

Vertical 3-Axes Machining Center

VMX 60i



mind over metalSM

HURCO[®]

Keydata



	VMX 60i
Travels (X/Y/Z) [mm]	1525/660/610
Spindle Speed [1/min]	12,000
Spindle Power [kW]	18
Torque [Nm]	237
ATC stations / option	30 / 40

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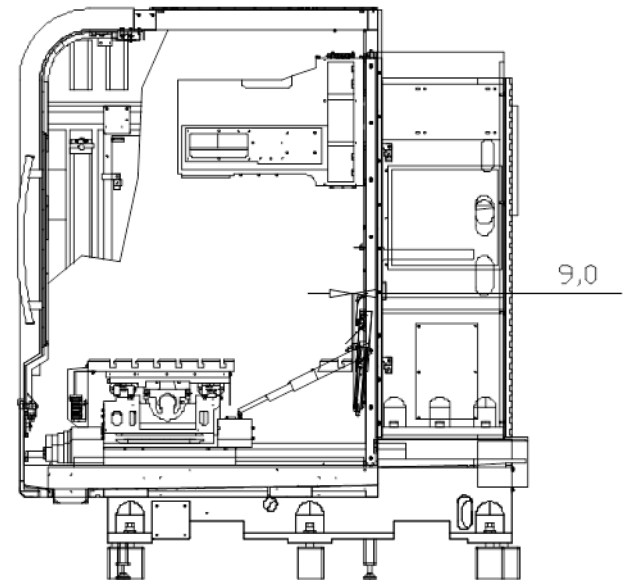
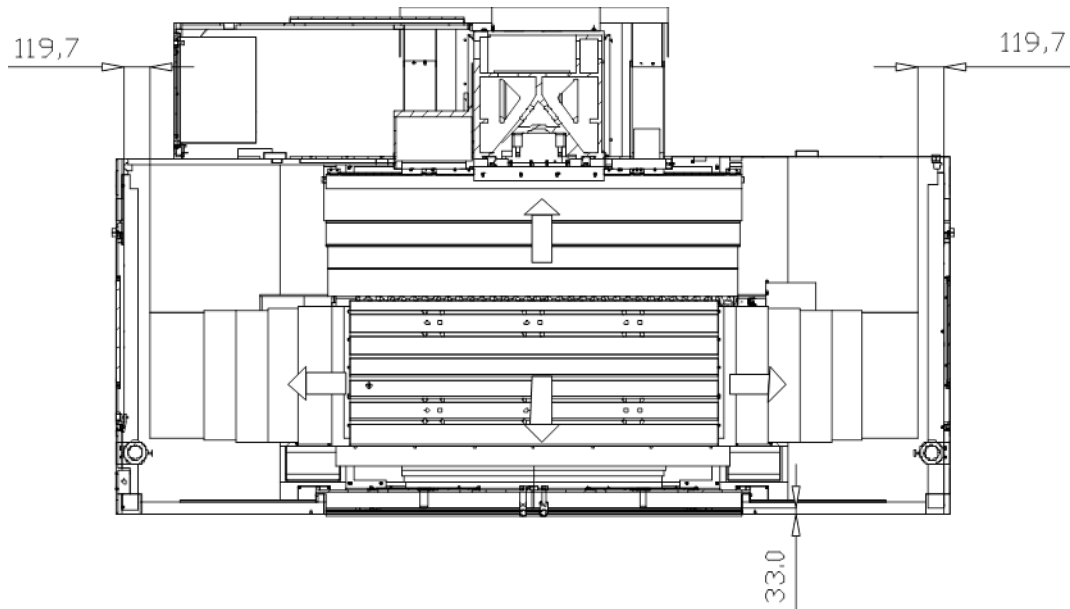
Technical Specification

