

**INTERNAL
GEAR**



REPLICATE

WE CAN MAKE THAT

Replicate Pumps

Replicate pumps are manufactured by a north american group with over 70 years of experience transforming metals and fluid handling. Products range includes general services, industrial and process pumps designed for a range of applications.



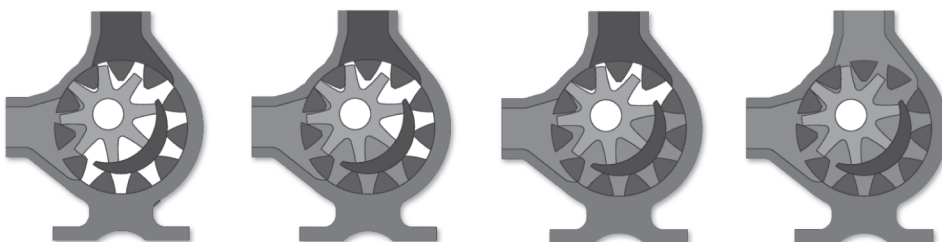
Design types manufactured under Replicate Brand: Internal Gear, Helical Gear, External Gear, Turbine and Centrifugal.

Internal Gear

Internal gear pumps are positive displacement specially designed to handle high viscosity liquids. They are equipped with casings that can be positioned to meet common piping configurations and they have only two mobile parts that make its maintenance easier.

HOW IT WORKS

Liquid enters the suction port between the rotor and idler teeth. Liquid travels through the pump between the teeth of the "gear-within-a-gear" principle. The crescent shape divides the liquid and acts as a seal between the suction and discharge ports. The pump head is now nearly flooded, just prior to forcing the liquid out of the discharge port. Intermeshing gears of the idler and rotor form locked pockets for the liquid which assures volume control. Rotor and idler teeth mesh completely to form a seal equidistant from the discharge and suction ports. This seal forces the liquid out of the discharge port.

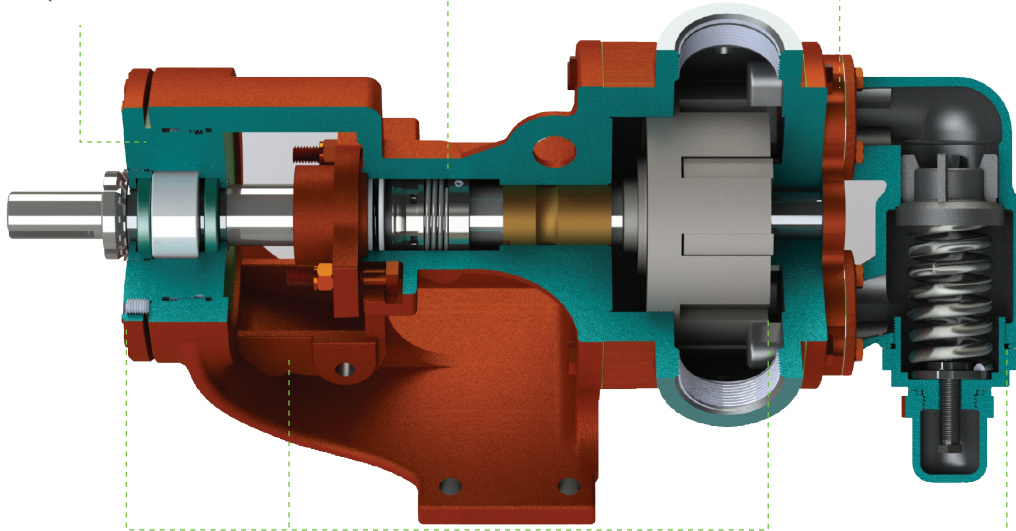


REI SERIES

Threaded bearing housing. Its large diameter allows the cartridge mechanical seal installation (except on REI-AK and REI-AL models).

The stuffing box accepts packing, numerous component mechanical seals, or a wide variety of cartridge seals (except on REI-AK and REI-AL models)

The casing can be rotated in 45° increments permitting eight different port positions.



Rotor end clearance can be adjusted to compensate for wear or for higher temperatures or viscosities by rotating the threaded bearing housing.

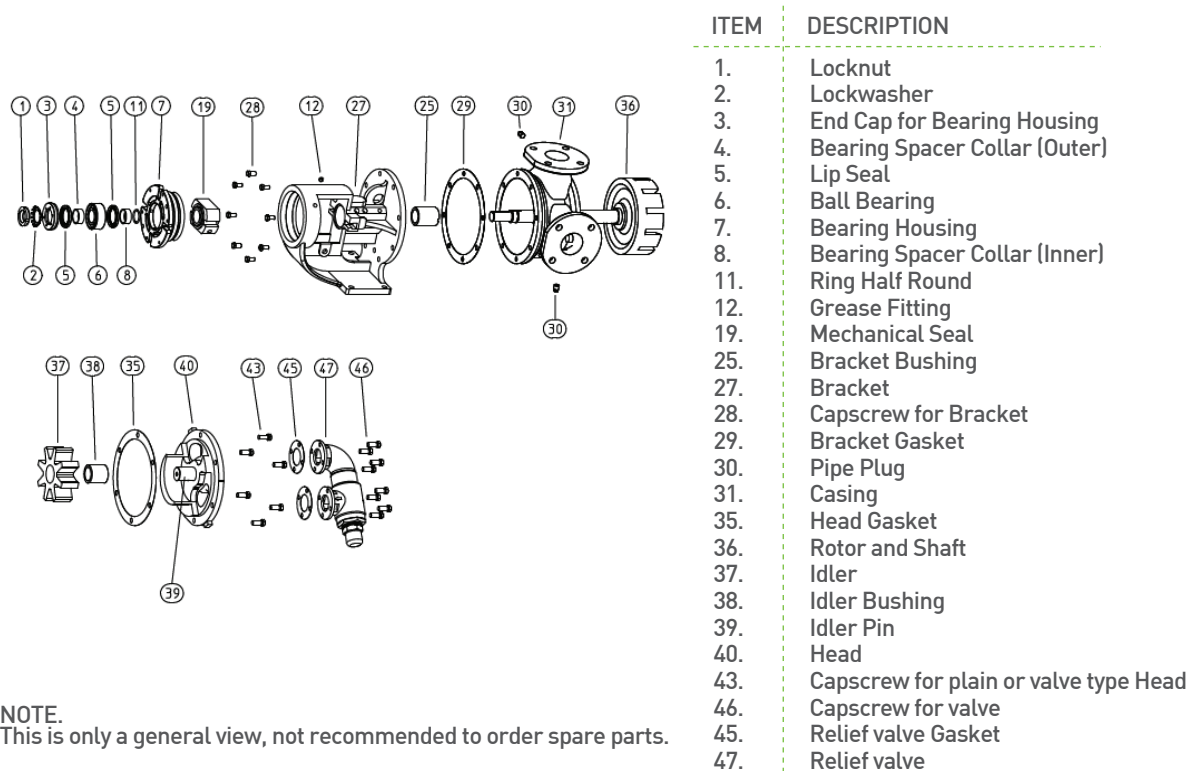
One-piece cast bracket provides rigid foundation to maximize seal and bearing life.

