

DUCTILE IRON CLOSE COUPLED ROTARY GEAR PUMP

**MODEL
C9941B1
C994R1B1**



MODEL C9941B1 - 3/4" PORTS



PERFORMANCE

Water 70° F

| 1725 RPM | | | | | Pump, Adapter & ODP Motor* No. | |
|----------|------|----------|----------|-------------|--------------------------------|--------------|
| PSI | GPM | HP Req'd | HP Motor | Motor Frame | Single Phase | Three Phase |
| 0 | 10.5 | 0.5 | 1/2 | 56C | C9941B1H-J45 | C9941B1H-J95 |
| 10 | 10.4 | 0.63 | 3/4 | 56C | C9941B1H-M37 | C9941B1H-M95 |
| 20 | 10.3 | 0.75 | 3/4 | 56C | C9941B1H-M37 | C9941B1H-M95 |
| 30 | 10.2 | 0.83 | 1 | 56C | C9941B1H-N26 | C9941B1H-N95 |
| 40 | 10.1 | 0.90 | 1 | 56C | C9941B1H-N26 | C9941B1H-N95 |
| 50 | 10.0 | 1.00 | 1 1/2 | 145TC | C9941B1J-T45 | C9941B1J-T95 |

* TEFC motors available

| 1150 RPM | | | | | Pump, Adapter & ODP Motor* No. | |
|----------|-----|----------|----------|-------------|--------------------------------|--------------|
| PSI | GPM | HP Req'd | HP Motor | Motor Frame | Single Phase | Three Phase |
| 0 | 6.8 | 0.24 | 1/2 | 56C | C9941B1H-J46 | C9941B1H-J96 |
| 10 | 6.7 | 0.27 | 1/2 | 56C | C9941B1H-J46 | C9941B1H-J96 |
| 20 | 6.6 | 0.29 | 1/2 | 56C | C9941B1H-J46 | C9941B1H-J96 |
| 30 | 6.5 | 0.36 | 1/2 | 56C | C9941B1H-J46 | C9941B1H-J96 |
| 40 | 6.4 | 0.43 | 1/2 | 56C | C9941B1H-J46 | C9941B1H-J96 |
| 50 | 6.3 | 0.50 | 3/4 | 56C | C9941B1H-M46 | C9941B1H-M96 |

*TEFC motors available

FEATURES

- Ductile Iron construction with steel shafts
- Stainless steel helical gears for quiet operation
- Mechanical seal
- Self lubricating carbon bearings
- O-ring seal for maximum leak protection
- Durable temperature-resistant paint finish
- Easy field assembly to C-face motors
- Compact dimensions

GENERAL DESCRIPTION

Tailored specifically for wear resistance and long life in coolant filtration service. Designed to handle a wide range of water-based and synthetic machine tool coolants, at moderate temperatures to 180° F, at pressures up to 100 psi and at shaft speeds to 1750 RPM. Shafts are hardened steel. Gears are 416 stainless steel. Rugged ductile iron housings incorporate body/gear lubrication grooves. High grade carbon-graphite bearings are used. The shaft seal is a bellows style mechanical seal with Viton® elastomer bellows and o-ring and with carbon and ceramic wear faces. As with all external gear rotary pumps which operate based upon close running clearances, the presence of solid particles and abrasives can lead to premature wear and damage. Use suction screens or start-up strainers when necessary.

DRIVE ARRANGEMENT

These close-coupled pumps mount directly to a full range of NEMA and IEC C-face motors by means of a suitable adapter bracket. The pump drive shaft is connected to the motor shaft by flexible coupling. Complete pump and motor units are available.

SUCTION LIFT

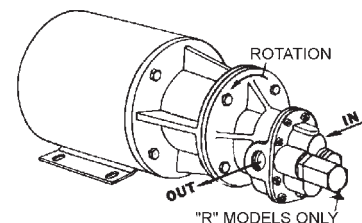
If possible, place the pump at an elevation below the liquid source. However, since these positive displacement external gear pumps will

generate 23" HG lift, this is not a requirement. As a general rule, place the pump as close to the liquid source as possible. For a first start-up, the pump should be primed to avoid dry running. Minimum size of the suction pipe is the size of the pump inlet port. For longer suction lines (over 3 feet), the pipe size should be at least one size or two sizes larger than the pump inlet port.

ROTATION AND RELIEF VALVE

Given the body/gear face lubrication slots, these pumps are unidirectional. The standard pump is set up for normal rotation (clockwise when viewing the pump from the shaft end). Contact the factory if opposite rotation is required.

C994R1B1 is equipped with an integrated relief valve set up for inter-nal bypassing. The relief valve is not intended to be a metering or flow control device. Its purpose is to function as a discharge pressure relief to guard against intermittent down stream system restrictions. Overheating can occur within 5 to 10 minutes if the discharge line is completely shut off. The relief valve is located on the discharge side of the pump. The pressure relief setting is not set at the factory. To increase pressure, turn the relief valve adjusting screw in a clockwise direction.

