Vertical 5-Axes Machining Center

# VCX 600i


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# Keydata


| | VCX 600i |
|---|---|
| Travels (X/Y/Z) [mm] | 750 / 550 / 500 |
| Diameter of Faceplate [mm] | 600 x 600 |
| Spindle Speed [1/min] | 12,000 |
| Power (S6) [kW] | 16 |
| Torque [Nm] | 109 |
| ATC stations (optional) | 40 |

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# Technical Specification

| Machine Capacity | | Feedrates | |
|---|---|---|---|
| Travels X/Y/Z [mm] | 750 / 550 / 500 | Cutting feedrate X / Y / Z [mm/min] | 25,000 / 25,000 / 25,000 |
| Travels B-/C-xis | ±110° / 360° | Rapids X / Y / Z [m/min] | 30 / 30 / 30 |
| Spindlenose to Table [mm] | 200 - 700 | Rapids A-/C-Axes [rpm] | 25 / 25 |
| Faceplate- / max. Partdiameter [mm] | 600 x 600 | Axis Thrust X/Y/Z [N] | 25,300 / 16,800 / 16,800 |
| T – Slots (DIN 650) | 5 x 14mm | **Automatic Tool Changer** | |
| Max. load (uniform distribution) [kg] | 350 | Number of stations (optional) | 40 |
| **Spindle** | | Max. Tool Diameter / Adjacent Sides Empty [mm] | 80 /130 |
| Spindle Taper (DIN 69871 A) | SK 40 | Max. Tool Length[mm] | 250 |
| Max. Speed [$min^{-1}$] | 12,000 | Max. Tool weight [kg] | 7 |
| Power (S6) [kW] | 16 | ATC Time (Tool to tool) [sek.] | 2 |
| Max. Torque [Nm] | 109 | ATC Time (Chip to chip) [sek] | 9.5 |
| Retention knobs | ISO 7388/II B | **Service requirements / Weights** | |
| **Accuracy (VDI / DGQ 3441)** | | Electrical | 52 kVA / 75 A / 400 V |
| Positioning $P_{max}$ [mm] | 0.01 (Full Travel) | Air (requires dry, clean air acc. DIN/ISO 8573-1, class 1, dew point 3°) | 7bar / 150 l/min |
| Repetability $P_S$ [mm] | 0.005 | Machine Weight [kg] | 10,500* |
| Positioning A / C [sec] | ± 7 | Shipping Weight [kg] | 12,000* |
| Repetability A / C [sec] | ±7 / ±7 | Chip Conveyor[kg] | 400 |

*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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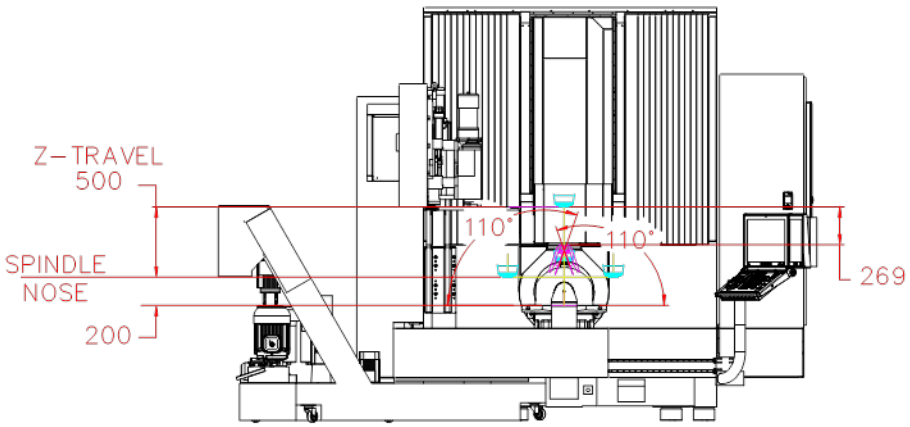
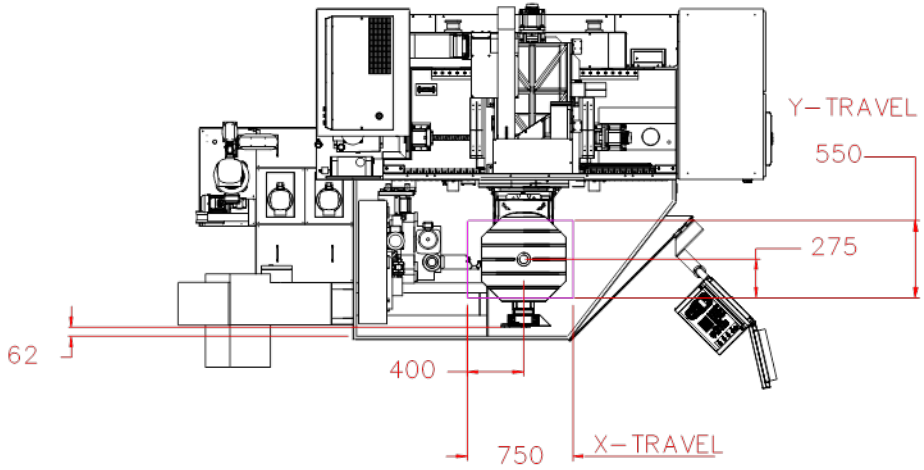
# Clearance Conditions

