

FIGURE 1. 5620P-USP

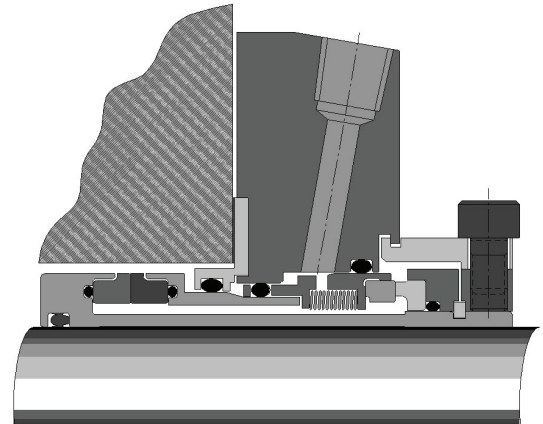


FIGURE 2. SB2-USP AND SB2A-USP

Foreword

These instructions are provided to familiarize the user with the seal and its designated use. The instructions must be read and applied whenever work is done on the seal, and must be kept available for future reference.

ATTENTION These instructions are for the installation and operation of a seal as used in rotating equipment and will help to avoid danger and increase reliability. The information required may change with other types of equipment or installation arrangements. These instructions must be read in conjunction with the instruction manuals for both the pump and any ancillary equipment.

If the seal is to be used for an application other than that originally intended or outside the recommended performance limits, John Crane must be contacted before its installation and use.

Any warranty may be affected by improper handling, installation or use of this seal. Contact John Crane for information as to exclusive product warranty and limitations of liability.

If questions or problems arise, contact your local John Crane Sales/Service Engineer or the original equipment manufacturer, as appropriate.

ATTENTION John Crane mechanical seals are precision products and must be handled appropriately. Take particular care to avoid damage to lapped sealing faces and flexible sealing rings. Do not excessively compress the seal before or during installation.

Safety Instructions

1. The following designations are used in the installation instructions to highlight instructions of particular importance.

NOTE

Refers to special information on how to install or operate the seal most efficiently.

ATTENTION

Refers to special information or instructions directed toward the prevention of damage to the seal or its surroundings.



Refers to mandatory instructions designed to prevent personal injury or extensive damage to the seal or its surroundings.

2. Installation, removal and maintenance of the seal must be carried out only by qualified personnel who have read and understood these installation instructions.
3. The seal is designed exclusively for sealing rotating shafts. The manufacturer cannot be held liable for use of the seal for purposes other than this.
4. The seal must only be used in technically perfect condition, and must be operated within the recommended performance limits in accordance with its designated use set out in these installation instructions.
5. If the pumped fluid is hazardous or toxic, appropriate precautions must be taken to ensure that any seal leakage is adequately contained. Further information on sealing hazardous or toxic fluids should be obtained from John Crane prior to seal installation.
6. Fluorocarbon components should never be burned or incinerated as the fumes and residues are highly toxic. If fluorocarbons are accidentally heated above 750°F/400°C, they can decompose. Protective gloves should be worn as hydrofluoric acid may be present.
7. PTFE components should never be burned or incinerated as the fumes are highly toxic.

UPSTREAM PUMPING (USP) DUAL CARTRIDGE SEAL

Installation, Operation & Maintenance Instructions

Before Starting the Equipment

1. Check the pump at the coupling for proper alignment of the driver or motor.
2. Ensure that the gland plate nuts/bolts are securely tightened according to the pump manual instructions, and all screws are securely fastened.
3. Complete the assembly of the pump and turn the shaft (by hand if possible) to ensure free rotation.
4. Consult all available equipment operating instructions to check for correctness of all piping and connections, particularly regarding seal recirculation/flush, heating or cooling requirement, and services external to the seal.

ATTENTION This mechanical seal is designed to operate in a liquid, so the heat energy it creates is adequately removed. The following check should be carried out not only after seal installation, but also after any period of equipment inactivity.

5. Check that the seal chamber fluid lines are open and free of any obstruction, and ensure that the seal chamber is properly vented and filled with liquid — refer to the pump instruction manual.

ATTENTION Dry-running — often indicated by a squealing noise from the seal area — will cause overheating and scoring or other damage to the sealing surfaces, resulting in excessive leakage or a much-shortened seal life.



Before start-up, ensure that all personnel and assembly equipment has been moved to a safe distance so there is no contact with rotating parts on the pump, seal, coupling or motor.

WARNING Seal installation should be handled only by qualified personnel. If questions arise, contact the local John Crane representative. Improper use and/or installation of this product could result in injury to the person and/or harmful emissions to the environment, and may affect any warranty on the product. Please contact the company for information as to exclusive product warranty and limitations of liability.

