

Bending and Edging Machine Model BM



Bending and Edging Machine Model BM



Detail of the BM 305, bending a channel



BM 305

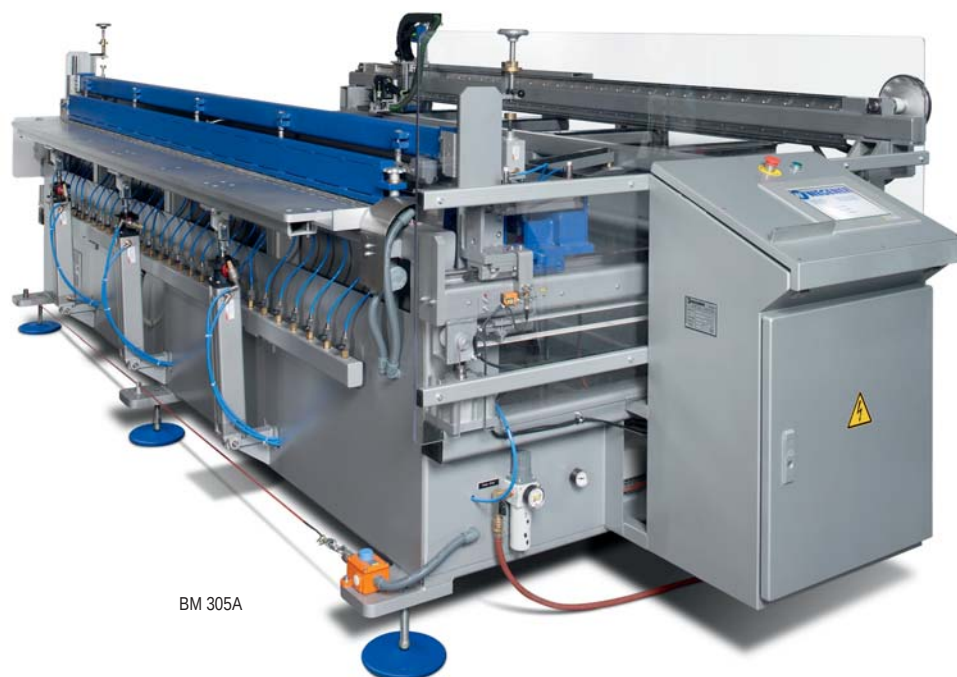
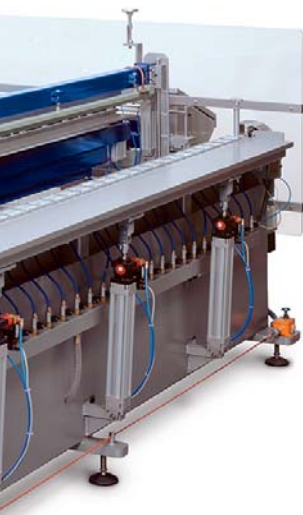
Like all of our machines, the BM series is also based on a sturdy welded construction. All of the machine's components are matched to the relevant load case to ensure a top quality bending and edging process, also called welding by bending with heating element. The high quality standard of **WEGENER** machines is your guarantee for maximum precision, reliability and longevity.

The BM series range of machines is divided up into semi-automatic and automatic models. This series of machines is offered in working lengths of 3 meters as standard. The modular design of the BM machines permits not only a standard configuration but also customised solutions and special lengths.

The **BM 305 bending and edging machine** works semi-automatically with sheets between 3 and 25 mm thickness. The digital position transducer, combined with a synchronised manual twin-belt drive to transport the sheets, allows rational work with larger workpieces too. The separate bending and heating/transport units mean that it is possible to plasticize the next sheet for bending whilst the first one is cooling down. This helps cut processing times drastically. Smaller bending geometries can be made with the optional vacuum clamping technology. Short reversal times, timer-controlled heating and cooling phases as well as the automatic bending process from the opening of the heating station to the end of the cooling time ensure a quality-oriented process. The basic version of the machine already has a Siemens PLC control system from the S7 series with a 5.7" full graphics touch screen to control the machine. The user interface is icon-based and thus does not rely on any user language. An optional manual milling device to shorten the fusing and heating times can be used to optimise the cycle time.

Thanks to the mechanical bending line correction, the machine can easily be adapted to the desired sheet thickness and bending contour. The remaining depth stops ensure a uniform melting by the heating element, even with narrow sheets.

