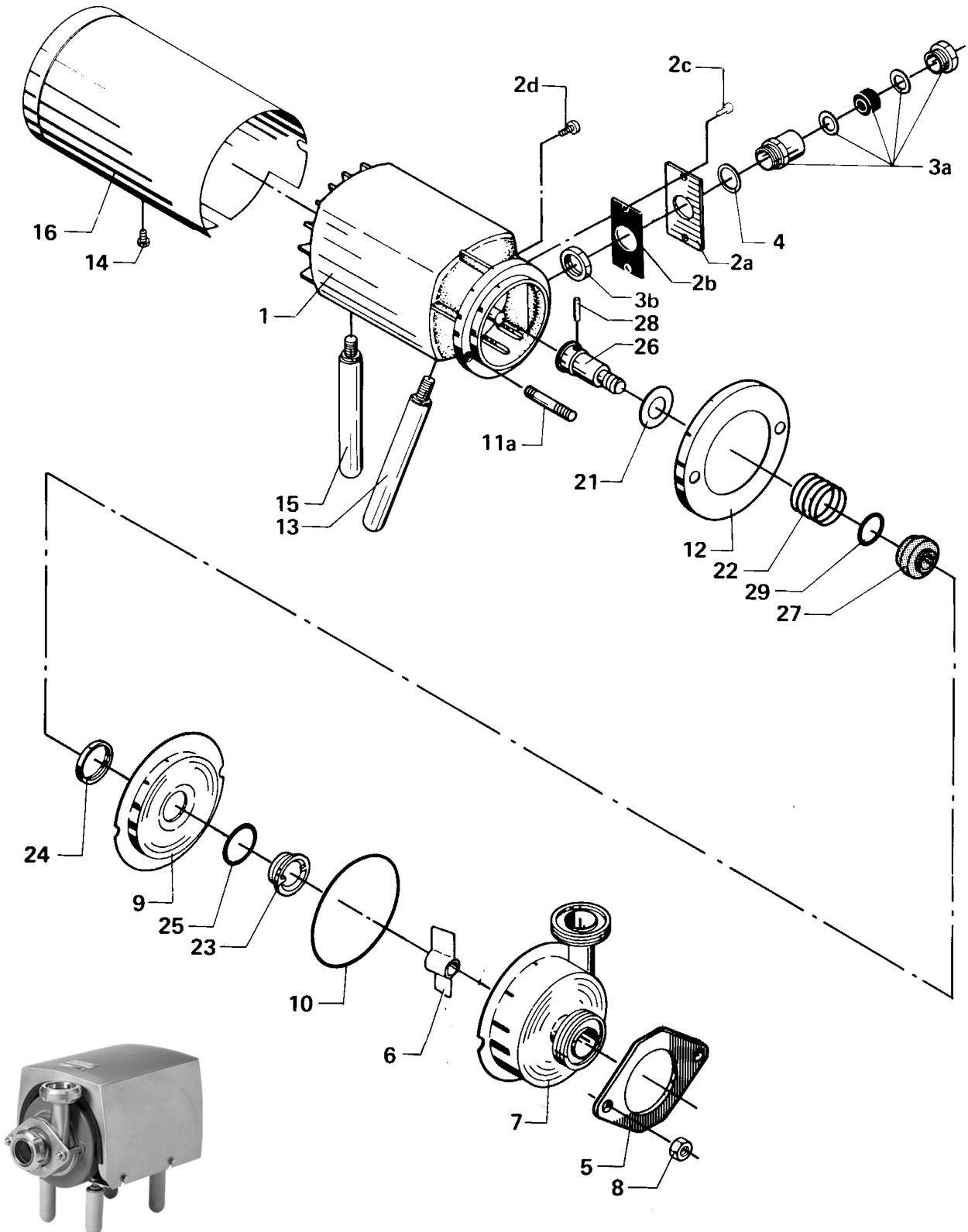


Centrifugal Pump – Single Shaft Seal  
Type FM-0



## Centrifugal Pump – Single Shaft Seal Type FM-0



| Pos. | Qty. | Denomination  | FM-0/95<br>FM-0/115 |
|------|------|---|---------------------|
| 1    | 1    | Motor 1.1 kW, 220/380 V .....                             | 31457-0060-1        |
|      | 1    | Motor 1.1 kW, 240/420 V .....                             | 31457-0060-2        |
| 2a   | 1    | Cover .....   | 31457-0023-1        |
| 2b   | 1    | Packing .....   | 31457-0024-1        |
| 2c   | 2    | Screw .....   | 221120-03           |
| 2d   | 1    | Setscrew for earth wire .....                             | 221533-09           |
| 3a   | 1    | Compression gland 18.6 mm .....                           | 31801-0154-3        |
| 3b   | 1    | Lock nut .....  | 31801-0221-2        |
| 4    | 1    | Packing .....   | 31457-0052-1        |
| 5    | 1    | Yoke .....  | 31457-0050-1        |
| 6*   | 1    | Impeller, diameter 95 mm (standard) ..                    | 9612-1868-02        |
|      | 1    | Impeller 4 bladed, diameter 95 mm .....                   | 9612-3550-01        |
|      | 1    | Impeller, diameter 115 mm (standard)                      | 9612-1868-01        |
|      | 1    | Impeller 4 bladed, diameter 115 mm ...                    | 9612-3549-01        |