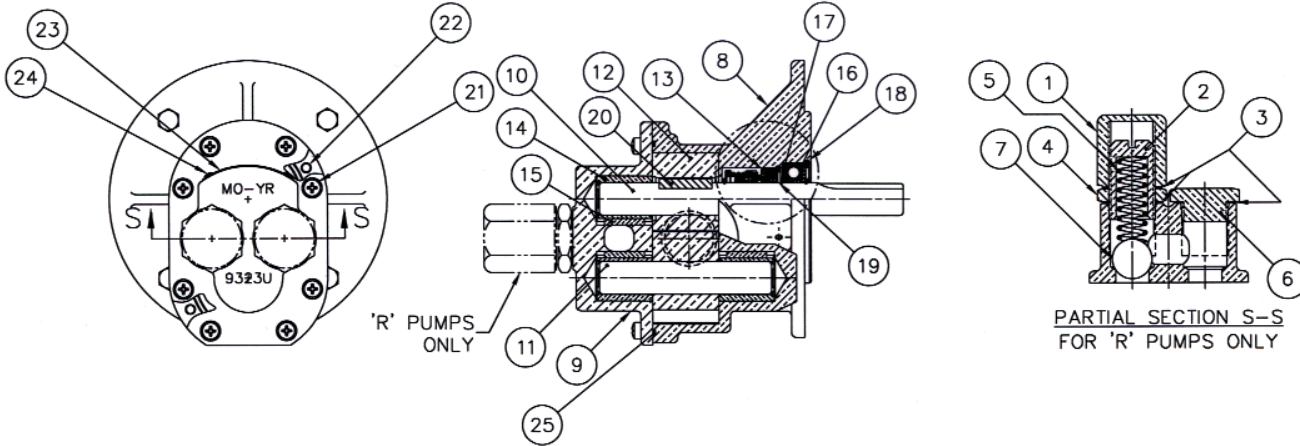


MODEL
C9941B1
C994R1B1

DUCTILE IRON CLOSE COUPLED ROTARY GEAR PUMP



EXPLODED VIEW & PARTS LIST

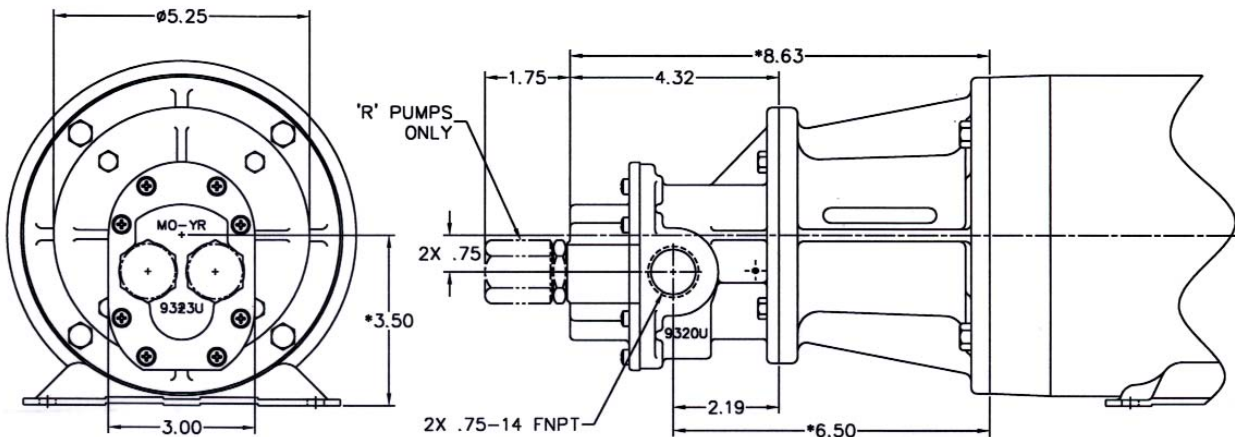


| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|----------|--------------|---------------|--------------|-----------|--------|---------|-----------|----------|-------------|-------------|-----------------|------------|-----------|----------------|-------------|
| | Bypass Nut | Adjust. Screw | Fiber Washer | Locknut | Spring | Plugnut | Ball | Body | Cover | Drive Shaft | Idle Gear Assy. | Drive Gear | Mech Seal | Bearing Carbon | Bearing Pin |
| Pump No. | Qty. 1 | Qty. 1 | Qty. 3 | Qty. 1 | Qty. 1 | Qty. 1 | Qty. 1 | Qty. 1 | Qty. 1 | Qty. 1 | Qty. 1 | Qty. 1 | Qty. 1 | Qty. 3 | Qty. 3 |
| C9941B1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 9320UE4N | 9322UN5N | 2785 | 33127 | 2888 | 33109 | 2688 | 2687 |
| C94R1B1 | 5204 | 5200 | 6964 | 5209 | 5207 | 5205 | 5206 | 9320UE4N | 9323UN5B | 2785 | 33127 | 2888 | 33109 | 2688 | 2687 |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | | | | |
| | Bearing Ball | Ret. Ring | Ret. Ring | Ret. Ring | Key | Screw | Dowel Pin | Tag | Stick Screw | O-Ring | Adapter Kits | | | | |
| Pump No. | Qty. 1 | Qty. 3 | Qty. 1 | Qty. 1 | Qty. 1 | Qty. 8 | Qty. 2 | Qty. 1 | Qty. 2 | Qty. 1 | See Chart | | | | |
| C9941B1 | 2461 | 5382 | 5464 | 5374 | 6567 | 5385 | 8885 | 9344 | 9345 | 9797-041 | | | | | |
| C994R1B1 | 2461 | 5382 | 5464 | 5374 | 6567 | 5385 | 8885 | 9344 | 9345 | 9797-041 | | | | | |

| Adapter Kit | Part Number | Description |
|-------------|-------------|-------------|
| H | 11299C | 56C Frame |
| J | 11300C | 143TC/145TC |
| G | 11380 | IEC 71 |
| T | 11386 | IEC 80 |

Repair Kit, Part Number 12216, contains items 10-20 & 25.

DIMENSIONS



*THESE DIMENSIONS ARE SPECIFIC TO A 56C OR 143TC/145TC FRAME MOTOR.

Specifications are subject to change without notice..

*Viton® or equivalent FKM will be used. Viton® is a trademark of DuPont Dow Elastomers.