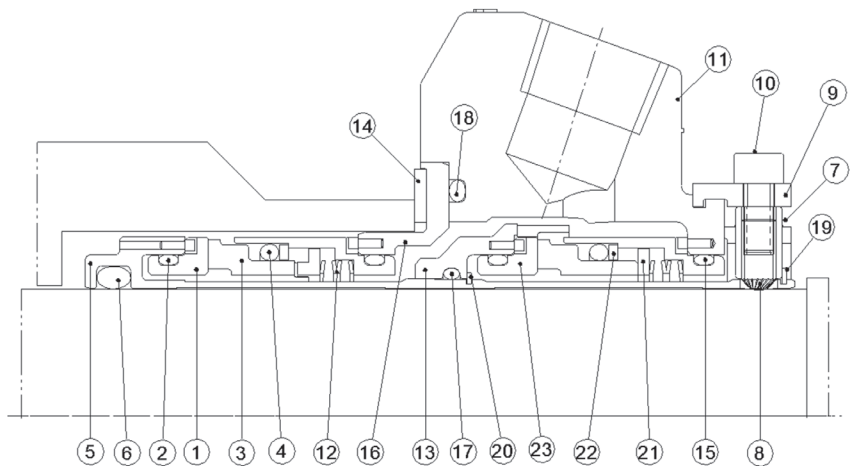
Operating Conditions

General Instructions

1. Study the engineering layout drawing to confirm the proper seal arrangement for the pump being used. Type 5620P-USP seals are designed for versatility and can be assembled in various ways. The following instructions describe the standard configurations.
2. To assure satisfactory operation, handle seal with care. Take particular caution to see that the lapped sealing faces are not scratched or marred.

Typical Arrangement Type 5620P-USP Dual Cartridge Seal

- | | |
|---------------------------|----------------------|
| 1 – Mating ring (USP) | 13 – Pumping ring |
| 2 – O-ring (2) | 14 – Gasket |
| 3 – Primary ring (2) | 15 – O-ring (2) |
| 4 – O-ring (2) | 16 – Gland adapter |
| 5 – Sleeve assembly | 17 – O-ring |
| 6 – O-ring | 18 – O-ring |
| 7 – Collar | 19 – Snap ring |
| 8 – Set screws | 20 – Snap ring |
| 9 – Spacers | 21 – Drive ring (2) |
| 10 – Cap screws | 22 – Anti X-ring (2) |
| 11 – Gland plate assembly | 23 – Mating ring |
| 12 – Spring (2) | |

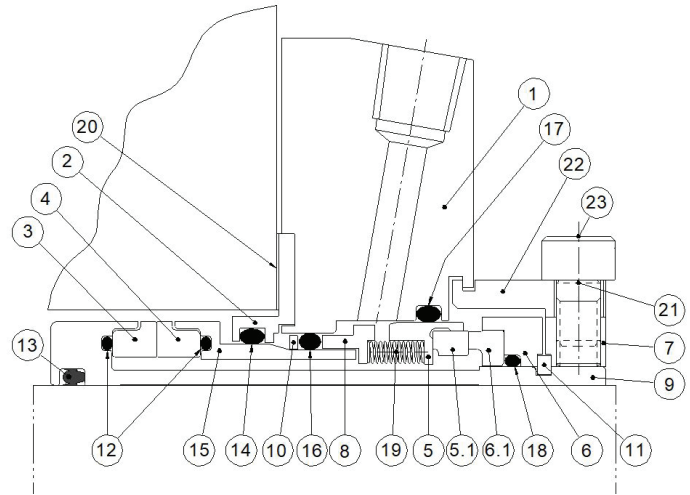


UPSTREAM PUMPING (USP) DUAL CARTRIDGE SEAL

Installation, Operation & Maintenance Instructions

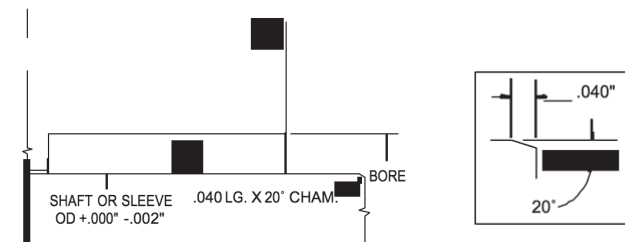
Typical Arrangement Type 5620P-USP Dual Cartridge Seal

- | | |
|-----------------------|---------------------------------|
| 1 – Gland plate | 12 – O-rings |
| 2 – Inner gland plate | 13 – Polymer seal |
| 3 – Mating ring | 14 – O-ring |
| 4 – Primary ring | 15 – Primary ring carrier |
| 5 – Primary ring | 16 – O-ring |
| 5.1 – Face | 17 – O-ring |
| 6 – Mating ring | 18 – O-ring |
| 6.1 – Face | 19 – Spring |
| 7 – Collar | 20 – Gasket |
| 8 – Piston ring | 21 – Socket set screw cup point |
| 9 – Sleeve | 22 – Spacer |
| 10 – Anti X ring | 23 – Socket head cap screw |
| 11 – Snap ring | |



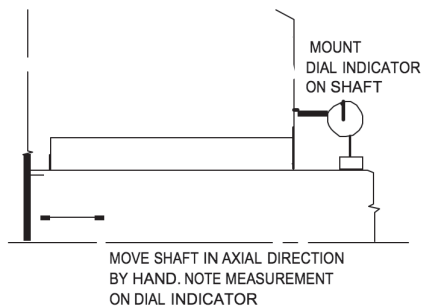
Preparing the Equipment

1. Check seal chamber dimensions and finishes.



2. Measure axial end play:

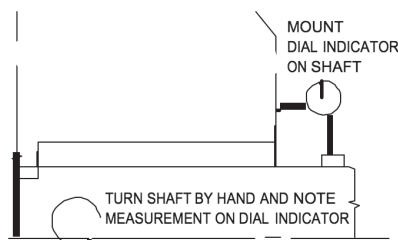
Sizes to 3.000" = 0.003" FIM max.
3.000" and greater = 0.005" FIM max.



