



PUMP SEAL PARTS GUIDE

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HOW TO SELECT SEAL PARTS

1. Select pump model
2. U1/ZP1 - Pg. 4-11
3. U2/ZP2 - Pg. 14-20
4. Select pump seal configuration
 - At the beginning of each section you will select your seal configuration.
5. Select pump size at the top of each page
6. Select seal material

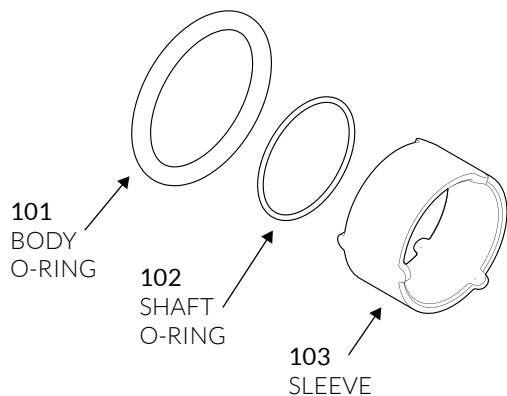
HOW TO SELECT A SEAL KIT

- U1/ZP1 O-Ring Seal Kits are on Pg. 6
- U1/ZP1 Mechanical Seal Kits are on Pg. 7
- U2/ZP2 Mechanical Seal Kits are on Pg. 16

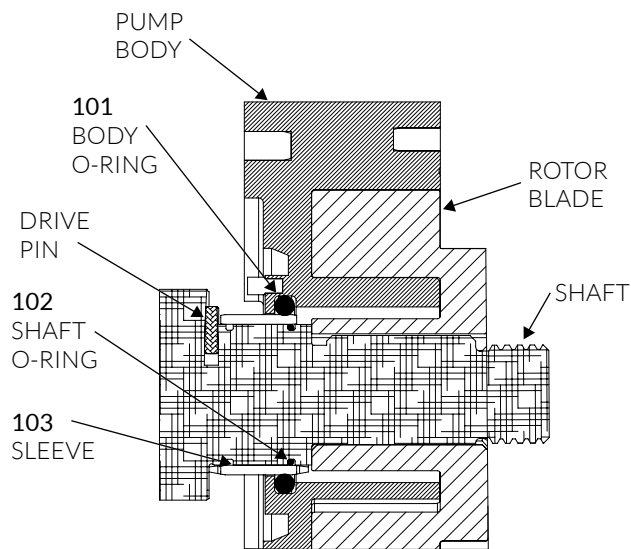
REPLACEMENT SEALS

O-RING DIAGRAMS

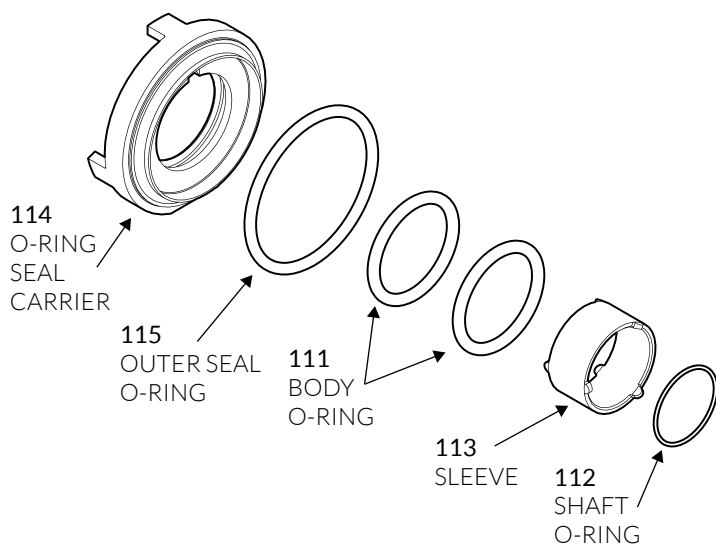
U1/ZP1 MODELS 45-224



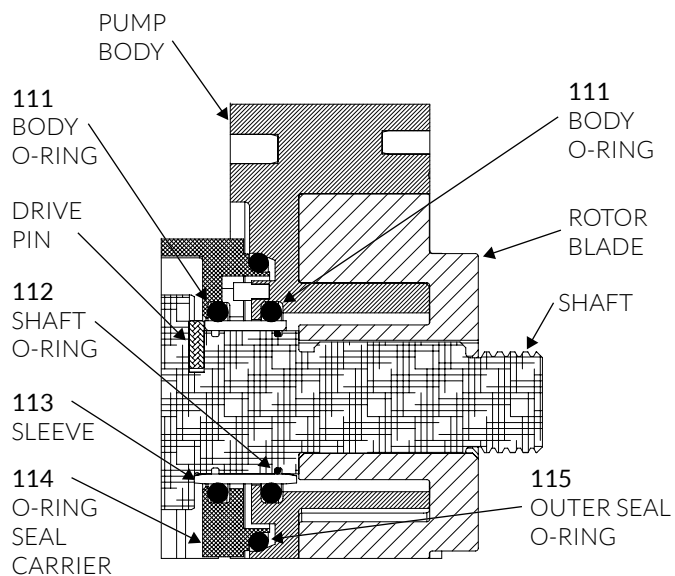
SINGLE O-RING SEAL PARTS



SINGLE O-RING SEAL



DOUBLE O-RING SEAL PARTS



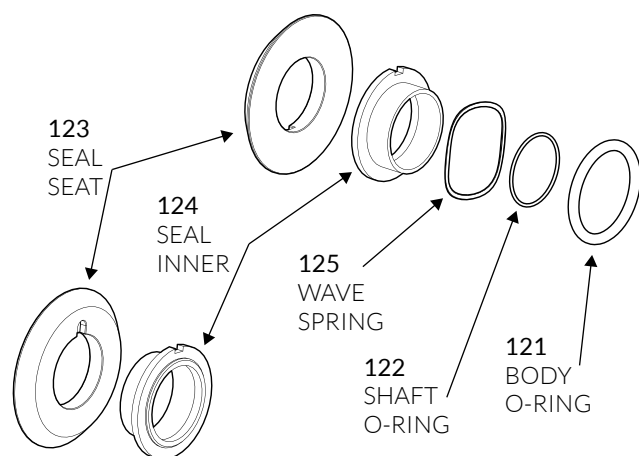
DOUBLE O-RING SEAL

NOTE 1:

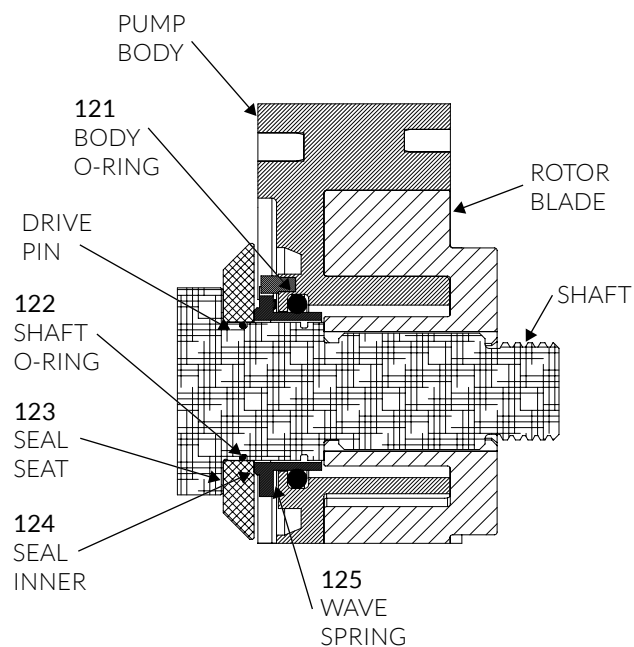
Contact CSI Pump Center at 417.831.1411 or email pumps@csidesigns.com for Double O-Ring Seal Kit pricing