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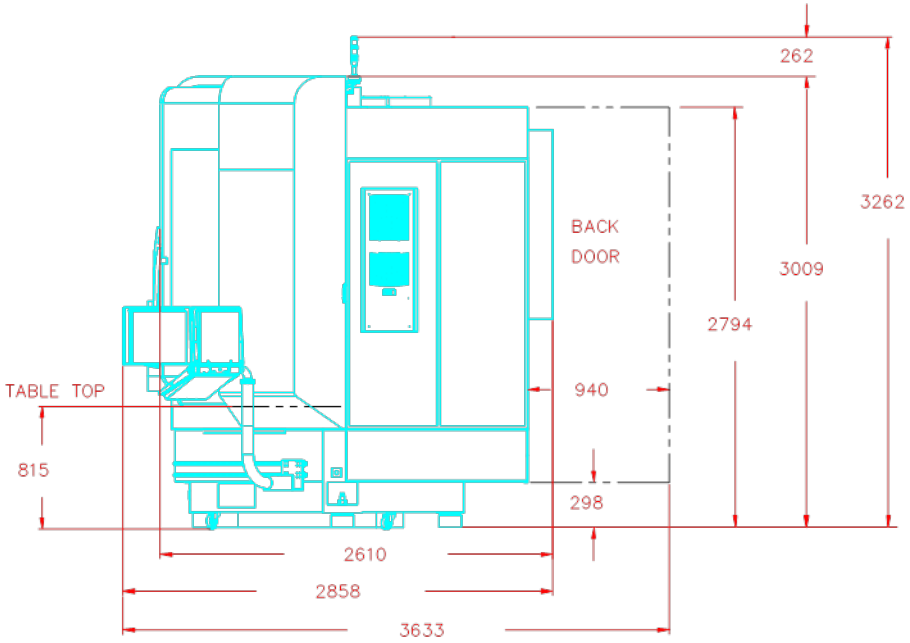
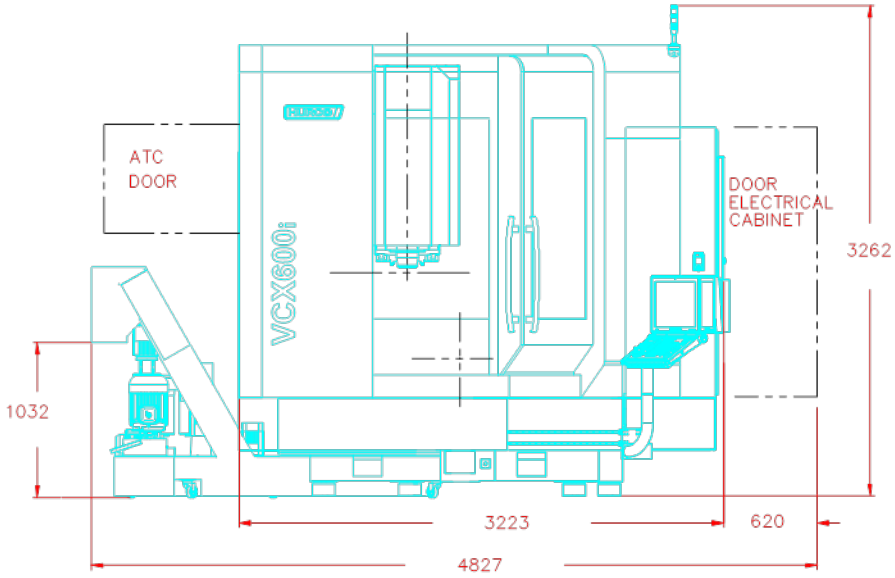
# Working Conditions