Internal relief valve standard to protect the pump.

FEATURES

- 1.- The stuffing box on all sizes accepts packing, component single mechanical seals, or cartridge seals without modifications.
- 2.- Bearing housing provides easy rotor end clearance adjustment to compensate for viscosity or wear.
- 3.- One-piece Bracket minimizes deflection on shaft.
- 4.- Positive Displacement, Internal Gear pumping principle.
- 5.- Low maintenance cost.
- 6.- Main applications: These pumps are built to continuous or intermittent duty for such applications as circulating, transferring, or service in general industrial, petroleum uses.

GENERAL EXPLODED VIEW



MATERIALS OF CONSTRUCTION

| Bracket | Casing | Head | Rotor ** | Idler ** | Idler Pin/ Rotor Shaft |
|-----------|-----------|-----------|-----------|-----------|------------------------|
| Cast Iron | Cast Iron | Cast Iron | Cast Iron | Cast Iron | Carbon Steel |

| Bushings | Packing | Mechanical Seal | Relief Valve |
|--------------------------|-----------------|-------------------------|--------------|
| Bronze / Carbon Graphite | Teflon Graphite | Buna / Viton (optional) | Iron |

** Depends on operating conditions material can be changed to carbon steel.

GENERAL OPERATING DATA

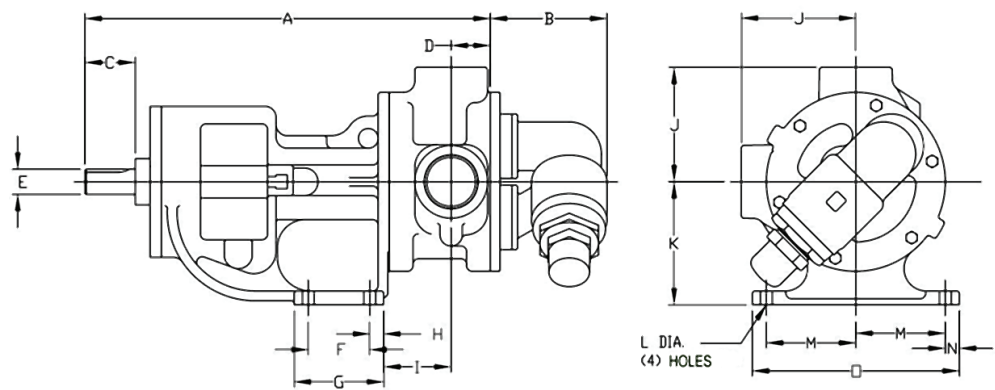
Based on 750 SSU and S.G. 1.0

| | REI-H | REI-HL | REI-AK | REI-AL |
|--------------------------|-------|--------|--------|--------|
| Port Size (in) | 1 ½ | 1 ½ | 2 | 2 |
| Flow (GPM) | 17 | 32 | 54 | 72 |
| Discharge Pressure (PSI) | 200 | 200 | 200 | 200 |
| Speed (RPM) | 1750 | 1750 | 1750 | 1750 |

| | REI-K | REI-KK | REI-L / REI-LQ | REI-LL |
|--------------------------|-------|--------|----------------|--------|
| Port Size (in) | 2 | 2 | 2 / 2 ½ | 3 |
| Flow (GPM) | 79 | 105 | 146 | 149 |
| Discharge Pressure (PSI) | 200 | 200 | 200 | 200 |
| Speed (RPM) | 780 | 780 | 640 | 520 |

| | REI-LS | REI-Q | REI-QS |
|--------------------------|-----------|-----------|-----------|
| Port Size (in) | 3 | 4 | 6 |
| Flow (GPM) | 209 / 137 | 300 / 200 | 470 / 315 |
| Discharge Pressure (PSI) | 150 / 200 | 150 / 200 | 150 / 200 |
| Speed (RPM) | 640 / 420 | 520 / 350 | 520 / 350 |

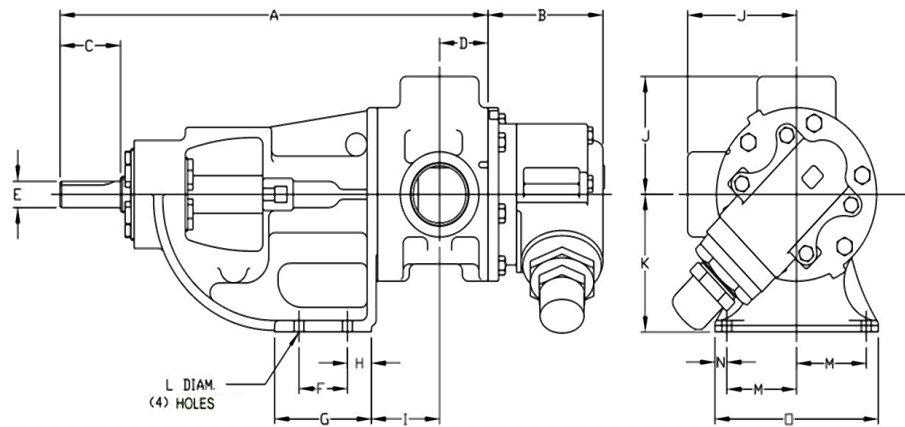
DIMENSIONS



Dimensional Drawing (REI-H, REI-HL, REI-K, REI-KK, REI-L). Dimensions in inches

| Model | A | B | C | D | E (DIA) | E (keyway) | F | G |
|--------|-------|------|------|------|---------|-------------|------|------|
| REI-H | 13.25 | 2.85 | 1.62 | 1.19 | 0.75 | 0.19 x 0.09 | 2.25 | 3.5 |
| REI-HL | 13.25 | 2.85 | 1.62 | 1.19 | 0.75 | 0.19 x 0.09 | 2.25 | 3.5 |
| REI-K | 18.12 | 5.25 | 2.25 | 1.75 | 1.125 | 0.25 x 0.12 | 2.75 | 4.0 |
| REI-KK | 18.12 | 5.25 | 2.25 | 1.75 | 1.125 | 0.25 x 0.12 | 2.75 | 4.0 |
| REI-L | 19.62 | 5.43 | 2.25 | 1.75 | 1.125 | 0.25 x 0.12 | 4.0 | 5.38 |