3. Determine squareness of seal chamber face to shaft:

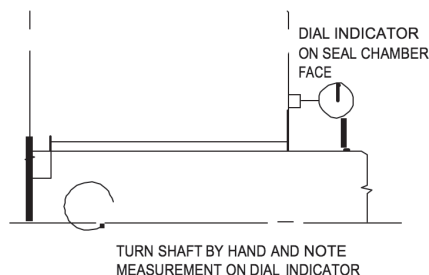
Rotating Mating Ring
Sizes to 3.000" = 0.005" FIM max.
3.000" and greater = 0.007" FIM max.

Rotating Seal Head
Sizes to 3.000" = 0.002" FIM max.
3.000" and greater = 0.003" FIM max.



4. Measure shaft runout:

Sizes to 3.000" = 0.002" FIM max.
3.000" and greater = 0.003" FIM max.



Imperial/Metric Conversion

$$.040" \times 20^\circ = 1.0\text{mm} \times 20^\circ$$

$$0.002" = 51\mu\text{m}$$

$$0.003" = 76\mu\text{m}$$

$$0.005" = 127\mu\text{m}$$

$$0.007" = 178\mu\text{m}$$

NOTE

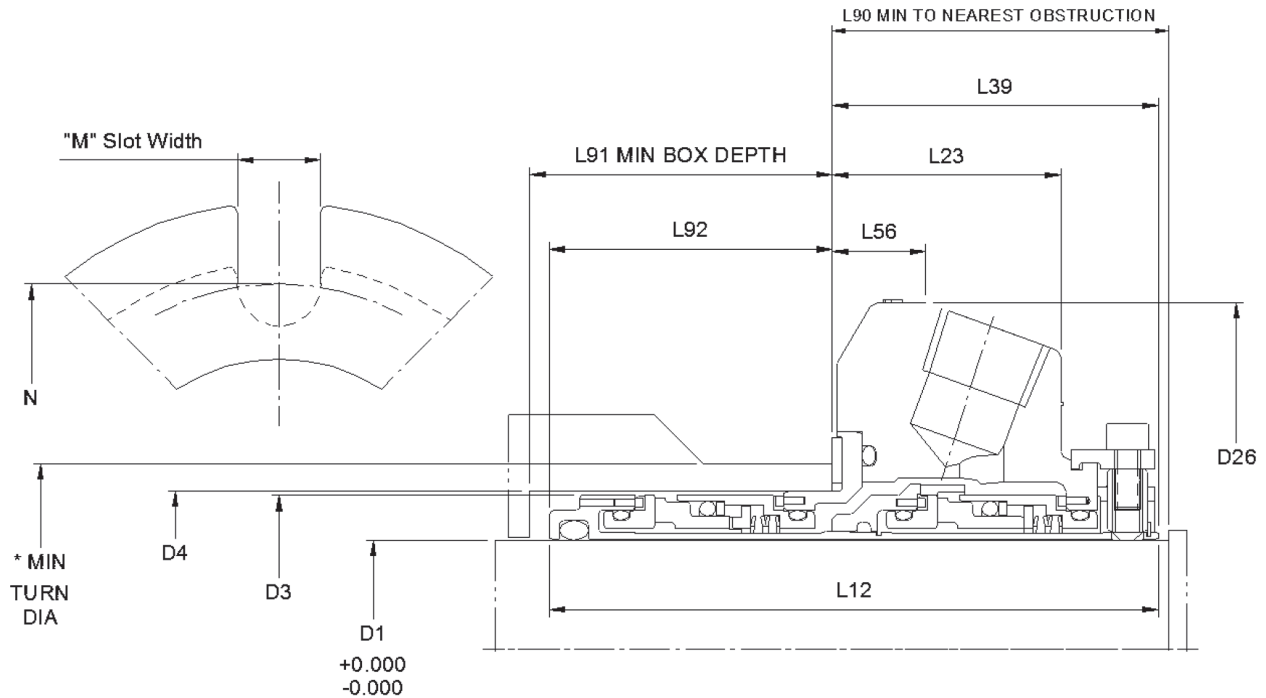
If measured dimensions exceed those values given, correct the equipment to meet specifications prior to seal installation.*

