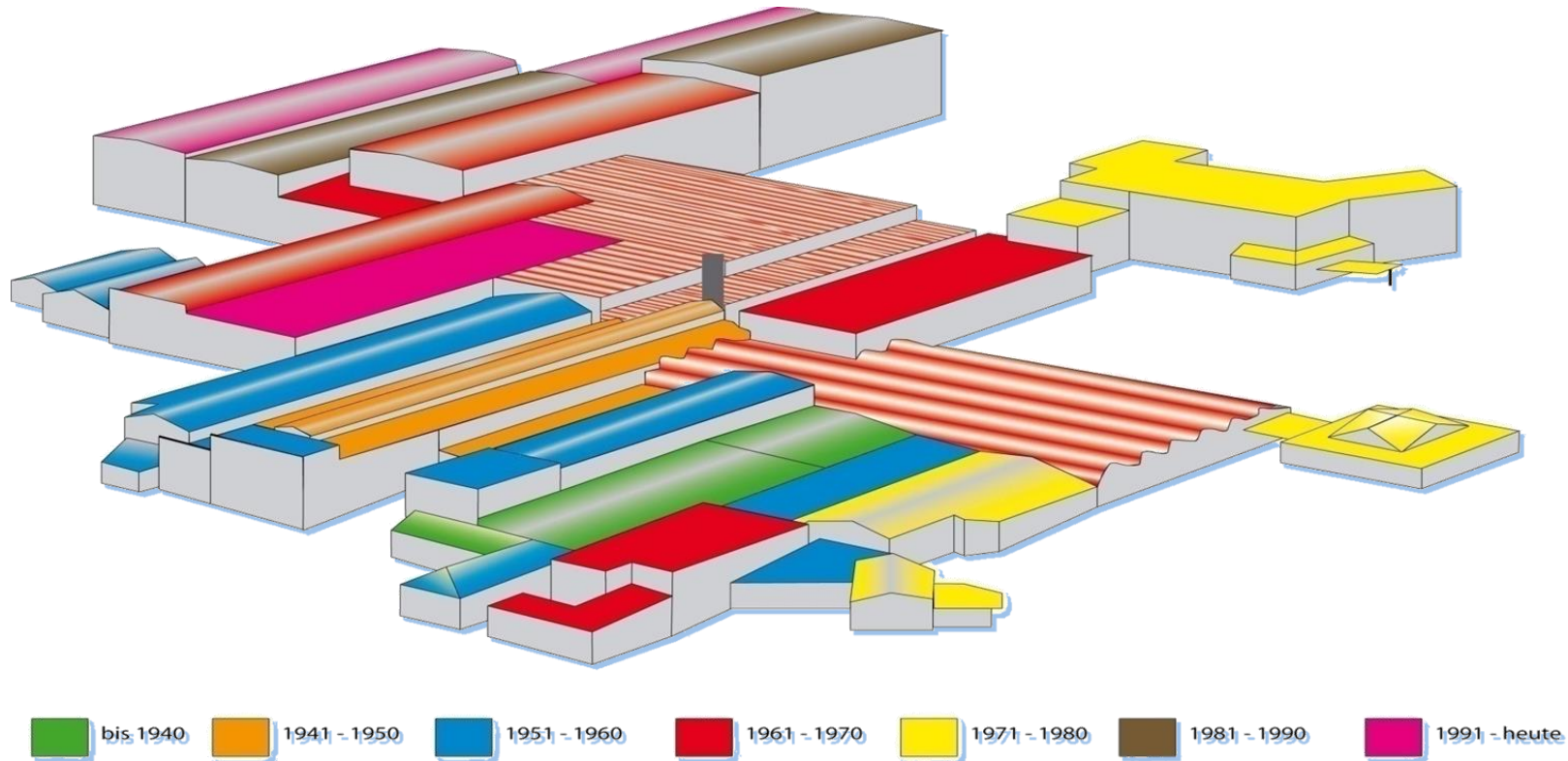




Waldrich Coburg, Germany, Company profile

WALDRICH COBURG



Size of lot: 113.663 m²

(similar to the size of 16 soccer playgrounds)

