


top  **DRILL**.com
FIRST IN VERTICAL DRILLING 



THE LARGEST
RANGE!
THE MOST
EXPERIENCE!

PRODUCT OVERVIEW



ENGLISH

MILLING – DRILLING – COUNTERSINKING – GRINDING

10.2014

FOREWORD

Schraml Glass Technology GmbH from Austria is a specialized supplier of vertical systems for flat glass processing. Since 1996, a long time before all other providers, vertical glass drilling machines have been offered and manufactured. That it is why the company slogan is “First in vertical drilling”.

Since that time, hundreds of machines have been supplied and installed in 5 continents. Based on this experience and working with customers, many details have been further developed and improved. The range has been constantly expanded and now includes 10 different types and sizes.

Special highlights are the self-developed tool change systems, called RX. They are available in combination with the RX-drilling machines or as the drilling and milling center M-RX. The tool changer sits directly on the drilling / milling head and the system can therefore replace the tools in seconds and without releasing the glass fixing.

The new CNC milling center topDRILL M –RX, with ingenious details and technically advanced function, is already available in two different working heights. As with all machines, the overall length of the plant or the length of the maximum glass panels can be extended by extension modules. All systems can also be delivered with the working direction right to left or left to right.

NEW: Now choose between the ultra-fast 10fold turret head or the extra strong 8fold linear tool changer

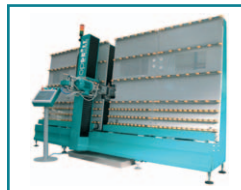
HISTORY



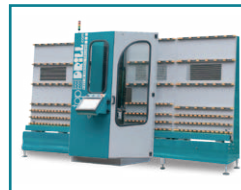
G1 from 1996



G2 from 1998



G3 from 2004



G4 from 2011



G5 from 2012

Initially machines were supplied electro-pneumatically and in 1998 a new NC version was launched. The latest CNC milling/drilling machine was introduced in 2012. Spare parts for all machines are available immediately from stock.

TOOLS

**We recommend
diamond tools from**

- ☑ Perfect for vertical glass processing
- ☑ Drill and countersink bits are as standard slotted
- ☑ Increased amount of diamond – fast feedrate
- ☑ Tools pre-dressed, ready for use
- ☑ Reasonable price and available from stock



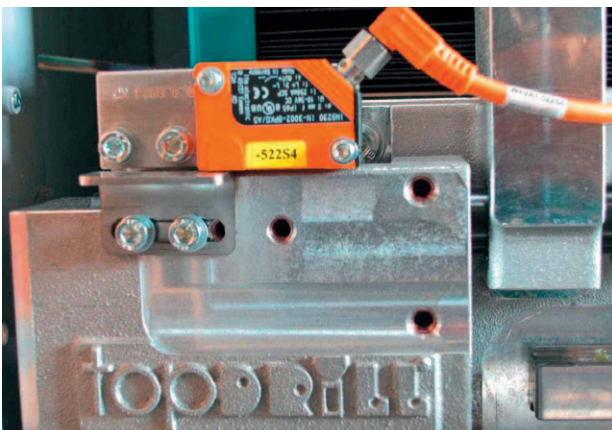
www.innodia.com

SYSTEM ADVANTAGES

- ✓ **First in vertical drilling - since 1996**
- ✓ **Standard equipment, comprehensive documentation**
- ✓ **Extremely stable design, heavy duty**
- ✓ **Rust-resistant aluminum and stainless steel parts**
- ✓ **Milling and drilling heads double sided. Processing always from front and rear side**
- ✓ **Uses standard drill-bits**
- ✓ **Modern Displays 15" and 19"**
- ✓ **Integrated programming, Updates!!!**
- ✓ **Data interfaces to all ERP systems**
- ✓ **Online-Support, Remote-Control**
- ✓ **Good availability of spare parts**
- ✓ **Made in Austria!!!**



www.topdrill.com



| Page | Type | Working height mm inch | Max. glass height mm inch | Open top | Drilling | Countersinking | Milling, Grinding | Digital Drilling Head | Glass transport | Tool change | Tool capacity | Fully automatic | Data interface |
|------|-----------------------------|---------------------------|------------------------------|----------|----------|----------------|-------------------|-----------------------|-----------------|-------------|---------------|-----------------|----------------|
| 4 | topCUT 130 Diamond | | 1300 | ✓ | | | | | man | | | | |
| 5 | TD 130 Easy | | 1300 | ✓ | ✓ | | | | man | man CMX | 1+1 | | |
| 6 | TD 130 nc | | 1300 | ✓ | ✓ | | | ✓ | auto | man CMX | 1+1 | ✓ | ✓ |
| 7 | TD 240 nc | | 2400 | | ✓ | | | ✓ | auto | man CMX | 1+1 | ✓ | ✓ |
| 8 | TD 130 RX smart-5 | | 1300 | ✓ | ✓ | ✓ | | ✓ | auto | auto | 5+5 | ✓ | ✓ |
| 10 | TD 130 RX speed-10 | | 1300 | ✓ | ✓ | ✓ | | ✓ | auto | auto | 10+10 | ✓ | ✓ |
| 12 | TD 240 RX smart-5 | | 2400 | | ✓ | ✓ | | ✓ | auto | auto | 5+5 | ✓ | ✓ |
| 13 | TD 240 RX speed-10 | | 2400 | | ✓ | ✓ | | ✓ | auto | auto | 10+10 | ✓ | ✓ |
| 16 | TD M-RX 130 linear-8 | | 1300 | ✓ | ✓ | ✓ | ✓ | ✓ | auto | auto | 8+8 | ✓ | ✓ |
| 17 | TD M-RX 200 linear-8 | | 2000 | | ✓ | ✓ | ✓ | ✓ | auto | auto | 8+8 | ✓ | ✓ |
| 18 | TD M-RX 130 roto-10 | | 1300 | ✓ | ✓ | ✓ | ✓ | ✓ | auto | auto | 10+10 | ✓ | ✓ |
| 20 | TD M-RX 200 roto-10 | | 2000 | | ✓ | ✓ | ✓ | ✓ | auto | auto | 10+10 | ✓ | ✓ |
| 22 | Software | | | | | | | | | | | | ✓ |

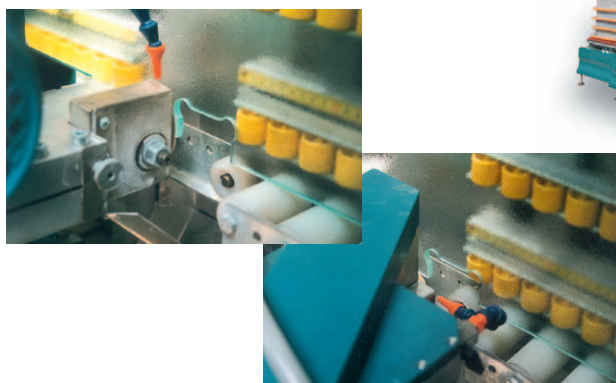
topCUT 130 Diamond

topCUT Diamond is a potential addition to the topDRILL devices. This diamond saw is mounted on the same base frame, as the drilling machines.

The particular advantages of this machine are:

- ✓ Robust and vibration-free guidance of the saw blade
- ✓ Optional delivery with 85mm or 200mm blade
- ✓ Saw head can be tilted for vertical or horizontal cuts

- ✓ Motorized-feed with variable speed
- ✓ Quick change system for the exchange of cutting heads



Available as additional equipment:

- ✗ Extension modules
- ✗ Second saw head (complete unit) with different diameter



topDRILL 130 Easy

topDRILL 130 Easy is our established and robust starter model for double-sided semi-automatic glass drilling machines. The specification of the machine is complete; the operation is optimized by using a PLC. The stable version with the fixed support height also allows the processing of heavy glasses with large dimensions.