| 7    | 1    | Pump casing with sanitary fittings 51 mm inlet and outlet |                     |
|      |      | ISO male .....  | 31457-0038-1        |
|      |      | SMS .....   | 31457-0038-2        |
|      |      | DIN .....   | 31457-0038-3        |
|      |      | ISO clamp .....   | 31457-0038-4        |
|      |      | BS .....  | 31457-0038-5        |
| 8    | 2    | Nut .....   | 9611-99-0587        |
| 9    | 1    | Back plate .....  | 31456-0035-1        |
| 10Δ  | 1    | O-ring, NBR (Standard) .....                              | 223412-75           |
|      | 1    | O-ring, EPDM .....  | 2234121-75          |
|      | 1    | O-ring, FPM .....   | 223412-76           |
|      | 1    | O-ring, PTFE .....  | 31456-0060-1        |
| 11a  | 2    | Stud bolt .....   | 31457-0051-1        |
| 12   | 1    | Cover plate .....   | 31457-0013-1        |
| 13   | 2    | Front leg .....   | 31457-0037-1        |
| 14   | 2    | Screw .....   | 2210936-43          |
| 15   | 1    | Back leg .....  | 31457-0037-2        |
| 16   | 1    | Shroud .....  | 31457-0049-1        |
| 21   | 1    | Thrower .....   | 31457-0025-1        |
| 24   | 1    | Nut .....   | 31437-0120-1        |
| 26   | 1    | Pump shaft .....  | 31457-0015-1        |
| 28   | 1    | Tubular spring pin .....                                  | 222119-27           |

