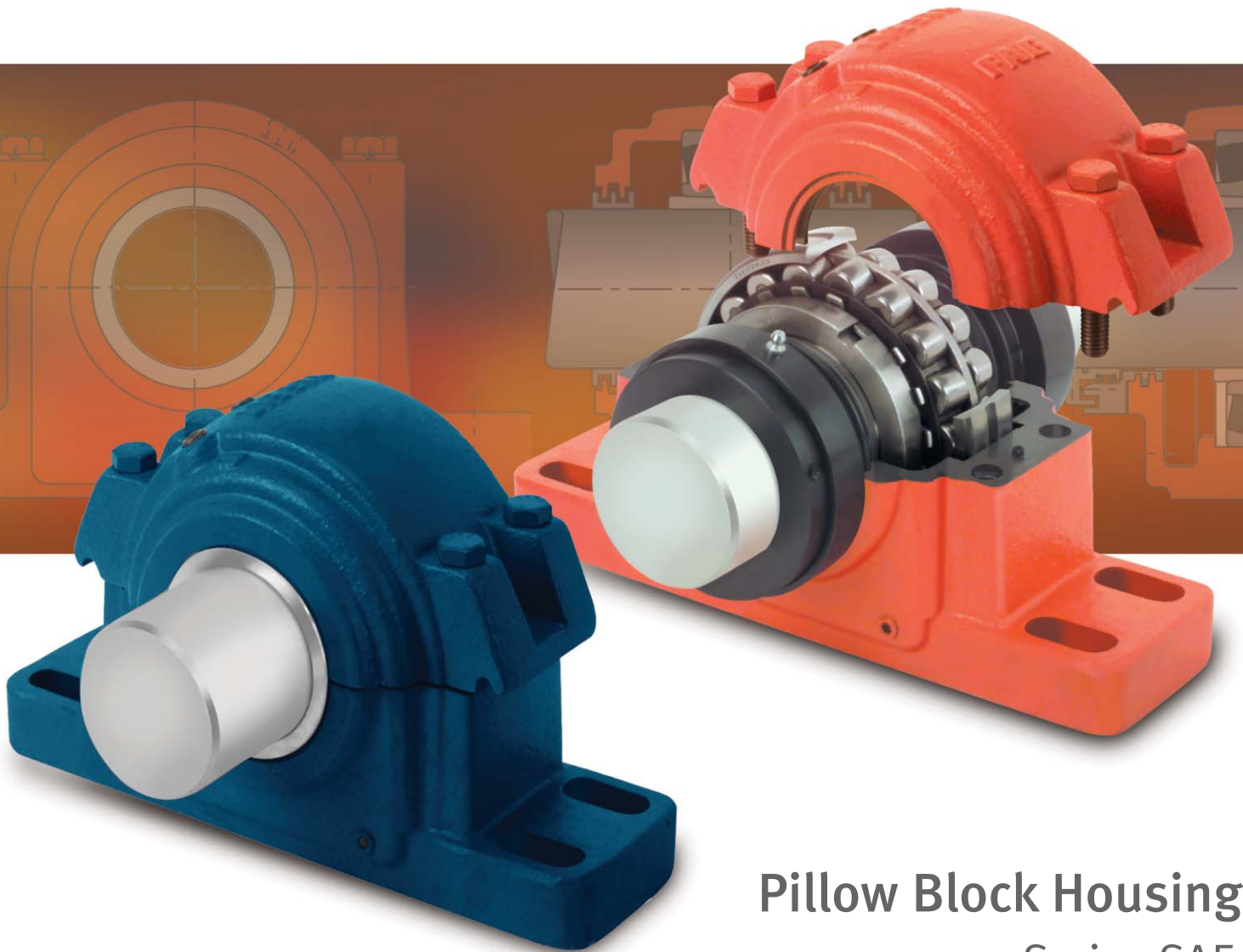




FAG



Pillow Block Housings Series SAF...

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Cast Iron Housings

Series SAF...C.U

Series SAF...D.U

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

Material	A.S.T.M. Designation	Grade	Tensile Strength psi	Yield Strength psi	Elongation (% in 2 in.)
Gray Iron	A48-64	30	30,000	—	—
Ductile Iron	A-536	65-45-12	65,000	45,000	12

Seals and Endcovers



SAF... Housing Assembly with standard Triple Seal Rings



SAF... Housing Assembly featuring optional FAG SuperTac II Taconite Seals

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)