Machine Capacity			Rapids X / Y / Z [m/min]	30 / 30 / 20	
Travels X/Y/Z [mm]	1,525 / 660 / 610		Axis Thrust X/Y/Z [N]	15,200 / 15,200 / 23,700	
Spindle Nose To Table [mm]	100 - 710		Automatic Tool Changer	SK 40	SK 50
Table Working Surface W x D [mm]	1675 x 660		Number of stations / Option	30 / 40	30
T – Slots (DIN 650)	6 x 18 ^{H8} x 100		Max. Tool Diameter [mm]	80 / 75	125
Max. load (uniform distribution) [kg]	1350		Adjacent Sides Empty [mm]	130 / 150	220
Spindle			Max. Tool length [mm]	300	300
Spindle Taper (DIN 69871 A)	SK 40	SK50	Max. Tool weight [kg]	7	15
Max. Speed [min ⁻¹]	12,000	8,000	ATC Time (Tool to tool) [sek.]	2	4
Max. Power [kW]	18	22	ATC Time (Chip to chip) [sek]	6	9
Max. Torque [Nm]	237	353	Service Requirements		
Retention knobs	ISO 7388/II B		Electrical	42 kVA / 60 A / 400V	50 kVA / 73A / 400 V
Accuracy (VDI / DGQ 3441)			Air (Dry, clean air acc. DIN/ISO 8573-1, class 4)	7bar / 150 l/min	
Positioning P _{max} [mm]	0.01 (Full travel)		Weights		
Repetability P _s [mm]	0.005		Machine Weight [kg]	9,000*	9,500*
Feedrates			Shipping Weight [kg]	9,500*	10,000*
Cutting feedrate X / Y / Z [mm/min]	25,400 / 25,400 / 20,000		Chip Conveyor [kg]	1,700	

*due to the position of the mass center of the machine, for unloading by forklift it is recommended to plan with a higher carrying capacity of 30%

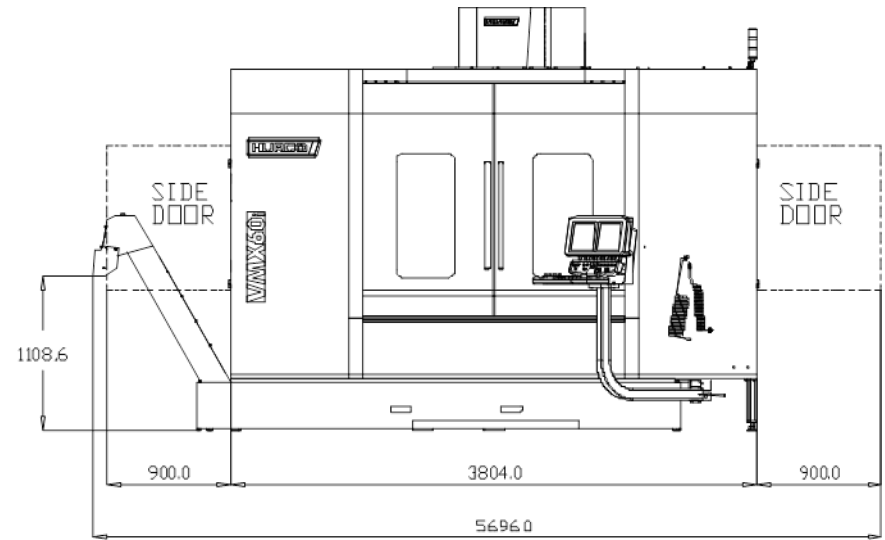
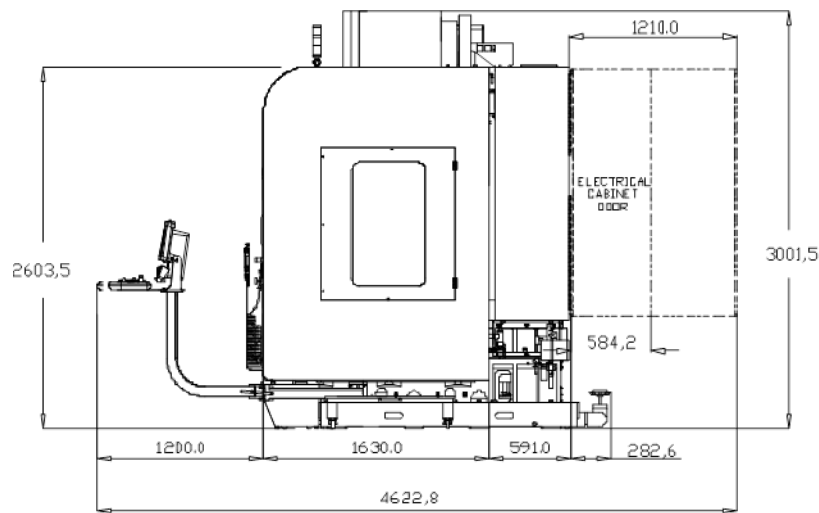
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Clearance Conditions



