Custom built tombstone
with integrated storage tank,
magnetic Valve and 6 pc grid type chucks.

Grid chucks

Modular version
Standard sizes
Special design

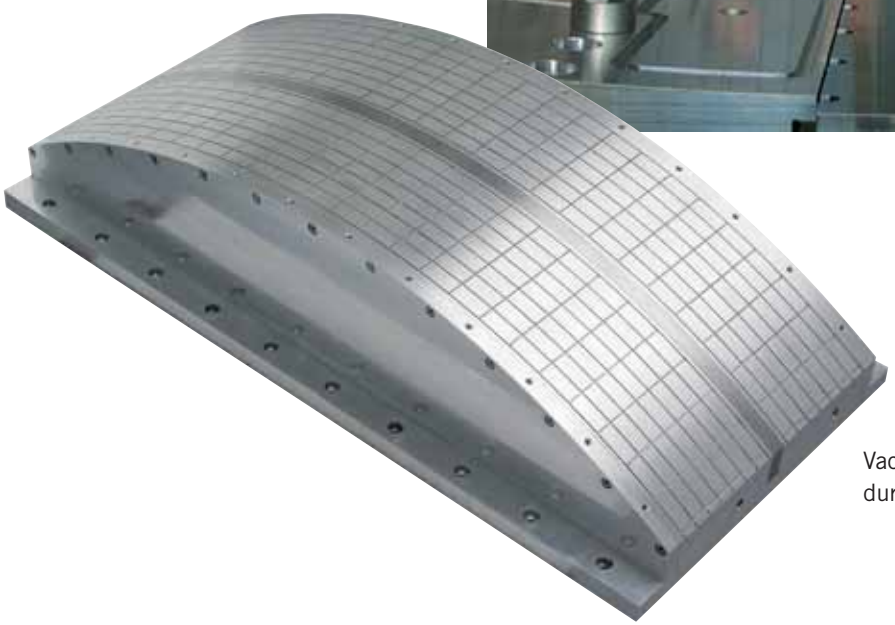
Applications
For simple shaped workpieces
with a rough surface and heavy duty milling
- Grinding
- Milling
- Turning

Advantages
- Strong hold down force
- For universal applications
- Secure clamping of rough workpiece surfaces due to high friction properties
- The O-shaped seal evens out any irregularities between workpiece and chuck surface

Handling
- Any shape or size of chuck made to measure
- Recommended grid size depends on workpiece contour and dimensions
- Clamping area defined by O-shaped seal
- Finely gridded vacuum chucks for extremely small parts
- Ideal as a base for many solutions together with special vacuum adapter plates

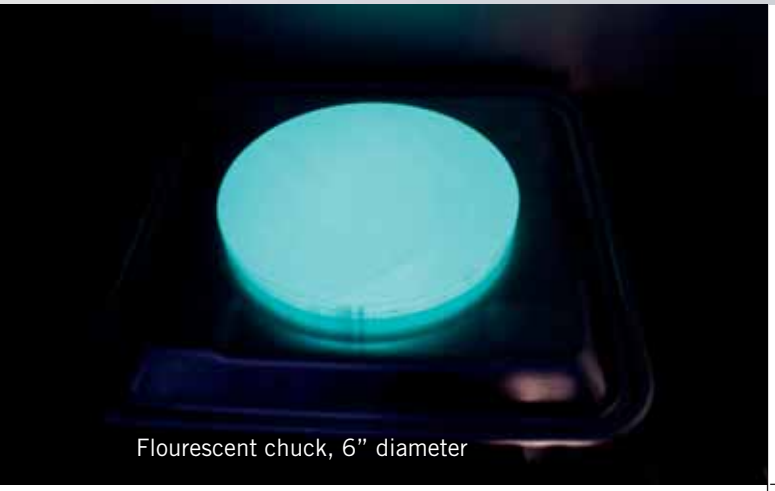
Vacuum fixture with cylindrical geometry for clamping aircraft fuselage segments (#94651)

3D Vacuum chuck with several movable segments for clamping aircraft fuselage parts during milling and friction stir welding processes



Vacuum fixture for clamping aircraft wing parts during friction-stir welding

Specially designed porous chuck with three individual clamping areas, stops for part positioning and lifting pins for easy removal of wafers.

