WE GENERATE EXCITEMENT.

Since its founding by Andreas Maier in 1890, our company has lived through many exciting times. Today we are the leading manufacturer in Europe, supplying over 5,000 different products from the fields of clamping, hand tools and locks. With this extensive product range we can meet all of our customers’ needs and requirements. But providing optimal quality means meeting the challenges at all levels: Expert consultation, modern team organisation, individual solutions (including special developments), flexibility in response to changing conditions, etc.

And we ourselves find this so exciting that we look forward every day to shaping the market together with our employees and our customers — both now and in the future. That is something you can count on.

COMPANY HISTORY

1890 Company founded as a tool manufacturer by Andreas Maier.
1920 Product range extended to include spansers.
1928 Production line assembly of “Jetflachklemme”.
1951 AMF introducing clamping elements and diversifies into workplaces and tool clamping technology.
1962 Toggle clamps extend the AMF product range. AMF catalogues are now printed in ten languages.
1975 Further specialisation into hydraulic clamping technology.
1982 Clamping and future systems round off AMF’s clamping expertise.
1996 AMF team organisation in all sectors of the business. Quality management with certification to ISO 9001.
2001 AMF Service Guarantee for all products.
2004 Introduction of the 250 zero joint clamping system.
2007 The magnetic clamping technology extends the AMF product range.
2009 Development and marketing of AMF Vacuum clamping technology.
2012 Making and cleaning tools included in the AMF product range.

These Terms of Sale apply for companies, legal entities governed by public law and public law special funds. Our goods and services are supplied exclusively on the basis of the following conditions. Any deviating purchasing conditions of the customer, which are also acknowledged by us, will not become part of the contract through acceptance of the order. By placing the order and accepting the goods we deliver, the customer confirms his consent to our terms and conditions.

1. Offer and contractual conclusion

All our offers are always subject to change without notice unless otherwise explicitly agreed. Our offers and contracts are based on the latest version of our catalogue. The dimensions and weight values, as well as illustrations, drawings and data, are not contractual; they may change at any time. Therefore, deviations cannot be ruled out and do not justify any compensation claims against us. Orders are considered accepted only when confirmed by us in writing. If, for organisational reasons, the customer does not receive a separate confirmation upon the reception of the order, the invoice will also be deemed the order confirmation.

2. Prices

The prices are in EURO, ex-work, excluding VAT, packing, height, postage and insurance. Unless stated otherwise, all prices are stated net on the day of delivery. Prices are subject to change at any time, in particular due to changes in taxes and raw materials prices, net, we must make a minimum quantity surcharge of at least 10% for cost reasons.

3. Tool costs

Unless otherwise stated on the invoice, the purchase price falls due for net payment within 30 days of the invoice date without deduction of discount. Invoice amounts of below 300 EURO are due for payment immediately. In case of payment delays, we entitle to charge interest at 5% p.a. above the official base rate. The invoice corresponds to our interest rate for current account credits at our bank; the interest rate of any other bank is above the applicable base rate is applied by the European Central Bank. Moreover, in case of default in follow-up written notice to the customer, we shall be entitled to cease to fulfil our obligations until payments are received.

4. No set-off

There shall be no set-off with legally confirmed or undisputed counterclaims.

5. Right of withdrawal

6. Right of withdrawal in case of delayed acceptance or payment and insolvency

If the customer fails to accept the goods in due time, we shall be entitled to set a reasonable time for the desired acceptance. After the expiration of this grace period the goods shall be kept in our warehouse at the customer’s expense.

7. Warranty

8. Delivery and packaging, transfer of risk

The delivery date is non-binding; although stated to the best of our knowledge. It is subject to our current stock situation, defect-free and complete deliveries. The stated delivery dates relate to completion in the factory, starting on the day the order is accepted by us. Delivery is EXW (Ex Works) in accordance with Incoterms 2010. Therefore, the costs are borne by the customer. The risk is transferred to the customer when the goods are passed to the carrier. The customer is then obliged to execute the shipment. This applies also to partial deliveries, or if we have assumed responsibility for delivery and installation. The risk will be transferred to the customer even in case of delayed acceptance.

In case of any specific shipping instructions, we shall proceed as we deem fit without any obligation to the cheapest or most expeditious method. The customer must agree in time to let us be informed of the address where the goods are to be delivered.

9. Performance impediment and/or impossibility

If we are hindered in the fulfilment of our obligation due to the onset of unforeseeable circumstances, which we are unable to avoid despite reasonable effort in relation to the nature of the circumstances (e.g. operational interruption, delay in the delivery of import goods, raw materials, defects in the delivery), the delivery time shall be extended for a reasonable period, insofar as the supply of goods or services is not rendered unreasonably impossible or difficult. If we have to accept that these circumstances are not only temporary, we shall be entitled to withdraw from the contract either in whole or in part.

