INNOVATION DRIVING YOUR PRODUCTION

Movement is constantly changing. It is analysed, brought under control, guided and mastered with the aim of deriving maximum benefit. It is more than a simple concept. It is the very essence of our commitment, namely designing and innovating to deliver the perfect solutions to the issues and constraints of today and tomorrow.

There are thousands of us around the world masterminding and developing solutions to raise the bar on your production performance. Our world-leading brands (NTN, BCA, BOWER and SNR) are marketed worldwide and deliver the best-fit solutions for working together and building a more environmentally-friendly society. Follow our lead and use interaction, anticipation and adaptation as the keys to guiding and shaping the future of the manufacturing, automotive and aviation markets.

5,4 BILLION €
in revenue in 2019

24 199
employees in 2019

The local service of an international partner

118
sales offices

73
production sites

15
R&D centres
**CAST IRON HOUSINGS WITH CHROME STEEL BEARING INSERTS**

- **Pillow blocks**
  - PE2
  - UCPE2, USPE2, EXPE2, ESPE2, LKPE2+H, UKPE2+H
- **Flanged units**
  - FE2
  - UCFE2, USFE2, EXFE2, ESFE2, LKFE2+H, UKFE2+H
- **Cardridge units**
  - T2 / T3
  - UC2 / UC3, US2, EX2 / EX3, ES2, LK2 / LK3

**RESSED STEEL HOUSINGS WITH CHROME STEEL BEARING INSERTS**

- **Pillow blocks**
  - PP2
  - USPP2, ESPP2
- **Flanged units**
  - FP2
  - USFP2, ESPFP2
- **Cardridge units**
  - TP2+WB
  - USTP2+WB, ESPTP2+WB, LKTP2+H+WB, UKTP2+H+WB

**STAINLESS STEEL HOUSINGS WITH STAINLESS STEEL BEARING INSERTS**

- **Pillow blocks**
  - PS2
  - USSPS2, ESPS2
- **Flanged units**
  - FS2
  - USSFS2, ESPFS2
- **Cardridge units**
  - TF2
  - USSTF2, ESPTF2, LKTF2+H, UKTF2+H

**THERMOPLASTIC HOUSINGS WITH STAINLESS STEEL BEARING INSERTS**

- **Pillow blocks**
  - PF2
  - USSPF2, EPSPF2
- **Flanged units**
  - FP2
  - USSFP2, EPSFP2
- **Cardridge units**
  - FF2
  - USSFF2, EPSFF2

---

* The protective covers are fixed in housing grooves. For units that are to be fitted with protective covers, housings with suffix N must be ordered. Units already ordered with cover(s) are automatically delivered with grooved housings.
** LUBSOLID® filling
SELF-ALIGNING BEARING UNITS

Accessible quality

www.ntn-snr.com

With You
GENERAL INFORMATION

OUR BEARING UNITS: INGENIOUSLY SIMPLE

A bearing unit consists of a ball bearing insert and a housing. The two components can easily be assembled together due to their spherically shaped bearing seats. The bearing inserts are angularly movable and compensate for slight static misalignment of the shaft.

Swivelling or tumbling motion must not act in dynamic operation.

G2 SYSTEM: THE UNIVERSAL SNR BEARING INSERT

All ball bearing inserts with suffix G2 are equipped with four lubrication bores in two planes. This re-lubrication system allows reversed installation of inserts and can thus be used in either housing designs produced according to the JIS and ISO standard.

This system significantly increases flexibility, especially for those who prefer to keep single components in stock and pair them together when needed. This is a cost effective option, using fewer part numbers and saving warehouse space.

EUROPEAN ISO VERSUS ASIAN JIS SERIES

The JIS and ISO manufactured bearing units only vary slightly in their dimensions. Some housing designs also have minor differences in shape. However, the typical distinguishing feature is the arrangement of the lubrication groove on the bearing seat of the housing. Therefore, all SNR bearing inserts are equipped with G2 system to enable relubrication in both housing designs!
SNR SELF-ALIGNING BEARING UNITS

ACCESSIBLE QUALITY!

Whether universal or industry-specific, the SNR range of self-aligning bearing units offers many solutions for bearing arrangements in industrial applications.

The portfolio comprises more than 40,000 different part numbers. Due to their uncomplicated design, the bearing units can be mounted without special technical expertise. The simple mounting and low-maintenance operation ensure an economical rolling bearing solution.

Housings in the SNR range are available in a variety of materials: cast iron, pressed steel, stainless steel and thermoplastic. All single-piece housings are supplied with a re-greasing system to provide for lubrication of the bearing inserts.

However, in many applications re-lubrication is not necessary due to inserts being based on greased for life deep groove ball bearings of series 62 and 63.

YOUR BENEFITS WITH SNR BEARING UNITS AT A GLANCE:

ONE STOP SHOP FOR ALL YOUR BEARING UNIT NEEDS

• Save time and money
• Find everything that you need in our comprehensive range of quality products from JIS and ISO ranges

IMPROVE YOUR REACTIVITY THANKS TO SHORT LEAD TIMES

• Control emergency situations
• A high level of product availability in our European Distribution Centre allows you to manage all situations

OPTIMISE THE OUTPUT OF YOUR MACHINES WITH OUR COMPLETE PRODUCT EXPERTISE

• Define the best suitable bearing unit combinations
• Benefit from the advice of our highly skilled engineering team for your specific applications

For more technical data, flash the QR CODES
ANSWER EACH OF YOUR APPLICATION NEEDS

Offering exceptional value for money, the SNR bearing unit range provides solutions for a wide field of applications such as: farming machinery, food-processing, material handling, packaging machines, wood industry and many others.

NTN-SNR provides you all the products needed for each step of your production.