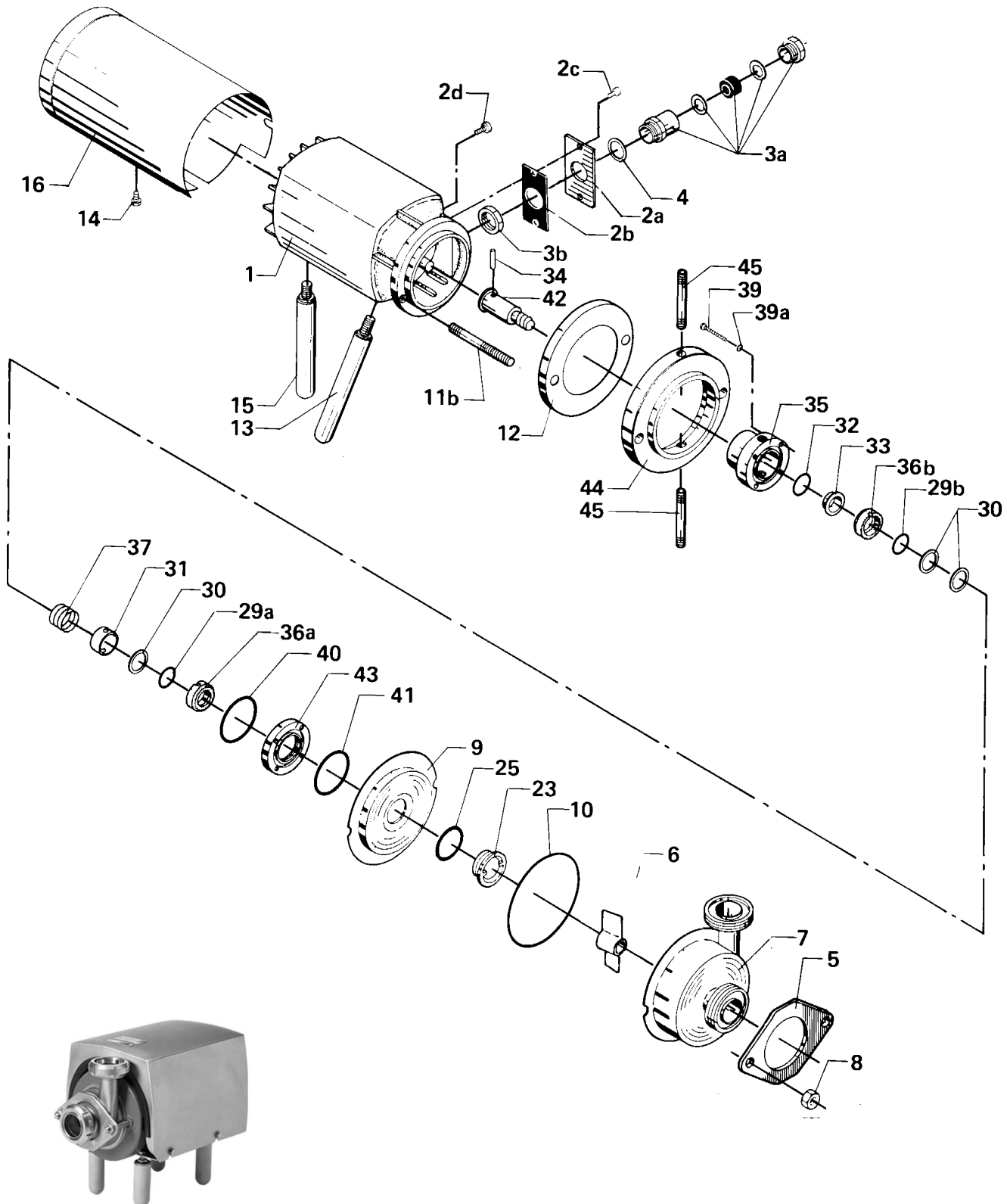
\* Sometimes reduced impeller diameter. Check the diameter of the original impeller.

|   |                                |                     |
|---|--------------------------------|---------------------|
| Δ | <b>Service kit, NBR. ....</b>  | <b>9611-92-1050</b> |
| Δ | <b>Service kit, EPDM. ....</b> | <b>9611-92-1051</b> |
| Δ | <b>Service kit, FPM. ....</b>  | <b>9611-92-1052</b> |
| Δ | <b>Service kit, PTFE. ....</b> | <b>9611-92-1053</b> |

Parts marked with Δ are included in the Service kits.

