

Clamping pins



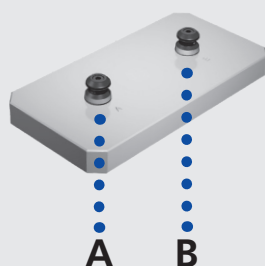
Industry 4.0
Product

1 Type and position of the clamping pins



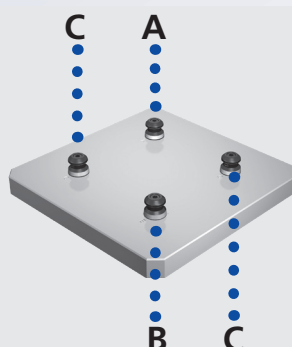
Type A Centering pin

- Used for centering and clamping



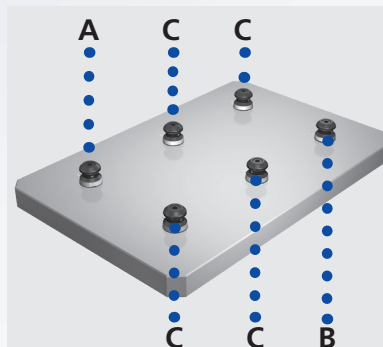
Type B Reference pin

- Used for reference and clamping

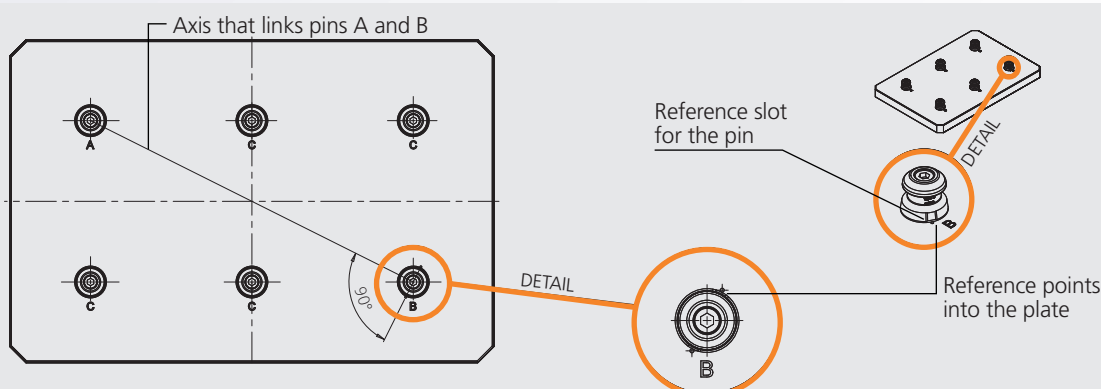


Type C Pull-down pin ± 0.05 mm

- Only for clamping



2 Positioning of the sword pin type B

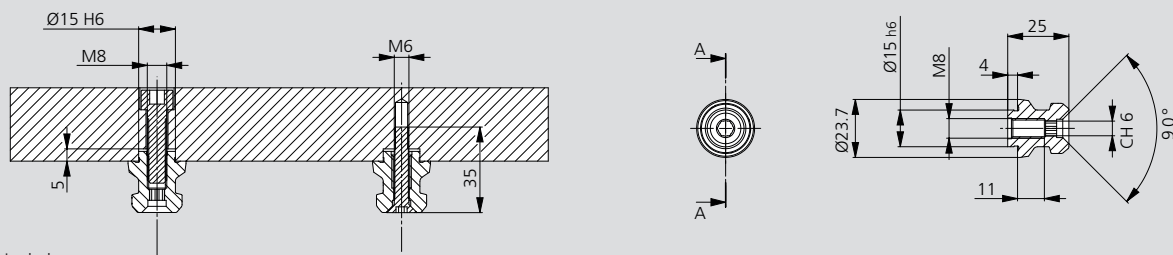


3 Tightening torque for pins mounting bolts

Bolts	Nm
M6	13
M8	35
M10	60
M12	110
M16	200

APS 100

Pins

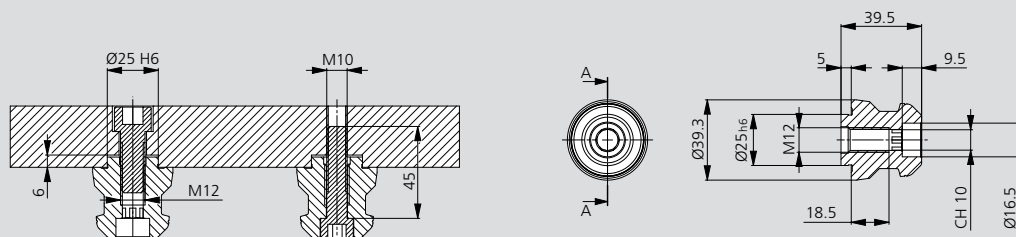


Subject to technical changes.