The majority of our products are available from stock.
## CONTENTS

### BEARING UNITS
- CAST IRON 8
- PRESSED STEEL 11
- STAINLESS STEEL 12
- THERMOPLASTIC 14

### BALL BEARING INSERTS WITH SHAFT FASTENING
- SET SCREW TYPE 16
- ECCENTRIC LOCKING COLLAR TYPE 18
- ADAPTER SLEEVE TYPE 20
- INTERFERENCE FIT TYPE 20

### SEALING SOLUTIONS
21

### LUBSOLID® BEARING INSERTS
22

### AGR BEARING INSERTS
23

### PROTECTIVE COVERS
24

### PROTECTIVE CAPS
- FOR BEARING UNITS FROM CAST IRON 25
- FOR BEARING UNITS FROM THERMOPLASTIC 25

### SUFFIX & PREFIX
26

### OTHER MOUNTED UNITS
- BEARING HOUSINGS WITH GREASE LUBRICATION 27
- BEARING HOUSINGS WITH OIL LUBRICATION 28
BENEFITS

QUALITY, VALUE AND PERFORMANCE

- Optimized design
- Cost efficiency orientation

FULL RANGE OF OPTIONS TO SATISFY YOUR NEEDS

- The width of the range with its multiple possibilities will make you find the most appropriate solution for your needs

QUICK DELIVERY TO FIT YOUR REQUIREMENTS

- Popular range available from our European stock

TECHNICAL CHARACTERISTICS

- Housings made of quality cast iron
- Multiple housing shapes: Pillow blocks, flanged units, tensioner, hanger and cartridge units
- Available from shaft diameter 12 – 140 mm / ½ - 3 15/16 inch
- Equipped with universal inserts (G2 system design - see page 4)
- JIS & ISO ranges available
- Relubrication facilities on all housings as standard
- Painted housings with excellent anti-corrosion properties

SPECIFIC FEATURES

- Rigid protective covers from stainless steel available for many bearing units (bore code 201-213)
- Adapter sleeve included for tapered bore bearing units with insert series UK2..G2H, UK3..G2H and LK2..G2H
- Heavy duty series 300 available from stock
CAST IRON BEARING UNITS FOR VARIOUS INDUSTRIES

DESIGNATIONS

CAST IRON SERIES

**BEARING INSERT**

**UC..G2**: Chrome steel bearing insert with shaft fastening with socket set screws, wide design

**US..G2**: Chrome steel bearing insert with shaft fastening with socket set screws, narrow design

**EX..G2**: Chrome steel bearing insert with shaft fastening with eccentric locking collar, wide design

**ES..G2**: Chrome steel bearing insert with shaft fastening with eccentric locking collar, narrow design

**UK..G2H**: Chrome steel bearing insert with shaft fastening with adapter sleeve, wide design

**LK..G2H**: Chrome steel bearing insert with shaft fastening with adapter sleeve, narrow design

**CS**: Chrome steel bearing insert with shaft fastening with interference fit

**HOUSING**

**PE**
- Pillow block regular design

**PLE**
- Pillow block high design

**P**
- Tap base pillow block

**PH**
- Four-bolt flange, square design

**F**
- Four-bolt flange with centering rim, round design

**FCE**
- Three-bolt flange, triangular design

**FAE**
- Two-bolt Flange, oval design

**FA**
- Two-bolt flange with centering rim, oval design

**FLZ**
- Two-bolt flange with centering rim, oval design

**FD**
- Two-bolt flange, oval narrow design

**FAE**
- Two-bolt flange with long hole for shaft adjustment, oval design

**FS**
- Four-bolt flange with centering rim, square design

**T**
- Take-up unit

**T+WB**
- Take-up unit with frame

**SP**
- Tensioner unit

**C**
- Cartridge unit

**EHE**
- Hanger unit

**BORE CODE**

**Series 200**
- 201 to 218 (bore: Ø 12 – 90 mm)

**Series 300**
- 305 to 328 (bore: Ø 20 – 140 mm)

**PROTECTIVE COVER**

For use with UC, US, UK, LK, CS

**SCO**: open cover

**SCC**: closed cover

For use with EX, ES

**SCOE**: open cover

**SCCE**: closed cover

Housing prepared for cover installation: **N**

⚠️ The protective covers are fixed in housing grooves. For units that are to be fitted with protective covers, housings with suffix N must be ordered. Units already ordered with cover(s) are automatically delivered with grooved housings.
**USAGE EXAMPLES**

**CONVEYOR SYSTEMS**

**BEARING UNIT CHARACTERISTICS:**
- Installation-friendly design
- Low maintenance requirements
- Ideally suited in conveyor systems for rollers, idler and pulleys
- Work imperceptibly and trouble-free to guarantee the operational function in every facility and all environments

**TYPICAL SPECIFICATIONS TO BEARING UNITS IN CONVEYOR SYSTEMS:**
- Fast tensioning and release system for rollers
  - Tensioner units with welded frame T200 + WB, SP + SPR, FA200 and FAE200 with slotted hole
- Injury prevention against turning shaft ends
  - Installation of protective cap PCC (closed) or PCO (open)
- Small installation space
  - FD series with narrow set screw bearing insert US..G2 or eccentric locking collar type ES..G2
- Designed for higher loads
  - Series 300 available as pillow block, flange or tensioner unit
- Protection against impacts, dust and humidity
  - Bearing units with protective covers SCC (closed) or SCO (open), Bearing inserts with AGR or L4 seal system
- Change of rotation direction or high rotation speeds
  - Bearing inserts with adapter sleeve type UK..G2H or LK..G2H or bearing insert type CS with interference fit

**AGRICULTURE**

**BEARING UNIT CHARACTERISTICS:**
- User-friendly design
- Service-free operation
- Ability to compensate static shaft misalignment

To move objects from one location to another, conveyor systems work in many industrial applications.

