



SLC Series ***Heavy duty slurry seals***

Proven performance in mineral and
ore processing applications



Experience In Motion

SLC Series seals are heavy duty single cartridge seals built for the harshest slurry pump services found in mining, mineral and ore processing, and flue gas desulfurization. The SLC Series is designed with a unique non-clogging cone spring that increases seal reliability and enables flushless operation for low operating costs.



The premier seal for tough slurry applications

The SLC succeeds in these challenging slurry operations

Coal Processing/Washing

Thickener Underflow, Thickener Overflow

Uranium Processing

Pregnant Feed, Tailings, Cyclone Feed, Pyrolusite Distribution, Underflow Thickener Feed

Copper Refining

Concentrator Slimes Thickener Tailings

Nickel Refining

Slurry Transfer, Thickener Overflow, Thickener Underflow, Acid Slurry, Mill Hydrocyclone Feed, Tailings Transfer, Spray Dryer Transfer Pumps

Alumina Refining

Digester Feed, Caustic Cleaning Preparation, Bauxite Grinding Pumps, Desilicator Discharge Pump, Seed Filtrate Pump, Coarse Seed Filter Feed Pumps, Seed Charge

Hard Rock Mining

Ground Dewatering

Tar Sands Extraction

Froth, Pad Pumps, Tailings Transfer

Mineral Sands

Ore Mining

Slimes Pump, Concentrator Feed, Tailings/Tailings Booster pumps, Mineral sand slurry, Mineral sand concentrate

Synthetic Rutile Plant

Slurry Transfer Pumps, Acidic Slurry Transfer Pumps

Pigment Plant

Finished Slurry pump, Neutralisation feed pump, Chlorine Compressors (GARO)

Flue Gas Desulfurization (FGD)

Limestone Slurry, Calcium Sulfate Slurry, Gypsum Slurry, Filtrate Return

Gold Mining

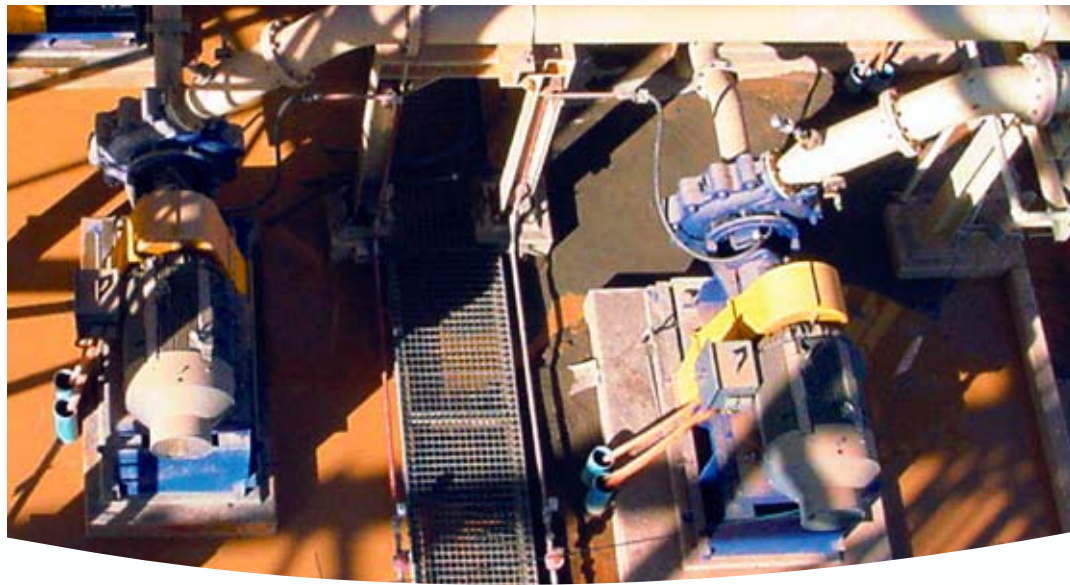
Carbon In Leach Tails, Decant Water, Saline Water, Concentrate Transfer, Cyanide Transfer, Conditioning Tank feed, Tails Thickener feed

