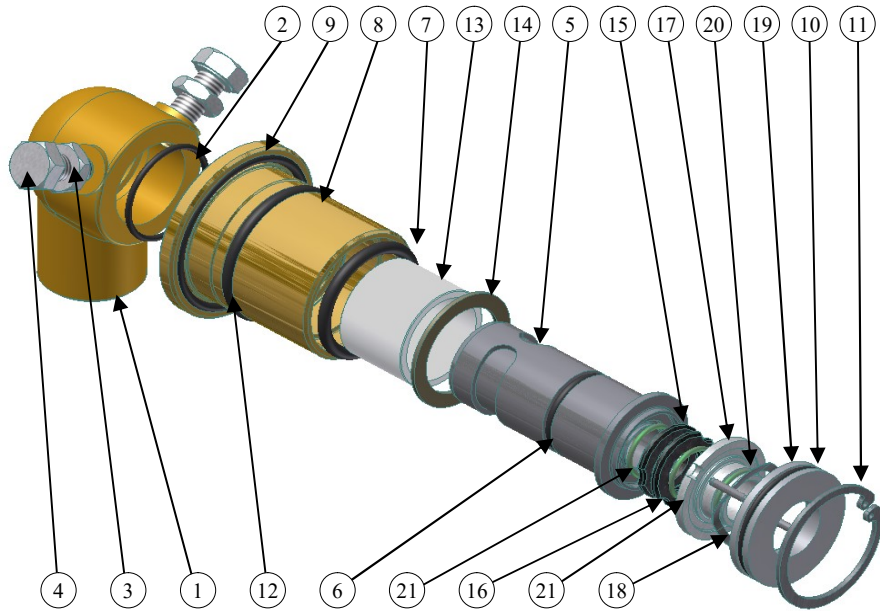




Repair Instruction

Model/Series: 2400 Series
 Number: 032-3002
 Revision: B



2412 Union Series

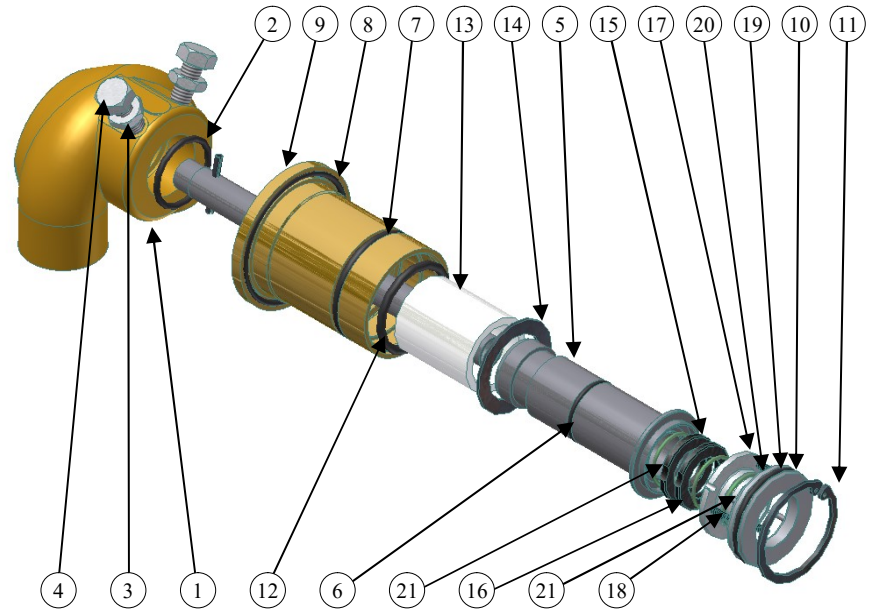
Item	Qty	Description	Repair Kit
1	1	Elbow	Not Included
2	1	O-Ring, Elbow	Included
3	2	Jam Nut	Not Included
4	2	Cap Screw	Not Included
5	1	Rotor	Not Included
6	1	O-Ring, Rotor	Included
7	Model Specific	O-Ring, Housing	Included
8	Model Specific	O-Ring, Housing	Included
9	1	Housing	Not Included
10	1	O-Ring, Spring Holder	Included
11	1	Snap Ring	Not Included
12	1	O-Ring, Housing	Included
13	1	Bearing	Included
14	1	Thrust Washer	Included
15	1	Rotor Seal	Included
16	1	Floating Seal	Included
17	1	Seal Carrier	Included
18	1	Wave Spring	Included
19	1	Spring Holder	Included
20	3	O-Ring, Seal Carrier	Included
21	2	O-Ring, Seals	Included
N/A	Model Specific	O-Ring, End Plug	Included

*Housing o-rings will differ by model.