The SNR range of bearing units is under continuous development. For decades, NTN-SNR is working with outstanding partners in the farming industry.

**TYPICAL REFERENCES FOR FARMING MACHINERY:**

<table>
<thead>
<tr>
<th>References</th>
<th>d</th>
<th>L</th>
<th>J</th>
<th>Seal type</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXFE308A05AGR</td>
<td>40.000</td>
<td>130.000</td>
<td>101.500</td>
<td>AGR</td>
</tr>
<tr>
<td>EXPAE206L3</td>
<td>30.000</td>
<td>98.000</td>
<td>76.200</td>
<td>L3</td>
</tr>
<tr>
<td>EXPAE208L3</td>
<td>40.000</td>
<td>116.000</td>
<td>88.900</td>
<td>L3</td>
</tr>
<tr>
<td>UCFE309A05AGR</td>
<td>40.000</td>
<td>130.000</td>
<td>101.500</td>
<td>AGR</td>
</tr>
<tr>
<td>UCF209AGRLP</td>
<td>40.000</td>
<td>130.000</td>
<td>102.000</td>
<td>AGR</td>
</tr>
<tr>
<td>D-UCF210A10AGR</td>
<td>50.000</td>
<td>143.000</td>
<td>111.000</td>
<td>AGR</td>
</tr>
<tr>
<td>D-UCF212A10AGR</td>
<td>60.000</td>
<td>175.000</td>
<td>143.000</td>
<td>AGR</td>
</tr>
<tr>
<td>UCF212AGR</td>
<td>60.000</td>
<td>175.000</td>
<td>143.000</td>
<td>AGR</td>
</tr>
<tr>
<td>UCFC212L3</td>
<td>60.000</td>
<td>175.000</td>
<td>143.000</td>
<td>L3</td>
</tr>
<tr>
<td>XUCFE308A05B168</td>
<td>40.000</td>
<td>130.000</td>
<td>101.500</td>
<td>AGR</td>
</tr>
<tr>
<td>XUCFE308B01B169</td>
<td>40.000</td>
<td>130.000</td>
<td>101.500</td>
<td>AGR + L4</td>
</tr>
</tbody>
</table>
BENEFITS

BEST ECONOMICAL SOLUTION FOR LIGHTWEIGHT CONSTRUCTIONS

- Particularly used in applications where weight is a major constraint

TECHNICAL CHARACTERISTICS

- Two-piece housing made from zinc coated sheet steel
- Available as pillow block, flanged or take-up unit
- Equipped with universal inserts (G2 system design - see page 4)
- Suitable for narrow ball bearing inserts set screw type US..G2, eccentric locking collar type ES..G2 and type CS with interference fit
- Made for low to moderate loads & speeds

DESIGNATIONS

PRESSED STEEL SERIES

- **US**
  - BEARING INSERT: US..G2: Chrome steel bearing insert with shaft fastening with socket set screws, narrow design
  - HOUSING: PP: Pillow block
  - BORE CODE: 201 to 212 (bore: Ø 12 – 60 mm)

- **PFL**
  - BEARING INSERT: ES..G2: Chrome steel bearing insert with shaft fastening with eccentric locking collar, narrow design
  - HOUSING: PF: Three or four-bolt flange, round design
  - BORE CODE: 201 to 212 (bore: Ø 12 – 60 mm)

- **207**
  - BEARING INSERT: CS: Chrome steel bearing insert with shaft fastening with interference fit
  - HOUSING: PFL: Two-bolt flange, oval design
  - BORE CODE: 201 to 212 (bore: Ø 12 – 60 mm)

- **PFE**
  - BEARING INSERT: CS: Chrome steel bearing insert with shaft fastening with interference fit
  - HOUSING: PFT: Three-bolt flange, triangular design
  - BORE CODE: 201 to 212 (bore: Ø 12 – 60 mm)
BENEFITS

PREMIUM LINE
• Optimum performance with a strong focus on protection from oxidation, mould, bacteria and chemical cleaning agents
• High performance lubricant
• High-quality stainless steel
• Relubrication facility on all housings

RESILIENT
• Excellent mount stability and impact resistance
• Recess-free housing contact surface to prevent deposits of the process material
• Designed to withstand aggressive cleaning and corrosive environments
• Open or closed protective covers from stainless steel available for all housings

LESS DOWNTIME MORE PROFITABILITY
• Protective covers for units provide additional protection during high pressure washdown
DESIGNATIONS

STAINLESS STEEL SERIES

SUC    F    206    FG1    CO

BEARING INSERT
SUC: Stainless steel bearing insert with shaft fastening by socket set screw
SES: Stainless steel bearing insert with shaft fastening by eccentric locking collar
SUC..FG1: Stainless steel bearing insert with shaft fastening by socket set screw, LUBSOLID® filling

HOUSING
SP: Pillow block
SPA: Tap base pillow block
SF: Four-bolt flange
SFL: Two-bolt flange
SFB: Three-bolt flange
ST: Take-up

BORE CODE
201 to 212 (bore: Ø 12 – 60 mm)

LUBSOLID®
Only when the unit is equipped with LUBSOLID® bearing insert

PROTECTIVE COVER
For use with SUC
SCC: open covers
SCE: closed covers

For use with SES
SCOE: open covers
SCCE: closed covers

Housing prepared for covers installation: N

TECHNICAL CHARACTERISTICS

• 100% stainless steel resistant to corrosion: will never chip and contaminate the end product
• Food-grade seal with additional slinger (SUC)
• USDA H1 grease fully compliant with FDA regulations
• Shaft fastening by set screw or eccentric locking collar
• Metal cage
• The protective covers are fixed in housing grooves

