

MULTI-SPINDLE HOB GRINDING MACHINE

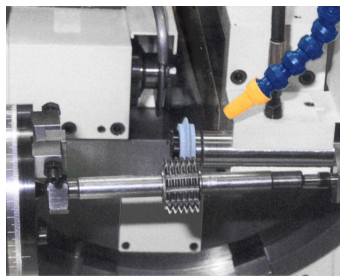


Doimak RFM 500 SL: HOB grinding machines for medium-small modules.
Doimak RFM 1000 G: Multi-spindle HOB grinding machines for small & high modules.



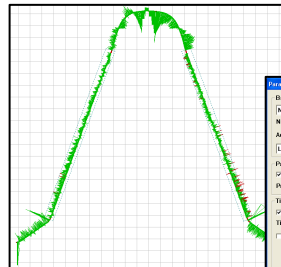
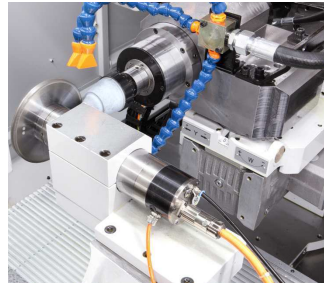
Miscellaneous

- Software for *.dxf profile importing.
- Standard parametric profile programming.
- High dynamic wheelhead axis by means of linear motor configuration for high precision relief grinding.
- Built-in motors in the workhead.
- Different wheelhead configuration for specific application depending on the module: cylindrical wheel, cup-form wheel or finger wheel.
- Optical high precision linear scales.
- HF electrospindle for the dressing unit -diamond disc CNC interpolation.
- Helix angle by means of direct torque motor (+90° / -225°)
- Probing sensor for part pre-setting and basic geometrical verification: pitch, diameter, cylindricity



Dimensions

- Distance between centers 600 / 1200 mm
- RFM 500 SL max module = 10
- RFM 1000 G max module = 30
- Accuracy class: AA to AAA according to DIN 3968



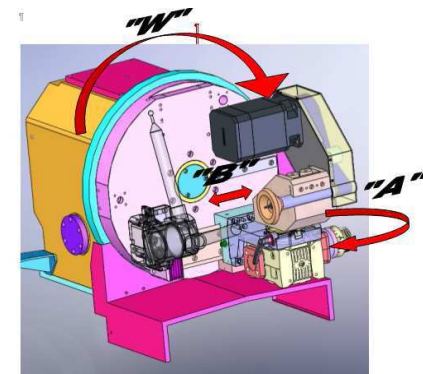
Parameters: Infeed Unit					
Basic parameters					
Normal module	2.50000	mm	Form thickness	2.740000	mm
Number of teeth	4		Throat direction	Low	
Addendum	2.50000	mm	Disk radius	2.420000	mm
Lead angle	4.53502	°	Outer diameter	95.000000	mm
Parameters of flanks					
<input checked="" type="checkbox"/> Symmetric	Left side		Right side		
Process angle	14.50000	°	Process angle		
<input checked="" type="checkbox"/> Symmetric	Left side		Right side		
Tip rounding	0.474000	mm	Tip rounding	0.474000	mm
<input type="checkbox"/> Profiled		mm	Profiled		mm
Generating height		mm	Generating height		mm
Flank correction					
<input checked="" type="checkbox"/> Symmetric	Left side		Right side		
Flank rounding	0.100000	mm	Flank rounding	0.100000	mm
<input checked="" type="checkbox"/> Chamfer					
Chamfer angle	0.200000	°	Chamfer angle	0.200000	°
Generating height	0.210000	mm	Generating height	0.210000	mm
<input type="button" value="OK"/> <input type="button" value="Cancel"/>					

Customized grinding technology

Doimak Hob grinding machines are user customized machines depending on the profile grinding technology required by the customer.

