



Tombstones

**Tombstones without
clamping devices**

Tombstones without clamping devices to increase machine running times

SCHUNK tombstones without clamping devices enable the attachment of clamping devices from several sides. The tombstones are available in double angled, triangular, cubic or octagonal designs. Due to their shape, they enable optimal accessibility for the machine spindle. Due to the stable hollow body design, they have a high degree of rigidity as well as good vibration damping. The tombstones are available with rough clamping surfaces, a bore hole grid of 50 mm and a reduced bore hole grid especially for SCHUNK clamping devices.



Advantages – Your benefits

- + Four different tombstone shapes**
For a minimal interfering contour and optimum accessibility of the machine spindle
- + Stable hollow body design**
High rigidity and excellent vibration damping
- + Finely milled clamping surfaces**
Exact position of workpieces and clamping vises
- + Rectangularity to base plate of 0.01 mm to 200 mm**
High base accuracy, no additional surface grinding of tombstone necessary
- + Clamping surfaces blank or with bore hole grid**
For reworking by the customer or direct adaptation of SCHUNK clamping devices
- + Standardized pallet sizes**
Suitable for all common machining plates
400 x 400 mm and 500 x 500 mm
- + Two interfaces integrated as standard for positioning on the machine table**
Quick and easy adaptation to machine tools according to DIN 55 201 and JIS 6337-1980

Tombstone designs

VERO-S tombstones

VERO-S tombstones are equipped with VERO-S NSE-T3 138-V1 modules. This means that clamping devices can be mounted via clamping pins in a matter of seconds with extremely high repeat accuracy.



Tombstones with clamping devices

Tombstones with clamping vises are fully configured, standard clamping solutions. This means that they can be immediately put into operation.



Tombstones without clamping devices

Tombstones without clamping devices are blank tombstones. Depending on the application, these can be designed with raw clamping surfaces or various bore hole grids.



Clamping pillars for rotary tables

Clamping pillars are preconfigured tombstones that can be mounted directly on dividing heads as a fourth axis.



Tombstone shapes

Double angle tombstones

Double angle tombstones mean that clamping devices can be mounted from two sides. These tombstones are available with VERO-S tombstone modules, rough clamping surfaces, bore hole grid of 50 mm, and a reduced bore hole grid especially for SCHUNK clamping devices.



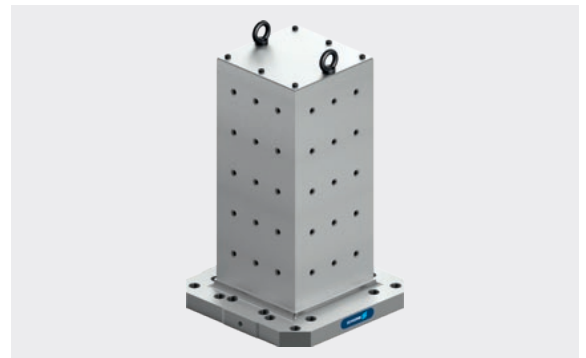
Triangle tombstones

Triangle tombstones mean that clamping devices can be mounted from three sides. These tombstones are available with VERO-S tombstone modules, rough clamping surfaces, bore hole grid of 50 mm, and a reduced bore hole grid especially for SCHUNK clamping devices.



Cube Tombstones

Cube tombstones mean that clamping devices can be mounted from four sides. These tombstones are available with rough clamping surfaces, bore hole grid of 50 mm and a reduced bore hole grid especially for SCHUNK clamping devices.



Octangle / Cross tombstones

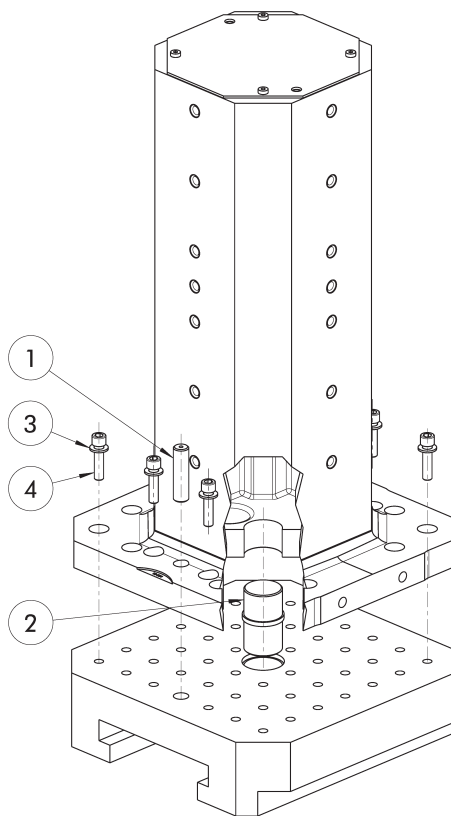
Octagonal or also cross tombstones mean that clamping devices can be mounted from four to eight sides. These tombstones are available with VERO-S tombstone modules, rough clamping surfaces, bore hole grid of 50 mm, and a reduced bore hole grid especially for SCHUNK clamping devices.



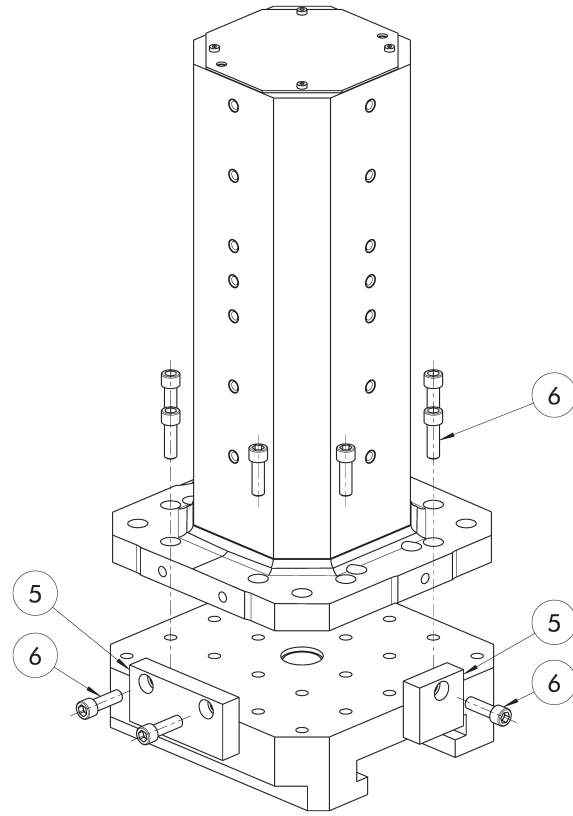
Positioning on the machine table

- All tombstones are prepared with standard interfaces and fit onto pallets of size 400 mm and 500 mm for machine tools according to DIN 55 201 and JIS 6337-1980. Other interfaces can be manufactured on request.
- Tombstones with base plate size 400 x 400 mm and 500 x 500 mm are positioned and aligned above the middle bore hole and position pin.
- Using the stop plates, the tombstones with edge locator stops (JIS 6337-1980 system) can be easily mounted on 500 x 500 mm machine tables. Exact alignment is carried out via the two positioning surfaces.