HIGH PRESSURE WASHING
CLEANING AGENTS
HUMIDITY
HYGIENE STANDARDS
SUITABLE FOR THE USE OF LUBSOLID® BEARING INSERTS

STAINLESS STEEL SERIES

LAVAGE
HAUTE PRESSION
HIGH PRESSURE WASHING
AGENTS
DE NETTOYAGE
CLEANING AGENTS
HUMIDITÉ
NORMES D’HYGIÈNE
HYGIENE STANDARDS
SUITABLE FOR THE USE OF LUBSOLID® BEARING INSERTS

For units that are to be fitted with protective covers, housings with suffix N must be ordered. Units already ordered with cover(s) are automatically delivered with grooved housings.
THERMOPLASTIC BEARING UNITS

BENEFITS

EASY TO CLEAN
- Resistant to numerous chlorine-containing and corrosive cleaning solutions
- Insensitive to bacteria formation
- Recess-free housing contact surface to prevent deposits of the process material
- Protective caps for units to provide additional protection against regular wash downs
- Smooth surfaces

RESILIENT
- Good friction and wear properties
- Mounting holes reinforced with metal bushings
- Equipped with bearing inserts from stainless steel

FOR FOOD-PROCESSING AND RELATED ENVIRONMENTS
TECHNICAL CHARACTERISTICS

- 100% stainless steel bearing inserts resistant to corrosion: will never chip and contaminate the end product
- All metallic components made of high-quality stainless steel
- Food-grade seal with additional slinger
- High performance lubricant according to NSF H1
- Metal cage

SPECIFIC FEATURES

- Relubrication facility on all housings
- Additional protection through open or closed end covers (tool-free installation)
- Can optionally be combined with food-grade solid grease bearing insert

DESIGNATIONS

THERMOPLASTIC SERIES

MUC | PPL | 206

BEARING INSERT

MUC..FD: Stainless steel bearing insert with shaft fastening by socket set screw
SUC..FG1: Stainless steel bearing insert with shaft fastening by socket set screw, LUBSOLID® filling

HOUSING

PPL: Pillow block
TBL: Tap base pillow block
FPL: Four-bolt flange
NFL: Two-bolt flange
FBL: Three-bolt flange

BORE CODE

204 to 208 (bore- Ø 20 – 40 mm)

PROTECTIVE CAP

All housings are equipped with appropriate grooves where caps can snap into place
CV: open cap
CF: closed cap

Protective caps must be ordered separately.
BALL BEARING INSERTS

Available for metric and imperial shafts

SPHERICAL OUTER RING

UC / SUC / MUC / ZUC
with wide inner ring design

US
with narrow inner ring design

CYLINDRICAL OUTER RING

CUC
with wide inner ring design

CUS
with narrow inner ring design

SHAFT FASTENING WITH SET SCREWS

By replacing the set screws, bearing inserts type UC and US can easily be converted into a floating bearing arrangement.

TECHNICAL CHARACTERISTICS

• Easy and quick to install on the shaft
• Suitable for applications with alternating directions of shaft rotation
• Equipped with two self-locking cup point set screws for a safe and secure fastening of the bearing to the shaft
• No special mounting tools required
• For floating bearing arrangements by using optional floating screw SH (available for all bearing units series UC2 and UC3)
# SET SCREW TYPES

<table>
<thead>
<tr>
<th>Bearing insert</th>
<th>Shaft-Ø [mm]</th>
<th>Bearing material</th>
<th>Inner ring design</th>
<th>Seal (on both sides)</th>
<th>Specific characteristics / possible use</th>
</tr>
</thead>
<tbody>
<tr>
<td>UC2..G2 / UC3..G2</td>
<td>12-140</td>
<td>Steel</td>
<td>1-lip seal and slinger</td>
<td>Basic version.</td>
<td></td>
</tr>
<tr>
<td>UC2..G2L3</td>
<td>12-90</td>
<td>Steel</td>
<td>Triple lip seal</td>
<td>For applications in heavily dirt contaminated environments.</td>
<td></td>
</tr>
<tr>
<td>UC2..G2L4</td>
<td>12-50</td>
<td>Steel</td>
<td>Multiple seal system</td>
<td>Zinc-coating, reduced internal clearance, for heavily dirt contaminated environments, moderate torque, corrosion protected.</td>
<td></td>
</tr>
<tr>
<td>UC2..AGR*</td>
<td>30-60</td>
<td>Steel</td>
<td>AGR seal system</td>
<td>Zinc-coating, 90% grease filling, maintenance-free, powerful seal with massive steel protector for heavily polluted applications.</td>
<td></td>
</tr>
<tr>
<td>UC2..G2T04 / UC3..G2T04</td>
<td>12-140</td>
<td>Steel</td>
<td>1-lip seal and slinger</td>
<td>Operating temperature down to -40°C.</td>
<td></td>
</tr>
<tr>
<td>UC2..G2T20</td>
<td>12-90</td>
<td>Steel</td>
<td>Labyrinth seal</td>
<td>Black-oxide-coated, increased internal clearance, for permanent operating temperature up to +200°C.</td>
<td></td>
</tr>
<tr>
<td>US2..G2</td>
<td>12-60</td>
<td>Steel</td>
<td>1-lip seal</td>
<td>Basic version.</td>
<td></td>
</tr>
<tr>
<td>US2..G1N**</td>
<td>25-40</td>
<td>Steel</td>
<td>Operating temperature down to -40°C.</td>
<td>For use with protective caps PCC and PCO.</td>
<td></td>
</tr>
<tr>
<td>US2..G2T04</td>
<td>12-60</td>
<td>Steel</td>
<td>Narrow</td>
<td>Operating temperature down to -40°C.</td>
<td></td>
</tr>
<tr>
<td>US2..G2T20</td>
<td>12-60</td>
<td>Steel</td>
<td>1-lip seal and slinger</td>
<td>Black-oxide-coated, increased internal clearance, for permanent operating temperature up to +200°C.</td>
<td></td>
</tr>
<tr>
<td>SUC2</td>
<td>12-60</td>
<td>Stainless steel</td>
<td>1-lip seal and slinger</td>
<td>Food-grade grease filling, outer ring with anti-rotation pin, approved for the direct contact with foodstuffs.</td>
<td></td>
</tr>
<tr>
<td>SUC2..FG1</td>
<td>20-60</td>
<td>Stainless steel</td>
<td>Wide</td>
<td>LUBSOLID® food-grade grease filling, outer ring with anti-rotation pin, maintenance-free, anti-contamination effect, for the most stringent food safety requirements.</td>
<td></td>
</tr>
<tr>
<td>MUC2..FD</td>
<td>20-40</td>
<td>Stainless steel</td>
<td>Wide</td>
<td>Food-grade grease filling, outer ring with anti-rotation pin, reduced internal clearance, approved for the direct contact with foodstuffs.</td>
<td></td>
</tr>
<tr>
<td>ZUC2..FG</td>
<td>20-40</td>
<td>Stainless steel</td>
<td>1-lip seal and slinger</td>
<td>Zinc-coating, food-grade grease filling, cost-effective alternative for food applications without direct contact to foodstuffs.</td>
<td></td>
</tr>
<tr>
<td>CUC2</td>
<td>20-50</td>
<td>Stainless steel</td>
<td>1-lip seal and slinger</td>
<td>Cylindrical outer ring with snap ring groove for axial fixation, lubrication hole, not for use in standard housings with spherically shaped bearing seat.</td>
<td></td>
</tr>
<tr>
<td>CUS2</td>
<td>20-50</td>
<td>Stainless steel</td>
<td>Narrow</td>
<td>Cylindrical outer ring with snap ring groove for axial fixation, without relubrication facility, not for use in standard housings with spherically shaped bearing seat.</td>
<td></td>
</tr>
</tbody>
</table>