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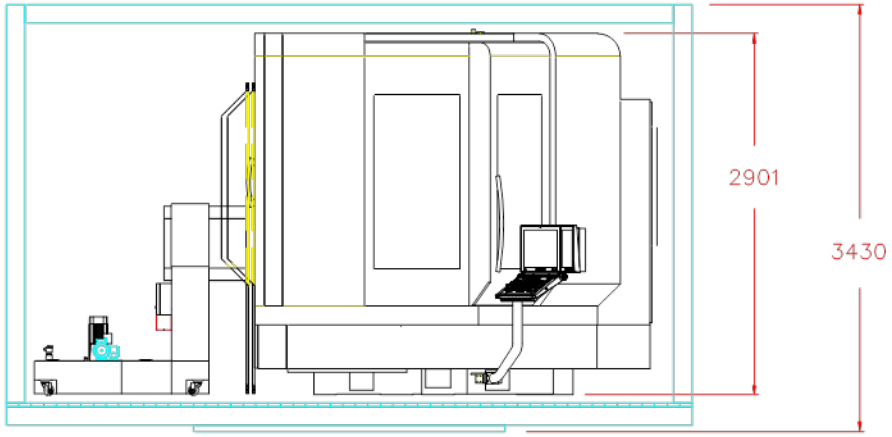
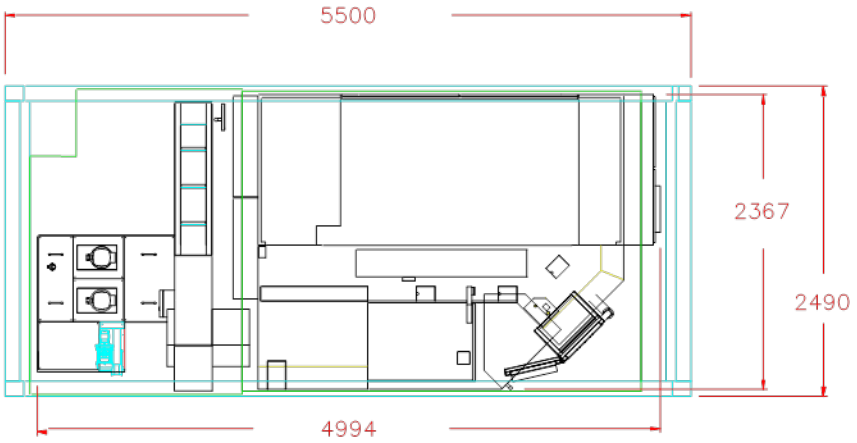
# Shipping Conditions

