



HIGH PRESSURE HOMOGENIZERS & PLUNGER PUMPS



HIGH PRESSURE POSITIVE
DISPLACEMENT **PLUNGER PUMPS**



MAIN technical features

- Standard flow rate from 680 to 11.355 l/h
- Standard pressure range from 40 to 200 bar
- Standard electric motors from 3 to 75 kW
- Abrasive and non-abrasive execution
- 3A sanitary certification
- ULCSA electrical system predisposition
(certification upon request)
- C.I.P - ready
- Possible customization by combining flow rates, pressures, and electric motor power size
- Low and high viscosity products treatment

COMPRESSION head

- The compression head is manufactured from a single block of high quality, special type, ultrasounds checked stainless steel, with a 5 year guarantee against cracks and defects
- Valve assembly housed within an individually inspectable AISI 316 stainless steel block (from FBF 5 on).
- Pumping Pistons manufactured with a rear cooling chamber, a double guide to keep a perfect alignment, and a special "Diamond Like Carbon" plating as a standard
- Valve group assemblies have replaceable seats and hemispherical valve shutters, ideal for processing a variety of products
- Spring type overpressure valve, sanitary execution with replaceable shutter and seat

MOTORIZATION and internal structure

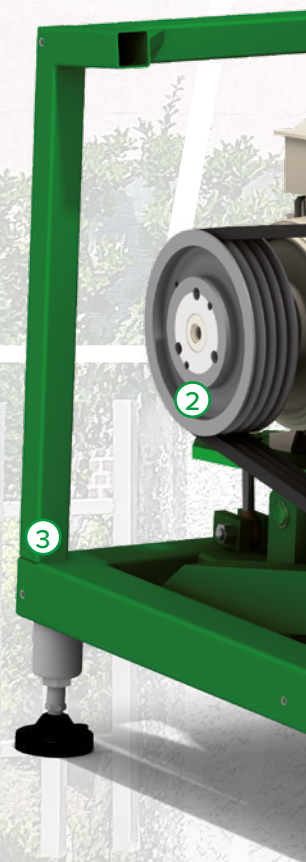
- Frame is made of carbon steel tubular square section, powder painted, covered with dismountable satin finished stainless steel cladding.
- Pump body is made of a thick-walled, premium grade, high-resistance cast iron, engineered to withstand heavy loads and cancel out vibrations.
- This organ, is supported by heavy duty roller bearings with bronze bearings used only on the crank pins (5 roller bearings are installed from series FBF 5 on).
- Power transmission with double reduction stage: "V" belts/pulleys, integrated gear reducer (FBF 5 onwards) or external gear reducer (FBF 3 and 4). Semi-automatic tensioning system, with two helicoidal gears in the pump body (slow gear coupled directly on the crankshaft) is present from series FBF 5 onwards.
- Pressurized lubricating system with oil level sensor. Oil cooling system by tubular heat-exchanger (from series FBF 5 on only). Provided with irregular pressure alarm, high temperature alarm, driven impurities filtering. For the best thermal balance/dissipation all transmission's components are oil splashed.

① ELECTRIC MOTOR
From 3 to 75 kW

② POWER TRANSMISSION
Reduction by "V" shaped belts and pulleys

③ STRUCTURE
In powder painted carbon steel (from FBF 4 onwards) and stainless steel (from FBF 1 to 3)

④ CRANKSHAFT
Heat treated and nitrided



ELECTRICAL

system

- 4 poles, 3 phases, AC electric drive from leading OEM (assisted ventilation and thermistor for units with variable capacity)
- Built-in electrical panel for fixed capacity with stainless-steel casing on all units
- Electrical panel for variable capacity with built-in stainless-steel casing only for FBF series 3, 4, and 5. Remaining series have a remote electrical panel.

