PressureJet™
EXPLORE THE WATER POWER

High Pressure Hydro Test Pump & Systems

2016

About Company

PressureJet Systems Pvt. Ltd. was established in 1996 in Ahmedabad, India. PressureJet (An ISO 9001:2008 certified company) is a leading manufacturer of high pressure, positive displacement, reciprocating triplex plunger pumps and relevant accessories. These pumps are most suitable for various applications like Water Jet Cleaning, Injection, Hydro test, Crude Oil Transfer & many more.

Today, PressureJet has a work force of more than 85 dedicated People. We have 11000 Sq. ft. area in Asia's premier industrial estate in Ahmedabad. Out of which, 5000 Sq. ft. area has been allocated for manufacturing activities.

Our Quality

MEMBER WJTA IMCA

All components are quality checked in the controlled environment of the Q. C. laboratory. We have the most modern measurement equipment such as 3D CMM (Coordinate Measuring Machine), surface roughness measurement Instrument, hardness tester etc. All components are tracked by barcode system with oracle ERP.

3D modelling is an important aid in designing the technical aspects of engineer's product.
Simulation can really help in making the correct design decisions during the development stage.
At PressureJet, we follow by using all necessary software

Machine Shop



Our Ultra-modern machine shop enables us to manufacture an extremely wide range of components. We can be very flexible in our production planning, while maintaining a high standard of quality with fully automatic machining station. Computer controlled machining stations ensure constant dimensional accuracy.

Assembly & Testing



In this area, all components for the various pump units come together. Pumps and engine or motors are assembled on the skid frame, Accessories such as booster pump, Strainers, PRV, Safety Valve etc. are assembled.

PressureJet products are subject to stringent quality control. All pumps are tested at maximum load prior to dispatch for decided time period. All measurement taken during the testing are electronically stored in computer through fully Automatic Test Bench and then it can be printed. Test report is always provided with the pump.

Store / Service

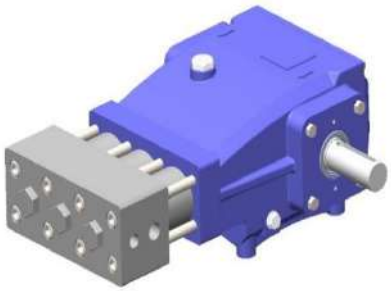

A product is only as good as the service backing it. We have a dedicated team of technicians available for 24 X 7. We keep majority of spares Ex-stock to reduce down time.

Hydro Test Selection Graph

Hydro Test Selection Chart

Sr. No.	Series	Pump Model	SPM	Flow (LPM)	Pressure in kg/cm2 (Motor HP)		
1	TH	TH30-12	400	3	650 (7.5)	425(5)	
			600	5	650 (12.5)	550 (10)	400 (7.5)
			950	8	650 (20)	500 (15)	425 (12.5)
		TH30-14	800	10	475 (15)	375 (12.5)	300 (10)
2	PA	PA 30	730	80	180 (40)	130 (30)	
				61	180 (30)		
			610	51	180 (25)		
		PA 32	950	91	150 (40)	125 (30)	100 (25)
		PA 36		115	120 (40)	99 (30)	80 (25)
		PA 40	730	139	100 (40)	75 (30)	50 (20)
		PA 45		110	100 (30)		
	PB	PB 18	950	27	500 (40)	360 (30)	
		PB 20		25	390 (40)		
		PB 22		43	320 (40)	240 (30)	200 (25)
		PB 25		55	240 (40)	190 (30)	
	PC	PC 12	420	5	1200 (20)	1000 (15)	800 (12.5)
			730	9	1200 (30)	1000 (25)	800 (20)
		PC 14		13	1000 (40)	800 (30)	600 (25)
		PC 16		17	750 (40)	600 (30)	
3	KB	KB 20	430	28	750 (60)	620 (50)	
			530	35	750 (75)	620 (60)	
		KB 22	530	45	840 (100)	625 (75)	500 (60)
		KB 24		52	720 (100)	530 (75)	430 (60)
		KB 26		62	600 (100)	450 (75)	360 (60)
		KB 28		70	510 (100)	375 (75)	310 (60)
		KB 30		80	450 (100)	330 (75)	270 (60)
		KB 32		90	400 (100)	300 (75)	240 (60)
		KB 36		115	315 (100)	230 (75)	190 (60)
		KB 40		145	250 (100)	185 (75)	150 (60)
4	KD	KD 36	435	139	285 (100)		
		KD 40	435	172	270 (120)	225 (100)	
			500	197	295 (150)		
		KD 45	435	218	255 (150)	210 (120)	
			500	250	315 (240)	275 (180)	235 (150)
		KD 50	435	269	205 (150)	170 (120)	145 (100)
			500	309	255 (240)	225 (180)	190 (150)
		KD 55	435	326	170 (150)	140 (120)	120 (100)
			500	374	210 (240)	185 (180)	155 (150)
		KD 60	435	367	120 (120)	100 (100)	
			500	445	180 (240)	155 (180)	130 (150)
5	KDD	KDD 20	435	37	1400 (150)	1250 (120)	1000 (100)
			500	43	1400 (150)	1000 (120)	900 (100)
		KDD 24		62	950 (150)		
		KDD 22		52	1100 (150)	880 (120)	

