

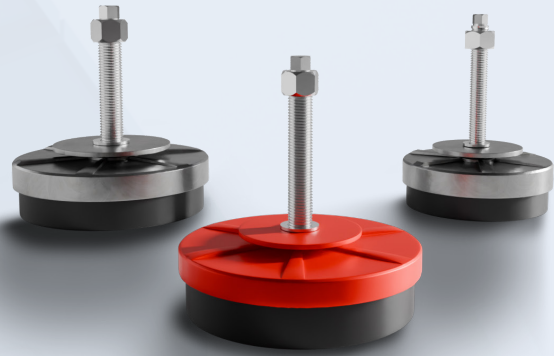


**Industrial products
and services**



About machine shoes

Machine shoes are components used to dampen vibrations and level the machine. The shoes stabilize the machine and prevent it from moving during operation, protect floors from damage and enhance workplace safety.



Machine shoes enhance performance and safety of the machinery

Machine shoes provide numerous advantages in industrial and technical environments where machinery operates under heavy loads and rigorous conditions. The components are essential for enhancing the performance, longevity and safety of machinery.

VIBRATION DAMPING

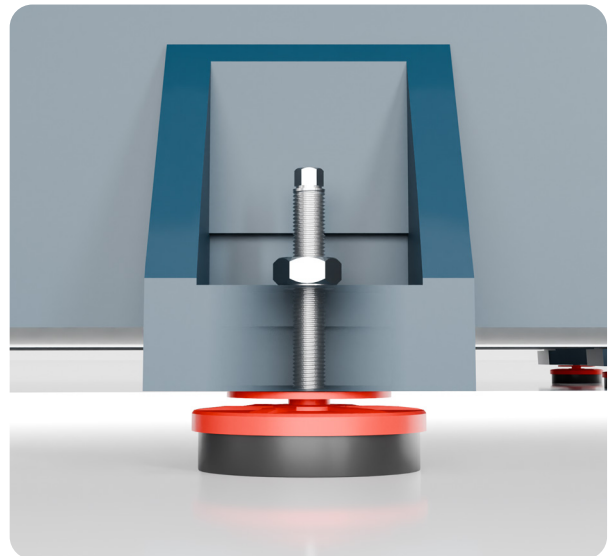
One of the primary benefits of machine shoes is their ability to *absorb vibrations* during machine operation.

By reducing the transmission of vibrations, machine shoes help maintain the precision of equipment and minimize wear on moving parts.

IMPROVED STABILITY AND SAFETY

GMA machine shoes are all adjustable making machine installation easy by allowing precise *leveling* on uneven or leaning surfaces.

Machine shoes also provide a stable foundation for machinery, preventing unwanted movements or shifts during operation which is critical for *ensuring the safety* of workers and reducing the likelihood of accidents.



MAKO 1-5

Available in five sizes and two basic designs, galvanized or painted.



MODEL 21/22

Machine shoes in stainless or galvanized steel for standard applications.



MODEL 31/32

Machine shoes in stainless or galvanized steel for standard applications.

MAKO Machine shoes

MAKO machine shoes effectively isolate vibration and make leveling easy. The shoes are available in 5 sizes and 2 basic versions, *galvanized* or *painted*. In addition, Mako 1 and 2 are also available in *stainless steel*.

BENEFITS

1. Effective isolation of sound and strong vibrations that can cause damage to both material and operator.
2. Exact leveling.
3. Fast, easy and economical machine setup.
4. The leveling plate provides a stable and secure support both when adjusting and when the machine is in the correct position.
5. The anti-vibration material is resistant to both water and oil.
6. Available in designs for machines from 50 to 5 000 kg.

Choose the right MAKO Machine shoe

1. Calculate the weight of the machine.
2. Divide the weight of the machine by the number of pre-drilled holes intended for bolting the machine to the floor or foundation. This is to get maximum load on each machine shoe.
3. If it is a machine making continuously punches/strokes, note the number of punches per minute in order to choose the correct machine shoe in the table on page 5.

