

High Pressure Triplex Plunger Pump VC57 Series Technical Datasheet

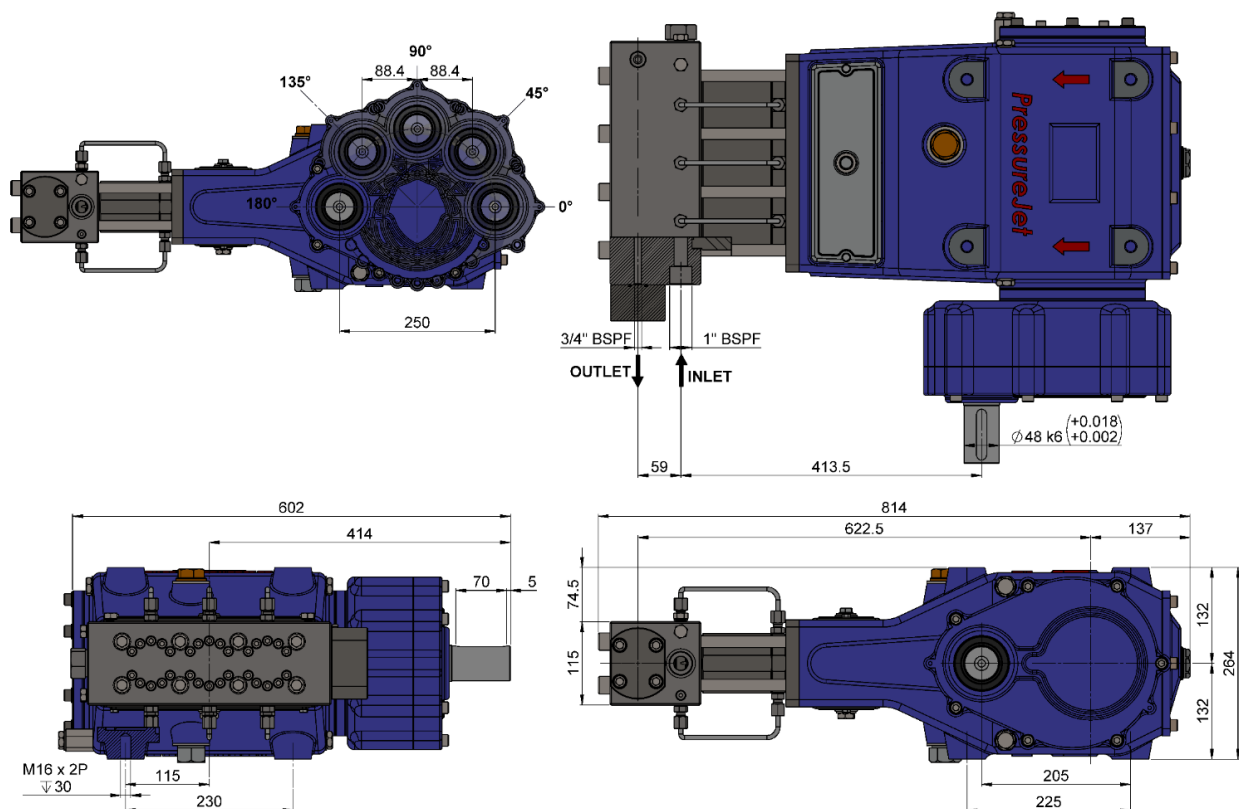
Model Selection Chart

Model	Flow Rate in LPM (GPM)	Max. Rated Pressure in BAR (PSI)	
		50 HP	60 HP
VC-57-14	15 (3.96)	1200 (17404)	1400 (20305)
VC-57-16	20 (5.29)	850 (12328)	1050 (15228)
VC-57-18	26 (6.78)	750 (10877)	860 (12473)
VC-57-20	32 (8.46)	600 (8702)	740 (10732)

Note:

1. All flow is based on 100% volumetric efficiency. Actual flow will be $\geq 85\%$.
2. Max. SPM is 600 with 1500 RPM motor (Gear ratio-2.48:1 & 50 Hz) & Max. SPM is 600 with 1800 RPM motor (Gear ratio-3:1 & 60 Hz)

Dimension



Note: All dimensions are in mm & approximately weight of bare pump is around 235 Kg.

Salient Features

- Manufactured on state-of-art machinery.
- Field proven design.
- Rigorously Subjected to full load testing.
- Light in weight & Heavy-duty construction with Heavy duty model.
- Splash lubrication.
- Easy Maintenance.
- Both sides mounting available.
- Pressure packing design with integrated cooling system for long life of seal.
- Forged Stainless steel Pump Head construction with high strength.
- In line Suction – Discharge Valve.

Technical Specifications

- Stroke length: 57 mm
- Max. plunger speed: 1.14 m/sec. @ 600 SPM
- Plunger force: 23.5 KN (2400 kgf)
- Inlet pressure min.-max.: 2-3 Bar (Booster pump flow require minimum 1.5 times of rating flow)
- Oil type: Gear oil 220
- Oil capacity: 12 Ltrs.
- Max. permissible oil temp.: Room temp.+ 50°C
- Max. inlet water temp.: 5°C to 43°C
- Inlet connection: 3/4" BSP (Both female type connection)
- Outlet connection: 1" BSP (Both female type connection)