Not required for SB2-USP and SB2A-USP

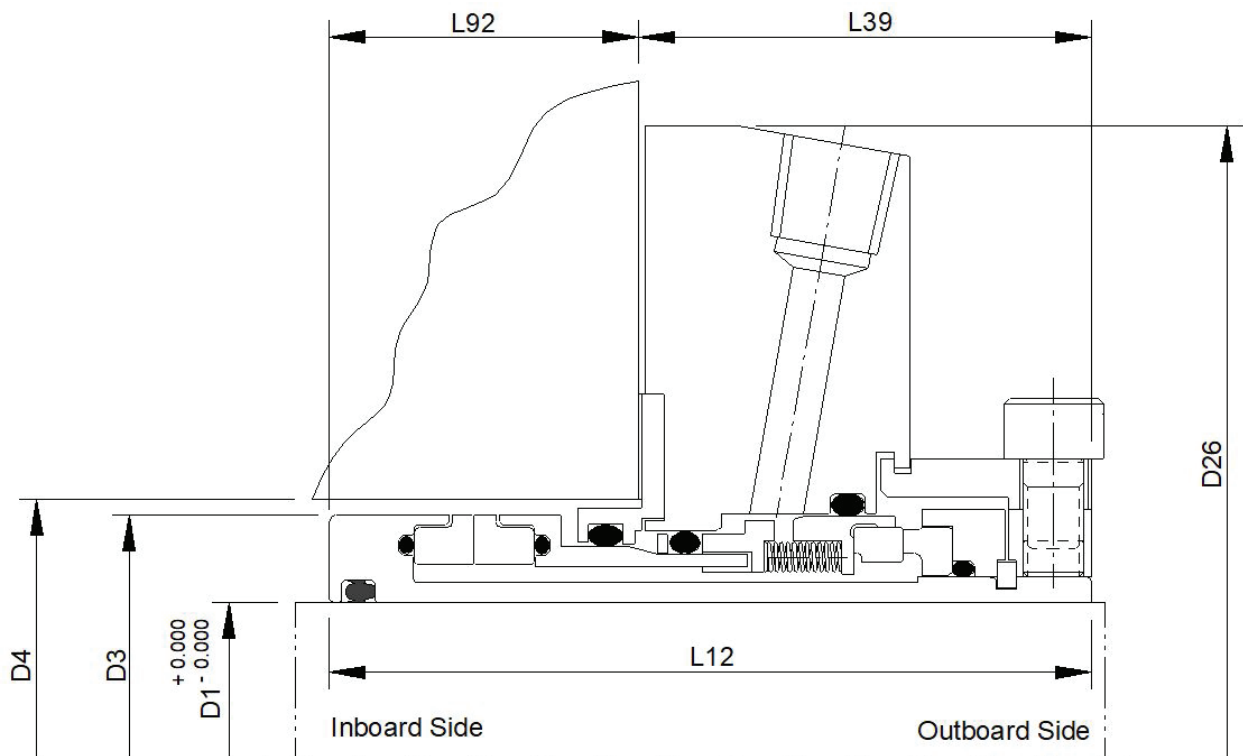
UPSTREAM PUMPING (USP) DUAL CARTRIDGE SEAL

Installation, Operation & Maintenance Instructions

Typical installation of Type 5620P-USP



Typical installation of Type SB2-USP and SB2A-USP





TYPE 5620P-USP/SB2-USP/SB2A-USP

UPSTREAM PUMPING (USP) DUAL CARTRIDGE SEAL

Installation, Operation & Maintenance Instructions

Type 5620P-USP Dimensional Data (Inches)

