KIRIT INDUSTRIES


Since 1959
TM


Address: Nr. Giyanager Society, Opp. Union Co-Operative Bank, Naroda. Ahmedabad-382330, Gujarat, (INDIA).
© (079) $22820417,(079) 22823126$
(10) info@kiritpumps.com
(4) http://www.kiritpumps.com

| Part | Material |  |
| :---: | :---: | :---: |
| Pumps series | Series 11,31,31N, 51, 61 | Series 45 |
| Pump body | Cast Iron | Cast iron |
| Front cover | Cast Iron | Cast Iron |
| Back Cover | Cast Iron | Cast Iron |
| Gears | Cast Iron Spur gears | Helical steel gears |
| Shaft | Steel | Steel |
| Shaft Seal | Nitrile/ NBR rubber oil seal/ silicon rubber oil seal,PTFE gland packing | Nitrile/ NBR rubber oil seal/ silicon rubber oil seal,PTFE gland packing |
| Max operating temp. | 200 * C | 200 * C |
| Base plate | Cast iron \{ not available in 31J, $51,61)$ | N/A |
| Pedestal | Cast iron \{ Not available in 31 J , 51, 61) | N/A |
| 碞 Pulley | Cast iron | N/A |
| …Vey | En-8 | En-8 |
| 'Hex bolts | Steel | Steel |
| Max operating RPM | 400 | 900 |

## APPLICATIONS:

The "K.l" rotary gear pumps are widely used for loading and unloading or transferring of bitumen, tar, Ido, furnance oils, castor oils, vegetable oils, chemicals, molasses, color and paints, soaps, silicate of soda, starch, glue, honey, glycerine and many more other viscous materials from and to the trucks, tankers, other mobile vehicles and plant manufacturing above materials. It is also used in bitumen sprayer machines, road paver machines, sugar mills, rolling mills, foundries. etc.

## Features:

The "K.l" series Rotary Gear Pumps are specially design for all type of viscous liquids.
K.I Special design optimize characteristic for mounting pump on tanker, trucks or any mobile vehicles for loading/Unloading.
$\rightarrow$ Design features easy installation \& maintenance
$\rightarrow$ Wide range of flow rate according to the application
$\longrightarrow$ Different mounting options for suction and delivery options.
$\rightarrow$ Working pressure upto $10 \mathrm{~kg} / \mathrm{cm} 2$, upto 2,50,000 SSU

