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The NSK brand, recognised around the world

From home appliances, automobiles, and capital equipment to the aerospace industry – NSK bearings are used in an extensive range of applications. NSK established its global-scale enterprise on technology that has met the exact requirements of global industry.

We have also established R&D systems and support services to meet the diverse needs of our customers in every continent. As a brand recognised around the world NSK continues to lead industry with its technical prowess.

NSK is on the move, across the globe

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- Bennington

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Self-Lube®

General Technical Specification



Self-Lube® product range

NSK manufactures several ranges of mounted units. These include Self-Lube®, our recognised standard, and recently introduced ranges such as Silver-Lube®, Life-Lube® and Molded-Oil™ units. In each type, there are two basic components, the insert and the housing.

Self-Lube® bearing inserts

The Self-Lube® bearing insert, commonly known as a wide inner ring bearing, is designed to suit the wide range of housings offered by NSK in the Self-Lube® bearing family and is also suitable for applications where the user's own housing is preferred.

They are basically deep-groove ball bearings, to the popular 6200 series configuration, with integral design features making them more functional and versatile than standard ball bearings. The radial internal clearance is C3 for standard bearing inserts and bearings can be offered with either parallel or spherical outside diameter outer rings with the latter being the type fitted in the bearing unit. The integral design features of the bearing insert, such as shaft locking, sealing and lubrication, are explained in the following pages.

Self-Lube® bearing units

The range of Self-Lube® bearing units offers a wide choice of cast iron, pressed steel, synthetic rubber, thermoplastic or stainless steel housings fitted with spherical outside diameter Self-Lube® bearing inserts. They will generally accommodate initial housing misalignment up to 0.030 radians but are not recommended for running misalignment in excess of 0.001 radians.

The general housing types are pillow blocks, flange units, take-up units, cartridge units and hanger units. Choice is very much determined by the requirements of the application, although the aesthetic appearance of the machine design is often an important consideration. Self-Lube® units have been designed to meet the needs of both criteria.

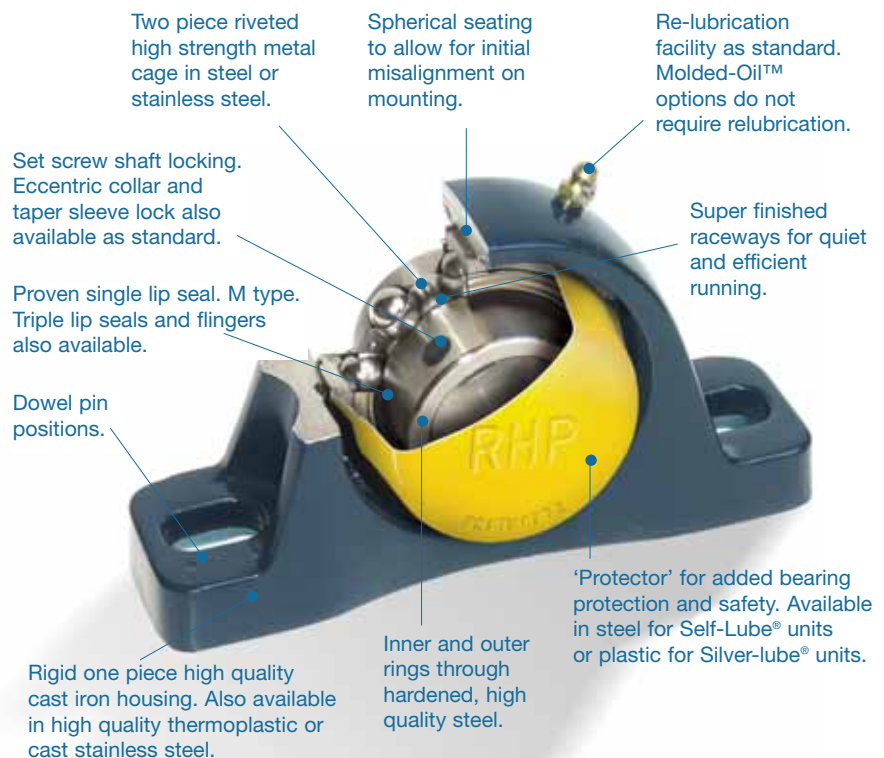
- Cast iron unit castings are made from high-quality cast iron, and finished on unmachined surfaces with an electrostatic air-drying paint.
- Pressed steel housings are made from mild steel strip, and are zinc plated.
- Thermoplastic housings are moulded in highgrade PBT, a high quality thermoplastic polyester resin.
- Stainless steel housings are made from austenitic stainless steel castings (SCS13).

Additional products

NSK recognises the need for 'tailor made' solutions and is always willing to help customers who have a requirement for something out of the ordinary.

Dynamic load ratings

The NSK dynamic load ratings given in this catalogue and the relationship between these and bearing fatigue life are based on ISO standard 281.



Bearing load ratings and endurance

Basic dynamic radial load rating C_r

This is defined as the load that can be applied to the bearing to give a basic L_{10} rating life of one million revolutions. This is the life associated with 90% reliability which has been found by experience to be acceptable for normal engineering bearing applications. The majority of the bearings attain a much longer life and the median life is approximately five times the L_{10} life. Ratings for each series are given in the bearing tables and are used to calculate life for radial loads of constant magnitude and direction.

Equivalent dynamic radial load P_r

For applications where axial and radial loads are present they must be converted into a single equivalent radial load P_r and calculated as follows, where:

- F_r = actual radial load (N)
- F_a = actual axial load (N)
- Y = axial factor from table 18.2
- C_{or} = basic static load rating
- C_r = dynamic radial load rating
- f_o = axial load factor

Note: Axial load F_a must not exceed 0.5 C_{or} . Select f_o from table 18.1 for the appropriate bearing insert.

Calculate $\frac{f_o F_a}{C_{or}}$ and obtain the value of Y from table 18.2.

Calculate P_r where:

$$P_r = F_r$$

or

$$P_r = 0.56 F_r + Y F_a$$

Use whichever P_r value is the greatest.

Relationship between load and life

Having determined the equivalent load P_r , the nominal L_{10} bearing life is calculated as follows:

$$L_{10} \text{ life in hours} = \left(\frac{C_r}{P_r} \right)^3 \times \frac{10^6}{60n}$$

where n = bearing operating speed (rev/min).

Alternatively, by using the loading ratio $\frac{C_r}{P_r}$ the bearing L_{10} life can be estimated by reading off directly from the tables on page 9 under the appropriate speed column.

Basic static load rating C_{or}

This value is calculated in accordance with ISO standard 76. Ratings for each series are given in the bearing tables.

Static equivalent radial load P_{or}

When static axial and radial loads are applied to a bearing these must be converted to an equivalent static radial load P_{or} where:

- F_{or} = actual static radial load (N)
- F_{oa} = actual static axial load (N)

Calculate P_{or} where:

$$P_{or} = F_{or}$$

or

$$P_{or} = 0.6 F_{or} + 0.5 F_{oa}$$

Use whichever P_{or} value is greater, but this value **should not exceed** the bearing static radial load rating C_{or} .

Service factors

It is customary when calculating bearing life to include application factors which allow for fluctuations in loading that occur in service, and from experience the following may be used as a guide.

For steady and light shock loads multiply load by 1.2 to 1.5.

For moderate shock loads multiply load by 1.7 to 2.0. When selecting the size of bearing for a given load, the calculated life should conform to the L_{10} lives shown in the next column:

- Machines in use 8 hours/day – not fully utilised – 10,000 to 20,000 hours
- Machines in use 8 hours/day – fully utilised – 20,000 to 30,000 hours.
- Machines in use 24 hours/day – 40,000 to 80,000 hours.
- Machines in seasonal use – 4,000 to 8,000 hours.

Limiting loads

The axial load F_{oa} must not exceed half the basic static load rating C_{or} . Housing strengths must also be considered as a limiting factor - see detail on page 19.

Table 18.1

Basic bearing insert	f_o
1017	13.1
1020	13.1
1025	13.9
1030	13.8
1035	13.8
1040	14.0
1045	14.1
1050	14.4
1055	14.3
1060	14.3
1065	14.4
1070	14.4
1075	14.7
1080	14.6
1085	14.7
1090	14.5
3095	13.6

Table 18.2

$\frac{f_o F_a}{C_{or}}$	Y
0.172	2.30
0.345	1.99
0.689	1.71
1.03	1.55
1.38	1.45
2.07	1.31
3.45	1.15
5.17	1.04
6.89	1.00

Examples of bearing calculations

Example 1

What nominal life can be obtained from NP55 with a steady radial load $F_r = 3900\text{N}$ at speed of 1500 rev/min? The dynamic load rating C_r of the unit from page 25 is 43500N. Since the bearing is not subject to axial load the equivalent load $P_r = F_r$ according to the formula on page 7. Therefore applying the service factor of 1.2 for a steady load.

$$P_r = F_r \times 1.2 = 3900 \times 1.2 = 4680\text{N}.$$

From page 7,

L_{10} life in hours

$$\begin{aligned} &= \left(\frac{C_r}{P_r} \right)^3 \times \frac{10^6}{n \times 60} \\ &= \left(\frac{43500}{4680} \right)^3 \times \frac{10^6}{1500 \times 60} \\ &= 8923 \text{ hours} \end{aligned}$$

Alternatively, using the loading ratio tables on page 9 an approximate life can be obtained by locating the nearest $\frac{C_r}{P_r}$ value in the appropriate rev/min column.

$$\text{Therefore } \frac{C_r}{P_r} = \frac{43500}{4680} = 9.29$$

Under the 1500 rev/min column the nearest $\frac{C_r}{P_r}$ value is 9.65 which gives an approximate life of 10000 hours.

Example 2

With a radial load $F_r = 2940\text{N}$ and an axial load $F_a = 1470\text{N}$ at 300 rev/min with moderate shock present, what nominal L_{10} life can be obtained from unit reference SF40?

The dynamic radial load rating C_r of the unit from page 39 is 29100N and the static load rating C_{or} is 19900N.

Since the bearing is subject to radial and axial loads we have to establish the equivalent load P_r according to page 7.

First, we establish the value of $\frac{f_o F_a}{C_{or}}$

$$\frac{f_o F_a}{C_{or}} = \frac{14.0 \times 1470}{19900} = 1.03$$

Using this value, from table 18.2 we establish a value for $Y = 1.55$. From page 7 we then calculate the value of P_r

$$P_r = 2940\text{N}$$

or

$$P_r = 0.56 (2940) + 1.55 (1470) = 3925\text{N}$$

Using the greater value of P_r and applying an application factor of 1.7 (page 7) for moderate shock loads:

$$\begin{aligned} P_r &= 3925 \times 1.7 \\ &= 6673\text{N} \end{aligned}$$

From page 7:

L_{10} life hours

$$\begin{aligned} &= \left(\frac{C_r}{P_r} \right)^3 \times \frac{10^6}{60n} \\ &= \left(\frac{29100}{6673} \right)^3 \times \frac{10^6}{60 \times 300} \\ &= 4607 \text{ hours} \end{aligned}$$

Alternatively, using the loading ratio tables on page 9, an approximate life can be obtained by locating the nearest C_r/P_r value in the appropriate rev/min column.

Therefore, $C_r/P_r = 29100/6673 = 4.36$.

Under the 300 rev/min column page 9 the nearest value is 4.48 which gives an approximate life of 5000 hours.

Housing strength

To check the housing strength for example 2 when the axial load

$F_a = 1470\text{N}$ and applying an application factor of 1.7 then:

$$\text{Axial load} = 1470 \times 1.7 = 2499\text{N}$$

From page 19 we see that the maximum axial loads for the above unit are:

0.45 C_{or} in one direction, and

0.25 C_{or} in the opposite direction.

Calculating these two maximum axial loads that may be applied to housing:

$$0.45 \times 19900 = 8955$$

$$0.25 \times 19900 = 4975$$

From the above it can be seen that the housing will support the axial load of 2499N in either direction.

Therefore, the unit above is satisfactory for the loading conditions stated.

Note It is advisable to shoulder the shaft for high axial loads.

