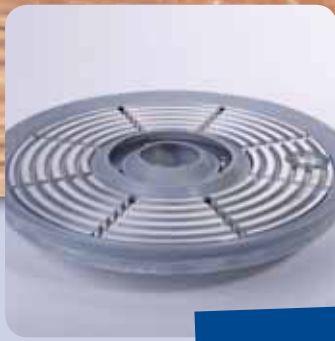


AERO-LIFT VACUUM COMPONENTS FOR THE TIMBER INDUSTRY



**Components for all
common handling systems**

Profiled boards
Planks Square timber
Moving systems

Suction Plates + Pads

Vacuum Technology

Tongue and groove boards Floorboards Laths
Solid structural timber Gutter boards Portal connection
Corrugated planks Solid timber boards Laminate
Laminated timber Stacking systems
Press removal systems Soft fiberboards
Multi-layered wooden boards Laminate feeder



Many other suction plates
(incl. data sheets) in the
components catalogue from p. 201



AERO-LIFT SUCTION PLATES ROUND

for all standard solutions in wood handling

This suction plate is suitable for smooth and thin workpieces up to 200°C.

The seal is rolled up on the base plate without a tension band.

Applications: Press lines in wood material plants for unloading the press.

The short stroke prevents "blistering" in the case of thin and soft boards

Suction Plate AL 160K/GK-Si Ø 160 mm

Base Plate AL 160R-K/GK-Si
Art.-Nr. 203 11 08

Suction Plate AL 160R-K/GK-Si
transparent Art.-Nr. 302 51 81
white Art.-Nr. 302 51 83

Seal AL 160R-K/GK-Si
transparent Art.-Nr. 203 12 06
white Art.-Nr. 203 10 32



Suction plate AL 160FL-K/GK-Si Ø 160 mm

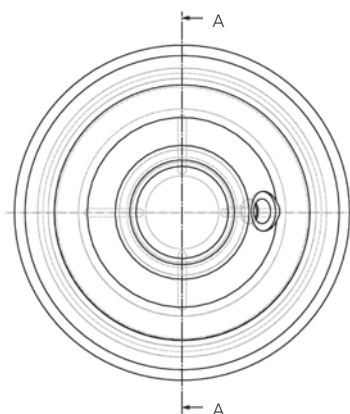
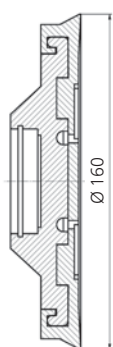
Base Plate AL 160FL-K/GK-Si
transparent Art.-Nr. 203 15 64

Suction plate AL 160FL-K/GK-Si
transparent Art.-Nr. 302 51 82

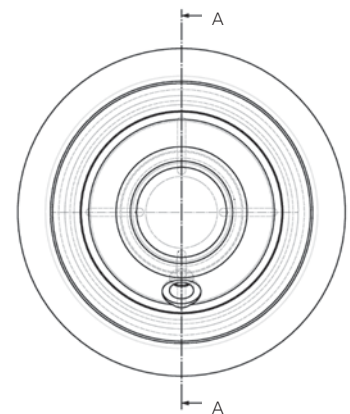
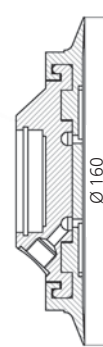
Seal AL 160FL-K/GK-Si
transparent Art.-Nr. 203 15 70



Schnitt A-A



Schnitt A-A





This suction plate is suitable for smooth and thin workpieces up to 200°C.
The seal is fixed with a tension band or glued on the base plate.

Applications: Press lines in wood material plants, moving and stacking systems.