TH Series

		
Bare Pump	Frame Mounted System	

Specification

- Plunger Stroke: 30 mm
- Max. plunger speed: 0.63 m/sec. @ 950 spm
- Plunger force: 6.71 kN (685 kgf)
- Required Inlet Pressure min./max.: 2 bar (Booster Pump flow require min. 1.5 times of rating flow)
- Oil Type: 15 W 40
- Oil capacity: 3 ltr.
- Max. Liquid Temp.: 70 °C (158 °F)
- Discharge Connection: 3/8" BSPF
- Suction Connection: 1/2" BSPF

Salient Features

- Field proven design. Easy field maintenance.
- Stainless steel fluid end construction.
- Rigorously Subjected to full load testing.
- Manufactured on state of the art machinery.
- Easy Maintained Suction & discharge valve assembly.
- Splash lubrication.
- Pumps available in SS316L, duplex stainless steel and nickel aluminum bronze.

TH Series Model Selection Chart

Pump Model	SPM	Flow (LPM)	Pressure in kg/cm2 (Motor HP)		
PA 30	730	80	180 (40)	130 (30)	
		61	180 (30)		
	610	51	180 (25)		
PA 32	950	91	150 (40)	125 (30)	100 (25)
PA 36		115	120 (40)	99 (30)	80 (25)
PA 40	730	139	100 (40)	75 (30)	50 (20)
PA 45		110	100 (30)		

TH Series

Power End

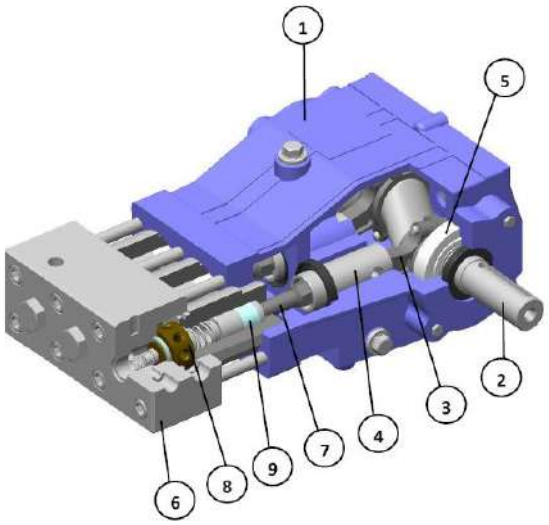
1. Crank Case
Grey Iron: Crank Case in grey iron casting FG-260. With Honned surface finish bore.

2. Crankshaft
Spheroidal Graphite Iron: Crankshaft is made of Spheroidal Graphite Iron casting.

3. Connecting Rod
Alloy Steel: Forged steel connecting rods with antifriction bearings. Heavy pin area construction, for added load strength.

4. Cross Head
Alloy Steel: Alloy steel construction for hard surface coating and super finish.

5. Bearing SKF or equivalent
Oversized for maximum life and load disbursement. Taper roller bearing enables it to handle 26% more load than other pumps.



Fluid End

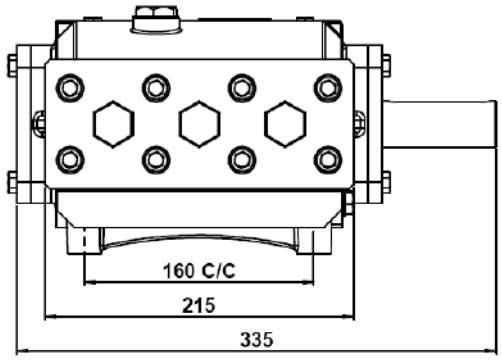
6. Pump Head
Stainless Steel: Liquid end is made of high corrosion resistant SS 316L / duplex stainless steel / nickel aluminum bronze.

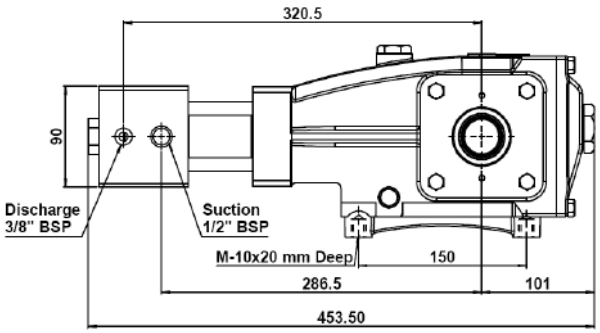
7. Plunger Solid Ceramic
Primarily composed of solid ceramic and surface roughness is extremely good i.e. <0.2 Ra.

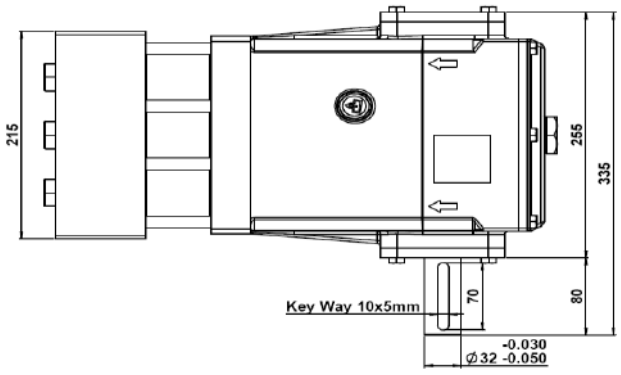
8. Complete Valve
Stainless Steel: Valves made of stainless steel hardened & anti corrosion hard surface coated for long life. High volumetric efficiency valves operate at 95% efficiency plus.

