

MicroTube 1700N



Microcut Precision Honing of Nitinol Tubes

Honing Machine for Nitinol Tubes Tube inside \emptyset range 0.8-8.0 mm Tube length from 1100 to 1770 mm Wall thickness 0.1-0.4 mm



Unique benefits of the MicroTube 1700N

- Microcut Ltd. as a single source for machine, tooling and process
- Proven process for oxidation layer removal, surface refinement, surface structuring and precise diameter and/ or wall thickness sizing of Nitinol Tubes
- Allows defined structuring of inside surface for unique customer requirements (i.e. cross-hatching, uni-directional)
- Allows tailoring surface finishes using various tools on same machine
- Unique finishing results can provide a higher value proposition for your Nitinol Tubes
- No specialist knowledge or skills required at operator level

Unique benefits of the MicroTube 1700N (continued)

- Complete removal of the drawing bark inside the tube
- Honing process control by defining force thresholds
- Process analysis and monitoring/recording of forces applied per tube for manufacturing process
- Full traceability of tube back to production batch/tool/forces applied/and date & time of finishing
- Allows this production data to be moved to ERP for further processing and/or quality control
- Economical process for volume production due to
 - -high machine up-times and reliability
 - -continuous repeatability of high precision honing
 - -high resource and energy efficiency

Technical Data

• High velocity machining with up to 7 driven axes



- Various MMI access levels for operator, maintenance and engineering Staff
- Machining parameters are software controlled



Technical Data (Continued)

- Possibility of profile parameter library for various types of tubes
- Manual loading / unloading of tubes (automation optional)
- Remote diagnostics via internet (optional)
- Low emission levels
- Honing waste materials filtering and recovery
- Sample of machining cycle:

-Tube OD: 8.2 mm
-Tube wall thickness: 0.22 mm
-Tube length: 1500 mm

-Tube length machined: approx. 1385 mm

-Stock removal: 0.04 mm from wall thickness

-approx. cycle time: < 15 minutes -achieved surface finish: < Ra 0.4 μ m

Electrical requirements: 3 x 400V+N+E, 50/60 Hz

Power consumption: 6 kVA

Dimensions (LxWxH): 7000 x 2200 x 2000 mm

Weight: approx. 1500 Kg

Manual and MMI language: English or German (other languages optional)



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