

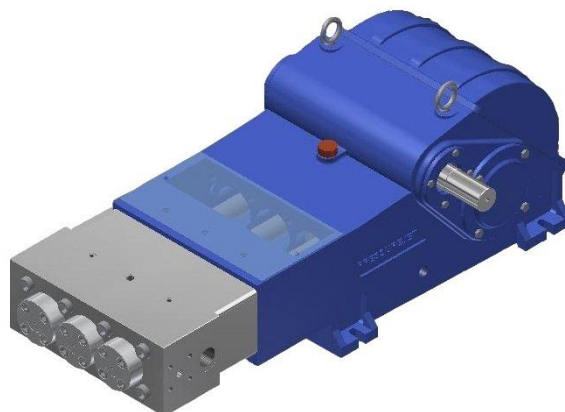
# HIGH PRESSURE PLUNGER PUMP

## KDD Series

Min. Flow rate 30 lpm (7.39 gpm) @ max. Pressure 1400 kg/cm<sup>2</sup> (20000 psi)  
Max. Flow rate 52 lpm (13.74 gpm) @ max. Pressure 750 kg/cm<sup>2</sup> (10670 psi)

### Salient Features

- Pressure packing design with integrated cooling Systems for long life of seal.
- Incorporated Gear box.
- In line Suction / delivery Valve.
- Splash lubrication and also available force feed lubrication with oil cooler / filter request.



### Performance Chart

| Model     | SPM | Flow l/min (gpm) | Max. Rated Pressure-kg/cm <sup>2</sup> (psi) |              |              |
|-----------|-----|------------------|--|--------------|--------------|
|           |     |                  | 100 HP                                       | 120 HP       | 150 HP       |
| KDD 20-75 | 435 | 30 (7.93)        | 1250 (18130)                                 | 1400 (20000) | -            |
| KDD 20    | 500 | 43 (11.36)       | 900 (12800)                                  | 1000 (14225) | 1400 (20000) |
| KDD 22    |     | 52 (13.74)       | 750 (10670)                                  | 880 (12515)  | 1100 (15954) |

### Specification

- Plunger Stroke: 95 mm & 75 mm
- Max. plunger speed: 1.58 m/sec. @ 500 spm
- Plunger force: 43 kN (4385 kgf)
- Inlet Pressure min./max.: 4-7 bar (Booster Pump flow require min. 1.5 times of rating flow)
- Oil Type: 80W 90
- Oil capacity: 11 ltr.
- Max. Liquid Temp.: 70 °C (160 °F)
- Discharge Connection: Ø 16 Hole (as per drawing)
- Suction Connection: 1 1/2" BSPF

**Note:** All flows are based on 100% volumetric efficiency. Volumetric efficiency will be ≥ 90%.

### Type of systems – Complete systems available various type

- Stationary unit with electric motor
- Stationary unit with diesel engine
- Mobile unit with electric motor
- Mobile unit with diesel engine
- Road going trailer with electric motor
- All unit available in 4 side cover or canopy on request

### Applications



High Pressure Pipe Test



Cross Country Pipe Test



Boiler Pressure Test

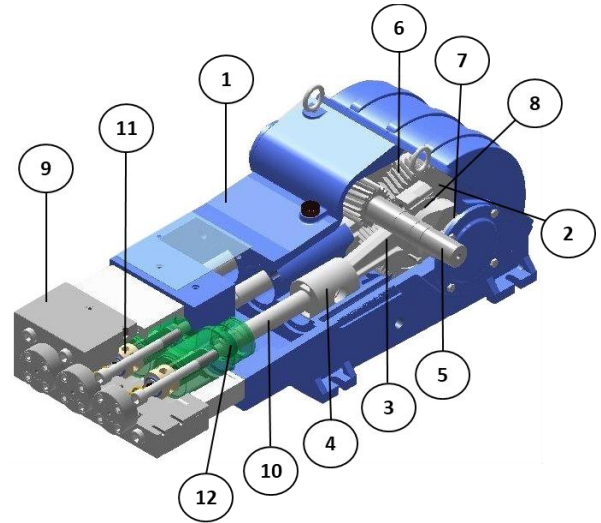
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### Power End