Seal Size/D1 (inches)	D3	D4		D26	L12	L23	L39	L56	L90	L91	L92	M	N
		Min.	Max.										
1.000	1.564	1.625	1.889	4.000	3.705	1.353	1.954	0.531	2.000	1.876	1.751	0.525	2.805
1.125	1.689	1.750	2.015	4.125	3.851	1.446	2.062	0.531	2.125	1.914	1.789	0.525	2.933
1.250	1.812	1.875	2.294	4.250	3.851	1.446	2.062	0.531	2.125	1.914	1.789	0.525	3.213
1.375	1.939	2.000	2.421	4.375	3.851	1.446	2.062	0.531	2.125	1.914	1.789	0.525	3.338
1.500	2.187	2.250	2.680	4.875	3.995	1.487	2.125	0.593	2.187	1.995	1.870	0.525	3.599
1.625	2.312	2.375	2.812	5.000	3.995	1.487	2.125	0.593	2.187	1.995	1.870	0.562	3.766
1.750	2.406	2.480	2.918	5.250	3.995	1.487	2.125	0.593	2.187	1.995	1.870	0.562	3.875
1.875	2.549	2.625	2.918	5.250	3.995	1.487	2.125	0.593	2.187	1.995	1.870	0.562	3.875
2.000	2.673	2.750	3.015	5.500	4.355	1.601	2.312	1.063	2.375	2.167	2.042	0.562	4.000
2.125	2.798	2.875	3.360	5.859	4.355	1.601	2.312	0.593	2.375	2.167	2.042	0.687	4.469
2.250	2.923	3.000	3.485	6.500	4.355	1.601	2.312	0.593	2.375	2.167	2.042	0.687	4.566
2.375	3.048	3.125	3.610	6.500	4.545	1.717	2.466	0.625	2.528	2.204	2.079	0.687	4.719
2.500	3.301	3.375	3.891	6.750	4.545	1.717	2.563	0.625	2.625	2.107	1.982	0.687	5.000
2.625	3.551	3.625	4.062	6.750	4.594	1.625	2.500	0.625	2.562	2.219	2.094	0.687	5.170
2.750	3.551	3.625	4.062	6.750	4.594	1.625	2.500	0.625	2.562	2.219	2.094	0.687	5.170
2.875	3.614	3.750	4.186	7.000	4.594	1.725	2.500	0.625	2.562	2.219	2.094	0.687	5.312
3.000	3.864	4.000	4.469	7.750	4.594	1.787	2.562	0.685	2.625	2.157	2.032	0.812	5.720
3.125	4.022	4.125	4.600	7.875	4.687	1.593	2.562	*	2.687	2.250	2.125	0.812	5.845
3.250	4.022	4.134	4.600	7.437	4.687	1.593	2.510	*	2.635	2.302	2.177	0.812	5.845
3.375	4.246	4.375	4.850	8.125	4.687	1.593	2.562	*	2.687	2.250	2.125	0.812	6.095
3.500	4.371	4.500	4.975	8.250	4.687	1.593	2.562	*	2.687	2.250	2.125	0.812	6.220
3.625	4.500	4.625	5.100	8.375	4.687	1.593	2.562	*	2.687	2.250	2.125	0.687	6.250
3.750	4.625	4.724	5.199	8.750	4.687	1.593	2.562	*	2.687	2.250	2.125	0.687	6.770
3.875	4.750	4.875	5.375	8.750	4.687	1.593	2.562	*	2.687	2.250	2.125	0.812	6.636
4.000	4.875	5.000	5.500	9.000	4.687	1.593	2.562	*	2.687	2.250	2.125	0.812	6.761

*Not applicable. Refer to L23 for sizes over 3.00".

Type 5620P-USP Oversize Bore Dimensional Data (Inches)

Seal Size/D1 (inches)	D3	D4		D26	L12	L23	L39	L56	L90	L91	L92	M	N	Min. Turn Diam.
		Min.	Max.											
1.375	1.939	2.875	3.023	5.375	3.851	1.446	2.062	0.625	2.125	1.914	1.789	0.562	4.062	3.268
1.750	2.406	3.500	3.925	6.500	3.995	1.487	2.125	0.656	2.187	1.995	1.870	0.687	5.093	3.885
1.875	2.549	3.625	3.734	6.500	3.995	1.487	2.125	0.656	2.187	1.995	1.870	0.687	5.093	4.006
2.125	2.798	3.875	4.250	7.156	4.355	1.570	2.282	0.749	2.407	2.198	2.073	0.687	5.687	4.264
2.500	3.301	4.750	4.875	8.000	4.545	1.697	2.407	0.656	2.532	2.263	2.138	0.687	6.062	5.139
2.625	3.551	4.625	4.740	8.000	4.594	1.788	2.500	0.749	2.562	2.219	2.094	0.687	6.062	5.000
2.750	3.551	4.750	4.875	8.000	4.594	1.697	2.407	0.656	2.532	2.312	2.187	0.687	6.062	5.139



TYPE 5620P-USP/SB2-USP/SB2A-USP

UPSTREAM PUMPING (USP) DUAL CARTRIDGE SEAL

Installation, Operation & Maintenance Instructions

Type 5620P-USP Dimensional Data (Millimeters)