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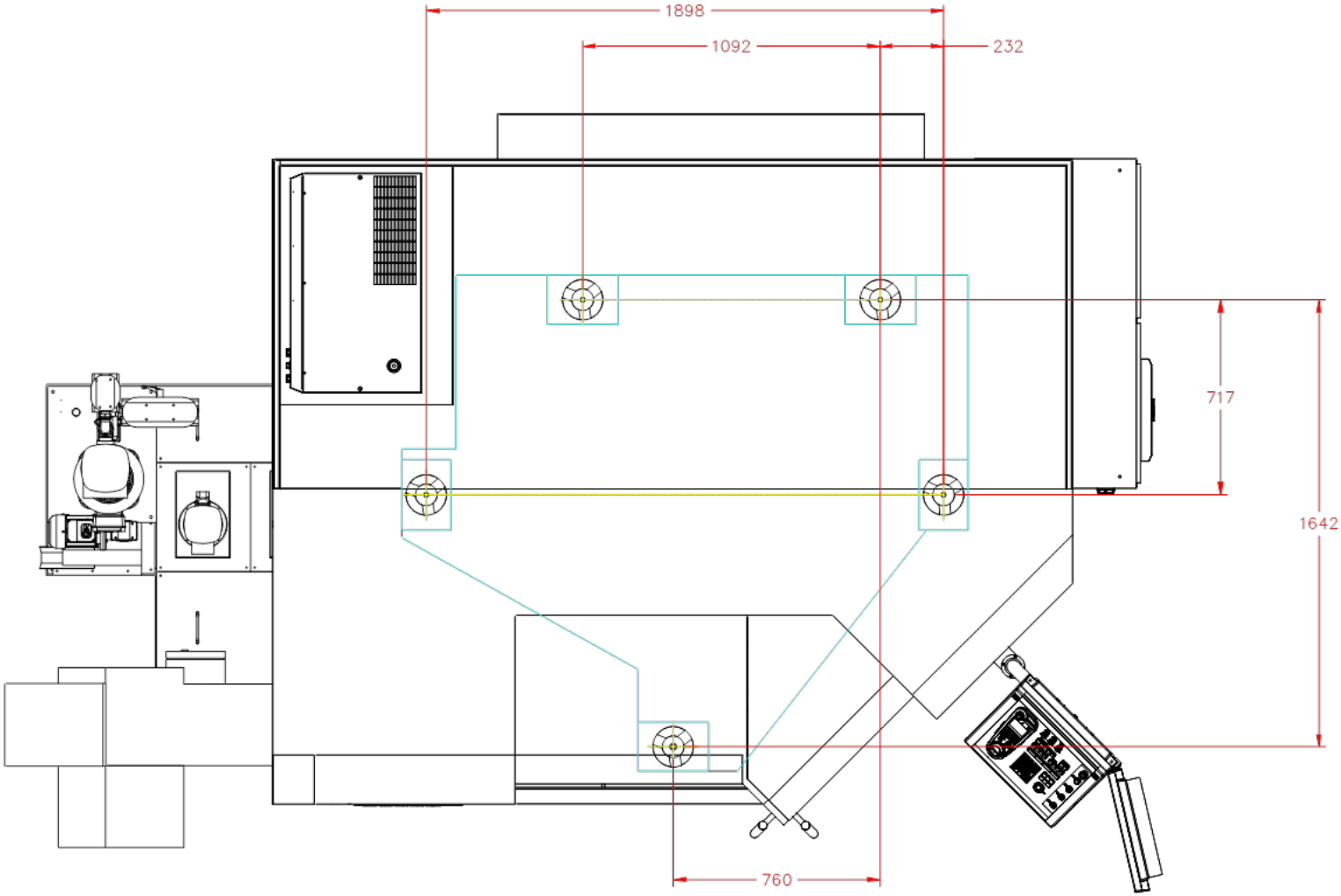
# Foundation Diagram

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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