Id. No.	Type		Weight [kg]
46162155	A	M8	0.05
46162156	B	M8	0.05
46162157	C	M8	0.05

APS 140

Pins - M12 thread

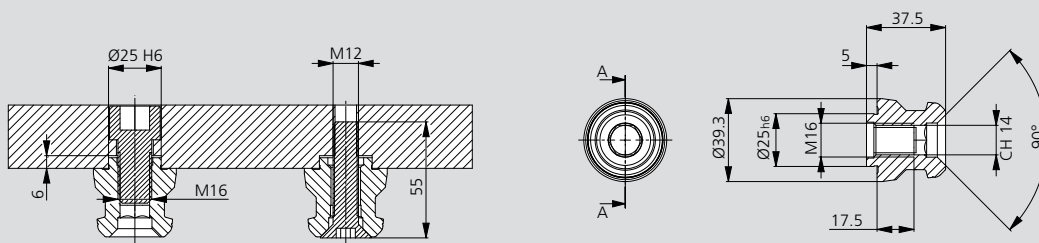


Subject to technical changes.

Id. No.	Type		Weight [kg]
46162355	A	M12	0.2
46162356	B	M12	0.2
46162357	C	M12	0.2

APS 140

Pins - M16 thread

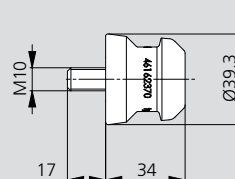
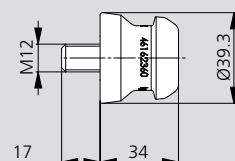
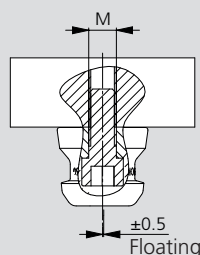


Subject to technical changes.

Id. No.	Type		Weight [kg]
46162455	A	M16	0.2
46162456	B	M16	0.2
46162457	C	M16	0.2

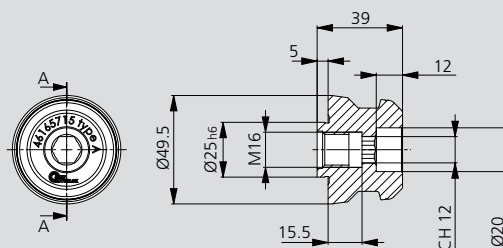
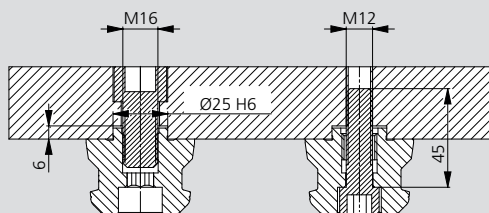
APS 140

Pins type C floating



Subject to technical changes.

Id. No.	Type		Weight [kg]
46162370	C - Floating ± 0.5 mm	M10	0.2
46162360	C - Floating ± 0.5 mm	M12	0.2

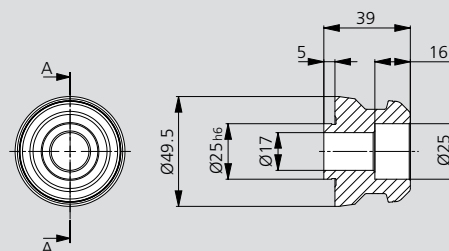
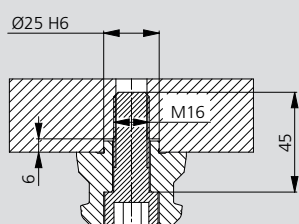


Subject to technical changes.

Id. No.	Type		Weight [kg]
46165715	A	M16	0.35
46165716	B	M16	0.35
46165717	C	M16	0.35

Pins - D17 (for M16 screws 12.9)

APS 160

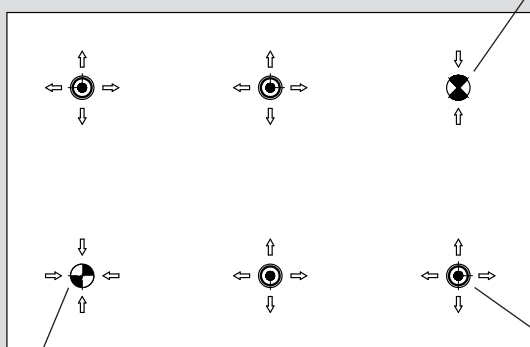


Subject to technical changes.