If the supply of goods or services becomes impossible, the customer shall not be obliged to deliver in its own capacity. Section 275 BGB applies mutatis mutandis. If, however, the customer is solely or predominantly responsible for the circumstances that led to impossibility, it shall remain under an obligation to render the return service. The same applies if this circumstance occurs at a time when the customer is behind schedule with acceptance.

10. Samples/Returns

Samples shall be provided only against payment. If samples or models are provided, a credit note shall be issued with the subsequent order if the order value is below 120 EURO net or more. Goods can be returned only after agreement, but customised fabrics are excluded from such return.

11. Statements and guarantees

The goods shall remain our property until full payment of all claims and/or until the cheques provided for this purpose are honoured. The indemification of claims in an ongoing contract is not possible, as well as balancing the account and the recognition thereof does not affect the retention of title. The customer is entitled to sell the retained goods during the ordinary course of business. However, the customer is not permitted to pledge the goods or transfer them by way of security. It shall assign the claim ensuing from the sale of the goods to us immediately and without any costs. The customer shall be liable for all debts with us, which are incurred by the customer after the conclusion of the contract. At our request, the customer shall be obliged to state third-party debtors and we shall be entitled to report this to the assignee.

We reserve property rights and copyrights to all contractual documents such as drafts, drawings, calculations and cost estimates. Such documents must not be reproduced or disclosed to third parties without our consent. Any rights to potential models, models etc., mobile solely with us, treated as such parts have not yet been liked. Our products are allowed to be repainted only with our written consent.

12. Warranty

The customer draws the necessary consequences from the above-mentioned warranty. If any third-party property, rights are not infringed by manufacture or delivery. If the warranty limits or expenses are not stated in the contract, the warranty period shall be deemed to be given to manufacture and delivery immediately. The customer shall be entitled to reimburse us with all costs incurred and indemnify us from third-party compensation claims. Compensation claims by the customer are impossible.

13. Liability

If the customer agrees with a particular quality of the goods, we shall base this agreement on our technical delivery specifications. If you have to deliver according to customer drawings, specifications, samples etc., the customer shall assume the risk of suitability for the intended purpose. If, after the contract is concluded, the scope of all goods or services is changed at the customer’s request and this impairs the quality or suitability of the goods, claims for defects on the part of the customer shall be ruled out if the customer is not in breach of his obligation to inform us in time.

14. Severability clause

The delivery dates relate to completion in the factory, starting on the day the order is accepted by us. The delivery of goods, the invoice shall also be deemed the order confirmation.

15. Place of fulfillment, jurisdiction and governing law

We shall use the address of the customer as the address in the current catalogue for deliveries. The place of fulfilment is the place of delivery. The place of jurisdiction is the court responsible for the headquarters of Andreas Maier GmbH & Co. KG. All disputes arising from the contract or regarding the validity thereof shall be finally decided by a court of arbitration in accordance with the Court of Arbitration Ordinance of the German Committee for Arbitration Court Proceedings or the Conciliation and Arbitration Arrangement of the International Chamber of Commerce, recourse to the ordinary courts of law is excluded. The legal dumping process, however, remains permissible. German law shall govern (BGB and HGB). The applicability of the UN Convention on Contracts for the International Sale of Goods (CISG) is ruled out.

16. Severability clause

If individual provisions become legally invalid, the remaining provisions shall not be affected. The legally invalid provision shall be replaced by regulations that most closely reflect the economic purpose of the contract with reasonable consideration for the mutual interests. The publication of these Terms of Sale, Delivery and Payment renders all previous versions invalid. This does not apply for any contracts concluded prior to announcement.
THE MOST IMPORTANT MATTER ON THE SUBJECT OF VACUUM CLAMPING TECHNOLOGY FROM AMF

AMF VACUUM CLAMPING PLATES

ADAPTER PLATE, RUBBER
ADAPTER PLATE, ALUMINIUM

SURFACE-MOUNTED BLOCK

ROTARY VANE VACUUM PUMP
LIQUID SEPARATOR

ACCESSORIES
WHAT IS A VACUUM?
A vacuum is the state in a space which is free of matter. In practice, we already call it a vacuum when the air pressure in a space is less than that of the atmosphere.

UNITS OF MEASUREMENT USED
The most common units are the pascal and the bar.

\[
\begin{align*}
100 \text{ Pa} &= 1 \text{ hPa} \\
1 \text{ hPa} &= 1 \text{ mbar} \\
1 \text{ mbar} &= 0.001 \text{ bar}
\end{align*}
\]

VACUUM CLAMPING SYSTEMS
Vacuum clamping systems are used above all in the wood, plastics and non-ferrous metals industries for quick, simple machining; they are compatible with CNC machine tools. Here vacuum technology is used in connection with special handling systems, for example in order to fix an aluminium plate and machine it from all sides. This increases productivity and cost-effectiveness: the fixing does not cause any damage to the workpiece, and no laborious, time-consuming aligning of the workpiece is required. The latest clamping systems allow attachments of various sizes and shapes to be exchanged in a very short time, thus facilitating flexible handling of a wide range of workpiece shapes.