SINGLE MECHANICAL DIAGRAMS

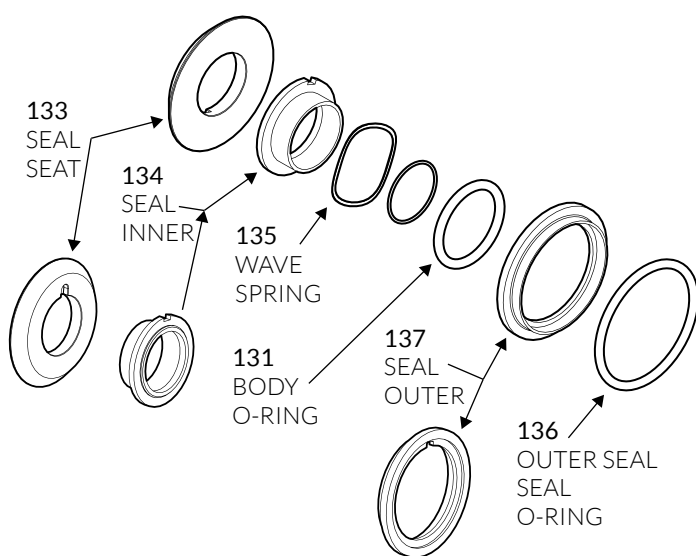
U1/ZP1 MODELS 45-224



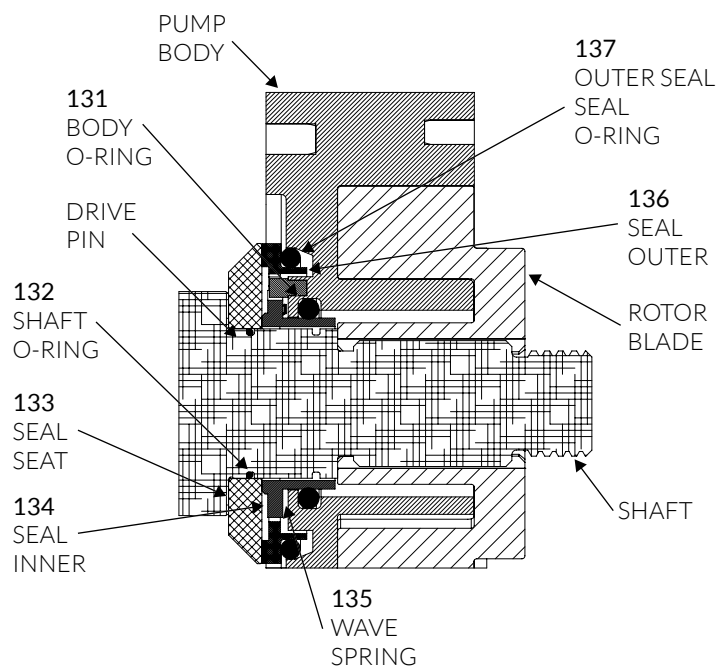
SINGLE MECHANICAL SEAL PARTS



SINGLE MECHANICAL SEAL



DOUBLE MECHANICAL SEAL PARTS



DOUBLE MECHANICAL SEAL

KIT SELECTION

O-RING SEAL KITS

U1/ZP1 MODELS

Model	Description	Part No.
U1/ZP1 6 / 15 / 18	<i>Without Sleeves</i>	
	Single Seal: Buna	P1GX 0150 00 -N
	Single Seal: Viton	P1GX 0150 00 -V
	Single Seal: EPDM	P1GX 0150 00 -E
	<i>With Sleeves</i>	
	Single Seal: Buna	P1GS 01500 S -N
	Single Seal: Viton	P1GS 01500 S -V
	Single Seal: EPDM	P1GS 01500 S -E
U1/ZP1 30	<i>Without Sleeves</i>	
	Single Seal: Buna	P1GX 0300 00 -N
	Single Seal: Viton	P1GX 0300 00 -V
	Single Seal: EPDM	P1GX 0300 00 -E
	<i>With Sleeves</i>	
	Single Seal: Buna	P1GS 03000 S -N
	Single Seal: Viton	P1GS 03000 S -V
	Single Seal: EPDM	P1GS 03000 S -E
U1/ZP1 60 / 130	<i>Without Sleeves</i>	
	Single Seal: Buna	P1GX 0600 00 -N
	Single Seal: Viton	P1GX 0600 00 -V
	Single Seal: EPDM	P1GX 0600 00 -E
	<i>With Sleeves</i>	
	Single Seal: Buna	P1GS 06000 S -N
	Single Seal: Viton	P1GS 06000 S -V
	Single Seal: EPDM	P1GS 06000 S -E
U1/ZP1 220	<i>Without Sleeves</i>	
	Single Seal: Buna	P1GX 2200 00 -N
	Single Seal: Viton	P1GX 2200 00 -V
	Single Seal: EPDM	P1GX 2200 00 -E
	<i>With Sleeves</i>	
	Single Seal: Buna	P1GS 22000 S -N
	Single Seal: Viton	P1GS 22000 S -V
	Single Seal: EPDM	P1GS 22000 S -E

NOTE 1:

Mechanical seal replacement kits include seal faces and o-rings for both shafts and rotors and cover o-ring.

NOTE 2:

Contact CSI Pump Center at 417.831.1411 or email pumps@csidesigns.com for Double O-Ring Seal Kit pricing.

MECHANICAL SEAL KITS

U1/ZP1 MODELS

NOTE 1:

Mechanical seal replacement kits include seal faces and o-rings for both shafts and rotors and cover o-ring.

Model	Description	Part No.
U1/ZP1 6/15/18	SINGLE SEAL: SILICON CARBIDE / CARBON / BUNA	P1GS015000-N
	SINGLE SEAL: SILICON CARBIDE / CARBON / VITON	P1GS015000-V
	SINGLE SEAL: SILICON CARBIDE / CARBON / EPDM	P1GS015000-E
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / BUNA	P1GS015200-N
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / VITON	P1GS015200-V
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / VITON	P1GS015200-E
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / BUNA	P1GS015010-N
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / VITON	P1GS015010-V
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / EPDM	P1GS015010-E
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / BUNA	P1GS015210-N
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / VITON	P1GS015210-V
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / EPDM	P1GS015210-E
U1/ZP1 30	SINGLE SEAL: SILICON CARBIDE / CARBON / BUNA	P1GS030000-N
	SINGLE SEAL: SILICON CARBIDE / CARBON / VITON	P1GS030000-V
	SINGLE SEAL: SILICON CARBIDE / CARBON / EPDM	P1GS030000-E
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / BUNA	P1GS030200-N
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / VITON	P1GS030200-V
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / EPDM	P1GS030200-E
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / BUNA	P1GS030010-N
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / VITON	P1GS030010-V
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / EPDM	P1GS030010-E
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / BUNA	P1GS030210-N
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / VITON	P1GS030210-V
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / EPDM	P1GS030210-E
U1/ZP1 60/130	SINGLE SEAL: SILICON CARBIDE / CARBON / BUNA	P1GS060000-N
	SINGLE SEAL: SILICON CARBIDE / CARBON / VITON	P1GS060000-V
	SINGLE SEAL: SILICON CARBIDE / CARBON / EPDM	P1GS060000-E
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / BUNA	P1GS060200-N
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / VITON	P1GS060200-V
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / EPDM	P1GS060200-E
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / BUNA	P1GS060010-N
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / VITON	P1GS060010-V
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / EPDM	P1GS060010-E
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / BUNA	P1GS060210-N
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / VITON	P1GS060210-V
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / EPDM	P1GS060210-E
U1/ZP1 220	SINGLE SEAL: SILICON CARBIDE / CARBON / BUNA	P1GS220000-N
	SINGLE SEAL: SILICON CARBIDE / CARBON / VITON	P1GS220000-V
	SINGLE SEAL: SILICON CARBIDE / CARBON / EPDM	P1GS220000-E
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / BUNA	P1GS220200-N
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / VITON	P1GS220200-V
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / EPDM	P1GS220200-E
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / BUNA	P1GS220010-N
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / VITON	P1GS220010-V
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / EPDM	P1GS220010-E
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / BUNA	P1GS220210-N
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / VITON	P1GS220210-V
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / EPDM	P1GS220210-E
U1/ZP1 320	SINGLE SEAL: SILICON CARBIDE / CARBON / BUNA	P1GS320000-N
	SINGLE SEAL: SILICON CARBIDE / CARBON / VITON	P1GS320000-V
	SINGLE SEAL: SILICON CARBIDE / CARBON / EPDM	P1GS320000-E

