

GUS-PRICE LIST 2009



MILLING SIEVING DIVIDING

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net weight approx. kg	order no.	article	Price in EURO
		Milling: PLANETARY MILLS <i>premium line</i>	
		Planetary Micro Mill <i>premium line</i>	
		PULVERISETTE 7	
		instrument without grinding bowls and balls	
44.000	07.5000.00	for 100-240 V/1~, 50-60 Hz, 1100 Watt	7.100,00
		Grinding balls, see page 11-12.	
		Grinding bowls for Planetary Mills <i>premium line</i>	
		PULVERISETTE 7	
		Grinding bowls with lid and seal ring	
		Grinding bowls 80 ml volume for PULVERISETTE 7 <i>premium line</i>	
0.825	50.9620.00	agate, with steel casing	1.208,00
0.900	50.9630.00	sintered corundum (99.7 % Al ₂ O ₃), with steel casing	1.200,00
0.850	50.9670.00	silicon nitride, with steel casing	2.289,00
1.000	50.9660.00	zirconium oxide, with steel casing	2.373,00
1.100	50.9610.00	stainless steel, with steel casing	888,00
1.100	50.9650.00	tempered steel, with steel casing	966,00
1.500	50.9640.00	hardmetal tungsten carbide, with steel casing	3.140,00
		Grinding bowls 45 ml volume for PULVERISETTE 7 <i>premium line</i>	
0.500	50.9720.00	agate, with steel casing	1.187,00
0.500	50.9730.00	sintered corundum (99.7 % Al ₂ O ₃), with steel casing	1.176,00
0.900	50.9770.00	silicon nitride, with steel casing	2.055,00
1.000	50.9760.00	zirconium oxide, with steel casing	2.103,00
1.200	50.9710.00	stainless steel, with steel casing	859,00
1.100	50.9750.00	tempered steel, with steel casing	962,00
1.300	50.9740.00	hardmetal tungsten carbide, with steel casing	2.657,00
		Grinding bowls 20 ml volume for PULVERISETTE 7 <i>premium line</i>	
0.900	50.9820.00	agate, with steel casing	1.174,00
0.900	50.9830.00	sintered corundum (99.7 % Al ₂ O ₃), with steel casing	1.159,00
0.900	50.9870.00	silicon nitride, with steel casing	1.964,00
1.600	50.9860.00	zirconium oxide, with steel casing	1.980,00
1.330	50.9810.00	stainless steel, with steel casing	842,00
1.100	50.9850.00	tempered steel, with steel casing	948,00
1.340	50.9840.00	hardmetal tungsten carbide, with steel casing	2.289,00
		Further accessories	
0.010	84.0306.15	replacement seal ring Viton 49 x 4 mm for all grinding bowls <i>premium line</i> 80 ml, 45 ml, 20 ml volume except stainless steel	5,80
0.010	84.0302.15	replacement seal ring Viton 39 x 4 mm for grinding bowls <i>premium line</i> made of stainless steel 80 ml, 45 ml, 20 ml volume	5,30
0.320	50.9900.00	special emptying device for all grinding bowls <i>premium line</i> , except stainless steel	245,00
0.320	50.9970.00	special emptying device for grinding bowls <i>premium line</i> made of stainless steel	245,00

net weight approx. kg	order no.	article	Price in EURO
		Grinding accessories for Planetary Mills <i>premium line</i>	
		PULVERISETTE 7	
		Accessories for grinding in inert gas and for mechanical alloying	
		Gassing lid with valves and seal ring for grinding bowls 80 ml, 45 ml, 20 ml volume for PULVERISETTE 7 <i>premium line</i>	
0.300	50.9627.00	agate, with steel casing	643,00
0.300	50.9637.00	sintered corundum (99.7 % Al ₂ O ₃), with steel casing	677,00
0.300	50.9677.00	silicon nitride, with steel casing	1.061,00
0.350	50.9667.00	zirconium oxide, with steel casing	1.239,00
0.750	50.9617.00	stainless steel, with steel casing	632,00
0.780	50.9657.00	tempered steel, with steel casing	632,00
0.850	50.9647.00	hardmetal tungsten carbide, with steel casing	1.775,00
		EASY GTM - Gas pressure and temperature measuring system for controlling the milling process	
0.100	81.0013.00	receiver unit - board for inserting in the Planetary Mill premium line	273,00
1.100	50.9050.00	80 ml grinding bowl made of tempered steel with special lid and transmitter	2.048,00
1.500	50.9060.00	80 ml grinding bowl made of hardmetal tungsten carbide with special lid and transmitter	4.190,00
1.000	50.9070.00	80 ml grinding bowl made of zirconium oxide with special lid and transmitter	3.423,00
		Only one receiver unit has to be ordered.	
		Grinding balls, see page 11-12.	

net weight approx. kg	order no.	article	Price in EURO
		Milling: PLANETARY MILLS <i>classic line</i>	
		Planetary Mill <i>classic line</i>	
		PULVERISETTE 5	
		instrument without grinding bowls and balls, incl. Safe-Lock clamping system	
		with 4 grinding bowl fasteners	
120.000	05.5000.00	for 100-120/200-240 V/1~, 50-60 Hz, 1300/1600 Watt Voltage, indicated by customer is set.	11.960,00
		with 2 grinding bowl fasteners	
100.000	05.6000.00	for 100-120/200-240 V/1~, 50-60 Hz, 1300/1600 Watt Voltage, indicated by customer is set.	10.490,00
		Grinding bowls and balls, see page 9-12.	
		Planetary Mono Mill <i>classic line</i>	
		PULVERISETTE 6	
		instrument without grinding bowls and balls, incl. Safe-Lock clamping system	
63.000	06.2000.00	for 100-120/200-240 V/1~, 50-60 Hz, 1100 Watt Voltage, indicated by customer is set.	4.990,00
		Grinding bowls and balls, see page 9-12.	
		Planetary Micro Mill <i>classic line</i>	
		PULVERISETTE 7	
		instrument without grinding bowls and balls, incl. clamping system	
35.000	07.4000.00	for 100-120/200-240 V/1~, 50-60 Hz, 880 Watt Voltage, indicated by customer is set.	5.260,00
		Grinding bowls, see page 9-10.	
		Grinding balls, see page 10-12.	
		Vario-Planetary Mill <i>classic line</i>	
		PULVERISETTE 4	
		instrument without grinding bowls and balls, incl. clamping system	
320.000	04.1030.00	for 400 V/3~, 50-60 Hz, 6000 Watt	20.740,00
		Grinding bowls and balls, see page 9-12.	
		GTM - Gas pressure and temperature measuring system	
		for PULVERISETTE 4, PULVERISETTE 5 and PULVERISETTE 6 <i>classic line</i>	
4.000	50.2510.00	incl. 250 ml grinding bowl made of stainless steel with special lid, transmitter and separate receiver	8.558,00
5.300	50.2540.00	incl. 500 ml grinding bowl made of stainless steel with special lid, transmitter and separate receiver	9.062,00
		If further grinding bowls and transmitters are needed, please ask for the respective order numbers.	
		Grinding balls, see page 11-12.	

net weight approx. kg	order no.	article	Price in EURO
		Grinding accessories for Planetary Mills <i>classic line</i>	
		PULVERISETTE 4, PULVERISETTE 5, PULVERISETTE 6 and PULVERISETTE 7	
		Grinding bowls with lid and seal ring	
		Grinding bowls 500 ml volume for PULVERISETTE 4, PULVERISETTE 5 and PULVERISETTE 6 <i>classic line</i>	
2.300	50.1050.00	agate	3.066,00
2.900	50.1060.00	sintered corundum (99.7 % Al_2O_3)	1.817,00
2.800	50.1070.00	sintered corundum-2 (97% Al_2O_3)	861,00
3.400	50.1310.00	silicon nitride, with steel casing	3.539,00
4.000	50.1110.00	zirconium oxide	3.066,00
4.400	50.1100.00	stainless steel	1.433,00
4.300	50.1090.00	tempered steel	1.302,00
0.004	50.1010.20	replacement seal ring PTFE 110/101 mm dia. for silicon nitride bowls of 500 ml volume	4,20
0.005	50.1230.20	replacement seal ring PTFE 116/100 mm dia. for all other bowls of 500 ml volume	4,20
		Grinding bowls 250 ml volume for PULVERISETTE 4, PULVERISETTE 5 and PULVERISETTE 6 <i>classic line</i>	
2.500	50.2055.00	agate, with steel casing	1.281,00
2.300	50.2060.00	sintered corundum (99.7 % Al_2O_3)	1.271,00
2.300	50.2070.00	sintered corundum-2 (97 % Al_2O_3)	709,00
2.800	50.2310.00	silicon nitride, with steel casing	2.510,00
3.100	50.2110.00	zirconium oxide	2.604,00
3.300	50.2100.00	stainless steel	987,00
3.200	50.2090.00	tempered steel	893,00
5.000	50.2080.00	hardmetal tungsten carbide, with steel casing	3.591,00
0.004	50.2010.20	replacement seal ring PTFE 85/76 mm dia. for agate and silicon nitride bowls of 250 ml volume	4,20
0.004	50.2230.20	replacement seal ring PTFE 90/75 mm dia. for all other bowls of 250 ml volume	4,20
		Grinding bowls 80 ml volume for PULVERISETTE 4, PULVERISETTE 5 and PULVERISETTE 6 <i>classic line</i>	
0.600	50.4050.00	agate	882,00
1.000	50.4060.00	sintered corundum (99.7 % Al_2O_3)	1.037,00
0.800	50.4310.00	silicon nitride	2.237,00
1.400	50.4110.00	zirconium oxide	2.079,00
2.000	50.4100.00	stainless steel	809,00
1.900	50.4090.00	tempered steel	767,00
2.400	50.4080.00	hardmetal tungsten carbide, with steel casing	2.573,00
0.004	50.4230.20	replacement seal ring PTFE 80/65 mm dia. for all bowls of 80 ml volume	4,20
2.000	90.1120.09	adapter for grinding bowl of 80 ml volume (essential, if only one grinding bowl is inserted in the grinding bowl holder)	121,00

