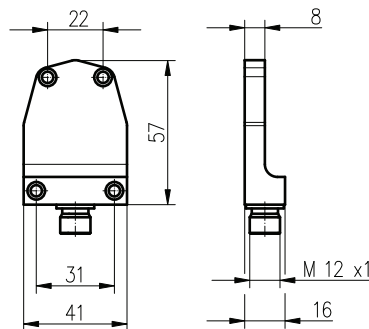
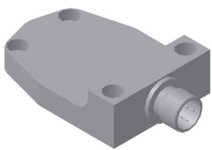
Electrical Data

Supply voltage	10-30 V DC
Maximum load current	200 mA
Maximum load current	< 20 mA
Voltage drop	< 2 V
Current requirements	< 70 µA
Temperature range	-25 to 70° C
Hysteresis	3 to 15 %
Repetition accuracy	< 5 %

Particular protections

Short circuit protection
Overload protection
Reverse polarity protection
Power on pulse suppression
IP 67
Output state visualisation LEDs
Green LED (power)
Red LED (closed)
yellow LED (open)

Sensor



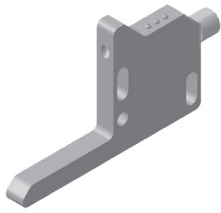
Part no.	■ (kg)
DC 10208	0.04

Electrical Data

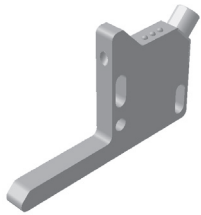
Supply voltage	10-35 V DC
Maximum load current	200 mA
Internal power consumption	< 20 mA
Operating frequency	2000 Hz
Hysteresis	3 ... 15 %
Temperature range	-25 to 70° C
Insulation voltage endurance	500 V
Protection degree	IP67



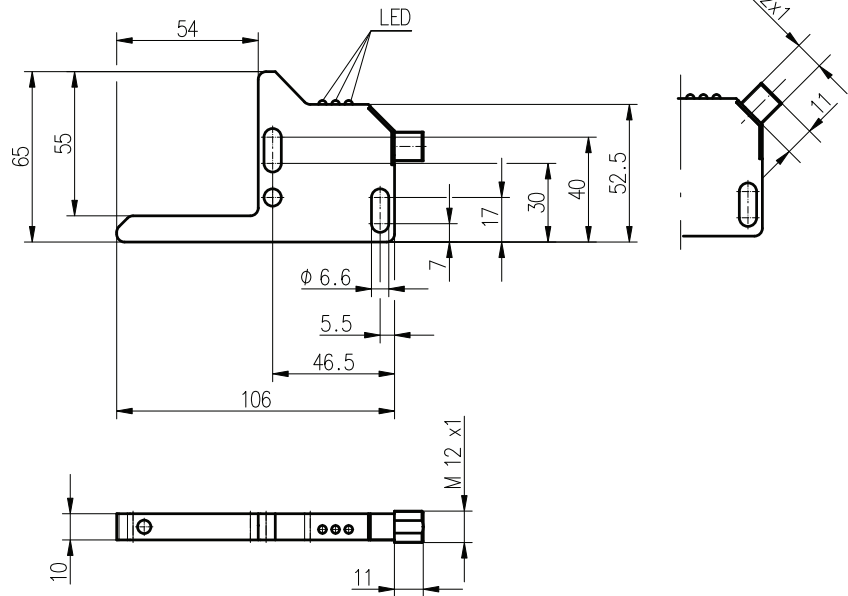
Angle light barrier



OGL 55/54 P6L-IBS

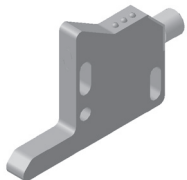


OGL 55/54 P6L-RIBS/PE

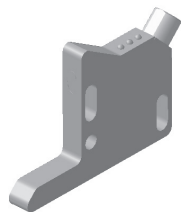


Part no.	Function	Connector
OGL 55/54 P6L-IBS	PNP	4 Pin
OGL 55/54 P6L-RIBS/PE	PNP	5 Pin

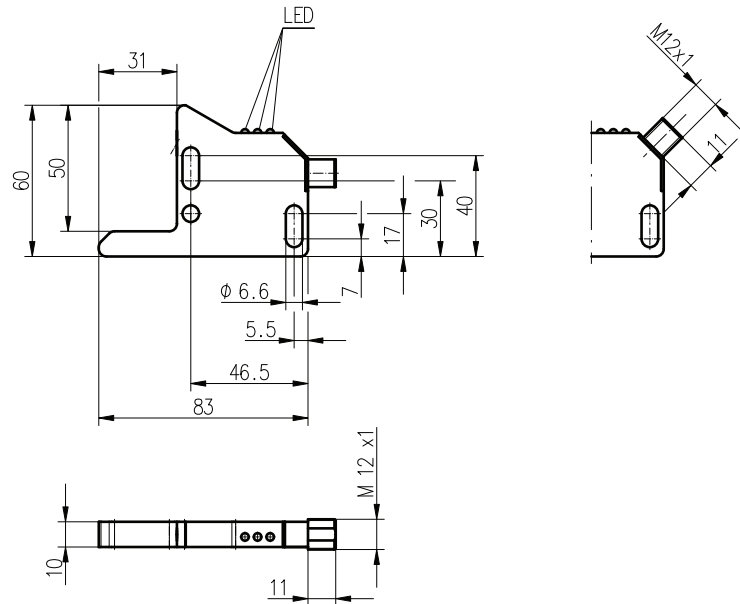
Angle light barrier



OGL 50/31 P6L-IBS



OGL 50/31 P6L-RIBS/PE

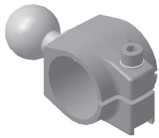


Part no.	Function	Connector
OGL 50/31 P6L-IBS	PNP	4 Pin
OGL 50/31 P6L-RIBS/PE	PNP	5 Pin

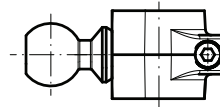
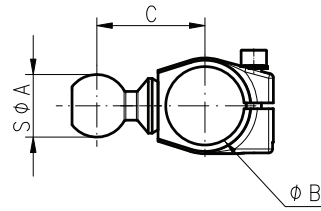
Electrical Data

Service voltage	10-30 V DC
Output pnp.	NO
Contamination	output pnp
Ampacity	200 mA
Ampacity	< 45 mA
Operating frequency	200 Hz
Ambient temperature	-10...+60°C
Ambient light immunity	5000 Lux
Protection degree	IP 67
Casing material	die-cast zinc

Mount for pneumatic clamp

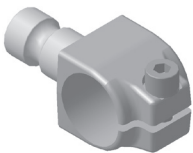


Mat.: Steel

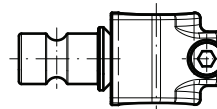
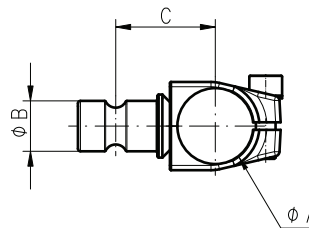


Part no.	S Ø A	Ø B	C	■ (kg)
KGL-ESS-K28-20	28.5	20	42.6	0.193
KGL-ESS-K28-25	28.5	25	45.6	0.227
KGL-ESS-K28-30	28.5	30	48.2	0.262
KGL-ESS-K28-40	28.5	40	54.0	0.458
KGL-ESS-K32-25	32.0	25	46.8	0.278
KGL-ESS-K32-30	32.0	30	49.3	0.446
KGL-ESS-K32-40	32.0	40	55.3	0.502
KGL-ESS-K36-30	36.0	30	51.3	0.322
KGL-ESS-K36-40	36.0	40	57.3	0.514

Clamp mount



Mat.: Steel



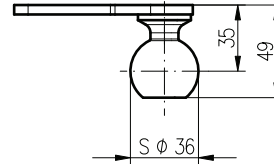
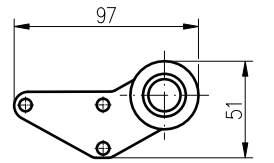
Part no.	Ø A	Ø B	C	■ (kg)
PS-ESS-30-B19	30	19	39.5	0.230
PS-ESS-30-B20	30	20	39.5	0.238
PS-ESS-40-B19	40	19	45.5	0.422
PS-ESS-40-B20	40	20	45.5	0.431

Ball mount for GT and GTK mount, left



■ 0.28 kg
Mat.: Steel

Part no.
GT-30-40-GB18-K36-L

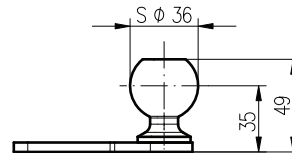
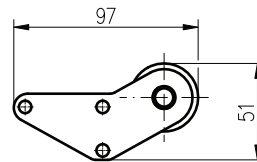


Ball mount for GT and GTK mount, right



■ 0.28 kg
Mat.: Steel

Part no.
GT-30-40-GB18-K36-R

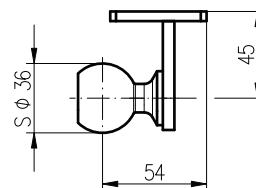
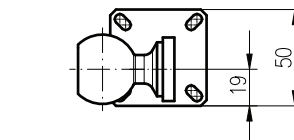


Ball mount for GT and GTK mount

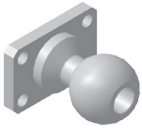


■ 0.34 kg
Mat.: Steel

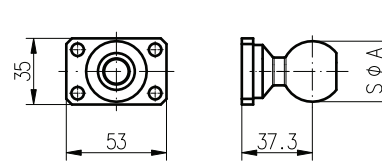
Part no.
GT-30-40-GB23-K36



Clamp mount for GT-40 Clamp

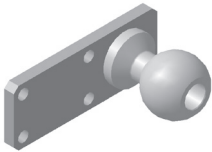


Mat.: Steel

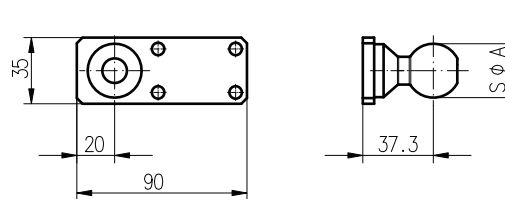


Part no.	Ø A	■ (kg)
GT40-GB17-K28	28.5	0.204
GT40-GB17-K32	32.0	0.235
GT40-GB17-K36	36.0	0.256

Clamp mount for GT-40 Clamp

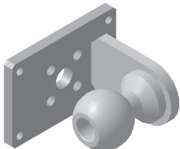


Mat.: Steel

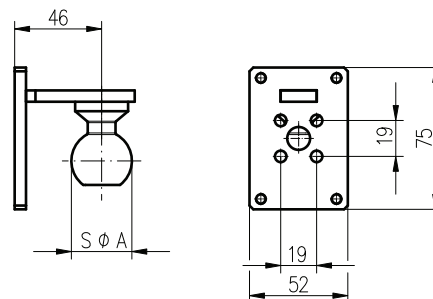


Part no.	Ø A	■ (kg)
GT40-GB18-K28	28.5	0.204
GT40-GB18-K32	32.0	0.235
GT40-GB18-K36	36.0	0.256