Office space: 8.867 m²

Production space: 29.800 m²

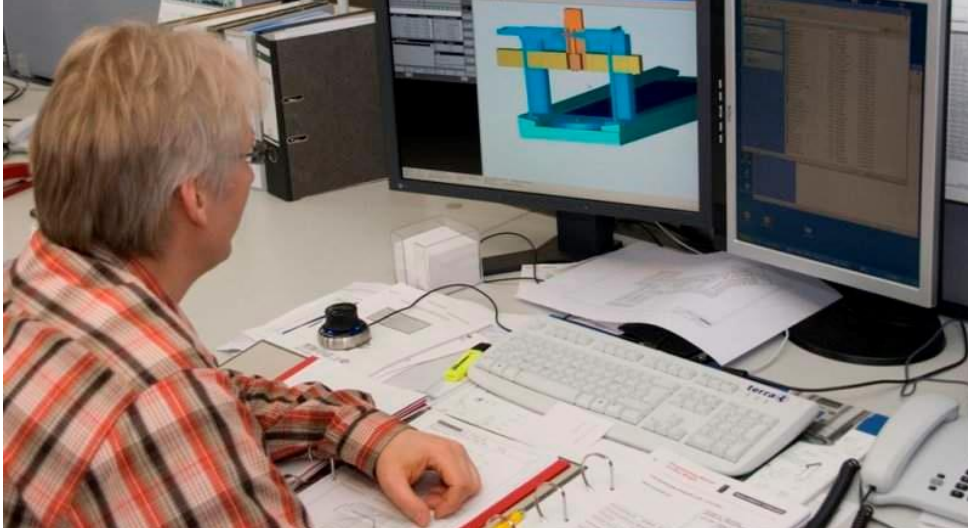
Staff: 550

Machines per year: 20-25



Years of experience

WALDRICH COBURG





1 Grinding centre



2 Table type milling machines



2 Gantry type milling machines



Waldrich Coburg

View into first Final Assembly Workshop

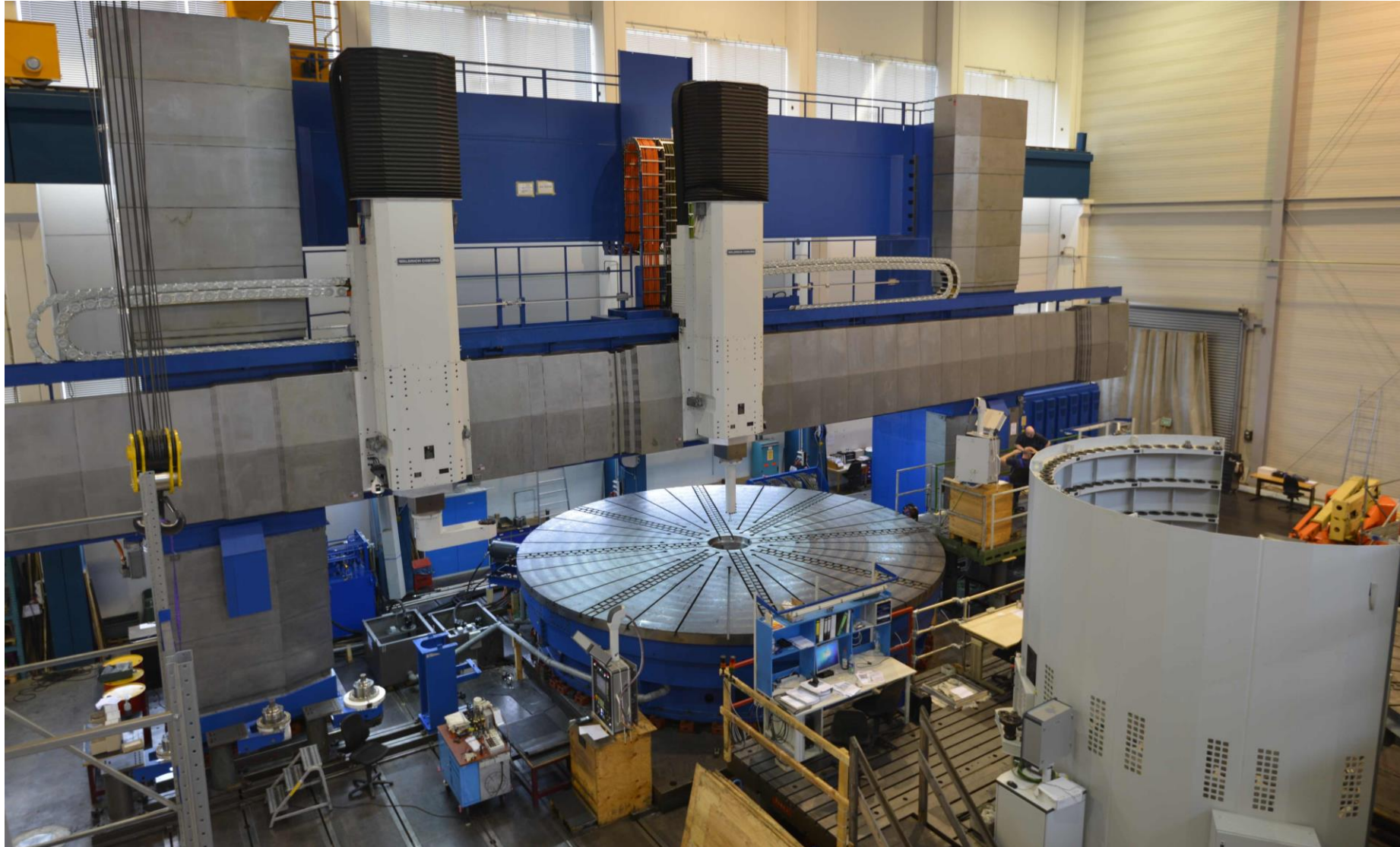
WALDRICH COBURG



Waldrich Coburg

View into second Final Assembly Workshop

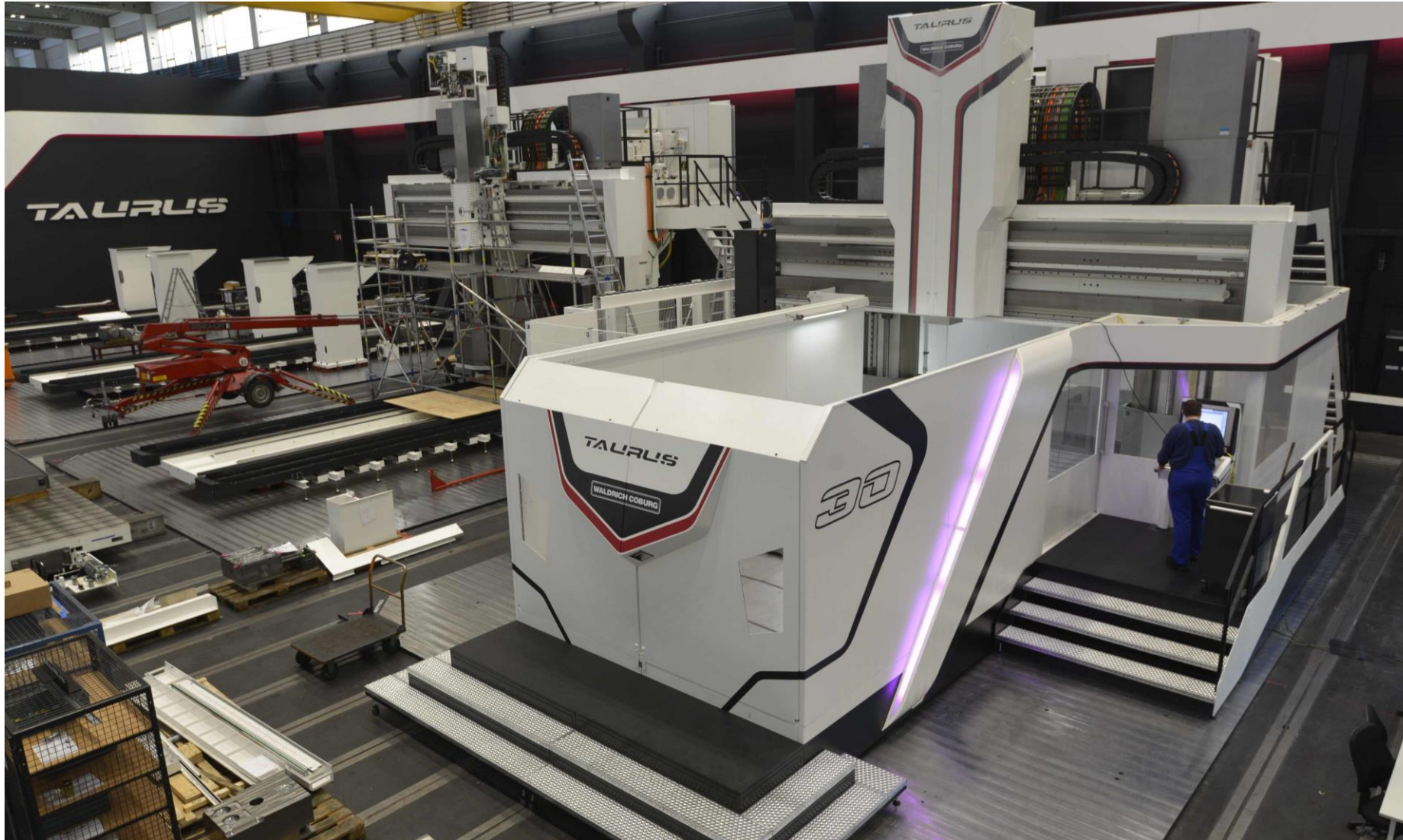
WALDRICH COBURG



Waldrich Coburg

View into third newly created Custom Final Assembly Workshop

WALDRICH COBURG





WALDRICH COBURG

Precision by Experience

Waldrich Coburg MultiTec

Some reference installations

Kapp Niles / Germany

MultiTec 3000 AT

WALDRICH COBURG




KAPP NILES

Width of table:	2 500 mm
Length of table:	4000 + 4 000 mm
Diameter of turn table:	2 500 mm
Clearance between columns:	3 000 mm
Clearance between table and spindle nose:	2 200 mm
Milling power:	45 kW
Control system:	SIEMENS CNC path control SINUMERIK 840 D, 6 axes
Built in:	1999
Application:	machine tool industry
Customer:	Niles Werkzeugmaschinen, Berlin / Germany

Signer / Swiss MultiTec 3500 AT

WALDRICH COBURG



Width of table:	3 000 mm
Length of table:	6 500 + 6 500 mm
Clearance between columns:	3 500 mm
Clearance between table and spindle nose:	3 000 mm
Milling power:	45 kW
Control system:	SIEMENS CNC continuous path control SINUMERIK 840 D, 5 axes
Built in:	2001
Application:	job shop
Customer:	Hans Singer AG, Ennetach Erlen / Swiss



Width of table:	1 750 mm
Length of table:	3 000 + 2 000 mm
Diameter of turn table:	1 750 mm
Clearance between columns:	3 000 mm
Clearance between table and spindle nose:	2 000 mm
Milling power:	45 kW
Control system:	SIEMENS CNC continuous path control SINUMERIK 840 D, 7 axes
Built in:	2002
Application:	gas turbine frame machining
Customer:	MAN Turbomaschinen AG, Oberhausen / Germany