net weight approx. kg	order no.	article	Price in EURO
		Grinding bowls 45 ml volume for PULVERISETTE 4 and PULVERISETTE 7 classic line	
0.300	50.7050.00	agate	851,00
0.350	50.7060.00	sintered corundum (99.7 % Al ₂ O ₃)	777,00
0.350	50.7310.00	silicon nitride	1.418,00
0.500	50.7110.00	zirconium oxide	1.502,00
0.700	50.7100.00	stainless steel	515,00
0.700	50.7090.00	tempered steel	504,00
1.100	50.7080.00	hardmetal tungsten carbide	1.964,00
0.013	50.7200.00	polypropylene disposable bowl (only for PULVERISETTE 7 classic line)	5,30
0.200	07.3280.13	bowl adapter for disposable bowl (only for PULVERISETTE 7 classic line)	118,00
0.001	50.7250.20	replacement seal ring PTFE 50/40 mm dia. for all bowls of 45 ml volume	4,20
		Grinding bowls 12 ml volume for PULVERISETTE 4 and PULVERISETTE 7 classic line	
0.150	50.5050.00	agate	574,00
0.250	50.5060.00	sintered corundum (99.7 % Al ₂ O ₃)	548,00
0.200	50.5310.00	silicon nitride	995,00
0.400	50.5110.00	zirconium oxide	882,00
0.500	50.5100.00	stainless steel	329,00
0.500	50.5090.00	tempered steel	318,00
1.000	50.5080.00	hardmetal tungsten carbide	1.134,00
0.001	50.5250.20	replacement seal ring PTFE 37/26 mm dia. for all bowls of 12 ml volume	4,20
		Grinding balls, see page 9-10.	
		Grinding accessories for Planetary Mills classic line PULVERISETTE 4, PULVERISETTE 5 and PULVERISETTE 6	
		Accessories for grinding in inert gas and for mechanical alloying	
		Gassing lids with 2 valves and seal ring	
		Gassing lids for grinding bowls 500 ml volume for PULVERISETTE 4, PULVERISETTE 5 and PULVERISETTE 6 classic line	
1.400	50.8000.00	agate	893,00
1.900	50.8200.00	stainless steel	623,00
1.900	50.8400.00	tempered steel	592,00
0.004	50.1230.16	replacement seal ring made of Viton for gassing lid for all grinding bowls 500 ml volume	4,20
		Gassing lids for grinding bowls 250 ml volume for PULVERISETTE 4, PULVERISETTE 5 and PULVERISETTE 6 classic line	
1.400	50.8100.00	agate, with steel casing	800,00
1.400	50.8900.00	silicon nitride, with steel casing	1.376,00
1.400	50.8300.00	stainless steel	567,00
1.300	50.8500.00	tempered steel	536,00
2.200	50.8600.00	hardmetal tungsten carbide	1.376,00
0.003	50.2010.16	replacement seal ring made of Viton for gassing lid for agate and silicon nitride grinding bowls 250 ml volume	4,20
0.003	50.2230.16	replacement seal ring made of Viton for gassing lid for all other grinding bowls 250 ml volume	4,20
		Gassing lids for grinding bowls 80 ml volume for PULVERISETTE 4, PULVERISETTE 5 and PULVERISETTE 6 classic line	
1.000	50.8810.00	agate	800,00
1.300	50.8800.00	stainless steel	567,00
1.300	50.8700.00	tempered steel	536,00
1.325	50.8880.00	hardmetal tungsten carbide	1.376,00
0.003	50.4230.16	replacement seal ring made of Viton for gassing lid for all grinding bowls 80 ml volume	4,20
0.900	90.1400.00	additional lock-system for all grinding bowls 500 ml, 250 ml, 80 ml volume (for the transport of the closed grinding bowl with gassing lid)	790,00

net weight approx. kg	order no.	article	Price in EURO
		Grinding balls for Planetary Mills for PULVERISETTE 4, PULVERISETTE 5, PULVERISETTE 6 and PULVERISETTE 7	
		Grinding balls (price per piece)	
		Grinding balls 40 mm dia. for grinding bowls 500 ml	
0.150	55.0400.06	sintered corundum (99.7 % Al ₂ O ₃)	68,00
0.100	55.0400.31	silicon nitride	174,00
0.200	55.0400.27	zirconium oxide	229,00
0.250	55.0400.10	stainless steel	39,30
0.250	55.0400.09	tempered steel	15,30
0.500	55.0400.08	hardmetal tungsten carbide	516,00
		Grinding balls 30 mm dia. for grinding bowls 500 ml, 250 ml	
0.037	55.0300.05	agate, polished	47,00
0.050	55.0300.06	sintered corundum (99.7 % Al ₂ O ₃)	44,10
0.050	55.0300.31	silicon nitride	82,60
0.080	55.0300.27	zirconium oxide	109,00
0.100	55.0300.10	stainless steel	18,60
0.100	55.0300.09	tempered steel	7,40
0.200	55.0300.08	hardmetal tungsten carbide	263,00
		Grinding balls 20 mm dia. for grinding bowls 500 ml, 250 ml, 80 ml	
0.011	55.0200.05	agate, polished	18,30
0.016	55.0200.06	sintered corundum (99.7 % Al ₂ O ₃)	25,00
0.013	55.0200.31	silicon nitride	48,00
0.024	55.0200.27	zirconium oxide	62,00
0.032	55.0200.10	stainless steel	7,60
0.033	55.0200.09	tempered steel	3,60
0.062	55.0200.08	hardmetal tungsten carbide	95,00
		Grinding balls 15 mm dia. for grinding bowls 500 ml, 250 ml, 80 ml, 45 ml	
0.005	55.0150.05	agate, polished	13,10
0.007	55.0150.06	sintered corundum (99.7 % Al ₂ O ₃)	21,50
0.006	55.0150.31	silicon nitride	36,30
0.011	55.0150.27	zirconium oxide	50,20
0.014	55.0150.10	stainless steel	3,60
0.014	55.0150.09	tempered steel	2,95
0.026	55.0150.08	hardmetal tungsten carbide	54,00
		Grinding balls 10 mm dia. for grinding bowls 500 ml, 250 ml, 80 ml, 45 ml, 20 ml, 12 ml	
0.002	55.0100.05	agate, polished	6,10
0.002	55.0100.06	sintered corundum (99.7 % Al ₂ O ₃)	14,20
0.002	55.0100.31	silicon nitride	12,60
0.003	55.0100.27	zirconium oxide	23,60
0.004	55.0100.10	stainless steel	1,80
0.004	55.0100.09	tempered steel	1,25
0.008	55.0100.08	hardmetal tungsten carbide	23,20
		Grinding balls 5 mm dia. for grinding bowls 500 ml, 250 ml, 80 ml, 45 ml, 20 ml, 12 ml	
0.0002	55.0050.05	agate, polished (100 pieces weigh approx. 17 g) ¹⁾	3,20
0.0004	55.0050.27	zirconium oxide (100 pieces weigh approx. 38 g) ¹⁾	1,70
0.0005	55.0050.10	stainless steel (100 pieces weigh approx. 51 g) ¹⁾	1,25
0.0005	55.0050.09	tempered steel (100 pieces weigh approx. 52 g) ¹⁾	0,65
0.0010	55.0050.08	hardmetal tungsten carbide (100 pieces weigh approx. 97 g) ¹⁾	4,30
		¹⁾ due to the indication of weight, the high number of balls per grinding bowl can be weight.	

Grinding balls ≥ 5 mm: Recommended number of balls per grinding bowl

Grinding bowl/	12 ml	20 ml	45 ml	80 ml	250 ml	500 ml
Useful capacity (sample volume)	0.5-5 ml	1-9 ml	3-20 ml	10-30 ml	30-125 ml	80-225 ml
Balls diameter						
5 mm	50	80	180	250	1200	2000
10 mm	6	10	18	25	50	100
15 mm			7	10	45	70
20 mm				5	15	25
30 mm					6	8
40 mm						4

The specified number of balls per bowl is the minimum quantity; depending on the material properties it may need to be increased.

net weight approx. kg	order no.	article	Price in EURO
		Grinding balls for Planetary Mills	
		for PULVERISETTE 4, PULVERISETTE 5, PULVERISETTE 6 and PULVERISETTE 7	
		Grinding balls ≤ 3 mm diameter	
		(price per 100 g package)	
		Grinding balls ≤ 3 mm dia. for grinding bowls 500 ml, 250 ml, 80 ml, 45 ml, 20 ml, 12 ml	
0.100	55.0030.27	zirconium oxide 3 mm dia.	231,00
0.100	55.0020.27	zirconium oxide 2 mm dia.	231,00
0.100	55.0015.27	zirconium oxide 1.5 mm dia.	231,00
0.100	55.0010.27	zirconium oxide 1 mm dia.	231,00
0.100	55.0005.27	zirconium oxide 0.5 mm dia.	231,00
0.100	55.0001.27	zirconium oxide 0.1 mm dia.	231,00
0,100	55.0030.10	stainless steel 3 mm dia.	221,00
0,100	55.0010.10	stainless steel 1 mm dia.	221,00
0.100	55.0030.09	tempered steel 3 mm dia.	187,00
0.100	55.0010.09	tempered steel 1 mm dia.	187,00
0.100	55.0030.08	hardmetal tungsten carbide 3 mm dia.	399,00
0.100	55.0016.08	hardmetal tungsten carbide 1.6 mm dia.	399,00
0.100	55.0006.08	hardmetal tungsten carbide 0.6 mm dia.	399,00

Grinding balls ≤ 3 mm: Recommended ball mass per grinding bowl in grams

Grinding bowl/	12 ml	20 ml	45 ml	80 ml	250 ml	500 ml
Useful capacity (sample volume)	0.5-5 ml	1-9 ml	3-20 ml	10-30 ml	30-125 ml	80-225 ml
Material						
zirconium oxide	20 g	30 g	70 g	100 g	400 g	800 g
stainless steel / tempered steel	30 g	40 g	90 g	150 g	500 g	1100 g
hardmetal tungsten carbide	50 g	80 g	200 g	300 g	1000 g	2100 g

Grinding balls with a diameter of 3 mm or less must be weighed out.
The above table provides you with the required mass per grinding bowl.

net weight approx. kg	order no.	article	Price in EURO
		Milling: BALL MILLS	
		Vibratory Micro Mill PULVERISETTE 0	
		instrument incl. grinding head, without mortar and grinding ball	
21.000	00.6020.00	for 100-240 V/1~, 50-60 Hz	1.810,00
		Mortars	
1.500	40.0150.05	agate	1.496,00
1.500	40.0140.06	sintered corundum (99.7 % Al ₂ O ₃)	1.491,00
1.700	40.0220.27	zirconium oxide	3.098,00
2.300	40.0130.10	stainless steel	950,00
2.300	40.0120.09	tempered steel	893,00
2.400	40.0110.08	hardmetal tungsten carbide	3.486,00
		Grinding balls	
0.200	40.0170.05	agate 50 mm dia., polished	271,00
0.500	40.0210.05	agate 70 mm dia., polished	588,00
0.300	40.0170.06	sintered corundum (99.7 % Al ₂ O ₃) 50 mm dia.	234,00
0.400	40.0230.27	zirconium oxide 50 mm dia.	611,00
0.500	40.0180.10	stainless steel 50 mm dia.	120,00
0.600	40.0190.09	tempered steel 50 mm dia.	68,00
1.060	40.0200.08	hardmetal tungsten carbide 50 mm dia.	1.082,00
		Further accessories	
2.600	00.2000.00	cryo-box (device for grinding in liquid nitrogen)	903,00
1.500	00.0130.17	sound absorption hood plexiglas	609,00
		Conversion kits for sieving	
		(all conversion kits without sieve pan and sieves)	
0.800	31.2020.00	clamping lid plexiglas for test sieves 200 mm/8" dia. for dry sieving	212,00
0.800	31.2050.00	clamping lid (without window) for all test sieves up to 200 mm/8" dia. for dry sieving	119,00
0.800	31.2030.00	clamping lid plexiglas with 3 nozzles for test sieves 200 mm/8" dia. for wet sieving	499,00
		Sieve pans and sieves, see page 25-29.	