The particular advantages of this machine are:

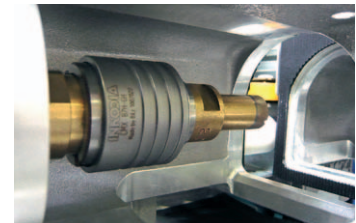
- ☑ Machine weight 1500 kg / 3300 lbs, Modular design
- ☑ Single lever operation for the complete drilling cycle
- ☑ Motorized height adjustment with digital display
- ☑ Electronic speed adjustment with scale
- ☑ Fixed glass support rollers, movable drill heads
- ☑ Precision linear guides for drilling head movements
- ☑ Maximum drilling diameter: 100mm with no problems
- ☑ Easy setting without marking or laser
- ☑ Combinations with diamond saw or washing machine



Foldaway length stop



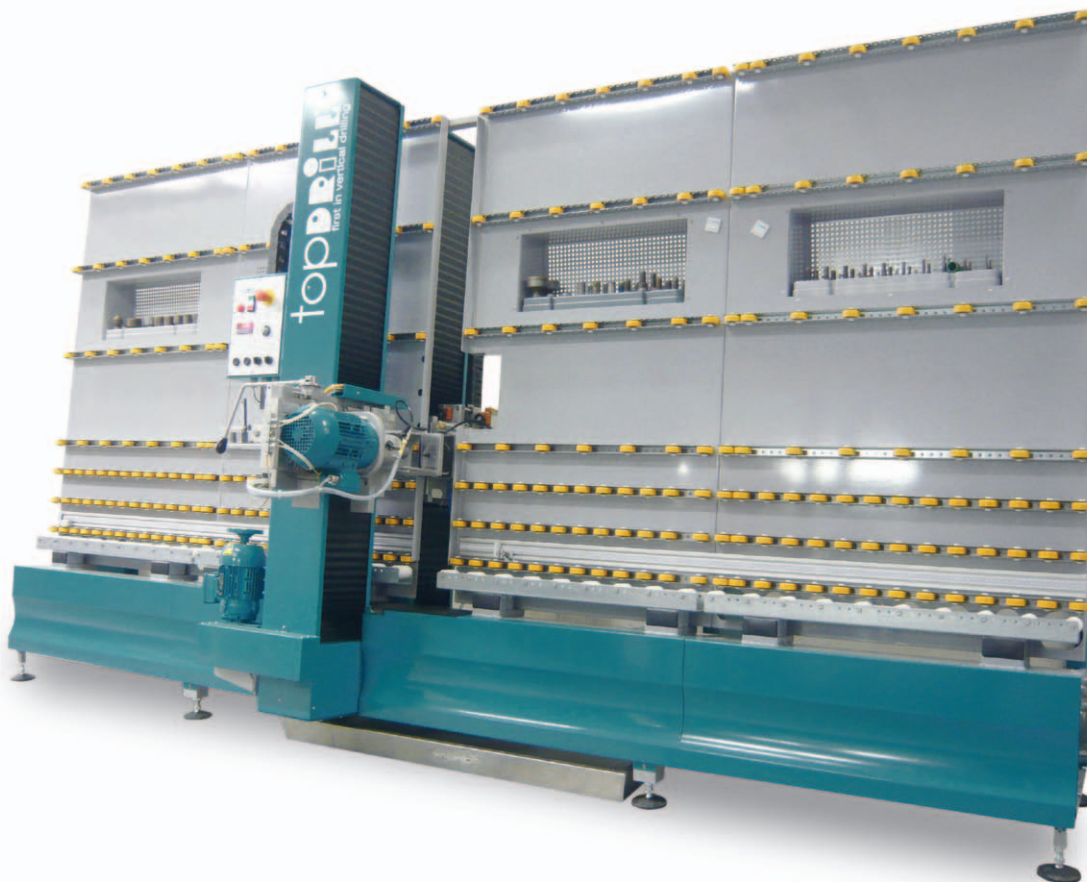
Motorized height adjustment



Quick change system for drills *

Available as additional equipment:

- ☒ Our patented CMX quick change system
- ☒ Extension modules right or left, 1 or 2 meters
- ☒ Drill store-room integrated into the rear wall



1300 mm
51"



open top



250 x 200
10 x 8"



3 - 40 mm
0,12" - 1,5"



4 mm
0,15"



100 mm
3,9"



600 mm
23,6"



manuell
man/
pneu



0 - 6000



2 x 2,2 kW



1 + 1



1650 kg
3600 lbs



2 x 1,4 x
2,3



2 x 1,4 x
2,3



topDRILL 130 nc is a fully automatic double-sided glass drilling machine with digital drilling heads and automatic glass transport. All movements are controlled through the display, there are no manual adjustments necessary. After a tool change, tools are automatically measured. The operator must only place the glass and start the program.

The particular advantages of this machine are:

- ☑ Working direction from left to right OR from right to left
- ☑ All movements use servomotors, no settings
- ☑ Design open top no limit of the glass dimensions
- ☑ Glass thickness up to 40mm, drilling diameter: up to 100 mm
- ☑ Extremely compact design, possible to install next to a wall
- ☑ Operation with a folding 15" TFT touch screen, with USB
- ☑ Network ready, dxf import with TDI-draft, interface compatible *
- ☑ Waterproof protective housing, two-piece stainless steel water tank
- ☑ Service interval indicator, manual central lubrication system

Available as additional equipment:

- ☒ Fully automatic dressing system, tool calibration from 3 mm glass thickness
- ☒ Extension modules 1 or 2 mt, manual or automatic
- ☒ Our patented CMX quick change system
- ☒ Barcode scanner or data import from ERP software
- ☒ systems Flat glass washing machines with speed adjustment
- ☒ Data interface to A + W, Bitec, FeneTech, Hanic, Lisee, ...



Photocells splashproof



Automatic dressing unit



| | | | | | | | | | | | | | |
|----------------|----------|----------------------|--------------------------|---------------|----------------|-----------------|---------------|----------------|----------|------------|-------|---------------------|------------------|
| | | | | | | | | | | | | | |
| 1300 mm 51" | open top | 600 x 200 23 x 8" | 3 – 40 mm 0,12 – 1,5" | 4 mm 0,15" | 100 mm 3,9" | 600 mm 23,6" | 20 m / min | 3 mm / sec. | 0 – 6000 | 2 x 2,2 kW | 1 + 1 | 1850 kg 4100 lbs | 4 x 1,7 x 2,3 |



topDRILL 240 nc

topDRILL 240 nc is the big version of our fully automatic single-head drilling machines. The device works without operator intervention. All drill positions and length of the drill bit will be set automatically.

The particular advantages of this machine are:

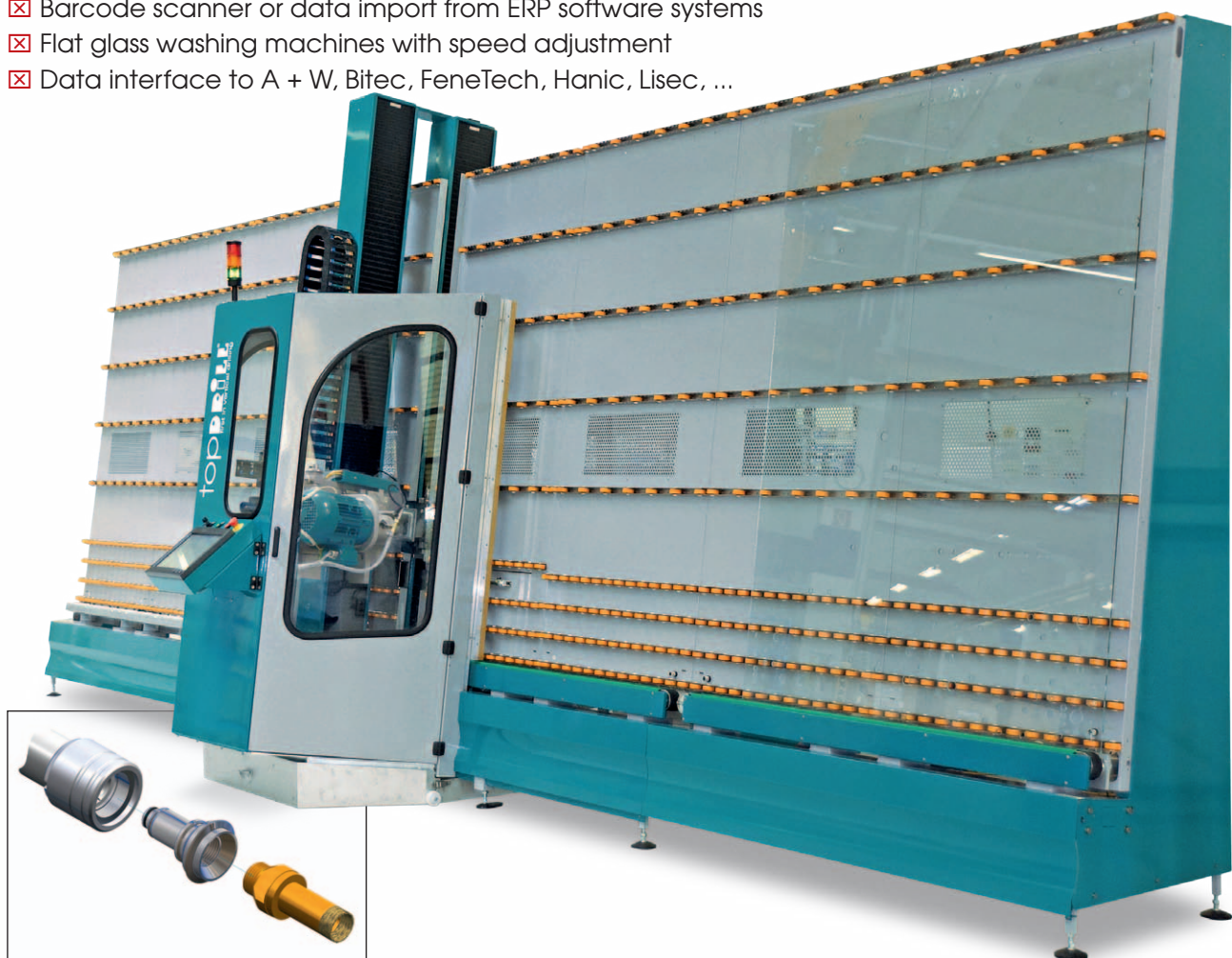
- ☑ Working direction from left to right OR from right to left
- ☑ All movements use servomotors, no settings
- ☑ Glass thickness up to 40 mm, drilling diameter: up to 100 mm
- ☑ Extremely compact design, mounting a wall possible
- ☑ Large glass dimensions up to 2600 x 8000 mm / 102" x 310" *
- ☑ Operation with 15 „TFT touch screen, folding, with USB
- ☑ Network ready, dxf import with TDI-draft, interface compatible *
- ☑ Waterproof protective housing, two-piece stainless steel water tank
- ☑ Service interval indicator, manual central lubrication system