WHAT DOES VACUUM CLAMPING MEAN?
In vacuum clamping, an underpressure is generated under the workpiece being clamped, i.e. a pressure differential is created which presses the workpiece against the clamping plate. Thus the workpiece is not, as one might think, actually “sucked”, but is rather pressed against the vacuum table. The sliding force of the workpiece depends on its surface structure, the pressure differential and the area on which the vacuum acts. The larger this area is, the better the holding forces.

WHY DOES A VACUUM GENERATE A HOLDING FORCE?
All surfaces of an object are subjected to an even pressure of approx. 1 bar by the surrounding atmosphere. The integrated Venturi nozzle or an external vacuum pump then removes some of the air from under the workpiece being held, thus removing part of the pressure load on that surface. What remains is a one-sided pressure on the top surface of the workpiece, whose size depends on the degree of the vacuum. Generally it is 0.7 - 0.8 bar. This means, for example, that a vacuum of 200mbar (absolute pressure) is generated. The pressure differential acting on the workpiece is therefore 800mbar (approx. 0.8 kp/cm²). The size of the clamping force is then only dependent on the clamping area.

GENERAL INFORMATION
- During workpiece machining, check the operating vacuum continually on a pressure gauge.
- For heavy-duty cutting, always secure the workpiece with stops.
- Only ever use sharp tools which are suited to the material being machined.
- In particular with small machining areas, keep the machining forces as small as possible, e.g. through the use of small grinding diameters at high speeds.
- Before workpiece machining, check that the workpiece is located securely.

FORMULA FOR DETERMINING THE RETAINING FORCE
\[
\text{Force (F)} = \text{Pressure (P)} \times \text{area (A)}
\]

Example for order no. 374504 (400 mm x 600 mm):
Vacuum plate 40 cm x 60 cm = 2400 cm²

Calculation of the retaining force (F) in Newtons (N):
\[
2400 \text{ cm}^2 \times 9.3 \text{ N/cm}^2 = 22320 \text{ N}
\]

Conversion:
100 N ~ 10 kg
22320 N ~ 2230 kg retaining force (theoretical value)
THE BENEFITS OF AMF VACUUM CLAMPING TECHNOLOGY

> The AMF vacuum clamping plate can be operated using compressed air and the integrated Venturi nozzle, or with an external vacuum pump.

> The height-adjustable eccentric stops absorb the sliding forces, and can be adjusted individually to the workpiece height.

> Easy positioning of workpieces by fastening with stop pins. These also absorb the sliding forces.

> Irregularities in the workpiece surface are compensated for by the sealing cord. The workpiece contour can be represented optimally using the grid pattern on the plate.

> Lateral grooves allow the vacuum clamping plate to be fastened to a baseplate or onto the machine table using AMF clamps No. 6325.

> Fixtures can be positioned on the vacuum clamping plate with a precision of ±0.01 mm using one locating pin and one diamond pin each.

> The compressed air escapes into the machine chamber on the back of the vacuum plate. The suctioned liquid (eg. cooling lubricant) can flow of through the same outlet.

> Depending on the size of the clamping plate, workpieces can be clamped using more than one suction point. This can also be used to clamp multiple workpieces – even different ones.

> For efficient changing of the vacuum clamping plate, it can be used in combination with the AMF “Zero-Point” clamping system. This minimises setup times and increases machine runtime.
Vacuum clamping plate, grid 12.5

Included in scope of supply:
- Baseplate made of aluminium
- Integrated Venturi nozzle
- Sound absorber
- Vacuum meter
- Shut-off valve
- 6 eccentric stops
- 2m pneumatic hose
- Plug-in nipple for compressed air connection
- 10m sealing cord Ø 4 mm

Design:
The vacuum plate has grooves and suction points on its upper side. By inserting the sealing cord, one or more fields can be defined for the desired workpiece size. All suction points are interconnected. Easy positioning via holes for stop pins or lateral, height-adjustable eccentric stops. Lateral grooves or fastening holes allow the vacuum clamping plate to be fastened to a baseplate (e.g. machine table). Fixture plates can additionally be fixed using a sword or locating pin. It is also no problem to integrate the vacuum clamping plate into the AMF „Zero-Point“ clamping system size K20 (see the AMF catalogue „Zero-Point Systems“).

Application:
The workpieces being machined are clamped through generation of a vacuum by means of the integrated Venturi nozzle technology (included in scope of supply) or with an external vacuum pump. By means of individual grid allocation it is also possible to clamp and machine multiple, different workpieces at the same time. Typical applications are milling and grinding operations. The vacuum clamping plate is ready to use right away – all of the necessary components are included in the scope of supply.

