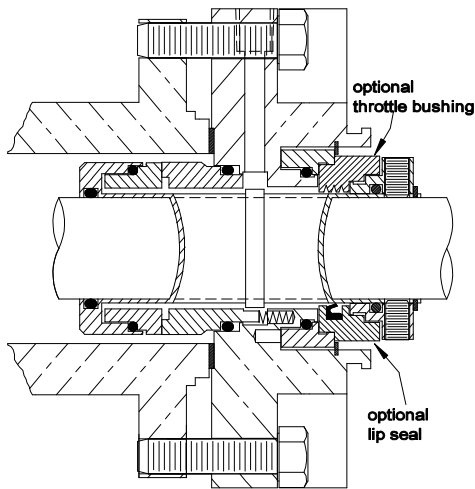
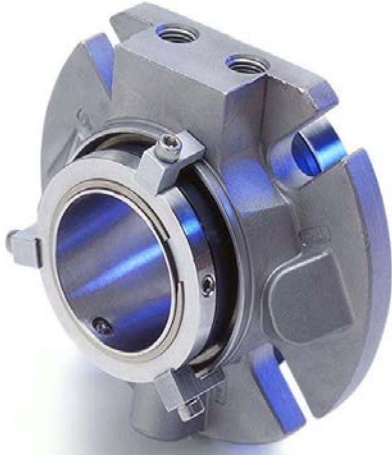




## DELTA SINGLE CARTRIDGE DESIGN FOR SEVERE SERVICE APPLICATIONS

Optional floating throttle bushing or lip seal design accommodates fluids with dissolved and undissolved solids. Provides solutions for thermal setting products, crystallization, and slurry applications.

### STYLE 8000



### Technical Features

**Delta's integral throttle bushing or lip seal** provides a quench on the atmospheric side of seal to prevent buildup of particles carried by normal seal weepage of product which may cause hang-up of springs and seal faces. The 8000 series offers a cost-effective alternative as a replacement to using compression packing, double mechanical seals with auxiliary systems, and dynamically sealed or magnetic drive pumps.

**Optional gland lip seal** provides a secondary containment seal allowing the use of a quench fluid reservoir, stand pipe, or external water flush for outboard side lubrication of seal faces. This configuration offers reduced maintenance and plant water consumption in demanding applications in power, pulp and paper, and chemical processing industries.

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

**Interchangeable stationary faces enable application customization**, accommodating the widest range of operating conditions and applications in industry. Monolithic, one-piece designs provide unequalled face stability under fluctuating system operating conditions. Two piece face designs that assure optimum seal performance for the most challenging, demanding environments where one piece face construction is vulnerable to premature failure.

**All static o-rings** are used throughout, which eliminates damage to the pump shaft/sleeve or seal normally caused by rotary pusher component or pusher cartridge type seals, allowing use of solid pump shafts that minimize deflection.

**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.

**Rotary inboard faces stabilized under compression** are flexibly mounted utilizing o-rings for their shock and vibration absorption qualities. This eliminates premature fractures in the faces under thermal and mechanical shock that can cause catastrophic failures in other designs with faces under tension.

### Application Data

**Shaft speed:** To 3600 RPM

**Pressure:** Vacuum to 400 PSI

**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

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

**Stationary springs are mounted in the gland** and are completely isolated from the pumped product and are not susceptible to centrifugal force during operation so coil fatigue of the springs is prevented.

Choose from spare parts kits for field repair or the optional factory repair.

### Optional Features:

- 2 piece stationary face

- Exotic Metal Gland insert design

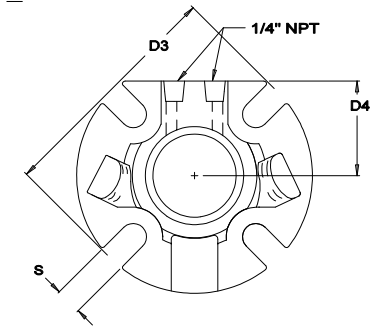
Select one of the following:

- Floating Throttle Bushing design (Bronze or Carbon)