The **BM 305A automatic bending and edging machine** offers all the advantages of the BM 305 in combination with a fully automated manufacturing process. The bending line correction as well as the linear correction needed for the fully automated production of channels, which have to be mechanically adjusted in the BM 305, are set at the control terminal. The material is transported by an electric motor so that the machine, if programmed accordingly, automatically produces a channel with up to four bends after the material has been inserted. Even the basic model of the **WEGENER BM 305A** bending and edging machine has a modern and innovative Siemens control system from the S7 series with a 10" industrial touch screen and clustered valve technology. The 10" industrial touch screen offers great luminance, outstanding colours and a high brilliancy, thus making unbelievably easy to read and operate. The control system allows the free definition of specific customer bending parameters. Apart from the optional manual milling device, an optional automated and integral milling device is available for the BM 305A automatic bending machine. The milling process is fully integrated in the overall process in this version.



BM 305A

Technical Data	BM 305 / BM 305A
Machine length (mm):	4,300
Machine width (mm):	2,000
Machine height (mm):	1,500
Total weight approx. (kg):	2,000
Max. working width (mm):	3,050
Sheet thickness (mm):	3 to 25
Min. bending angle:	5°
Max. bending angle:	95°
Min. channel cross section:	Inside dimension 200 x 200 mm (assumes a square channel with four sides of equal length whose open end is closed by means of a 90° weld). When bending for welding outside the 4th edge, e.g. on a WEGENER butt welding machine, larger channel cross-sections may result from the geometric requirements of the welding machine
Min. bending leg:	A leg length of 3 x the sheet thickness can be technically realised. However, on account of the properties of the specific material, we recommend at least 10 x sheet thickness (please observe the recommendations of the sheet manufacturer)
Min. remaining clamping length:	150 mm (= remaining clamping length needed to clamp the sheets in the machine)
Clamping force (at 10 bars in kN):	10
Clamping areas:	1
Power supply:	230/400V 3/N/PE 50/60 Hz
Power consumption (kW):	6.5
Compressed air connection (bar):	10.0
Upper heating element Teflon coated, Tmax=260 °C (W x H in mm):	35 x 40, 86°
Lower heating element Teflon coated, Tmax=260 °C (W x H in mm):	20 x 60, flat

Bending and Edging Machine Model BM

	BM 305	BM 305A
Control / HMI		
Siemens control system PLC with 5.7" full graphics touch screen. User interface with symbols / does not rely on user language	X	
Siemens control system from the S7 series with 10" industrial touch screen with plaintext display and valve cluster technology		X
Machine Features		
● Upper heating element v-shaped with optimised flank angle to produce 90° bends in PE-HD and PP	X	X
● Lower heating element in flat design to heat up the rear of the sheet or panel	X	X
● Digital position display with brake device for rapid positioning	X	
● Sheet feed via crank gear, for one-man operation	X	
● Adjustable melting depth for upper heating element	X	X
● Heating and bending times controlled by the PLC	X	X
● Clamping beam with clamping feet to clamp the sheets or panels	X	X
● Infinitely variable, manual adjustment of the angle from 5° to 95°	X	
● Mechanical bending line correction for adjustment to various sheet thicknesses	X	
● Paintwork: blue / silver	X	X
Standard equipment, fully automated BM 305A		
Standard equipment as BM 305 (see above), though with ● Microprocessor control and motor feed for fully automated bending including: – electronic angle adjustment – electronic bending line input – electronic bending line correction – programming of several bends (max. 4) – motorised sheet transport		X
Options		
Vacuum clamping device, (max. material thickness 10 mm) for the smallest of bending legs	X	X
Manual milling device to shorten the pre-heat cycles	X	X
Milling device, 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)		X
Mobile shavings exhauster for the milling device, manual or automatic Air swept volume: 430 m³/h; Dust bin: 50 litres	X	X
Holding device as a support for longer bending angles	X	X
Contact heating element 20 x 60 mm, flat, to process PVC, PC-ABS, PMMA	X	X
Contact heating element, v-shaped to produce bending angles ≠ 90° e.g. 45° or 60°	X	X
Software modification, for leg lengths > 1m		X
Special energy supply	X	X
Special paintwork if the RAL colour is specified	X	X



WEGENER International GmbH

Ernst-Abbe-Str. 30
D-52249 Eschweiler

☎ +49 2403 70484-0

☎ +49 2403 70484-99

@ info@wegenerwelding.de

🌐 www.wegenerwelding.de