

SKF bearing housings and roller bearing units

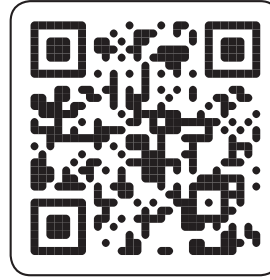


SKF mobile apps

SKF mobile apps are available from both Apple App Store and Google Play. These apps provide useful information and allow you to make critical calculations, providing SKF Knowledge Engineering at your fingertips.

Register your catalogue

You can get updates for this catalogue via email if you register at skf.com/catalogues.



Apple App Store



Google Play

® SKF, CARB, KMT, KMTA, SKF Explorer and SYSTEM 24 are registered trademarks of the SKF Group.

™ Apple is a trademark of Apple Inc., registered in the US and other countries.

Google Play is a trademark of Google Inc.

Superbolt is a registered trademark of the Nord-Lock Group.

© SKF Group 2015

The contents of this catalogue are the copyright of the publisher and may not be reproduced (even extracts) unless permission is granted. Every care has been taken to ensure the accuracy of the information contained in this catalogue but no liability can be accepted for any loss or damage whether direct, indirect or consequential arising out of the use of the information contained herein.

PUB BU/P1 13186/1 EN · February 2015

This catalogue supersedes publication number 13186 EN.

Certain image(s) used under license from Shutterstock.com

Notice

For important updates and changes to this catalogue, go to skf.com/errata

SKF bearing housings and roller bearing units



Unit conversions

Unit conversions					
Quantity	Unit	Conversion			
Length	inch	1 mm	0.03937 in.	1 in.	25,40 mm
	foot	1 m	3.281 ft.	1 ft.	0,3048 m
	yard	1 m	1.094 yd.	1 yd.	0,9144 m
	mile	1 km	0.6214 mi.	1 mi.	1,609 km
Area	square inch	1 mm ²	0.00155 sq-in	1 sq-in	645,16 mm ²
	square foot	1 m ²	10.76 sq-ft	1 sq-ft	0,0929 m ²
Volume	cubic inch	1 cm ³	0.061 cu-in	1 cu-in	16,387 cm ³
	cubic foot	1 m ³	35 cu-ft	1 cu-ft	0,02832 m ³
	imperial gallon	1 l	0.22 gallon	1 gallon	4,5461 l
	US gallon	1 l	0.2642 US gallon	1 US gallon	3,7854 l
Speed, velocity	foot per second	1 m/s	3.28 ft/s	1 ft/s	0,30480 m/s
	mile per hour	1 km/h	0.6214 mph	1 mph	1,609 km/h
Mass	ounce	1 g	0.03527 oz.	1 oz.	28,350 g
	pound	1 kg	2.205 lb.	1 lb.	0,45359 kg
	short ton	1 tonne	1.1023 short ton	1 short ton	0,90719 tonne
	long ton	1 tonne	0.9842 long ton	1 long ton	1,0161 tonne
Density	pound per cubic inch	1 g/cm ³	0.0361 lb/cu-in	1 lb/cu-in	27,680 g/cm ³
Force	pound-force	1 N	0.225 lbf.	1 lbf.	4,4482 N
Pressure, stress	pounds per square inch	1 MPa	145 psi	1 psi	6,8948 × 10 ³ Pa
		1 N/mm ²	145 psi		
		1 bar	14.5 psi	1 psi	0,068948 bar
Moment	pound-force inch	1 Nm	8.85 lbf-in	1 lbf-in	0,113 Nm
Power	foot-pound per second	1 W	0.7376 ft-lbf/s	1 ft-lbf/s	1,3558 W
	horsepower	1 kW	1.36 hp	1 hp	0,736 kW
Temperature	degree	Celsius	t _C = 0.555 (t _F – 32)	Fahrenheit	t _F = 1,8 t _C + 32

Foreword

This catalogue contains the standard assortment of SKF housings and roller bearing units typically used in industrial applications. To provide the highest levels of quality and customer service, these products are available worldwide through SKF sales channels. For information about lead times and deliveries, contact your local SKF representative or SKF Authorized Distributor.

The data in this catalogue reflects SKF's state-of-the-art technology and production capabilities as of 2015. The data contained within may differ from that shown in earlier catalogues because of redesign, technological developments, or revised calculation methods. SKF reserves the right to continually improve its products with respect to materials, design and manufacturing methods, some of which are driven by technological developments.

about mounting and maintenance is provided in the *SKF bearing maintenance handbook* (ISBN 978-91-978966-4-1).

Getting started

This catalogue contains detailed information about all standard SKF metric and inch bearing housings, some application specific housings and SKF roller bearing units. Roller bearing units consist of a housing, a spherical roller bearing, seals and lubricant. These ready-to-mount units can provide a number of advantages when compared to plunger (pillow) block or flanged housings. They are easy and safe to mount and do not require any additional parts.