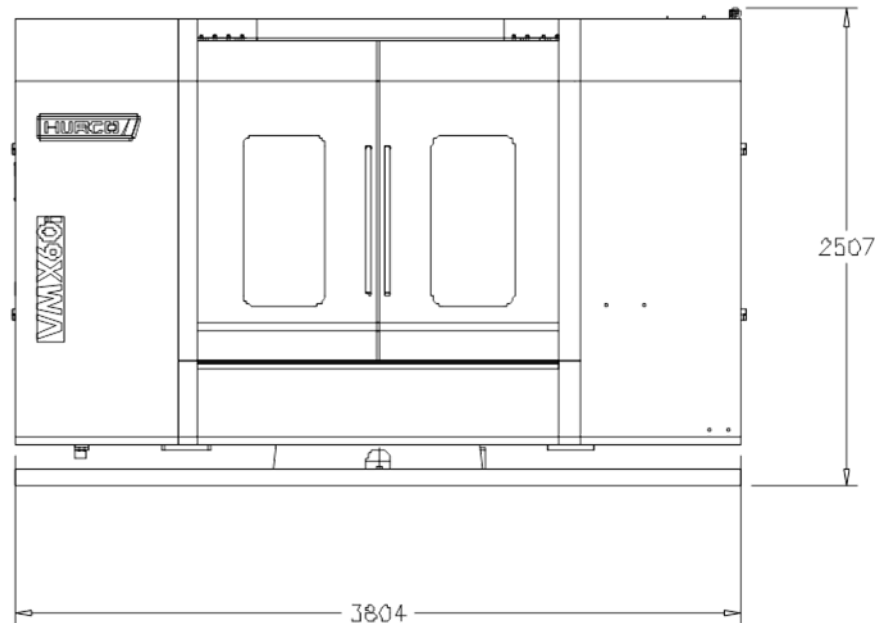
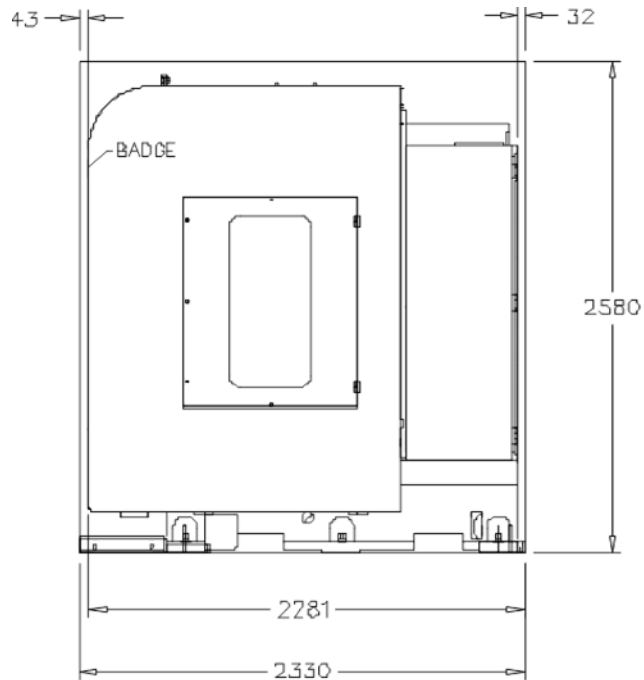
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Working Conditions



