Product Presentation

Heavy Duty Microtomes

Mikrotom – M

Mikrotom – L

Mikrotom – XL

microTec®

February, 2020

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Company Presentation

microTec Laborgeräte GmbH is a medium-sized family-run business from Baden-Württemberg in south Germany and represents precision and quality by name since its foundation.

- Founded 1993 – Close cooperation with Olympus (USA)
- Manufacture and worlwide distribution of rotary microtomes for over 25 years
- All products are 100% Made in Germany – construction and production
- Mechanical parts and components are manufactured by our in-house tool manufacture
- Special solutions can be realized due to attached tool manufacture
- 3000 Rotary microtomes sold worldwide

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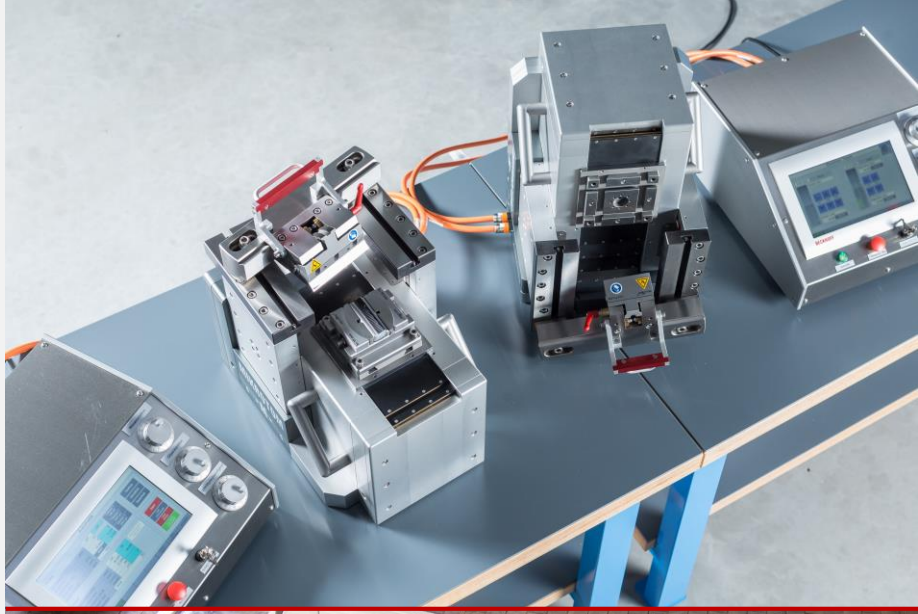
Mikrotom – M
Mikrotom – L
Mikrotom – XL

The heavy-sledge-microtomes from microTec are fully automated high-performence sliding microtomes for highest quality demands in different application fields like histology, pathology and for industrial applications.

- Easy and intuitive handling
- Different sectioning functions
- High stability through solid design
- Freely adjustable inclination and declination angle
- Usage of different microtome knives possible
- User friendly and low-maintenance construction
- Mikrotom-L / Mikrotom-XL: Mobility ensured through heavy-duty rollers
- Mikrotom-M: Table device with removable handles for transport. Vertical and horizontal operation possible.



Precision

Section for section constant precision. The high-performance sliding microtomes deliver incredibly precise sections for a diverse range of applications – that applies to yours, too!

- High-precision, permanent backlash-free adjusting spindles
- High-quality cross roller guides
- Precision Ball Screw
- Separate drive unit for knife- and object-sledge
- Section thickness: 1 to 1,000 µm, adjustable in 1-µm-steps
- Very high repeat accuracy

Efficiency

Through freely adjustable sectioning and reversing speed, fastly teach-in of the sectioning-window and easily switching of samples, clamping-devices and knives, the base for your efficient application is given.

