



SNC

THE PILLOW BLOCK RANGE



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Part 1

SNC. The fundamentals

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NTN-SNR

The expertise of a manufacturer,
the scope of a leader

The European Arm of NTN Corporation, the world's 3rd largest bearings group, NTN-SNR BEARINGS specialises in the design, development and manufacture of high-performance rotation and guidance systems. A major player and a recognised supplier to some of the leading names in industry, the company takes pride in following through with its initial commitment: to put the best technology to the service of your applications.

NTN-SNR offers products of a high technical quality, both for standard and for special applications. With one of the largest product ranges on the market, NTN-SNR satisfies all requirements. Innovation figures prominently in our development of new solutions, in the broadening of the functions of bearings....

NTN-SNR is recognized as the partner and developer of tomorrow. NTN-SNR is ready to take up all the technical challenges of the market.



A design developed to meet your requirements

With an ubiquitous presence in the industrial, automotive and aerospace markets, NTN-SNR is not content to merely offer the most comprehensive range of standard and specialist solutions available on the market for Original Equipment and spares. Driven by a well-honed sense of innovation and a constant concern for quality, we strive daily to enhance the performance of our bearings and anticipate your future requirements.

More compact, lighter, more economical, more reliable, more efficient and more eco-friendly, our products contain all the ingenuity that went into their design and all the care that guided their manufacturing. Taking account of the most common to the most specific of your requirements and to satisfy your economic and ecological objectives.

A worldwide presence, and close at hand

With 100 or so sites around the world, all subject to the same degrees of excellence, we have teams on hand everywhere, ready to come to your aid, guaranteeing consistent quality of our products and services. Familiar with your business and trained to deal with your priorities, they concentrate on developing products and solutions that take account of all your constraints and requirements. Working at your side, our teams use their talents in the service of your particular objectives, and are committed to ensuring your satisfaction.

Innovation as a founding value

- With over 5% of our revenue invested annually in Research & Development...
- an R&D division with a headcount of over 400, all of whom every day, are exploring and investigating every domain
- a technical centre with a wealth of laboratories
- a mechatronics development centre
- a test centre with over 200 test benches

... innovation and progress are no simple declarations of intent, but priorities applied daily in our workshops in order to provide a design that will meet your future needs.



The environment as a priority issue

Protecting the environment is a key challenge for our company, applicable at every stage of our activities, a fundamental principle understood by every one of our employees.

On the product side, our commitment is to help reduce your energy bill and your carbon footprint:

- through specific work carried out on eco-bearings, requiring even less energy consumption. The objective: to reduce friction torque in order to rotate more easily, thus reducing CO2 emissions and energy consumption.
- through developing solutions for clients who are strongly committed to renewable energies such as wind and solar power.

On the production side, we are continually improving our industrial processes:

- Developing production sites in order to reduce their consumption of energy, water and chemical products.
- Pursuing a policy of waste and atmospheric pollutant emissions management.

... In all our plants, each one ISO 14001-certified, nothing is left to chance.



The NTN-SNC pillow block housing conception

Variable, efficient, user friendly! That's the basic concept behind our SNC series.

Basic design

Our two-part bearing housings are made up of an upper and a lower section. This greatly simplifies the mounting and maintenance of the units, as the bearing and sealing elements can be mounted on the shaft first and then simply inserted into the pre-positioned lower section of the housing.

These units are compatible with ISO standards 02, 03, 22, 23 and 32 sized self-aligning bearings or roller bearings. The high performance NTN-SNR ULTAGE self-aligning roller bearings offer huge additional benefits in terms of service life and running performance. Our application engineers will be happy to advise you on the design and dimensioning of your bearing locations.

A wide variety of different sealing systems ensures that optimum solutions are available for all kinds of applications, from the less stringent requirements for a bearing location under clean ambient conditions through to usage under extremely adverse conditions.

Unique design selling points, such as the circular ribbing on the housing allow fault-free operation even at high temperatures and with heavy loads. The optimum vibration behaviour of our FEM-optimised housings extends their service life considerably. Increased housing rigidity and improved heat dissipation are further advantages of the SNC series. Other design details are described in more detail later in this catalogue.

Complete systems

NTN-SNR enables its customers to order application-specific complete systems. These include bearing units that are supplied fully assembled with the shaft and pre-lubricated for direct installation.

This results in economic benefits such as:

- Reduction of logistics costs: One supplier - one responsibility
- Reduction of commissioning costs due to avoidance of mounting errors
- Reduction of manufacturing costs due to elimination of the need to mount individual components separately
- Reduction of inventory costs

Modular principle

The versatility and the number of variations in the SNC housing series ensure that a wide range of modules are available, with even the standard options offering enormous variety. This means that complex and expensive special designs can often be avoided. The modular principle, with its different dimensions, sealing elements and rolling bearing variations, provides a wide range of options that offers a technically and economically viable solution for most applications.



Development principles

The development process for our bearing housings always follows an established and proven principle: design, optimization and determination of load limits.

True to these principles, all SNC housings are designed using our 3D CAD software. The shape and design of the individual housing cross-sections are calculated and optimised by our specialist engineers using the finite element method (FEM). At NTN-SNR, theory and practice are aligned in sophisticated endurance tests on the test bench and in practical load tests.

Structural details

Drawing on several decades' experience in the development of housings, NTN-SNR's engineers have integrated numerous practical details into the design of SNC and SNCD bearings. These features not only help improve service life and safe operation but also facilitate fitting and dismantling.

For more information on SNCD bearings, please see pages 30-31.



Strength properties and heat dissipation:

The circular ribbing on the housing body gives the SNC housing excellent form stability and rigidity.

Furthermore, this structural feature helps to optimize the vibration behavior and heat dissipation of the units. The X-shaped support surface and the cross piece in the housing foot strengthen the bearing seat substructure and thus support the bearing journal at a critical point.



Heat dissipation:

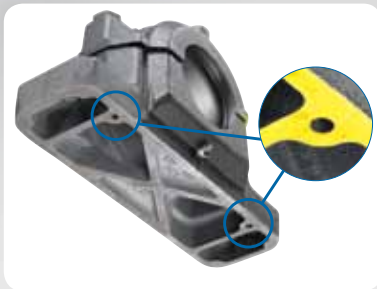
The support surface in the foot of the SNC housing insures extremely efficient dissipation of operating heat.

Structural details



Connection bolts

On SNC pillow block housings, bolts with a larger diameter than on comparable housings are used to connect the upper and lower sections of the housing. This enables higher radial loads to act on the housing cap.



Mounting holes

The holes incorporated into the underside of the housing foot simplify exact alignment of the units in series production. Dowel pins that are preinstalled in the mounting surface as set out in the table (see page 29) indicate the exact position. If modification of the housing is necessary, the mounting holes can also be used for re-machining purposes.



Grease drain hole

All SNC housings are factory-fitted with a grease drain hole. In addition to the default position, other locations can also be selected for the grease drain hole. Positions are marked by centre punching. The drain hole is located in the foot area opposite the lubricating fitting. It ensures that excess grease from inside the housing can escape. (On delivery, the drain holes are plugged with screw plugs).



Drain edge

The chamfered edge prevents the penetration of moisture at the interface between the upper and lower section.



Alignment markings

For quick and easy alignment on the mounting surface, SNC housings have positioning marks. These are located under each shaft outlet hole and on the side of the housing foot.



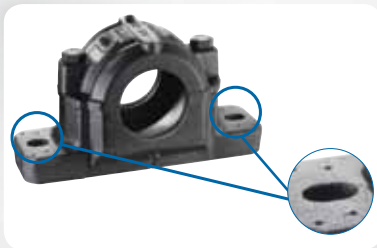
Dismounting edge

Simplifies dismounting for maintenance work on the bearing units. A lever can be used to easily separate the upper and lower sections of the housing from one another at these points.



Lubrication fitting

All bearings come with two threaded holes for mounting lubricators. Other positions are possible for the lubricators. These positions are marked on the cast iron surface. From size 524 upwards, the threaded holes come with a screw plug. For smaller sizes, plastic blanking plugs are used. A cone-head lubricator and flat-head lubricator along with optional blanking screws are supplied with all housings.

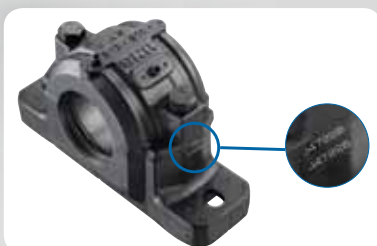


Markings for mounting with four fastening bolts

For mounting situations in which the centrally positioned main fastening holes cannot be used, there are four markings in the housing foot. These can be used as alternative fastening holes.

Markings for additional dowel pins

Enable the bearing units to be fixed onto the mounting surface with additional dowel pins. These pins are useful if very high loads occur parallel to the support surface. (Please refer to page 29)



Upper and lower section marking

The code numbers imprinted on the side of the housing body are used to correctly assign the upper and lower section. When mounting several housings, the upper and lower sections must never be exchanged as they are matched during production.

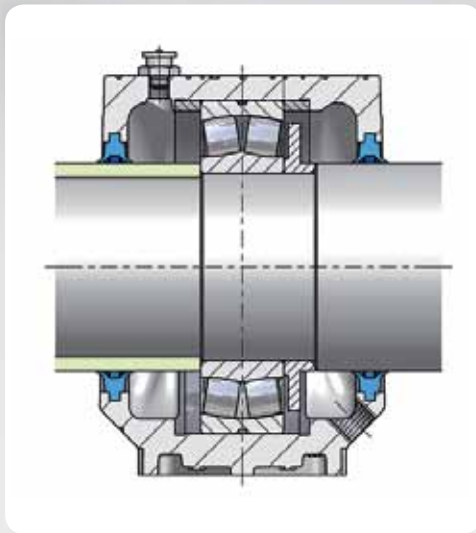
Connection options

Several marking points are cast into the upper sections of housings. If necessary, these can be used for connecting holes for measuring sensors, e.g. vibration pickups or temperature sensors.

Bearing arrangement construction

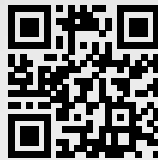
SNC bearing housings are designed to hold self-aligning roller or ball bearings. The choice of bearing type and the design of the bearing arrangement depend primarily on the type of application.

Bearings with cylindrical bore



Rolling bearings with a cylindrical bore are mounted directly on the shaft. The selected shaft tolerance should depend on the application and the bearings used. The inner ring of the rolling bearing must be supported against a shaft shoulder. The bearing must always be fitted securely onto the shaft. For easy, safe and quick mounting of the bearings, we recommend the use of an NTN-SNR induction heating device. Information about our range Experts & Tools:

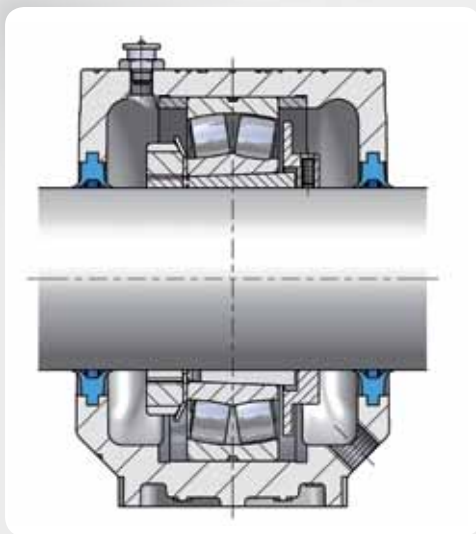
www.ntn-snr.com/services



Bearings with a cylindrical bore are particularly well suited for:

- Applications in which large axial loads have to be absorbed
- Series mounting
- Bearing arrangements that are exposed to significant shock loads.

Bearings with tapered bore



Rolling bearings with a tapered bore are mounted on the shaft using an adapter sleeve. The tolerance range of the shaft can be greater than for bearings with a cylindrical bore. Basically, any drawn shafts produced in the tolerance field h9 can be used. The inner ring of the bearing is fixed on the sleeve by axial preload. Adherence to the specified radial bearing clearance after mounting must be ensured. The relevant values can be found in the table on page 26.

Bearings with a tapered bore are particularly well suited for:

- Bearing locations in which the exact position of the bearing is not known in advance;
- Applications that have to proceed without machining of the shafts;
- Constructions that do not allow any weakening of the shafts;
- Bearing arrangements that are adapted to particular operating conditions by adjusting the bearing clearance.

NTN-SNR bearings in ULTAGE quality

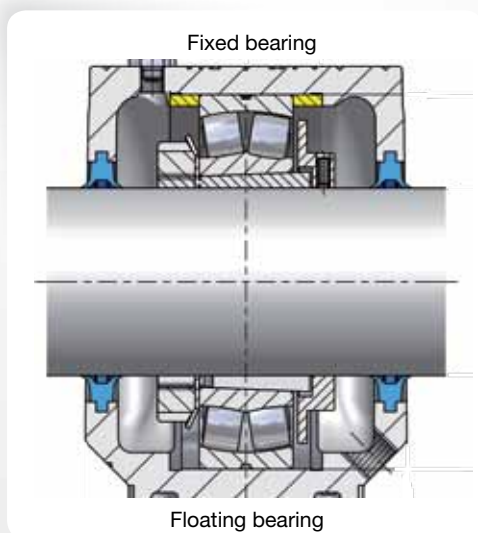
ULTAGE®

NTN-SNR bearings in ULTAGE quality

NTN-SNR ULTAGE self-aligning roller bearings are designed for applications in which high loads, severe imbalance, contamination, shocks and vibrations can occur. To improve on the excellent performance and reliability of the series, the NTN-SNR ULTAGE self-aligning roller bearings have been optimised in terms of their load ratings and service life.