Loading ratios

Life estimation for ball bearings for different C_r/P_r ratios and speeds

L_{10} life (hours)	Speed: rev/min								
	25	50	100	150	200	300	500	750	1000
100					1.06	1.22	1.45	1.65	1.82
500		1.14	1.45	1.65	1.82	2.08	2.47	2.82	3.11
1000	1.14	1.44	1.82	2.08	2.29	2.62	3.11	3.56	3.91
1500	1.31	1.65	2.08	2.38	2.62	3.00	3.56	4.07	4.48
2000	1.45	1.82	2.29	2.62	2.88	3.30	3.91	4.48	4.93
3000	1.65	2.08	2.62	3.00	3.30	3.78	4.48	5.13	5.65
5000	1.96	2.47	3.11	3.56	3.91	4.48	5.32	6.08	6.70
7500	2.24	2.82	3.56	4.07	4.48	5.13	6.08	6.96	7.66
10000	2.47	3.11	3.91	4.48	4.93	5.65	6.70	7.66	8.43
19500	2.82	3.56	4.48	5.13	5.65	6.46	7.66	8.77	9.65
20000	3.11	3.91	4.93	5.65	6.21	7.11	8.43	9.65	10.60
30000	3.56	4.48	5.65	6.46	7.11	8.14	9.65	11.10	12.20
40000	3.91	4.93	6.21	7.11	7.81	8.96	10.60	12.20	13.40
60000	4.48	5.65	7.11	8.14	8.96	10.30	12.20	13.90	15.30
80000	4.93	6.21	7.81	8.96	9.83	11.30	13.40	15.30	16.80

Life estimation for ball bearings for different C_r/P_r ratios and speeds

L_{10} life (hours)	Speed: rev/min								
	1500	2000	3000	4000	5000	6000	8000	10000	
100	2.08	2.29	2.62	2.88	3.11	3.30	3.63	3.91	
500	3.56	3.91	4.48	4.93	5.32	5.65	6.21	6.69	
1000	4.48	4.93	5.65	6.21	6.70	7.11	7.81	8.43	
1500	5.13	5.65	6.46	7.11	7.65	8.15	8.96	9.65	
2000	5.65	6.21	7.11	7.81	8.43	8.96	9.83	10.60	
3000	6.46	7.11	9.14	8.96	9.65	10.30	11.30	12.20	
5000	7.66	8.43	9.65	10.60	11.50	12.20	13.40	14.40	
7500	8.77	9.65	11.10	12.20	13.10	13.90	15.30	16.50	
10000	9.65	10.60	12.20	13.40	14.50	15.30	16.80	18.20	
19500	11.10	12.20	13.90	15.30	16.50	17.50	19.30	20.80	
20000	12.20	13.40	15.30	16.80	18.50	19.30	21.20	22.90	
30000	13.90	15.30	17.50	19.30	20.80	22.10	24.30	26.20	
40000	15.30	16.80	19.30	22.20	22.90	24.30	26.70	28.80	
60000	17.50	19.30	22.10	24.30	26.20	27.80	30.70	33.00	
80000	19.30	21.20	24.30	26.70	28.80	30.70	33.70	36.30	

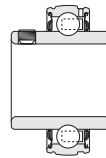
Self-Lube® Bearing Units



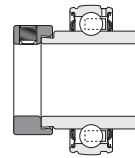
Standard unit references

Insert Type

Housing Type



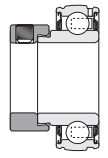
1000G



1000DECG



1200G



1200ECG

Cast iron one piece



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NP

NP-DEC

NP-A

NP-EC

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SL

SL-DEC

SL-A

SL-EC

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MP



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SNP

SNP-DEC

SNP-A

SNP-EC

36

CNP

CNP-DEC

CNP-A

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Pressed steel two piece



70

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SLFE-A

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72

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SLFT-DEC

SLFT-A

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74

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SLFL-DEC

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76

LPB

LPB-DEC

LPB-A

LPB-EC

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LPBR

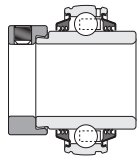
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LPBR-A

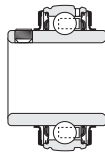
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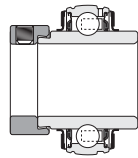
T1000G



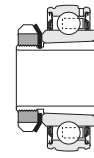
T1000DECG



1000GFS



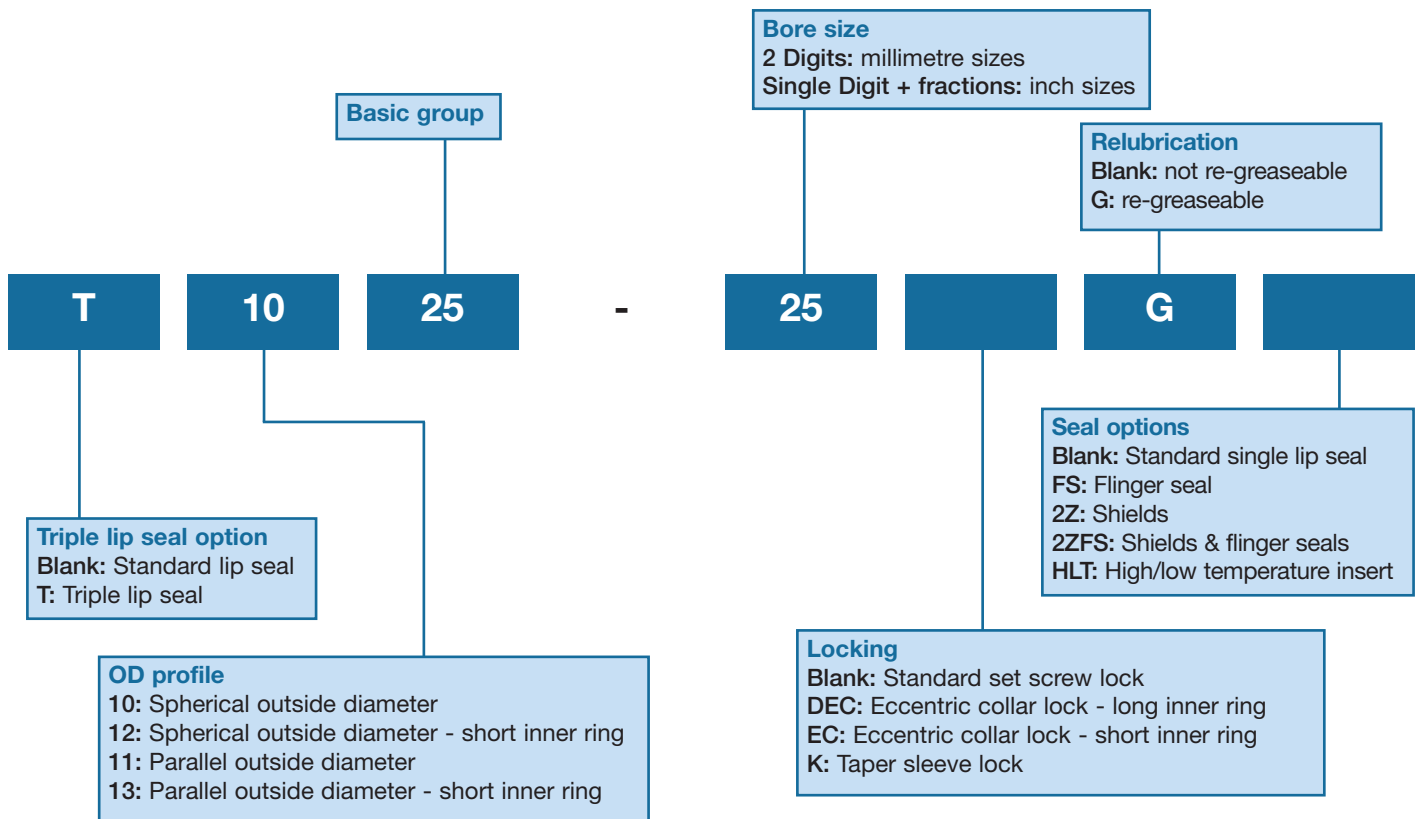
1000DECGFS



1000KG

				Page
88	90	91	92	
TNP TSL TMP	TNP-DEC TSL-DEC	NP-FS SL-FS MP-FS	NP-DECFS SL-DECFS	NP1000-K MP1000-K
TSNP TCNP	TSNP-DEC TCNP-DEC	SNP-FS CNP-FS	SNP-DECFS CNP-DECFS	
TSF TMSF	TSF-DEC	SF-FS MSF-FS	SF-DECFS	MSF1000-K
TSFT TMSFT	TSFT-DEC	SFT-FS MSFT-FS	SFT-DECFS	MSFT1000-K
TLFTC	TLFTC-DEC	LFTC-FS	LFTC-DECFS	
TFC	TFC-DEC	FC-FS	FC-DECFS	
TMFC		MFC-FS		
TST TMST	TST-DEC	ST-FS MST-FS	ST-DECFS	MST1000-K
TBT		BT-FS		
TSLC TMSC	TSLC-DEC	SLC-FS MSC-FS	SLC-DECFS	
TSCHB TSCH		SCHB-FS SCH-FS		
TSLFE	TSLFE-DEC	SLFE-FS	SLFE-DECFS	
TSLFT	TSLFT-DEC	SLFT-FS	SLFT-DECFS	
TSLFL	TSLFL-DEC	SLFL-FS	SLFL-DECFS	

Standard Self-Lube® insert references



List of common prefixes and suffixes

Prefixes

- B** Unit or bearing insert supplied without locking collar.
- J** Grease groove on the side of the bearing insert nearest to the locking device.
- T** Triple lip sealed bearing insert.

Suffixes

- A** Unit fitted with set screw lock insert with flush inner ring on one side.
- C4** Radial clearance greater than C3.
- CG** Parallel outside diameter insert with grease groove and snap ring fitted.
- DEC** Eccentric collar lock with extended inner ring.
- DL** Double locking inner ring – 4 set screws (2 each end).
- EC** Eccentric collar lock with flush inner ring on one side.
- FS** Bearing insert fitted with flinger seals.
- G** Bearing insert having re-lubrication facility.
- HLT** High and low temperature bearing insert.
- K** Bearing insert with tapered bore.
- L** Larger than normal unit for the basic bore size.
- P** Housing fitted with 1/8" BSP grease nipple (standard is 1/4" UNF).
- R** Smaller than normal unit for the basic bore size.

Self-Lube® product range

Under the heading of Self-Lube® bearings there are two basic products: the Self-Lube® bearing insert and the Self-Lube® bearing unit.

Self-Lube® bearing unit

The range of Self-Lube® bearing units offer a wide choice of cast iron, pressed steel or synthetic rubber housings fitted with the full range of spherical outside diameter Self-Lube® bearing inserts. They will accommodate initial housing misalignment up to 0.030 radians but are not recommended for running misalignment in excess of 0.001 radians.

The general housing types are pillow blocks, flange units, take-up units, cartridge units and hanger units. Choice is very much determined by the requirements of the application, although the aesthetic appearance of the machine design is often an important consideration. Self-Lube® units have been designed to meet the needs of both criteria.

The castings are made from high-quality cast iron, and finished on unmachined surfaces with an electrostatic air-drying paint.

Pressed steel housings are made from mild steel strip, and are zinc plated. Rubber housings are moulded in antistatic nitrile rubber.

Self-Lube® Protector

The Self-Lube® Protector is designed to protect the machine operator from the dangers of rotating shaft ends and the external surfaces of the bearing from contamination.

The protector is made from good quality mild steel and coated with enamel paint making it robust, attractive and long lasting. It is easy to fit and can be removed without breakage or deformation thus allowing it to be refitted time after time.

Standard Self-Lube® inserts with spherical outside diameters have a 'groove' in the outer ring on the opposite side from the grease groove. The protector has two claws which locate through the casting loading slots into the 'groove' in the outer ring. This provides a very secure lock and makes the Protector difficult to dislodge. The user of Self-Lube® units is not required to purchase special bearings or provide any additional locking device in order to obtain this secure safety feature.

The Protector can be removed by inserting a form of lever device into a small hole in one of the claws and exerting slight pressure outwards. This disengages the claw from the outer ring 'groove'. A replaceable cover for the hole is provided.



Sealing

Single lip seal

The standard Self-Lube® sealing arrangement consists of a nitrile and fabric-sealing element sandwiched between two metal pressings. This has been successfully proven over the years on a wide variety of applications.

The 'S' type seal incorporates further design developments. The nitrile seal (black in colour) is bonded to a strong steel former which is firmly secured in the bearing outer ring. The flexible sealing lip contacts the fine ground finish of the inner ring to give low friction with effective sealing.

Flinger seal

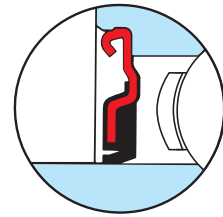
Where extra protection is required without loss of bearing catalogue speed, the 'Flinger seal' is ideal. It consists of a steel flange to which is bonded a flexible nitrile sealing lip. They are offered for the 1000G and 1000DECG types and are identified with the suffix FS (e.g. 1025-25GFS,NP25FS). The flinger is fitted to the inner ring.

Triple lip seal

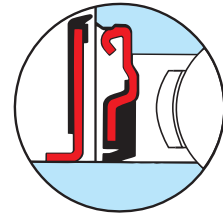
For applications with a degree of contamination, the specially developed RHP triple lip seal is recommended. It consists of a one-piece moulded nitrile seal with three sealing lips, bonded to a protective steel outer pressing which is strongly secured in the outer ring making a highly efficient sealing arrangement. It is not recommended for high speeds. See pages 88 to 90.

Lubrication

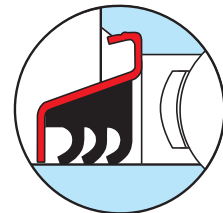
Unit	Unit temperature range	Grease	Supplier
Standard insert	-20°C to +110°C	Alvania S2	Shell
HLT insert	-40°C to 180°C	Kluberquiet BQH72-102	Kluber



Single lip seal (standard)



Single lip seal + flinger seal



Triple lip seal

Shaft locking arrangements

Set screw lock

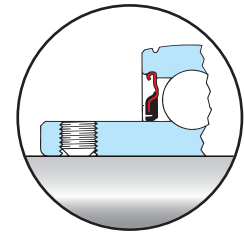
This locking arrangement consists of two knurled cup-point, self-locking, socket-head set screws fitted in the extended inner ring.

