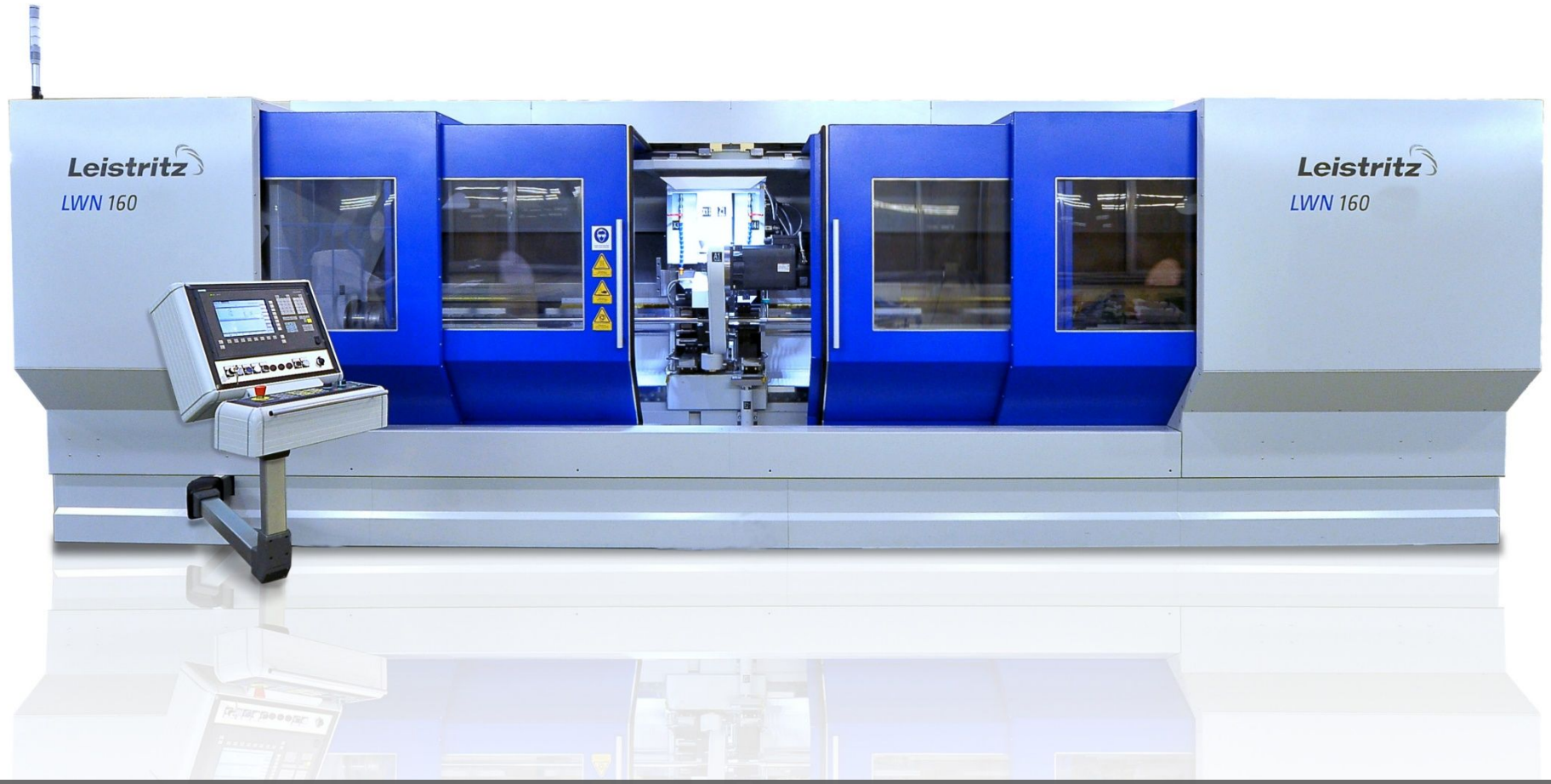
Leistritz
PRODUCTION TECHNOLOGY



LWN 160 for Ball Screws

Leistritz Whirling Machine

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