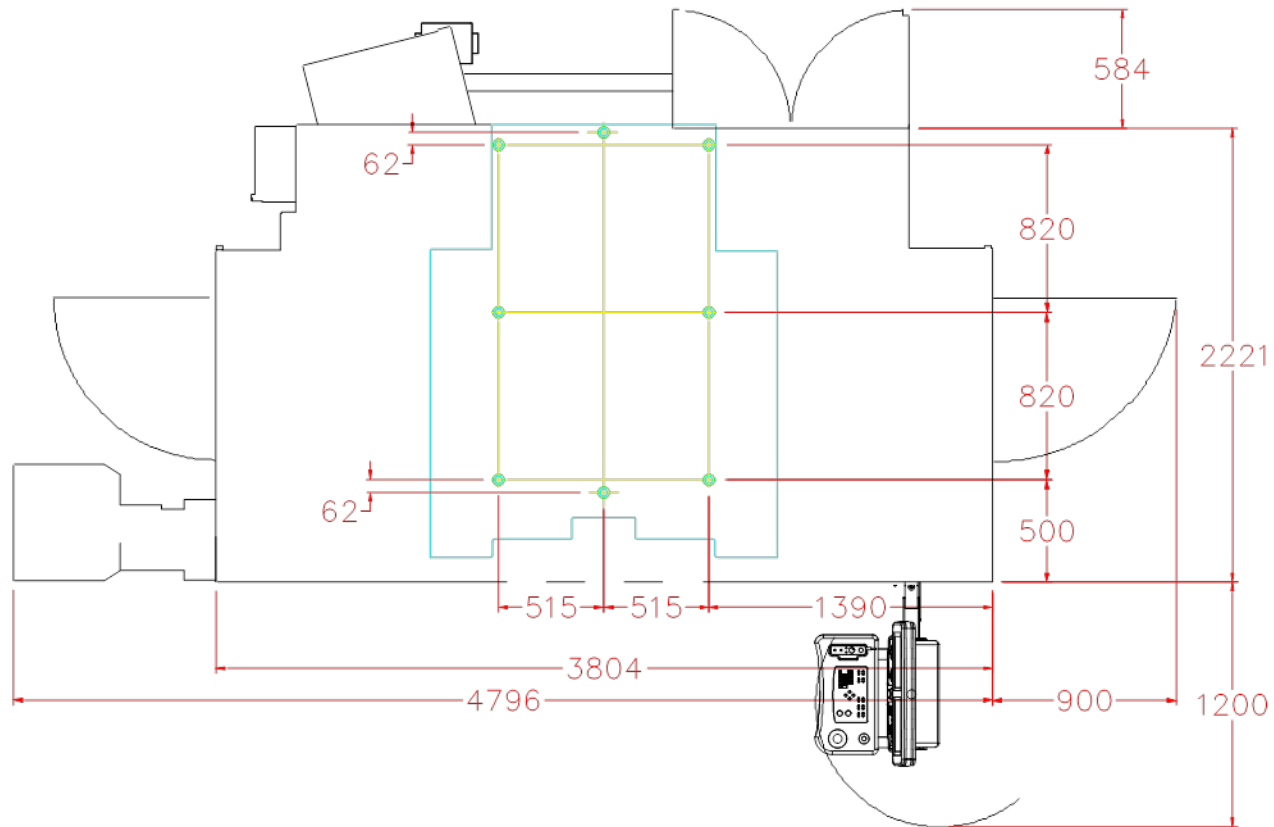
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Shipping Conditions



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Foundation Diagram



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Machine Options

- **Coolant air through coolant nozzles**
 - selectively coolant water or coolant air through coolant nozzles. Programmable as „Coolant 2“ or by M-function
- **Coolant air through Spindle**
 - as before, however supplying is through the spindle. Option „Coolant through Spindle“ (CTS) is required
- **BT-Arm**
 - for usage of BT-tool holders instead of SK holders
- **Part- and Tool Probing** [more](#)
- **Coolant through Spindle (CTS)** [more](#)
- **Production Package** [more](#)
- **Bypass Filter** [more](#)
- **Rotoclear**
 - The rotating pane throws off cooling emulsion, leaving the view free for the machine operator
- **Linear Scales**
 - Evaluation of axis position with a linear scale instead of rotary encoders (requires dry, clean air acc. DIN/ISO 8573-1, class 1, dew point 3°)