9. Plunger Seal
PTFE Aramide rope: Aramide fiber yarn packing for high compressive & tensile strength ensure effective sealing.

Dimension



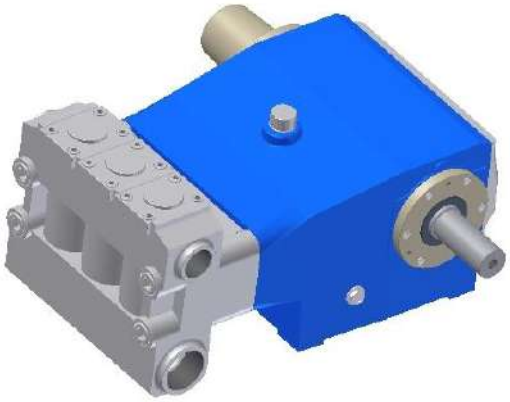




Approx weight of bare pump: 130 Kg

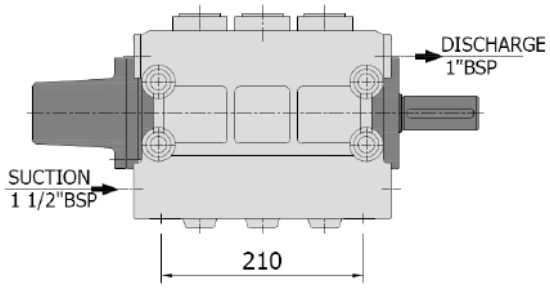
P Series

Specification



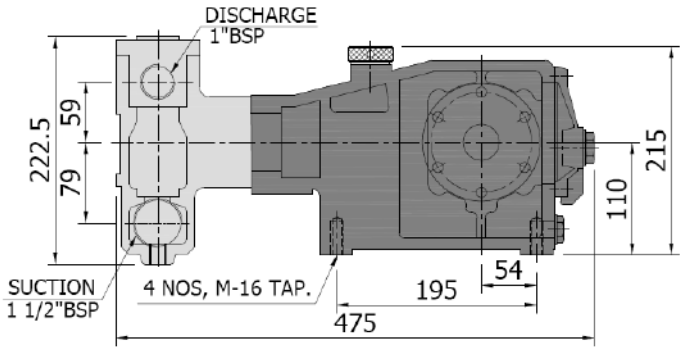
- Plunger Stroke: 40 mm
- Max. plunger speed: 1.26 m/sec. @ 950 spm
- Plunger force: 12.5 kN (1274 kgf)
- Inlet Pressure min./max.: 1 to 3 bar (Booster Pump flow require min. 1.5 times of rating flow)
- Oil Type: 15W 40
- Oil capacity: 4 ltr.
- Max. Liquid Temp.: 70 ˚C (160˚F)
- Discharge Connection: 1" BSPF
- Suction Connection: 1 ½" BSPF
- Medium: Clean water
- Splash lubrication.
- Available direct couple 1000 rpm for 50Hz (Not 60Hz) or pulley – belts drives or gear box.

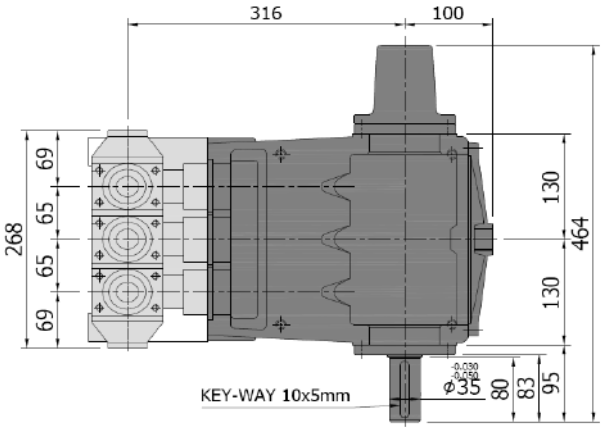
PA Bare Pump - Dimension



P Series Model Selection Chart

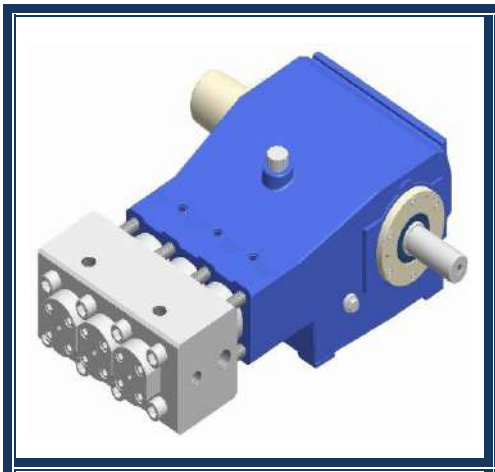
Pump Model	SPM	Flow (LPM)	Pressure in kg/cm2 (Motor HP)		
PA 30	730	80	180 (40)	130 (30)	
		61	180 (30)		
	610	51	180 (25)		
PA 32	950	91	150 (40)	125 (30)	100 (25)
PA 36		115	120 (40)	99 (30)	80 (25)
PA 40	730	139	100 (40)	75 (30)	50 (20)
PA 45		110	100 (30)		