For more information on the quality of NTN-SNR ULTAGE spherical roller bearings, please see page 76 or ask for our ULTAGE catalogue.

Fixed / floating bearing version



SNC bearing housings can be used for both fixed and floating bearing arrangements. The locating rings available from NTN-SNR enable the bearings used to be fixed in place axially. The width of the locating rings is adapted to the size of the relevant bearing. The exact designation can be found in the dimension table. To secure the bearings in the housing, two locating rings per housing are necessary.

More information about the construction and design of bearing arrangements can be found in our main NTN-SNR rolling bearing catalogue.

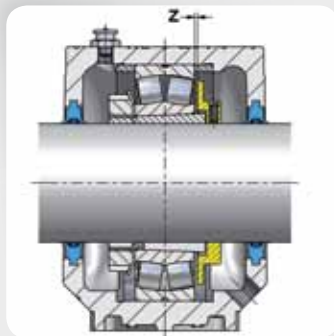
Regulation discs RDC

The single-part grey cast iron regulation discs can be fitted in every SNC housing as an option. They are primarily required to convey excess quantities of grease out of the interior of the housing (grease drain hole must be open). The gap between the regulation disc, the bearing and the housing results in a regulating conveying effect for the lubricant during operation. The excess grease is discharged from the bearing. During installation and after each relubrication interval, this has the advantage that the steady state temperature is reached more quickly. Practical experience has also shown that the operating temperature of the bearing arrangements with regulation discs is less than those without regulation of the grease quantity, particularly at very high speeds.

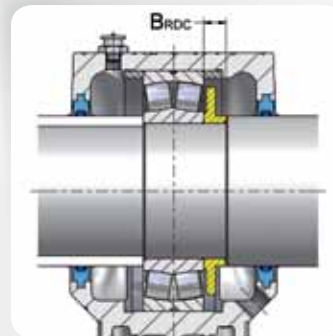
Accumulations of grease can lead to a rapid increase in the bearing temperature. This would result in hot running of the rolling bearings and premature failure. In units with an adapter sleeve, they are attached to the shaft using two set screws. In bearing units with cylindrical bearings, the regulation discs are secured axially between the shaft shoulder and the bearing. The tightening torques for the fastening bolts are shown in the table below. To ensure that the regulation disc functions correctly, the mounting instructions must be followed as exactly as possible. The regulation disc should be positioned as specified in the table below.

Mounting

Regulation discs must be mounted on the side of the grease drain hole. When using rolling bearings with adapter sleeves, it must be ensured that the groove nuts are positioned on the lubricating fitting side.



Use of regulation disc in bearing arrangement with adapter sleeve mounting.



Use of regulation disc in bearing arrangement with cylindrical bore.

| Abutment dimensions | | | Distance bearing outer ring – regulation disc Z [mm] |
|---------------------|---------|---------|--|
| Housing | Size | | |
| SNC | 505-509 | 605-607 | 2 |
| SNC | 510-518 | 608-615 | 3 |
| SNC | 519-532 | 616-620 | 4 |

| Tightening torques and widths across flats | | | |
|--|---------|-------------------------|-----------------------------|
| Regulation disc | Size | | Max. tightening torque [Nm] |
| | | Width across flats [mm] | |
| RDC | 505-512 | 605-612 | 2,5 |
| RDC | 513-519 | 613-618 | 3 |
| RDC | 520-532 | 619-620 | 4 |

Abutment dimensions for B_{RDC} regulation disc in bearing arrangement with cylindrical bore

| 200 Series | |
|------------|------|
| Size | [mm] |
| RDC 205 | 7,5 |
| RDC 206 | 8,5 |
| RDC 207 | 9 |
| RDC 208 | 8 |
| RDC 209 | 12 |
| RDC 210 | 8 |
| RDC 211 | 9 |
| RDC 212 | 11 |
| RDC 213 | 12,5 |
| RDC 214 | 18 |
| RDC 215 | 11 |
| RDC 216 | 11 |
| RDC 217 | 14 |
| RDC 218 | 15 |
| RDC 219 | 18 |
| RDC 220 | 18 |
| RDC 222 | 22 |
| RDC 224 | 24 |
| RDC 226 | 24 |
| RDC 228 | 22 |
| RDC 230 | 35 |
| RDC 232 | 40 |

| 300 Series | |
|------------|------|
| Size | [mm] |
| RDC 305 | 9 |
| RDC 306 | 9 |
| RDC 307 | 9 |
| RDC 308 | 9 |
| RDC 309 | 10 |
| RDC 310 | 10 |
| RDC 311 | 10 |
| RDC 312 | 10 |
| RDC 313 | 12 |
| RDC 314 | 15 |
| RDC 315 | 15 |
| RDC 316 | 20 |
| RDC 317 | 18 |
| RDC 318 | 20 |
| RDC 319 | 24 |
| RDC 320 | 24 |

Seal selection

There are a wide variety of sealing options for the housing due to the large number of potential applications. The correct choice of sealing system depends on several factors. Below, you will find important information about all of the sealing options that are included in the standard range of SNC bearing housings. All SNC units are designed for both through shafts and

for shaft end bearing arrangements. A cover (SC...EC) is available for these versions. This is inserted in the groove between the upper and lower sections in place of the second seal. To provide maximum flexibility when it comes to selecting, SNC seals are packaged as a set. One seal set is required for each side of the housing.

| Structural properties | | SC..DS Double lip seal | SC..FS Felt strip seal | SC..SV V-ring seal | SC..LA Labyrinth seal | SC..TA Taconite seal | | | |
|-------------------------|---------|---------------------------|---------------------------|-----------------------|--------------------------|-------------------------|--|--|--|
| Operating temperature | °C | -40... +100 | -40... +100 | -40... +100 | -40... +200 | -40... +100 | | | |
| Circumferential speed | m/s | <8 | <15 | <7 ³⁾ | <15 | <8 ⁴⁾ | | | |
| Possible misalignment | Degrees | 0,5...1 | <0,5 | 1...1,5 | <0,3 | <0,5 | | | |
| Relubrication | | | | | | | | | |
| Low friction | | | | | | | | | |
| Vertical installation | | | | | | | | | |
| Sealing behavior for: | | | | | | | | | |
| Splash water / moisture | | | | | | | | | |
| Ultra-fine particles | | | | | | | | | |
| Fine particles | | | | | | | | | |
| Large particles | | | | | | | | | |
| Sharp-edge particles | | | | | | | | | |
| UV resistance | | | | | | | | | |



Ideally suited



Limited suitability



Suitable



Unsuitable

¹⁾ During running-in phase up to approx. 5m/s

²⁾ If V-ring is fitted inside on underside

³⁾ Without additional supporting ring (axially secured: 7-12 m/s; axially and radially secured: >12 m/s)

⁴⁾ Shaft requirements, see page 18

Sealing systems

There are a wide variety of sealing options for the housing due to the large number of potential applications. The correct choice of sealing system depends on several factors. Below, you will find important information about all of the sealing options that are included in the standard range of SNC bearing housings.

The sealing selection table on Page 14 provides a quick overview of the technical properties and possible applications of SNC seals.

Double lip seals SC..DS



NTN-SNR's double lip seals have two parts, which makes them particularly easy to fit. For the 500/600 range, they are made in TPU (thermoplastic polyurethane). For the 200/300 range, the material used is NBR (nitrile-butadiene rubber). The circumferential speeds can be up to 8 m/s. For shaft diameters greater than 100mm, max. misalignment of 0.5°, for bearing units with shafts smaller than 100 mm max. 1°. The shaft diameter should lie within the tolerance range h9. We recommend ground shafts with a roughness of less than R_a 3.2 μm .

The permissible temperature range for this seal is between -40 °C and +100 °C.

Note that one seal must be ordered for each side of the housing. The delivery includes two half seals.

Felt strip seal SC..FS



The felt strip seals are a reliable standard seal for SNC bearing housings. They are easy to fit and after a running-in phase can be used for circumferential speeds of up to 15 m/s (running-in phase up to approx. 5 m/s). Felt strip seals are suitable for grease lubrication and temperatures of between -40 °C and +100 °C. We can also offer you a choice of special materials for the use of higher temperatures. Misalignment may not be greater than approx. 0.5°. A roughness of R_a 3.2 μm must not be exceeded in the contact area. The felt strips are soaked in oil and fitted in the retainers at the factory and can be used immediately.

Note that one seal must be ordered for each side of the housing. The delivery includes the two felt strips, the two-part aluminum retainer and 2 round cords.

V-ring seal – optional



In addition to a felt strip seal (SC...FS), SNC bearing housing units can be fitted with optional V-rings made of NBR (butadiene acrylonitrile rubber). With this combination, the sealing lip has an axial contact with the retainer, ensuring an even better sealing effect (for permissible circumferential speed, see SC...SV).

Note that one seal must be ordered for each side of the housing. The delivery includes an A version of the V-ring.

V-ring seal with contact washer SC..SV



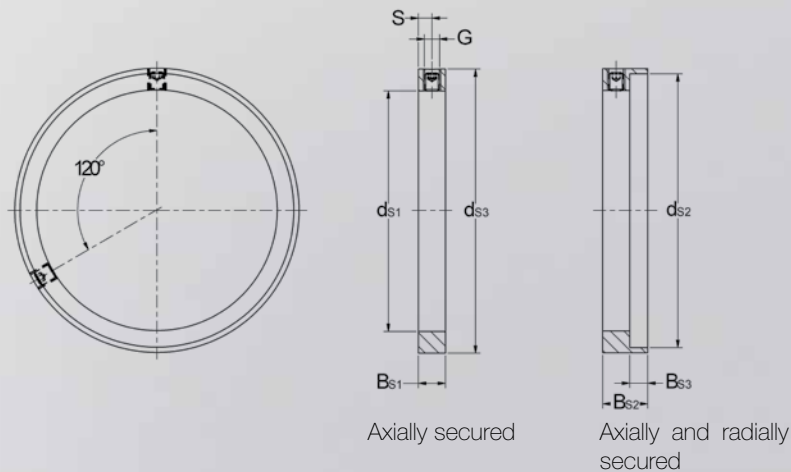
The SC...SV seal consists of a contact washer made of corrosion-protected sheet steel with a vulcanized rubber lip and the V-ring made of NBR (butadiene acrylonitrile rubber). The contact washer is fixed in the sealing groove between the upper and lower section. The sealing lip of the V-ring has an axial contact with the contact washer. For shafts with a diameter of up to 50 mm, misalignment of up to approx. 1.5° is possible. Larger shaft diameters may not exceed a misalignment of 1°.

For higher circumferential speeds, V-rings can also be secured axially and/or radially. For this purpose, NTN-SNR recommends the use of supporting rings that can be fitted directly behind the V-rings. The following table shows the corresponding dimensions of the supporting rings. For V-ring seals that are not axially secured, circumferential speeds of up to 7 m/s are permitted. Axially secured: 12 m/s. Axially and radially secured: More than 12 m/s. The operating temperatures for these seal versions are between -40°C and +100°C.

Note that one seal must be ordered for each side of the housing. The delivery includes one contact washer and the corresponding V-ring.

Recommended dimension for V-ring seal retaining rings

| Shaft diameter | Dimensions | | | | | | | | Set screw DIN 913 |
|----------------|------------|----------|----------|----------|----------|----------|-----|----|----------------------|
| | [mm] | | | | | | | | |
| d, d_1 | d_{S1} | d_{S2} | B_{S1} | B_{S2} | B_{S3} | d_{S3} | s | G | |
| 20 | 20 | 27,2 | 7 | 10,5 | 3,5 | 30 | 3,5 | M4 | 4x4,5 |
| 25 | 25 | 32,1 | 7 | 10,5 | 3,5 | 35 | 3,5 | M4 | 4x4,5 |
| 30 | 30 | 37,2 | 7 | 10,5 | 3,5 | 40 | 3,5 | M4 | 4x4,5 |
| 35 | 35 | 42,2 | 7 | 10,5 | 3,5 | 45 | 3,5 | M4 | 4x4,5 |
| 40 | 40 | 49,1 | 7 | 12,0 | 4,5 | 53 | 3,5 | M4 | 4x5 |
| 45 | 45 | 54,0 | 7 | 12,0 | 4,5 | 58 | 3,5 | M4 | 4x5 |
| 50 | 50 | 59,1 | 7 | 12,0 | 4,5 | 63 | 3,5 | M4 | 4x5 |
| 55 | 55 | 64,1 | 7 | 12,0 | 4,5 | 68 | 3,5 | M4 | 4x5 |
| 60 | 60 | 69,1 | 7 | 12,0 | 4,5 | 73 | 3,5 | M4 | 4x5 |
| 65 | 65 | 74,1 | 7 | 12,0 | 4,5 | 78 | 3,5 | M4 | 4x5 |
| 70 | 70 | 81,0 | 10 | 16,0 | 6,0 | 84 | 4,5 | M5 | 5x6 |
| 75 | 75 | 86,0 | 10 | 16,0 | 6,0 | 89,5 | 4,5 | M5 | 5x6 |
| 80 | 80 | 91,0 | 10 | 16,0 | 6,0 | 94,5 | 4,5 | M5 | 5x6 |
| 85 | 85 | 96,0 | 10 | 16,0 | 6,0 | 100 | 4,5 | M5 | 5x6 |
| 90 | 90 | 101,0 | 10 | 16,0 | 6,0 | 105 | 4,5 | M5 | 5x6 |
| 95 | 95 | 106,0 | 10 | 16,0 | 6,0 | 109 | 4,5 | M5 | 5x6 |
| 100 | 100 | 111,0 | 10 | 16,0 | 6,0 | 115 | 4,5 | M5 | 5x6 |
| 110 | 110 | 122,9 | 11 | 18,0 | 7,5 | 128 | 5,0 | M6 | 6x8 |
| 115 | 115 | 127,4 | 11 | 18,0 | 7,5 | 133 | 5,0 | M6 | 6x8 |
| 125 | 125 | 138,1 | 11 | 18,0 | 7,5 | 143 | 5,0 | M6 | 6x8 |
| 135 | 135 | 147,5 | 11 | 18,0 | 7,5 | 153 | 5,0 | M6 | 6x8 |
| 140 | 140 | 152,9 | 11 | 18,0 | 7,5 | 158 | 5,0 | M6 | 6x8 |
| 145 | 145 | 158,1 | 11 | 18,0 | 7,5 | 163 | 5,0 | M6 | 6x8 |
| 155 | 155 | 167,5 | 11 | 19,0 | 8,5 | 173 | 5,0 | M6 | 6x8 |
| 165 | 165 | 179,9 | 11 | 19,0 | 8,5 | 185,5 | 5,0 | M6 | 6x8 |
| 175 | 175 | 189,3 | 11 | 19,0 | 8,5 | 195 | 5,0 | M6 | 6x8 |



Labyrinth seal SC..LA



For adverse ambient conditions, all SNC bearing housings can be fitted with labyrinth seals. The sealing ring and the sealing groove in the housing form a labyrinth with a narrow sealing gap. The great advantage of these seals is that the bearing arrangement can be operated at the permissible speed for the bearings used. The labyrinth ring is synchronised on the shaft by the installed round cord. The maximum misalignment of the shaft may not be greater than 0.3° . The operating temperature range for this seal is between -40°C and $+200^\circ\text{C}$. We recommend an h9 tolerance class for the shaft.