Clamp mount for GT-40 Clamp



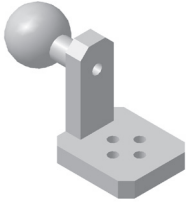
Mat.: Steel



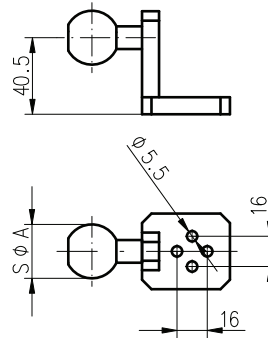
Part no.	Ø A	■ (kg)
GT40-GB23-K28	28.5	0.204
GT40-GB23-K32	32.0	0.235
GT40-GB23-K36	36.0	0.256



Clamp mount

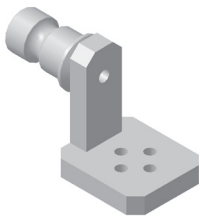


Mat.: Steel

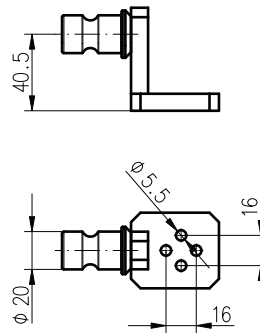


Part no.	S Ø A	■ (kg)
84A2-L-16-K28	28.5	0.268
84A2-L-16-K32	32.0	0.282
84A2-L-16-K36	36.0	0.321

Clamp mount

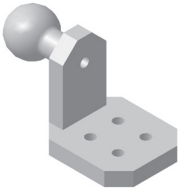


■ 0.27 kg
Mat.: Steel

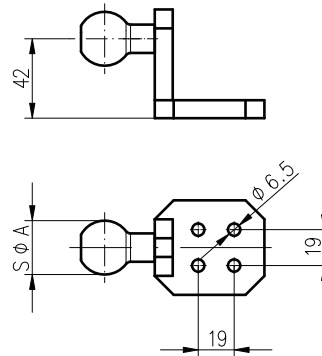


Part no.
84A2-L-16-B20

Clamp mount

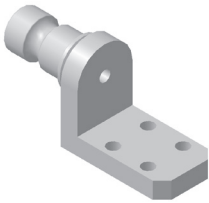


Mat.: Steel

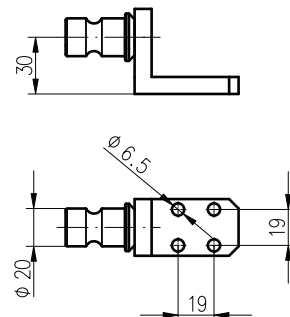


Part no.	S Ø A	■ (kg)
84A3-L-19-K28	28.5	0.383
84A3-L-19-K32	32.0	0.405
84A3-L-19-K36	36.0	0.435

Clamp mount



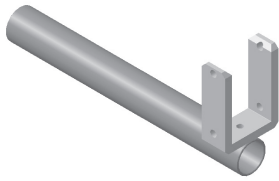
■ 0.26 kg
Mat.: Steel



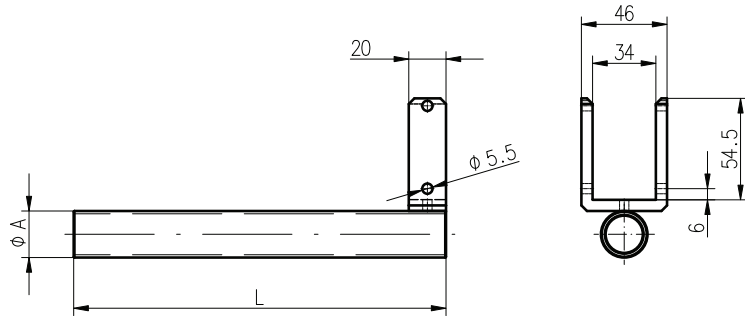
Part no.
84A3-L-19-B20



Support

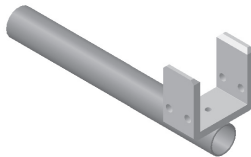


Mat.: Steel

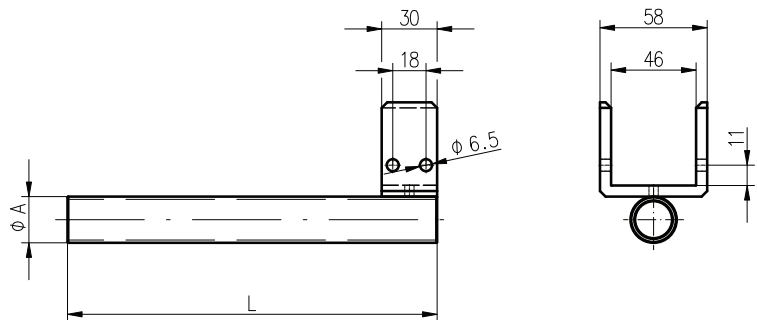


Ordering information		e.g.: 84A2-U-90-25-200
84A2-U-90	-A	-L
	Diameter (mm)	Length (mm)
	↓	↓
	20	150 - 600 (50mm increments)
	25	
	30	

Support

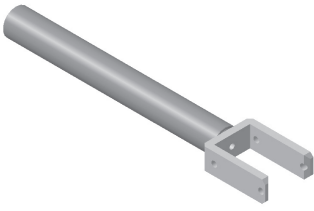


Mat.: Steel

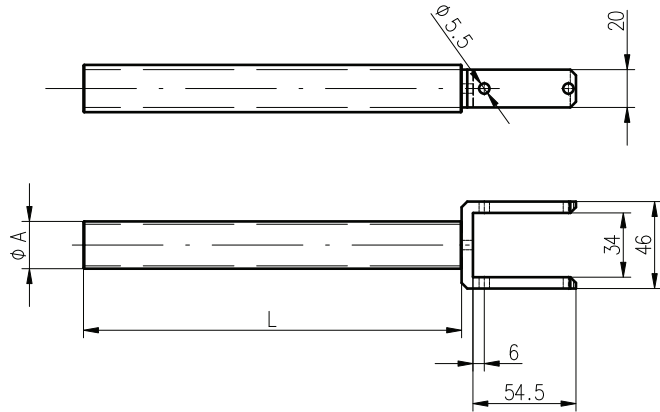


Ordering information		e.g.: 84A3-U-90-25-200
84A3-U-90	-A	-L
	Diameter (mm)	Length (mm)
	↓	↓
	20	150 - 600 (50mm increments)
	25	
	30	

Support



Mat.: Steel

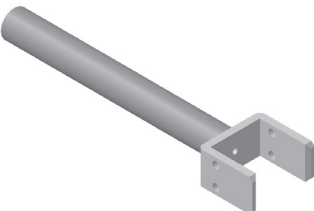


Ordering information

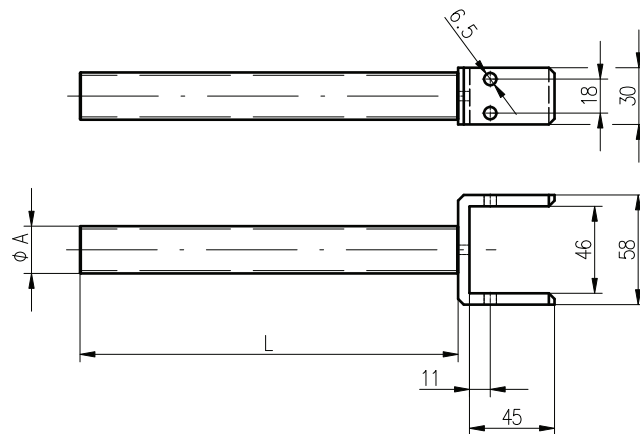
e.g.: 84A2-U-00-25-200

84A2-U-00	-A	-L
	Diameter (mm)	Length (mm)
	↓	↓
	20	150 - 600 (50mm increments)
	25	
	30	

Support



Mat.: Steel



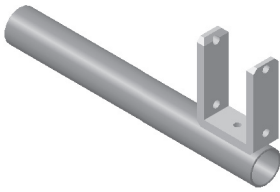
Ordering information

e.g.: 84A3-U-00-25-200

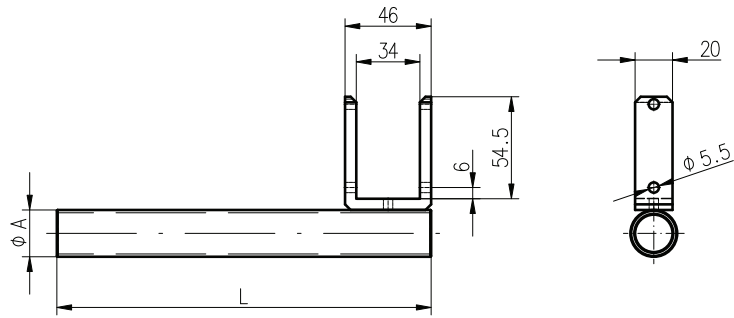
84A3-U-00	-A	-L
	Diameter (mm)	Length (mm)
	↓	↓
	20	150 - 600 (50mm increments)
	25	
	30	



Support

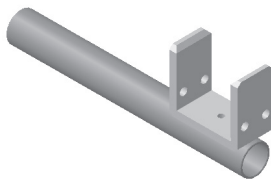


Mat.: Steel

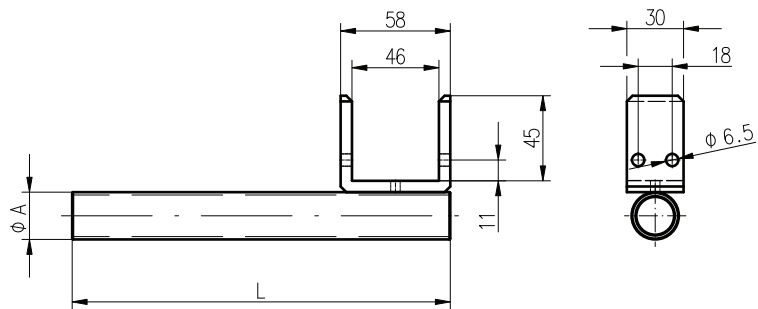


Ordering information		e.g.: 84A2-U-LR-25-200
84A2-U-LR	-A	-L
	Diameter (mm)	Length (mm)
	↓	↓
	20	150 - 600 (50mm increments)
	25	
	30	

Support

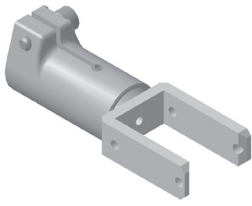


Mat.: Steel



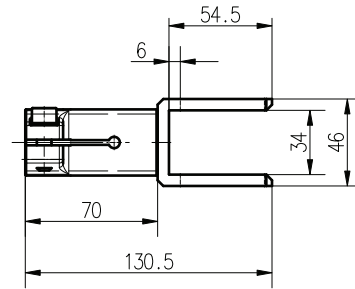
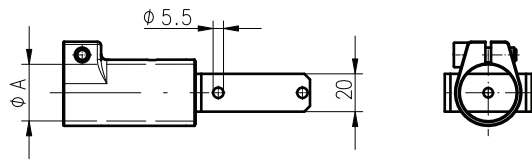
Ordering information		e.g.: 84A3-U-LR-25-200
84A3-U-LR	-A	-L
	Diameter (mm)	Length (mm)
	↓	↓
	20	150 - 600 (50mm increments)
	25	
	30	