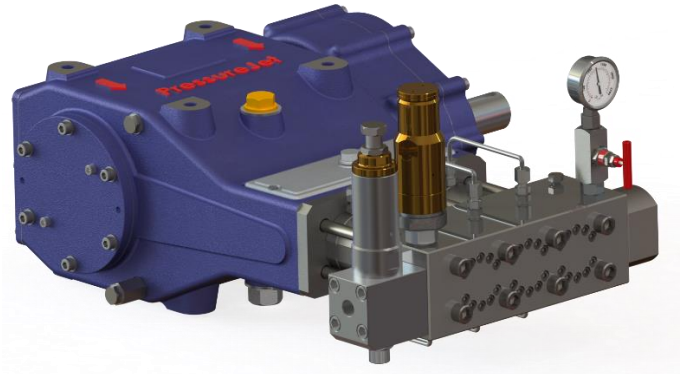
Types of Systems

- Skid mounted system with electric motor and diesel engine
- Trolley mounted system with electric motor and diesel engine
- Road going trailer with electric motor and diesel engine

- All unit available in four side cover or canopy on request

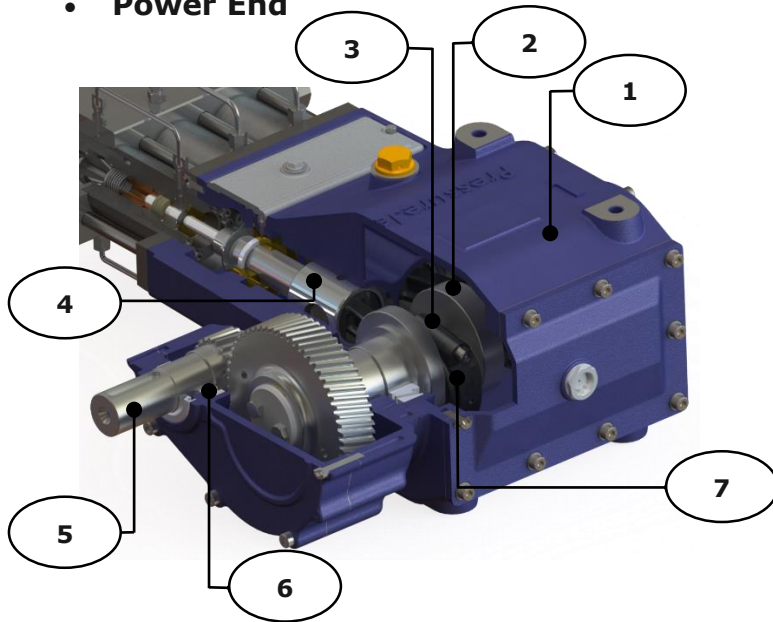
Application

- Hydro jetting
- Hydro blasting



Material of Construction

• Power End



1. Main body / Crank case

Gray cast iron IS 210-1993-Gr. FG260 (Tensile Strength of 260 N/mm²) with cross head bore **surface finish <0.2 Ra** for low friction & low temperature with more mechanical efficiency. **All GD&T are maintained at 0.010 micron.**

2. Crankshaft

Forged alloy steel Crankshaft, nitride hardened and precision ground for extremely long life and durability. Surface roughness is extremely good i.e. **<0.2 Ra**.

3. Connecting Rod

Alloy forged steel connecting rods with antifriction bearings. Heavy pin area construction, for added load strength. **All GD & T are maintained at 0.010 micron.** (Pressure Jet is only Indian manufacturer for such connecting rod)

4. Cross head & Pin

Ductile Iron crosshead & stainless-steel piston rod are hardened & having super finish surface. Finish **Ra 0.2 micron** for low friction, low temperature & higher mechanical efficiency. Cross head pin made from the alloy steel. **All GD & T are maintained at 0.010 micron.**

5. Integrated Gear Unit

Forged Alloy Steel Pinion shaft, nitride hardened and precision ground for extremely long life and durability. **Surface roughness is extremely good i.e. <0.3 Ra & Accuracy class DIN-6.**

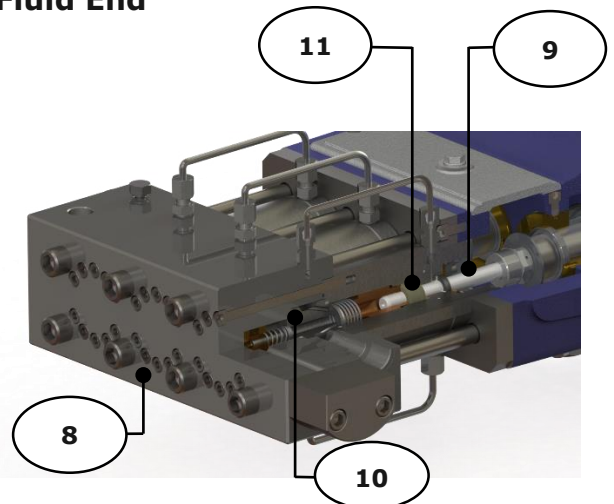
6. Bearing

Oversized for maximum life and load disbursement. Tapper Roller bearing enables it to handle 26% more load than other Pumps.

7. White Metal Bearing

Antifriction bearings for long life of crankshaft.

• Fluid End



8. Pump Head

Pump Head made of high Resistance, **forged Stainless steel heat treated with chemical and UT tested.**

9. Plunger

Primarily composed of **Solid ceramic**. Surface roughness is extremely good for long life of the plunger seal i.e. **<0.025 Ra. All GD & T are maintained at 0.010 micron.**

10. Complete Valve

Valves made of special **imported stainless steel** - hardened & anti corrosion hard surface coated for long life. High volumetric efficiency valves operate at 95% efficiency plus.

11. Plunger Seal

Special Teflon base high-pressure seal molded for high compressive & tensile strength ensure effective sealing.

Contact us

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