## Theoretical Flow Capacity



| PUMP TYPE | $\begin{aligned} & \text { SUCTION } \\ & \& \\ & \text { DELIVERY } \end{aligned}$ | CAPACITY @400 rpm |  |  | Pulley |  | Recommended Motor H.P At Different Pressure / Head |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LPM | US | M3/H | Section | V | KG/cm2 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|  |  |  |  |  |  |  | Height <br> in Ft | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| K.l- SSV11 | $\begin{gathered} 11 / 2^{\prime \prime} \times 1 \\ 1 / 2^{\prime \prime} \end{gathered}$ | 182 | 48.7 | 10.92 | A | $\begin{gathered} 15 \times 2 \\ 3 / 4 \\ \hline 1 / 2 \end{gathered}$ | H.P | 1.5 |  |  | 2.5 |  |  |  | 5.0 |  |  |
| K.I- SSV15 | $2^{\prime \prime} \times 2^{\prime \prime}$ | 182 | 48.7 | 10.92 | - | --- | H.P. | 1.5 |  |  | 2.5 |  |  |  | 5.0 |  |  |
| K.I- SSV31 | $2^{\prime \prime} \times 2^{\prime \prime}$ | 254 | 67.1 | 15.24 | A | $\begin{gathered} 15 \times 2 \\ 3 / 4^{n} \end{gathered}$ | H.P. | 2.5 |  |  | 5.0 |  |  |  | 7.5 |  |  |
| K.I.SS31 J | 2" $\times 2$ " | 254 | 67.1 | 15.24 | ---- | --- | H.P. | 2.5 |  |  | 5.0 |  |  |  | 7.5 |  |  |
| $\begin{gathered} \hline \text { K.I-SSV31 } \\ \mathrm{N} \end{gathered}$ | $\begin{gathered} 21 /{ }^{\prime \prime \prime} \times 2 \\ 1 / 2^{\prime \prime} \end{gathered}$ | 323.2 | 85.38 | 19.39 | A | $\begin{aligned} & 15 \times 2 \\ & 3 / 4^{\prime \prime} \end{aligned}$ | H.P | 5.0 |  |  | 7.5 |  |  |  | 10.0 |  |  |
| K.l- SSV45 | $21 / 2^{\prime \prime} \times 2$ | 443.2 | 117.08 | 26.59 | B | $\begin{gathered} 15 \times 2 \\ \substack{1 / 4} \end{gathered}$ | H.P | 7.5 |  |  | 10.0 |  |  |  | 12.5 |  |  |
| K.I-SSV51 | $2^{\prime \prime} \times 2^{\prime \prime}$ | 498 | 131.55 | 29.88 | B | $\begin{gathered} 15 \times 2 \\ 3 / 4^{\prime \prime} \end{gathered}$ | H.P | 7.5 |  |  | 10.0 |  |  |  | 12.5 |  |  |
| $\begin{gathered} \hline \text { K.I-BTV51 / } \\ \text { STV51 } \\ \hline \end{gathered}$ | $2^{\prime \prime} \times 2^{\prime \prime}$ | 498 | 131.55 | 29.88 | B9 | $\begin{gathered} 15 \times 2 \\ 3 / 4^{\prime \prime} \end{gathered}$ | H.P | 7.5 |  |  | 10.0 |  |  |  | 12.5 |  |  |
| K.I.SS51 J | $\begin{gathered} 21 / /^{\prime \prime} \times 2 \\ 1 / 2^{\prime \prime} \end{gathered}$ | 498 | 131.55 | 29.88 | ---- | --- | H.P | 7.5 |  |  | 10.0 |  |  |  | 12.5 |  |  |
| K.I-SS51 N | $21 / 2^{\prime \prime} \times 2$ $1 / 2^{\prime \prime}$ | 498 | 131.55 | 29.88 | --- | --- | H.P | 7.5 |  |  | 10.0 |  |  |  | 12.5 |  |  |
| K.I.SSV61 | $21 / 1_{1 \prime \prime}^{\prime \prime \prime} \times 2$ | 588 | 155.33 | 35.28 | B | $\begin{gathered} 15 \times 2 \\ 3 / 4^{\prime \prime} \end{gathered}$ | H.P | 10.0 |  |  | 12.5 |  |  |  | 15 |  |  |
| $\begin{gathered} \hline \text { K.I- BTV61 } \\ \text { / STV61 } \\ \hline \end{gathered}$ | $\begin{gathered} 21 / / 1^{\prime \prime} \times 2 \\ 1 / 2^{\prime \prime} \end{gathered}$ | 588 | 155.33 | 35.28 | B | $\begin{gathered} 20 \times 2 \\ 3 / 4^{\prime \prime} \end{gathered}$ | H.P | 10.0 |  |  | 12.5 |  |  |  | 15.0 |  |  |
| K.I- SSV61 | $3^{\prime \prime} \times 3^{\prime \prime}$ | 588 | 155.33 | 35.28 | B | $\begin{gathered} 15 \times 2 \\ 3 / 4^{\prime \prime} \end{gathered}$ | H.P | 10.0 |  |  | 12.5 |  |  |  | 15.0 |  |  |
| $\begin{gathered} \hline \text { K.I- BTV61/ } \\ \text { STV61 } \end{gathered}$ | $3^{\prime \prime} \times 3^{\prime \prime}$ | 588 | 155.33 | 35.28 | B | $\begin{gathered} 20 \times 2 \\ 3 / 4 / 1 \end{gathered}$ | H.P | 10.0 |  |  | 12.5 |  |  |  | 15.0 |  |  |
| ASP | DN 50 | 498 | 131.55 | 29.88 | --- | --- | H.P | ---- |  |  | ---- |  |  |  | ---- |  |  |

## Nomenclature- K.I Signature gear pumps

## SS= Side suction and side delivery

V = Pump with pulley
ST= side suction and top devilery ( $90^{*}$ pipe line )
BT= Bottom suction and top delivery ( 180* straight pipe line )
Note:-
Model K.I- SS 11, 15, $31,31 \mathrm{~N}, 45,51 \mathrm{~N}$ comes with 3 port design ( Except 51 N ) with $90^{*}$ pipe line connection Model K.I- SS 51 \& 61 comes with $180^{*}$ side to side connection. And bottom to top connection.