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# Part- and Tool Probing

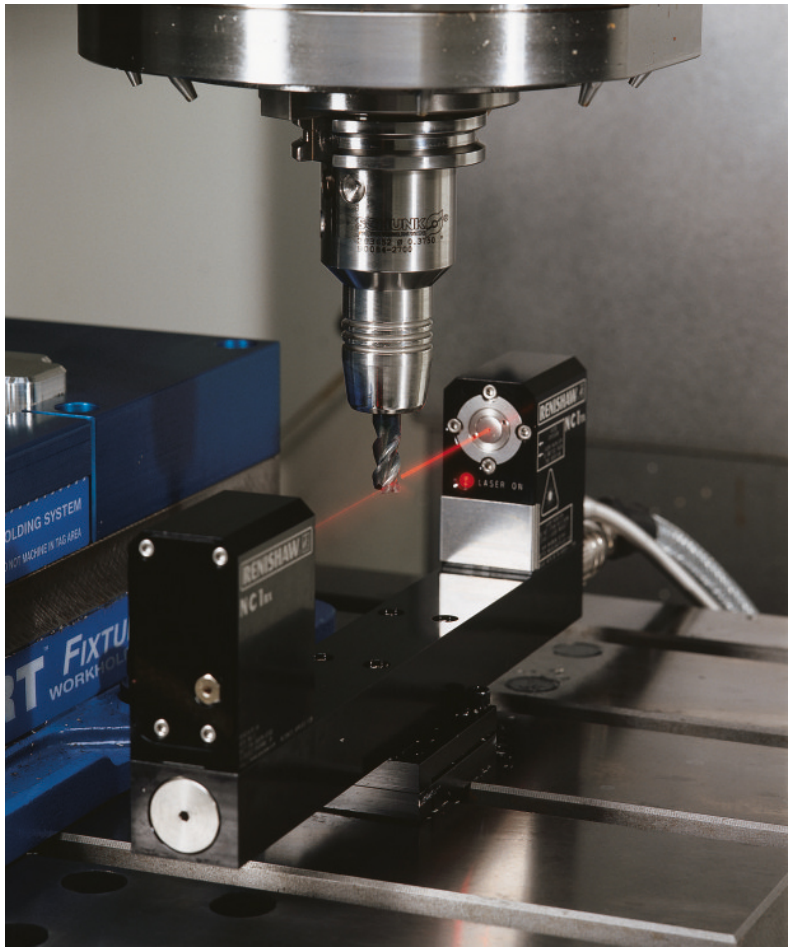
## Partprobing

- 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 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 Laser Probe

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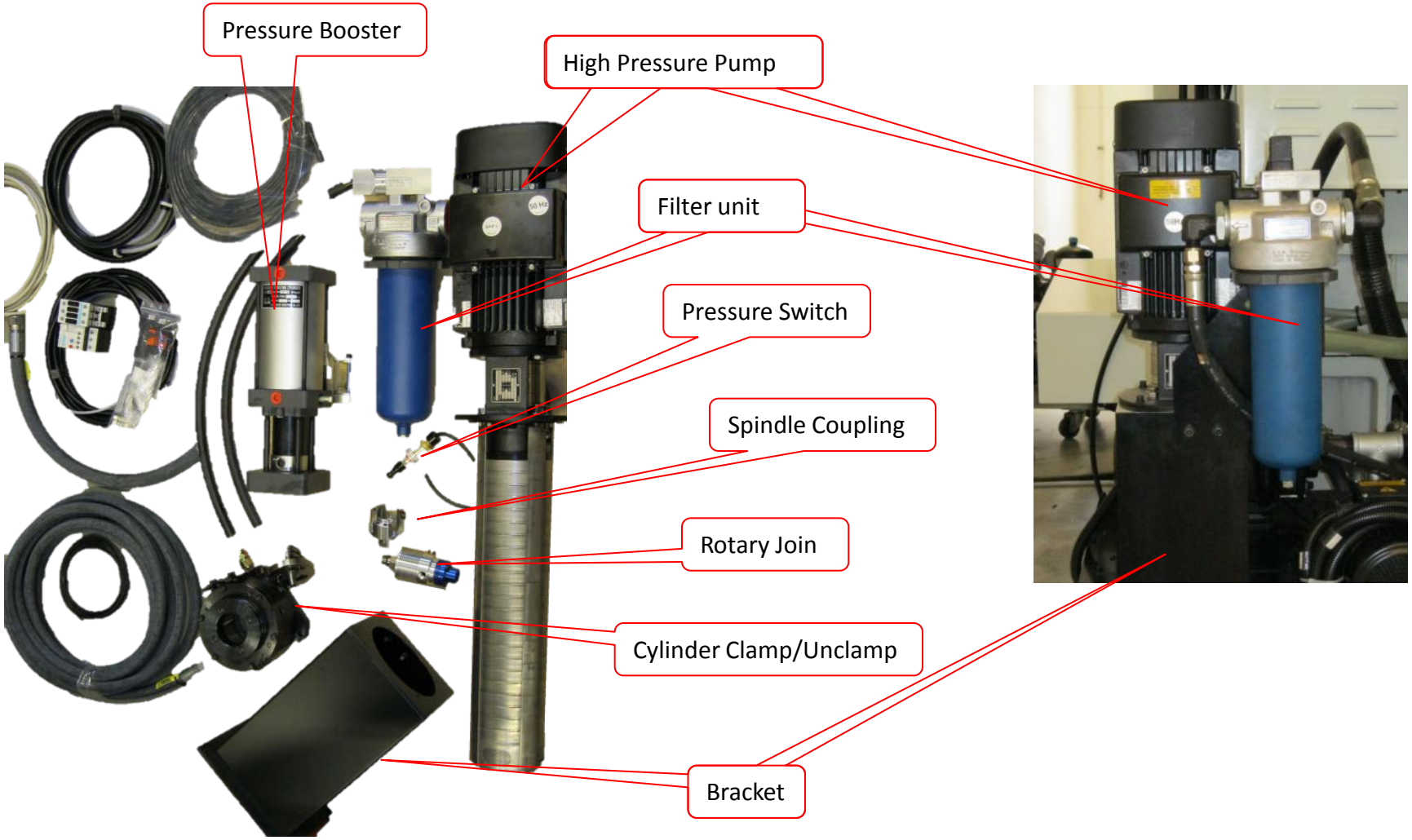
# Coolant through Spindle 20 bar

