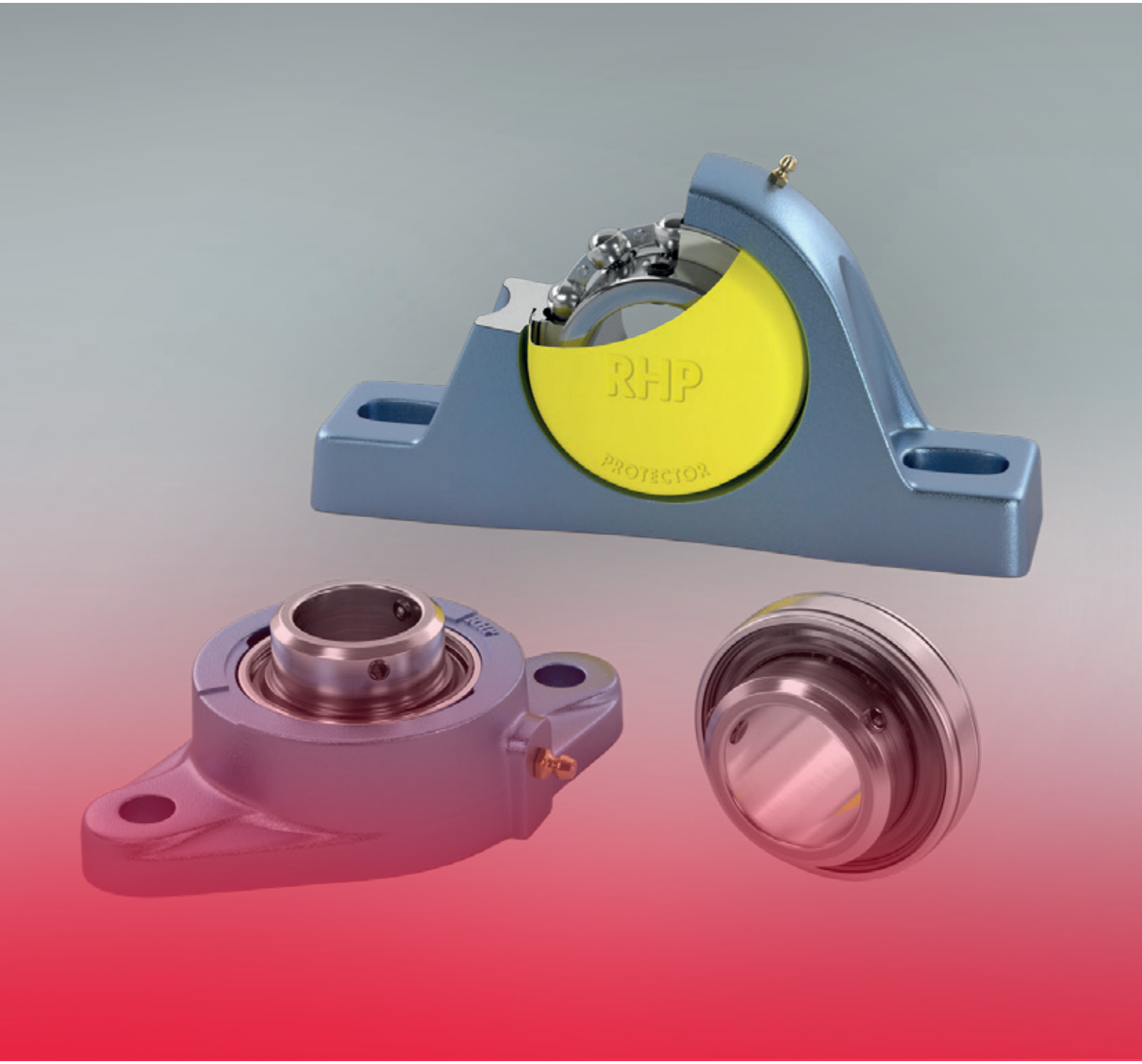
NSK

GUIDE TO RHP SELF-LUBE®

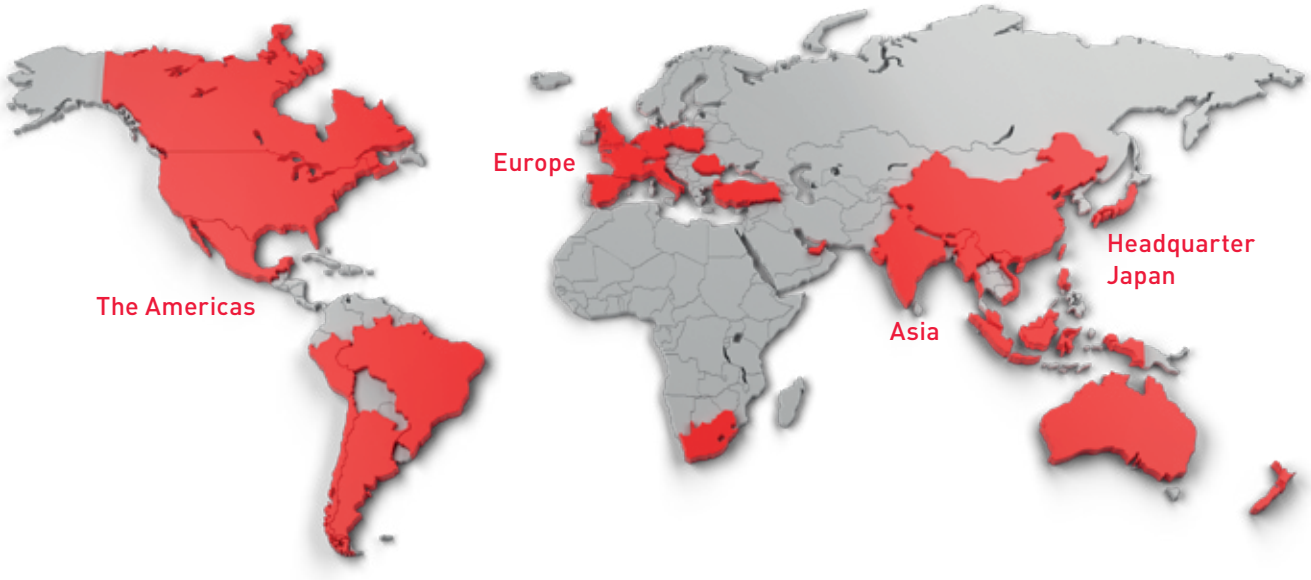


BRANDS OF **NSK EUROPE**

NSK RHP *bearings* PPL

SETTING THE FUTURE IN MOTION

We are among the leading manufacturers for rolling bearings, linear technology components and steering systems worldwide. We can be found on almost every continent – with production facilities, sales offices and technology centres – because our customers appreciate short decision-making channels, prompt deliveries and local service.