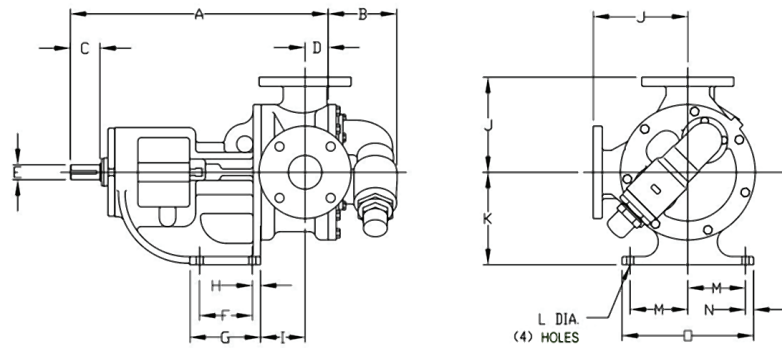
| Model | H | I | J | K | L | M | N | O |
|--------|------|------|------|-----|------|------|------|------|
| REI-H | 0.62 | 3.38 | 3.0 | 3.5 | 0.47 | 2.75 | 0.62 | 6.75 |
| REI-HL | 0.62 | 3.38 | 3.0 | 3.5 | 0.47 | 2.75 | 0.62 | 6.75 |
| REI-K | 0.62 | 3.0 | 5.12 | 5.5 | 0.53 | 4.0 | 0.62 | 9.25 |
| REI-KK | 0.62 | 3.0 | 5.12 | 5.5 | 0.53 | 4.0 | 0.62 | 9.25 |
| REI-L | 0.62 | 3.38 | 6.5 | 7.0 | 0.53 | 4.38 | 0.62 | 10.0 |



Dimensional Drawing (REI-AK, REI-AL). Dimensions in inches

| Model | A | B | C | D | E (DIA) | E (keyway) | F | G |
|--------|-------|-----|-----|-----|---------|-------------|-----|-----|
| REI-AK | 17.68 | 4.8 | 2.5 | 2.0 | 1.0 | 0.25 x 0.12 | 2.0 | 4.0 |
| REI-AL | 17.68 | 4.8 | 2.5 | 2.0 | 1.0 | 0.25 x 0.12 | 2.0 | 4.0 |

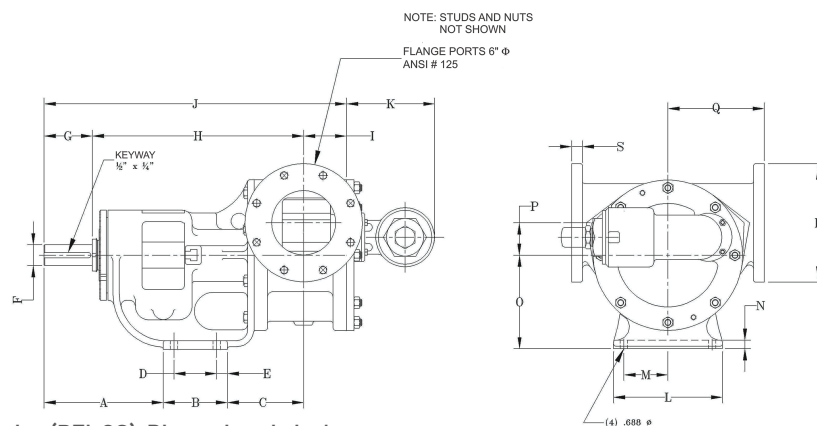
| Model | H | I | J | K | L | M | N | O |
|--------|-----|------|-----|------|------|------|-----|------|
| REI-AK | 1.0 | 2.81 | 4.5 | 5.25 | 0.41 | 2.88 | 0.5 | 6.75 |
| REI-AL | 1.0 | 2.81 | 4.5 | 5.25 | 0.41 | 2.88 | 0.5 | 6.75 |



Dimensional Drawing (REI-LQ, REI-LL, REIS, REI-Q). Dimensions in inches

| Model | A | B | C | D | E (DIA) | E (keyway) | F | G |
|--------|-------|------|------|------|---------|-------------|-----|------|
| REI-LQ | 19.62 | 5.43 | 2.25 | 1.75 | 1.125 | 0.25 x 0.12 | 4.0 | 5.38 |
| REI-LL | 20.12 | 5.43 | 2.25 | 2.25 | 1.125 | 0.25 x 0.12 | 4.0 | 5.38 |
| REI-LS | 21.69 | 5.43 | 3.5 | 2.44 | 1.44 | 0.38 x 0.19 | 4.0 | 5.38 |
| REI-Q | 26.75 | 8.25 | 4.5 | 3.0 | 1.94 | 0.50 x 0.25 | 4.0 | 6.0 |

| Model | H | I | J | K | L | M | N | O |
|--------|------|------|------|------|------|------|------|------|
| REI-LQ | 0.62 | 3.38 | 7.19 | 7.0 | 0.53 | 4.38 | 0.62 | 10.0 |
| REI-LL | 0.62 | 3.38 | 7.19 | 7.0 | 0.53 | 4.38 | 0.62 | 10.0 |
| REI-LS | 0.62 | 4.75 | 7.19 | 7.0 | 0.53 | 4.38 | 0.62 | 10.0 |
| REI-Q | 1.0 | 6.62 | 8.25 | 8.75 | 0.69 | 4.12 | 0.75 | 10.0 |



Dimensional Drawing (REI-QS). Dimensions in inches

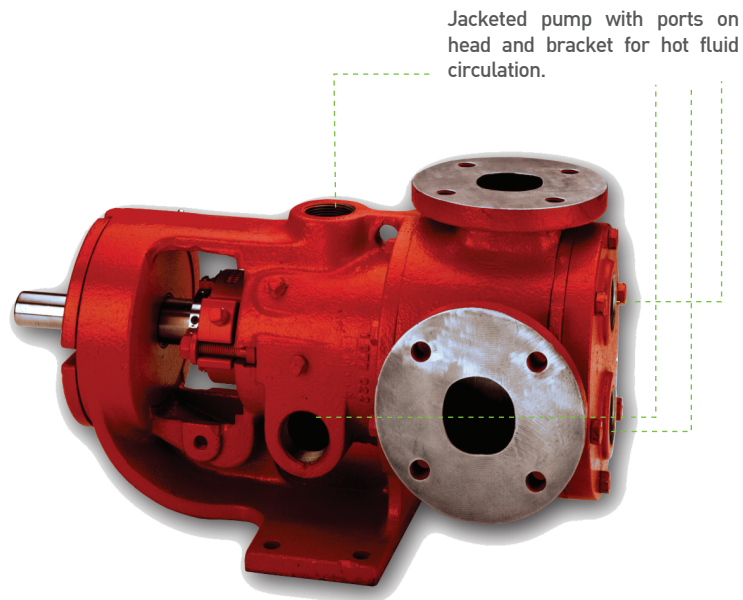
| Model | A | B | C | D | E | F | G | H | I | J |
|--------|-------|------|------|------|------|------|------|-------|------|-------|
| REI-QS | 11.13 | 6.00 | 7.12 | 4.00 | 1.00 | 1.93 | 4.50 | 19.75 | 4.00 | 28.25 |

| Model | K | L | M | N | O | P | Q | R | S |
|--------|------|-------|------|------|------|------|------|-------|-----|
| REI-QS | 8.25 | 10.00 | 4.12 | 0.80 | 8.75 | 3.00 | 9.00 | 11.00 | 1.0 |

JACKETED REI-JKT SERIES

FEATURES

- 1.- Same characteristics as the standard REI series pumps plus the addition of the jacket on bracket and jacket on head.
- 2.- Jacketed pump provide a cavity, or jacket, on the external wall of the pump through which steam or heat transfer liquid can be passed to control the temperature of the fluid in the pump.
- 3.- Without relief valve.
- 4- Main applications: Include “melting ambient temperature solids like asphalt which solidify in the pump when it cools, and maintaining precise temperature control in processes like manufacturing polymers and epoxy resins among other applications in which a temperature control is necessary.



