



Laboratory mills

ATEST

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The most common applications and the recommended mills

Comminuted material	Device
Alternative fuel	Cutting mills: ACM-3, ACM-4
Biomass, wood chips, peat	Cutting mills: ACM-3, ACM-4
Cement, clinker	Crushers: AJC-2, AJC-4, AJC-6 Drum mill ADM-3 Vibrating mill AVM-1 Micro ball mill MillMix 30 Mortar grinder AMG
Ceramic catalysts	Crushers: AJC-1, AJC-2, AJC-4, AJC-6 Vibrating mill AVM-1, Mortar grinder AMG
Fabrics (e.g. cotton)	Cutting mills: ACM-3, ACM-4
Glass, ceramics	Crushers: AJC-1, AJC-2, AJC-4, AJC-6 Vibrating mill AVM-1 Micro ball mill MillMix 30 Planetary mill APBM, Mortar grinder AMG
Grains, nuts, food pellets, food	Vibrating mill AVM-1 Micro ball mill MillMix 30 Planetary mill APBM
Hard coal, fine coal, eco-pea coal, soot, fly ash	Vibrating mill AVM-1 Micro ball mill MillMix 30 Planetary mill APBM, Mortar grinder AMG
Minerals, synthetic minerals, concrete, aggregates	Crushers: AJC-1, AJC-2, AJC-4, AJC-6 Vibrating mill AVM-1 Micro ball mill MillMix 30 Planetary mill APBM, Mortar grinder AMG
Pharmaceuticals	Vibrating mill AVM-1 Micro ball mill MillMix 30 Planetary mill APBM, Mortar grinder AMG
Pigments	Micro ball mill MillMix 30 Planetary mill APBM, Mortar grinder AMG
Plants	Cutting mills: ACM-3, ACM-4
Plastics, foil	Cutting mills: ACM-3, ACM-4
Rubber, tyres (metal free)	Cutting mills: ACM-3, ACM-4
Soil	Crushers: AJC-1, AJC-2, AJC-4, AJC-6 Micro ball mill MillMix 30 Planetary mill APBM Mortar grinder AMG

Jaw crusher

Jaw crushers are used for the initial grinding of hard and very hard, brittle materials. The material is crushed between the movable jaw, located on the eccentric shaft, and the fixed jaw. The crushers enable the grinding of materials down to grain sizes of 2 mm. Atest offers four sizes of crushers: AJC-1, AJC-2, AJC-4 and AJC-6.



AJC-1

Model	Feed size approx.	Gap width	Final fineness	Power supply	Engine power	Dimensions (L x W x H)	Weight app.
AJC-1	60 mm	2÷15 mm	$d_{90} < 1,5\text{mm}$	3 x 400V/ 50Hz	1,1 kW	400 x 650 x 650 mm	135 kg
AJC-2	95 mm	2÷15 mm	$d_{90} < 2\text{mm}$	3 x 400V/ 50Hz	3,0 kW	600 x 1150 x 900 mm	190 kg
AJC-4	125 mm	3÷25 mm	$d_{90} < 2,5\text{mm}$	3 x 400V/ 50Hz	5,5 kW	600 x 1150 x 900 mm	250 kg
AJC-6	255 x 125 mm	3÷25 mm	$d_{90} < 2,5\text{mm}$	3 x 400V/ 50Hz	7,5 kW	600 x 1150 x 900 mm	600 kg



AJC-2



AJC-4

Drum mill



Drum mills are the machines to grind samples with the big volume dry and wet way. Balls or rods can be used. Optional separation grid to separate sample from grinding tools.