net weight approx. kg	order no.	article	Price in EURO
		Mini-Mill	
		PULVERISETTE 23	
		instrument without grinding bowl and balls	
7.000	23.1000.00	for 100-240 V/1~, 50-60 Hz	2.580,00
		Grinding bowls 15 ml volume	
0.065	23.1427.00	zirconium oxide	1.491,00
0.056	23.1410.00	stainless steel	260,00
0.056	23.1409.00	tempered steel	252,00
		Grinding bowls 10 ml volume	
0.026	23.1305.00	agate	1.166,00
0.054	23.1327.00	zirconium oxide	1.197,00
0.045	23.1310.00	stainless steel	236,00
0.045	23.1309.00	tempered steel	227,00
		Grinding bowl 5 ml volume	
0.050	23.1600.00	PTFE	326,00
		Grinding balls 15 mm dia. for grinding bowl 15 ml, 10 ml	
0.005	55.0150.05	agate, polished	13,10
0.011	55.0150.27	zirconium oxide	50,20
0.014	55.0150.10	stainless steel	3,60
0.014	55.0150.09	tempered steel	2,95
		Grinding balls 10 mm dia. for grinding bowl 15 ml, 10 ml, 5 ml	
0.002	55.0100.05	agate, polished	6,10
0.003	55.0100.27	zirconium oxide	23,60
0.005	55.0100.10	stainless steel	1,80
0.005	55.0100.09	tempered steel	1,25
		Grinding balls 5 mm dia. for grinding bowl 15 ml, 10 ml, 5 ml	
0.0002	55.0050.05	agate, polished	3,20
0.0004	55.0050.27	zirconium oxide	1,70
0.0005	55.0050.10	stainless steel	1,25
0.0005	55.0050.09	tempered steel	0,65
		Grinding balls ≤ 3 mm dia., see page 11-12.	

Recommended number of balls per grinding bowl

Grinding bowl/	15 ml	10 ml	5 ml
Useful capacity (sample volume)	0.5-5 ml	0.2-1 ml	0.1-1 ml
Balls diameter			
15 mm	2	1	
10 mm	5	3	1
5 mm	60	30	20

net weight approx. kg	order no.	article	Price in EURO
		Milling: CUTTING MILLS	
		Cutting Mill	
		PULVERISETTE 15	
		instrument without cutting tool set, sieve insert and stand, incl. collecting vessel 3.5 litres	
42.000	15.4030.00	for 400 V/3~, 50 Hz, 1900 Watt	4.820,00
42.000	15.4020.00	for 230-240 V/1~, 50 Hz, 2100 Watt	4.820,00
42.000	15.4010.00	for 100-120 V/1~, 60 Hz, 1800 Watt	4.820,00
		Other voltages on request!	
		Cutting tool set made of tool steel	
3.600	15.4603.00	rotor with rotating and fixed knives	1.048,00
		Sieve inserts made of stainless steel	
0.150	45.1200.10	0.25 mm trapezoidal perforation	111,00
0.150	45.1210.10	0.5 mm trapezoidal perforation	111,00
0.150	45.1220.10	0.75 mm trapezoidal perforation	111,00
0.150	45.1230.10	1 mm trapezoidal perforation	111,00
0.150	45.1240.10	1.5 mm trapezoidal perforation	111,00
0.150	45.1250.10	2 mm trapezoidal perforation	111,00
0.150	45.2200.10	4 mm square perforation	111,00
0.150	45.2210.10	6 mm square perforation	111,00
		Accessories for chromium-free grinding	
		Cutting tool set made of chromium-free tool steel	
3.600	15.4602.00	rotor with rotating and fixed knives	1.218,00
		Sieve inserts made of chromium-free steel ST12	
0.150	45.1211.09	0.5 mm trapezoidal perforation	111,00
0.150	45.1230.09	1 mm trapezoidal perforation	111,00
0.150	45.2200.09	4 mm square perforation	111,00
		Further accessories	
18.700	45.5820.00	universal support stand	294,00
4.400	15.4560.00	collecting vessel 60 litres with filter hose	704,00

net weight approx. kg	order no.	article	Price in EURO
		Universal Cutting Mill	
		PULVERISETTE 19	
		instrument without funnel, cutting tool set, sieve cassette, collecting vessel and stand	
56.000	19.1030.00	for 400 V/3~, 50-60 Hz, 2000 Watt	7.250,00
56.000	19.1020.00	for 230 V/1~, 50-60 Hz, 2200 Watt	7.250,00
56.000	19.1010.00	for 100-120 V/1~, 50-60 Hz, 1850 Watt	7.250,00
		Other voltages on request!	
		Funnels	
3.000	19.1550.00	standard funnel for long- and bulk solids	688,00
4.000	19.1850.00	protected funnel with sample pusher	971,00
		Collecting vessels	
1.000	45.5730.00	collecting vessel, 3 litres	251,00
6.000	45.5700.00	collecting vessel for large quantities, 10 litres	494,00
		Cutting tool sets	
4.000	45.5100.00	standard rotor with V-cutting edges and fixed knives made of tool steel	1.754,00
4.000	45.5370.00	rotor with V-cutting edges and fixed knives made of hardmetal tungsten carbide	3.665,00
4.000	45.5000.00	rotor with straight cutting edges and fixed knives made of tool steel	1.124,00
5.000	45.5200.00	disk milling cutter rotor with indexable inserts and fixed knives made of hardmetal tungsten carbide	3.539,00
		Sieve cassettes with sieve insert made of stainless steel	
0.500	45.5410.10	0.25 mm trapezoidal perforation	273,00
0.500	45.5420.10	0.5 mm trapezoidal perforation	273,00
0.500	45.5430.10	0.75 mm trapezoidal perforation	273,00
0.500	45.5440.10	1 mm trapezoidal perforation	273,00
0.500	45.5450.10	1.5 mm trapezoidal perforation	273,00
0.500	45.5460.10	2 mm trapezoidal perforation	273,00
0.700	45.5500.10	4 mm square perforation	273,00
0.700	45.5510.10	6 mm square perforation	273,00
		Accessories for chromium-free grinding	
		Cutting tool sets made of chromium-free tool steel	
5.000	45.5112.00	rotor with V-cutting edges and fixed knives	2.048,00
3.000	45.5012.00	rotor with straight cutting edges and fixed knives	1.701,00
		Sieve cassettes with sieve insert made of chromium-free steel ST12	
0.500	45.5410.09	0.25 mm trapezoidal perforation	273,00
0.500	45.5420.09	0.5 mm trapezoidal perforation	273,00
0.500	45.5430.09	0.75 mm trapezoidal perforation	273,00
0.500	45.5440.09	1 mm trapezoidal perforation	273,00
0.500	45.5450.09	1.5 mm trapezoidal perforation	273,00
0.500	45.5460.09	2 mm trapezoidal perforation	273,00
0.700	45.5500.09	4 mm square perforation	273,00
0.700	45.5510.09	6 mm square perforation	273,00
		Further accessories	
18.700	45.5820.00	universal support stand	294,00
30.000	45.5900.00	sample exhauster with cyclone separator incl. sample glass 500 ml for 230 V/1~	3.213,00
1.680	83.3230.00	sample glass 5 litres	237,00
1.000	83.3220.00	sample glass 2 litres	82,00
0.500	19.5770.16	adapter for sample glass 2 and 5 litres	85,00
0.500	83.3210.00	sample glass 1 litre	16,80
0.500	19.5780.16	adapter for sample glass 1 litre	74,00

net weight approx. kg	order no.	article	Price in EURO
		Power Cutting Mill	
		PULVERISETTE 25	
		instrument without funnel, cutting tool set, sieve cassette, collecting vessel and stand	
75.000	25.2030.00	for 400 V/3~, 50-60 Hz, 3340 Watt	7.710,00
		Other voltages on request!	
		Funnels	
5.000	25.2700.00	standard funnel for bulk solids, 10 litres	1.155,00
6.000	25.2850.00	protected funnel with sample pusher, 3 litres	1.586,00
		Collecting vessels	
1.000	45.5730.00	collecting vessel, 3 litres	251,00
6.000	45.5700.00	collecting vessel for large quantities, 10 litres	494,00
		Cutting tool sets	
6.000	45.7000.00	standard rotor with V-cutting edges and fixed knives made of tool steel	2.174,00
6.000	45.7370.00	rotor with V-cutting edges and fixed knives made of hardmetal tungsten carbide	2.898,00
7.000	45.7200.00	disk milling cutter rotor with indexable inserts and fixed knives made of hardmetal tungsten carbide	4.767,00
		Sieve cassettes with sieve insert made of stainless steel	
1.000	45.7440.10	1 mm trapezoidal perforation	368,00
1.000	45.7460.10	2 mm trapezoidal perforation	368,00
1.500	45.7500.10	4 mm square perforation	368,00
1.500	45.7510.10	6 mm square perforation	368,00
1.500	45.7520.10	8 mm square perforation	368,00
1.500	45.7530.10	10 mm square perforation	410,00
		Accessories for chromium-free grinding	
		Cutting tool set made of chromium-free tool steel	
8.000	45.7112.00	rotor with V-cutting edges and fixed knives	2.289,00
		Sieve cassettes with sieve insert made of chromium-free steel ST12	
1.000	45.7440.09	1 mm trapezoidal perforation	368,00
1.000	45.7460.09	2 mm trapezoidal perforation	368,00
1.500	45.7500.09	4 mm square perforation	368,00
1.500	45.7510.09	6 mm square perforation	368,00
1.500	45.7520.09	8 mm square perforation	368,00
1.500	45.7530.09	10 mm square perforation	410,00
		Further accessories	
18.700	45.5820.00	universal support stand	294,00
		Cutting Mill Combination	
		PULVERISETTE 25 / PULVERISETTE 19	
214.000	19.5030.00	for 400 V/3~, 50-60 Hz, 6340 Watt	32.190,00
		consisting of: Power Cutting Mill PULVERISETTE 25, Universal Cutting Mill PULVERISETTE 19, interposed sample divider, 3 litres-funnel, underframe and sample exhauster with cyclone separator; inclusive hardmetal tungsten carbide cutting tool sets and sieve cassettes made of stainless steel.	
		Other configurations on request!	