Clamp mount

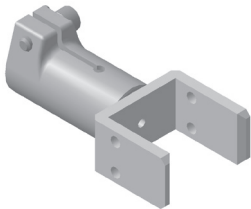


Mat.: Steel

Part no.	Ø A	■ (kg)
84A2-U-TKS-90-20-70	20	0.25
84A2-U-TKS-90-25-70	25	0.27
84A2-U-TKS-90-30-70	30	0.31

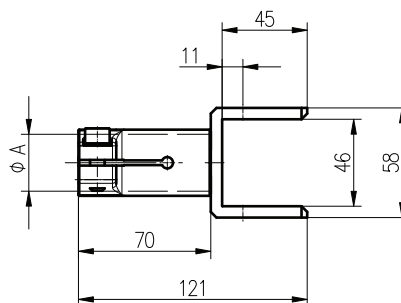
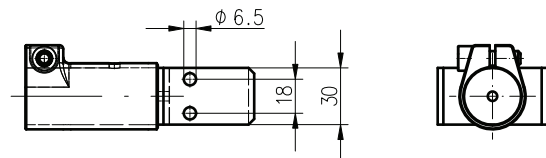


Clamp mount

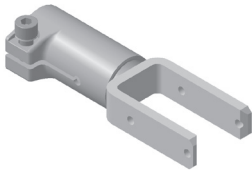


Mat.: Steel

Part no.	Ø A	■ (kg)
84A3-U-TKS-90-20-70	20	0.31
84A3-U-TKS-90-25-70	25	0.33
84A3-U-TKS-90-30-70	30	0.37

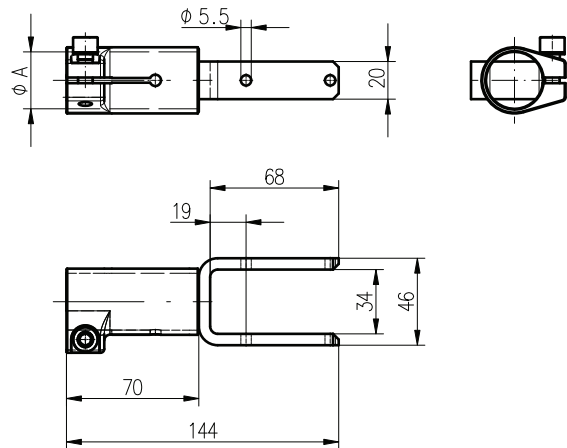


Clamp mount

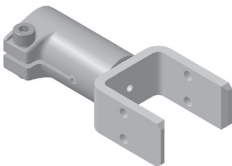


Mat.: Steel

Part no.	Ø A	■ (kg)
84A2-U-TKS-00-20-70-L	20	0.25
84A2-U-TKS-00-25-70-L	25	0.27
84A2-U-TKS-00-30-70-L	30	0.31

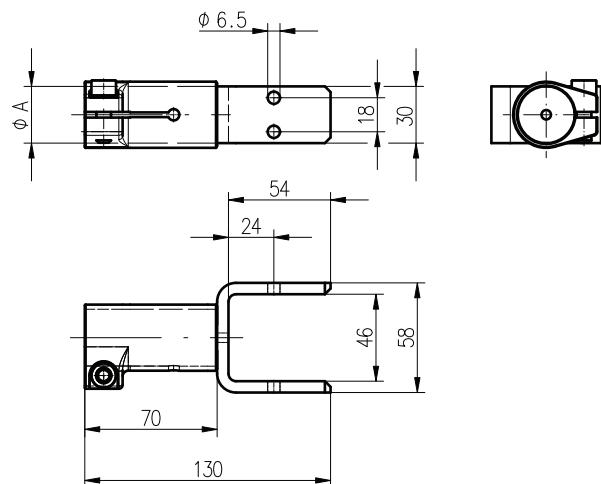


Clamp mount

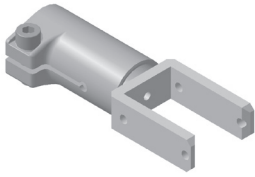


Mat.: Steel

Part no.	Ø A	■ (kg)
84A3-U-TKS-00-20-70-L	20	0.31
84A3-U-TKS-00-25-70-L	25	0.33
84A3-U-TKS-00-30-70-L	30	0.37

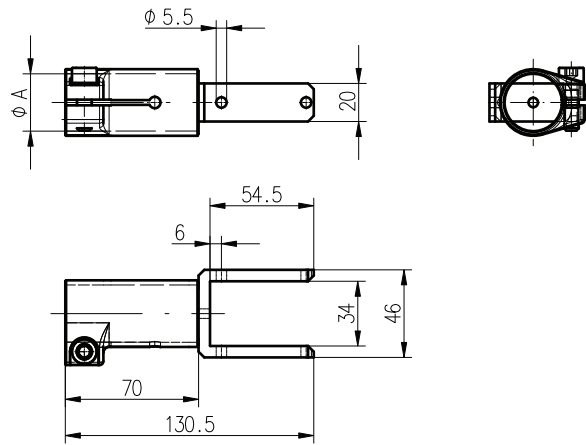


Clamp mount

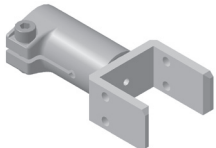


Mat.: Steel

Part no.	Ø A	■ (kg)
84A2-U-TKS-00-20-70	20	0.25
84A2-U-TKS-00-25-70	25	0.27
84A2-U-TKS-00-30-70	30	0.31

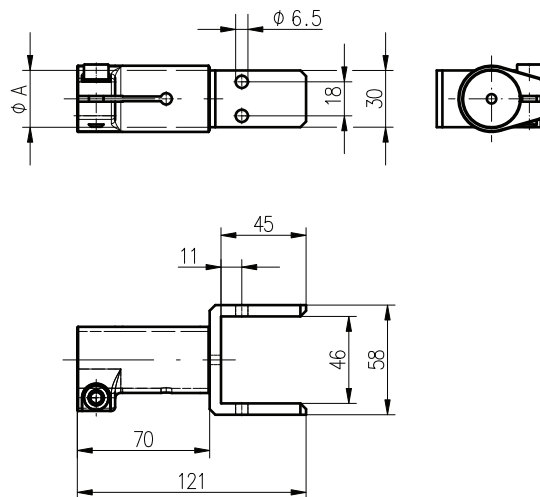


Clamp mount

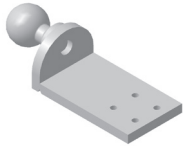


Mat.: Steel

Part no.	Ø A	■ (kg)
84A3-U-TKS-00-20-70	20	0.31
84A3-U-TKS-00-25-70	25	0.33
84A3-U-TKS-00-30-70	30	0.37

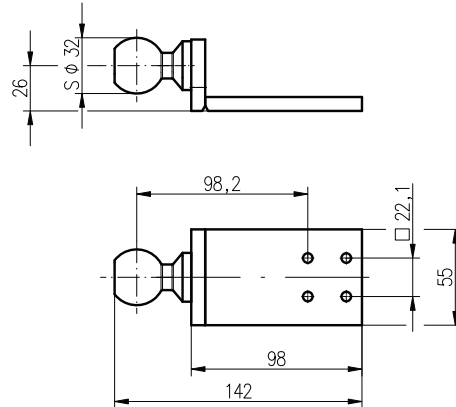


Mount for pneumatic clamp

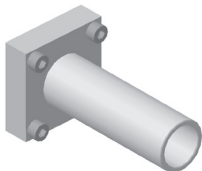


■ 0.563 kg
Mat.: Steel

Part no.
84A32-L-22.1-22.1-K32

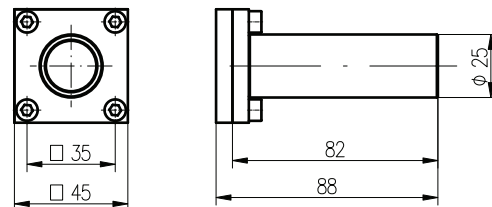


Flange





■ 0.295 kg
Mat.: Steel

Part no.
84A32-L-305305-K32

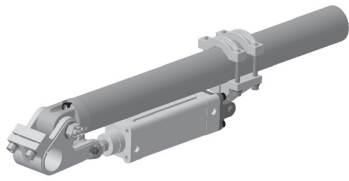




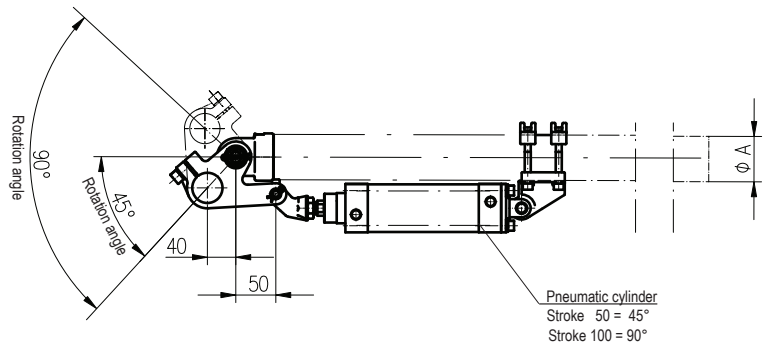
Picture	Designation	Page
	45°/90° Wrist rotate unit	239
	45°/90° Axial rotate unit	240



45°/90° Wrist rotate unit



Mat.: Aluminium

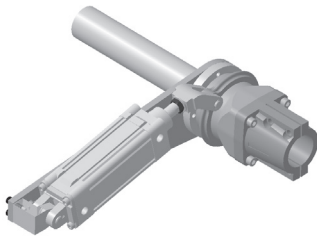


Part no.	Ø A	■ (kg)**
WRWM-45-250	2.5"	45° = 3.79
WRWM-90-250	2.5"	90° = 4.70
WRWM-45-60	60	45° = 3.79
WRWM-90-60	60	90° = 4.70

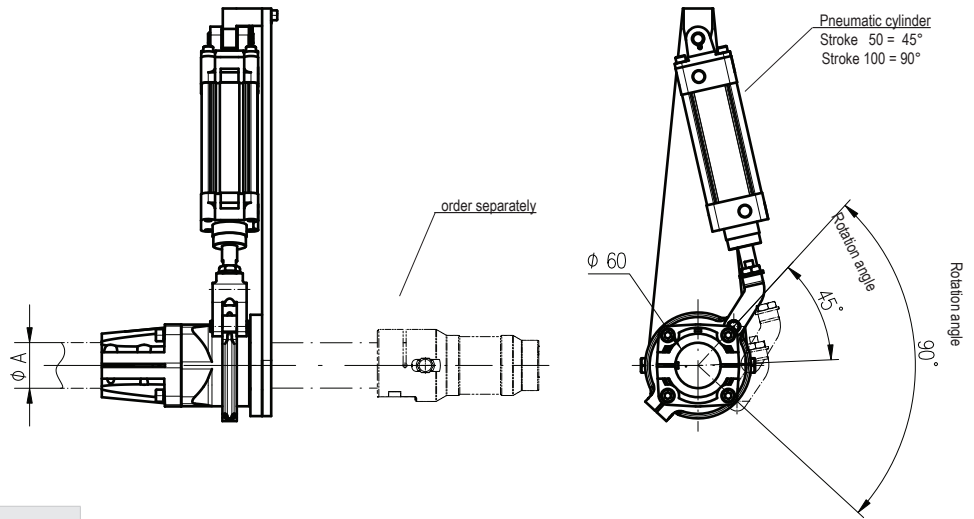
**Weight incl. 50 mm cylinder

Ordering information			
e.g.: WRWM-45250-63 / WRWM-4560-50			
WRWM	-	-	-
	max. Rotate		Cylinder bore
	↓	↓	↓
	45°	250 (2.5)*	50
	90°	60 (60mm)*	63