* not for use in all standard housings
** suitable for the installation in ISO flanged-housings
SHAFT FASTENING WITH ECCENTRIC LOCKING COLLAR

Available for metric and imperial shafts

SPHERICAL OUTER RING

EX
with wide inner ring design

ES / SES
with narrow inner ring design

CYLINDRICAL OUTER RING

EX
with wide inner ring design

ES / SES
with narrow inner ring design

TECHNICAL CHARACTERISTICS

• For higher loads in axial direction compared to set screw types
• Particularly easy to fit
• Decreased damage of shaft surface
• Easier to disassemble
• Only suitable for one direction of rotation
# ECCENTRIC LOCKING COLLAR TYPES

<table>
<thead>
<tr>
<th>Bearing Insert</th>
<th>Shaft-Ø [mm]</th>
<th>Bearing material</th>
<th>Inner ring design</th>
<th>Seal (on both sides)</th>
<th>Specific characteristics / possible use</th>
</tr>
</thead>
<tbody>
<tr>
<td>EX2..G2 / EX3..G2</td>
<td>12-140</td>
<td></td>
<td>1-lip seal and slinger</td>
<td>Basic version.</td>
<td></td>
</tr>
<tr>
<td>EX2..G2L3</td>
<td>12-90</td>
<td></td>
<td>Triple lip seal</td>
<td>For applications in heavily dirt contaminated environments.</td>
<td></td>
</tr>
<tr>
<td>EX2..G2L4</td>
<td>12-55</td>
<td>Wide</td>
<td>Multiple seal system</td>
<td>Zinc-coating, reduced internal clearance, for heavily dirt contaminated environments, moderate torque, corrosion protected.</td>
<td></td>
</tr>
<tr>
<td>EX2..AGR*</td>
<td>35-60</td>
<td>Steel</td>
<td>AGR seal system</td>
<td>Zinc-coating, 90% grease filling, maintenance-free, powerful seal with massive steel protector for heavily polluted applications.</td>
<td></td>
</tr>
<tr>
<td>EX2..G2T04 / EX3..G2T04</td>
<td>12-90</td>
<td>Steel</td>
<td>1-lip seal and slinger</td>
<td>Operating temperature down to -40°C.</td>
<td></td>
</tr>
<tr>
<td>EX2..G2T20</td>
<td>12-90</td>
<td></td>
<td>Labyrinth seal</td>
<td>Black-oxide-coated, increased internal clearance, for permanent operating temperature up to +200°C.</td>
<td></td>
</tr>
<tr>
<td>ES2..G2</td>
<td>12-60</td>
<td></td>
<td></td>
<td>Basic version.</td>
<td></td>
</tr>
<tr>
<td>ES2..G2T04</td>
<td>12-60</td>
<td></td>
<td>1-lip seal</td>
<td>Operating temperature down to -40°C.</td>
<td></td>
</tr>
<tr>
<td>ES2..G2T20</td>
<td>12-60</td>
<td>Narrow</td>
<td></td>
<td>Black-oxide-coated, increased internal clearance, for permanent operating temperature up to +200°C.</td>
<td></td>
</tr>
<tr>
<td>ES2..G1N**</td>
<td>15-45</td>
<td>Stainless steel</td>
<td></td>
<td>For use with protective caps PCC and PCO.</td>
<td></td>
</tr>
<tr>
<td>SES2</td>
<td>12-60</td>
<td>Stainless steel</td>
<td></td>
<td>Food-grade grease filling, approved for the direct contact with foodstuffs.</td>
<td></td>
</tr>
<tr>
<td>CEX2</td>
<td>20-50</td>
<td>Steel</td>
<td>1-lip seal and slinger</td>
<td>Cylindrical outer ring with snap ring groove for axial fixation, lubrication hole, not for use in standard housings with spherically shaped bearing seat.</td>
<td></td>
</tr>
<tr>
<td>CES2</td>
<td>20-50</td>
<td>Narrow</td>
<td>1-lip seal</td>
<td>Cylindrical outer ring with snap ring groove for axial fixation, without relubrication facility, not for use in standard housings with spherically shaped bearing seat.</td>
<td></td>
</tr>
</tbody>
</table>

