



C48

**COMPACT GRINDING CENTRE FOR GREENER, FASTER,
MORE EFFICIENT AND SMARTER PRODUCTION**

LINEAR TECHNOLOGY



SWISSMADE 



ECO-RESPONSIBLE
MANUFACTURING



LOW ENERGY
CONSUMPTION



SMART STANDBY



ENERGY
RECOVERY



no hydraulic
fluid



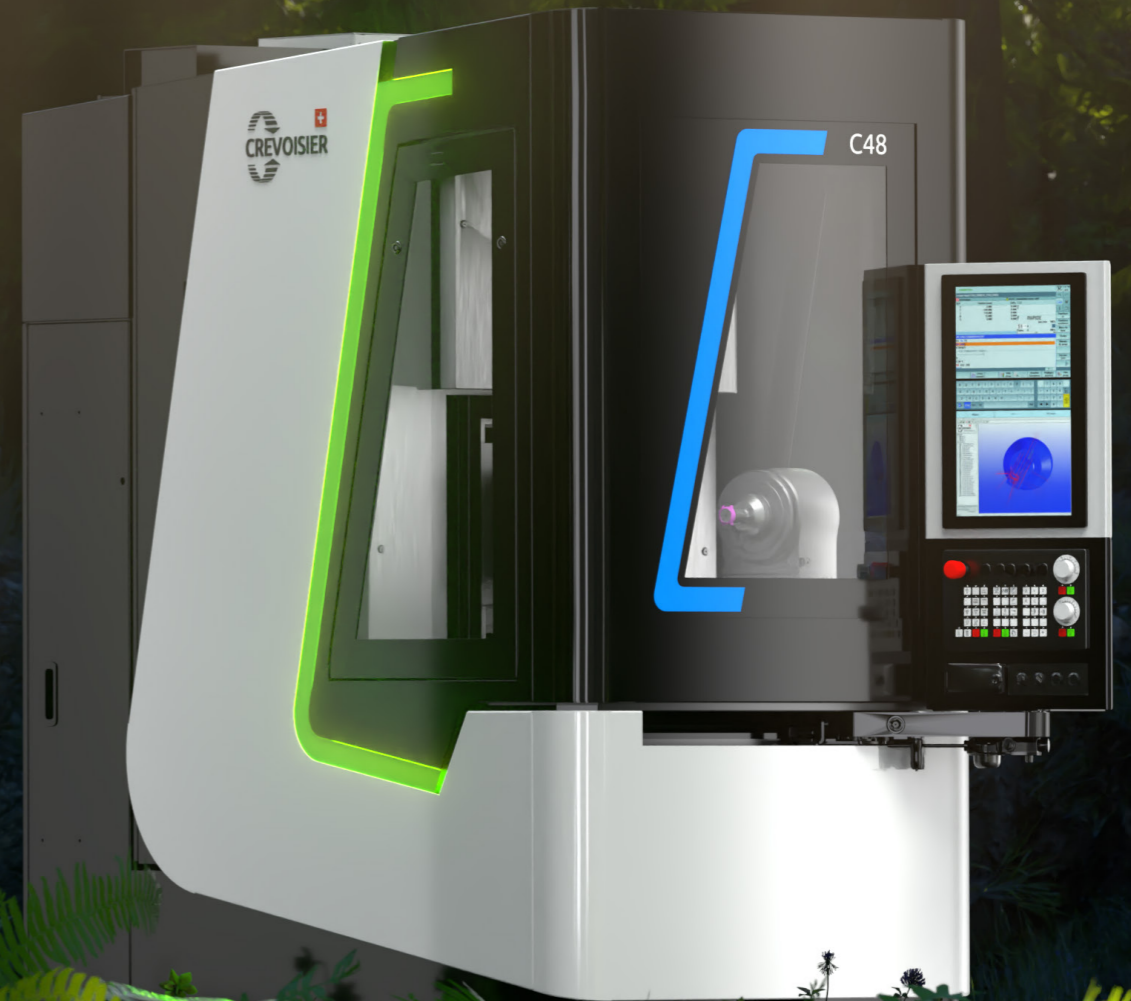
OPTIMISED
COMPACTNESS
AND WEIGHT



OPTIMISED GREASING



MONITORING



APPLICATIONS

WATCHMAKING, JEWELLERY, MEDICAL, MECHANICS

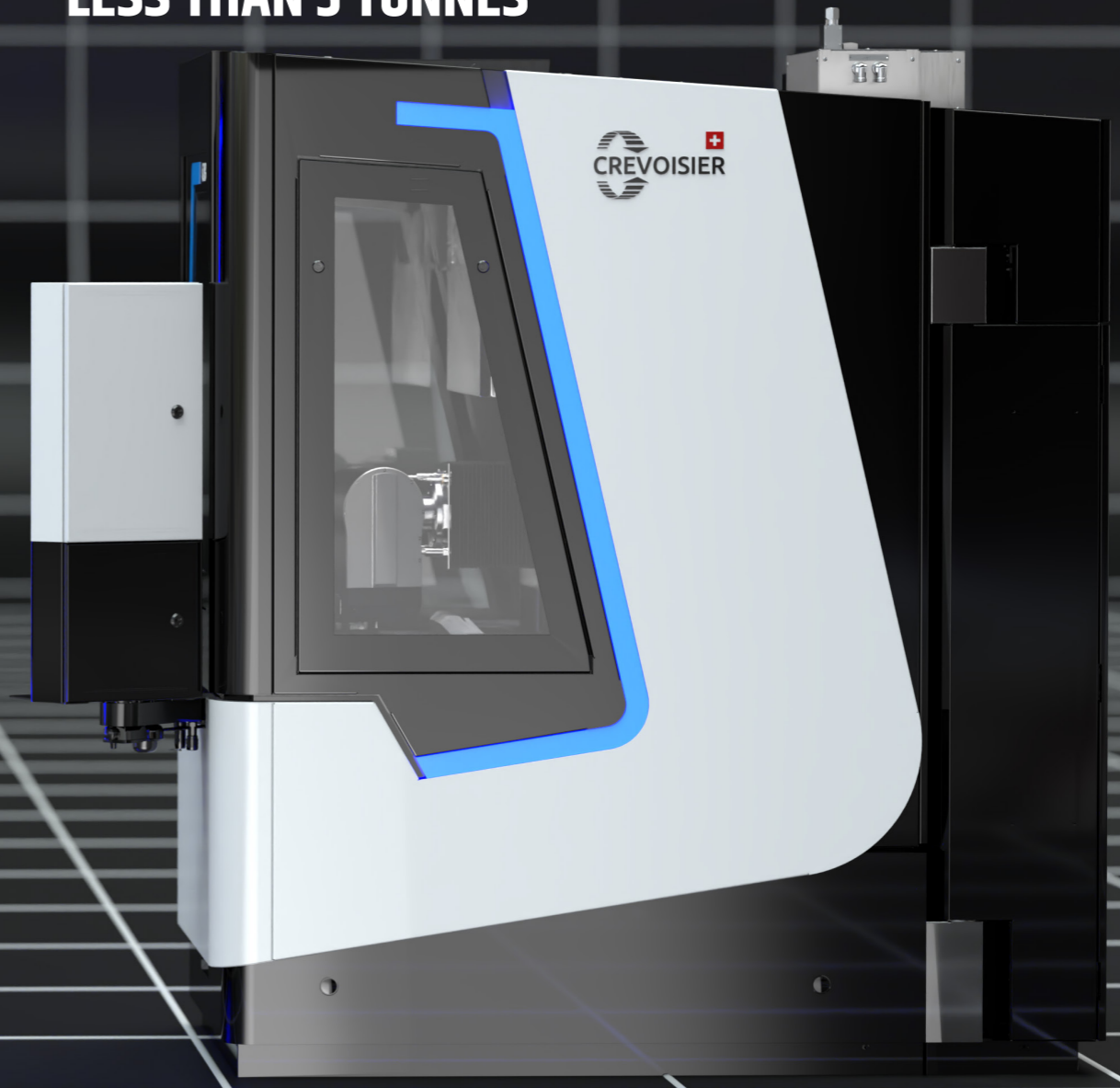
OPERATIONS

GRINDING, MILLING, DRILLING, DECORATING

MATERIALS

SAPPHIRE, CERAMIC, TITANIUM, STEEL, STAINLESS STEEL, PRECIOUS METALS

ULTRA-COMPACT MACHINE
DYNAMIC MODERN OUTLINE
EXTREMELY ROBUST DESIGN
SIMULTANEOUS 5-AXIS MACHINING
VERY GOOD THERMAL STABILITY
LOW ENERGY CONSUMPTION
EXCELLENT VIEW OF THE PRODUCTION PROCESS
LESS THAN 3 TONNES



