Pillow Block Housings
Series SAF...
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Introduction
FAG series SAF are a standard imperial dimension range of split pillow block housings.
When combined with the FAG spherical roller bearing series 222..K, they provide the user with a robust and convenient solution for rotating shafts used in general duty machinery.
Additionally, they can be combined with the FAG split spherical roller bearings series 222S.., which provide the benefit of significant reduction in machine downtime due to the reduced installation effort.

Features
• Series SAF... housings are designed to accept a full range of shaft diameters from 1-7/16" to 7-15/16"
• Housing sizes within this standard production program are machined to accommodate inch or metric shaft dimensions (components for metric shaft on request)
• Housings are supplied with a central grease inlet and fitting for relubrication of the bearing, and an outlet hole on each side of the block for drainage
• Housings are equipped with a 2-bolt base for shaft sizes up to and including 3-7/16" (SAF520), and with a 4-bolt base thereafter; 4-bolt bases are also available by specifying FSAF... for shafts ranging from 2-3/16" to 3-7/16" (FSAF513 to FSAF520)
• Series SAF... housings are supplied with triple seal rings for normal service conditions. SuperTac II taconite seals are available for severe service conditions
• Bearings can be installed as floating bearings, or located with stabilizing rings

Designations and Materials
The series shown in this publication are available according to the following designations / materials:
• SAF..C.U – gray cast iron material
• SAF..D.U – ductile cast iron material
• FSAF.. – four bolt base (for sizes where two bolt is standard)
Both material types are supplied standard as a universal design, suffix U. The following items are included as part of the delivery of the universal design:
• Split housing (1x)
• Triple seal rings (2x) – Inch shaft size
• End cover (1x)
• Stabilizing ring (1x)
• Grease fitting (1x)

Note:
The following items are not included with the housing order and must be ordered separately
• Bearing
• Adapter sleeve
• Triple seal rings for metric shaft sizes
• Taconite seals

Housing Material Properties

<table>
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<tr>
<th>Material</th>
<th>A.S.T.M. Designation</th>
<th>Grade</th>
<th>Tensile Strength psi</th>
<th>Yield Strength psi</th>
<th>Elongation (% in 2 in.)</th>
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<td>A48-64</td>
<td>30</td>
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<td>65-45-12</td>
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</table>
Seals and Endcovers

Triple Seal Rings
Series SAF... housings are supplied with an efficient non-contact radial labyrinth seal commonly referred to as a triple seal ring (series LER for SAF... housings). This rotating ring automatically locates itself relative to the labyrinth groove of the housing (Figure 1).

Design Features
- FAG SuperTac II seals are manufactured from high grade steel with black oxide coating as standard; special design option of nickel plating is available upon request.
- The internal design features a radial / axial barrier to external contaminants.
- A grease packed radial labyrinth is formed by high grade spring steel laminar rings that align into two close running barriers, separated by a lubricant distribution channel.
- Sealing is further enhanced by the axial labyrinth which can be filled and purged with grease via the grease fitting on the seal.
- The seal flinger is equipped with 2 set screws spaced at a 65° interval for maximum holding power to the shaft.
- An o-ring in the flinger bore prevents the ingress of fluids between the seal and shaft.

Operating Benefits
- FAG SuperTac II is designed as a drop-in fit to the seal grooves of FAG series SAF pillow blocks, as well as many competitive designs, eliminating the need for special housing features.
- Seal can be grease purged independent of the bearing, thereby avoiding the possibility of excessive grease in the bearing cavity.
- The non-contact seal design eliminates shaft wear common to competitive designs.
- SuperTac II seals accept greater misalignments than lip seals.
- Exceptional speed characteristics: equivalent to bearing speed limits.

Taconite Seals
For severe service conditions, SAF... housings can be equipped with SuperTac II taconite seals (Figure 2) without any modification to the housing.

Operating Benefits
- In cases where the shaft does not pass through the housing an end cover can be installed in place of one of the seals in order to close off one side of the housing. The supplied end cover has a gasket on the outer diameter that creates a tightly sealed joint between the housing and the cover.
### Series SAF... Housings

<table>
<thead>
<tr>
<th>SHAFT DIAMETER</th>
<th>PILLOW BLOCK NO.</th>
<th>PILLOW BLOCK NO.</th>
<th>BASIC BEARING NO.</th>
<th>SPLIT BEARING NO.</th>
<th>ADAPTER SLEEVE NO.</th>
<th>OPTIONAL ADAPTER SLEEVE NO.</th>
<th>TRIPLE SEAL RING NO.</th>
<th>SUPER TAC II SEAL NO.</th>
<th>END COVER NO.</th>
<th>STABILIZING RING NO.</th>
<th>CATALOG WEIGHT</th>
<th>lbs</th>
<th>kgs</th>
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**ORDERING EXAMPLE**

Pillow Block No. Includes:

- SAF509C.U
- SAF509D.U
- 22209-E1-K
- SNW09.107
- H309X107
- LER17/0107
- TA17
- EC.509D2
- FRM85/6
- (2x) Triple Seal Ring
- (2x) End Cover
- (1x) Stabilizing Ring
- (1x) Grease Fitting

* Includes:
  1. Housing body
  2. LER seal
  3. Endcover
  4. FRM
  5. Grease fitting
### Triple Ring Seal

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<th>D (mm)</th>
<th>h (inch/mm)</th>
<th>a (inch/mm)</th>
<th>b (inch/mm)</th>
<th>c (inch/mm)</th>
<th>m (MAX. inch/mm)</th>
<th>MIN. inch/mm</th>
<th>n (inch/mm)</th>
<th>h1 (inch/mm)</th>
<th>g (inch/mm)</th>
<th>g1 (inch/mm)</th>
<th>x (inch/mm)</th>
<th>(Static) inch/mm</th>
<th>y (inch/mm)</th>
<th>MOUNTING BOLTS</th>
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<td>13/16</td>
<td>7</td>
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### SuperTac II Taconite Seal

- Dimensions "g1" specific to SAF... housings with SuperTac II seals
- Specify FSAF... when ordering 4-bolt bases for pillow block sizes 513 to 520

*Dimensions "g1" specific to SAF... housings with SuperTac II seals*

*Specify FSAF... when ordering 4-bolt bases for pillow block sizes 513 to 520*