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Part- and Tool Probing

Partprobing

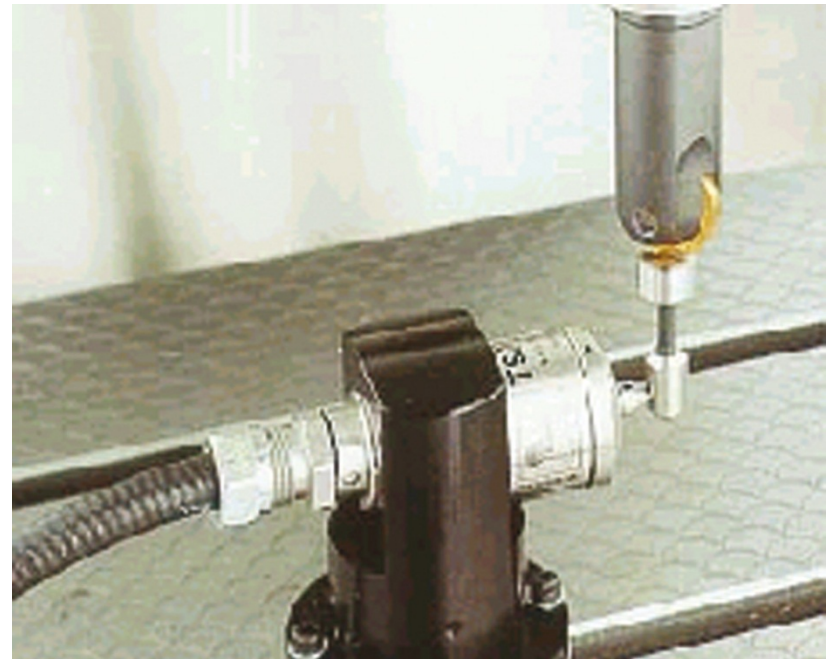
- Probing Part Zero:
 - Edge
 - Corner
 - Hole or Circle
 - Cylinder
 - Rectangular Pocket
 - Rectangular Solid
- Probing Skew Angle
- Measuring of Workpiece



Part- and Tool Probing

Tool Probing with Touch Probe

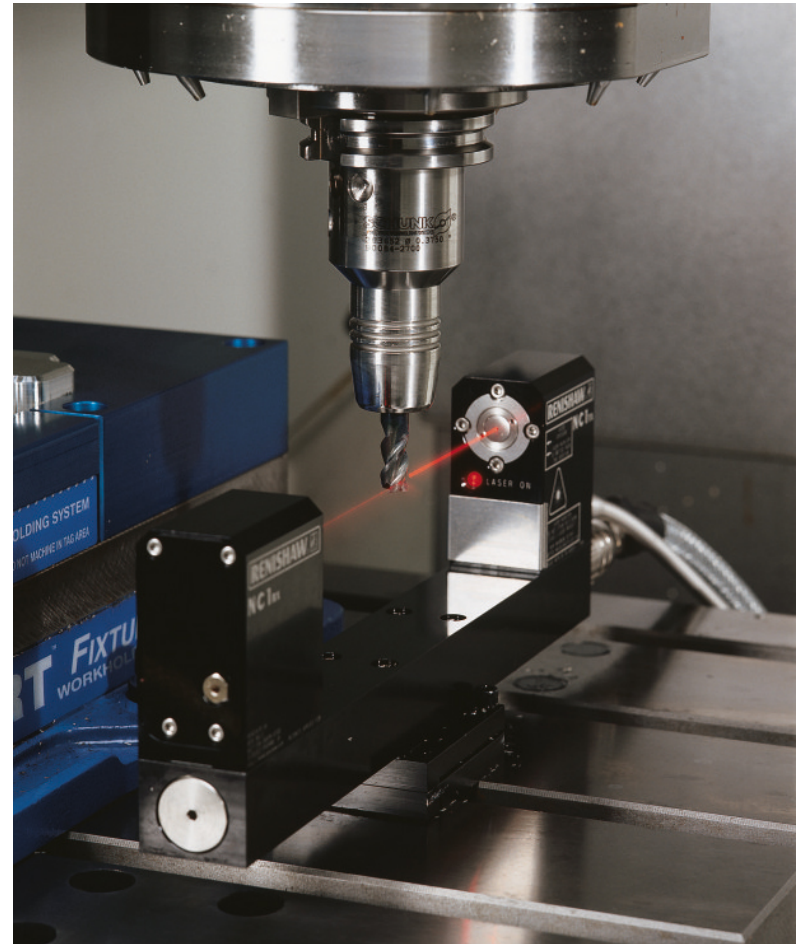
- Probing of Tool Length
- Tool Breakage Control of Tool Length and – if Tool is broken – Usage of a Spare Tool
- NO Probing of Tool Diameter