For normal loads and moderate speeds simply mount the bearing unit into position and tighten down the set screws to the recommended torque value.

Additional security can be achieved by spot drilling the shaft to accommodate the set screw point. When spot drilling, first remove the set screw and locate the position on the shaft. Select a drill the size of the inner ring threads minor diameter, and drill through this hole into the shaft to the depth of the drill point.

Replace the set screw and tighten onto the shaft in the normal manner.

The recommended tightening torques for the set screws are given on page 18.

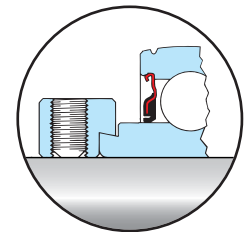


Set screw lock

Eccentric collar lock

This type of lock consists of an eccentric diameter formed on the extended inner ring of the bearing which engages a similarly formed eccentric diameter in the bore of a separate collar. Locking is achieved by turning the collar in the direction of the shaft rotation until the eccentric diameters of both collar and inner ring are fully engaged.

The collar is provided with a blind hole to facilitate tightening when locking the bearing to the shaft. The set screw when tightened to the recommended torque values on page 18 prevents the collar 'backing off' in service.



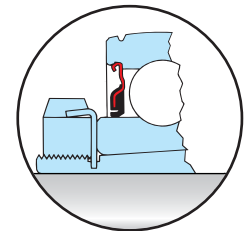
Eccentric collar lock

Taper sleeve lock

This locking arrangement, which incorporates a standard taper adapter sleeve, locknut and lock washer, is recommended when a positive concentric (shaft) lock is required.

When fitting the bearing to the shaft, care must be taken to ensure that the locknut is not over-tightened as this can eliminate the bearing internal clearance, resulting in premature failure. A lockwasher is provided which prevents the locknut 'backing off' when one of the tabs is engaged with the corresponding notch in the locknut. (See below for fitting instructions).

The recommended tightening torques for the locknuts are given on page 18.



Taper sleeve lock

Mounting Self-Lube® adapter sleeve units

1. First bolt the Self-Lube® housing to the equipment and clean the shaft and sleeve bore of any oil or grease.
2. Position the shaft within the unit and tighten up the locknut by hand. If the sleeve assembly turns on the shaft tap the sleeve into the bearing to give a positive grip. Tighten locknut to recommended torque value given on page 18.
3. Where torque spanner facilities are not available a *blunt* drift and *small* hammer may be used to tighten the nut.
4. Check that the bearing rotates freely, to ensure that the internal clearance has not been totally removed and that preload has been avoided.
5. Finally, secure the nut with the appropriate tab on the locking washer. Tighten the nut slightly if necessary but never back the nut off.
6. After 100 hours running it is advisable to check the tightness of the locknut.

Set screw thread and tightening torques

Set screw thread and size

Basic bearing insert reference	Series			
	1000G, 1100, 1200G, 1300		1000DECG, 1100DEC, 1200ECG, 1300EC	
	Inch bore diameters	Metric bore diameters	Inch bore diameters	Metric bore diameters
1017	1/4UNF	M6 x 0.75	1/4UNF	M6 x 0.75
1020	1/4UNF	M6 x 0.75	1/4UNF	M6 x 0.75
1025	1/4UNF	M6 x 0.75	1/4UNF	M6 x 0.75
1030	1/4UNF	M6 x 0.75	5/16UNF	M8 x 1.00
1035	5/16UNF	M8 x 1.00	5/16UNF	M8 x 1.00
1040	5/16UNF	M8 x 1.00	3/8UNF	M10 x 1.25
1045	5/16UNF	M8 x 1.00	3/8UNF	M10 x 1.25
1050	3/8UNF	M10 x 1.25	3/8UNF	M10 x 1.25
1055	3/8UNF	M10 x 1.25	3/8UNF	M10 x 1.25
1060	3/8UNF	M10 x 1.25	3/8UNF	M10 x 1.25
1065	3/8UNF	M10 x 1.25	3/8UNF	M10 x 1.25
1070	7/16UNF	M12 x 1.50	3/8UNF	M10 x 1.25
1075	7/16UNF	M12 x 1.50	3/8UNF	M10 x 1.25
1080	7/16UNF	M12 x 1.50	–	–
1085	7/16UNF	M12 x 1.50	–	–
1090	1/2UNF	M12 x 1.50	–	–
3095	5/8UNF	M16 x 1.50	–	–

Set screw tightening torques and maximum axial loads

Set screw size	Socket/Allen key size (across flats)	Recommended maximum tightening torque		Set screw maximum axial load	
		newton metres (Nm)	lbf-inches	newtons (N)	lbf
1/4UNF	1/8"	6.8	60	2500	560
5/16UNF	5/32"	12.4	110	3500	785
3/8UNF	3/16"	22.6	200	4500	1010
7/16UNF	7/32"	31.6	280	7500	1685
1/2UNF	1/4"	45.2	400	9000	2025
M6 x 0.75	3mm	5.7	50	2500	560
M8 x 1.00	4mm	12.4	110	3500	785
M10 x 1.25	5mm	27.1	240	5000	1235
M12 x 1.50	6mm	38.4	340	8000	1800

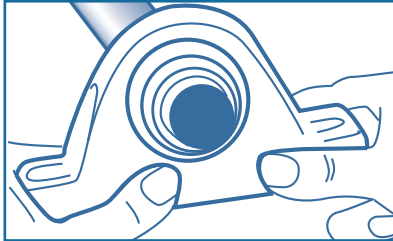
Note: For axial loads in excess of the values listed a shouldered shaft against the face of the inner ring is recommended.

Recommended tightening torques for adapter sleeve units

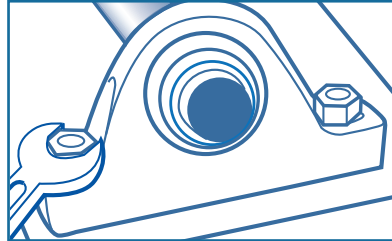
Sleeve bore size	Tightening torques	
	Nm	lbf-ins
20mm, 3/4"	30	265
25mm, 15/16", 1"	40	355
30mm, 1 1/8", 1 3/16"	50	440
35mm, 1 1/4", 1 3/8"	60	530
40mm, 1 7/16", 1 1/2"	65	575
45mm, 1 11/16", 1 3/4"	75	660
50mm, 1 15/16", 2"	85	750

Mounting instructions for Self-Lube® bearing units

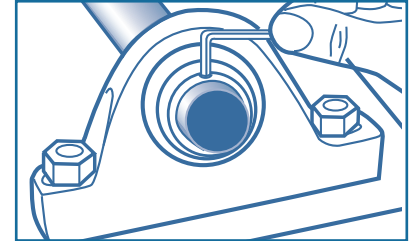
Self-Lube® set screw locking arrangement units



1. Relieve set screws clear of the bore and slide bearing onto the shaft.

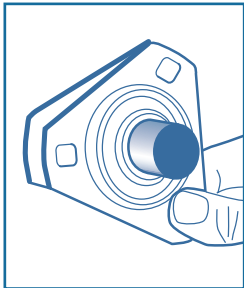


2. Bolt the unit down on to a flat surface but do not over-tighten.

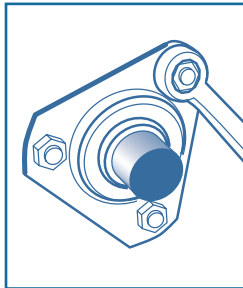


3. Tighten set screws to recommended torque.

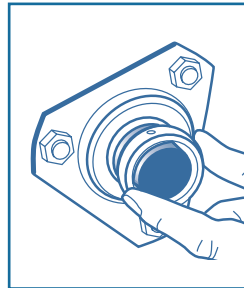
Self-Lube® eccentric collar locking arrangements units



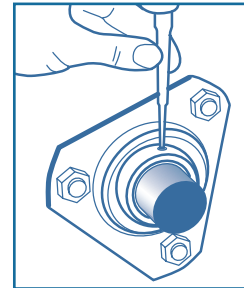
1. Assemble bearing and housing and slide onto the shaft. Do not engage collar.



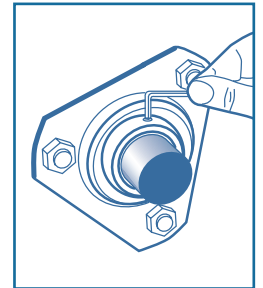
2. Lightly tighten bolts, repeat at other end of shaft and then finally tighten bolts on both sides.



3. Engage the eccentric collar in direction of shaft rotation.



4. Tighten collar with drift pin and small hammer.



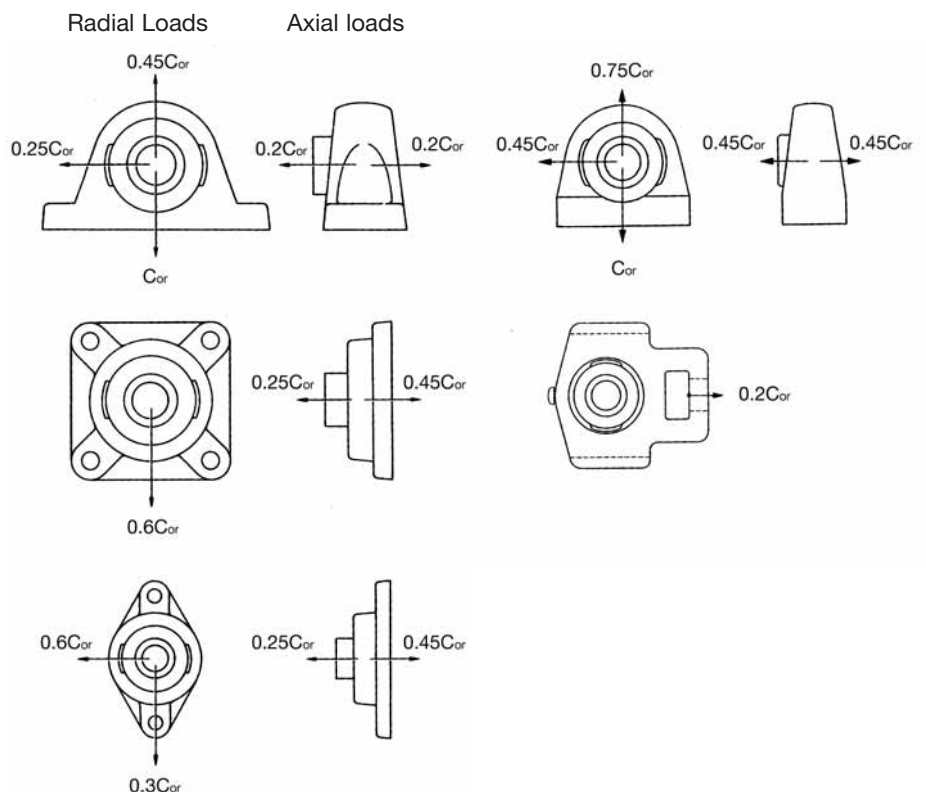
5. Tighten collar set screw to recommended torque.

Maximum recommended steady housing loads

The maximum loads shown adjacent are given as a proportion of the static load rating (C_{or}) of the bearing insert. Where the value of the axial load exceeds the set screw maximum axial holding load listed on page 18, a shoulder on the shaft must be provided against the face of the inner ring.

For shock load conditions additional safety factors must be applied.

