

High Pressure Triplex Plunger Pump VA57 Series Catalogue

Model Selection Chart

Max. SPM is 500 with 1500 RPM motor (Gear ratio 3:1)

Max. SPM is 600 with 1500 RPM motor (Gear ratio 2.48:1)

Max. SPM is 800 with 1500 RPM motor (Gear ratio 1.86:1)

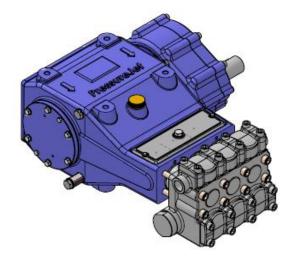
Model	SPM	Flow Rate in LPM (GPM)	Max. Rated Pressure in Bar (PSI)			
			40 HP	50 HP	60 HP	
VA-57-36	500	87 (22.9)	175 (2538)	205 (2973)	-	
VA-57-36	600	104 (27.4)	140 (2030)	180 (2610)	205 (2973)	
VA-57-40	500	107 (28.2)	140 (2030)	165 (2393)	-	
VA-57-40	600	129 (34.7)	120 (1740)	145 (2103)	165 (2393)	
VA-57-36	800	139 (36.7)	110 (1590)	130 (1885)	-	
VA-57-45	600	163 (43.1)	95 (1377)	115 (1660)	130 (1885)	
VA-57-50	500	168 (44.3)	90 (1300)	105 (1522)	-	
VA-57-40	800	172 (45.4)	85 (1233)	105 (1522)	130 (1885)	
VA-57-50	600	200 (52.8)	75 (1085)	90 (1300)	105 (1522)	

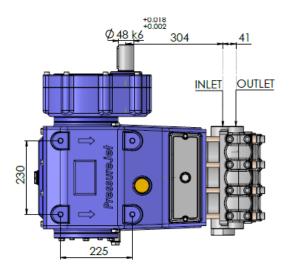
Max. SPM is 600 with 1800 RPM motor (Gear ratio - 3:1)								
Model	SPM	Flow Rate in LPM (GPM)	Max. Rated Pressure in Bar (PSI)					
			40 HP	50 HP	60 HP			
VA-57-36	600	104 (27.4)	140 (2030)	180 (2610)	205 (2973)			
VA-57-40	600	129 (34.7)	120 (1740)	145 (2103)	165 (2393)			
VA-57-45	600	163 (43.1)	95 (1377)	115 (1660)	130 (1885)			
VA-57-50	600	200 (52.8)	75 (1085)	90 (1300)	105 (1522)			

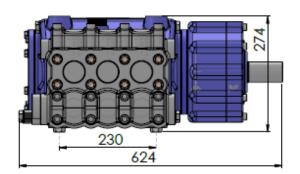
Note: All flow is based on 100% volumetric efficiency. Actual flow will be \geq 90%.

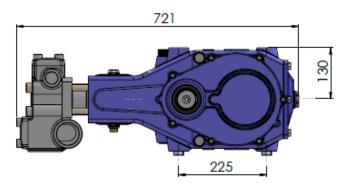


Dimension









Note: All dimensions are in mm & weight of bare pump is 197 Kg approx.

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Salient Features

- Field proven design. Easy field maintenance.
- Casting stainless steel pump head construction with high strength.
- Rigorously subjected to full load testing.
- Manufactured on state-of-the-art machinery.
- Light in weight & heavy-duty construction with intermediate duty model.
- Splash lubrication.
- Both sides mounting available.
- Pump design is suitable for inbuilt gear box & hydraulic motor driven system.

Technical Specifications

• Stroke length: 57 mm

• Max. plunger speed: 1.52 m/sec. @ 800 SPM

Plunger force: <u>2072 kqf</u>)

 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: <u>8 Ltrs.</u>

Max. permissible oil temp.: Room temp.+
50°C

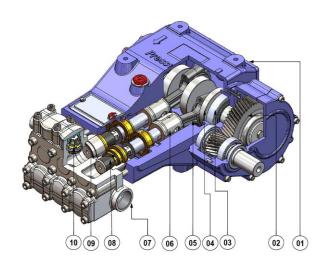
Max. inlet water temp.: 5°C to 60°C

Inlet connection: <u>2" BSPF</u>Outlet connection: <u>1" BSPF</u>

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

Material of Construction



Power End

1. Main body (Crank case)

Grey cast iron IS 210-1993-Gr. FG260 (tensile strength of 260 N/mm²) with cross head bore surface finish <0.2Ra for low friction & low temperature with more mechanical efficiency. All GD&T are maintained at 10 micron.

2. External Helical Gear Box

Alloy steel: Helical gear is nitride hardened and precision ground for extremely long life and durability.

3. Bearing

Oversized for maximum life and load disbursement. Self-alignment roller bearing enables it to handle 26% more load than other pumps.

4. Crankshaft

Forged Alloy Steel crankshaft is made of nitride, hardened and precision ground for extremely long life and durability.

5. Connecting Rod

Forged alloy steel connecting rod with antifriction bearing. Heavy pin area construction, for added load strength.

6. Crosshead Assembly (Piston Rod)

Grey iron casting piston & stainless-steel piston rod are hardened and super finish surface roughness.

Fluid End

7. Pump Head



Pump head is made of high corrosion resistant. Material (SG iron / SS304)

8. Plunger

Primarily composed of ceramic on SS. Surface roughness is extremely good i.e. <0.2 Ra.

9. Plunger Seal

Chevron: - "V" style strong and tightens under load packing for high compressive & tensile strength ensure effective sealing.

10. Valve Assembly

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

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