INDIVIDUAL SEAL PARTS SELECTION

U1/ZP1 MODELS

45, 60, 64, 130, 134

Single O-ring Seal:

Item	Description	Quantity Per Pump	Part No.
100	Single O-ring Seal:		
101	O-RING, BODY (BUNA) - U1/Z P1 45/60/64/130/134	2	N70331
	O-RING, BODY (EPDM) - U1/Z P1 45/60/64/130/134		E70331
	O-RING, BODY (VITON) - U1/Z P1 45/60/64/130/134		V70331
	O-RING, BODY (SILICONE) - U1/Z P1 45/60/64/130/134		S75331
102	O-RING, SHAFT (BUNA) - U1/Z P1 45/60/64/130/134	2	N70131
	O-RING, SHAFT (EPDM) - U1/Z P1 45/60/64/130/134		E70131
	O-RING, SHAFT (VITON) - U1/Z P1 45/60/64/130/134		V70131
	O-RING, SHAFT (SILICONE) - U1/Z P1 45/60/64/130/134		S75131
103	SLEEVE (17-4PH H900) U1/Z P1 60/64/130/134 - SLOTTED	2	P1SX060098001
	ZIRCONIA SLEEVE - U1/Z P1 60/64/130/134		P1SX060098004
	CHROME OXIDE SLEEVE (316L) - U1/Z P1 60/64/130/134		P1SX060098002

Double O-ring Seal:

Item	Description	Quantity Per Pump	Part No.
110	Double O-ring Seal:		
111	O-RING, BODY (BUNA) - U1/Z P1 45/60/64/130/134	4	N70331
	O-RING, BODY (EPDM) - U1/Z P1 45/60/64/130/134		E70331
	O-RING, BODY (VITON) - U1/Z P1 45/60/64/130/134		V70331
	O-RING, BODY (SILICONE) - U1/Z P1 45/60/64/130/134		S75331
112	O-RING, SHAFT (BUNA) - U1/Z P1 45/60/64/130/134	2	N70131
	O-RING, SHAFT (EPDM) - U1/Z P1 45/60/64/130/134		E70131
	O-RING, SHAFT (VITON) - U1/Z P1 45/60/64/130/134		V70131
	O-RING, SHAFT (SILICONE) - U1/Z P1 45/60/64/130/134		S75131
113	SLEEVE (17-4PH H900) U1/Z P1 60/64/130/134 - SLOTTED	2	P1SX060098001
	ZIRCONIA SLEEVE - U1/Z P1 60/64/130/134		P1SX060098004
	CHROME OXIDE SLEEVE (316L) - U1/Z P1 60/64/130/134		P1SX060098002
114*	O-RING SEAL CARRIER (316) U1/Z P1 60/64/130/134	2	P1SX060034001
115	O-RING, OUTER SEAL (BUNA) - U1/Z P1 45/60/64/130/134	2	N50338
	O-RING, OUTER SEAL (EPDM) - U1/Z P1 45/60/64/130/134		E50338
	O-RING, OUTER SEAL (VITON) - U1/Z P1 45/60/64/130/134		V50338

*When purchasing replacement parts for Wright pumps manufactured before 01/01/09 or Waukesha® pumps manufactured before 07/12/04, order the following parts.

Item	Description	Quantity Per Pump	Part No.
114	O-RING SEAL CARRIER OLD STYLE U1/Z P1 60/64/130/134	2	P1SX060034000

U1/ZP1 MODELS

45, 60, 64, 130, 134

Single O-ring Seal:

Item	Description	Quantity Per Pump	Part No.
120	Single Mechanical Seal		
121	O-RING, BODY (BUNA) - U1/Z P1 45/60/64/130/134	2	N70331
	O-RING, BODY (EPDM) - U1/Z P1 45/60/64/130/134		E70331
	O-RING, BODY (VITON) - U1/Z P1 45/60/64/130/134		V70331
	O-RING, BODY (SILICONE) - U1/Z P1 45/60/64/130/134		S75331
122	O-RING, SHAFT (BUNA) - U1/Z P1 45/60/64/130/134	2	N70131
	O-RING, SHAFT (EPDM) - U1/Z P1 45/60/64/130/134		E70131
	O-RING, SHAFT (VITON) - U1/Z P1 45/60/64/130/134		V70131
	O-RING, SHAFT (SILICONE) - U1/Z P1 45/60/64/130/134		S75131
123	SEAL SEAT (K) U1/Z P1 60/64/130/134	2	P1GS060014002
	SEAL SEAT (C) U1/Z P1 45/60/64/130/134		P1GS060014009
	SEAL SEAT (CO) U1/Z P1 45/60/64/130/134		P1GS060014001
124	SEAL INNER (N) U1/Z P1 60/64/130/134	2	P1GS060306007
	SEAL INNER (K) U1/Z P1 60/64/130/134		P1GS40642
	SEAL INNER (C) U1/Z P1 45/60/64/130/134		P1GS060306009
	SEAL SEAT (CO) U1/Z P1 45/60/64/130/134		P1GS060306002
125	INNER SEAL WAVE SPRING - U1/Z P1 45/60/64/130/134	2	P1GS060304000

Double O-ring Seal:

Item	Description	Quantity Per Pump	Part No.
130	Double Mechanical Seal		
131	O-RING, BODY (BUNA) - U1/Z P1 45/60/64/130/134	2	N70331
	O-RING, BODY (EPDM) - U1/Z P1 45/60/64/130/134		E70331
	O-RING, BODY (VITON) - U1/Z P1 45/60/64/130/134		V70331
	O-RING, BODY (SILICONE) - U1/Z P1 45/60/64/130/134		S75331
132	O-RING, SHAFT (BUNA) - U1/Z P1 45/60/64/130/134	2	N70131
	O-RING, SHAFT (EPDM) - U1/Z P1 45/60/64/130/134		E70131
	O-RING, SHAFT (VITON) - U1/Z P1 45/60/64/130/134		V70131
	O-RING, SHAFT (SILICONE) - U1/Z P1 45/60/64/130/134		S75131
133	SEAL SEAT (K) U1/Z P1 60/64/130/134	2	P1GS060014002
	SEAL SEAT (C) U1/Z P1 45/60/64/130/134		P1GS060014009
	SEAL SEAT (CO) U1/Z P1 45/60/64/130/134		P1GS060014001
134	SEAL INNER (N) U1/Z P1 60/64/130/134	2	P1GS060306007
	SEAL INNER (K) U1/Z P1 60/64/130/134		P1GS40642
	SEAL INNER (C) U1/Z P1 45/60/64/130/134		P1GS060306009
	SEAL SEAT (CO) U1/Z P1 45/60/64/130/134		P1GS060306002
135	INNER SEAL WAVE SPRING - U1/Z P1 45/60/64/130/134	2	P1GS060304000
136	O-RING, OUTER SEAL (BUNA) - U1/Z P1 45/60/64/130/134	2	N50338
	O-RING, OUTER SEAL (EPDM) - U1/Z P1 45/60/64/130/134		E50338
	O-RING, OUTER SEAL (VITON) - U1/Z P1 45/60/64/130/134		V50338
137	OUTER SEAL (N) U1/Z P1 45/60/64/130/134	2	P1GS060206007
	OUTER SEAL (CO) U1/Z P1 45/60/64/130/134		P1GS060206002

