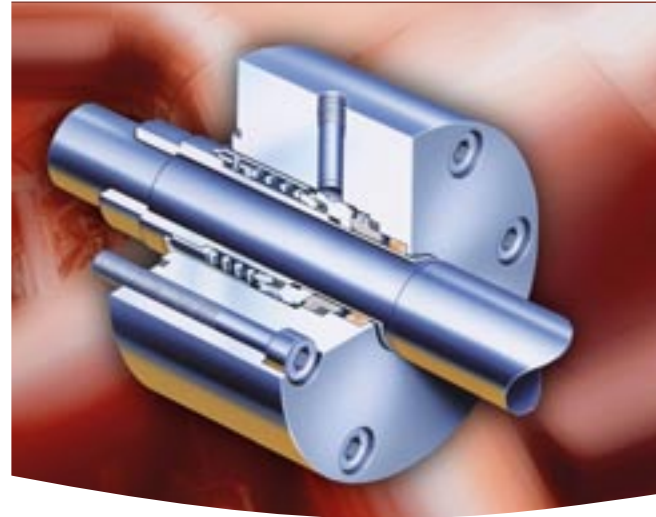


## ***D Series Balanced pusher seals***

*D Series seals are balanced pusher seals with a pumping ring built into the rotating seal face body that establishes an exclusive Plan 23 cooling chamber around the seal faces. D Series seals excel in high temperature boiler feed water and hot hydrocarbon services.*



### **Features and Benefits**

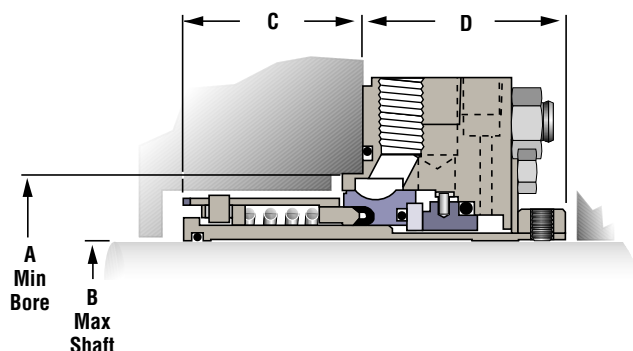
- Rotating seal face body integrates a pumping ring to maximize circulation flow through a Plan 23 seal cooler and return the flow directly at the seal interface, eliminating the expense of cool injection systems.
- Tungsten carbide rotating face is mounted and driven in an optimal, low stress configuration to remain flat under all operating conditions for very low leakage performance.
- Large, low spring rate single coil spring tolerates axial setting variations common to high temperature pumps.
- Robust U-cup seal flexibly mounts the rotating seal face while compensating for minor misalignment of the shaft and maintaining consistent seal face contact.
- Spring holder enables a strong drive linkage from the sleeve to the seal face while isolating the spring from torque.
- Seal installation is simplified with cartridge seal assembly or, as special equipment requirements demand, the seal can be installed by components.

### **Operating Parameters**

<b>Pressure</b>	D:	Up to 1000 psi (69.0 bar)
	DP:	Up to 1500 psi (103.4 bar)
<b>Temperature</b>		-100 to 650°F (-73 to 343°C)
<b>Specific Gravity</b>		0.45 and higher
<b>Shaft Speed</b>		Up to 75 fps (23 m/s)
<b>Shaft Size</b>		0.525 to 5.400 inch (13.3 to 137.2 mm)

### **Materials of Construction**

<b>Metal Components</b>	316 Stainless Steel
<b>Rotating Face</b>	Silicon Carbide, Tungsten Carbide
<b>Stationary Face</b>	Carbon
<b>Gaskets</b>	Fluoroelastomer, Perfluoro- elastomer, Nitrile, EPDM
<b>Spring</b>	316 Stainless Steel



### Specialized designs for specific applications

- DQ High balance face satisfies low hydrocarbon emissions levels.
- DP Custom designed stationary face for high pressure services up to 1500 psi (103.4 bar).
- DZ Short axial length design for short seal chambers.

### Dimensional Data

Seal Size	A	B	C	C(DZ)	D	Seal Size	A	B	C	C(DZ)	D
1062	2.125	0.525	1.438	0.688	2.782	1062	53,98	13,34	36,53	17,48	70,66
1250	2.123	0.775	1.688	0.750	2.782	1250	53,92	19,69	42,88	19,05	70,66
1437	2.437	0.962	1.656	0.781	2.907	1437	61,90	24,43	42,06	19,84	73,84
1500	2.395	1.025	1.844	0.938	3.036	1500	60,83	26,04	46,84	22,82	77,01
1750	3.000	1.212	1.969	0.907	3.094	1750	76,20	30,78	50,01	23,04	78,59
1875	2.875	1.337	2.118	1.126	3.063	1875	73,03	33,96	53,80	28,60	77,80
2062	3.198	1.462	2.250	1.250	3.719	2062	81,23	37,13	57,15	31,75	94,46
2250	3.323	1.712	1.813	1.157	3.656	2250	84,40	43,48	46,05	29,39	92,86
2375	3.530	1.775	3.000	1.469	3.625	2375	89,66	45,09	76,20	37,31	92,08
2500	3.823	1.900	2.625	1.187	3.938	2500	97,10	48,26	66,68	30,15	100,02
2625	4.015	1.962	2.469	1.500	4.063	2625	101,98	49,83	62,71	38,10	103,30
2875	4.135	2.275	2.266	1.172	4.031	2875	105,03	57,79	57,56	29,77	102,39
3000	4.448	2.400	2.313	1.250	4.312	3000	112,98	60,96	58,75	31,75	109,52
3250	4.573	2.650	2.313	1.438	4.312	3250	116,15	67,31	58,75	36,52	109,52
3375	4.941	2.775	2.438	1.281	4.500	3375	125,50	70,49	61,93	32,54	114,30
3500	4.948	2.900	2.344	1.469	4.437	3500	125,68	73,66	59,54	37,31	112,70
3625	4.968	3.025	2.469	1.594	4.375	3625	126,19	76,84	62,71	40,49	111,12
3750	5.198	3.150	2.563	1.876	4.437	3750	132,03	80,01	65,10	47,65	112,70
4000	5.239	3.400	2.656	-	4.500	4000	133,07	86,36	67,46	-	114,30
4250	5.687	3.650	2.750	-	4.406	4250	144,45	92,71	69,85	-	111,91
4312	5.822	3.650	2.844	-	4.468	4312	147,88	92,71	72,24	-	113,49
4500	6.150	3.900	2.500	-	4.562	4500	156,21	99,06	63,50	-	115,87
4875	6.385	4.213	3.209	-	4.281	4875	162,18	106,98	81,51	-	108,74
5125	6.687	4.463	3.156	-	4.625	5125	169,85	113,33	80,16	-	117,48
5500	7.188	4.837	3.250	-	4.625	5500	182,55	122,86	82,55	-	117,48
6000	7.790	5.400	3.469	-	4.875	6000	197,87	137,16	88,11	-	123,82

Note: For additional sizes and conditions not listed, contact your local Flowserve representative.

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