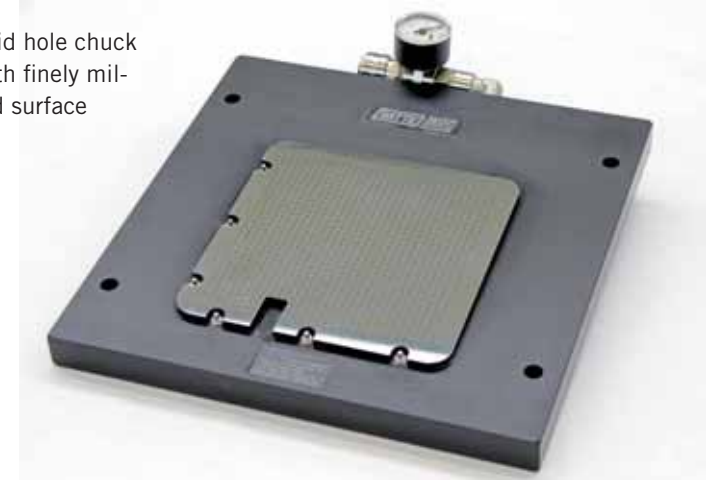


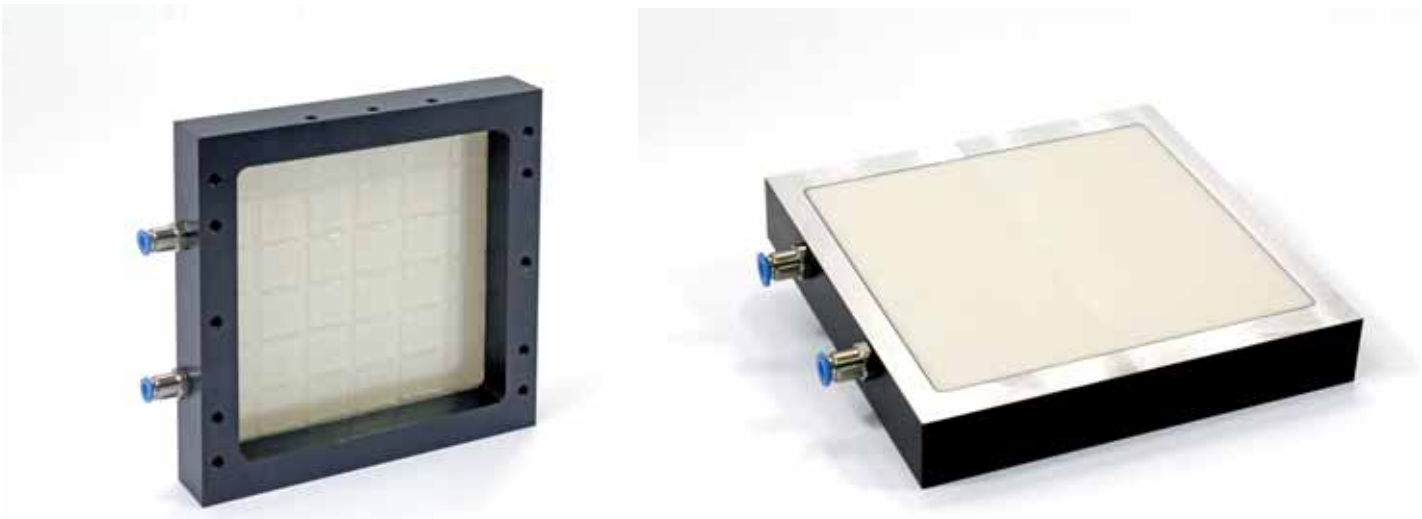
Flourescent chuck, 6" diameter

Independent vacuum chuck.
Clamping of parts on chuck completely free of external supply lines.
Battery, vacuum pump, controls, display and valves are all integrated