| Pos.                | Qty. | Denomination                                 | FM-0/95<br>FM-0/115 |
|---------------------|------|--|---------------------|
|                     |      | Δ Shaft seal, complete, NBR (Standard) ..... | 9612-4392-01        |
| 22                  | 1    | Spring .....                                 | 31438-0057-1        |
| 23                  | 1    | Stationary seal ring SiC .....               | 31437-0225-1        |
| 25                  | 1    | Seal .....                                   | 31437-0121-1        |
| 27                  | 1    | Rotating seal ring .....                     | 31439-0165-1        |
| 29                  | 1    | O-ring .....                                 | 31439-0168-1        |
|                     |      | Δ Shaft seal, complete, EPDM .....           | 9612-4392-03        |
| 22                  | 1    | Spring .....                                 | 31438-0057-1        |
| 23                  | 1    | Stationary seal ring SiC .....               | 31437-0225-1        |
| 25                  | 1    | Seal .....                                   | 31437-0121-3        |
| 27                  | 1    | Rotating seal ring .....                     | 31439-0165-1        |
| 29                  | 1    | O-ring .....                                 | 31439-0168-4        |
|                     |      | Δ Shaft seal, complete, FPM .....            | 9612-4392-04        |
| 22                  | 1    | Spring .....                                 | 31438-0057-1        |
| 23                  | 1    | Stationary seal ring SiC .....               | 31437-0225-1        |
| 25                  | 1    | Seal .....                                   | 31437-0121-3        |
| 27                  | 1    | Rotating seal ring .....                     | 31439-0165-1        |
| 29                  | 1    | O-ring .....                                 | 31439-0168-5        |
|                     |      | Δ Shaft seal, complete, PTFE .....           | 9612-4392-02        |
| 22                  | 1    | Spring .....                                 | 31438-0057-1        |
| 23                  | 1    | Stationary seal ring SiC .....               | 31437-0225-1        |
| 25                  | 1    | Seal .....                                   | 31437-0121-3        |
| 27                  | 1    | Rotating seal ring .....                     | 31439-0165-1        |
| 29                  | 1    | O-ring .....                                 | 31439-0168-3        |
| <b>Alternatives</b> |      |  |                     |
|                     |      | Shaft seal, complete, NBR (Standard) .....   | 9612-4392-05        |
| 22                  | 1    | Spring .....                                 | 31438-0057-1        |
| 23                  | 1    | Stationary seal ring SiC .....               | 31437-0225-1        |
| 25                  | 1    | Seal .....                                   | 31437-0121-1        |
| 27                  | 1    | Rotating seal ring SiC .....                 | 31439-0165-4        |
| 29                  | 1    | O-ring .....                                 | 31439-0168-1        |
|                     |      | Shaft seal, complete, EPDM .....             | 9612-4392-07        |
| 22                  | 1    | Spring .....                                 | 31438-0057-1        |
| 23                  | 1    | Stationary seal ring SiC .....               | 31437-0225-1        |
| 25                  | 1    | Seal .....                                   | 31437-0121-3        |
| 27                  | 1    | Rotating seal ring SiC .....                 | 31439-0165-4        |
| 29                  | 1    | O-ring .....                                 | 31439-0168-4        |
|                     |      | Shaft seal, complete, FPM .....              | 9612-4392-08        |
| 22                  | 1    | Spring .....                                 | 31438-0057-1        |
| 23                  | 1    | Stationary seal ring SiC .....               | 31437-0225-1        |
| 25                  | 1    | Seal .....                                   | 31437-0121-3        |
| 27                  | 1    | Rotating seal ring SiC .....                 | 31439-0165-4        |
| 29                  | 1    | O-ring .....                                 | 31439-0168-5        |
|                     |      | Shaft seal, complete, PTFE .....             | 9612-4392-06        |
| 22                  | 1    | Spring .....                                 | 31438-0057-1        |
| 23                  | 1    | Stationary seal ring SiC .....               | 31437-0225-1        |
| 25                  | 1    | Seal .....                                   | 31437-0121-3        |
| 27                  | 1    | Rotating seal ring SiC .....                 | 31439-0165-4        |
| 29                  | 1    | O-ring .....                                 | 31439-0168-3        |