Approx weight of bare pump: 83 Kg

P Series

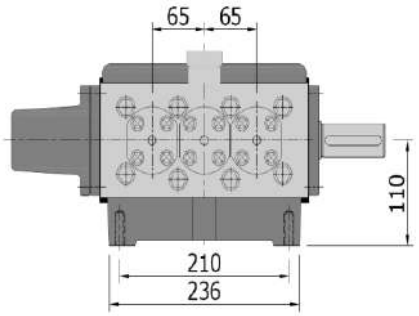


Bare Pump

Frame Mounted System

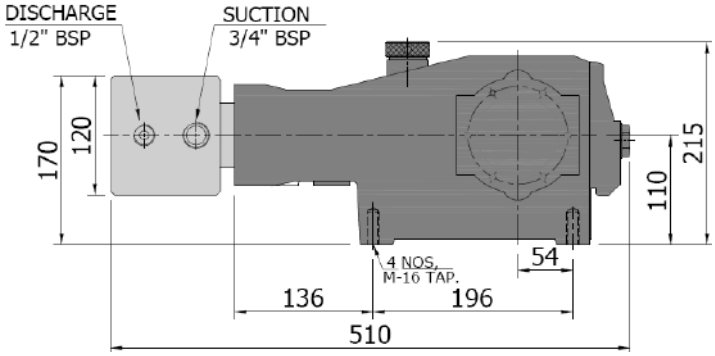
Trolley Mounted System

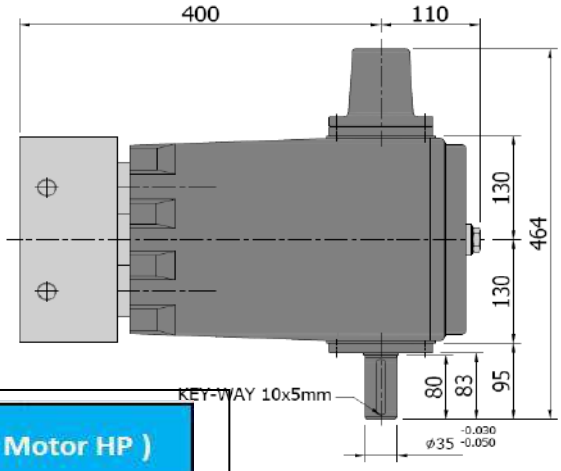
PB Bare Pump - Dimension



Specification

- Plunger Stroke: 40 mm
- Max. plunger speed: 1 .26 m/sec. @ 950 spm
- Plunger force: 12.5 kN (1274 kgf)
- Inlet Pressure min./max.: 2-3 bar
  (Booster Pump flow require min. 1.5 times of rating flow)
- Oil Type: 15W 40, Oil capacity: 5 ltr.
- Max. Liquid Temp.: 70 ˚C (160˚F)
- Discharge Connection: ½" BSPF
- Suction Connection: ¾" BSPF
- Medium: Clean water
- Splash lubrication.
- Available direct couple 1000 rpm for 50Hz
  (Not 60Hz) or pulley – belts drives or gear box.





P Series Model Selection Chart

Pump Model	SPM	Flow (LPM)	Pressure in kg/cm2 (Motor HP)		
PB 18	950	27	500 (40)	360 (30)	
PB 20		25	390 (40)		
PB 22		43	320 (40)	240 (30)	200 (25)
PB 25		55	240 (40)	190 (30)	
PC 12	420	5	1200 (20)	1000 (15)	800 (12.5)
	730	9	1200 (30)	1000 (25)	800 (20)
PC 14		13	1000 (40)	800 (30)	600 (25)
PC 16		17	750 (40)	600 (30)	

Note: (1) Flow rates indicated are at 100% volumetric efficiency. Actual flow rate will be ≥ 90%.
(2) All models are suitable for 50 Hz (1500RPM) and 60 Hz (1800 RPM) power specification.

P Series

Power End

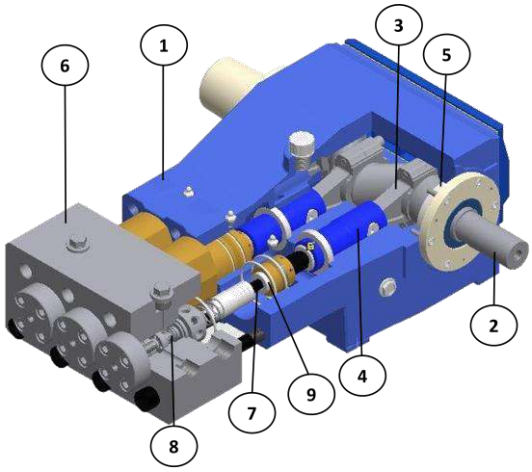
6. Main Body (Crank Case):
Grey Cast Iron: Main body in grey iron casting FG-260. With Honned surface finish bore.

7. Crankshaft:
Spheroidal Graphite Iron: Crankshaft is made of nitrated, hardened and tempered Spheroidal Graphite Iron casting.

