

UNIVERTOR AE

Horizontal finishing machine



UNIVERTOR AE Series

The UNIVERTOR AE is the optimal solution for the economic cutting to length and centering in order to enable a precise holding of the workpieces for subsequent process steps.

Modular designed finishing machine with original WEISSER pick-up system. Instead of the basic sledge with motor spindle, a modified, movable built-up sledge with robust centric clamps is used to hold shaft-shaped workpieces, such as gear and crankshafts. This means that no additional robot or gantry solutions are required, the machine feeds itself. The design with robust disk or crown turrets allows spind-

ling, milling, drilling and deep drilling of the shaft ends using driven tools.

The horizontal axis of the machine is equipped with a linear direct drive.

Besides the excellent dynamics and the high rapid traverse speeds, the UNIVERTOR AE series also has very good damping characteristics and thus a first-class accuracy behaviour.

Conceptual advantages:

- Automatic loading with the integrated pick-up system
- Powerful centric clamping for the reliable fixing of raw parts
- Centering, spindling, drilling and milling of shaft ends
- Deep hole drilling
- Can be combined with the UNIVERTOR AS for complete shaft machining



UNIVERTOR AE

UNIVERTOR AE

Modular designed finishing machine with WEISSER pick-up system for parallel machining of one workpiece. The moveable basic sledge is equipped with robust centric clamps for the reception of shaft-shaped workpieces. No additional robot or gantry solutions are needed, as the machine loads itself.



UNIVERTOR AE-T (Twin)

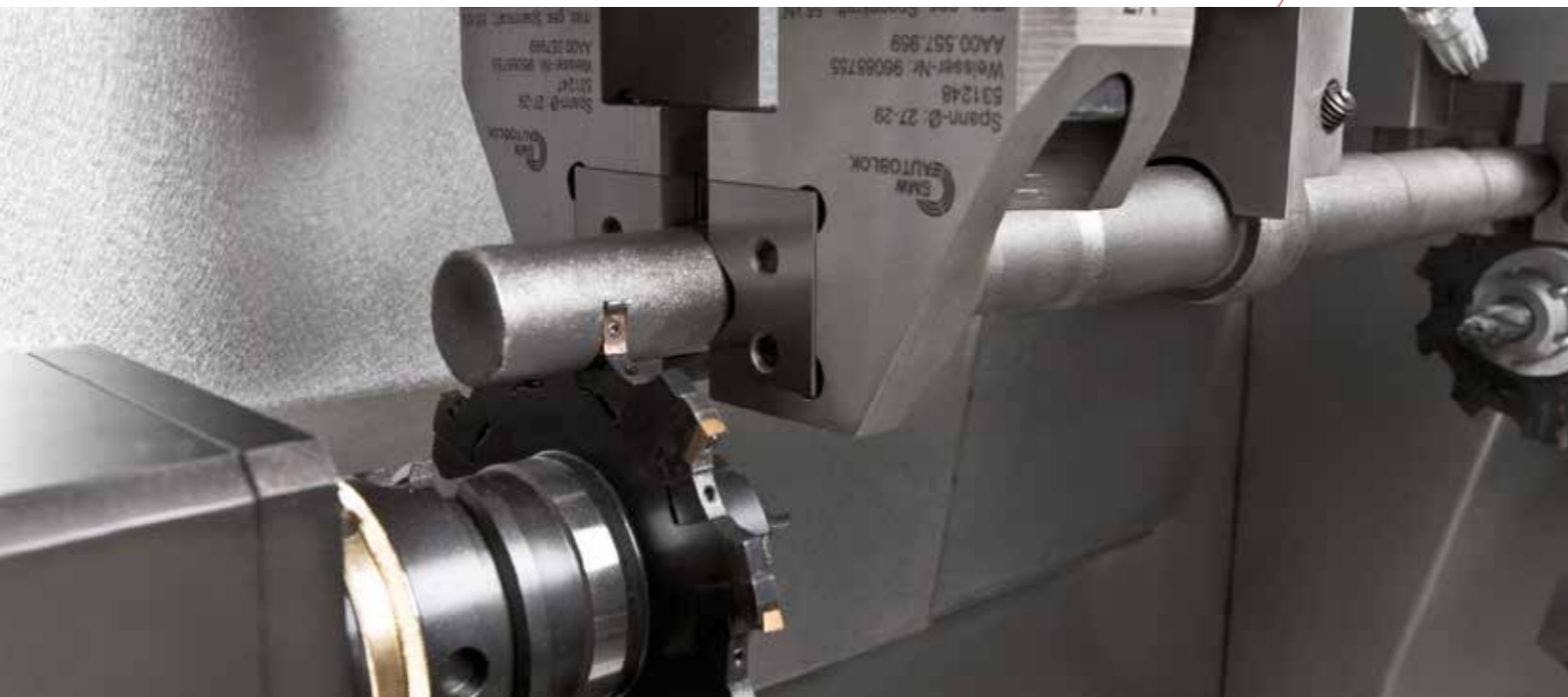
Modular designed finishing machine with WEISSER pick-up system for parallel machining of two workpieces as a twin version. The concept of a fixed and a movable disc or crown turret, in connection with the movable mounting sledge of the centric clamping device, allows simultaneous machining on both shaft ends. No additional robot or gantry solutions are needed, as the machine loads itself.