Suction plate AL 110R-Si-K-SKK Ø 110 mm

Suction plate AL 110R-Si-K-SKK
Art.-Nr. 203 05 83

Seal AL 110R-Si-K-SKK
Art.-Nr. 203 13 02

Base Plate AL 110R-Si-K-SKK
Art.-Nr. 203 12 10

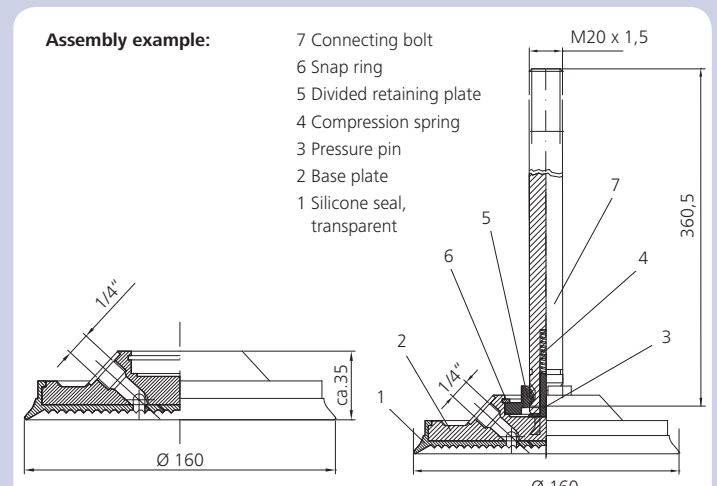
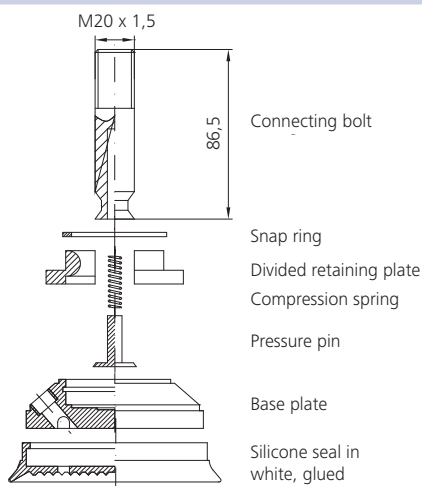


Suction plate AL 160R-Si-K Ø 160 mm

Suction plate AL 160R-Si-K
transparent Art.-Nr. 302 50 69
white Art.-Nr. 302 50 70

Seal AL 160-Si-K
transparent Art.-Nr. 203 10 01
white Art.-Nr. 203 10 60

Base Plate AL 160R-Si-K
Art.-Nr. 203 10 90



Many other suction plates
(incl. data sheets) in the
components catalogue from p. 201



AERO-LIFT SUCTION PLATES ROUND

for all standard solutions in wood handling

This seal can be rolled up and is held in place through its own tension on the base plate. It is simple and inexpensive to replace.
Applications:
Smooth and slightly rough surfaces. Frequently used for rapid cyclic systems in the furniture industry

This seal is suitable for lightly structured surfaces on wood and sheet metal parts. The seal is a plug-in design and can be changed easily.

Suction plate AL 200NR-E Ø 200 mm

Suction plate AL 200NR-E
Art.-Nr. 302 5092

Seal AL 200NR-E
Art.-Nr. 303 1151

Base Plate AL 200NR-E
Art.-Nr. 203 1296



Suction plate AL 200M-R Ø 200 mm

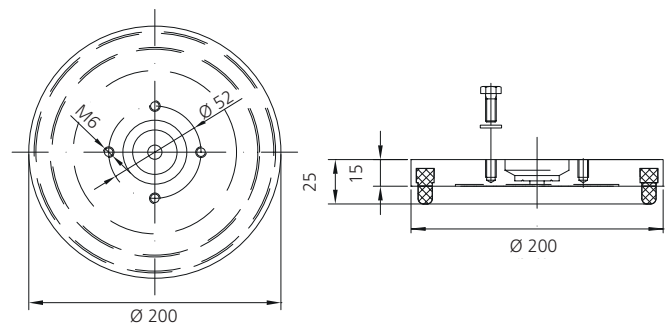
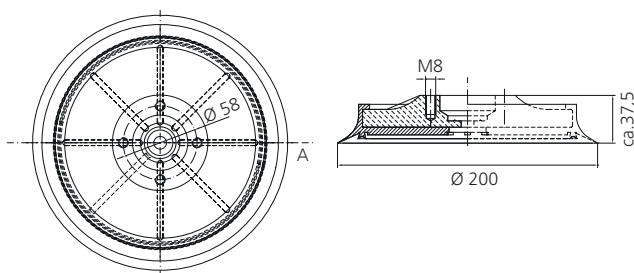
Base Plate AL 200NR-E
Art.-Nr. 203 3523