Model	Feed size	Drum size / sample volume	Final fineness approx.	Power supply	Engine power	Dimensions (L x W x H)	Weight app.
ADM-2	< 16 mm	22 l / 5 l	< 25 µm	3 x 400V/ 50Hz	2,0 kW	1350 x 600 x 1200 mm	100 kg
ADM-3	< 50 mm	70 l / 35 l	< 15 µm	3 x 400V/ 50Hz	1,5 kW	1050 x 950 x 1320 mm	220 kg
Los Angeles Abrasion Machine	< 20 mm	70 l/16 l	< 15 µm	3 x 400V/ 50Hz	2,2 kW	1240 x 940 x 1100 mm	220 kg

Planetary ball mill

The APBM mill is a device for final grinding, mixing and homogenization of brittle, medium-hard and hard materials. The material is crushed and ground in two or four bowls by the grinding balls. The balls and material move in a planetary motion. Basis and the grinding bowls mounted thereon rotate in opposite directions. The airtight vessels ensure loss-free grinding, also for suspensions. We offer grinding vessels and grinding media made of various materials and sizes.



Model	Feed size approx.	Max. bowl volume	Final fineness approx.	Power supply	Engine power	Dimensions (L x W x H)	Weight app.
APBM-4	< 20 mm	4 x 500 ml	< 20 µm	230V or 3 x 400V	0,75 kW	650 x 520 x 650 mm	120 kg

Micro ball mill

The MillMix 30 is used for grinding, mixing and homogenizing soft, medium-hard, brittle or fibrous materials. The material is crushed and pulverized by the grinding balls moving at high speed.

We offer vessels and balls in various sizes and made of various materials.



Model	Feed size approx.	Max. bowl volume	Final fineness approx.	Power supply	Engine power	Dimensions (L x W x H)	Weight app.
MillMix 30	10 mm	2 x 50 ml	1 μ m	230V/ 50Hz	0,2 kW	365 x 425 x 225 mm	42 kg

Vibrating mill AVM-1

The AVM-1 mill is designed for fast grinding and homogenization of dry and wet hard and brittle materials. The material is shredded in a grinding bowl mounted on a movable base. Inside the bowl are grinding media which shred the material with the help of percussion and grinding. Atest offers grinding sets with different volume and various material. AVM-1 with digital controller, AVM-1.A with digital clock.



Device	Feed size approx.	Max. bowl volume	Final fineness approx.	Power supply	Engine power	Dimensions (L x W x H)	Weight app.
AVM-1	< 12 mm	250 ml	~20 μ m	3 x 400V/ 50Hz	0,75 kW	715 x 660 x 1015 mm	135 kg
AVM-1.A	< 12 mm	250 ml	~20 μ m	3 x 400V/ 50Hz	0,75 kW	530 x 740 x 975 mm	135 kg

Mortar grinder



The AMG is designed for grinding of dry and wet hard, medium hard, soft, brittle and temperature sensitive samples. The material is ground under the influence of pressure and friction. The mortar is driven and the pestle is freely rotated and pressed with the adjustable spring. We offer grinding sets made of various materials.

Model	Feed size approx.	Bowl volume	Final fineness approx.	Power supply	Engine power	Dimensions (L x W x H)	Weight app.
AMG	< 3 mm	500 ml	~ 1 μ m	230V/ 50Hz	0,18 kW	290 x 560 x 450 mm	39 kg

Cutting mill

ACM mills are used for grinding fibrous, soft, medium-hard and brittle materials. The material is cut between the knives mounted on the rotating rotor and the fixed knives on the circumference of the grinding chamber. When the material is smaller than the openings in the separating sieve, it enters the collecting vessel. The final grinding depends on the size of the separating sieve opening and the properties of the ground material.

Device	Feed size approx.	Throughput	Final fineness approx.	Power supply	Engine power	Dimensions (L x W x H)	Weight app.
ACM-3	< 160 mm	max 30 kg/h	< 0,5 mm	3 x 400V/ 50Hz	2,2 kW	550 x 1380 x 755 mm	130 kg
ACM-4	< 180 mm	max 100 kg/h	< 0,5 mm	3 x 400V/ 50Hz	3,0 kW	437 x 877x 1700 mm	230 kg





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