Housing strength limits



Tolerances and speeds

Inner ring bore tolerances - Set screw and eccentric collar types

Nominal bore diameter d				Tolerances			
mm above	incl.	inch above	incl.	high	low	high	low
10	18	0.3937	0.7087	+15	0	+6	0
18	31.750	0.7087	1.2500	+18	0	+7	0
31.750	50.800	1.2500	2.0000	+21	0	+8	0
50.800	80	2.0000	3.1496	+24	0	+9	0
80	100	3.1496	3.9370	+28	0	+11	0

Outer ring outside diameter tolerances

Nominal outside diameter d		Tolerances			
mm above	incl.	0.001mm units		0.0001 inch units	
		high	low	high	low
30	50	0	-11	0	-4
50	80	0	-13	0	-5
80	120	0	-15	0	-6
120	150	0	-18	0	-7
150	180	0	-25	0	-10
180	250	0	-30	0	-12

Housing tolerances for parallel outside diameter inserts - series 1100, 1100DEC, 1300 and 1300EC

Nominal housing bore	Stationary outer ring				Rotating outer ring			
	Housing tolerance ISO H7				Housing tolerance ISO N7			
	0.001mm units		0.0001 inch units		0.001mm units		0.0001 inch units	
	high	low	high	low	high	low	high	low
40	+25	0	+10	0	-8	-33	-3	-13
47	+25	0	+10	0	-8	-33	-3	-13
52	+30	0	+12	0	-9	-39	-4	-15
62	+30	0	+12	0	-9	-39	-4	-15
72	+30	0	+12	0	-9	-39	-4	-15
80	+30	0	+12	0	-9	-39	-4	-15
85	+35	0	+14	0	-10	-45	-4	-18
90	+35	0	+14	0	-10	-45	-4	-18
100	+35	0	+14	0	-10	-45	-4	-18
110	+35	0	+14	0	-10	-45	-4	-18
120	+35	0	+14	0	-10	-45	-4	-18
125	+40	0	+16	0	-12	-52	-5	-20
130	+40	0	+16	0	-12	-52	-5	-20
140	+40	0	+16	0	-12	-52	-5	-20
150	+40	0	+16	0	-12	-52	-5	-20
160	+40	0	+16	0	-12	-52	-5	-20

Shaft tolerances and permissible speeds

Basic bearing insert	Shaft dia.		High loads - high speeds								Normal applications				Light loads - low speeds			
			Max. speed rev/min	Shaft tolerance ISO h6				Max. speed rev/min	Shaft tolerance ISO h7				Max. speed rev/min	Shaft tolerance ISO h9				
				0.001mm units		0.0001 inch units			0.001mm units		0.0001 inch units			0.001mm units		0.0001 inch units		
mm	inches	high	low	high	low	high	low	high	low	high	low	high	low	high	low	high	low	
1017	12-17	1/2-1 1/16	7000	0	-11	0	-4	5000	0	-18	0	-7	2000	0	-43	0	-17	
1020	20	3/4	6700	0	-13	0	-5	4200	0	-21	0	-8	1700	0	-52	0	-20	
1025	25	1 3/16-1	6250	0	-13	0	-5	3600	0	-21	0	-8	1350	0	-52	0	-20	
1030	25-30	7/8-1 1/4	5300	0	-13	0	-5	3100	0	-21	0	-8	1100	0	-52	0	-20	
1035	30-35	1 1/8-1 7/16	4500	0	-16	0	-6	2700	0	-25	0	-10	900	0	-62	0	-24	
1040	35-40	1 3/8-1 9/16	4000	0	-16	0	-6	2400	0	-25	0	-10	750	0	-62	0	-24	
1045	40-45	1 1/2-1 3/4	3700	0	-16	0	-6	2200	0	-25	0	-10	600	0	-62	0	-24	
1050	45-50	1 5/8-2	3400	0	-16	0	-6	1950	0	-25	0	-10	500	0	-62	0	-24	
1055	50-55	1 7/8-2 3/16	3100	0	-19	0	-7	1800	0	-30	0	-12	450	0	-74	0	-29	
1060	55-60	2 1/8-2 7/16	2800	0	-19	0	-7	1600	0	-30	0	-12	400	0	-74	0	-29	
1065	65	2 1/2	2600	0	-19	0	-7	1500	0	-30	0	-12	350	0	-74	0	-29	
1070	60-70	1 7/16-2 1/16	2450	0	-19	0	-7	1400	0	-30	0	-12	300	0	-74	0	-29	
1075	65-75	2 1/16-2 5/16	2300	0	-19	0	-7	1300	0	-30	0	-12	280	0	-74	0	-29	
1080	75-80	2 15/16-3 1/4	2150	0	-19	0	-7	1200	0	-30	0	-12	250	0	-74	0	-29	
1085	80-85	3 3/16-3 7/16	2000	0	-22	0	-9	1100	0	-35	0	-14	220	0	-87	0	-34	
1090	85-90	3 7/16-3 1/2	1900	0	-22	0	-9	1050	0	-35	0	-14	200	0	-87	0	-34	
3095	95-100	3 15/16-4	1600	0	-22	0	-9	1000	0	-35	0	-14	180	0	-87	0	-34	

For most applications the standard set screw lock is more than satisfactory. Whenever eccentric collar units are used it is recommended that shaft tolerances in the high loads column be adopted. Whenever taper adapter sleeve locking arrangements are used, shaft tolerances in the light loads column can be adopted. When operating conditions are very severe (for example, in case of heavy vibration or shock) a light interference fit may be required between the shaft and bearing bore diameter.

Housing tolerances for bearing units - series FC, MFC, SLC and MSC

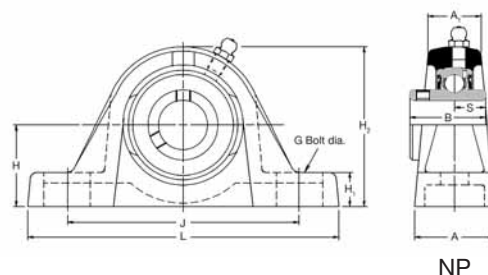
Bearing unit reference	Housing tolerance	
	Stationary housing	Rotating housing
SLC MSC	ISO H7	ISO N7
FC MFC	ISO H7	ISO H7

Self-Lube® Bearing Tables



Self-Lube[®] cast iron pillow block units

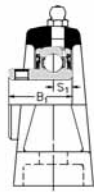
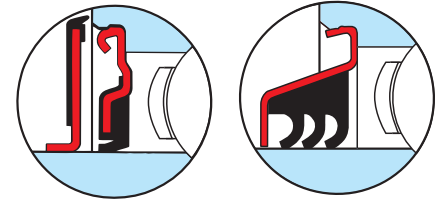
NP Series



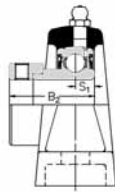
NP

Shaft diameter		RHP designation	Basic bearing insert	Casting group	Dimensions (mm)				Bolt centres				
					L	H	H1	H2	J _{max}	J _{min}			
mm	inches												
12 15 16 17	$\frac{1}{2}$ $\frac{5}{8}$	NP12 NP15 NP16 NP17 NP1$\frac{1}{2}$ NP$\frac{5}{8}$	NP12EC NP15EC NP16EC NP17EC NP1$\frac{1}{2}$EC NP$\frac{5}{8}$EC	1017	1	126.5	30.20	14.2	57.2	100.5	85.5		
20	$\frac{3}{4}$	NP20 NP	NP20A NP$\frac{3}{4}$A	NP20EC NP$\frac{3}{4}$EC	NP20DEC NP$\frac{3}{4}$DEC	1020	2	127.0	33.30	14.0	65.2	100.5	88.5
25	$\frac{7}{8}$ $\frac{15}{16}$ 1	NP25 NP$\frac{7}{8}$ NP$\frac{15}{16}$ NP1	NP25A	NP25EC NP$\frac{7}{8}$EC NP$\frac{15}{16}$EC NP1EC	NP25DEC NP$\frac{7}{8}$DEC NP$\frac{15}{16}$DEC NP1DEC	1025	3	139.0	36.50	16.0	71.0	112.7	96.8
30	$\frac{1}{8}$ $\frac{3}{16}$ $\frac{1}{4}$	NP30 NP1$\frac{1}{8}$ NP1$\frac{3}{16}$ NP1$\frac{1}{4}$	NP30A NP1 4AR	NP30EC NP1$\frac{1}{8}$EC NP1$\frac{3}{16}$EC NP1$\frac{1}{4}$EC	NP30DEC NP1$\frac{1}{8}$DEC NP1$\frac{3}{16}$DEC NP1$\frac{1}{4}$DEC	1030	4	160.5	42.90	17.7	82.7	129.5	108.5
35	$\frac{1}{4}$ $\frac{3}{8}$ $\frac{7}{16}$	NP35 NP1$\frac{1}{4}$ NP$\frac{3}{8}$ NP$\frac{7}{16}$	NP35A NP1$\frac{1}{4}$A	NP35EC NP1$\frac{1}{4}$EC NP$\frac{3}{8}$EC NP$\frac{7}{16}$EC	NP35DEC NP1$\frac{1}{4}$DEC NP1$\frac{3}{8}$DEC NP1$\frac{7}{16}$DEC	1035	5	166.0	47.60	17.5	93.0	136.5	121.5
40	$\frac{1}{2}$	NP40 NP1$\frac{1}{2}$	NP40A NP1$\frac{1}{2}$A	NP40EC NP1$\frac{1}{2}$EC	NP40DEC NP1$\frac{1}{2}$DEC	1040	6	180.5	49.20	18.5	98.5	148.0	127.0
45	$\frac{15}{8}$ $\frac{11}{16}$ $\frac{3}{4}$	NP45 NP1$\frac{5}{8}$ NP1$\frac{11}{16}$ NP1$\frac{3}{4}$	NP45A NP1$\frac{3}{4}$A	NP45EC NP1$\frac{5}{8}$EC NP1$\frac{11}{16}$EC NP1$\frac{3}{4}$EC	NP45DEC NP1$\frac{5}{8}$DEC NP1$\frac{11}{16}$DEC NP1$\frac{3}{4}$DEC	1045	7	190.5	54.00	20.0	108.0	154.5	140.5
50	$\frac{17}{8}$ $\frac{115}{16}$ 2	NP50 NP1$\frac{7}{8}$ NP1$\frac{15}{16}$ NP2R	NP50A	NP50EC NP1$\frac{7}{8}$EC NP1$\frac{15}{16}$EC	NP50DEC NP1$\frac{7}{8}$DEC NP1$\frac{15}{16}$DEC NP2DEC NP2DEC	1050	8	206.0	57.20	21.0	115.2	163.0	154.0
55	2 $\frac{21}{8}$ $\frac{23}{16}$	NP55 NP2 NP2$\frac{1}{8}$ NP2$\frac{3}{16}$			NP55DEC NP2DEC NP2$\frac{1}{8}$DEC NP2$\frac{3}{16}$DEC	1055	9	219.5	63.50	24.8	129.5	178.5	162.5
60	$\frac{21}{4}$ $\frac{23}{8}$ $\frac{27}{16}$	NP60 NP2$\frac{1}{4}$ NP2$\frac{3}{8}$ NP2$\frac{7}{16}$			NP60DEC NP2$\frac{1}{4}$DEC NP2$\frac{3}{8}$DEC NP2$\frac{7}{16}$DEC	1060	10	240.0	69.90	26.3	142.3	201.0	176.0

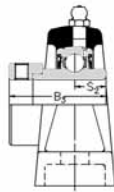
Please check availability



NP-A



NP-EC



NP-DEC

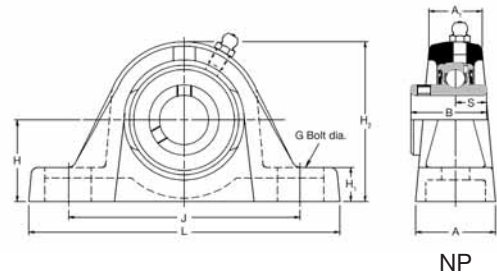
Bearing inserts with flinger seals shown on pages 91 and 92 can be fitted into these housings. The unit reference has the suffix 'FS', e.g. NP40FS.

Triple seal bearing inserts shown on pages 88 to 90 can be fitted into these housings. The unit reference has a prefix 'T', e.g. TNP25.

	Dimensions (mm)										ISO load ratings		Rec max. speed	Mass (approx.)
	G	A	A1	B	B1	B2	B3	s	s1	s2	dynamic Cr newtons	static Cor newtons	rev/min	kg
	10	30.5	20.5	27.38	–	28.63	–	11.58	6.53	–	9550	4800	7000	0.5
	10	32.5	22.5	31.00	25.80	31.03	43.73	12.73	7.53	17.13	12800	6650	6700	0.6
	10	36.5	24.5	34.10	27.30	31.03	44.43	14.33	7.53	17.53	14000	7880	6250	0.7
	12	41.5	27.5	38.10	31.20	35.73	48.43	15.93	9.03	18.33	19500	11300	5300	1.3
	12	44.5	30.5	42.90	34.90	38.93	51.13	17.53	9.53	18.83	25700	15300	4500	1.7
	12	51.0	34.5	49.20	41.20	43.73	56.33	19.03	11.03	21.43	32500	19900	4000	2.1
	12	54.0	35.0	49.20	41.20	43.73	56.33	19.04	11.04	21.43	32500	20500	3700	2.8
	16	55.0	36.0	51.60	43.50	43.73	62.73	19.04	11.04	24.64	35000	23200	3400	3.2
	16	60.0	39.5	55.60	–	–	71.42	22.24	–	27.84	43500	29200	3100	4.0
	16	70.0	46.0	65.10	–	–	77.84	25.44	–	31.04	48000	33000	2800	5.9

Self-Lube[®] cast iron pillow block units

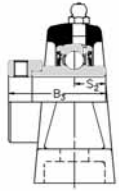
NP Series (continued)



NP

Shaft diameter		RHP designation	Basic bearing insert	Casting group	Dimensions (mm)				Bolt centres		
					L	H	H1	H2	J _{max}	J _{min}	
mm	inches										
65	2½	NP65 NP2½	NP65DEC NP2½DEC	1065	10/65	250.0	69.90	26.3	144.3	205.0	176.0
70	2 ¹¹ / ₁₆	NP70 NP2¹¹/₁₆	NP70DEC	1070	11	266.0	79.40	30.2	156.0	220.0	200.0
75	2¾ 2 ⁷ / ₈ 2 ¹⁵ / ₁₆ 3	NP75 NP2¾ NP2⁷/₈ NP2¹⁵/₁₆ NP3	NP75DEC	1075	12	275.0	82.60	28.0	164.0	228.0	206.0
80	3	NP80 NP3L		1080	13	291.0	88.90	30.0	174.0	241.0	214.0
85	3¼ 3 ³ / ₈	NP85 NP3¼ NP3³/₈		1085	14	310.0	95.20	32.0	187.0	262.0	232.0
90	3 ⁷ / ₁₆ 3½	NP90 NP3⁷/₁₆ NP3½		1090	15	327.0	101.60	36.0	200.0	280.0	244.0