Advantage:
- The AMF vacuum clamping plate can be operated using compressed air and the integrated Venturi nozzle, or with an external vacuum pump.
- Cost savings through use of the Venturi nozzle
- Low compressed air consumption, thus low operating costs
  Example: 1 m³ of compressed air costs 0.0078 €. At an average consumption of 40 l/min, this corresponds to 0.0187 €/h.
- Multiple suction points, thus flexible grid allocation and clamping of multiple parts possible
- Vacuum plates can be combined with each other
- High holding forces
- Universal use
- High coefficient of friction allows secure clamping of unmachined workpiece surfaces
- Sealing cords compensate for small irregularities in the workpiece surface
- Distortion-free, vibration-free five-sided machining

Note:
Operate only with dried, filtered, non-lubricated compressed air! Venturi nozzle useable up to 60 °C. Max. Suction volume against atmosphere: 21.8 l/min.
Operating pressure for max. suction volume flow: 3.5 - 4.0 bar.
Please observe the installation instructions 7800.

On request:
Special dimensions are possible.

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Operating pressure [bar]</th>
<th>max. vacuum [%]</th>
<th>Number of suction points</th>
<th>L</th>
<th>B</th>
<th>H ±0,1</th>
<th>R</th>
<th>Weight [Kg]</th>
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</tbody>
</table>
No. 7800

Vacuum clamping plate, grid 25

Included in scope of supply:
- Baseplate made of aluminium
- Integrated Venturi nozzle
- Sound absorber
- Vacuum meter
- Shut-off valve
- 6 eccentric stops
- 2 m pneumatic hose
- Plug-in nipple for compressed air connection
- 10 m sealing cord Ø 4 mm

Table:

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Operating pressure [bar]</th>
<th>max. vacuum [%]</th>
<th>Number of suction points</th>
<th>L</th>
<th>B</th>
<th>H ±0,1</th>
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<td>600</td>
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<td>25</td>
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</tbody>
</table>

Design:

The vacuum plate has grooves and suction points on its upper side. By inserting the sealing cord, one or more fields can be defined for the desired workpiece size. All suction points are interconnected. Easy positioning via holes for stop pins or lateral, height-adjustable eccentric stops. Lateral grooves or fastening holes allow the vacuum clamping plate to be fastened to a baseplate (e.g. machine table). Fixture plates can additionally be fixed using a sword or locating pin. It is also no problem to integrate the vacuum clamping plate into the AMF „Zero-Point“ clamping system size K20 (see the AMF catalogue „Zero-Point Systems“).

Application:

The workpieces being machined are clamped through generation of a vacuum by means of the integrated Venturi nozzle technology (included in scope of supply) or with an external vacuum pump. By means of individual grid allocation it is also possible to clamp and machine multiple, different workpieces at the same time. Typical applications are milling and grinding operations. The vacuum clamping plate is ready to use right away – all of the necessary components are included in the scope of supply.

Advantage:

- The AMF vacuum clamping plate can be operated using compressed air and the integrated Venturi nozzle, or with an external vacuum pump.
- Cost savings through use of the Venturi nozzle
- Low compressed air consumption, thus low operating costs Example: 1 m³ of compressed air costs 0.0078 €. At an average consumption of 40 l/min, this corresponds to 0.0187 €/h.
- Multiple suction points, thus flexible grid allocation and clamping of multiple parts possible
- Vacuum plates can be combined with each other
- High holding forces
- Universal use
- High coefficient of friction allows secure clamping of unmachined workpiece surfaces
- Sealing cords compensate for small irregularities in the workpiece surface
- Distortion-free, vibration-free five-sided machining

Note:

Operate only with dried, filtered, non-lubricated compressed air! Venturi nozzle useable up to 60 °C. Max. Suction volume against atmosphere: 21.8 l/min. Operating pressure for max. suction volume flow: 3.5 - 4.0 bar. Please observe the installation instructions 7800.

On request:

Special dimensions are possible.
Application:
1. The sealing cord is placed in the grid of the vacuum clamping plate. It goes up to the end of the area to be worked on in the workpiece.
2. The adapter mat is placed onto the vacuum clamping plate.
3. Holes are made in the adapter mat within the marked clamping surface over a wood plate with a 3-5 mm diameter hole punch. The location of the holes must be in the area of the grid cuts of the vacuum clamping plate.
4. The workpiece to be worked on is placed on it and fixed using the adjustable eccentric stops.

Advantage:
- The good coefficient of friction offers especially good resistance against the displacement forces that arise during processing.
- The adapter mat can be cut into up to 2 mm deep without problem.
- If the same contours are used, the adapter mat can be reused almost any number of times, since it does not undergo wear.

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Dimension [mm]</th>
<th>Material thickness ±0.2 [mm]</th>
<th>Weight [g]</th>
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<tr>
<td>375048</td>
<td>400x600</td>
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</table>
Adapter plate, aluminium

No. 7800APA
Adapter plate, aluminium

<table>
<thead>
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<th>Order no.</th>
<th>Dimension [mm]</th>
<th>Material thickness ±0.1 [mm]</th>
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<td>10</td>
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</table>

**Application:**
1. The sealing cord is placed in the grid of the vacuum clamping plate. It goes up to the end of the area to be worked on in the workpiece.
2. The adapter plate is screwed to the vacuum clamping plate.
3. The workpiece to be worked on is placed on it.
4. The workpiece is fixed using the adjustable eccentric stops.

