



Slot vacuum chucks

Standard sizes

Adapter mats

Custom made chucks

The chuck surfaces feature slots depending on application. For clamping of work pieces, which do not cover the entire surface, rubber adapter mats are required.

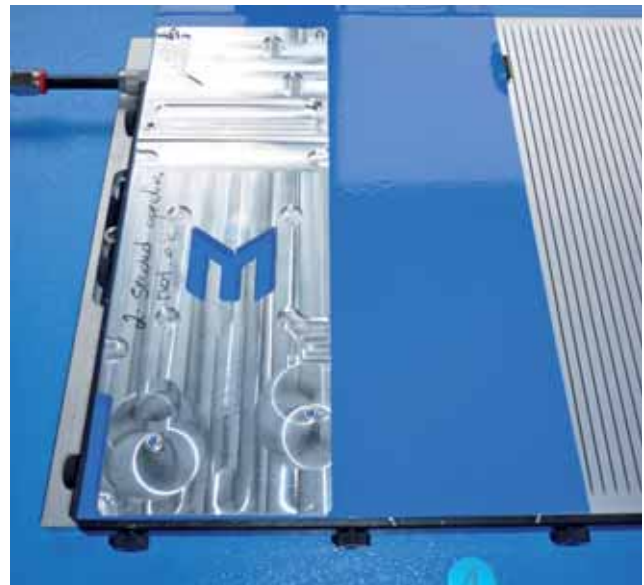
Applications

For light machining operations such as

- Milling
- Drilling (e.g. printed circuit boards, electronic components)
- Engraving
- Machining of complicated work piece shapes with cutouts etc.

Special advantages

- Low height
- Wide range of applications through the use of rubber adapter mats
- Ideal for HSC (High Speed Cutting) initial milling together with plane-parallel pre-machined rubber adapter mats
- Clamping very small work pieces is possible



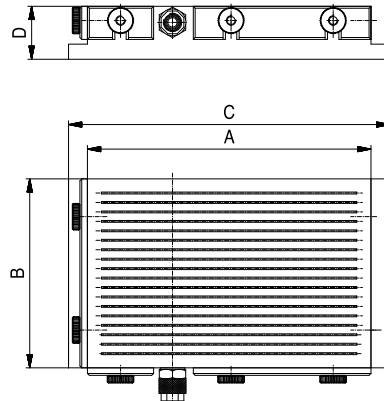
Handling

- Simplifies part positioning using height adjustable stop bars
- Defining of active vacuum area using vacuum stopper and rubber adapter mats (Example see picture above)

Slot vacuum chucks

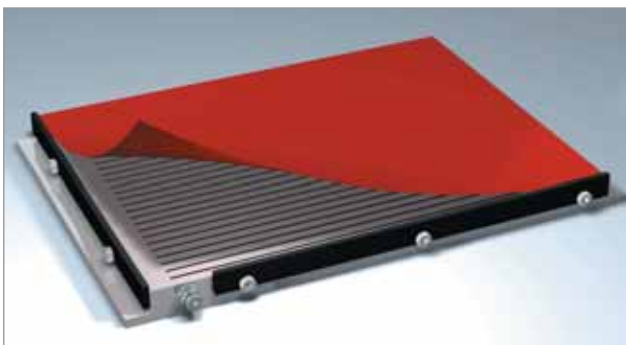
Vacuum plate 28mm high

Nr.	A	B	C	D	
90667	300	200	320	28	4,6
84428	400	200	420	28	6,4
84429	350	250	370	28	6,8
84430	300	300	320	28	7
84431	400	250	420	28	8,2
84432	400	300	420	28	9,2
84433	400	400	420	28	12,9
84434	500	300	520	28	11,5
84435	600	300	620	28	13,6
84388	600	400	620	28	19,4



Supply includes:

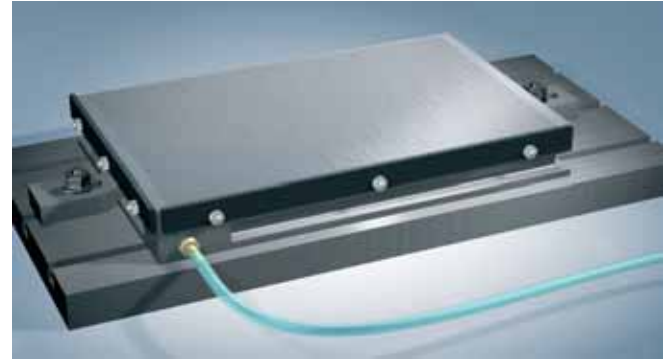
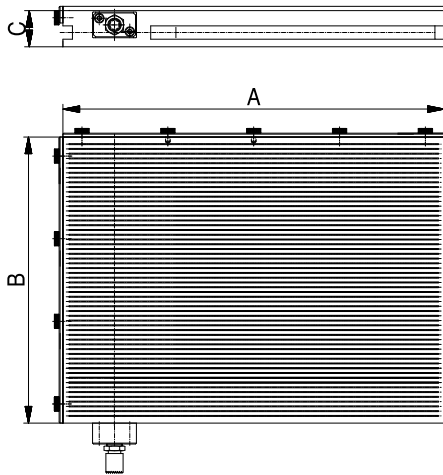
- Slot chuck
- 3 stops
- 1m hose with connector
- 1 rubber adapter mat, red
- 1 vacuum stopper



The rubber adapter mat included in supply can be configured according to work pieces by punching holes within the area of part contour. It enables work pieces with complicated contours to be clamped for manufacturing processes.



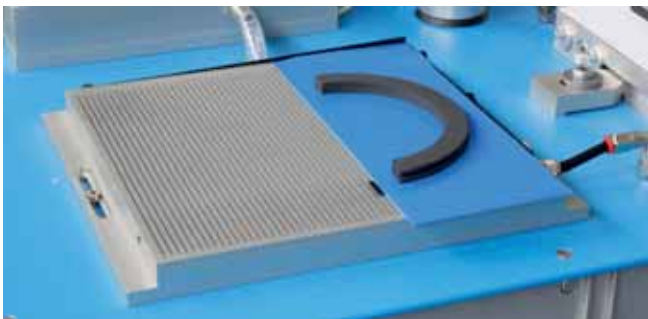
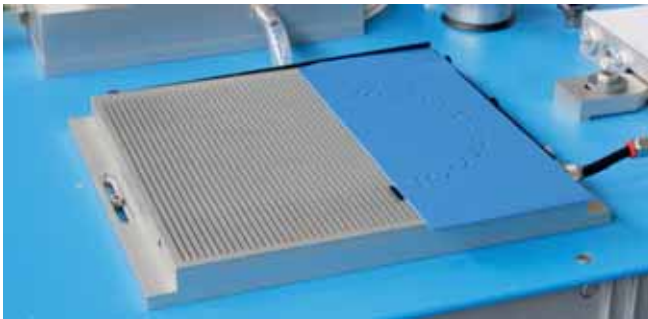
These slot vacuum chucks are 28 mm high and have a 10mm clamping area on both face ends. The chucks with 38/48mm height have a 10mm clamping area allround.



Slot vacuum chucks

Vacuuplate 38mm/48mm high, aluminium


Nr.	A	B	C	kg
285836	200	300	38	8
80021	400	200	38	10,7
80022	500	200	48	13,4
80023	600	200	48	16
80024	400	250	48	13,4
80025	500	250	48	16,4
80026	400	300	48	16
80027	500	300	48	20
80130	400	400	48	21
80028	600	300	48	23,5
80136	600	400	48	30,7
80029	800	400	48	40
80429	1000	500	48	67



Supply includes:

- Slot chuck
- 2x Stops
- 1m Hose with Connector
- 1 Rubber adapter mat
- 2x clamps

Slot chuck with blue rubber adapter mat. Mat is laid between part and chuck. It covers unused areas, a high friction value additionally secures part against slipping. The black vacuum stopper, defines active vacuum area.

 Other dimensions and materials i.e. steel are available on request.