Optional relubrication of the labyrinth seal is possible. The marking points cast into the housing above the sealing groove are used for this purpose.

Note that one seal must be ordered for each side of the housing.

The delivery includes a labyrinth ring (material: cast iron or steel) and the associated round cord.

Taconite seal SC..TA



The separable Taconite seal is fixed in the sealing groove between the upper and lower housing sections using an O ring. The labyrinth ring rotates with the shaft. This is ensured by a round cord that is inserted between the shaft and the labyrinth ring. The shaft sealing ring is pressed into the stationary part of the seal. The sealing lip slides on the shaft. The shaft diameter should lie within the tolerance field h9. The circularity tolerance should correspond to IT8. We recommend twist free ground shafts with a roughness of less than $R_a\ 0.8\ \mu\text{m}$. Misalignment of up to 0.5° is technically possible. The permissible temperature range for this seal is between -40°C and $+100^\circ\text{C}$. Non-tempered shafts can be used for peripheral speeds under 4 m/s. For higher peripheral speeds of up to 8 m/s, the minimum hardness of the surface should be 45 HRC.

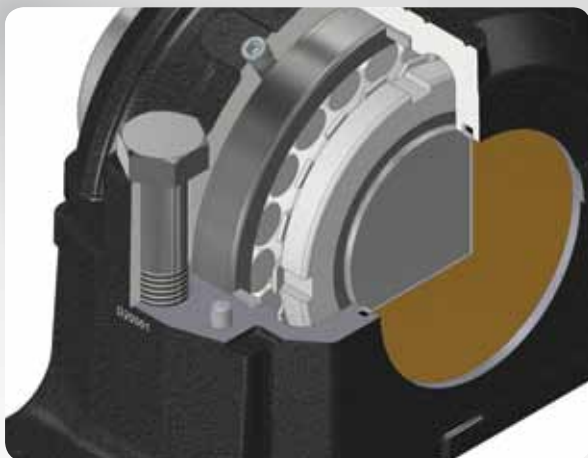
This type of seal is predominantly used where extreme ambient conditions prevail. Thanks to its exceptionally robust design, the sealing system protects against fine dust and large dirt particles and is secure against moisture. Overall, three different sealing systems within the component are responsible for the outstanding sealing effect:

- Labyrinth ring that can be relubricated (threaded bore M6) with radial cross pieces;
- Shaft sealing;
- Cavity completely filled with grease, which acts as a grease lock.

Note that one seal must be ordered for each side of the housing.

The delivery includes a completely assembled Taconite seal (lubricating fitting included).

Cover plate SC..EC



Cover plates are available for all SNC bearing housings. The cover plate is made of corrosion-resistant sheet steel and has a circular rubber lip made of NBR (butadiene acrylonitrile rubber). It is fixed in the sealing groove between the upper and lower section and effectively seals the housing. Cover plates can be combined with any other seal in the SNC range. The temperature range for cover plates is between -40°C and +100°C.

For details of the dimensions of the permissible shaft ends, refer to the dimension table (dimension w1). The delivery includes one cover plate with vulcanised rubber lip.

Special seals

In special cases, it is possible that standard seals will not satisfy specific operating requirements. For example, if particularly high temperatures are required, SNC bearing housings can be fitted with seals made of special materials. NTN-SNR bearing housings can also be adapted with sealing solutions that differ from the standard design.

Our application engineers will be happy to advise you on the options we offer.





Part 2

Lubrication and mounting

| | |
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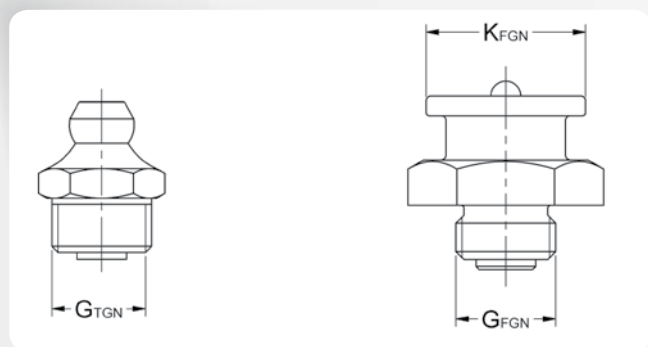
Lubricating fittings

All SNC bearing housings can be lubricated via grease nipples. To that end, there are factory-made threaded holes at two different points of the upper section of the housing. (A) on the bearing's upper section is designed for lubrication through the bearing or for bearings without a central lubrication groove. For bearings that can be lubricated via the outer ring, it is better to feed the lubricant through the lateral (B). (see recommendations on p. 23).

Reference points on the upper section indicate possible positions for fitting a grease nipple. Cone-head and flat head grease nipples are included in the delivery and supplied with the housing. The lubrication holes for larger housings are delivered with their holes plugged with screw plugs in accordance with standard DIN 906. For smaller housings lubrication holes are blanked off with plastic plugs. Grease nipples and Din 906 plugs are supplied with the housing.

Lubricating fitting dimensions

| Housing | Size | | | | Flat head DIN 3404 | Cone head DIN 71412 | | | |
|------------|---------|---------|---------|---------|-----------------------|---------------------------|------------------|------------------|------------------|
| | | | | | | | G _{FGN} | G _{TGN} | K _{FGN} |
| SNC | 205 | | 505 | | FGN-M6-10 | TGN-M6 | M6x1 | M6x1 | 10mm |
| SNC | 206-210 | 305-308 | 506-510 | 605-608 | FGN-M10-10 | TGN-M10 | M10x1 | M10x1 | 10mm |
| SNC | 211-232 | 309-320 | 511-532 | 609-620 | FGN-M10-16 | TGN-M10 | M10x1 | M10x1 | 16mm |



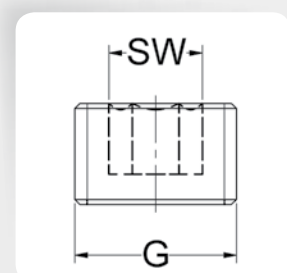
Sealing plug and grease drain hole

To allow excess grease to escape from the housing during relubrication, there is a grease drain hole opposite the lubrication point. It is situated below the shaft outlet opening. It is sealed with a metal threaded plug in the factory. In addition to the default position,

other locations can also be selected for the grease drain hole. These positions are indicated by centre punching.

Sealing plug dimensions

| Housing | Size | | | | Width across flats (in mm) | |
|------------|---------|---------|---------|---------|----------------------------|---------|
| | | | | | SW | G |
| SNC | 205-210 | 305-308 | 505-510 | 605-608 | 5 | M10x1 |
| SNC | 211-215 | 309-312 | 511-515 | 609-612 | 6 | M12x1,5 |
| SNC | 216-220 | 313-318 | 516-520 | 613-618 | 8 | M16x1,5 |
| SNC | 222-232 | 319-320 | 522-532 | 619-620 | 10 | M20x1,5 |



Lubrication

Lubricant quantities

The SNC series bearing housings are developed with grease lubrication for operation. High speeds or temperatures, heavy loads and adverse ambient conditions are all influencing factors that necessitate relubrication or replacement of the lubricant. Constant lubricant supply, for example from a central lubricating system, is also conceivable.

For the initial fill, it is essential to make sure that the correct quantity of grease is added. For details, refer to the table below.

| Housing size | | | | Grease quantity Initial fill (approx. 60% of cavity) [ccm] |
|--------------|-----|-----|-----|---|
| SNC | | | | |
| 205 | - | 505 | - | 30 |
| 206 | 305 | 506 | 605 | 45 |
| 207 | 306 | 507 | 606 | 65 |
| 208 | 307 | 508 | 607 | 80 |
| 209 | - | 509 | - | 105 |
| 210 | 308 | 510 | 608 | 130 |
| 211 | 309 | 511 | 609 | 180 |
| 212 | 310 | 512 | 610 | 210 |
| 213 | 311 | 513 | 611 | 270 |
| 214 | - | - | - | 290 |
| 215 | 312 | 515 | 612 | 330 |
| 216 | 313 | 516 | 613 | 440 |
| 217 | 314 | 517 | - | 500 |
| 218 | 315 | 518 | 615 | 650 |
| - | - | 519 | 616 | 700 |
| - | - | 520 | 617 | 900 |
| - | 318 | - | 618 | 1100 |
| - | - | 522 | 619 | 1200 |
| - | - | 524 | 620 | 1400 |
| 226 | - | 526 | - | 1600 |
| 228 | - | 528 | - | 2000 |
| 230 | - | 530 | - | 2500 |
| 232 | - | 532 | - | 3000 |

For re-lubrication via position A, the lubricant drain hole should be open and the initial filling quantity of grease should be added. When a stable state is attained, i.e. when no more grease comes out, the hole can be plugged again. When re-lubricating spherical roller bearings via the lubrication groove on the outer ring (W33), the quantity of grease needed can be determined with the figures provided on page 42 and 43 of the ULTAGE spherical roller bearings catalogue. In that case it is better to choose position B for re-lubrication.

Mounting the bearings

It is often the case that mounting errors cause the premature failure of a bearing arrangement. We therefore recommend that the mounting instructions are followed as closely as possible to ensure that the rolling bearings are properly mounted.

Use of the correct tools is also a prerequisite. NTN-SNR supplies useful accessories that simplify the mounting work and prevent damage to the bearings.

Bearing with cylindrical bore

A distinction is made between mounting the rolling bearings in a warm or cold condition. The type of mounting depends on the bearing dimensions - bearings with a bore diameter above 40 mm should be mounted when warm.

Using an NTN-SNR induction heating device allows the bearings to be heated to the specified temperature, so that they can be attached to the shaft with no problems. Cold mounting is carried out using a hydraulic press or a suitable alternative tool. For mounting with a mounting sleeve and

dead blow (tool IFT set 33/ industrial fitting tool set), it must be ensured that the force must always act on the fixed bearing ring. The end of the mounting sleeve adjacent to the rolling bearing ring must be parallel and perpendicular to the shaft axis. The mounting force should act in line with the shaft axis.

Direct contact between the dead blow and the bearing is to be avoided.

Bearing with tapered bore (adapter sleeve mounting)

The radial clearance of the bearing must be checked using feeler gauges (use NTN-SNR feeler gauges + mounting card). Slide the rolling bearing onto the sleeve and mount the lock nut. Do not fully tighten the lock nut. Slide the pre-mounted rolling bearing and sleeve to the desired position on the shaft. The floating bearing should always be positioned in the centre of the housing. To check this, the shaft can be provisionally placed in the housing. The adapter sleeve nut is now tightened using a hook spanner (available from NTN-SNR). During the tightening process, the reduction of the clearance in the rolling bearing must be constantly checked using

the feeler gauges. The recommended residual set for each bearing is provided on page 26. When mounting the self-aligning ball bearings, the lock nut is tightened until the clearance is almost zero. It must be ensured that the outer ring of the bearing can still be easily turned by hand. Once the bearing is correctly set remove lock nut fit lock washer and replace lock nut. The lock nut is fixed and secured by bending a tongue on the lock washer into a groove on the lock nut. The bearings are then filled with the required quantity of grease.

For more details on mounting bearings, see the general NTN-SNR catalogue.

Preparation and important instructions for mounting

- It is important to ensure that mounting can be carried out in an environment that is dry and free of dust.
- The work station or mounting area must be cleaned before starting. Make sure that clean tools are used and that operators are familiar with all safety regulations for the equipment used in mounting.
- Working with compressed air is prohibited in the mounting area (exception: impact wrench).
- The bearings, adapter sleeves, locating rings and regulation discs should not be removed from their original packaging until immediately before mounting.

Caution: Do not wash bearings!

- The shaft, sleeves and the inner sections of the housing should be degreased or cleaned.
- It must be ensured that the clamping surface is clean and even (min. IT7, measured across diagonal). We recommend a roughness of approx. Ra 12.5µm for the clamping surface.
- The upper and lower sections of the housing have identical markings on the side. If several housings are being mounted simultaneously, they may not under any circumstances be exchanged.

The seals include mounting instructions in the packaging.