MATERIALS OF CONSTRUCTION

| Jacketed Bracket | Casing | Jacketed Head | Rotor ** | Idler ** | Idler Pin/ Rotor Shaft |
|------------------|-----------|---------------|-----------|-----------|---------------------------|
| Cast Iron | Cast Iron | Cast Iron | Cast Iron | Cast Iron | Carbon Steel |

| Bushings | Packing | Mechanical Seal |
|--------------------------|-----------------|-------------------------|
| Bronze / Carbon Graphite | Teflon Graphite | Buna / Viton (optional) |

** Depends on operating conditions material can be changed to carbon steel.

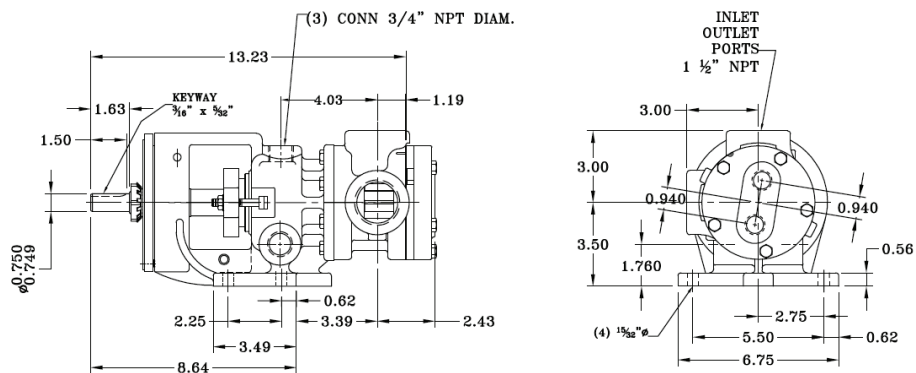
GENERAL OPERATING DATA

Based on 750 SSU and S.G. 1.0

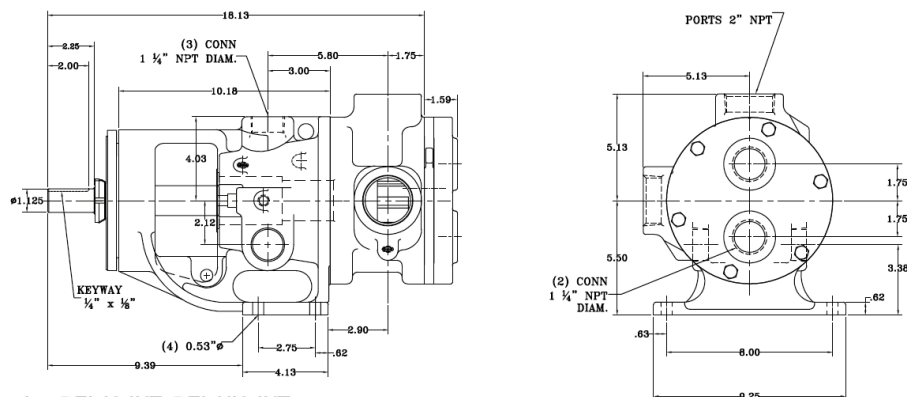
| | REI-H JKT | REI-HL JKT | REI-K JKT | REI-KK JKT |
|--------------------------|-----------|------------|-----------|------------|
| Port Size (in) | 1 ½ | 1 ½ | 2 | 2 |
| Flow (GPM) | 17 | 32 | 79 | 105 |
| Discharge Pressure (PSI) | 200 | 200 | 200 | 200 |
| Speed (RPM) | 1750 | 1750 | 780 | 780 |

| | EI-L / EI-LQ JKT | EI-LL JKT | EI-Q JKT | EI-QS JKT |
|--------------------------|------------------|-----------|-----------|-----------|
| Port Size (in) | 2 / 2 ½ | 3 | 4 | 6 |
| Flow (GPM) | 146 | 149 | 300 / 200 | 470 / 315 |
| Discharge Pressure (PSI) | 200 | 200 | 150 / 200 | 150 / 200 |
| Speed (RPM) | 640 | 520 | 520 / 350 | 520 / 350 |

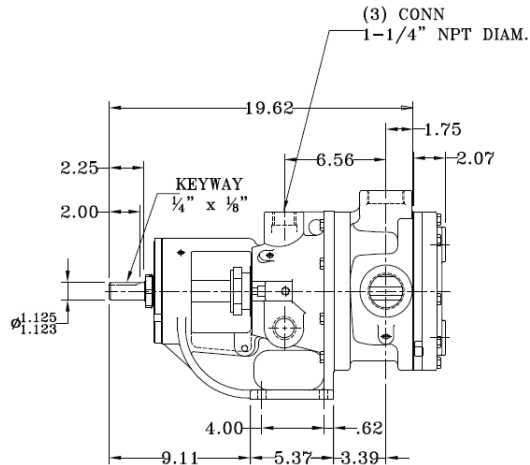
DIMENSIONS



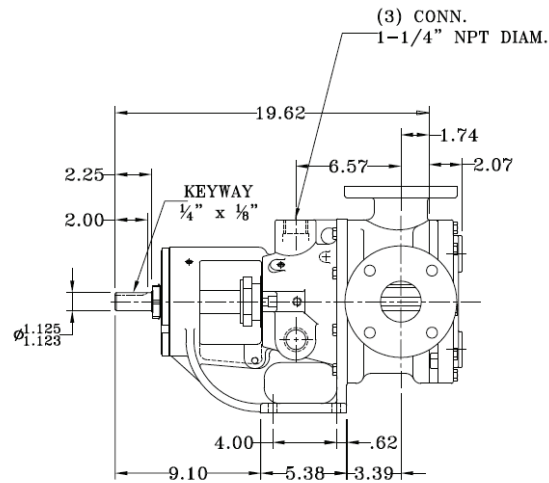
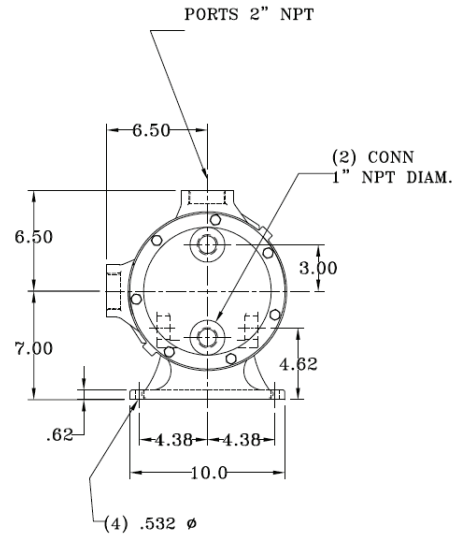
Dimensional Drawing REI-H JKT, REI-HL JKT