Depending on the hob dimensions, focused mainly in the min/max module required, the wheelhead configuration will be adapted and machine subgroups -workhead, tailstock, etc- will be dimensioned accordingly.

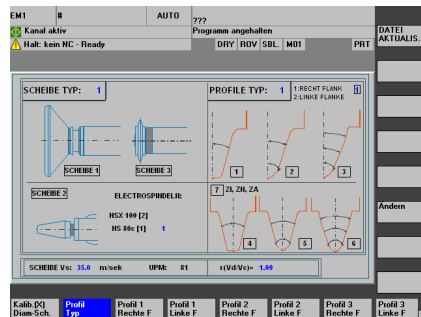
The linear motor on the wheelhead slide gives the machine a superb dynamic response during teeth relief grinding.



MULTIPLE WHEEL HEAD CONFIGURATIONS

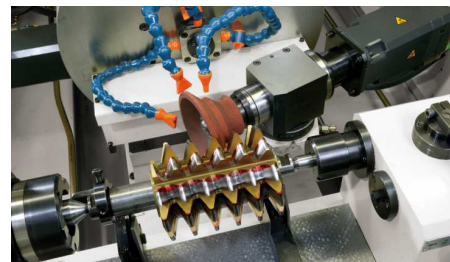
Conf. 1: Cylindrical hob grinding

- The spindle is based on a belt/pulley configuration.
- This wheel-head configuration developed for grinding modules 0,4/<math>M < 10</math> and profile shaped at both sides of the wheel.
- The wheel profiling can be either parametric or DXF profile imported.



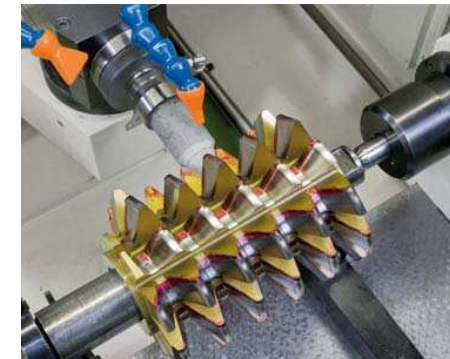
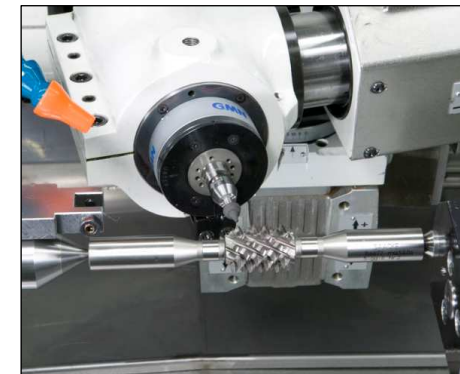
Conf. 2: Cup wheel grinding (*)

- Based on direct servomotor or belt/pulley configuration.
- Used for medium sized modules and higher reliefs 8 <math>M < 15</math>
- A specific manual horizontal rotating angle -A axis- gives the possibility for higher reliefs.



Conf. 3: Finger wheel grinding (*)

- Based on high frequency electrospindel, from 30.000 to 60.000 rpm and 5 to 10 kW.
- Used for highest modules.



Technical data

GRINDING OF HIGH MODULE HOBS (*) RFM 1000 G

Main dimensions:

	RFM 500 SL / RFM 1000 G
Length between centers	600 mm / 1.200 mm
Height of centers	150 mm / 270 mm
Swivelling axis	+90° - 225°
Hob modules	0,4-10 / 0,4-30
Part max. weight	100 Kg / 500 Kg
Installed power	35 kW / 65 kW
Machine dimensions	L: 3600 W: 1950 H: 2000 / L: 5500 W: 2500 H: 2350
Machine Total weight	8.000 kg / 12.000 Kg

Transversal slide X:

Maximum travel	275 mm-380 mm
Maximum travel speed	10,000 mm/min – 8,000 mm/min
Linear scale resolution	0.0001 mm