1m

1m

1m

STROKES

X axis: 325 mm

Y axis: 230 mm

Z axis: 180 mm

B axis: $\pm 150^\circ$

C axis: 360°

FEEDRATE

X, Y, Z: 180 m/min

B, C: 1200 rpm

ACCELERATION

X, Y, Z: $3 \text{ m} / \text{sec}^2$

B: $15 \text{ rad} / \text{sec}^2$

C: $300 \text{ rad} / \text{sec}^2$

DRIVE

X, Y, Z: Linear motor

B, C: Torque motor

All the motors are cooled by the water circuit

PRECISION

Absolute encoder

X, Y, Z: $\pm 2 \mu$

B, C: $\pm 2 \mu$



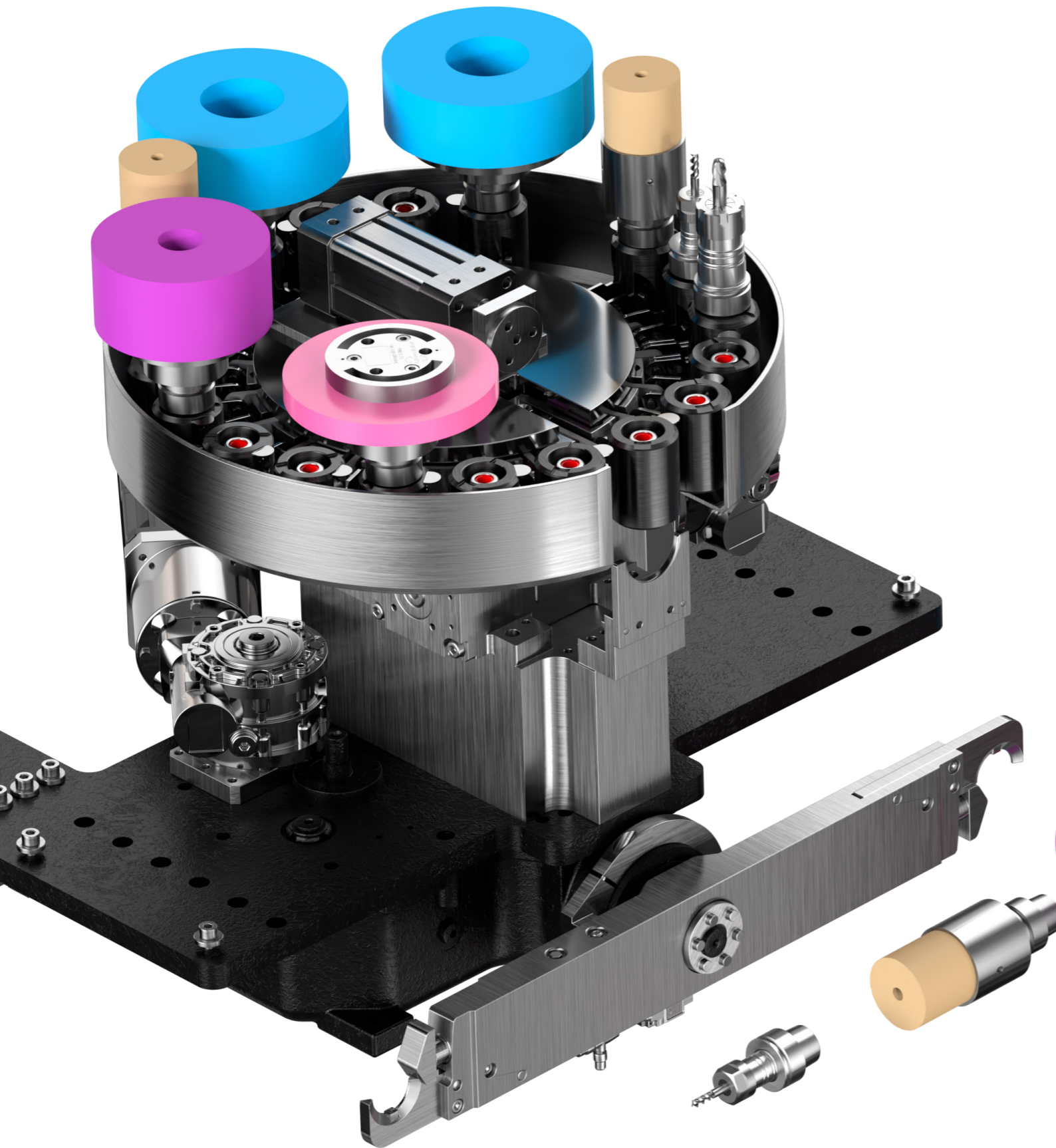
TOOL MAGAZINE

