

## High Pressure Triplex Plunger Pump KD Series Catalogue – 1500 RPM

### Model Selection Chart

**Max. SPM is 435 with 1500 RPM motor (Gear ratio 3.39:1)**

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

Model	SPM	Flow Rate in LPM (GPM)	Max. Rated Pressure in Bar (PSI)			
			100 HP	120 HP	150 HP	180 HP*
KDB-32	435	110 (29.10)	370 (5366)	445 (6454)	525 (7614)	630 (9137)
KDB-36	435	139 (36.77)	285 (4133)	340 (4931)	400 (5801)	-
KDC-40	435	172 (45.50)	225 (3263)	270 (3916)	325 (4713)	-
KDC-40	500	197 (52.11)	200 (2900)	250 (3625)	290 (4206)	350 (5076)
KDC-45	435	218 (57.67)	175 (2538)	210 (3045)	255 (3698)	-
KDC-45	500	250 (66.13)	150 (2175)	200 (2900)	230 (3335)	275 (3988)
KDC-50	435	269 (71.16)	145 (2103)	170 (2465)	205 (2973)	-
KDC-50	500	309 (81.74)	125 (1812)	150 (2175)	185 (2683)	225 (3263)
KDC-55	435	326 (86.24)	120 (1740)	140 (2030)	170 (2465)	-
KDC-55	500	374 (98.94)	100 (1450)	125 (1812)	155 (2248)	185 (2683)
KDC-60	435	367 (97.08)	100 (1450)	120 (1740)	145 (2103)	-
KDC-60	500	445 (117.72)	85 (1232)	100 (1450)	130 (1885)	155 (2248)

Note: All flow is based on 100% volumetric efficiency. Actual flow will be  $\geq 85\%$ .

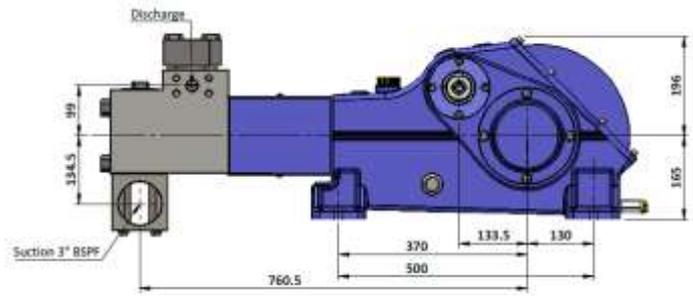
\* Only for Hydro Test applications.

