



■ **STANDARD DIN/ANSI
SINGLE CARTRIDGE SLURRY SEALS**
PATENTED

CarLife® 99SS™

**FLUSHLESS SINGLE SEAL
FOR MODERATELY ABRASIVE SERVICES**



Product Description

The CarLife 99SS seal is specifically designed to resist moderate process solids without the need for a flush. Through an advanced design of anti-clogging construction, the seal is capable of providing uninterrupted operation without hanging up due to impurities or abrasive solids. The innovative sub-cartridge design enables faster maintenance and repair than conventional cartridge seals. Fitting both enlarged bore and tapered bore seal chambers, the CarLife 99SS meets the latest design criteria set by the fluid sealing industry and followed by most main seal manufacturers.

In addition to similar construction and assembly procedure, the CarLife 99SS and MGS series have maximum interchangeability of parts. More shared parts mean simpler maintenance process and inventory management. As a result, our CarLife 99SS customers are able to stock fewer inventory parts and pay much lower maintenance and inventory holding costs. And the more CarLife 99SS products they use, the more benefits they can gain from their cost-effective CarLife 99SS seals.



Operating Capabilities

Temperature	-40 ~ 150°C (-40 ~ 302 °F)
Pressure	Up to 256 psig (18 kg/cm ² G)
Surface Speed	Up to 5000 fpm (25 m/s)
Max. Solids by Weight	25 ~ 30%

Recommended Piping Plans

Process Side	01/02/03
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Design Standards

- Designed in accordance with international standards, including ANSI B73.1M, EN12756 and DIN 24960, with compatible and exchangeable dimensions.
- Compliant with DIN/ANSI standards for enlarged bore sealing chambers.
- Custom designs are available to meet the specific needs of customers.
- Applicable models

Equip. OEM	Equip. Model
Warman®	1.5/1 B-AH, 3/2 C-AH, 4/3 D-AH, 6/4 E-AH, 8/6 F-AH, 10/8 F-AH, 10/8 G-AH, 650 TUL
Goulds®	TaperBore®

※The model names listed above are registered names of the corresponding companies. Scenic is not affiliated with these companies.

Auxiliaries and Components (Options)

- Throat bushing (process side)



More Information for You

Applications

- Ability to tolerate short intermittent dry-running in batch charging and discharging equipment.
- Ideal for crystallizing, medium-viscosity and medium-abrasion media, such as aluminum oxide, slurry, coal, gypsum, sand, phosphate, potassium carbonate, fiber, and syrup.
- Well suited for metal processing and coating, such as titanium, zinc, nickel, copper foil and silver.
- Suitable for a wide range of rotating equipment, such as seawater pumps, wastewater pumps, chemical process pumps, centrifugal pumps, and eccentric screw pumps.
- Widely used in the alcohol (e.g. methanol and ethanol), bio-diesel and corn processing industries.
- Capable of handling processes involving acids, alkalis, corrosive fluids, and vacuum pressure.
- Widely used in the geothermal energy prospecting, rubber, mining, refining, petrochemical, chemical, pulp and paper, metal processing and coating, food and beverage, pharmaceutical, pipeline transportation, electric power, steel, biotechnology, renewable energy, water resource, and wastewater treatment industries.

Specific Features

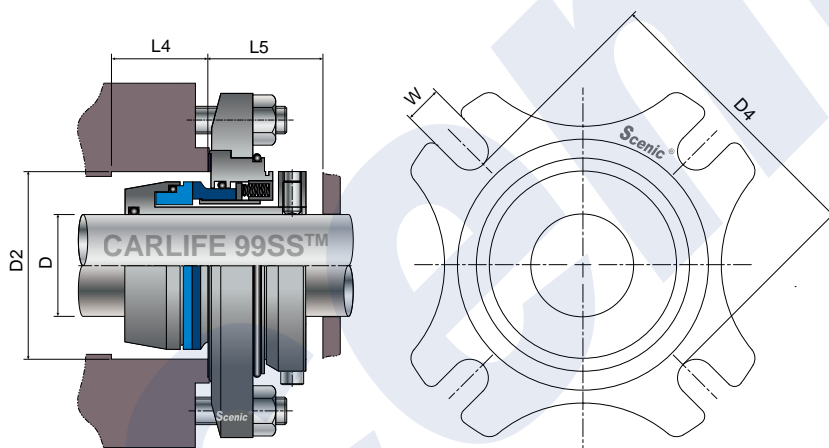
- Patented disposable sub-cartridge design for ease of maintenance and replacement.
- Separable gland with U-notches for alignment can be used repeatedly.
- Self-aligning compensates for shaft runout up to ± 0.5 mm, increasing operational reliability.
- No need for an external flush and associated piping.
- Heavy-duty balanced construction.
- Inner springs are non-rotating and isolated from the process medium during operation.
- Protective hood under springs prevents them from hanging up due to invading solids.
- Jumbo coil spring design provides high fatigue resistance.
- All applied O-rings are micro-polished to ensure smooth and non-sticking surfaces.
- In-line monolithic seal faces with enhanced performance.
- The CarLife 99SS series shares many parts with the MGS series.