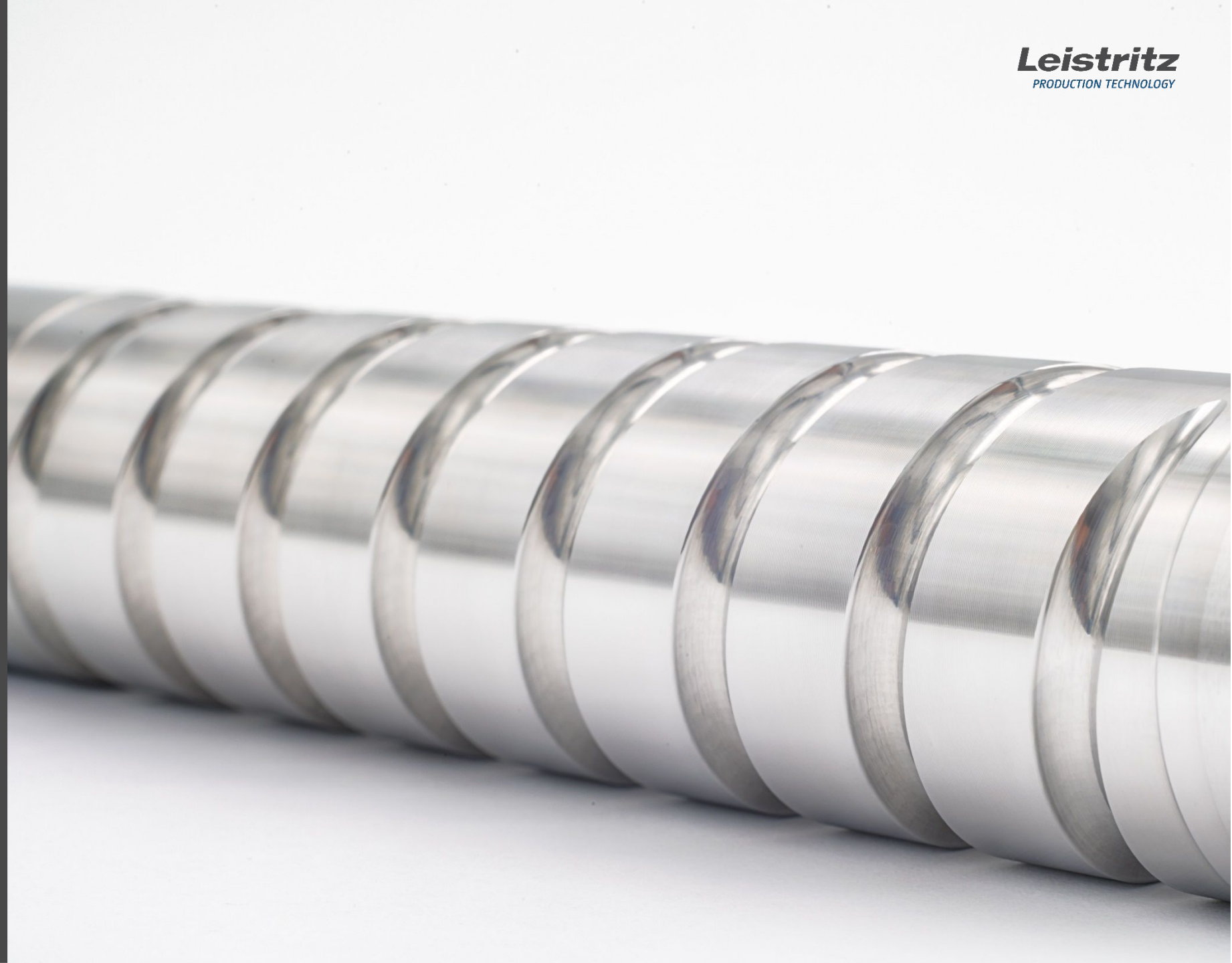
The LEISTRITZ whirling machine LWN 160 with AWS 150 / AWS 160 is designed for the machining of ball screws with:

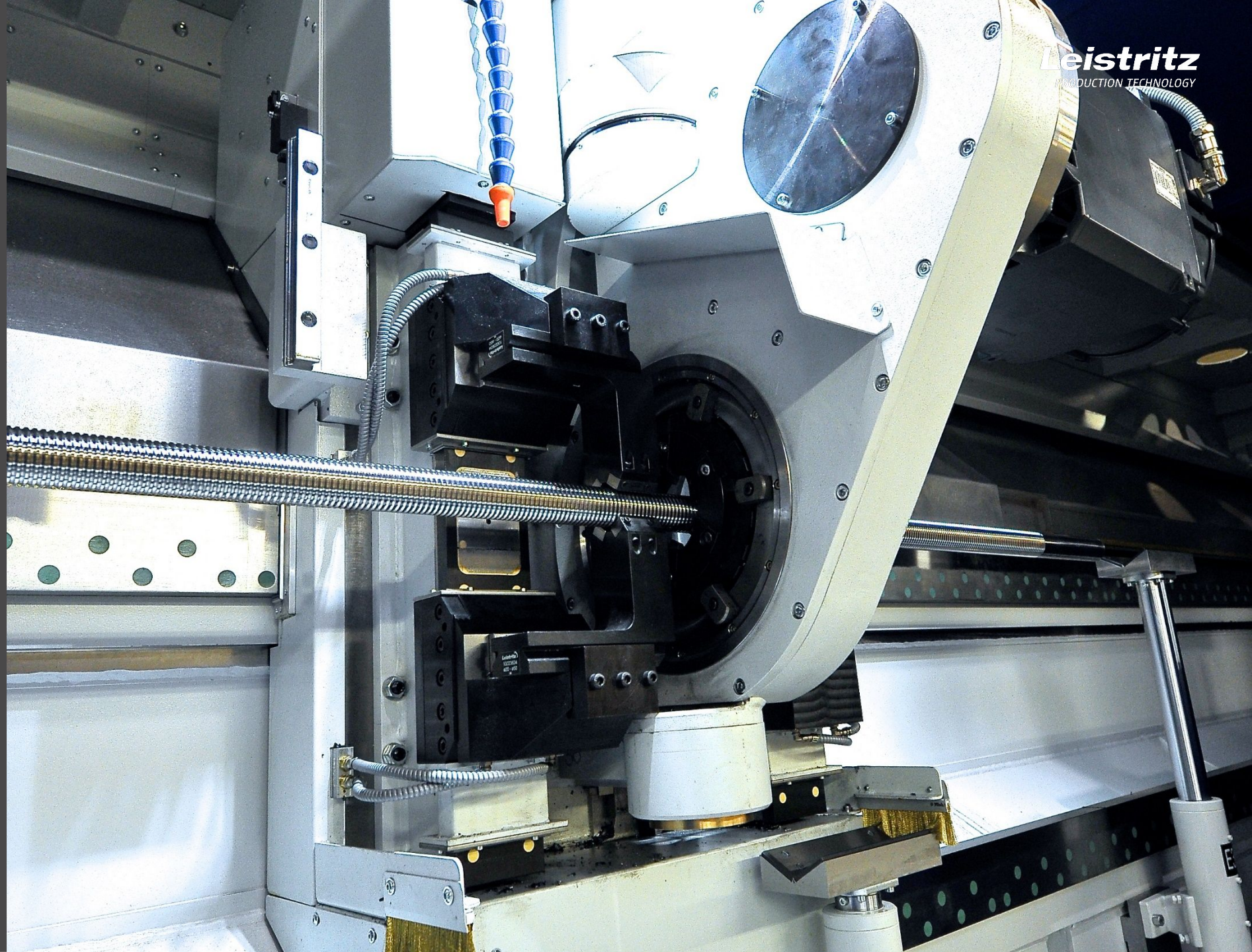
8 – 80 mm external diameter (AWS 150)
20 - 100 mm external diameter (AWS 160)
and 6000 mm total length

This type of machine is based on many years of practical experience in the field of whirling machines and incorporates the latest technical developments. The result is a machine that fulfils the highest demands of technical and ergonomic performance; it delivers high productivity, high precision, and ease of use.