* not for use in all standard housings
** suitable for the installation in ISO flanged-housings
SHAFT FASTENING WITH ADAPTER SLEEVE

UK..H available for metric and imperial shafts
LK..H available for metric shafts

UK..H with wide inner ring design
LK..H with narrow inner ring design

To increase the rotational speed or the running smoothness of a machine, use LK..H. It simply replaces bearing inserts with set screws or eccentric locking collars. Despite using the adapter sleeve, the shaft diameter will not be modified and neither the adjacent construction (shaft and housing).

TECHNICAL CHARACTERISTICS

- Highly suitable for shafts with frequent rotation reversals
- For higher speeds
- No damage of the shaft surface
- Are connected to the shaft concentrically by a force locking connection (particularly quiet in operation)
- Special tool required for correct mounting
- Shaft diameter reduction (only UK..H)

<table>
<thead>
<tr>
<th>Bearing insert</th>
<th>Bearing material</th>
<th>Inner ring design</th>
<th>Seal (on both sides)</th>
<th>Shaft-Ø [mm]</th>
<th>Specific characteristics / possible use</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK2..G2H / UK3..G2H</td>
<td>Steel</td>
<td>Wide</td>
<td>1-lip seal and slinger</td>
<td>20-125</td>
<td>Adapter sleeve type H23 included, increased internal clearance, enable a concentric and force-fit connection of the bearing on the shaft, suited for frequent change of rotation direction and high rotation speeds, smooth running.</td>
</tr>
<tr>
<td>LK2..G2H</td>
<td></td>
<td>Narrow</td>
<td>1-lip seal</td>
<td>20-50</td>
<td>Adapter sleeve included, increased internal clearance, enable a concentric and force-fit connection of the bearing on the shaft, no shaft diameter reduction, suited for frequent change of rotation direction and high rotation speeds, smooth running.</td>
</tr>
</tbody>
</table>

SHAFT FASTENING WITH INTERFERENCE FIT

CS available for metric shafts

CS without inner ring extension

<table>
<thead>
<tr>
<th>Bearing insert</th>
<th>Bearing material</th>
<th>Inner ring design</th>
<th>Seal (on both sides)</th>
<th>Shaft-Ø [mm]</th>
<th>Specific characteristics / possible use</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS2</td>
<td>Steel</td>
<td>Narrow</td>
<td>1-lip seal</td>
<td>12-50</td>
<td>Interference fit, without relubrication facility, suited for high rotational shaft speeds, smooth running.</td>
</tr>
<tr>
<td>Seals for insert bearings</td>
<td>References</td>
<td>Technical characteristics</td>
<td>Benefits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------</td>
<td>--------------------------</td>
<td>----------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One-lip seal</td>
<td>CS</td>
<td>Sheet steel retainer over-moulded with NBR material. Axially preloaded seal lip.</td>
<td>Normal environmental conditions, Medium to high rotation speeds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Triple lip seal</td>
<td>UC..G2L3, UC..G2L3</td>
<td>Zinc-coated sheet retainer with vulcanised triple lip seal. The lips from NBR are axially preloaded and angled outwards. The protective edge of the retainer serves as a safeguard against mechanical impacts.</td>
<td>For medium to heavily polluted environments, Lower rotation speed, Higher friction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple seal system</td>
<td>UC..G2L4</td>
<td>Two zinc-coated steel sheet elements with vulcanised seal lips from NBR. The inner retainer is equipped with a radial seal to the inner ring, while the external slinger has a radial seal to the outer ring. A third seal lip is intermediate and act axially.</td>
<td>For medium to heavily polluted environments, Medium rotation speeds, Lower friction, Suitable for pressure washing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-performance seal system</td>
<td>UC..AGR, UC..AGR</td>
<td>Zinc-coated steel retainer with vulcanised triple lip seal. The lips from NBR are axially preloaded and angled outwards. The triple lip seal is completely covered by a massive steel protector. The zinc-coated impact shield is additionally equipped with a lip seal and strongly secured on a knurled seat.</td>
<td>For extremely polluted environments, Shock resistant, Low rotation speeds, Suitable for high-pressure washing, Higher friction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High temperature non-contact seal</td>
<td>UC..T20, UC..T20</td>
<td>Labyrinth seal from two black-oxide-coated steel sheet slinger in parallel arrangement.</td>
<td>For high temperature use, Very low friction</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**BEARIMG INSERT SERIES**
SUC..FG1
LUBSOLID®

**BENEFITS**

**INCREASE THE PROFITABILITY AND EFFICIENCY OF YOUR MACHINES**
- Up to 20 times longer bearing lifetime
- Higher reliability and maintenance-free operation
- Longer machine operating times: cost savings and productivity gains
- Lower maintenance and material costs

**IMPROVE HYGIENE AND SAFETY CONDITIONS**
- Anti-contamination effect: no lubricant leakage possible
- Food grade lubricant with NSF certificate
- All metallic components made of high-quality stainless steel
- Insensitive to contamination
- Resistant to cleaning agents

**INSTALL AND FORGET**
- No need for regular monitoring or service: suited for locations with difficult access
- Ideal match with both bearing unit ranges - thermoplastic and stainless steel