Part- and Tool Probing

Tool Probing with Laser

- Probing of Tool Length
- Probing of Tool Diameter
- Tool Breakage Detection and – if the Tool is broken – Usage of a Spare Tool
- Tool Wear Detection and Compensation



Part Probing and Tool Probing with Touch Probe

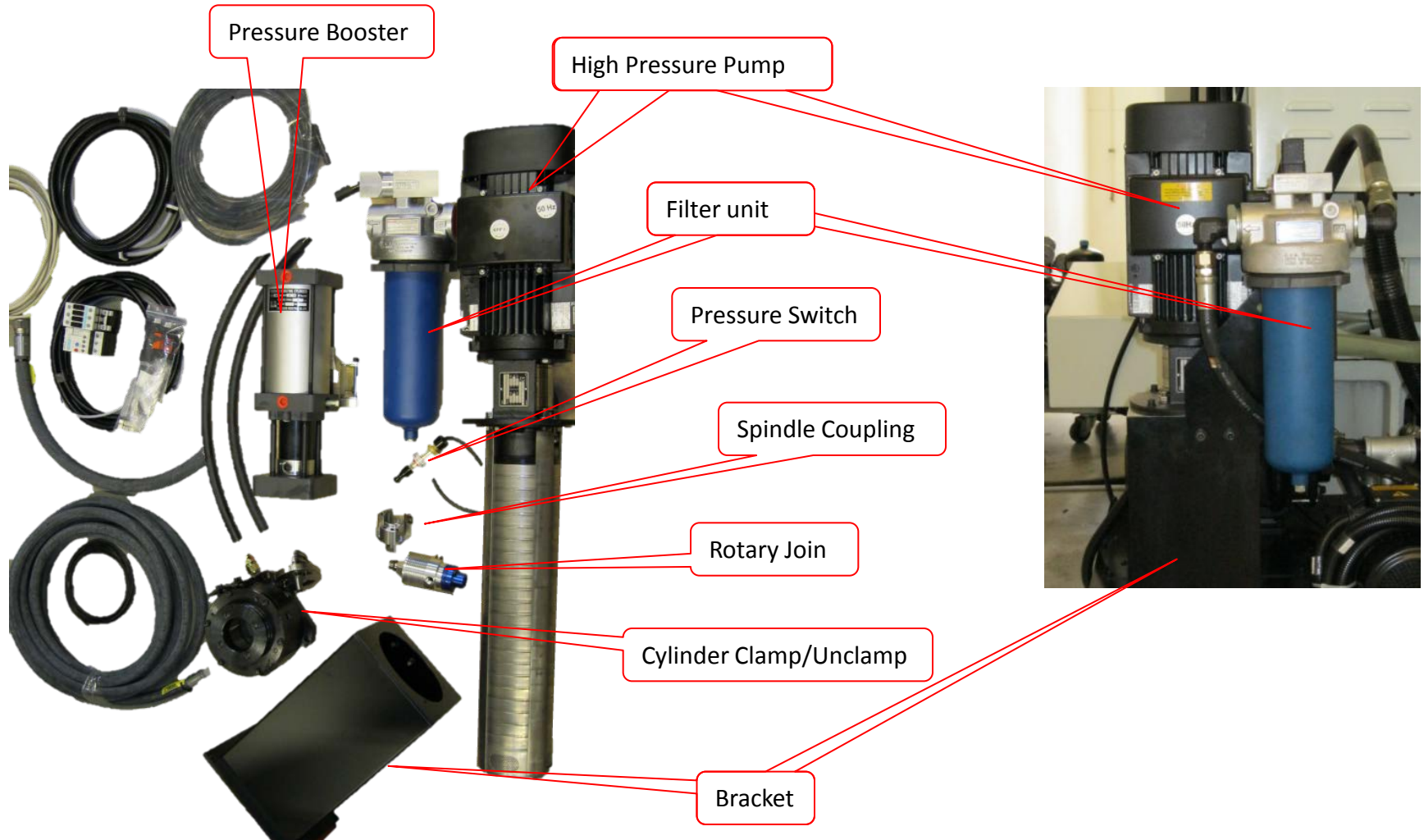


Part Probing and Tool Probing with Laser Probe



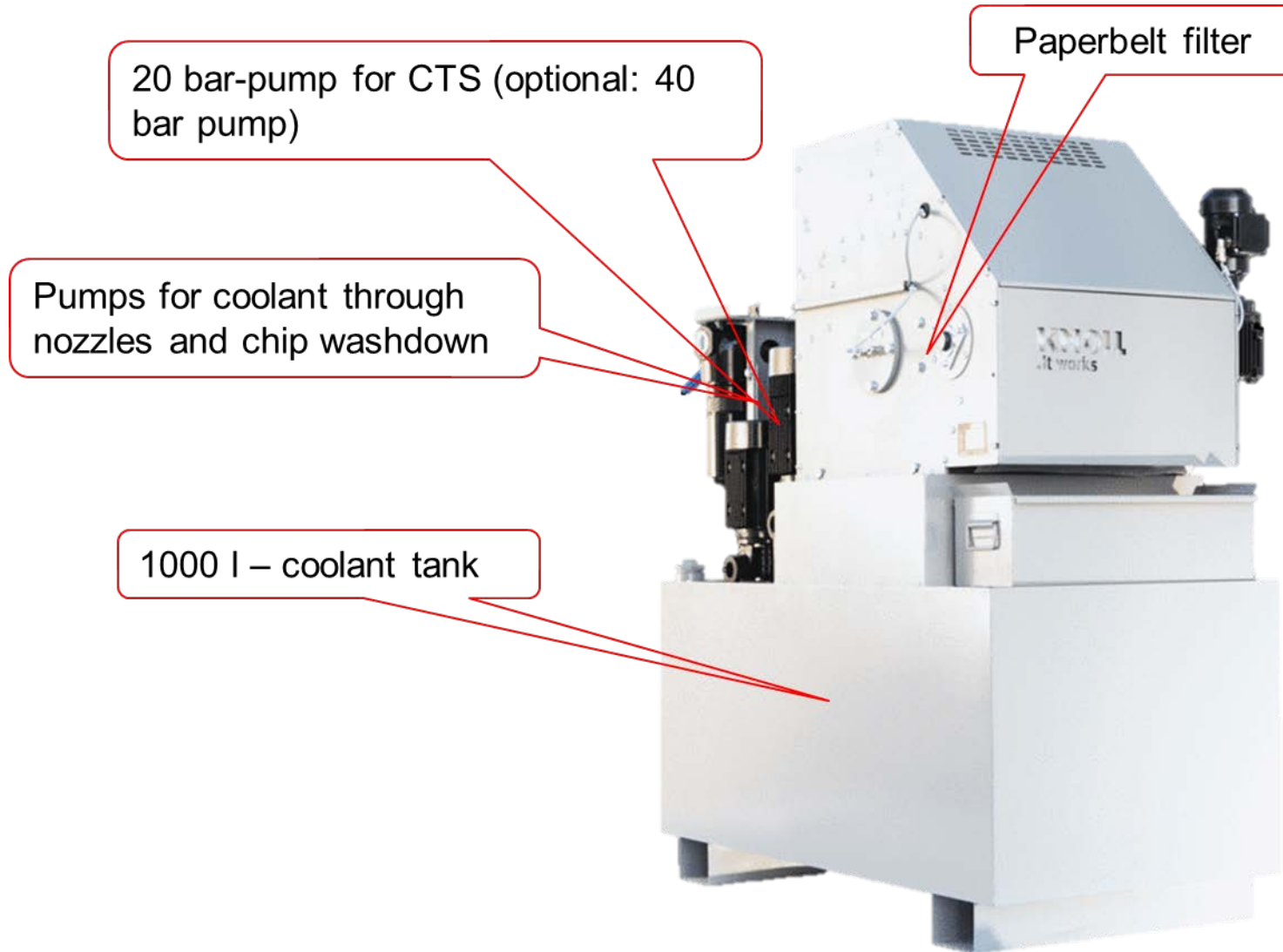
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Coolant through Spindle 20 bar