Dimension

**KDB Series Bare Pump Dimensions**



KDB Bare Pump

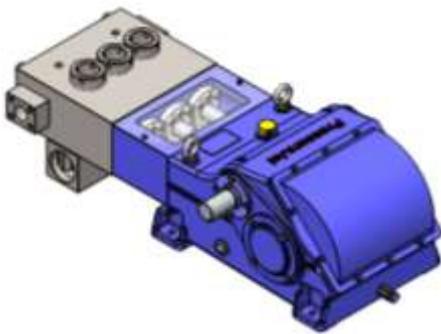


KDB Bare Pump Side View

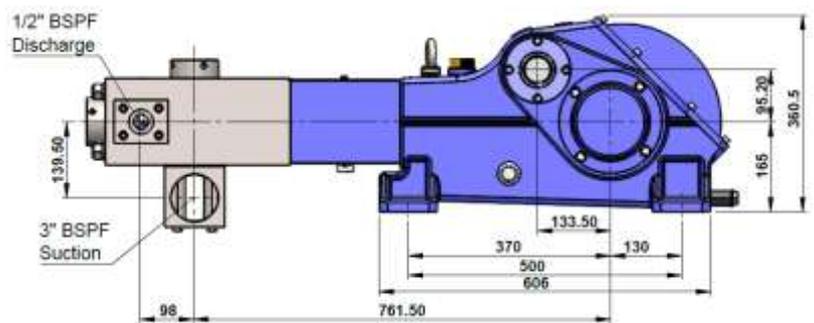


KDB Bare Pump Top View

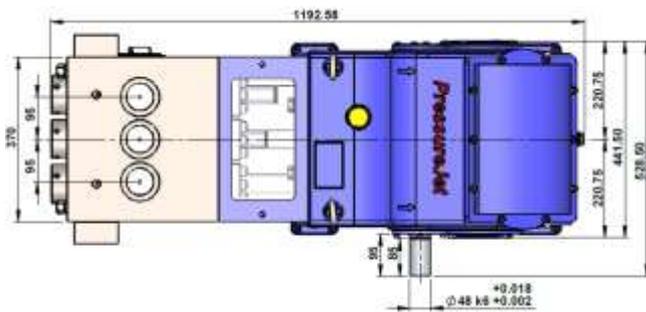
**KDC Series Bare Pump Dimensions**



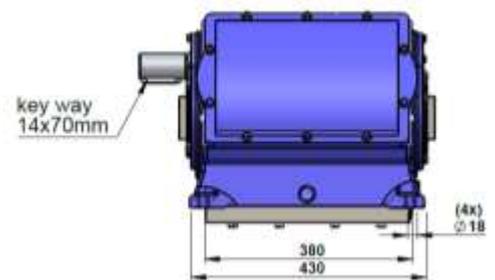
KDC Bare Pump



KDC Bare Pump Side View



KDC Bare Pump Top View



KD Bare Pump Back View

Note: All dimensions are in mm & weight of bare pump is 430 Kg approx.

## Salient Features

- In-built gear box.
- Splash type lubrication system.
- Forced feed lubrication system, as an option available. For more details, please [click here](#)
- Available in 10 versions with two type of head.

## Technical Specifications

- Stroke length: 105 mm
- Max. plunger speed: 1.57 m/sec. @ 435 SPM and 1.75 m/sec. @ 500 SPM
- Plunger force: 39.98 KN (4080 kgf)
- Inlet pressure min.-max.: 3-4 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 60°C
- Inlet connection: 3" BSPF
- Outlet connection: 1 1/2" BSPF

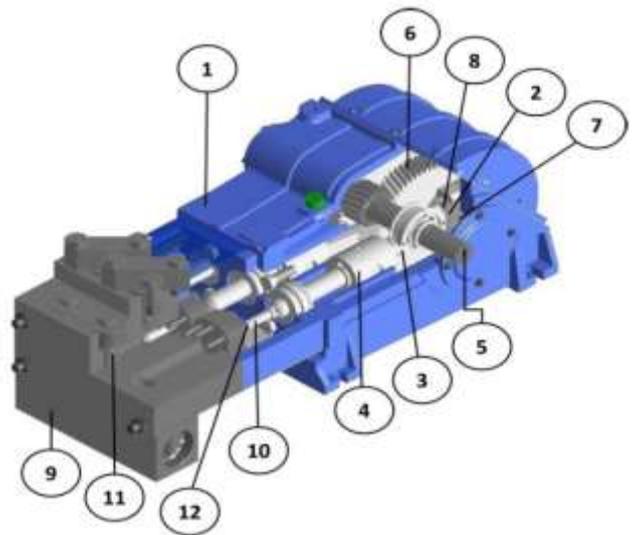
## Types of Systems

- 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 Test
- Descaling
- Metal Powder Atomization
- Sewer Jetting
- Transfer / Injection / Feeding

## Material of Construction



### • Power End

#### 1. Main body (Crank case)

**Grey cast iron** IS 210-1993-Gr. FG26D (Tensile Strength of 260 N/mm<sup>2</sup>) with cross head bore **surface finish <0.2 Ra** for low friction & low temperature with more mechanical efficiency. **All GD&T are maintained at 10 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. **<0.3 Ra.**

#### 3. Connecting Rod

**Alloy forged steel connecting rods** with antifriction bearings. Heavy pin area construction, for added load strength. (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 10 micron.**

**5. Pinion Shaft**

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. Helical Gear**

Alloy steel Double helical, nitride hardened and precision ground for extremely long life with low noise and durability. **Accuracy class DIN-6.**

**7. Bearing**

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

**8. White Metal Bearing**

Antifriction bearings for long life of crankshaft.

• **Fluid End**

**9. Pump Head**

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

**10. Plunger**

Primarily composed of **Tungsten coated**. Surface roughness is extremely good for long life of the plunger seal i.e. **<0.2 Ra.**

**11. 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.

**12. Plunger Seal**

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

## Contact us

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