**Advantage:**
- The adapter plate can be overcut by up to 2 mm (elimination of cuts).
- Preferred uses are for processing thin sheet metal, foils, boards and even paper.

Subject to technical alterations.
**Surface-mounted block**

**No. 7810AB**

The following are supplied as standard:
- Surface-mounted block from aluminium, grid 12.5 x 12.5 mm
- 3 eccentric stops with fixing screws
- 1 m sealing cord Ø 2.0 mm

**Design:**
The surface-mounted block has grooves and a suction point on its upper side. The grid spacing is 12.5 mm. The field size is individually defined by inserting the sealing cord. The surface-mounted block is placed directly over a suction point on the vacuum clamping plate no. 7800. The underside is equipped with a sealing cord Ø 2.0 mm.

**Application:**
The use of surface-mounted blocks allows openings for finishing. Workpieces can be through-bored without the vacuum clamping plate or the component itself being damaged.

**Note:**
Please order sealing cord Ø 4.0 mm separately (OrderNo. 374512).

<table>
<thead>
<tr>
<th>Order no.</th>
<th>max. vacuum [%]</th>
<th>Number of suction points</th>
<th>L [mm]</th>
<th>B [mm]</th>
<th>H [mm]</th>
<th>Weight [g]</th>
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</table>

**Order no. max. vacuum [%] Number of suction points L [mm] B [mm] H [mm] Weight [g]**

**No. 7810APA**

**Adapter plate, aluminium**

Suitable for surface-mounted block no. 7810AB.

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Dimension [mm]</th>
<th>Material thickness ±0.1 [mm]</th>
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<tbody>
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<td>10</td>
<td>200</td>
</tr>
</tbody>
</table>

**Advantage:**
- The good coefficient of friction offers particularly favourable resistance to the resulting displacement forces during finishing.
- Milling down to 2 mm deep in the adaptermat is no problem.
- If the same contours are always applied, the adapter mat can be reused any number of times, since they do not suffer any wear.

**No. 7810AMG**

**Adapter mat, rubber**

Suitable for surface-mounted block no. 7810AB.

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Dimension [mm]</th>
<th>Material thickness ±0.2 [mm]</th>
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<tbody>
<tr>
<td>375642</td>
<td>78 x 78</td>
<td>4</td>
<td>60</td>
</tr>
</tbody>
</table>

**Advantage:**
- The adapter plate can be milled down to 2 mm (millings on both sides).
- Preferred applications are the finishing of thin sheets, foils, PCBs and even paper.
No. 7800VP

Rotary vane vacuum pump
Included in scope of supply:
- suction-side fine-mesh filter
- oil mist separator
- reversing valve for coarse or fine vacuum operation
- anti-vibration buffer
- initial oil fill
- without gas ballast

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Vacuum [%]</th>
<th>Suction performance [m³/h]</th>
<th>Motor rating [V/Hz]</th>
<th>Noise level [dB (A)]</th>
<th>Code class</th>
<th>Continuous operation [%]</th>
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<td>99</td>
<td>15</td>
<td>230/50</td>
<td>59</td>
<td>54</td>
<td>100</td>
<td>19</td>
</tr>
</tbody>
</table>

Application:
If compressed air is present where the vacuum clamping plate is used, we recommend using the AMF rotary vane vacuum pump. It ensures reliable continuous operation of the clamping plates used. Due to its small design, the pump can be attached directly to your machine.
The AMF rotary slide vacuum pump can be used for vacuum clamping plates up to a size of approx. 4,200 cm².

Note:
Replacement oil can be ordered under order no. 428722.

On request:
Other sizes and suction performances are available on request.

No. 7800VPF

Liquid separator
included in scope of supply:
- Water separator
- Vacuum filter
- Fastening unit
- Ball valve
- Coupling plug 1/2" external thread - 15 mm
- Plastic tube Ø 15 x 12 mm, length 2 m
- Coupler socket
- Double nipple

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Size Connection</th>
<th>Flow [m³/h]</th>
<th>Weight [g]</th>
</tr>
</thead>
<tbody>
<tr>
<td>374975</td>
<td>D100x250 3/4&quot;</td>
<td>15</td>
<td>1610</td>
</tr>
</tbody>
</table>

Application:
The liquid separator effectively removes condensate (water) from the vacuum clamping system and so protects it from contamination.

Advantage:
- Removal of 99% of the contained liquid
- maintenance-free
- System’s operation and maintenance costs are minimised
- easy to install (before the vacuum pump)

Note:
The set is supplied in the assembled state.

Example of assembly:
No. 7800VPE
Vacuum generator

**Design:**
Preassembled ready for connection with ball valve, vacuum suction nozzle and silencer.

**Application:**
External vacuum generator, pre-assembled for connecting between the compressed air system and vacuum clamping plate.