Centrifugal Pump – Flushed Shaft Seal  
Type FM-0



## Centrifugal Pump – Flushed Shaft Seal Type FM-0



| Pos. | Qty. | Denomination  | FM-0/95<br>FM-0/115 | Pos.   | Qty. | Denomination | FM-0/95<br>FM-0/110 | Pos.                                       | Qty. | Denomination | FM-0/95<br>FM-0/110 |
|------|------|---|---------------------|--|------|--------------|---------------------|--|------|--------------|---------------------|
| 1    | 1    | Motor 1.1 kW, 220/380 V .....                             | 31457-0060-1        | Δ Shaft seal, complete, NBR (Standard) ..... |      |              | 9612-4393-01        | <b>Alternatives</b>                        |      |              |                     |
|      | 1    | Motor 1.1 kW, 240/420 V .....                             | 31457-0060-2        | 23 1 Stationary seal ring SiC .....          |      |              | 31437-0225-1        | Shaft seal, complete, NBR (Standard) ..... |      |              | 9612-4393-05        |
| 2a   | 1    | Cover .....   | 31457-0023-1        | 25 1 Seal .....                              |      |              | 31437-0121-1        | 23 1 Stationary seal ring SiC .....        |      |              | 31437-0225-1        |
| 2b   | 1    | Packing .....   | 31457-0024-1        | 29a 1 O-ring, front .....                    |      |              | 31439-0168-1        | 25 1 Seal .....                            |      |              | 31437-0121-1        |
| 2c   | 2    | Screw .....   | 221120-03           | 29b 1 O-ring, back .....                     |      |              | 31439-0168-1        | 29a 1 O-ring, front .....                  |      |              | 31439-0168-1        |
| 2d   | 1    | Setscrew for earth wire .....                             | 221533-03           | 30 3 Washer .....                            |      |              | 104125              | 29b 1 O-ring, back .....                   |      |              | 31439-0168-1        |
| 3a   | 1    | Compression gland 18.6 mm .....                           | 31801-0154-3        | 31 1 Spacer .....                            |      |              | 31437-0212-1        | 30 3 Washer .....                          |      |              | 104125              |
| 3b   | 1    | Lock nut .....  | 31801-0221-2        | 32 1 O-ring .....                            |      |              | 223406-51           | 31 1 Spacer .....                          |      |              | 31437-0212-1        |
| 4    | 1    | Packing .....   | 31457-0052-1        | 33 1 Stationary seal ring .....              |      |              | 31450-0007-1        | 32 1 O-ring .....                          |      |              | 223406-51           |
| 5    | 1    | Yoke .....  | 31457-0050-1        | 36a+b 2 Rotating seal ring .....             |      |              | 31437-0211-1        | 33 1 Stationary seal ring .....            |      |              | 31450-0007-1        |
| 6*   | 1    | Impeller, diameter 95 mm (standard) .....                 | 9612-1868-02        | 37 1 Spring .....                            |      |              | 104154              | 36a 1 Rotating seal ring SiC .....         |      |              | 31437-0211-4        |
|      | 1    | Impeller 4 bladed, diameter 95 mm .....                   | 9612-3550-01        | 40 1 O-ring .....                            |      |              | 223406-60           | 36b 1 Rotating seal ring .....             |      |              | 31437-0211-1        |
|      | 1    | Impeller, diameter 115 mm (standard) .....                | 9612-1868-01        | 41 1 O-ring .....                            |      |              | 223406-58           | 37 1 Spring .....                          |      |              | 104154              |
|      | 1    | Impeller 4 bladed, diameter 115 mm .....                  | 9612-3549-01        | Δ Shaft seal, complete, EPDM .....           |      |              | 9612-4393-03        | 40 1 O-ring .....                          |      |              | 223406-60           |
| 7    | 1    | Pump casing with sanitary fittings 51 mm inlet and outlet |                     | 23 1 Stationary seal ring SiC .....          |      |              | 31437-0225-1        | 41 1 O-ring .....                          |      |              | 223406-58           |
|      |      | ISO male .....  | 31457-0038-1        | 25 1 Seal .....                              |      |              | 31437-0121-3        | Shaft seal, complete, EPDM .....           |      |              | 9612-4393-07        |
|      |      | SMS .....   | 31457-0038-2        | 29a 1 O-ring, front .....                    |      |              | 31439-0168-4        | 23 1 Stationary seal ring SiC .....        |      |              | 31437-0225-1        |