Engel / Austria MultiTec 4500 AP

WALDRICH COBURG

ENGEL



Width of pallet:	3 000 mm
Length of pallet:	8 000 mm
Clearance between columns:	4 500 mm
Clearance between pallet and spindle nose:	2 000 mm
Milling power:	45 kW
Control system:	SIEMENS CNC continuous path control SINUMERIK 840 D, 5 axes
Built in:	2004
Application:	plastic machine parts machining
Customer:	Engel Maschinenbau KG, St. Valentin / Austria

HELLER / Brazil

MultiTec 3500 AT

WALDRICH COBURG

HELLER
machine tools



Width of table:	3 000 mm
Length of table:	4 000 + 4 000 mm
Clearance between columns:	3 500 mm
Clearance between table and spindle nose:	2 500 mm
Milling power:	45 kW
Control system:	SIEMENS CNC continuous path control SINUMERIK 840 D, 5 axes
Built in:	2005
Application:	machine tool industry
Customer:	Heller Maquinas Operatrizes, Sao Paulo / Brazil

Signer / Swiss MultiTec 3000 AT

WALDRICH COBURG



Width of table:	2 500 mm
Length of table:	3 000 + 3 000 mm
Clearance between columns:	3 000 mm
Clearance between table and spindle nose:	2 500 mm
Milling power:	45 kW
Control system:	SIEMENS CNC continuous path control SINUMERIK 840 D, 5 axes
Built in:	2007
Application:	job shop
Customer:	Hans Singer Ag, Ennetach Erlen / Swiss



Width of table: 2 500 mm
Length of table: 3 000 + 3 000 mm
Clearance between columns: 3 000 mm
**Clearance between table
and spindle nose:** 1 750 mm
Milling power: 45 kW

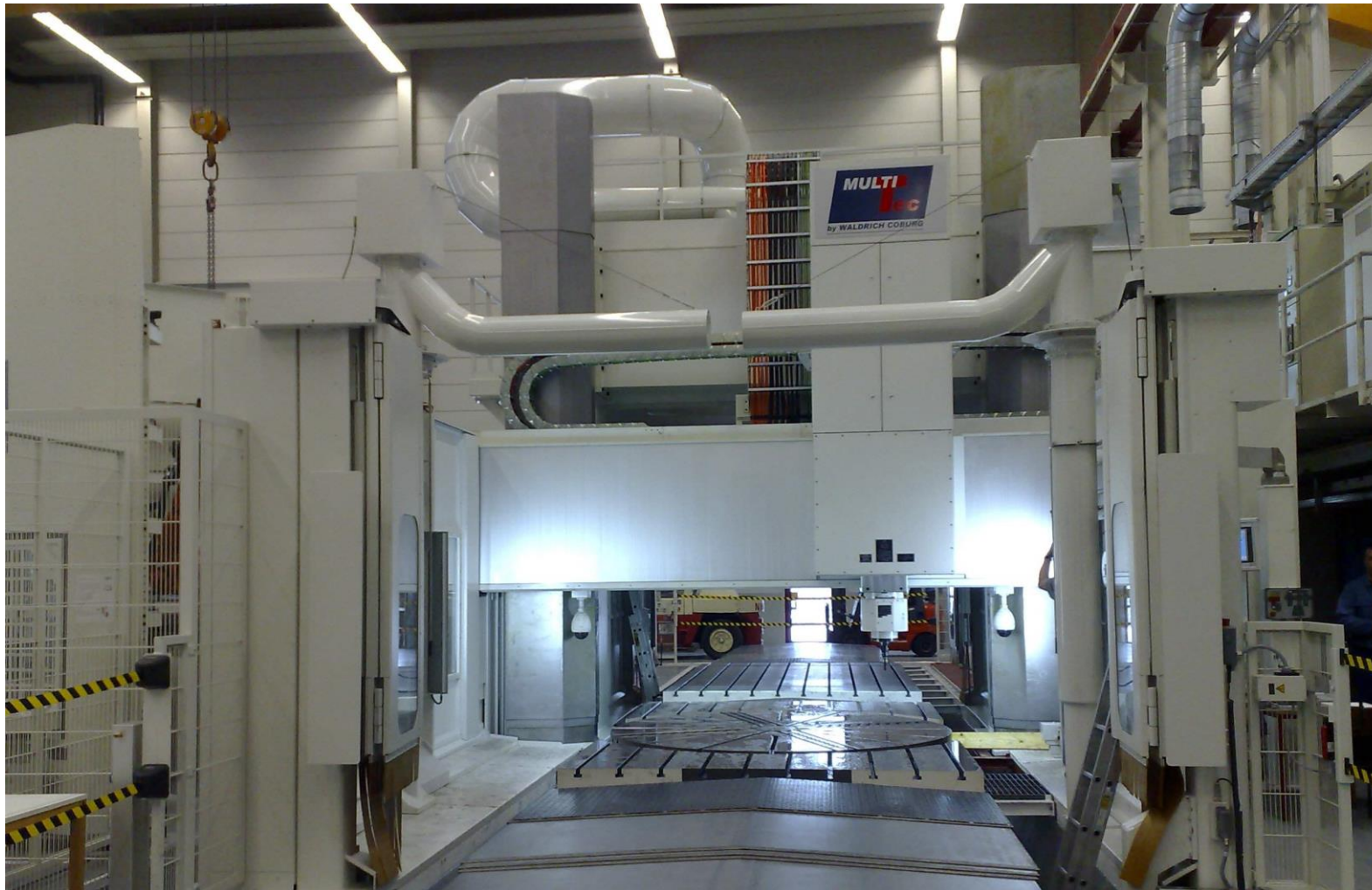
Control system: SIEMENS CNC
continuous path control
SINUMERIK 840 D, 4 axes

Built in: 2009
Application: machine tool industry
Customer: Stama Maschinenfabrik GmbH
Schlierbach / Germany