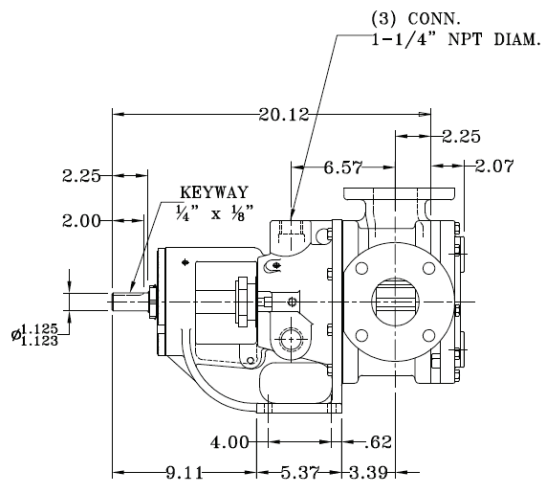
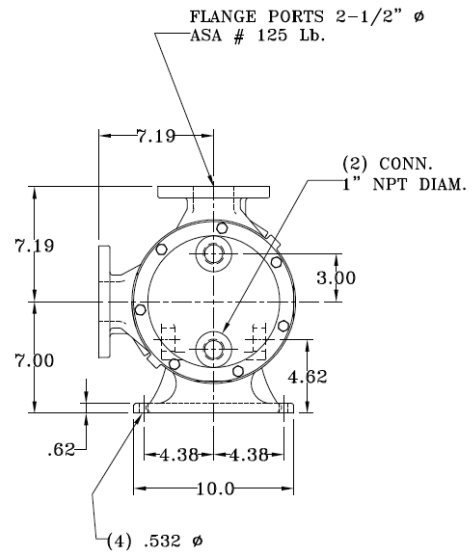
Dimensional Drawing REI-K JKT, REI-KK JKT