**Advantage:**
Very small design, universal use and economical.

<table>
<thead>
<tr>
<th>Order no.</th>
<th>max. vacuum [%]</th>
<th>Max. suction volume flow [l/min.]</th>
<th>min. operating pressure [bar]</th>
<th>Vacuum connection Outside dia. [mm]</th>
<th>Pneum. connection Outside dia. [mm]</th>
<th>Weight [g]</th>
</tr>
</thead>
<tbody>
<tr>
<td>376434</td>
<td>93</td>
<td>21,8</td>
<td>3,5</td>
<td>6</td>
<td>6</td>
<td>47</td>
</tr>
</tbody>
</table>

No. 7800D
Sealing cord

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Groove width [mm]</th>
<th>dia. [mm]</th>
<th>Length [m]</th>
<th>Weight [g]</th>
</tr>
</thead>
<tbody>
<tr>
<td>374512</td>
<td>4</td>
<td>4,0 x0,45</td>
<td>10</td>
<td>320</td>
</tr>
</tbody>
</table>

**Application:**
The sealing cord is inserted in the groove to delimit the clamping surface. Do not cut them off so that they are flush but let the cut ends overlap a little and push against one another. Please avoid stretching or compression of the caulking strip.

**Advantage:**
Multiple workpieces can be clamped, even with different sizes.

**Note:**
Apply the caulking strip closely to penetrations and recesses, in order to minimize tension force losses. Use in temperature range 0 °C to 60 °C.

No. 7800V
Vacuum meter

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Indicators area [bar]</th>
<th>dia. [mm]</th>
<th>Connection below</th>
<th>Weight [g]</th>
</tr>
</thead>
<tbody>
<tr>
<td>374694</td>
<td>-1 ... 0</td>
<td>40</td>
<td>G1/8</td>
<td>73</td>
</tr>
</tbody>
</table>

No. 7800VD
Sealing ring
for vacuum meter

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Connection</th>
<th>Weight [g]</th>
</tr>
</thead>
<tbody>
<tr>
<td>374561</td>
<td>G1/8</td>
<td>0,5</td>
</tr>
</tbody>
</table>

**Application:**
Sealing ring is used in installation of the vacuum meter.
No. 7800VDS
Vacuum pressure sensor with accessories

Electrical connection:
Cable with connector according to EN 60947-5-2, round design M 8x1, 4-pin. Cable length 0.3 m.
Scope of supply consists of:
- Pressure sensor
- Vacuum hose, outer Ø 4 mm, length 30 cm
- Plug connection G1/8-4

Application:
The threshold values (variable: 2 x relative pressure) are set on the pressure sensor using teaching. If the vacuum pressure drops, the machine is switched off.

Advantage:
The vacuum pressure sensor serves to monitor the applied air pressure. If the pressure drops, the machine is switched off. This contributes decisively to process reliability.

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Indicators area</th>
<th>Ambient temp. [°C]</th>
<th>Weight [g]</th>
</tr>
</thead>
<tbody>
<tr>
<td>374520</td>
<td>-1 ... 0</td>
<td>0-50</td>
<td>80</td>
</tr>
</tbody>
</table>

Electrical connection:
Cable with connector according to EN 60947-5-2, round design M 8x1, 4-pin, Cable length 0.3 m.

Scope of supply consists of:
- Pressure sensor
- Vacuum hose, outer Ø 4 mm, length 30 cm
- Plug connection G1/8-4

Application:
The threshold values (variable: 2 x relative pressure) are set on the pressure sensor using teaching. If the vacuum pressure drops, the machine is switched off.

Advantage:
The vacuum pressure sensor serves to monitor the applied air pressure. If the pressure drops, the machine is switched off. This contributes decisively to process reliability.

<table>
<thead>
<tr>
<th>Order no.</th>
<th>dia. [mm]</th>
<th>Weight [g]</th>
</tr>
</thead>
<tbody>
<tr>
<td>374538</td>
<td>30</td>
<td>26</td>
</tr>
</tbody>
</table>

Advantage:
Individual adjustment to the workpiece height. The sliding forces are absorbed by the stop.

No. 7800VSD
Sound absorber
Housing and absorber insert of PE.

Application:
Can be screwed directly into the in vacuum clamping plate.

Note:
Check sound absorber regularly for fouling.

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Connection</th>
<th>Ambient temp. [°C]</th>
<th>Weight [g]</th>
</tr>
</thead>
<tbody>
<tr>
<td>374579</td>
<td>G1/8</td>
<td>-10 - 60</td>
<td>5</td>
</tr>
</tbody>
</table>
No. 908-G1/8
Screw plug with rubber seal

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Connection</th>
<th>Weight [g]</th>
</tr>
</thead>
<tbody>
<tr>
<td>374553</td>
<td>G1/8</td>
<td>7</td>
</tr>
</tbody>
</table>

No. 7800VAF
Suction filter
Housing of brass, filter insert of tin bronze.

