

Guide to RHP Self-Lube[®]



INTRODUCTION

Housed Bearing Solutions from RHP Self-Lube

A lot of time and technology goes into keeping things simple, and RHP Self-Lube® units are no exception. UK market leader for a generation, the Self-Lube range has benefited from continuous development and innovation, developing unique solutions to help our customers deliver quality, longevity and ease of use.

RHP Self-Lube® housed bearings are ultimately flexible; they are capable of accommodating moderate misalignment and can be adapted to a huge number of applications using a range of inserts, housings and sealing solutions.

The reliability, simplicity and ease of assembly of items in the Self-Lube® range extends to all the variants included in this catalogue:

Silver-Lube® for hygiene environments.

HLT for extremes of temperature.

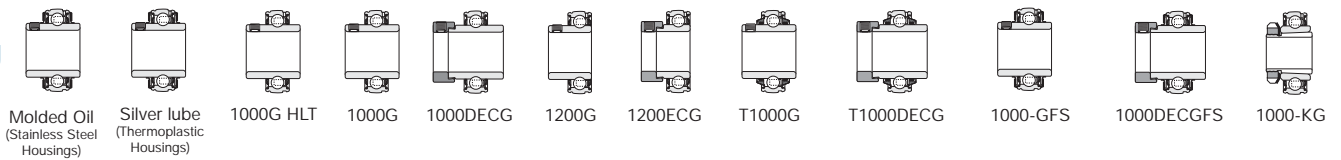
Molded Oil inserts for continuous lubrication.

- Full range of metric and inch sizes.
- Wide range of problem solving solutions.
- Severe environment performance.
- Simple to fit
- Easy to use

Insert Type

Housing Type

cast iron one piece



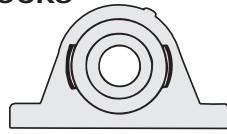
	F-UCPM -DO/LP99	PNP-CR	NP-HLT SL-HLT MP-HLT	NP SL MP	NP-DEC SL-DEC	NP-A SL-A	NP-EC SL-EC	TNP TSL TMP	TNP-DEC TSL-DEC	NP-FS SL-FS MP-FS	NP-DECFS SL-DECFS	NP1000-K MP1000-K
			SNP-HLT CNP-HLT	SNP CNP	SNP-DEC CNP-DEC	SNP-A CNP-A	SNP-EC CNP-EC	TSNP TCNP	TSNP-DEC TCNP-DEC	SNP-FS CNP-FS	SNP-DECFS CNP-DECFS	
		PSF-CR	SF-HLT MSF-HLT	SF MSF	SF-DEC	SF-A	SF-EC	TSF TMSF	TSF-DEC	SF-FS MSF-FS	SF-DECFS	MSF1000-K
	F-UCFM DO/LP99	PSFT-CR	SFT-HLT MSFT-HLT	SFT MSFT	SFT-DEC	SFT-A	SFT-EC	TSFT TMSFT	TSFT-DEC	SFT-FS MSFT-FS	SFT-DECFS	MSFT1000-K
			LFTC-HLT	LFTC	LFTC-DEC	LFTC-A	LFTC-EC	TLFTC	TLFTC-DEC	LFTC-FS	LFTC-DECFS	
			FC-HLT	FC	FC-DEC	FC-A	FC-EC	TFC	TFC-DEC	FC-FS	FC-DECFS	
			MFC-HLT	MFC				TMFC		MFC-FS		
		PST-CR	ST-HLT MST-HLT	ST MST	ST-DEC	ST-A	ST-EC	TST TMST	TST-DEC	ST-FS MST-FS	ST-DECFS	MST1000-K
			BT-HLT	BT		BT-A	BT-EC	TBT		BT-FS		
			SLC-HLT MSC-HLT	SLC MSC	SLC-DEC	SLC-A	SLC-EC	TSLC TMSC	TSLC-DEC	SLC-FS MSC-FS	SLC-DECFS	
			SCHB-HLT SCH-HLT	SCHB SCH				TSCHB TSCH		SCHB-FS SCH-FS		

pressed steel two piece

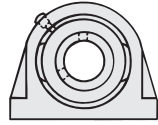
			SLFE-HLT	SLFE	SLFE-DEC	SLFE-A	SLFE-EC	TSLFE	TSLFE-DEC	SLFE-FS	SLFE-DECFS	
			SLFT-HLT	SLFT	SLFT-DEC	SLFT-A	SLFT-EC	TSLFT	TSLFT-DEC	SLFT-FS	SLFT-DECFS	
			SLFL-HLT	SLFL	SLFL-DEC	SLFL-A	SLFL-EC	TSLFL	TSLFL-DEC	SLFL-FS	SLFL-DECFS	
			LPB-HLT LPBR-HLT	LPB LPBR	LPB-DEC LPBR-DEC	LPB-A LPBR-A	LPB-EC LPBR-EC					