45°/90° Axial rotate unit



Mat.: Aluminium







Part no.	ϕA	⚖ (kg)**
BRCM-45-250	2.5"	45° = 9.06
BRCM-90-250	2.5"	90° = 9.51
BRCM-90-60	60	45° = 9.06
BRCM-45-60	60	90° = 9.51

**Weight incl. 50 mm cylinder

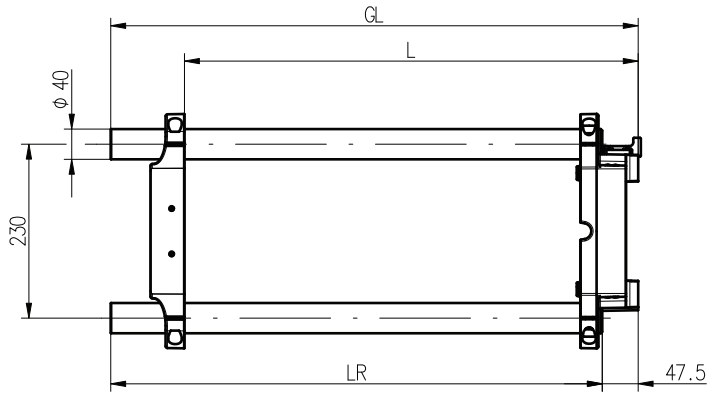
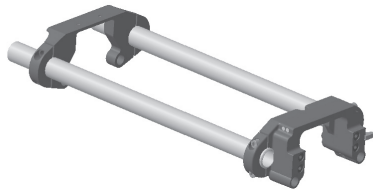
Ordering information			
		e.g.: BRCM-45250-63 / BRCM-4560-50	
BRCM	-	-	-
	max. Rotate		Cylinder bore
	↓	↓	↓
	45°	250 (2.5)"	50
	90°	60 (60mm)	63



Picture	Designation	Page
	Double tooling for suction bar	243
	Double tooling for suction bar	243
	Air coupling for GRS press	244
	Carrier tube mount	244

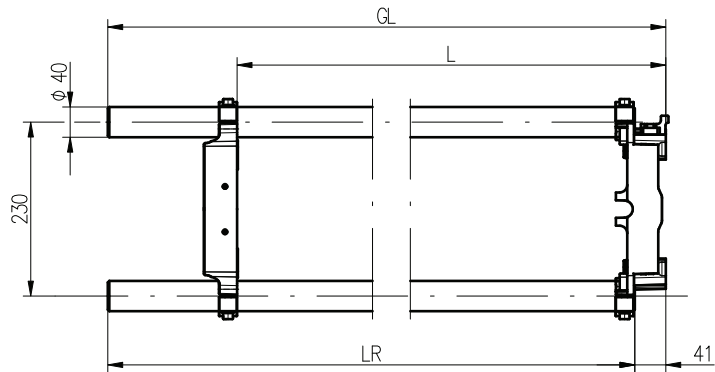
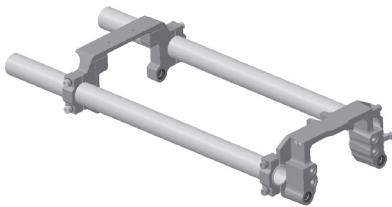


Double tooling for suction bar



Part no.	L	LR	GL	■ (kg)
GRS-DT-40-230-LL-L-E	520	592.5	640	4.18
GRS-DT-40-230-LL-L-S	1300	1382.5	1430	5.67
GRS-DT-40-230-LL-R-E	520	592.5	640	4.18
GRS-DT-40-230-LL-R-S	1300	1382.5	1430	5.67

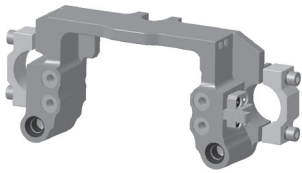
Double tooling for suction bar



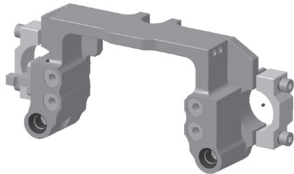
Part no.	L	LR	GL	■ (kg)
GRS-DT-40-230-LL1-L-1000	520	959	1000	3.95
GRS-DT-40-230-LL1-R-1000	520	959	1000	3.95
GRS-DT-40-230-LL1-L-1470	1300	1429	1470	4.84
GRS-DT-40-230-LL1-R-1470	1300	1429	1470	4.84
GRS-DT-40-230-LL1-L-1637	1300	1596	1637	5.15
GRS-DT-40-230-LL1-R-1637	1300	1596	1637	5.15

Subject to modification
Edition 01/2013

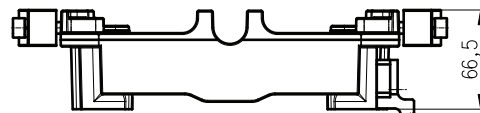
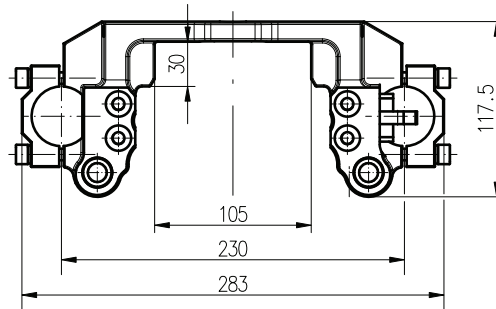
Air coupling for GRS press



GRS-40-90-L1-L
Mat.: Aluminium



GRS-40-90-L1-R
Mat.: Aluminium



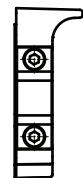
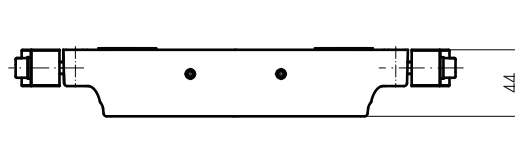
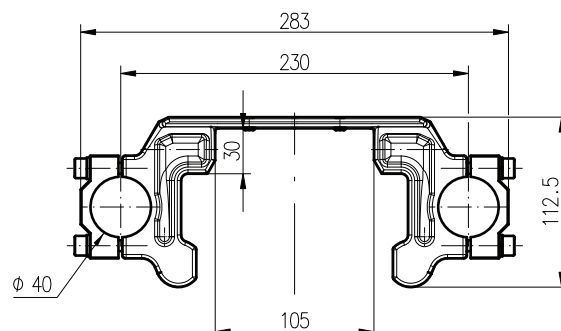
for GRS-40-90-L1-R
mirror-inverted

Part no.	■ (kg)
GRS-40-90-L1-L	1.34
GRS-40-90-L1-R	1.34

Carrier tube mount



■ 0.72 kg
Mat.: Aluminium

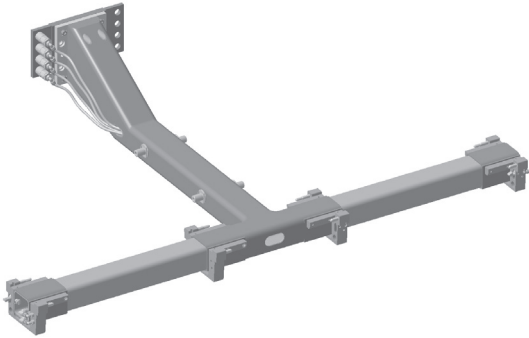


Part no.
GRS-40-50-L1

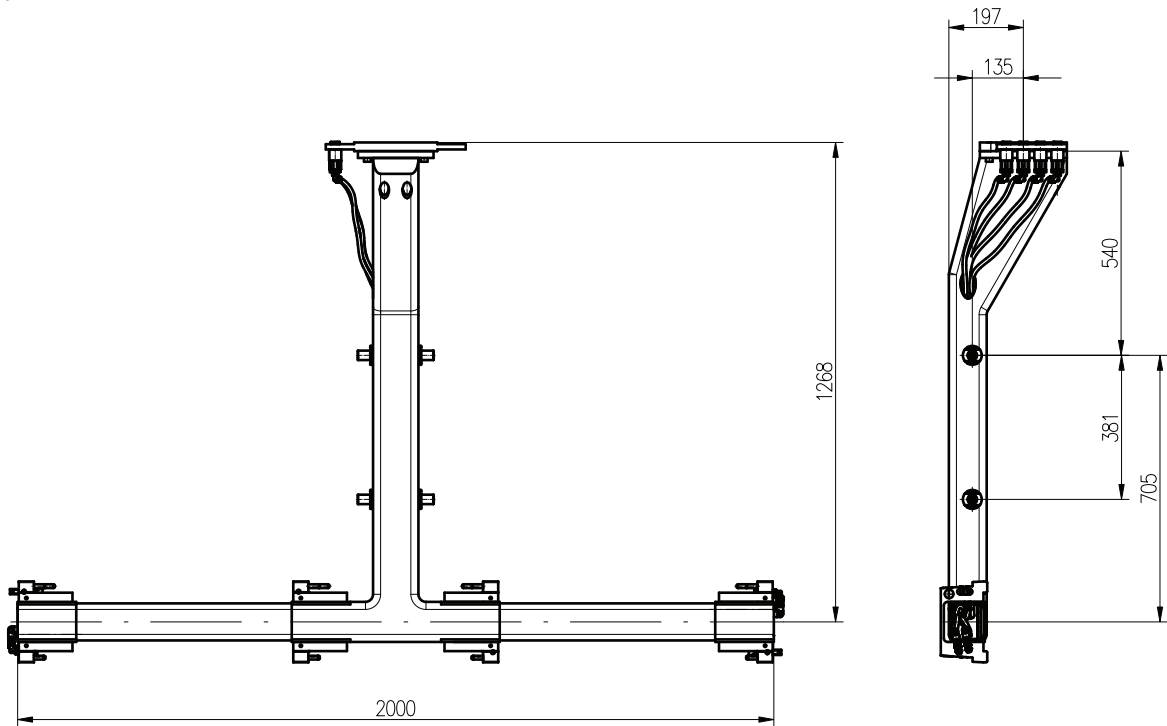
Picture	Designation	Page
	Panel loading spider for double tooling series 40	247
	Destacking beam for 4 tooling series 40	248
	Interpress beam for 4 tooling series 40	248
	Interpress beam for 4 tooling series 40	249
	Destacking beam for multiplex tooling series 40	249
	Centering robot beam	250
	Destacking beam for 4-fach tooling series 40	250
	Tooling carrier with tapered carbon tube	251
	Carbon frames GM	252
	Destacker beam 9 ft	253
	Destacker beam 7 ft	253
	Interpress beam 9 ft	254
	Interpress beam 7 ft	254