The LWN 160 machine can be supplied with two different whirling units. To ensure the high runout quality of the whirling ring, the whirling unit is equipped with a short taper tool interface. The whirling ring accepts 4 – 8 fine adjustable whirling inserts depending on the diameter of the spindle.

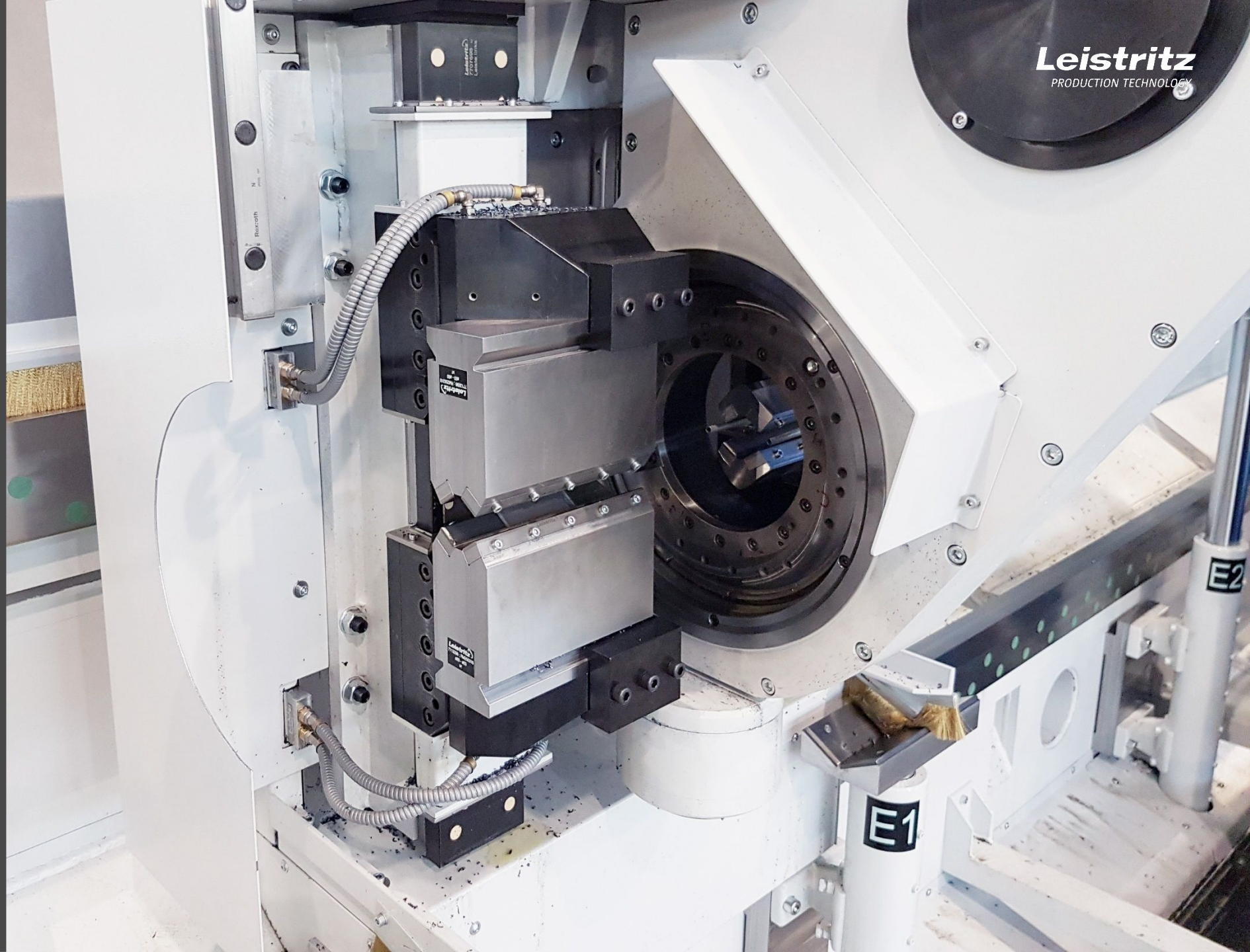
Air nozzles on the whirling unit support the chip removal from the machining zone and cool the workpiece.