Checking the radial clearance on assembly

| Bearing bore [mm] | | Before assembly | | | | | | After assembly | | | | | | Axial displacement | | | |
|-------------------|-----|-------------------------|-------|-------------------------|-------|-------------------------|-------|----------------|----|---------------|----|---------------|----|--------------------|-------|------------|--------|
| | | CN | | C3 | | C4 | | CN | | C3 | | C4 | | [mm] | | | |
| From | To | According ISO 5753 [mm] | | According ISO 5753 [mm] | | According ISO 5753 [mm] | | Feeler gauge* | | Feeler gauge* | | Feeler gauge* | | Taper 1:12 | | Taper 1:30 | |
| | | Min. | Max. | Min. | Max. | Min. | Max. | yes | no | yes | no | yes | no | Min. | Max. | Min. | Max. |
| 30 | 40 | 0,035 | 0,050 | 0,050 | 0,065 | 0,065 | 0,085 | 2 | 3 | 3 | 4 | 4 | 5 | 0,350 | 0,400 | - | - |
| 40 | 50 | 0,045 | 0,060 | 0,060 | 0,080 | 0,080 | 0,100 | 3 | 4 | 3 | 5 | 4 | 6 | 0,400 | 0,450 | - | - |
| 50 | 65 | 0,055 | 0,075 | 0,075 | 0,095 | 0,095 | 0,120 | 3 | 5 | 4 | 6 | 5 | 7 | 0,450 | 0,600 | - | - |
| 65 | 80 | 0,070 | 0,095 | 0,095 | 0,120 | 0,120 | 0,150 | 4 | 6 | 5 | 7 | 6 | 8 | 0,600 | 0,750 | - | - |
| 80 | 100 | 0,080 | 0,110 | 0,110 | 0,140 | 0,140 | 0,180 | 4 | 6 | 6 | 8 | 7 | 10 | 0,700 | 0,900 | 1,700 | 2,200 |
| 100 | 120 | 0,100 | 0,135 | 0,135 | 0,170 | 0,170 | 0,220 | 5 | 7 | 7 | 9 | 9 | 12 | 0,750 | 1,100 | 1,900 | 2,700 |
| 120 | 140 | 0,120 | 0,160 | 0,160 | 0,200 | 0,200 | 0,260 | 8 | 11 | 10 | 13 | 12 | 17 | 1,100 | 1,400 | 2,700 | 3,500 |
| 140 | 160 | 0,130 | 0,180 | 0,180 | 0,230 | 0,230 | 0,300 | 8 | 12 | 11 | 15 | 14 | 19 | 1,200 | 1,600 | 3,000 | 4,000 |
| 160 | 180 | 0,140 | 0,200 | 0,200 | 0,260 | 0,260 | 0,340 | 9 | 13 | 12 | 17 | 16 | 21 | 1,300 | 1,700 | 3,200 | 4,200 |
| 180 | 200 | 0,160 | 0,220 | 0,220 | 0,290 | 0,290 | 0,370 | 11 | 16 | 15 | 20 | 20 | 26 | 1,400 | 2,000 | 3,500 | 5,000 |
| 200 | 225 | 0,180 | 0,250 | 0,250 | 0,320 | 0,320 | 0,410 | 12 | 17 | 17 | 22 | 22 | 28 | 1,600 | 2,200 | 4,000 | 5,500 |
| 225 | 250 | 0,200 | 0,270 | 0,270 | 0,350 | 0,350 | 0,450 | 14 | 19 | 18 | 24 | 24 | 31 | 1,700 | 2,400 | 4,200 | 6,700 |
| 250 | 280 | 0,220 | 0,300 | 0,300 | 0,390 | 0,390 | 0,490 | 15 | 21 | 20 | 27 | 26 | 33 | 1,900 | 2,700 | 4,700 | 6,700 |
| 280 | 315 | 0,240 | 0,330 | 0,330 | 0,430 | 0,430 | 0,540 | 16 | 23 | 22 | 29 | 29 | 37 | 2,000 | 3,000 | 5,000 | 7,500 |
| 315 | 355 | 0,270 | 0,360 | 0,360 | 0,470 | 0,470 | 0,590 | 18 | 25 | 24 | 32 | 32 | 40 | 2,400 | 3,300 | 6,000 | 8,200 |
| 355 | 400 | 0,300 | 0,400 | 0,400 | 0,520 | 0,520 | 0,650 | 20 | 27 | 27 | 36 | 35 | 44 | 2,600 | 3,600 | 6,500 | 9,000 |
| 400 | 450 | 0,330 | 0,440 | 0,440 | 0,570 | 0,570 | 0,720 | 22 | 30 | 29 | 39 | 38 | 49 | 3,100 | 4,000 | 7,700 | 10,000 |
| 450 | 500 | 0,370 | 0,490 | 0,490 | 0,630 | 0,630 | 0,790 | 25 | 33 | 33 | 43 | 42 | 54 | 3,300 | 4,400 | 8,200 | 11,000 |
| 500 | 600 | 0,410 | 0,540 | 0,540 | 0,680 | 0,680 | 0,870 | 28 | 37 | 36 | 46 | 46 | 59 | 3,700 | 5,000 | 9,200 | 12,500 |

*Practical measurement of clearance to within 1/100th of a mm by means feeler gauges.

Relation between the axial displacement (a) of a bearing with tapered bore and the corresponding reduction of its clearance ΔJ_r :

$$\begin{aligned} \text{Taper } 1/12 & \quad a = 12 \Delta J_r / t_i \\ \text{Taper } 1/30 & \quad a = 30 \Delta J_r / t_i \end{aligned}$$

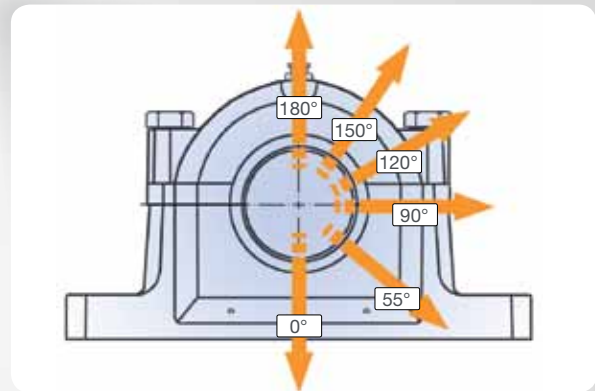
a = Axial displacement
 ΔJ_r = Radial clearance reduction
 t_i = Adjustment impact on the inner ring:
 $t_i = 0,75$ of the bearing is directly mounted on a solid shaft taper journal.
 $t_i = 0,7$ if the bearing is mounted on a taper sleeve

Loads and torques

The table below contains information about the breaking loads of SNC bearing housings and the maximum loading capacity of the connecting bolts between the upper and lower section and the foot bolts. The load directions and the safety factor selected for the appropriate operating conditions can be used to determine the permissible loads. In general, a safety factor of 6 is used for engineering

calculations. For applications involving impacts or extreme loads approaching breaking load, EN-GJS SNCD cast iron housings (see p. 30) can be used. Their breaking load is approximately 1.8 times higher than the values given below. The values below are given solely as a rough guide.

| Bolts to specification ISO 4014 (DIN EN 24014) Property class 8.8 | Recommended tightening torque [Nm] |
|--|--|
| M10 | 35 |
| M12 | 65 |
| M16 | 150 |
| M20 | 290 |
| M24 | 500 |
| M30 | 1005 |



| Housing size | | | | Housing breaking loads in load direction | | | | | |
|--------------|-----|-----|-----|--|------|------|------|------|------|
| | | | | 0° | 55° | 90° | 120° | 150° | 180° |
| SNC | | | | [kN] | [kN] | [kN] | [kN] | [kN] | [kN] |
| 205 | - | 505 | - | 180 | 160 | 95 | 70 | 60 | 80 |
| 206 | 305 | 506 | 605 | 200 | 170 | 100 | 80 | 67 | 85 |
| 207 | 306 | 507 | 606 | 224 | 190 | 121 | 85 | 80 | 95 |
| 208 | 307 | 508 | 607 | 265 | 220 | 132 | 95 | 85 | 115 |
| 209 | - | 509 | - | 280 | 235 | 140 | 100 | 90 | 120 |
| 210 | 308 | 510 | 608 | 315 | 265 | 160 | 121 | 110 | 140 |
| 211 | 309 | 511 | 609 | 355 | 280 | 170 | 125 | 118 | 145 |
| 212 | 310 | 512 | 610 | 355 | 300 | 180 | 132 | 125 | 160 |
| 213 | 311 | 513 | 611 | 400 | 345 | 210 | 150 | 132 | 170 |
| 214 | - | - | - | 450 | 360 | 220 | 160 | 145 | 185 |
| 215 | 312 | 515 | 612 | 475 | 411 | 250 | 185 | 160 | 215 |
| 216 | 313 | 516 | 613 | 500 | 430 | 265 | 190 | 175 | 220 |
| 217 | 314 | 517 | - | 560 | 480 | 290 | 205 | 191 | 250 |
| 218 | 315 | 518 | 615 | 670 | 550 | 340 | 250 | 220 | 285 |
| - | - | 519 | 616 | 710 | 580 | 355 | 265 | 230 | 300 |
| - | - | 520 | 617 | 750 | 630 | 375 | 280 | 250 | 320 |
| - | 318 | - | 618 | 800 | 670 | 400 | 315 | 280 | 340 |
| - | - | 522 | 619 | 950 | 800 | 450 | 355 | 320 | 400 |
| - | - | 524 | 620 | 950 | 800 | 475 | 355 | 320 | 420 |
| 226 | - | 526 | - | 1060 | 900 | 540 | 410 | 360 | 450 |
| 228 | - | 528 | - | 1250 | 1060 | 630 | 475 | 430 | 530 |
| 230 | - | 530 | - | 1400 | 1200 | 730 | 540 | 480 | 600 |
| 232 | - | 532 | - | 1700 | 1450 | 860 | 640 | 570 | 730 |

| Connecting bolts (upper/lower section) | Max. Load capacity for both bolts in load direction | | | Foot bolts |
|--|---|------|------|--------------------|
| | 120° | 150° | 180° | |
| Property class 8.8 | [kN] | [kN] | [kN] | Property class 8.8 |
| M10x40 | 60 | 35 | 30 | M12 |
| M10x40 | 60 | 35 | 30 | M12 |
| M10x45 | 60 | 35 | 30 | M12 |
| M12x50 | 80 | 45 | 40 | M12 |
| M12x55 | 80 | 45 | 40 | M12 |
| M12x55 | 80 | 45 | 40 | M12 |
| M16x60 | 180 | 100 | 90 | M16 |
| M16x60 | 180 | 100 | 90 | M16 |
| M16x70 | 180 | 100 | 90 | M16 |
| M16x70 | 180 | 100 | 90 | M16 |
| M16x70 | 180 | 100 | 90 | M16 |
| M16x80 | 180 | 100 | 90 | M20 |
| M16x80 | 180 | 100 | 90 | M20 |
| M20x90 | 260 | 150 | 130 | M20 |
| M20x100 | 260 | 150 | 130 | M20 |
| M24x100 | 360 | 210 | 180 | M24 |
| M24x110 | 360 | 210 | 180 | M24 |
| M24x130 | 360 | 210 | 180 | M24 |
| M24x130 | 360 | 210 | 180 | M24 |
| M24x130 | 360 | 210 | 180 | M24 |
| M24x140 | 360 | 210 | 180 | M30 |
| M24x150 | 360 | 210 | 180 | M30 |
| M30x160 | 730 | 532 | 360 | M30 |

Housing fixing

Markings for mounting on I sections

Four markings in housing foot specify the positions that can be used for the alternative fastening holes. These should be used if the housing cannot be mounted using the two centrally positioned fastening holes. For example, this can be the case when attaching to I sections. The

positions for the bolt holes and there diameters can be found in the table on Page 29.

Pin markings for additional dowel pins

SNC bearing housings can be fixed onto the mounting surface using additional dowel pins. To do this, drill holes at the four marking points for the dowel pins. Pinning is useful if extremely high loads will occur parallel to the mounting surface. The position of the holes in

the support surface and the recommended dowel pin diameters can be found in the table on Page 29.

