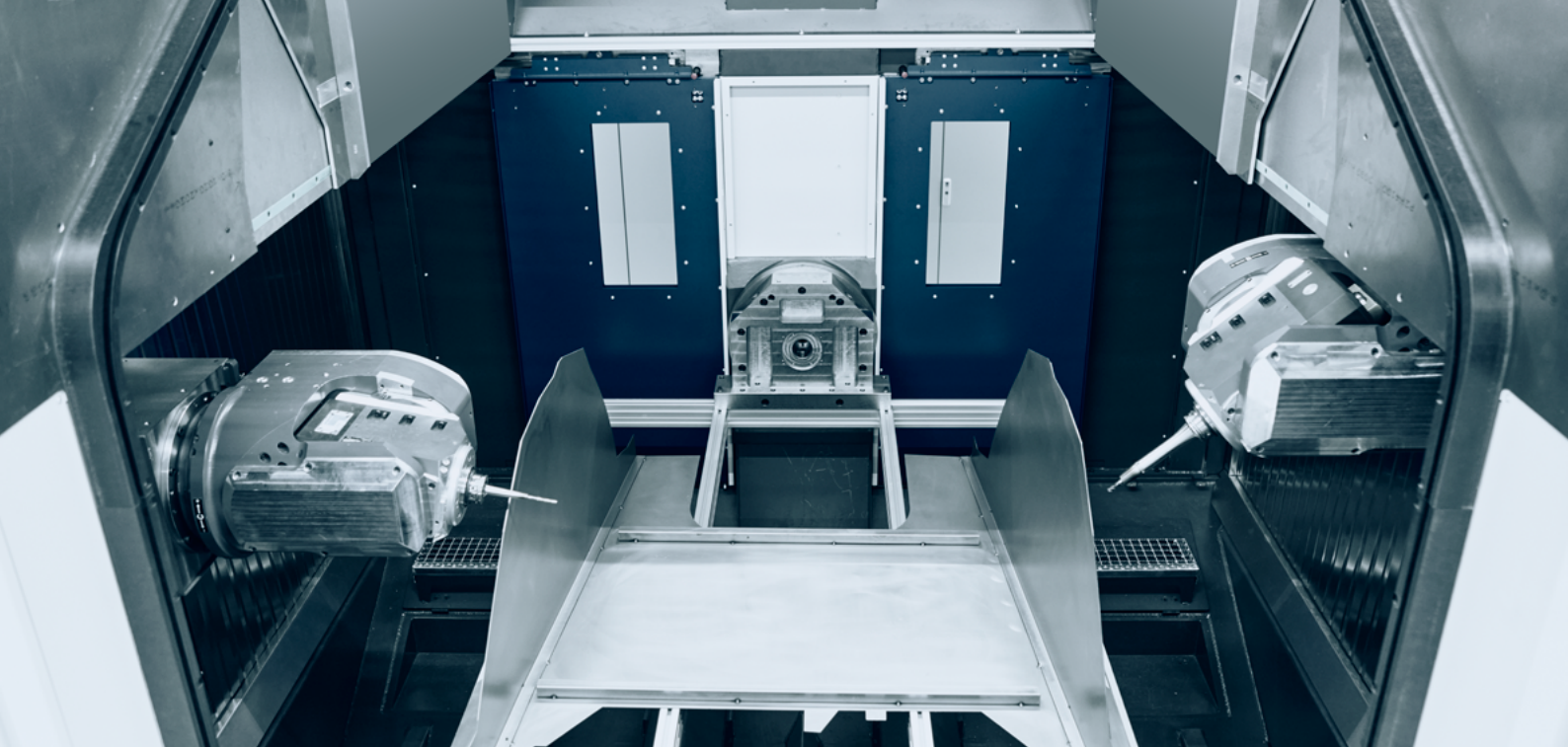


wenzler

A HELLER company



**DOUBLE PROCESSING FOR
LARGE ALUMINUM STRUCTURAL PARTS
BIG CASTING MACHINE: WH 10000**



WH10000 – Parallel machining from two sides

The WH10000 is a horizontal 5-axis machining center for machining large aluminum castings. Two linear 3-axis units face each other on one machine bed. The workpiece is centered on a horizontal swivel axis [A-axis] and can be machined from all sides simultaneously in a single clamping operation.

Each machining unit is equipped with a 5-axis swivel head with integrated motorized spindle. The workpiece can be machined in any A-axis position.