**FOR FOOD-PROCESSING INDUSTRY**
BENEFITS

ROBUST AND RELIABLE
- High durability and resistant to strong mechanical impacts
- Maintenance-free: bearing lubricated for life
- Resistant to high pressure washing
- No risk of deficient lubrication
- No environmental contamination due to leaking lubricants

LESS MACHINE DOWNTIMES, MORE PROFITABILITY
- Better operating performance
- Longer machine operating times: cost saving and productivity gains
- Lower maintenance and material costs

PROFIT FROM THE VARIETY IN USE
Combine AGR bearing inserts with many SNR housings and create the bearing unit that best suits your application, such as: power and disc harrows, shredders / chippers, conveyor systems, crushers, mills…

*Available as bearing insert with set screws UC..AGR and eccentric locking collar EX..AGR
PROTECTIVE COVERS

FOR BEARING UNITS FROM CAST IRON AND STAINLESS STEEL

Most of the bearing units made of cast iron or stainless steel can be equipped with additional protective covers. The covers are generally made from stainless steel. They are available as closed or open version with double lip seal for bore code 201 to 213 (shaft- Ø 12 – 65 mm).

BENEFITS

- Improve safety requirements
- Protect the bearing against external influences
- Prevent the discharge of lubricants into sensitive environments
- For shafts ends and through shafts

<table>
<thead>
<tr>
<th>Suffix</th>
<th>Description</th>
<th>Cover type</th>
<th>Suitable in combination with bearing insert type:</th>
<th>Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC</td>
<td>Bearing unit with narrow cover (closed version)</td>
<td>SCC</td>
<td>Set screw, Adapter sleeve, Fit</td>
<td>Open version</td>
</tr>
<tr>
<td>CO</td>
<td>Bearing unit with narrow cover for metric shaft (open version)</td>
<td>SCO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COU</td>
<td>Bearing unit with narrow cover for imperial shaft (open version)</td>
<td>SCOU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCE</td>
<td>Bearing unit with wide cover (closed version)</td>
<td>SCCE</td>
<td>Eccentric locking collar</td>
<td>Closed version</td>
</tr>
<tr>
<td>COE</td>
<td>Bearing unit with wide cover for metric shaft (open version)</td>
<td>SCOE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COEU</td>
<td>Bearing unit with wide cover for imperial shaft (open version)</td>
<td>SCOEU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>Unit / Housing prepared for cover(s) installation</td>
<td>-</td>
<td>/</td>
<td></td>
</tr>
</tbody>
</table>

- For a very strong fit and an outstanding sealing effect, the protective covers are fixed in housing grooves
- For the installation of protective covers, flanged housings are equipped with one groove on the front side
- All other housings have two machined grooves

Bearing units that are ordered with cover(s) include the housings with grooves.
If you want to install the protective covers later, housings with suffix N must be ordered (for example: P210N).
PROTECTIVE CAPS

FOR EUROPEAN SERIES BEARING UNITS FROM CAST IRON
Available for shaft ends and through going shafts

**BENEFITS**
- Reduce the risk of injury from rotating shaft ends
- Protect the bearing to increase its performance in service
- Permit larger deviations in shaft misalignment
- Tool-free installation

<table>
<thead>
<tr>
<th>Cap type / Suffix</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCO</td>
<td>Protective cap (open version)</td>
</tr>
<tr>
<td>PCC</td>
<td>Protective cap (closed version)</td>
</tr>
<tr>
<td>G1N</td>
<td>Bearing insert with groove in the outer ring</td>
</tr>
</tbody>
</table>

Protective caps have to be ordered separately from the bearing units. Due to the special design of the housings, these protective caps can only be fitted on one side.

To install the cap "tool free", bearing insert series G1N must be installed to the bearing unit. These bearings have a special groove machined in their outer rings in which the protector can snap into place (for example: US206/G1N).

FOR BEARING UNITS FROM THERMOPLASTIC
Available for shaft ends and through going shafts

All housings of this range are already equipped with appropriate grooves where protective caps can snap into place. Both the closed and the open version with shaft seal are available from bore code 204 to 208 (shaft- Ø 20 – 40 mm).

**BENEFITS**
- Reduce the risk of injury from rotating shaft ends
- Good sealing effect due to radial shaft seal (CV)
- Prevent the discharge of lubricants into sensitive environments
- Tool-free installation

<table>
<thead>
<tr>
<th>Cap type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CV</td>
<td>Protective cap (open version)</td>
</tr>
<tr>
<td>CF</td>
<td>Protective cap (closed version)</td>
</tr>
</tbody>
</table>