|      |      | DIN .....   | 31457-0038-3        | 29b 1 O-ring, back .....                     |      |              | 31439-0168-4        | 25 1 Seal .....                            |      |              | 31437-0121-3        |
|      |      | ISO clamp .....   | 31457-0038-4        | 30 3 Washer .....                            |      |              | 104125              | 29a 1 O-ring, front .....                  |      |              | 31439-0168-4        |
|      |      | BS .....  | 31457-0038-5        | 31 1 Spacer .....                            |      |              | 31437-0212-1        | 29b 1 O-ring, back .....                   |      |              | 31439-0168-4        |
| 8    | 2    | Nut .....   | 9611-99-0587        | 32 1 O-ring .....                            |      |              | 223406-51           | 30 3 Washer .....                          |      |              | 104125              |
| 9    | 1    | Back plate .....  | 31456-0035-1        | 33 1 Stationary seal ring .....              |      |              | 31450-0007-1        | 31 1 Spacer .....                          |      |              | 31437-0212-1        |
| 10Δ  | 1    | O-ring, NBR (Standard) .....                              | 223412-75           | 36a+b 2 Rotating seal ring .....             |      |              | 31437-0211-1        | 32 1 O-ring .....                          |      |              | 223406-51           |
|      | 1    | O-ring, EPDM .....  | 2234121-75          | 37 1 Spring .....                            |      |              | 104154              | 33 1 Stationary seal ring .....            |      |              | 31450-0007-1        |
|      | 1    | O-ring, FPM .....   | 223412-76           | 40 1 O-ring .....                            |      |              | 223406-60           | 36a 1 Rotating seal ring SiC .....         |      |              | 31437-0211-4        |
|      | 1    | O-ring, PTFE .....  | 31456-0060-1        | 41 1 O-ring .....                            |      |              | 223406-58           | 36b 1 Rotating seal ring .....             |      |              | 31437-0211-1        |
| 11b  | 2    | Stud bolt .....   | 31457-0051-2        | Δ Shaft seal, complete, FPM .....            |      |              | 9612-4393-04        | 37 1 Spring .....                          |      |              | 104154              |
| 12   | 1    | Cover plate .....   | 31457-0013-1        | 23 1 Stationary seal ring SiC .....          |      |              | 31437-0225-1        | 40 1 O-ring .....                          |      |              | 223406-60           |
| 13   | 2    | Front leg .....   | 31457-0037-1        | 25 1 Seal .....                              |      |              | 31437-0121-3        | 41 1 O-ring .....                          |      |              | 223406-58           |
| 14   | 2    | Screw .....   | 2210936-43          | 29a 1 O-ring, front .....                    |      |              | 31439-0168-5        | Shaft seal, complete, FPM .....            |      |              | 9612-4393-08        |
| 15   | 1    | Back leg .....  | 31457-0037-2        | 29b 1 O-ring, back .....                     |      |              | 31439-0168-5        | 23 1 Stationary seal ring SiC .....        |      |              | 31437-0225-1        |
| 16   | 1    | Shroud .....  | 31457-0049-1        | 30 3 Washer .....                            |      |              | 104125              | 25 1 Seal .....                            |      |              | 31437-0121-3        |
| 34   | 1    | Tubular spring pin .....                                  | 222119-20           | 31 1 Spacer .....                            |      |              | 31437-0212-1        | 29a 1 O-ring, front .....                  |      |              | 31439-0168-5        |
| 35   | 1    | Seal housing .....  | 31439-0114-1        | 32 1 O-ring .....                            |      |              | 223406-51           | 29b 1 O-ring, back .....                   |      |              | 31439-0168-5        |
| 39   | 4    | Screw .....   | 9611-99-0208        | 33 1 Stationary seal ring .....              |      |              | 31450-0007-1        | 30 3 Washer .....                          |      |              | 104125              |
| 39a  | 4    | Washer .....  | 9611-99-0800        | 36a+b 2 Rotating seal ring .....             |      |              | 31437-0211-1        | 31 1 Spacer .....                          |      |              | 31437-0212-1        |
| 42   | 1    | Pump shaft .....  | 31457-0055-1        | 37 1 Spring .....                            |      |              | 104154              | 32 1 O-ring .....                          |      |              | 223406-51           |