STANDARD HOUSINGS

(CAST IRON) Pillow blocks



NP SL MP

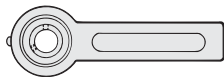


SNP CNP

BORE SIZE RANGE

NP series	Normal duty	12-90 mm	$\frac{1}{2}$ - $3\frac{1}{2}$ in
SL series	Low centre height	12-75 mm	$\frac{1}{2}$ - $2\frac{15}{16}$ in
MP series	Heavier duty	25-100 mm	1-4 in
SNP series	Metric thread	20-60 mm	$\frac{3}{4}$ - $2\frac{7}{16}$ in
CNP series	UNC thread	20-60 mm	$\frac{3}{4}$ - $2\frac{7}{16}$ in

(CAST IRON) Take-up units



BT

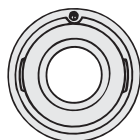


ST MST

BORE SIZE RANGE

ST series	Normal duty	20-85 mm	$\frac{3}{4}$ - $3\frac{7}{16}$ in
MST series	Heavier duty	25-100 mm	1-4 in
BT series	Belt tensioner unit	25-35 mm	$\frac{7}{8}$ - $1\frac{7}{16}$ in
BTH series	Belt tensioner holder without feet		
BTHF series	Belt tensioner holder with feet		

(CAST IRON) Other units



SLC MSC

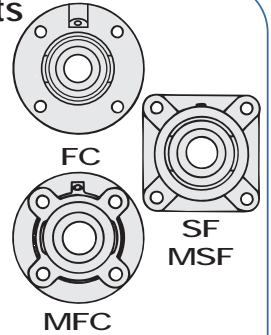


SCHB SCH

BORE SIZE RANGE

SLC series	Normal duty	12-65 mm	$\frac{1}{2}$ - $2\frac{1}{2}$ in
MSC series	Heavier duty	25-100mm	1-4 in
SCHB series	Normal duty BSP thread	20-80 mm	$\frac{3}{4}$ - $3\frac{3}{16}$ in
SCH series	Normal duty Metric thread	20-80 mm	$\frac{3}{4}$ - $3\frac{3}{16}$ in

(CAST IRON) Flange units

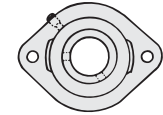


BORE SIZE RANGE

SF series	Normal duty	12-75 mm	$\frac{1}{2}$ -3 in
MSF series	Heavier duty	25-100 mm	1-4 in
FC series	Normal duty, METRIC SPIGOT	20-60 mm	$\frac{3}{4}$ - $2\frac{7}{16}$ in
MFC series	Heavier duty, INCH SPIGOT	25-100 mm	1-4 in



SFT MSFT



LFTC

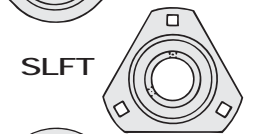
BORE SIZE RANGE

SFT series	Normal duty	12-60 mm	$\frac{1}{2}$ - $2\frac{7}{16}$ in
MSFT series	Heavier duty	25-100 mm	1-4 in
FC series	Normal duty, METRIC SPIGOT	25-55 mm	1- $2\frac{3}{16}$ in

(PRESSED STEEL) units



SLFL



SLFT

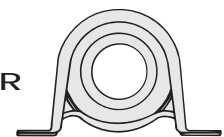


SLFE

BORE SIZE RANGE

SLFE series	Light duty	12-60 mm	$\frac{1}{2}$ - $2\frac{7}{16}$ in
SLFT series	Light duty	25-35 mm	$\frac{7}{16}$ - $1\frac{7}{16}$ in
SLFL series	Light duty	12-40 mm	$\frac{1}{2}$ - $1\frac{1}{2}$ in

LPB LPBR



LPB series	Light duty	12-35 mm	$\frac{1}{2}$ - $1\frac{7}{16}$ in
LPBR series	Light duty	12-30 mm	$\frac{1}{2}$ - $1\frac{1}{4}$ in

The LPBR series has a rubber seating ring between the insert and housing, and is suitable for light applications where noise and vibration are present.