Massive and self centering steady rest

These steadies take up the radial cutting forces and ensure that the workpiece remains concentric to the axis during whirling.

The steadies are mounted on the left and right side of the whirling head. The clamping jaws can be adjusted over prismatic guides to be positioned close to the whirling ring.



Supporting steady rests make it easier to load long workpieces and prevent them from sagging during processing.

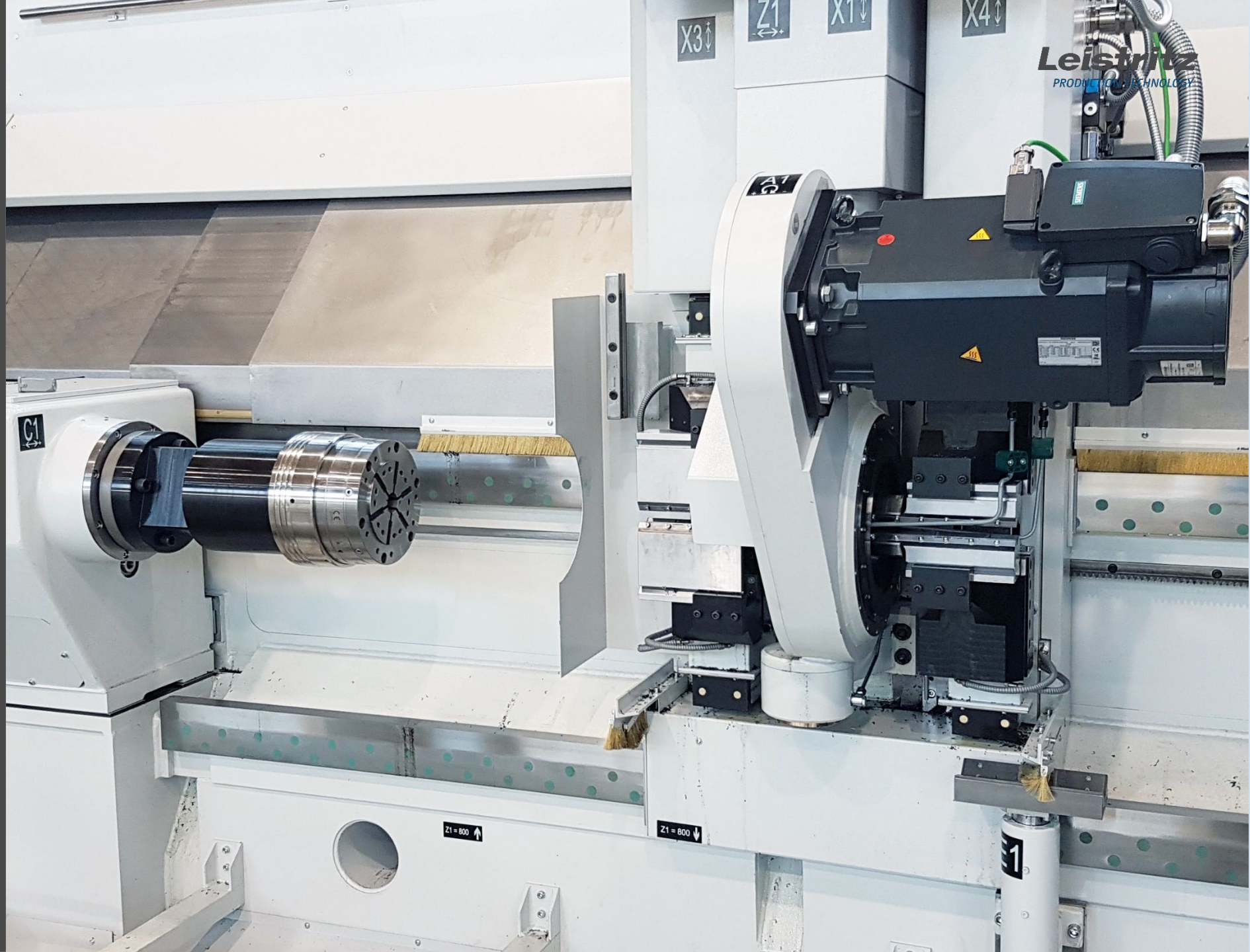
The steady rests are automatically moved to the parking position when the slide unit approaches. After the unit has passed the support steady, moves back to its support position

The lifting movement is controlled via the CNC, and a position accuracy of 0.01 mm is achieved. Depending on the workpiece diameter values programmed in the CNC program, the steady rests are automatically moved to the exact support height.