DIN 55 201



JIS 6337-1980

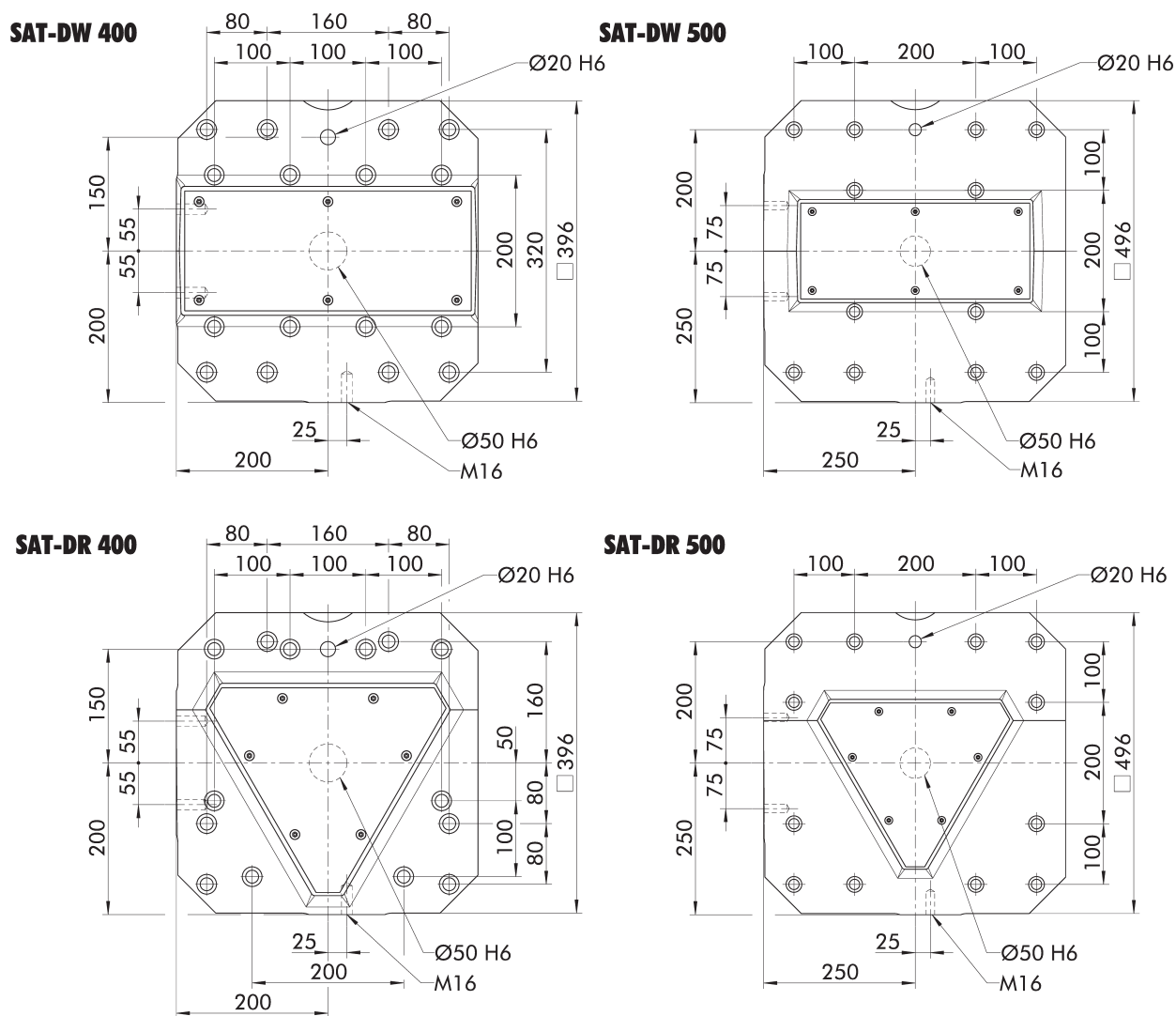


Subject to technical changes.

- ① Positioning pin for $\varnothing 20$ mm aligning bore
- ② Centering pins for middle bore $\varnothing 50$ mm
- ③ Washer DIN 125 A, M12

- ④ Cylindrical screw DIN EN ISO 4762, M12
- ⑤ Edge locator stops
- ⑥ Cylindrical screw DIN EN ISO 4762, M16

- The drawing shows all important connection and bore dimensions of double angle and triangle tombstones.
- Connection dimensions for pallet sizes 400 x 400 mm and 500 x 500 mm.
- Dimensions apply to all double angle and triangle tombstones listed in this chapter.



Subject to technical changes.

Double angle tombstone

With raw clamping surfaces for finishing by customer

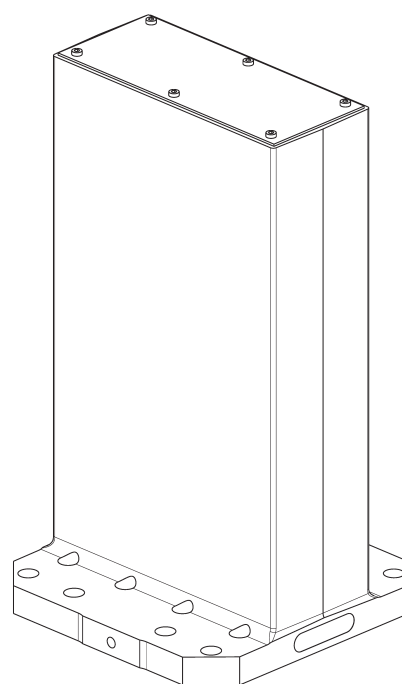
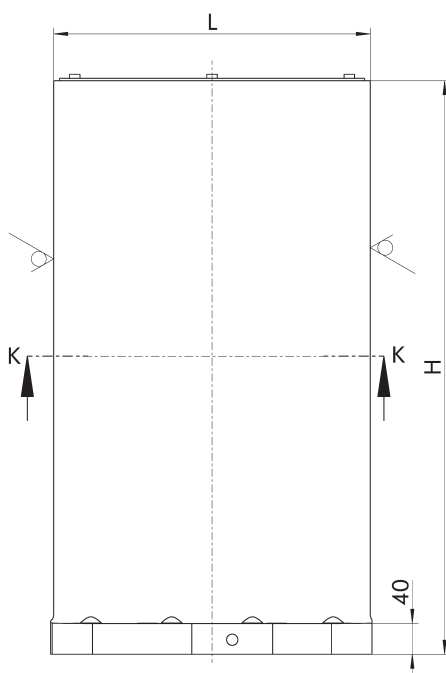
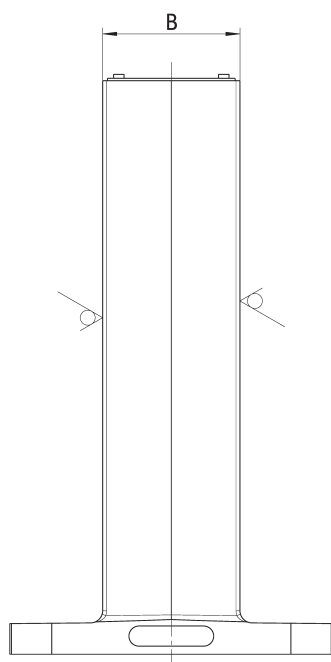
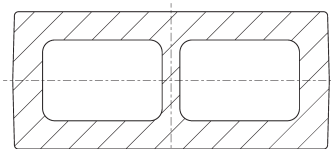
Scope of delivery

Tombstone, cover, shipping screws

Technical data

Description	ID	Pallet size [mm]	L [mm]	B [mm]	H [mm]	Weight [kg]
SAT-DW-R 400-710	0431107	400 x 400 mm	390	170	710	221
SAT-DW-R 500-710	0431108	500 x 500 mm	390	170	710	244
SAT-DW-R 500-1000	0431110	500 x 500 mm	490	230	1000	355

K-K



Tombstone interface to machine table see page 8.
Subject to technical changes.

Double angle tombstone

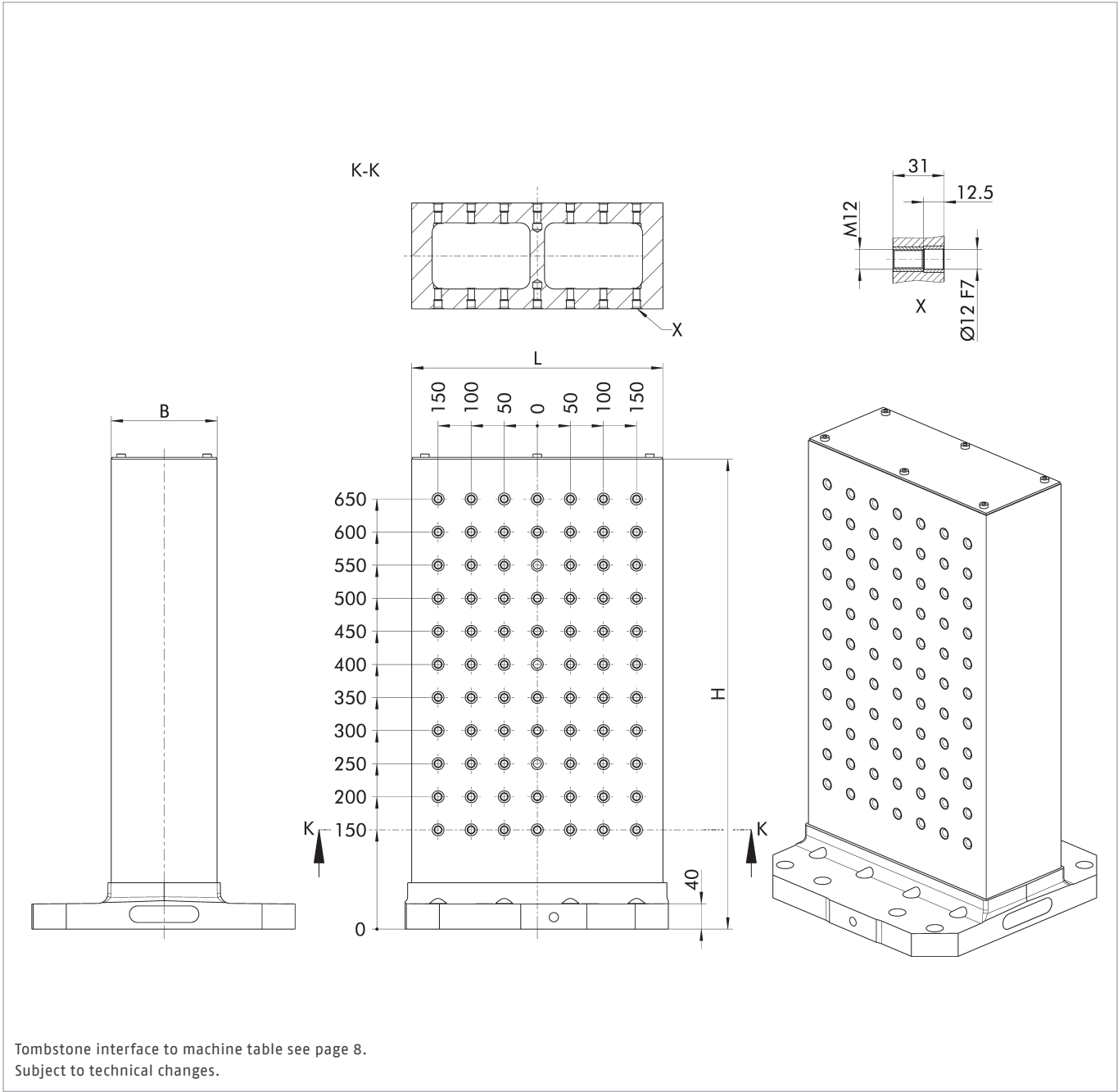
With continuous bore hole grid 50 mm
Finely milled clamping surfaces, coordinates of the bore holes grid numbered (horizontal letters, vertical digits)