SPECIAL HOUSINGS

SILVER-LUBE® CORROSION RESISTANT HOUSINGS



STAINLESS STEEL

- Grease nipple
- Bolt hole liners
- Set screws
- Flinger
- Seal core
- Bearing rings, cage and balls

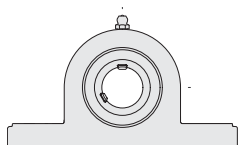
THERMOPLASTIC MOULDED HOUSING

- No coating
- No cracking
- No peeling
- Interchangeable with standard units

WITHSTANDS FREQUENT WASHDOWNS RESISTING

- Corrosion
- Detergents
- Chemicals
- Fungicides

PNP SERIES

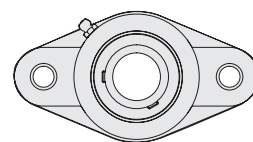


PNP

BORE SIZE RANGE

PNP series 20-40 mm 3/4-1 1/2 in

PSFT SERIES

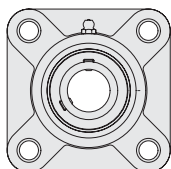


PSFT

BORE SIZE RANGE

PSFT series 20-40 mm 3/4-1 1/2 in

PSF SERIES

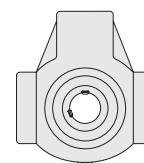


PSF

BORE SIZE RANGE

PSF series 20-40 mm 3/4-1 1/2 in

PST SERIES



PST

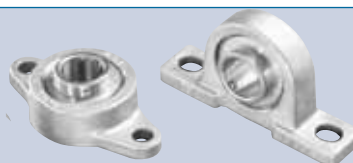
BORE SIZE RANGE

PST series 20-40 mm 3/4-1 1/2 in

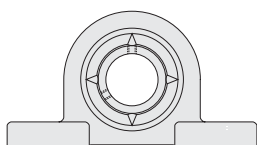
STAINLESS STEEL HOUSINGS

STAINLESS STEEL

- High quality, high strength Stainless Steel Housing
- Fitted with Stainless Steel Molded oil inserts



F-UCPM SERIES

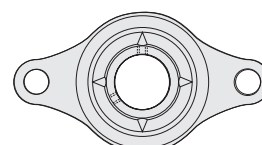


F-UCPM

BORE SIZE RANGE

F-UCPM series 20-50 mm

F-UCFM SERIES



F-UCFM

BORE SIZE RANGE

F-UCFM series 20-50 mm

INSERTS

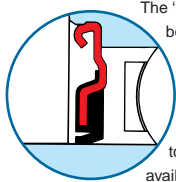


FEATURES

	STD	HLT	SILVER-LUBE®	MOLDED OIL
	<ul style="list-style-type: none"> Established range of premium Self lube bearing inserts. Manufactured from NSK high cleanliness bearing steel giving longer life. Fully relubricatable through housing grease fitting. Spherical seating allows initial misalignment on mounting. <p>1000G</p>	<ul style="list-style-type: none"> Suitable for extreme temperature range -40 to +180 °C. Temperature resistant silicon seals. Optimised internal geometry for temperature range. Range of shaft locking options. <p>1000G HLT</p>	<ul style="list-style-type: none"> Corrosion resistant bearings suitable for industries where optimum hygiene standards are required. Stainless steel bearing components. Approved food grade grease to NSF H1. <p>J1000 GCR</p>	<ul style="list-style-type: none"> Corrosion resistant bearing suitable for industries where optimum hygiene standards are required. Molded oil lubrication system - optimum lubrication held in solid polyolefin matrix. Stainless steel bearing components. Sealed for life - no need to relubricate. <p>F-UC200/LP99</p>
SEALING	High performance single lip seal in Nitrile rubber.	High performance single lip seal in Silicon rubber.	Superior single lip seal flinger combination with stainless steel components and Nitrile rubber lip.	Superior single lip seal flinger combination with stainless steel components and Nitrile rubber lip.
SHAFT LOCKING	Complete range of shaft locking arrangements for all the operating environments.	Available in standard set screw locking and Eccentric locking arrangements.	Supplied as standard with stainless steel set screw locking arrangement.	Supplied as standard with stainless steel set screw locking arrangement.
HOUSINGS	Complete range of cast iron housings with relubrication facility, can also be fitted to Thermoplastic and cast stainless steel housings.	Complete range of cast iron housings with relubrication facility. Other housing materials possible depending on operating environment.	Range of Thermoplastic housings as standard. Other housing materials possible depending on operating environment.	Range of corrosion resistant stainless steel housings as standard. Can also be fitted to standard cast iron or Thermoplastic housings.