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Connection</th>
<th>Weight [g]</th>
</tr>
</thead>
<tbody>
<tr>
<td>374884</td>
<td>G1/8</td>
<td>2</td>
</tr>
</tbody>
</table>

Application:
The suction filter is screwed into the vacuum clamping plate.

Note:
Check suction filter regularly for fouling.

No. 7800AV
Ball-Valve manually operated.

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Connection</th>
<th>Hose dia. [mm]</th>
<th>Weight [g]</th>
</tr>
</thead>
<tbody>
<tr>
<td>374587</td>
<td>G1/8</td>
<td>6</td>
<td>40</td>
</tr>
</tbody>
</table>

Application:
The hand valve is screwed into the plate directly. With O-ring seal.
**No. 7800VNS**

**Plug-in nipple for quick coupling**

with cap nut DN7.2. Brass.

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Hose dia., outer [mm]</th>
<th>Weight [g]</th>
</tr>
</thead>
<tbody>
<tr>
<td>374595</td>
<td>6</td>
<td>17</td>
</tr>
</tbody>
</table>

**Advantage:**

Easy connection with the pneumatic hose of the vacuum clamping plate.

---

**No. 7800ZS**

**ISO 8734-4x12-A cylinder pin**

Steel.

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Packaging unit [St]</th>
<th>Weight [g]</th>
</tr>
</thead>
<tbody>
<tr>
<td>374603</td>
<td>10</td>
<td>15</td>
</tr>
</tbody>
</table>

**Application:**

Easy positioning of workpieces by fastening in the holes provided in the vacuum clamping plate.

**Advantage:**

The sliding forces are absorbed by the stop.

---

**No. 2800W-06**

**Pneumatic hose**

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Hose dia. [mm]</th>
<th>Length [m]</th>
<th>Weight [g]</th>
</tr>
</thead>
<tbody>
<tr>
<td>374611</td>
<td>6</td>
<td>10</td>
<td>300</td>
</tr>
</tbody>
</table>

---
**No. 7800VAB**

**Locating pin**

Steel.

<table>
<thead>
<tr>
<th>Order no.</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>Weight [g]</th>
</tr>
</thead>
<tbody>
<tr>
<td>374629</td>
<td>16</td>
<td>12</td>
<td>16</td>
<td>12</td>
<td>16</td>
<td>4</td>
<td>M5</td>
<td>10</td>
<td>R4</td>
<td>30</td>
</tr>
</tbody>
</table>

**Advantage:**

Quick, precise alignment of the fixtures being clamped.

**Application:**

The sword pin is used for tolerance compensation (±0.01).

**Advantage:**

Quick, precise alignment of the fixtures being clamped.

---

**No. 7800VSB**

**Sword pin**

Steel.

<table>
<thead>
<tr>
<th>Order no.</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>Weight [g]</th>
</tr>
</thead>
<tbody>
<tr>
<td>374637</td>
<td>16</td>
<td>12</td>
<td>16</td>
<td>12</td>
<td>16</td>
<td>4</td>
<td>M5</td>
<td>10</td>
<td>R4</td>
<td>4.3</td>
<td>23</td>
</tr>
</tbody>
</table>

**Order no.**

B1 L for clamping screw metric

L for clamping screw inch

for jaw width A A1xA2 H Weight [g]

---

**No. 6325**

**Clamps for machine vices**

Tempering steel, blued, packaged in pairs.

<table>
<thead>
<tr>
<th>Order no.</th>
<th>B1</th>
<th>L</th>
<th>for clamping screw metric</th>
<th>for clamping screw inch</th>
<th>for jaw width</th>
<th>A</th>
<th>A1xA2</th>
<th>H</th>
<th>Weight [g]</th>
</tr>
</thead>
<tbody>
<tr>
<td>74682</td>
<td>16.5</td>
<td>78</td>
<td>M12, 14, 16</td>
<td>1/2, 5/8</td>
<td>100</td>
<td>22.5</td>
<td>10x5.5</td>
<td>15</td>
<td>685</td>
</tr>
</tbody>
</table>

---

Subject to technical alterations.
Vacuum clamping systems
The “Clamping technology APP” offers you an overview of AMF’s exciting clamping product range. No matter whether mechanical, pneumatic, hydraulic or magnetic clamping technology, as well as vacuum and zero point clamping systems – all the products are presented in detail in this APP, and you can see the numerous application options of AMF clamping technology at a glance.

All products can be downloaded as 2D and 3D CAD models, and be conveniently imported into all standard CAD programs.

Also stay up-to-date and read our news and PDF catalogues on your mobile device.

Test it now by downloading our clamping technology APP free-of-charge from the Apple App Store or Google Play.
Since its founding by Andreas Maier in 1890, our company has lived though many exciting times. Today we are the leading manufacturer in Europe, supplying over 5,000 different products from the fields of clamping, hand tools and locks. With this extensive product range we can meet all of our customers’ needs and requirements. But providing optimal quality means meeting the challenges at all levels: Expert consultation, modern team organisation, individual solutions (including special developments), flexibility in response to changing conditions, etc. And we ourselves find this so exciting that we look forward every day to shaping the market together with our employees and our customers – both now and in the future. That is something you can count on.