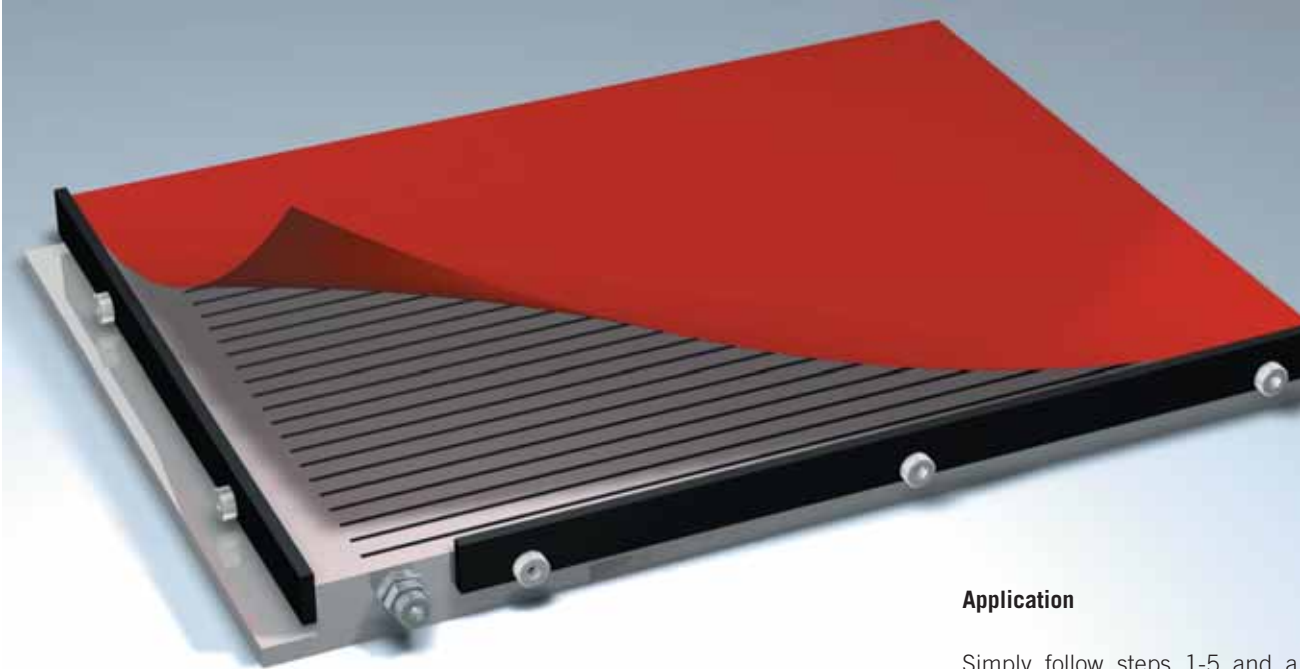


4 slot chucks on a machine used for manufacturing aluminium carriers. Machining of inner and outer contours is done in one process thanks to rubber adapter mats.



Slot vacuum chuck with three vacuum areas which can be used individually.

Slot vacuum chucks and rubber adapter mat



1

Lay the rubber adapter mat onto the chuck covering all the slots.

2

Position workpiece with the help of adjustable end stops. Then draw round the contour using an ordinary pen



Application

Simply follow steps 1-5 and a custom built fixture is ready in seconds. When vacuum is switched on mat and workpiece are sucked down together. The excellent friction values offer especially good resistance to displacement forces during machining.

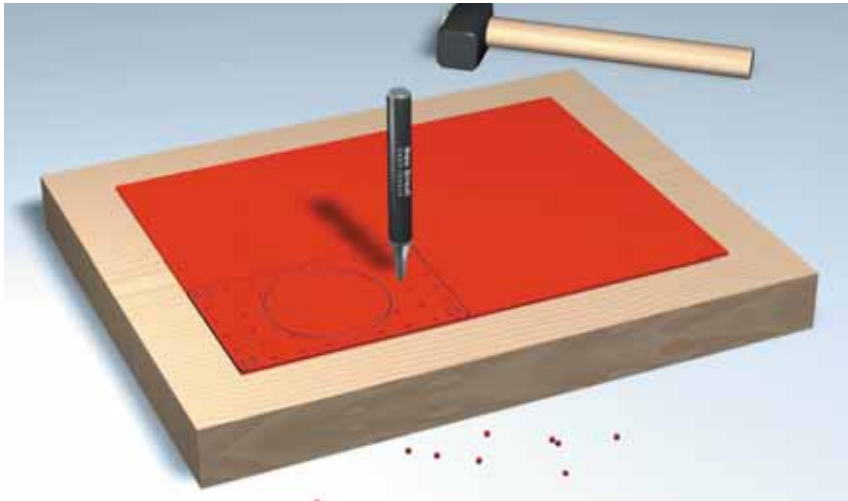
Using the slot chuck with the rubber adapter mat allows drilling of holes and milling or cutting of pockets and cutouts into the mat to a depth of 1,5mm without losing vacuum. As the mat suffers hardly any wear and tear it can be used often for workpieces with the same contour.

