

# VIBRATORY DISC MILL VDM1200 (Pneumatic)



VDM1200 Vibratory Disc Mill is mainly used for sample preparation of spectral analysis. The device is especially suitable for fast fine grinding without loss. No matter the material is Medium-Hard, Hard, Brittle and Fibrous. The VDM1200 grinder can perform sample preparation treatment in dry conditions namely dry grinding.

Three kinds of material grinding sets are available viz. Hardened steel, Tungsten Carbide, and High Manganese steel.

### APPLICATIONS

- Ceramics and glass: Oxide Ceramics, Glass
- Building materials: Cement, Stone, Concrete
- Environmental area: Soil, Paving Stone, Slag
- Minerals & Metallurgy: Coal, Coke, Corundum, Ore, Slag



### WORKING PRINCIPLE

VDM 1200 Vibratory Disc Mill crush sample via pressure, impact and friction. The quick-action clamping device makes the grinds set firmly attached onto the vibrating plate. Through transmission, the vibrating plate will generate drastic three dimensional vibrating so as to produce giant impacting, frictional and grinding force on the grinding set, and such forces focus on samples to make them become powder in a very short time.

### FEATURES AND ADVANTAGES

- Compact floor type design saves space
- Large sample processing capacity, up to 1.8Kg per batch
- High final fineness ( $d_{95} < 75\mu\text{m}$ )
- Safe and rapid pneumatic fastening device
- The design of safety protection lock can guarantee safe operation
- Grinding sets made of three different kinds of materials are available for choices
- Unique assistance device facilitates the movement of grinding cups
- Grinding cups of three kinds of volumes can be equipped; one to three samples can be processed for each batch
- 2.2KW strong power motor and the grinding efficiency is 30% higher than that of similar products

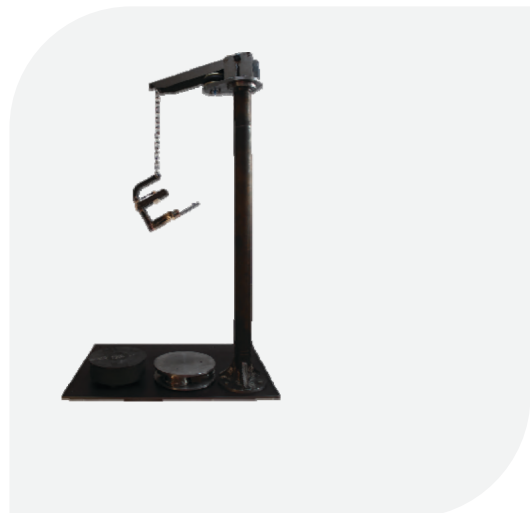


### TECHNICAL ADVANTAGES

**Convenient and safe operation** - VDM 1200 vibrating cup type grinders have high level security. The pneumatic fastening device can rapidly fix grinding sets on a grinding platform; and its leak proofness guarantees the safety of the operation process. In addition, we have also designed safety protection locks for VDM 1200 machines which can guarantee the safety of operators during operation.

**Large processing capacity** of samples, efficient operation. The VDM 1200 uses a motor with 2.2 KW power, therefore it has strong power and its grinding efficiency is 30% higher than that of similar products. According to test results, 95% of samples can be grinded below  $75\mu\text{m}$  within 3 minutes. In addition, the high-volume grinding set (the maximum volume is 2,000ml) can prepare more samples at a time for laboratory analysis so as to meet your requirements of processing a large amount of samples.

**Auxiliary assistance device** – With the latest unique design, the auxiliary assistance device is used for conveniently carrying the heavy grinding cup.



## DIFFERENT MATERIAL OF GRINDING SETS FOR VARIOUS APPLICATIONS

### Hardened Steel

The main characteristics of Hardened steel is corrosion resistance and rust prevention. For processing corrosive samples grinding sets of Hardened steel is a good choice.

### Tungsten Carbide

The hardness of tungsten carbide is high and is similar to that of a diamond. Best suitable for processing high hardness samples.

