



Application example: rotary axis with optional accessories

DATRON neo Rotary Axis Dynamic and Precise Fourth Axis

The anytime-retrofitable rotary axis expands the machining capabilities of the DATRON neo milling machine. Featuring a clamping mechanism, it allows for multi-sided processing and circular engraving. Developed, tested and manufactured by DATRON, the rotary axis integrates perfectly on the DATRON neo with high dynamics and precision.

PRODUCT FEATURES

- For greater capability:
 - multi-sided processing, circular engraving
- Dynamics and precision for excellent results
- Flexibility with optional accessories: three-jaw chuck, centric clamping device, tailstock
- Precise alignment with the XYZ sensor of DATRON neo
- Can be retrofitted at any time
- Easy positioning on the table through modular clamping technology
- Simple changeover between a 3-axis and 4-axis machine
- Plug-and-play connection on machining table



TECHNICAL DATA

Technical data

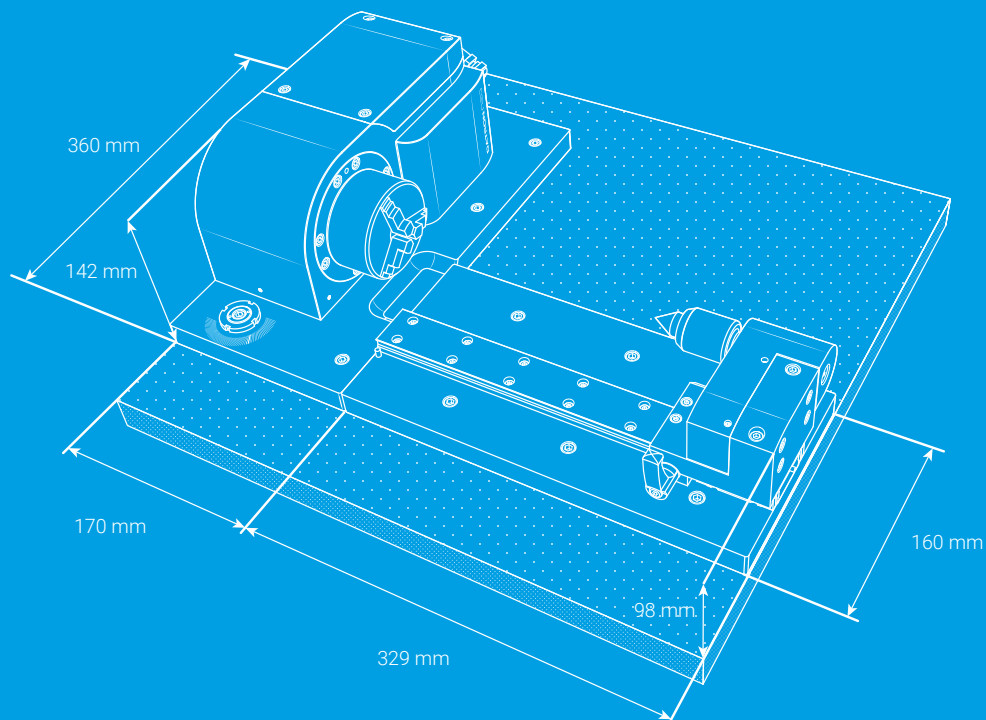
Tip height	55 - 75 mm (depending on the accessories and part geometry)
Seat	Plane surface with D=106 mm and centric fit (34h6)
Drive	200 W AC servo with multi-turn absolute value encoder
Gear	Free cycloidal gear
Gear ratio	79
Swivel range	Continuous rotary operation
Resolution	< 0.0001°
Positioning accuracy (P) according to VDI 3441	120 arcsec
Repeat accuracy (Ps mean) according to VDI 3441	30 arcsec
Speed (max.)	60 rpm
Dimensions (X x Y x Z)	170 mm x 360 mm x 142 mm
Weight (rotary axis)	Approx. 9.5 kg
Weight (with tailstock and three-jaw chuck)	Approx. 19 kg

Scope of delivery

Rotary axis on module clamping plate
Rotary axis control in separate control cabinet
Jumper plug for 3-axis operation

Installation

Simple mounting of the control cabinet for the rotary axis control
Installation and setup by customer possible (plug-and-play approach)
> Note: The installation and use of the rotary axis requires an expansion of the standard DATRON next software with the "4.Axis" option. Entering a licence key is required for this purpose.