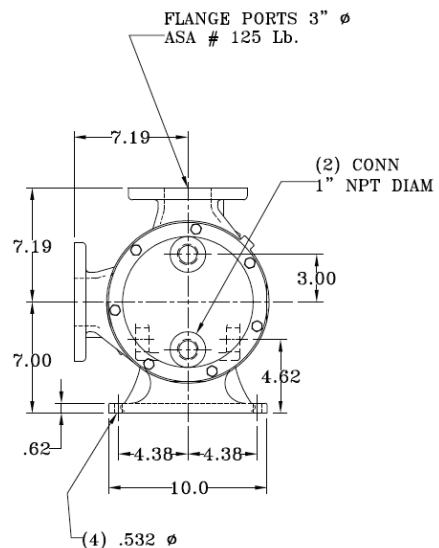
Dimensional Drawing REI-L JKT

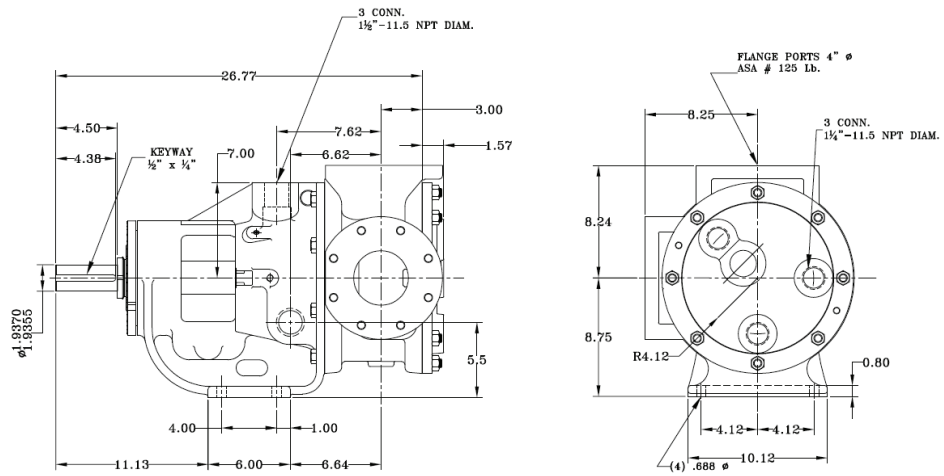


Dimensional Drawing REI-LQ JKT

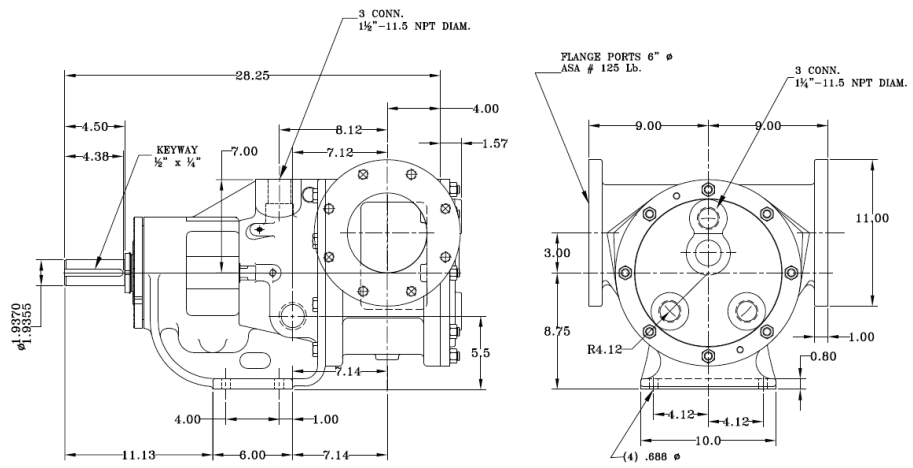


Dimensional Drawing REI-LL JKT





Dimensional Drawing REI-Q JKT



Dimensional Drawing REI-QS JKT

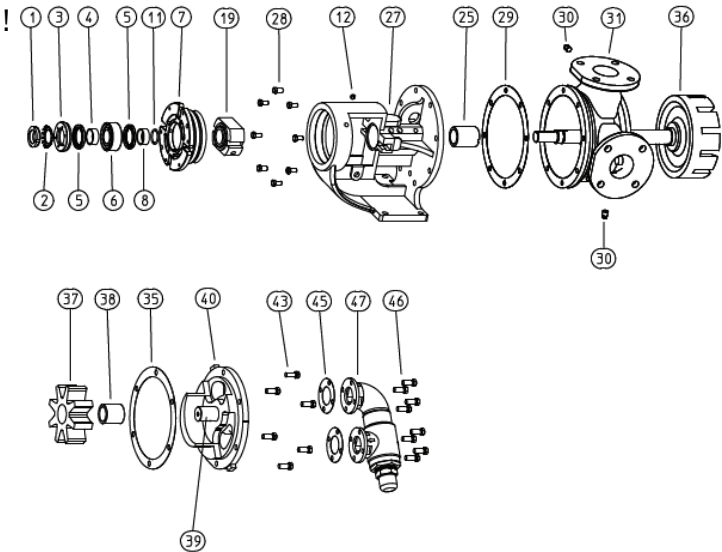
REI-SS SERIES

Stainless Steel Construction

FEATURES

- 1.- The stuffing box on all sizes accepts packing, component single mechanical seals, or cartridge seals without modifications.
- 2.- Bearing housing provides easy rotor end clearance adjustment to compensate for viscosity or wear.
- 3.- One-piece Bracket minimizes deflection on shaft.
- 4.- Positive Displacement, Internal Gear pumping principle.
- 5.- Low maintenance cost.
- 6.- Main applications: Same features as REI-Series but directed to more applications.

GENERAL EXPLODED VIEW



| ITEM | DESCRIPTION |
|------|-----------------------------|
| 1. | Locknut |
| 2. | Lockwasher |
| 3. | End Cap for Bearing Housing |
| 4. | Bearing Spacer Collar |
| 5. | Lip Seal |
| 6. | Ball Bearing |
| 7. | Bearing Housing |
| 8. | Bearing Spacer Collar |
| 11. | Ring Half Round |
| 12. | Grease Fitting |
| 19. | Mechanical Seal |
| 25. | Bracket Bushing |
| 27. | Bracket |
| 28. | Capscrew for Bracket |
| 29. | Bracket Gasket |
| 30. | Pipe Plug |
| 31. | Casing |
| 35. | Head Gasket |
| 36. | Rotor and Shaft |
| 37. | Idler |
| 38. | Idler Bushing |
| 39. | Idler Pin |
| 40. | Head |
| 43. | Capscrew for head |
| 45. | Relief valve Gasket |
| 46. | Capscrew for valve |
| 47. | Relief valve |

MATERIALS OF CONSTRUCTION

| | | | | | |
|-----------------|-----------------|---------------------|-----------------|-----------------|-------------------------|
| Bracket | Casing | Head / Relief Valve | Rotor | Idler | Idler Pin / Rotor Shaft |
| Stainless Steel | Stainless Steel | Stainless Steel | Stainless Steel | Stainless Steel | Stainless Steel |

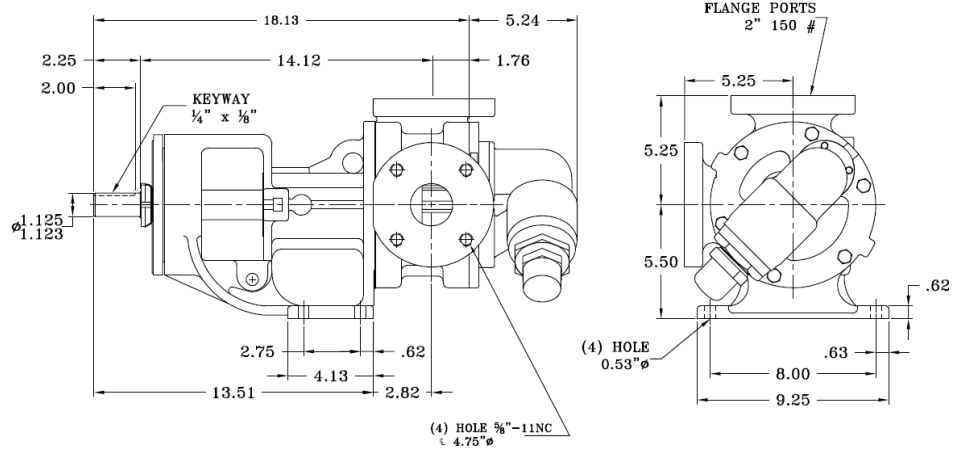
| | | |
|-----------------|-----------------|-------------------|
| Bushings | Packing | Mechanical Seal |
| Carbon Graphite | Teflon Graphite | Teflon (optional) |

GENERAL OPERATING DATA

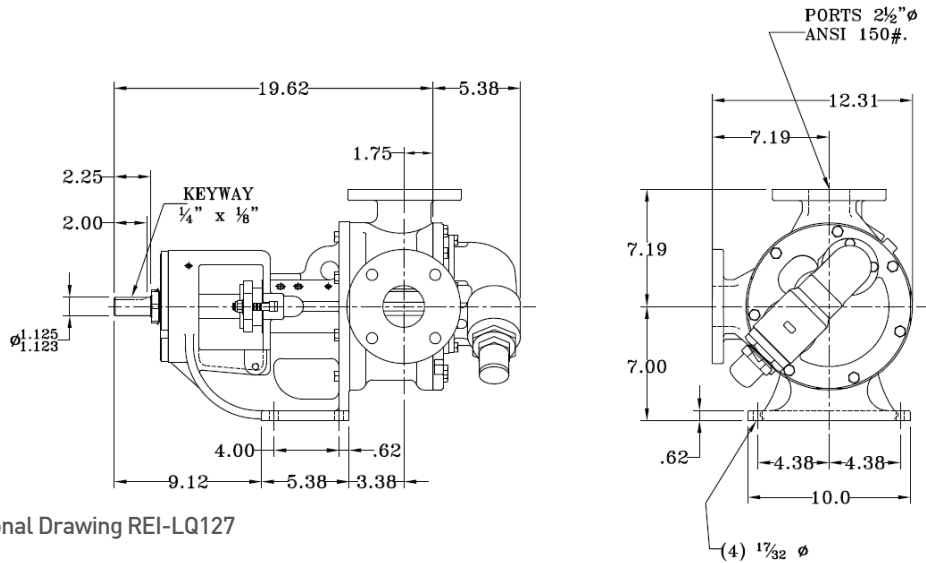
Based on viscosity of 750 SSU considering the flow and 100 SSU considering discharge pressure. S.G. 1.0

| | EI-K127A | EI-KK127A | EI-LQ127A | EI-LL127A |
|--------------------------|----------|-----------|-----------|-----------|
| Ports (in) | 2 | 2 | 2 ½ | 3 |
| Flow (GPM) | 40 | 55 | 87 | 115 |
| Discharge Pressure (PSI) | 100 | 100 | 100 | 100 |
| Speed (RPM) | 400 | 400 | 420 | 420 |