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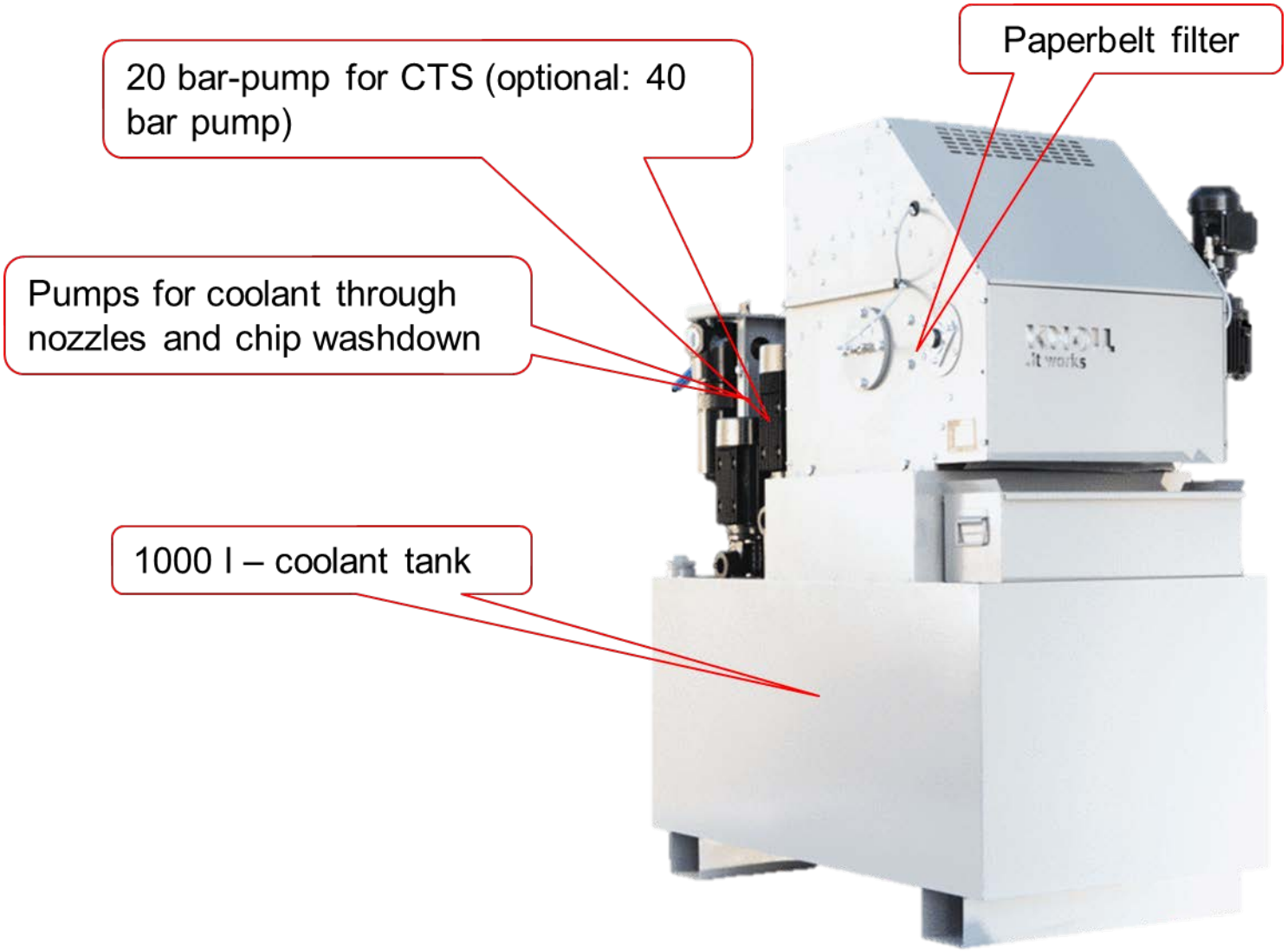
# Production Package KF400