Available as additional equipment:

- ☒ Fully automatic dressing system , tool calibration from 3 mm glass thickness
- ☒ Extension modules 1 or 2 mt, manual or automatic
- ☒ Our patented CMX quick change system
- ☒ Barcode scanner or data import from ERP software systems
- ☒ Flat glass washing machines with speed adjustment
- ☒ Data interface to A + W, Bitec, FeneTech, Hanic, Liseac, ...



Extension modules with rollers or with precision belts



| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|--|---|---|------------------|
|  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 2400 mm 95" | 2600 mm 102" | 600 x 200 23 x 8" | 3 – 40 mm 0.12 – 1.5" | 4 mm 0.15" | 100 mm 3.9" | 600 mm 23.6" | 20 m / min | 3 mm / sec. | 0 – 6000 RPM | 2 x 2.2 kW | 1 + 1 | 2350 kg 5180 lbs | 4 x 2.4 x 3.4 |

topDRILL 130 RX smart-5



The topDRILL 130 RX smart-5, is together with the 240 RX smart-5 the best-selling device for the entire series. The ingenious tool changer is very fast, relatively simple and absolutely uncomplicated to use. Deep countersinking front and rear will be made without any restrictions irrespective of tool diameter. The first tool change takes place during the drilling process on the opposite side. The high-performance spindles are water-cooled, extremely robust and durable without high maintenance costs!

The particular advantages of this machine are:

- ☑ Drilling and countersinking with absolute precision in one clamping
- ☑ Design open top, no limit of the glass dimensions
- ☑ Torque control for deep countersinking without glass breakage
- ☑ Water-cooled high-performance spindles, each with 5.5 kW
- ☑ Dynamic tool change while processing
- ☑ Drilling diameter up to 80mm, glass thicknesses up to 40 mm
- ☑ Program preselection and Laminated-glass-mode standard
- ☑ Job Overview with tool preview

FACT-BOX: CYCLE TIMES RX

| | |
|--|--|
| | Glass sheet 1 x 1mt (40" x 40") 10 cylindrical holes 160 seconds |
| | Glass sheet 1 x 1mt (40" x 40") 4 cylindrical holes Countersinking front and rearside 160 seconds |
| | Glass door 0,8 x 2mt (32" x 80") 6 holes with countersinking 320 seconds |



topDRILL 130 RX smart-5 with manual extensions,
total length 6 meter / 236"

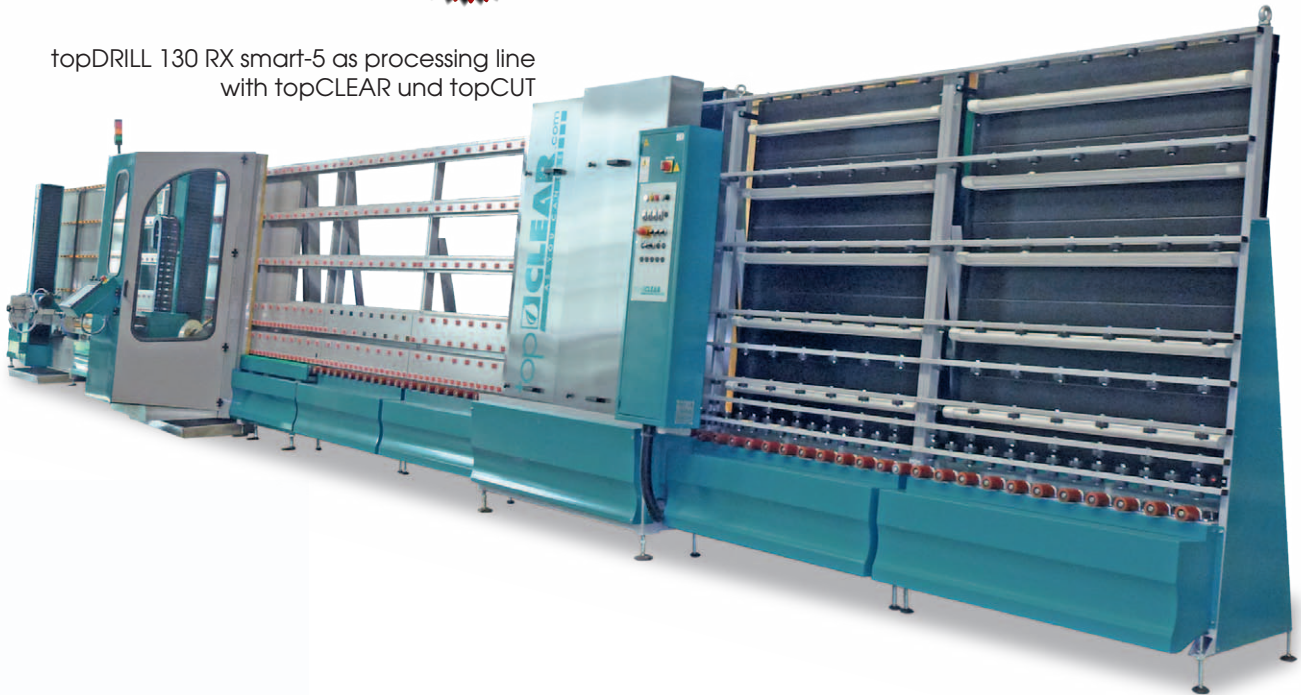


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| | | | | | | | | | | | | | |
| 1300 mm 51" | open top | 600 x 200 23 x 8" | 3 - 40 mm 0,12 x 1,5" | 4 mm 0,15" | 80 mm 3,1" | 600 mm 23,6" | 20 m / min | 3 mm / sec. | 0 - 6000 | 2 x 5,5 kW | 5 + 5 | 2250 kg 4960 lbs | 4 x 2,1 x 2,3 |

BEST-SELLER

topDRILL 130 RX smart-5

topDRILL 130 RX smart-5 as processing line
with topCLEAR und topCUT

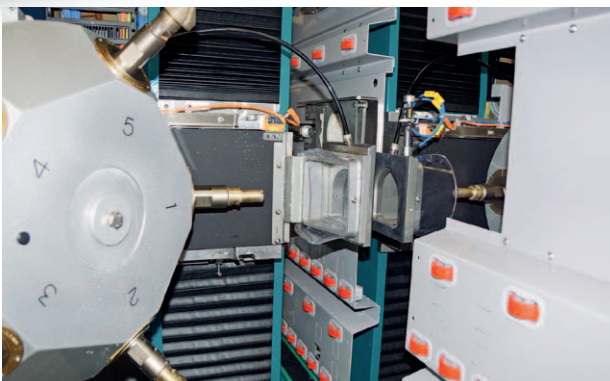


Available as additional equipment:

- ☒ Vollautomatisch Bohrer schärfen, Antasten ab 3 mm Glasstärke
- ☒ Verlängerungsmodule 1 oder 2 mt, manuell oder automatisch
- ☒ Barcode-Scanner bzw. Datenimport von ERP-Softwaresystemen
- ☒ Massive Kugelumlaufspindel für die Bewegung der Y-Hubachse



operator panel, foldaway, for optimal view



The tools are always ready for drilling



Waterproof and easily accessible

topDRILL 130 RX speed-10



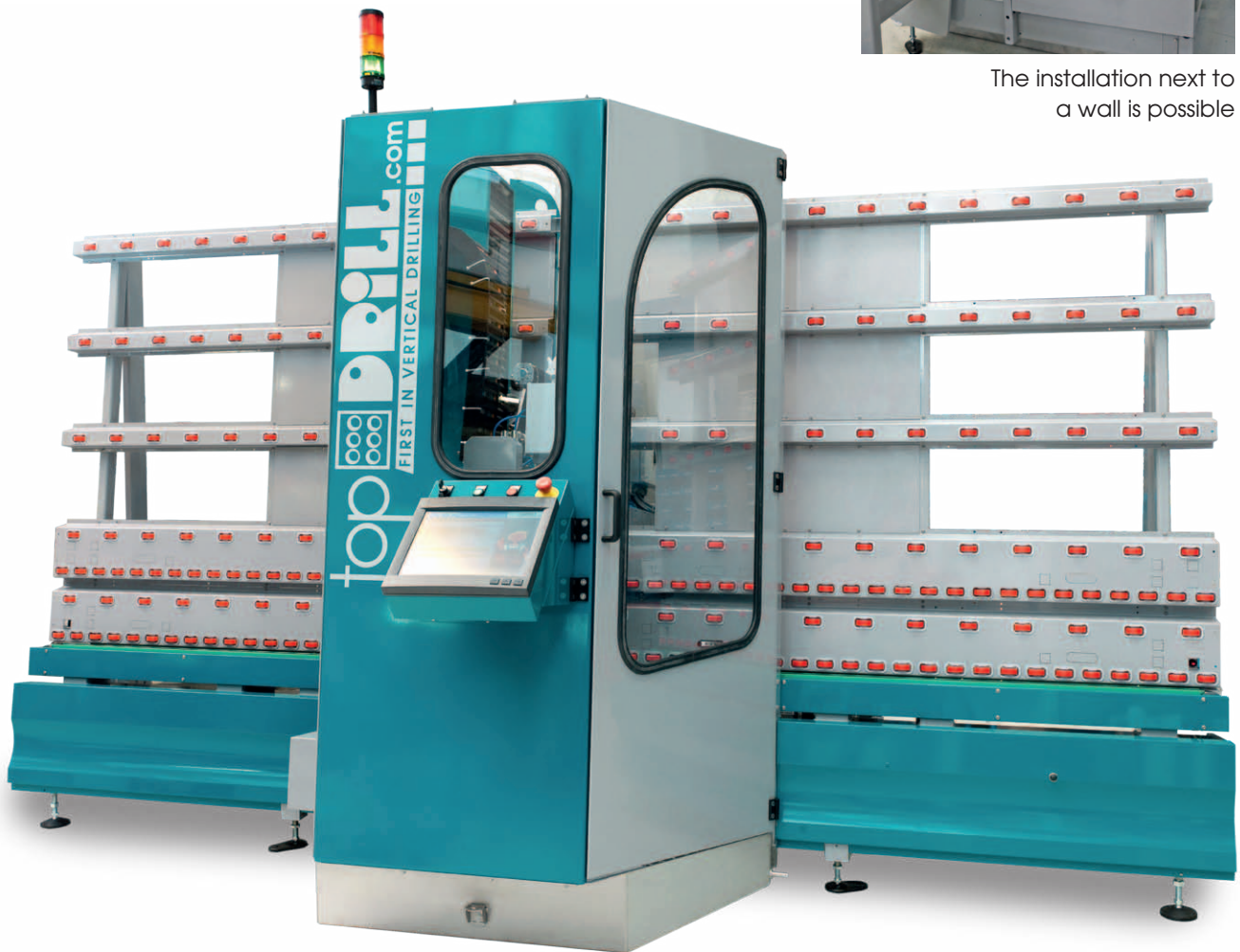
The topDRILL 130 RX speed 10 is the new highlight in vertical drilling technology. Both front and rear tool change can carry up to 10 tools on each side. The intelligent tool changer sorts the next tool during processing. No set-up times, and the high number of tools in conjunction with the simple and sophisticated programming make the RX speed 10 favorite in the pre-processing.

The particular advantages of this machine are:

- ☑ Drilling and countersinking with absolute precision in one clamping
- ☑ Design open top, no limit of the glass dimensions
- ☑ Torque control for deep countersinking without glass breakage
- ☑ Water-cooled high-performance spindles, each with 5.5 kW
- ☑ Dynamic tool change while processing
- ☑ Drilling diameter up to 80 mm, glass thicknesses up to 40 mm
- ☑ Program preselection and Laminated-glass-mode standard
- ☑ Job Overview with tool preview
- ☑ Solid ball screw for moving the lifting axis (Y-axis)



The installation next to a wall is possible



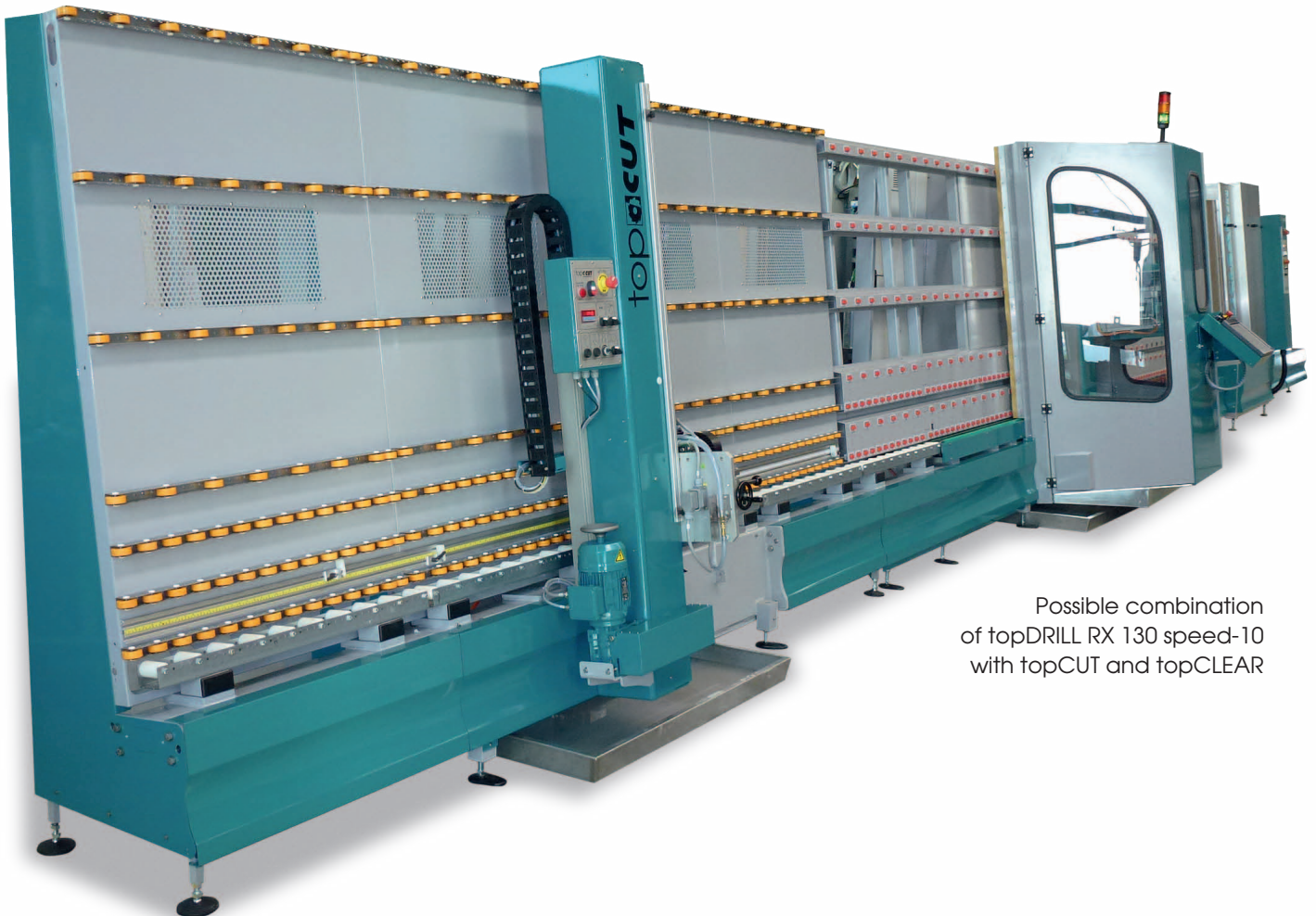
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| | | | | | | | | | | | | | | | |
| 1300 mm 51" | open top | 600 x 200 23 x 8" | 3 – 40 mm 0,12 x 1,5" | 4 mm 0,15" | 80 mm 3,1" | 600 mm 23,6" | 20 m / min | 3 mm / sec. | 0 – 6000 RPM | 2 x 5,5 kW | 10 + 10 | 2250 kg 4960 lbs | 4 x 2,1 x 2,3 | | |

