

DISC MILL DM 400



The DM 400 is the new comfort model for fine grinding of medium-hard, hard and brittle materials down to 0.05 mm. This model is based on the well-proven DM 200 but offers improved safety features due to the automatic locking of the collecting vessel and grinding chamber, as well as particularly convenient operation thanks to the motor-driven grinding gap adjustment with digital gap display. The clearly structured display shows all grinding parameters.

Thanks to its robust design, the Disc Mill DM 400 can be used under rough conditions in laboratories and pilot plants, as well as online for the quality control of raw materials. The powerful DM 400 requires only a few minutes to achieve the desired grind size.

APPLICATION EXAMPLES

bauxit, cement clinker, chalk, chamotte, coal, coke, concrete, construction waste, dental ceramics, dried soil samples, drilling cores, electrotechnical porcelain, ferro alloys, glass, granite, gypsum, hydroxyapatite, ores, quartz, sewage sludge, sintered ceramics, slag, soils, steatite, ...

PRODUCT ADVANTAGES

- | excellent crushing performance
- | convenient grinding gap adjustment in 0.05 mm steps - with digital gap display
- | TFT display with robust membrane keyboard
- | large, removable plastic funnel with smooth inner surfaces for easy cleaning and optimum material feeding
- | wear compensation of grinding disc thanks to zero point adjustment
- | Smooth inner surfaces of grinding chamber allow for easy and residue-free cleaning
- | additional labyrinth sealing seals the grinding chamber
- | easy change of grinding discs
- | optional version with polymer interior coating

FEATURES

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| Applications | preliminary and fine grinding |
| Field of application | chemistry / plastics, construction materials, engineering / electronics, geology / metallurgy, glass / ceramics |
| Feed material | medium-hard, hard, brittle |
| Size reduction principle | pressure, friction |
| Material feed size* | < 20 mm |
| Final fineness* | < 50 µm |
| Speed at 50 Hz (60 Hz) | 440 min ⁻¹ (528 min ⁻¹) |
| Material of grinding tools | zirconium oxide, hardened steel, tungsten carbide, manganese steel |
| Gap width setting | 0.05 - 12 mm |
| Collector capacity | 2.5 l |
| Drive | 3-phase geared motor |
| Drive power | 1.8 kW |
| Electrical supply data | different voltages |
| Power connection | 3-phase |
| Protection code | IP 55 |
| W x H x D closed | 520 x 630 x 1050 mm |
| Net weight | ~ 240 kg |
| Standards | CE |

*depending on feed material and instrument configuration/settings

FUNCTIONAL PRINCIPLE

In the DM 400 the feed material enters the dustproof chamber from the filling hopper and is fed centrally between two vertical grinding discs. A moving grinding disc rotates against a fixed one and draws in the feed material. The necessary comminution effects are generated by pressure and frictional forces. The progressively arranged grinding disc meshing first subjects the sample to preliminary crushing; centrifugal force then moves it to the outer regions of the grinding discs where fine comminution takes place. The processed sample exits through the grinding gap and is collected in a receiver. The gap width between the grinding discs is incremental adjustable and can be motor-driven adjusted during operation in the range between 0.1 and 5 mm.

www.retsch.com/dm400