Suction plate AL 200M-R
Art.-Nr. 302 5063

Seal AL 200NR-E
Art.-Nr. 303 1266



grooved pad
Art.-Nr. 303 5003



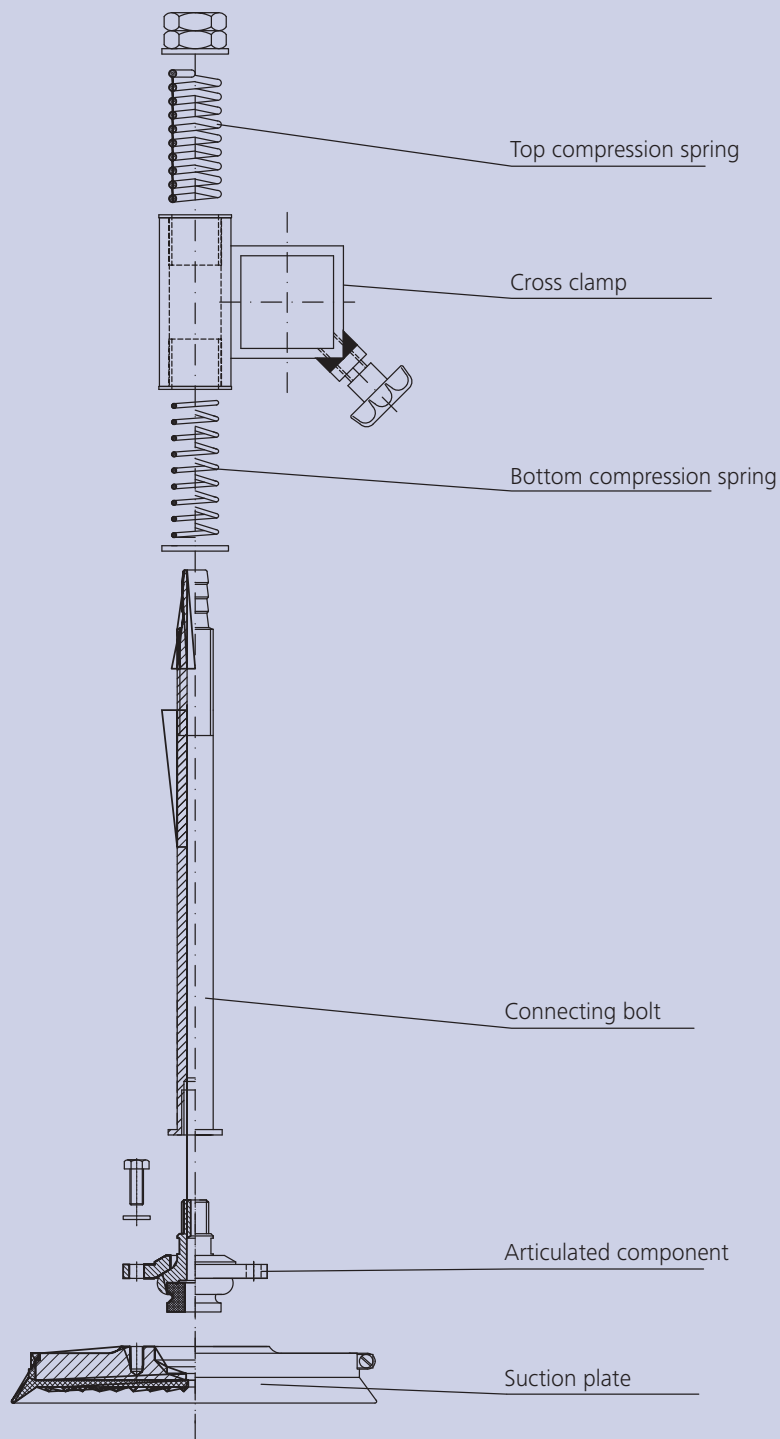
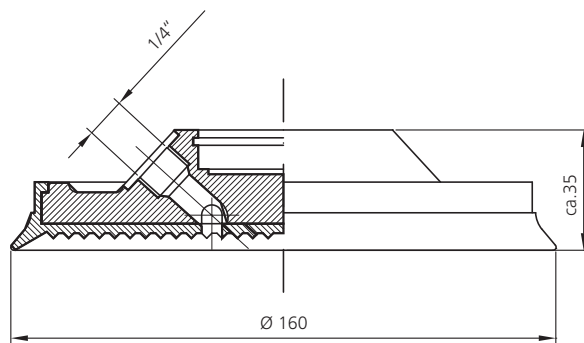


These suction plates consist of a base plate, seal and tension band.
 The seal is secured on the base plate with a tension band and can be inexpensively changed by releasing the tension band.
 A grooved rubber layer ensures optimum friction, even on a wet and dirty surface.
 Applications: Moving and stacking systems, robot handling, portal handling

Suction plates from Ø 110 mm to 350 mm



Example: AL 160R-K



Many other suction plates
(incl. data sheets) in the
components catalogue from p. 201



AERO-LIFT SUCTION PLATES OVAL



Applications:

- Narrow surfaces such as strips, laths or planks
- Doors and window frames
- Curved surfaces such as tubes and round materials