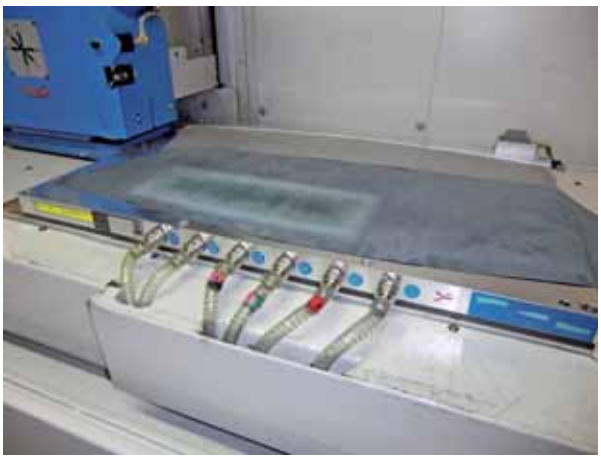
Finely milled vacuum chuck for clamping wafers, clamping area microporous material Witte MP CE100 WHITE flatness accuracy <0,005mm

Grid hole chuck with finely milled surface





DLC light transmitting chuck for clamping parts, views from above and below



Application in automotive industry, leather clamped on visible side for grinding predetermined breaking points in areas of airbags on reverse side

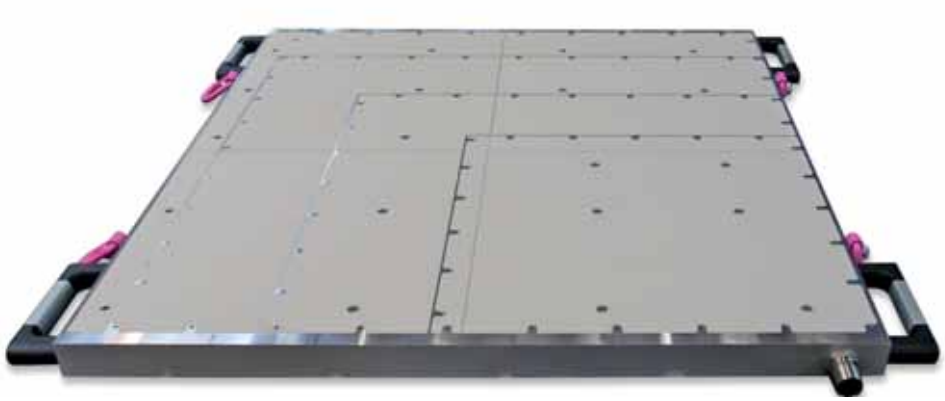
µ-porous vacuum chucks

Further examples

Same chuck shown without leather parts

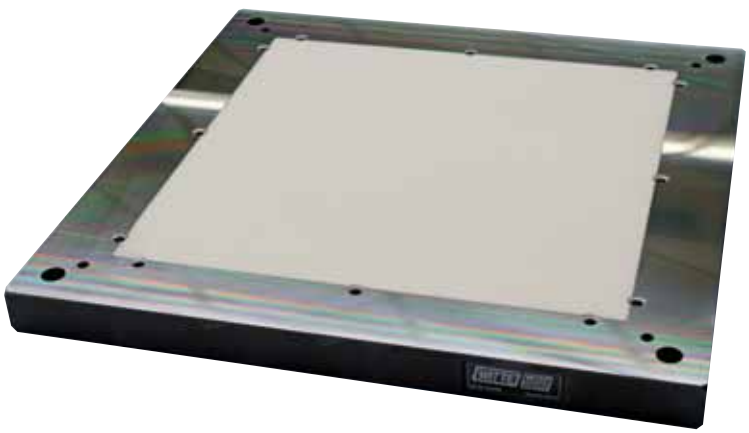
Vacuum clamping system for laser application. Detail shows both clamping areas and cutting channels.