### Steel 1.1740





Ideal choice for heavy metal free grinding without Contamination



## TECHNICAL SPECIFICATIONS

Applications	:	Size reduction, Mixing, Triturating
Feed material	:	Medium-Hard, Hard, Brittle, Fibrous
Size Reduction Principle	:	Pressure, Friction
Feed Size	:	< 25 mm
Final Fineness	:	< 75 $\mu\text{m}$ (Depending on the sample property)
Batch Quantity	:	20 to 1600 gms (depending on size of grinding set)
Speed	:	910 RPM
Material of Grinding sets	:	Hardened Steel, Tungsten carbide & Steel 1.1740 for grinding without heavy metal contamination)
Sizes of Grinding sets	:	400 / 500 / 800 / 1000 / 2000 ml
Grinding time setting	:	00:00:01 to 99:59:59 (Min/Sec) (Digital)
Memory Storage	:	10 SOP's with parameters with program sequences
Overload Protection	:	Efficient and Maintenance free Drive guarantees to maintain constant speed in continuous operation for long time operation or under maximum overload
Rated Power	:	2.2 KW
Power Supply	:	440 V; 50 Hz (Three Phase)
Instrument size(W*D*H)	:	1040*670*1300 mm
Package size(W*D*H)	:	1332*1032*1620 mm
Weight	:	300 Kg

## APPLICATION EXAMPLES FOR VIBRATORY DISC MILL - VDM 1200

BEFORE GRINDING	AFTER GRINDING	PARAMETERS	
		Sample	Coal
		Jaw Plate	Manganese Steel
		Sample Characteristic	Hard, Brittle
		Attention	Dry, the feed size less than 5mm
		Time	5 min
		Sample	Glass
		Jaw Plate	Manganese Steel
		Sample Characteristic	Brittle
		Attention	The feed size less than 5mm
		Time	3 min

### ORDERING INFORMATION

#### Vibratory Disc Mill VDM 1200 (Pneumatic)

**VDM 1200 (Pneumatic) on wheels; 440 V 50 Hz Including air pump, Auxiliary assistance device**  
(Please order Grinding Set separately)

Grinding Set: Hardened Steel, 500 ml

Grinding Set: Hardened Steel, 800 ml

Grinding Set: Hardened Steel, 1000 ml

Grinding Set: Hardened Steel, 2000 ml

Grinding Set: High Manganese Steel, 500 ml

Grinding Set: High Manganese Steel, 800 ml

Grinding Set: High Manganese Steel, 1000 ml

Grinding Set: High Manganese Steel, 2000 ml

Grinding Set: Tungsten Carbide, 400 ml



#### Grinding Set grinding without heavy-metal contamination

Grinding Set: Steel 1.1740 – 500 ml

Grinding Set: Steel 1.1740 – 800 ml

Grinding Set: Steel 1.1740 – 1000 ml

Grinding Set: Steel 1.1740 – 2000 ml





**OTHER PRODUCTS**

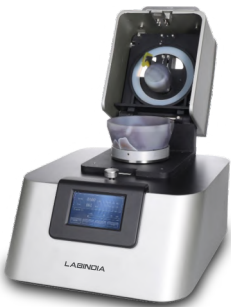
Vibratory Sieve Shaker VS 1100  
(Touch Screen)



Air Jet Sieve Shaker  
JS 1100 (Touchscreen)



Mortar Grinder  
HG1100 (Touchscreen)



Mixer Mill  
MM1100 (Micro)



Cryo Grinding Mill  
CM1100



Ultra Centrifugal Mill - UCM 1100



Planetary Ball Mill MM 1400+  
(4 Grinding Stations)



Planetary Ball Mill MM 1100+  
(1 Grinding Station)



Vibratory Disc Mill  
VDM 1100



Knife Mill KM 1100



Knife Mill KM 1300



Twister TW1100



3D Mixer LM3D



OTHER PRODUCTS

Jaw Crusher JC 1100



Intelligent Graphite Digestor GD1100



Automatic Pellet Press PP40



Jaw Crusher JC1200



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LABINDIA reserve the right to change specification without notice as part of its continuous programme of product development.