Certain applications allow the tool to work to depths of 1,5mm into the mat.

Height tolerance of the mats lies in a range of $\pm 0,3\text{mm}$ (DIN 7715, part KI. P2)


3

Here you can see the workpiece contour

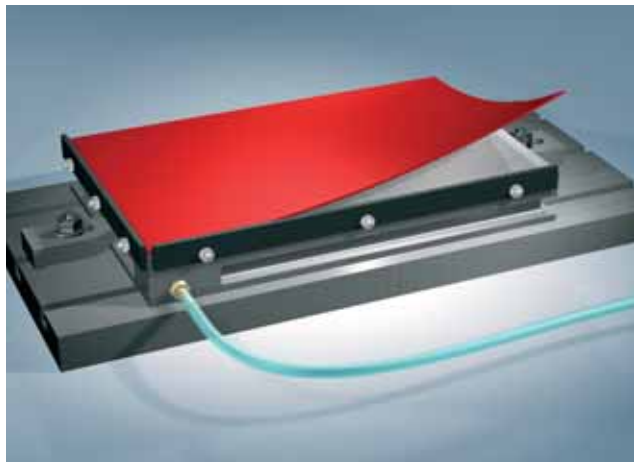

4

Remove the mat and punch holes into the area corresponding to the actual clamping surface of the workpiece. The holes should be approx. 3-8 mm Dia. in a 10mm grid and lie on slots of the chuck


5

Replace workpiece onto the mat. The excellent friction of the rubber material counteracts high-displacement forces better than any other vacuum system






Rubber adapter mats, brown, for use on slot type vacuum chucks (see also page 28)

 Other dimensions available on request

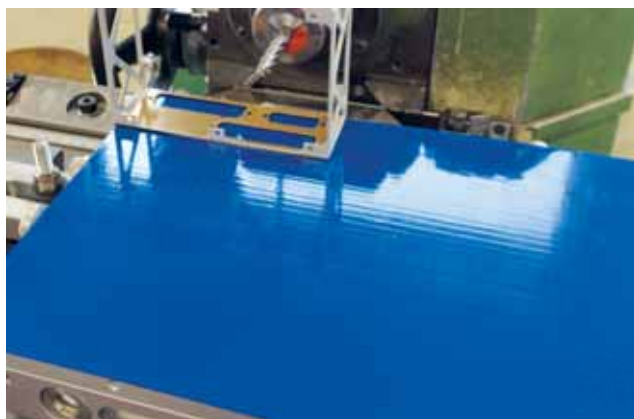
Rubber adapter mats

for slot vacuum chucks

Nr.	A	B	C	
00416	200	300	3	226
00609	200	500	3	378
00564	200	600	3	453
00009	300	150	3	170
00010	350	150	3	200
00011	400	200	3	300
00013	350	250	3	330
00014	300	300	3	340
00015	250	400	3	370
00016	400	300	3	460
00017	400	400	3	602
00415	500	300	3	560
00164	500	500	3	941
00418	500	1000	3	1890
00437	600	300	3	678
00414	600	400	3	904
00409	1000	1000	3	3766
00682	1000	2000	3	7550
00732	1000	2000	1	2500
00733	1000	2000	1,5	3980

Rubber adapter mats

blue



Nr.	l x w	Thickness	
14927	2000 x 400	1	1
17302	9100 x 400	1	4,5

The blue rubber adapter mat is placed between part and chuck. It covers areas of the chuck not in use and secures part against slipping due to high friction value.

Areas covered by part, must be punched with holes or cut with slits.

Rubber adapter mat - blue.

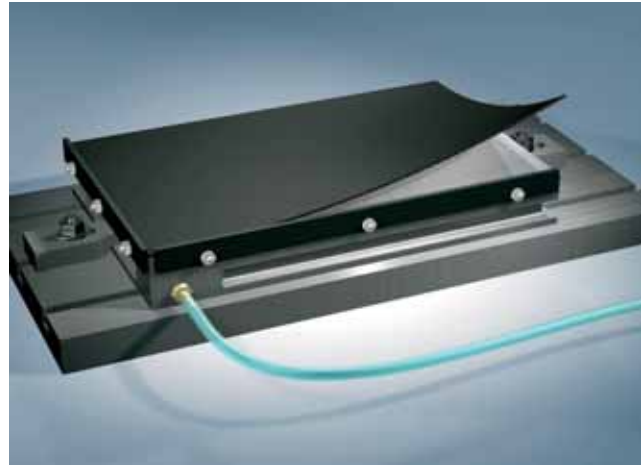
Only available as a complete roll.