Scope of delivery

Tombstone, cover, shipping screws; without hole grid cover

Technical data

Description	ID	Pallet size [mm]	L [mm]	B [mm]	H [mm]	Number of grid rows	Weight [kg]
SAT-DW-BR 400-710	0431103	400 x 400 mm	380	160	710	10	190
SAT-DW-BR 500-710	0431104	500 x 500 mm	380	160	710	10	215
SAT-DW-BR 500-1000	0431109	500 x 500 mm	480	220	1000	16	350



Double angle tombstone

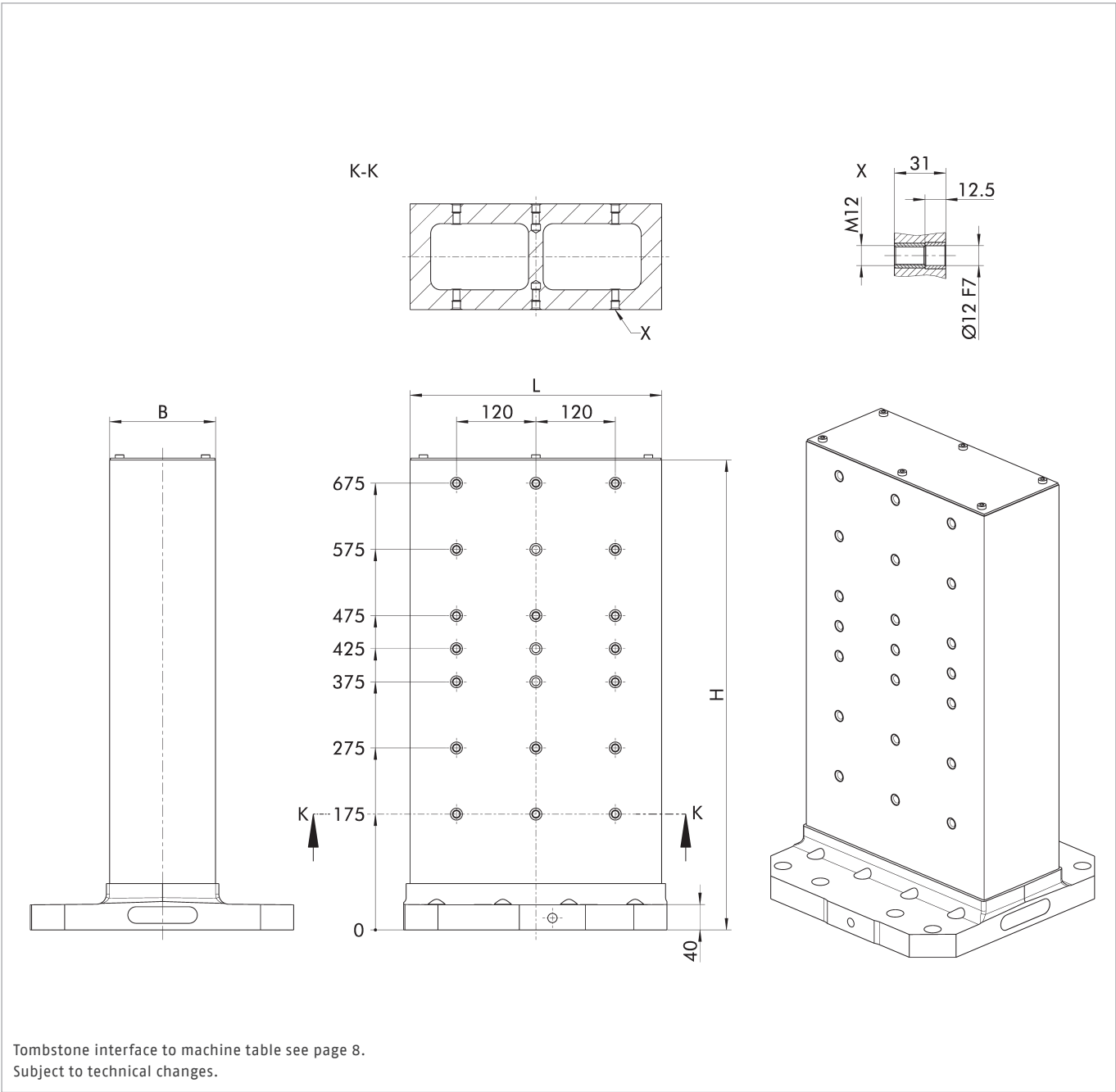
With SCHUNK bore hole grid suitable for SCHUNK clamping devices
Finely milled clamping surfaces

Scope of delivery

Tombstone, cover, shipping screws; without hole grid cover

Technical data

Description	ID	Pallet size [mm]	L [mm]	B [mm]	H [mm]	Weight [kg]
SAT-DW-BRS 400-710	0431105	400 x 400 mm	380	160	710	192
SAT-DW-BRS 500-710	0431106	500 x 500 mm	380	160	710	217



Triangle tombstone

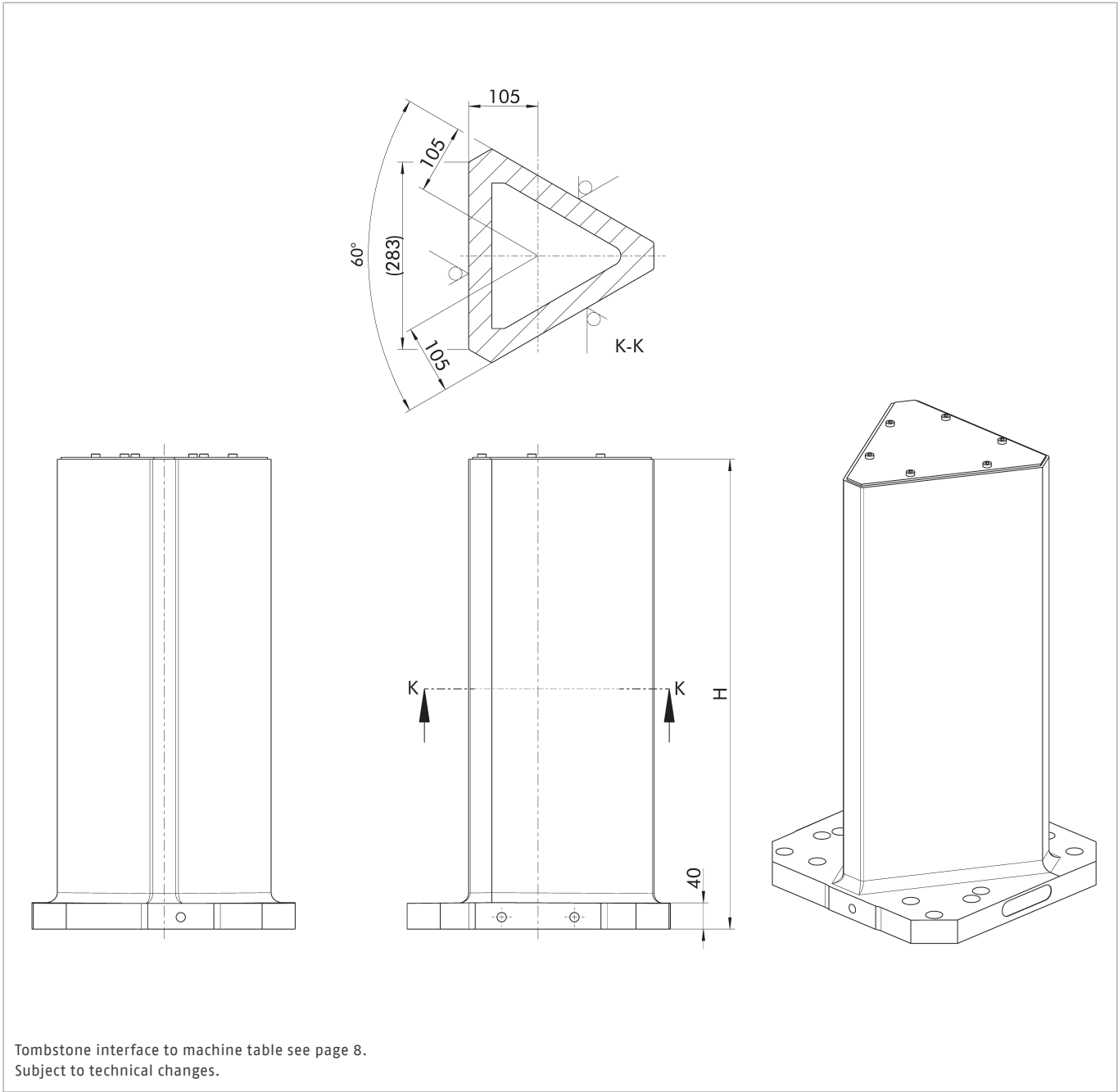
With raw clamping surfaces for finishing by customer

