



SEB Solids Excluder Bushing

Used with a Flowserve seal, the SEB reduces the amount of flush required and clears solids from the stuffing box to provide the seal with a cleaner operating environment that reduces operating costs and improves Mean Time Between Planned Maintenance (MTBPM).



Focused on the pumped media applications containing solids

Pumps with standard bore seal chambers tend to accumulate solids in the seal chamber. Over time, the accumulated solids in the seal chamber can cause component clogging, erosive or abrasive wear, and seal face overheating. Use of the SEB greatly enhances the operating environment for the mechanical seal.

Materials of Construction

- Standard: Glass filled PTFE
- Premium: Custom Abrasion Resistant PEEK
- Pins: Alloy 20 Stainless Steel
- Elastomer: Fluoroelastomer

Features and Benefits

The SEB redirects the movement of solids out of the stuffing box and replaces the solids with clean fluid providing a cleaner environment for operation of the mechanical seal.

Recirculation of fluid also acts to provide cooling to the mechanical seal.

Operation Benefit - flush rates can be reduced to as little as 0.75 liters/hour for each millimeter of shaft diameter (5 gallons/hour for each inch of shaft diameter)

PTFE construction promotes compatibility within chemical, pharmaceutical and paper stock applications

Abrasion resistant PEEK offers longevity in most mining and mineral ore processing applications.

Large circulating grooves reduce plugging of the solids media within the SEB.

Two designs are offered to maximize performance within even the most confined stuffing boxes.

Operating Parameters

Media	Concentration
Wastewater Solids	<5% by weight (Plan 32 recommended)
Highly fibrous media (similar to paper stock)	<3% by weight (Plan 32 recommended)
Highly fibrous media (similar to paper stock)	3-5% by weight (Plan 32 required)

Pressure Limits

The SEB does not sustain a functional pressure drop as with a close tolerance throttle bushing.

Temperature Limits

Minimum Temperature Limit: 0°C (32°F)
 Maximum Temperature Limit: 121°C (250°F)

Speed Limits

Minimum Speed Limit: 3 m/s (10 ft/s)
 Maximum Speed Limit: 25 m/s (80 ft/s)

Equipment Run-out Limits

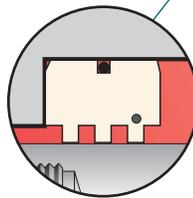
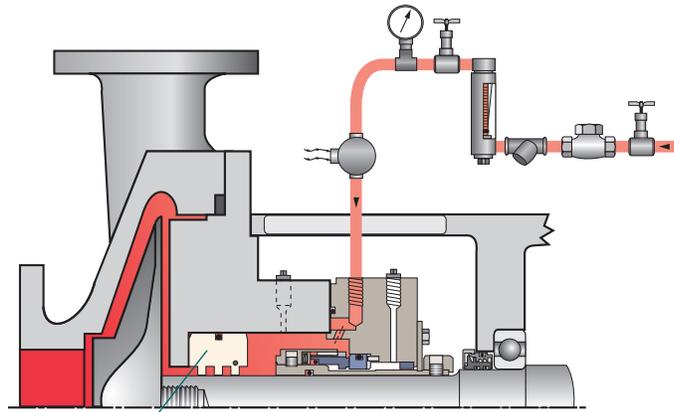
Seal Chamber Concentricity: 0.13 mm (0.005 inch) FIM
 Shaft/Sleeve Run-out: 0.13 mm (0.005 inch) FIM

Standard SEB Shaft Sizes

Minimum Shaft Size: 45 mm (1.750 inch)
 Maximum Shaft Size: 210 mm (8.250 inch)

Compact SEB Shaft Sizes

Minimum Shaft Size: 45 mm (1.750 inch)
 Maximum Shaft Size: 127 mm (5.000 inch)



Plan 32 with standard SEB

Axial Clearance:

Minimum Axial Clearance: 12.7 mm (0.5 inch)
 Maximum Axial Clearance: 76 mm (3.0 inch)

Seal Chamber Radial Cavity:

Minimum radial distance
 between seal chamber bore
 and shaft OD: 9.5 mm (0.375 inch)

FSD211eng ORG 11-05 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.

USA and Canada

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

Europe, Middle East, Africa

Roosendaal, The Netherlands
 Telephone: 31 165 581400
 Telefax: 31 165 554590

Asia Pacific

Singapore
 Telephone: 65 6544 6800
 Telefax: 65 6214 0541

Latin America

Mexico City
 Telephone: 52 55 5567 7170