Model K.I- SS15 and 45 are available in helical steel gears and upto max 900 RPM.

## Direction of Rotation

Rotation Direction is determined when facing the drive shaft. The Diagrams will serve as a helpul basis for you to Determine the direction of rotation wanted according to your piping system. We can build the pump at the factory to meet your installation requirements. If the pump build is not specified, it will be shipped the standard " A " Configuration. Once in the filed, If you need to change the configuration, It can be done Easily by Disassembling the pump and rebuilding it to your desired arrangement. No new parts are needed.

Note:- Ths diagrams are for the idea for piping positions, for more details please contact our sales team.

K.I- SS 51 and 61 with or without pulley

K.I pump ST \& BT only available in model STV51, STV61 and BTV51, BTV61



## 45 series

 Heavy Duty PumpsGeneral purpose pumps for industrial and moblile transfer, PTO driven pumps.

## upto 990 LPM upto 125 PSI

These pumps operate smoothly and with equal efficiency in either direction of rotation. They effectively handle heavy, viscous materials such as asphalt, Molasses, Roofing compounds, printing inks, fuel oil, Gasolines and similar thin and thick liquids.

Pumps can be supplied in several materials of construction, with different mounting postions.

## MATERIALS OF CONSTRUCTION

## Standard fitted

Housing....................... Cast iron
Gears............................. Steel
Shafts.......................... Steel
inlet \& outlet
port........................ $2.5^{\prime \prime}$

| Lit/min |  |
| :--- | :--- |
| @900 RPM................... | 990 |
| Speed........................... | 100 to 900 RPM |

Pumps are very techinicaly designed to run directly through pto in automoblies and can be connected to standard gear reduction box. these pumps operate equally well regardless of the mounting configuration or the direction of rotation.


## FEATURES

## Quiet- Running Helical Gears

* Steel made gears are accurately machined for Quiet, efficient operation long life.
* Accurate machined helical gears are easily replaced and reduces down time.


## * Precise machining insures proper

 meshing and reduces friction and vibration.
## Rugged Housing

* Standard Castings are cast iron.
* Precise manufacturing tolerances provide minimum clearances for maximum pumping efficiency.
* Faceplate, housing and blackplates are positively aligned and are very easily replaced with the new one, no skilled required.


## K.I signature Jacketed Rotary gear pump

Kirit Industries "K.I Jacketed Rotary gear pumps are specially design Which are Suitable for liquids which Solidify / Crystallize at room temperature or needs to maintain temperature of the liquids like Bitumen, Coal tar, Asphalt, Wax, Grease, Furnace oil, LSHS, HHS, HFO, Glucose, Soap stock, High viscosity oils, Adhesives, Resin, Ghee, Chocolate etc. Steam or hot oil etc is circulated in the jacket on the pump body to heat the liquid being pumped .

This model is Specially Designed for Bitumen and Asphalt. Model K.I SS31 J and SS51 J. Which comes with $2^{\prime \prime}$ ports and $2,5^{\prime \prime}$ port. This pumps are foot mounted and material of construction is selected for continious and long life of the pump.

This pumps are designed to run at 100 to 400 RPM. Which ensures the best performance in its class. 250000 SSU \& 200 *C max.
Material of construction
Pump casing. WCB
Front cover. ..... Casting
Back cover. Casting
Shaft. ..... steel
Gear. ..... Casting
Flange. Casting
sealing. PTFE/ viton
key ..... EN-8
Hex Bolts ..... steel
jackect end bush. ..... Steel

## RELIEF VALVE

In the event of overpressure situations, our adjustable relief valve protects personnel and equipment by returning liquids to the suction side of the pump. Various spring sizes can be specified to handle a wide range of operating conditions.

Kirit Pump's inverted Poppet relief valve is designed without close fitting guides that can clog and cause excessive pressures when the valve does not open freely. The valve will provide protection in only one direction of rotation.

## Our Available Sealing Options



Oil Seal

Seal Flange

## Our Other Products



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Hitp://www.kiritpumps.com