Scope of delivery

Tombstone, cover, shipping screws

Technical data

Description	ID	Pallet size [mm]	H [mm]	Weight [kg]
SAT-DR-R 400-710	0431137	400 x 400 mm	710	195
SAT-DR-R 500-710	0431138	500 x 500 mm	710	220
SAT-DR-R 500-1000	0431148	500 x 500 mm	1000	278



Triangle tombstone

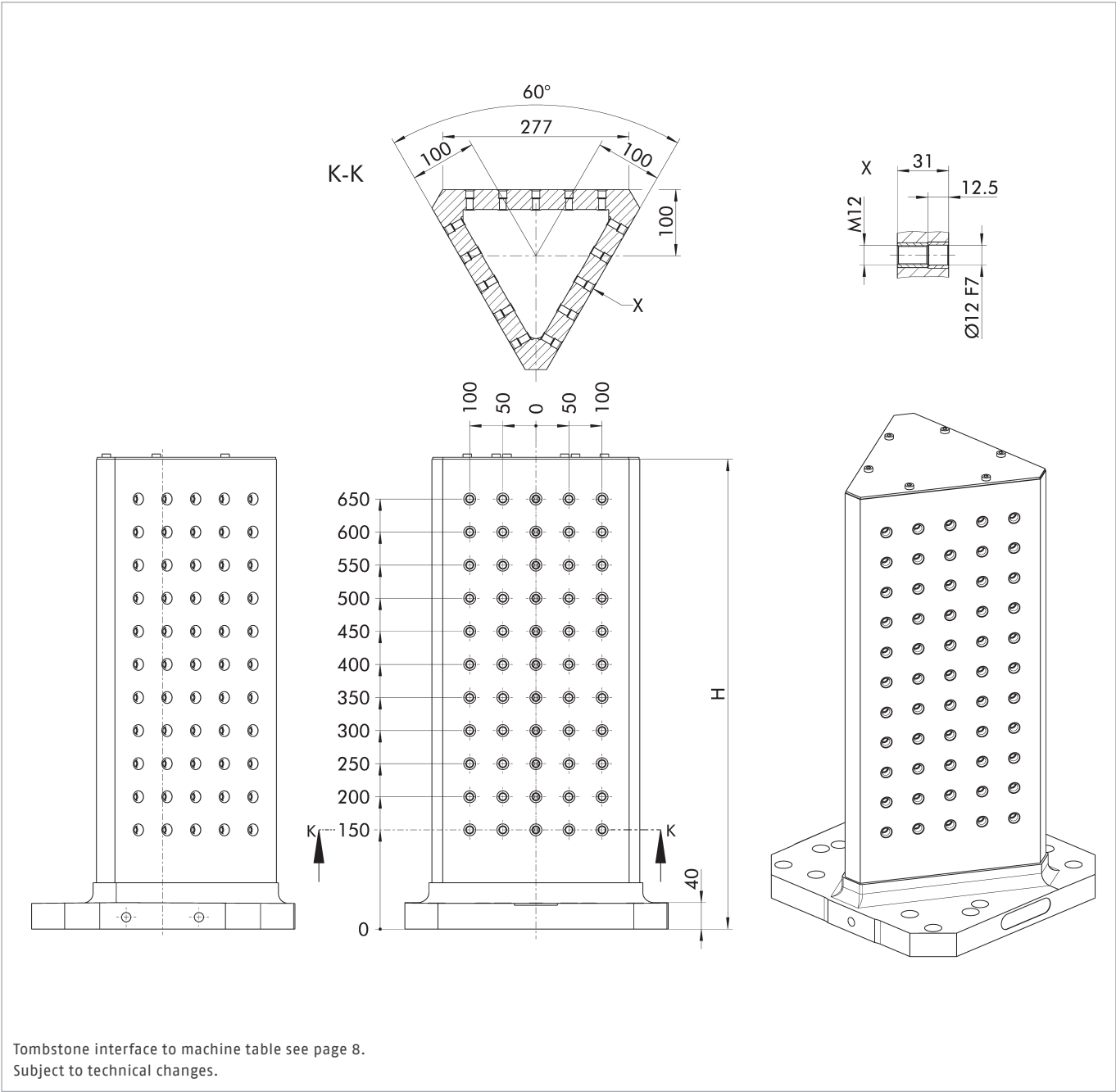
With continuous bore hole grid 50 mm
Finely milled clamping surfaces, coordinates of the bore holes grid numbered (horizontal letters, vertical digits)

Scope of delivery

Tombstone, cover, shipping screws; without hole grid cover

Technical data

Description	ID	Pallet size [mm]	H [mm]	Number of grid rows	Weight [kg]
SAT-DR-BR 400-710	0431133	400 x 400 mm	710	10	170
SAT-DR-BR 500-710	0431134	500 x 500 mm	710	10	205
SAT-DR-BR 500-1000	0431147	500 x 500 mm	1000	16	242



Cube tombstone

With raw clamping surfaces for finishing by customer

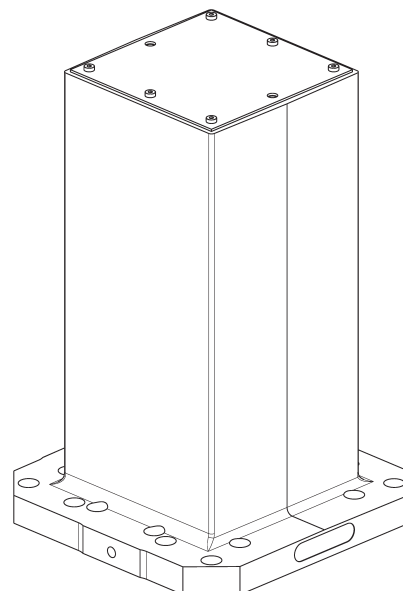
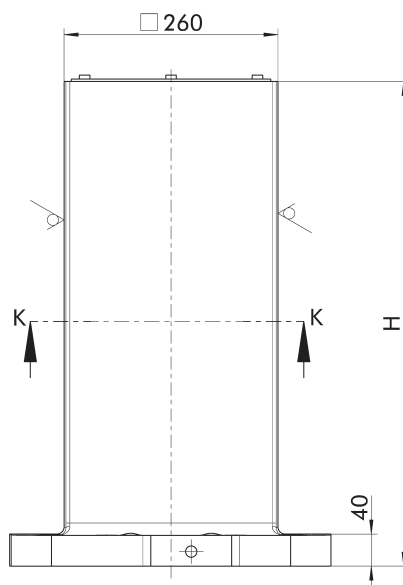
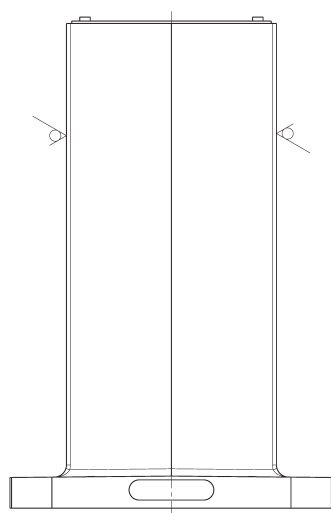
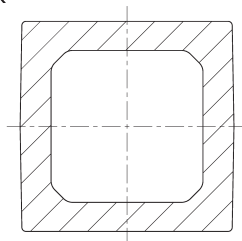
Scope of delivery

Tombstone, cover, shipping screws

Technical data

Description	ID	Pallet size [mm]	H [mm]	Weight [kg]
SAT-W-R 400-600	0431151	400 x 400 mm	600	180

K-K



Tombstone interface to machine table see page 9.
Subject to technical changes.

