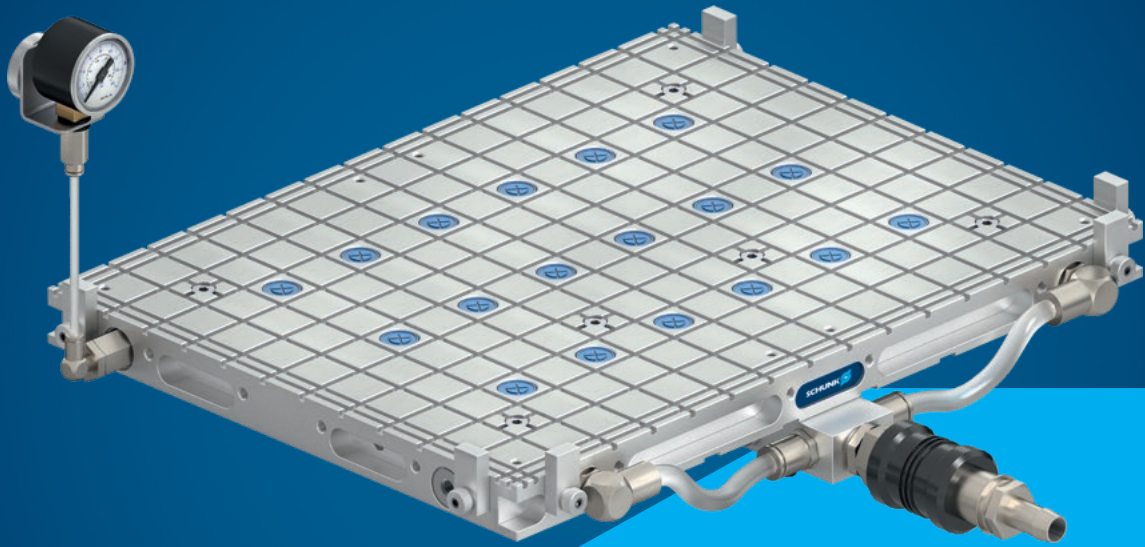




PLANOS SMPL

Modular vacuum matrix plates

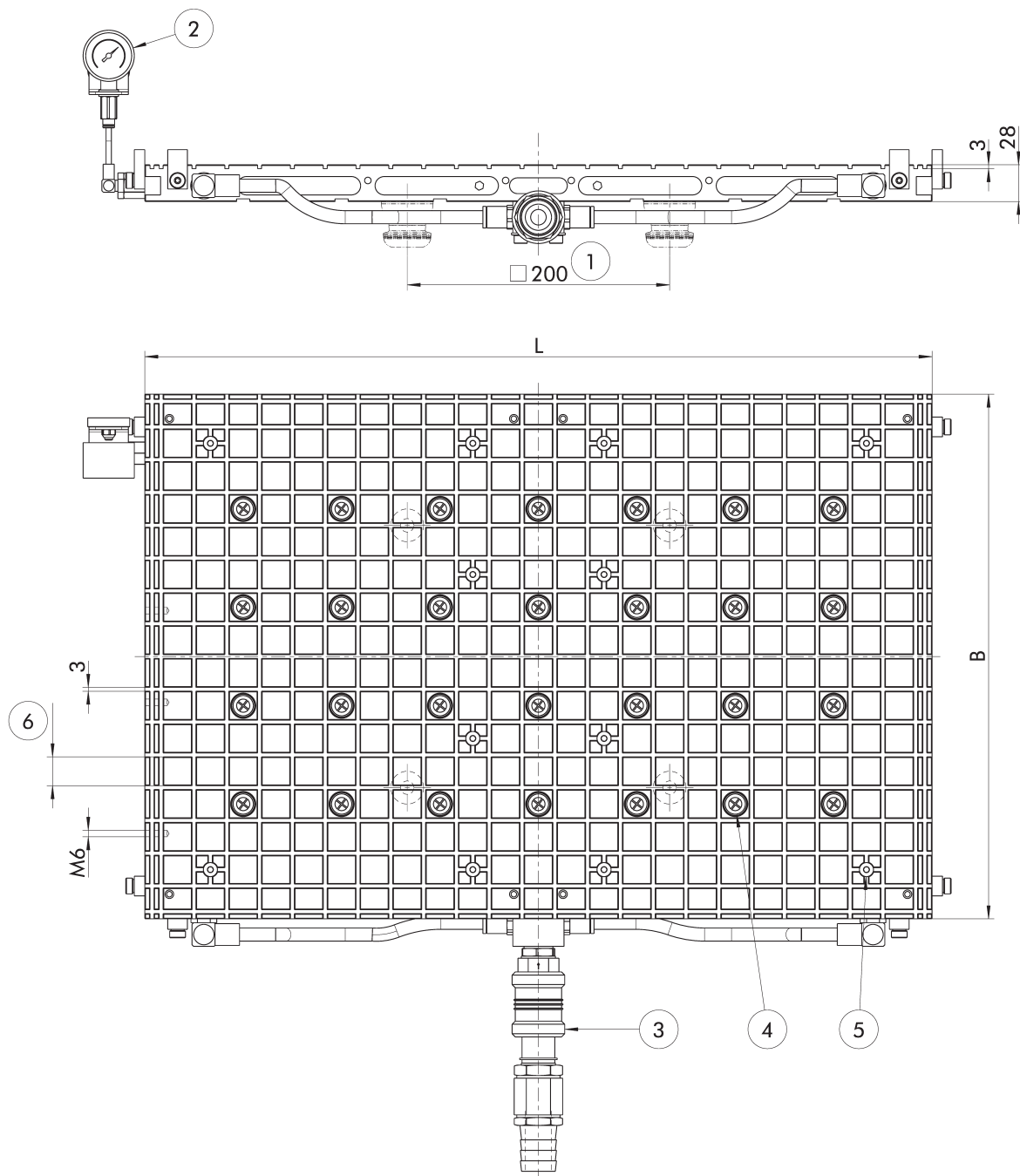
Short set-up times! High holding forces! Maximum precision! Vacuum matrix plates for clamping non-ferromagnetic workpieces