- Three sectioning functions: button-activated, single and continuous stroke
- Sectioning window quickly and safely determinable through teach-function
- Sectioning speed adjustable with potentiometer during sectioning process
- Trim function with three indivudal adjustable trim values

Operation

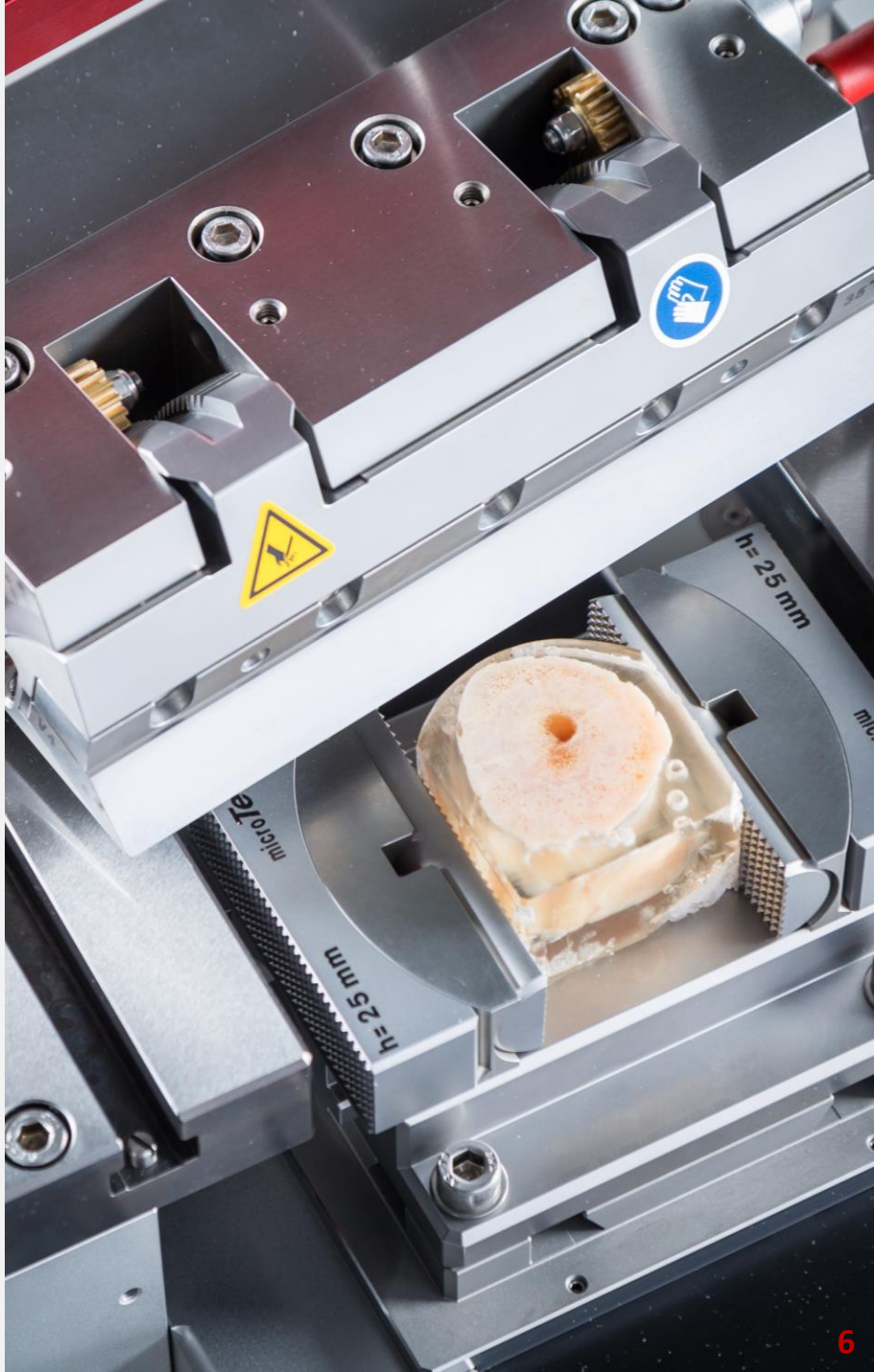
Operation of the devices is made via operating panel with a touchscreen, electronic hand wheels, a potentiometer and optionally with a foot switch.