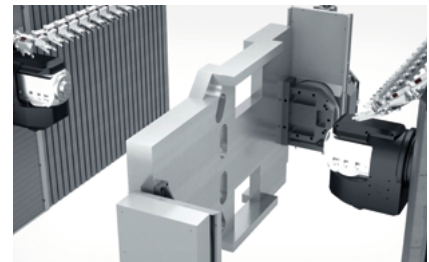
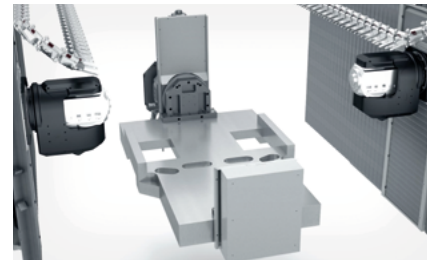
Based on HELLER standard components and Wenzler kinematics, the WH10000 is the ideal machining center for extremely large die-cast aluminium structural parts.

Travels:

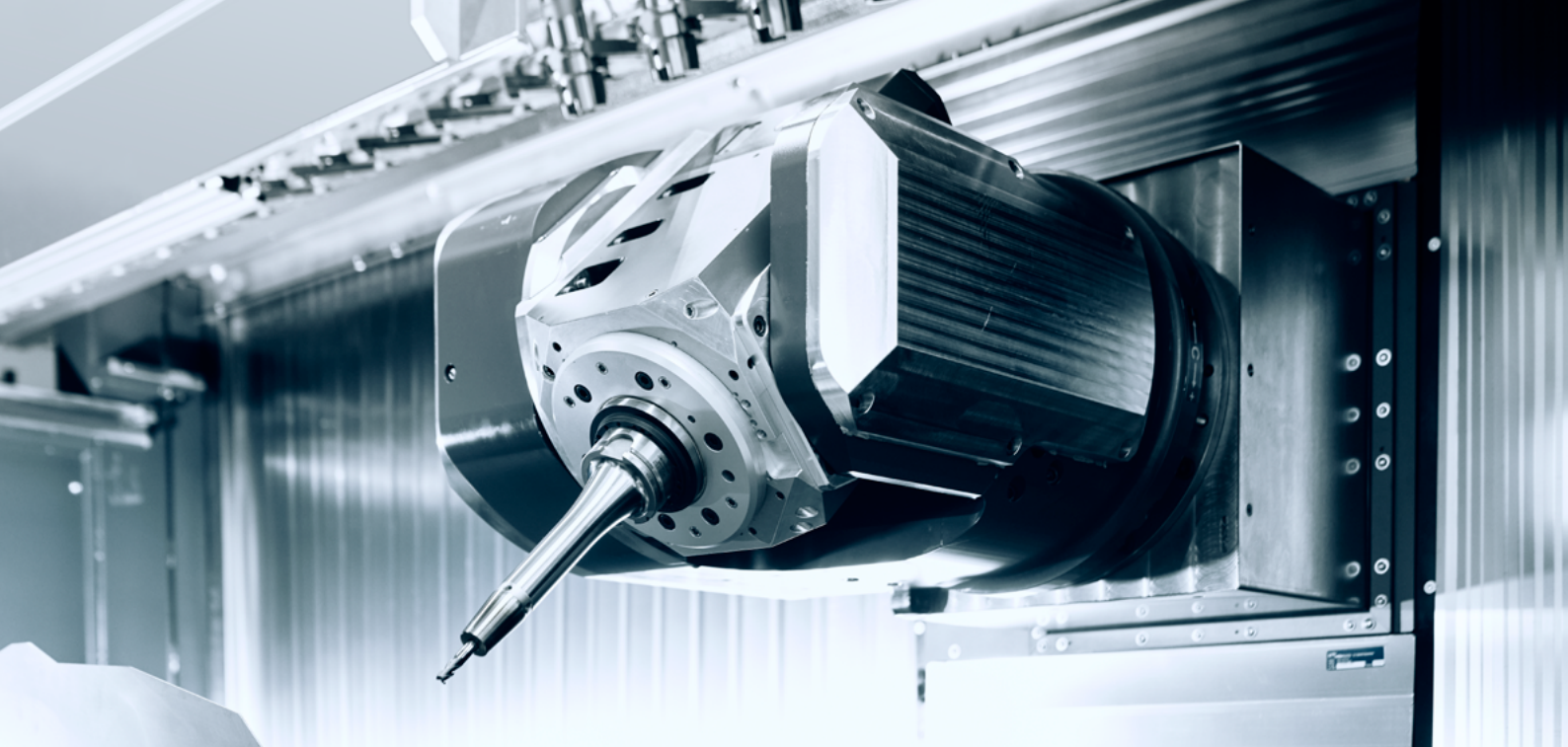
X-axis: 1800 mm

Y-axis: 1000 mm

Z-axis: 900 mm



The A-axis enables free positioning of the workpiece.