The NSK company

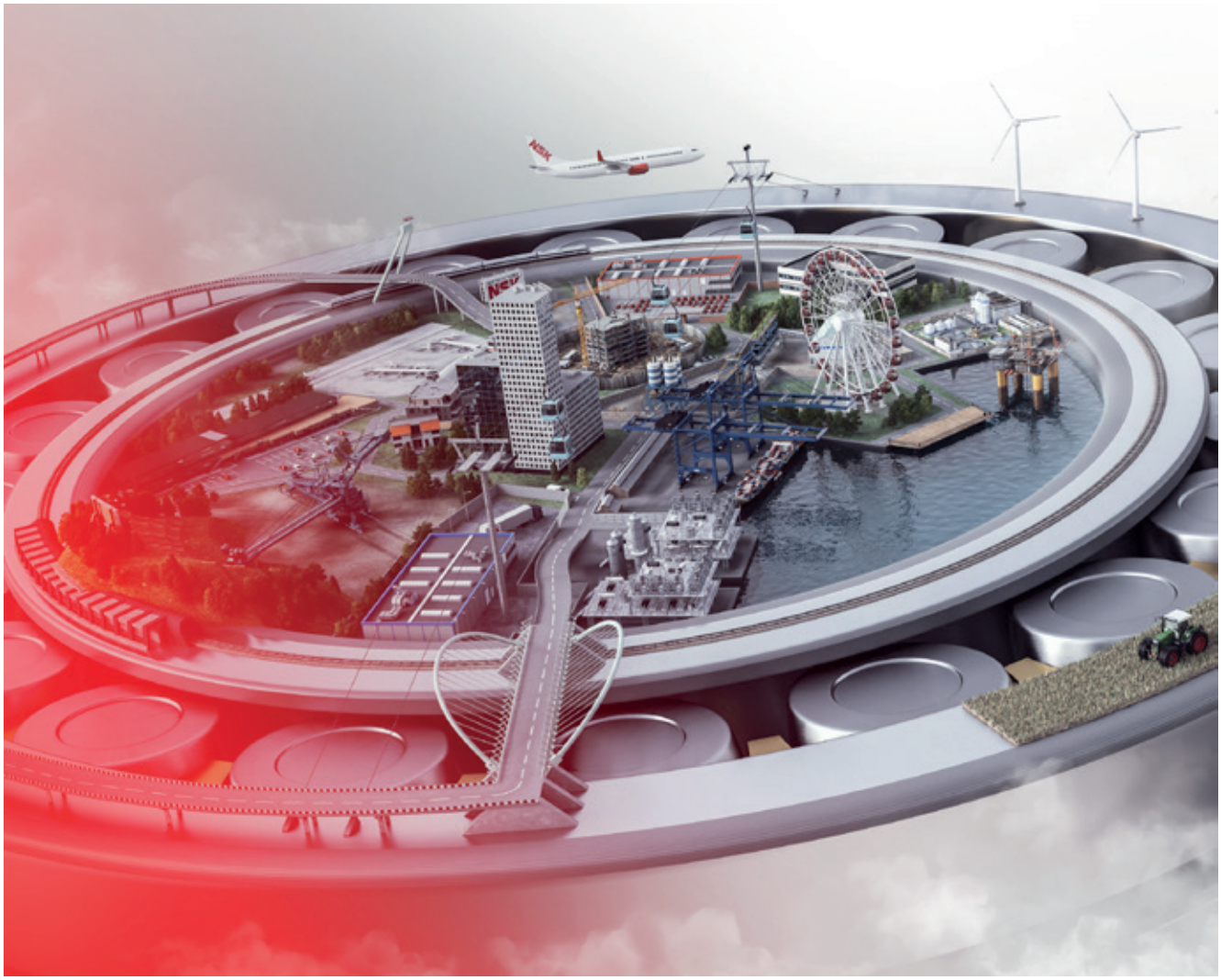
NSK commenced operations as the first Japanese manufacturer of rolling bearings back in 1916. Ever since, we have been continuously expanding and improving not only our product portfolio but also our range of services for various industrial sectors. In this context our worlwide research and production facilities are linked together in a global network. Here we concentrate not only on the development of new technologies, but also on the continuous optimisation of quality – at every process stage. Among other things, our research activities include product design, simulation applications using a variety of analytical systems and the development of different steels and lubricants for rolling bearings.

Trademarks: All NSK product and service names listed in this catalogue are trademarks or registered trademarks of NSK Ltd.

OUR MOST IMPORTANT PRODUCT: OUR CUSTOMERS' SATISFACTION

One thing keeps us moving: we want to help you increase the reliability of your vehicles and equipment, not only with excellent products, but above all with excellent service. Our experienced engineers have a deep understanding of systems – together with you, they work to optimise products and processes and develop solutions for the future. The goal that we are dedicated to every day is ensuring that you remain competitive over the long run.