OPTIONAL ACCESSORIES



neo three-jaw chuck
(item no. 0A03704C)

Key features

Dimensions (D x H):
106 mm x 63.5 mm

Tip height:
55 – 75 mm

Clamping range
(jaws tapered to the inside):
2 – 80 mm

Clamping range
(jaws tapered to the outside):
25 – 78 mm

Inner borehole (D x H):
19 mm x 40 mm

Clamping force (max.):
13 kN

Tightening torque (max.):
30 Nm

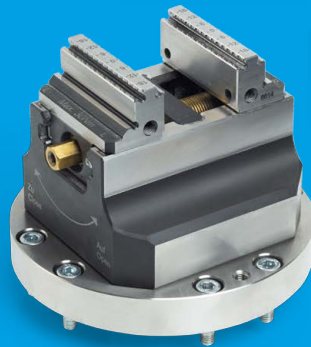
Scope of delivery

Three-jaw chuck, including mounting
flange

1x set jaws tapered to the inside
made of case-hardened steel

1x set jaws tapered to the outside
made of case-hardened steel

Lathe chuck spanner



neo centric clamping device
(item no. 0A03704D)

Key features

Dimensions (D x H):
106 mm x 80 mm

Tip height:
65 – 75 mm

Clamping range: 0 – 65 mm

Jaw width: 46 mm

Clamping force (max.): 6 kN

Tightening torque (max.):
30 Nm

Scope of delivery

Centric clamping device, including mounting
flange

Clamping key



neo tailstock
(item no. 0A03704B)

Key features

Dimensions (L x W x H):
329 mm x 160 mm x 98 mm

Tip height (max.):
55 mm

Tip height (max.): 210 mm

Seat: MK2

Centring tip diameter (max.): 65 mm

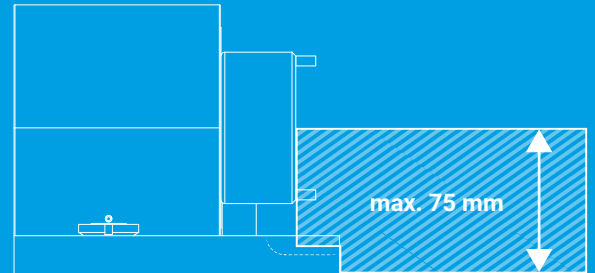
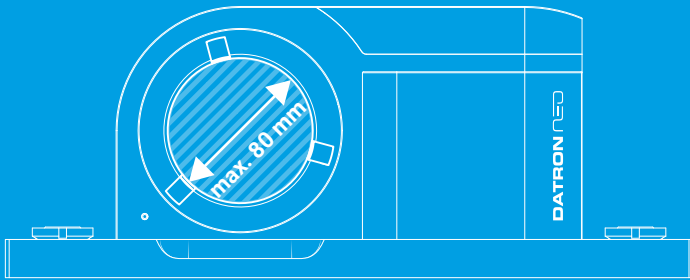
Scope of delivery

Tailstock, including module clamping plate

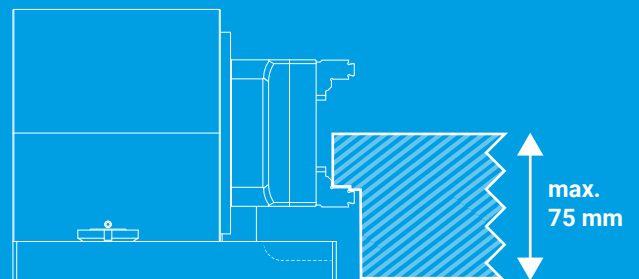
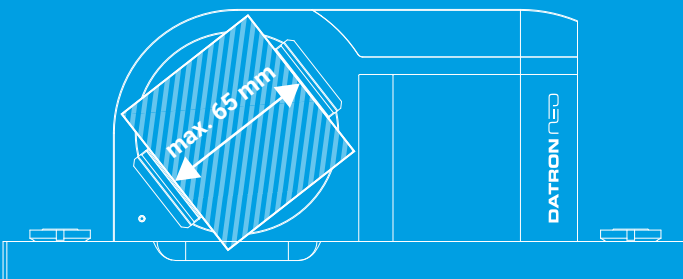
Live lathe centre (D 18 mm)

APPLICATION EXAMPLES:

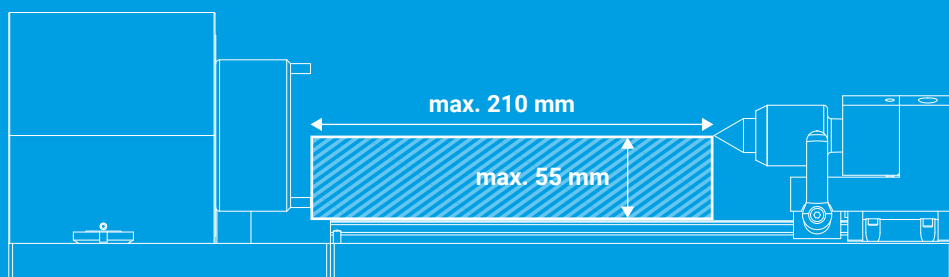
ROTARY AXIS WITH THREE-JAW CHUCK



ROTARY AXIS WITH CENTRIC CLAMPING DEVICE



ROTARY AXIS WITH TAILSTOCK



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