WH10000 – high agility for more productivity

The design of the machine reflects over 25 years of experience in the mass production of aluminum structural parts. Robustness, good accessibility and cost-effectiveness are our priorities. The outstanding properties of the WH10000 offer particular advantages for industrial applications.

Technical highlights:

- Large travel ranges
- High agility
- 5-axis machining
- Two spindles in use simultaneously
- Minimum quantity lubrication [MMS]
- Free chip fall
- Central chip disposal
- Integrated extraction system
- Energy-efficient drive concept
- Generous accessibility
- Automatic loading and unloading by robot from the front or through a portal from above



Automatic tool change

The chain magazine offers 51 places per processing unit, and the tools are changed via pick-up. This enables a tool change time of 4 seconds to be achieved.

Swivel head with high-frequency spindle

The high-frequency spindle installed in the swivel head is equipped with an HSK63 tool interface and enables speeds of up to 16,000 rpm.



State-of-the-art control technology

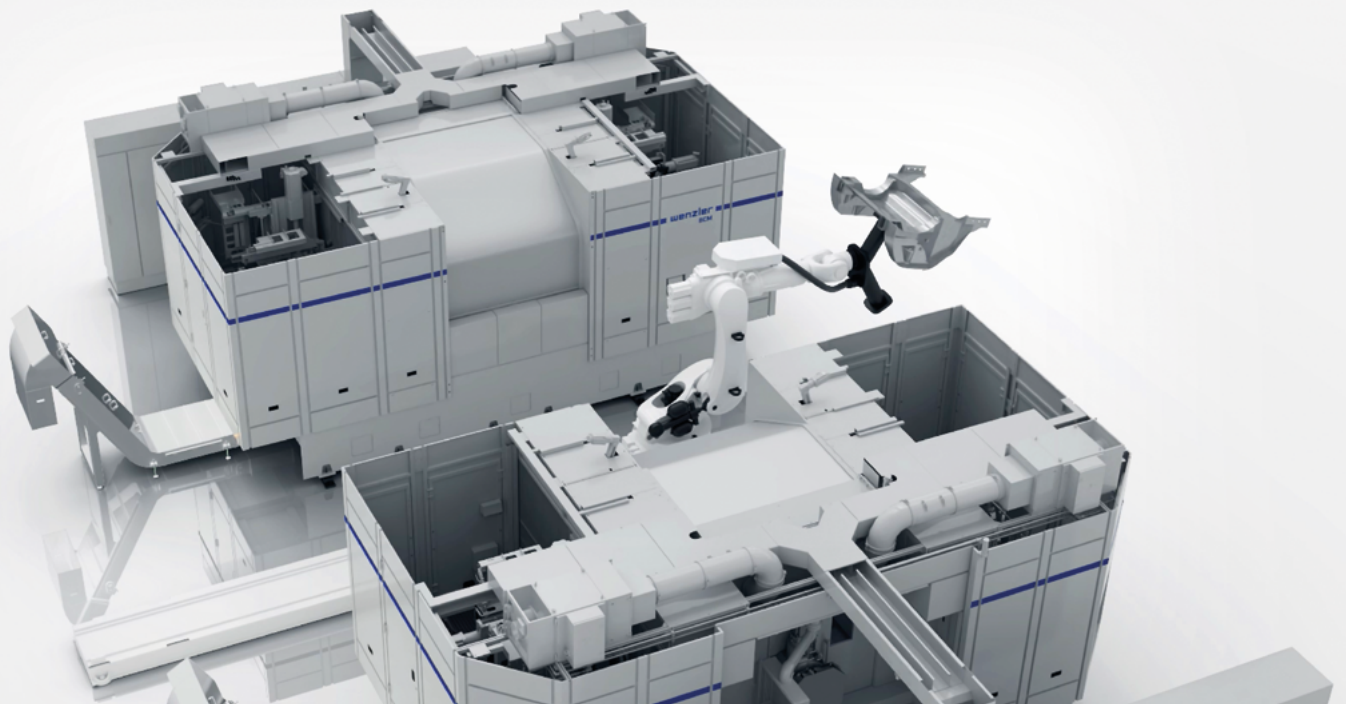
The WH 10000 is equipped with integrated absolute measuring systems in the NC axes. The ultra-modern Siemens SINUMERIK ONE control system guarantees smooth operation and optimum operability of the machine. The machining center works with digital drives and has a control cabinet with cooling device. To improve energy efficiency and performance, the braking energy, for example, is fed back into the grid at a pulsed frequency.