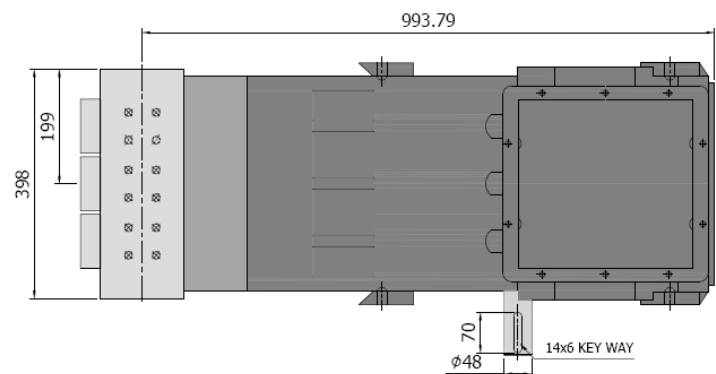
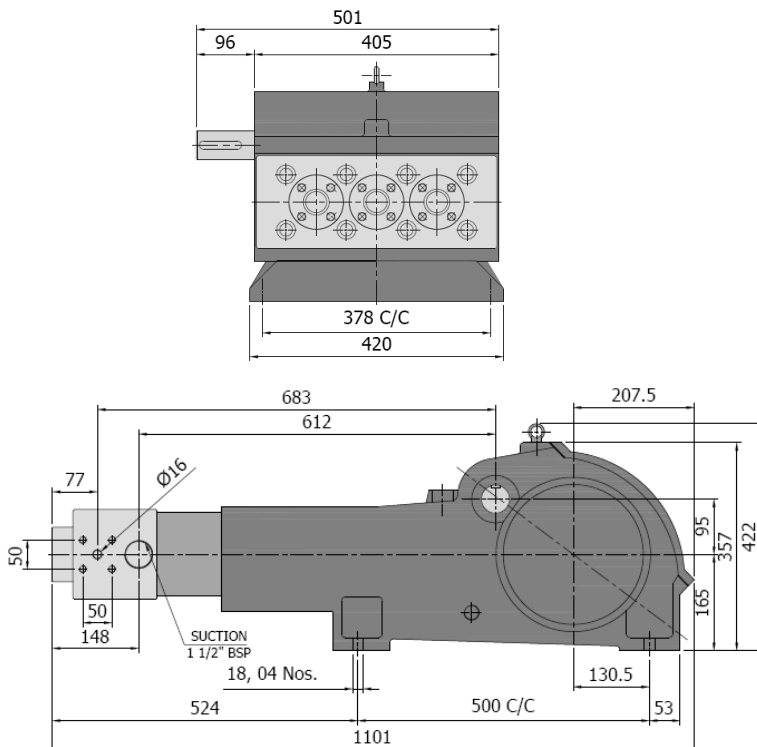
- 1. Main Body / Crank Case**  
**Spheroidal Graphite Iron:** Main body in spheroidal graphite Iron casting with honned surface finish bore.
- 2. Crankshaft**  
**Alloy steel:** Crankshaft is made of nitrated, hardened and precision ground for extremely long life and durability.
- 3. Connecting Rod**  
**Alloy Steel:** Forged steel connecting rods with antifricition bearings. Heavy pin area construction, for added load strength.
- 4. Piston / Cross Head**  
**Grey Iron & Stainless Steel:** Alloy steel casting piston & stainless steel piston rod are hardened & super finish surface.
- 5. Pinion Shaft**  
**Alloy steel:** Pinion shaft is nitride hardened and precision ground for extremely long life and durability.
- 6. Helical Gear**  
**Alloy steel:** Helical gear is nitride hardened and precision ground for extremely long life and durability.
- 7. Bearing**  
**SKF:** Oversized for maximum life and load disbursement. Self alignment roller bearing enables it to handle 26% more load than other pumps.
- 8. White Metal Bearing**  
Antifricition bearings for long life of crankshaft.



### Fluid End

- 9. Liquid End / Cylinder**  
**Stainless Steel:** Liquid end is made of high corrosion resistant. Forged stainless steel.
- 10. Plunger Ceramic / Solid Ceramic**  
Primarily composed of solid ceramic for long life of seal. Surface roughness is extremely good i.e. <0.2 Ra.
- 11. Complete Valve**  
**Stainless Steel:** Valves made stainless steel for hardened & anti corrosion hard surface coated for long life. High volumetric efficiency valves operate at 95% efficiency plus.
- 12. Plunger Seal**  
**Special PTFE:** High pressure seal & NBR low pressure sealing with cooling systems.

### Dimension



Approx weight of bare pump: 390 Kg

## PressureJet Systems Pvt. Ltd.

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