OPTIONS/ SEALS

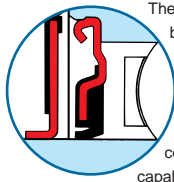
Single lip seal (standard)



The 'S' type seal has a moulded Nitrile lip bonded to a strong steel pressing secured in the bearing outer ring.

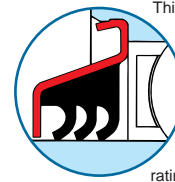
For extremes of temperature, +180°C to -40°C, silicon seals made to the proven 'S' type design are available

Single lip seal flinger seal (standard)



The 'flinger Seal' has a Nitrile moulded lip bonded to a steel former, which is pressed onto the bearing inner ring. This 'extra seal' gives added protection to the standard single lip seal to extend bearing life in arduous conditions without any loss in speed capability

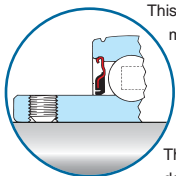
Triple lip seal (standard)



This seal is recommended where a high degree of contamination is present and consists of one piece Nitrile moulding with three sealing lips bonded to a steel pressing. When secured in the outer ring it makes a highly efficient sealing arrangement. There is a restricted speed rating with this seal type

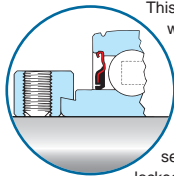
OPTIONS/ LOCKING TYPES

Set screw lock



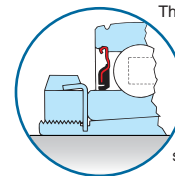
This simple locking system is suitable for most applications except where vibration is a problem. The locking arrangement consists of two knurled-cup point set screws fitted in the extended inner ring. These set screws can be tightened down onto the shaft

Eccentric collar lock



This locking system is often used when vibration is a problem. The locking arrangement consists of an eccentric diameter formed on the extended inner ring of the bearing which engages an eccentric diameter in the bore of a separate collar. The collar is then locked in position on the shaft with a knurled cup-point set screw.

Taper sleeve lock



This locking system is recommended when a positive concentric lock is required or when heavy vibration and/or shock load is present. The locking arrangement consists of a standard taper adaptor sleeve, locknut and lock washer (H300 series).

OTHER OPTIONS

INNER RING LENGTH -





Standard inserts are available in both wide and flat back inner ring lengths depending on customer requirements. 1200G, 1200ECG.

PARALLEL OUTER RINGS -

Standard inserts are available with parallel out side diameters with options on relubrication and circlip facilities for assembly into customers own housings. 1100, 1100DEC, 1300, 1300DEC, 1100CG.

SPECIAL FEATURES

PERFORMANCE RATING: ADEQUATE ● GOOD ●● EXCELLENT ●●●

SEALING		WET	HIGH TEMP	HIGH SPEED	IMPACT	DUST
	Nitrile Single Lip	●	●	●●	●	●
	Single Lip + Flinger	●●	●	●●	●●	●●
	Triple Lip Seal	●●●	●	●	●●●	●●●
	Silicon HLT Single Lip	●	●●●	●●	●	●
	Molded Oil	●●●	●	●	●●	●●●

LUBRICATION	Type	From	To
Standard	Mineral Oil, Lithium Soap	-20	+110°C
HLT	Ester Oil, Polyurea Soap	-40	+180°C
Silver-Lube®	Synthetic Oil, Aluminium Complex Thickener	-20	+90°C
Molded Oil	Mineral Oil in Polyolefin Matrix	-15	+80°C

Cages

Pressed steel rivetted cages are fitted to all inserts. In the case of Silver-lube and Molded oil inserts the cage and rivet material is stainless steel.



Protectors and End Covers

Self-Lube® Protector - for Cast Iron Units

The Self-Lube® Protector has been designed to protect the machine operator from the dangers of rotating shaft ends. It also provides additional protection to the bearing from contamination.

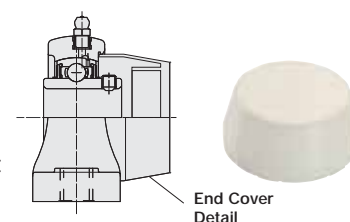
The Protector is made from mild steel coated with enamel for an attractive durable appearance.

The Protector fits easily and securely to most standard cast Self-Lube® units. It is difficult to dislodge. It can be removed without damage and refitted again and again. No special bearings or additional securing devices are required.