Up to 20 tools, depending on the tool diameter

- (6x) from Ø 122 to Ø 150

- (10x) from Ø 60 to Ø 120

- (20x) less than Ø 60



SPINDLE AND CUTTING TOOLS

Max. tool dimensions:
Ø150 x 128.5, weight 4 kg

Spindle power: 5 kW

Torque: 6 Nm

Max. speed: 30,000 rpm

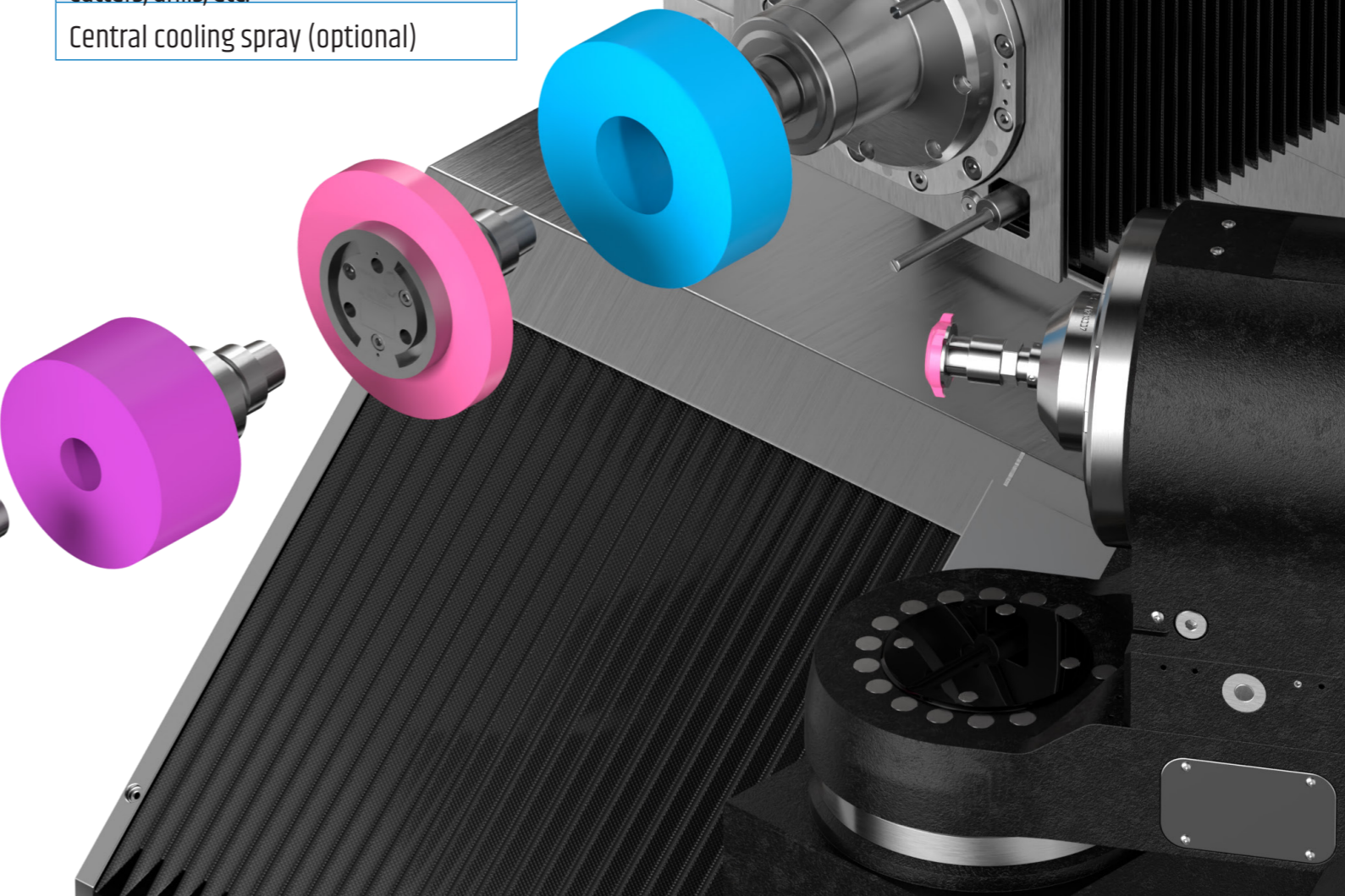
Attachment: HSK- E40

Cooled by the water circuit

Bearings greased for life

Tool types: Grinding wheels, milling cutters, drills, etc.

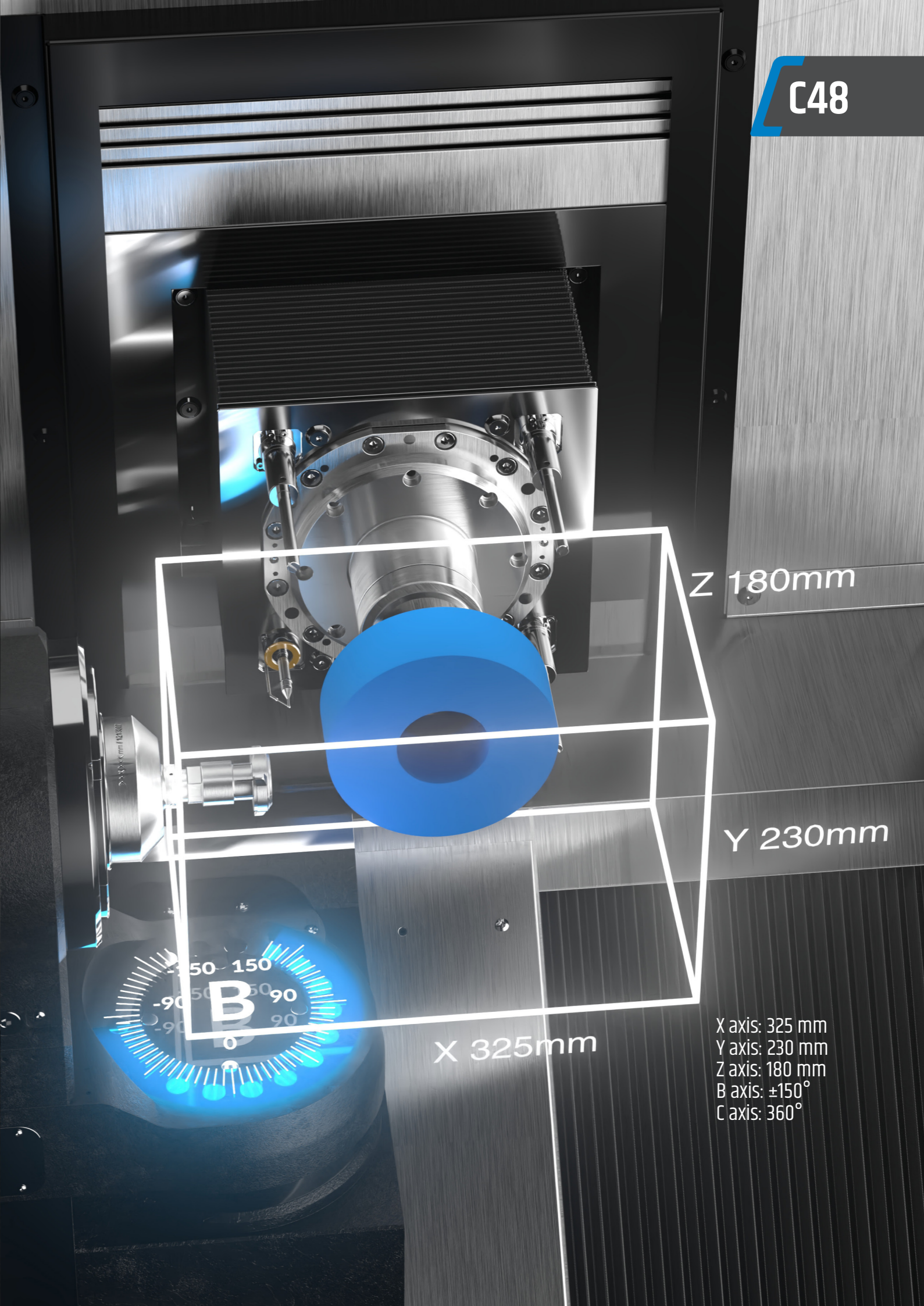
Central cooling spray (optional)