PLANOS matrix plates from SCHUNK clamp flat workpieces and workpieces with a flat bottom reliably and quickly. They ensure minimal set-up times for machining centers. Even components that are difficult to clamp mechanically are child's play with PLANOS, which holds them precisely and without deformation. To increase the horizontal holding forces, the PLANOS matrix plates can be equipped with optional friction islands. In comparison with matrix plates without friction islands, the horizontal holding forces are up to 30% higher on matrix plates with friction islands.



Advantages – Your benefits

- + High-strength aluminum base body**
Distortion-free clamping of flat and thin components
- + Pressure gauge as standard**
Enables continuous vacuum monitoring on the workpiece
- + Connection set with manual slide valve**
For optimum vacuum supply and comfortable working
- + Improved vacuum guide**
Process-reliable clamping due to high clamping forces
- + Patented friction islands as an option**
Increase in the holding forces by up to 30% without deformation of the workpiece
- + Mechanical back stops attached at the side**
Simple positioning of the workpiece and additional absorption of lateral forces
- + Support plate in combination with suction cups and elastomer mat**
Enables 5-sided machining and simple production of cut-outs and recesses
- + Modular system**
Flexible design of the workpiece
- + Adaptation on conventional clamping devices possible**
Simple and fast initial operation of the matrix plate on the machine table
- + VERO-S interface**
Versatile range of combinations thanks to the VERO-S modular system for even shorter set-up times.



Subject to technical changes.

- | | |
|--|------------------------------|
| ① VERO-S interface from size 400 x 300 mm | ④ Optional: friction islands |
| ② Pressure gauge set | ⑤ Lockable vacuum openings |
| ③ Vacuum connection setSide mounting for size 300 x 200 mm | ⑥ Grid spacing |

Technical data

Description	ID	Length L [mm]	Width B [mm]	Height H [mm]	Grid spacing [mm]	Slot width/slot depth [mm]	Friction islands	Weight [kg]
SMPL 300x200x28 12,5x12,5 3x3	1487754	300	200	28	12.5 x 12.5	3 x 3		4
SMPL 400x300x28 25x25 3x3 RI	1487755	400	300	28	25 x 25	3 x 3	●	8
SMPL 400x300x28 12,5x12,5 3x3	1487756	400	300	28	12.5 x 12.5	3 x 3		8
SMPL 600x400x28 25x25 3x3 RI	1487757	600	400	28	25 x 25	3 x 3	●	16
SMPL 600x400x28 25/12,5 3x3	1487758	600	400	28	25 x 12.5	3 x 3		16

Special feature ID 1487758:

With this matrix plate, one quarter of the surface is designed in a 12.5 x 12.5 mm grid, the remaining area in a 25 x 25 mm grid

Scope of delivery

Matrix plate, stops, hose clip, sealing plugs, caulking strip, connection piece, operating manual

Notes

Definition clamping force

The clamping force results from the difference in pressure and effective area.

$$F = \Delta p \times A$$

Friction islands

Friction islands increase the shear force absorption by up to 30% without leaving marks on the workpiece.