Seal Size/D1 (inches)	Seal Size Code	D3	D4		D26	L12	L23	L39	L56	L90	L91	L92	M	N
			Min.	Max.										
24	0240	39.7	41.3	48.0	101.6	94.1	34.4	49.6	13.5	50.8	47.7	44.5	13.3	71.2
25	0250	39.7	41.3	48.0	101.6	94.1	34.4	49.6	13.5	50.8	47.7	44.5	13.3	71.2
28	0280	42.9	44.5	51.2	104.8	97.8	36.7	52.4	13.5	54.0	48.6	45.4	13.3	74.5
30	0300	44.5	46.1	56.5	108.0	97.8	36.7	52.4	13.5	54.0	48.6	45.4	13.3	79.9
32	0320	46.0	47.6	58.3	108.0	97.8	36.7	52.4	13.5	54.0	48.6	45.4	13.3	81.6
33	0330	49.3	50.8	61.5	111.1	97.8	36.7	52.4	13.5	54.0	48.6	45.4	13.3	84.8
35	0350	49.3	50.8	61.5	111.1	97.8	36.7	52.4	13.5	54.0	48.6	45.4	13.3	84.8
38	0380	55.5	57.2	68.1	123.8	101.5	37.8	54.0	15.1	55.5	50.7	47.5	13.3	91.4
40	0400	58.7	60.3	71.4	127.0	101.5	37.8	54.0	15.1	55.5	50.7	47.5	14.3	95.7
43	0430	61.1	63.0	74.1	133.4	101.5	37.8	54.0	15.1	55.5	50.7	47.5	14.3	98.4
45	0450	61.1	63.0	74.1	133.4	101.5	37.8	54.0	15.1	55.5	50.7	47.5	14.3	98.4
48	0480	64.7	66.7	74.1	133.4	101.5	37.8	54.0	15.1	55.5	50.7	47.5	14.3	98.4
50	0500	67.9	70.0	76.6	139.7	110.6	40.7	58.7	27.0	60.3	55.0	51.9	14.3	101.6
53	0530	71.1	73.0	85.3	148.8	110.6	40.7	58.7	15.1	60.3	55.0	51.9	17.4	113.5
55	0550	72.9	75.0	85.3	148.8	110.6	40.7	58.7	15.1	60.3	55.0	51.9	17.4	113.5
58	0580	74.2	76.2	88.5	165.1	110.6	40.7	58.7	15.1	60.3	55.0	51.9	17.4	116.0
60	0600	77.4	79.4	91.7	165.1	115.4	43.6	62.6	15.9	64.2	56.0	52.8	17.4	119.9
63	0630	83.8	85.7	98.8	171.5	115.4	43.6	65.1	15.9	66.7	53.5	50.3	17.4	127.0
65	0650	83.8	85.7	98.8	171.5	115.4	43.6	65.1	15.9	66.7	53.5	50.3	17.4	127.0
68	0680	90.2	92.1	103.2	171.5	116.7	41.3	63.5	15.9	65.1	56.4	53.2	17.4	131.3
70	0700	90.2	92.1	103.2	171.5	116.7	41.3	63.5	15.9	65.1	56.4	53.2	17.4	131.3
75	0750	98.1	101.6	113.5	196.9	116.7	45.4	65.1	17.4	66.7	54.8	51.6	20.6	145.3
80	0800	102.2	105.0	116.8	188.9	119.0	40.5	63.8	*	66.9	58.5	55.3	20.6	148.5
85	0850	107.9	111.1	123.2	206.4	119.0	40.5	65.1	*	68.3	57.2	54.0	20.6	154.8
90	0900	114.3	117.5	129.5	212.7	119.0	40.5	65.1	*	68.3	57.2	54.0	17.5	158.6
95	0950	117.5	120.0	132.1	222.3	119.0	40.5	65.1	*	68.3	57.2	54.0	17.5	172.0
100	1000	123.8	127.0	139.7	228.6	119.0	40.5	65.1	*	68.3	57.2	54.0	20.6	171.7

*Not applicable. Refer to L23 for sizes over 75mm.



TYPE 5620P-USP/SB2-USP/SB2A-USP

UPSTREAM PUMPING (USP) DUAL CARTRIDGE SEAL

Installation, Operation & Maintenance Instructions

Type SB2A-USP Dimensional Data (Inches)

Seal Size	Seal Size Code	D1	D3	D4	D26	L12	L39	L92
1.000	0254	1.000	1.575	1.626 - 1.941	3.811	3.513	2.087	1.426
1.125	0285	1.125	1.701	1.752 - 2.087	3.937	3.513	2.087	1.426
1.250	0317	1.250	1.823	1.874 - 2.244	4.134	3.513	2.087	1.426
1.375	0349	1.375	1.949	2.000 - 2.362	4.331	3.513	2.087	1.426
1.500	0381	1.500	2.075	2.126 - 2.500	4.488	3.552	2.126	1.426
1.625	0412	1.625	2.323	2.374 - 2.626	4.961	3.552	2.126	1.426
1.750	0444	1.750	2.449	2.500 - 2.835	5.472	3.630	2.126	1.504
1.875	0476	1.875	2.575	2.626 - 2.933	5.472	3.591	2.126	1.465
2.000	0508	2.000	2.697	2.752 - 3.071	5.500	3.591	2.126	1.465
2.125	0539	2.125	2.823	2.874 - 3.425	5.984	3.591	2.126	1.465
2.250	0571	2.250	2.949	3.000 - 3.559	5.984	3.591	2.126	1.465
2.375	0603	2.375	3.071	3.126 - 3.681	6.299	3.591	2.126	1.465
2.500	0635	2.500	3.197	3.252 - 3.819	6.378	3.650	2.126	1.524
2.625	0666	2.625	3.323	3.374 - 3.937	6.378	3.630	2.126	1.504
2.750	0698	2.750	3.661	3.752 - 4.449	7.953	3.894	2.362	1.531
2.875	0730	2.875	3.787	3.874 - 4.567	7.953	3.874	2.362	1.512
3.000	0762	3.000	3.913	4.000 - 4.685	7.953	3.894	2.362	1.531
3.125	0793	3.125	4.035	4.126 - 4.823	8.228	3.874	2.362	1.512
3.250	0825	3.250	4.161	4.252 - 4.937	8.228	3.874	2.362	1.512
3.375	0857	3.375	4.287	4.374 - 5.063	8.374	3.874	2.362	1.512
3.500	0889	3.500	4.413	4.500 - 5.181	8.465	3.874	2.362	1.512
3.625	0920	3.625	4.535	4.626 - 5.307	8.583	3.874	2.362	1.512
3.750	0952	3.750	4.661	4.752 - 5.433	8.740	3.874	2.362	1.512
3.875	0984	3.875	4.787	4.874 - 5.555	8.858	3.874	2.362	1.512
4.000	1016	4.000	4.913	5.000 - 5.685	9.000	4.005	2.362	1.643
4.125	1047	4.125	5.043	5.126 - 5.717	9.016	3.989	2.362	1.626
4.250	1079	4.250	5.165	5.252 - 5.921	9.228	3.989	2.362	1.626
4.500	1143	4.500	5.413	5.500 - 6.169	9.488	3.989	2.362	1.626
4.625	1174	4.625	5.539	5.626 - 6.299	9.606	3.989	2.362	1.626
4.750	1206	4.750	5.661	5.752 - 6.417	9.606	3.989	2.362	1.626
4.875	1238	4.875	5.787	5.874 - 6.551	9.843	3.989	2.362	1.626
5.000	1270	5.000	5.913	6.000 - 6.685	10.000	3.989	2.362	1.626