More about NSK on www.nsk.com/eu-en/

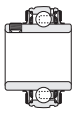
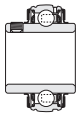
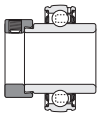


Introduction

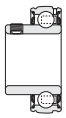
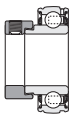
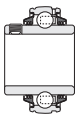
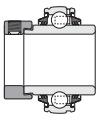
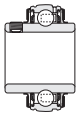
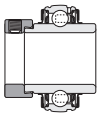
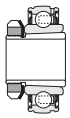
Housed Bearing Solutions from RHP Self-Lube®

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:

Insert Type / Housing Type	 Molded Oil (Stainless Steel Housings)	 Silver lube (Thermoplastic Housings)	 1000G HLT	 1000G	 1000DECG
Cast iron one piece					
	F-UCPM- DO/LP99	PNP-CR	NP-HLT SL-HLT MP-HLT	NP SL MP	NP-DEC SL-DEC
			SNP-HLT CNP-HLT	SNP CNP	SNP-DEC CNP-DEC
		PSF-CR	SF-HLT MSF-HLT	SF MSF	SF-DEC
	F-UCFM DO/LP99	PSFT-CR	SFT-HLT MSF-HLT	SFT MSFT	SFT-DEC
			LFTC-HLT	LFTC	LFTC-DEC
			FC-HLT	FC	FC-DEC
			MFC-HLT	MFC	
		PST-CR	ST-HLT MST-HLT	ST MST	ST-DEC
			BT-HLT	BT	
			SLC-HLT MSC-HLT	SLC MSC	SLC-DEC
			SCHB-HLT SCH-HLT	SCHB SCH	
Pressed steel two piece					
			SLFE-HLT	SLFE	SLFE-DEC
			SLFT-HLT	SLFT	SLFT-DEC
			SLFL-HLT	SLFL	SLFL-DEC
			LPB-HLT LPBR-HLT	LPB LPBR	LPB-DEC LPBR-DEC