Small size micro finely machined chuck



Vacuum chuck with four separately usable clamping areas

Vacuum chuck with micro porous clamping surfaces and holes for applications using light transference



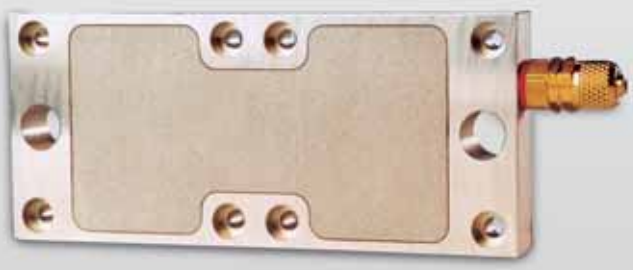
Vacuum chuck with two clamping areas and lifting pins for **automatic** controlled process

Vacuum chuck with three clamping areas and lifting pins for **manually** controlled process

DLC (Durchlicht chuck), light transmitting chuck for gentle clamping of parts during optical analysis process

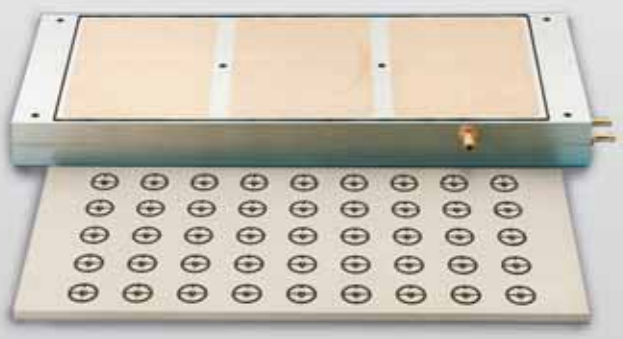
Picture shows a special sinter metal vacuum fixture used in quality control department of CD manufacturer

Sintermetal vacuum fixtures



Vacuum chuck for credit cards

3D Vacuum chuck



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

Perforated grid chucks

Custom built

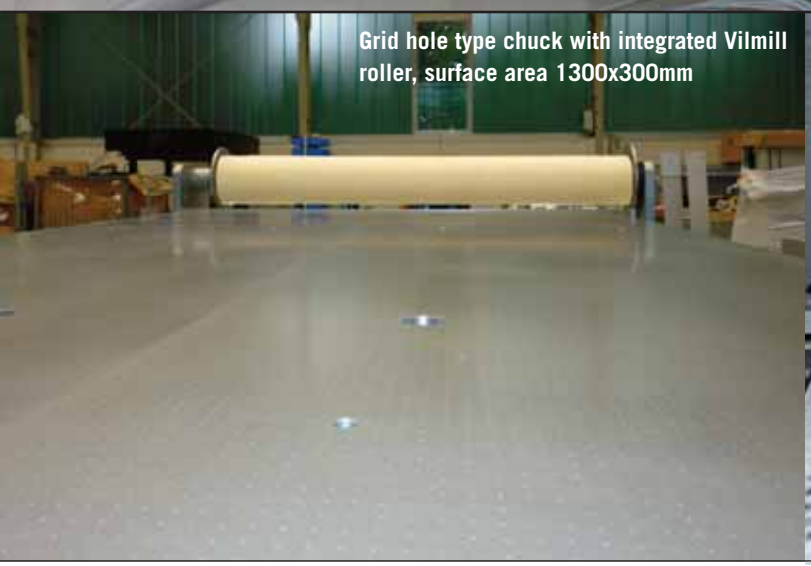
Surface area has many small bores. The large area enables secure clamping of sensitive work pieces such as foils used in printing or photographic industries.
These are only made to order according to customer data.

Applications
Highly accurate
- Clamping of films and foils on machines used to make printing plates during laser and UV exposure of films. Foils and conductors.