Tool-free installation in existing housing grooves
### SUFFIX & PREFIX

<table>
<thead>
<tr>
<th>Suffix</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>AGR</code></td>
<td>Service-free bearing insert with high performance seal</td>
</tr>
<tr>
<td><code>CA</code></td>
<td>Bearing unit ready to be equipped with protector PCC / PCC</td>
</tr>
<tr>
<td><code>CC</code></td>
<td>Bearing unit with narrow protective cover(s) - closed version</td>
</tr>
<tr>
<td><code>CCE</code></td>
<td>Bearing unit with wide protective cover(s) - closed version</td>
</tr>
<tr>
<td><code>CO</code></td>
<td>Bearing unit with narrow protective cover(s) - open version for metric shafts</td>
</tr>
<tr>
<td><code>COE</code></td>
<td>Bearing unit with wide protective cover(s) - open version for metric shafts</td>
</tr>
<tr>
<td><code>COEU</code></td>
<td>Bearing unit with wide protective cover(s) - open version for imperial shafts</td>
</tr>
<tr>
<td><code>COU</code></td>
<td>Bearing unit with narrow protective cover(s) - open version for imperial shafts</td>
</tr>
<tr>
<td><code>FG1</code></td>
<td>Stainless steel bearing insert with LUBSOLID® food-grade grease filling</td>
</tr>
<tr>
<td><code>FG</code></td>
<td>Bearing insert with zinc-coating and food-grade grease filling</td>
</tr>
<tr>
<td><code>G1N</code></td>
<td>Bearing insert with outer ring groove for tool-free protective cap installation</td>
</tr>
<tr>
<td><code>G2</code></td>
<td>SNR 2-planes re-greasing system with 4 grease bores in the outer ring</td>
</tr>
<tr>
<td><code>H</code></td>
<td>UK bearing insert equipped with adapter sleeve</td>
</tr>
<tr>
<td><code>L3</code></td>
<td>Bearing insert with triple lip seal</td>
</tr>
<tr>
<td><code>L4</code></td>
<td>Bearing insert with multiple seal and reduced rotation torque</td>
</tr>
<tr>
<td><code>N</code></td>
<td>Housing designed for protective cover(s) installation (machined grooves)</td>
</tr>
<tr>
<td><code>T04</code></td>
<td>Bearing insert for cold environments (down to -40°C)</td>
</tr>
<tr>
<td><code>T20</code></td>
<td>Bearing insert for hot environments (up to +200°C)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>S</code></td>
<td>Stainless steel type</td>
</tr>
<tr>
<td><code>C</code></td>
<td>Bearing insert with cylindrical outer ring matching JIS norm</td>
</tr>
<tr>
<td><code>Z</code></td>
<td>Bearing insert for food-processing industry</td>
</tr>
</tbody>
</table>
OTHER MOUNTED UNITS
BEARING HOUSINGS WITH GREASE LUBRICATION

SPLIT PLUMMER BLOCK HOUSING SNC / SNCDD500
- SN housing according to ISO113-2010 to house bearings with a cylindrical or tapered bore
- High stiffness and stability under all load conditions
- Optimised heat dissipation
- Reduced stresses in the bearing
- Extended service life and prolonged service intervals
- For shaft diameters from 20 mm to 140 mm
- Housing material: Cast iron with flake graphite and/or spheroidal graphite (SNCD)
- 5 different seal arrangements for a wide range of applications
- User-friendly design features for ease of service and rapid installation

LARGE PLUMMER BLOCK HOUSING SNCD
Split housing according to ISO113-2010 for spherical roller bearings with cylindrical or tapered bore
- Housing material: Spheroidal graphite iron
- Operation temperature down to -40°C
- Optimised heat dissipation
- Wide reinforcing belt and support arch construction for increased dimensional stability
- Extended bearing service life and prolonged service intervals
- Labyrinth and Taconite seal
- Various connections for lubricant supply and condition monitoring sensors
- Shaft diameter 115 to 500 mm

SPW/SFCW – BEARING HOUSINGS FOR HEAVY LOADS
- Suitable for very harsh environments in the timber industry and heavy industry
- Bearing and housing protected against corrosion
- Rapid replacement of the patented bearing unit
- Sealed spherical roller bearing
- Rapid commissioning, increased productivity
- Series SPW interchangeable with SN series bearing housings
- Shaft diameter: 50 to 140 mm

ONE-PIECE BEARING HOUSING ZLG / DLG
- For the installation of two or three rolling bearings
- Grease lubrication
- Suitable for high operating speeds (industrial fans)
- Extremely smooth operation due to precise alignment of the bearings in the housing
- Felt seal with additional V-ring seal
- Easy installation on the clamping area
- Shaft diameter, ZLG: 30 to 120 mm / DLG: 70 to 120 mm

BEARING HOUSINGS FOR SPECIAL APPLICATIONS 722500, F11200, TVN, TN
- Compact sealed housings in grey cast iron
- TVN: suitable for operating temperatures up to +350°C
- Suitable for critical environments: Hot and humid / hot and dry
- Possible applications in constructions of the sand-lime brick or clinker industry
- TVN/TN: can be installed in any position
- Shaft diameter, TVN: 20 to 75 mm / TN: 20 to 60 mm
- F11200 / 722500: flanged housing unit
- Shaft diameter, F11200: 20 to 50 mm / 722500: 20 to 100 mm
BEARING HOUSINGS WITH OIL LUBRICATION

ONE-PIECE BEARING HOUSING ZLOE
- Equipped with two radial contact ball bearings or a combination of a radial contact ball bearing with a cylindrical roller bearing
- Suitable for applications with high load capacities combined with high operating temperatures
- Particularly well-suited for high speed applications, e.g. industrial fans
- Extremely smooth operation due to precise alignment of the bearings in the housing
- Easy installation of the bearing unit on the clamping area
- Labyrinth system provides efficient, low-friction seal
- Can be used with oil circulation or oil injection lubrication
- Shaft diameter: 75 to 120 mm

SPLIT BEARING HOUSING SNOE
- Suitable for spherical roller bearings
- For applications with high operating speeds and heavy loads
- Housing material: EN-GJS for especially high strength and torsional rigidity
- Internal oil distribution via an oil pick-up ring
- Labyrinth sealing system
- Equipped with an oil-level indicator
- Can be used with optional oil circulation, oil cooling or oil pre-heating system
- Excellent heat dissipation
- Application areas: Industrial fans, hammer mills, stone crushers
- Shaft diameter: 70 to 260 mm (the largest standard oil-lubricated bearing housing on the market)

SPLIT BEARING HOUSING SNOL (COMPACT VERSION)
- Suitable for spherical roller bearings
- Low-friction labyrinth seal system
- SNOL bearing housings can replace grease-lubricated units from the SN series. This may be necessary in case of: - Increased operating speeds - Higher operating temperatures - Extended service life - Prolonged maintenance intervals
- Equipped with an oil-level indicator
- Shaft diameter: 60 to 140 mm