

# *Simsite*®

## Mechanical Seals



The **ONLY** True Corrosion Resistant  
Seal When **RELIABILITY** Counts



### Sims Pump Valve Company, Inc

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# Simsite® Mechanical Seals

## For Marine & Industrial Applications All Corrosive Services

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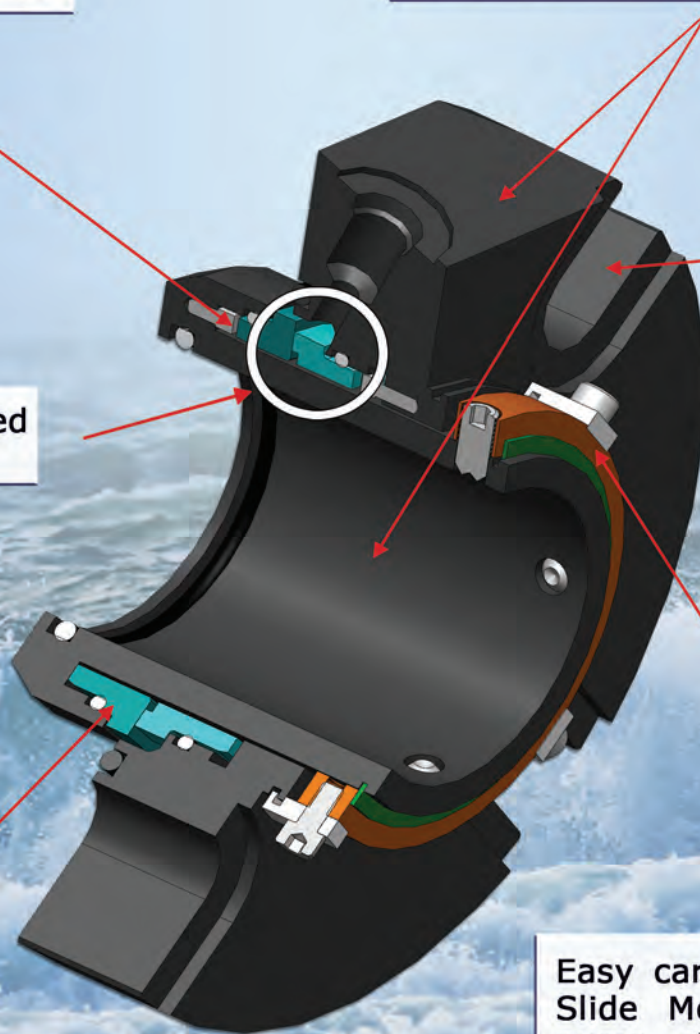
**SIMSITE®** Patented Corrosion Resistant Gland & Sleeve. Light Weight & Corrosion Resistant.

Fits all ANSI Standard & Large Bore Pumps.

Hydraulically Balanced Design.

Silicon Carbide Seal Faces for Better Life.

Easy cartridge seal installation. Slide Mechanical Seal on the pump shaft, bolt to the seal chamber, tighten set screws, and remove spacers.



# Simsite® Mechanical Seals

## For Marine & Industrial Applications

## All Corrosive Services

### WHAT WE DO:

Sims designs and manufactures cartridge style and spring loaded type mechanical seals for ALL centrifugal pumps. Sims seals are unique because they incorporate **Simsite®** structural composite glands and **Simsite®** structural composite sleeves for superior corrosion resistance.



### HOW WE DO IT:

The glands have an O-ring design for sealing against the casing, which enables the **Simsite®** seals to be used on rougher surfaces or split case pumps. The seal faces can be traditional, or silicon carbide against silicon carbide or diamond faced for longer life and better operation.

### HYDRAULIC BALANCE:

**Simsite®** parts are manufactured with precision machining, which provides a product with no casting imperfections. By manufacturing our products in **Simsite®**, our parts will not corrode and therefore will not go into an imbalance, and will not support electrolysis, or stress crack corrosion.

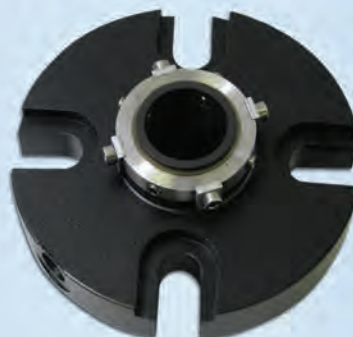
In a **Simsite®** cartridge-style mechanical seal, the seal faces and the spring tension are pre-set. The cartridge-style mechanical seal is simply bolted to the seal chamber. The springs are isolated from the fluid.

**Simsite®** Cartridge Mechanical Seals come standard with **Simsite®** Structural Composite Sleeves, which are corrosion & electrolysis resistant and will protect the shaft, and prevent galvanic corrosion.

**\*ALL MECHANICAL SEALS ARE DYNAMICALLY TESTED IN THE FACTORY PRIOR TO DELIVERY\***



All **Simsite®** mechanical seals for the US Navy are shock and vibration qualified.