Suction plate
AL 55x200
55 x 200 mm

Suction plate with seal AL 55x200

Buna rubber, black
Perbunan, grey

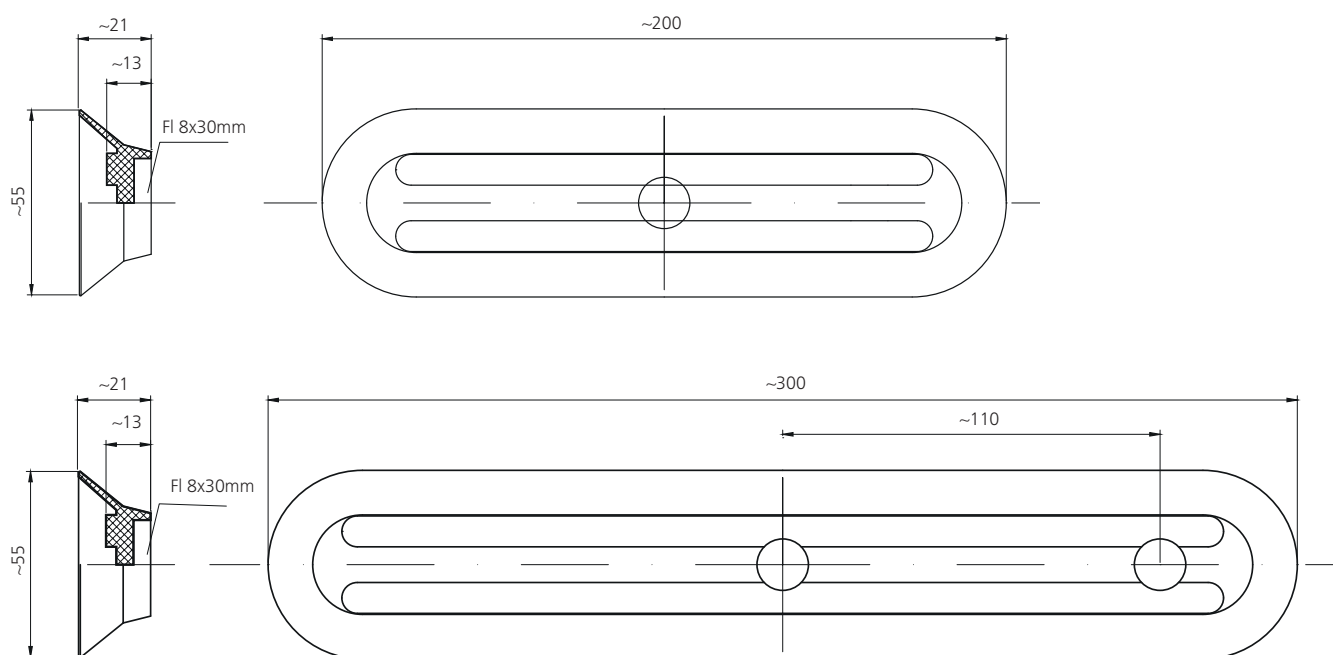
Art.-Nr. 203 1358
Art.-Nr. 203 1148

Suction plate
AL 55x300
55 x 300 mm

Suction plate with seal AL 55x300

Buna rubber, black
Perbunan, grey

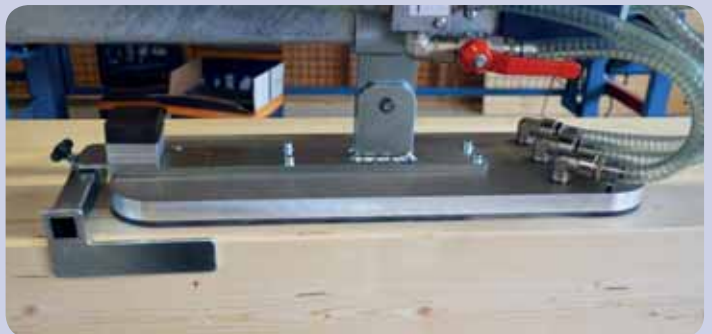
Art.-Nr. 203 1359
Art.-Nr. 203 1363





These suction plates can reliably hold smooth to rough sawn surfaces, so they are primarily used for beams, planks and glued laminated beams.

The AL 180 x 560M 3K suction plate has three separate suction chambers (see image at bottom right). When transporting narrow materials, the outer chambers can be shut off manually.