Potash Plant

Circulation Pumps

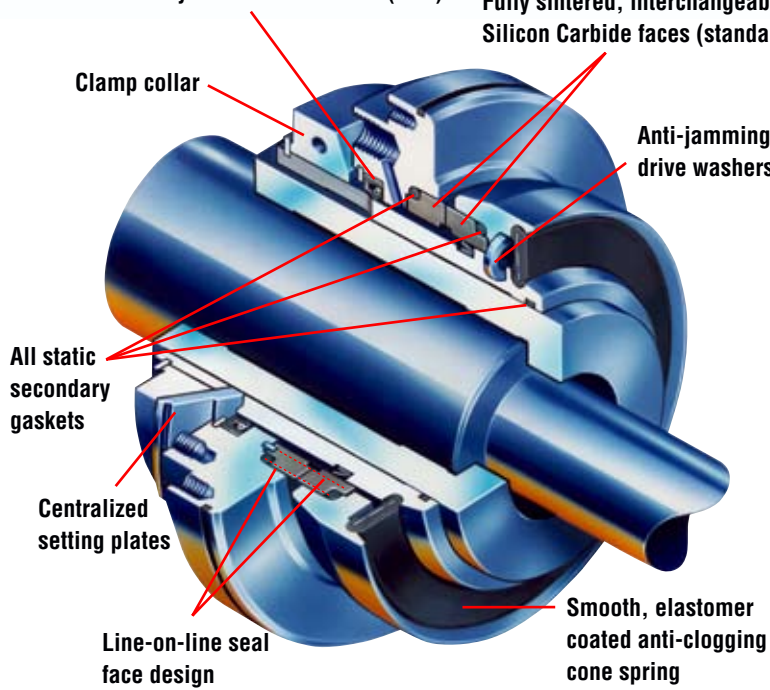
The SLC advantage

- Abrasion-resistant and corrosion-resistant metal components and silicon carbide seal faces extend seal life beyond slurry pump components to maximize equipment uptime.
- Robust construction handles slurry particle hardness up to MOH 9 and slurry concentration up to 60% solids by weight for reliability in the toughest services.
- Clean, open design operates without flush water to help reduce product dilution and save significant water-related operational costs.
- Encapsulated cone spring increases reliability by providing consistent spring loading and hydraulic balancing to the seal faces without clogging or wearing.
- Consistent, correct installation is achieved by the cartridge design from the pump equipment's wet or dry end with no special tools or seal-related bearing housing adjustments.
- Six group sizes meet the requirements of most slurry pump equipment giving maximum flexibility with minimum inventory.
- Available outboard lip seal and Plan 62 grease or water quench provide lubrication to the seal faces during dry running pump cycles.



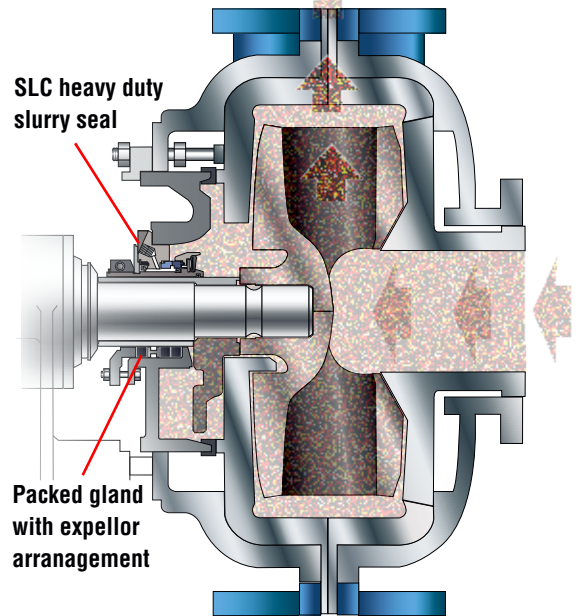
Quench Containment Device (QCD) for a water or Synthetic Lube Device (SLD)

Fully sintered, interchangeable Silicon Carbide faces (standard)



Out-performs packing in slurry pumps

The SLC reduces maintenance and resource costs while improving pump reliability.



Operating Parameters

| | |
|-------------------------------------|--|
| Pressure | Up to 300 psig (20.7 bar) |
| Temperature | Up to 170°F (77°C) without quench Up to 230°F (110°C) with quench <small>For higher temperature applications contact your local Flowsolve representative</small> |
| Maximum slurry concentration | 60% solids by weight |
| Maximum particle hardness | 9 MOH |
| Surface speed | Up to 3000 fpm (15 m/s) |
| Shaft sizes | 1.375 to 8.661 inches (35 to 220 mm) |

Materials of Construction

| | |
|--------------------------------|--|
| Wetted metal components | Hardened, high chrome iron (standard) CD-4MCuN or other alloys (optional) |
| Seal faces | Silicon Carbide (standard) Tungsten Carbide (optional) |
| Elastomers | Aflas ¹ (standard) EPDM, Viton ² (optional) |