Mako 1-5

MAKO 1



Ø80mm – M12x1,25 – 50-500kg
 Part. no. 10301 Galvanized
 Part. no. 10001 Painted
 Part. no. 10301-SS Stainless

MAKO 2



Ø120mm – M16x1,5 – 40-1000kg
 Part. no. 10302 Galvanized
 Part. no. 10002 Painted
 Part. no. 10302-SS Stainless



MAKO 3



Ø160mm – M20x1,5 – 800-2500kg
 Part. no. 10303 Galvanized
 Part. no. 10003 Painted

MAKO 4



Ø160 – M20x1,5 – 800-2500kg
 Part. no. 10304 Galvanized
 Part. no. 10004 Painted

MAKO 5



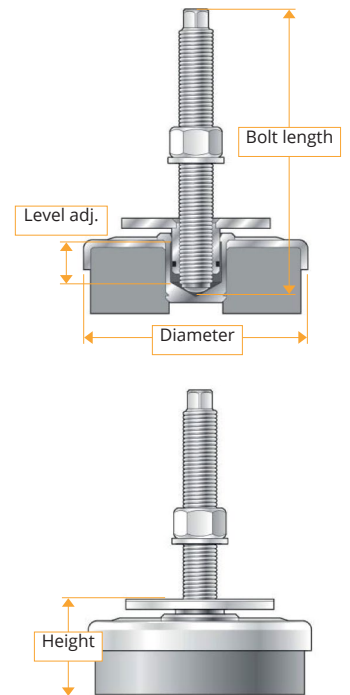
Ø200 – M20x1,5 – 3000-5500kg
 Part. no. 10305 Galvanized
 Part. no. 10005 Painted

Mako 1-5

TYPE	1	2	3	4	5
Diameter (mm)	80	120	160	160	200
Min. height incl. leveling plate (mm)	41	49	59	59	69
Level adjustments (mm)	18	18	25	25	25
Leveling bolt	M12x1.25	M16x1.5	M20x1.5	M20x1.5	M20x1.5
Leveling bolt length (mm)	120 ¹⁾	120 ¹⁾	170 ²⁾	170 ²⁾	170 ²⁾
WEIGHT/MACHINE SHOES (KG)					
Punch free machines	50-500	400-1 000	800-2 500	1 500-4 000	3 000-5 500
Punch/Stroke machines					
160-200 strokes/min	50-120	120-250	250-725	750-1 400	1 300-2 400
125-160 strokes/min	60-140	120-350	350-1 100	950-2 100	1 960-3 500
<125 strokes/min	70-200	200-400	400-1 400	1 600-2 800	2 700-4 000
PACKAGING (4 PCS/BOX)					
Dimensions	19x9x9 cm	24x13x13 cm	27x13x13 cm	27x17x17 cm	33x22x22 cm
Weight	2,5 kg	5,3 kg	12,0 kg	13,3 kg	20,0 kg

¹⁾ Also available in 210 mm length

²⁾ Also available in 250 mm length



Machine shoes model 21/22 and 31/32

GMA offers machine shoes in sizes 21, 22, 31 and 32 in stainless steel or galvanized.

FEATURES

1. Stainless machine shoes are used in humid environments such as in the food and pharma industries.
2. Four different bolt sizes are available as standard: 12x80, 12x120, 16x120, 16x210.
3. The bolt can be tilted 7° in all directions, so that these machine shoes can be used on uneven floors.
4. The nitrile rubber material is resistant to oil, water and many chemicals.

Note: Bolts ordered separately.

MODEL 21/22

21: Ø60mm – 20-120kg

Part. no. 10421 Stainless
Part. no. 10451 Galvanized

22: Ø60mm – 80-200kg

Part. no. 10422 Stainless
Part. no. 10452 Galvanized

MODEL 31/32

31: Ø100mm-100-400kg

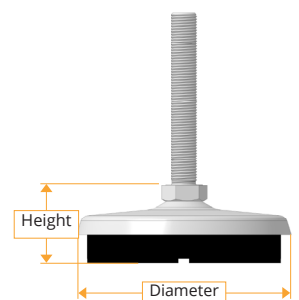
Part. no. 10431 Stainless
Part. no. 10453 Galvanized

