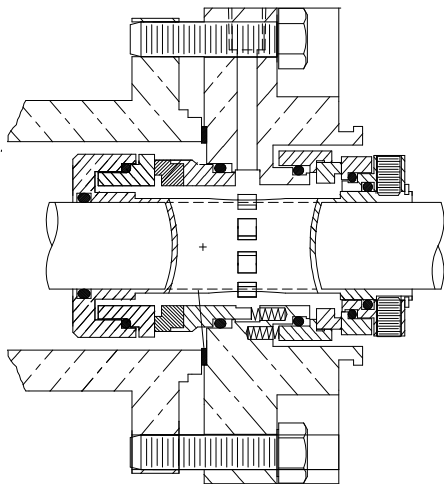




# DELTA DOUBLE CARTRIDGE SEAL WITH PUMPING RING FOR MIXER/AGITATOR APPLICATIONS

Designed to accommodate radial and axial shaft movement associated with Mixer / Agitator sealing applications.

## STYLE 7000



### Technical Features

#### Radial Motion Capacity:

**Sizes:** 1.000" - 2.625" = Up to .062 TIR  
2.750" - 4.750" = Up to .150 TIR

#### Axial Motion Capacity:

+/- .040

**Optional special metal insert** provides a cost effective alternative for corrosive service. This design variation uses a special metal insert (Titanium, Hastelloy "B", "C") for the process wetted surface in a standard 316 SS gland.

**Double balanced, stationary design** can be operated in two modes. In double mode the barrier fluid pressure higher is than stuffing box pressure. In tandem mode the barrier fluid pressure is lower than stuffing box pressure and can accommodate pressure reversals at the inboard faces.

**Instantaneous pressure shift capability** eliminates mixer and pressure vessel sealing worries even under jarring purge and pressure cycles.

**High efficiency pumping design** provides 400% increase in flow, providing superior heat removal through the circulated barrier fluid.

**Self venting, bi-directional barrier fluid connections** accommodate shaft rotations in either direction on horizontal and vertically mounted equipment.

**Inboard shroud** provides physical protection to the seal ring.

**Large bore barrier fluid ports** provide high capacity cooling.

**Large internal radial clearances** provide efficient barrier fluid flow and heat removal.

**Two piece face designs** assures optimum seal performance for the most challenging, demanding environments where one piece face construction is vulnerable to premature failure.

**Rugged, heavy duty gland castings** eliminate distortion related failures.

**Rotary inboard faces stabilized under compression** are flexibly mounted utilizing o-rings for their shock and vibration absorption qualities.

**Positive hold, metal centering clips** center the seal in both the axial and radial directions.

Choose from spare parts kits for field repair or the optional factory repair program. State of the art, easy-to-install design uses the least number of components, simplifying field repair, resulting in low life cycle costs.

All seals are pressure tested at the factory assuring 100% sealability during startup.

### Application Data

**Shaft speed:** To 4000 FPM (feet per minute)

**Pressure:** Vacuum to 250 PSI Inboard

**Temperature:** See O-ring limitations

### Materials

**Metal Parts:** 316SS, Alloy 20, Hastelloy "C", Titanium

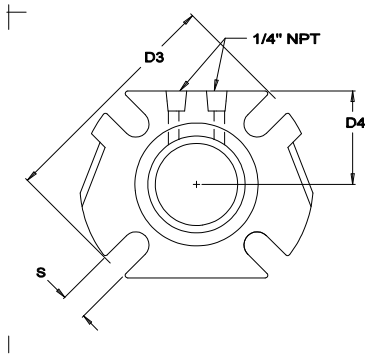
**Springs:** Hastelloy "C"

**Faces:** Combinations of Carbon, Sintered-Silicon Carbide, and Tungsten Carbide

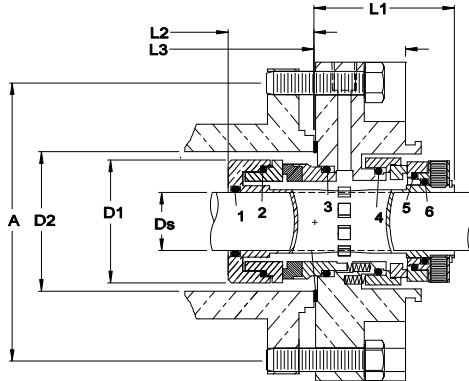
**Elastomers:** Viton, EPR, Kalrez, Aflas, Teflon

# METRIC DIMENSIONAL DATA FOR DELTA SEAL STYLE 7000

## FRONT VIEW

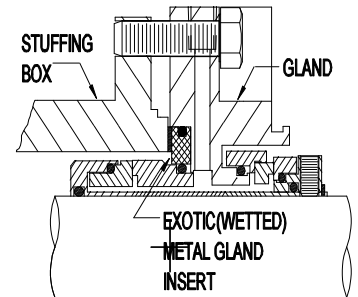


## SIDE VIEW



## OPTIONAL GLAND FEATURE

Optional exotic metal gland insert for corrosive environments. (Hastelloy "C", "B", Titanium, etc.)



