

Planetary Ball Mills, (4 Models), FRITSCH

For rapid batchwise ultra fine grinding down to colloidal fineness of hard to soft materials dry or in suspension. Mixing and perfect homogenizing of emulsions and pastes.

Typical fields of application:

Geology, chemistry, mineralogy, ceramics industry, construction industry, metallurgy, electrical industry, glass industry, nuclear research, soil research, biology, pharmacology and galenic research, medicine, technology, spectroscopy, x-ray fluorescence

Method of operation:

The Planetary ball mills work according to the known and reliable planetary system. The sample is primarily crushed by the high-energy impact of grinding balls and in part by friction between the balls and the wall of the grinding bowl.

Features at a glance:

- very fast uniform comminution
- no-loss grinding - including suspensions because of grinding bowls with sealing ring
- reproducible grinding results due to controlled drive and programmable electronic system
- programmable grinding and cooling times and reversible operation
- RS232 interface for data transfer of process parameters
- microprocessor control electronic system and precise digital display of all functions (as well as rotational speed)
- analytically pure grinding materials in 9 different materials for contamination-free grinding
- easy cleaning
- safety tested (CE mark)
- 2-year guarantee

4 different models with different feed quantities are available:

Technical data:

„pulverisette 5“ (2 models):

Max. feed size:	10 mm
Max. throughput:	Model I up to 4 × 225 ml Model II up to 2 × 225 ml
Final fineness:	< 1 µm
Dimensions (L × D × H):	58 × 67 × 57 cm
Weight net:	120 kg

„pulverisette 6“:

Max. feed size:	10 mm
Max. throughput:	up to 1 × 225 ml
Final fineness:	< 1 µm
Dimensions (L × D × H):	37 × 53 × 50 cm
Weight net:	63 kg

„pulverisette 7“:

Max. feed size:	5 mm
Max. throughput:	up to 2 × 20 ml
Final fineness:	< 1 µm
Dimensions (L × D × H):	37 × 53 × 50 cm
Weight net:	35 kg



Article	Order No.
① Planetary mill „pulverisette 5“ model I	53 98 05500
With 4 fasteners , without grinding bowls and balls, for 100 – 120/200 – 240 V/1~, 50 – 60 Hz, 1500/1300 Watt (the voltage specified on the order form will be set by the factory)	
Article	Order No.
Planetary mill „pulverisette 5“ model II	53 98 05600
With 4 fasteners , without grinding bowls and balls, for 100 – 120/200 – 240 V/1~, 50 – 60 Hz, 1500/1300 Watt (the voltage specified on the order form will be set by the factory).	
Article	Order No.
② Planetary mono mill „pulverisette 6“	53 98 06000
With just one working station and an adjustable mass to compensate for imbalances which develop, without grinding bowls and balls, for 100 – 120/200 – 240 V/1~, 50 – 60 Hz, 880 Watt (the voltage specified on the order form will be set by the factory).	
Article	Order No.
③ Planetary mill „pulverisette 7“	53 98 07000
Without grinding bowl and balls, for 100 – 120/200 – 240 V/1~, 50 – 60 Hz, 880 Watt (the voltage specified on the order form will be set by the factory).	

Grinding bowls and balls for the „pulverisette 5“, „pulverisette 6“ and „pulverisette 7“ should be chosen from the **corresponding** list, because otherwise operation is not possible.

FRITSCH also offers a Vario-Planetary Mill „pulverisette 4“, where the rotation speed of the grinding bowl and supporting disc can be set independently of each other.



④ Accessories „pulverisette 5“ and „pulverisette 6“

Cylindrical grinding bowls with cover and seal ring

Material	500	250	80
	Order No.	Order No.	Order No.
Agate	53 98 05201	53 98 05301	53 98 05401
Silicon nitride	53 98 05203	53 98 05303	53 98 05403
Sintered corundum	53 98 05205	53 98 05305	53 98 05405
Hard metal TC		53 98 05309	53 98 05409
rust-proof steel	53 98 05213	53 98 05313	53 98 05413
Zircon oxide	53 98 05215	53 98 05315	53 98 05415

One bowl holder can hold either 2 × 80 ml bowls or 1 × 80 ml bowl together with reducing adapter.

Adapter

Required, when only one bowl is used per bowl holder.

Article	for	Order No.
Adapter	Grinding bowl 80 ml volume	53 98 90112

Grinding balls for their grinding bowls (pulverisette5/6)

Material	Ball Ø mm			
	10	20	30	40
	Order No.	Order No.	Order No.	Order No.
Agate	53 98 05611	53 98 05612	53 98 05613	
Silicon nitride	53 98 05631	53 98 05632	53 98 05633	53 98 05634
Sintered corundum	53 98 05651	53 98 05652	53 98 05653	53 98 05654
Hard metal TC	53 98 05671	53 98 05672	53 98 05673	53 98 05674
rust-proof steel	53 98 05711	53 98 05712	53 98 05713	53 98 05714
Zircon oxide	53 98 05751	53 98 05752	53 98 05753	53 98 05754

Grinding bowls and balls are also available in other materials.

Recommended number of grinding balls (max. per bowl)

Ball dia. mm	Volume ml	Volume ml	Volume ml
	500	250	80
10	100	50	30
20	25	15	5
30	10	6	
40	4		

Special lids for milling under protection gas as well as the **GTM system** for „IN SITU“ gas pressure and temperature measuring during the grinding process can be delivered.

Accessories for the Planetary Micro Mill „pulverisette 7“

Cylindrical grinding bowls with cover and seal ring (pulverisette7)

Material	Volume ml	
	45	12
	Order No.	Order No.
Agate	53 98 07101	53 98 07301
Sintered corundum	53 98 07105	53 98 07305
rust-proof steel	53 98 07111	53 98 07311

Grinding balls for the grinding bowls (pulverisette7)

Material	Ball Ø mm	
	15	5
	Order No.	Order No.
Agate	53 98 07501	53 98 07601
Sintered corundum 1	53 98 07505	—
rust-proof steel	53 98 07511	53 98 07611

Grinding bowls and balls are also available in silicone nitride, hard metal tungsten carbide, tempered steel and zirconium oxide.

Recommended number of grinding balls (max. per bowl)

Ball dia. mm	Volume ml	Volume ml
	12	45
5	50	180
15		7



④



⑤