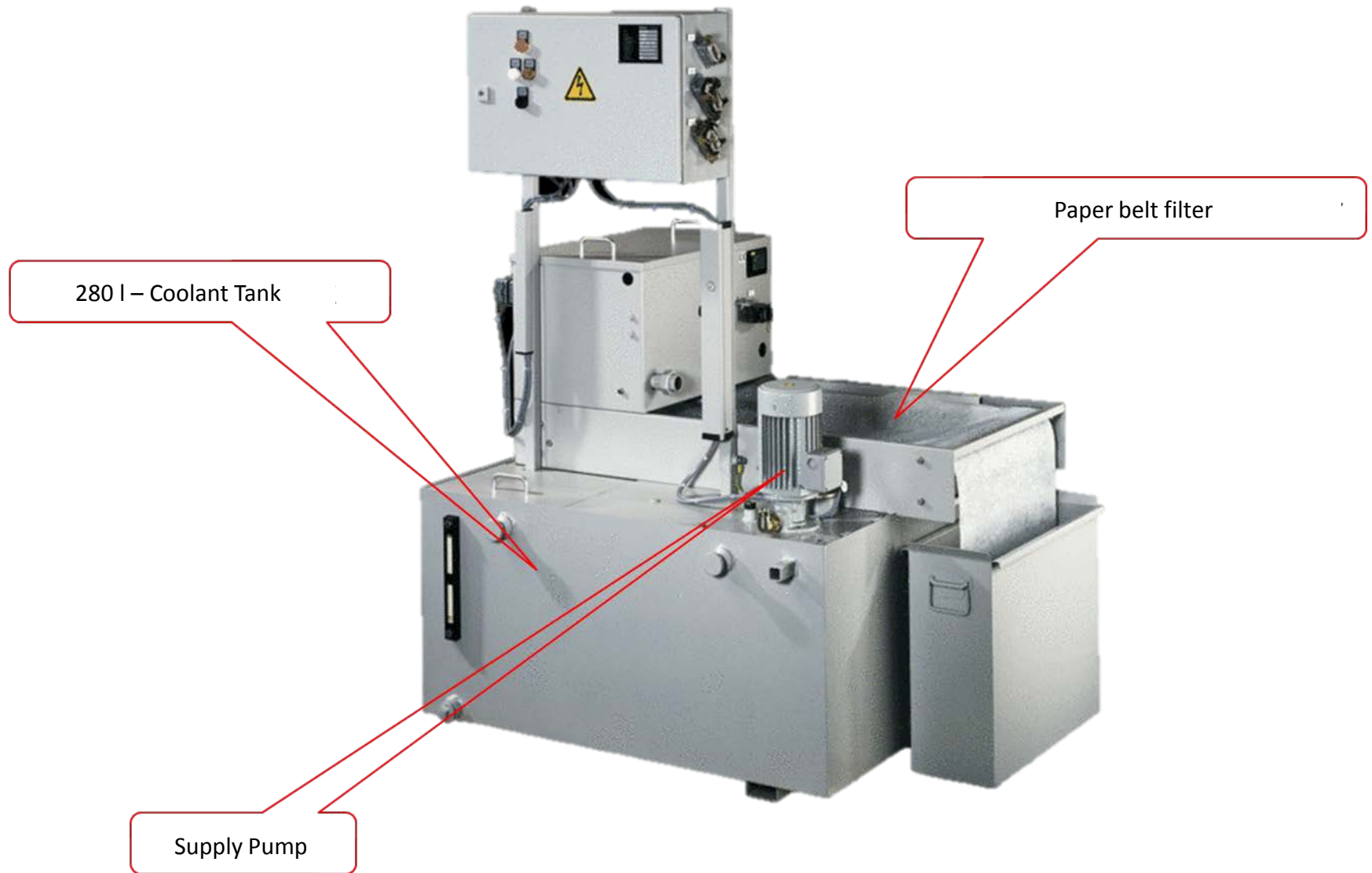
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Production Package KF400



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Bypass Filter



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Rotaries

	Rotary	Eligibility	Faceplate Diameter (mm)	Center Height (mm)	Spindle Bore (mm)	Clamping Torque (Nm @ 0,5MPa)
 <p>x well suited o after consulting - not suited</p>	MR 120	x	128	120	32	150
	MR 160	x	165	140	40	310
	GT 200	x	200	140	45	820
	GT 250	x	250	180	70	1600
	GT 320	x	320	225	105	2800
	TT 101	x	110	140	32	180 (4.) 300 (5.)
	TT 182	x	180	180	40	450 (4.) 800 (5.)
	TT 251	x	250	250	70	900 (4.) 1200 (5.)
	TT 321	-	320	255	110	2600 (4.) 2600 (5.)

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