



# ***PSS III*** ***Split Seal***

The next generation of split seal technology



***Experience In Motion***

*The next generation of split seal technology combining ease of installation and improved process containment. The PSS III is ideal for installations striving to increase production capacity through reduced equipment down time.*



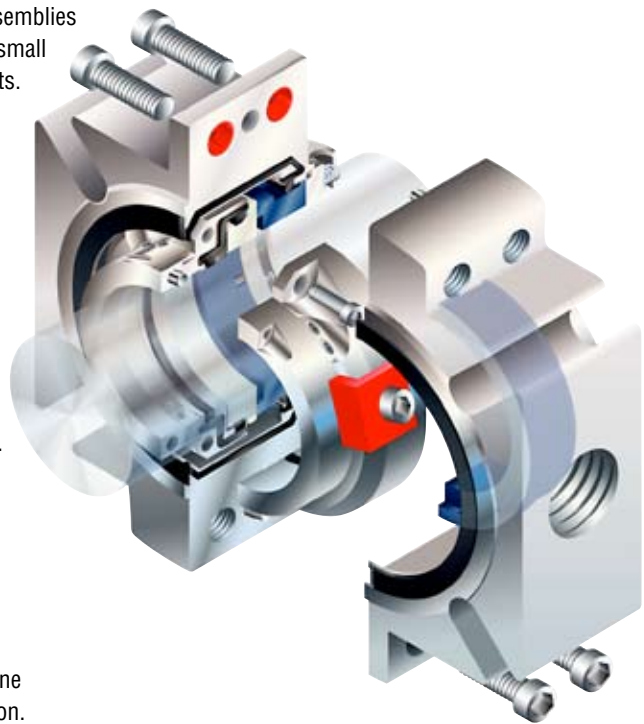
## **Easy installation and versatile design**

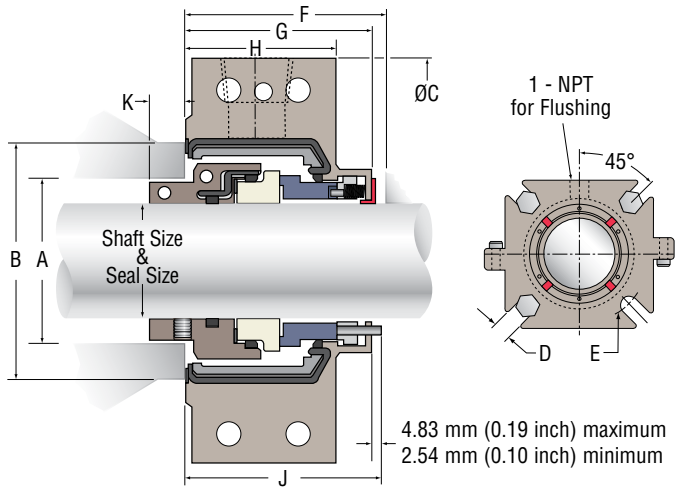
With only two major components, the PSS III split seal simplifies installation without requiring equipment tear down. Semi-cartridge rotating and stationary assemblies eliminate equipment measurements and handling of small intricate components, including seal faces and gaskets.

Innovative design with enhanced pressure capability makes the PSS III ideal for paper mills, waste water treatment facilities, soda ash processing and light chemical plants.

### **The PSS III advantage**

- No need to completely dismantle the pump and primary driver for seal installation. The PSS III installs around the shaft, outside the seal chamber.
- Easy installation with minimal effort due to the unitized component, semi-cartridge design.
- Product leakage across the faces is minimized by maintaining rotor and stator face squareness with a robust, extended rotor assembly.
- Installation tools are included with the seal. Only one wrench for the gland bolts is required for installation.
- Installation errors are reduced through the use of integral setting tabs on the seal components. No need to measure and mark at the point of installation.
- The PSS III can handle mixer equipment runout up to 1.5 mm (0.060 inch) TIR radial shaft movement, accommodating demanding mixer characteristics.
- Higher pressures or lubricating medium is no problem. The positive drive rotor is held firmly in place by more set screws.
- Optimized PSS III face loading maintains face to face seal contact even during fluctuating pressure conditions that otherwise could cause leakage.
- High viscosity media can be a challenge to friction-driven faces. The PSS III has direct drive pins in the faces for positive sealing integrity.
- Springs and pins are outside the media environment and not affected by media clogging or corrosion.
- Standardized NPT port makes flush line installation easier with standard fittings and wrenches.
- Open clearances around the seal means wash down cleaning is quicker and easier for equipment in dirty and dusty conditions.





### Materials of Construction

- Stator Face:** Carbon, Silicon Carbide
- Rotor Face:** Silicon Carbide, Aluminum Oxide
- Metal Parts:** 316 Stainless Steel
- Springs:** Alloy C-276
- Secondary Seals:** FKM, EPDM

### Standard Operating Limits

- Pressure:** Full vacuum to 30 bar (450 psi)
- Temperature:** -18 to 121°C (0 to 250°F)
- Speed:** 12.7 m/s (41.7 ft/s)
- Sizes:** 38 mm - 152 mm  
(1.500 - 6.000 inch)