net weight approx. kg	order no.	article	Price in EURO
		Milling: ROTOR MILL	
		Variable Speed Rotor Mill	
		PULVERISETTE 14	
		instrument without rotor and sieve ring, incl. collecting pan	
23.000	14.3000.00	for 100-120/200-240 V/1~, 50-60 Hz, 1150 Watt	4.930,00
		Voltage, indicated by customer is set.	
		Rotors made of stainless steel, hardened	
0.320	44.4080.10	with 8 ribs	1.176,00
0.350	44.4120.10	with 12 ribs	1.176,00
0.400	44.4240.10	with 24 ribs	1.176,00
		Sieve rings made of stainless steel	
0.030	44.1000.10	0.08 mm trapezoidal perforation	113,00
0.050	44.1010.10	0.12 mm trapezoidal perforation	113,00
0.050	44.1020.10	0.2 mm trapezoidal perforation	113,00
0.050	44.1050.10	0.5 mm trapezoidal perforation	113,00
0.050	44.1080.10	0.75 mm trapezoidal perforation	113,00
0.050	44.1100.10	1 mm trapezoidal perforation	113,00
0.050	44.1150.10	1.5 mm trapezoidal perforation	113,00
0.050	44.1200.10	2 mm trapezoidal perforation	113,00
0.050	44.2100.10	1 mm round perforation	132,00
0.050	44.2200.10	2 mm round perforation	132,00
0.050	44.2400.10	4 mm round perforation	132,00
0.050	44.2600.10	6 mm round perforation	132,00
		Sieve rings for heavy duty loads made of stainless steel with reinforced edges	
0.040	44.3000.10	0.08 mm trapezoidal perforation	232,00
0.050	44.3010.10	0.12 mm trapezoidal perforation	232,00
0.070	44.3020.10	0.2 mm trapezoidal perforation	232,00
0.070	44.3050.10	0.5 mm trapezoidal perforation	232,00
0.070	44.3080.10	0.75 mm trapezoidal perforation	232,00
0.070	44.3100.10	1 mm trapezoidal perforation	232,00
0.070	44.3150.10	1.5 mm trapezoidal perforation	232,00
0.070	44.3200.10	2 mm trapezoidal perforation	232,00
		Accessories for „iron-free“ grinding	
1.070	14.3700.00	conversion kit for „iron-free“ grinding, consisting of rotor made of pure titanium with 12 ribs, cover and collecting vessel PTFE-coated (Please note: special sieve ring made of pure titanium with reinforced edges is additionally necessary!)	2.604,00
0.240	44.4120.32	rotor with 12 ribs, pure titanium	1.628,00
0.050	44.3021.32	sieve ring 0.2 mm trapezoidal perforation, pure titanium with reinforced edges	515,00
0.050	44.3051.32	sieve ring 0.5 mm trapezoidal perforation, pure titanium with reinforced edges	515,00
0.050	44.3101.32	sieve ring 1 mm trapezoidal perforation, pure titanium with reinforced edges	515,00

net weight approx. kg	order no.	article	Price in EURO
		Accessories for grinding medium hard, tough materials	
0.400	44.4120.00	rotor with 12 ribs, TiN-coated	1.554,00
0.400	44.4240.00	rotor with 24 ribs, TiN-coated	1.554,00
0.041	44.1010.00	sieve ring 0.12 mm trapezoidal perforation, TiN-coated	275,00
0.051	44.1020.00	sieve ring 0.2 mm trapezoidal perforation, TiN-coated	275,00
0.053	44.1050.00	sieve ring 0.5 mm trapezoidal perforation, TiN-coated	275,00
0.050	44.1100.00	sieve ring 1 mm trapezoidal perforation, TiN-coated	275,00
0.400	44.4120.08	rotor with 12 ribs, WC-coated	1.607,00
0.051	44.1025.08	sieve ring 0.25 mm trapezoidal perforation, WC-coated	300,00
		Accessories for pre-crushing and materials, which are difficult to grind	
0.330	44.1121.10	impact blades (Please note: rotor and special sieve ring are additionally necessary!)	528,00
		Sieve rings made of stainless steel for impact blades	
0.050	44.1301.10	sieve ring 0.08 mm trapezoidal perforation	190,00
0.050	44.1311.10	sieve ring 0.12 mm trapezoidal perforation	190,00
0.050	44.1321.10	sieve ring 0.2 mm trapezoidal perforation	190,00
0.050	44.1351.10	sieve ring 0.5 mm trapezoidal perforation	190,00
0.050	44.1381.10	sieve ring 0.75 mm trapezoidal perforation	190,00
0.050	44.1401.10	sieve ring 1 mm trapezoidal perforation	190,00
0.050	44.1451.10	sieve ring 1.5 mm trapezoidal perforation	190,00
0.050	44.1501.10	sieve ring 2 mm trapezoidal perforation	190,00
0.050	44.1711.10	sieve ring 1 mm round perforation	190,00
0.050	44.1721.10	sieve ring 2 mm round perforation	190,00
0.050	44.1741.10	sieve ring 4 mm round perforation	190,00
0.050	44.1761.10	sieve ring 6 mm round perforation	190,00
		Accessories for grinding without a sieve	
1.200	14.2600.00	pin insert (consisting of pin rotor and grinding chamber lid with pin insert)	1.157,00
		Accessories for grinding large quantities	
1.100	14.3510.00	conversion kit for grinding large quantities (comprising pan with outlet and flanged-on nylon (outer) support sack for the (inner) consumable filter bag)	853,00
0.160	83.0010.00	set paper filter bags for the conversion kit (set = 20 pieces)	23,10
		Accessories for automatic sample feeding	
		Vibratory Feeder	
		LABORETTE 24	
		instrument incl. V-shaped channel and control unit	
12.000	24.0030.00	for 200-240 V/1~, 50-60 Hz	1.980,00
12.000	24.0040.00	for 100-120 V/1~, 50-60 Hz	1.980,00
5.400	24.9100.00	stand for feeder	410,00

net weight approx. kg	order no.	article	Price in EURO
		Milling: BEATER MILL	
		Cross Beater Mill	
		PULVERISETTE 16	
		instrument without bottom sieve and stand, incl. collecting vessel 5 litres with filter hose	
		Grinding assembly made of steel cast	
38.000	16.3030.00	for 400 V/3~, 50 Hz, 1480 Watt	4.420,00
38.000	16.3020.00	for 230 V/1~, 50 Hz, 1590 Watt	4.420,00
38.000	16.3010.00	for 110 V/1~, 60 Hz, 1500 Watt	4.420,00
		Grinding assembly made of stainless steel	
38.000	16.3080.00	for 400 V/3~, 50 Hz, 1480 Watt	5.840,00
38.000	16.3070.00	for 230 V/1~, 50 Hz, 1590 Watt	5.840,00
38.000	16.3060.00	for 110 V/1~, 60 Hz, 1500 Watt	5.840,00
		Other voltages on request!	
		Bottom sieves made of stainless steel	
0.100	16.5100.10	0.12 mm trapezoidal perforation	105,00
0.100	16.5110.10	0.2 mm trapezoidal perforation	105,00
0.100	16.5120.10	0.25 mm trapezoidal perforation	105,00
0.100	16.5130.10	0.5 mm trapezoidal perforation	105,00
0.100	16.5140.10	0.75 mm trapezoidal perforation	105,00
0.100	16.5150.10	1 mm trapezoidal perforation	105,00
0.100	16.5160.10	1.5 mm trapezoidal perforation	105,00
0.100	16.5170.10	2 mm trapezoidal perforation	105,00
0.100	16.5200.10	3 mm round perforation	105,00
0.100	16.5210.10	4 mm round perforation	105,00
0.100	16.5220.10	5 mm round perforation	105,00
0.100	16.5230.10	6 mm round perforation	105,00
0.100	16.5240.10	8 mm round perforation	105,00
0.100	16.5250.10	10 mm round perforation	105,00
		Further accessories	
18.700	45.5820.00	universal support stand	294,00
3.500	16.3600.00	collecting vessel 30 litres with filter hose	441,00

net weight approx. kg	order no.	article	Price in EURO
		Milling: JAW CRUSHERS	
		Jaw Crusher	
		PULVERISETTE 1	
		instrument incl. fixed and movable crushing jaw and lateral support walls made of tempered steel	
177.000	01.5030.00	model I , for 400 V/3~, 50-60 Hz, 1450 Watt	11.110,00
177.000	01.5020.00	model I , for 230 V/1~, 50-60 Hz, 1570 Watt	11.110,00
177.000	01.5010.00	model I , for 115 V/1~, 50-60 Hz, 1900 Watt	11.110,00
205.000	01.7030.00	model II , for 400 V/3~, 50-60 Hz, 2780 Watt	13.670,00
		Other voltages on request!	
		Accessories for model I	
		Crushing jaws	
1.500	43.0010.09*	fixed crushing jaw, tempered steel	270,00
1.500	43.0020.09*	movable crushing jaw, tempered steel	321,00
1.500	43.0030.10	fixed crushing jaw, stainless steel	309,00
1.500	43.0040.10	movable crushing jaw, stainless steel	355,00
1.400	43.0011.09	fixed crushing jaw, chromium-free steel	309,00
1.800	43.0021.09	movable crushing jaw, chromium-free steel	355,00
1.500	43.0130.23	fixed crushing jaw, manganese steel	275,00
1.500	43.0140.23	movable crushing jaw, manganese steel	287,00
3.000	43.0050.08	fixed crushing jaw, hardmetal tungsten carbide	1.840,00
3.500	43.0060.08	movable crushing jaw, hardmetal tungsten carbide	2.216,00
1.160	43.0100.27	fixed crushing jaw, zirconium oxide ²⁾	1.911,00
1.350	43.0110.27	movable crushing jaw, zirconium oxide ²⁾	2.321,00
		Lateral support walls	
4.800	43.0070.09*	pair made of tempered steel	1.271,00
5.000	43.0080.10	pair made of stainless steel	1.367,00
5.100	43.0071.09	pair made of chromium-free steel	1.292,00
6.600	43.0090.08	pair made of hardmetal tungsten carbide	6.227,00
1.800	43.0150.13	pair made of aluminium	320,00
3.800	43.0160.27	pair made of zirconium oxide ²⁾	6.100,00
		Accessories for „iron-free“ pre-crushing	
1.500	01.5410.00	funnel PVC incl. clamping strips	623,00
		(Please not: fixed and movable crushing jaws made of zirconium oxide and lateral support walls made of zirconium oxide or aluminium are additionally necessary!)	
		Crushing jaws	
3.000	43.3010.09*	fixed crushing jaw, tempered steel	363,00
3.100	43.3020.09*	movable crushing jaw, tempered steel	423,00
3.000	43.3030.10	fixed crushing jaw, stainless steel	473,00
3.100	43.3040.10	movable crushing jaw, stainless steel	546,00
3.000	43.3011.09	fixed crushing jaw, chromium-free steel	471,00
3.600	43.3021.09	movable crushing jaw, chromium-free steel	536,00
3.000	43.3130.23	fixed crushing jaw, manganese steel	394,00
3.100	43.3140.23	movable crushing jaw, manganese steel	428,00
5.500	43.3050.08	fixed crushing jaw, hardmetal tungsten carbide	3.906,00
5.900	43.3060.08	movable crushing jaw, hardmetal tungsten carbide	4.415,00
2.120	43.3100.27	fixed crushing jaw, zirconium oxide ²⁾	2.767,00
2.280	43.3110.27	movable crushing jaw, zirconium oxide ²⁾	3.255,00
		Lateral support walls	
5.400	43.3070.09*	pair made of tempered steel	1.686,00
5.400	43.3080.10	pair made of stainless steel	2.315,00
5.600	43.3071.09	pair made of chromium-free steel	1.625,00
7.000	43.3090.08	pair made of hardmetal tungsten carbide	7.970,00
2.000	43.3150.13	pair made of aluminium	331,00
4.100	43.3160.27	pair made of zirconium oxide ²⁾	6.479,00
		Accessories for „iron-free“ pre-crushing	
1.800	01.7410.00	funnel PVC incl. clamping strips	680,00
		(Please not: fixed and movable crushing jaws made of zirconium oxide and lateral support walls made of zirconium oxide or aluminium are additionally necessary!)	