SEAL DETAILS

K = CERAMIC
 C = SILICON CARBIDE
 CO = CHROME OXIDE
 N = CARBON

INDIVIDUAL SEAL PARTS SELECTION

U1/ZP1 SEAL PARTS

MODELS 220,224

Single O-ring Seal:

Item	Description	Quantity Per Pump	Part No.
100	Single O-ring Seal:		
101	O-RING, BODY (BUNA) - U1/Z P1 220/224	2	N70338
	O-RING, BODY (EPDM) - U1/Z P1 220/224		E70338
	O-RING, BODY (VITON) - U1/Z P1 220/224		V70338
	O-RING, BODY (SILICONE) - U1/Z P1 220/224		S75338
102	O-RING, SHAFT (BUNA) - U1/Z P1 220/224	2	N70144
	O-RING, SHAFT (EPDM) - U1/Z P1 220/224		E70144
	O-RING, SHAFT (VITON) - U1/Z P1 220/224		V70144
	O-RING, SHAFT (SILICONE) - U1/Z P1 220/224		S75144
103	SLEEVE (17-4PH H900) - U1/Z P1 220/224 - SLOTTED	2	P15X220098001
	ZIRCONIA SLEEVE - U1/Z P1 220/224		P15X220098004
	CHROME OXIDE SLEEVE (316L) - U1/Z P1 220/224		P15X220098002

Double O-ring Seal:

Item	Description	Quantity Per Pump	Part No.
110	Double O-ring Seal:		
111	O-RING, BODY (BUNA) - U1/Z P1 220/224	4	N70338
	O-RING, BODY (EPDM) - U1/Z P1 220/224		E70338
	O-RING, BODY (VITON) - U1/Z P1 220/224		V70338
	O-RING, BODY (SILICONE) - U1/Z P1 220/224		S75338
112	O-RING, SHAFT (BUNA) - U1/Z P1 220/224	2	N70144
	O-RING, SHAFT (EPDM) - U1/Z P1 220/224		E70144
	O-RING, SHAFT (VITON) - U1/Z P1 220/224		V70144
	O-RING, SHAFT (SILICONE) - U1/Z P1 220/224		S75144
113	SLEEVE (17-4PH H900) - U1/Z P1 220/224 - SLOTTED	2	P15X220098001
	ZIRCONIA SLEEVE - U1/Z P1 220/224		P15X220098004
	CHROME OXIDE SLEEVE (316L) - U1/Z P1 220/224		P15X220098002
114*	O-RING SEAL CARRIER (316) U1/Z P1 220/224	2	P15X220034001
115	O-RING, OUTER SEAL (BUNA) - U1/Z P1 220/224	2	N50344
	O-RING, OUTER SEAL (EPDM) - U1/Z P1 220/224		E50344
	O-RING, OUTER SEAL (VITON) - U1/Z P1 220/224		V50344

*When purchasing replacement parts for Wright pumps manufactured before 01/01/09 or Waukesha® pumps manufactured before 07/12/04, order the following parts.

Item	Description	Quantity Per Pump	Part No.
114	O-RING SEAL CARRIER (316) U1/Z P1 220/224	2	P15X220034000

U1/ZP1 SEAL PARTS

MODELS 220,224

Single Mechanical Seal:

Item	Description	Quantity Per Pump	Part No.
120	Single Mechanical Seal:		
121	O-RING, BODY (BUNA) - U1/Z P1 220/224	2	N70338
	O-RING, BODY (EPDM) - U1/Z P1 220/224		E70338
	O-RING, BODY (VITON) - U1/Z P1 220/224		V70338
	O-RING, BODY (SILICONE) - U1/Z P1 220/224		S75338
122	O-RING, SHAFT (BUNA) - U1/Z P1 220/224	2	N70144
	O-RING, SHAFT (EPDM) - U1/Z P1 220/224		E70144
	O-RING, SHAFT (VITON) - U1/Z P1 220/224		V70144
	O-RING, SHAFT (SILICONE) - U1/Z P1 220/224		S75144
123	SEAL SEAT (K) U1/Z P1 220/224	2	P1GS220014002
	SEAL SEAT (C) U1/Z P1 220/224		P1GS220014009
	SEAL SEAT (CO) U1/Z P1 220/224		P1GS220014001
124	SEAL INNER (N) U1/Z P1 220/224	2	P1GS220306007
	SEAL INNER (K) U1/Z P1 220/224		P1GS40830
	SEAL INNER (C) U1/Z P1 220/224		P1GS220306009
	INNER SEAL (CO) U1/Z P1 220/224		P1GS220306002
125	INNER SEAL WAVE SPRING - U1/Z P1 220/224	2	P1GS220304000

Double Mechanical Seal:

Item	Description	Quantity Per Pump	Part No.
130	Double Mechanical Seal:		
131	O-RING, BODY (BUNA) - U1/Z P1 220/224	2	N70338
	O-RING, BODY (EPDM) - U1/Z P1 220/224		E70338
	O-RING, BODY (VITON) - U1/Z P1 220/224		V70338
	O-RING, BODY (SILICONE) - U1/Z P1 220/224		S75338
132	O-RING, SHAFT (BUNA) - U1/Z P1 220/224	2	N70144
	O-RING, SHAFT (EPDM) - U1/Z P1 220/224		E70144
	O-RING, SHAFT (VITON) - U1/Z P1 220/224		V70144
	O-RING, SHAFT (SILICONE) - U1/Z P1 220/224		S75144
133	SEAL SEAT (K) U1/Z P1 220/224	2	P1GS220014002
	SEAL SEAT (C) U1/Z P1 220/224		P1GS220014009
	SEAL SEAT (CO) U1/Z P1 220/224		P1GS220014001
134	SEAL INNER (N) U1/Z P1 220/224	2	P1GS220306007
	SEAL INNER (K) U1/Z P1 220/224		P1GS40830
	SEAL INNER (C) U1/Z P1 220/224		P1GS220306009
	SEAL INNER (CO) U1/Z P1 220/224		P1GS220306002
135	INNER SEAL WAVE SPRING - U1/Z P1 220/224	2	P1GS220304000
136	O-RING, OUTER SEAL (BUNA) - U1/Z P1 220/224	2	N50344
	O-RING, OUTER SEAL (EPDM) - U1/Z P1 220/224		E50344
	O-RING, OUTER SEAL (VITON) - U1/Z P1 220/224		V50344
137	OUTER SEAL (N) U1/Z P1 220/224	2	P1GS220206007
	OUTER SEAL (CO) U1/Z P1 220/224		P1GS220206002

SEAL DETAILS

K = CERAMIC
 C = SILICON CARBIDE
 CO = CHROME OXIDE
 N = CARBON



PUMP REPAIR & REMANUFACTURE

WORN OUT PUMP COSTING YOU MONEY?