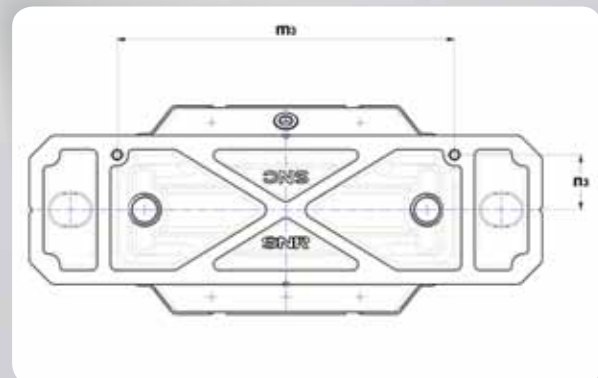
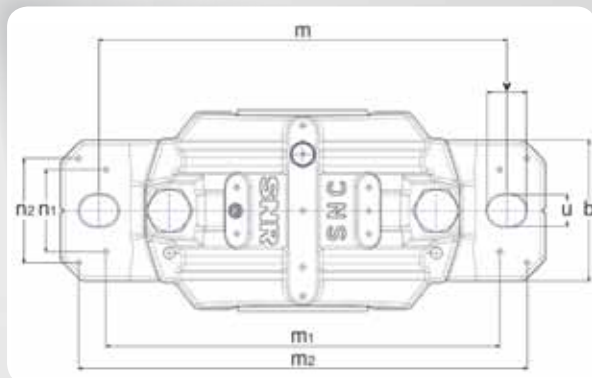
Dowel holes

The holes drilled on the underside of the housing foot simplify precise alignment of the units in series production. Dowel pin holes that have been pre-installed in the mounting surface are set out in the table on Page 29 to indicate there exact positions. If modification of the

housing is necessary, the dowel holes can also be used for setting up in the machining process.

| Housing sizes SNC | | | | Marking for alternative mounting bolt holes | | | Marking for additional dowel pins | | | Pre drilled dowel holes | | |
|-------------------|-----|-----|-----|---|-----|------|-----------------------------------|-----|-----|-------------------------|-----------|-----|
| | | | | m1 | n1 | Bore | m2 | n2 | Pin | m3 ± 0,1* | n3 ± 0,1* | Pin |
| | | | | | | ∅ | | | ∅ | | | ∅ |
| 205 | - | 505 | - | 116 | 28 | 7 | 152 | 32 | 5 | 101 | 18 | 5 |
| 206 | 305 | 506 | 605 | 130 | 25 | 7 | 172 | 38 | 5 | 113 | 18 | 5 |
| 207 | 306 | 507 | 606 | 135 | 25 | 7 | 172 | 38 | 5 | 113 | 18 | 5 |
| 208 | 307 | 508 | 607 | 160 | 34 | 11 | 188 | 44 | 6 | 130 | 22 | 5 |
| 209 | - | 509 | - | 160 | 34 | 11 | 188 | 44 | 6 | 130 | 22 | 5 |
| 210 | 308 | 510 | 608 | 160 | 34 | 11 | 188 | 44 | 6 | 130 | 22 | 5 |
| 211 | 309 | 511 | 609 | 200 | 40 | 14 | 234 | 49 | 8 | 162 | 24 | 6 |
| 212 | 310 | 512 | 610 | 200 | 40 | 14 | 234 | 54 | 8 | 162 | 24 | 6 |
| 213 | 311 | 513 | 611 | 220 | 48 | 14 | 252 | 58 | 8 | 182 | 29 | 6 |
| 214 | - | - | - | 220 | 48 | 14 | 252 | 58 | 8 | 182 | 29 | 6 |
| 215 | 312 | 515 | 612 | 220 | 48 | 14 | 257 | 58 | 8 | 186 | 31,5 | 6 |
| 216 | 313 | 516 | 613 | 252 | 52 | 18 | 288 | 66 | 8 | 210 | 32,5 | 6 |
| 217 | 314 | 517 | - | 252 | 52 | 18 | 292 | 66 | 8 | 210 | 32,5 | 6 |
| 218 | 315 | 518 | 615 | 280 | 58 | 18 | 317 | 70 | 8 | 227 | 37 | 6 |
| - | - | 519 | 616 | 280 | 58 | 18 | 317 | 70 | 8 | 227 | 37 | 6 |
| - | - | 520 | 617 | 300 | 66 | 18 | 348 | 78 | 8 | 250 | 40 | 8 |
| - | 318 | - | 618 | 300 | 66 | 18 | 348 | 78 | 8 | 250 | 40 | 8 |
| - | - | 522 | 619 | 320 | 74 | 18 | 378 | 88 | 8 | 282 | 45 | 8 |
| - | - | 524 | 620 | 330 | 74 | 18 | 378 | 88 | 8 | 282 | 45 | 8 |
| 226 | - | 526 | - | 370 | 80 | 22 | 414 | 92 | 12 | 302 | 49,5 | 8 |
| 228 | - | 528 | - | 400 | 92 | 26 | 458 | 108 | 12 | 327 | 59 | 8 |
| 230 | - | 530 | - | 430 | 100 | 26 | 486 | 116 | 12 | 352 | 62 | 8 |
| 232 | - | 532 | - | 450 | 100 | 26 | 506 | 116 | 12 | 372 | 62,5 | 8 |

* as a reference the measurement m3 and n3 is taken from the centre line of the housing



The new spheroidal-graphite (ductile) cast iron housings (EN-GJS : SNCD)

NTN-SNR's new SNCD range has been created to meet more demanding requirements in terms of resistance and stability. The use of bearings with a higher load capacity and the use of higher dynamic loads in modern machines

explains this market trend. SNCD housings are currently available from size 520 upwards (smaller dimensions are available on request).

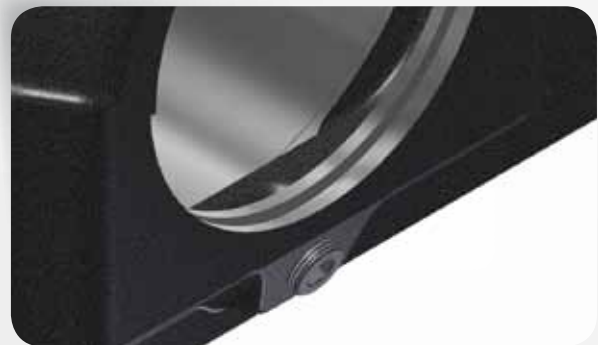
Benefits:

- new range in EN-GJS cast iron for specific applications in accordance with standard DIN EN 1563
- new and robust design*
- the advantageous characteristics of EN-GJS cast iron make for stronger housing with a higher load capacity*
- higher tensile strength*
- better elasticity before failure of spheroidal-graphite cast iron, hence good shock absorbing properties and positive influence on the behaviour of bearings in applications
- especially well suited to low-temperature applications
- the breaking load of the housing is 1.8 times higher*
- identical dimensions* - which means the same type of bearings and seals can be used

* with respect to housings in standard grey cast iron

Grease drain holes:

- Delivered with a grease drain hole
- the drain hole is located in the housing lower section opposite the lubrication point
- better accessibility thanks to the optimized angle of entry
- two additional marks for alternative positions



Resistance properties:

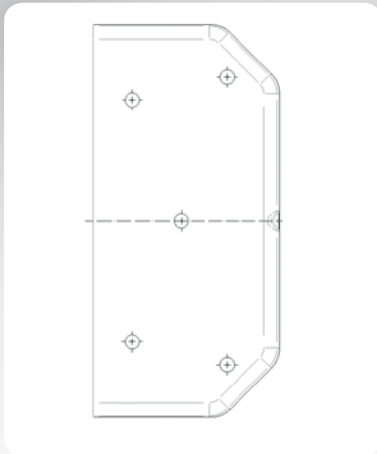
The development of SNCD housings drew on the very latest knowledge concerning finite element calculations. The optimized reinforcement ribs on the upper section, the reinforced structure of the linking bolts and the solid construction of mounting surfaces make for particularly high stability and rigidity. Moreover, the improved construction of the base area reduces stress peaks in the material at the bearing journal.



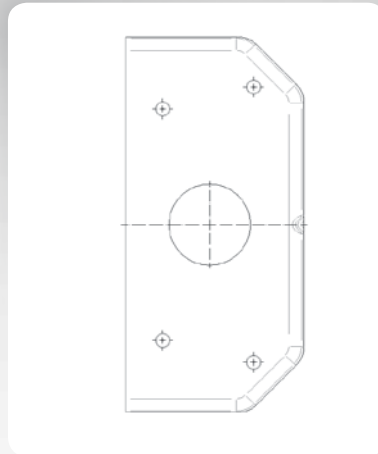
Fixing options:

There are several options for fixing SNCD housings to the clamping surface. SNCD housings are delivered as standard with a solid leg, without a clamping hole. On each side, the projected area contains three marks representing available positions for drilling holes for the leg's bolts. The

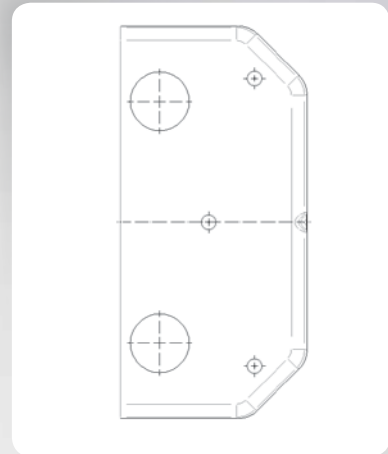
holes can be drilled by the user as shown in the diagram below, or directly by NTN-SNR on request. Example for an SNCD 522-619 with four holes for mounting, order: SNCD 522-619MH2.



Standard version with no hole for mounting
SNCD



Version with two holes for mounting
SNCD..MH1



Version with four holes for mounting
SNCD..MH2

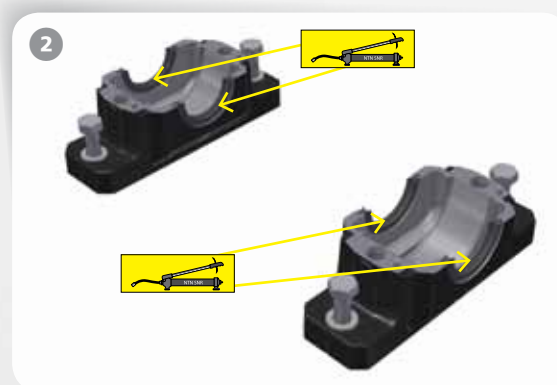


| | MH1 | | MH2 | | |
|--------------|------|------|------|------|------|
| | A1 | D1 | B1 | B2 | D2 |
| | [mm] | [mm] | [mm] | [mm] | [mm] |
| SNCD 510-608 | 170 | 15 | 160 | 34 | 11 |
| SNCD 511-609 | 210 | 18 | 200 | 40 | 14 |
| SNCD 512-610 | 210 | 18 | 200 | 40 | 14 |
| SNCD 513-611 | 230 | 18 | 220 | 48 | 14 |
| SNCD 515-612 | 230 | 18 | 220 | 48 | 14 |
| SNCD 516-613 | 260 | 22 | 252 | 52 | 18 |
| SNCD 517 | 260 | 22 | 252 | 52 | 18 |
| SNCD 518-615 | 290 | 22 | 280 | 58 | 18 |
| SNCD 519-616 | 290 | 22 | 280 | 58 | 18 |
| SNCD 520-617 | 320 | 26 | 300 | 66 | 18 |
| SNCD 522-619 | 350 | 26 | 320 | 74 | 18 |
| SNCD 524-620 | 350 | 26 | 330 | 74 | 18 |
| SNCD 226-526 | 380 | 28 | 370 | 80 | 22 |
| SNCD 228-528 | 420 | 35 | 400 | 92 | 26 |
| SNCD 230-530 | 450 | 35 | 430 | 100 | 26 |
| SNCD 232-532 | 470 | 35 | 450 | 100 | 26 |

Double lip seal mounting SC..DS

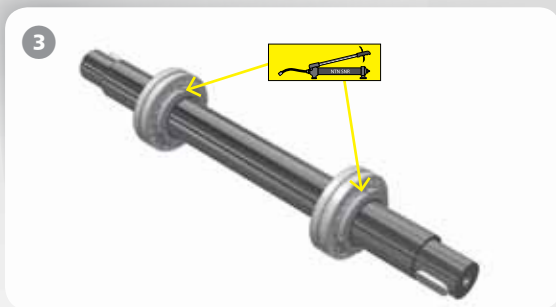


1 Locate the lower sections of the housings.

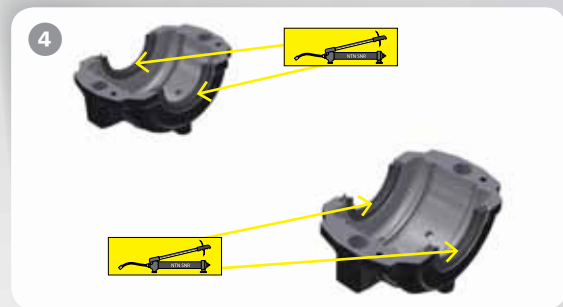


2 Insert half of the seal into the sealing grooves on each lower housing section. In units with an internal shaft end, only one seal is required in total. The cover plate SC..EC is used instead of the second seal in this case.

Add lubricant to the cavity between the two sealing lips.



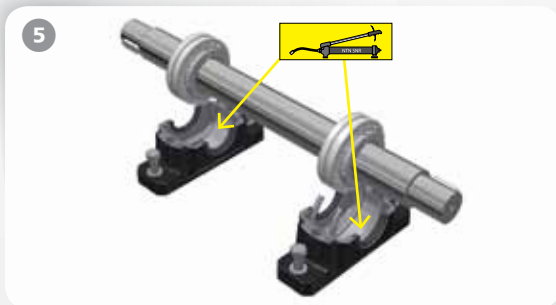
Clamp the shaft horizontally (protect the shaft against damage in the area of the clamping). The bearings should be positioned on the shaft as described in the [Mounting the bearings](#) section and completely filled with grease.



Insert the other halves of the seals into the sealing grooves on the upper housing sections and add lubricant in the cavity between the two sealing lips.

Units with regulation discs

In units with a regulation disc, the regulation discs must be mounted on the grease drain hole side. The position is specified in the table on Page 12. When using rolling bearings with adapter sleeves, it must be ensured that the lock nuts are positioned on the lubricating fitting side. Tighten the two set screws with the appropriate tightening torques as set out in the table on Page 12 (this only applies to 500 and 600 series regulation discs).



Insert the pre-mounted shaft into the lower housing section. For the floating bearing version, position the bearing centrally on the bearing seat. Distribute the remaining quantities of grease (table on Page 23) evenly in the lower housing sections.

Locating rings

For the fixed bearing version, insert the two locating rings on each side of the bearing in the lower housing section.