Panel loading spider for double tooling series 40

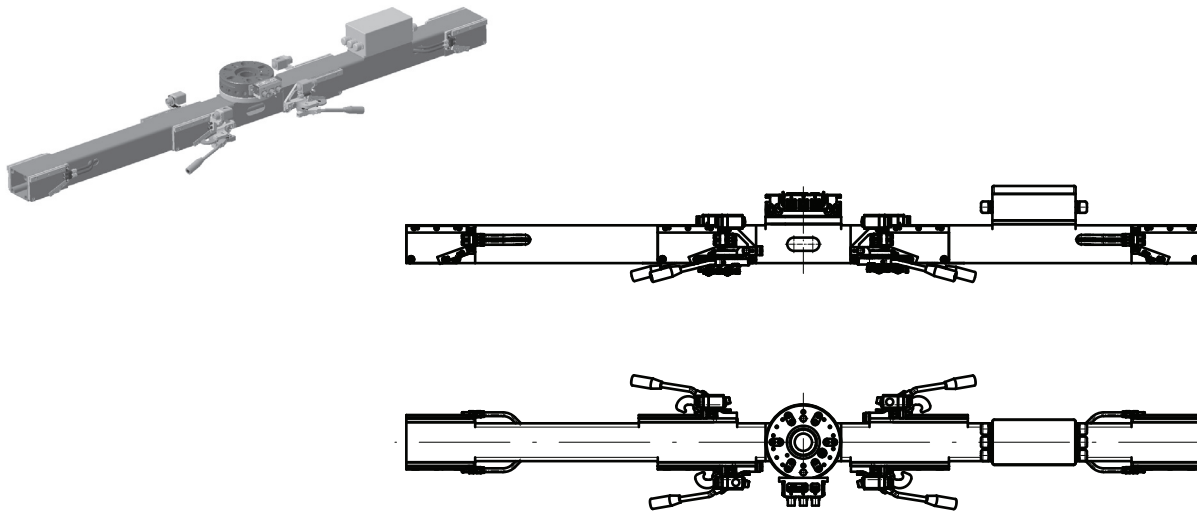


■ 45 kg
Mat.: Carbon

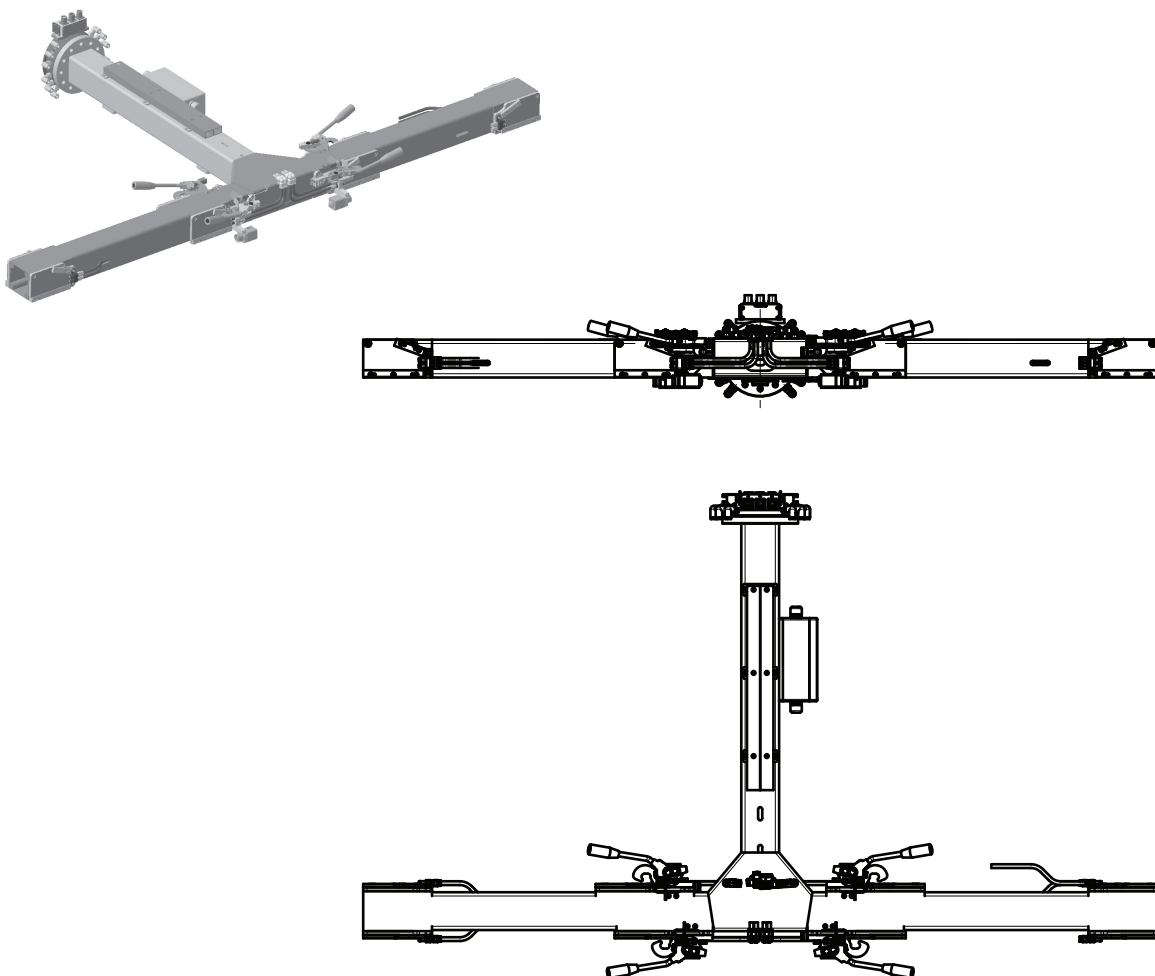


Part no.
GRS-PL-CFK-73MN

Destacking beam for 4 tooling series 40

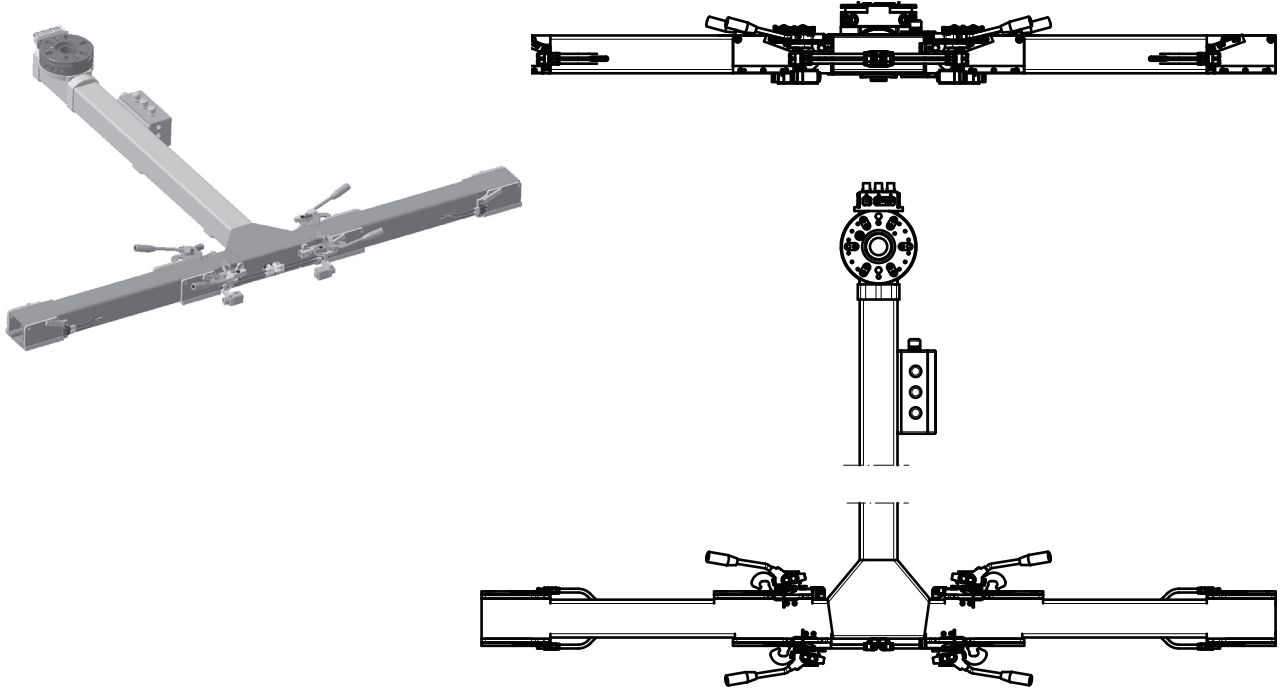


Interpress beam for 4 tooling series 40

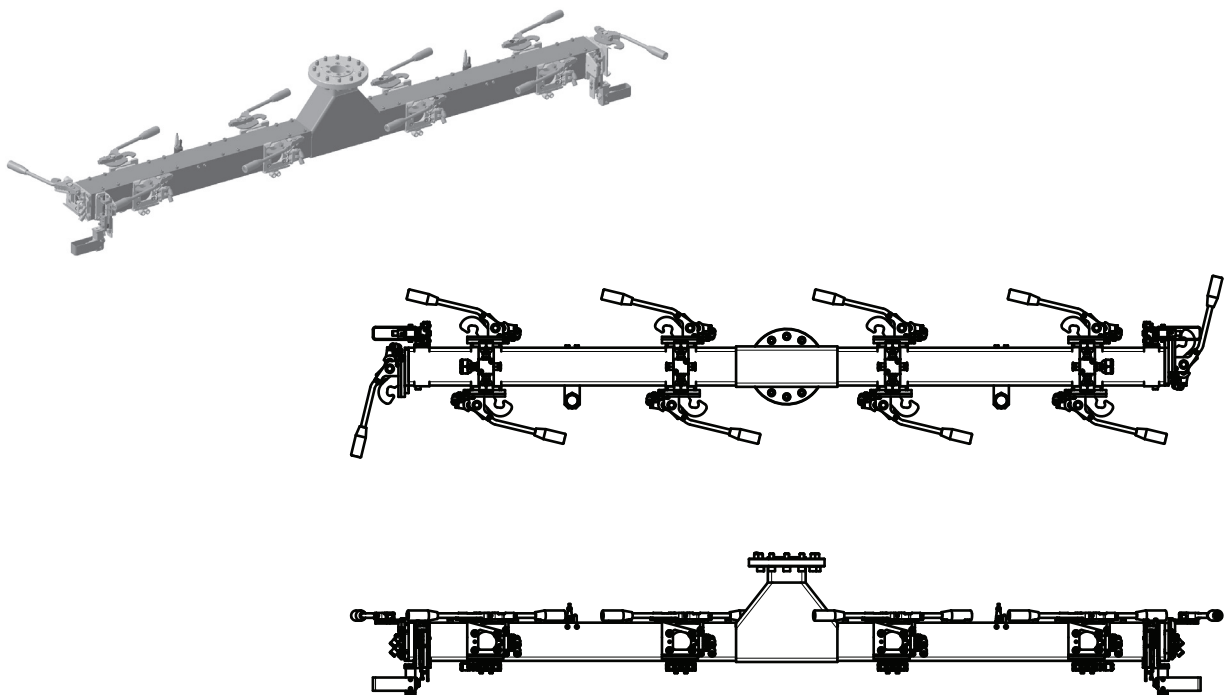




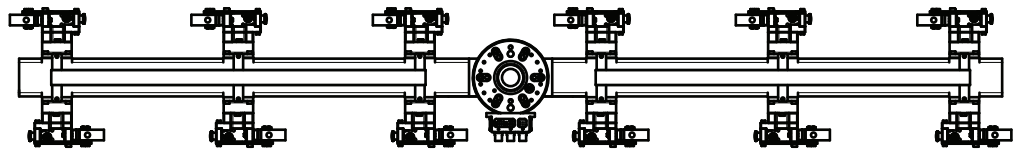
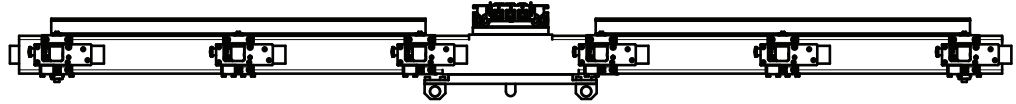
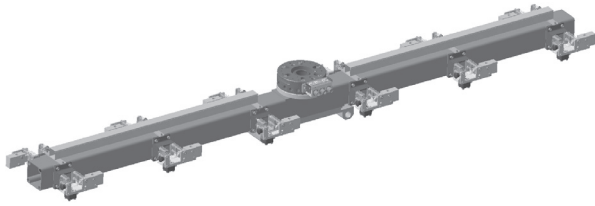
Interpress beam for 4 tooling series 40