Kapp Niles / Germany

MultiTec 3000 AT

WALDRICH COBURG

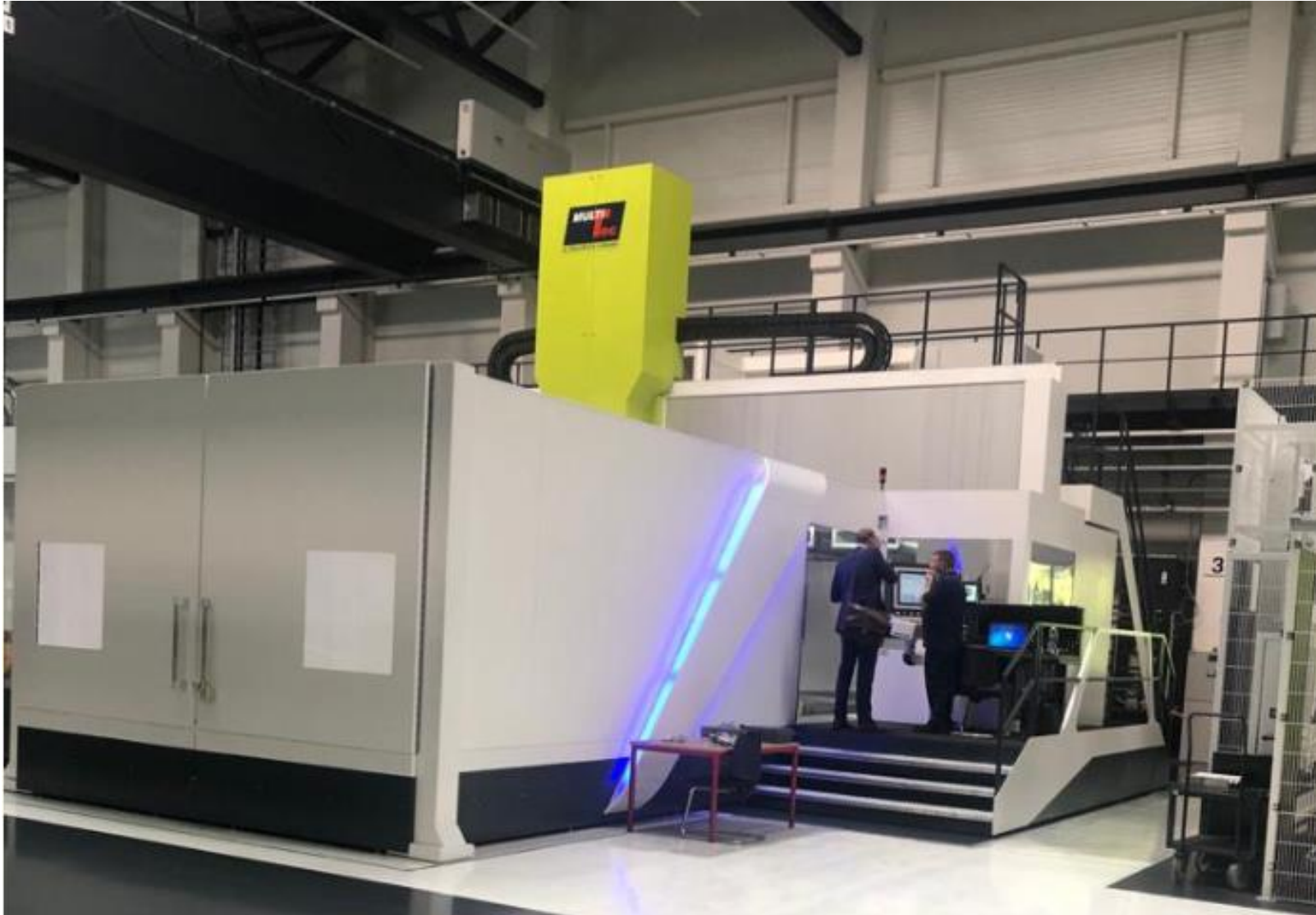


Width of table:	2 500 mm
Length of table:	4000 + 4 000 mm
Diameter of turn table:	2 500 mm
Clearance between columns:	3 500 mm
Clearance between table and spindle nose:	3 000 mm
Milling power:	45 kW
Control system:	SIEMENS CNC continuous path control SINUMERIK 840 D sl, 6 axes
Built in:	2012
Application:	machine tool industry
Customer:	Niles Werkzeugmaschinen, Berlin / Germany

Porsche Werkzeugbau GmbH / Germany

2 x MultiTec 3500 FT

WALDRICH COBURG



Width of table:	2 500 mm
Length of table:	6 000 mm
Clearance between columns:	3 500 mm
Clearance between table and spindle nose:	2 200 mm
Milling power:	45 / 63 kW
Control system:	Heidenhain CNC continuous path control Heidenhain iTNC 640, 5 axes
Built in:	2020
Application:	die- and mold shop
Customer:	Porsche Werkzeugbau GmbH Schwarzenberg / Germany

American Hydro / USA

MultiTec 3500 AT

WALDRICH COBURG



Width of table:	3 000 mm
Length of table :	5 000 + 5 000 mm
Diameter of turn table:	3 000 mm
Clearance between columns:	3 500 mm
Clearance between table and spindle nose:	3 000 mm
Milling power:	45/63 kW
Control system:	SIEMENS CNC continuous path control SINUMERIK 840 D sl, 6 axes
Built in:	2020
Application:	machining parts for power plants
Customer:	American Hydro Stonewood / USA

Schweizerische Bundesbahnen SBB – Hägendorf

MultiTec 2500 FT

WALDRICH COBURG



Width of table:	2 000 mm
Length of table:	4 500 mm + 4.500mm
Clearance between columns:	2 500 mm
Clearance between table and spindle nose:	1 500 mm
Milling power:	45/63 kW
Control system:	SIEMENS CNC continuous path control SINUMERIK 840 D sl, 5 axes
Built in:	2021
Application:	rail switch components
Customer:	Schweizerische Bundesbahnen SBB Hägendorf / Schweiz



Machine portal with adjustable crossrail – W-axis

WALDRICH COBURG

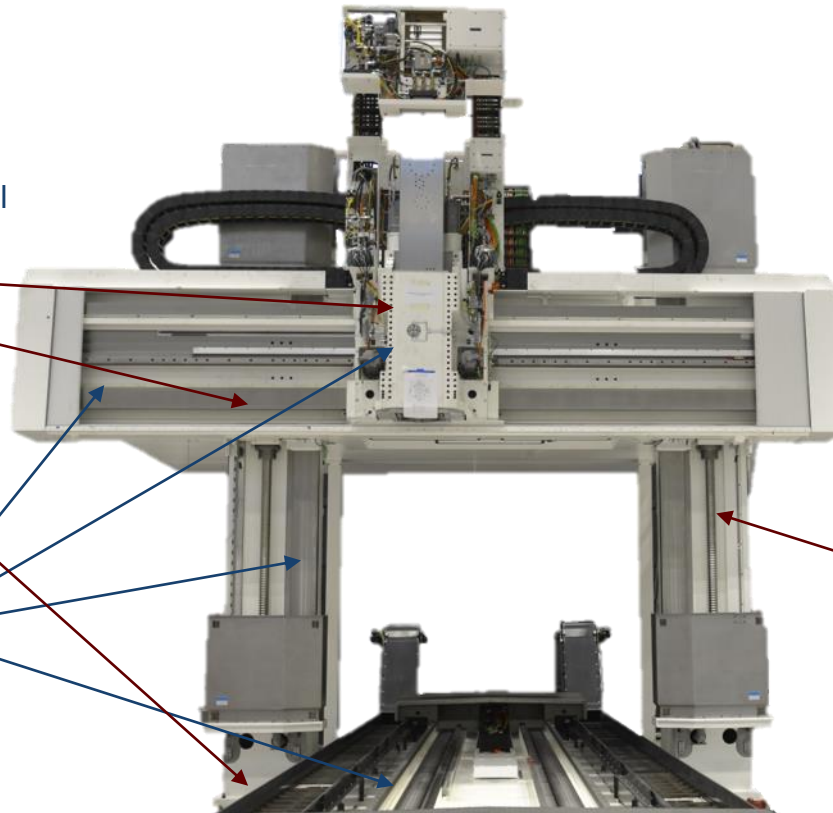


Thermo-symmetrical portal machine design with columns, cross rail, slides, ram and machine bed made from casting for constant and equal thermal behavior and dampening capability

Hydrostatic guide ways in all axes

- temperature controlled by permanent circulation of hydrostatic oil
- highest accuracy due to high precision machining of guiding faces
- huge contact surface for best stability