Please check availability

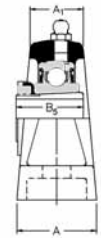
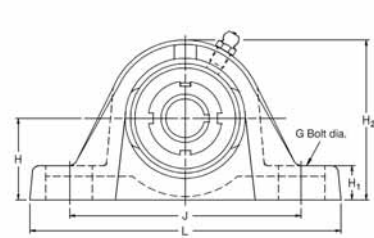


NP-DEC

	Dimensions (mm)										ISO load ratings		Rec max. speed	Mass (approx.)
	G	A	A1	B	B1	B2	B3	s	s1	s2	dynamic Cr newtons	static Cor newtons	rev/min	kg
	16	70.0	45.0	65.10	–	–	85.74	25.44	–	34.14	57500	40000	2600	5.9
	24	72.0	47.0	74.60	–	–	85.74	30.24	–	34.14	61000	45000	2450	8.0
	24	74.0	48.0	77.80	–	–	92.14	33.34	–	37.34	66000	49500	2300	9.0
	24	78.0	56.0	82.60	–	–	–	33.34	–	–	71500	54500	2150	9.7
	24	83.0	56.0	85.70	–	–	–	34.15	–	–	83000	64000	2000	11.8
	24	88.0	62.0	96.00	–	–	–	39.74	–	–	96000	71500	1900	14.7

Self-Lube[®] cast iron pillow block units with adapter sleeves

NP1000-K Series



NP1000-K

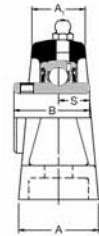
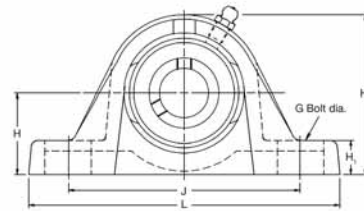
Shaft diameter	RHP designation complete unit	Sleeve, nut & lockwasher only	Unit without sleeve, nut & lockwasher	Basic bearing insert	Casting group	Dimensions (mm)				Bolt centres	
						L	H	H1	H2	J _{max}	J _{min}
mm	inches										
20	NP1025-20K NP1025-3/4K	H305 HE305-3/4	NP1025K	1025	3	139*	36.50	16.0	71.0	112.7	96.8
25	NP1030-25K NP1030-15/16K NP1030-1K	H306 HE306-15/16 HE306-1	NP1030K	1030	4	160.5	42.90	17.7	82.7	129.5	108.5
30	NP1035-30K NP1035-1/8K NP1035-13/16K	H307 HE307-1/8 HE307-13/16	NP1035K	1035	5	166.0	47.60	17.5	93.0	136.5	121.5
35	NP1040-35K NP1040-1/4K NP1040-13/8K	H308 HE308-1/4 HE308-13/8	NP1040K	1040	6	180.5	49.20	18.5	98.5	148.0	127.0
40	NP1045-40K NP1045-1/2K NP1045-1K	H309 HE309-1/2 HE309-1K	NP1045K	1045	7	190.5	54.00	20.0	108.0	154.5	140.5
45	NP1050-45K NP1050-11/16K NP1050-13/4K	H310 HE310-11/16 HE310-13/4	NP1050K	1050	8	206.0	57.20	21.0	115.2	163.0	154.0
50	NP1055-50K NP1055-15/16K NP1055-2K	H311 HE311-15/16 HE311-2	NP1055K	1055	9	219.5	63.50	24.8	129.5	178.5	162.5

Please check availability

	Dimensions (mm)					ISO load ratings		Rec max. speed	Mass (approx.)
	G	A	A1	B5	d4	dynamic Cr newtons	static Cor newtons	rev/min	kg
	10	36.5	24.5	29.0	38.0	14000	7880	6250	0.7
	12	41.5	27.5	31.0	45.0	19500	11300	5300	1.3
	12	44.5	30.5	35.0	52.0	25700	15300	4500	1.7
	12	51.0	34.5	36.0	58.0	32500	19900	4000	2.1
	12	54.0	35.0	39.0	65.0	32500	20500	3700	2.8
	16	55.0	36.0	42.0	70.0	35000	23200	3400	3.2
	16	60.0	39.5	45.0	75.0	43500	29200	3100	4.0

Self-Lube® cast iron pillow block units

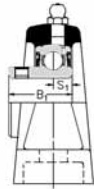
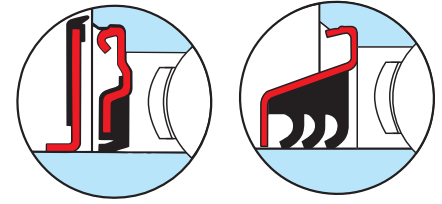
SL Series



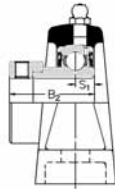
SL

Shaft diameter		RHP designation	Basic bearing insert	Casting group	Dimensions (mm)				Bolt centres				
					L	H	H1	H2	J _{max}	J _{min}			
mm	inches												
12 15 16 17	1/2 5/8	SL12 SL15 SL16 SL17 SL1½ SL5/8	SL12EC SL15EC SL16EC SL17EC SL½EC SL5/8EC	1017	1	119.0	26.97	11.0	54.0	91.5	85.5		
20	3/4	SL20 SL¾	SL20A SL¾A	SL20EC SL¾EC	SL20DEC SL¾DEC	1020	2	126.5	31.75	12.5	63.7	100.5	88.5
25	7/8 15/16 1	SL25 SL7/8 SL15/16 SL1	SL25A SL1A	SL25EC SL7/8EC SL15/16EC SL1EC	SL25DEC SL7/8DEC SL15/16DEC SL1DEC	1025	3	139.0	33.32	12.8	67.8	110.2	98.2
30	1 1/8 1 3/16 1 1/4	SL30 SL1 1/8 SL1 3/16 SL1 1/4R	SL30A SL1 1/4AR	SL30EC SL1 1/8EC SL1 3/16EC SL1 1/4ECR	SL30DEC SL1 1/8DEC SL1 3/16DEC SL1 1/4DEC	1030	4	161.5	39.67	14.5	79.5	130.0	109.0
35	1 1/4 1 3/8 1 7/16	SL35 SL1 1/4 SL1 3/8 SL1 7/16	SL35A SL1 1/4A	SL35EC SL1 1/4EC SL1 3/8EC SL1 7/16EC	SL35DEC SL1 1/4DEC SL1 3/8DEC SL1 7/16DEC	1035	5	166.0	46.02	16.0	91.5	136.5	121.5
40	1 1/2	SL40 SL1 1/2	SL40A SL1 1/2A	SL40EC SL1 1/2EC	SL40DEC SL1 1/2DEC	1040	6	180.5	49.20	18.5	98.5	148.0	127.0
45	1 5/8 1 11/16 1 3/4	SL45 SL1 5/8 SL1 11/16 SL1 3/4	SL45A SL1 3/4A	SL45EC SL1 5/8EC SL1 11/16EC SL1 3/4EC	SL45DEC SL1 5/8DEC SL1 11/16DEC SL1 3/4DEC	1045	7	197.5	52.37	18.4	106.4	161.5	141.5
50	1 7/8 1 15/16 2	SL50 SL1 7/8 SL1 15/16 SL2R	SL50A	SL50EC SL1 7/8EC SL1 15/16EC	SL50DEC SL1 7/8DEC SL1 15/16DEC SL2DEC	1050	8	214.0	55.55	19.3	114.0	177.0	151.0
55	2 2 1/8 2 3/16	SL55 SL2 SL2 1/8 SL2 3/16			SL55DEC SL2DEC SL2 1/8DEC SL2 3/16DEC	1055	9	219.5	61.90	23.2	128.0	178.5	162.5
60	2 1/4 2 3/8 2 7/16	SL60 SL2 1/4 SL2 3/8 SL2 7/16			SL60DEC SL2 1/4DEC SL2 3/8DEC SL2 7/16DEC	1060	10	240.0	68.25	24.6	140.6	201.0	176.0
65	2 1/2	SL65R SL2 1/2			SL2 1/2DEC	1065	10/65	250.0	68.25	24.6	142.6	205.0	176.0
65 70 75	2 1/16 2 3/4 2 7/8 2 15/16	SL65 SL70 SL75 SL2 1/16 SL2 3/4 SL2 7/8 SL2 15/16			SL65DEC SL70DEC SL75DEC SL2 1/16DEC SL2 3/4DEC SL2 7/8DEC SL2 15/16DEC	1075	11	286.0	82.55	28.0	165.5	241.5	200.5

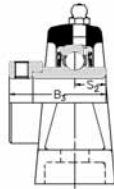
Please check availability



SL-A



SL-EC



SL-DEC

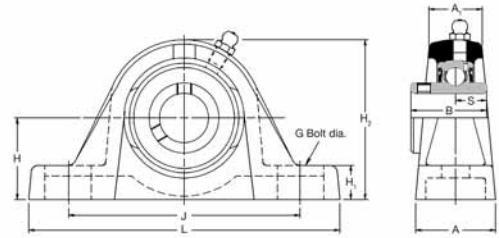
Bearing inserts with flinger seals shown on pages 91 and 92 can be fitted into these housings. The unit reference has the suffix 'FS', e.g. SL35FS.

Triple seal bearing inserts shown on pages 88 to 90 can be fitted into these housings. The unit reference has a prefix 'T', e.g. TSL35.

	Dimensions (mm)										ISO load ratings		Rec max. speed	Mass (approx.)
	G	A	A1	B	B1	B2	B3	s	s1	s2	dynamic Cr newtons	static Cor newtons	rev/min	kg
	10	30.5	20.5	27.38	–	28.63	–	11.58	6.53	–	9550	4800	7000	0.5
	10	32.0	22.5	31.00	25.80	31.03	43.73	12.73	7.53	17.13	12800	6650	6700	0.6
	10	36.0	24.5	34.10	27.30	31.03	44.43	14.33	7.53	17.53	14000	7880	6250	0.7
	12	41.0	27.5	38.10	31.20	35.73	48.43	15.93	9.03	18.33	19500	11300	5300	1.3
	12	44.5	30.5	42.90	34.90	38.93	51.13	17.53	9.53	18.83	25700	15300	4500	1.7
	12	51.0	34.5	49.20	41.20	43.73	56.33	19.03	11.03	21.43	32500	19900	4000	2.1
	12	54.0	35.0	49.20	41.20	43.73	56.33	19.04	11.04	21.43	32500	20500	3700	3.0
	12	55.0	36.0	51.60	43.50	43.73	62.73	19.04	11.04	24.64	35000	23200	3400	3.4
	16	60.0	39.5	55.60	–	–	71.42	22.24	–	27.84	43500	29200	3100	4.0
	16	70.0	46.0	65.10	–	–	77.84	25.44	–	31.04	48000	33000	2800	6.1
	16	70.0	45.0	65.10	–	–	85.74	25.44	–	34.14	57500	40000	2600	6.2
	20	74.0	47.5	77.80	–	–	92.14	33.34	–	37.34	66000	49500	2300	11.6

Self-Lube[®] cast iron pillow block units

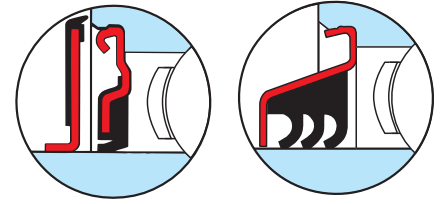
MP Series



MP

Shaft diameter		RHP designation	Basic bearing insert	Casting group	Dimensions (mm)				Bolt centres	
					L	H	H1	H2	J _{max}	J _{min}
mm	inches									
25	1	MP25 MP1	1030	1	160.5	44.45	19.3	84.3	127.5	108.5
30	1 ³ / ₁₆ 1 ¹ / ₄	MP30 MP1³/₁₆ MP1¹/₄	1035	2	166.0	47.60	17.5	93.0	136.5	121.5
35	1 ³ / ₈ 1 ⁷ / ₁₆	MP35 MP1³/₈ MP1⁷/₁₆	1040	3	203.2	53.98	23.0	107.5	160.0	135.0
40	1 ¹ / ₂	MP40 MP1¹/₂	1045	4	222.2	58.72	22.5	116.7	172.5	145.0
45	1 ¹¹ / ₁₆ 1 ³ / ₄	MP45 MP1¹¹/₁₆ MP1³/₄	1050	5	222.2	58.72	22.5	116.7	172.5	145.0
50	1 ⁷ / ₈ 1 ¹⁵ / ₁₆ 2	MP50 MP1⁷/₈ MP1¹⁵/₁₆ MP2	1055	6	219.5	63.50	24.8	129.5	178.5	162.5
55	2 ³ / ₁₆ 2 ¹ / ₄	MP55 MP2³/₁₆ MP2¹/₄	1060	7	249.5	69.85	26.2	142.2	201.0	179.0
60 65	2 ⁷ / ₁₆ 2 ¹ / ₂	MP60 MP65 MP2⁷/₁₆ MP2¹/₂	1070	8	266.0	76.20	27.0	153.0	224.5	189.5
65 70	2 ¹¹ / ₁₆ 2 ³ / ₄	MP65 MP70 MP2¹¹/₁₆ MP2³/₄	1075	9	330.2	88.90	28.6	177.8	255.6	206.0
75	2 ¹⁵ / ₁₆ 3	MP75 MP2¹⁵/₁₆ MP3	1080	10	330.2	88.90	31.8	184.2	255.6	228.0
80	3 ³ / ₁₆ 3 ¹ / ₄	MP80 MP3³/₁₆ MP3¹/₄	1085	11	381.0	101.60	31.8	203.2	317.5	260.0
85 90	3 ⁷ / ₁₆ 3 ¹ / ₂	MP85 MP90 MP3⁷/₁₆ MP3¹/₂	1090	12	381.0	101.60	33.3	209.6	319.1	246.1
95 100	3 ¹⁵ / ₁₆ 4	MP95 MP100 MP3¹⁵/₁₆ MP4	3095	13	431.8	127.00	33.3	254.0	371.5	301.6

Please check availability



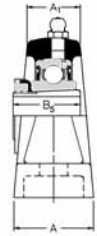
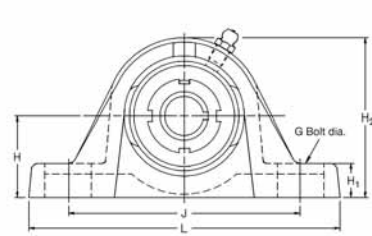
Bearing inserts with flinger seals shown on pages 91 and 92 can be fitted into these housings. The unit reference has the suffix 'FS', e.g. MP40FS.