net weight approx. kg	order no.	article	Price in EURO
		Accessories for model I + II	
		Dust Exhaust System	
9.000	43.9025.00	dust exhaust system for 230 V/1~, 50-60 Hz, 1000 Watt	373,00
0.300	43.9535.00	dust filters for exhauster (pack = 5 pieces) ³⁾	69,50
		For Continuous Operation	
17.000	43.5100.00	mounting rack for combined use of PULVERISETTE 1 with the Disk Mill PULVERISETTE 13	2.016,00
		Order no. Disk Mill PULVERISETTE 13, see page 23.	
		* included in the basic price of the instrument	
		²⁾ Remark: Zirconium oxide crushing jaws are only suitable for crushing ceramic materials etc., not for metals at all.	
		³⁾ Remark: One pack is included in the order of the exhaust system.	

net weight approx. kg	order no.	article	Price in EURO
		Milling: DISK MILL	
		Disk Mill	
		PULVERISETTE 13	
		instrument without grinding disks	
140.000	13.1030.00	for 400 V/3~, 50-60 Hz, 1830 Watt	11.070,00
		Other voltages on request!	
		Grinding disks	
4.500	13.1100.09	fixed grinding disk, 200 mm dia., hardened steel cast	609,00
5.000	13.1110.09	movable grinding disk, 200 mm dia., hardened steel cast	609,00
4.300	13.1120.23	fixed grinding disk, 200 mm dia., manganese steel	914,00
4.000	13.1130.23	movable grinding disk, 200 mm dia., manganese steel	914,00
9.000	13.2000.08	fixed grinding disk, 200 mm dia., hardmetal tungsten carbide	6.100,00
10.000	13.2010.08	movable grinding disk, 200 mm dia., hardmetal tungsten carbide	6.100,00
3.400	13.2100.27	fixed grinding disk, 200 mm dia., zirconium oxide	3.780,00
3.700	13.2110.27	movable grinding disk, 200 mm dia., zirconium oxide	3.780,00
		Dust exhaust system	
9.000	43.9025.00	dust exhaust system for 230 V/1~, 50-60 Hz, 1000 Watt	373,00
0.125	13.1450.00	connecting piece for dust exhaust system	110,30
0.300	43.9535.00	dust filters for exhauster (pack = 5 pieces) ³⁾	69,50
		Accessories for Continuous Operation	
17.000	43.5100.00	mounting rack for combined use of Jaw Crusher PULVERISETTE 1 with the PULVERISETTE 13	2.016,00
		Order no. Jaw Crusher PULVERISETTE 1, see page 21-22.	
		³⁾ Remark: One pack is included in the order of the exhaust system.	
		Milling: VIBRATING CUP MILL	
		Vibrating Cup Mill	
		PULVERISETTE 9	
		instrument without grinding set	
250.000	09.4000.00	for 100-120/200-240 V/1~, 50-60 Hz, 1900 Watt Voltage, indicated by customer is set.	9.980,00
		Grinding sets	
13.680	48.4125.00	tempered steel, useful volume 250 ml	1.733,00
8.310	48.4110.00	tempered steel, useful volume 100 ml	1.239,00
4.950	48.4105.00	tempered steel, useful volume 50 ml	993,00
23.110	48.4225.00	hardmetal tungsten carbide, useful volume 250 ml	10.101,00
13.390	48.4210.00	hardmetal tungsten carbide, useful volume 100 ml	6.290,00
7.960	48.4205.00	hardmetal tungsten carbide, useful volume 50 ml	4.137,00
9.000	48.4310.00	agate, useful volume 100 ml	4.673,00
5.660	48.4305.00	agate, useful volume 50 ml	2.982,00
13.000	48.4410.00	zirconium oxide, useful volume 100 ml	4.778,00

net weight approx. kg	order no.	article	Price in EURO
		Milling: MORTAR GRINDER	
		Mortar Grinder	
		PULVERISETTE 2	
		instrument without grinding set	
24.000	02.2000.00	for 100-120/200-240 V/1~, 50-60 Hz, 250 Watt	3.730,00
		Voltage, indicated by customer is set.	
		Grinding sets	
2.400	46.2050.00	agate	2.373,00
2.800	46.2060.00	sintered corundum (99.7 % Al ₂ O ₃)	1.712,00
2.200	46.2110.00	hard porcelain	809,00
3.800	46.2120.00	zirconium oxide	3.507,00
5.000	46.2140.00	stainless steel	1.659,00
4.800	46.2090.00	hardened steel	1.218,00
6.100	46.2080.00	hardmetal tungsten carbide	7.100,00
0.020	02.1340.16	spare scraper vulkollan (Polyurethane)	19,00
		Milling: SOIL DEAGGLOMERATOR	
		Soil Deagglomerator	
		PULVERISETTE 8	
		instrument incl. Nylon-spiral brush stripes and sieving sheet made of stainless steel	
100.000	08.3030.00	for 400 V/3~, 50-60 Hz, 1240 Watt	14.350,00
		Other voltages on request!	
		Spare parts	
4.500	90.1000.00*	set spiral brush stripes made of Nylon (set = 8 pieces)	1.160,00
2.500	08.3400.10*	sieving sheet made of stainless steel, 2 mm trapezoidal perforation	857,00
2.500	08.3420.09	sieving sheet made of steel ST37, 2 mm trapezoidal perforation	778,00
		Dust Exhaust System	
9.000	43.9025.00	dust exhaust system for 230 V/1~, 50-60 Hz, 1000 Watt	373,00
0.300	43.9535.00	dust filters for exhauster (pack = 5 pieces) ³⁾	69,50
		* included in the basic price of the instrument	
		³⁾ Remark: One pack is included in the order of the exhaust system.	

net weight approx. kg	order no.	article	Price in EURO
		Sieving: SIEVE SHAKERS	
		Vibratory Sieve Shaker ANALYSETTE 3	
		instrument without clamping lid, test sieves and sieve pan, incl. control and evaluation programme AUTOSIEVE for Windows™	
21.000	03.7020.00	model PRO, for 100-240 V/1~, 50-60 Hz	2.150,00
21.000	03.8020.00	model SPARTAN, for 100-240 V/1~, 50-60 Hz	1.600,00
		Accessories for dry sieving	
0.800	31.2020.00	clamping lid plexiglas for test sieves 200 mm/8" dia.	212,00
0.800	31.2050.00	clamping lid (without window) for all test sieves up to 200 mm/8" dia.	119,00
1.950	31.2100.00	sieve tensioning system TorqueMaster (consisting of clamping lid plexiglas for test sieves 200 mm/8" dia. and electrical tool 230 V/1~, 50 Hz)	1.281,00
1.950	31.2115.00	sieve tensioning system TorqueMaster (consisting of clamping lid plexiglas for test sieves 200 mm/8" dia. and electrical tool 100-120 V/1~, 60 Hz)	1.281,00
0.600	31.2010.00	clamping lid plexiglas for test sieves 100 mm dia.	210,00
0.400	31.1300.03	interposed sieve pan made of stainless steel 200 mm dia., 50 mm height	93,50
0.400	31.1320.03	interposed sieve pan made of stainless steel 8" dia., 2" height	93,50
0.400	31.1000.03	sieve pan made of stainless steel 200 mm dia., 50 mm height	50,50
0.400	31.1020.03	sieve pan made of stainless steel 8" dia., 2" height	50,50
0.140	31.1040.03	sieve pan made of stainless steel 100 mm dia., 40 mm height	50,50
		Accessories for wet sieving	
0.800	31.2030.00	clamping lid plexiglas with 3 nozzles for test sieves 200 mm/8" dia.	499,00
0.600	31.1100.03	sieve pan made of stainless steel with outlet 200 mm dia., 50 mm height	242,00
0.600	31.0240.00	interposed sieving ring with 3 nozzles for test sieves 200 mm dia.	730,00
0.600	31.1120.03	sieve pan made of stainless steel with outlet 8" dia., 2" height	242,00
0.600	31.0250.00	interposed sieving ring with 3 nozzles for test sieves 8" dia.	730,00
0.580	31.2040.00	clamping lid plexiglas with 1 nozzle for test sieves 100 mm dia.	255,00
0.126	31.1140.00	sieve pan made of stainless steel with outlet 100 mm dia., 40 mm height	279,00
		Accessories for Micro-Precision sieving (only with ANALYSETTE 3 PRO possible)	
0.350	33.1200.00	clamping set for micro-precision sieves 100 mm dia. (= 3 screws + clamps, without clamping lid, sieve pan and micro-precision sieves)	100,00
0.240	33.1050.00	clamping lid aluminium/plexiglas with 1 nozzle	189,00
1.040	33.1150.00	funnel (sieve pan) made of aluminium with outlet	255,00
0.240	33.1000.00	sieve spacer made of aluminium with 2 seal rings	137,00
0.080	33.1100.00	fast locking clamp made of stainless steel	58,00
		(see ordering example in leaflet ANALYSETTE 3)	
		Certification	
0.010	96.0010.00	calibration certificate 3.1 EN 10204 for FRITSCH sieve shaker ANALYSETTE 3 PRO	189,00
0.010	31.0900.00	calibration certificate 3.1 EN 10204 for FRITSCH test sieves 200 mm/8" dia. according to ISO 3310-1	60,00
0.010	96.0200.00	IQ/OQ documentation (questionnaire format)	105,00

net weight approx. kg	order no.	article	Price in EURO
		Further accessories	
0.002	55.0100.05	agate ball 10 mm dia. (10 pcs. per sieve)	6,10
0.006	31.0180.15	rubber ball 20 mm dia. (5 pcs. per sieve)	2,10
0.600	31.2010.00	grinding head for conversion to Vibratory Micro Mill PULVERISETTE 0 (order no. for mortar and grinding ball, see page 13.)	210,00
0.300	31.1200.03	sieve cover made of stainless steel for test sieves 200 mm dia.	51,50
0.300	31.1220.03	sieve cover made of stainless steel for test sieves 8" dia.	51,50
0.100	31.1240.03	sieve cover made of stainless steel for test sieves 100 mm dia.	51,50
0.010	31.0010.16	replacement seal ring NBR for test sieves 200 mm/8" dia., 50 mm/2" height	5,30
0.010	31.0040.16	replacement seal ring NBR for test sieves 200 mm dia., 25 mm height	5,30
0.005	31.0520.16	replacement seal ring NBR for test sieves 100 mm dia.	5,30
0.002	84.0230.15	replacement seal ring NBR (2 each for 33.1000.00)	4,20
3.900	03.2600.00	Laboratory analysis balance, up to 4.1 kg (± 0.01 g) with interface RS232, incl. computer connection cable	on request
		Computer, colour ink jet printer and laser printer on request.	
		Test sieves, see page 27-28.	
		Micro-precision sieves, see page 29.	