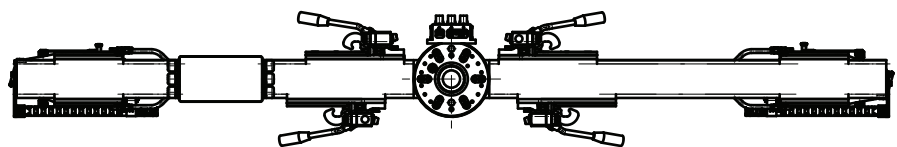
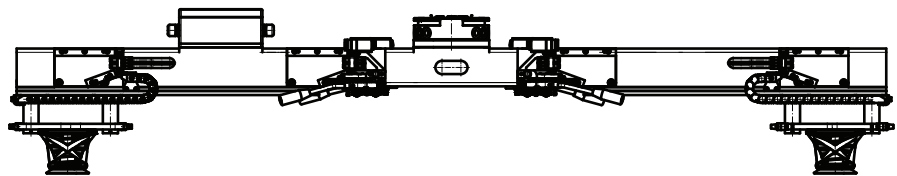
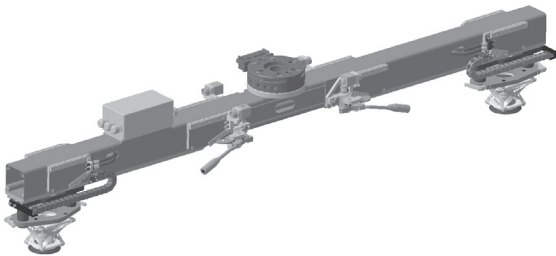
Destacking beam for multiplex tooling series 40



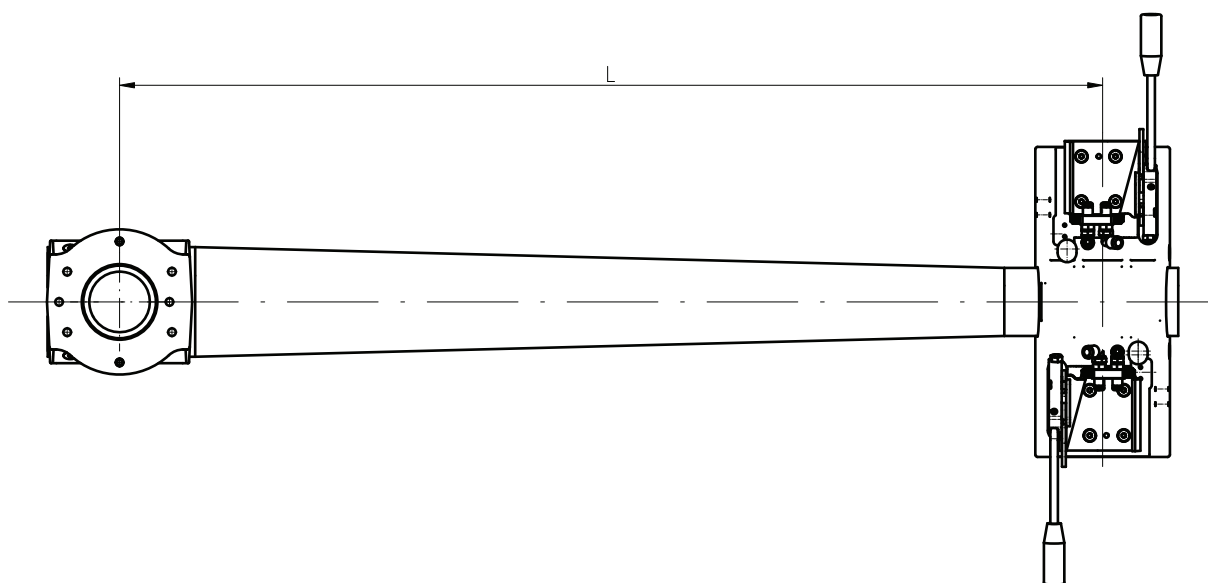
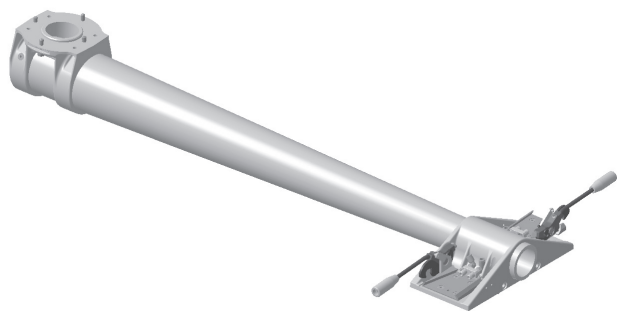
Centering robot beam



Destacking beam for 4-fach tooling series 40

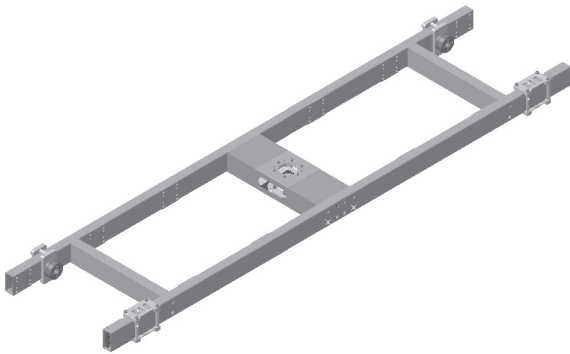


Tooling carrier with tapered carbon tube

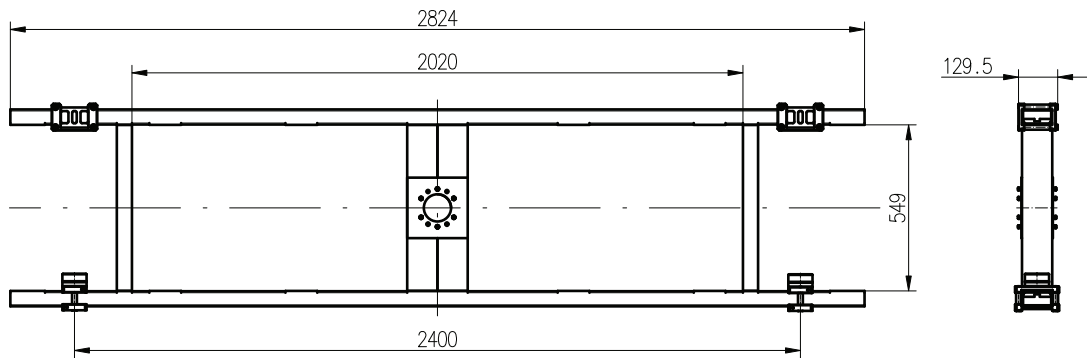


Part no.	L
GMC-TR-40-95-01-1300	1300
GMC-TR-40-95-01-1700	1700
GMC-TR-40-95-01-1900	1900