Id. No.	Type		Weight [kg]
46165705	A	D17	0.3
46165706	B	D17	0.3
46165707	C	D17	0.3

Type B

Clamping pin for positioning in one direction



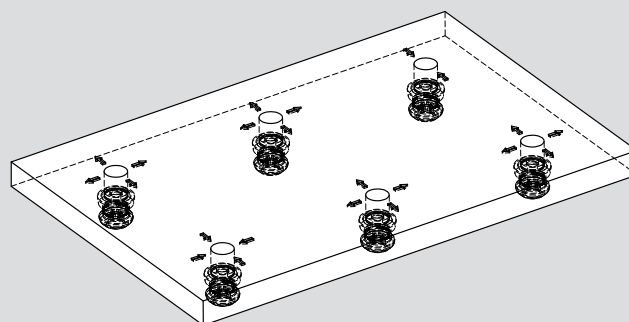
Type A

Clamping pin with positioning accuracy



Type C floating

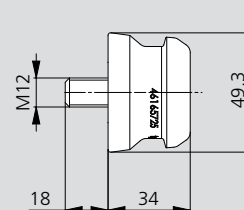
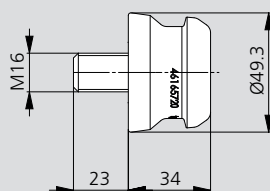
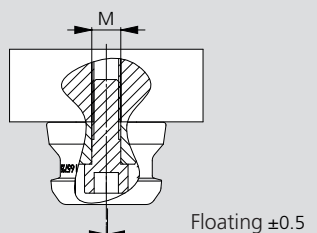
Clamping pin with centering clearance of 0.1 mm



Subject to technical changes.

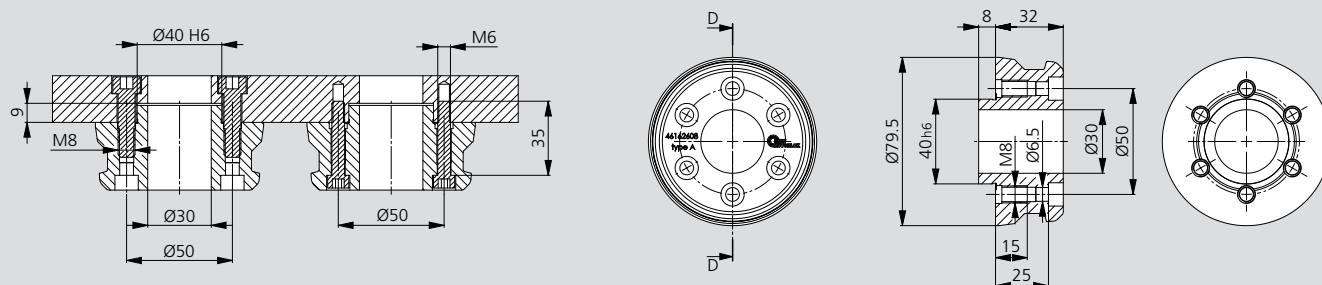
Pins type C floating

APS 160



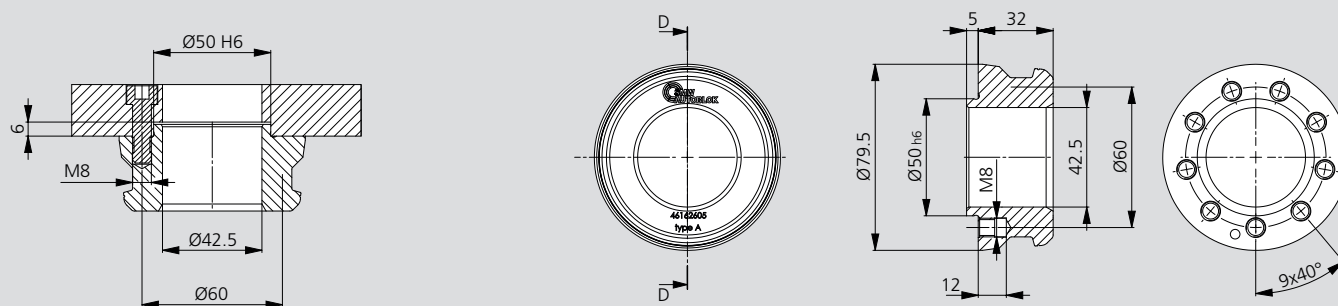
Subject to technical changes.