8. Connecting Rod:
Alloy Steel: Forged steel connecting rods with antifriction bearings. Heavy pin area construction, for added load strength.

9. Piston (Cross Head):
Alloy Steel: Alloy steel construction for hard surface coating and super finish.

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



Fluid End

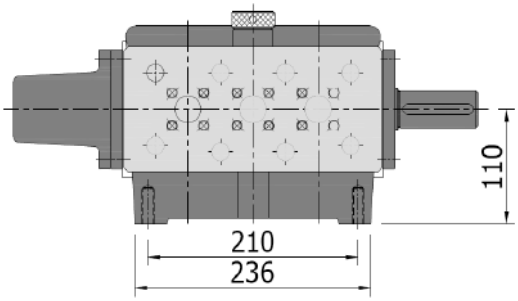
6. Pump Head:
Stainless Steel: Liquid end is made of high corrosion resistant forged SS304.

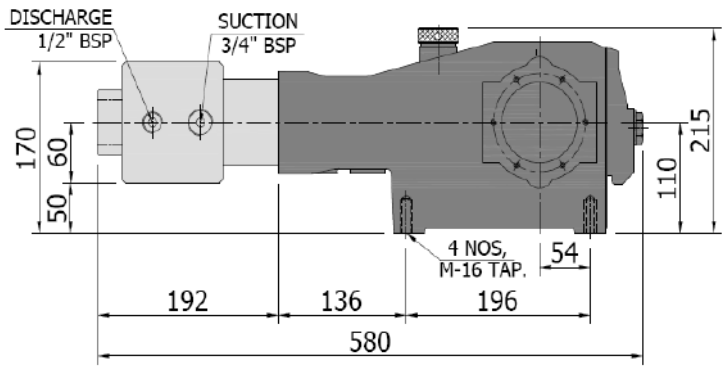
7. Plunger (Ceramic / Tungsten coated):
Primarily composed of ceramic coated or Tungsten coated. Surface roughness is extremely good i.e. <0.2 Ra.

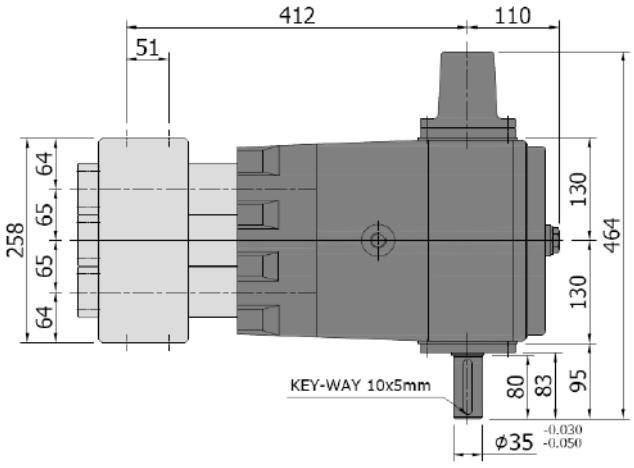
8. Complete Valve:
Stainless Steel: Valves made stainless steel for hardened & anti corrosion hard surface coated for long life. High volumetric efficiency valves operate at 95% efficiency plus.

9. Plunger Seal:
PTFE Aramide: "V" style strong and tightens under load or Aramide fiber yarn packing for high compressive & tensile strength ensure effective sealing.

PC Bare Pump - Dimension







Approx. Weight of bare pump: 85kg

KB Series

		
Bare Pump	**Frame Mounted System**	**Trolley Mounted System**

Specification

- Plunger Stroke: 75 mm
- Max. plunger speed: 1.32 m/sec. @ 530 spm
- Plunger force: 31.28 kN (3190 kgf)
- Inlet Pressure min./max.: 2-3 bar
  (Booster Pump flow require min. 1.5 times of rating flow)
- Oil Type: 80W 90
- Oil capacity: 8 ltr.
- Max. Liquid Temp.: 70 ˚C (160˚F)
- Discharge Connection: Ø G Hole (as per drawing)
- Suction Connection: 2" BSPF
- KB Series Designed in built gear.
- Splash lubrication/ forced feed lubrication

KB Series Model Selection Chart

Pump Model	SPM	Flow (LPM)	Pressure in kg/cm2 (Motor HP)		
KB 20	430	28	750 (60)	620 (50)	
	530	35	750 (75)	620 (60)	
KB 22	530	45	840 (100)	625 (75)	500 (60)
KB 24		52	720 (100)	530 (75)	430 (60)
KB 26		62	600 (100)	450 (75)	360 (60)
KB 28		70	510 (100)	375 (75)	310 (60)
KB 30		80	450 (100)	330 (75)	270 (60)
KB 32		90	400 (100)	300 (75)	240 (60)
KB 36		115	315 (100)	230 (75)	190 (60)
KB 40		145	250 (100)	185 (75)	150 (60)

Note: (1) Flow rates indicated are at 100% volumetric efficiency. Actual flow rate will be ≥ 90%.
(2) All models are suitable for 50 Hz (1500RPM) and 60 Hz (1800 RPM) power specification.

KB Series

Material of Construction of Major Internal Parts

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 antifriction bearings. Heavy pin area construction, for added load strength.