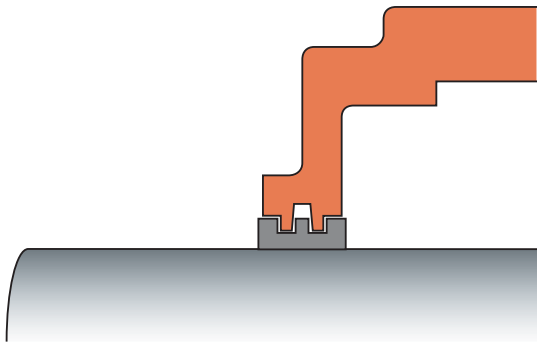


Figure 1

Taconite Seals

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

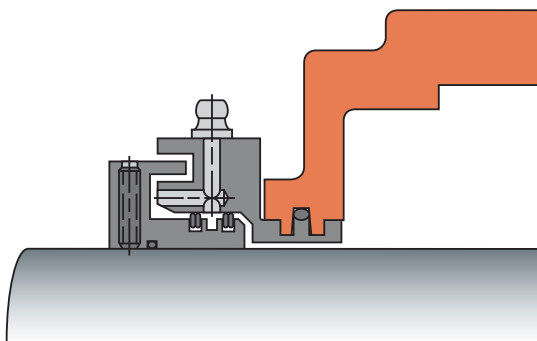


Figure 2

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

End Covers

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.