net weight approx. kg	order no.	article	Price in EURO
		Test sieves for ANALYSETTE 3	
		Frame and mesh wire made of stainless steel 100 mm/200 mm/8“ dia.	
		200 mm dia., 50 mm height	
		ISO 3310-1 - mesh width mm/µm	
0.500	30.0000.03	63• mm	120,00
0.500	30.0080.03	45• mm	120,00
0.500	30.0100.03	31.5• mm	120,00
0.500	30.0200.03	25 mm	120,00
0.500	30.0300.03	22.4• mm	120,00
0.500	30.0400.03	20 mm	120,00
0.500	30.0600.03	18 mm	120,00
0.500	30.0800.03	16• mm	120,00
0.500	30.0900.03	14 mm	120,00
0.500	30.1000.03	12.5 mm	120,00
0.500	30.1100.03	11.2• mm	120,00
0.500	30.1200.03	10 mm	120,00
0.500	30.1300.03	9 mm	106,00
0.500	30.1400.03	8• mm	106,00
0.500	30.1500.03	7.1 mm	106,00
0.500	30.1600.03	6.3 mm	106,00
0.500	30.1700.03	5.6• mm	106,00
0.500	30.1800.03	5 mm	106,00
0.500	30.1900.03	4.5 mm	106,00
0.500	30.2000.03	4• mm	106,00
0.500	30.2100.03	3.55 mm	106,00
0.500	30.2200.03	3.15 mm	106,00
0.500	30.2300.03	2.8• mm	90,00
0.500	30.2400.03	2.5 mm	90,00
0.500	30.2500.03	2.24 mm	90,00
0.500	30.2600.03	2• mm	90,00
0.500	30.2700.03	1.8 mm	90,00
0.500	30.2800.03	1.6 mm	90,00
0.500	30.2900.03	1.4• mm	90,00
0.500	30.3000.03	1.25 mm	90,00
0.500	30.3100.03	1.12 mm	90,00
0.500	30.3200.03	1• mm	90,00
0.500	30.3300.03	900 µm	84,00
0.500	30.3400.03	800 µm	84,00
0.500	30.3500.03	710• µm	84,00
0.500	30.3600.03	630 µm	84,00
0.500	30.3700.03	560 µm	84,00
0.500	30.3800.03	500• µm	84,00
0.500	30.3900.03	450 µm	84,00
0.500	30.4000.03	400 µm	84,00
0.500	30.4100.03	355• µm	84,00
0.400	30.4200.03	315 µm	84,00
0.400	30.4300.03	280 µm	84,00
0.400	30.4400.03	250• µm	84,00
0.400	30.4500.03	224 µm	84,00
0.400	30.4600.03	200 µm	84,00
0.400	30.4700.03	180• µm	84,00
0.400	30.4800.03	160 µm	84,00
0.400	30.4900.03	140 µm	84,00
0.400	30.5000.03	125• µm	84,00
0.400	30.5100.03	112 µm	84,00
0.400	30.5200.03	100 µm	84,00
0.400	30.5400.03	90• µm	84,00
0.400	30.5600.03	80 µm	84,00
0.400	30.5800.03	71 µm	84,00
0.400	30.6000.03	63• µm	84,00
0.400	30.6200.03	56 µm	103,00
0.400	30.6400.03	50 µm	103,00
0.400	30.6600.03	45• µm	126,00
0.400	30.6800.03	40 µm	126,00
0.400	30.7000.03	36 µm	182,00
0.400	30.7200.03	32• µm	182,00
0.400	30.7600.03	25• µm	315,00
0.400	30.7800.03	20• µm	588,00

net weight approx. kg	order no.	article	Price in EURO
		Further test sieves for ANALYSETTE 3	
		Frame and mesh wire made of stainless steel	
		100 mm/200 mm/8" dia.	
		200 mm dia., 50 mm height	
		ASTM - E-11-1995 - mesh	
0.500	35.0200.03	1" = 25 mm	120,00
0.500	35.0300.03	7/8" = 22.4 mm	120,00
0.500	35.0600.03	3/4" = 19 mm	120,00
0.500	35.0800.03	5/8" = 16 mm	120,00
0.500	35.0900.03	0.53" = 13.2 mm	120,00
0.500	35.1000.03	1/2" = 12.5 mm	120,00
0.500	35.1100.03	7/16" = 11.2 mm	120,00
0.500	35.1200.03	3/8" = 9.5 mm	120,00
0.500	35.1400.03	5/16" = 8 mm	106,00
0.500	35.1500.03	0.265" = 6.7 mm	106,00
0.500	35.1600.03	1/4" = 6.3 mm	106,00
0.500	35.1700.03	3 1/2" = 5.6 mm	106,00
0.500	35.1800.03	4" = 4.75 mm	106,00
0.500	35.2000.03	5" = 4 mm	106,00
0.500	35.2100.03	6" = 3.35 mm	106,00
0.500	35.2300.03	7" = 2.8 mm	90,00
0.500	35.2400.03	8" = 2.36 mm	90,00
0.500	35.2600.03	10" = 2 mm	90,00
0.500	35.2800.03	12" = 1.7 mm	90,00
0.500	35.2900.03	14" = 1.4 mm	90,00
0.500	35.3000.03	16" = 1.18 mm	90,00
0.500	35.3200.03	18" = 1 mm	90,00
0.500	35.3400.03	20" = 850 µm	84,00
0.500	35.3500.03	25" = 710 µm	84,00
0.500	35.3600.03	30" = 600 µm	84,00
0.500	35.3800.03	35" = 500 µm	84,00
0.500	35.4000.03	40" = 425 µm	84,00
0.500	35.4100.03	45" = 355 µm	84,00
0.400	35.4200.03	50" = 300 µm	84,00
0.400	35.4400.03	60" = 250 µm	84,00
0.400	35.4600.03	70" = 212 µm	84,00
0.400	35.4700.03	80" = 180 µm	84,00
0.400	35.4800.03	100" = 150 µm	84,00
0.400	35.5000.03	120" = 125 µm	84,00
0.400	35.5200.03	140" = 106 µm	84,00
0.400	35.5400.03	170" = 90 µm	84,00
0.400	35.5800.03	200" = 75 µm	84,00
0.400	35.6000.03	230" = 63 µm	84,00
0.400	35.6200.03	270" = 53 µm	103,00
0.400	35.6600.03	325" = 45 µm	126,00
0.400	35.7000.03	400" = 38 µm	182,00
0.400	35.7200.03	450" = 32 µm	182,00
0.400	35.7600.03	500" = 25 µm	315,00
0.400	35.7800.03	635" = 20 µm	588,00
		• ISO 565 R20/3 (main sizes)	

If test sieves are required in other diameters, please note the ordering examples:

test sieve mesh width 5mm	Deviation from standard sieve size 200 mm dia., height 50 mm	ISO 3310-1 mesh width mm/µm	ASTM E-11-1995 mesh
200 mm dia., height 50 mm = standard size		for example 30.18 00.03	for example 35.1800.03
test sieve mesh width 5 mm 200 mm dia., height 25 mm	replace 5 th position = "0" in order no. by "1"	for example 30.18 10.03	for example 35.1810.03
test sieve width 5 mm 8" dia., height 2"	replace 5 th position = "0" in order no. by "2"	for example 30.18 20.03	for example 35.1820.03
test sieve mesh width 5 mm 100 mm dia., height 40 mm	replace 5 th position = "0" in order no. by "4"	for example 30.18 40.03	for example 35.1840.03

Micro-precision sieves, see page 29.

Test sieves and sieving accessories in other diameters and mesh widths on request.

Test sieves and sieving accessories are not subject to exchange!

net weight approx. kg	order no.	article	Price in EURO
		Micro-Precision sieves for ANALYSETTE 3 PRO	
		Frame made of stainless steel, sieve foil and grid made of pure nickel 100 mm dia., according to ISO 3310-3	
0.335	32.0050.00	aperture 5 µm, open sieve area = % 2.8, mesh 1016	1.439,00
0.335	32.0100.00	aperture 10 µm, open sieve area = % 11.2, mesh 1016	1.344,00
0.335	32.0150.00	aperture 15 µm, open sieve area = % 9.8, mesh 570	1.043,00
0.335	32.0200.00	aperture 20 µm, open sieve area = % 17.5, mesh 570	984,00
0.335	32.0250.00	aperture 25 µm, open sieve area = % 10.4, mesh 403	896,00
0.335	32.0300.00	aperture 30 µm, open sieve area = % 14.9, mesh 403	896,00
0.335	32.0350.00	aperture 35 µm, open sieve area = % 12.6, mesh 317	896,00
0.335	32.0400.00	aperture 40 µm, open sieve area = % 16.5, mesh 317	835,00
0.335	32.0450.00	aperture 45 µm, open sieve area = % 8.5, mesh 203	835,00
0.335	32.0500.00	aperture 50 µm, open sieve area = % 10.5, mesh 203	835,00
0.335	32.0600.00	aperture 60 µm, open sieve area = % 9.3, mesh 159	835,00
0.335	32.0700.00	aperture 70 µm, open sieve area = % 12.6, mesh 159	835,00
0.335	32.0800.00	aperture 80 µm, open sieve area = % 16.5, mesh 159	835,00
0.335	32.0900.00	aperture 90 µm, open sieve area = % 20.9, mesh 159	835,00
0.335	32.1000.00	aperture 100 µm, open sieve area = % 25.7, mesh 159	835,00

net weight approx. kg	order no.	article	Price in EURO
		Heavy Duty Analytical Sieve Shaker	
		ANALYSETTE 18	
		instrument without test sieves and sieve pan, incl. tensioning, sieve cover and control and evaluation programme AUTOSIEVE for Windows™	
92.000	18.2020.00	for 230 V/1~, 50 Hz	7.690,00
92.000	18.2010.00	for 115 V/1~, 60 Hz	7.690,00
		Accessories for test sieves 400 mm dia.	
2.000	37.1000.01	sieve pan	205,00
0.020	37.0010.16	replacement seal ring NBR for test sieves 400 mm dia.	15,80
		Sieving aids	
0.003	37.0200.16	1 vulkollan cube (10 cubes per sieve)	3,20
		Laboratory analysis balance, computer, colour ink jet printer and laser printer on request.	
		Test sieves for ANALYSETTE 18	
		Frame and mesh wire made of stainless steel	
		400 mm dia., useful height 65 mm	
		ISO 3310-1 - mesh width mm/µm	
1.900	34.0040.02	125• mm	360,00
1.900	34.0060.02	90• mm	360,00
1.900	34.0000.02	63• mm	360,00
1.900	34.0080.02	45• mm	360,00
1.900	34.0100.02	31.5• mm	360,00
1.900	34.0200.02	25 mm (correspond to ASTM 1" = 25 mm)	360,00
1.900	34.0300.02	22.4• mm (correspond to ASTM 7/8" = 22.4 mm)	360,00
1.900	34.0400.02	20 mm	360,00
1.900	34.0600.02	18 mm (correspond to ~ ASTM 3/4" = 19 mm)	310,00
1.900	34.0800.02	16• mm (correspond to ASTM 5/8" = 16 mm)	310,00
1.900	34.0900.02	14 mm (correspond to ~ ASTM 0.53" = 13.2 mm)	310,00
1.900	34.1000.02	12.5 mm (correspond to ~ ASTM 1/2" = 12.5 mm)	310,00
1.900	34.1100.02	11.2• mm (correspond to ASTM 7/16" = 11.2 mm)	310,00
1.900	34.1200.02	10 mm (correspond to ~ ASTM 3/8" = 9.5 mm)	310,00
1.900	34.1300.02	9 mm	310,00
1.900	34.1400.02	8• mm (correspond to ASTM 5/16" = 8 mm)	310,00
1.900	34.1500.02	7.1 mm (correspond to ~ ASTM 0.265" = 6.7 mm)	310,00
1.900	34.1600.02	6.3 mm (correspond to ASTM 1/4" = 6.3 mm)	310,00
1.900	34.1700.02	5.6• mm (correspond to ~ ASTM no. 3 1/2 = 5.6 mm)	310,00
1.900	34.1800.02	5 mm (correspond to ~ ASTM no. 4 = 4.75 mm)	310,00
1.900	34.2000.02	4• mm (correspond to ASTM no. 5 = 4 mm)	255,00
1.900	34.2100.02	3.55 mm (correspond to ASTM no. 6 = 3.35 mm)	255,00