Product competence

UNIVERTOR AE

The economic cutting to length and centring with the UNIVERTOR AE ensures a precise pick-up of the workpieces for subsequent process steps within the complete machining. The conceptual design with robust disc or crown turrets enables the spindle, milling, drilling and deep drilling of shaft ends by using driven tools.

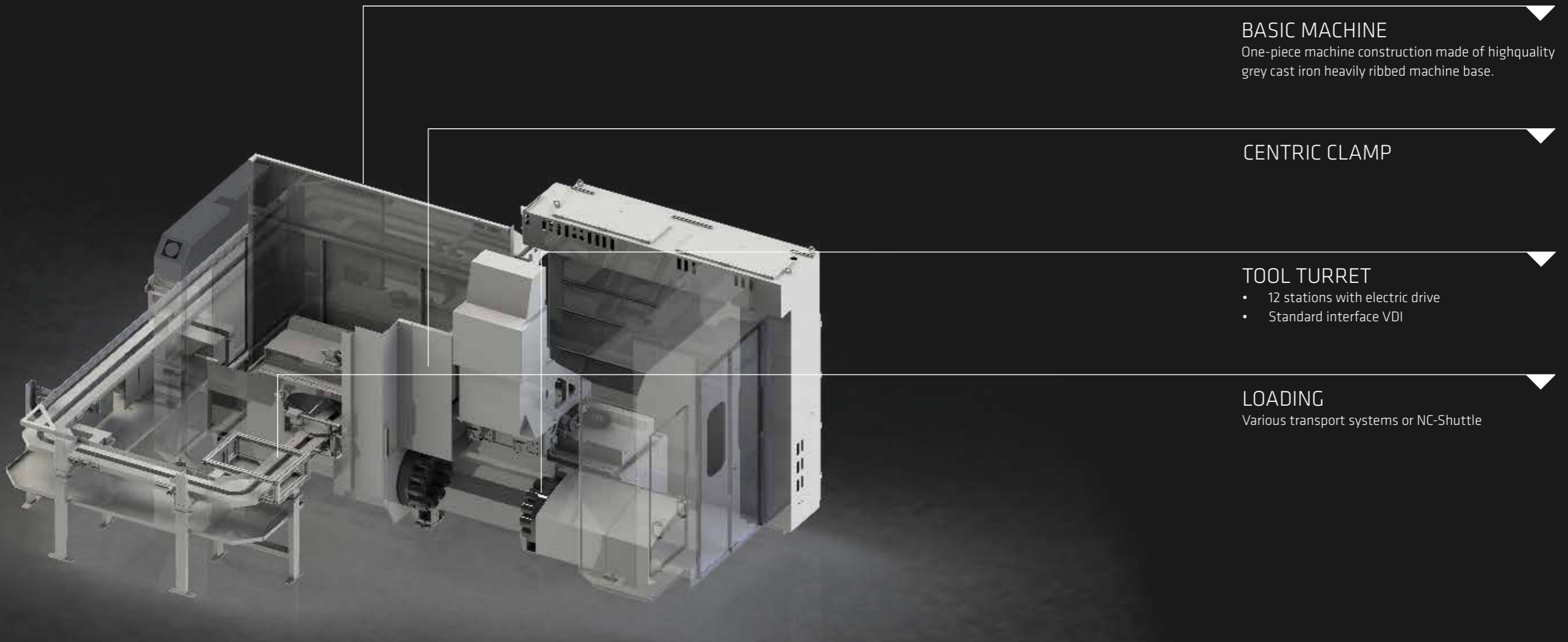


UNIVERTOR AE-T

The AE-T (Twin) is a further expansion of the AE series. The AE-T (Twin) enables simultaneous machining of two workpieces. This machine is equipped with a centric clamping device that can be used to hold two identical workpieces and to machine them with two identical tools on the turret.



