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 5 gallons/hour for each inch of shaft diameter (0.75 liters/hour for each mm 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.

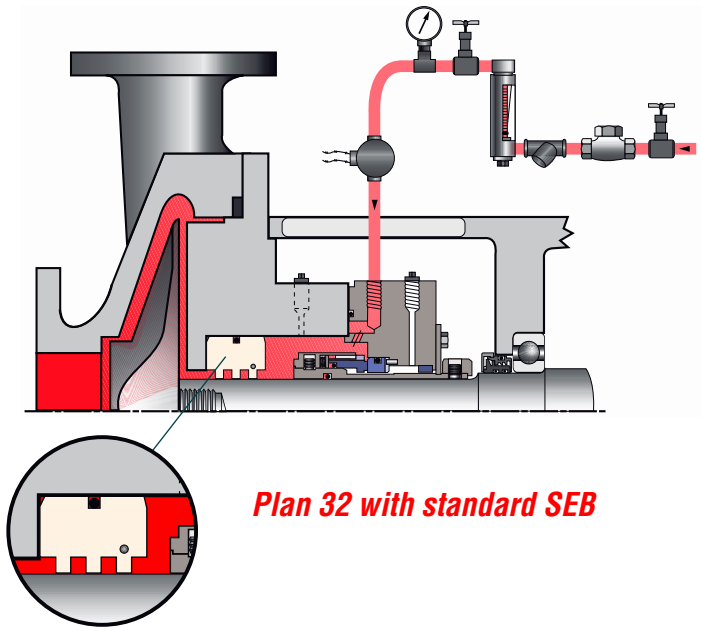
Temperature Limits
Minimum Temperature Limit: 32°F (0°C)
Maximum Temperature Limit: 250°F (121°C)

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

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

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

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



Plan 32 with standard SEB

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

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

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