Advantages
- Sizes from 1.400 x 2.000 mm with an accuracy of 50 µm
- Vacuum clamping area need not be covered to 100%

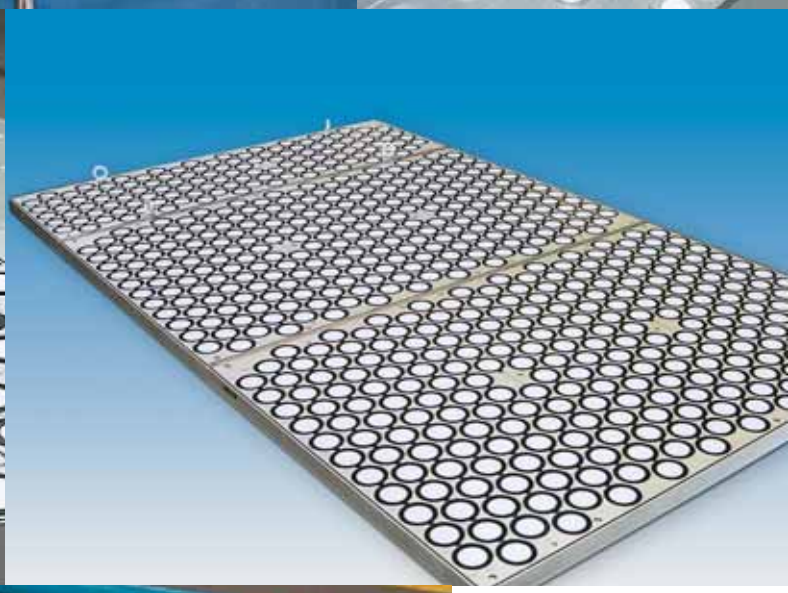
Handling
- Easy positioning of workpiece with excentric end stops
- Only limited hold down force for machining purposes.

Vacuum clamping system with elevation function. On pult level valuable, sensitive prints and paintings are gently clamped using vacuum. Plate is raised automatically to vertical position and items are digitalized. Application takes place in a museum.



Grid hole type chuck with integrated Vilmill roller, surface area 1300x300mm

Vacuum clamping of carbon fibre part for accurate milling using Vilmill fleece



Various Flip-Pod™ applications in different industries i.e. aircraft and carriage building

Convex vacuum fixture with a backing along the length for clamping aircraft wing parts during friction-stir welding

Concave vacuum fixture for clamping fuselage parts for friction-stir welding process

3D vacuum fixture for fixation of pre-formed aluminium parts. Complex contours are milled and cutouts held securely while under the influence of vacuum downforce.