DS Seal Size	D1 Sleeve OD	D2 Min	D2 Max	D3 Gland OD	D4 Gland Flat	A				S Slot Width	L1 Outside Length	L2 Inside Length	L3 Gland Length
						Min. Bolt Circle by Stud Size							
						8mm	10mm	12mm	16mm				
24	47	49.6	55.8	104	48.4	72.0	74.0	76.1	81.5	11.6	54.1	32.3	14.4
25	50.3	52.8	57.1	111.8	51.9	78	80.1	82	87.5	11.6	54.1	32.3	14.4
28	50.3	52.8	57.1	111.8	51.9	78	80.1	82	87.5	11.6	54.1	32.3	14.4
30	53.6	56.1	61.2	111.9	51.9	78.1	80.1	82.1	87.6	11.6	54.1	32.4	14.5
32	53.6	56.1	61.2	112	51.9	78.1	80.2	82.2	87.6	11.6	54.1	32.3	14.4
33	57.5	60.1	64.7	122.1	52.4	83.6	85.6	87.6	93.1	13.4	54.1	32.3	31.7
35	61	63.6	68.5	122.3	52.4	83.7	85.8	87.8	93.2	13.4	54.1	32.3	31.7
38	64.3	66.8	72.3	138.1	58.5	88.9	91	93	98.4	14.2	54.1	32.3	14.4
40	67.3	69.9	74	138.3	58.5	89.1	91.1	93.1	98.6	14.2	54.1	32.3	14.4
43	67.3	69.9	74	138.3	58.5	89.1	91.1	93.1	98.6	14.2	54.1	32.3	14.4
45	70.6	73.2	79.0	139.7	62.2	94.5	96.5	98.5	104.0	14.2	54.1	32.4	14.5
48	73.8	76.3	79.3	148.3	62.2	94.5	96.6	98.6	104	14.2	54.1	32.3	14.4
50	73.8	76.4	79.4	148.3	62.2	94.5	96.5	98.5	104.	14.2	54.1	32.4	14.5
53	80.1	82.7	92.8	156.8	62.4	108	110	111	117.5	16.2	54.1	32.3	31.7
55	80.1	82.7	92.8	156.8	62.4	108	110	111	117.5	16.2	54.1	32.3	31.7
58	83.1	85.6	97	163	69.6	113.1	115.1	117.1	122.6	16.2	54.1	32.3	14.4
60	83.1	85.6	97.	163.1	69.6	113.2	115.2	117.2	122.7	16.2	54.1	32.4	14.5
63	92.3	94.8	102.3	196.9	76.7	127	129.1	131.1	136.5	17.7	58.4	29.4	31.7
65	92.3	94.8	102.3	197.0	76.7	127.9	129.9	131.9	137.4	17.7	58.4	29.5	31.8
68	100.9	105.1	109.6	197.1	76.7	127.2	129.2	131.2	136.7	17.7	58.4	29.4	31.7
70	100.9	105.1	109.6	197.0	76.7	127.9	129.9	131.9	137.4	17.7	58.4	29.5	31.8
75	107.3	111.4	125.1	215.8	84.6	146.1	148.1	150.1	155.6	19.8	58.4	29.5	31.8
80	119.9	124.1	127.8	216	84.6	146.3	148.3	150.3	155.8	19.8	58.4	29.4	31.7
85	119.9	124.1	127.8	216	84.6	146.3	148.3	150.3	155.8	19.8	58.4	29.4	31.7
90	126.3	130.5	149.3	245.0	95.2	176.4	178.4	180.4	185.9	19.8	58.4	29.5	31.8
95	126.3	130.5	149.2	244.9	95.2	176.3	178.4	180.3	185.8	19.8	58.4	29.4	31.7
100	139	143.2	155.5	245.2	95.2	176.6	178.6	180.6	186.1	19.8	58.4	29.4	31.7
110	145.4	149.5	158.1	245.0	95.2	176.4	178.4	180.4	185.9	19.8	58.4	29.5	31.8

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