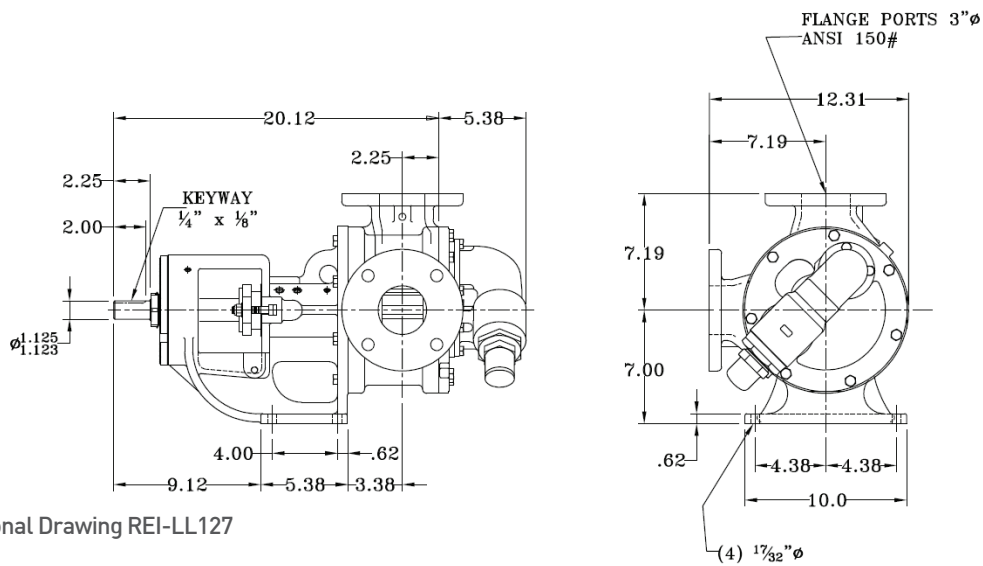
DIMENSIONS



Dimensional Drawing REI-K127, REI-KK127

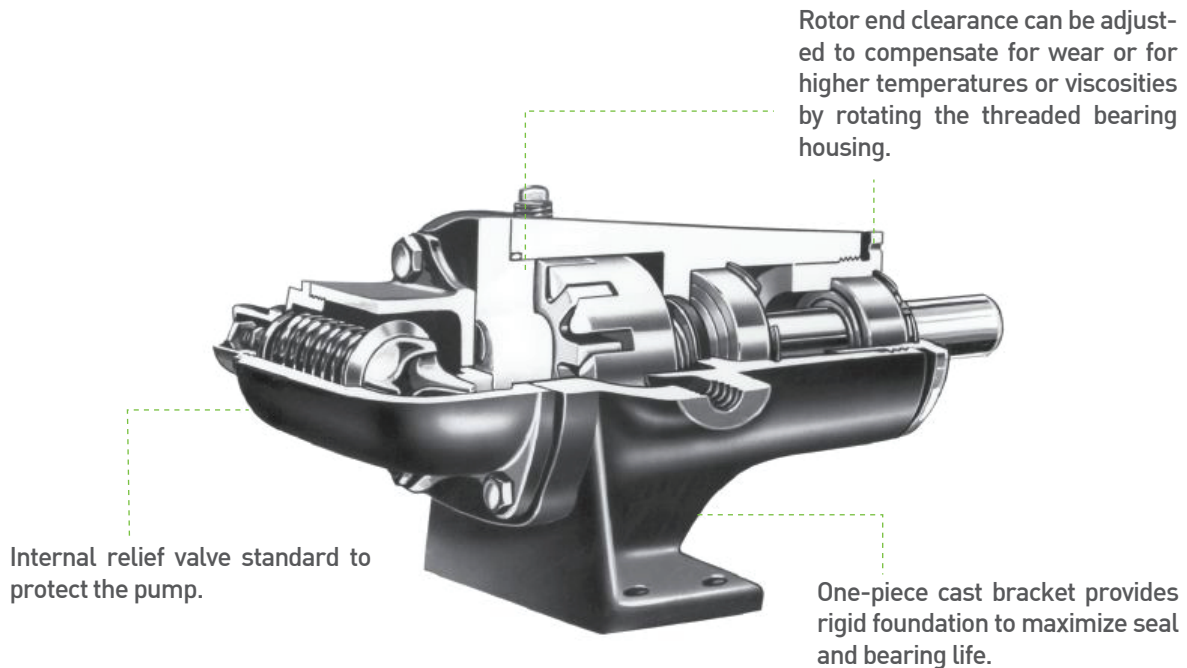


Dimensional Drawing REI-LQ127



Dimensional Drawing REI-LL127

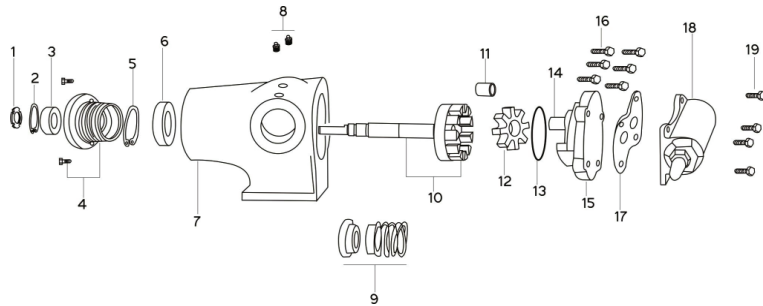
REI-4195 SERIES



FEATURES

1. All sizes of REI-4195 pumps are furnished with single mechanical seal.
- 2.- The smaller size pumps (REI-GG4195, REI-HL4195 and REI-HJ4195) can be directly connected to either 1800 or 1200 RPM motors. The rest of the sizes can be directly connected to 1200 RPM motors (Depending on operating conditions and also 50 Hz speeds).
- 3.- Main applications: These pumps are built to continuous or intermittent duty for such applications as circulating, transferring, or service in general industrial, petroleum uses.