BEST-SELLER

topDRILL 130 RX speed-10

Available as additional equipment:

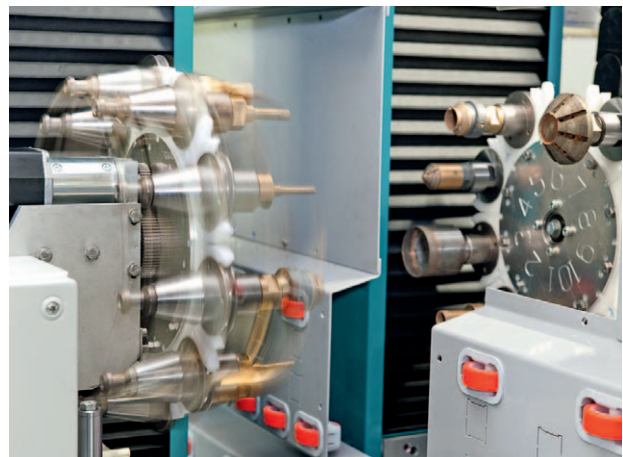
- ☒ Fully automatic dressing system, tool calibration from 3mm glass thickness
- ☒ Extension modules 1 or 2 mt, manual or automatic
- ☒ Barcode scanner or data import from ERP software systems



Possible combination of topDRILL RX 130 speed-10 with topCUT and topCLEAR



Design open top through extreme stable construction – no height limit of the glass



10 tool front + 10 tools rear

topDRILL 240 RX smart-5



Our topDRILL 240 RX smart-5 has been the favorite vertical glass processing machine for many years. The total flexibility and ease of programming make this machine an obvious choice. Extremely low maintenance costs through the use of robust and proven components, ease of coupling to other equipment, and simple to use software solutions are major selling points.

The particular advantages of this machine are:

- ☑ Drilling and countersinking with absolute precision in one clamping
- ☑ Design open top, no limit of the glass dimensions
- ☑ Torque control for deep countersinking without glass breakage
- ☑ Water-cooled high-performance spindles, each with 5.5 kW
- ☑ Dynamic tool change while processing
- ☑ Drilling diameter up to 80mm, glass thicknesses up to 40 mm
- ☑ Program preselection and Laminated-glass-mode standard
- ☑ Job Overview with tool preview



Ball screws for the Y-axis *

Available as additional equipment:

- ☒ Fully automatic dressing system, tool calibration from 3mm glass thickness
- ☒ Barcode scanner or data import from ERP software systems
- ☒ Solid ball screw for moving the lifting axis (Y-axis)
- ☒ Data interface to A + W, Bitec, FeneTech, Hanic, Lisee,...



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|----------------|-----------------|----------------------|--------------------------|---------------|---------------|-----------------|---------------|----------------|-----------------|------------|-------|---------------------|------------------|
| | | | | | | | | | | | | | |
| 2400 mm 95" | 2600 mm 102" | 600 x 200 23 x 8" | 3 – 40 mm 0,12 – 1,5" | 4 mm 0,15" | 80 mm 3,1" | 600 mm 23,6" | 20 m / min | 3 mm / sec. | 0 – 6000 RPM | 2 x 5,5 kW | 5 + 5 | 2650 kg 5850 lbs | 4 x 2,4 x 3,4 |



topDRILL 240 RX speed-10

Our topDRILL 240 RX speed-10 is the logical further development of our successful RX series. You will not find a better way to produce, large glasses with 10 + 10 tools so easy, so fast, and yet as perfect as with this system! Choose, according to your needs, the length, working direction, data connection and e.g. the combination with a washing machine. Extremely low maintenance costs through robust and proven components, extremely uncomplicated cooperation with other devices or software solutions are a major selling point.

The particular advantages of this machine are:

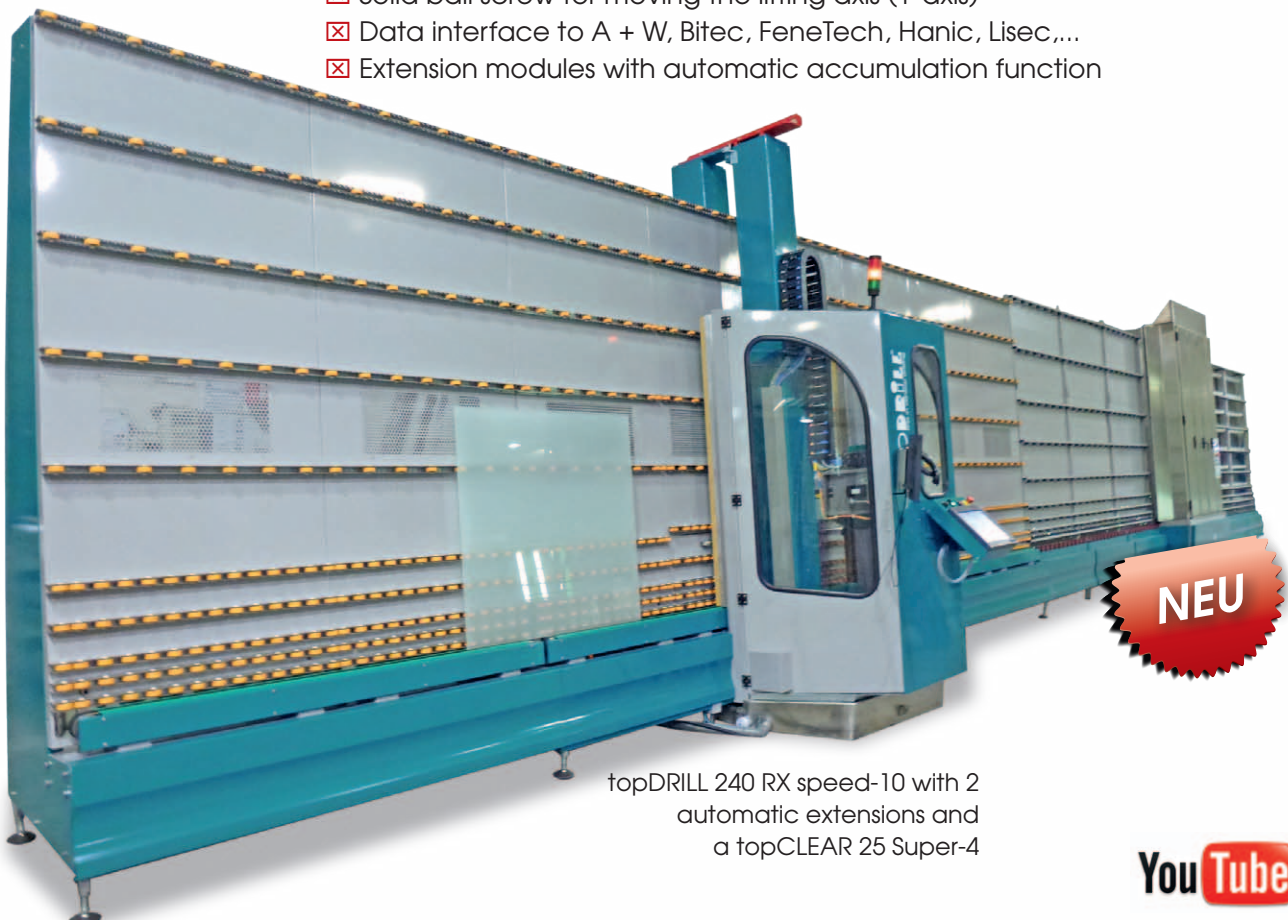
- ☑ Drilling and countersinking with absolute precision in one clamping
- ☑ Torque control for deep countersinking without glass breakage
- ☑ Water-cooled high-performance spindles, each with 5.5 kW
- ☑ Dynamic tool change while processing
- ☑ Drilling diameter up to 80 mm, glass thicknesses up to 40 mm
- ☑ Program preselection and Laminated-glass-mode standard
- ☑ Job Overview with tool preview



Integrated calibration and dressing-plate*

Available as additional equipment:

- ☒ Fully automatic dressing system, tool calibration from 3mm glass thickness
- ☒ Barcode scanner or data import from ERP software systems
- ☒ Solid ball screw for moving the lifting axis (Y-axis)
- ☒ Data interface to A + W, Bitec, FeneTech, Hanic, Lisec,...
- ☒ Extension modules with automatic accumulation function



topDRILL 240 RX speed-10 with 2 automatic extensions and a topCLEAR 25 Super-4



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|----------------|-----------------|----------------------|--------------------------|---------------|---------------|-----------------|---------------|----------------|----------|------------|---------|---------------------|------------------|
| | | | | | | | | | | | | | |
| 2400 mm 95" | 2600 mm 102" | 600 x 200 23 x 8" | 3 – 40 mm 0,12 – 1,5" | 4 mm 0,15" | 80 mm 3,1" | 600 mm 23,6" | 20 m / min | 3 mm / sec. | 0 – 6000 | 2 x 5,5 kW | 10 + 10 | 2650 kg 5850 lbs | 4 x 2,4 x 3,4 |

Advantages M-RX

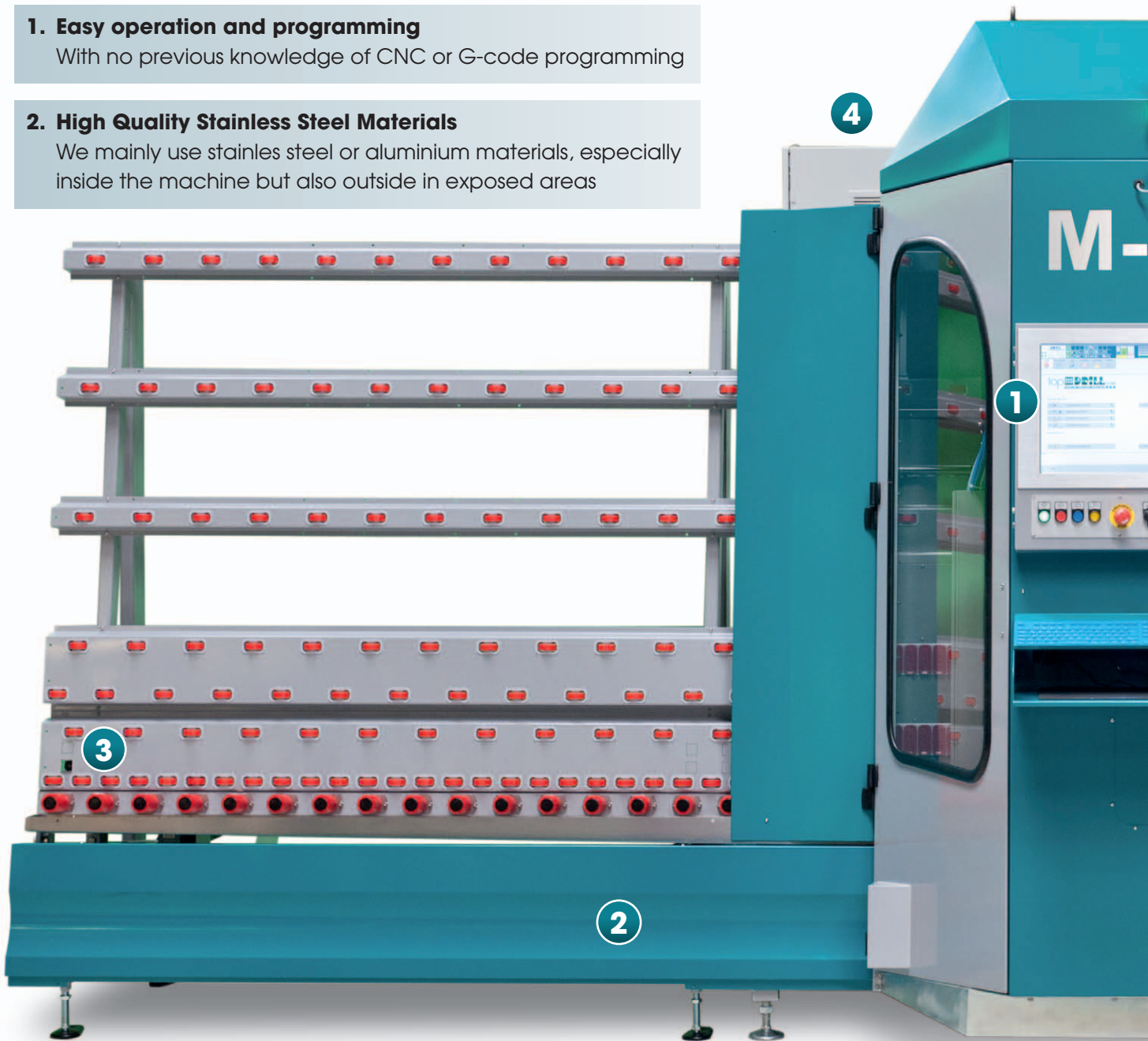
See the outstanding product advantages of our M-RX Series

1. Easy operation and programming

With no previous knowledge of CNC or G-code programming

2. High Quality Stainless Steel Materials

We mainly use stainless steel or aluminium materials, especially inside the machine but also outside in exposed areas



3. Direct connection to modules (e.g. washing machines)

Working height is only 600 mm (26 5/8 in.), specially designed rollers with slipping clutches interface to modular systems, working direction left to right or right to left per request

4. Construction of M-RX 130 and M-RX 200

- The M-RX 130 has an open top, putting no restriction on glass height; however, maximum drilling height is 1300 mm (51 in)
- The M-RX 200 has a maximum glass height of 2600 mm (102 in); however, maximum drilling height is 2000 mm (79 in)

5. Highly dynamic vacuum system for perfect fixation

No settings are required, the system is fully automatic

6. Continuous production possibility

Requiring no downtime for settings and vacuum positioning, the next piece of glass can be loaded during production of the first piece



7. Automatic tool change - ON BOTH SIDES

An automatic tool changer is installed on both the front and rear, allowing the advantage of the tool types without restriction

8. Small footprint and waterproof design

Extremely compact design and splash-proof casing

NEW

NEW

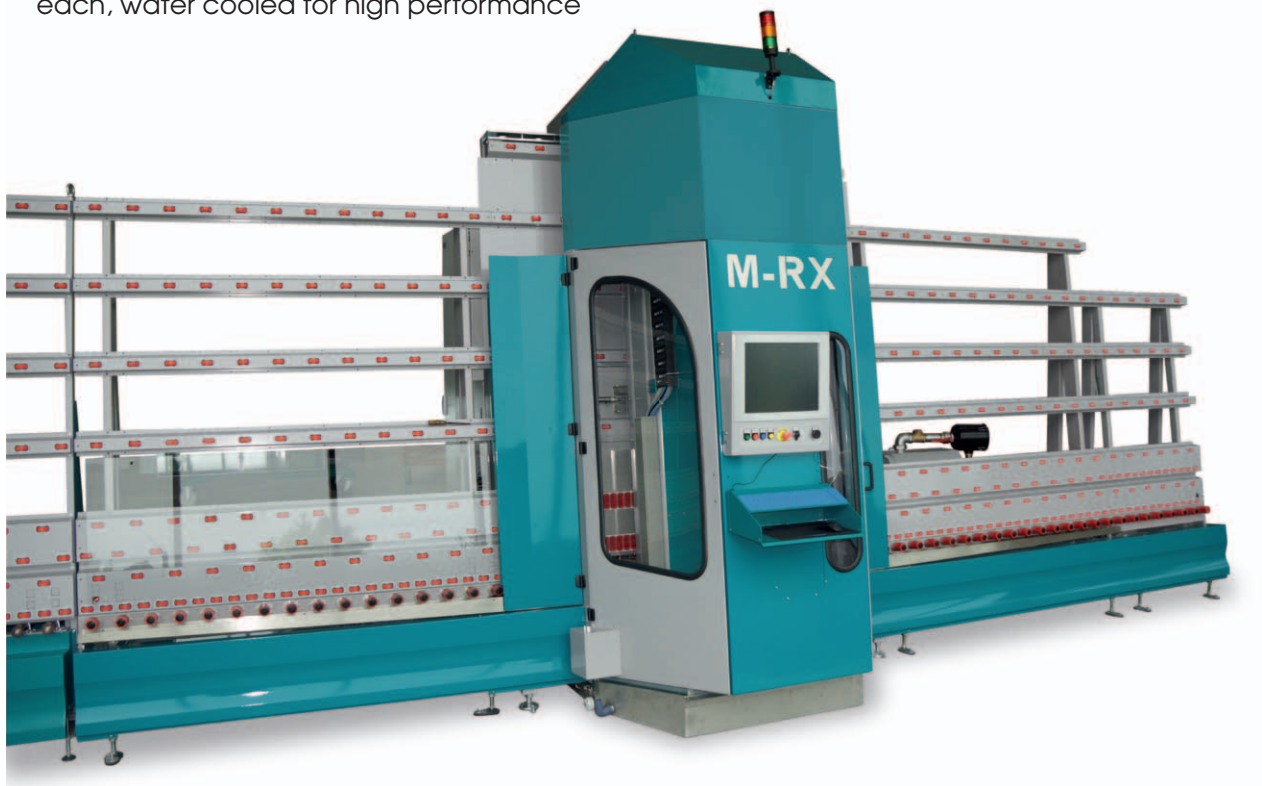
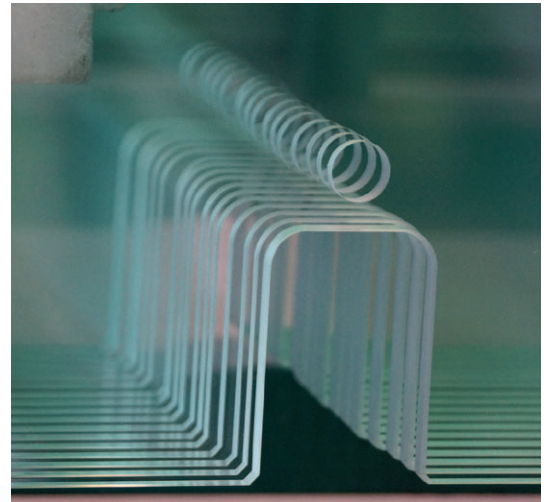
topDRILL M-RX 200 linear-8