- Mikrotom-L / Mikrotom-XL: Control system from Siemens
- Mikrotom-M: Control system from Beckhoff
- Intuitive operation
- Position from knife- and object-sledge shown on display
- Individual cutting window with freely adjustable front and rear start or end position
- Control unit can be supplied in any language

User-Experience

Easy handling of hardware is ensured through standardized adaptions. The devices can be equipped with new accessories fast and easy at any time.

- Manual movement of knife or sample via handwheel or touchscreen possible
- Magnetical or mechanical installation of clamping devices
- Fast switching of knives, samples or clamping devices due to adaption-system
- Inclination angle from 0° to -25° and declination angle from 90° to 135° easily and freely adjustable
- Easy sample orientation
- Magnifier with integrated light



Work-Safety

The devices are featured with various safety functions, which minimize the risk of injury.

- Overload protection for engine
- Foot-switch with start- und emergency stop-function
- Mechanical finger guard on all knife holders
- Provided cut-resistant gloves and safety glasses
- Coloured marking on safety relevant parts
- Freely adjustable collision protection level
- Safety housing available (only Mikrotom-XL):
  - Protective hood with light barrier
  - Immediate stop on reach through light barrier during sectioning process

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Sample Size

The maximum possible sample size is currently an unique selling position.

Mikrotom – XL

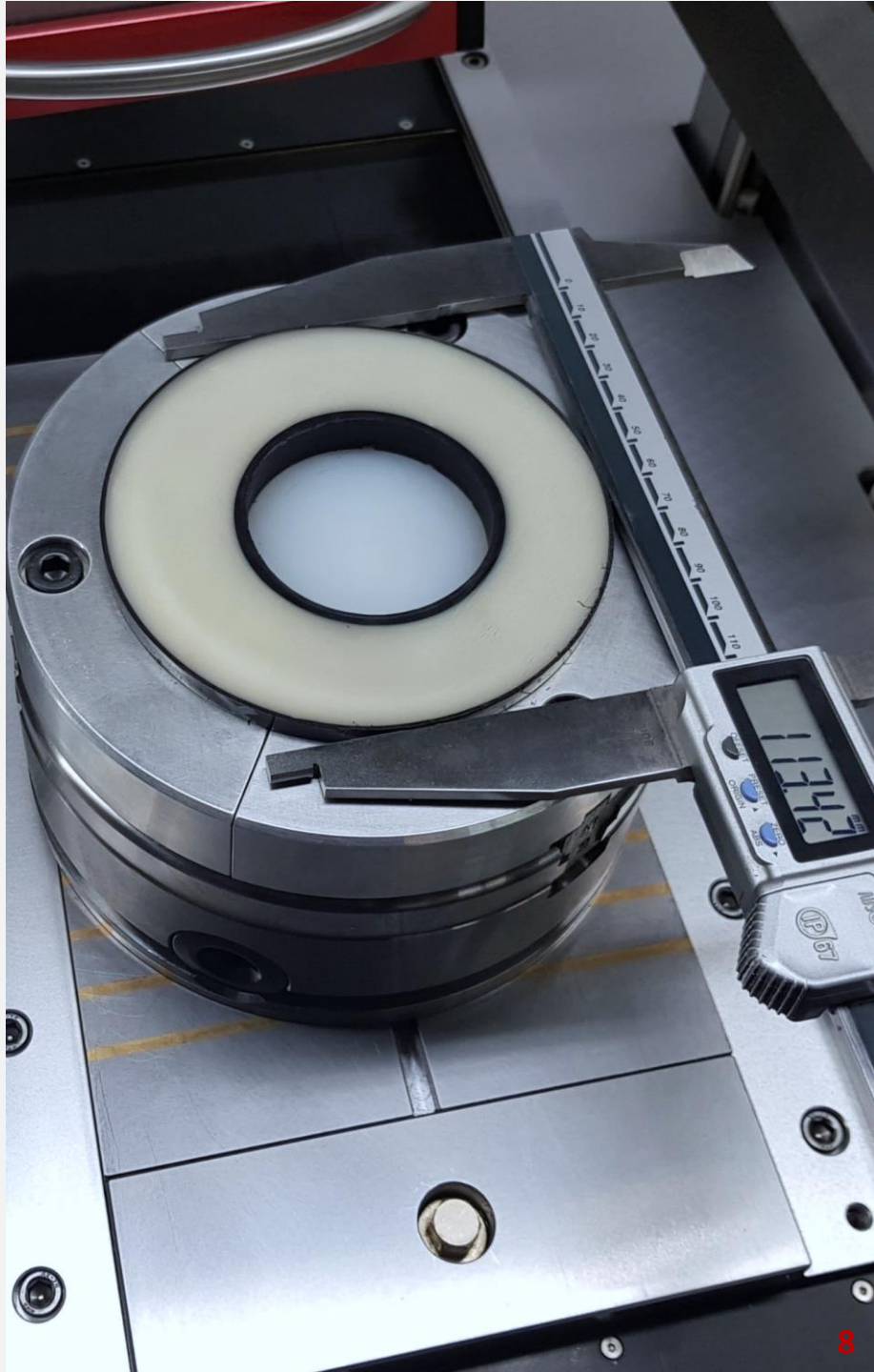
- Maximum sample size*: 260 x 200 x 70 mm
- Vertical knife stroke distance: 70 mm