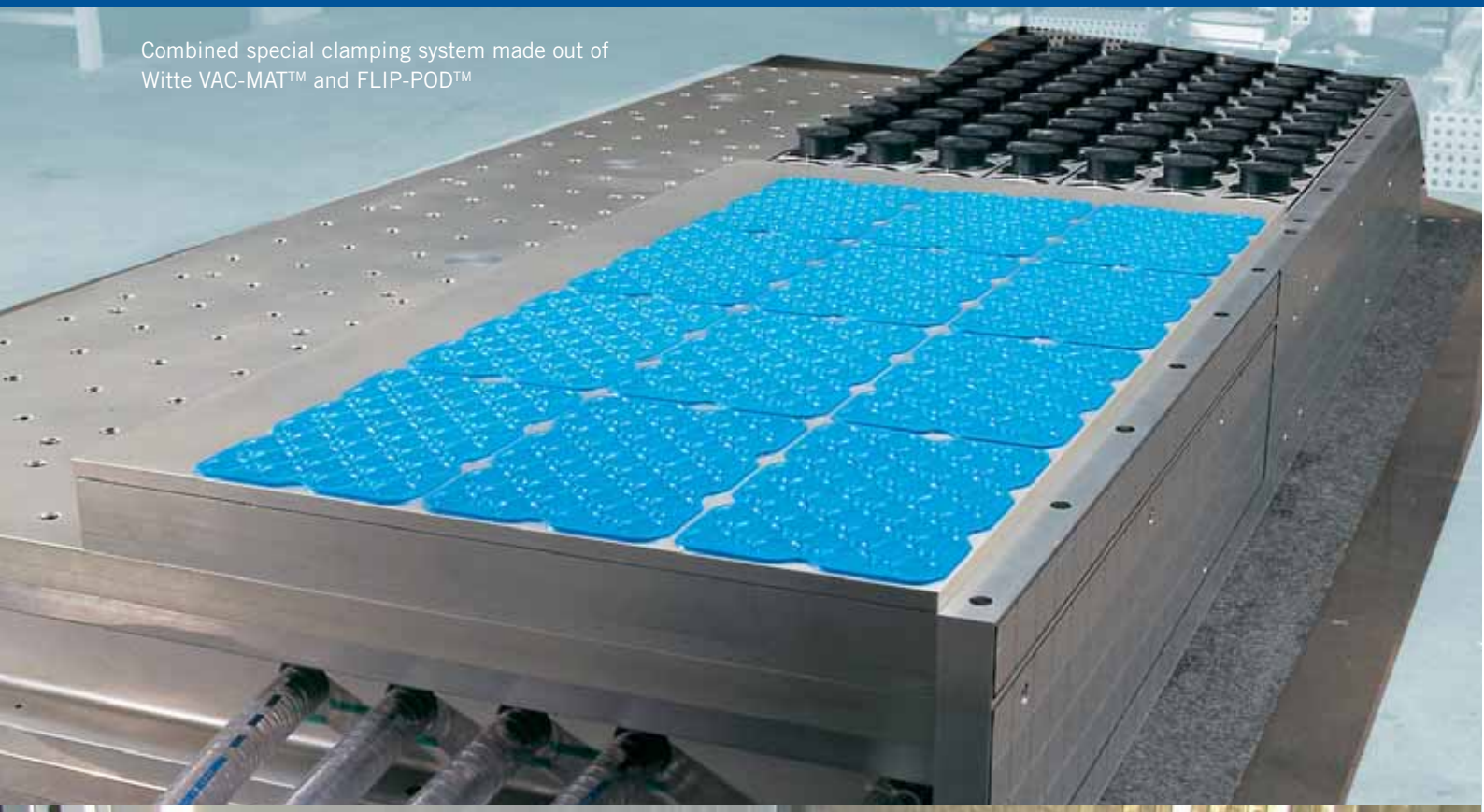
Machine table (3,3x11 meters) supplied with VAC-MAT™ Vacuum clamping. The photo shows the fixture at an aircraft manufacturer, where pockets are milled into a surface area covered with 468 Mats.

CNC milling machine equipped with a vacuum system used in house for precision-machining aluminium aircraft parts

Roller bar vacuum system for precision machining pre-formed aluminium sheets

Vacuum chuck for clamping bottles tops during measuring by coordinate measuring machine

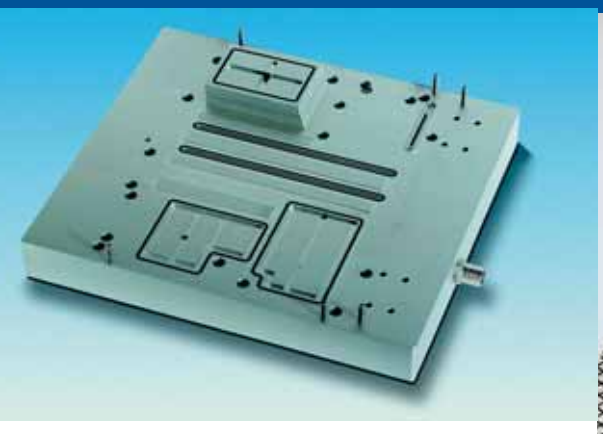
2 Rotating systems (each 3500mm) with vacuum clamping areas on all four sides for machining aluminium profiles