TYPE 5620P-USP/SB2-USP/SB2A-USP

UPSTREAM PUMPING (USP) DUAL CARTRIDGE SEAL

Installation, Operation & Maintenance Instructions

Type SB2A-USP Dimensional Data (Millimeters)

Seal Size	Seal Size Code	D1	D3	D4	D26	L12	L39	L92
25	0250	25	40.01	41.28 - 49.28	96.8	89.22	53	36.21
30	0300	30	46.30	47.63 - 57	105	89.22	53	36.21
35	0350	35	49.50	50.8 - 59.99	110	89.22	53	36.21
38	0380	38	52.70	53.98 - 63.5	114	90.21	54	36.21
40	0400	40	59.00	60.33 - 66.68	126	90.21	54	36.21
43	0430	43	62.20	63.5 - 73	139	92.21	54	38.21
45	0450	45	62.20	63.5 - 73	139	92.21	54	38.21
48	0480	48	65.40	66.68 - 75.01	139	91.21	54	37.21
50	0500	50	68.50	69.85 - 78	139.7	91.21	54	37.21
53	0530	53	71.70	73.03 - 87	152	91.21	54	37.21
55	0550	55	74.90	76.2 - 90.42	152	91.21	54	37.21
58	0580	58	74.90	76.2 - 90.42	152	91.21	54	37.21
60	0600	60	78.00	79.38 - 93.5	160	91.21	54	37.21
63	0630	63	81.20	82.55 - 97	162	92.71	54	38.71
65	0650	65	81.20	82.55 - 97	162	92.71	54	38.71
68	0680	68	84.40	85.73 - 100	162	92.21	54	38.21
70	0700	70	92.99	95.25 - 113	202	98.90	60	38.91
80	0800	80	105.70	107.95 - 125.4	209	98.40	60	38.41
85	0850	85	108.90	111.13 - 128.57	212.7	98.40	60	38.41
90	0900	90	112.10	114.3 - 131.6	215	98.40	60	38.41
95	0950	95	118.40	120.65 - 138	222	98.40	60	38.41
100	1000	100	124.80	127 - 144.45	228	101.72	60	41.73
105	1050	105	128.10	130.18 - 145.19	229	101.31	60	41.32
110	1100	110	134.30	136.53 - 153.82	237	101.11	60	41.12
115	1150	115	137.50	139.7 - 156.72	241	101.31	60	41.32
120	1200	120	143.80	146.05 - 162.99	244	101.31	60	41.32
125	1250	125	150.20	152.4 - 169.85	254	101.31	60	41.32

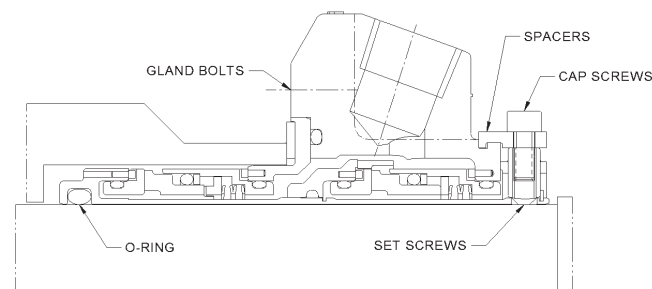
UPSTREAM PUMPING (USP) DUAL CARTRIDGE SEAL

Installation, Operation & Maintenance Instructions

Installing the Seal

1. Before starting the installation, read the following instructions carefully.
2. Remove the seal from its packaging, inspect for any damage and wipe clean.
3. The equipment should be clean and meet the specifications noted in the "Preparing the Equipment" section. Lubricate sleeve O-ring with lubricant recommended in chart below. Lubricate shaft sparingly. Lubricate gland plate bolts/nuts as required.
4. Make sure that gland adapter gasket is properly positioned, and that collar set screws do not extend past sleeve ID. Slide complete cartridge seal assembly onto shaft. For ANSI pumps position gland plate so pipe connection #1 is at or near top dead center. For DIN pumps, position gland plate so slot between pipe connections #3 and #4 is at or near top dead center. Slide cartridge onto studs (if applicable) until gasket is flush against the face of seal chamber. Hand-tighten gland plate bolts/nuts.
5. Reassemble pump and make all necessary impeller adjustments.
6. Continue tightening gland plate bolts/nuts in an alternating pattern until gland plate is secure (1/4 turns, 180° apart). Do not over-stress or distort gland plate.
7. Tighten collar set screws evenly (1/4 turns, 180° apart), securing cartridge seal to shaft.
8. Remove spacers and save.
9. Make appropriate piping connections to seal assembly.