Return your pump to its original performance with CSI's pump repair and remanufacture program. Our factory-trained technicians service pumps from many manufacturers, including:

Alfa Laval
Ampco
Fristam

Mouvex
Netzsch
SPX/APV

Waukesha
Wilden

PUMP REPAIR & REMANUFACTURE



Evaluate & Repair

- Send your pump to CSI for evaluation
- CSI will disassemble the pump and prepare a quote for the recommended repairs
- All repaired gear cases will include a powder coat finish
- Mechanical run test is performed prior to shipment
- New warranty on replacement parts
- Evaluation fee waived if the repair is completed by CSI

Complete Remanufacture

- One year manufacturer's warranty on all remanufactured pumps
- Average savings of 20-30% over the cost of a new pump
- Remanufacture options:
 - U1/ZP1/ TRA10 models:** Up to four standard remans (0.02", 0.04", 0.06", and 0.08" oversized)
 - U2/ZP2/TRA20 models:** Up to three standard remans (0.02", 0.04", and 0.06" oversized)
- Housing and cover machined to accommodate oversized rotors
- Powder coat finish on all non-stainless gear cases
- Hydraulic performance test before shipment
- Evaluation fee waived if the remanufacture is completed by CSI



CALL A CSI PUMP CENTER AND ASK FOR A PUMP EXPERT

CSI Pump Centers

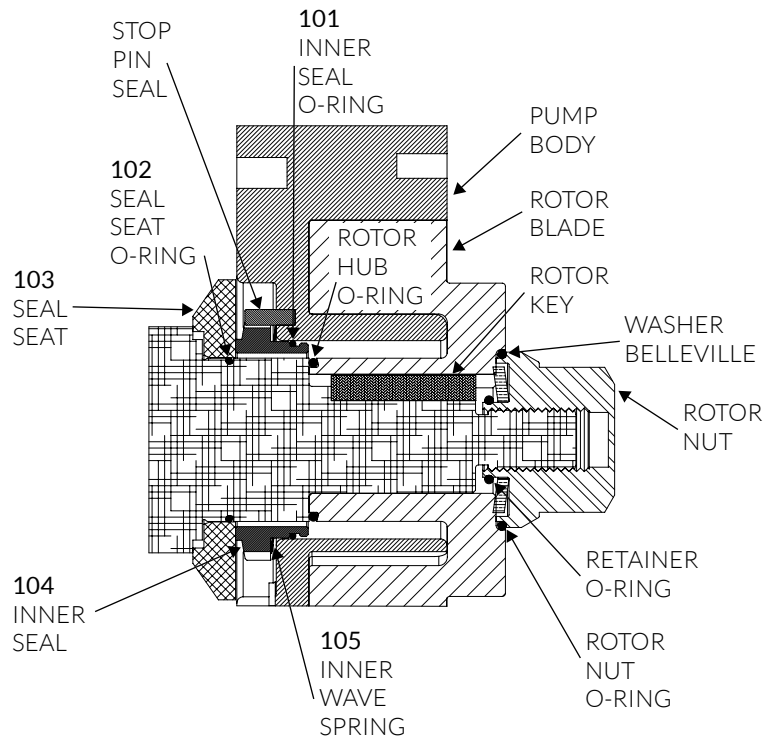
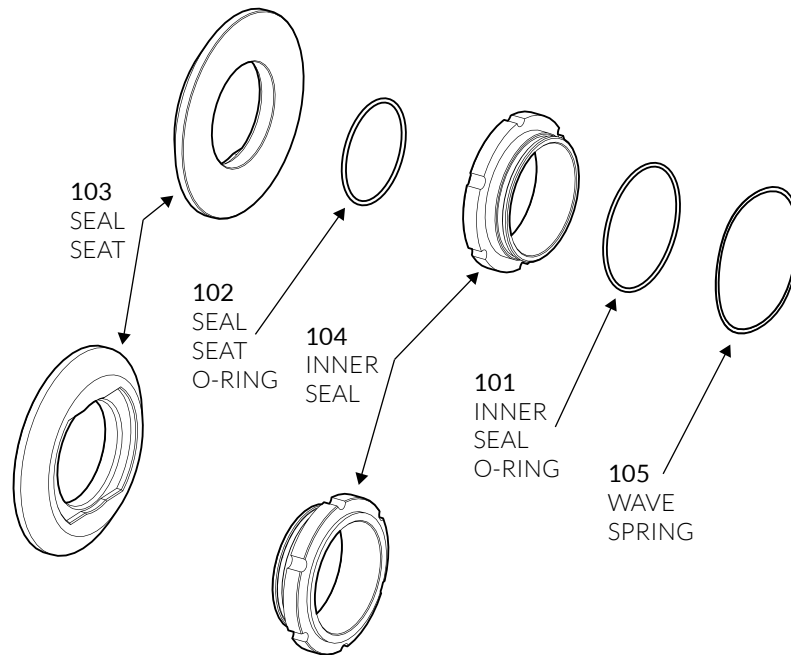
Springfield, MO
417.831.1411
pumps@csidesigns.com

Grand Prairie, TX
817.332.2118
pumps@csidesigns.com

REPLACEMENT SEALS

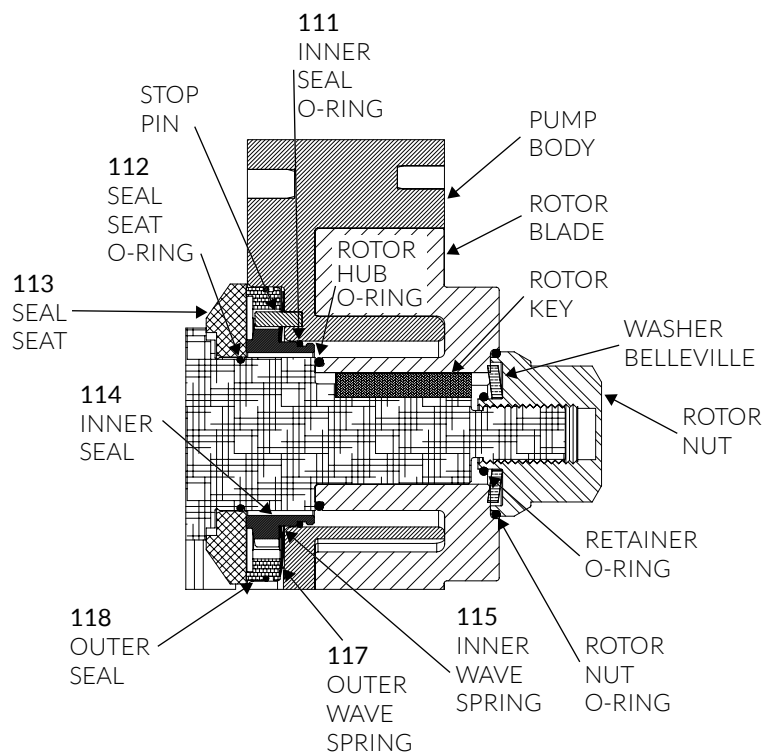
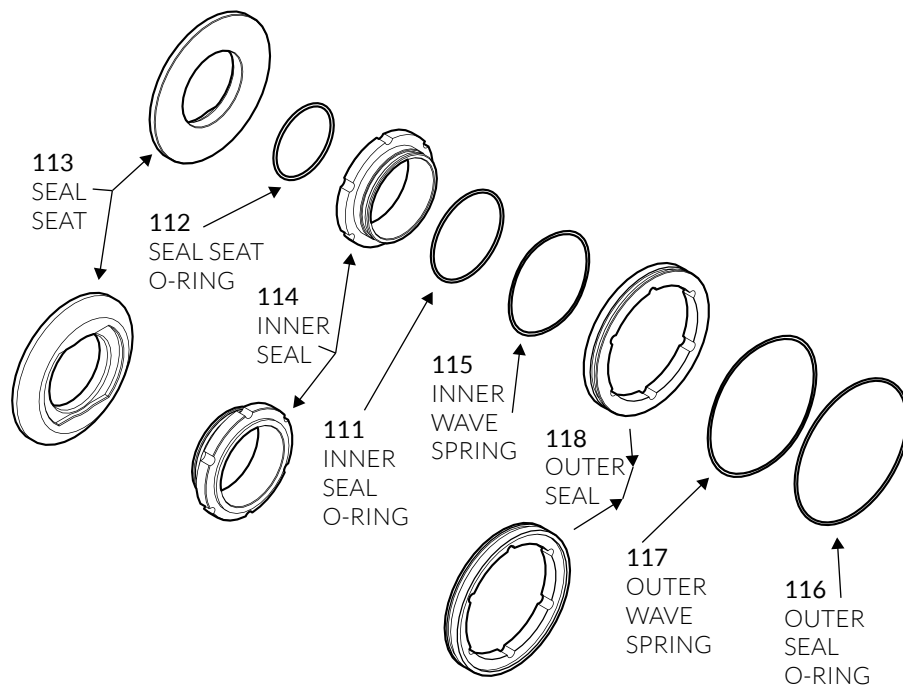
SINGLE MECHANICAL DIAGRAMS