The M-RX 200 linear-8 is the big dimension for our entry-level unit in the vertical CNC processing of flat glass.

topDRILL M-RX 200 linear-8 has all the product advantages of the entire series and is therefore perfectly suited for your daily needs in drilling and milling tasks. Countersinking in different depths, front and rear, are no problem; as well as repetitive drilling or interior cutouts of any geometry. In only one operation the previously grinded glasses are perfectly arranged for the tempering process. Shower or shop front doors, as well as kitchen splash backs do not need any manual processing anymore.

The particular advantages of this machine are:

- ☑ Direction of your choice (left to right or right to left)-fits in your company layout
- ☑ Automatic tool change both front and rear; each with 8 positions.
- ☑ Drilling, milling and grinding for door fittings and cut-outs without any limitation in size and shape
- ☑ Automatic lubrication and maintenance interval display
- ☑ Operation, even with no previous knowledge of CNC and G-code is possible, pre-installed library of fittings and cut-outs, data import from .dxf or via automatic interface is possible
- ☑ Powerful drilling/milling spindle with 5.5 kW each, water cooled for high performance



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|---------|---------|-----------|-----------|------|---------|--------|------------|-------------|-----------|------------|-------|---------|-------------|
| | | | | | | | | | | | | | |
| 2000 mm | 2600 mm | 750 x 200 | 4 - 20 mm | 4 mm | unbegr. | 600 mm | 30 m / min | 3 mm / sec. | 0 - 12000 | 2 x 5,5 kW | 8 + 8 | 4500 kg | 6 x 3 x 3,5 |

The topDRILL M-RX 130 cnc is a vertical double-sided CNC center for lightning-fast drilling/ countersinking- and milling / grinding operations in a single pass. In conjunction with the easy to use and fully automated software system this allows the rapid processing of glass doors, shower doors, kitchen splash back, or similar products, even for very small batches. The modern and well-developed turret head has space for 10 tools front and rear without any restrictions. All tools are always ready for use, and where necessary the next tool will already be changed during processing on the opposite side.



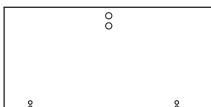
The particular advantages of this machine are:

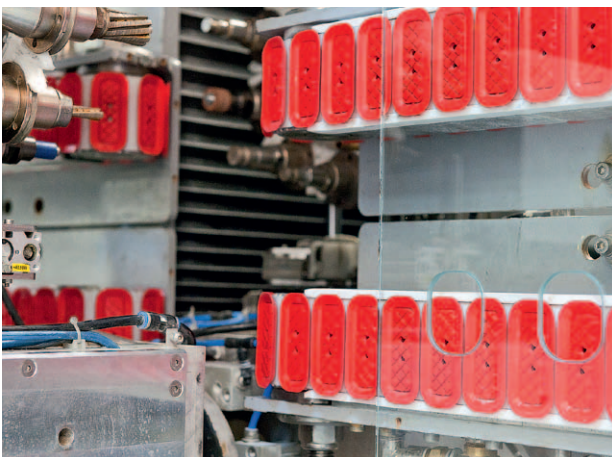
- ☑ New vacuum system to hold the rear side of the glass
- ☑ Dynamic vacuum control detects holes or cut-outs
- ☑ Automatic speed adjustment of the feed-rate
- ☑ Automatic tool assignment with possibility of favorites
- ☑ Automatic in and out movement at inner cut-outs
- ☑ Automatic milling access hole for special- or inner cut-outs
- ☑ Holes and deep countersinking on both sides without loss of cycle time
- ☑ Laminated-glass-drilling mode as standard for glass thickness up to 40 mm
- ☑ Low maintenance due to long-proven components
- ☑ Operation easily possible without any knowledge of CNC
- ☑ No restriction of milling in size and shape
- ☑ Dynamic tool change while processing
- ☑ Open top construction, allows no limit on glass height

Available as additional equipment:

- ☒ Fully automatic drill dressing system, with automatic pre-selection
- ☒ Extension modules with automatic accumulation mode
- ☒ Data and import interfaces to all common ERP programs
- ☒ Clock controlled waste conveyor belt, for removing processing waste

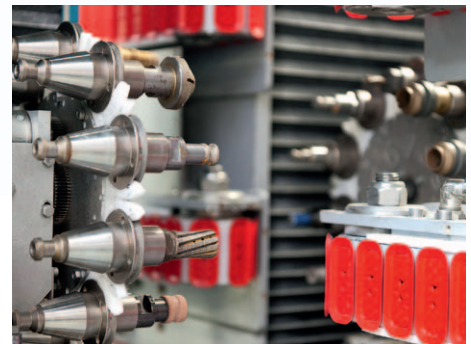
FACT-BOX: CYCLE TIMES M-RX

| | |
|--|--|
|  | Shower door 0,8 x 1,8mt (32" x 72") 2 Mickey Mouse cut-out 1 hole for door-knob 210 seconds |
|  | Swinging door 1 x 2mt (40" x 80") 2 pcs. PT-cutout with hole 2 holes for handle 240 seconds |
|  | Hinged door 0,8 x 2mt (32" x 80") 6 holes, all with countersinking 360 seconds |





topDRILL M-RX 130 roto-10



Drilling, countersinking, milling and grinding without limit in dimension and shape

You Tube

| | | | | | | | | | | | | | | | |
|----------------|----------|----------------------|--------------------------|---------------|----------|-----------------|---------------|----------------|------------------|------------|---------|---------------------|------------------|--|--|
| | | | | | | | | | | | | | | | |
| 1300 mm 51" | open top | 700 x 200 27 x 8" | 4 – 40 mm 0,15 – 1,5" | 4 mm 0,15" | no limit | 600 mm 23,6" | 30 m / min | 3 mm / sec. | 0 – 12000 RPM | 2 x 5,5 kW | 10 + 10 | 3650 kg 8050 lbs | 6 x 2,7 x 2,8 | | |

Finally the large version of our CNC milling centre is available. Glass heights up to 2500 mm / 98" can be used; the maximum processing height is 2000 mm / 78".

The special advantage of the machine is the extremely fast working speed and no restrictions in terms of milling / grinding operations or when drilling and countersunk holes are needed. The modern and well-developed turret head offers front and rear space for 10 tools without any restrictions. All tools are always ready for use, and where necessary the next tool will already be changed during processing on the opposite side.