### PSS III Dimensional Data in inches

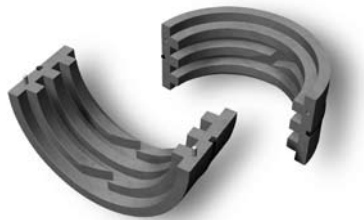
Shaft & Seal Size +0.001" -0.002"	A Seal Chamber Bore	B Min.	C	D Max. Bolt Size	E Min. Bolt Circle	E Max. Bolt Circle	F Min. DFO	G	H	J Max.	K
1.500	2.12 to 2.50	2.75	5.25	0.500	3.50	4.33	2.50	2.12	1.71	2.31	0.33
1.625	2.25 to 2.62	2.88	5.50	0.500	3.62	4.75	2.50	2.12	1.71	2.31	0.33
1.750	2.38 to 2.75	3.00	5.41	0.500	3.75	4.36	2.50	2.12	1.71	2.31	0.33
1.875	2.50 to 2.88	3.12	5.53	0.500	3.88	4.67	2.50	2.12	1.71	2.31	0.33
2.000	2.62 to 3.00	3.25	5.75	0.500	4.03	5.06	2.50	2.12	1.71	2.31	0.33
2.125	2.75 to 3.25	3.50	5.69	0.625	4.44	5.38	2.72	2.34	1.84	2.53	0.39
2.250	2.88 to 3.38	3.62	5.81	0.625	4.56	5.64	2.72	2.34	1.84	2.53	0.39
2.375	3.00 to 3.50	3.75	5.94	0.625	4.69	5.06	2.72	2.34	1.84	2.53	0.39
2.500	3.12 to 3.75	3.88	6.88	0.625	5.00	6.20	2.72	2.34	1.84	2.53	0.39
2.625	3.25 to 3.75	4.00	6.19	0.625	4.94	6.00	2.72	2.34	1.84	2.53	0.39
2.750	3.38 to 3.88	4.12	6.75	0.625	5.06	6.17	2.72	2.34	1.84	2.53	0.39
2.875	3.50 to 4.00	4.25	6.44	0.625	5.19	5.94	2.72	2.34	1.84	2.53	0.39
3.000	3.62 to 4.12	4.38	7.62	0.750	5.56	6.63	2.72	2.34	1.84	2.53	0.39
3.125	3.75 to 4.25	4.50	7.06	0.750	5.56	6.44	2.72	2.34	1.84	2.53	0.39
3.250	3.88 to 4.38	4.62	7.19	0.750	5.69	6.63	2.72	2.34	1.84	2.53	0.39
3.375	4.00 to 4.50	4.75	7.31	0.750	5.81	6.69	2.72	2.34	1.84	2.53	0.39
3.500	4.25 to 5.00	5.25	8.50	0.750	6.38	7.45	3.06	2.69	2.19	2.88	0.51
3.625	4.38 to 5.13	5.38	8.00	0.750	6.50	7.37	3.06	2.69	2.19	2.88	0.51
3.750	4.50 to 5.25	5.50	8.75	0.750	6.63	7.83	3.06	2.69	2.19	2.88	0.51
3.875	4.63 to 5.38	5.63	8.25	0.750	6.75	7.63	3.06	2.69	2.19	2.88	0.51
4.000	4.75 to 5.50	5.75	9.00	0.875	7.00	7.92	3.06	2.69	2.19	2.88	0.51
4.125	4.88 to 5.63	5.88	8.88	0.875	7.13	8.13	3.06	2.69	2.19	2.88	0.53
4.250	5.00 to 5.75	6.00	9.00	0.875	7.25	8.25	3.06	2.69	2.19	2.88	0.57
4.375	5.13 to 5.88	6.13	9.13	0.875	7.38	8.38	3.06	2.69	2.19	2.88	0.60
4.500	5.25 to 6.00	6.25	9.25	0.875	7.50	8.50	3.06	2.69	2.19	2.88	0.64
4.625	5.38 to 6.13	6.38	9.38	0.875	7.63	8.63	3.06	2.69	2.19	2.88	0.68
4.750	5.50 to 6.25	6.50	9.26	0.875	7.75	8.51	3.06	2.69	2.19	2.88	0.72
4.875	5.63 to 6.38	6.63	9.63	0.875	7.88	8.88	3.06	2.69	2.19	2.88	0.75
5.000	5.75 to 7.00	7.25	10.65	0.875	8.50	10.00	3.06	2.69	2.19	2.88	0.79
5.125	5.88 to 7.13	7.38	10.38	0.875	8.63	9.63	3.06	2.69	2.19	2.88	0.83
5.250	6.00 to 7.25	7.50	10.50	0.875	8.75	9.75	3.06	2.69	2.19	2.88	0.87
5.375	6.13 to 7.38	7.63	10.63	0.875	8.88	9.88	3.06	2.69	2.19	2.88	0.90
5.500	6.25 to 7.50	7.75	11.50	0.875	9.00	10.75	3.06	2.69	2.19	2.88	0.94
5.625	6.38 to 7.63	7.88	10.88	0.875	9.13	10.13	3.06	2.69	2.19	2.88	0.98
5.750	6.50 to 7.75	8.00	11.00	0.875	9.25	10.25	3.06	2.69	2.19	2.88	1.02
5.875	6.63 to 7.88	8.13	11.13	0.875	9.38	10.38	3.06	2.69	2.19	2.88	1.05
6.000	6.75 to 8.00	8.25	11.25	0.875	9.50	11.25	3.06	2.69	2.19	2.88	1.09

Other sizes available on request. Contact Flowserve Engineering.



### **SEB (Solids Excluder Bushing)**

The SEB reduces the amount of flush required and clears solids from the seal chamber. This provides a cleaner operating environment that helps reduce operating costs and improves Mean Time Between Planned Maintenance (MTBPM). For more information on the SEB, see FSD211.



### **Split Flow Reducer**

An engineered, close clearance device that lowers seal water flush (Plan 32) requirements when used with a Flowserve seal. Split axially for easy installation and constructed of glass-filled PTFE for corrosion and abrasion resistance.



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