MACHINING AREA

B -150°

B +150°



Z 180mm

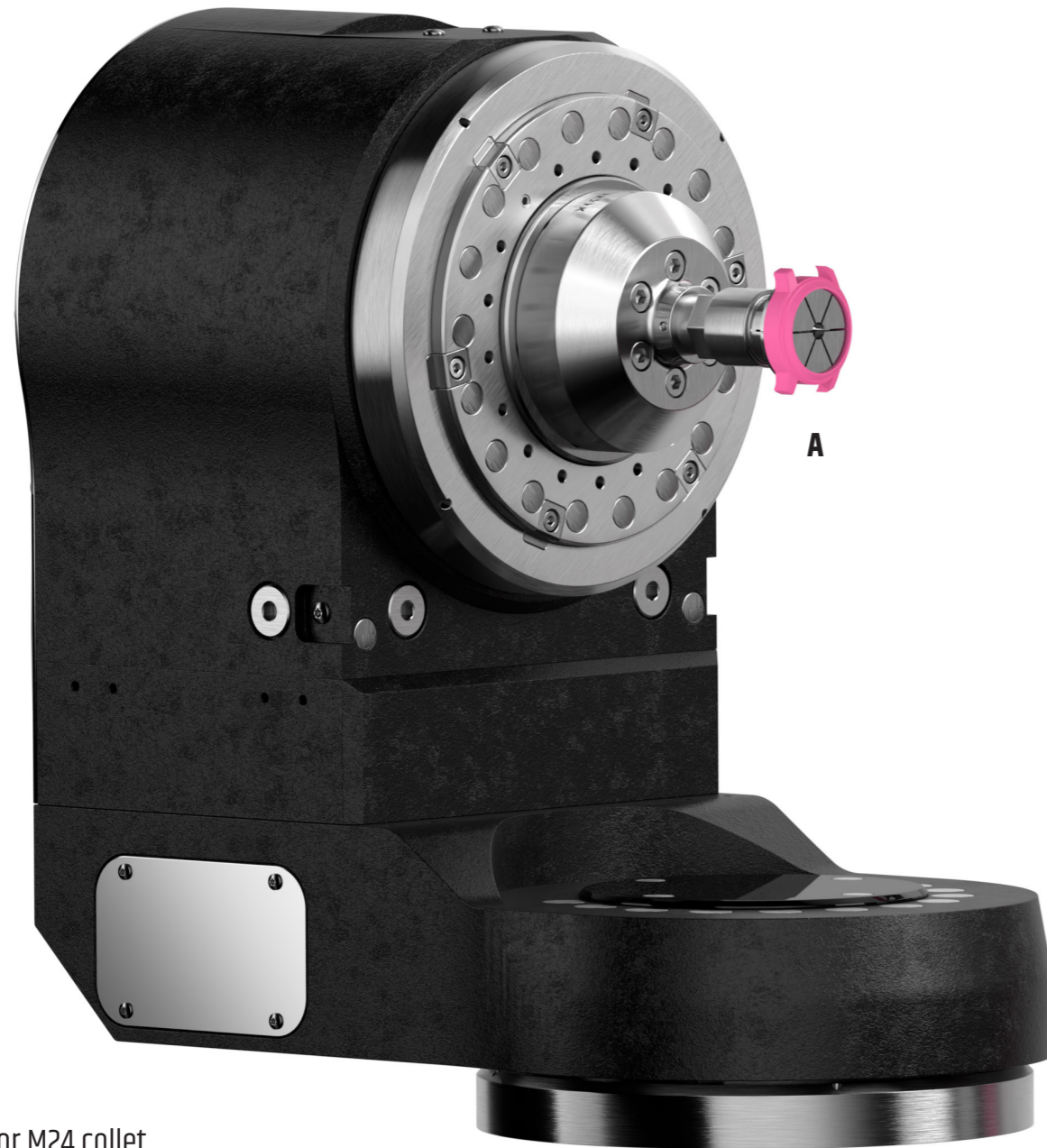
Y 230mm

X 325mm

- X axis: 325 mm
- Y axis: 230 mm
- Z axis: 180 mm
- B axis: ±150°
- C axis: 360°

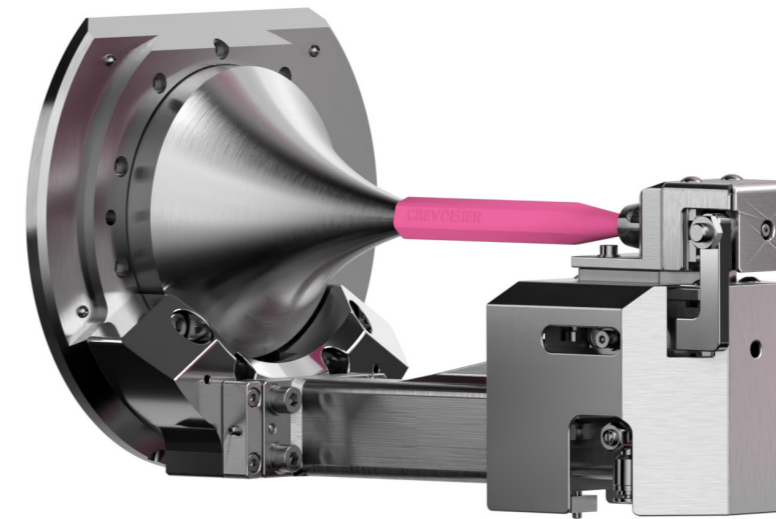
PART CLAMPING

- Automatic clamping
- Holding force setting via the HMI
- Multiple tools to choose from (optional)
- Palletisable