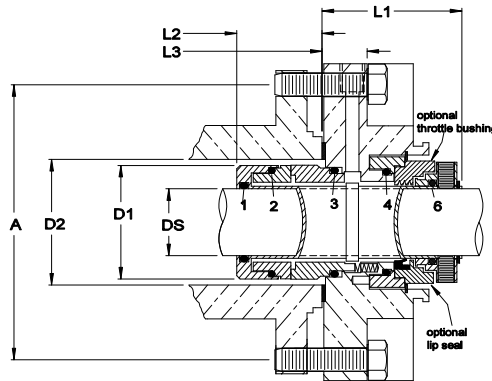
- Lip Seal Design

# METRIC DIMENSIONAL DATA FOR DELTA SEAL STYLE 8000

## FRONT VIEW

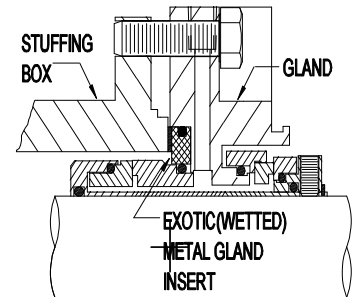


## SIDE VIEW



## 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	42.7	44.1	51.4	103.8	48.4	71.4	73.5	75.9	81.4	11.6	54.1	32.3	14.4
25	42.7	44.1	51.4	103.8	48.4	71.4	73.5	75.9	81.4	11.6	54.1	32.3	14.4
28	45.9	47.3	55.8	104	48.4	71.4	73.5	76.1	81.5	11.6	54.1	32.3	14.4
30	49.7	50.8	57.1	111.8	51.9	78	80.1	82	87.5	11.6	54.1	32.3	14.4
32	49.7	50.8	57.1	111.8	51.9	78	80.1	82	87.5	11.6	54.1	32.3	14.4
33	52.9	53.9	61.2	112	51.9	78.1	80.2	82.2	87.6	11.6	54.1	32.3	14.4
35	52.9	53.9	61.2	112	51.9	78.1	80.2	82.2	87.6	11.6	54.1	32.3	14.4
38	56	57	64.7	122.1	52.4	83.6	85.6	87.6	93.1	13.4	54.1	32.3	31.7
40	59.5	60.3	68.5	122.3	52.4	83.7	85.8	87.8	93.2	13.4	54.1	32.3	31.7
43	62.4	63.5	72.3	138.1	58.5	88.9	91	93	98.4	14.2	54.1	32.3	14.4
45	65.5	66.5	74	138.3	58.5	89.1	91.1	93.1	98.6	14.2	54.1	32.3	14.4
48	65.5	66.5	74	138.3	58.5	89.1	91.1	93.1	98.6	14.2	54.1	32.3	14.4
50	68.9	69.8	78.9	139.7	62.2	94.4	96.4	98.4	103.9	14.2	54.1	32.3	14.4
53	72	73	79.3	148.3	62.2	94.5	96.6	98.6	104	14.2	54.1	32.3	14.4
55	75.1	76.2	90.9	156.7	62.4	107.8	109.9	111.9	117.3	16.2	54.1	32.3	31.7
58	78.4	79.3	92.8	156.8	62.4	108	110	112	117.5	16.2	54.1	32.3	31.7
60	78.4	79.3	92.8	156.8	62.4	108	110	112	117.5	16.2	54.1	32.3	31.7
63	81.6	82.5	97	163	69.6	113.1	115.1	117.1	122.6	16.2	54.1	32.3	14.4
65	84.8	85.7	94.8	163.1	69.6	113.2	115.2	117.2	122.7	16.2	54.1	32.3	14.4
68	92.9	93.9	102.3	196.9	76.7	127	129.1	131.1	136.5	17.7	58.4	29.4	31.7
70	92.9	93.9	102.3	196.9	76.7	127	129.1	131.1	136.5	17.7	58.4	29.4	31.7
75	99.4	100.4	109.6	197.1	76.7	127.2	129.2	131.2	136.7	17.7	58.4	29.4	31.7
80	105.7	106.8	125	215.7	84.6	146	148.1	150	155.5	19.8	58.4	29.4	31.7
85	112.1	113.1	127.6	215.9	84.6	146.1	148.2	150.2	155.6	19.8	58.4	29.4	31.7
90	118.3	119.3	127.8	216	84.6	146.3	148.3	150.3	155.8	19.8	58.4	29.4	31.7
95	118.3	119.3	127.8	216	84.6	146.3	148.3	150.3	155.8	19.8	58.4	29.4	31.7
100	124.8	125.8	149.2	244.9	95.2	176.3	178.4	180.3	185.8	19.8	58.4	29.4	31.7
110	137.5	138.5	155.5	245.2	95.2	176.6	178.6	180.6	186.1	19.8	58.4	29.4	31.7

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