The particular advantages of this machine are:

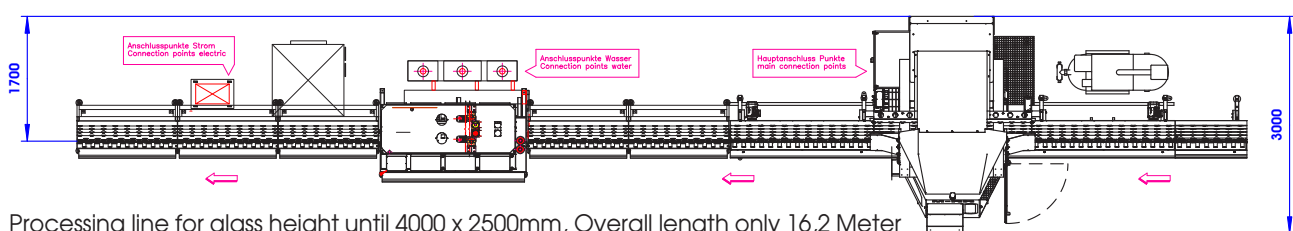
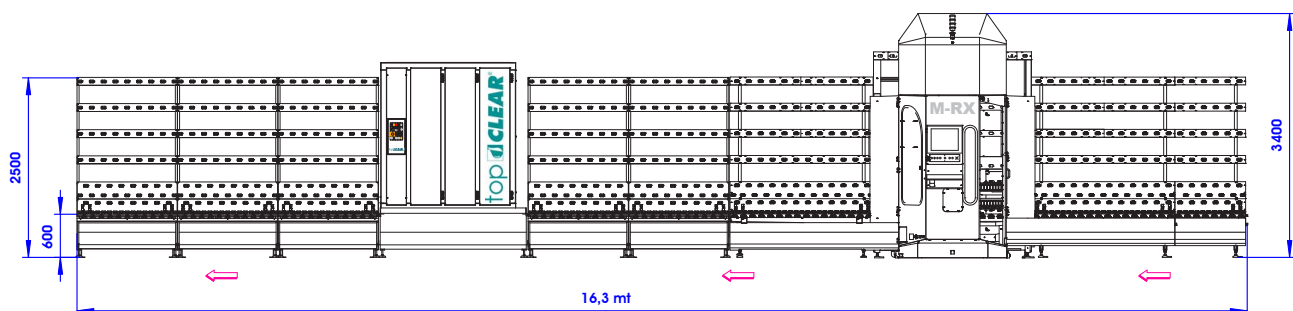
- ☑ New vacuum system to hold the rear side of the glass
- Dynamic vacuum control detects holes or cut-outs
- ☑ Automatic speed adjustment of the feedrate
- ☑ Automatic tool assignment with possibility of favorites
- ☑ Automatic in and out movement at inner cut-outs
- ☑ Automatic milling access hole for special- or inner cut-outs
- ☑ Holes and deep countersinking on both sides without loss of cycle time
- ☑ Laminated-glass-drilling mode as standard for glass thickness up to 40 mm
- ☑ Low maintenance due to long-proven components
- ☑ Operation easily possible without any knowledge of CNC
- ☑ No restriction of milling in size and shape
- ☑ Dynamic tool change while processing

Available as additional equipment:

- ☒ Fully automatic drill dressing system, with automatic pre-selection
- ☒ Extension modules with automatic accumulation mode
- ☒ Data and import interfaces to all common ERP programs
- ☒ Clock controlled waste conveyor belt, for removing processing waste



Alternatively with 2 or 4 vacuum belts *



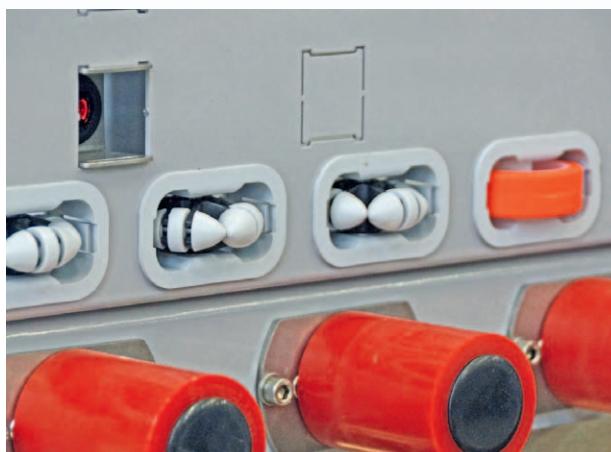
Processing line for glass height until 4000 x 2500mm, Overall length only 16,2 Meter



topDRILL M-RX 200 roto-10



In- and outlet waterproof



on request all sides roles for crane loading *

| | | | | | | | | | | | | | |
|---------|---------|-----------|-----------|------|---------|--------|------------|-------------|-----------|------------|---------|---------|---------------|
| | | | | | | | | | | | | | |
| 2000 mm | 2600 mm | 750 x 200 | 4 – 20 mm | 4 mm | unbegr. | 600 mm | 30 m / min | 3 mm / sec. | 0 – 12000 | 2 x 5,5 kW | 10 + 10 | 4400 kg | 6 x 2,9 x 3,5 |

TDI CAD-CAM*

TDI CAD-CAM is a modern and comprehensive CAD software solution for the operation on our M-RX machines. With a clearly arranged drawing interface, programs can be created or imported and modified.

topDRILL M-RX centres are equipped as standard with a comprehensive * library for standard fittings and size-dependent cut-outs. Operation is possible in a short time without knowledge of CAD.



TDI CAD-CAM helps the operator with lots of practical details:

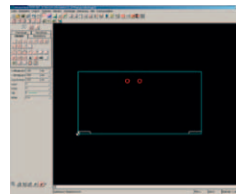
- ✓ Automatic calculation of in- and out movement at milling
- ✓ Automatic calculation of milling access holes for internal cutouts
- ✓ Automatic reference position control for cut-outs, or for the entire pane
- ✓ Dynamic programming of customer-owned fittings or special processing
- ✓ Unlimited dxf import with further processing and CNC Conversion



Associated software creates DXF



DXF will be opened in CAD & saved



CAD converts DXF - JOB ready to start



M-RX CAM-dxf*

The interface program CAM-dxf is a technologically advanced and comprehensive way to import the processing data quickly and easily using the barcode scanner from your work preparation. The processing data will be sent directly to the job-list of the machine.

All major ERP programs are already in a position to send an interface file with all the essential information to the topDRILL M-RX. The machine monitors a directory on the server and imports the files automatically! The editing of programs on the machine with this solution is not necessary and not possible.

M-RX CAM - dxf offers the following advantages:

- ✓ Programs will be converted and saved automatically and without operator intervention
- ✓ Fastest of all possible variants (just scan the bar code and start the engine)
- ✓ Automatic data handshake between M-RX and the partner software
- ✓ The interface can be used in addition or in conjunction with the TDI-CAD-CAM



Associated software creates DXF file



DXF-converter monitors file directory



DXF-converter converts DXF - JOB ready to start

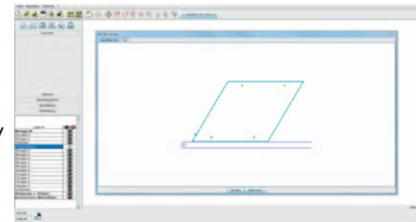




TDI-draft is a modern CAD drawing interface especially for flat glass processing, so that you can easily import dxf-data or create your own drawings. TDI-draft complements the drawing data with the necessary drilling and processing information and creates a machine readable tdi-format.

Take advantage of TDI-draft alone or in addition to an integrated data interface for automatic data exchange with your topDRILL system. Data interfaces are i.e. available for A + W, Bitec, FeneTech, Hanic, Lisec, ...

- ☑ Dxf-Import and -export (also automatically possible)
- ☑ Shapes are automatically machinable
- ☑ Automatic detection of drilling diameter etc.
- ☑ Adds drilling- and countersinking depth manually or automatically
- ☑ Manages your operator and several topDRILL - systems
- ☑ Adds Working sense, parking position, VSG mode, serial mode...

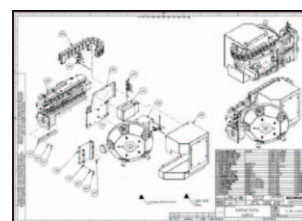


All topDRILL machines (beginning of type nc) are equipped as standard with network interface. This provides the possibility of data exchange via Ethernet, FTP, or via USB. Connection options are on the front at the control panel or directly back at the electrical cabinet!

Service, spare parts

As a professional, you know that not only the quality of the machine and the components which are used is important. Fast after-sales service and availability of spare parts is assured

Our entire topDRILL Engineering is in Austria, a large part of the production parts are also „made in Austria“. Of course, you can expect that the machines and the items are drawn according to the state of the art technology with the latest 3D programs. We offer you not only for the current machines the best service and availability, older and existing installations of previous generations are also supplied promptly * with spare parts!



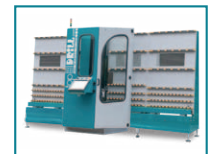
G1 from 1996



G2 from 1998



G3 from 2004



G4 from 2011



G5 from 2012

References:



topDRILL.com
FIRST IN VERTICAL DRILLING



Nothing is stronger than an idea whose time has come!



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