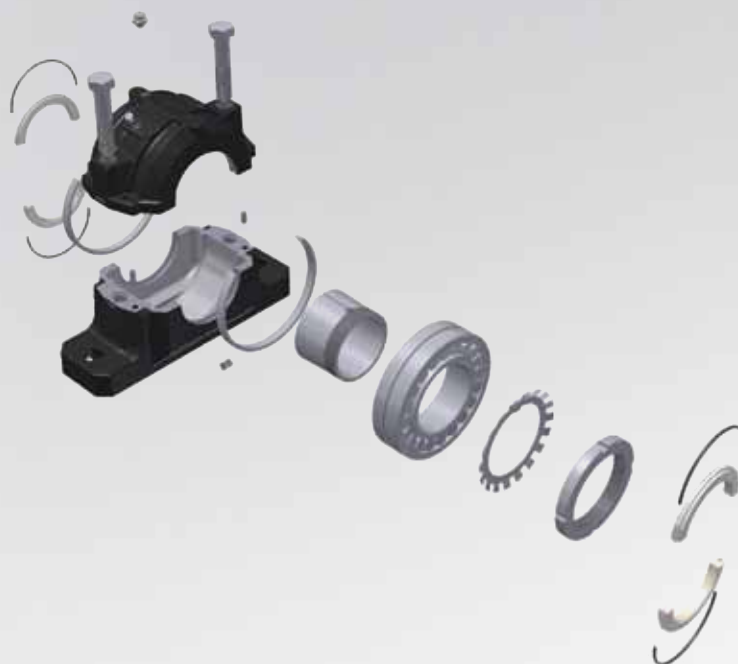
Position the lower housing section correctly using the alignment markings and slightly tighten the foot bolts.



Install the upper part of the bearing and tighten the connecting bolts evenly at the tightening torque specified in the table on page 27.

Check the alignment of the bearing housing again and then tighten the foot bolts to the appropriate tightening torque (table, Page 27).

Felt strip seal mounting SC..FS



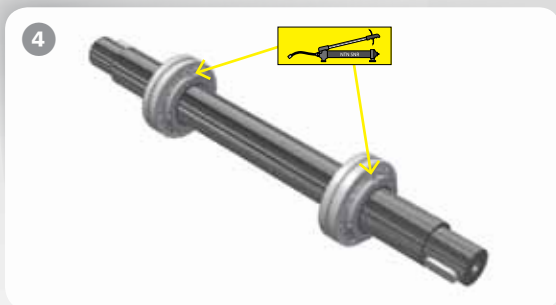
1 Locate the lower sections of the housings.



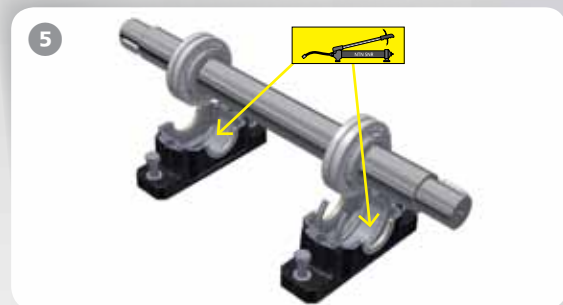
2 Insert a round cord into the sealing grooves on each lower housing section. In units with an internal shaft end, only one seal is required in total. The cover plate SC..EC is used instead of the second seal in this case.



3 Insert the retainer containing the oil-soaked felt strips into the sealing grooves in the lower housing sections on top of the round cord.



Clamp the shaft horizontally (protect the shaft against damage in the area of the clamping). When using V-rings, slide those that are located between the bearing units (internal) onto the shaft. Later mounting is not possible. The bearings should be positioned on the shaft as described in the [Mounting the bearings](#) section and completely filled with grease.



Insert the pre-mounted shaft into the lower housing section. For the floating bearing version, position the bearing centrally on the bearing seat. Distribute the remaining quantities of grease (table, Page 23) evenly in the lower housing sections.

Locating rings

For the fixed bearing version, insert the two locating rings on each side of the bearing in the lower housing section.

Units with regulation discs

In units with a regulation disc, the regulation discs must be mounted on the grease drain hole side. The position is specified in the table on Page 12. When using rolling bearings with adapter sleeves, it must be ensured that the lock nuts are positioned on the lubricating fitting side. Tighten the two set screws with the appropriate tightening torques as set out in the table on Page 12 (this only applies to 500 and 600 series regulation discs).



When using V-rings, now slide those located outside the housing onto the shaft. Position the lower housing section correctly using the alignment markings and slightly tighten the foot bolts.



Insert the remaining round cords into the grooves on the upper housing sections and then insert the retainers containing the oil-soaked felt strips.

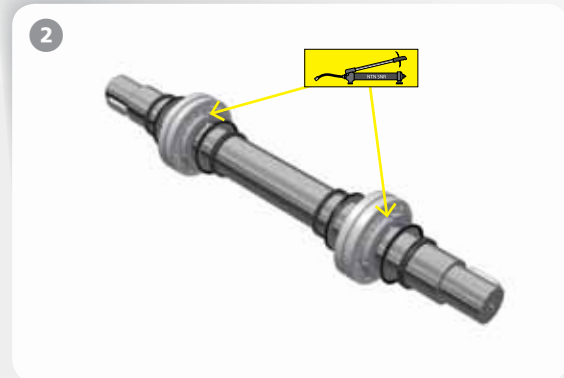


Position the upper housing section and tighten the connecting bolts evenly to the tightening torques specified in the table on Page 27. Slide all pre-mounted V-rings with sealing lips to their final position next to the contact washers. Grease the sealing lips first. Check the alignment of the bearing housing again and then tighten the foot bolts to the appropriate tightening torque (table, Page 27).

V-ring seal mounting SC..SV



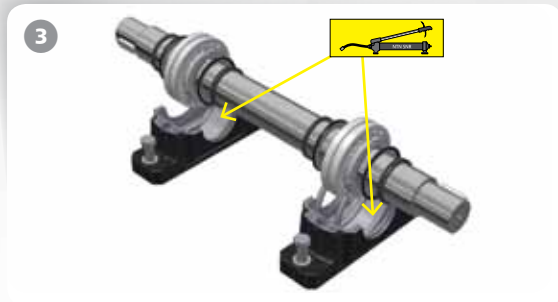
1 Locate the lower sections of the housings.



2 Clamp the shaft horizontally (protect the shaft against damage in the area of the clamping). The internal contact washers and V-rings are slid onto the shaft first. The sequence and arrangement of the sealing elements is crucial to ensure correct mounting. On units with an internal shaft end, only one contact washer and one V-ring is used. The cover SC..EC is used instead of the second seal in this case. The bearings should be positioned on the shaft as described in the [Mounting the bearings](#) section and completely filled with grease.

Units with regulation discs

Regulation discs must be mounted on the side of the grease drain hole. The position is specified in the table on Page 12. When using rolling bearings with adapter sleeves, it must be ensured that the lock nuts are positioned on the lubricating fitting side. Tighten the two set screws with the appropriate tightening torques as shown in the table on Page 12 (this only applies to 500 and 600 series regulation discs).



Insert the pre-mounted shaft into the lower housing section. Carefully insert the contact washers into the sealing grooves on the lower housing sections. For the floating bearing version position the bearing centrally on the bearing seat.

Distribute the remaining quantities of grease (table, Page 23) evenly in the lower housing sections.

Locating rings

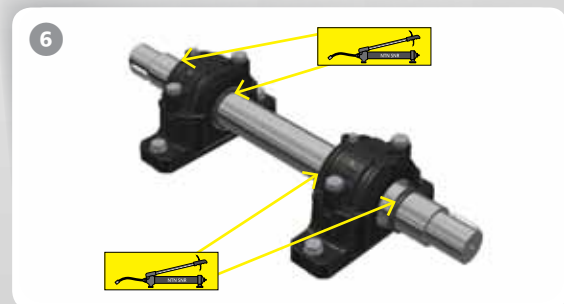
For the fixed bearing version, insert the two locating rings on the side of the bearing in the lower housing section.



Position the lower housing section correctly using the alignment markings and slightly tighten the foot bolts.



Position the upper housing section and tighten the connecting bolts evenly to the tightening torques specified in the table on Page 27.



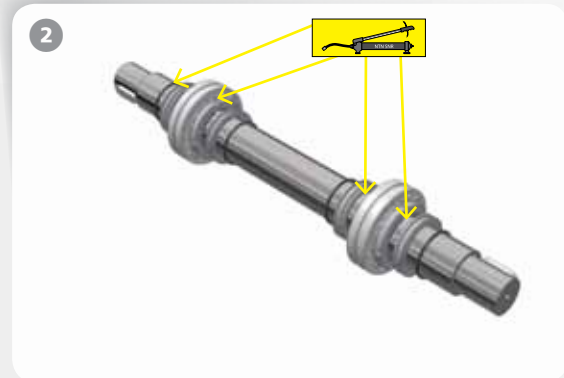
Slide all pre-mounted V-rings with sealing lips to their final position next to the contact washers. Grease the sealing lips first.

Check the alignment of the bearing housing again and then tighten the foot bolts to the appropriate tightening torque (table, Page 27).

Labyrinth seal mounting SC..LA



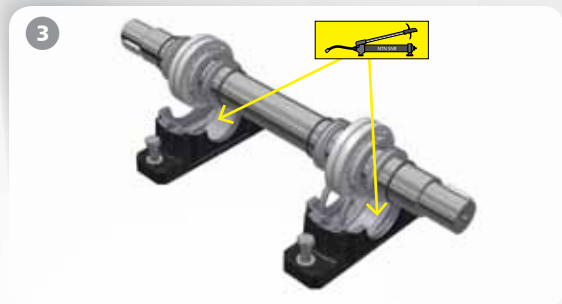
Locate the lower sections of the housings.



Clamp the shaft horizontally (protect the shaft against damage in the area of the clamping). Slide the internal labyrinth rings onto the shaft. Ensure the correct mounting direction. On units with an internal shaft end, only one labyrinth seal is used. The cover plate SC..EC is used instead of the second seal in this case. The bearings should be positioned on the shaft as described in the [Mounting the bearings](#) section and completely filled with grease. Then position the external labyrinth rings on the shaft in the correct mounting direction.

Units with regulation discs

Regulation discs must be mounted on the side of the grease drain hole. The position is specified in the table on Page 12. When using rolling bearings with adapter sleeves, it must be ensured that the lock nuts are positioned on the lubricating fitting side. Tighten the two set screws with the appropriate tightening torques as shown in the table on Page 12 (this only applies to 500 and 600 series regulation discs).



Insert the pre-mounted shaft into the lower housing section. Carefully insert the labyrinth seals into the sealing grooves on the lower housing sections. For the floating bearing version, position the bearing centrally on the bearing seat. Distribute the remaining quantities of grease (table, Page 23) evenly in the lower housing sections.

Locating rings

For the fixed bearing version, insert the two locating rings on each side of the bearing in the lower housing section.



Position the lower housing section correctly using the alignment markings and slightly tighten the foot bolts.



Position the upper housing section and tighten the connecting bolts evenly to the tightening torques specified in the table on Page 27.



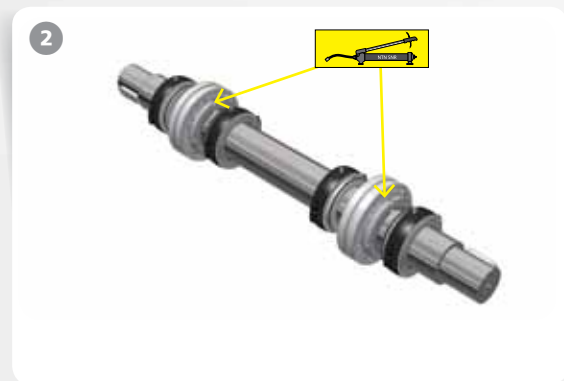
Press a round cord into each circular groove between the shaft and the labyrinth ring. Using a screwdriver makes it easier to insert the cord.

Check the alignment of the bearing housing again and then tighten the foot bolts to the appropriate tightening torque (table, Page 27).

Taconite seal mounting SC..TA



1 Locate the lower sections of the housings.



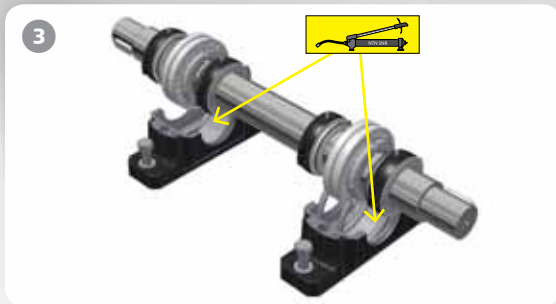
2 Clamp the shaft horizontally (protect the shaft against damage in the area of the clamping).

Before mounting the Taconite seals, lightly grease the shaft sealing rings. Slide the internal sealing elements into place so that the ring grooves with the O ring attached point towards the housing. On units with an internal shaft end, only one Taconite seal is used. The cover plate SC..EC is used instead of the second seal in this case.

The bearings should be positioned on the shaft as described in the *Mounting the bearings* section and completely filled with grease. Now slide the external Taconite seals onto the shaft, ring grooves first.

Units with regulation discs

Regulation discs must be mounted on the side of the grease drain hole. The position is specified in the table on Page 12. When using rolling bearings with adapter sleeves, it must be ensured that the lock nuts are positioned on the lubricating fitting side. Tighten the two set screws with the appropriate tightening torques as shown in the table on Page 12 (this only applies to 500 and 600 series regulation discs).



Carefully insert sealing elements with O rings into the sealing grooves on the lower housing sections. For the floating bearing version, position the bearing centrally on the bearing seat. Distribute the remaining quantities of grease (look at table on page 23) evenly in the lower housing sections.