Triple seal bearing inserts shown on pages 88 to 90 can be fitted into these housings. The unit reference has a prefix 'T', e.g. TMP40.

	Dimensions (mm)					ISO load ratings		Rec max. speed rev/min	Mass (approx.) kg
	G	A	A1	B	s	dynamic Cr newtons	static Cor newtons		
	12	41.5	27.5	38.10	15.93	19500	11300	5300	1.3
	12	44.5	30.5	42.90	17.53	25700	15300	4500	1.7
	12	57.0	40.5	49.20	19.03	32500	19900	4000	2.7
	16	60.0	39.5	49.20	19.04	32500	20500	3700	3.2
	16	60.0	39.5	51.60	19.04	35000	23200	3400	3.2
	16	60.0	39.5	55.60	22.24	43500	29200	3100	4.0
	20	69.5	46.00	65.10	25.44	48000	33000	2800	7.1
	20	72.0	47.0	74.60	30.24	61000	45000	2450	9.3
	24	88.9	66.7	77.80	33.34	66000	49500	2300	13.4
	24	88.9	66.7	82.60	33.34	71500	54500	2150	14.3
	24	101.6	68.3	85.70	34.15	83000	64000	2000	18.2
	24	111.1	79.4	96.00	39.74	96000	71500	1900	23.4
	24	120.6	98.4	117.48	49.31	157000	122000	1600	34.4

Self-Lube[®] cast iron pillow block units with adapter sleeves

MP1000-K Series



MP 1000-K

Shaft diameter		RHP designation complete unit	Sleeve, nut & lockwasher only	Unit without sleeve, nut & lockwasher	Basic bearing	Casting group insert	Dimensions (mm)				Bolt centres	
							L	H	H1	H2	J _{max}	J _{min}
mm	inches											
25	¹⁵ / ₁₆ 1	MP1030-25K MP1030-¹⁵/₁₆K MP1030-1K	H306 HE306-¹⁵/₁₆ HE306-1	MP1030K	1030	1	160.5	44.45	19.3	87.4	127.5	108.5
30	¹ / ₈ ¹ / ₂	MP1035-30K MP1035-¹/₈K MP1035-¹/₂K	H307 HE307-¹/₈ HE307-¹/₂	MP1035K	1035	2	166.0	47.60	17.5	93.0	136.5	121.5
35	¹ / ₄ ¹ / ₂	MP1040-35K MP1040-¹/₄K MP1040-¹/₂K	HE308 HE308-¹/₄ HE308-¹/₂	MP1040K	1040	3	203.2	53.98	23.0	106.4	160.0	135.0
40	¹ / ₂ ¹ / ₂	MP1045-40K MP1045-¹/₂K MP1045-¹/₂K	HE309 HE309-¹/₂ HE309-¹/₂	MP1045K	1045	4	222.2	58.72	22.5	116.7	172.5	145.0
45	¹ / ₂ ³ / ₄	MP1050-45K MP1050-¹/₂K MP1050-³/₄K	HE310 HE310-¹/₂ HE310-³/₄	MP1050K	1050	5	222.2	58.72	22.5	116.7	172.5	145.0
50	¹ / ₂ 2	MP1055-50K MP1055-¹/₂K MP1055-2K	H311 HE311-¹/₂ HE311-2	MP1055K	1055	6	219.5	63.50	24.8	129.5	178.5	162.5

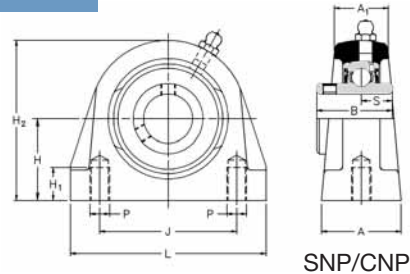
Please check availability

	Dimensions (mm)					ISO load ratings		Rec max. speed	Mass (approx.)
	G	A	A1	B5	d4	dynamic Cr newtons	static Cor newtons	rev/min	kg
	12	41.5	27.5	31.00	45.00	19500	11300	5300	1.3
	12	44.5	30.5	35.00	52.00	25700	15300	4500	1.7
	12	57.0	40.5	36.00	58.00	32500	19900	4000	2.7
	16	60.0	39.5	39.00	65.00	32500	20500	3700	3.2
	16	60.0	39.5	42.00	70.00	35000	23200	3400	3.2
	16	60.0	39.5	45.00	75.00	43500	29200	3100	4.0

Self-Lube[®] short base cast iron pillow block units

SNP Series (metric thread)
CNP Series (UNC thread)**

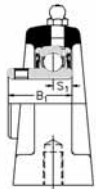
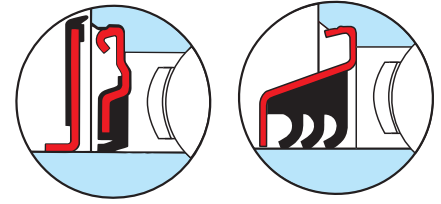
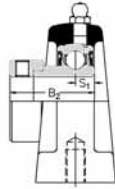
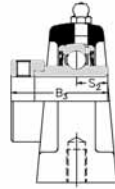
**These units are identical to SNP series except for thread details



SNP/CNP

Shaft diameter		RHP designation				Basic bearing insert	Casting group	Dimensions (mm)				Bolt centres	
								L	H	H1	H2	J	SNP
mm	inches												
20	3/4	SNP20 SNP3/4	SNP20A SNP3/4A	SNP20EC SNP3/4EC	SNP20DEC SNP3/4DEC	1020	2	65.0	33.30	13.5	65.8	50.8	M8x1.25
25	7/8 15/16 1	SNP25 SNP7/8 SNP15/16 SNP1	SNP25A SNP1A	SNP25EC SNP7/8EC SNP15/16EC SNP1EC	SNP25DEC SNP7/8DEC SNP15/16DEC SNP1DEC	1025	3	70.0	36.50	13.5	71.5	50.8	M10x1.50
30	1 1/8 1 3/16 1 1/4	SNP30 SNP1 1/8 SNP1 3/16 SNP1 1/4R	SNP30A SNP1 1/4AR	SNP30EC SNP1 1/8EC SNP1 3/16EC SNP1 1/4ECR	SNP30DEC SNP1 1/8DEC SNP1 3/16DEC SNP1 1/4DECR	1030	4	96.0	42.90	16.5	83.9	76.2	M10x1.50
35	1 1/4 1 3/8 1 7/16	SNP35 SNP1 1/4 SNP1 3/8 SNP1 7/16	SNP35A SNP1 1/4A	SNP35EC SNP1 1/4EC SNP1 3/8EC SNP1 7/16EC	SNP35DEC SNP1 1/4DEC SNP1 3/8DEC SNP1 7/16DEC	1035	5	110.0	47.60	19.5	95.6	82.6	M10x1.50
40	1 1/2	SNP40 SNP1 1/2	SNP40A SNP1 1/2A	SNP40EC SNP1 1/2EC	SNP40DEC SNP1 1/2DEC	1040	6	118.0	49.20	19.5	101.7	88.9	M12x1.75
45	1 5/8 1 11/16 1 3/4	SNP45 SNP1 5/8 SNP1 11/16 SNP1 3/4	SNP45A SNP1 3/4A	SNP45EC SNP1 5/8EC SNP1 11/16EC SNP1 3/4EC	SNP45DEC SNP1 5/8DEC SNP1 11/16DEC SNP1 3/4DEC	1045	7	127.0	54.00	19.5	110.0	95.3	M12x1.75
50	1 7/8 1 15/16 2	SNP50 SNP1 7/8 SNP1 15/16 SNP2R	SNP50A	SNP50EC SNP1 7/8EC SNP1 15/16EC	SNP50DEC SNP1 7/8DEC SNP1 15/16DEC	1050	8	135.0	57.20	23.5	115.0	101.6	M16x2.00
55	2 2 1/8 2 3/16	SNP55 SNP2 SNP2 1/8 SNP2 3/16			SNP55DEC SNP2DEC SNP2 1/8DEC SNP2 3/16DEC	1055	9	154.0	63.50	26.5	130.0	118.0	M16x2.00
60	2 1/4 2 3/8 2 7/16	SNP60 SNP2 1/4 SNP2 3/8 SNP2 7/16			SNP60DEC SNP2 1/4DEC SNP2 3/8DEC SNP2 7/16DEC	1060	10	154.0	69.90	26.5	141.5	118.0	M16x2.00

Please check availability


 SNP-A
CNP-A

 SNP-EC
CNP-EC

 SNP-DEC
CNP-DEC

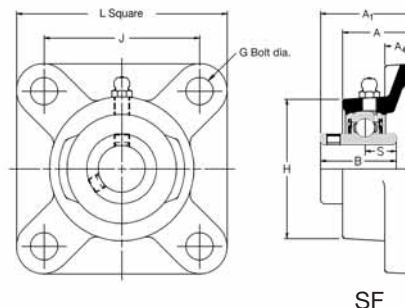
Bearing inserts with flinger seals shown on pages 91 and 92 can be fitted into these housings. The unit reference has the suffix 'FS', e.g. SNP25FS.

Triple seal bearing inserts shown on pages 88 to 90 can be fitted into these housings. The unit reference has a prefix 'T', e.g. TSNP25.

P	Dimensions (mm)										ISO load ratings		Rec max. speed	Mass (approx.)
	CNP	A	A1	B	B1	B2	B3	s	s1	s2	dynamic Cr newtons	static Cor newtons	rev/min	kg
$\frac{3}{8}$ -16UNC	32.0	22.5	31.00	25.80	31.03	43.73	12.73	7.53	17.13	12800	6650	6700	0.9	
$\frac{3}{8}$ -16UNC	36.0	25.0	34.10	27.30	31.03	44.43	14.33	7.53	17.53	14000	7880	6250	1.2	
$\frac{7}{16}$ -14UNC	40.0	26.5	38.10	31.20	35.73	48.43	15.93	9.03	18.33	19500	11300	5300	1.8	
$\frac{1}{2}$ -13UNC	45.0	30.0	42.90	34.90	38.93	51.13	17.53	9.53	18.83	25700	15300	4500	2.4	
$\frac{1}{2}$ -13UNC	47.0	32.0	49.20	41.20	43.73	56.33	19.03	11.03	21.43	32500	19900	4000	2.8	
$\frac{1}{2}$ -13UNC	48.0	33.0	49.20	41.20	43.73	56.33	19.04	11.04	21.43	32500	20500	3700	3.5	
$\frac{5}{8}$ -11UNC	54.0	34.0	51.60	43.50	43.73	62.73	19.04	11.04	24.64	35000	23200	3400	3.3	
$\frac{5}{8}$ -11UNC	60.0	41.5	55.60	–	–	71.42	22.24	–	27.84	43500	29200	3100	4.0	
$\frac{5}{8}$ -11UNC	60.0	41.5	65.10	–	–	77.84	25.44	–	31.04	48000	33000	2800	4.6	

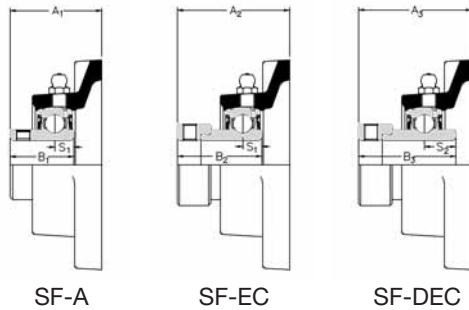
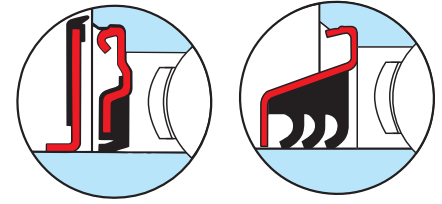
Self-Lube[®] cast iron flange bearing units