net weight approx. kg	order no.	article	Price in EURO
		Further test sieves for ANALYSETTE 18	
		Frame and mesh wire made of stainless steel	
		400 mm dia., useful height 65 mm	
		ISO 3310-1 - mesh width mm/μm	
1.900	34.2200.02	3.15 mm	255,00
1.900	34.2300.02	2.8• mm (correspond to ASTM no. 7 = 2.8 mm)	255,00
1.900	34.2400.02	2.5 mm (correspond to ~ ASTM no. 8 = 2.36 mm)	255,00
1.900	34.2600.02	2• mm (correspond to ASTM no. 10 = 2 mm)	255,00
1.900	34.2700.02	1.8 mm	255,00
1.900	34.2800.02	1.6 mm (correspond to ~ ASTM no. 12 = 1.7 mm)	255,00
1.900	34.2900.02	1.4• mm (correspond to ASTM no. 14 = 1.4 mm)	255,00
1.900	34.3000.02	1.25 mm (correspond to ~ ASTM no. 16 = 1.18 mm)	255,00
1.900	34.3100.02	1.12 mm	255,00
1.900	34.3200.02	1• mm (correspond to ASTM no. 18 = 1 mm)	255,00
1.900	34.3300.02	900 μm	247,00
1.900	34.3400.02	800 μm (correspond to ~ ASTM no. 20 = 0.85 mm)	247,00
1.900	34.3500.02	710• μm (correspond to ASTM no. 25 = 0.71 mm)	247,00
1.900	34.3600.02	630 μm (correspond to ~ ASTM no. 30 = 0.6 mm)	247,00
1.900	34.3700.02	560 μm	247,00
1.900	34.3800.02	500• μm (correspond to ASTM no. 35 = 0.5 mm)	247,00
1.900	34.3900.02	450 μm	247,00
1.900	34.4000.02	400 μm (correspond to ~ ASTM no. 40 = 0.425 mm)	247,00
1.900	34.4100.02	355• μm (correspond to ASTM no. 45 = 0.355 mm)	247,00
1.900	34.4200.02	315 μm (correspond to ~ ASTM no. 50 = 0.3 mm)	247,00
1.900	34.4300.02	280 μm	247,00
1.900	34.4400.02	250• μm (correspond to ASTM no. 60 = 0.25 mm)	247,00
1.900	34.4500.02	224 μm	247,00
1.900	34.4600.02	200 μm (correspond to ~ ASTM no. 70 = 0.212 mm)	247,00
1.900	34.4700.02	180• μm (correspond to ASTM no. 80 = 0.18 mm)	247,00
1.900	34.4800.02	160 μm (correspond to ~ ASTM no. 100 = 0.15 mm)	247,00
1.900	34.4900.02	140 μm	247,00
1.900	34.5000.02	125• μm (correspond to ASTM no. 120 = 0.125 mm)	247,00
1.900	34.5100.02	112 μm	247,00
1.900	34.5200.02	100 μm (correspond to ~ ASTM no. 140 = 0.106 mm)	247,00
1.900	34.5400.02	90• μm (correspond to ASTM no. 170 = 0.09 mm)	276,00
1.900	34.5600.02	80 μm	276,00
1.900	34.5800.02	71 μm (correspond to ~ ASTM no. 200 = 0.075 mm)	276,00
1.900	34.6000.02	63• μm (correspond to ASTM no. 230 = 0.063 mm)	276,00
		• = ISO (standard international)	
		When ordering test sieves, please quote if the sieves should be delivered according to ISO 3310-1 or ASTM.	
		Test sieves and sieving accessories in other diameters and mesh widths on request.	
		All above mentioned mesh widths are also available as test sieves with 200 mm/8" dia.	
		Test sieves and sieving accessories are not subject to exchange!	

net weight approx. kg	order no.	article	Price in EURO
		Dividing/feeding/cleaning: SAMPLE DIVIDER	
		Rotary cone sample divider LABORETTE 27	
		instrument without dividing head	
7.700	27.1420.00	for 230 V/1~, 50-60 Hz	2.330,00
7.700	27.1410.00	for 115 V/1~, 50-60 Hz	2.330,00
		Dividing heads incl. sample bottles and funnel	
		Division ratio 1:8	
5.800	27.1300.00	POM plastic, incl. 8 sample bottles with screw lid 500 ml and funnel 10 mm dia.	1.840,00
6.100	27.1150.00	aluminium, incl. 8 sample bottles with screw lid 500 ml and funnel 10 mm dia.	1.840,00
		Division ratio 1:10	
7.700	27.5150.00	POM plastic, incl. 10 sample bottles with screw lid 250 ml and funnel 10 mm dia.	1.874,00
8.700	27.4150.00	aluminium, incl. 10 sample bottles with screw lid 250 ml and funnel 10 mm dia.	1.874,00
		Division ratio 1:30	
3.800	27.6150.00	POM plastic, incl. 3 sample bottles with screw lid 15 ml and funnel 10 mm dia. as well as 1 funnel each of 5 mm dia. for dry- resp. wet division	2.930,00
5.900	27.2150.00	PTFE-coated aluminium, incl. 3 sample bottles with screw lid 15 ml and funnel 10 mm dia. as well as 1 funnel each of 5 mm dia. for dry- resp. wet division	2.930,00
		Accessories	
0.600	27.1500.17	protective device, polyacryl	242,00
0.250	27.1450.00	sample bottle 250 ml	7,90
0.350	27.1460.00	sample bottle 500 ml	9,00
0.005	83.3190.16	sample vessel 25 ml with lid for sample bottle 250 ml and 500 ml	0,55
0.012	83.3100.00	sample bottle 15 ml	2,60
0.017	83.3110.00	sample bottle 20 ml	2,60
0.025	83.3120.00	sample bottle 30 ml	3,20
0.070	27.1290.16	funnel 5 mm dia.	43,00
0.073	27.1330.16	funnel 5 mm dia. (only for division of suspensions with dividing head, division ratio 1:30)	40,00
0.085	27.1200.16	funnel 10 mm dia.	32,00
0.090	27.1210.16	funnel 15 mm dia.	35,00
0.100	27.1220.16	funnel 22 mm dia.	42,00
		Accessories for automatic feeding	
		Vibratory Feeder LABORETTE 24	
		instrument incl. V-shaped channel and control unit	
12.000	24.0030.00	for 200-240 V/1~, 50-60 Hz	1.980,00
12.000	24.0040.00	for 100-120 V/1~, 50-60 Hz	1.980,00
5.400	24.9100.00	stand for feeder	410,00

net weight approx. kg	order no.	article	Price in EURO
		Dividing/Feeding/Cleaning: FEEDER	
		Vibratory Feeder LABORETTE 24	
		instrument incl. <u>V-shaped channel</u> and control unit	
12.000	24.0030.00	for 200-240 V/1~, 50-60 Hz	1.980,00
12.000	24.0040.00	for 100-120 V/1~, 50-60 Hz	1.980,00
		instrument incl. <u>wide channel</u> and control unit	
12.000	24.0020.00	for 200-240 V/1~, 50-60 Hz	1.980,00
12.000	24.0010.00	for 100-120 V/1~, 50-60 Hz	1.980,00
3.150	24.9100.00	stand for feeder	410,00
		Dividing/Feeding/Cleaning: ULTRASONIC CLEANER	
		Ultrasonic Cleaner LABORETTE 17	
		instrument incl. sieve support; without insert tray, cover and concentrated cleaning liquid	
5.500	17.2020.00	size I , 5.6 litres, with sieve support for 230 V/1~, 50-60 Hz	1.540,00
5.500	17.2010.00	size I , 5.6 litres, with sieve support for 115 V/1~, 50-60 Hz	1.540,00
14.900	17.4020.00	size II , 28 litres, with outlet tap for 230 V/1~, 50-60 Hz	4.540,00
		Accessories for size I	
0.300	17.3100.00	insert tray made of stainless steel	189,00
0.450	17.3300.00	cover made of stainless steel	96,00
3.000	17.0400.00	concentrated cleaning liquid, can of 2.5 litres	74,00
		Accessories for size II	
1.500	17.5100.00	insert tray made of stainless steel	378,00
1.200	17.5300.00	cover made of stainless steel	175,00
3.000	17.0400.00	concentrated cleaning liquid, can of 2.5 litres	74,00

NOTES ON THE PRICE LIST 2009

- This price list is valid from 01.01.2009 and replaces all previously published editions.
- The quoted prices are prices per piece, as far as nothing else is specified.
- Our prices are valid ex factory, for unpacked goods; within the country, value-added tax must be added.
- We are a registered supplier in **accordance to ISO 9001:2000** and regard our customers' requirements as the most important guideline for our quality standard. For this reason we welcome any criticism you might make as a positive contribution to a continuous process of improvement.
- The parts indicated with an asterisk (*) are **standard equipment** for the instrument in question and are **included in the basic price**. Should you wish to replace these asterisked items with alternatives from the price list of your own choice the price will be adjusted prorate; please specify the exact article number of the replacement part.
- The required accessories for some of our instruments have to be selected by the customer according to his specific application. Therefore it is not included in the basic instrument price.
- Instruments are available with the choice of voltage shown in our literature and **alternative voltages** can be supplied on demand. Please note that items shown in the price list as having a voltage of "3~" can **only** be operated on a three phase supply network.
- The electro technical data correspond to the German, European resp. International standards IEC 1010-1, EN 61010, VDE 0411 resp. IEC 204-1, EN 60204, VDE 0113.
- The power rating on the nameplate as well as the specification in this price list is the highest rated power (power consumption) in Watt (real power) according to IEC 1010-1.
- Enquiries about equipment not included in the price list (spare parts etc.) should be made directly to Fritsch or our authorised agents. When **ordering spare parts**, it is essential to give the **serial number** of the instrument in question.
- Articles, which are no longer listed in the current price list, but which have been listed in former issues, can be normally delivered for a further year at least.
- We reserve the right to make **technical modifications** and the right to amend our price list when these modifications effect the price.
- We ensure a **guarantee of 2 years** on all our instruments according to our guarantee terms. Please note that only full guarantee service can be ensured if you register online our instrument under www.fritsch.de – service – guarantee or if you send us the guarantee card back, which is attached to each instrument immediately after receipt - duly filled in – of course.
- Our **general conditions of sale** reproduced on page 35 to 38 apply to all transactions involving this price list.