Cube tombstone

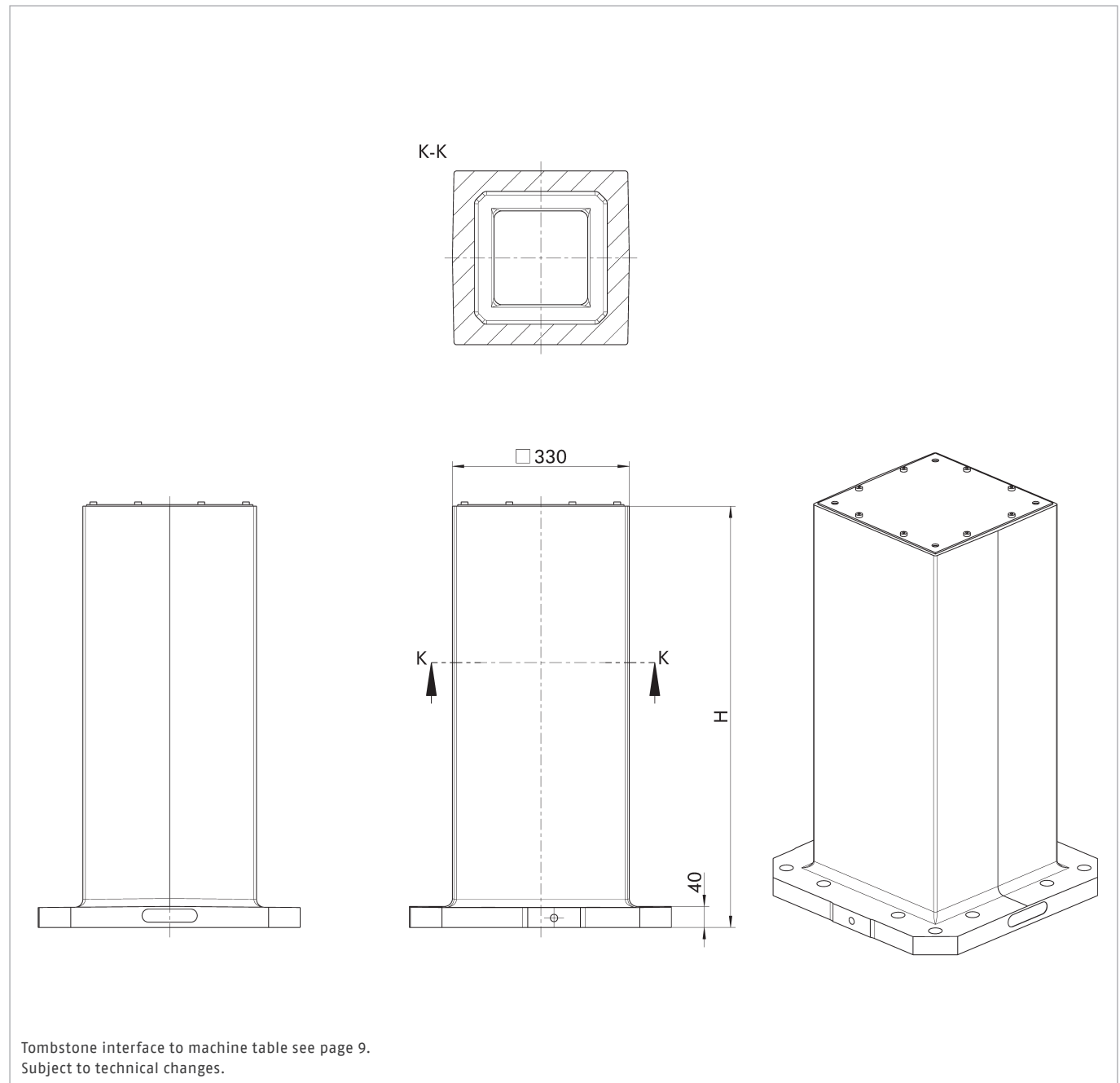
With raw clamping surfaces for finishing by customer

Scope of delivery

Tombstone, cover, shipping screws

Technical data

Description	ID	Pallet size [mm]	H [mm]	Weight [kg]
SAT-W-R 500-800	0431153	500 x 500 mm	800	320
SAT-W-R 500-1000	0431152	500 x 500 mm	1000	385



Cube tombstone

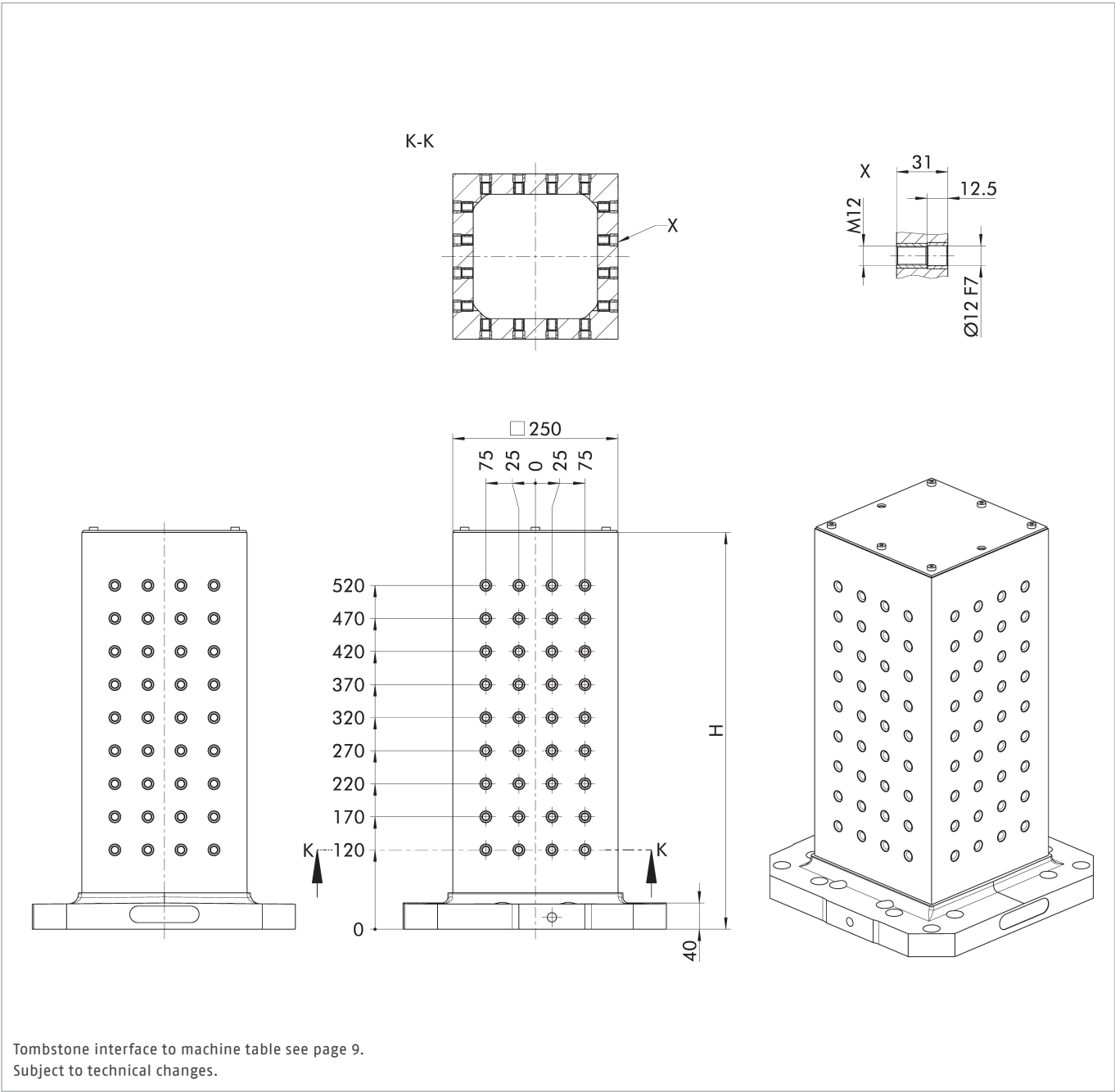
With continuous bore hole grid 50 mm
Finely milled clamping surfaces, coordinates of the bore holes grid numbered (horizontal letters, vertical digits)

Scope of delivery

Tombstone, cover, shipping screws; without hole grid cover

Technical data

Description	ID	Pallet size [mm]	H [mm]	Number of grid rows	Weight [kg]
SAT-W-BR 400-600	0431146	400 x 400 mm	600	9	155



Cube tombstone

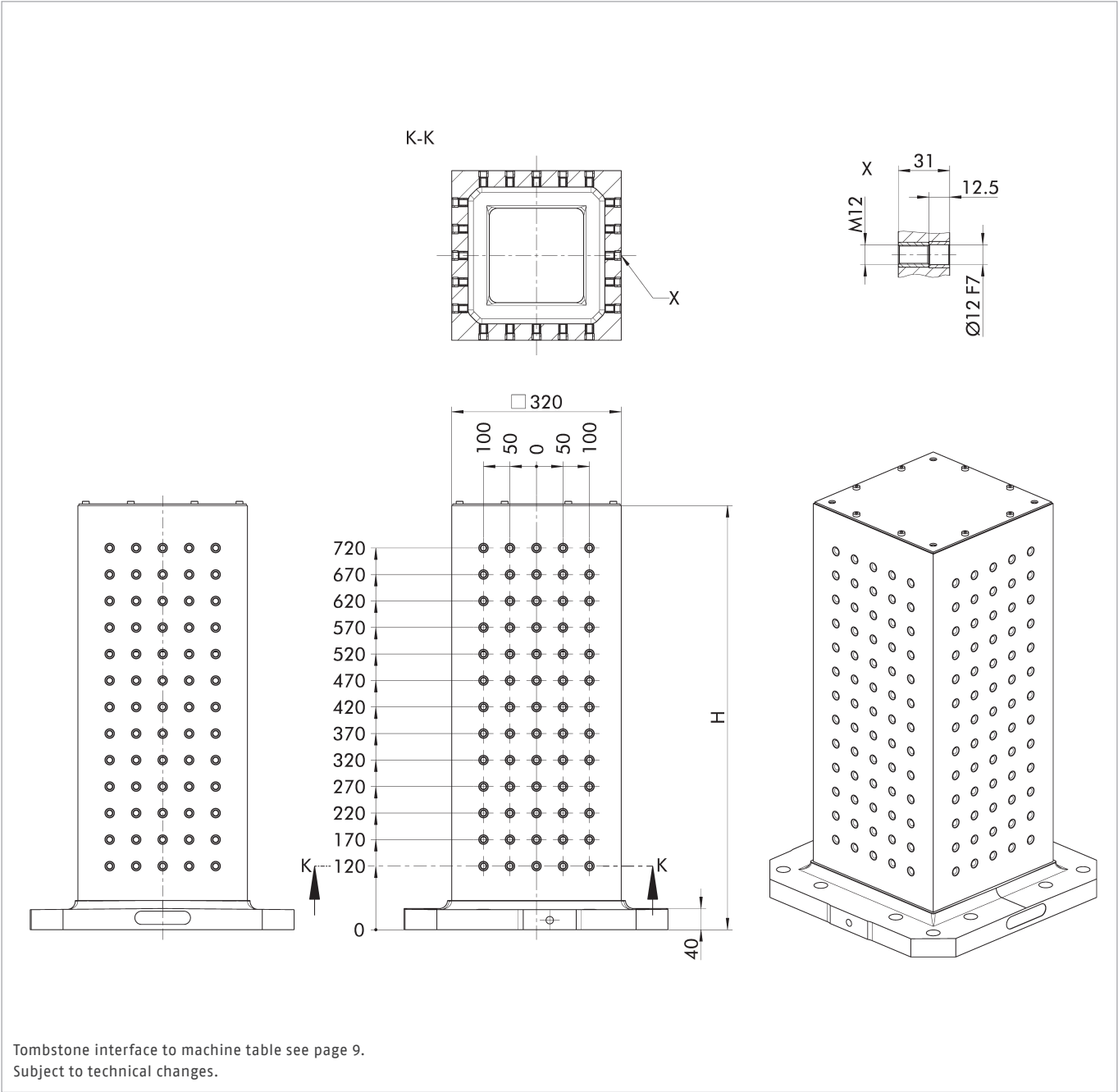
With continuous bore hole grid 50 mm
Finely milled clamping surfaces, coordinates of the bore holes grid numbered (horizontal letters, vertical digits)