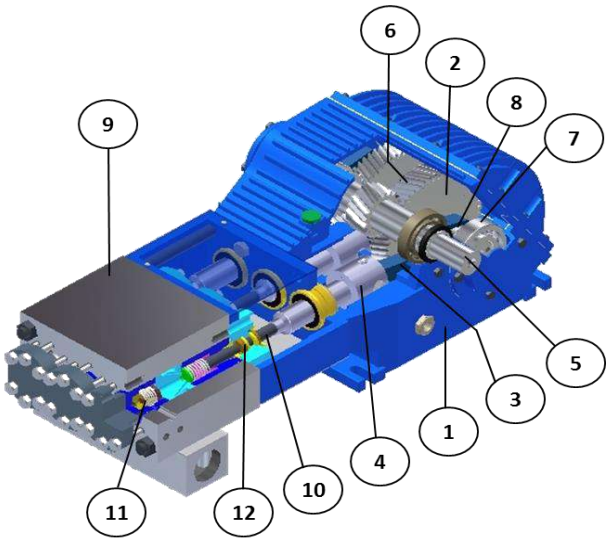
4. Piston (Cross Head)
Grey Iron & Stainless Steel: Alloy steel casting piston & stainless steel piston rod are hardened & super finish surface.

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
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
Antifriction bearings for long life of crankshaft



Fluid End

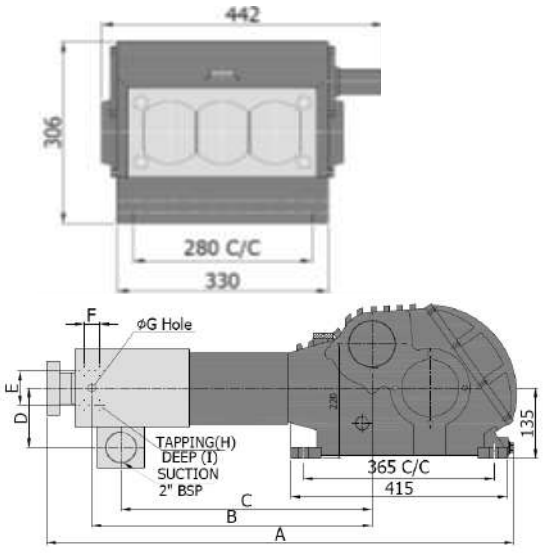
9. Pump Head
Stainless Steel: Liquid end is made of high corrosion resistant. Forged stainless steel.

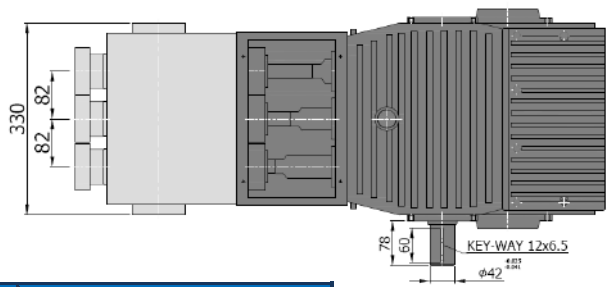
10. Plunger (Ceramic / Tungsten coated)
Primarily composed of ceramic coated or Tungsten coated. Surface roughness is extremely good i.e. <0.2 Ra.

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
PTFE Aramide: Aramide fibre yarn packing with PTFE fibre face or carbonaceous aramide yarn packing with GFO fibre face for high compressive & tensile strength ensure effective sealing.

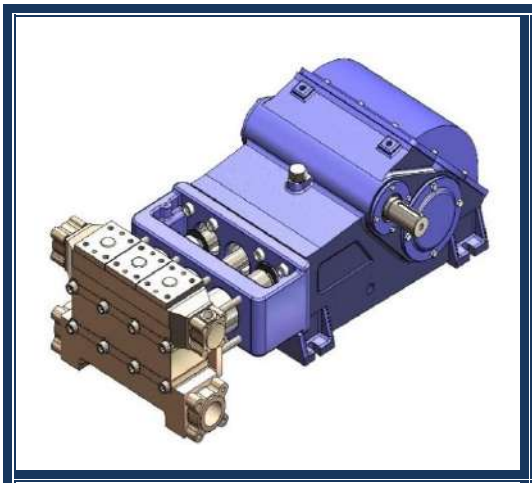
KB Bare Pump - Dimension





DIMENSION	KB 20, KB 22, KB 24	KB 26, KB 28
A	895	802
B	537	397.5
C	481	485
D	114	204
E	65	30
F	30	65
G	Ø 15	Ø 20
H	M – 14	M – 14
I	30	30

KD Series

		
Bare Pump	Frame Mounted System	Trolley Mounted System

Type of systems –

Complete systems available various type

- Stationary unit with diesel engine
- Stationary unit with electric motor
- 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

Specification

- Plunger Stroke: 105 mm
- Max. plunger speed: 1.52 m/sec. @ 500 spm
- Plunger force: 40 kN (4080 kgf)
- Inlet Pressure min./max.: 2-3 bar
- Oil Type: SAE – 80 W 90
- Oil capacity: 8 ltr.
- Max. Liquid Temp.: 70 ˚C (160 ˚F)
- Discharge Connection: ⦰ G Hole (as per drawing)
- Suction Connection: 3" BSPF
- Dimensions: 1044x531x365 (lxbxh) in mm