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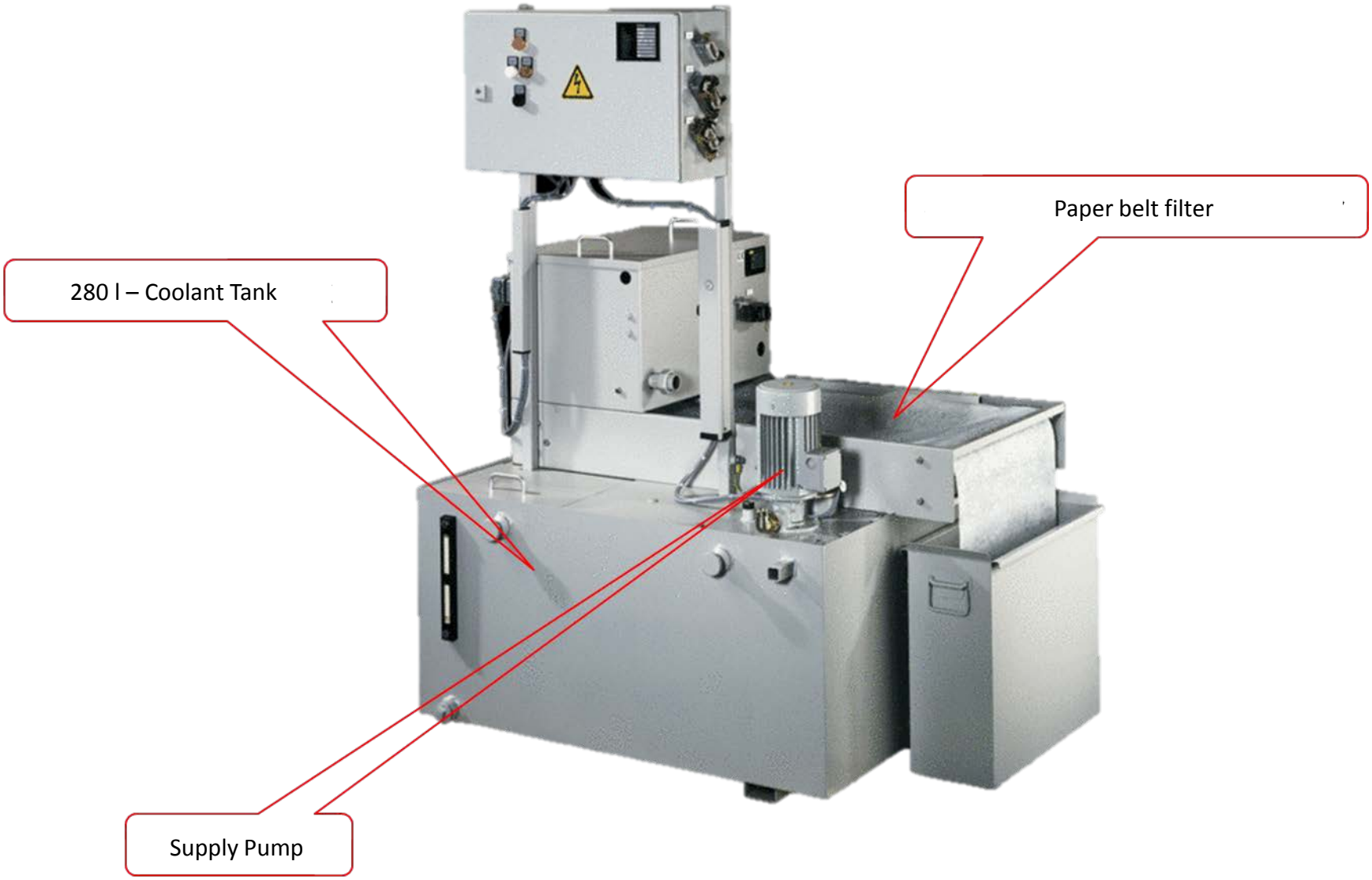
# Bypass Filter

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