780 DMW Drilling & milling systems





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we • glass

We glass

As a global leader in flat glass and hollow glass processing technology, we have been helping to shape one of the most beautiful and useful materials in the world for over 60 years. Its unique qualities, combined with the passion for technology and innovation, guide us in seeking for newer and more effective solutions to improve and expand its use.

We drill glass We mill glass





Ideal precision and flexibility

The use in complex applications and the development of ever more refined fastening solutions, make the drilling and milling of the glass a fundamental process to ensure the implementation of quality anchors to the material. The increasing precision required and the need to operate on increasingly larger formats and thicknesses are fulfilled by the 780 DMW Bottero system – a machine that is ideal for operating on both large and small formats, offering all the precision, efficiency and flexibility, which every modern glass factory requires.



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The ability to operate on glass of any size and thickness with great rapidity, thanks to the system of multiple opposed heads, makes the 780 DMW the ideal machine for making doors, structural glass panes and all kinds of applications where anchors are required.



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780 DMW

EOTTERO

The drill with opposite heads is conceived as two combined drilling machines to be used individually in case of sheets having max width of 1600 mm or as one machine for larger dimensions. It consists of a solid electro-welded steel gantry base on which four independent heads slide; two upper ones for drilling, grinding and milling and two lower ones for drilling and grinding.

From a mechanical and electronic point of view, each half of the machine consists of 10 axes with controlled speed and position.

Automation level	****
Type of processing	Drilling and milling
Drilling head type	Multi-head

Evaluation based on comparison with other Bottero products of the same category.

Technical Features	Metric	
Max. glass size	3210 x 6000 mm	12
Min. glass size	200 x 400 mm	7
Glass thickness	3 ÷ 19 mm	
Max. feasible hole diameter	70 mm	
Automatic tool change	64 positions (16 for ea	
Worktable height	900 ± 25 mm	
Total weight	13000 Kg	



Imperial

26,3" x 236,2"

7,87" x 15,74"

1/8" ÷ 3/4"

2,756"

each head)

35,43" ± 1"

28.660 lbs









Flexibility



The two control consoles, master and slave, allow the 780 DMW to be used with great flexibility.

The machine can be programmed for executing two individual cycles using two heads (upper and lower) for each piece or work with all four on a single piece.



All sheet processing types can be automatically managed by means of the infeed and outfeed conveyors. The pieces are automatically sorted in the processing area according to the program defined by the operator. Thickness control and squaring are performed on the infeed conveyor.



64 tools 16 per head allow always having the machine ready for any type of processing. Access to tool holder is also immediate for the lower heads, allowing tool change in a few seconds.

The cone-mounted tools are selected and held directly by the spindle.







Precision

Great processing precision is guaranteed by the high friction coefficient belts. The transmission shafts are composed of sections, which facilitates easy replacement of worn belts. Extraordinary maintenance interventions are also quick and not expensive.

Recirculating ball screws transfer movement to heads for absolute precision. The high precision guides and shaped profile guarantee the absence of play in sliding parts.

The presetter for automatically measuring core drills, installed on each head of the 780 DMW, accommodates for tool wear and automatically updates the tool storage database accordingly.

To avoid hindering cycle performance, the tool check is always carried out in between cycles.







Automation



The automatic thickness detection guarantees perfect countersinking depth, even when the glass thickness varies from its nominal value.

The 780 DMW checks the effective thickness of the glass, and adapts the tool parameters accordingly before processing.



The laser squaring system double checks the sheet being processed.

First squaring is performed on the piece head and the second on the tail in order to, as set in the program by the operator, perfectly adapt processing at glass edge.







Quality



Top drilling quality is guaranteed by the core drills automatic truing system that always maintains the tools for best cutting performance.

The two truing positions are used automatically by the machine according to programming by the operator or semiautomatically, as requested. The Tool truing position is managed by the

machine's control software to optimise the wear of the abrasive stones.

To avoid hindering cycle performance, the tool truing is always carried out in between cycles.

All 780 DMW components are selected to give the best performance and reliability. Bottero chooses the best suppliers on the market for all components; electronic, electric, pneumatic and mechanical, to provide its clients with the best product.

Operator safety is guaranteed by the safety systems protecting all machine access areas and casings.

The dedicated electronic control system for the operator safety devices is separate from the actual machine control system.







Simplicity



The Datamatrix bar code or code reader facilitates fast and easy setting of the machine. The operator just has to load the piece and read the code. If combined to a bilateral Bottero Titan, the grinding line sends processing data directly to the 780 DMW. All processing parameters are simply and quickly set by the control software with an intuitive and dynamic interface. Extremely complex processing paths can be created with a few quick steps by the CAD-CAM system with parameterised shapes.



Machine routine maintenance is minimal due to cleaning of tanks from processing residues automated by the scrap evacuation belt.





The automatic greasing system keeps the machine running in optimal working conditions.

The automatic greasing is controlled by the machine software and conducted relative to the workload demanded from the machine.

Dimensions & Functioning

Dimensions



Functioning







Outfeed towards washing machine

Bottero, the choice of the greatest

With us, you have all the experience and technology that we use to serve the largest industries

With Bottero, you don't simply buy products but the entire experience, the technology and the organisational skills of a company that can provide very high productivity glass processing plants, and the selected supplier of some of the most important companies in the world.

$\begin{array}{c} \text{more than} \\ \textbf{50.000} \text{ installations} \\ \text{all over the world} \end{array}$



With thousands of installations spread all over the world, Bottero guarantees first-class technical and commercial assistance.





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Above and to the side: some high-productivity lines manufactured by Bottero. Code: C2100200007483 Rev.: 00 Printed in Bottero

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Float Cutting Glass Stock Management Straight Line Edgers & Bevellers Double Edgers Drilling CNC Laminated Lines Coating Lines Float Lines Laminated Lines Mirror Lines Off line Cutting Packing Lines Solar Lines

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