Suction plate AL 180 x 560M 1K 180 x 560 mm

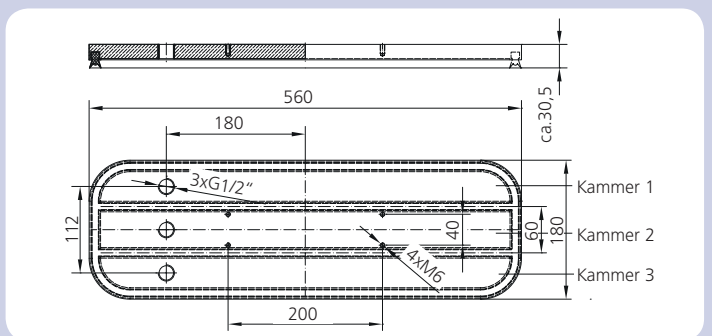
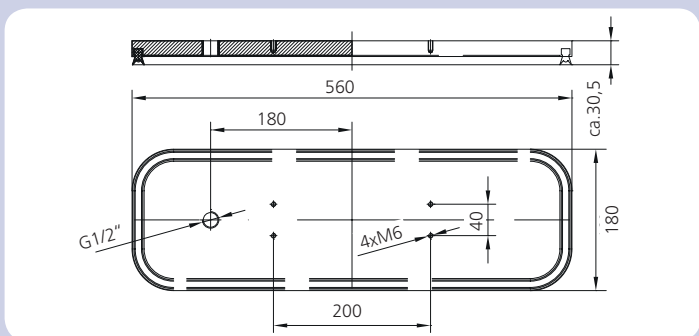
Suction plate AL 180 x 560M 1K
Seal AL 180 x 560M 3K
Base Plate

Art.-Nr. 3025093
Art.-Nr. 2031305
Art.-Nr. 2031308

Suction plate AL 180 x 560M 3K 180 x 560 mm

Suction plate AL 180 x 560M 3K
Seal AL 180 x 560M 3K
Base Plate

Art.-Nr. 3025094
Art.-Nr. 2031301
Art.-Nr. 2031307



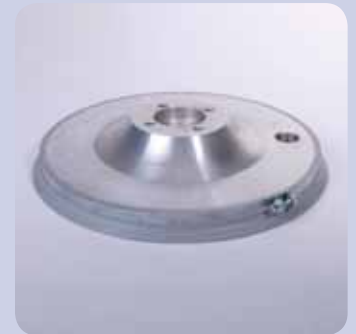
AERO-LIFT SPECIALISTS WOOD

Special designs are our strength

These suction plates with separate vacuum and pneumatic chambers were developed for transporting porous materials. Separation is facilitated in the case of thin, air permeable workpieces such as chipboard, MDF, OSB and hardboard. They have two separate chambers. A compressed air impulse in the centre of the suction plates prevents the adherence of several workpieces on top of each other. The transportation vacuum is built up in the outer part of the suction plates.

Applications:

Handling chipboard, MDF, OSB and hardboard



Suction plate

AL 160L V+D

Ø 160 mm

NBR grey Art.-Nr. 3025072

Silicone transp. Art.-Nr. 3025073

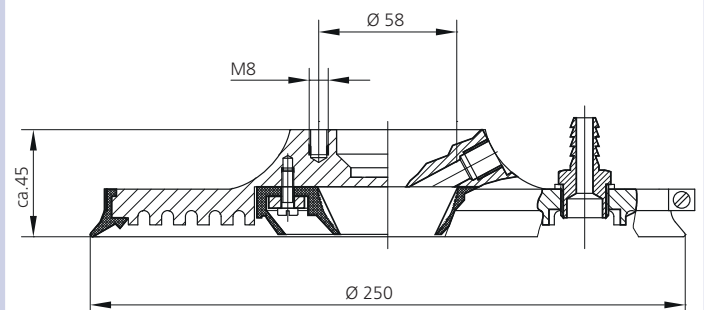
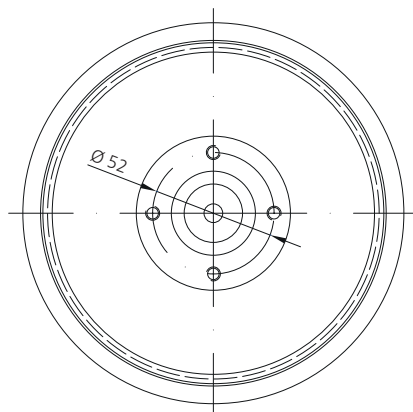
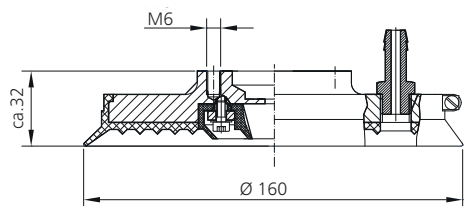
Suction plate

AL 250L V+D

Ø 250 mm

NBR grey Art.-Nr. 3025110

Silicone transp. Art.-Nr. 3025109





These suction plates were specially developed for swollen and shrunken timber. Wood is a natural product which continues to change after cutting. During storage, the still wet timber swells and shrinks, leading to curvature of the material. Simple standard suction plates can no longer handle this unevenness.