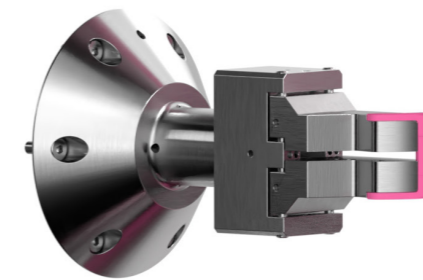


- A) M16 or M24 collet
- B) Front vice
- C) Side vice
- D) Custom fixtures
- E) Tailstock centre

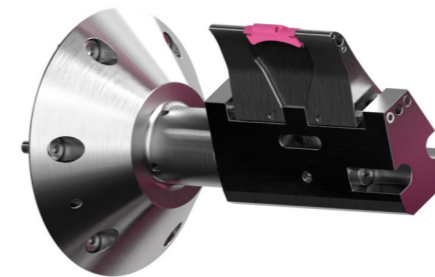
Multiple bases to choose from (optional)
- 3R system
- Yerly
- Erowa



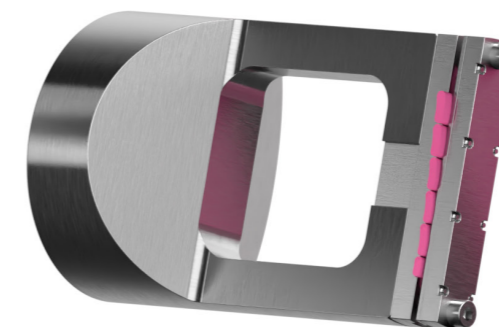
E



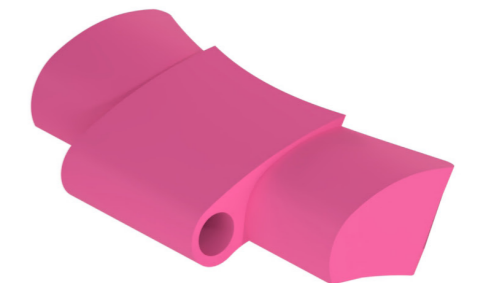
B



C



D



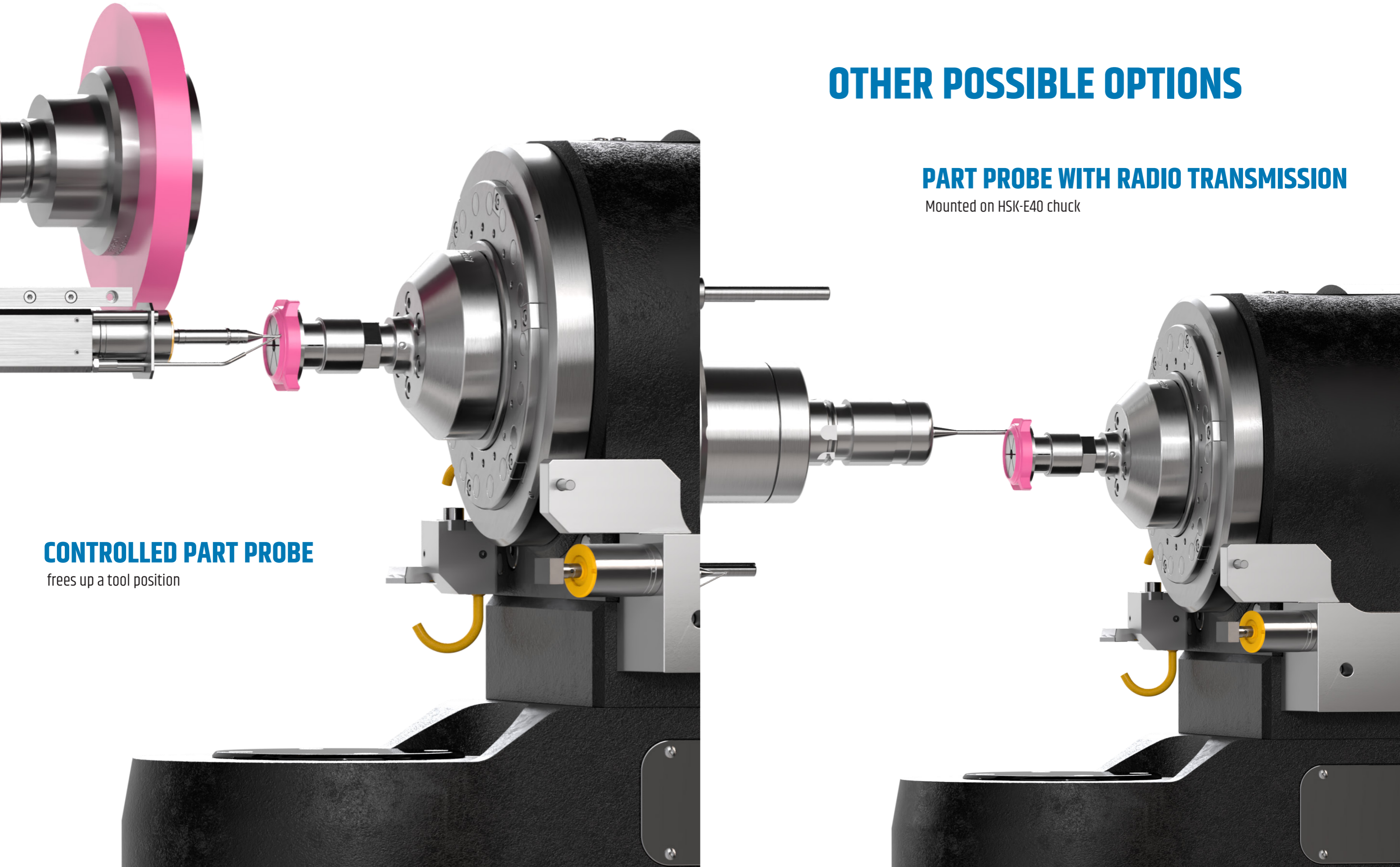
OTHER POSSIBLE OPTIONS