The first section, which contains general technical information, is designed to help the reader select the best, most effective products for a particular application. In this section, shaft-bearing combinations, sealing solutions and lubrication methods are discussed in detail. Installation and maintenance information is also included. More practical information

Foreword

The latest developments

The latest innovations within the area of SKF bearing housings include:

SE series housings – new housings in accordance with ISO 113

SE plummer block housings supersede SNL plummer block housings in the 2, 3, 5 and 6 series, and are available in corresponding sizes, from size 507 up to 515-612. From size 516-613, SNL plummer block housings in the 2, 3, 5 and 6 series remains.



SE series housing

SED series housings – largest housings in the standard range

Split housings for bearings with shaft diameters from 430 mm up to 900 mm were typically not standard. A new design concept makes it possible to supply these exceptionally large housings as standard (→ *Split plummer block housings – SED 30, 31, 32 and 39 series, page 331*).



SED series housing

Housings for sealed spherical roller bearings

Sealed spherical roller bearings have been proven to enhance reliability under arduous operating conditions. Consequently, the SKF bearing housing assortment includes housings for these bearings.

Roller bearing units with SKF ConCentra locking technology

Like bearing units with a locking collar, SKF ConCentra roller bearing units are simple and safe to install. The unique SKF ConCentra locking technology provides a truly concentric fit on the shaft, which virtually eliminates fretting corrosion. These units provide the same running accuracy as housing assemblies with sleeve-mounted bearings. (→ *Metric roller bearing units – SYNT and FYNT series, page 659* or *Inch roller bearing units – SYE, SYR, FYE and FYR series, page 691*).



Roller bearing unit with SKF ConCentra locking technology

Foreword

Identify products

Product designations for SKF bearing housings typically contain information about the housing and additional features. To specify a housing or to find more information about an existing SKF housing, SKF product designations can be found in:

- Product index
The product index at the end of the catalogue lists series designations and relates them to the relevant product chapter and product table.
- Designation charts
Charts in each product chapter provide an overview of commonly used designation prefixes and suffixes.

Units of measurement

This catalogue is for global use. Therefore, the predominant units of measurement are in accordance with ISO 80000-1. Imperial units are used whenever necessary. Unit conversions can be made using the conversion table (→ page 10).
For easier use, temperature values are provided in both, °C and °F. Temperature values are typically rounded. Therefore, the two values do not always match according to the conversion formula.

Series designation	Product
SNL 5.....	Plummer block housings for bearings on an adapter
SNL 5.....	Plummer block housings for bearings on an adapter
SNL 5.....	Plummer block housings for bearings on an adapter
SNL 6.....	Plummer block housings for bearings on an adapter
SNL 6.....	Plummer block housings for bearings on an adapter
SNLN 30.....	Plummer block housings for bearings on an adapter
SNLN 30.....	Plummer block housings for bearings on an adapter
SOFN	→ Split plummer block housings – SONL series
SONL	Plummer block housings for bearings on an adapter
SONL	Plummer block housings for bearings on an adapter
SONL	Plummer block housings for bearings on an adapter
SYE .. N.....	Inch roller bearings
SYNT	SKF

The product index makes finding information based on a bearing's designation easy.

Designations	
Designation system for SNLN 30 plummer block housings	
Prefix for bolt holes	
-	Two oblong cast holes for attachment bolts
S	No holes for attachment bolts (only for housings made of spheroidal graphite cast iron)
Series	
SNLN	Standard plummer block housing
Material	
-	Grey cast iron
D	Spheroidal graphite cast iron
Size identification	
30(00)	Housings for bearings in the 30 (or 40) dimension series
(00)	Size code of the bearing, (00) x 5 = bearing bore diameter [mm]
Suffixes	
V	Graded
T	Graded

Designation chart to decode housing designations

More SKF housings and units

Application specific housings

The SKF design and manufacturing capabilities for bearing housings are not limited to the products described in this catalogue. SKF has supplied bearing and housing solutions for various applications including:

- main shaft support for wind turbines
- rudder or drive shaft support for ships
- rail bound vehicles
- moveable bridges
- housings for split bearings
- housings for converters in steel making

Customized housings

SKF can design custom housings using state-of-the-art finite element analysis. Prior to prototyping, SKF engineers can add their bearing, and seal expertise and confirm the integrity of the system on a virtual test rig. SKF housing manufacturing facilities are able to produce bearing housings for nearly all SKF rolling bearings.

Y-bearing units

Y-bearing units consist of a housing, a deep groove ball bearing, seals or shields and grease. These ready to mount units are available in a variety of shapes and sizes. For additional information about these products, visit skf.com/bearings.