5 Individual development

Each product development is tailor-made for you – we will find the best solution for you – whether it is a special version or a completely new development.

4 Warranty

AMF adheres to high-quality standards. We handle customer complaints very literally and without any delay – wherever possible now with a modern quality management system according to ISO 9001.

3 Guaranteed quality standard

AMF puts quality in its house with the exact same care we have with our products. We have undergone DIN EN ISO 9001:2000 and DIN EN ISO 9001:2005 with all the qualifications and improvements we wanted to make. Our company policy is to ensure the supply to the customer on a reasonable time basis. In principle, we have the right to refuse the contract. In this case, the customer will be charged a 5% processing fee for shipping to third parties that we have agreed to undertake. We shall have the right to transfer the contract to another buyer if the contract is refused.

2 Short delivery times

AMF offers goods ex-works with over 5,000 items guaranteeing a delivery readiness of 95%. You can also count on each delivery from your order being shipped to your address within 10 working days.

1 Service from genuine experts

Different tools, different solutions. AMF’s professional product range, you can find the right quality solution quickly and easily, either from your local supplier or with help from the specialists in our teams. A phone call is all it takes.

Made in Germany

We go without saying that our range of products is developed and manufactured by our team of experts in Germany.

These Terms of Sale apply for companies, legal entities governed by public law and public law special funds. Our goods and services are supplied exclusively on the basis of the following conditions. Any deviating purchasing conditions of the customer shall not apply even if we do not stand by or refer to the contract through acceptance of the order. By placing the order and accepting the goods we deliver, the customer confirms his consent to our terms and conditions.

1. Offer and contractual conclusion

All our offers are always subject to change without notice unless otherwise explicitly agreed. Our offers remain valid for 10 days at the latest. Our offers and contracts are based on the latest version of our catalogue. The technical data and weight, as well as illustrations, drawings and data, are non-binding and may be subject to change in any time. Therefore, deviations cannot be ruled out and do not justify any compensation claims against us.

Orders are considered accepted only when confirmed by us in writing. If, for organisational reasons, the customer does not receive a separate confirmation upon the receipt of the goods, the invoice shall also be deemed the order confirmation.

2. Prices

The prices are in EURO, ex-works, excluding VAT, packing, height, postage and insurance If the customer has agreed to our full prices valid on the day of delivery, these prices shall be charged at the time of delivery. The prices will be stated in the AMF price list, if the product is not listed, we must make a minimum quantity surcharge of a 10% of EUR for cost reasons.

3. Tool costs

Unless otherwise stated in the agreement, the tools fabricated for the purpose of executing the order shall remain our property in all cases, even if we have invoiced a tool-cost component separately.

4. Payment

Unless otherwise stated on the invoice, the purchase price falls due for net payment within 30 days of the invoice date (without deduction of discount). Invoices of bills 300 EUR are due for payment immediately.

In the case of payment, we cannot be held liable for the tools. The invoice corresponds to our interest rate for current account credits at our main bank.

The invoice corresponds to our interest rate for current account credits at our main bank.

5. Delivery and cancellation of AMF Vacuum clamping technology

Returns and clearing used goods

AMF guarantees the removal of used goods. AMF will provide the means to remove used goods, the removal of used goods applicable to the relevant branch is applied by the European Central Bank. Moreover, in case of default following written notice to the customer, we shall be entitled to cease to fulfill our obligations until payments are received.

A no-set-off

There shall be no set-off with legally confirmed or undisputed countereclaims.

6. Right of withdrawal in case of delayed acceptance or payment and insolvency

If the customer fails to accept the goods in due time, we shall be entitled to set a reasonable period of grace. If the customer does not accept the goods within the grace period, the customer shall be charged the price of the goods elsewhere and supply the customer on a reasonable time basis. Our right to withdraw from the contract is not limited to circumstances that we are unable to avoid despite reasonable effort in relation to the purchase price or withdraw from the contract. Any further warranty claims are ruled out. In case of negligible deviations from the agreed quality, no claims for defects shall be recognized.

The discovery of defects must be communicated to us immediately in writing. In the case of recognized defects, however, within 10 days of acceptance, in the case of non-recognizable defects immediately after they become evident. The warranty is 12 months, starting with delivery of the goods ex-work.

13. Warranty

If the customer agrees with a particular quality of the goods, we shall base this agreement on our technical delivery specifications. If you have to deliver according to customer drawings, specifications, samples etc., the customer shall assume the risk for suitability for the intended purpose. If, after the contract is concluded, the scope all goods or services is changed, the customer is responsible and independently accept the scope of the goods, the customer, the invoices for the goods may be impaired or qualified. The customer shall be liable for the costs of transportation.
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