



HIGH PRESSURE POSITIVE DISPLACEMENT PISTON PUMPS



MAIN technical features

- Standard flow rate from 180 to 3000 gph
- Standard pressure range from 600 to 3000 psi
- 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

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.

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

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

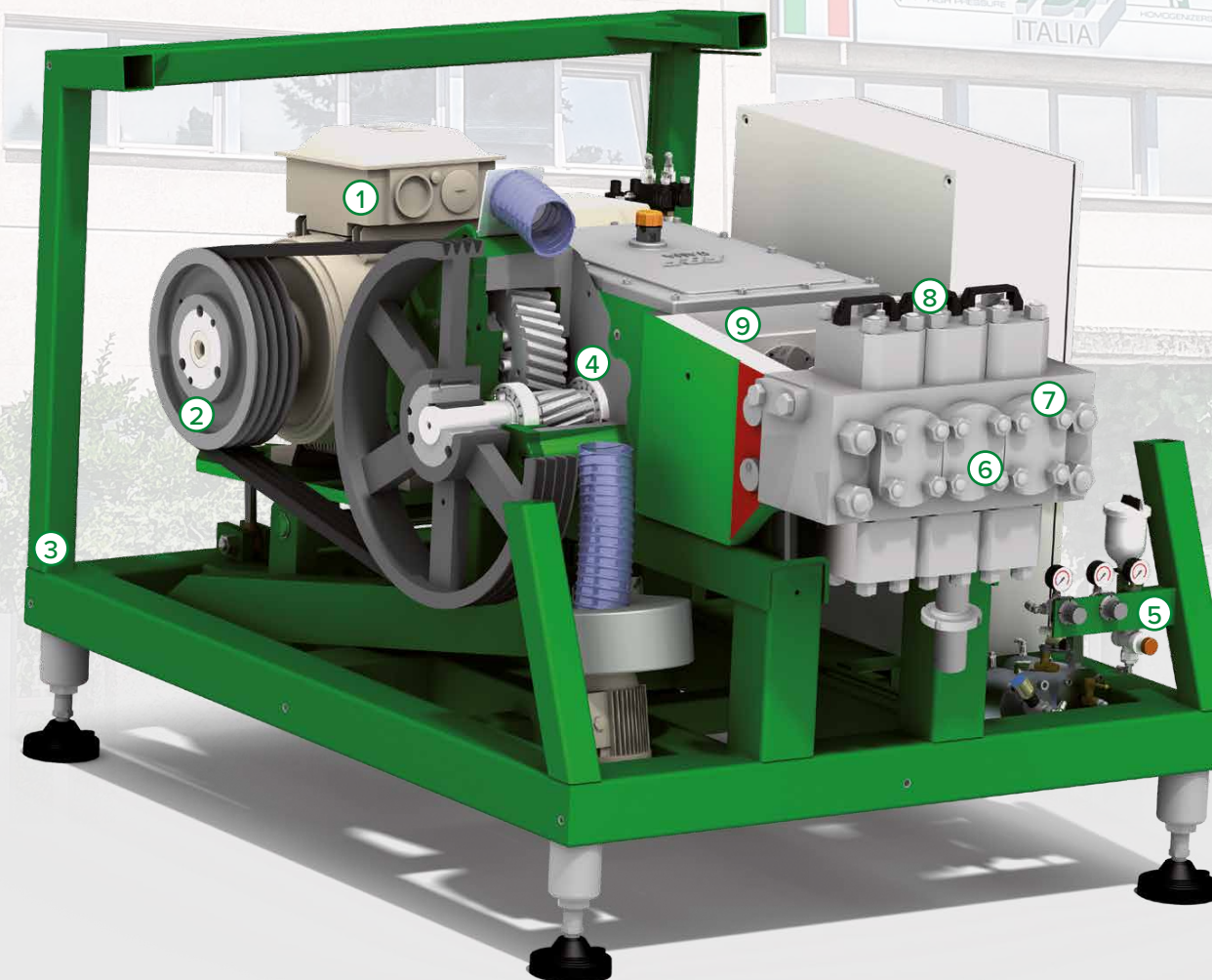
- Initial set of spare parts supplied with the machine includes the following: full set of gaskets, a set of valves springs and a complete overpressure valve set, set of ordinary maintenance tools, lubricating oil, instruction and maintenance manuals (2 copies + CD ROM)

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



⑤ LUBRICATION
Oil splash type up to FBF series 3 and pressurized type from FBF series 4 onwards

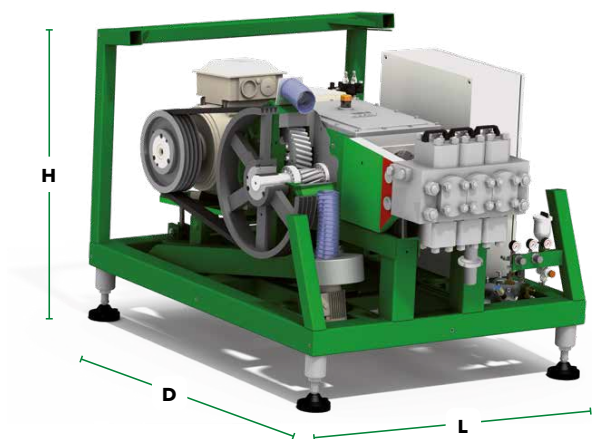
⑥ COMPRESSION HEAD
With multi blocks for easy access and inspection. The head is guaranteed 5 years against cracking

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				
	<i>L x D x H</i>	<i>about</i>	<i>min - max</i>	<i>600 psi</i>	<i>1,200 psi</i>	<i>1,800 psi</i>	<i>2,400 psi</i>	<i>3,000 psi</i>
	<i>inch</i>	<i>Lbs</i>	<i>kW</i>	<i>Gph</i>	<i>Gph</i>	<i>Gph</i>	<i>Gph</i>	<i>Gph</i>
FBF3011P	39 x 51 x 39	1,000	3 – 11	720	720	360	360	360
FBF4022P	45 x 55 x 47	1,800	11 – 22	1,500	1,500	1,100	720	720
FBF5030P	47 x 61 x 51	2,700	18.5 – 30	-	-	1,500	1,080	900
FBF6045P	53 x 75 x 55	4,000	15 – 45	3,480	3,000	2,100	1,800	1,300
FBF7075P	59 x 83 x 59	5,000	30 – 75	3,600	3,600	3,300	2,700	2,300
FBF8110P	71 x 87 x 63	7,400	30 – 110	7,200	7,200	6,300	4,600	4,000
FBF9160P	75 x 102 x 71	11,700	45 - 160	-	-	7,200	6,600	5,300

Note: additional flow rates and pressures are available upon request

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