Locating rings

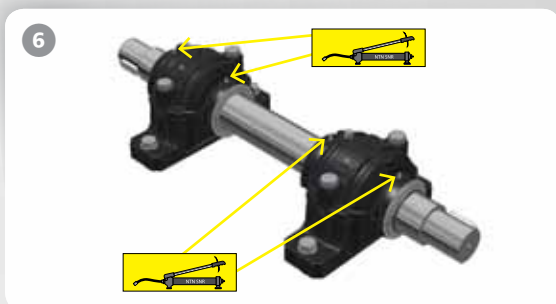
For the fixed bearing version, insert the two locating rings on the side of the bearing in the lower housing section.



Position the lower housing section correctly using the alignment markings and slightly tighten the foot bolts.



Position the upper housing section and tighten the connecting bolts evenly to the tightening torque specified in the table on Page 27



Press a round cord into each circular groove between the shaft and the labyrinth ring. Using a screwdriver makes it easier to insert the cord. Remove plug from the lubricating fitting bore and screw in the lubricating fitting supplied. The seals should then be greased by the lubricating fitting while the shaft is rotating, until grease escapes at the labyrinths. Check the alignment of the bearing housing again and then tighten the foot bolts to the appropriate tightening torque (table, Page 27).





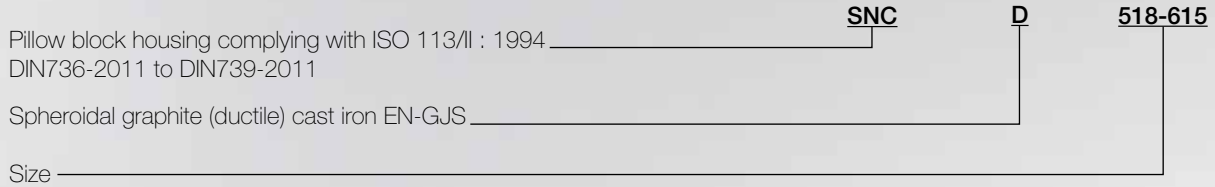
Part 3

Technical data for housing

| | |
|---|----|
| • Designations and explanations | 44 |
| • Seal variants and kit sets | 45 |
| • Examples for ordering SNC bearing housing | 46 |
| • Dimension Table | 48 |

Designations and explanations

Housing



500 Series

Bearing housing for rolling bearings with tapered bore from series 1200K, 2200K, 22200K and 23200K
 Shaft diameter: 20 mm – 140 mm

600 Series

Bearing housing for rolling bearings with tapered bore from series 1300K, 2300K, 21300K and 22300K
 Shaft diameter: 20 mm – 90 mm

200 Series

Bearing housing for rolling bearings with cylindrical bore from series 1200, 2200, 22200 and 23200
 Shaft diameter: 25 mm – 160 mm

300 Series

Bearing housing for rolling bearings with cylindrical bore from series 1300, 2300, 21300 and 22300
 Shaft diameter: 25 mm – 100 mm

Fixed bearing version

All SNC housings can be used as fixed bearings by using locating rings. Locating rings must be ordered separately. Two locating rings are required per housing. The corresponding sizes can be found in the dimension table.

Delivery conditions

Each SNC bearing housing comes complete with appropriate flat headed and tapered lubricating fittings. These are not fitted and can be found inside the housing. The corresponding threaded holes in the upper part of the bearing are delivered plugged with a screw plug in accordance with standard DIN 906, or the blanking screws are supplied with the housing. A metal threaded screw is screwed into the drain hole in the lower section. The shaft outlets are protected by plastic plugs.

Material / Colour / Corrosion Protection

The SNC bearings are made of grey cast iron in accordance with standard DIN EN 1561. In the event of impact load or use at low temperature, the bearings in cast EN-GJS iron as per standard DIN EN 1563 are available from size 520 upwards (smaller ones are available on request, see page 30, SNCD chapter). All the outer surfaces are lacquered as standard in RAL9005. The machined surfaces in the lower part and on the block are treated with a corrosion-resistant product.

Seal variants and kit sets

| | | |
|----------|--|---|
| • SC..DS | Double lip seal | 1x double lip seal (2-part) |
| • SC..FS | Felt strip seal | 1x retainer (2-part) / 1x round cord (2-part) / Felt strips (2-part) |
| • SC..SV | V-ring seal | 1x V-ring (A version) / 1x contact washer |
| • SC..LA | Labyrinth seal | 1x Labyrinth ring / 1x round cord |
| • SC..TA | Taconite seal | 1x Taconite seal (multi-part; assembled) |
| • V..A | V-ring (A version) in addition to SC..FS | |
| • SC..EC | Cover plate | |

All SNC units are designed for both through shaft and blank end bearing arrangements. A cover (SC...EC) is available for blank end versions. This is inserted in the groove between the upper and lower sections in place of the second seal.

[Further information about the individual seal versions can be found in the Sealing systems section.](#)

NOTE

To provide maximum flexibility when it comes to selection, SNC seals are packaged as a set. One seal set is required for each side of the housing.

Accessories

Grease regulation disc RDC

Regulation discs are available as an option. The corresponding sizes can be found in the dimension table.

[Further information about the grease regulation discs can be found in the corresponding section.](#)

Examples for ordering SNC bearing housing

A

Pillow block housing for through shaft; Self-aligning ball bearing 2212 with cylindrical bore for shaft diameter 60 mm; felt strip seal with additional V-ring seal; floating bearing version.

| | | |
|------------------------------|---------|-------------|
| 1 Pillow block housing | NTN-SNR | SNC 212-310 |
| 1 Self-aligning ball bearing | NTN-SNR | 2212 |
| 2 Felt strip seals | NTN-SNR | SC212FS |
| 2 V-ring seals | NTN-SNR | V70A |

B

Pillow block housing for shaft end bearing arrangements; self-aligning roller bearing 23218K with adapter sleeve for shaft diameter 80 mm; double lip seal; regulation disc; fixed bearing version.

| | | |
|--------------------------------|---------|-------------|
| 1 Pillow block housing | NTN-SNR | SNC 518-615 |
| 1 Self-aligning roller bearing | NTN-SNR | 23218EK |
| 1 Adapter sleeve | NTN-SNR | H2318 |
| 2 Locating rings | NTN-SNR | FR160x6,25 |
| 1 Double lip seal | NTN-SNR | SC518DS |
| 1 Cover plate | NTN-SNR | SC518-615EC |
| 1 Regulation disc | NTN-SNR | RDC518 |

Bearing systems

NTN-SNR is a specialist in bearings and related systems. Take advantage of our knowledge and experience in mounting bearings. With us you can procure complete units and fully-mounted modules.

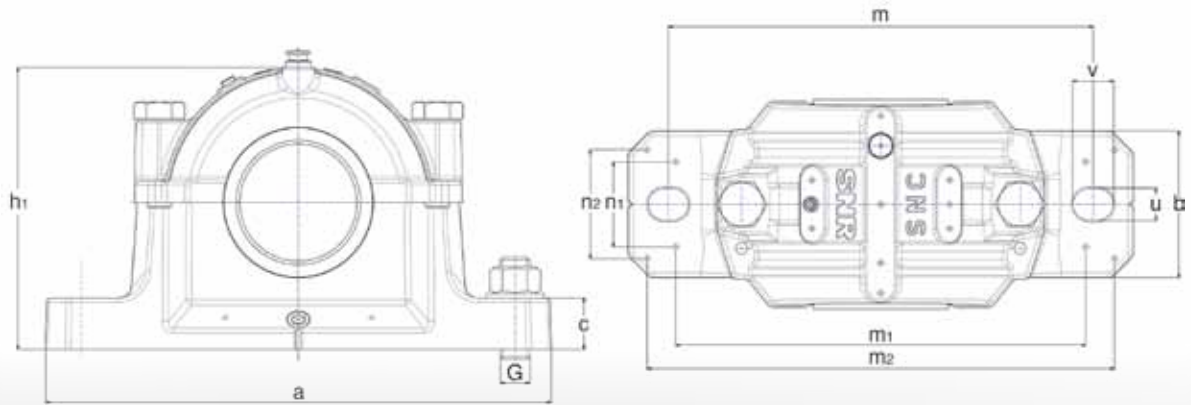
Our range of products includes complete systems of components with shaft and customer-specific solutions. These bearing systems can be integrated directly into your applications. Purchasing turnkey solutions is justified by the cost reduction, in particular for mass production. The

logistics processes are simpler, stock levels are lower and entry into service is quicker. In addition, the risk of mounting errors is reduced.

On request, we supply detailed documentation, including for instance, a description of tests as per standard DIN EN 10204, and, mounting and measuring protocols.

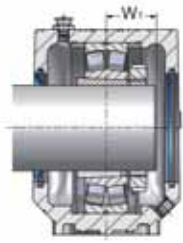
Take advantage of the recognised quality of NTN-SNR products and services.

Dimension table

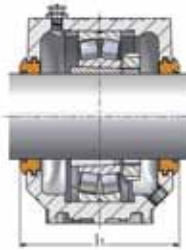


| d | TYP | D | a | b | c | g | h | l | m | G | u | v | h1 | m1 | n2 | m2 | n1 | n3 | Weight |
|------------|-------------------------|----|-----|----|----|----|----|----|-----|-----|----|----|-----|-----|----|-----|----|----|--------|
| Shaft [mm] | Housing dimensions [mm] | | | | | | | | | | | | | | | | | | kg |
| 20 | SNC 505 | 52 | 165 | 46 | 19 | 25 | 40 | 67 | 130 | M12 | 15 | 20 | 74 | 116 | 32 | 152 | 28 | 36 | 1,6 |
| | SNC 605 | 62 | 185 | 52 | 22 | 32 | 50 | 77 | 150 | M12 | 15 | 20 | 89 | 130 | 38 | 172 | 25 | 44 | 2,3 |
| 25 | SNC 506 | 62 | 185 | 52 | 22 | 32 | 50 | 77 | 150 | M12 | 15 | 20 | 89 | 130 | 38 | 172 | 25 | 44 | 2,3 |
| | SNC 606 | 72 | 185 | 52 | 22 | 34 | 50 | 82 | 150 | M12 | 15 | 20 | 93 | 135 | 38 | 172 | 25 | 46 | 2,4 |
| 30 | SNC 507 | 72 | 185 | 52 | 22 | 34 | 50 | 82 | 150 | M12 | 15 | 20 | 93 | 135 | 38 | 172 | 25 | 46 | 2,4 |
| | SNC 607 | 80 | 205 | 60 | 25 | 39 | 60 | 85 | 170 | M12 | 15 | 20 | 107 | 160 | 44 | 188 | 34 | 50 | 3,2 |

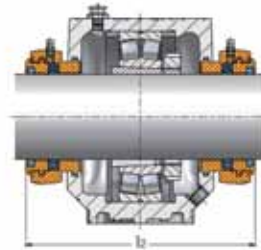
1) Seals must be ordered for each side of the housing.
 2) Optional V-ring available for felt strip seal (FS).