- 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 solution
  - Severe environment performance
  - Simple to fit
  - Easy to use

 1200G	 1200ECG	 T1000G	 T1000DECG	 1000-GFS	 1000DECGFS	 1000-KG
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-A CNP-A	SNP-EC CNP-EC	TSNP TCNP	TSNP-DEC TCNP-DEC	SNP-FS CNP-FS	SNP-DECFS CNP-DECFS	
SF-A	SF-EC	TSF TMSFT	TSF-DEC	SF-FS MSF-FS	SF-DECFS	MSF1000-K
SFT-A	SFT-EC	TSFT TMSFT	TSFT-DEC	SFT-FS MSFT-FS	SFT-DECFS	MSFT1000-K
LFTC-A	LFTC-EC	TLFTC	TLFTC-DEC	LFTC-FS	LFTC-DECFS	
FC-A	FC-EC	TFC	TFC-DEC	FC-FS	FC-DECFS	
		TMFC		MFC-FS		
ST-A	ST-EC	TST TMST	TST-DEC	ST-FS MST-FS	ST-DECFS	MST1000-K
BT-A	BT-EC	TBT		BT-FS		
SLC-A	SLC-EC	TSLC TMSC	TSLC-DEC	SLC-FS MSC-FS	SLC-DECFS	
		TSCHB TSCH		SCHB-FS SCH-FS		
SLFE-A	SLFE-EC	TSLFE	TSLFE-DEC	SLFE-FS	SLFE-DECFS	
SLFT-A	SLFT-EC	TSLFT	TSLFT-DEC	SLFT-FS	SLFT-DECFS	
SLFL-A	SLFL-EC	TSLFL	TSLFL-DEC	SLFL-FS	SLFL-DECFS	
LPB-A LPBR-A	LPB-EC LPBR-EC					

Standard Housings

Features

- High Grade cast iron housing
- Designed for exceptional strength
- Extensive range of housing types available
- Well established and proven design

Benefits

- Elimination of housing defects and premature failure
- High strength in all mounting orientations
- Offering comprehensive solutions for a variety of machine designs
- Provides end user with confidence in critical applications

(CAST IRON) Flange units



	Series		Bore size range	
	SF	Normal duty	12-75 mm	½-3"
	MSF	Heavier duty	25-100 mm	1-4"
	FC	Normal duty, METRIC SPIGOT	20-60 mm	¾-2 7/16"
	MFC	Heavier duty, INCH SPIGOT	25-100 mm	1-4"



	Series		Bore size range	
	SFT	Normal duty	12-60 mm	½-2 7/16"
	MSFT	Heavier duty	25-55 mm	1-2 3/16"
	LFTC	Normal duty	12-35 mm	½-1 7/16"

(PRESSED STEEL) units



	Series		Bore size range	
	SLFE	Light duty	12-60 mm	½-2 7/16"
	SLFT	Light duty	25-35 mm	⅞-1 7/16"
	SLFL	Light duty	12-30 mm	½-1¼"
	LPB	Light duty	12-35 mm	½-1 7/16"

(CAST IRON) Pillow blocks



	Series		Bore size range	
	NP	Normal duty	12-90 mm	½-3½"
	SL	Low centre height	12-75 mm	½-2 15/16"
	MP	Heavier duty	25-100 mm	1-4"
	SNP	Metric thread	20-60 mm	¾-2 7/16"
	CNP	UNC thread	20-60 mm	¾-2 7/16"

(CAST IRON) Other units



	Series		Bore size range	
	SLC	Normal duty	12-65 mm	½-2½"
	MSC	Heavier duty	25-100mm	1-4"
	SCHB	Normal duty BSP thread	20-80 mm	¾-3 3/16"
	SCH	Normal duty Metric thread	20-80 mm	¾-3 3/16"