Id. No.	Type		Weight [kg]
46165720	C - Floating $\pm 0,5$ mm	M16	0.4
46165725	C - Floating $\pm 0,5$ mm	M12	0.35



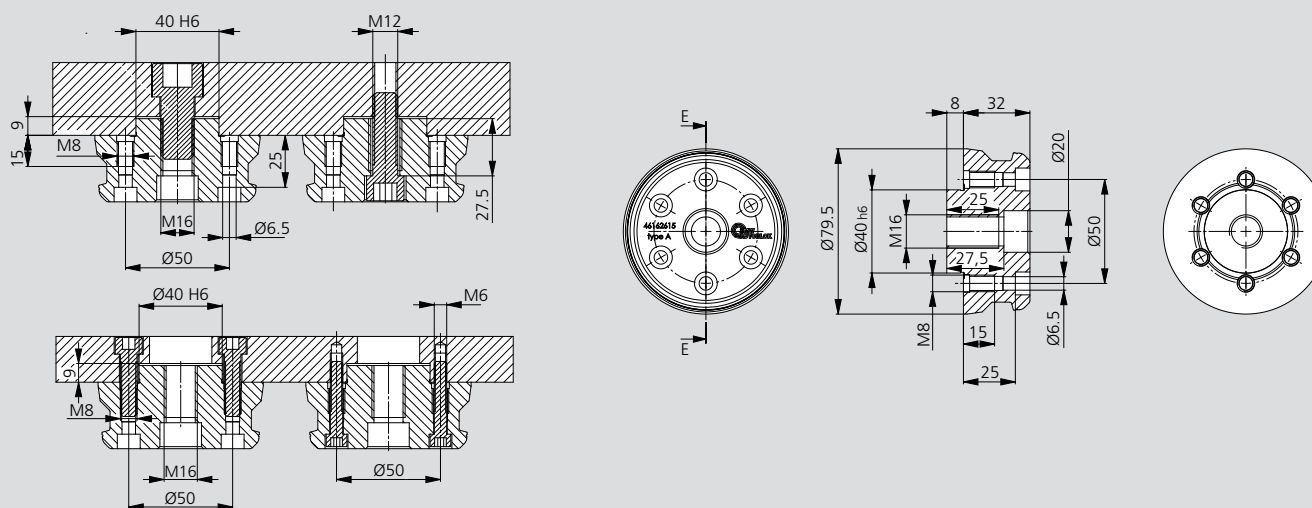
Subject to technical changes.

Id. No.	Type	Weight [kg]	Note
46162608	A	0.85	Pin with central hole Ø 30



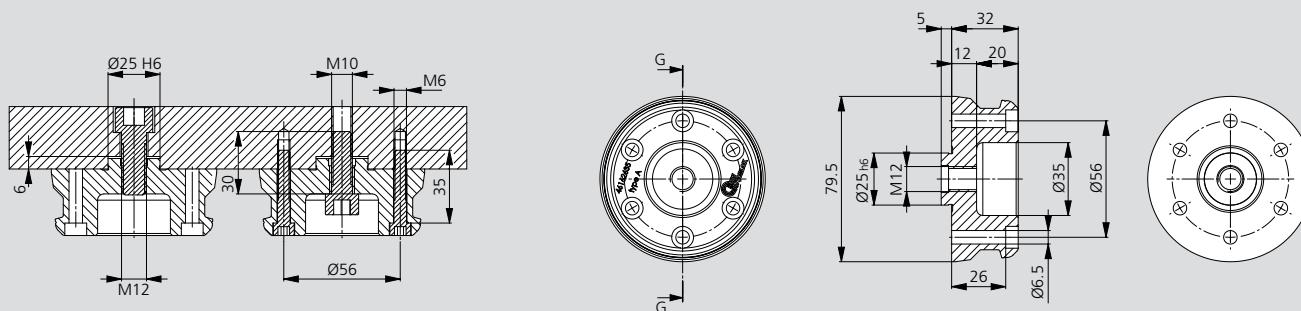
Subject to technical changes.

