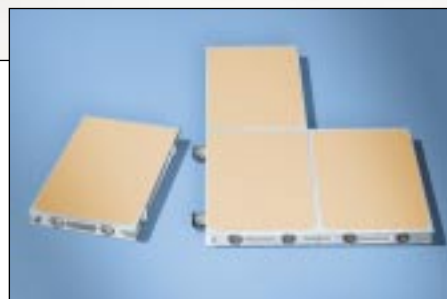


Sinter metal chucks



- sinter metal vacuum chucks are ideal for extremely thin-walled workpieces and for very soft materials (i.e. rubber, foils, metal bands etc.) or for use in precision optical work.
- ideally suited for extremely thin workpieces (<1mm finished Dim., depending on the material) and equally for foils down to less than 0,1mm thickness.
- due to absence of grooves and holes workpieces are not deformed for instance on inserts of sinter bronze.
- frequently used in precision machining in the optical industry and for measuring and checking in micrometer and nanometer ranges.
- sinter metal chucks must be covered entirely or to the largest possible extent. Covering unused areas with foil also improves the holding force.

Witte sinter metal chucks are also available in a modular version if required.

Sinter metal surface is hard and has high resistance to wear and tear

No.	lxwxh	kg
84686	300x200x32,5	6
84687	300x400x32,5	12
84688	600x400x32,5	24

Witte sinter metal chucks are manufactured in high-tensile aluminium. Steel versions and special dimensions are available on request.

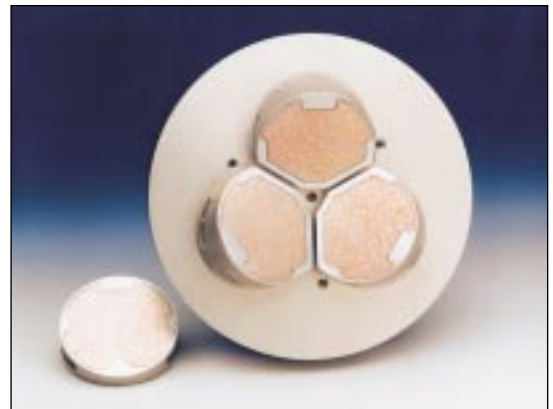
**Special dimensions
available on request**



WITTE - METAPOR[®] for machining thin walled and flexible workpieces

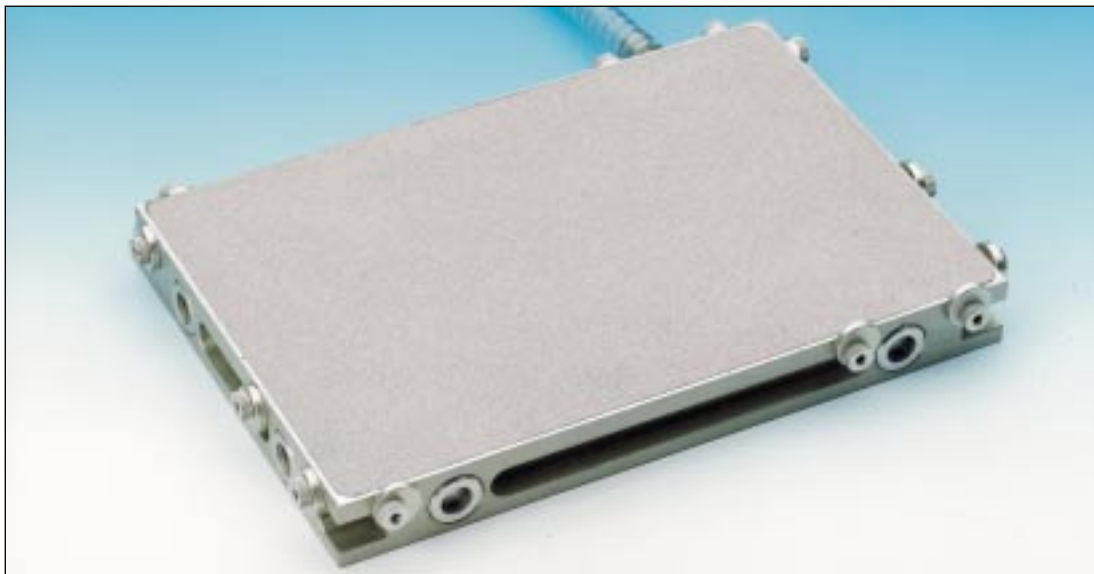


Sinter metal vacuum chuck with special adapter plate for clamping hard metal blanks during high precision laser machining. It has an integrated cooling labyrinth which prevents inaccuracies, due to development of warmth which occurs during the laser machining process



Any machineable contour, also 3D shapes, can be machined into this porous material

METAPOR[®]-Vacuum chucks BF 100 / MC 100



- Vacuum chucks with porous aluminium for extremely thin workpieces, very soft workpieces (i.e. rubber, foil thin metals etc.) or for use in fine optical areas
- Suitable for really thin materials (<1mm finished dimension) depending on material) and also for foils up to less than 0,1mm thickness
- Deformation of workpiece is impossible because there are no slots or holes
- Often used in fine optical processes for measuring and checking in micrometer and nanometer range
- Porous vacuum chucks should be completely or largely covered by the workpiece. Placing foil on uncovered areas improves the holding force

METAPOR vacuum chucks are made of high-tensile aluminium. Steel versions are available on request.