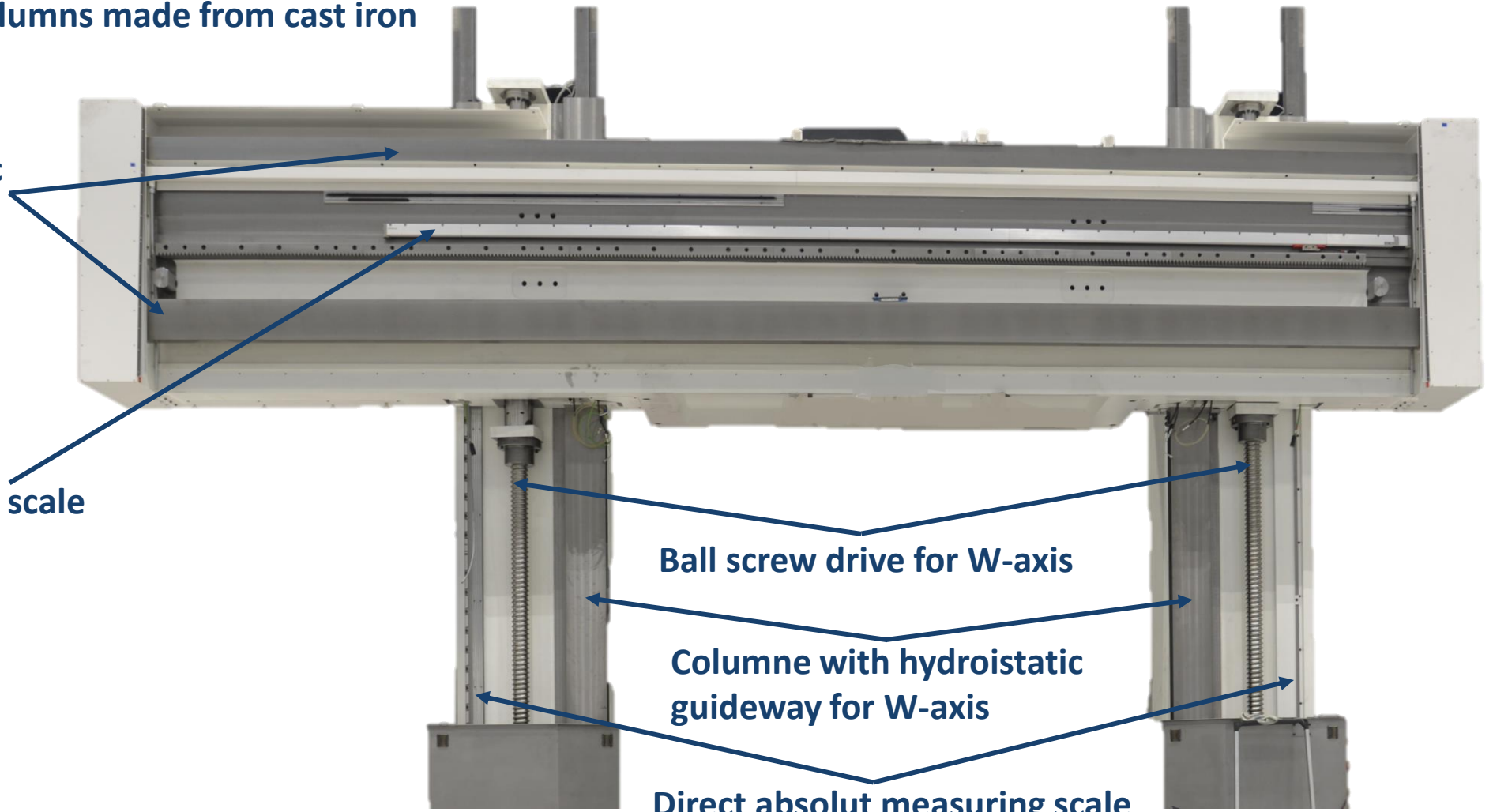
Advantages in stability and accuracy due to continuous NC- travelling cross rail at MultiTec for reduced throat depth



Crossrail, traverse and columns made from cast iron

Crossrail with hydrostatic guideways for Y-axis

Direct absolut measuring scale for Y-axis



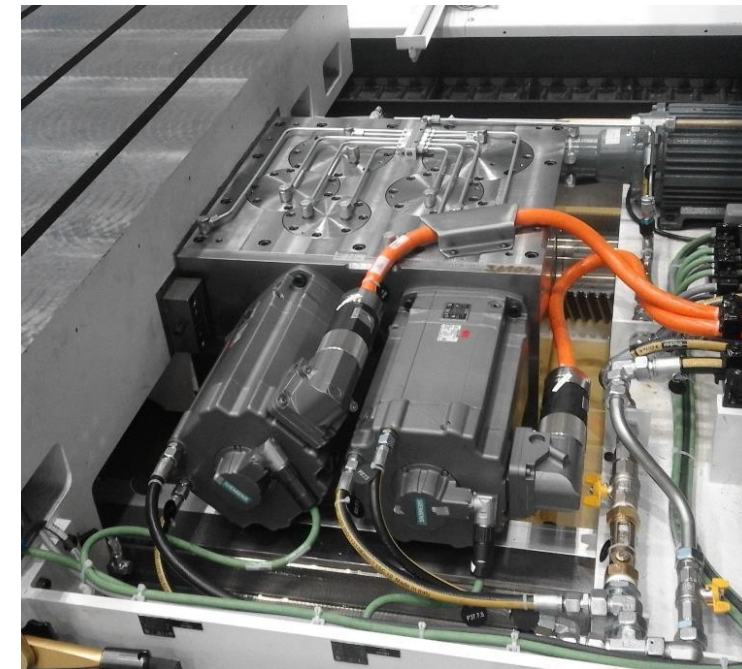
Ball screw drive for W-axis

Column with hydroistatic guideway for W-axis

Direct absolut measuring scale on both W-axis sides

X-Axis

- Machine bed design made from GJS 250
- Hydrostatic guideways in x-axis
- Double rack&pinion drive with own designed gearbox and two digital drives

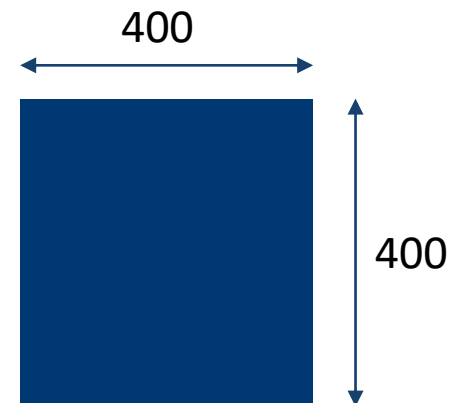


MultiTec Ram – Specification

WALDRICH COBURG

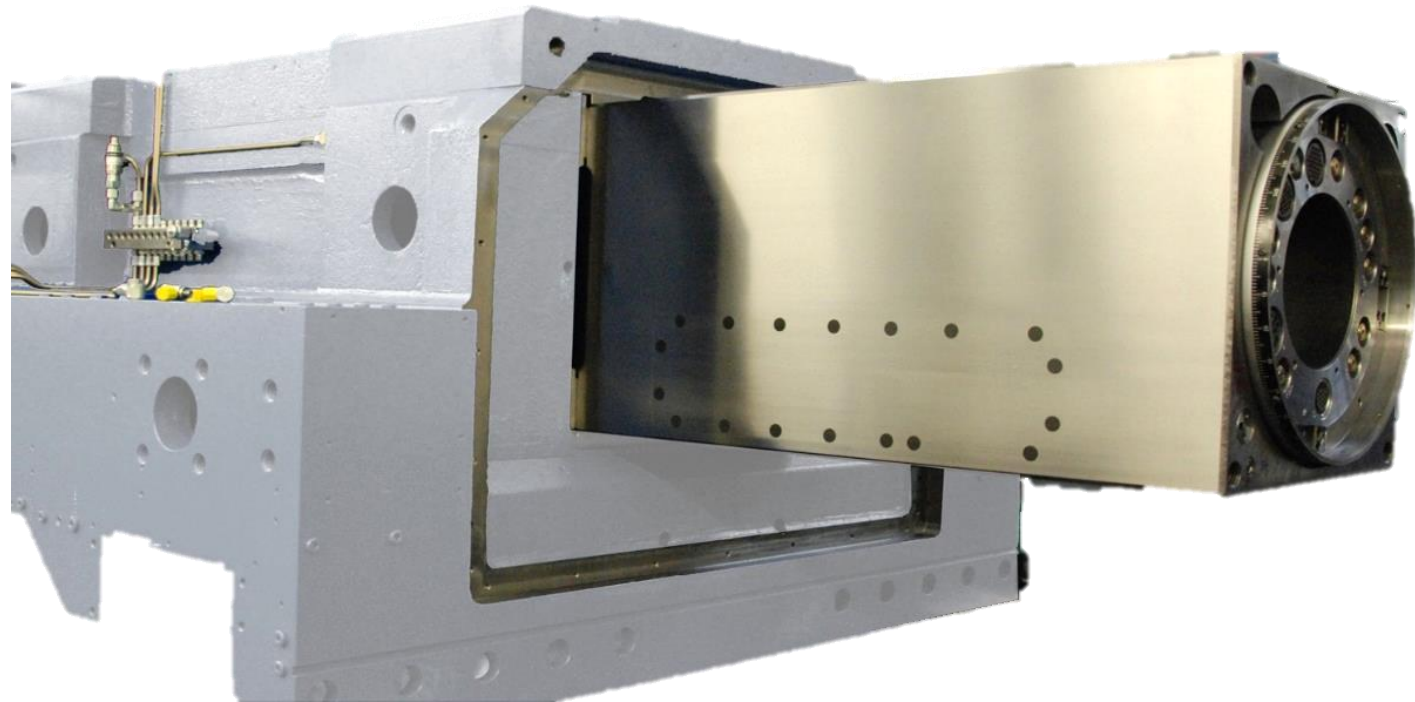
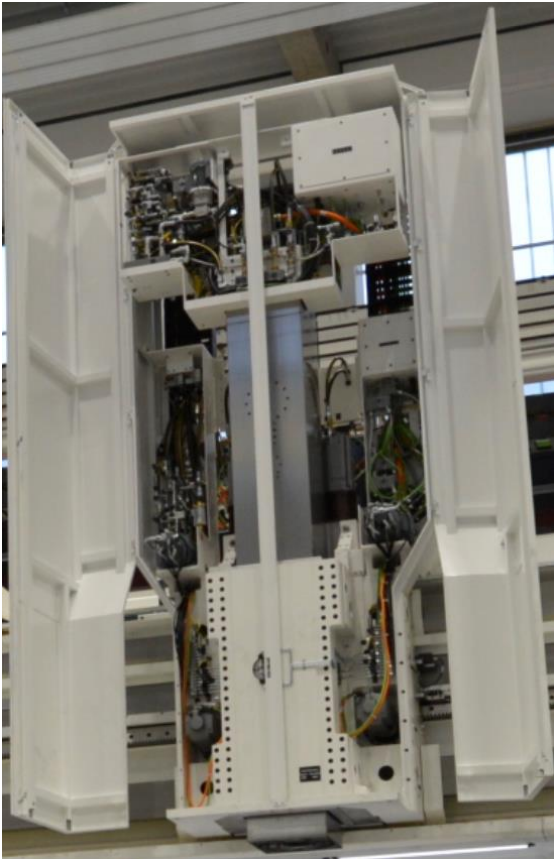


