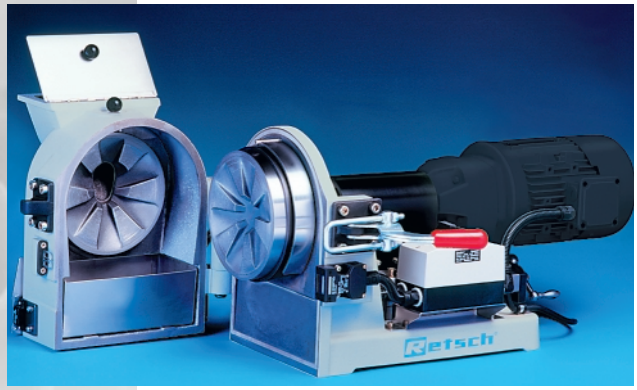

DM 200 Laboratory Disc Grinding Mill

Benefits

- long grinding disc service life materials
- reproducible grinding results with precise gap adjustment
- inspection window for checking the gap width
- the grinding space is easily accessible
- neutral-to-analysis results with grinding discs made of various steels, tungsten carbide, circonium oxide
- simple operation
- easy to clean and dust-free grinding
- service-free three-phase gear motor
- safety checked by TÜV (CE symbol)
- 2-year warranty

Areas of Application

- **mining & metallurgy:** ores, coal, coke and slag
- **ceramics:** steatite, sintering ceramics, electrotechnical porcelain and chamotte
- **rocks & earth:** bauxite, slags, quartz, clinker, gypsum and chalk
- **glass:** frit, glass and raw materials
- **soil research:** dried soil samples, sewage sludge and drilling cores

Function

The material to be ground comes into the dustproof grinding area through the funnel tube and is conducted centrally through two vertical grinding discs. A moveable grinding disc rotates against a fixed disc and takes in the material to be ground. Pressure and shearing stress produce the desired crushing.

The progressively arranged meshing of the grinding discs pre-crushes the material to be ground. It is then conveyed to the external areas of the grinding discs by centrifugal force where fine grinding takes place. The ground sample comes out of the grinding gap and is collected in a collecting container.

The gap width between the grinding discs can be continuously adjusted. You may also adjust it on a scale from 0.1 to 30 mm during operation and check it through an additional inspection window.

Application

The main area of application for the laboratory disc grinding mill is the preliminary disintegration and fine crushing of batches of medium hard to hard-brittle solids for preparing samples for analysis.

The robust design and efficiency of this mill also make it possible to use it in pilot plants and with series investigations of larger numbers of samples.

The maximum feed size of the material to be sampled is approximately 20 mm edge length. The final achievable fineness depends upon the gap width adjusted with the grinding discs and the fracturing behaviour of the material to be ground.

There are also grinding discs made of zirconium oxide or hard metal for special applications, also for grinding free of heavy metals. The cleaning effort required is reduced to a minimum with the hinged grinding housing.

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Grinding Results of the DM 200

Feed size 20 mm, feeding quantity 1 kg, material arranged from hard to medium-hard. Our table shows that the DM 200 achieves very short grinding times and high final fineness.

material to be ground	grinding duration [min]	gap adjustment [mm]	grinding results [µm] 90%<	50%<	10%<
basalt	2.1	1.0		600	25
	3.5	0.1	220	60	6
clinker	1.5	1.0		800	80
	2.0	0.5	900	450	25
	10.0	0.1	220	60	5
slag	3.0	1.0		800	150
	3.5	0.5	1000	550	70
	15.0	0.1	300	75	20
slate	1.4	1.0		1500	100
	1.3	0.5		800	20
	2.2	0.1	300	90	5
hard coal	3.5	1.0		800	120
	8.0	0.5	800	340	30
	13.5	0.1	250	100	15
briquettes	1.5	1.0		600	40
	4.0	0.5	650	320	20
	10.0	0.1	500	85	5
coke	5.3	1.0		400	50
	7.6	0.5	700	260	30
	9.0	0.1	400	200	20
chalky sandstone	2.0	1.0	1000	420	140
	2.2	0.5	350	250	40
	6.3	0.1	210	100	15
Thomas meal phosphate	1.3	1.0	1000	350	20
	2.3	0.5	350	150	15
pumice stone	1.7	1.0	1100	450	15
	3.5	0.5	600	250	10
	5.0	0.1	150	30	5

Performance Features

application: crushing and preliminary disintegration

material to be ground: medium hard, hard, brittle

feed size: up to 20 mm

final fineness: up to 100 µm
(depending upon the material)

container volume/throughput: 2,5 l / to 150 kg/h

Dimension and Weights

W x H x T	440 x 400 x 870 mm
weight	140 kg (net)

Order Data

Disc grinding mill DM 200

item number	
20.740.0001	DM 200 for 3/N-400 V, 50/60 Hz, 2 kW

accessories

item number	
22.456.0001	grinding disc set made of hardened steel
22.456.0002	grinding disc set made of manganese steel
22.456.0003	grinding disc made of tungsten carbide
22.456.0004	grinding disc made of zirconium oxide

Retsch GmbH & Co. KG
Rheinische Straße 36
42781 Haan

Phone +49 0 21 29 55 61 - 0
Fax +49 0 21 29 87 02

E-mail info@retsch.de
Web site www.retsch.de

a VERDER company