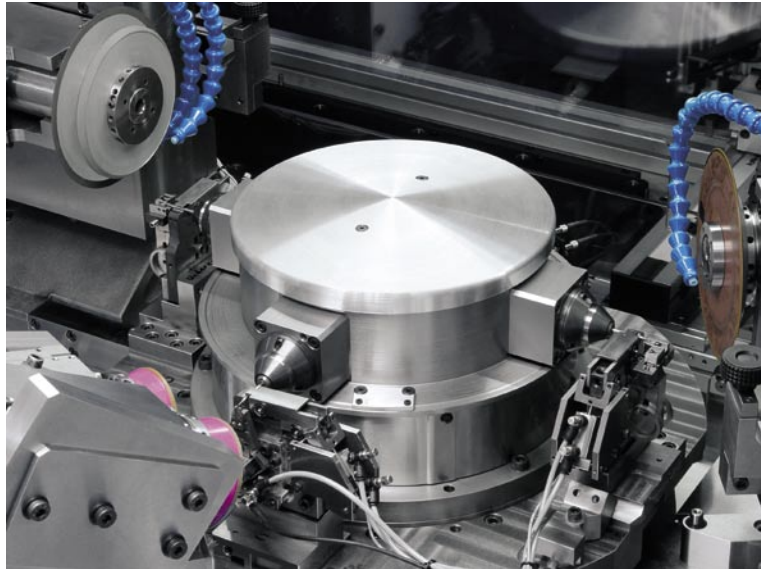


NanoGrind™ 4000XD



ROTARY TRANSFER SYSTEM

The new Rollomatic transfer machine is based on a revolving table with 4 workheads and moves from one station to the other in just 0.6 seconds. One station is dedicated to the tool load/unload, while the other 3 stations are dedicated to grinding. Because of the flexible grinding modules, a large variety of tools can be ground. The first model in the NanoGrind™ family is the NanoGrind™ 4000XD, a machine dedicated to micro drills (flute, point, relief and undercut).

PRECISION AND ADVANTAGES

Nanoser® Technology

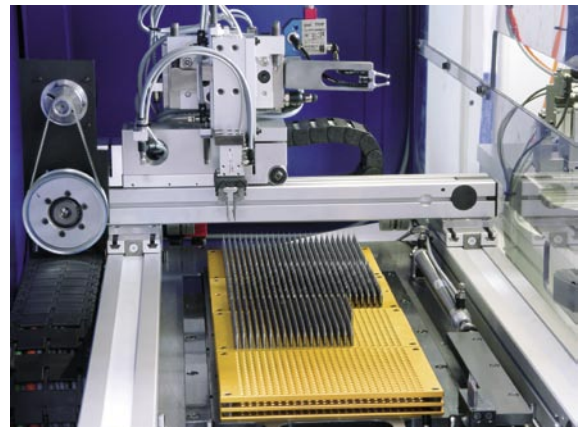
New setup cross tables to hold the shank guides, steady rest and pointing grippers of the NanoGrind™ 4000XD. Technology based on material deformation, made of one piece, no play and no wear. Patented.

AutoSetup

All the tool holding blocks are setup outside the machine with a camera while the machine is in production. Tool and wheel touchup are fully automatic, equipped with a sensing device. Setups are up to 80% shorter compared to other methods.

SmartHolder

New spindle holder for the NanoGrind™ machines. The holder design prevents spindles from getting deformed when tightening the cover. Spindle is easily placed and removed. Patented.



NanoGrind™ 4000XD



SPECIFICATIONS

APPLICATION

Flute, point, relief & undercut of micro drills

BLANK SPECIFICATIONS

Overall length 30 – 40 mm (1.180" – 1.575")
Diameter 2.0 and 3.175 mm (.080" and 1/8")

GRINDING RANGE

Grinding Ø 0.025 – 0.5 mm (.001" – .020")
Helix angle 25 – 45 degrees
Point angle 90 – 150 degrees
Shortest cycle time 13 seconds

STATION 1

Robot load/unloading max. 2000 tools

STATION 2

Flute grinding
Nanoset® tool steady rest
Wheel diameter 150 mm (6")
300 W direct-drive spindle (1/2 hp)
up to 10000 rpm

STATION 3

Point grinding
Nanoset® tool gripper
2 wheels diameter 75 mm (3")
300 W direct drive spindle (1/2 hp)
up to 10000 rpm

STATION 4

Relief & Undercut grinding
Nanoset® tool steadyrest
Relief wheel diameter 150 mm (6")
Undercut wheel diameter 100 mm (4")
300 W direct drive spindle (1/2 hp)
up to 10000 rpm

CONTROL

Fanuc 310i-MA series
4 channels, max. 4 axes per channel
linear glass scales 10 or 100 nanometers, depending on axis

PNEUMATIC UNIT

6 bars, 165 l/min maximum (85 psi)

POWER

10 kW (25 A at 400 V)

WEIGHT

Total 2800 kg (6.160 lbs)

DIMENSIONS

L x W x H 1630 x 2120 x 1930 mm (64" x 83" x 76")

>> Specifications are subject to change without notice