Max. Power:	45/63 kW
Max. Torque:	1.250 / 1.500 Nm
Max. Speed:	5.000 / 6.000 rpm
Cross section:	400 mm x 400 mm
	Master Head Principle
Ram Stroke:	1500 mm
C-Axis:	± 200 ° step-less indexing



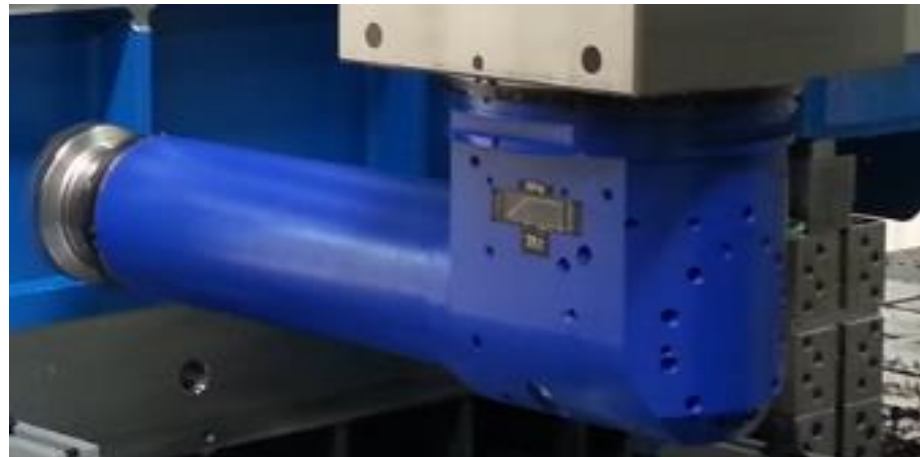
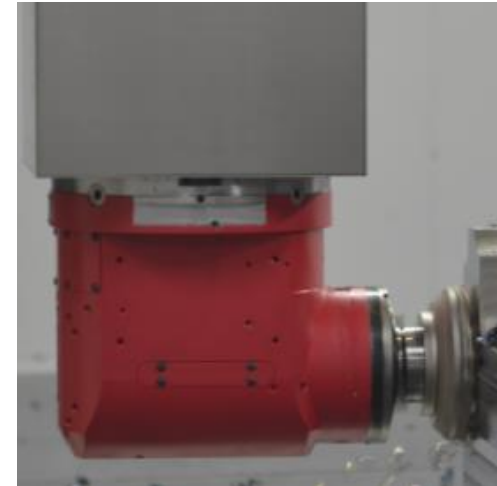
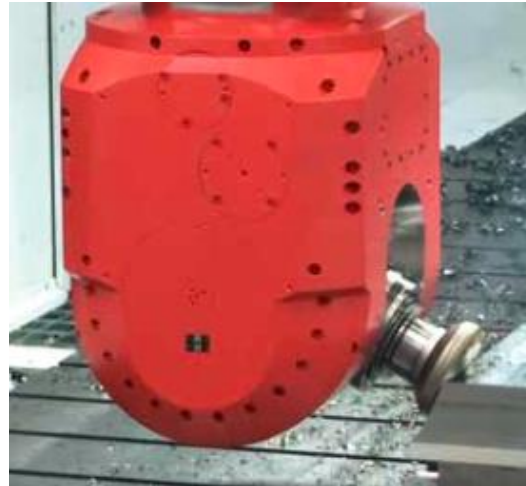
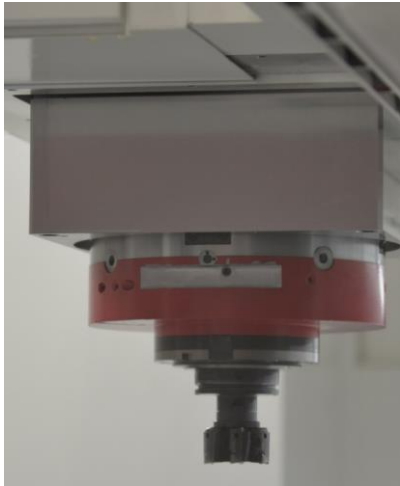
Hydrostatic Ram System

- Box in box design for constant milling performance independent from feed direction
- Significant more contact and dampening face than roller guide ways
- Geometrical definition and guidance on all sides
- Reduced interference contour due to compact ram design



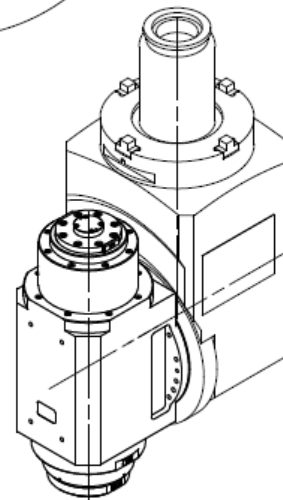
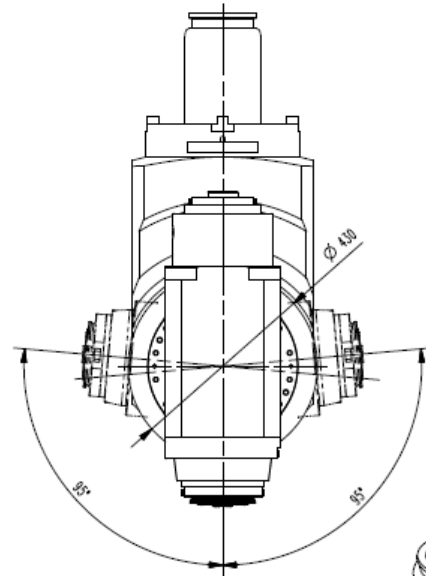
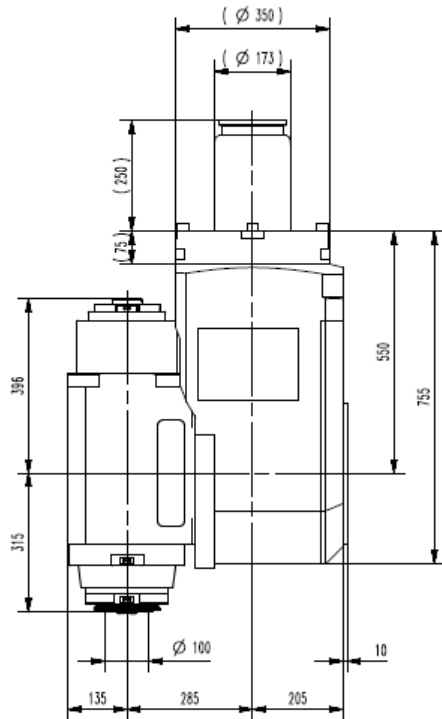
Exchangeable spindle units