GENERAL EXPLODED VIEW



| ITEM | DESCRIPTION |
|------|--------------------------------|
| 1. | Locknut |
| 2. | Snap Ring, Outer |
| 3. | Ball Bearing, Outer |
| 4. | Bearing Housing with Setscrews |
| 5. | Snap Ring, Inner |
| 6. | Ball Bearing, Inner |
| 7. | Casing |
| 8. | Pipe Plug |
| 9. | Mechanical Seal |
| 10. | Rotor and Shaft |
| 11. | Idler Bushing |
| 12. | Idler and Bushing |
| 13. | O-Ring Gasket for Head |
| 14. | Idler Pin, Plain |
| 15. | Head and plain Idler Pin |
| 16. | Capscrew for Plain head |
| 17. | Relief Valve Gasket |
| 18. | Internal Relief Valve |
| 19. | Capscrew for Valve |

MATERIALS OF CONSTRUCTION

| Casing | Head | Rotor ** | Idler ** | Idler Pin/ Rotor Shaft | Bushings | Mechanical Seal | Relief Valve |
|-----------|-----------|-----------|-----------|---------------------------|-----------------|-----------------------|--------------|
| Cast Iron | Cast Iron | Cast Iron | Cast Iron | Carbon Steel | Carbon Graphite | Buna / Viton Optional | Iron |

** Depends on model and/or operating conditions material can be changed to carbon steel.

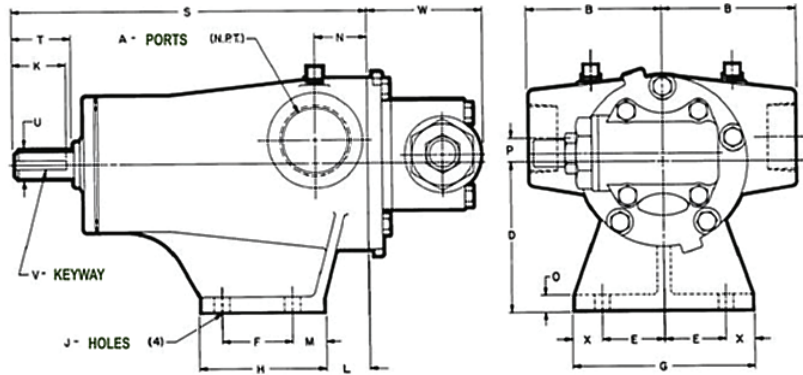
GENERAL OPERATING DATA

Based on 100 SSU and S.G. 1.0

| | REI-GG4195 | REI-HJ4195 | REI-HL4195 |
|----------------|------------|------------|------------|
| Port Size (in) | 1 | 1 ½ | 1 ½ |
| Flow (GPM) | 10 | 20 | 30 |
| Pressure (PSI) | 100 | 100 | 100 |
| Speed (RPM) | 1800 | 1800 | 1800 |

| | REI-AS4195 | REI-AK4195 | REI-AL4195 |
|----------------|------------|------------|------------|
| Port Size (in) | 2 ½ | 2 ½ | 3 |
| Flow (GPM) | 35 | 50 | 75 |
| Pressure (PSI) | 100 | 100 | 100 |
| Speed (RPM) | 1200 | 1200 | 1200 |

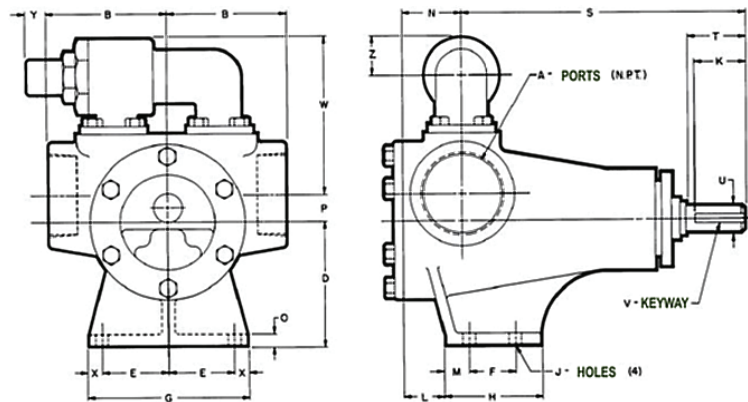
DIMENSIONS



Dimensional Drawing REI-GG4195, REI-HJ4195, REI-HL4195. Dimensions in inches

| Model | A | B | D | E | F | G | H | J | K | L |
|------------|-----|------|------|------|------|-----|------|------|------|------|
| REI-GG4195 | 1 | 2.75 | 2.75 | 1.62 | 1.31 | 4.0 | 2.44 | 0.34 | 0.94 | 0.03 |
| REI-HJ4195 | 1 ½ | 3.75 | 4.12 | 1.75 | 2.0 | 5.0 | 3.5 | 0.41 | 1.5 | 1.25 |
| REI-HL4195 | 1 ½ | 3.75 | 4.12 | 1.75 | 2.0 | 5.0 | 3.5 | 0.41 | 1.5 | 1.25 |

| Model | M | N | O | P | S | T | U | V | W | X |
|------------|------|------|------|------|------|------|------|-------------|------|------|
| REI-GG4195 | 0.66 | 1.21 | 0.31 | 0.62 | 7.31 | 1.12 | 0.5 | FLAT | 2.66 | 0.38 |
| REI-HJ4195 | 0.88 | 1.5 | 0.44 | 0.62 | 10.0 | 1.62 | 0.75 | 0.19 x 0.09 | 3.28 | 0.75 |
| REI-HL4195 | 0.88 | 1.5 | 0.44 | 0.62 | 10.0 | 1.62 | 0.75 | 0.19 x 0.09 | 3.28 | 0.75 |



Dimensional Drawings REI-AS4195, REI-AK4195, REI-AL4195. Dimensions in inches

| Model | A | B | D | E | F | G | H | J | K | L | M |
|------------|-----|-----|------|------|-----|------|-----|------|------|------|-----|
| REI-AS4195 | 2 ½ | 5.0 | 5.25 | 2.88 | 2.0 | 6.75 | 4.0 | 0.41 | 2.25 | 1.25 | 1.0 |
| REI-AK4195 | 2 ½ | 5.0 | 5.25 | 2.88 | 2.0 | 6.75 | 4.0 | 0.41 | 2.25 | 1.25 | 1.0 |
| REI-AL4195 | 3 | 5.0 | 5.25 | 2.88 | 2.0 | 6.75 | 4.0 | 0.41 | 2.25 | 1.75 | 1.0 |

| Model | N | O | P | S | T | U | V | W | X | Y | Z |
|------------|-----|------|------|-------|-----|-----|-------------|-----|-----|-----|------|
| REI-AS4195 | 2.0 | 0.44 | 1.12 | 12.12 | 2.5 | 1.0 | 0.25 x 0.12 | 7.0 | 0.5 | 1.0 | 1.72 |
| REI-AK4195 | 2.0 | 0.44 | 1.12 | 12.12 | 2.5 | 1.0 | 0.25 x 0.12 | 7.0 | 0.5 | 1.0 | 1.72 |
| REI-AL4195 | 2.5 | 0.44 | 1.12 | 12.12 | 2.5 | 1.0 | 0.25 x 0.12 | 7.0 | 0.5 | 1.0 | 1.72 |



Odessa, Texas:

5911 W. 59th

Odessa, Texas 79761

Roswell, NM :

3701 S. Main

Roswell, NM 88201

website: Replicatepump.com

Sales: George@replicatepump.com

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