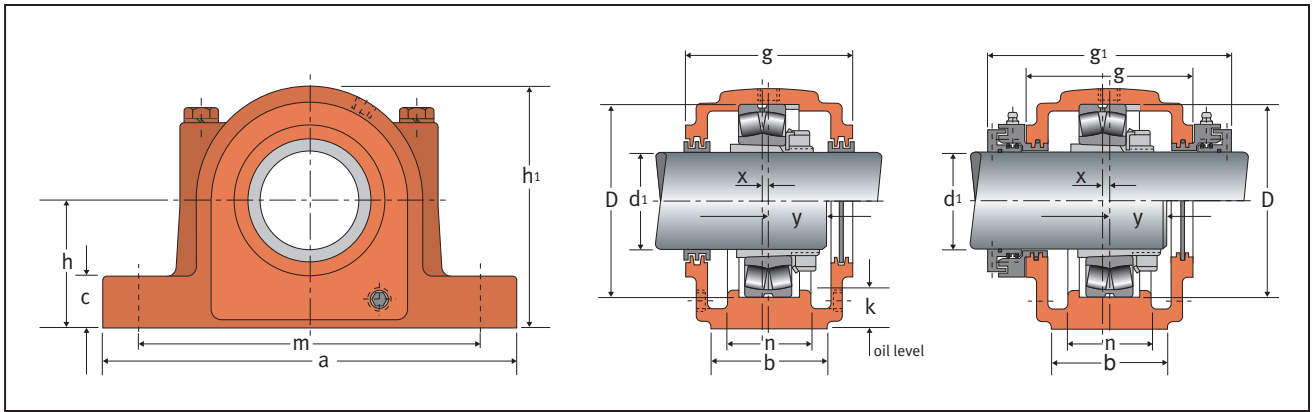
Series SAF... Housings

SHAFT DIAMETER inch/mm	PILLOW BLOCK NO.	PILLOW BLOCK NO.	BASIC BEARING NO.	SPLIT BEARING NO.	ADAPTER SLEEVE NO.	OPTIONAL ADAPTER SLEEVE NO.	TRIPLE SEAL RING NO.	SUPER TAC II SEAL NO.	END COVER NO.	STABILIZING RING NO.	CATALOG WEIGHT * lbs kgs	
1-7/16	SAF509C.U	SAF509D.U	22209-E1-K		SNW09.107	H309X107	LER17/0107	TA17	EC.509D2	FRM85/6	6.8	3.1
1-11/16	SAF510C.U	SAF510D.U	22210-E1-K		SNW10.111	H310X111	LER20/0111	TA20	EC.510D2	FRM90/7	7.7	3.5
1-15/16 50	SAF511C.U	SAF511D.U	22211-E1-K		SNW11.115 H311	H311X115	LER24/0115 LER24.M50	TA24A TA24AM	EC.511D2	FRM100/6	13.5	6.1
2 -3/16	SAF513C.U	SAF513D.U	22213-E1-K		SNW13.203	H313X203	LER29/0203	TA29A	EC.513D2	FRM120/8	17.7	8.0
2-7/16	SAF515C.U	SAF515D.U	22215-E1-K	222S.207	SNW15.207	H315X207	LER37/0207	TA37A	EC.515D2	FRM130/6	20.6	9.3
2-11/16 70	SAF516C.U	SAF516D.U	22216-E1-K	222S.211 222SM70	SNW16.211 H316	H316X211	LER44/0211 LER44.M70	TA44A TA44AM	EC.516D2	FRM140/10	31.5	14.3
2-15/16 75	SAF517C.U	SAF517D.U	22217-E1-K	222S.215 222SM75	SNW17.215 H317	H317X215	LER53/0215 LER53.M75	TA53A TA53AM	EC.517D2	FRM150/10	33.1	15.0
3-3/16 80	SAF518C.U	SAF518D.U	22218-E1-K	222S.303 222SM80	SNW18.303 H318	H318X303	LER188/0303 LER188.M80	TA188A TA188AM	EC.518D2	FRM160/10	35.8	16.2
3-7/16 90	SAF520C.U	SAF520D.U	22220-E1-K	222S.307 222SM90	SNW20.307 H320	H320X307	LER102/0307 LER102.M90	TA102A TA102AM	EC.520D2	FRM180/10	50.4	22.9
3-15/16 100	SAF522C.U	SAF522D.U	22222-E1-K	222S.315 222SM100	SNW22.315 H322	H322X315	LER109/0315 LER109.M100	TA109A	EC.522D2	FRM200/10	60.0	27.2
4-3/16	SAF524C.U	SAF524D.U	22224-E1-K	222S.403	SNW24.403	H3124X403	LER113/0403	TA113A	EC.524D2	FRM215/10	61.5	27.9
4-7/16 115	SAF526C.U	SAF526D.U	22226-E1-K	222S.407 222SM115	SNW26.407 H3126	H3126X407	LER117/0407 LER117.M115	TA117A TA117AM	EC.526D2	FRM230/10	89.0	40.4
4-15/16 125	SAF528C.U	SAF528D.U	22228-E1-K	222S.415 222SM125	SNW28.415 H3128	H3128X415	LER122/0415 LER122.M125	TA122A TA122AM	EC.528D2	FRM250/10	122.0	55.3
5-3/16 135	SAF530C.U	SAF530D.U	22230-E1-K	222S.503 222SM135	SNW30.503 H3130	H3130X503	LER125/0503 LER125.M135	TA125A TA125AM	EC.530D2	FRM270/10	134.5	61.0
5-7/16 140	SAF532C.U	SAF532D.U	22232-E1-K	222S.507 222SM140	SNW32.507 H3132	H3132X507	LER130/0507 LER130.M140	TA130A TA130AM	EC.532D2	FRM290/10	167.2	75.8
5-15/16 150	SAF534C.U	SAF534D.U	22234-E1-K	222S.515 222SM150	SNW34.515 H3134	H3134X515	LER140/0515 LER140.M150	TA140A TA140AM	EC.534D2	FRM310/10	177.0	80.3
6-7/16 160	SAF536C.U	SAF536D.U	22236-E1-K	222S.607 222SM160	SNW36.607 H3136	H3136X607	LER148/0607 LER148.M160	TA148A TA148AM	EC.536D2	FRM320/10	218.0	98.9
6-15/16 170	SAF538C.U	SAF538D.U	22238-K-MB	222S.615 222SM170	SNW38.615 H3138	H3138X615	LER155/0615 LER155.M170	TA155A TA155AM	EC.538D2	FRM340/10	255.0	115.7
7-3/16 180	SAF540C.U	SAF540D.U	22240-E1-K	222S.703 222SM180	SNW40.703 H3140	H3140X703	LER159/0703 LER159.M180	TA159A TA159AM	EC.540D2	FRM360/10	273.0	123.8
7-15/16 200	SAF544C.U	SAF544D.U	22244-B-K-MB	222S.715 222SM200	SNW44.715 H3144	H3144X715	LER167/0715 LER167.M200	TA167A TA167AM	EC.544D2	FRM400/10	364.0	165.1

ORDERING EXAMPLE

Pillow Block No. Includes: SAF509C.U
 LER17/0107 Triple Seal Ring (2x)
 EC.509D2 End Cover (1x)
 FRM85/6 Stabilizing Ring (1x)
 — — Grease Fitting (1x)

* Includes:
 (1) Housing body
 (2) LER seal
 (1) Endcover
 (1) FRM
 (1) Grease fitting