Previous housing series

Some housing series are no longer available and are not listed in this catalogue. If replacement parts are required, especially for housings in the SOFN or SDG series, contact SKF.

This is SKF

From one simple but inspired solution to a misalignment problem in a textile mill in Sweden, and fifteen employees in 1907, SKF has grown to become a global industrial knowledge leader. Over the years, we have built on our expertise in bearings, extending it to seals, mechatronics, services and lubrication systems. Our knowledge network includes 46 000 employees, 15 000 distributor partners, offices in more than 130 countries, and a growing number of SKF Solution Factory sites around the world.



Research and development

We have hands-on experience in over forty industries based on our employees' knowledge of real life conditions. In addition, our world-leading experts and university partners pioneer advanced theoretical research and development in areas including tribology, condition monitoring, asset management and bearing life theory. Our ongoing commitment to research and development helps us keep our customers at the forefront of their industries.



SKF Solution Factory makes SKF knowledge and manufacturing expertise available locally to provide unique solutions and services to our customers.

Meeting the toughest challenges

Our network of knowledge and experience, along with our understanding of how our core technologies can be combined, helps us create innovative solutions that meet the toughest of challenges. We work closely with our customers throughout the asset life cycle, helping them to profitably and responsibly grow their businesses.

Working for a sustainable future

Since 2005, SKF has worked to reduce the negative environmental impact from our operations and those of our suppliers. Our continuing technology development resulted in the introduction of the SKF BeyondZero portfolio of products and services which improve efficiency and reduce energy losses, as well as enable new technologies harnessing wind, solar and ocean power. This combined approach helps reduce the environmental impact both in our operations and our customers' operations.



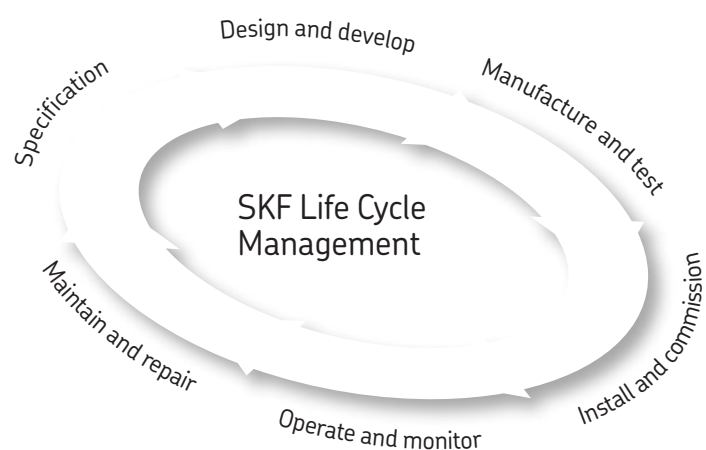
Working with SKF IT and logistics systems and application experts, SKF Authorized Distributors deliver a valuable mix of product and application knowledge to customers worldwide.



SKF – the knowledge engineering company

Our knowledge – your success

SKF Life Cycle Management is how we combine our technology platforms and advanced services, and apply them at each stage of the asset life cycle, to help our customers to be more successful, sustainable and profitable.



Working closely with you

Our objective is to help our customers improve productivity, minimize maintenance, achieve higher energy and resource efficiency, and optimize designs for long service life and reliability.

Innovative solutions

Whether the application is linear or rotary or a combination, SKF engineers can work with you at each stage of the asset life cycle to improve machine performance by looking at the entire

application. This approach doesn't just focus on individual components like bearings or seals. It looks at the whole application to see how each component interacts with each other.

Design optimization and verification

SKF can work with you to optimize current or new designs with proprietary 3-D modelling software that can also be used as a virtual test rig to confirm the integrity of the design.



Bearings

SKF is the world leader in the design, development and manufacture of high performance rolling bearings, plain bearings, bearing units and housings.



Machinery maintenance

Condition monitoring technologies and maintenance services from SKF can help minimize unplanned downtime, improve operational efficiency and reduce maintenance costs.



Sealing solutions

SKF offers standard seals and custom engineered sealing solutions to increase uptime, improve machine reliability, reduce friction and power losses, and extend lubricant life.



Mechatronics

SKF fly-by-wire systems for aircraft and drive-by-wire systems for off-road, agricultural and forklift applications replace heavy, grease or oil consuming mechanical and hydraulic systems.



Lubrication solutions

From specialized lubricants to state-of-the-art lubrication systems and lubrication management services, lubrication solutions from SKF can help to reduce lubrication related downtime and lubricant consumption.



Actuation and motion control

With a wide assortment of products – from actuators and ball screws to profile rail guides – SKF can work with you to solve your most pressing linear system challenges.