Cut-outs

Cut-outs can be made in the workpiece quickly and easily using suction cups or the FlexMat.

Connection of multiple matrix plates

The required clamping surface can be increased as required by connecting several matrix plates. The connection is made using a hollow screw (ID 1457307).

The outer dimensions of the matrix plate are not important here.

Vacuum unit

The suitable unit should achieve the suction power specified below (reference value).

The required suction power depends primarily on the total area of the matrix plate(s) used.

Further technical data

Matrix plate	Pitch for VERO-S [mm]	Number of vacuum openings	Min. suction power of the vacuum unit [m³/h]	Recommended vacuum unit
SMPL 300x200		4	6	SVAGG 10-AC3-30-MD
SMPL 400x300	200 x 200	8	12	SVAGG 21-AC3-30-MD
SMPL 600x400	200 x 200	12	12	SVAGG 21-AC3-30-MD

Accessories

Suction cup

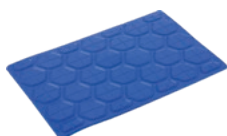
Low design.
Suction surface = 80 x 80 mm.



Suitable for	Description	ID
ISST-SMPL	ISBL 80x80x38	0425136
ISST-SMPL	ISBL 80x40x38	0425137
ISST-SMPL	ISBL 80x28x38	0425138

FlexMat

Specially developed for production of cut-outs and complex parts.



Suitable for	Description	ID
ISST-SMPL	SFM 298.5 x 198.5	1378520

Pressure gauge set

For continuous vacuum monitoring on the workpiece.



Suitable for	Description	ID
SMPL	VAM-SMPL 4/2	1487803

Steel-Plate for suction cups

Intermediate plate for machining workpieces with suction cups.
Magnetic plug included.



Suitable for	Description	ID
SMPL 300x200	ISST-SMPL 300x200x3	1487787
SMPL 400x300	ISST-SMPL 400x300x3	1487783
SMPL 600x400	ISST-SMPL 600x400x3	1487784

Hose clamp

Used to fasten the vacuum hoses to the hose nozzles.



Suitable for	Description	ID
SVSL 33-25 PVC-DS	SSB 20-32 ST-VZ	0425110

Vacuum connection set

Connection set with manual slide valve for optimal vacuum supply.



Suitable for	Description	ID
SMPL	VAS VC-SMPL G1/4-IG	1487791
SMPL	VAS VC-SMPL G1/2-IG	1487790

Steel-Plate for FlexMat

Intermediate plate for machining workpieces with the FlexMat.
Without magnetic plug.



Suitable for	Description	ID
SMPL 300x200	ISST-SMPL 300x200x3 SFM	1487785
SMPL 400x300	ISST-SMPL 400x300x3 SFM	1487786
SMPL 600x400	ISST-SMPL 600x400x3 SFM	1487789

Vacuum hose

Connecting hose from the connection sets to the matrix plates.



Suitable for	Description	ID
SMPL	SVSL 10-7 PU	1446204

Vacuum hose

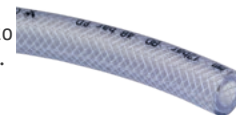
Connecting hose from the matrix plates to the pressure gauge.



Suitable for	Description	ID
SMPL	SVSL 4-2 PU	1487804

Vacuum hose

Connecting hose from the matrix plates to the vacuum units SVAGG-6 and SVAGG-18.



Suitable for	Description	ID
SMPL	SVSL 21-12 PVC-G	1487805

Vacuum hose

Connecting hose from the matrix plates to the vacuum units SVAGG-40 and SVAGG-63.



Suitable for	Description	ID
SMPL	SVSL 33-25 PVC-DS	1487806

Caulking strip Ø 3.5 mm

For sealing the clamping face for workpieces that are clamped directly on the matrix plate.



Suitable for	Description	ID
SMPL	DI-SCHN 3.5 M05 CR-20	0425101

Back stop

Stop with set-screw and knurled nut.



Suitable for	Description	ID
SMPL 300x200 SMPL 400x300 SMPL 600x400	ANS-G-SMPL 8x15x30	1487810

Clamping claws

Clamping claws for quick and easy mounting of SCHUNK matrix plates on the machine table.



Suitable for	Description	ID
SMPL	SPAN-PRA-M12-SMPL	0425104

Friction island

For increase of lateral force absorption up to 30%.
Suitable only for matrix plates already prepared for friction islands.



Suitable for	Description	ID
SMPL	REIB-INS 18x18 SMPL	0425106

Closing magnets

For sealing unused connection bore holes of the support plates in combination with suction cups.



Suitable for	Description	ID
ISST-SMPL	ISMST 19-7	1487813



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