1 Registered trademark of Asahi Glass Co., Ltd.
2 Registered trademark of E.I.DuPont

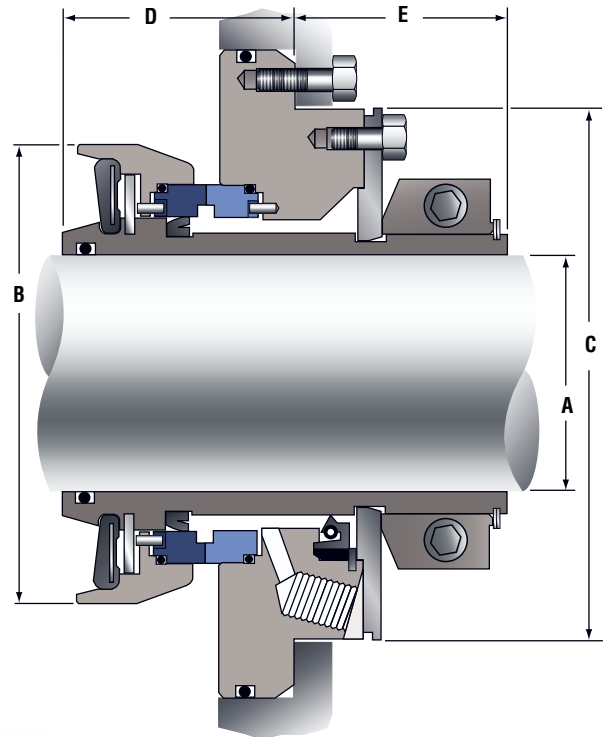


SLC Dimensional Data in inches

| Group | A | B | C | wet end | | dry end | |
|-------|---------------|-------|-------|---------|------|---------|------|
| | | | | D | E | D | E |
| 1 | 1.375 - 2.125 | 3.91 | 5.03 | 2.45 | 2.06 | 2.18 | 2.21 |
| 2 | 2.125 - 3.125 | 5.35 | 6.19 | 2.47 | 2.28 | 2.29 | 2.31 |
| 3 | 3.125 - 4.125 | 6.69 | 7.34 | 2.65 | 2.36 | 2.58 | 2.42 |
| 4 | 4.125 - 5.438 | 7.96 | 9.04 | 2.67 | 3.06 | 2.72 | 2.65 |
| 5 | 5.438 - 7.125 | 10.15 | 11.06 | 3.09 | 3.29 | 3.05 | 2.62 |
| 6 | 7.125 - 8.661 | 12.33 | 12.98 | 3.63 | 3.91 | 3.63 | 3.91 |

SLC Dimensional Data in millimeters

| Group | A | B | C | wet end | | dry end | |
|-------|-----------|-------|-------|---------|------|---------|------|
| | | | | D | E | D | E |
| 1 | 35 - 54 | 99.7 | 127.8 | 62.2 | 52.4 | 55.5 | 56.2 |
| 2 | 54 - 82 | 136.0 | 156.5 | 62.7 | 57.9 | 58.1 | 58.6 |
| 3 | 82 - 106 | 170.0 | 186.4 | 67.3 | 59.9 | 65.5 | 61.6 |
| 4 | 106 - 138 | 202.1 | 229.6 | 67.8 | 77.7 | 69.2 | 67.4 |
| 5 | 138 - 181 | 257.9 | 280.9 | 78.5 | 83.6 | 77.4 | 66.5 |
| 6 | 181 - 220 | 313.2 | 329.6 | 92.4 | 99.3 | 92.1 | 99.3 |



Note: For sizes and conditions not listed, contact your local Flowserve representative.

FSD120eng REV 1-09 Printed in USA

To find your local Flowserve representative
and find out more about Flowserve Corporation,
visit www.flowserve.com

Flowserve Corporation has established industry leadership in the design and manufacture of its products. When properly selected, this Flowserve product is designed to perform its intended function safely during its useful life. However, the purchaser or user of Flowserve products should be aware that Flowserve products might be used in numerous applications under a wide variety of industrial service conditions. Although Flowserve can provide general guidelines, it cannot provide specific data and warnings for all possible applications. The purchaser/user must therefore assume the ultimate responsibility for the proper sizing and selection, installation, operation, and maintenance of Flowserve products. The purchaser/user should read and understand the Installation Instructions included with the product, and train its employees and contractors in the safe use of Flowserve products in connection with the specific application.

While the information and specifications contained in this literature are believed to be accurate, they are supplied for informative purposes only and should not be considered certified or as a guarantee of satisfactory results by reliance thereon. Nothing contained herein is to be construed as a warranty or guarantee, express or implied, regarding any matter with respect to this product. Because Flowserve is continually improving and upgrading its product design, the specifications, dimensions and information contained herein are subject to change without notice. Should any question arise concerning these provisions, the purchaser/user should contact Flowserve Corporation at any one of its worldwide operations or offices.

© 2009 Flowserve Corporation

USA and Canada

Kalamazoo, Michigan USA
Telephone: 1 269 381 2650
Telefax: 1 269 382 8726

Europe, Middle East, Africa

Essen, Germany
Telephone: 49 201 31937-0
Telefax: 49 201 2200-561

Asia Pacific

Singapore
Telephone: 65 6544 6800
Telefax: 65 6214 0541

Latin America

Mexico City
Telephone: 52 55 5567 7170
Telefax: 52 55 5567 422

Slurry Seal Center of Excellence

55 Quill Way
Henderson, Western Australia 6166
Telephone: +61 8 9494 9200
Telefax: +61 8 9494 9201