MAIN

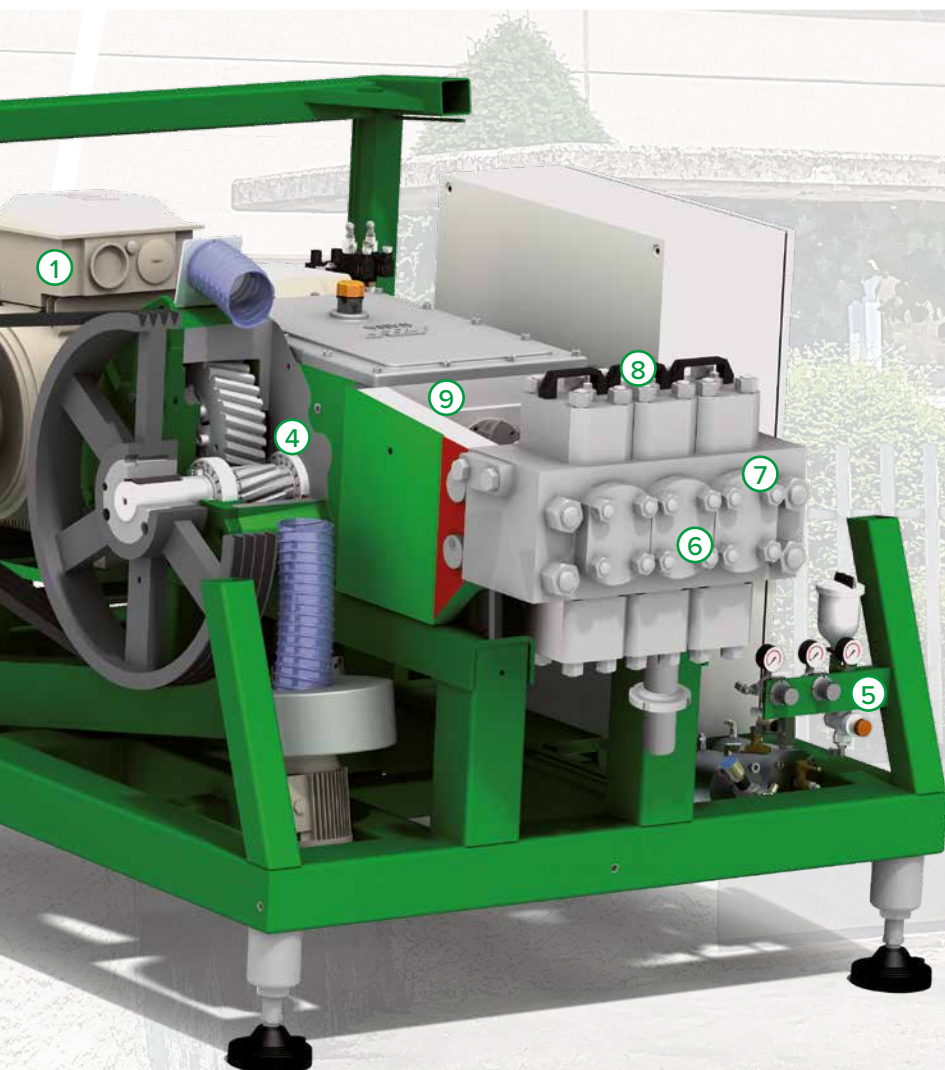
available options

- Aseptic Version with “sterility barriers” traced with steam condensate created by a built-in system.
- Digital pressure transducers and analogue gauges with 4-20 mA output
- Pulsation dampeners on product inlet connection, for special aseptic version as well.
- Built-in control system (electrical system, start/stop button, pressure indicators)
- Inlet pressure gauge with alarm contact

MAINTENANCE

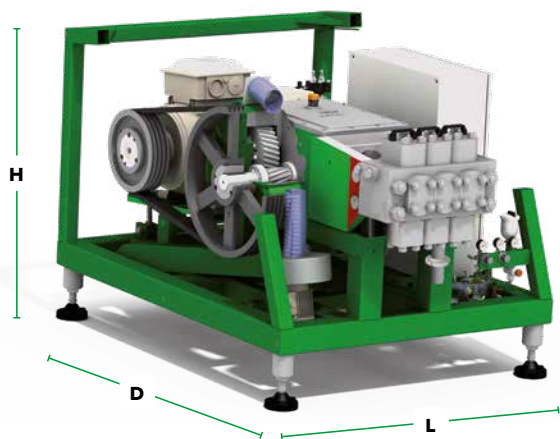
kit

- Initial set of spare parts supplied with the machine includes the following: full set of gaskets, a set of valves springs and a complete overpressure valve set, set of ordinary maintenance tools, lubricating oil, instruction and maintenance manuals (2 copies + CD ROM)



- ⑤ LUBRICATION
Oil splash type up to FBF series 3 and pressurized type from FBF series 4 onwards
- ⑥ COMPRESSION HEAD
With multi blocks for easy access and inspection. The head is guaranteed 5 years against cracking
- ⑦ VALVE ASSEMBLY
Hemispherical valves with replaceable seats
- ⑧ PISTONS
Pistons are made in AISI 316 chromed steel. They are DLC-PVD coated (DLC means “Diamond Like Carbon” and PVD means “Physical Vapor Deposition”)
- ⑨ PUMP BODY
Thick walled, high resistance cast iron





TECHNICAL FEATURES

Pump Model	Dimensions	Weight	Power	Maximum flow rate at (for high viscosity products)*				
	(L x D x H)	(about)	(min - max)	42 bar	83 bar	125 bar	165 bar	207 bar
	cm	kg	kW	l/h	l/h	l/h	l/h	l/h
FBF3011P	99 x 130 x 99	454	3 – 11	2.725	2.725	1.363	1.363	1.363
FBF4022P	114 x 140 x 119	816	11 – 22	5.678	5.678	4.164	2.725	2.725
FBF5030P	119 x 155 x 130	1.225	18.5 – 30	-	-	5.678	4.088	3.407
FBF6045P	135 x 190 x 140	1.814	15 – 45	13.173	11.356	7.949	6.814	4.921
FBF7075P	150 x 211 x 150	2.495	30 – 75	13.627	13.627	12.492	10.221	8.706
FBF8110P	180 x 221 x 160	3.357	30 – 110	27.255	27.255	23.848	17.413	15.412
FBF9160P	190 x 259 x 180	5.307	45 - 160	-	-	27.255	24.984	20.063

* For low viscosity products +25% flow rate. Our technical department available for equipment sizing.

Note: additional flow rates and pressures are available upon request according to the product to be processed.

Technical specifications can vary and are subject to change without notice.

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