PART PROBE WITH RADIO TRANSMISSION

Mounted on HSK-E40 chuck

CONTROLLED PART PROBE

frees up a tool position

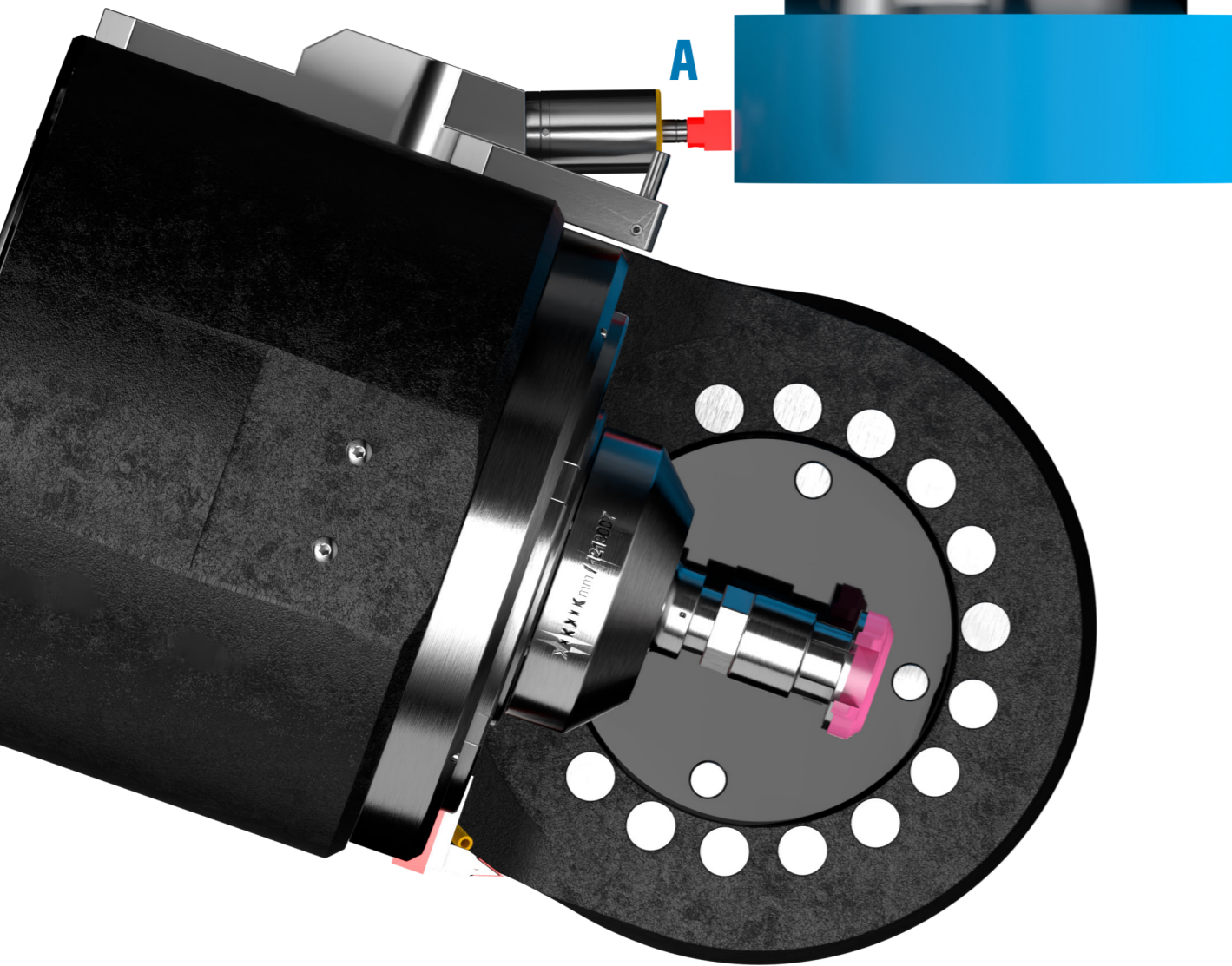


OTHER POSSIBLE OPTIONS



TOOL MEASUREMENT (A)

Tool measurement: diameter, length and tool breakage

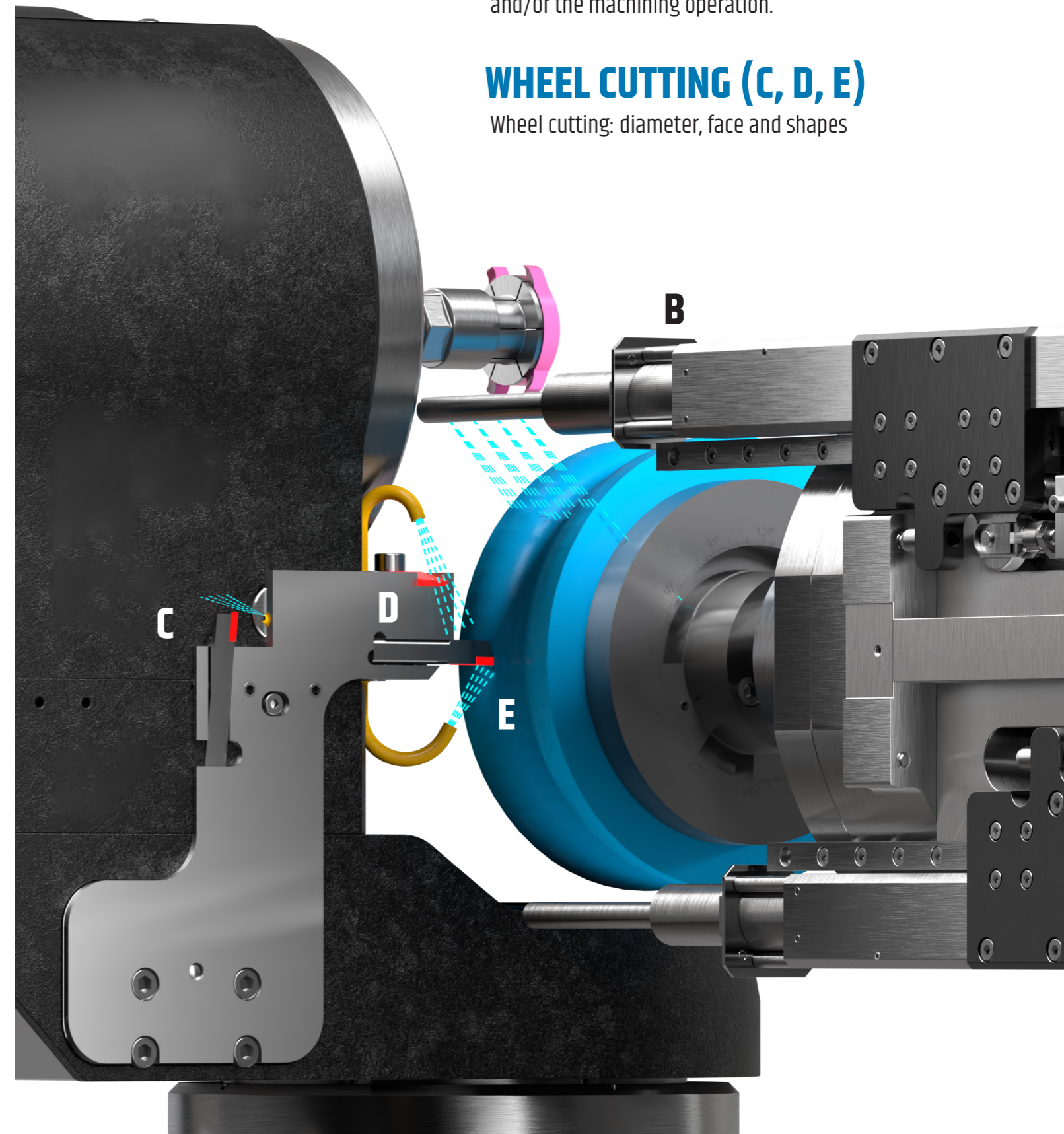


CONTROLLABLE COOLING NOZZLES (B)

Smart cooling spray.
The 3 or 4 nozzles are controlled according to wheel wear and/or the machining operation.