Id. No.	Type	Weight [kg]	Note
46162605	A	0.7	Pin with central hole Ø 42



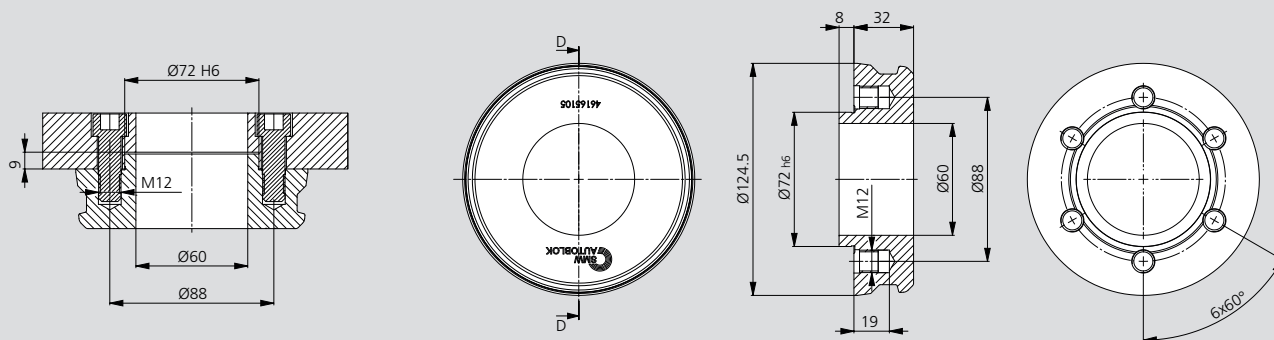
Subject to technical changes.

Id. No.	Type	Weight [kg]
46162615	A	M16
46162616	B	M16
46162617	C	M16



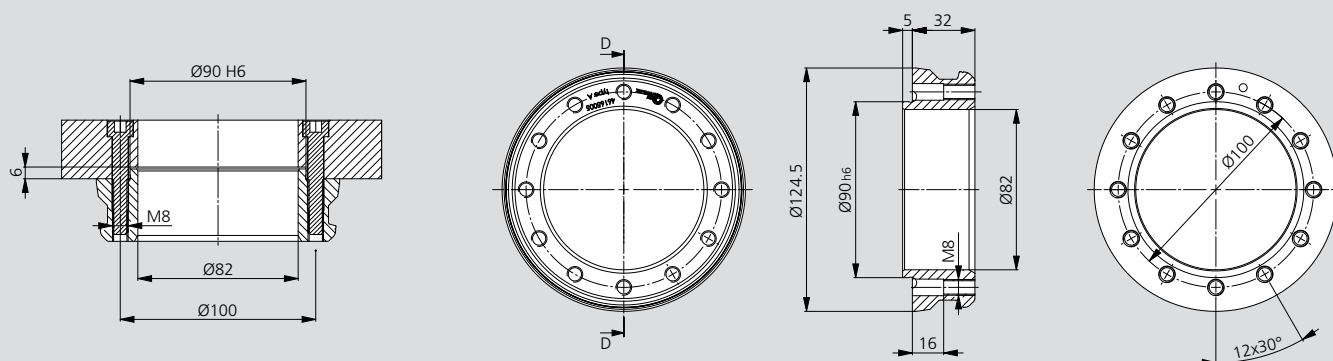
Subject to technical changes.

Id. No.	Type	Weight [kg]
46162635	A Mounting pin = To the pin APS-140 M12	0.85



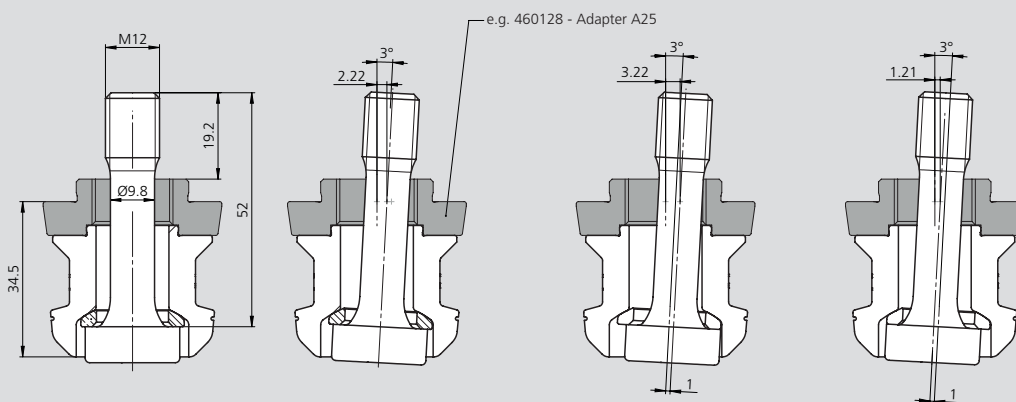
Subject to technical changes.

Id. No.	Type	Weight [kg]	Note
46165105	A	2	Pin with central hole Ø 60



Subject to technical changes.

Id. No.	Type	Weight [kg]	Note
46165005	A	1.3	Pin with central hole Ø 82



Subject to technical changes.

Id. No.	Type		Weight [kg]	Note
460421	C	M12	0.25	Max. holding force 35 kN
460449	C	M16	0.25	Max. holding force 35 kN