Mikrotom – L

- Maximum sample size*: 180 x 160 x 70 mm
- Vertical knife stroke distance: 70 mm

Mikrotom – M

- Maximum sample size*: 120 x 120 x 60 mm
- Knife stroke distance : 60 mm

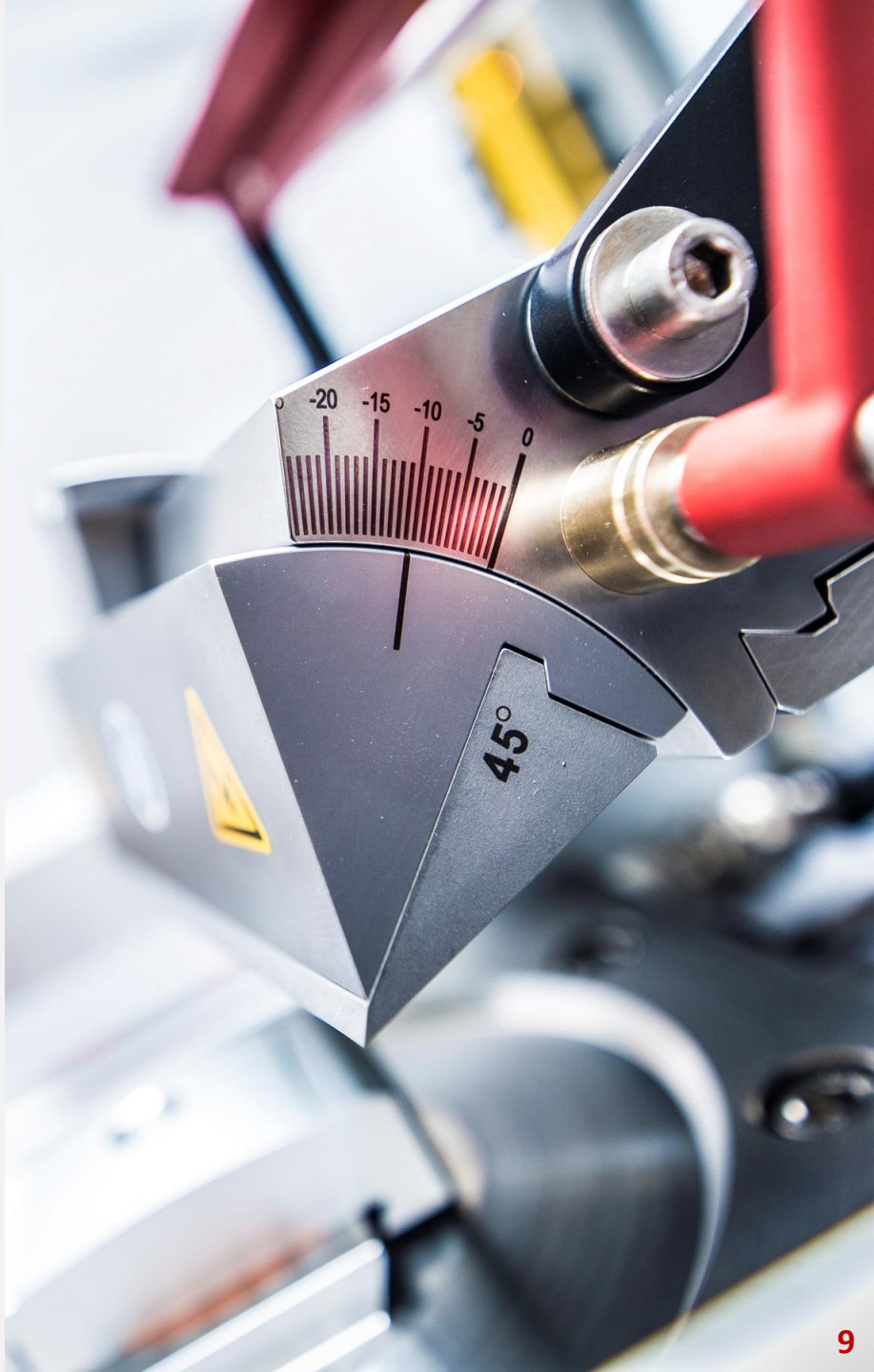


* Information regard to clamping area. Higher sample-structures possible. Limited through vertical knife stroke distance.

Accessories

The large selection of knife holders enables a high flexibility in usage for different kind of microtome knives. Clamping devices, which can be quickly and easily installed and changed on the device, allow clamping samples of different sizes and shapes.