U2/ZP2 MODELS 6-320



DOUBLE MECHANICAL DIAGRAMS

U2/ZP2 MODELS 6-320



KIT SELECTION

MECHANICAL SEAL KITS

U2/ZP2 MODELS

NOTE 1:

Mechanical seal replacement kits include seal faces and o-rings for both shafts and rotors and cover o-ring.

Model	Description	Part No.
U2/ZP2 6 / 15 / 18	SINGLE SEAL: SILICON CARBIDE / CARBON / BUNA	P2GS015000-N
	SINGLE SEAL: SILICON CARBIDE / CARBON / VITON	P2GS015000-V
	SINGLE SEAL: SILICON CARBIDE / CARBON / EPDM	P2GS015000-E
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / BUNA	P2GS015200-N
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / VITON	P2GS015200-V
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / EPDM	P2GS015200-E
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / BUNA	P2GS015010-N
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / VITON	P2GS015010-V
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / EPDM	P2GS015010-E
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / BUNA	P2GS015210-N
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / VITON	P2GS015210-V
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / EPDM	P2GS015210-E
U2/ZP2 30	SINGLE SEAL: SILICON CARBIDE / CARBON / BUNA	P2GS030000-N
	SINGLE SEAL: SILICON CARBIDE / CARBON / VITON	P2GS030000-V
	SINGLE SEAL: SILICON CARBIDE / CARBON / EPDM	P2GS030000-E
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / BUNA	P2GS030200-N
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / VITON	P2GS030200-V
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / EPDM	P2GS030200-E
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / BUNA	P2GS030010-N
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / VITON	P2GS030010-V
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / EPDM	P2GS030010-E
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / BUNA	P2GS030210-N
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / VITON	P2GS030210-V
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / EPDM	P2GS030210-E
U2/ZP2 45/60/130	SINGLE SEAL: SILICON CARBIDE / CARBON / BUNA	P2GS060000-N
	SINGLE SEAL: SILICON CARBIDE / CARBON / VITON	P2GS060000-V
	SINGLE SEAL: SILICON CARBIDE / CARBON / EPDM	P2GS060000-E
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / BUNA	P2GS060200-N
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / VITON	P2GS060200-V
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / EPDM	P2GS060200-E
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / BUNA	P2GS060010-N
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / VITON	P2GS060010-V
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / EPDM	P2GS060010-E
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / BUNA	P2GS060210-N
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / VITON	P2GS060210-V
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / EPDM	P2GS060210-E
U2/ZP2 180 / 220	SINGLE SEAL: SILICON CARBIDE / CARBON / BUNA	P2GS220000-N
	SINGLE SEAL: SILICON CARBIDE / CARBON / VITON	P2GS220000-V
	SINGLE SEAL: SILICON CARBIDE / CARBON / EPDM	P2GS220000-E
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / BUNA	P2GS220200-N
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / VITON	P2GS220200-V
	DOUBLE SEAL: SILICON CARBIDE / CARBON / CARBON / EPDM	P2GS220200-E
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / BUNA	P2GS220010-N
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / VITON	P2GS220010-V
	SINGLE SEAL: SILICON CARBIDE / SILICON CARBIDE / EPDM	P2GS220010-E
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / BUNA	P2GS220210-N
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / VITON	P2GS220210-V
	DOUBLE SEAL: SILICON CARBIDE / SILICON CARBIDE / CARBON / EPDM	P2GS220210-E
U2/ZP2 320	SINGLE SEAL: SILICON CARBIDE / CARBON / BUNA	P2GS320000-N
	SINGLE SEAL: SILICON CARBIDE / CARBON / VITON	P2GS320000-V
	SINGLE SEAL: SILICON CARBIDE / CARBON / EPDM	P2GS320000-E

INDIVIDUAL SEAL PARTS

U2/ZP2 MODELS 6, 15, 18, 24

Single Mechanical Seal:

Item	Description	Quantity Per Pump	Part No.
100	Single Mechanical Seal:		
101	O-RING, INNER SEAL (BUNA) - U2/ZP2 6/15/18	2	N70028
	O-RING, INNER SEAL (EPDM) - U2/ZP2 6/15/18		E70028
	O-RING, INNER SEAL (VITON) - U2/ZP2 6/15/18		V70028
102	O-RING, SHAFT (BUNA) - U2/ZP2 6/15/18	2	N70024
	O-RING, SHAFT (EPDM) - U2/ZP2 6/15/18		E70024
	O-RING, SHAFT (VITON) - U2/ZP2 6/15/18		V70024
103	SEAL SEAT (C) U2/ZP2 6/15/18/24	2	P2GS101668
	SEAL SEAT (K) U2/ZP2 6/15/18/24		P2GS101667
104	INNER SEAL (C) - U2/ZP2 6/15/18/24	2	P2GS101653
	INNER SEAL (K) - U2/ZP2 6/15/18/24		P2GS101652
	INNER SEAL (N) - U2/ZP2 6/15/18/24		P2GS101651
105	INNER SEAL WAVE SPRING - U2/ZP2 6/15/18/24	2	P2GS101683

Double Mechanical Seal:

Item	Description	Quantity Per Pump	Part No.
110	Double Mechanical Seal:		
111	O-RING, INNER SEAL (BUNA) - U2/ZP2 6/15/18	2	N70028
	O-RING, INNER SEAL (EPDM) - U2/ZP2 6/15/18		E70028
	O-RING, INNER SEAL (VITON) - U2/ZP2 6/15/18		V70028
112	O-RING, SHAFT (BUNA) - U2/ZP2 6/15/18	2	N70024
	O-RING, SHAFT (EPDM) - U2/ZP2 6/15/18		E70024
	O-RING, SHAFT (VITON) - U2/ZP2 6/15/18		V70024
113	SEAL SEAT (C) U2/ZP2 6/15/18/24	2	P2GS101668
	SEAL SEAT (K) U2/ZP2 6/15/18/24		P2GS101667
114	INNER SEAL (C) - U2/ZP2 6/15/18/24	2	P2GS101653
	INNER SEAL (K) - U2/ZP2 6/15/18/24		P2GS101652
	INNER SEAL (N) - U2/ZP2 6/15/18/24		P2GS101651
115	INNER SEAL WAVE SPRING - U2/ZP2 6/15/18/24	2	P2GS101683
116	O-RING, OUTER SEAL (BUNA) - U2/ZP2 6/15/18	2	N70035
	O-RING, OUTER SEAL (EPDM) - U2/ZP2 6/15/18		E70035
	O-RING, INNER SEAL (VITON) - U2/ZP2 45/60/64/130/134		V70035
117	OUTER SEAL (N) - U2/ZP2 6/15/18/24	2	P2GS101679
118	OUTER SEAL WAVE SPRING - U2/ZP2 6/15/18/24	2	P2GS101684

SEAL DETAILS

K = CERAMIC

C = SILICON CARBIDE

CO = CHROME OXIDE

N = CARBON

INDIVIDUAL SEAL PARTS SELECTION

INDIVIDUAL SEAL PARTS

U2/ZP2 MODELS 30, 34

Single Mechanical Seal:

Item	Description	Quantity Per Pump	Part No.
100	Single Mechanical Seal:		
101	O-RING, INNER SEAL (BUNA) - U2/ZP2 30/34	2	N70031
	O-RING, INNER SEAL (EPDM) - U2/ZP2 30/34		E70031
	O-RING, INNER SEAL (VITON) - U2/ZP2 30/34		V70031
102	O-RING, SHAFT (BUNA) - U2/ZP2 30/34	2	N70029
	O-RING, SHAFT (EPDM) - U2/ZP2 30/34		E70029
	O-RING, SHAFT (VITON) - U2/ZP2 30/34		V70029
103	SEAL SEAT (C) U2/ZP2 30/34	2	P2GS101671
	SEAL SEAT (K) U2/ZP2 30/34		P2GS101670
104	INNER SEAL (C) - U2/ZP2 30/34	2	P2GS101657
	INNER SEAL (K) - U2/ZP2 30/34		P2GS101656
	INNER SEAL (N) - U2/ZP2 30/34		P2GS101655
105	INNER SEAL WAVE SPRING - U2/ZP2 30/34	2	P2GS101685

Double Mechanical Seal:

Item	Description	Quantity Per Pump	Part No.
110	Double Mechanical Seal:		
111	O-RING, INNER SEAL (BUNA) - U2/ZP2 30/34	2	N70031
	O-RING, INNER SEAL (EPDM) - U2/ZP2 30/34		E70031
	O-RING, INNER SEAL (VITON) - U2/ZP2 30/34		V70031
112	O-RING, SHAFT (BUNA) - U2/ZP2 30/34	2	N70029
	O-RING, SHAFT (EPDM) - U2/ZP2 30/34		E70029
	O-RING, SHAFT (VITON) - U2/ZP2 30/34		V70029
113	SEAL SEAT (C) U2/ZP2 30/34	2	P2GS101671
	SEAL SEAT (K) U2/ZP2 30/34		P2GS101670
114	INNER SEAL (C) - U2/ZP2 30/34	2	P2GS101657
	INNER SEAL (K) - U2/ZP2 30/34		P2GS101656
	INNER SEAL (N) - U2/ZP2 30/34		P2GS101655
115	INNER SEAL WAVE SPRING - U2/ZP2 30/34	2	P2GS101685
116	O-RING, OUTER SEAL (BUNA) - U2/ZP2 30/34	2	N70041
	O-RING, OUTER SEAL (EPDM) - U2/ZP2 30/34		E70041
	O-RING, OUTER SEAL (VITON) - U2/ZP2 30/34		V70041
117	OUTER SEAL WAVE SPRING - U2/ZP2 30/34	2	PP2GS101686
118	OUTER SEAL (N) - U2/ZP2 30/34	2	P2GS101680

SEAL DETAILS

K = CERAMIC
 C = SILICON CARBIDE
 CO = CHROME OXIDE
 N = CARBON

INDIVIDUAL SEAL PARTS

U2/ZP2 MODELS 45, 60, 64, 130, 134

Single Mechanical Seal:

Item	Description	Quantity Per Pump	Part No.
100	Single Mechanical Seal:		
101	O-RING, OUTER SEAL (BUNA) - U2/ZP2 45/60/64/130/134	2	N70035
	O-RING, OUTER SEAL (EPDM) - U2/ZP2 45/60/64/130/134		E70035
	O-RING, INNER SEAL (VITON) - U2/ZP2 45/60/64/130/134		V70035
102	O-RING, SEAL SEAT (BUNA) - U2/ZP2 45/60/64/130/134	2	N70133
	O-RING, SEAL SEAT (EPDM) - U2/ZP2 45/60/64/130/134		E70133
	O-RING, SHAFT (VITON) - U2/ZP2 45/60/64/130/134		V70133
103	SEAL SEAT (C) U2/ZP2 45/60/64/130/134	2	P2GS101674
	SEAL SEAT (K) U2/ZP2 45/60/64/130/134		P2GS101673
104	INNER SEAL (C) U2/ZP2 45/60/64/130/134	2	P2GS101661
	INNER SEAL (K) - U2/ZP2 45/60/64/130/134		P2GS101660
	INNER SEAL (N) - U2/ZP2 45/60/64/130/134		P2GS101659
105	INNER SEAL WAVE SPRING - U2/ZP2 45/60/64/130/134	2	P2GS101687

Double Mechanical Seal:

Item	Description	Quantity Per Pump	Part No.
110	Double Mechanical Seal:		
111	O-RING, OUTER SEAL (BUNA) - U2/ZP2 45/60/64/130/134	2	N70035
	O-RING, OUTER SEAL (EPDM) - U2/ZP2 45/60/64/130/134		E70035
	O-RING, INNER SEAL (VITON) - U2/ZP2 45/60/64/130/134		V70035
112	O-RING, SEAL SEAT (BUNA) - U2/ZP2 45/60/64/130/134	2	N70133
	O-RING, SEAL SEAT (EPDM) - U2/ZP2 45/60/64/130/134		E70133
	O-RING, SHAFT (VITON) - U2/ZP2 45/60/64/130/134		V70133
113	SEAL SEAT (C) U2/ZP2 45/60/64/130/134	2	P2GS101674
	SEAL SEAT (K) U2/ZP2 45/60/64/130/134		P2GS101673
114	INNER SEAL (C) U2/ZP2 45/60/64/130/134	2	P2GS101661
	INNER SEAL (K) - U2/ZP2 45/60/64/130/134		P2GS101660
	INNER SEAL (N) - U2/ZP2 45/60/64/130/134		P2GS101659
115	INNER SEAL WAVE SPRING - U2/ZP2 45/60/64/130/134	2	P2GS101687
116	O-RING, OUTER SEAL (BUNA) - U2/ZP2 45/60/64/130/134	2	N70043
	O-RING, OUTER SEAL (EPDM) - U2/ZP2 45/60/64/130/134		E70043
	O-RING, OUTER SEAL (VITON) - U2/ZP2 45/60/64/130/134		V70043
117	OUTER SEAL (N) U2/ZP2 45/60/64/130/134	2	P2GS101681
118	OUTER SEAL WAVE SPRING - U2/ZP2 45/60/64/130/134	2	P2GS101688