Triple Ring Seal

SuperTac II Taconite Seal

D mm	h inch/mm	a inch/mm	b inch/mm	c inch/mm	m MAX. inch/mm	MIN. inch/mm	n inch/mm	h1 inch/mm	g inch/mm	g1 inch/mm	x inch/mm	k (Static) inch/mm	y inch/mm	MOUNTING BOLTS	
														2 PCS inch/mm	4 PCS inch/mm
85	2 1/4 57.15	8 1/4 210	2 3/8 60	13/16 21	7 178	6 1/4 159		4 3/8 111	3 7/16 87	5 15/16 150	0.118 3	31/32 25	1 3/16 30	1/2 M12	
90	2 1/2 63.5	8 1/4 210	2 3/8 60	15/16 24	7 178	6 1/2 165		4 3/4 121	3 7/16 87	5 15/16 150	0.138 3.5	1 3/32 28	1 3/16 30	1/2 M12	
100	2 3/4 69.85	9 5/8 244	2 3/4 70	15/16 24	7 7/8 200	7 3/8 187		5 1/4 133	3 3/4 95	6 1/4 159	0.118 3	1 3/16 32	1 1/4 32	5/8 M16	
120	3 76.2	11 279	3 1/8 79	1 25	9 1/2 241	8 1/8 206	2 51	5 15/16 151	4 1/4 108	6 13/16 172	0.157 4	1 3/32 32	1 7/16 37	5/8 M16	1/2 M12
130	3 1/4 82.55	11 1/4 286	3 1/8 79	1 1/8 29	9 5/8 244	8 5/8 219	1 7/8 48	6 3/8 162	4 5/8 117	7 3/8 187	0.118 3	1 1/8 32	1 1/2 38	5/8 M16	1/2 M12
140	3 1/2 88.9	13 330	3 1/2 89	1 3/16 30	11 279	9 5/8 244	2 1/8 54	6 7/8 175	4 3/4 121	7 1/2 191	0.197 5	1 1/4 35	1 5/8 41	3/4 M20	5/8 M16
150	3 3/4 95.25	13 330	3 1/2 89	1 1/4 32	11 279	9 7/8 251	2 1/8 54	7 5/16 186	4 13/16 122	7 3/4 197	0.197 5	1 3/8 37	1 11/16 43	3/4 M20	5/8 M16
160	4 101.6	13 3/4 349	3 7/8 98	1 5/16 33	11 5/8 295	10 3/8 264	2 1/8 54	7 3/4 197	5 1/2 140	8 1/8 207	0.197 5	1 1/2 40	1 3/4 44	3/4 M20	5/8 M16
180	4 1/2 114.3	15 1/4 387	4 3/8 111	1 3/4 44	13 1/8 333	11 5/8 295	2 3/8 60	8 3/8 213	5 13/16 148	9 229	0.197 5	1 21/32 45	2 51	7/8 M24	3/4 M20
200	4 15/16 125.41	16 1/2 419	4 3/4 121	2 51	14 1/2 368	12 5/8 321	2 3/4 70	9 5/8 244	6 7/16 164	9 11/16 246	0.197 5	1 25/32 48	2 1/8 54		3/4 M20
215	5 1/4 133.35	16 1/2 419	4 3/4 121	2 1/8 54	14 1/2 368	13 1/4 337	2 3/4 70	10 1/4 260	7 1/8 181	10 5/16 262	0.197 5	1 27/32 51	2 5/16 59		3/4 M20
230	6 152.4	18 3/8 467	5 1/8 130	2 3/8 60	16 406	14 5/8 371	3 1/4 83	11 1/2 292	7 3/4 197	11 3/16 285	0.197 5	2 11/32 63	2 7/16 62		7/8 M24
250	6 152.4	20 1/8 511	5 7/8 149	2 3/8 60	17 1/8 435	16 406	3 3/8 86	11 3/4 298	7 3/8 187	10 13/16 275	0.197 5	2 1/32 56	2 9/16 65		1 M24
270	6 5/16 160.34	21 1/4 540	6 1/4 159	2 1/2 64	18 1/4 464	17 432	3 3/4 95	12 1/2 318	8 1/8 206	11 7/8 302	0.197 5	2 56	2 3/4 70		1 M24
290	6 11/16 169.86	22 559	6 1/4 159	2 5/8 67	19 1/4 489	17 3/8 441	3 3/4 95	13 5/16 338	8 1/2 216	12 3/16 310	0.197 5	2 1/16 57	2 15/16 75		1 M24
310	7 1/16 179.39	24 3/4 630	6 3/4 171	2 3/4 70	21 5/8 549	19 3/8 492	4 1/4 108	14 3/16 360	9 1/4 235	13 1/8 334	0.197 5	2 5/32 61	3 1/8 79		1 M24
320	7 1/2 190.5	26 3/4 679	7 1/8 181	3 76	23 5/8 600	20 7/8 530	4 5/8 117	14 7/8 378	9 5/8 244	13 3/4 348	0.197 5	2 3/8 67	3 1/8 79		1 M24
340	7 7/8 200.03	28 711	7 1/2 191	3 1/8 79	24 3/8 619	21 5/8 549	4 1/2 114	15 11/16 398	10 1/2 267	14 11/16 373	0.197 5	2 7/16 69	3 5/16 84		1 1/4 M30
360	8 1/4 209.55	29 1/2 749	8 203	3 3/8 86	25 635	22 1/2 572	5 127	16 1/2 419	11 279	15 7/16 392	0.197 5	2 15/32 71	3 1/2 89		1 1/4 M30
400	9 1/2 241.3	32 3/4 832	8 3/4 222	3 3/4 95	27 7/8 708	24 3/4 629	5 1/4 133	18 5/8 473	11 3/4 298	16 1/4 413	0.197 5	3 1/8 88	3 13/16 97		1 1/2 M36

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

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