WHEEL CUTTING (C, D, E)

Wheel cutting: diameter, face and shapes



AUTONOMY

Combine your C48 with the C924 loading robot and enjoy 24/7 autonomy

Pallet or loose feed (conveyor, hopper, vibrating bowl)

Vision pack for checking, location, measurement or traceability

Checking laser

SPC drawer

Precious material security system

Turnover and alignment station

Cleaning by vaporisation, brushing and blasting

Multi-gripper and multi-clamp magazine

35 pallets

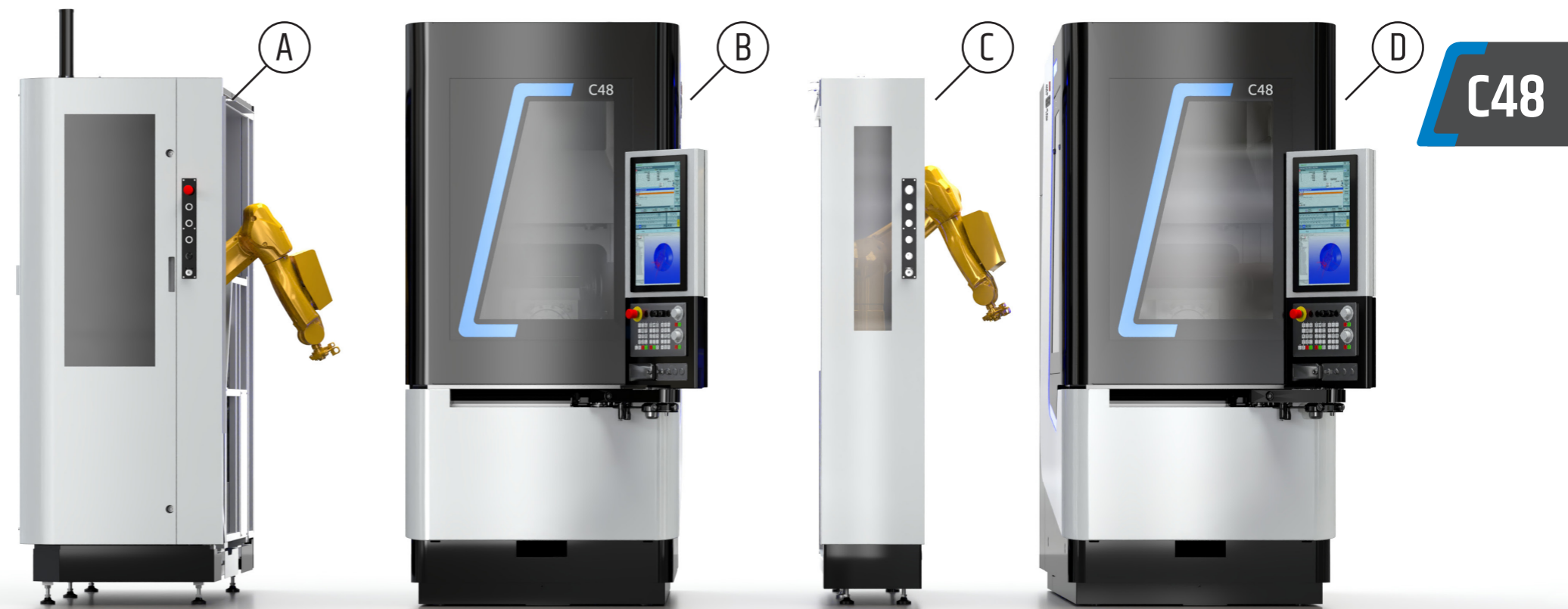
Loose loading



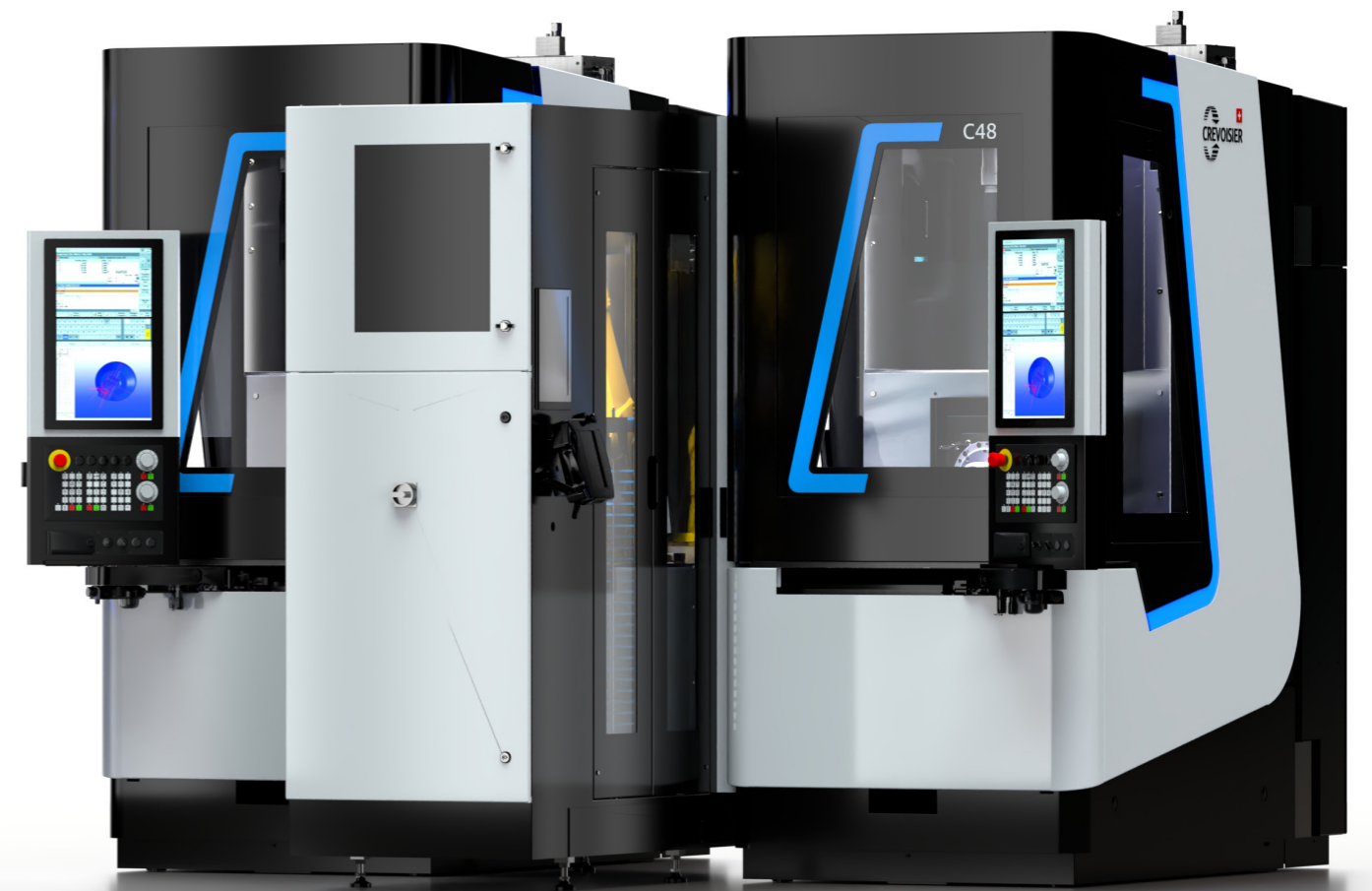
MODULARITY

Optimise your productivity with our innovative solution: Align several C48 machines in a side-by-side configuration to create an efficient linear transfer line, and maximise your efficiency.

- A) C924 loading robot
- B and D) C48 grinding centre
