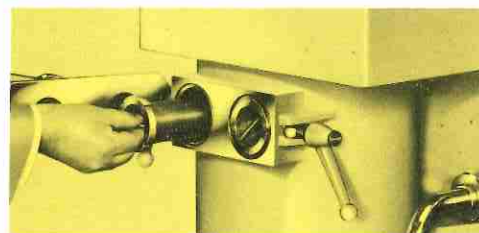


DRAIS PERL-MILL – Continuous Agitation Bead Mill



PM-TEX Series



▲ The two cartridge type screens can be easily and rapidly removed for cleaning or replacement.

◀ PERL MILL PM 25 TEX of horizontal design.

PERL MILL PM 250 TEX of vertical design (above) and with grinding pot of horizontal arrangement (below). ▼



Applications: Microfine dispersion, wet grinding and disintegration in low to medium-viscosity feeds, such as pigment preparations, colouring agents, paints, rotary printing inks, pharmaceutical active substances, cell fractionation in food technology, etc.

Advantages of system: Sealed grinding chamber. Greater grinding efficiency through full utilization of grinding chamber. No ingress of air. No problems of environmental pollution through the escape of solvent vapours and evil-smelling fumes. Modular type of system construction permits vertical or horizontal arrangement of grinding pot. Grinding media can be less than 1 mm in dia. thereby permitting a mill filling of up to 90 per cent, with commensurate improvement of grinding efficiency. Grinding media retention at product discharge through removable cartridge type screens (German patent).

Machine frame: Enclosed construction – for vertical or horizontal arrangement of grinding pot, as desired.

Grinding pot: Stationary type, bolted at the discharge end to the machine housing. Removable end plate bolted to bottom. Jacketed for turbulent-flow water cooling. Mill shell of hard steel, hard chromium-plated, rubber-coated alloy steel, lined with steatite or plastics.

Agitator assembly: Configuration of wear-resistant perforated discs of carbide or stainless steel or carbide metal or steatite, coated with rubber or plastics, hard chromium-plated.

Agitator shaft seal: Lip seal with flushing liquid connection or double-acting mechanical seal, with pressurized barrier liquid.

Grinding media: SILIQUARTZITE hard glass beads or DRAISAL special ceramic beads from 0.3 mm to 3 mm dia.

Grinding media retention: Two readily removable cartridge type screens (German patent) installed immediately behind the detachable discharge pipe (See illustration).

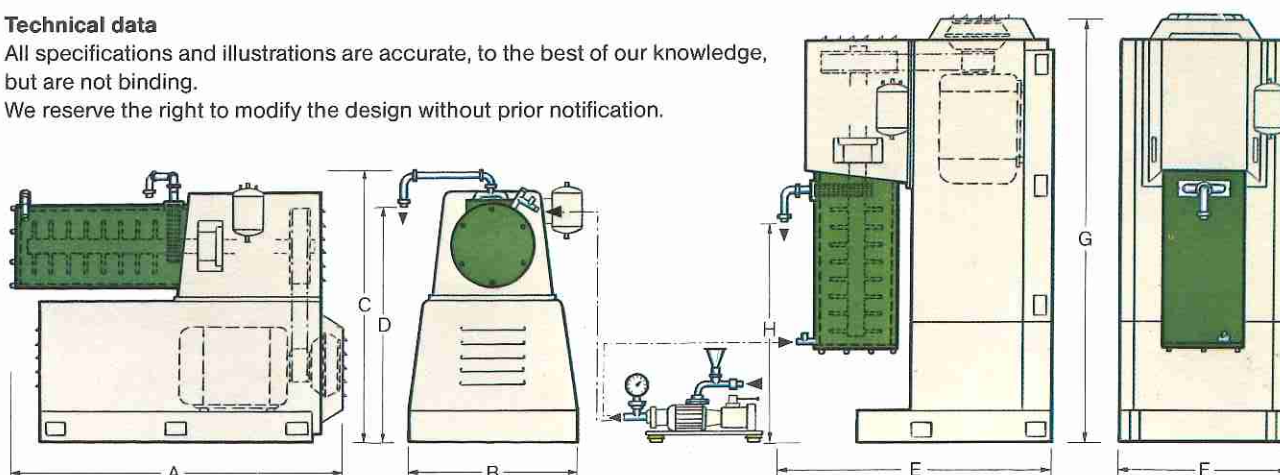
Material feed pump: Pump system to suit individual requirements, with variable-speed gear unit to control the residence time, mounted on separate console.

Drive to agitator: built-in threephase motor with vee-belt transmission; sizes from PM 50 TEX feature an intermediate starting clutch.

Technical data

All specifications and illustrations are accurate, to the best of our knowledge, but are not binding.

We reserve the right to modify the design without prior notification.



MACHINE SIZES		PM 5 TEX	PM 12,5 TEX	PM 25 TEX	PM 50 TEX	PM 125 TEX	PM 250 TEX
Capacity of grinding pot	litres	6	15	26	58	125	250
Overall dimensions							
Horizontal arrangement:							
Length (A)	mm	900	1290	1550	1850	2140	2475
Width (B)	mm	500	650	950	1050	1200	1300
Height (C)	mm	850	1300	1380	1525	1750	1900
Height of discharge (D)	mm	750	940	1250	1400	1475	1675
Vertical arrangement:							
Length (E)	mm	950	1325	1470	1620	1700	2100
Width (F)	mm	450	600	850	850	1100	1200
Height (G)	mm	1225	1675	2160	2600	2580	3025
Height of discharge (H)	mm	750	1000	1210	1550	1380	1650
Pump set (separately installed):							
Length	mm	500	750	800	900	1100	1400
Width	mm	400	630	650	700	800	1200
Height	mm	250	300	300	500	500	550
Power requirements:							
Agitator assembly*	kW	6.8 (7.5)	15 (13.5)	18.5 (17.5)	30 (30)	37 (36)	55 (58)
Feed pump	kW	0.37	0.75 (0.75)	0.75 (0.75)	1.5 (1.35)	2.2 (2)	2.2 (2)
Pump delivery**	litres/hour	0-250	0-350	0-750	0-1200	0-2000	0-3000
Weight, complete	approx. kg	500	800	1200	2000	2500	3600
Basic supply of grinding media:							
SILQUARTZITE hard glass beads	kg	6	18	35	70	170	340
DRAISAL special ceramic beads	kg	7	20	40	80	180	360

The PERL MILL is built in eight series, with capacities ranging from 1 to 1000 litres, featuring stationary or castored grinding container; grinding media retention at product discharge through wire mesh, cartridge type screens (German patent) or frictional gap (German and foreign patents). Choice of various agitator configurations, grinding media, material feeds, etc. Models for large-scale production can be provided with positive screw feeders for direct dispersion or direct milling of individually batched solid and liquid components without preliminary dispersion.

* A starting clutch is incorporated on models as from PM 50 TEX. Figures in brackets are ratings for EX eG3 type of enclosure.

** Specifications and ranges of adjustment apply to standard version; pump with considerably higher deliveries can be supplied for special requirements.

Technical data of special sizes of 500 and 1000 litres trough capacity available on request.

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