- Mechanical spindle units coupled to the main drive
- Unit length designed for best stability for several operations



In combination with the mechanically driven spindle units a HF-Spindel can be integrated

WALDRICH COBURG



UNIVERSALSPINDELEINHEIT / UNIVERSAL SPINDLE UNIT

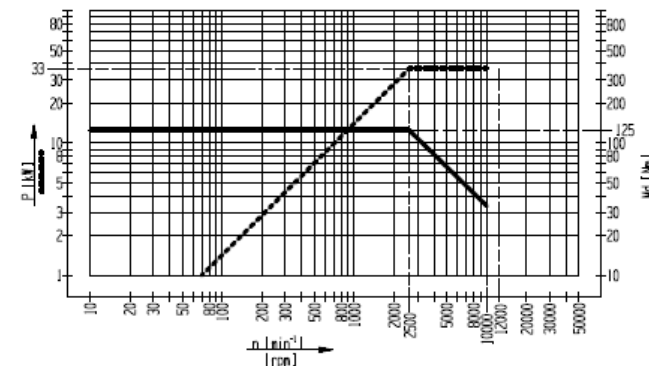
UO-HF 13

15.02.2023

WALDRICH COBURG

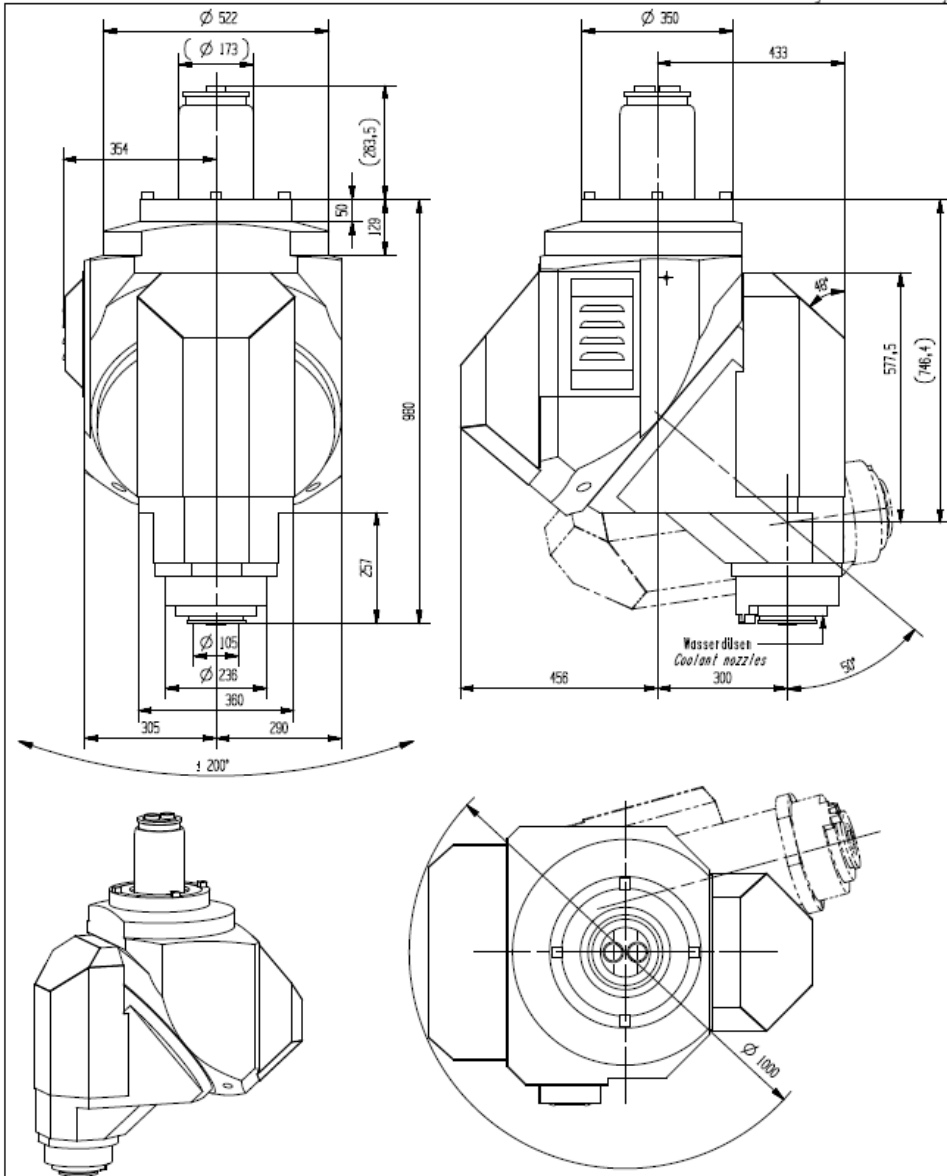
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Max. Drehmoment	Max. Torque	125 Nm	
Max. Leistung	Max. Power	33 kW	
Max. Drehzahl	Max. Speed	10000 min ⁻¹ (S1)	
		12000 min ⁻¹ (S6)	
Werkzeugaufnahme	Tool location	DIN 69063-1 HSK-A100	
Werkzeugschaft	Tool shank	DIN 69893-1 HSK-A100	Automatic
Werkzeugspannung	Tool clamping	Automatisch	
Werkzeugspannkraft	Tool clamping force	40 kN ± 4 kN	Internal/External
Kühlmittelezufuhr	Coolant supply	Innen/Aussen	
Gehäusekühlung	Cooling of housing		
Autom. schwenkbar in der B-Achse	Automatic swivelling of B-axis	± 95 Grad	± 95 Degrees
Max. Drehmoment der B-Achse	Max. swivel torque of B-axis	2000 Nm	
Max. Schwenkgeschw. der B-Achse	Max. swivel speed of B-axis	3600 Grad/min	3600 Degrees/min