- C) Connection for transferring parts and/or fixtures in both directions

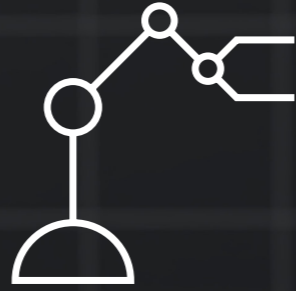


TRANSFER LINE CONFIGURATION



2-MACHINE LOADING CONFIGURATION

ROBOT



HMI



CONTROL SYSTEM



SENSOR



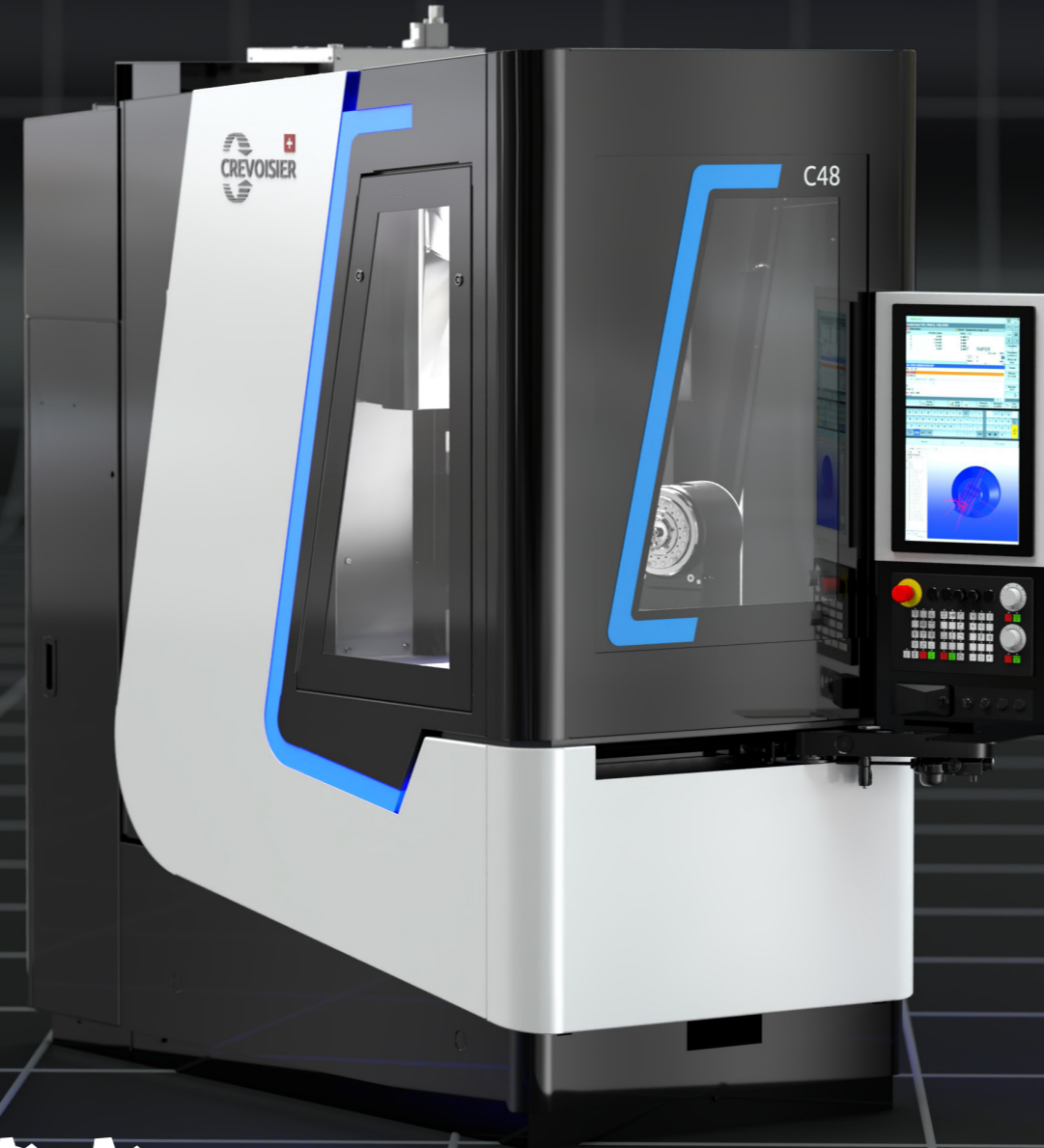
INDUSTRY 4.0



INSTRUMENTS



MONITORING
TOOL





Machining, grinding and finishing centre
The versatility of a Swiss army knife, for the full package



Finishing centre in several configurations
An economic solution for tackling new challenges



Collaborative polishing cell developed by polishers for polishers



Compact loading cell equipped with a polyarticulated robot compatible with a wide range of machines of all brands



Polishing station available in several configurations, and with a vast choice of accessories to carry out any finishing work you need