



FBF North America
Sales and Service Center



H.P. Homogenizers and P.D. Pumps

HIGH PRESSURE HOMOGENIZERS & PLUNGER PUMPS



HIGH PRESSURE POSITIVE
DISPLACEMENT **PLUNGER PUMPS**



MAIN technical features

- Standard flow rate from 180 to 3000 gph
- Standard pressure range from 580 to 2900 PSI
- Standard electric motors from 4 to 100 hp
- 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 dismantable 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 4 to 10 hp

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

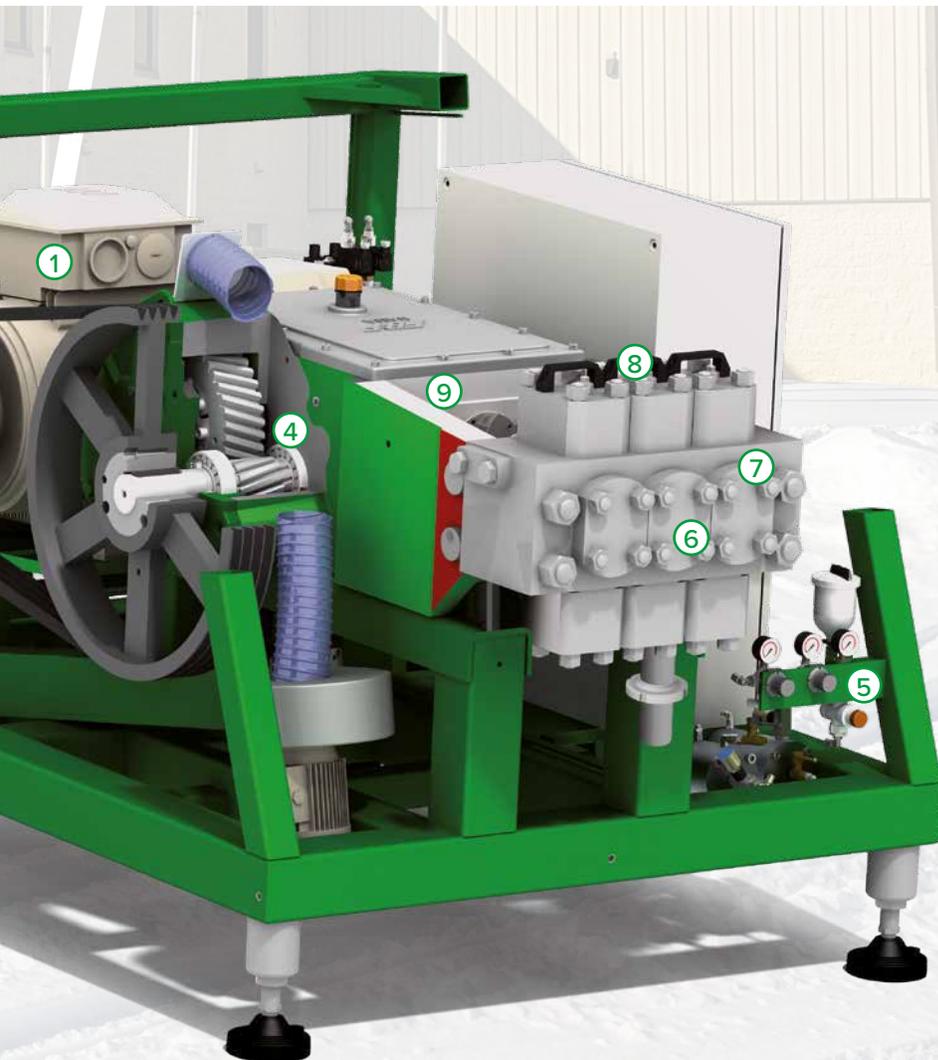
available options

- 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

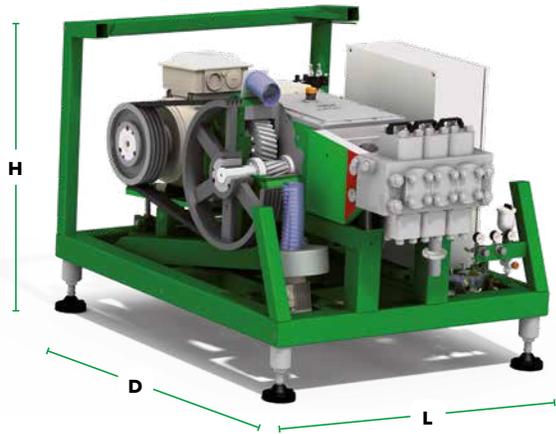
kit

- 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





Images refer to models starting from the FBF5030P

TECHNICAL FEATURES

Pump Model	Dimensions	Weight	Power	Maximum flow rate at (for high viscosity products)*				
	(L x D x H)	(about)	(min - max)	600 Psi	1,200 Psi	1,800 Psi	2,400 Psi	3,000 Psi
	Inch	Lbs	Hp	Gph	Gph	Gph	Gph	Gph
FBF3011P	39 x 51 x 39	1,000	4 - 15	720	720	360	360	360
FBF4022P	45 x 55 x 47	1,800	15 - 30	1,500	1,500	1,100	720	720
FBF5030P	47 x 61 x 51	2,700	25 - 40	-	-	1,500	1,080	900
FBF6045P	53 x 75 x 55	4,000	20 - 60	3,480	3,000	2,100	1,800	1,300
FBF7075P	59 x 83 x 59	5,500	40 - 100	3,600	3,600	3,300	2,700	2,300
FBF8110P	71 x 87 x 63	7,400	40 - 150	7,200	7,200	6,300	4,600	4,000
FBF9160P	75 x 102 x 71	11,700	60 - 220	-	-	7,200	6,600	5,300

* 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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