What can be done?

Taking the existing suction plate for rough sawn timber, AERO-LIFT has created two narrow oscillating suction plates which can adapt to the surface of the warped timber.

The solution:

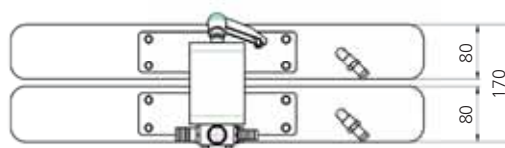
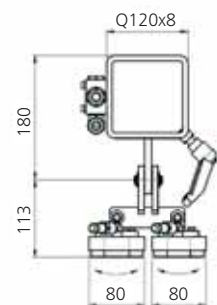
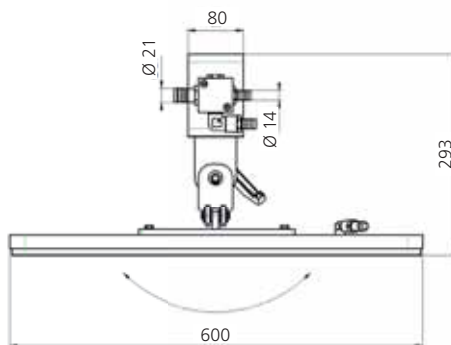
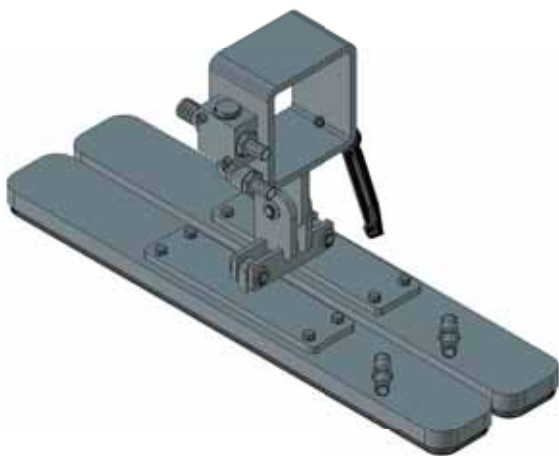
Suction plate with black grey EPDM seal, for cupped timber elements. Handling of convex and concave surface cross sections, articulated connection of suction plates to each other and articulated connection to the cross clamp, includes manifold and hose nipples for providing the vacuum.



2x Suction plate
AL 80x600SP
 80x600 mm

Suction plate Art.-Nr. 3027086

Seal Art.-Nr. 3031287



Many other suction pads (incl. data sheets) can be found in the components catalogue from p. 101



AERO-LIFT SUCTION PADS

in all common sizes and shapes

Flat suction pad: For smooth surfaces of coated furniture parts or laminated woods. The shape enables short cycles and use in pick & place applications. These suction pads have a high degree of intrinsic stability when suctioning and can also be used vertically.

Bellows-type suction pad: For unstable parts with low intrinsic stability, such as veneers or films. The flexibility of the suction pad allows it to compensate for uneven surfaces and height differences. The bellows creates a stroke during suctioning. Bellows-type suction pads are particularly suitable for transporting delicate, soft, inclined, convex, concave or bent workpieces. Bellows-type suction pads are recommended for low horizontal forces and low or medium cycle times.

Oval suction pad: Also available as flat or bellows-type pads and used primarily for workpieces with relatively narrow surfaces.

Sauger AL 140 LW Ø 140 mm

Material: Si, white

Lifting capacity:
(60% vacuum): 89kg

Stroke: 10.0 mm

Weight: 188 g

Art.-Nr. 2021640



Sauger AL 160 LW Ø 160 mm

Material: Si, white

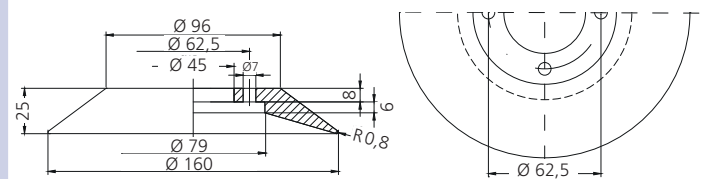
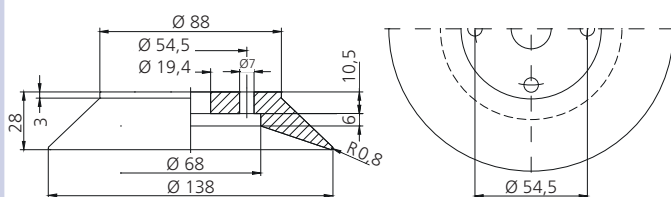
Lifting capacity:
(60% vacuum): 120kg