Conceptual design



Automation

Transport systems

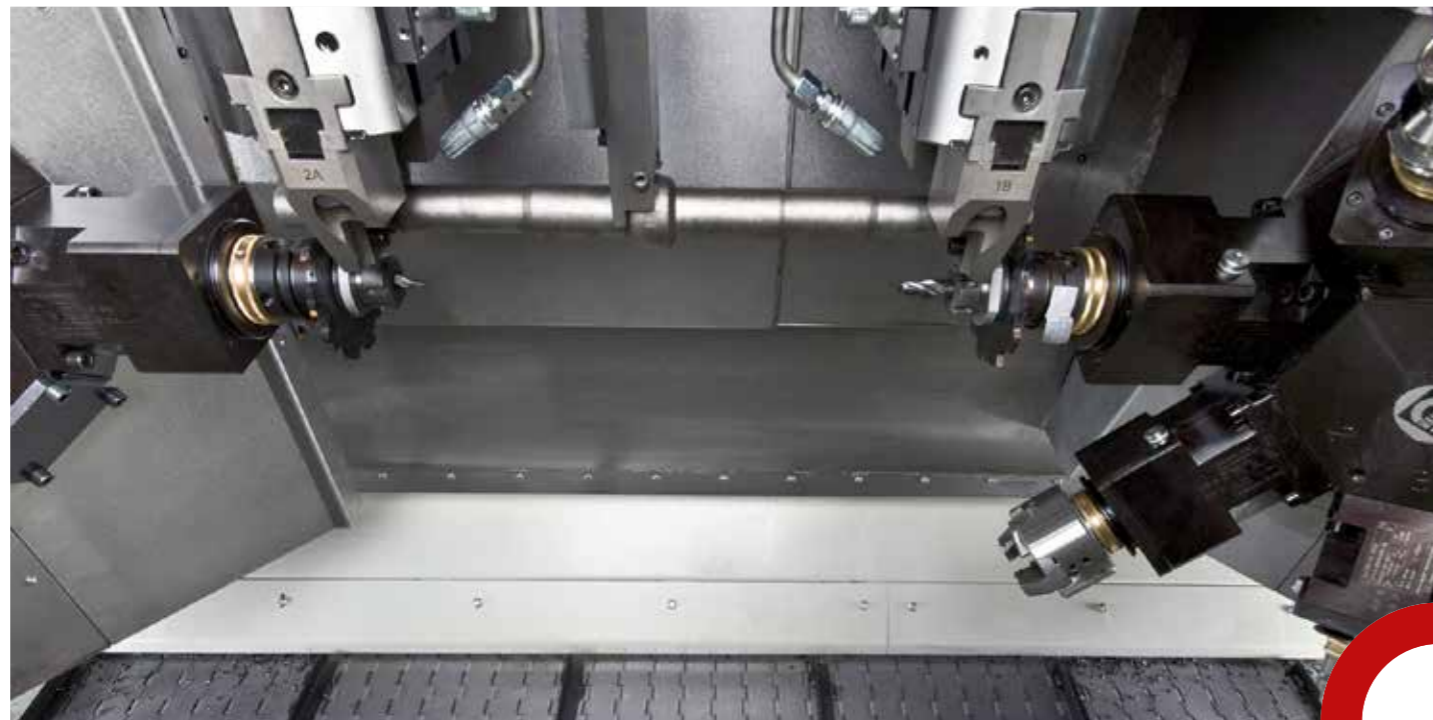
The automation options with different conveyors (such as pallet conveyor, drag frame, friction roller conveyor, etc.) offer highly variable application possibilities. Depending on the design, they can be adapted to the shape and weight of the workpieces to be transported. A variety of linking tasks, maximum flexibility and easy maintenance are just some of the countless advantages offered by these individually adaptable automation solutions.