Scope of delivery

Tombstone, cover, shipping screws; without hole grid cover

Technical data

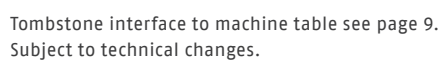
Description	ID	Pallet size [mm]	H [mm]	Number of grid rows	Weight [kg]
SAT-W-BR 500-800	0431143	500 x 500 mm	800	12	276
SAT-W-BR 500-1000	0431149	500 x 500 mm	1000	16	327



With SCHUNK bore hole grid suitable for SCHUNK clamping devices
Finely milled clamping surfaces

Tombstone, cover, shipping screws; without hole grid cover

Description	ID	Pallet size [mm]	H [mm]	Number of grid rows	Weight [kg]
SAT-W-BRS 400-600	0431144	400 x 400 mm	600	5	157



Cube tombstone

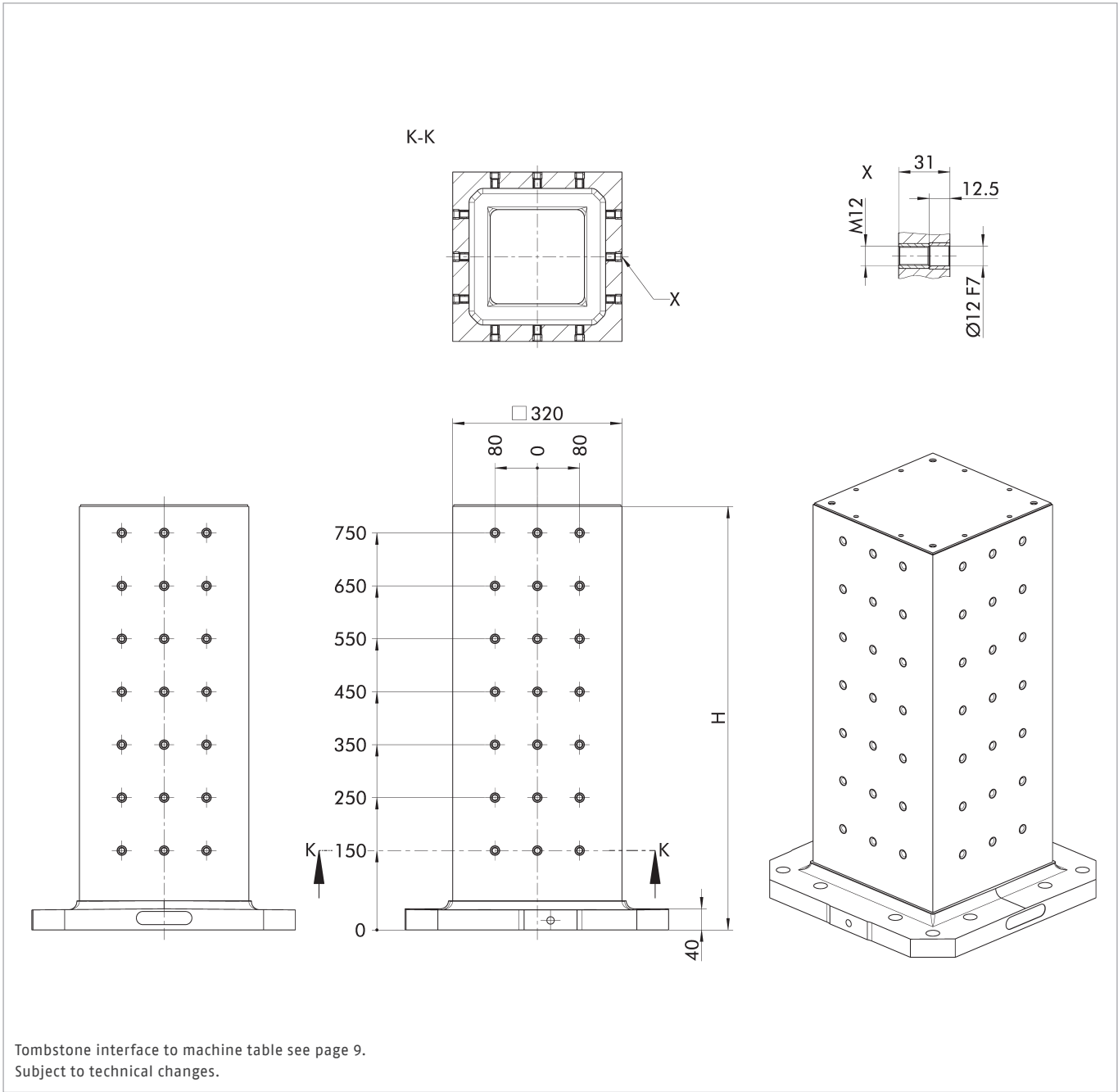
With SCHUNK bore hole grid suitable for SCHUNK clamping devices
Finely milled clamping surfaces

Scope of delivery

Tombstone, cover, shipping screws; without hole grid cover

Technical data

Description	ID	Pallet size [mm]	H [mm]	Number of grid rows	Weight [kg]
SAT-W-BRS 500-800	0431145	500 x 500 mm	800	6	279
SAT-W-BRS 500-1000	0431150	500 x 500 mm	1000	8	331



Octangle tombstone

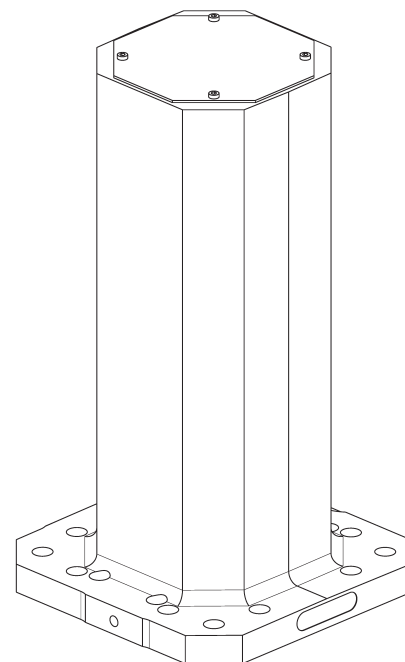
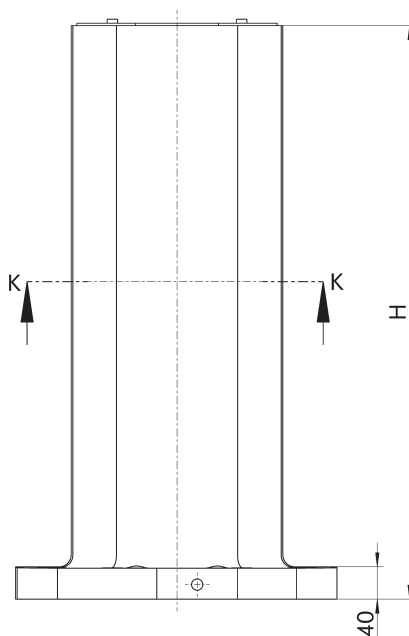
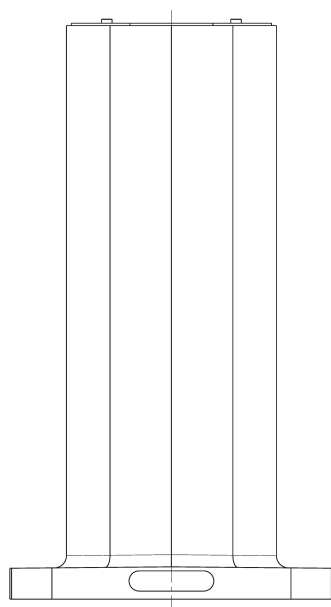
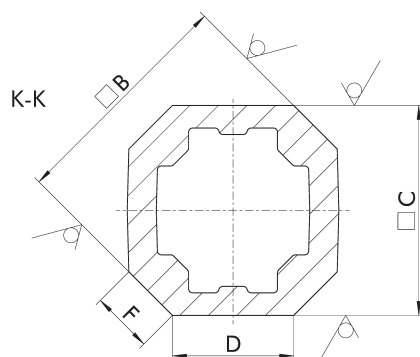
With raw clamping surfaces for finishing by customer
Irregular octagon 260 x 290 mm