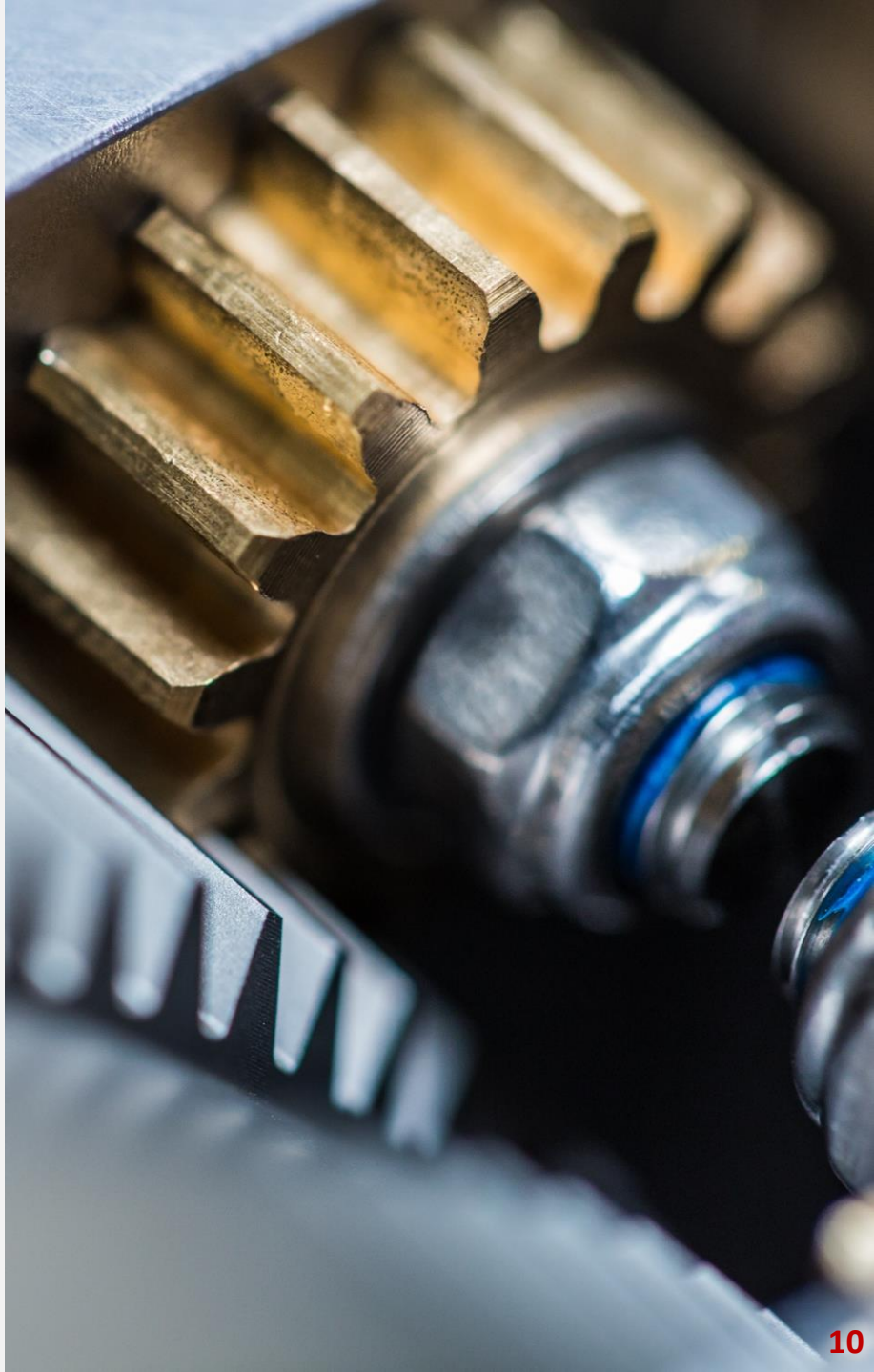
If you need custom-made products or accessories, which are not included in our price list, contact us. Due to our very well-positioned tool engineering, we are able to offer complex special solutions and custom products.



Perfomance

Parameter	Mikrotom - XL	Mikrotom - L	Mikrotom - M	Unit
Section thickness	1 – 1,000	1 – 1,000	1 – 1,000	µm
Sectioning speed	1 – 125	1 – 125	1 – 125	mm/s
Reversing speed	1 – 125	1 – 125	1 – 125	mm/s
Bladeretraction	100 – 2,000	100 – 2,000	0 – 1,000	µm
Trimming speed	1 – 125	1 – 125	1 – 125	mm/s
Trim thickness	1 – 1,500	1 – 1,500	1 – 1,500	µm
Maximum sample size (incl. clamping device)*	260 x 200 x 70	180 X 160 x 70	120 x 120 x 60	mm
Declination angle	90° – 135°	90° – 135°	90° – 135°	
Inclination angle	0° – -25°	0° – -25°	0° – -25°	

* Information regard to clamping area. Higher sample-structures possible. Limited through knife stroke distance.