Rubber adapter mats

for slot vacuum chucks

Nr.	A	B	C	
00280	200	300	3	260
00849	200	500	3	378
00850	200	600	3	453
00851	150	300	3	170
00825	200	400	3	360
00852	250	350	3	392
00853	300	300	3	410
00796	250	400	3	370
00854	300	400	3	540
00855	400	400	3	710
00856	400	500	3	880
00857	500	500	3	1100
00858	300	600	3	683
00791	400	600	3	1100
00859	500	1000	3	1900
00860	1000	1000	3	3800
00861	1000	2000	3	8000



Rubber adapter mats, black, made of synthetic elastomer. These mats can be milled and thereby achieve much better plane-parallelism

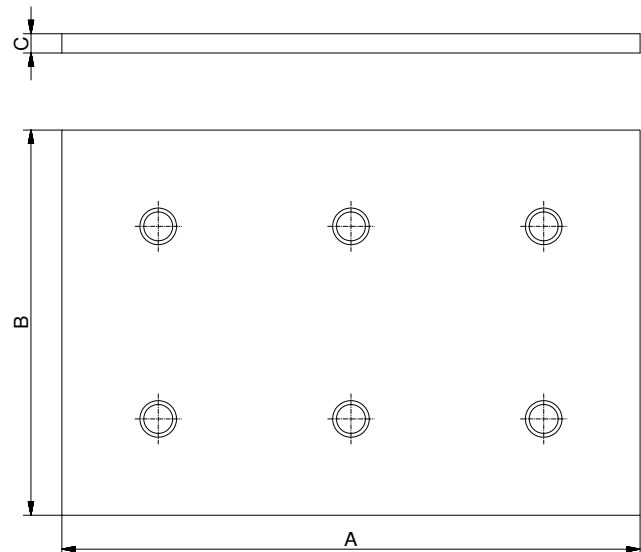
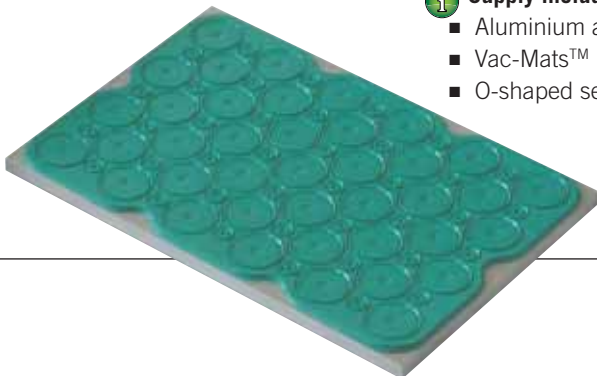
Other dimensions available on request

Vac-Mat™ adapter plates

for slot vacuum chucks

Nr.	A	B	C	Vac-Mats	
285136	300	200	10	10	2,7
285137	400	300	10	11	4,5
284497	600	400	10	12	8,1

- Supply includes:**
- Aluminium adapter plate
 - Vac-Mats™
 - O-shaped seal





Slot vacuum chuck with 3 vacuum areas, which work combined or independently

Slot vacuum chucks

Examples of special designs



Slot vacuum chuck with special adapter plate

Slot vacuum chucks are particularly suitable for lighter cutting processes such as engraving, grinding, etc. parts with complex geometrical shapes, including those with cutouts (e.g. front panel).

Also working with adapter plates for multiple clamping is possible.

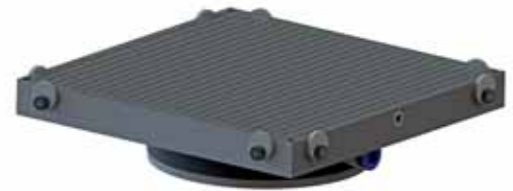
By using a rubber adapter mat it is possible to drill holes and to mill pockets and breakthroughs - without loss of vacuum. The adapter mat is 3mm thick, so a tool can penetrate about 2.5 mm into the adapter mat.



Circular vacuum chuck with ring slots for turning rings



Slot vacuum chuck mounted on a zero reference clamping system



Slot chuck with integrated rotation joint for use on an NC rotary table



View from below