Repair Instruction

Model/Series: 2400 Series
 Number: 032-3002
 Revision: B



2420 Union Series

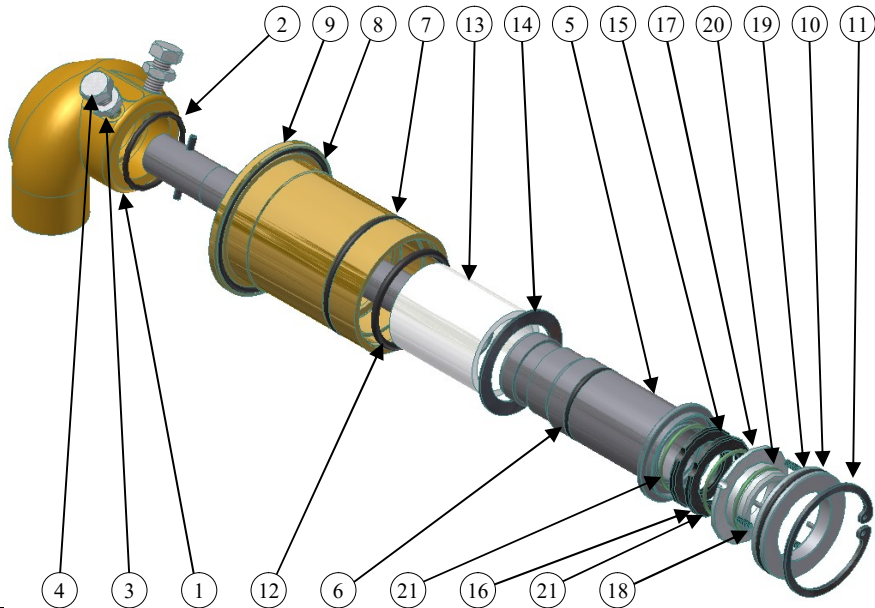
Item	Qty	Description	Repair Kit
1	1	Elbow	Not Included
2	1	O-Ring, Elbow	Included
3	2	Jam Nut	Not Included
4	2	Cap Screw	Not Included
5	1	Rotor	Not Included
6	1	O-Ring, Rotor	Included
7	Model Specific	O-Ring, Housing	Included
8	Model Specific	O-Ring, Housing	Included
9	1	Housing	Not Included
10	1	O-Ring, Spring Holder	Included
11	1	Snap Ring	Not Included
12	1	O-Ring, Housing	Included
13	1	Bearing	Included
14	1	Thrust Washer	Included
15	1	Rotor Seal	Included
16	1	Floating Seal	Included
17	1	Seal Carrier	Included
18	1	Coil Spring	Included
19	1	Spring Holder	Included
20	3	O-Ring, Seal Carrier	Included
21	2	O-Ring, Seals	Included
N/A	Model Specific	O-Ring, End Plug	Included

*Housing o-rings will differ by model.



Repair Instruction

Model/Series: 2400 Series
 Number: 032-3002
 Revision: B



2425 Union Series

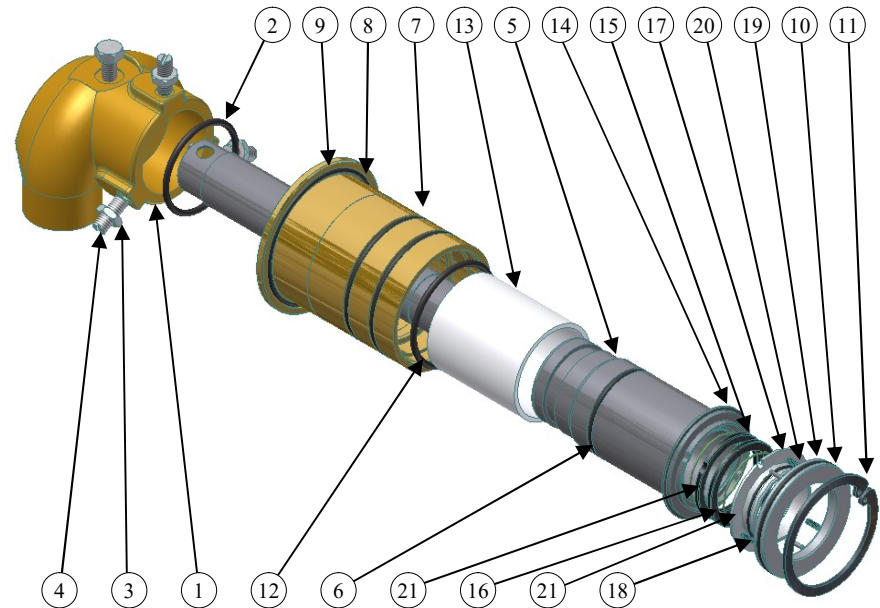
Item	Qty	Description	Repair Kit
1	1	Elbow	Not Included
2	1	O-Ring, Elbow	Included
3	2	Jam Nut	Not Included
4	2	Cap Screw	Not Included
5	1	Rotor	Not Included
6	1	O-Ring, Rotor	Included
7	Model Specific	O-Ring, Housing	Included
8	Model Specific	O-Ring, Housing	Included
9	1	Housing	Not Included
10	1	O-Ring, Spring Holder	Included
11	1	Snap Ring	Not Included
12	1	O-Ring, Housing	Included
13	1	Bearing	Included
14	1	Thrust Washer	Included
15	1	Rotor Seal	Included
16	1	Floating Seal	Included
17	1	Seal Carrier	Included
18	1	Coil Spring	Included
19	1	Spring Holder	Included
20	3	O-Ring, Seal Carrier	Included
21	2	O-Ring, Seals	Included
N/A	Model Specific	O-Ring, End Plug	Included

*Housing o-rings will differ by model.