SF Series



Shaft diameter		RHP designation	Basic bearing insert	Casting group	Dimensions (mm)							
					L	H	J	G	A	A1		
mm	inches											
12 15 16 17	1/2 5/8	SF12 SF15 SF16 SF17 SF1/2 SF5/8	SF12EC SF15EC SF16EC SF17EC SF1/2EC SF5/8EC	1017	1	76.2	52.5	54.00	10	24.6	32.87	
20	3/4	SF20 SF3/4	SF20A SF3/4A SF20EC SF3/4EC	SF20DEC SF3/4DEC	1020	2	85.7	60.3	63.50	10	27.8	37.26
25	7/8 15/16 1	SF25 SF7/8 SF15/16 SF1	SF25A SF25EC SF7/8EC SF15/16EC SF30EC	SF25DEC SF7/8DEC SF15/16DEC SF1DEC	1025	3	95.3	68.0	70.00	10	28.6	38.84
30	1 1/8 1 3/16 1 1/4	SF30 SF1 1/8 SF1 3/16 SF1 1/4R	SF30A SF1 1/8EC SF1 3/16EC SF1 1/4ECR	SF30DEC SF1 1/8DEC SF1 3/16DEC SF1 1/4DECR	1030	4	108.0	82.6	82.50	10	29.8	42.21
35	1 1/4 1 3/8 1 7/16	SF35 SF1 1/4 SF1 3/8 SF1 7/16	SF35A SF1 1/4A SF35EC SF1 1/4EC SF1 3/8EC SF1 7/16EC	SF35DEC SF1 1/4DEC SF1 3/8DEC SF1 7/16DEC	1035	5	117.5	95.3	92.00	12	31.4	46.41
40	1 1/2	SF40 SF1 1/2	SF40A SF1 1/2A SF40EC SF1 1/2EC	SF40DEC SF1 1/2DEC	1040	6	130.2	101.6	101.50	12	34.9	54.18
45	1 5/8 1 11/16 1 3/4	SF45 SF1 5/8 SF1 11/16 SF1 3/4	SF45A SF45EC SF1 5/8EC SF1 11/16EC SF1 3/4EC	SF45DEC SF1 5/8DEC SF1 11/16DEC SF1 3/4DEC	1045	7	136.5	111.1	105.00	16	35.3	54.18
50	1 7/8 1 15/16 2	SF50 SF1 7/8 SF1 15/16 SF2R	SF50A SF50EC SF1 7/8EC SF1 15/16EC	SF50DEC SF1 7/8DEC SF1 15/16DEC	1050	8	142.9	115.9	111.00	16	39.7	60.53
55	2 2 1/8 2 3/16	SF55 SF2 SF2 1/8 SF2 3/16	SF55DEC SF2DEC SF2 1/8DEC SF2 3/16DEC	1055	9	161.9	127.0	130.00	16	43.7	64.31	
60	2 1/4 2 3/8 2 7/16	SF60 SF2 1/4 SF2 3/8 SF2 7/16	SF60DEC SF2 1/4DEC SF2 3/8DEC SF2 7/16DEC	1060	10	174.5	138.1	143.00	16	47.6	73.69	
65	2 1/2	SF65R SF2 1/2	SF65DEC SF2 1/2DEC	1065	10/65	174.5	149.5	143.00	16	47.6	73.69	
65 70	2 5/8 2 11/16	SF65 SF70 SF2 5/8 SF2 11/16	SF65DEC SF70DEC SF2 5/8DEC SF2 11/16DEC	1070	11	187.5	155.5	149.22	16	47.6	77.72	
75	2 3/4 2 7/8 2 15/16 3	SF75 SF2 3/4 SF2 7/8 SF2 15/16 SF3	SF75DEC SF2 3/4DEC SF2 7/8DEC SF2 15/16DEC	1075	12	196.5	158.5	152.40	20	51.3	80.90	

Please check availability



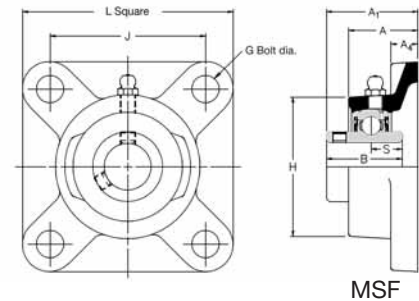
Bearing inserts with flinger seals shown on pages 91 and 92 can be fitted into these housings. The unit reference has the suffix 'FS', e.g. SF25FS.

Triple seal bearing inserts shown on pages 88 to 90 can be fitted into these housings. The unit reference has a prefix 'T', e.g. TSF25.

	Dimensions (mm)										ISO load ratings		Rec max. speed	Mass (approx.)
	A2	A3	A4	B	B1	B2	B3	s	s1	s2	dynamic Cr newtons	static Cor newtons	rev/min	kg
	39.01	–	9.5	27.38	–	28.63	–	11.58	6.53	–	9550	4800	7000	0.5
	42.42	45.54	11.1	31.00	25.80	31.03	43.73	12.73	7.53	17.13	12800	6650	6700	0.7
	42.42	45.95	11.1	34.10	27.30	31.03	44.43	14.33	7.53	17.53	14000	7880	6250	1.0
	46.66	50.90	12.7	38.10	31.20	35.73	48.43	15.93	9.03	18.33	19500	11300	5300	1.3
	50.34	53.31	12.7	42.90	34.90	38.93	51.13	17.53	9.53	18.83	25700	15300	4500	1.7
	56.52	58.90	12.7	49.20	41.20	43.73	56.33	19.03	11.03	21.43	32500	19900	4000	2.2
	56.62	58.90	14.3	49.20	41.20	43.73	56.33	19.03	11.03	21.43	32500	20500	3700	2.6
	60.60	66.07	14.3	51.60	43.50	43.73	62.73	19.04	11.04	24.64	35000	23200	3400	2.8
	–	74.57	17.5	55.60	–	–	71.42	22.24	–	27.84	43500	29200	3100	4.0
	–	80.77	17.5	65.10	–	–	77.84	25.44	–	31.04	48000	33000	2800	4.7
	–	80.77	18.0	65.10	–	–	85.74	25.44	–	34.14	57500	40000	2600	4.7
	–	84.86	18.0	74.60	–	–	85.74	30.24	–	34.14	61000	45000	2450	6.8
	–	91.21	23.0	77.80	–	–	92.14	33.34	–	37.34	66000	49500	2300	8.6

Self-Lube[®] cast iron flange bearing units

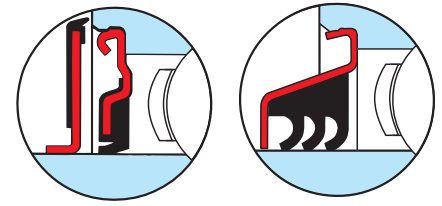
MSF Series



MSF

Shaft diameter		RHP designation	Basic bearing insert	Casting group	Dimensions (mm)		
mm	inches				L	H	J
25	1	MSF25 MSF1	1030	1	108.0	82.6	82.50
30	1 ³ / ₁₆ 1 ¹ / ₄	MSF30 MSF1³/₁₆ MSF1¹/₄	1035	2	117.5	95.3	92.00
35	1 ³ / ₈ 1 ⁷ / ₁₆	MSF35 MSF1³/₈ MSF1⁷/₁₆	1040	3	130.2	101.6	101.50
40	1 ¹ / ₂	MSF40 MSF1¹/₂	1045	4	136.5	111.1	105.00
45	1 ¹¹ / ₁₆ 1 ³ / ₄	MSF45 MSF1¹¹/₁₆ MSF1³/₄	1050	5	142.9	115.9	111.00
50	1 ⁷ / ₈ 1 ¹⁵ / ₁₆ 2	MSF50 MSF1⁷/₈ MSF1¹⁵/₁₆ MSF2	1055	6	161.9	127.0	130.00
55	2 ³ / ₁₆ 2 ¹ / ₄	MSF55 MSF2³/₁₆ MSF2¹/₄	1060	7	174.5	138.1	143.00
60	2 ⁷ / ₁₆ 2 ¹ / ₂	MSF60 MSF2⁷/₁₆ MSF2¹/₂	1070	8	187.6	155.5	149.22
65 70	2 ¹¹ / ₁₆ 2 ³ / ₄	MSF65 MSF70 MSF1¹¹/₁₆ MSF2³/₄	1075	9	196.5	158.5	152.40
75	2 ¹⁵ / ₁₆ 3	MSF75 MSF2¹⁵/₁₆ MSF3	1080	10	196.5	173.5	152.40
80	3 ³ / ₁₆ 3 ¹ / ₄	MSF80 MSF3³/₁₆ MSF3¹/₄	1085	11	213.5	184.0	171.45
85 90	3 ⁷ / ₁₆ 3 ¹ / ₂	MSF85 MSF90 MSF3⁷/₁₆ MSF3¹/₂	1090	12	213.5	196.5	171.45
95 100	3 ¹⁵ / ₁₆ 4	MSF95 MSF100 MSF3¹⁵/₁₆ MSF4	3095	13	267.5	235.5	211.12

Please check availability



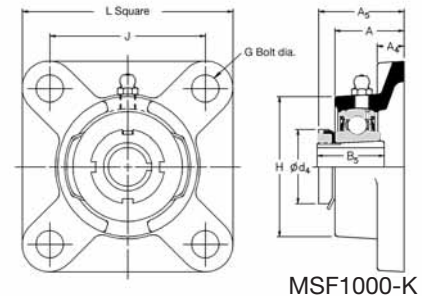
Bearing inserts with flinger seals shown on pages 91 and 92 can be fitted into these housings. The unit reference has the suffix 'FS', e.g. MSF35FS.

Triple seal bearing inserts shown on pages 88 to 90 can be fitted into these housings. The unit reference has a prefix 'T', e.g. TMSF35.

	Dimensions (mm)						ISO load ratings		Rec max. speed rev/min	Mass (approx.) kg
	G	A	A1	A4	B	s	dynamic Cr newtons	static Cor newtons		
	10	29.8	42.21	12.7	38.10	15.93	19500	11300	5300	1.3
	12	31.4	46.41	12.7	42.90	17.53	25700	15300	4500	1.7
	12	34.9	54.18	12.7	49.20	19.03	32500	19900	4000	2.2
	16	35.3	54.18	14.3	49.20	19.03	32500	20500	3700	2.6
	16	39.7	60.53	14.3	51.60	19.04	35000	23200	3400	2.8
	16	43.7	64.31	17.5	55.60	22.24	43500	29200	3100	4.0
	16	47.6	73.69	17.5	65.10	25.44	48000	33000	2800	4.7
	16	47.6	77.20	18.0	74.60	30.24	61000	45000	2450	6.8
	20	51.3	80.90	23.0	77.80	33.34	66000	49500	2300	8.6
	20	55.0	88.87	23.0	82.60	33.34	71500	54500	2150	9.3
	20	54.3	89.64	26.0	85.70	34.15	83000	64000	2000	11.1
	20	61.7	100.76	26.0	96.00	39.74	96000	71500	1900	13.2
	24	83.5	126.95	32.0	117.48	49.31	157000	122000	1600	24.7

Self-Lube[®] cast iron flange bearing units with adapter sleeves

MSF 1000-K Series



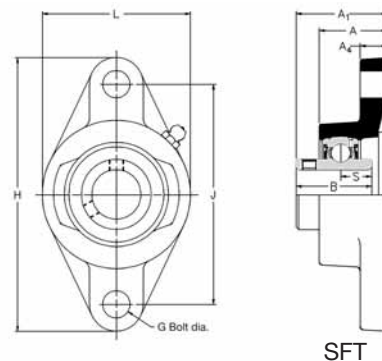
Shaft diameter	RHP designation complete unit	Sleeve, nut & lockwasher only	Unit without sleeve, nut & lockwasher	Basic bearing	Casting group insert	Dimensions (mm)		
						L	H	J
mm	inches							
20	MSF1025-20K MSF1025-³/₄K	H305 HE305³/₄	MSF1025K	1025	SF3	95.3	68.0	70.0
25	MSF1030-25K MSF1030-¹⁵/₁₆K MSF1030-1K	H306 HE306-¹⁵/₁₆ HE306-1	MP1030K	1030	1	108.0	82.6	82.5
30	MSF1035-30K MSF1035-1¹/₈K MSF1035-1³/₁₆K	H307 HE307-1¹/₈ HE307-1³/₁₆	MP1035K	1035	2	117.5	95.3	92.0
35	MSF1040-35K MSF1040-1¹/₄K MSF1040-1³/₈K	H308 HE308-1¹/₄ HE308-1³/₈	MP1040K	1040	3	130.2	101.6	101.5
40	MSF1045-40K MSF1045-1⁷/₁₆K MSF1045-1¹/₂K	H309 HE309-1⁷/₁₆ HE309-1¹/₂	MP1045K	1045	4	136.5	111.1	105.0
45	MSF1050-45K MSF1050-1¹¹/₁₆K MSF1050-1³/₄K	H310 HE310-1¹¹/₁₆ HE310-1³/₄	MP1050K	1050	5	142.9	115.9	111.0
50	MSF1055-50K MSF1055-1¹⁵/₁₆K MSF1055-2K	H311 HE311-1¹⁵/₁₆ HE311-2	MP1055K	1055	6	161.9	127.0	130.0