Scope of delivery

Tombstone, cover, shipping screws

Technical data

Description	ID	Pallet size [mm]	B [mm]	C [mm]	D [mm]	F [mm]	H [mm]	Weight [kg]
SAT-AE-R 400-710	0431167	400 x 400 mm	290	260	150	76	710	195
SAT-AE-R 500-710	0431168	500 x 500 mm	290	260	150	76	710	220
SAT-AE-R 500-1000	0431171	500 x 500 mm	365	350	166	129	1000	379



Tombstone interface to machine table see page 9.
Subject to technical changes.

Octangle tombstone

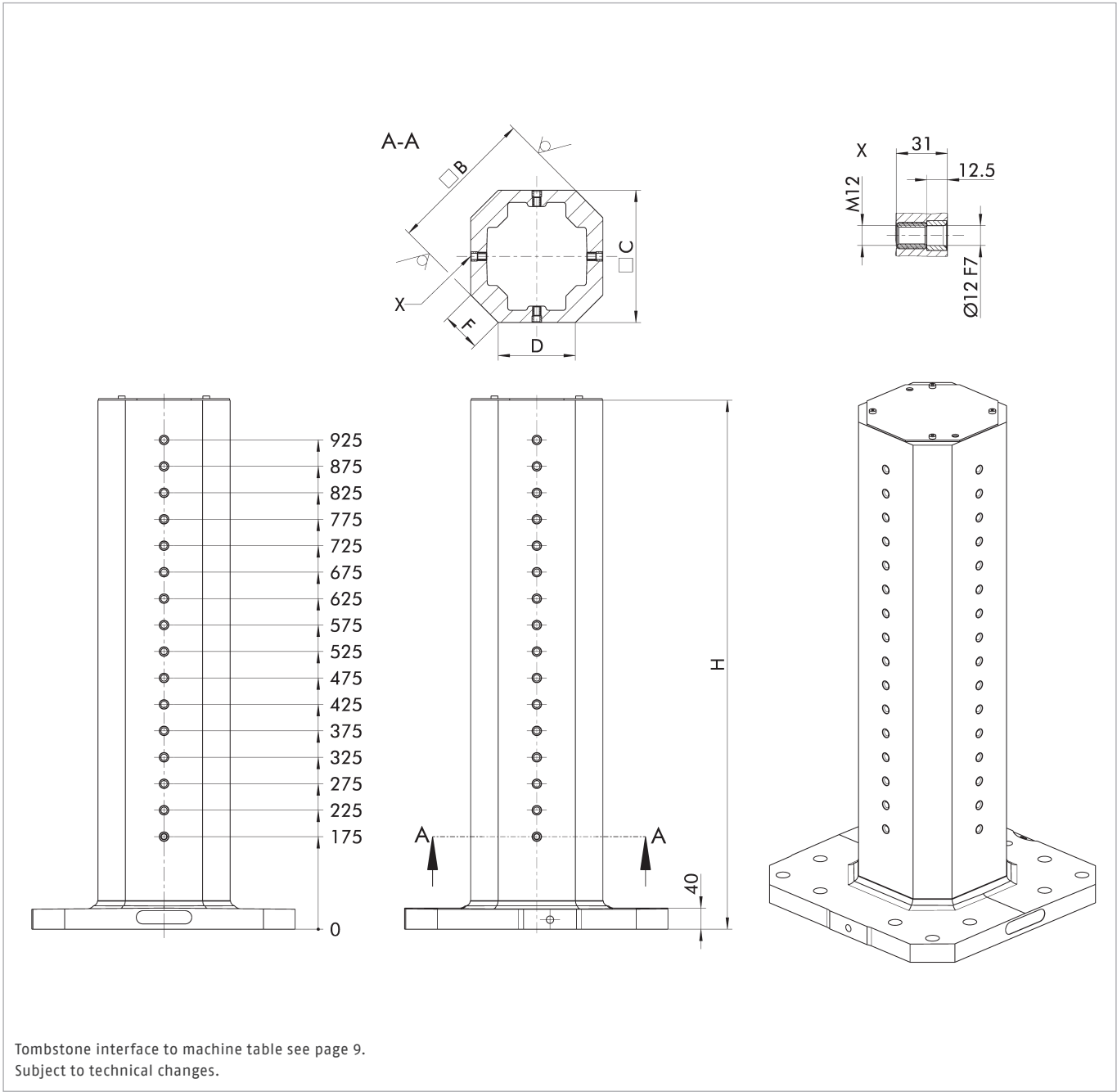
With continuous bore hole grid 50 mm
Finely milled clamping surfaces

Scope of delivery

Tombstone, cover, shipping screws; without hole grid cover

Technical data

Description	ID	Pallet size [mm]	B [mm]	C [mm]	D [mm]	F [mm]	H [mm]	Weight [kg]
SAT-AE-BR4 500-1000	0431169	500 x 500 mm	355	340	162	126	1000	295



Octangle tombstone

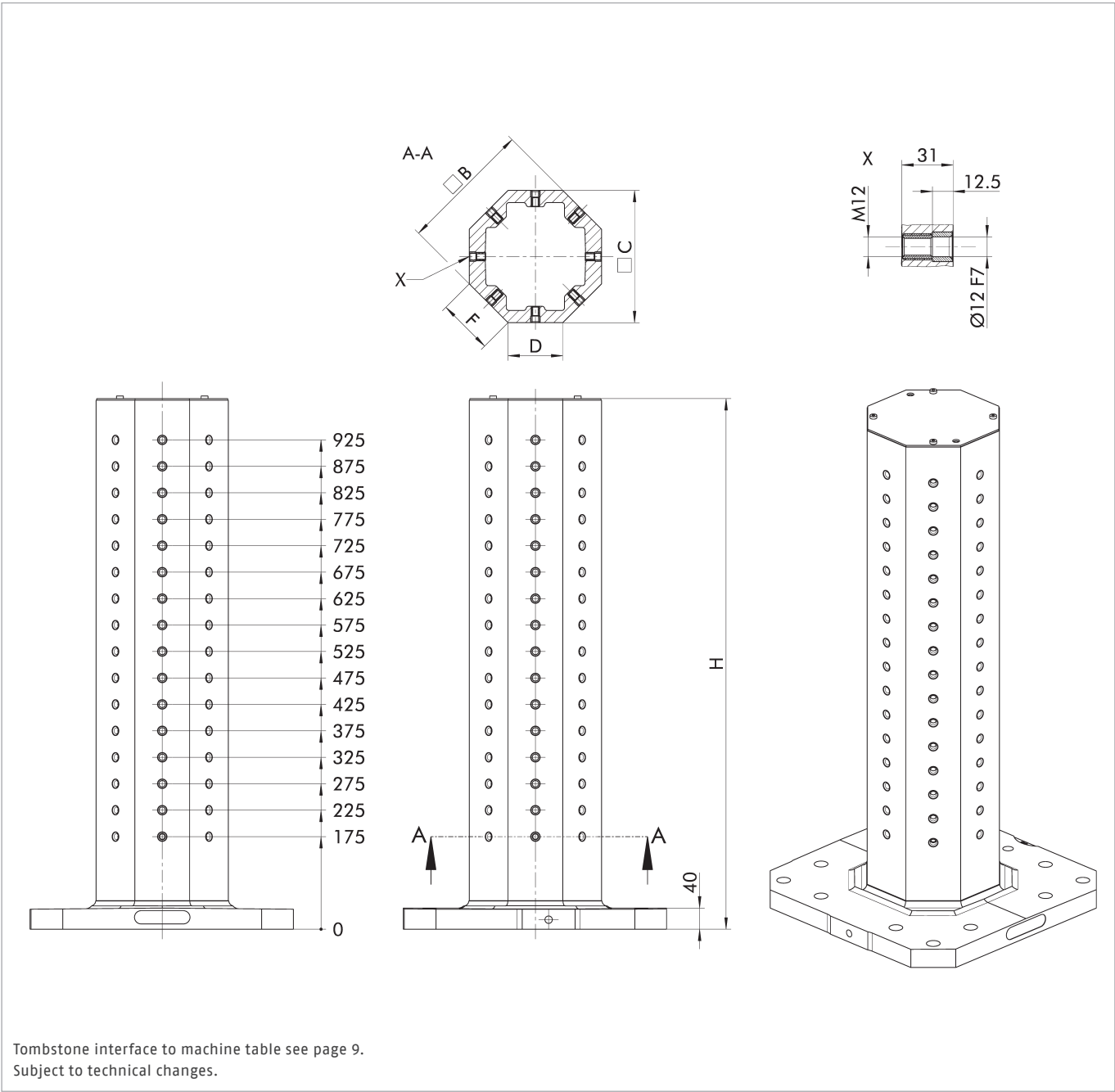
With continuous bore hole grid 50 mm
Finely milled clamping surfaces

