

R I R series

DOIMAK Internal Thread Grinding Machines



The Leading European Builder of High Precision Thread Grinding Machines



Customized Grinding Technology

Doimak has focused the main efforts on developing solutions for thread grinding technology. Actually Doimak's core value is being the wide "know how" acquired in the threading process.

Doimak designs and manufactures a wide range of External / Internal thread grinders with the most innovative technologies.

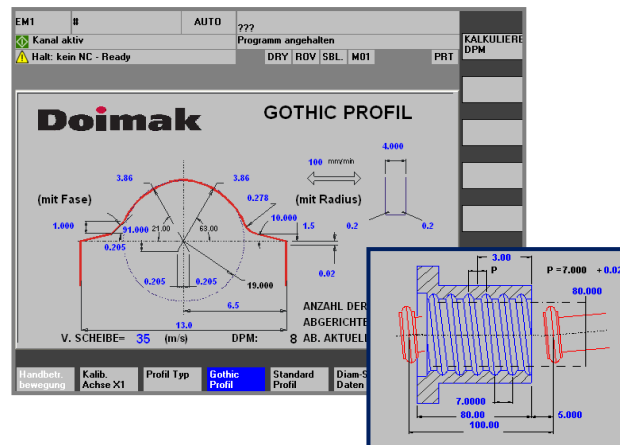
Currently, we offer the latest technology for grinding ballscrew nuts, automotive steering nuts, complex geometries, compensated profiles, high helix and multiple leads.



Quality

The RIR series belongs to the latest generation of CNC grinding machines for internal threads, with next common keypoints:

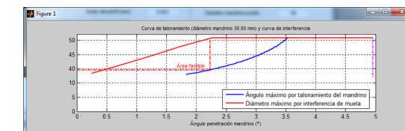
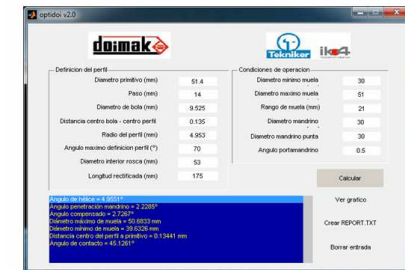
- Thermally stabilized castings.
- Motions by means of hydrostatic or linear guides.
- HF spindles selected for each application requirement
- Software adapted for any type of internal threading tasks including automatic wheel profiling.
- Vitrified and electroplated CBN wheels for high production requirements
- Possibility to integrate OD simultaneous grinding
- Friendly parametric programming interface.



Adaptability

Doimak offers a sort of solutions for different type of challenges arising when machining internal threads:

- Tool optimisation for each nut defining parameters: profile, lead, diameter, length.
- Simultaneous grinding of the thread path and ballnut recirculation holes.
- Combined OD & Internal thread grinding.
- Probing solutions for in-process measuring of nut geometry.
- HF spindles selected for each application requirement



Technologies

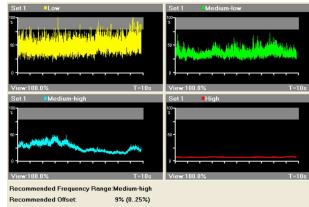
Wide variety of design criteria depending on:

Specific solutions for different range of nut dimensions: from mini-actuator nuts to ultra-high load ballscrew nuts



CBN grinding technologies

- Acoustic emission contact sensors for a precise dressing operation



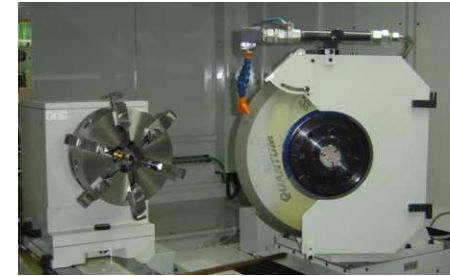
- Vitrified / Electroplated CBN Wheels



Integrated measuring devices



- Additional OD process



Miscellaneous

- Oil filtering systems



MACHINE FAMILIES

RIR 275



RIR + RE 250



RIR SP 500 / 600



TECHNICAL DATA

	RIR 140	RIR 275 (RIR + RE 250)	RIR SP (RIR + RE SP)
Max. Part Length	210 mm	350 (400) mm	700-1000 mm
Minimum thread diameter (*)	8 mm	8 mm	-
Max. outside diameter	160 mm	275 (250) mm	600 mm
Grinding HF electrospindle Max. Speed rate	11 kW 42.000 rpm	11 kW 42.000 rpm	18 kW 24.000 rpm
Wheel diameter (max)	60 mm	500 mm	500 mm
Helix axis (**)	±20°	±15°	±15°
OD Wheel diameter	-	(500) mm	(600) mm
Machine weight	4200 kg	6600 (8000) kg	15000 (19000) kg

* Smaller diameter under study

**Larger angles under study

