

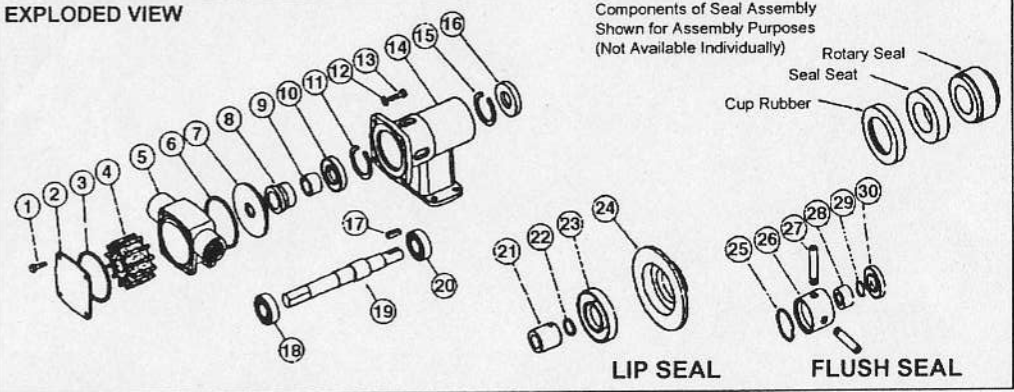
| PARTS LIST | | | MEDIUM PRESSURE IMPELLER | | | HIGH PRESSURE IMPELLER | | |
|-----------------------|-----------------|-----|--------------------------|----------------|--------------|------------------------|----------------|--------------|
| | | | Neoprene Elast: | Nitrile Elast: | Viton Elast: | Neoprene Elast: | Nitrile Elast: | Viton Elast: |
| Key | Description | Qty | 28430-2115 | 28430-2113 | 28430-2114 | 28430-2125 | 28430-2123 | 28430-2124 |
| 1 | Screw | 4 | X3001-205F | X3001-205F | X3001-205F | X3001-205F | X3001-205F | X3001-205F |
| 2 | Endcover | 1 | 28405-0010 | 28405-0010 | 28405-0010 | 28405-0010 | 28405-0010 | 28405-0010 |
| 3 | "O" Ring | 1 | X4020-399A | X4020-399A | X4020-399B | X4020-399A | X4020-399A | X4020-399B |
| 4 | Impeller | 1 | 14346-0005B | 14346-0013B | 14346-0014B | 8983-0005B | 8983-0023B | 8983-0024B |
| 5 | Body | 1 | 28434-2000 | 28434-2000 | 28434-2000 | 28434-2000 | 28434-2000 | 28434-2000 |
| 6 | "O" Ring | 1 | X4020-399A | X4020-399A | X4020-399B | X4020-399A | X4020-399A | X4020-399B |
| 7 | Wearplate (2) | 1 | 28436-0000 | 28436-0000 | 28436-0000 | 28436-0000 | 28436-0000 | 28436-0000 |
| 8 | Seal Assy*(2) | 1 | 28431-0103B | 28431-0103B | 28431-0104B | 28431-0103B | 28431-0103B | 28431-0104B |
| 9 | Seal Spacer(1) | 1 | 28417-0000 | 28417-0000 | 28417-0000 | 28417-0000 | 28417-0000 | 28417-0000 |
| 10 | Lip Seal | 1 | SP2701-0911 | SP2701-0911 | SP2701-0911 | SP2701-0911 | SP2701-0911 | SP2701-0911 |
| 11 | Retaining Ring | 1 | SP1701-283 | SP1701-283 | SP1701-283 | SP1701-283 | SP1701-283 | SP1701-283 |
| 12 | Washer | 4 | X3080-101F | X3080-101F | X3080-101F | X3080-101F | X3080-101F | X3080-101F |
| 13 | Screw | 4 | X3001-209F | X3001-209F | X3001-209F | X3001-209F | X3001-209F | X3001-209F |
| 14 | Bearing Housing | 1 | 28403-0000 | 28403-0000 | 28403-0000 | 28403-0000 | 28403-0000 | 28403-0000 |
| 15 | Retaining Ring | 1 | SP1701-283 | SP1701-283 | SP1701-283 | SP1701-283 | SP1701-283 | SP1701-283 |
| 16 | Lip Seal | 1 | SP2701-0911 | SP2701-0911 | SP2701-0911 | SP2701-0911 | SP2701-0911 | SP2701-0911 |
| 17 | Key | 1 | X4000-487A | X4000-487A | X4000-487A | X4000-487A | X4000-487A | X4000-487A |
| 18 | Bearing | 1 | SP2601-28 | SP2601-28 | SP2601-28 | SP2601-28 | SP2601-28 | SP2601-28 |
| 19 | Shaft | 1 | 28407-0000 | 28407-0000 | 28407-0000 | 28407-0000 | 28407-0000 | 28407-0000 |
| 20 | Bearing | 1 | SP2601-28 | SP2601-28 | SP2601-28 | SP2601-28 | SP2601-28 | SP2601-28 |
| Service Kit Contains* | | | SK378-0115 | SK378-0113 | SK378-0114 | SK378-0125 | SK378-0123 | SK378-0124 |