Repair Instruction

Model/Series: 2400 Series
 Number: 032-3002
 Revision: B



2440 Union Series

Item	Qty	Description	Repair Kit
1	1	Elbow	Not Included
2	1	O-Ring, Elbow	Included
3	2	Jam Nut	Not Included
4	2	Screw	Not Included
5	1	Rotor	Not Included
6	1	O-Ring, Rotor	Included
7	Model Specific	O-Ring, Housing	Included
8	Model Specific	O-Ring, Housing	Included
9	1	Housing	Not Included
10	1	O-Ring, Spring Holder	Included
11	1	Snap Ring	Not Included
12	1	O-Ring, Housing	Included
13	1	Bearing	Included
14	1	Thrust Washer	Included
15	1	Rotor Seal	Included
16	1	Floating Seal	Included
17	1	Seal Carrier	Included
18	1	Coil Spring	Included
19	1	Spring Holder	Included
20	3	O-Ring, Seal Carrier	Included
21	2	O-Ring, Seals	Included
N/A	Model Specific	O-Ring, End Plug	Included

DISASSEMBLY

Step 1

Loosen and remove **jam nuts (3)** and **bolts (4)**. Remove **elbow (1)** and **siphon tube (not depicted)** (duoflow models only) from **rotor (5)**. Remove **siphon tube (not depicted)** from **elbow (1)**. Discard **o-ring (2)** in **elbow (1)** ID o-ring groove.

Step 2

Remove the **end plug (not depicted)** if included with the union model. Remove the **snap ring (11)** using snap ring pliers. Push the **rotor (5)** out of the **housing (9)/bearing (13)** assembly.

Step 3

Separate the **rotor (5)**, **seal carrier (17)**, and **spring holder (19)**. Separate the **seal carrier (17)** from the **spring holder (19)**.

Step 4

Remove and discard the **rotor seal (15)** and **floating seal (16)**. Remove and discard the **wave/coil spring(s) (18)** in the **spring holder (19)**. Remove and discard the **o-ring(s) (10,20,6)** on the **spring holder (19)** OD on the **seal carrier (17)** OD, in the **seal carrier (17)** groove, in the **rotor groove (6)**, and on the **rotor (5)** OD.

Step 5

Remove the **thrust washer (14)** from inside the **housing (9)**. Press the **bearing (13)** out of the housing from the flange side. Discard **bearing (13)** and **thrust washer (14)**. Remove and discard all **o-rings (12) & (8)** on the outside of the housing.

ASSEMBLY

Step 1

Clean all parts that will be reused. The **housing (9)**, **rotor (5)**, **seal carrier (17)**, and **spring holder (19)** may be grit-blasted with glass bead or aluminum oxide to remove dirt and debris. Sand-blasting is NOT recommended.

Step 2

The **rotor (6)** OD MUST be polished after grit-blasting. A surface finish of Ra 0.4 µm is recommended. The OD must be smooth so the **bearing (13)** does not wear out early. Polish the **spring holder (19)** ID.

Step 3

Press **bearing (13)** into **housing (9)** until it reaches bottom. Install **thrust washer (14)** onto the step in the housing. Insert OD of **thrust washer (14)** into **housing (9)** groove.

Step 4

Apply petroleum-based o-ring grease to ALL new o-rings. Assemble **o-ring (10)** into **spring holder (19)** OD groove. Assemble **o-ring (20)** into **seal carrier (17)** OD groove. Assemble **o-ring (6)** into **rotor (5)** OD groove.

Step 5

Place **wave spring (18)** in **spring holder (19)**. Assemble **seal carrier (17)** into **spring holder (19)** being careful not to dislodge **wave spring (18)**.

Step 6

Apply Molycote 33 Medium Silicone grease to **thrust washer (14)** and **rotor (5)** OD. Press **rotor (5)** into **housing (9)/bearing (13)** assembly until it bottoms on **thrust washer (14)**.

Step 7

Place **o-ring(s) (6)** into the **rotor (5)** groove and **seal carrier (17)** groove. Place **rotor seal (15)** onto end of **rotor (5)**. Place **floating seal (16)** onto **seal carrier (17)** with the BEVELED SIDE UP.

Step 8

Place **floating seal (16)/seal carrier (17)** assembly into **housing (9)**. Ensure that the seal plates do not dislodge during assembly. Press **spring holder (19)** down in **housing (9)** and install **snap ring (11)** with snap ring pliers.