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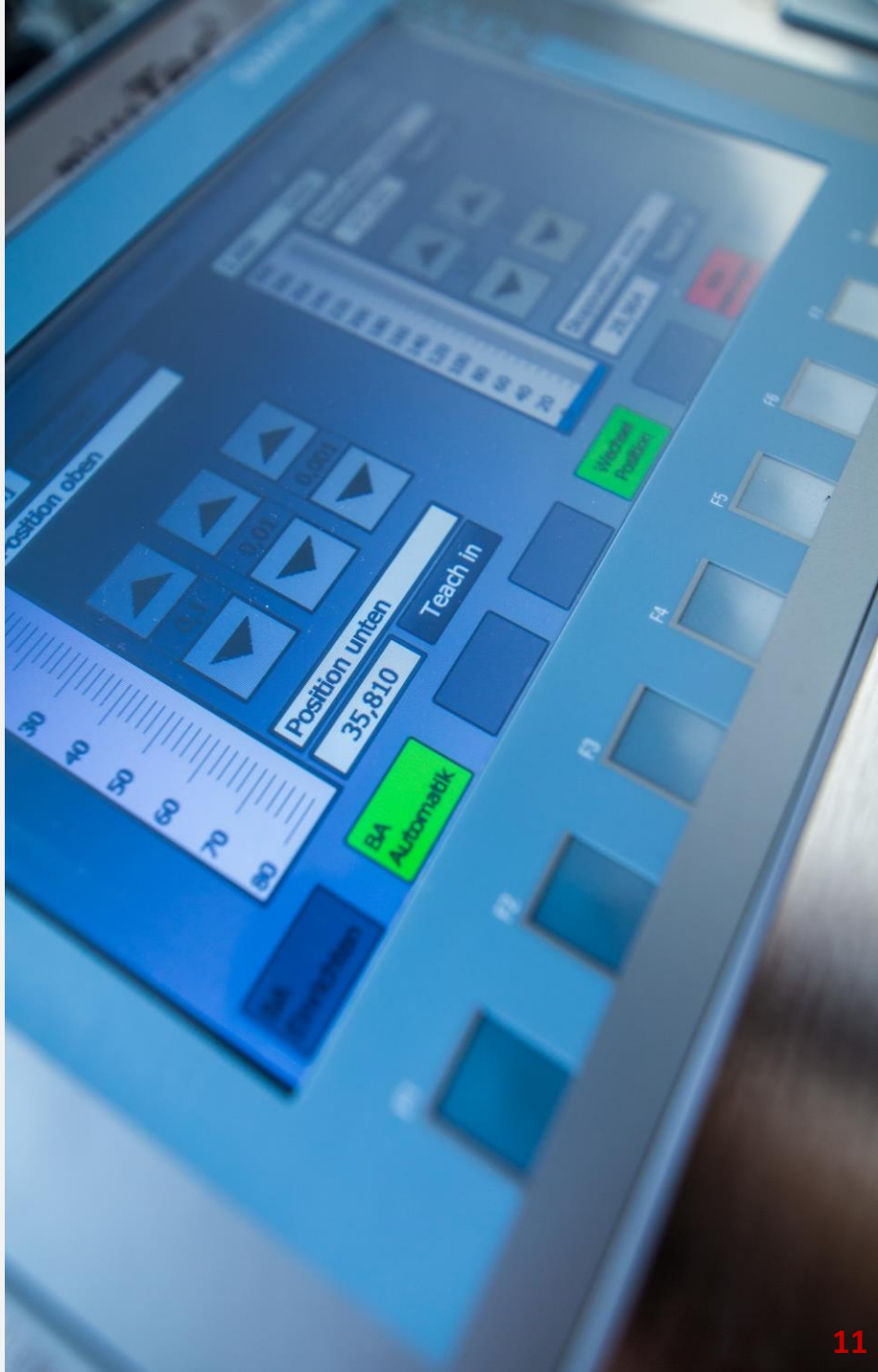
Technical Data

Parameter	Mikrotom - XL	Mikrotom - L	Mikrotom - M	Unit
Rated voltage	400	400	230	V
Rated current	6.3	6.3	6	A
Rated frequency	50	50	50	Hz
Power input	1,5	1,5	1,38	kW
Fuse	16	16	16	A
Dimension	1,175 x 650 x 950	990 x 550 x 950	445 x 320 x 245	mm
Installation space	1,600 x 1,400	1,400 x 1,300	700 x 1,000	mm
Weight	550	420	80	kg



Contact

If you have any questions or suggestions regarding to our products, don't hesitate to contact us.

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