| Other Seal Options | | | | | | |
|--------------------------------------|------------|------------|---------------|------------|------------|---------------|
| Model No. With H/F Seal | 28430-2215 | 28330-2213 | 28430-2214 | 28430-2225 | 28430-2223 | 28430-2224 |
| Model No. With Lip Seal | 28430-2415 | 28430-2413 | Not Available | 28430-2425 | 28430-2423 | Not Available |
| Model No. With H/F Seal Flushed | 28430-2715 | 28430-2713 | 28430-2714 | 28430-2725 | 28430-2723 | 28430-2724 |
| Model No. With Standard Seal Flushed | 28430-2915 | 28430-2913 | 28430-2914 | 28430-2925 | 28430-2923 | 28430-2924 |

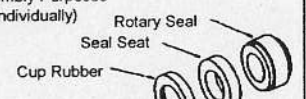
| Parts For Appropriate Seal Conversion | | | | | | | | |
|---------------------------------------|---------------|---|-------------|-------------|---------------|-------------|-------------|---------------|
| 8 | H/F Seal Assy | 1 | 28431-0203B | 28431-0203B | 28431-0204B | 28431-0203B | 28431-0203B | 28431-0204B |
| Lip Seal Kit No. & Contains | | | 28431-0403B | 28431-0403B | Not Available | 28431-0403B | 28431-0403B | Not Available |
| 21 | Seal Spacer | 1 | 28465-0011 | 28465-0011 | Not Available | 28465-0011 | 28465-0011 | Not Available |
| 22 | "O" Ring | 1 | X4020-227A | X4020-227A | Not Available | X4020-227A | X4020-227A | Not Available |
| 23 | Lip Seal | 1 | SP2701-0915 | SP2701-0915 | Not Available | SP2701-0915 | SP2701-0915 | Not Available |
| 24 | Wearplate | 1 | 28466-0000 | 28466-0000 | Not Available | 28466-0000 | 28466-0000 | Not Available |
| Flush Seal Kit No. & Contains | | | 28432-0000B | 28432-0000B | 28432-0000B | 28432-0000B | 28432-0000B | 28432-0000B |
| 25 | "O" Ring | 1 | X4020-261A | X4020-261A | X4020-261A | X4020-261A | X4020-261A | X4020-261A |
| 26 | Seal Housing | 1 | 28412-0000 | 28412-0000 | 28412-0000 | 28412-0000 | 28412-0000 | 28412-0000 |
| 27 | Tube | 2 | 21844 | 21844 | 21844 | 21844 | 21844 | 21844 |
| 28 | Seal Spacer | 1 | 28417-0001 | 28417-0001 | 28417-0001 | 28417-0001 | 28417-0001 | 28417-0001 |
| 29 | "O" Ring | 1 | X4020-227A | X4020-227A | X4020-227A | X4020-227A | X4020-227A | X4020-227A |
| 30 | Seal | 1 | SP2701-0915 | SP2701-0915 | SP2701-0915 | SP2701-0915 | SP2701-0915 | SP2701-0915 |