Generous accessibility

The WH 10000 Big Casting Machine offers excellent accessibility. One side of the machining center is available as a loading side for automation. To give the operator a good view, a manual control unit can be connected for set-up activities. The maintenance access points are easily accessible during operation.

Good automation capability

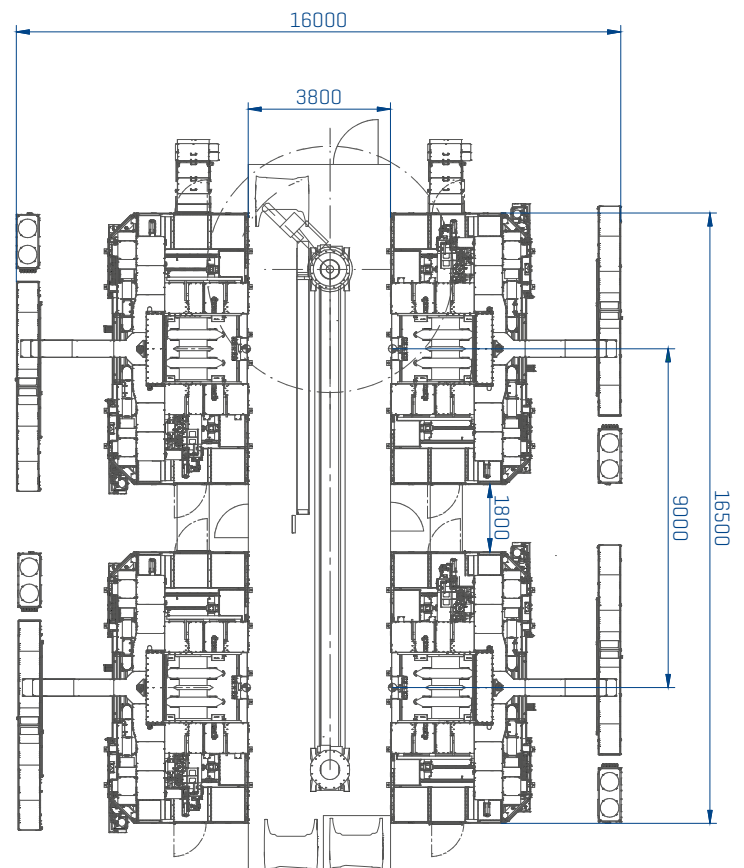
The workpiece can be loaded directly onto the machine table from the front using a robot and unloaded after processing. For automation concepts via a gantry, the workpiece can also be loaded and unloaded from above. A large roller shutter allows access from the front and from above at the same time. This means that robots and gantry systems can be used for automation. Rely on Wenzler's process expertise and talk to us about individual and optimally coordinated automation concepts.



Many processing units in a small area

To increase productivity, several WH10000 can be operated in series. Two WH10000 and thus four processing units can be used with one robot on an area of 10000 x 16500 mm. Similarly, four WH10000 can be set up with one robot on a surface of 16000 x 16500 mm.

The chip conveyor enables the removal of chips from several machines to an ejector. By flange-mounting the chip conveyor to the machines, the components of the chip conveyor can be easily removed from the machine during maintenance without having to plan for extra space in the layout of the hall.



WH 10000 – Technical data

Working area

- X axis 1800 mm
- Y axis 1000 mm
- Z axis 900 mm

Feed rate

- Rapid travers
 - X, Y axis 60 m/min
 - Z axis 100 m/min
- Axis acceleration
 - X, Y, Z axis 6 m/s²
- Jerk
 - X, Y, Z axis 150 m/s³

Work spindle [2x]

- Spindle taper HSK 63
- Speed range 16000 min⁻¹
- Power S6/40% ED 31,5 kW
- Maximum torque 62 Nm

Tool magazine [2x]

- Places 51
- Length 450 mm
- Max. Ø 136 mm
- Max. tool weight 8 kg
- Zuladung 250 kg
- Tool change time 4 s

As a medium-sized company, Wenzler can react quickly and flexibly to individual requirements. The in-house production of all know-how-specific components of Wenzler machining centres guarantees our customers an above-average quality standard and reliable, economical solutions.

As part of the HELLER Group, Wenzler has access to the global HELLER network of competent sales and service contacts.

Do you have any questions about WH 10000 and our services? We look forward to getting in touch with you and discussing your requirements.