Alternatively the MultiTec can be built for only HF-spindles

WALDRICH COBURG



UNIVERSALSPINDELEINHEIT / UNIVERSAL SPINDLE UNIT
NSC-HF 17

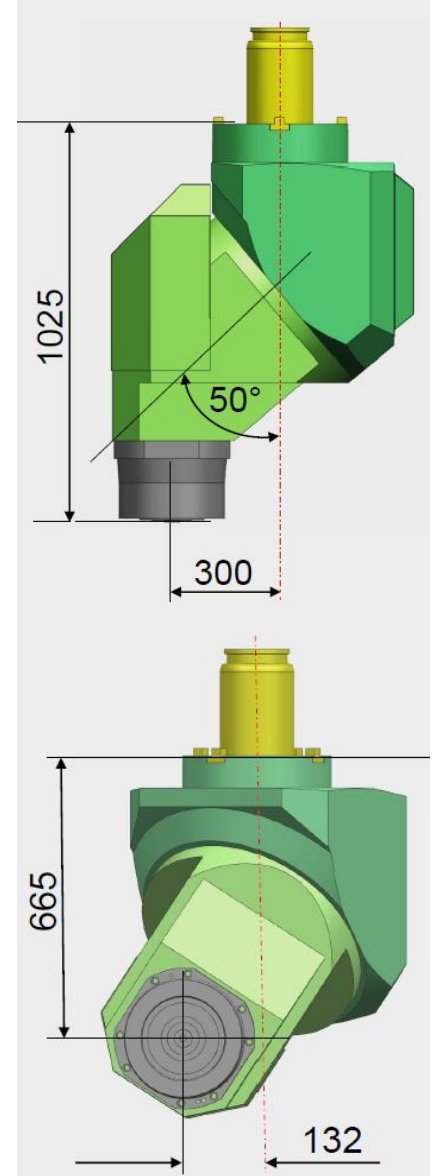
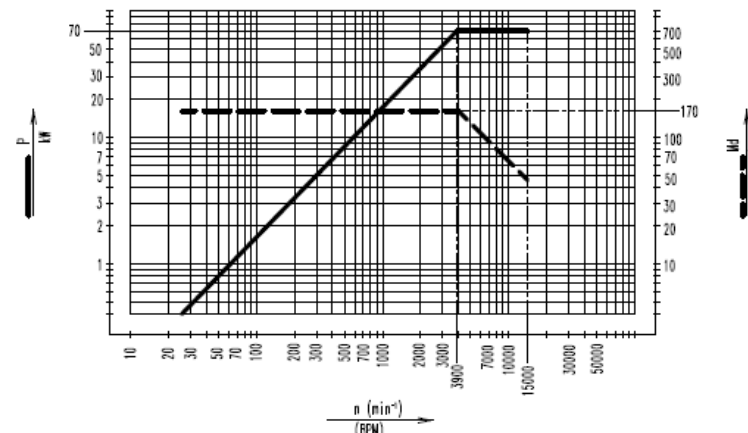
WALDRICH COBURG
0-D1B01-53-001-0

Max. Drehmoment	Max. Torque	170 NM	
Max. Leistung	Max. Power	70 kW	
Max. Drehzahl	Max. Speed	15000 min ⁻¹	
Werkzeugaufnahme	Tool location	DIN 69063-1 HSK-A100	
Werkzeugschaft	Tool shank	DIN 69863-1 HSK-A100	
Werkzeugspannung	Tool clamping	Automatic	Automatic
Werkzeugspannkraft	Tool clamping force	45 kN +13,5 kN/-4,5 kN	
Kühlmittelzufuhr	Coolant supply	Innen/Aussen	Internal/External
Gehäusekühlung	Cooling of housing		

Autom. Schwenkbar in der A-Achse / Automatic swivelling of A-axis ± 200 Grad / ± 200 Degrees

Max. Drehmoment der A-Achse / Max. swivel torque of A-axis 4000 NM

Max. Schwenkgeschwindigkeit der A-Achse / Max. swivel speed of A-axis 2700 Grad/min / 2700 Degrees/min



Changer for spindle units



Fully automated tool magazine with 100 pockets for automatic change into all spindle units



NC – Control - operating panel

WALDRICH COBURG



- ❖ **Tablet with 13,3" display with docking station mounted next to the operators panel**
- ❖ **Transportable**
- ❖ **Only available with the options video camera and/or InPro**
- ❖ **Displays the tool management viewer, machine documentation, maintenance manuals and output of video camera**



Video camera for overview of the machining area

WALDRICH COBURG



- ❖ Camera with zoom and panning function in the working area of the machine.
- ❖ Video output displayed on separate screen



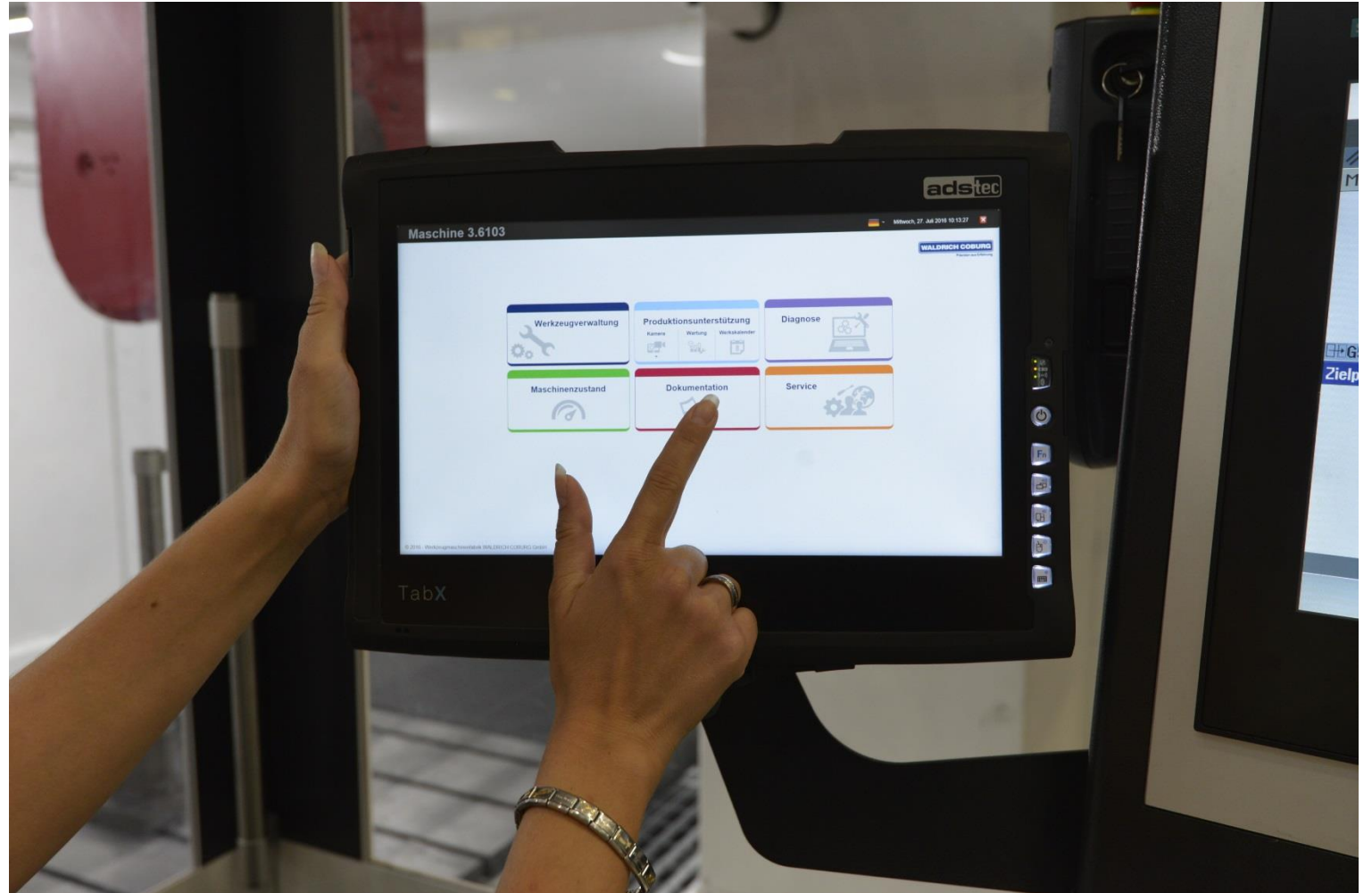
Production package INPRO

Included modules

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An Industry tablet with following modules:

- Tool management viewer
- Production support
- Interactive diagnosis
- Machine monitoring
- Documentation
- Service



Coolant tank with paperband filter

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