Stroke: 10,0 mm

Weight: 216 g

Art.-Nr. 2031067

This flat suction pad is ideal for smooth surfaces such as coated furniture parts or laminated woods. The seal can be screwed to the base plate. It can be replaced simply and inexpensively if necessary. Applications: Press loading and unloading in wood material plants





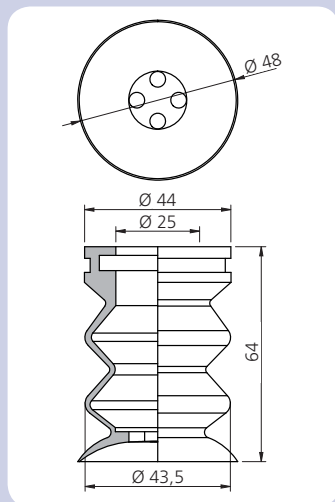
Suction pad
AL 48 - 2,5 bellows
 Ø 48 mm

Material: Si, white

Art.-Nr. 2060034



A selection of further **suction pads**



This bellows-type suction pad has a cohesive suction surface with 4 holes for vacuum suctioning. The workpiece is in contact with the cohesive suction surface during suctioning, thus preventing any deformation. This bellows-type suction pad is therefore particularly suitable for thin workpieces such as paper, films and decorative paper. It is frequently used for decorative beading on wood material plants.



Further information in our vacuum gripper brochure and at aero-lift.de



AERO-LIFT VACUUM GRIPPERS

Greater quantities in less time!

Prozesssicher und flexibel für unterschiedliche Materialien und Geometrien!

Reliable and flexible for different materials and geometries!

The AERO-LIFT vacuum gripper is an all-round talent. It is used for applications in the timber, metal and food industries and many other areas, and its strengths are demonstrated anywhere where materials with gaps or holes are lifted. It can be employed for both automatic systems and manual handling (e.g. on a hose lifter).

Standard dimensions of 50x50mm to 1600x1600mm

Applications:

- Robot and portal attachment
- Handling of boards, beams and planks
- Handling of individual boards in layers
- Handling of machined wooden parts
- Gutter boards



Flexible mounting options to suit customer requirements.