The machine is equipped with a hydraulic collet chuck.

The large contact area between chuck and workpiece allows high torque to be transmitted and provides high concentricity.

Short set up time less than 1 minute for the collet change.

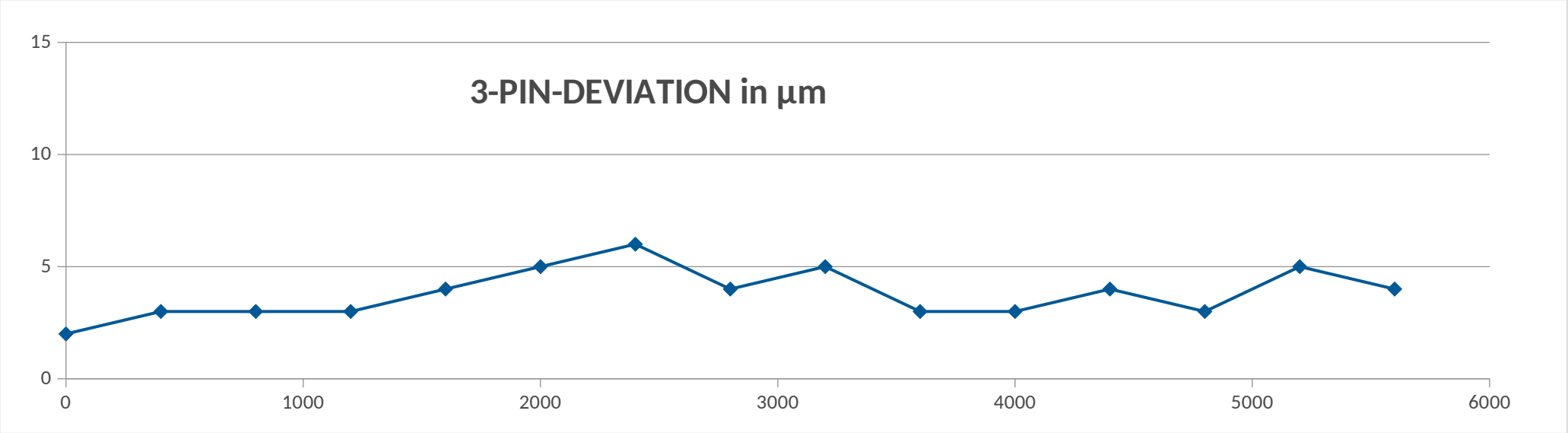


CNC control FANUC 31i-B Plus

- compact design of CNC control with 1 NC channel integrated in screen unit
- digital interface to spindle and drives
- memory card and USB interface on the screen unit for data transfer
- CNC part program memory
- absolute and relative zero offsets
- CNC programming according to DIN/ISO 66025
- parameterizable creation of part programs
- calculation functions
- programming functions

Performance data LWN 160.6000

Spindle	63x20	ball - 9,5 mm
Deviation conicity	6µm	with 5,5 Meter
Whirling time	48,5 minutes	with 5,5 Meter



Technical data LWN

160.6000

Total machine	
Dimensions of the machine	9.800 mm x 3.120 mm x 2.300 mm (LxDxH)
Weight	approx. 12.000 kg
Machining length max.	6.000 mm

Whirling Unit AWS 160	AWS 150	
Workpiece diameter	8 -80 mm	20 – 100 mm
Hollow bore withouth whirling ring	154 mm	196 mm
Max. Speed	3.800 rpm	2.100 rpm
Power	7,5 KW	10 KW

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Thank You.

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