(1) Key 9 Not Required For Models With Lip Seal And Flush Seal. (2) Key 7 & 8 Not Required For Lip Seal Models

EXPLODED VIEW



Components of Seal Assembly Shown for Assembly Purposes (Not Available Individually)



LIP SEAL **FLUSH SEAL**

SERVICE INSTRUCTIONS

Dis-Assembly

1. Remove screws (1), endcover and "O" ring
2. Remove screws (13). Slide off body complete with impeller and wearplate.
3. Remove seal seat, cup rubber from the wearplate and push out impeller and "O" ring from body.
4. Gently lever the seal spacer and seal (8) off the shaft.
5. Prise out seal (16). Remove retaining ring (15) and carefully withdraw shaft and bearing assembly. Remove retaining ring (11) and push out seal (10).
6. To remove bearings from shaft an arbor press is required alternatively a bearing extractor may be used. Support inner race of bearing then apply a steady pressure on shaft until bearing is free. Repeat this procedure to remove other bearing.

PUMPS WITH LIP SEAL:- Push out lip seal (23) from wearplate (24). Loosen set screw to remove seal spacer (21). Prise out "O" ring (22) from seal spacer.

PUMPS WITH FLUSH SEAL:- After pulling out rotary seal, unscrew tubes (27) and pull out seal housing (26). Remove seal spacer (28) and prise out "O" ring (29). Remove "O" ring (25) and lip seal (30) from seal housing.

Assembly

1. To fit bearings onto shaft:- Support inner race of bearing and press the shaft until bearing locates against the shoulder. Repeat procedure for other bearing.
 2. Fit retaining ring (11) and lip seal (10) ensuring that spring on seal is facing outwards.
 3. Fill the bearings with grease, and the space between bearings two thirds full. Smear grease on the shaft where lip seal locates. Push shaft and bearing assembly into bearing housing. Fit retaining ring (15) and seal (16) with spring facing outwards.
 4. To fit seal:- Smear shaft with lubricating oil and slide seal spacer (19) up to the shoulder on shaft. Push rotary seal gently until it touches the spacer. Fit cup rubber and seal seat into wearplate (7). Slide wearplate assembly over the shaft.
 5. Fit impeller into lubricated body with twisting motion in the same rotation as motor. Fit "O" ring (6) into body and slide over shaft.
 6. Align wearplate and body into bearing housing and secure with screws (13) and washers (12). Do Not overtighten, a gap between bearing housing and body is normal. These screws and endcover screws should be tightened to a torque of 6.8 Nm.
 7. Fit "O" ring (3) into body and place endcover over body and secure with screws (1). **PUMPS WITH LIP SEAL:-** Ensure "O" ring (22) is fitted under seal spacer (21). Smear seal spacer and shaft with lubricating oil. Slide spacer over shaft and secure with set screw to dimension shown. Press lip seal (23) into wearplate (24) and follow on from step 5 above.
 - PUMPS WITH FLUSH SEAL:-** Ensure "O" ring (29) is fitted under seal spacer (28). Smear seal spacer and shaft with lubricating oil. Slide spacer over shaft up to shoulder. Press lip seal (30) into seal housing (26) and slide into position over shaft. Fit tubes (27) sealing with PTFE tape. Rotary seal and "O" ring (25) can now be fitted Follow on from step (5) above.
- Inspect all parts for wear or damage and replace if necessary.**

INSTALLATION DRAWING