Protectors are available for bearing groups 1020, 1025, 1030, 1035, 1040, 1045, 1050, 1055 and 1060.

Silver-Lube® End Cover

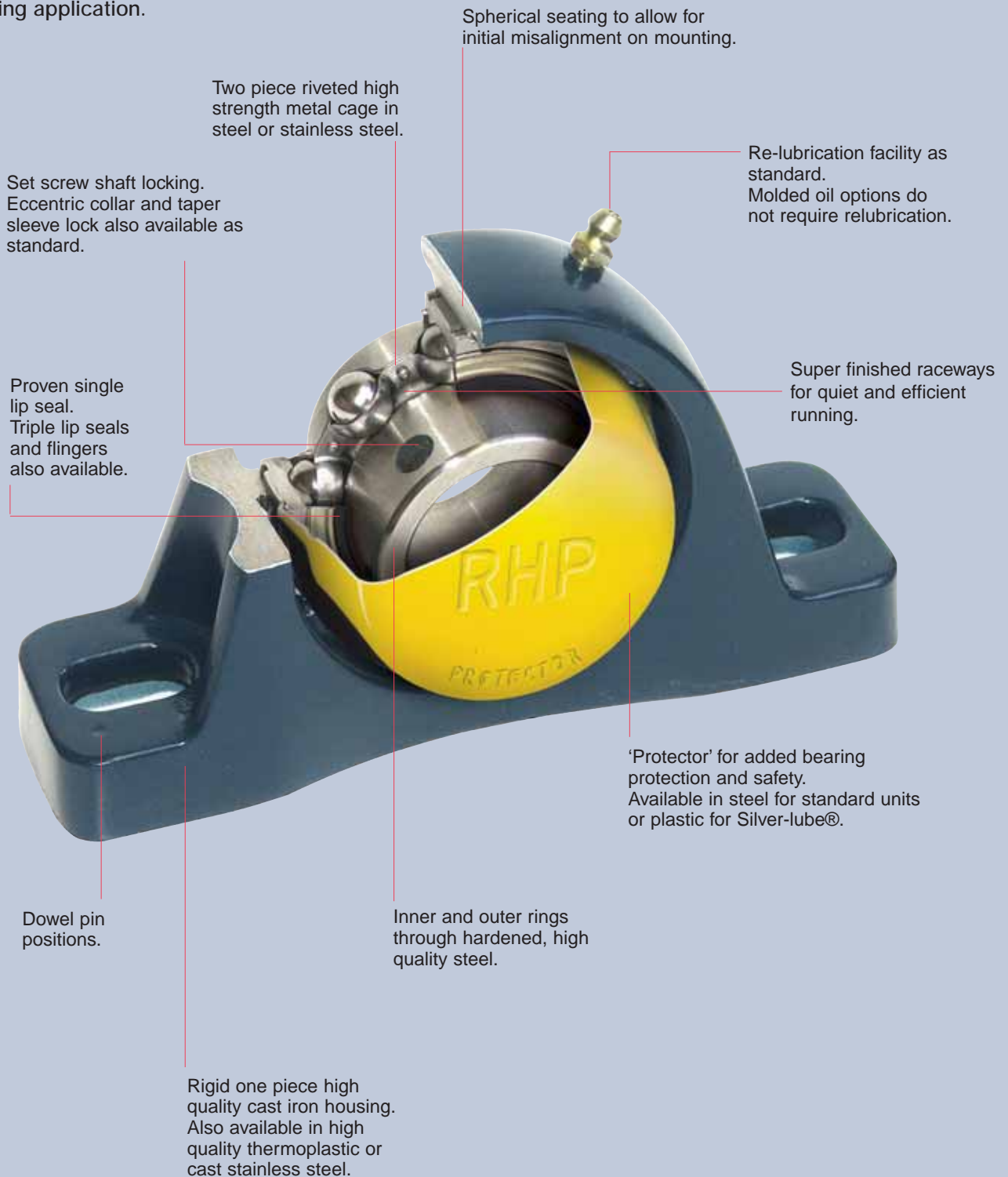
Polypropylene end covers are available to fit all Silver-Lube® housings. End covers can be used at temperatures ranging from -20°C to +90°C. They may be used as additional protection for the bearing in adverse environmental conditions as well as an aid to meeting safety requirements.



SELF-LUBE[®]

Housed Bearing Units

Below is a pillow block unit, but NSK offer a wide range of housed bearing units with various sealing options to suit the bearing application.





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