Carbon frames GM



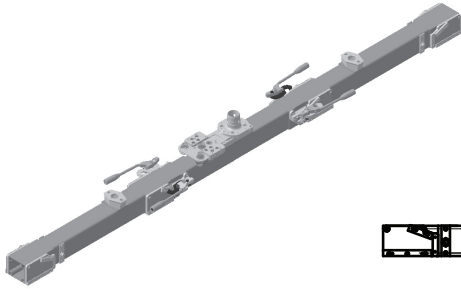
■ 27 kg
Mat.: Carbon



Part no.
GMC-2842-663

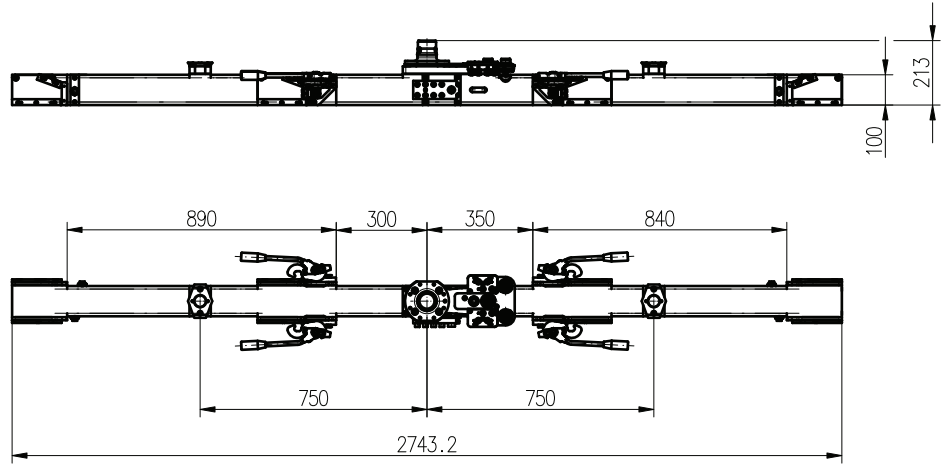


Destacker beam 9 ft

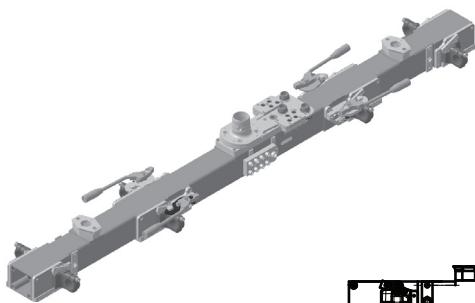


■ 31 kg
Mat.: Carbon

Part no.
GMC-TL-01

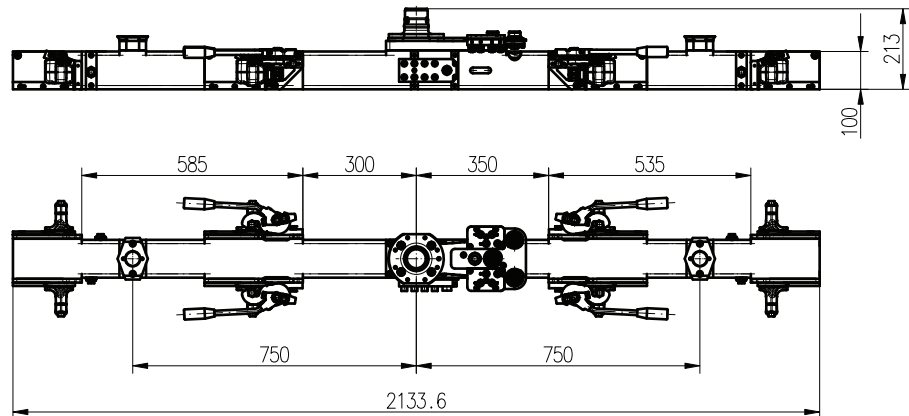


Destacker beam 7 ft

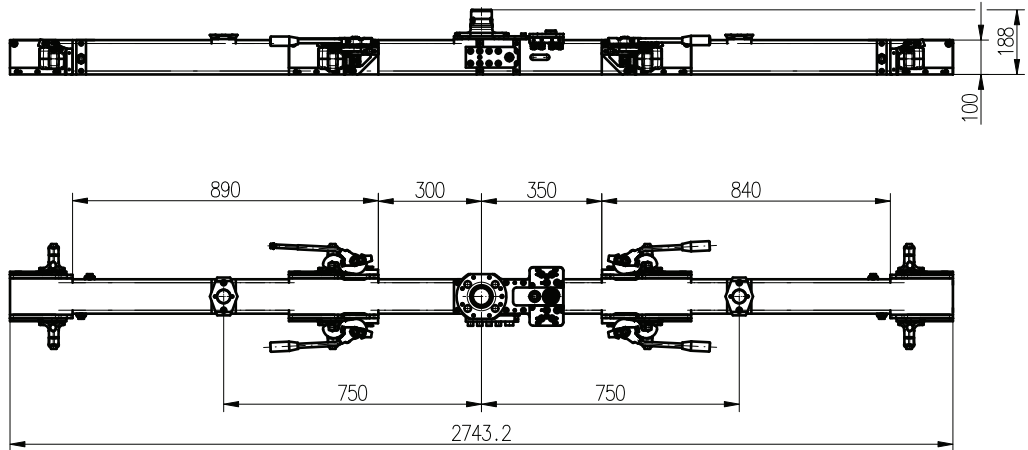
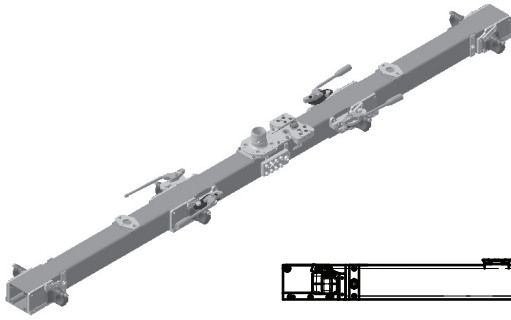


■ 28.5 kg
Mat.: Carbon

Part no.
GMC-TL-02



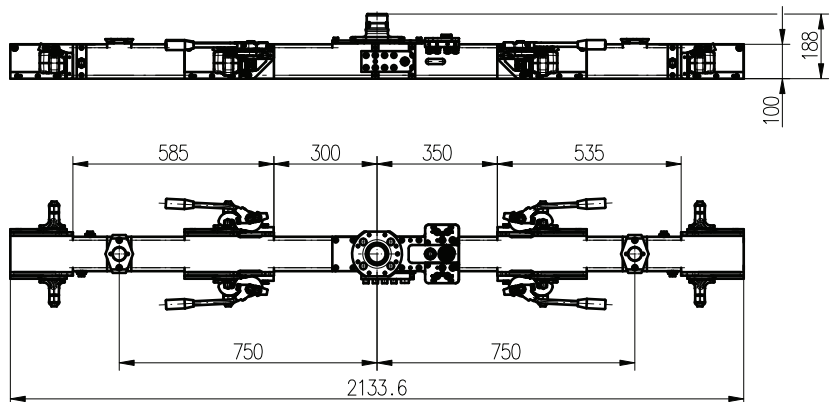
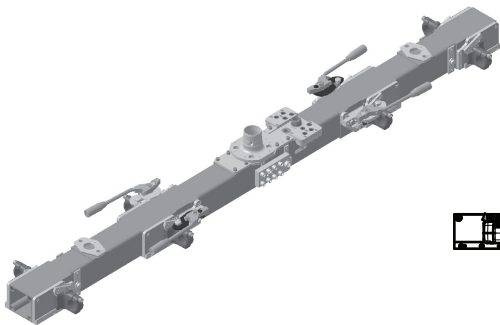
Interpress beam 9 ft



29 kg
Mat.: Carbon





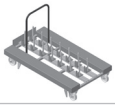
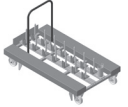






Part no.
GMC-TL-03

Interpress beam 7 ft



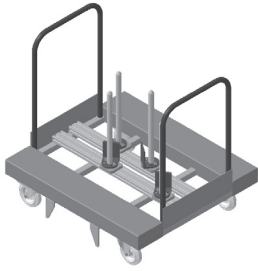
26.5 kg
Mat.: Carbon

Part no.
GMC-TL-04

Picture	Designation	Page
	Tooling cart with 4 slots	257
	Tooling cart with 8 slots	257
	Tooling cart with 20 slots	258
	Tooling cart with 2 guide	259
	Tooling cart with 1 guide	259
	Tooling cart with 14 tooling holder	260
	Tooling cart with 15 tooling holder	260
	Stacking trolley for transfer tooling	261
	Upper tooling holders from type RDC-* and TDC-*	261
	Upper tooling holders from type TR-A-*	262
	Upper tooling holders from type TR-A-*	262
	Support for Idelstation and idle frame an trolley	263
	Support for tooling arm in trolley	263

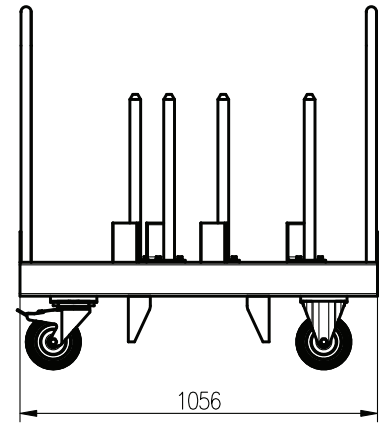
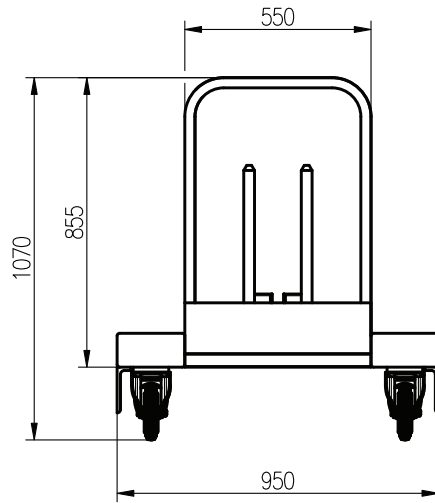


Tooling cart with 4 slots

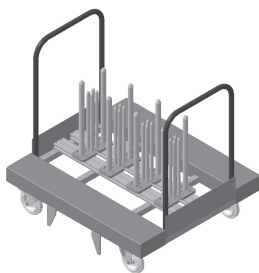


■ 125 kg
Mat.: Steel

Part no.
TC-DK-04-950-1056-1070

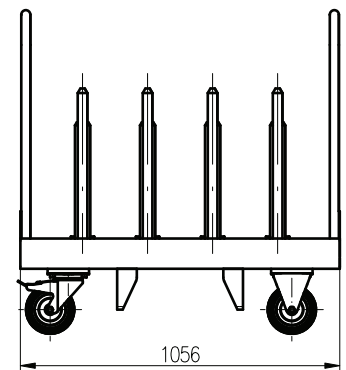
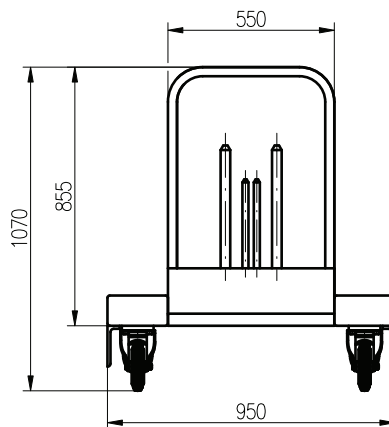


Tooling cart with 8 slots

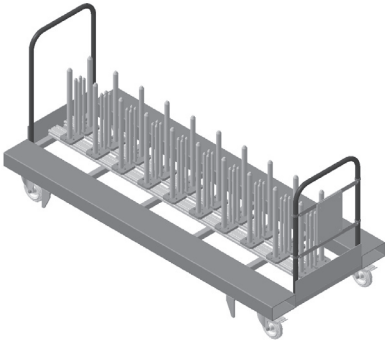


■ 155 kg
Mat.: Steel

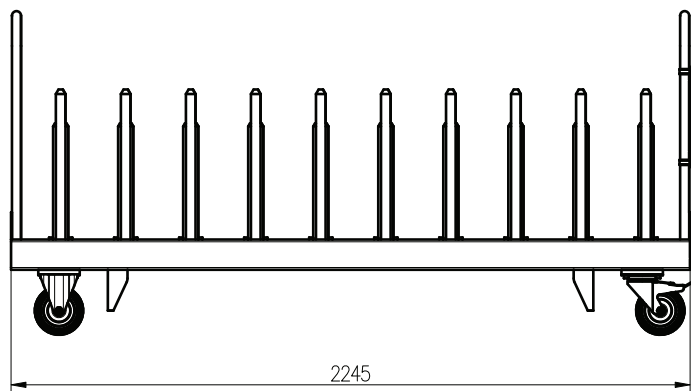
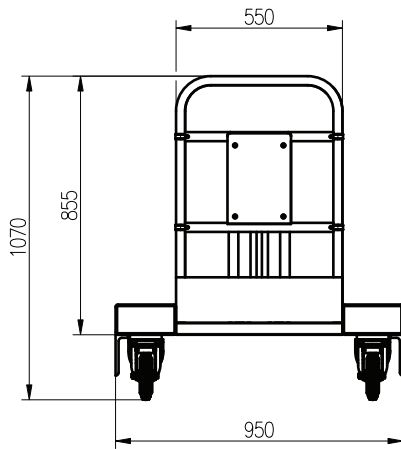
Part no.
TC-DK-08-950-1056-1070



Tooling cart with 20 slots



290 kg
 Mat.: Steel

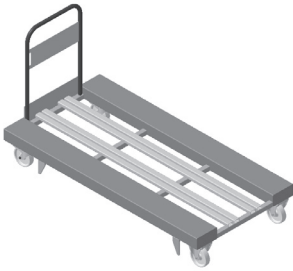


Part no.