Supply includes:

1 x tail end, 7 x blind plug, 10 x O-ring
1 x plug, inside dia 12, 1m vacuum suction hose with wire spiral 18/12, height adjustable excentric end stops

Witte METAPOR[®] chucks are also available in a modular version if required



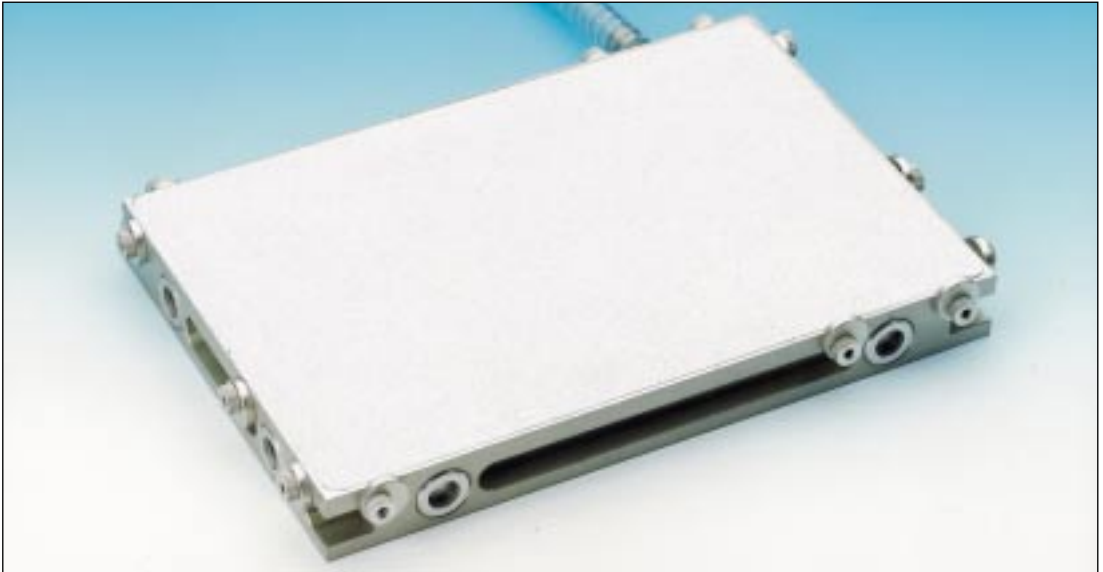
METAPOR[®]-Vacuum chucks BF100:

Nr	lxwxh	kg
83401	300x200x38	5
84380	300x400x38	10
84381	600x400x38	20

METAPOR[®]-Vacuum chucks MC100:

Nr	lxwxh	kg
91021	300x200x38	5
92290	300x400x38	10
92291	600x400x38	20

METAPOR[®]-Vacuum chucks CE 100



Witte METAPOR CE 100 white is a fine porous material with a medium pore diameter which is lower than that of BF-100 or MC 100. The surface is white and easy to machine. The material has a very homogenous total porosity.

Especially interesting for silizium wafer production

- Vacuum chucks with porous aluminium for extremely thin workpieces, very soft workpieces (i.e. rubber, foil thin metals etc.) or for use in fine optical areas
- Suitable for really thin materials (<1mm finished dimension) depending on material) and also for foils up to less than 0,1mm thickness
- Deformation of workpiece is impossible because there are no slots or holes
- Often used in fine optical processes for measuring and checking in micrometer and nanometer range
- Porous vacuum chucks should be completely or largely covered by the workpiece. Placing foil on uncovered areas improves the holding force

METAPOR vacuum chucks are made of high-tensile aluminium. Steel versions are available on request.