Material Selection

Seal Components	Standard Materials	Other Material Options
Stationary Ring	Silicon Carbide	Tungsten Carbide
Rotary Ring	Silicon Carbide	Tungsten Carbide
Metal Parts	316 Stainless Steel	304 Stainless Steel 316L Stainless Steel 316Ti Stainless Steel Duplex® Stainless Alloy C-276 Titanium Monel
Elastomeric O-rings	FKM	Aflas NBR EPDM TV FFKM (Sceniraz™ / Chemraz® / Kalrez®)
Gland Gasket	Glass-Filled PTFE	Non- Asbestos
Springs	316 Stainless Steel	Alloy C-276 316L Stainless Steel
Throat Bushing (process side) (optional)	Rulon®	Carbon Fiber Filled PTFE MAT®

Assembly Dimensions

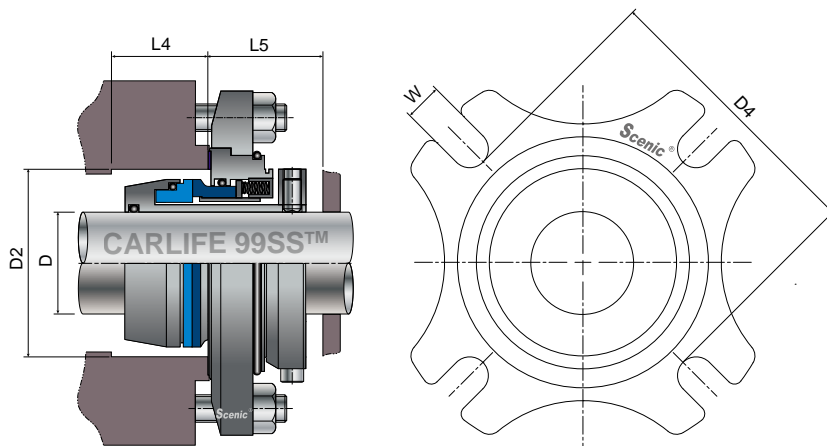


※ Listed are frequently used sizes. For custom sizes, please contact Scenic for details.

CarLife 99SS™ - Metric standard sizes in mm

Seal Code	Shaft D	D2		L4 MIN.	L5 MIN.	D4	W
		MIN.	MAX.				
99SS-0028	28	66.7	69.9	38.6	44.5	Custom Design	
99SS-0035	35	73.0	76.2	38.6	44.5		
99SS-0045	45	89.0	92.1	38.6	44.5		
99SS-0048	48	92.0	95.3	38.6	44.5		
99SS-0050	50	89.0	95.3	38.6	44.5		
99SS-0055	54	92.0	98.4	38.6	44.5		
99SS-0058	57	95.4	98.4	38.6	44.5		
99SS-0060	60	98.5	104.8	38.6	44.5		
99SS-0063	63	98.5	104.8	38.6	44.5		
99SS-0065	67	104.8	111.1	38.6	44.5		
99SS-0070	70	109.0	117.5	38.6	47.6		
99SS-0080	80	117.5	127.0	38.6	47.6		

Assembly Dimensions



※ Listed are frequently used sizes. For custom sizes, please contact Scenic for details.

CarLife 99SS™ - Imperial standard sizes in inches

Seal Code	Shaft D	D2		L4 MIN.	L5 MIN.	D4	W
		MIN.	MAX.				
99SS-1125	1.125	2.625	2.750	1.520	1.750	Custom Design	
99SS-1375	1.375	2.875	3.000	1.520	1.750		
99SS-1750	1.750	3.500	3.625	1.520	1.750		
99SS-1875	1.875	3.625	3.750	1.520	1.750		
99SS-2000	2.000	3.500	3.750	1.520	1.750		
99SS-2125	2.125	3.625	3.875	1.520	1.750		
99SS-2250	2.250	3.750	3.875	1.520	1.750		
99SS-2375	2.375	3.875	4.125	1.520	1.750		
99SS-2500	2.500	3.875	4.125	1.520	1.750		
99SS-2625	2.625	4.125	4.375	1.520	1.750		
99SS-2750	2.750	4.250	4.625	1.520	1.875		
99SS-3125	3.125	4.625	5.000	1.520	1.875		

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