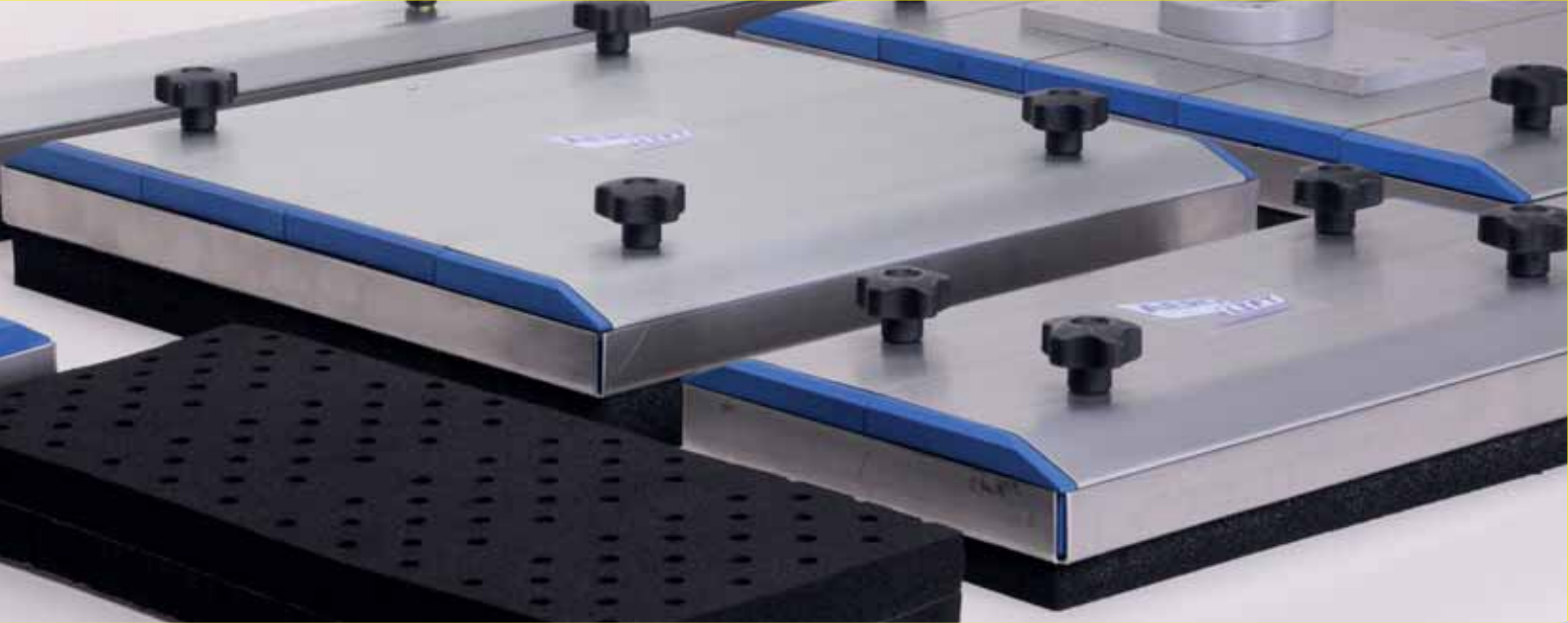
Hose lifter with vacuum gripper



Lifting of wooden flooring segments



Lifting of wooden boards with cracks or splits



All advantages at a glance

Why AERO-LIFT vacuum grippers are the ideal solution for your wood handling applications:

- ✓ **Patented vacuum valve system consisting of different valves reduces your energy consumption by up to 50%**
- ✓ **Modular structure enables the configuration of individual vacuum gripper systems for specific applications**
- ✓ **High cycle times**
- ✓ **Safe and stable raising without loss of performance caused by dirt**
- ✓ **Careful raising without stressing of objects through pressure. Damage to surfaces is therefore avoided!**
- ✓ **Flexibility – the system lifts different objects without reprogramming or tool changes. For example, in addition to the workpiece, Euro pallets and cardboard inserted as intermediate layers, etc. can also be lifted where necessary.**
- ✓ **Greater added value, measurable cost savings and reduced set-up times, thanks to intelligent system solutions**
- ✓ **AERO-LIFT is made in Germany – innovative technology, maximum material quality, impressive solution competence and consultation in a spirit of partnership**
- ✓ **Lightweight design which also keeps procurement costs for the robot as low as possible for you**
- ✓ **Low height to enable efficient use in even confined portals**



Lifting of individual wooden strips



Lifting of pallets



Flexible rotation through 90° for securing

VACUUM GENERATORS + MONITORING



Vacuum generators

Vacuum generation for fixing or transporting wooden parts. Low-maintenance dry running rotary vane pumps with a high final vacuum for dense or less air permeable wooden parts.

High-performance vacuum blower with a high volumetric flow for handling air permeable parts such as OSB, MDF or chipboard.

Vacuum ejectors for vacuum generation using compressed air.



Ejectors



Vacuum pumps



Vacuum blower
side channel compressor

Vacuum monitoring / Vacuum sensors

Vacuum monitoring and sensors as a visual indicator for the vacuum level, signal transducer for control technology or as a safety function in the handling process.

Robust mechanical vacuum switches or precision vacuum sensors with digital and analog signal outputs and warning systems for manual handling in the timber industry ensure maximum process reliability during wood handling.



Vacuum meters



Vacuum switch



Vacuum sensor



Warning system

Further information available
in our wood handling brochure
and at aero-lift.de



VACUUM SOLUTIONS FOR THE TIMBER AND FURNITURE SECTORS

Rotating, pivoting, turning – individual solutions



Many other applications can be found at: AERO-LIFT.de



AERO-LIFT Vakuumtechnik GmbH

Verified quality **made in Germany**



AERO-LIFT Vakuumtechnik GmbH is a strong medium-sized enterprise. People on the Swabian Alb close to the famous Hohenzollern Castle (photo) have always been known for their industriousness, ingenuity and precision. Our company is also imbued with these virtues, and we endeavour to uphold and improve these on a daily basis.

AERO-LIFT Vakuumtechnik GmbH has been manufacturing lifting equipment for over 20 years which can transport even the largest loads with the aid of a vacuum – reducing stress on both the material and personnel.

We not only focus on standard products in this respect, but also on providing you with variants and special solutions which are optimally adapted to your problem.

Products from AERO-LIFT are made in Germany, with a considerable vertical range of manufacture in the region. In selecting materials and suppliers, we place a maximum priority on the very best quality and a single, common goal – to inspire and enthuse our customers!

Please contact our Technical Sales Department if you have any questions regarding our products and individual sector solutions.



AERO-LIFT

we're close at
hand for you!

AERO-LIFT international



Your closest contact at our representatives – in Germany and many other countries around the world – can be found at www.aero-lift.de

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