KD Series Model Selection Chart

Pump Model	SPM	Flow (LPM)	Pressure in kg/cm2 (Motor HP)		
KD 36	435	139	285 (100)		
KD 40	435	172	270 (120)	225 (100)	
	500	197	295 (150)		
KD 45	435	218	255 (150)	210 (120)	
	500	250	315 (240)	275 (180)	235 (150)
KD 50	435	269	205 (150)	170 (120)	145 (100)
	500	309	255 (240)	225 (180)	190 (150)
KD 55	435	326	170 (150)	140 (120)	120 (100)
	500	374	210 (240)	185 (180)	155 (150)
KD 60	435	367	120 (120)	100 (100)	
	500	445	180 (240)	155 (180)	130 (150)

Note: (1) Flow rates indicated are at 100% volumetric efficiency. Actual flow rate will be ≥ 90%.
(2) All models are suitable for 50 Hz (1500RPM) and 60 Hz (1800 RPM) power specification.

KD Series

Material of Construction of Major Internal Parts

Power End

1. Crank Case (Main Body)
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 antifriction bearings. Heavy pin area construction, for added load strength.

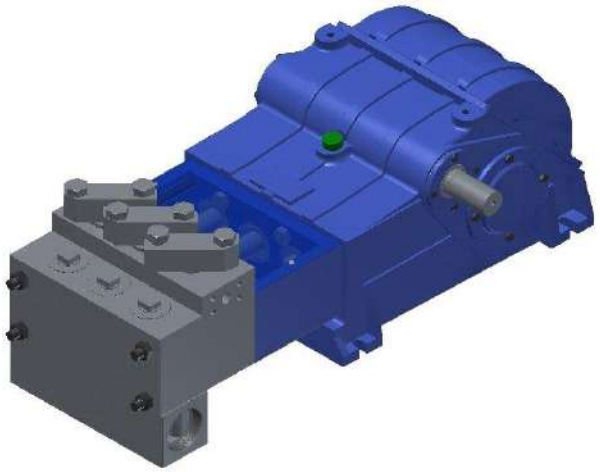
4. Piston (Cross Head)
Grey Iron & Stainless Steel: Alloy steel casting piston & stainless steel piston rod are hardened & super finish surface.

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
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
Antifriction bearings for long life of crankshaft



Fluid End

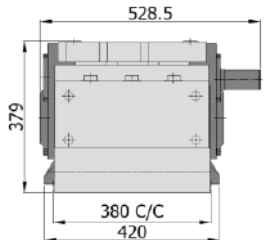
9. Pump Head
Stainless Steel: Liquid end is made of high corrosion resistant. Forged stainless steel.

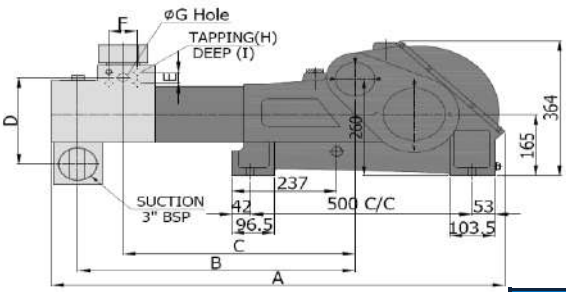
10. Plunger (Ceramic / Tungsten coated)
Primarily composed of ceramic coated or Tungsten coated. Surface roughness is extremely good i.e. <0.2 Ra.

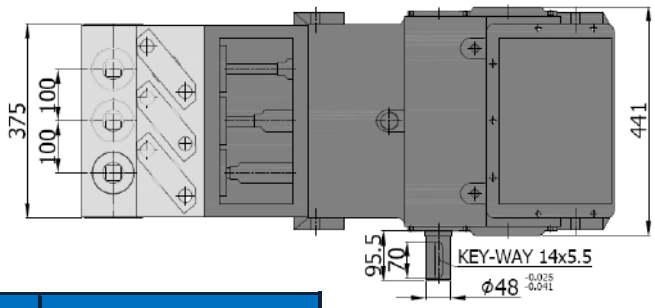
11. Complete Valve
Stainless Steel: Valves made stainless steel for hardened & anti corrosion hard surface coated for long life. High volumetric efficiency valves operate at 95% efficiency plus.

12. Plunger Seal
PTFE Aramide: Aramide fibre yarn packing with PTFE fibre face or carbonaceous aramide yarn packing with GFO fibre face for high compressive & tensile strength ensure effective sealing.

KD Bare Pump - Dimension







DIMENSION	VALVE
A	1026
B	627
C	524
D	232.5
E	30
F	64
G	Ø 22
H	M – 14
I	30

KDD Series

		
Bare Pump	Frame Mounted System	Trolley Mounted System

Type of systems -

Complete systems Available various type

- Stationary unit with diesel engine
- Stationary unit with electric motor
- 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

Specification

- Plunger Stroke: 95 mm
- Max. plunger speed: 1.58 m/sec. @ 500 spm
- Plunger force: 43 kN (4385 kgf)
- Inlet Pressure min./max.: 2-3 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 ½" BSPF
- In –built Gear box.
- In line Suction / delivery Valve.
- Splash lubrication and also available force feed lubrication with oil cooler / filter on request.

