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Lathe Module for Laser Welding Systems

The Lathe Module is designed for radial welding of circular parts. The parts to be welded can be clamped in a 3-way chuck or collet. The sliding tailstock can be used as an extra bearing (locating) point for the part and as a compressing tool to hold two circular parts together under pressure while welding.

The module is placed inside the NOVA-6 as an additional module, on top of the existing XYZ stage. Welding at an angle is possible by rotating the weld head in the horizontal plane.

TYPICAL APPLICATIONS



Pressure sensors



Precision axles



Micro-gears

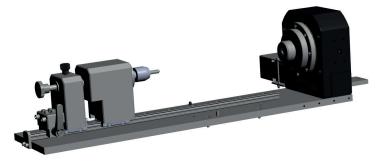
TECHNICAL SPECIFICATIONS

Delivery content	Baseplate to mount on Y-slide High precision rotary servo motor Dependent 160 mm 3-way chuck (other chucks upon request) Collet with 8-10-12 mm inserts (other inserts upon request) Free rotating center MK2 with 6 pcs inserts for inner and outer centering Coarse and fine adjustment for sliding tailstock
Motor type	Brushless servomotor
Rotary axis max/ Rated speed	30 rpm
Rotary axis accuracy	20 arc sec
Repeatability (unidirectional)	5 arc sec
Repeatability (bidirectional)	8 arc sec
Axial error motion	5 μm
Radial error motion	10 µm
Tilt error motion	10 arc sec
Resolution	23600 lines
Maximum moment load	410 Nm
Maximum axial load	270 kg
Maximum torque (continuous)	7 Nm
Maximum torque (peak)	30 Nm
Maximum length between collet and center	350 mm (other lengths upon request)
Maximum dameter	175 mm (other diameters upon request)
Maximum weight of workpiece	10 kg (other weights upon request)
Delivery content	Includes a variety of centres
Operating temperature (°C)	5-40
Operating humidity	5-85% RH (non condensing)
Certification	CE Approved

WEIGHT & DIMENSIONS

Dimensions HxWxD (mm)	approx. 200 x 600 x 200
Weight (in kg)	approx. 20 kg

DRAWINGS



CAD drawing lathe module for laser welding





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