| 43   | 1    | Fastening ring .....                                      | 31439-0113-1        | 40 1 O-ring .....                            |      |              | 223406-60           | 33 1 Stationary seal ring .....            |      |              | 31450-0007-1        |
| 44   | 1    | Intermediate flange .....                                 | 31457-0054-1        | 41 1 O-ring .....                            |      |              | 223406-58           | 36a 1 Rotating seal ring SiC .....         |      |              | 31437-0211-4        |
| 45   | 2    | Flushing tube .....                                       | 9612-3589-06        | Δ Shaft seal, complete, PTFE .....           |      |              | 9612-4393-02        | 36b 1 Rotating seal ring .....             |      |              | 31437-0211-1        |
| 46   | 1    | Assembly mandrel (not shown) .....                        | 31439-0118-1        | 23 1 Stationary seal ring SiC .....          |      |              | 31437-0225-1        | 37 1 Spring .....                          |      |              | 104154              |
|      |      |   |                     | 25 1 Seal .....                              |      |              | 31437-0121-3        | 40 1 O-ring .....                          |      |              | 223406-60           |
|      |      |   |                     | 29a 1 O-ring, front .....                    |      |              | 31439-0168-3        | 41 1 O-ring .....                          |      |              | 223406-58           |
|      |      |   |                     | 29b 1 O-ring, back .....                     |      |              | 31439-0168-1        | Shaft seal, complete, PTFE .....           |      |              | 9612-4393-06        |
|      |      |   |                     | 30 3 Washer .....                            |      |              | 104125              | 23 1 Stationary seal ring SiC .....        |      |              | 31437-0225-1        |
|      |      |   |                     | 31 1 Spacer .....                            |      |              | 31437-0212-1        | 25 1 Seal .....                            |      |              | 31437-0121-3        |
|      |      |   |                     | 32 1 O-ring .....                            |      |              | 223406-51           | 29a 1 O-ring, front .....                  |      |              | 31439-0168-3        |
|      |      |   |                     | 33 1 Stationary seal ring .....              |      |              | 31450-0007-1        | 29b 1 O-ring, back .....                   |      |              | 31439-0168-3        |
|      |      |   |                     | 36a+b 2 Rotating seal ring .....             |      |              | 31437-0211-1        | 30 3 Washer .....                          |      |              | 104125              |
|      |      |   |                     | 37 1 Spring .....                            |      |              | 104154              | 31 1 Spacer .....                          |      |              | 31437-0212-1        |
|      |      |   |                     | 40 1 O-ring .....                            |      |              | 223406-60           | 32 1 O-ring .....                          |      |              | 223406-51           |
|      |      |   |                     | 41 1 O-ring .....                            |      |              | 223406-58           | 33 1 Stationary seal ring .....            |      |              | 31450-0007-1        |
|      |      |   |                     |  |      |              |                     | 36a 1 Rotating seal ring SiC .....         |      |              | 31437-0211-4        |
|      |      |   |                     |  |      |              |                     | 36b 1 Rotating seal ring .....             |      |              | 31437-0211-1        |
|      |      |   |                     |  |      |              |                     | 37 1 Spring .....                          |      |              | 104154              |
|      |      |   |                     |  |      |              |                     | 40 1 O-ring .....                          |      |              | 223406-60           |
|      |      |   |                     |  |      |              |                     | 41 1 O-ring .....                          |      |              | 223406-58           |

\* Sometimes reduced impeller diameter. Check the diameter of the original impeller.

- Δ Service kit, NBR. .... 9611-92-1054
- Δ Service kit, EPDM. .... 9611-92-1055
- Δ Service kit, FPM. .... 9611-92-1056
- Δ Service kit, PTFE. .... 9611-92-1057

Parts marked with Δ are included in the Service kits.