(CAST IRON) Take-up units



	Series		Bore size range	
	ST	Normal duty	20-85 mm	¾-3 7/16"
	MST	Heavier duty	25-100 mm	1-4"
	BT	Belt tensioner unit	25-35 mm	⅞-1 7/16"
	BTH	Belt tensioner holder without feet		
	BTHF	Belt tensioner holder with feet		

Special Housings

Silver-Lube® Corrosion Resistant Housings



Features

- Housings manufactured in PBT thermoplastic resin
- Stainless steel grease nipple & bolt hole liners
- Plastic end covers available

Benefits

- Corrosion resistant, ideal for frequent wash down. Smooth surface resists fungicidal growth and aggregation of food particles
- Corrosion resistant, ideal for frequent wash downs
- Additional protection for the bearing and an aid to safety requirements

PNP



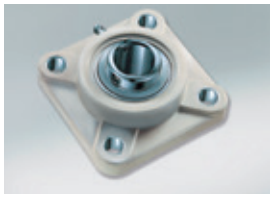
Series	Bore size range	
PNP	20-40 mm	¾-1½"

PSFT



Series	Bore size range	
PSFT	20-40 mm	¾-1½ "

PSF



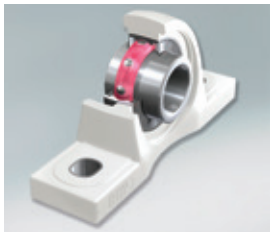
Series	Bore size range	
PSF	20-40 mm	¾-1½"

PST



Series	Bore size range	
PST	20-40 mm	¾-1½"

Life-Lube® Bearing Units



Features

- Housings manufactured in PBT thermoplastic resin
- Fully interchangeable with RHP Self-Lube® units
- Molded-Oil™ inserts manufactured in Martensitic stainless steel with solid lubrication
- Available in NP, SF, SFT and ST equivalents from bore sizes 20 to 40mm (Inserts only up to 50mm)

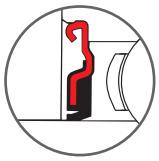
Benefits

- Corrosion resistant, ideal for frequent wash down. Smooth surface resists fungicidal growth and aggregation of food particles
- Easy to retrofit
- Corrosion resistant, resists chemical attack, lubrication will not wash out of the bearing and no need to relubricate
- Offering comprehensive solutions for a variety of machine designs

Inserts

	STANDARD	HLT	Silver-Lube	Molded-Oil™
Features	› Established range of premium Self-lube® bearing inserts. › Manufactured from NSK high cleanliness bearing steel giving longer life. › Fully re-lubricatable through housing grease fitting. › Spherical seating allows initial misalignment on mounting.	› Suitable for extreme temperature range -40 to +180 °C › Temperature resistant silicone seals. › Optimised internal geometry for temperature range. › Range of shaft locking options. › High/low temperature grease.	› Corrosion resistant bearings suitable for industries where optimum hygiene standards are required. › Stainless steel bearing components. › Approved food grade grease to NSF H1.	› 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.
	1000G	**1000G HLT**	**J1000 GCR**	**F-UC200/LP99**
Sealing	High performance single lip seal in Nitrile rubber.	High performance single lip seal in silicone 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 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.	Range of Thermoplastic housings as standard. Inserts can be used in cast iron housings.	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 to -40ºC, silicone seals made to the proven 'S' type design are available.



Single lip seal flinger seal

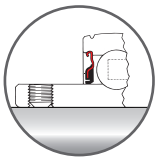
The 'flinger seal' has a nitrile moulded lip bonded to a steel former, which is pressed onto the bearing inner ring. This 'extra seal' gives added protection to the standard single lip seal to extend bearing life in arduous conditions without any loss in speed capability.



Triple lip seal

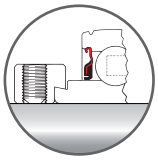
This seal is recommended where a high degree of contamination is present and consists of a one piece nitrile moulding with three sealing lips bonded to a steel pressing. When secured in the outer ring it makes a highly efficient sealing arrangement. There is a restricted speed rating with this seal type.