Please check availability

	Dimensions (mm)						ISO load ratings		Rec max. speed	Mass (approx.)
	G	A	A4	A5	B5	d4	dynamic Cr newtons	static Cor newtons	rev/min	kg
	10	28.6	11.1	36.5	29.0	38.0	14000	7880	6250	1.0
	10	29.8	12.7	38.0	31.0	45.0	19500	11300	5300	1.3
	12	31.4	12.7	40.5	35.0	52.0	25700	15300	4500	1.7
	12	34.9	12.7	45.0	36.0	58.0	32500	19900	4000	2.2
	16	35.3	14.3	46.5	39.0	65.0	32500	20500	3700	2.6
	16	39.7	14.3	52.0	42.0	70.0	35000	23200	3400	2.8
	16	43.7	17.5	55.5	45.0	75.0	43500	29200	3100	4.0

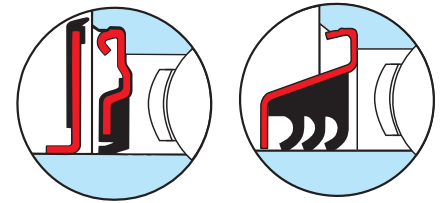
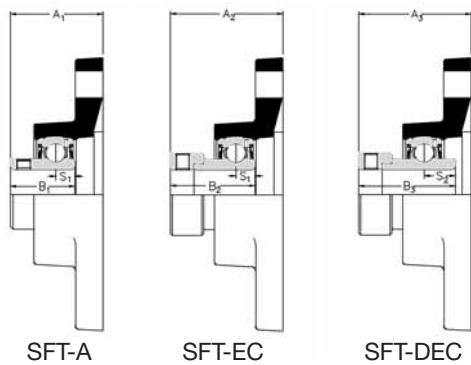
Self-Lube[®] cast iron flange bearing units

SFT Series



Shaft diameter		RHP designation	Basic bearing insert	Casting group	Dimensions (mm)						
					L	H	J	G	A	A1	
mm	inches										
12 15 16 17	1/2 5/8	SFT12 SFT15 SFT16 SFT17 SFT1/2 SFT3/8	SFT12EC SFT15EC SFT16EC SFT17A SFT1/2EC SFT3/8EC	1017	1	52.5	98.5	76.50	10	24.6	32.87
20	3/4	SFT20 SFT3/4	SFT20A SFT3/4A SFT20EC SFT3/4EC	1020	2	60.3	111.9	90.00	10	27.8	37.26
25	7/8 15/16 1	SFT25 SFT7/8 SFT15/16 SFT1	SFT25A SFT25EC SFT7/8EC SFT15/16EC SFT1EC	1025	3	70.0	125.5	99.00	10	28.6	38.84
30	1 1/8 1 3/16 1 1/4	SFT30 SFT1 1/8 SFT1 3/16 SFT1 1/4R	SFT30A SFT30EC SFT1 1/8EC SFT1 3/16EC SFT1 1/4ECR	1030	4	82.6	141.3	116.50	10	29.8	42.21
35	1 1/4 1 3/8 1 7/16	SFT35 SFT1 1/4 SFT1 3/8 SFT1 7/16	SFT35A SFT1 1/4A SFT35EC SFT1 1/4EC SFT1 3/8EC SFT1 7/16EC	1035	5	95.5	155.5	130.00	12	31.4	46.41
40	1 1/2	SFT40 SFT1 1/2	SFT40A SFT1 1/2A SFT40EC SFT1 1/2EC	1040	6	104.5	171.4	143.50	12	34.9	54.18
45	1 5/8 1 11/16 1 3/4	SFT45 SFT1 5/8 SFT1 11/16 SFT1 3/4	SFT45A SFT45EC SFT1 5/8EC SFT1 11/16EC SFT1 3/4EC	1045	7	111.1	179.4	148.50	16	35.3	54.18
50	1 7/8 1 15/16 2	SFT50 SFT1 7/8 SFT1 15/16 SFT2R	SFT50A SFT50EC SFT1 7/8EC SFT1 15/16EC	1050	8	115.9	188.9	157.00	16	39.7	60.53
55	2 2 1/8 2 3/16	SFT55 SFT2 SFT2 1/8 SFT2 3/16	SFT55DEC SFT2DEC SFT2 1/8DEC SFT2 3/16DEC	1055	9	127.0	215.9	184.00	16	43.7	64.31
60	2 1/4 2 3/8 2 7/16	SFT60 SFT2 1/4 SFT2 3/8 SFT2 7/16	SFT60DEC SFT2 1/4DEC SFT2 3/8DEC SFT2 7/16DEC	1060	10	138.1	235.0	202.00	16	47.6	73.69

Please check availability



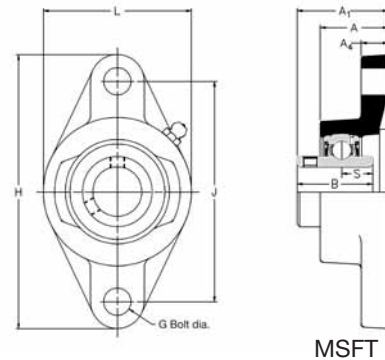
Bearing inserts with flinger seals shown on pages 91 and 92 can be fitted into these housings. The unit reference has the suffix 'FS', e.g. SFT25FS.

Triple seal bearing inserts shown on pages 88 to 90 can be fitted into these housings. The unit reference has a prefix 'T', e.g. TSFT25.

	Dimensions (mm)										ISO load ratings		Rec max. speed	Mass (approx.)
	A2	A3	A4	B	B1	B2	B3	s	s1	s2	dynamic Cr newtons	static Cor newtons	rev/min	kg
	39.01	–	9.5	27.38	–	28.63	–	11.58	6.53	–	9550	4800	7000	0.4
	42.42	45.54	11.1	31.00	25.80	31.03	43.73	12.73	7.53	17.13	12800	6650	6700	0.6
	42.42	45.95	11.1	34.10	27.30	31.03	44.43	14.33	7.53	17.53	14000	7880	6520	0.9
	46.66	50.09	12.7	38.10	31.20	35.73	48.43	15.93	9.03	18.33	19500	11300	5300	1.1
	50.34	53.34	12.7	42.90	34.90	38.93	51.13	17.53	9.53	18.83	25700	15300	4500	1.4
	56.62	58.90	12.7	49.20	41.20	43.73	56.33	19.03	11.03	21.43	32500	19900	4000	1.9
	56.62	58.90	14.3	49.20	41.20	43.73	56.33	19.04	11.03	21.43	32500	20500	3700	2.2
	60.60	66.07	14.3	51.60	43.50	43.73	62.73	19.04	11.04	24.64	35000	23200	3400	2.5
	–	74.57	17.5	55.60	–	–	71.42	22.24	–	27.84	43500	29200	3100	3.5
	–	80.77	17.5	65.10	–	–	77.84	25.44	–	31.04	48000	33000	2800	4.3

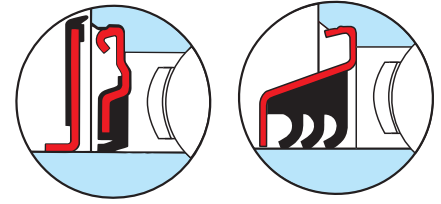
Self-Lube[®] cast iron flange bearing units

MSFT Series



Shaft diameter		RHP designation	Basic bearing insert	Casting group	Dimensions (mm)		
mm	inches				L	H	J
25	1	MSFT25 MSFT1	1030	1	82.6	141.3	116.50
30	1 ³ / ₁₆ 1 ¹ / ₄	MSFT30 MSFT1³/₁₆ MSFT1¹/₄	1035	2	95.5	155.5	130.00
35	1 ³ / ₈ 1 ⁷ / ₁₆	MSFT35 MSFT1³/₈ MSFT1⁷/₁₆	1040	3	101.6	171.4	143.50
40	1 ¹ / ₂	MSFT40 MSFT1¹/₂	1045	4	111.1	179.4	148.50
45	1 ¹¹ / ₁₆ 1 ³ / ₄	MSFT45 MSFT1¹¹/₁₆ MSFT1³/₄	1050	5	115.9	188.9	157.00
50	1 ⁷ / ₈ 1 ¹⁵ / ₁₆ 2	MSFT50 MSFT1⁷/₈ MSFT1¹⁵/₁₆ MSFT2	1055	6	127.0	215.9	184.00
55	2 ³ / ₁₆	MSFT55 MSFT2³/₁₆	1060	7	138.1	235.0	202.00

Please check availability



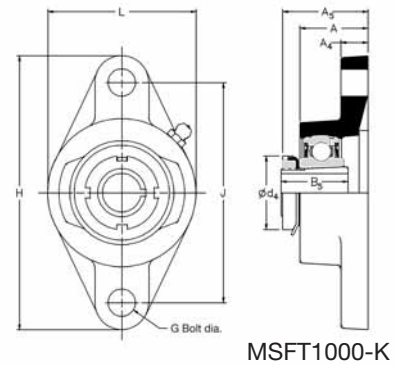
Bearing inserts with flinger seals shown on pages 91 and 92 can be fitted into these housings. The unit reference has the suffix 'FS', e.g. MSFT40FS.

Triple seal bearing inserts shown on pages 88 to 90 can be fitted into these housings. The unit reference has a prefix 'T', e.g. TMSFT40.

	Dimensions (mm)						ISO load ratings		Rec max. speed	Mass (approx.)
	G	A	A1	A4	B	s	dynamic Cr newtons	static Cor newtons	rev/min	kg
	10	29.8	42.21	12.7	38.10	15.93	19500	11300	5300	1.1
	12	31.4	46.41	12.7	42.90	17.53	25700	15300	4500	1.4
	12	34.9	54.18	12.7	49.20	19.03	32500	19900	4000	1.9
	16	35.3	54.18	14.3	49.20	19.04	32500	20500	3700	2.2
	16	39.7	60.53	14.3	51.60	19.04	35000	23200	3400	2.5
	16	43.7	64.31	17.5	55.60	22.24	43500	29200	3100	3.5
	16	47.6	73.69	17.5	65.10	25.44	48000	33000	2800	4.3

Self-Lube[®] cast iron flange bearing units with adapter sleeves

MSFT 1000-K Series



Shaft diameter	RHP designation complete unit	Sleeve, nut & lockwasher only	Unit without sleeve, nut & lockwasher	Basic bearing	Casting group insert	Dimensions (mm)		
						L	H	J
mm inches								
20 3/4	MSFT1025-20K MSFT1025-3/4K	H305 HE305-3/4	MSFT1025K	1025	SFT3	68.3	123.8	99.0
25 15/16 1	MSFT1030-25K MSFT1030-15/16K MSFT1030-1K	H306 HE306-15/16 HE306-1	MSFT1030K	1030	1	82.6	141.3	116.5
30 1 1/8 1 3/16	MSFT1035-30K MSFT1035-1 1/8K MSFT1035-1 3/16K	H307 HE307-1 1/8 HE307-1 3/16	MSFT1035K	1035	2	95.5	155.5	130.0
35 1 1/4 1 3/8	MSFT1040-35K MSFT1040-1 1/4K MSFT1040-1 3/8K	H308 HE308-1 1/4 HE308-1 3/8	MSFT1040K	1040	3	101.6	171.4	143.5
40 1 7/16 1 1/2	MSFT1045-40K MSFT1045-1 7/16K MSFT1045-1 1/2K	H309 HE309-1 7/16 HE309-1 1/2	MSFT1045K	1045	4	111.1	179.4	148.5
45 1 11/16 1 3/4	MSFT1050-45K MSFT1050-1 11/16K MSFT1050-1 3/4K	H310 HE310-1 11/16 HE310-1 3/4	MSFT1050K	1050	5	115.9	188.9	157.0
50 1 15/16 2	MSFT1055-50K MSFT1055-1 15/16K MSFT1055-2K	H311 HE311-1 15/16 HE311-2	MSFT1055K	1055	6	127.0	215.9	184.0

Please check availability

	Dimensions (mm)						ISO load ratings		Rec max. speed	Mass (approx.)
	G	A	A4	A5	B5	d4	dynamic Cr newtons	static Cor newtons	rev/min	kg
	10	28.6	11.1	36.5	29.0	38.0	14000	7880	6250	0.9
	10	29.8	12.7	38.0	31.0	45.0	19500	11300	5300	1.1
	12	31.4	12.7	40.5	35.0	52.0	25700	15300	4500	1.4
	12	34.9	12.7	45.0	36.0	58.0	32500	19900	4000	1.9
	16	35.3	14.3	46.5	39.0	65.0	32500	20500	3700	2.2
	16	39.7	14.3	52.0	42.0	70.0	35000	23200	3400	2.5
	16	43.7	17.5	55.5	45.0	75.0	43500	29200	3100	3.5