Scope of delivery

Tombstone, cover, shipping screws; without hole grid cover

Technical data

Description	ID	Pallet size [mm]	B [mm]	C [mm]	D [mm]	F [mm]	H [mm]	Weight [kg]
SAT-AE-BR8 500-1000	0431170	500 x 500 mm	355	340	162	126	1000	294



Octangle tombstone

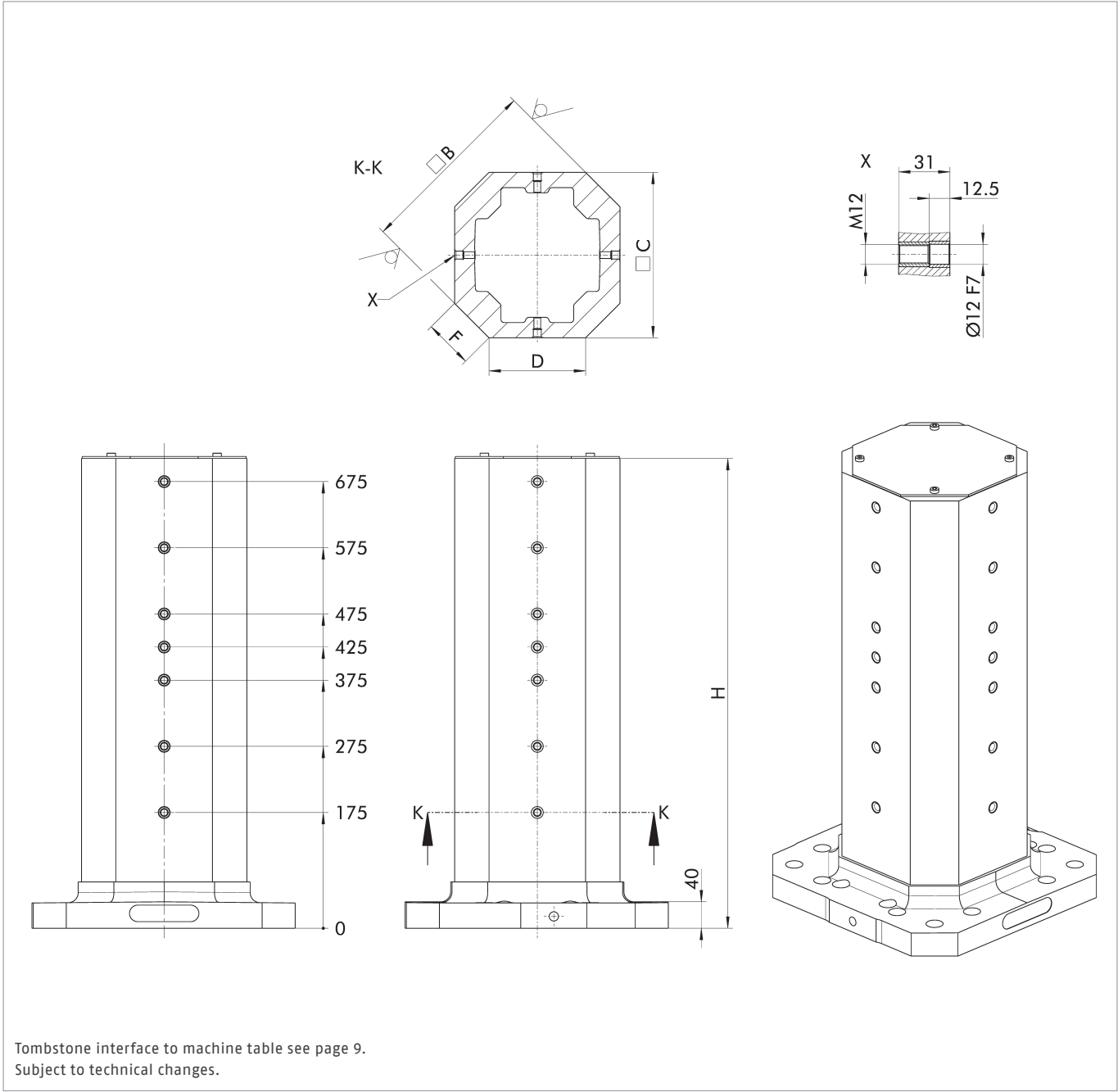
4-sided with SCHUNK bore hole grid suitable for SCHUNK clamping devices
Finely milled clamping surfaces, irregular octagon 250 x 280 mm, four sides with bore hole grid

Scope of delivery

Tombstone, cover, shipping screws; without hole grid cover

Technical data

Description	ID	Pallet size [mm]	B [mm]	C [mm]	D [mm]	F [mm]	H [mm]	Weight [kg]
SAT-AE-BRS4 400-710	0431163	400 x 400 mm	280	250	146	73.5	710	170
SAT-AE-BRS4 500-710	0431164	500 x 500 mm	280	250	146	73.5	710	195



Octangle tombstone

8-way with SCHUNK bore grid suitable for SCHUNK clamping devices

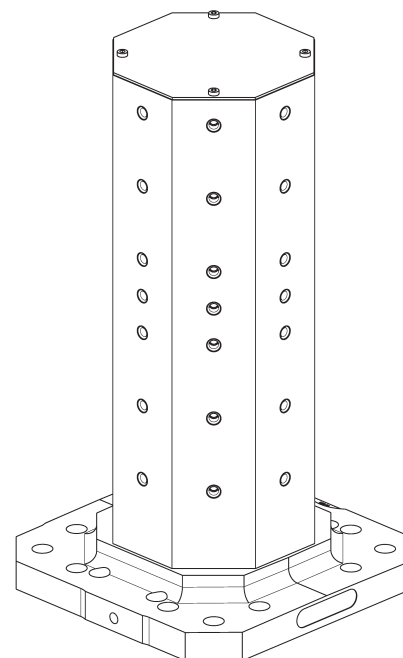
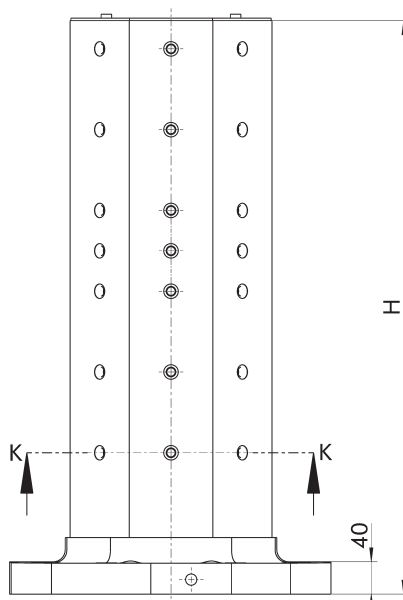
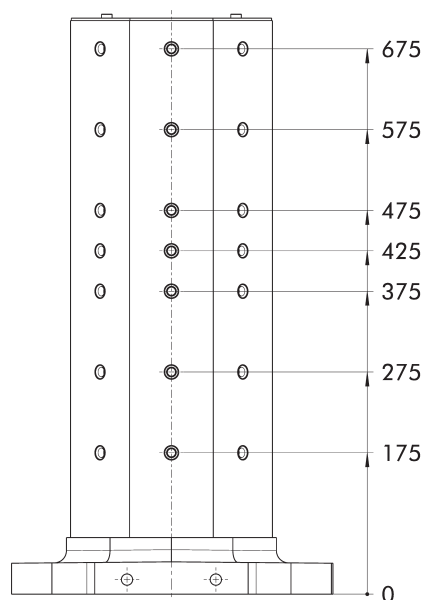
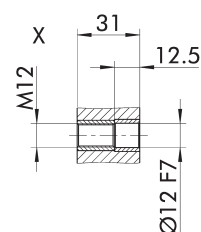
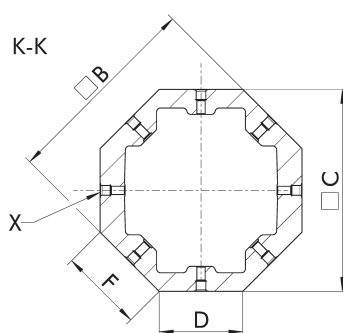
Finely milled clamping surfaces, regular octagon 250 x 250 mm, eight sides with bore hole grid

Scope of delivery

Tombstone, cover, shipping screws; without hole grid cover

Technical data

Description	ID	Pallet size [mm]	B [mm]	C [mm]	D [mm]	F [mm]	H [mm]	Weight [kg]
SAT-AE-BRS8 400-710	0431165	400 x 400 mm	250	250	103.5	103.5	710	150
SAT-AE-BRS8 500-710	0431166	500 x 500 mm	250	250	103.5	103.5	710	175



Tombstone interface to machine table see page 9.
Subject to technical changes.



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