



**CENTERLESS
GRINDING WHEELS**



CENTERLESS GRINDING WHEELS

Centerless grinding utilizes two wheels: a grinding wheel which removes the material to improve the workpiece geometry and the surface roughness, and a regulating wheel which applies lateral pressure in order to carry the workpiece, control its rotational speed and the feed rate.

Resin-bond grinding wheels deliver the perfect balance between grinding performance, durability and surface finish due to the versatility of their manufacturing process. MIDAROM ABRASIVES develops and manufactures a wide range of highly customized wheels for your grinding process.

Roughing and semifinishing wheels

Rough grinding and semifinishing wheels are used for high stock removal and high-precision rectification of bars and tubes. The technical properties of the bond combined with the optimal abrasive grit size provide self-dressing capacity, long wheel lifespans and excellent surface processing for different materials, in preparation for the next grinding stages.



Finishing and superfinishing wheels

Finishing and superfinishing wheels are used for minimal removals in centerless grinding, before or after chrome-plating. The special nature of the resin bond paired with fine abrasive microgrits produce excellent results in terms of surface finish. They ensure a clean and stable cut without loading and do not overheat the material. Obtainable surface roughness: $R_a = 0,05 \mu\text{m}$, $R_t < 1,0 \mu\text{m}$.

Grinding wheels

Technical properties

Bond type	Synthetic resin
Abrasive grain type	Aluminum oxide: 11A, 33A, 52A Silicon carbide: 21C, 31C
Grit size [FEPA] ¹	Rough grinding: 46 - 80 Semifinishing: 120 - 220 Finishing & Superfinishing: 240 - 800
Roughness ²	$R_a = 0,05 \mu\text{m}$, $R_t < 1,0 \mu\text{m}$
Hardness	Q - Hard
Peripheral speed [m/s]	35 - 50

Dimensions [mm]³

External diameter	100 - 800
Thickness	10 - 355
Bore	127 - 406,4
Recess	as per request

¹ double-layered wheels are available on request

² obtainable surface roughness after multiple grinding steps

³ other dimensions are available on request

CENTERLESS GRINDING WHEELS

Regulating wheels

Regulating (control) wheels are used for carrying workpieces in centerless grinding operations. They regulate the speed of the workpiece being rotated against the grinding wheel, therefore controlling the material removal rate and feed rate. High traction, long life and good absorption of all excess vibrations during grinding are able to offer fast, precise and consistent results.



Regulating wheels

Technical properties

Bond type	Synthetic resin
Abrasive grain type	Aluminum oxide: 11A
Grit size [FEPA] ¹	80 - 120
Hardness	Q - Hard
Peripheral speed [m/s]	35

Dimensions [mm]²

External diameter	100 - 406
Thickness	10 - 300
Bore	50,8 - 280
Recess	as per request

¹ other grit sizes are available on request

² other dimensions are available on request



Applications

- Hard chrome-plated bars and tubes
- Linear shafts
- Hydraulic cylinders
- Pneumatic pistons
- Piston rods, gudgeon pins
- Electric motor axles
- Drilling bars
- Bearings

Usage

Wheels are available for a wide range of centerless grinding machines including: Cincinnati, Mikrosa, Landgraf, Lidköping, Monza, Giustina, Ghiringhelli, Ebert, Mair, BMS, SMT, Tos, Jotes, Nomoco, Landis, Bryant, Norton etc.

STANDARD DELIVERY TIME — ONE WEEK*

* for European customers



Jucu de Mijloc, Nr. 24, Hala 8
407353, jud. Cluj, Romania

Tel: +40 769 049918
E-mail: office@midaromabrasives.ro
Web: www.midaromabrasives.ro

MADE IN E.U.



ISO 9001 ISO 14001