Combined special clamping system made out of Witte VAC-MAT™ and FLIP-POD™

Vacuum fixture with hydraulic components for machining steel parts

Clamping fixture for machining cylindrical
pre-formed ai craft fuselage parts (13m x 4,10m)
Parts are pressed down, rolled flat and clamped using vacuum
as well as pneumatic and hydraulic clamps

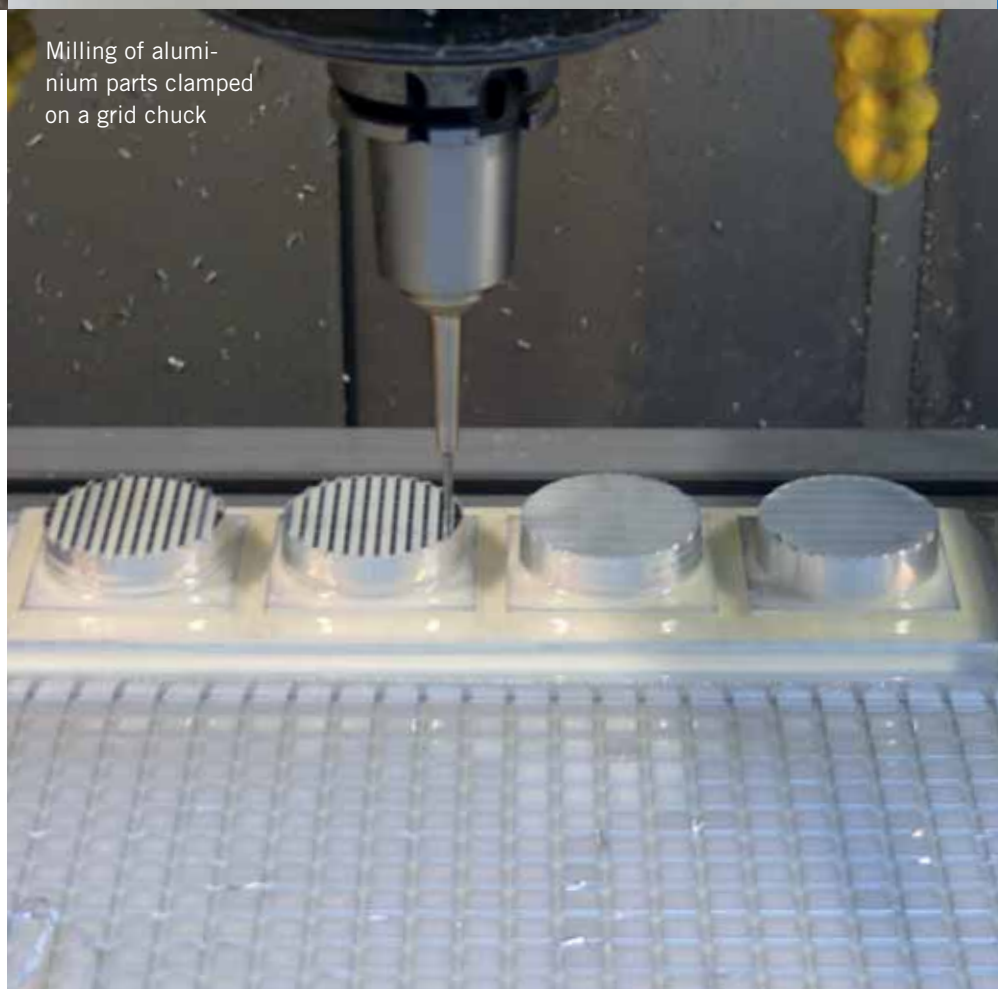


Vacuum chuck for clamping lap-top housings

Chuck for chip cards

Special designed automatic liquid separator for integration in custom built system

Circular chuck ø 1500 mm



Milling of aluminium parts clamped on a grid chuck

Vacuum Fixture for drilling operation, approx. 4600mm long, with additional manually clamps.

Vacuum cube with integrated storage tank and distribution manifold, approx. 800 x 800 x 900 mm, used on machining centre with automatic 24 hour pallet exchange system. Parts held with vacuum during machining, transport and standing times.