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 seperate collar. This 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

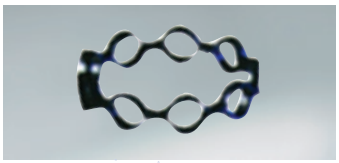
Performance Rating: **Adequate** • **Good** •• **Excellent** •••

	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

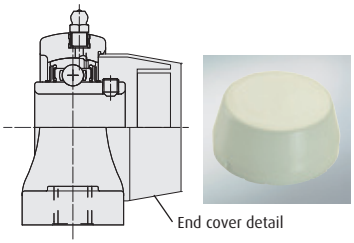
Self-Lube® Protector – for Cast Iron Units

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.



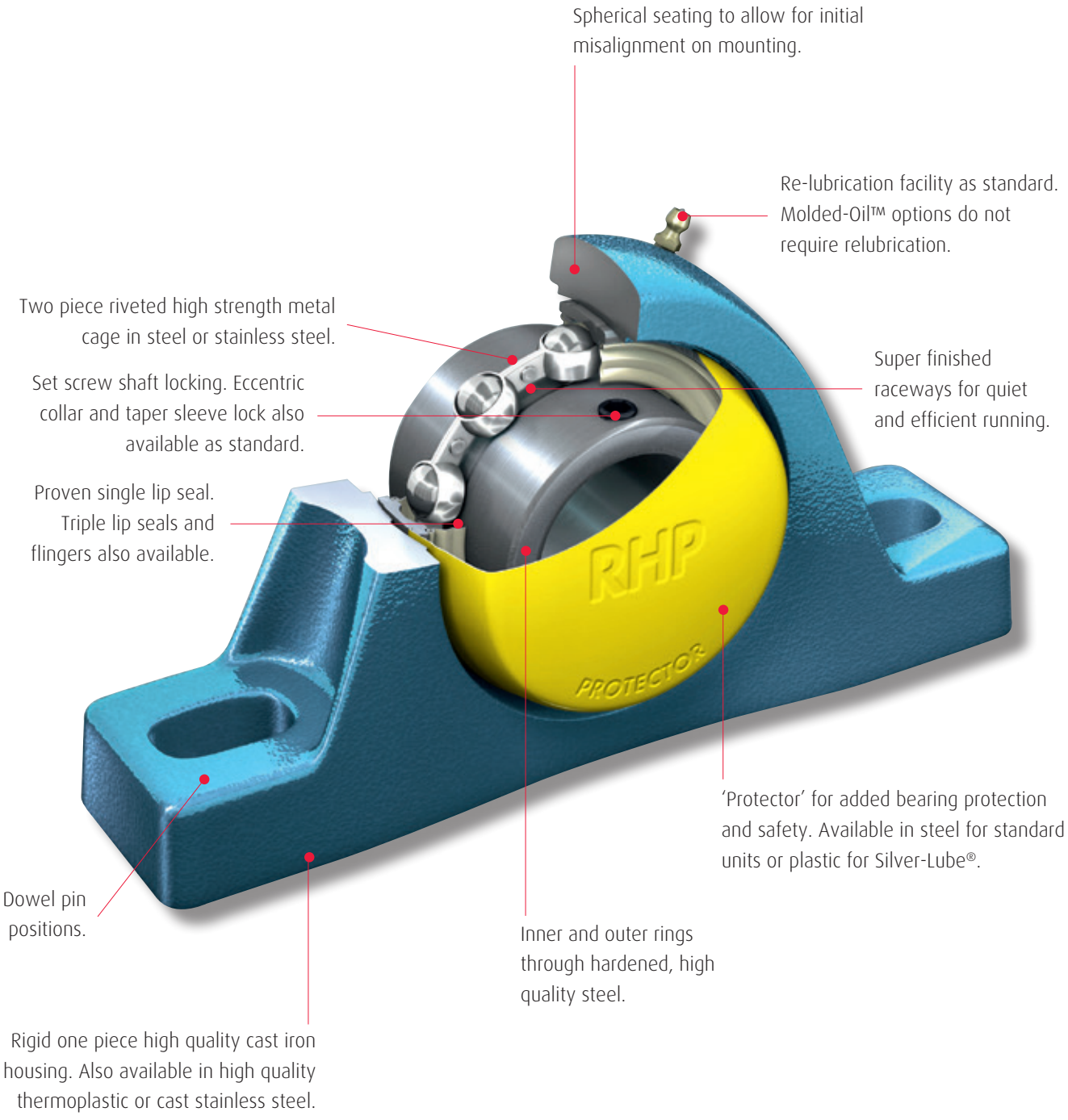
Silver-Lube® End Cover

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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