KDD Series Model Selection Chart

Pump Model	SPM	Flow (LPM)	Pressure in kg/cm2 (Motor HP)		
KDD 20	435	37	1400 (150)	1250 (120)	1000 (100)
	500	43	1400 (150)	1000 (120)	900 (100)
KDD 24		62	950 (150)		
KDD 22		52	1100 (150)	880 (120)	

Note: (1) Flow rates indicated are at 100% volumetric efficiency. Actual flow rate will be ≥ 90%.
(2) All models are suitable for 50 Hz (1500RPM) and 60 Hz (1800 RPM) power specification.

KDD Series

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 antifriction bearings. Heavy pin area construction, for added load strength.

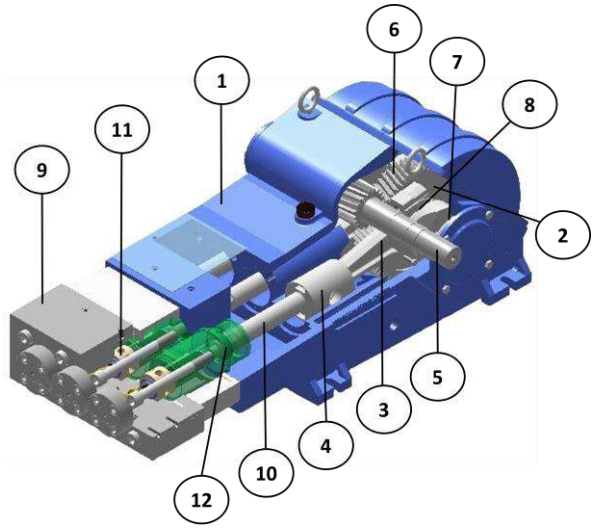
4. Piston (Cross Head)
Grey Iron & Stainless Steel: Alloy steel casting piston & stainless steel piston rod are hardened & super finish surface.

5. Pinion Shaft
Alloy steel: Pinion shaft is nitride hardened and precision ground for extremely long life and durability.7

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

7. Bearing
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
Antifriction bearings for long life of crankshaft.



Fluid End

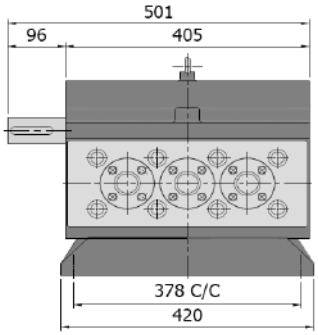
9. Pump Head
Stainless Steel: Liquid end is made of high corrosion resistant. Forged stainless steel.

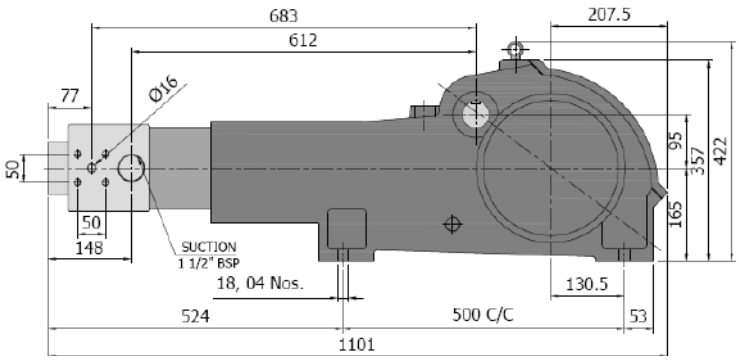
10. Plunger (Ceramic coated / Solid Ceramic)
Primarily composed of Ceramic Coated or solid ceramic for long life of seal. Surface roughness is extremely good i.e. <0.2 Ra.

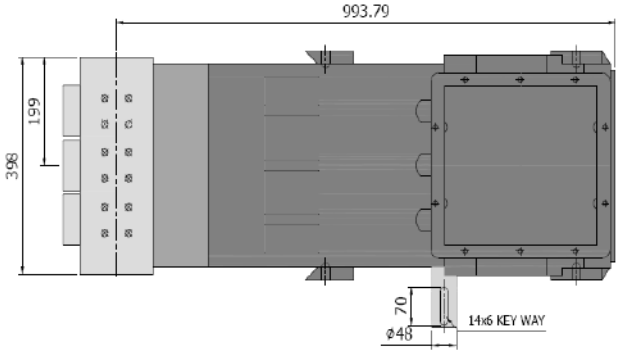
11. Complete Valve
Stainless Steel: Valves made stainless steel for hardened & anti corrosion hard surface coated for long life. High volumetric efficiency valves operate at 95% efficiency plus.

12. Plunger Seal
Special PTFE: High pressure seal & NBR low pressure sealing with cooling systems.

KDD Bare Pump - Dimension

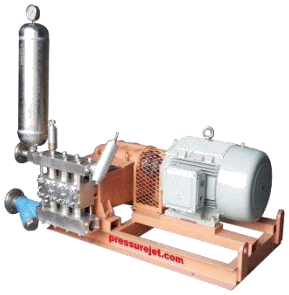






Approx. Weight of Bare Pump – 390 Kg

Various Types of Systems Applications

Accessories

			
Pressure Relief Valve	Pressure Relief Valve	High Pressure Ball Valve	Non Return Valve
			
Strainer	Pressure Gauge	Hose Pipe	Electric Control Panel