

Bending and Edging Machine Model BM



Competence connects.



Bending and Edging Machine Model BM



The universal - semi-automatic bending and edging machine

Like all of our machines, the latest configuration level of our BM series of machines is based on a sturdy welded construction. All of the machine's components are matched to the relevant load case to ensure a top quality welding by bending using a heated tool process, also called bending and edging process.

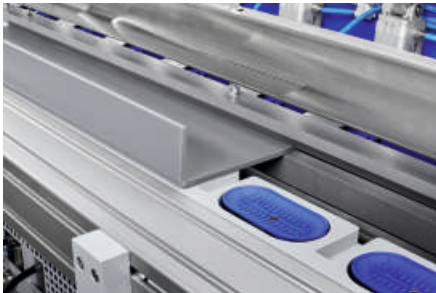
The high quality standard of WEGENER machines is your guarantee for maximum precision, reliability and longevity. The BM 306A bending machine is a fully automated unit offering maximum ease of operation, a revolutionary user concept with graphic support for the operator to guide them through the operation of the fully-automated machine in a self-explanatory way. This type of machine is offered in a standard working length of 3 metres. The modular design of the BM machines permits not only a standard configuration but also customised solutions and special lengths.

The BM 306A bending and edging machine works fully-automatically with panels between 3 and 30 mm thickness. The bending line correction as well as the linear correction needed for the fully automated production of channels are set at the control terminal, as are the bending angle and relevant gap between the bending lines. The material is transported by an electric motor

so that the machine, if programmed accordingly, automatically produces a channel with up to 12 bends after the material has been inserted. Even the basic model of the BM 306A bending and edging machine has a modern and innovative Siemens control system from the S7 1500 series with a 12" industrial touch screen as a user interface and the latest generation of valve cluster technology. The 12" industrial touch screen offers great luminance, outstanding colours and a high brilliancy, thus making it unbelievably easy to read and operate. The control system allows the free definition of specific customer bending parameters. The basic model also comes with the patented hydro-pneumatic bending beam drive that moves the bending beam uniformly, even with altered bending loads. Another new feature is the clamping beam that can be unlocked on one side to greatly facilitate the removal of the closed channels from the machine. An optional automated and integral milling fixture is available for the BM 306A automatic bending machine. The milling process is fully integrated in the overall process in this version. The milling process reduces both the bending cycle time and the heat introduced into the panel to be bent, this minimising the distortion or torsion of the bent parts.



Siemens control system S7
with 12" industrial touch screen



BM 306A bending of rectangular channel

Features

- **Microprocessor control and motor feed, for fully automated bending**
including: electronic angle adjustment, electronic bending line input, electronic bending line correction, Programming several bends (max. 4 with unequal leg lengths between the bends and up to 12 for bends with equal legs), motorised panel transport
- **Heating and bending times controlled by the PLC**
- **Patented hydro-pneumatic bending beam drive**
that moves the bending beam uniformly, even with altered bending loads.
- **Clamping beam that can be unlocked on one side**
for the easier removal of the closed channels and geometries
- **Upper heated tool v-shaped with optimised flank angle**
to produce 90° bends in PE-HD and PP
- **Lower heated tool in flat design**
to heat up the rear of the panel or board
- **Adjustable fusion depth for upper heated tool**
- **Holding bar with clamping disks**
to clamp the panels or boards
- **Infinitely variable, adjustment of the angle from 5° to 95°**

Options

- **Vacuum clamping device** (max. material thickness 10 mm)
for the smallest of bending legs
- **Remaining clamping length reduction**
(reduces the remaining clamping length to 85 mm; only available in connection with vacuum clamping device)
- **Milling fixture, automatic and integrated in the overall process**
to shorten the pre-heat cycles (requires slight modification of the minimum channel cross-sections and leg lengths)
- **Mobile shavings exhauster for the milling fixture**
air swept volume: 430m³/h, dust bin: 50 litres
- **Arrestor small version mounted on clamping beam**
as a support for small and medium sized products in steps of 165 mm, 365 mm and 665 mm supporting
- **Arrestor full size version mounted at machine frame**
arrestor stepless height adjustable within setting range of 500 mm up to approx. 1.500 mm; suitable for medium sized and full-sized products
- **Signal horn**
(Acoustical signal at the end or the bending process)
- **Extension arms for bending flange**
(Optimized support of medium sized or full-sized products during bending 5 pcs.)
- **Contact heated tool 20 x 40 mm, flat**
to process PVC, PC, ABS, PMMA
- **Contact heated tool, v-shaped**
to produce bending angles ≠ 90° e.g. 45° or 60°
- **Software modification, for leg lengths > 1m**
- **Carrying beam**
for upper or/and lower heating element BM 306A
(We recommend to have a carrying beam for each heating element used to allow an easy installation and/or exchange)
- **Special energy supply**
- **Special paintwork if the RAL colour is specified**

| Technical Data | BM 306A |
|---|---|
| Machine Dimensions (L / W / H mm) | 4,300 / 2,000 / 1,650 |
| Total Weight (kg) | 2,500 |
| Max. working width (mm) | 3,050 |
| Panel thickness (mm) | 3 to 30 |
| Min. bending angle | 5° |
| Max. bending angle | 95° |
| Min. channel cross section with clamping beam: | Inside dimension 175 x 175 mm (assumes a square channel with four sides of equal length whose open end is closed by means of a if operated with clamping beam: downstream 90° weld) Inside Dimension 350 x 350 mm (when bending for welding outside the 4th edge, e.g. butt welds on a WEGENER butt welding machine). The min. channel cross-sections of the butt welding machine also have to be taken into account. |
| Min. channel cross-section when using the vacuum clamping system option and residual clamping length reduction: | Inside Dimension: 85 x 85 mm (remaining clamping length) |
| Min. remaining clamping length: | 175 mm (= remaining clamping length needed to clamp the panels in the machine; standard design) 85 mm with the vacuum clamping system option and residual clamping length reduction |
| Clamping force (at 8 bars in N): | 7,250 |
| Clamping areas: | 1 |
| Power Supply: | 230/400 V 3/N/PE, 50/60 HZ |
| Power Consumption (kW) | 7.5 |
| Compressed air connection (bar): | 8.0 |
| min. Restklemmlänge (mm) | 150 |
| Heating Element top (teflon coated Tmax = 260° C) | 40 x 45 mm, 86° |
| Heating Element bottom (teflon coated Tmax = 260° C) | 20 x 40 mm, blunt |

Range of Application:

Tanks and containers
Apparatus construction
Ventilation systems
Water treatment systems
Environmental technology
Swimming pools
Scrubbers
Transport and logistics



A strong connection for your success



The WEGENER machines

Butt welding machines
Welding by bending machines
Foam welding machines



The WEGENER equipment

Extrusion welders
Hot gas welders
Wedge welders
Testers to check the quality



The WEGENER specialists

Customised and product-specific special machines
Crease-hinge machines, surface welding systems,
Pallet welding machines, edge sealing systems,
foam welding machines and many more
customised solutions



The WEGENER transfer of know-how

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Feasibility study
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Spare parts service



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