Technologies

End machining

With the end machining technology Weisser offers a solution for the face machining of shafts. Typical processes include deburring, facing, chamfering, drilling, centering and spindle machining. In addition to contour machining at the ends, both single and double-sided machining of shafts is possible. The technology also offers advantages in terms of cycle time and availability.



Simultaneous machining

Highly productive simultaneous machining in one machine with two powerful disk turrets (4-axes). Intelligent technology processes and the combination of different machining steps offer high savings potential. Working with two tools simultaneously shortens the machining times of the workpiece and reduces the cost per part.



Mechanical zero

Measuring of all components and units relevant for the accuracy - despite high basic accuracies the individual components are „finely assembled“. As a result, mechanical deviations during assembly are minimized and wear is reduced. This ensures a high long-term stability of the complete machine system.



Intelligent technology processes and complete turnkey systems

WEISSER machining centers with integrated technology concepts are the solution to demands for shorter process times, productivity and process safety. Shorter cycle times and the associated lower unit costs are decisive competitive factors, especially when manufacturing high quantities. WEISSER turnkey solutions not only score at high quantities but also at small quantities with high set-up flexibility. We pass this competitive advantage on to our custo-

mers. With the experience of more than 160 years of development, construction and realization of customized machines, our engineers develop today the most economical solution upon your requirements. The development of the complete production process provides you full cost transparency and helps you to solve complex tasks in an optimal way. With four steps to success. WEISSER Turnkey.



Offer phase and planning phase

- Process requirements
- Production boundary conditions
- Machine requirements & machine type
- Workpiece clamping / Tools
- MFU features
- Terms of acceptance
- Delivery instructions
- Processing strategy
- Inspection of critical MFU characteristics
- Number of fixings
- Number of spindles
- Design of the machine system
- Workpiece loading and automation
- Clamping device
- Tools

Implementation phase

- Construction and integration of the workpiece-specific
 - Clamping fixtures
 - Tools
 - Automation
- Approval process of the tooling plan, layout plan, etc.
- The verification procedure of the process capability through
 - the preliminary acceptance at WEISSER
 - the final acceptance at the customer

Target phase

- Assistance with production startup and support
- Training in operation, programming and maintenance
- Service e.g. with preventive maintenance, spare part support, qualified service personnel, etc.

WEISSER IoT Solutions

Digitization / Industry 4.0

Intelligence, efficiency, individuality, speed, connectivity - these are the central statements associated with Industry 4.0. Thanks to WEISSER's broad portfolio of Industry 4.0 solutions your machine can be connected to the digital world. By reducing downtimes, you can increase the efficiency of your machine, keep it up to date by constant software updates and maintain the quality of your workpieces by keeping the machine always updated and the parameters in standard.