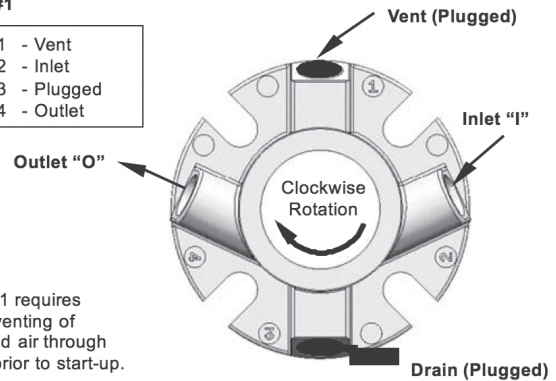
ELASTOMER	LUBRICANT
Fluoroelastomer (i.e. Viton™)	Vegetable oil, animal oil, mineral-hydrocarbon oils, soap solution, Parker 'Super-O-Lube', silicone grease
Ethylene Propylene	Vegetable oil, Polywater™, soap solution, glycerine, propylene glycol, silicone grease
Perfluoroelastomer (i.e. Kalrez™)	Vegetable oil, animal oil, mineral-hydrocarbon oils
<p>NOTE: Always use a lubricant that is compatible with your machinery and product. Use lubricant sparingly, only enough to install seal with ease.</p> <p>Viton and Kalrez are registered trademarks of DuPont. Polywater is a registered trademark of American Polyware Co.</p>	



The piping should follow the guidelines established in John Crane Manual LE-Plan 52/53-A. It is recommended that a Piping Plan per H-0000-5764 be used. For DIN pumps rotate gland 135° CCW. Use port #3 as inlet and #4 as outlet. Plug 1 and 2.

Option #1

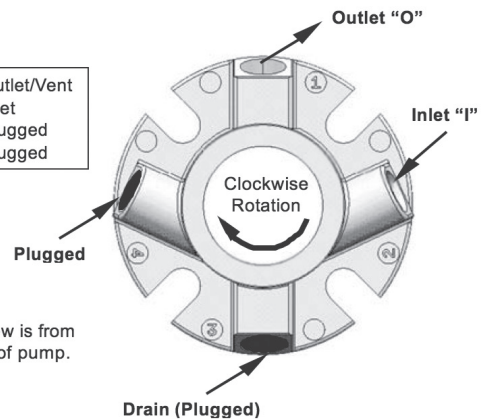
- Port #1 - Vent
- Port #2 - Inlet
- Port #3 - Plugged
- Port #4 - Outlet



Option #1 requires manual venting of entrapped air through port #1 prior to start-up.

Preferred

- Port #1 - Outlet/Vent
- Port #2 - Inlet
- Port #3 - Plugged
- Port #4 - Plugged



Direction of view is from the driver end of pump.

Decommissioning the Equipment

1. Ensure that the pump is electrically isolated.



If the equipment has been used on toxic or hazardous fluids, ensure that the equipment is correctly decontaminated and made safe prior to commencing work. Remember fluid is often trapped during draining and may exist outside the seal. The pump instruction manual should be consulted to check for any special precautions.

2. Ensure that the pump is isolated by the appropriate valves.

Maintenance

No maintenance of a seal is possible while installed. Therefore, it is recommended that a spare seal unit be held in stock to allow immediate replacement of a removed seal.

It is recommended that used seals are returned to a John Crane Seal Rebuilding Center, as rebuilding to as-new specifications must be carried out by qualified personnel.



TYPE 5620P-USP/SB2-USP/SB2A-USP

UPSTREAM PUMPING (USP) DUAL CARTRIDGE SEAL

Installation, Operation & Maintenance Instructions



It is the responsibility of the equipment operator to ensure that any parts being sent to a third party have appropriate safe handling instructions externally attached to the package.

Quality Assurance

This seal has been assembled in accordance with John Crane Quality Assurance Standards and with proper maintenance and use will give safe and reliable operation to the maximum recommended performance as shown in any relevant approved John Crane publication.

Please visit johncrane.com for material options and operating limits.



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United Arab Emirates
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Asia Pacific
Singapore
Tel: 65-6518-1800

If the products featured will be used in a potentially dangerous and/or hazardous process, your John Crane representative should be consulted prior to their selection and use. In the interest of continuous development, John Crane Companies reserve the right to alter designs and specifications without prior notice. It is dangerous to smoke while handling products made from PTFE. Old and new PTFE products must not be incinerated. ISO 9001 and ISO14001 Certified, details available on request.