### BENEFITS:

- 100% Structural Composite
- Will NOT Corrode in Salt Water, Waste Water, or Chlorinated Water
- Non-Corrosive Seal for Chemical Applications
- Light Weight
- Extends Pump Life
- Balanced Seal
- Easy Installation
- Triple your Operation Time



**Simsite®** Split Mechanical Seal



**Simsite®** Outer and Inner Cover Ring

# Simsite® Cartridge-Style Mechanical Seals

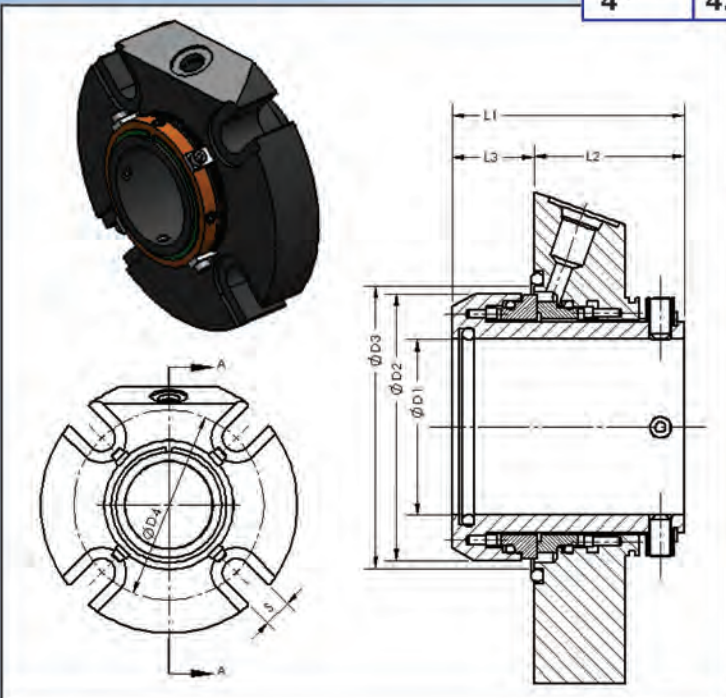


A **Simsite®** Cartridge-style Mechanical Seal Coupled to a **Simsite®** Structural Composite Pump, which never corrodes in salt water or waste water and is corrosion resistant to most chemicals.



Technical Data for Installation of SIMSITE® cartridge-style Mechanical Seals

	d <sub>1</sub>	d <sub>2</sub> min.	d <sub>3</sub> max.	d <sub>4</sub>	I <sub>1</sub>	I <sub>2</sub>	I <sub>3</sub>	s
1"	1.000	1.75	2.00	2.88	2.450	1.980	0.470	0.500
1 1/8"	1.125	1.88	2.03	3.01	2.450	1.980	0.470	0.500
1 1/4"	1.250	2.00	2.26	3.31	2.450	1.980	0.470	0.500
1 3/8"	1.375	2.09	2.42	3.30	2.640	1.669	0.969	0.500
1 1/2"	1.500	2.25	2.62	3.38	2.450	1.980	0.470	0.500
1 5/8"	1.625	2.38	2.66	3.51	2.450	1.980	0.470	0.500
1 3/4"	1.750	2.50	2.80	3.63	2.450	1.980	0.470	0.500
1 7/8"	1.875	2.63	2.93	3.76	2.450	1.980	0.470	0.500
2"	2.000	2.75	3.18	4.01	2.450	1.980	0.470	0.500
2 1/8"	2.125	2.88	3.28	4.26	2.450	1.980	0.470	0.500
2 1/4"	2.250	3.00	3.55	4.38	2.450	1.980	0.470	0.500
2 3/8"	2.375	3.13	3.59	4.42	2.450	1.980	0.470	0.500
2 1/2"	2.500	3.25	3.80	4.64	2.450	1.980	0.470	0.500
2 5/8"	2.625	3.34	3.94	5.00	2.640	1.669	0.969	0.709
2 3/4"	2.750	3.66	4.25	5.36	2.640	1.669	0.969	0.709
2 7/8"	2.875	3.81	4.57	5.67	3.307	2.260	1.047	0.709
3"	3.000	3.94	4.65	5.79	3.307	2.260	1.047	0.709
3 1/8"	3.125	4.06	4.76	5.91	3.307	2.260	1.047	0.709
3 1/4"	3.250	4.19	4.88	6.02	3.307	2.260	1.047	0.709
3 3/8"	3.375	4.31	5.04	6.34	3.307	2.260	1.047	0.866
3 1/2"	3.500	4.44	5.16	6.46	3.307	2.260	1.047	0.866
3 5/8"	3.625	4.56	5.32	6.58	3.307	2.260	1.047	0.866
3 3/4"	3.750	4.69	5.43	6.69	3.307	2.260	1.047	0.866
4"	4.000	4.94	5.67	6.93	3.307	2.260	1.047	0.866



## Mechanical Seal Sizes:

From 1" to 20" Shaft Diameters

## Operating Limits:

Temperature: -60°F to 350°F

Pressure: Up to 500 PSI

Maximum Shaft Peripheral Speed: 150 FT/S

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