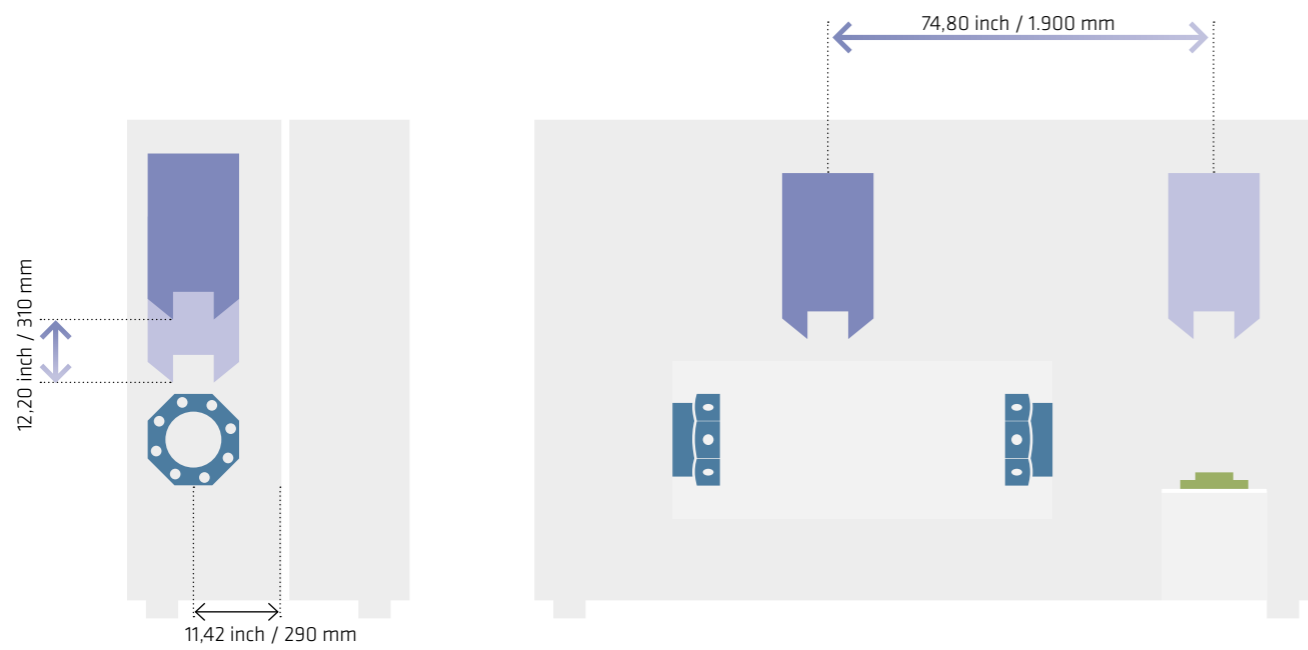
WEISSER Cloud CorE

Through our cloud platform you can access your machine from anywhere. By interlinking the entire assembly line, you can optimally plan your production and derive organizational measures. And if a problem should occur, your WEISSER service partner can be contacted directly. The aim is to carry out a preventive maintenance (Predictive Maintenance PdM), because you can recognize in advance when refilling is required and you can detect a leak at an early stage due to a non-continuous decrease of operating materials.



Technical data

UNIVERTOR AE 650L



Technical data

		AE	AE-T
Max. workpiece diameter	inch / mm	5,91 / 150	5,91 / 150
Max. workpiece length	inch / mm	23,62 / 600	23,62 / 600
Max. Feed force X/Z (40 % CDF)	kN	5 / 5	5 / 5
Max. Feed force X2 (40 % CDF)	kN	12	12
Working stroke X/Z-axis	inch / mm	13,78 / 74,80 350 / 1.900	12,20 / 74,80 310 / 1.900
Working stroke Z2-axis	inch / mm	17,99 / 457	17,99 / 457
Max. Process speed X/Z	ipm / m/min	2.362,20 / 1.968,50 30 / 50	2.362,20 / 1.968,50 30 / 50
Max. Process speed Z2	ipm / m/min	2.362,20 30	2.362,20 30
Ball screw diameter X/Z	inch / mm	1,57 / 1,57 40 / 40	1,57 / 1,57 40 / 40
Ball screw diameter Z2	inch / mm	1,57 / 40	1,57 / 40
Number of tools		2 / 6 / 8 (2x)	2 x 6 (2x)
Tool holder		HSK 63	HSK 63

Dimensions

Dimensions basic machine (LxWxH)	inch / mm	189,82 x 108,27 x 124,02 5.050 x 2.750 x 3.150	189,82 x 118,11 x 124,02 5.050 x 3.000 x 3.150
Weight	lbs / kg	31.967,03 / 14.500	37.478,59 / 17.000



J. G. WEISSER SÖHNE GmbH & Co. KG

Johann-Georg-Weisser-Straße 1
78112 St. Georgen
Germany
T +49 7724 881-0
www.weisser-web.com



WEISSER Präzisionstechnik

Johann-Georg-Weisser-Straße 1
78112 St. Georgen
Germany
T +49 7724 881-590
www.weisser-pt.com

Weisser Maschinenzentrum Schwenningen

Albertstraße 16
78056 Villingen-Schwenningen
Germany
T +49 7720 60900-41
www.weisser-web.com/service