SEAL DETAILS

K = CERAMIC

C = SILICON CARBIDE

CO = CHROME OXIDE

N = CARBON

INDIVIDUAL SEAL PARTS SELECTION

INDIVIDUAL SEAL PARTS

U2/ZP2 MODELS 180, 184, 220, 224

Single Mechanical Seal:

Item	Description	Quantity Per Pump	Part No.
100	Single Mechanical Seal:		
101	O-RING, OUTER SEAL (BUNA) - U2/ZP2 180/184/220/224	2	N70041
	O-RING, OUTER SEAL (EPDM) - U2/ZP2 180/184/220/224		E70041
	O-RING, OUTER SEAL (VITON) - U2/ZP2 180/184/220/224		V70041
102	O-RING, SEAL SEAT (BUNA) - U2/ZP2 180/184/220/224	2	N70145
	O-RING, SEAL SEAT (EPDM) - U2/ZP2 180/184/220/224		E70145
	O-RING, SEAL SEAT (VITON) - U2/ZP2 180/184/220/224		V70145
103	SEAL SEAT (C) U2/ZP2 180/220/224	2	P2GS101677
	SEAL SEAT (K) U2/ZP2 180/220/224		P2GS101676
104	INNER SEAL (C) U2/ZP2 220/224	2	P2GS101665
	INNER SEAL (K) - U2/ZP2 180/220/224		P2GS101664
	INNER SEAL (N) - U2/ZP2 220/224		P2GS101663
105	INNER SEAL WAVE SPRING - U2/ZP2 180/220/224	2	P2GS101689

Double Mechanical Seal:

Item	Description	Quantity Per Pump	Part No.
110	Double Mechanical Seal:		
111	O-RING, OUTER SEAL (BUNA) - U2/ZP2 180/184/220/224	2	N70041
	O-RING, OUTER SEAL (EPDM) - U2/ZP2 180/184/220/224		E70041
	O-RING, OUTER SEAL (VITON) - U2/ZP2 180/184/220/224		V70041
112	O-RING, SEAL SEAT (BUNA) - U2/ZP2 180/184/220/224	2	N70145
	O-RING, SEAL SEAT (EPDM) - U2/ZP2 180/184/220/224		E70145
	O-RING, SEAL SEAT (VITON) - U2/ZP2 180/184/220/224		V70145
113	SEAL SEAT (C) U2/ZP2 180/220/224	2	P2GS101677
	SEAL SEAT (K) U2/ZP2 180/220/224		P2GS101676
114	INNER SEAL (C) U2/ZP2 220/224	2	P2GS101665
	INNER SEAL (K) - U2/ZP2 180/220/224		P2GS101664
	INNER SEAL (N) - U2/ZP2 220/224		P2GS101663
115	INNER SEAL WAVE SPRING - U2/ZP2 180/220/224	2	P2GS101689
116	O-RING, OUTER SEAL (BUNA) - U2/ZP2 180/184/220/224	2	N70046
	O-RING, OUTER SEAL (EPDM) - U2/ZP2 180/184/220/224		E70046
	O-RING, OUTER SEAL (VITON) - U2/ZP2 180/184/220/224		V70046
117	OUTER SEAL (N) U2/ZP2 180/220/224	2	P2GS101682
118	OUTER SEAL WAVE SPRING - U2/ZP2 220/224	2	P2GS101690

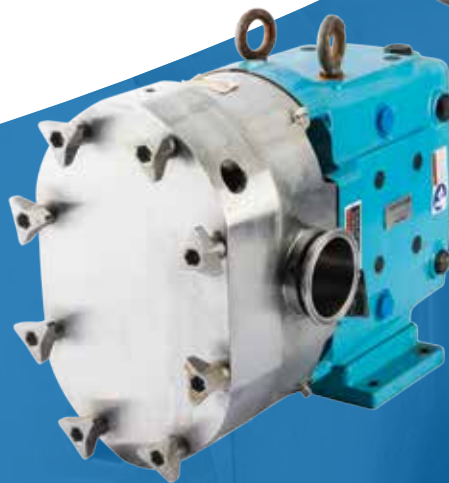
SEAL DETAILS

K = CERAMIC
 C = SILICON CARBIDE
 CO = CHROME OXIDE
 N = CARBON

PUMP BRANDS

U2/ZP2

Did you know we carry other product brands?



GUIDE TO SANITARY ELASTOMERS

BUNA-N

MATERIAL DESIGNATOR
U

TEMPERATURE RANGE -30°F TO
200°F

BUNA-N should be considered for use with oils and animal fats. This is a food grade and 3A approved material that has good compression set characteristics. BUNA-N does have a limited temperature range which precludes its use in many applications. This material does not meet USP Class VI Certification.

EPDM

MATERIAL DESIGNATOR
E

TEMPERATURE RANGE -30°F TO
300°F

EPDM (Ethylene Propylene Diene Monomer) This material is USP Class VI, FDA and 3A compliant. EPDM has very good water and steam resistance. Because of its polymer structure, this material does not offer strong resistance to oil, animal fat and most acids.

VITON®/FKM

MATERIAL DESIGNATOR
SFY

TEMPERATURE RANGE -20°F TO
400°F

FKM is USP Class VI, FDA and 3A compliant. This material provides high acid and temperature resistance. It does not have strong Base resistance and performs very poorly when used with Ketones. FKM is not recommended for continuous use in SIP procedures.

TEFLON®/PTFE

MATERIAL DESIGNATOR
G

TEMPERATURE RANGE -100°F TO
500°F

A very versatile material with broad chemical and temperature resistance and virtually no extractables. PTFE is a plastic and is subject to creep and cold flow. It is not recommended where large temperature variations occur or where component misalignment exists.

SILICONE-CLEAR PLATINUM CURED

MATERIAL DESIGNATOR
FXC

TEMPERATURE RANGE -80°F TO
450°F

Platinum cured silicone is USP Class VI, FDA and 3A compliant. This material has a high purity standard and is known for its non-leaching characteristics. It also is resistant to many chemicals and combinations of chemicals and has excellent low temperature flexibility.

SILICONE-WHITE PEROXIDE CURED

MATERIAL DESIGNATOR
FXW

TEMPERATURE RANGE -58°F TO
450°F

Peroxide cured silicone is USP Class VI, FDA and 3A compliant. This material is very pure and has low extractables. It performs well over a wide temperature range.

CHEMICAL COMPATIBILITY GUIDE

COMMON CHEMICALS USED IN CIP PROCESSES

	EPDM	BUNA-N	Silicone	FKM	Sanifluor [®]	Viton [®] X	PTFE	Tyfluor
Acetone	1	4	4	4	4	2	1	1
Ammonia	1	2	2	4	4	4	1	1
Hydrochloric Acid	3	4	4	1	1	1	1	1
Hydrofluoric Acid	3	4	4	3	2	3	1	1
Hydrogen Peroxide	4	2	2	2	1	1	1	1
Isopropyl Alcohol	1	2	1	1	1	1	1	1
Nitric Acid	2	4	2	1	2	1	1	1
Phosphoric Acid	1	2	2	1	1	1	1	1
Sodium Hydroxide	1	2	2	2	1	1	1	1
Sodium Hypochlorite	2	2	2	1	1	1	1	1
Sulfuric Acid	2	3	4	1	1	1	1	1
Steam to 400°F (204°C)	3	4	4	4	1	3	3	3

1-EXCELLENT 2-GOOD 3-LIMITED 4-NOT RECOMMENDED

Viton[®] is a registered trademark of DuPont Performance Elastomers



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CSI also distributes a wide range of sanitary processing equipment along with installation materials including fittings, pumps, valves, tubing and instrumentation. We also stock complete lines of corrosion resistant superalloys AL-6XN® and Hastelloy® C-22.

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