General Terms of Payment and Delivery

I. Area of validity

1. The Terms of Sale below apply to sundry contracts for the supply of goods concluded between the customer and us. They are only valid for companies (§ 14 BGB - German Civil Code). They also apply to sundry future commercial dealings, also where they are not expressly agreed upon. Deviating terms of the purchaser that we do not expressly acknowledge are non-binding upon us, also where these are not expressly contradicted by us. The Terms of Sale below shall also apply where we implicitly process the order of the purchaser despite our knowledge of contradictory or deviating terms of the purchaser.
2. In the contracts, sundry agreements made between the purchaser and us regarding the implementation of the sales contracts are recorded in written form.

II. Offer and conclusion of contract

1. An order on the part of the purchaser, which is qualified as an invitation to conclude a sales contract, may be accepted within two weeks, either by sending an order confirmation or by sending the ordered products within the same time period.
2. Our offers are subject to confirmation and are non-binding, unless we expressly designate these as binding.
3. We reserve our rights to ownership, copyright and other industrial property rights to sundry illustrations, calculations, diagrams and other documents. The purchaser may only pass these to third parties with our written authorisation, regardless of whether these are marked as confidential or not.

III. Terms of payment

1. Our prices are ex works without packaging, unless otherwise specified in the order confirmation. Our prices do not include the statutory rate of value added tax. This will be stated separately in the invoice at the statutory rate valid on the day of invoicing.
2. A cash discount deduction is only permissible where a separate written agreement exists between us and the purchaser. The purchase price is due net (without deduction) immediately following receipt of invoice by the purchaser, unless the order confirmation states another date of payment. A payment shall only be deemed to have been effected when we have the amount at our disposal. In the case of cheque payments payment shall only be deemed to be effected when the cheque is honoured.
3. The statutory regulations shall apply where the purchaser is in default with payment.
4. The purchaser is only entitled to off-set, including where notice of defects or counterclaims are made, where the counterclaims are legally binding, have been acknowledged by us or are undisputed. The purchaser is only entitled to exercise a right of retention where his counterclaim is based upon the same contractual relationship.

IV. Time of delivery and performance

1. Delivery dates or deadlines that are not expressly agreed upon as binding are exclusively non-binding statements and are always subject to the caveat of timely and correct self supply. The delivery time stated by us shall only begin when technical matters have been clarified. Similarly, the purchaser shall fulfil sundry obligations for which he is responsible in an orderly and timely manner.
2. In the event of the sales contract constituting a transaction for delivery at a fixed date as per § 286 para. 2 no. 4 BGB - German Civil Code - or § 376 HGB - German Commercial Code -, then we shall be liable in accordance with the statutory regulations. The same applies where the purchaser, as a result of a delay in delivery on our part, is entitled to discontinue his interest in the further performance of the contract. In this case, our liability is limited to foreseeable, typically occurring loss, where the delay in delivery is not caused by an intentional breach of the contract on our part, whereby we shall also be apportioned liability for the culpability of our representatives or vicarious agents.

Similarly, we shall be liable to the purchaser in the event of delay in delivery according to the statutory regulations where this is due to an intentional or grossly negligent breach of the contract on our part, whereby we shall also be apportioned liability for the culpability of our representatives or vicarious agents. Our liability is limited to foreseeable, typically occurring loss, where the delay in delivery is not caused by an intentional breach of the contract on our part.

3. In the event of a delay in delivery on our part due to the culpable breach of a significant contractual obligation, whereby we shall also be apportioned liability for the culpability of our representatives or vicarious agents, we shall be liable in accordance with the statutory regulations, with the provision that in this case the liability for compensation is limited to foreseeable, typically occurring loss.
4. In other respects, in the event of a delay in delivery on our part the purchaser may claim a lump-sum compensation to the amount of 3 % of the delivery value for each complete week of delay, however, not more than 15 % of the delivery value.
5. Further liability for delay in delivery on our part is excluded. The additional statutory rights and claims of the purchaser to which the purchaser is entitled in addition to the compensatory claim for a delay in delivery on our part are unaffected by this.
6. We are entitled to effect partial deliveries and partial performance at all times, where this can be reasonably expected of the purchaser.
7. Should there be a delay in acceptance on the part of the purchaser, then we shall be entitled to request compensation of the loss incurred and sundry additional expenditure. Subject to the provision of proof of a higher loss, in this case the purchaser shall owe compensation to the amount of 20 % of the purchase price, unless the purchaser provides evidence of a lower loss. The same shall apply where the purchaser is in breach of his duty to co-operate. With the onset of the delay in acceptance or debtor's delay the risk of incidental deterioration and accidental loss shall pass to the purchaser.

V. Passing of risk - shipment/packaging

1. Loading and shipment are performed in an uninsured state at the risk of the purchaser. We shall make an effort to take the wishes and interests of the purchaser into consideration with regard to form and route of shipment; additional costs incurred in this - also where freight free delivery has been agreed - shall be born by the purchaser.
2. We do not take back transport and other packaging required by the Packaging Ordinance, with the exception of pallets. The purchaser shall ensure the disposal of the packaging at his own cost.
3. If the shipment is delayed at the request of the purchaser, or due to fault on his part, then we shall store the goods at the cost and risk of the purchaser. In this case the indication of readiness for despatch shall be equivalent to despatch.
4. At the request and cost of the purchaser we will also insure the shipment with a transport insurance policy.

VI. Guarantee/liability

1. Claims for defects on the part of the purchaser shall only exist where the purchaser has performed his duty of inspection, notification and rejection as per § 377 HGB - German Commercial Code - in an orderly manner.
2. Where a defect in the goods exists for which we are responsible, we are obliged to effect subsequent performance, under exclusion of the right of the purchaser to withdraw from the contract or to reduce the purchase price (reduction), unless statutory regulations entitle us to refuse to effect subsequent performance. The purchaser shall grant us an appropriate deadline for subsequent performance. The purchaser may decide whether the subsequent performance should consist of remedy of defects (rectification) or the supply of new goods. In the case of remedy of defects we shall bear the cost of the expenses incurred, so long as these are not increased due to the subject of the contract being in a location different to that of the place of performance.

If subsequent performance proves to be abortive, the purchaser may choose to request a reduction in the purchase price (reduction) or declare his withdrawal from the contract. The rectification shall be deemed to be abortive on the second failed attempt, unless, due to the subject of the contract, further rectification attempts are deemed appropriate and reasonable to the purchaser.

Compensatory claims to the following conditions due to defect may only be pursued by the purchaser where the rectification is abortive. The right of the purchaser to pursue further compensatory claims to the following conditions is not affected by this.

3. The guarantee claims of the purchaser shall lapse one year after delivery of the goods to the purchaser, unless we have concealed this defect with malice aforethought; in this case the statutory regulations shall apply. Our obligations under Section VI fig. 4 and Section VI fig. 5 are unaffected by this.
4. We have unlimited liability according to statutory regulations for injury to life, limb and health, arising from a negligent or intentional breach of our liability, or that of our representatives or our vicarious agents, together with loss covered by the liability of the Product Liability Act. For loss that is not covered by Clause 1 and that is due to intentional or grossly negligent breach of contract or malice aforethought on our part, or that of our representatives or our vicarious agents, we are liable according to statutory regulations. In this case, however, liability for compensation is limited to foreseeable, typically occurring loss, so long as we, our representatives or our vicarious agents, have not acted with intent. To the extent that we have also granted a guarantee of quality and/or durability with regard to the goods or to parts thereof, then we shall also be liable within the scope of that guarantee. In the case of loss arising from the lack of the guaranteed quality or durability, but which does not occur directly to the goods, we shall only be deemed to be liable where the risk of such a loss is clearly covered by the quality and durability guarantee.
5. We are also liable for loss caused by simple negligence, to the extent that the negligence concerns the breach of such contractual obligations whose observance is of special significance for the achievement of the purpose of the contract (cardinal obligations). However, we shall only be held liable where the loss is typically associated with the contract and foreseeable.
6. Further liability, with respect to the legal character of the claim enforced, is excluded, this applies in particular to delicti claims or claims for the compensation of futile disbursements instead of performance; this does not affect our liability as per Section IV fig. 2 to Section IV fig. 5 of this contract. To the extent that our liability is limited or excluded, this shall also apply to the personal liability of our staff, employees, associates, representatives and vicarious agents.
7. Compensatory claims of the purchaser due to defect shall lapse one year after delivery of the goods. This shall not apply in the event of injury to life, limb and health due to our liability, or that of our representatives or our vicarious agents, or where we or our representatives have acted with intent or gross negligence, or where our vicarious agents have acted with intent.

VII. Retention of title

Until the fulfilment of sundry claims, including sundry current account balance claims that we have against the purchaser now or in future, the goods supplied (reserved goods) shall remain in our ownership. In the event of behaviour of the purchaser contrary to the contract, e.g. payment default, we retain the right, following an appropriate respite, to take back the reserved goods. Taking back the reserved goods shall indicate a withdrawal from the contract. Pledging the reserved goods shall constitute a withdrawal from the contract. We are entitled to utilise the reserved goods following their return. After the deduction of an appropriate amount for the costs of utilisation, the utilisation revenue shall be off-set against the amount owed to us by the purchaser.

VIII. Place of performance, jurisdiction, applicable law

1. Place of performance and jurisdiction for deliveries and payments (including actions on cheques and bills of exchange) together with sundry disputes arising from the sales contracts concluded between us and the purchaser is our headquarters. However, we are also entitled to take legal action against the purchaser at his place of residence or business location.

2. The relations between the contracting parties shall be solely in accordance with the applicable law of the Federal Republic of Germany. Application of the standard law on the international sale of movable objects, together with the law pertaining to the conclusion of international contracts of sale for movable objects is excluded.

Idar-Oberstein, 01 January 2007

FRITSCH GmbH • Milling and Sizing

Industriestrasse 8

55743 Idar-Oberstein • Germany

Banks:

Volksbank-Raiffeisenbank Naheland eG (bank code 562 900 00), account no. 813 206, SWIFT-BIC: GENODE51IDO, IBAN: DE78 5629 0000 0000 8132 06

Dresdner Bank Idar-Oberstein (bank code 510 800 60), account no. 302 239 000, SWIFT-BIC: DRESDEFF562, IBAN: DE40 5108 0060 0302 2390 00

Deutsche Bank Idar-Oberstein (bank code 562 700 44), account no. 1 302 330, SWIFT-BIC: DEUTDE5M562, IBAN: DE79 5627 0044 0130 2330 00

Kreissparkasse Birkenfeld Idar-Oberstein (bank code 562 500 30), account no. 32 700, SWIFT-BIC: BILADE55, IBAN: DE86 5625 0030 0000 0327 00

Commerzbank Idar-Oberstein (bank code 562 400 50), account no. 142 680 800, SWIFT-BIC: COBADEFF562, IBAN: DE67 5624 0050 0142 6808 00

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