METAPOR[®]-Vacuum chucks BF 100:

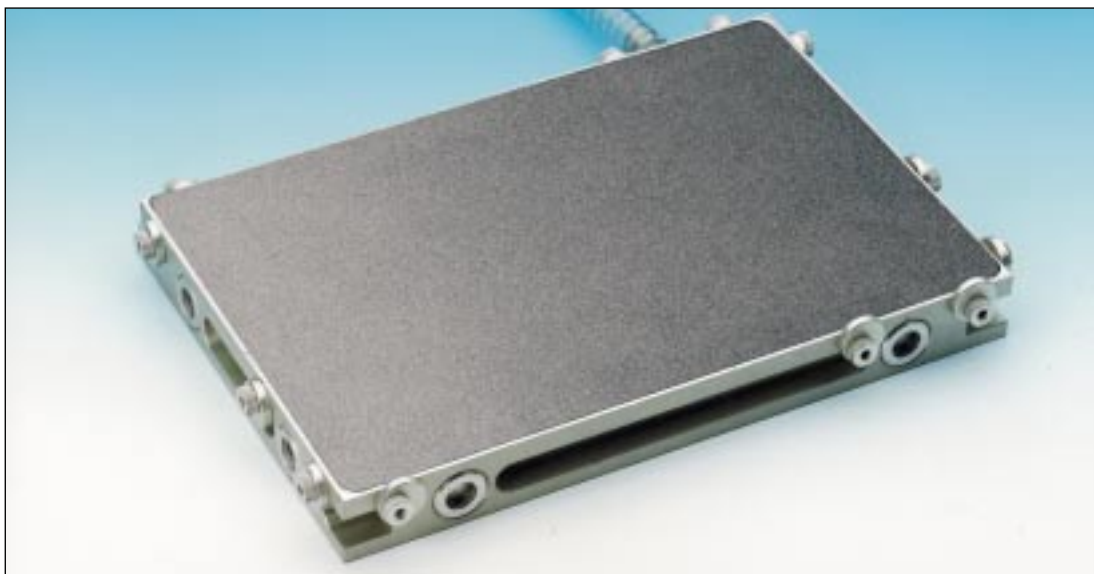
Nr	lxwxh	kg
91488	300x200x38	5
92294	300x400x38	10
92296	600x400x38	20

**Special dimensions
available on request!**

Supply includes:

1 x tail end, 7 x blind plug, 10 x O-ring
1 x plug, inside dia 12, 1m vacuum suction hose with wire spiral 18/12, height adjustable excentric end stops

METAPOR[®]-Vacuum chucks INOX 100



METAPOR[®]-Vacuum chucks INOX 100:

Nr	lxwxh	kg
92298	300x200x38	6,2
92299	300x400x38	12,4
92300	600x400x38	24,8

Unique porous, corrosion-free steel
Porosity lies approx between that of METAPOR BF Al and MC 100 Al.

A special difference to the BF, MC and CE materials is in the substantially higher ball pressure hardness of INOX 100 FE

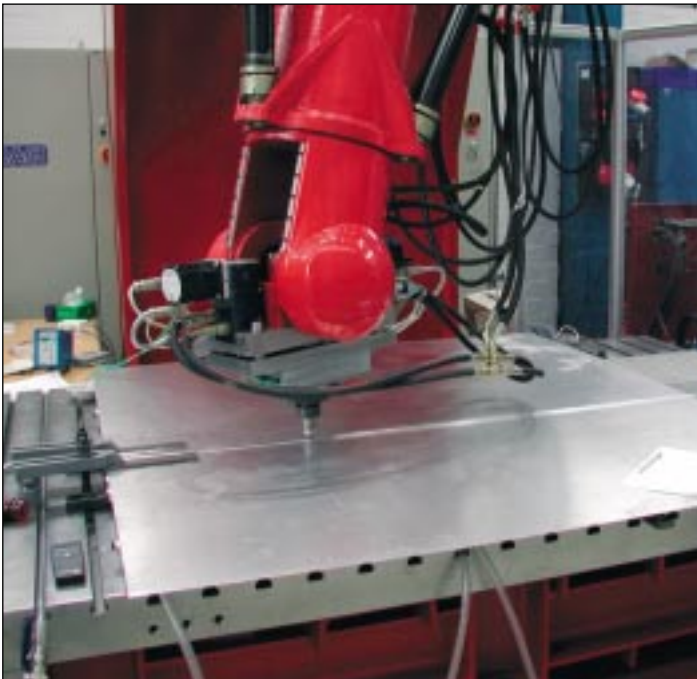
- Vacuum chucks with porous aluminium for extremely thin workpieces, very soft workpieces (i.e. rubber, foil thin metals etc.) or for use in fine optical areas
- Suitable for really thin materials (<1mm finished dimension) depending on material) and also for foils up to less than 0,1mm thickness
- Deformation of workpiece is impossible because there are no slots or holes
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METAPOR vacuum chucks are made of high-tensile aluminium. Steel versions are available on request.

**Special dimensions
available on request!**

Supply includes:

1 x tail end, 7 x blind plug, 10 x O-ring
1 x plug, inside dia 12, 1m vacuum suction hose with wire spiral 18/12, height adjustable excentric end stops



Combined METAPOR grid type chuck for friction stir welding application