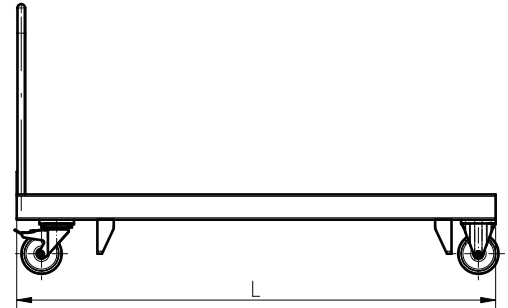
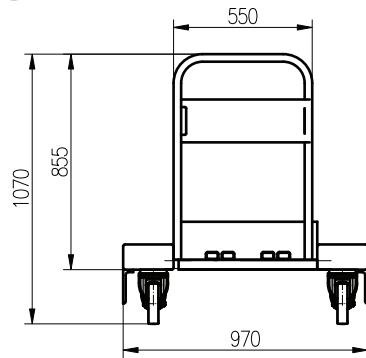
TC-DK-20-950-2242-1070



Tooling cart with 2 guide

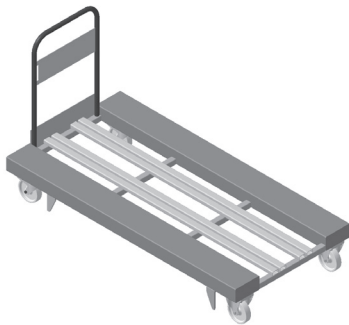


Mat.: Steel

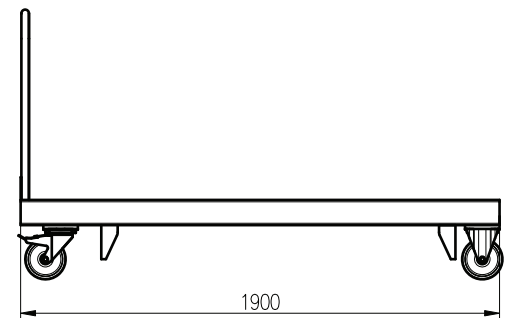
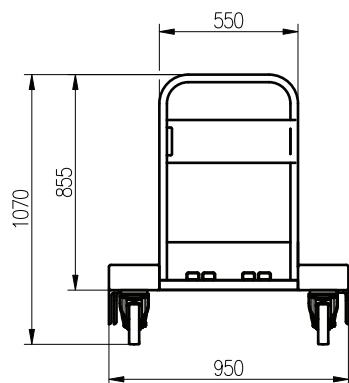


Part no.	L	⚖️ (kg)
TC-RDC-8-1900-950-1070	1900	161
TC-RDC-8-2600-950-1070	2600	197

Tooling cart with 1 guide

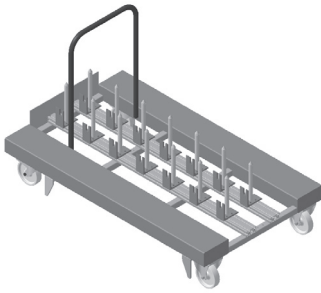


Mat.: Steel

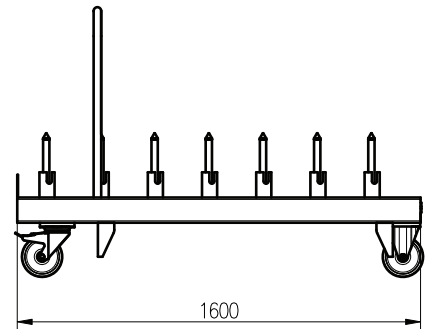
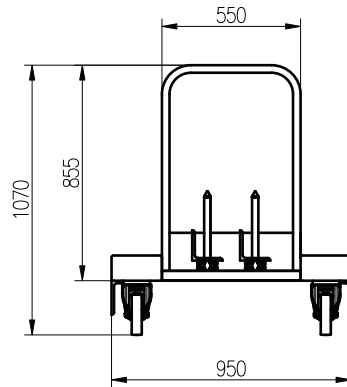


Part no.
TC-RDC-8-1900-950-1070-1

Tooling cart with 14 tooling holder



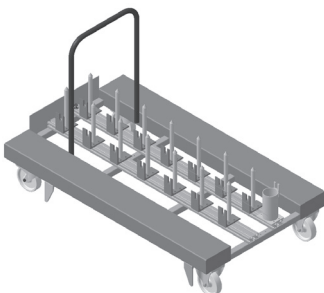
155 kg
Mat.: Steel



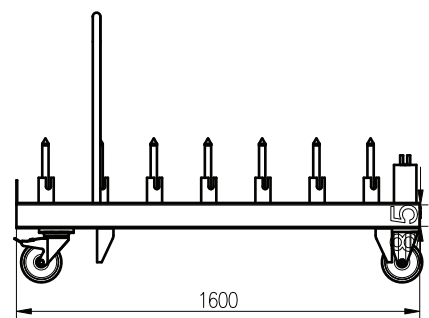
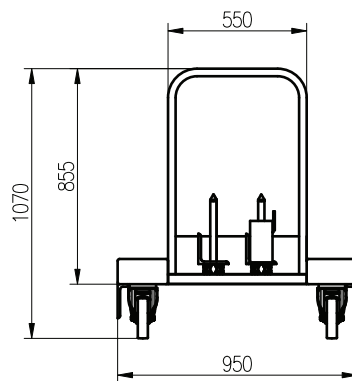
Part no.

TC-TR-A-1600-950-1070-14H

Tooling cart with 15 tooling holder



157 kg
Mat.: Steel

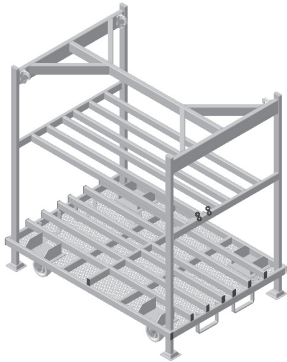


Part no.

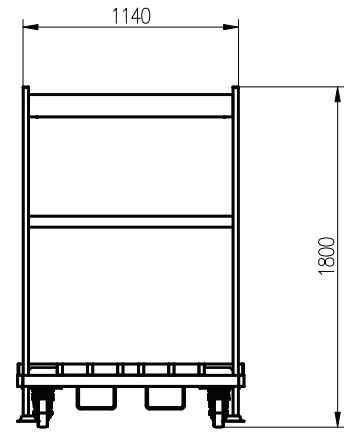
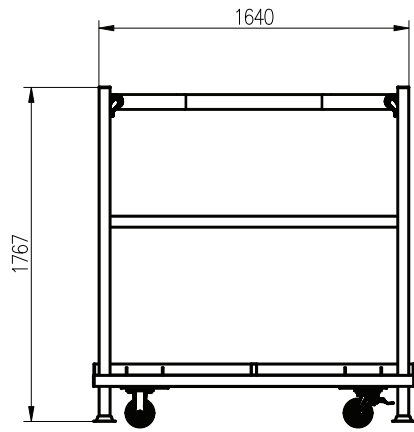
TC-TR-A-1600-950-1070-14H-1RDC



Stacking trolley for transfer tooling



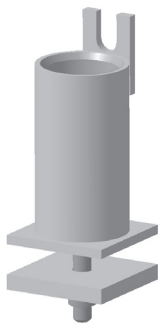
80 kg
Mat.: Steel



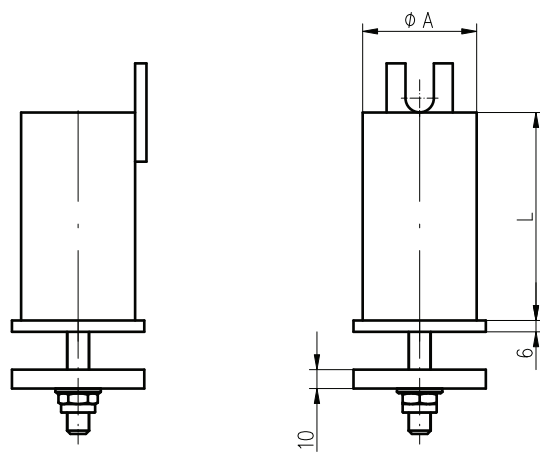
Part no.

TC-SW-KE-01

Upper tooling holders from type RDC-* and TDC-*



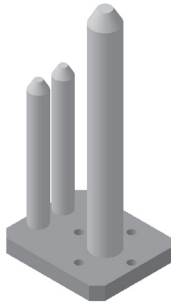
Mat.: Steel



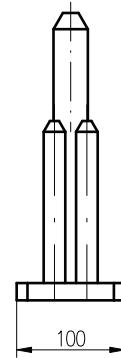
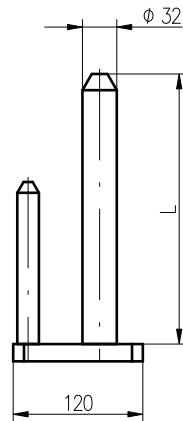
Part no.	Ø A	L	■ (kg)
TH-150-110	53.9	110	0.93
TH-250-165	89.0	165	1.38
TH-250-317	89.0	317	2.10
TH-250-470	89.0	471	2.60

Part no.	Ø A	L	■ (kg)
TH-40-110	53.9	110	0.93
TH-60-165	89.0	165	1.38
TH-60-317	89.0	317	2.10
TH-60-470	89.0	471	2.60
TH-60-600	89.0	600	3.80
TH-60-950	89.0	950	4.50

Upper tooling holders from type TR-A*



Mat.: Steel

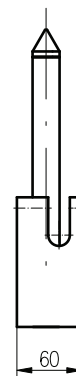
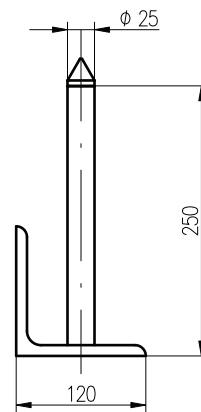


Ordering information		e.g.: TH-TR-A-40-250
TH-TR-A-40	-L	
	Length	
	↓	
		250
		300
		500

Upper tooling holders from type TR-A*

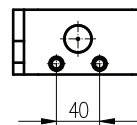


1.38 kg
Mat.: Steel



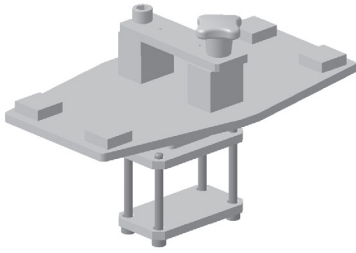
Part no.

TH-TR-40-95-25-250



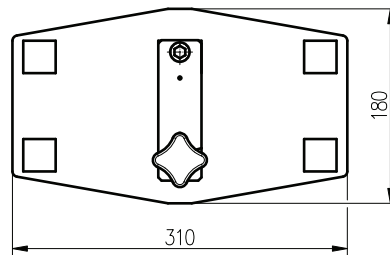
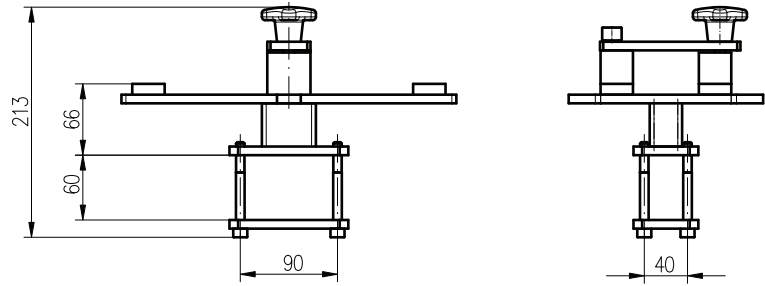


Support for Idelstation and idle frame an trolley

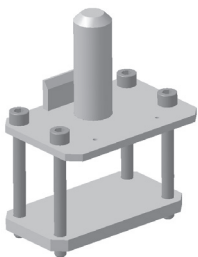


■ 5.54 kg
Mat.: Steel

Part no.
TC-SW-DB-Z-001



Support for tooling arm in trolley



■ 0.994 kg
Mat.: Steel

Part no.
TC-1700-1200-1715-B-A002