32: Ø100mm-350-800kg

Part. no. 10432 Stainless
Part. no. 10454 Galvanized

TYPE	21 (SOFT)	22 (HARD)	31 (SOFT)	32 (HARD)
Loading	20-100 kg	80-200 kg	100-400 kg	350-800 kg
Diameter	70 mm	70 mm	100 mm	100 mm
Height*	26 mm	26 mm	35 mm	35 mm
Weight/pcs	0,28 kg	0,28 kg	0,51 kg	0,51 kg

*Height (h): Minimum construction height, from the bottom of the machine shoe to the upper side of the screw head on the leveling bolt.



Highly qualified subcontractor

GMA provides subcontracting services for a wide range of customers. We offer expertise and a fully developed machinery fleet in areas such as *rubber products, rubber-steel products, sheet metal-steel items* and *machining/repair*.

Rubber products

GMA performs subcontract manufacturing of small to medium-sized series of pure rubber products. We have several flexible rubber presses and manufacture our rubber tools in-house. We also have our own elastomer technician who can help develop the product and the manufacturing process, ensuring that you, as a customer, receive an even better product.

Examples of rubber products



Steel-rubber products

In addition to subcontract manufacturing of pure rubber products we also produce a number of rubber-steel items. In a first step we manufacture and process the steel component, thereafter we vulcanize the rubber article together with the steel component in our rubber presses.

Our in-house production of both steel components (in black or stainless steel or aluminum) and rubber products makes us extremely flexibility. This, combined with our own tool manufacturing, enables us to handle small series and make quick adjustments when needed.

Examples of rubber-steel products





Subcontracting

GMA offer expertise and a fully developed machinery fleet in areas such as rubber products, rubber-steel products, sheet metal-steel items and machining/repair.

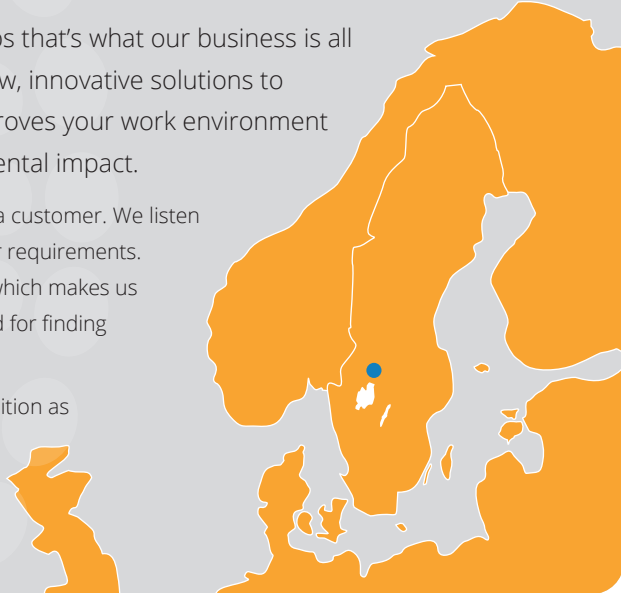
Rocky problems - solid solutions



Finding simple solutions to difficult problems, perhaps that's what our business is all about. GMA develops, manufactures and markets new, innovative solutions to complex problems. Solutions that simplifies and improves your work environment as well as economy with the least possible environmental impact.

The collaboration often takes place in close dialog with you as a customer. We listen carefully to your ideas and develop products that will meet your requirements. Development and production take place under the same roof which makes us fast and flexible both for serial production, special products and for finding solutions to complex problems.

Knowledge and solid experience have given GMA a leading position as a supplier of high technology products. We are also a highly qualified subcontractor. You will find our customers both in Scandinavia and in the rest of the world.



RELATED PRODUCTS

Injection and rock reinforcement

In addition to machine shoes and subcontractor expertise we offer a strong range of products for *injection* and *rock reinforcement*. We develop, produce and market a superior program of inhouse produced *packers* and *injection pipes* as well as *bolts* and *accessories* for safe and efficient rock reinforcement.



Compressible packers



Inflatable packers



Thorbolt®



Injection pipes



GE bolt