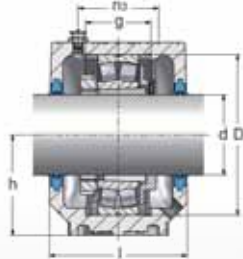
V-ring seal + Cover
SC..SV SC..EC



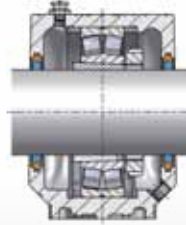
Labyrinth seal
SC..LA



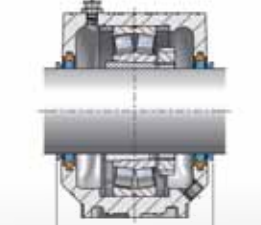
Taconite seal
SC..TA



Double lip seal + Regulation disc
SC..DS RDC



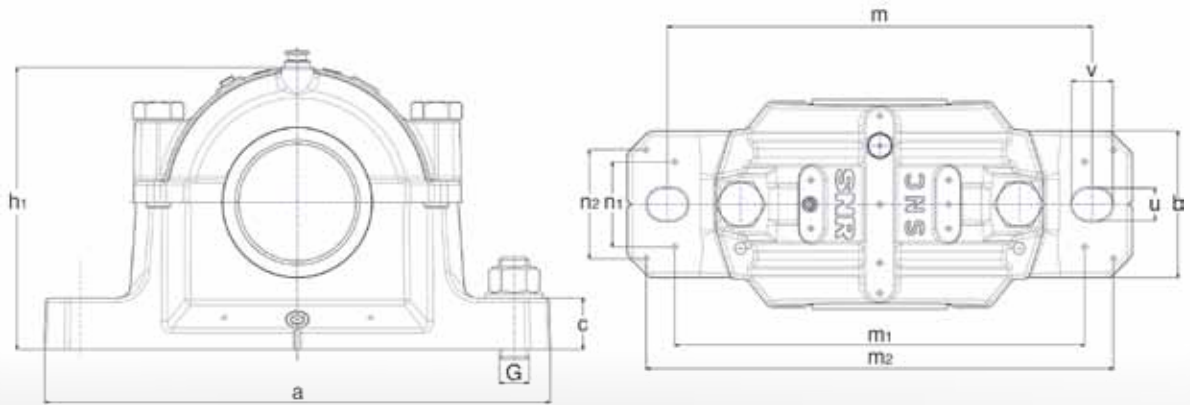
Felt strip seal
SC..FS



Felt strip seal + V-Ring
SC..FS V..A

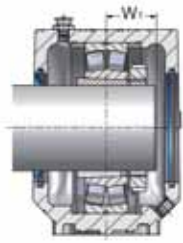
| Housing | Seal ¹⁾ | V-Ring ²⁾ | Cover | w1 | l1 | l2 | l3 | Regulation disc | Rolling bearing | Adapter sleeve | Location ring |
|-------------|--------------------|----------------------|-------------|------|----|-----|-----|-----------------|-----------------|----------------|----------------|
| | | | | [mm] | | | | | | | 2x per housing |
| SNC 505 | SC505DS | V20A | SC505EC | 18,0 | 79 | 134 | 85 | RDC505 | 1205K | H205 | FR52x5 |
| | SC505FS | | | 19,5 | | | | | 2205K | H305 | FR52x3,5 |
| | SC505SV | | | 19,5 | | | | | 22205K | H305 | FR52x3,5 |
| | SC505LA | | | | | | | | | | |
| | SC505TA | | | | | | | | | | |
| SNC 506-605 | SC605DS | V20A | SC506-605EC | 19,0 | 89 | 144 | 95 | RDC605 | 1305K | H305 | FR62x7,5 |
| | SC605FS | | | 22,5 | | | | | 2305K | H2305 | FR62x4 |
| | SC605SV | | | 19,0 | | | | | 21305K | H305 | FR62x7,5 |
| | SC605LA | | | | | | | | | | |
| | SC605TA | | | | | | | | | | |
| SNC 506-605 | SC506DS | V25A | SC506-605EC | 18,5 | 89 | 144 | 95 | RDC506 | 1206K | H206 | FR62x8 |
| | SC506FS | | | 20,5 | | | | | 2206K | H306 | FR62x6 |
| | SC506SV | | | 20,5 | | | | | 22206K | H306 | FR62x6 |
| | SC506LA | | | | | | | | | | |
| | SC506TA | | | | | | | | | | |
| SNC 507-606 | SC606DS | V25A | SC507-606EC | 20,0 | 94 | 148 | 100 | RDC606 | 1306K | H306 | FR72x7,5 |
| | SC606FS | | | 24,0 | | | | | 2306K | H2306 | FR72x3,5 |
| | SC606SV | | | 20,0 | | | | | 21306K | H306 | FR72x7,5 |
| | SC606LA | | | | | | | | | | |
| | SC606TA | | | | | | | | | | |
| SNC 507-606 | SC507DS | V30A | SC507-606EC | 20,0 | 94 | 148 | 100 | RDC507 | 1207K | H207 | FR72x8,5 |
| | SC507FS | | | 23,0 | | | | | 2207K | H307 | FR72x5,5 |
| | SC507SV | | | 23,5 | | | | | 22207K | H307 | FR72x5,5 |
| | SC507LA | | | | | | | | | | |
| | SC507TA | | | | | | | | | | |
| SNC 508-607 | SC607DS | V30A | SC508-607EC | 22,0 | 97 | 151 | 103 | RDC607 | 1307K | H307 | FR80x9 |
| | SC607FS | | | 27,0 | | | | | 2307K | H2307 | FR80x4 |
| | SC607SV | | | 23,0 | | | | | 21307K | H307 | FR80x9 |
| | SC607LA | | | | | | | | | | |
| | SC607TA | | | | | | | | | | |

Dimension table

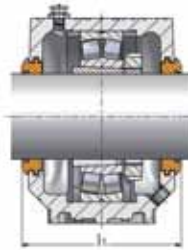


| d | TYP | D | a | b | c | g | h | l | m | G | u | v | h1 | m1 | n2 | m2 | n1 | n3 | Weight |
|------------|-------------------------|-----|-----|----|----|----|----|-----|-----|-----|----|----|-----|-----|----|-----|----|----|--------|
| Shaft [mm] | Housing dimensions [mm] | | | | | | | | | | | | | | | | | | kg |
| 35 | SNC 508 | 80 | 205 | 60 | 25 | 39 | 60 | 85 | 170 | M12 | 15 | 20 | 107 | 160 | 44 | 188 | 34 | 50 | 3,2 |
| | SNC 608 | 90 | 205 | 60 | 25 | 41 | 60 | 90 | 170 | M12 | 15 | 20 | 113 | 160 | 44 | 188 | 34 | 53 | 3,4 |
| 40 | SNC 509 | 85 | 205 | 60 | 25 | 30 | 60 | 85 | 170 | M12 | 15 | 20 | 110 | 160 | 44 | 188 | 34 | 44 | 3,2 |
| | SNC 609 | 100 | 255 | 70 | 28 | 44 | 70 | 95 | 210 | M16 | 18 | 24 | 127 | 200 | 49 | 234 | 40 | 56 | 5,1 |
| 45 | SNC 510 | 90 | 205 | 60 | 25 | 41 | 60 | 90 | 170 | M12 | 15 | 20 | 113 | 160 | 44 | 188 | 34 | 53 | 3,4 |
| | SNC 610 | 110 | 255 | 70 | 30 | 48 | 70 | 105 | 210 | M16 | 18 | 24 | 133 | 200 | 54 | 234 | 40 | 64 | 5,4 |

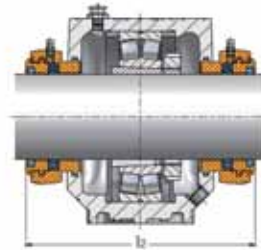
1) Seals must be ordered for each side of the housing.
 2) Optional V-ring available for felt strip seal (FS).



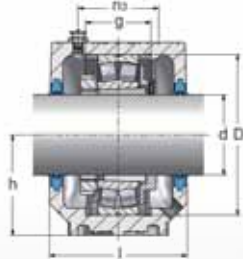
V-ring seal + Cover
SC..SV SC..EC



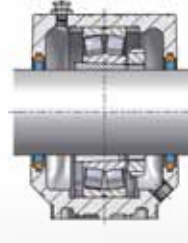
Labyrinth seal
SC..LA



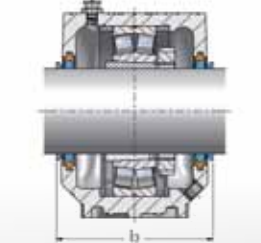
Taconite seal
SC..TA



Double lip seal + Regulation disc
SC..DS RDC



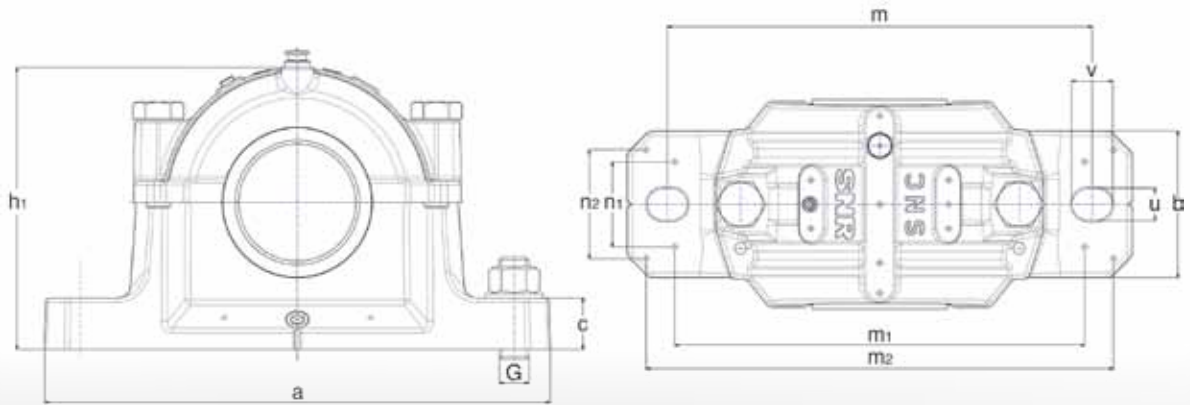
Felt strip seal
SC..FS



Felt strip seal + V-Ring
SC..FS V..A

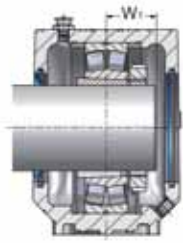
| Housing | Seal ¹⁾ | V-Ring ²⁾ | Cover | w1 | l1 | l2 | l3 | Regulation disc | Rolling bearing | Adapter sleeve | Location ring |
|-------------|--------------------|----------------------|-------------|------|-----|-----|-----|-----------------|-----------------|----------------|----------------|
| | | | | | | | | | | | 2x per housing |
| | | | | [mm] | | | | | | | |
| SNC 508-607 | SC508DS | V35A | SC508-607EC | 21,5 | 97 | 151 | 103 | RDC508 | 1208K | H208 | FR80x10,5 |
| | SC508FS | | | 24,0 | | | | | 2208K | H308 | FR80x8 |
| | SC508SV | | | 24,0 | | | | | 22208K | H308 | FR80x8 |
| | SC508LA | | | | | | | | | | |
| | SC508TA | | | | | | | | | | |
| SNC 510-608 | SC608DS | V35A | SC510-608EC | 24,0 | 102 | 156 | 108 | RDC608 | 1308K | H308 | FR90x9 |
| | SC608FS | | | 29,0 | | | | | 2308K | H2308 | FR90x4 |
| | SC608SV | | | 24,0 | | | | | 21308K | H308 | FR90x9 |
| | SC608LA | | | 29,0 | | | | | 22308K | H2308 | FR90x4 |
| | SC608TA | | | | | | | | | | |
| SNC 509 | SC509DS | V40A | SC509EC | 23,0 | 97 | 151 | 107 | RDC509 | 1209K | H209 | FR85x5,5 |
| | SC509FS | | | 25,0 | | | | | 2209K | H309 | FR85x3,5 |
| | SC509SV | | | 25,0 | | | | | 22209K | H309 | FR85x3,5 |
| | SC509LA | | | | | | | | | | |
| | SC509TA | | | | | | | | | | |
| SNC 511-609 | SC609DS | V40A | SC511-609EC | 26,0 | 107 | 162 | 117 | RDC609 | 1309K | H309 | FR100x9,5 |
| | SC609FS | | | 31,5 | | | | | 2309K | H2309 | FR100x4 |
| | SC609SV | | | 26,0 | | | | | 21309K | H309 | FR100x9,5 |
| | SC609LA | | | 31,5 | | | | | 22309K | H2309 | FR100x4 |
| | SC609TA | | | | | | | | | | |
| SNC 510-608 | SC510DS | V45A | SC510-608EC | 24,5 | 102 | 156 | 112 | RDC510 | 1210K | H210 | FR90x10,5 |
| | SC510FS | | | 26,0 | | | | | 2210K | H310 | FR90x9 |
| | SC510SV | | | 26,0 | | | | | 22210K | H310 | FR90x9 |
| | SC510LA | | | | | | | | | | |
| | SC510TA | | | | | | | | | | |
| SNC 512-610 | SC610DS | V45A | SC512-610EC | 28,0 | 117 | 172 | 127 | RDC610 | 1310K | H310 | FR110x10,5 |
| | SC610FS | | | 34,5 | | | | | 2310K | H2310 | FR110x4 |
| | SC610SV | | | 28,0 | | | | | 21310K | H310 | FR110x10,5 |
| | SC610LA | | | 34,5 | | | | | 22310K | H2310 | FR110x4 |
| | SC610TA | | | | | | | | | | |

Dimension table

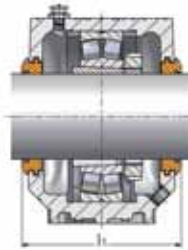


| d | TYP | D | a | b | c | g | h | l | m | G | u | v | h1 | m1 | n2 | m2 | n1 | n3 | Weight |
|------------|-------------------------|-----|-----|----|----|----|----|-----|-----|-----|----|----|-----|-----|----|-----|----|----|--------|
| Shaft [mm] | Housing dimensions [mm] | | | | | | | | | | | | | | | | | | kg |
| 50 | SNC 511 | 100 | 255 | 70 | 28 | 44 | 70 | 95 | 210 | M16 | 18 | 24 | 127 | 200 | 49 | 234 | 40 | 56 | 5,1 |
| | SNC 611 | 120 | 275 | 80 | 30 | 51 | 80 | 110 | 230 | M16 | 18 | 24 | 148 | 220 | 58 | 252 | 48 | 63 | 7,0 |
| 55 | SNC 512 | 110 | 255 | 70 | 30 | 48 | 70 | 105 | 210 | M16 | 18 | 24 | 133 | 200 | 54 | 234 | 40 | 64 | 5,4 |
| | SNC 612 | 130 | 280 | 80 | 30 | 56 | 80 | 115 | 230 | M16 | 18 | 24 | 155 | 220 | 58 | 257 | 48 | 72 | 7,3 |
| 60 | SNC 513 | 120 | 275 | 80 | 30 | 51 | 80 | 110 | 230 | M16 | 18 | 24 | 148 | 220 | 58 | 252 | 48 | 63 | 7,0 |
| | SNC 613 | 140 | 315 | 90 | 32 | 58 | 95 | 120 | 260 | M20 | 22 | 28 | 175 | 252 | 66 | 288 | 52 | 72 | 10,4 |

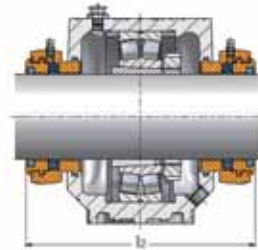
1) Seals must be ordered for each side of the housing.
 2) Optional V-ring available for felt strip seal (FS).



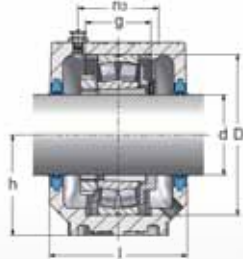
V-ring seal + Cover
SC..SV SC..EC



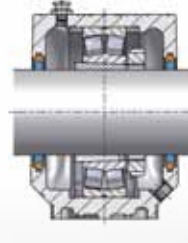
Labyrinth seal
SC..LA



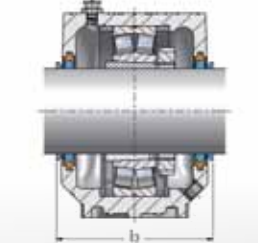
Taconite seal
SC..TA



Double lip seal + Regulation disc
SC..DS RDC



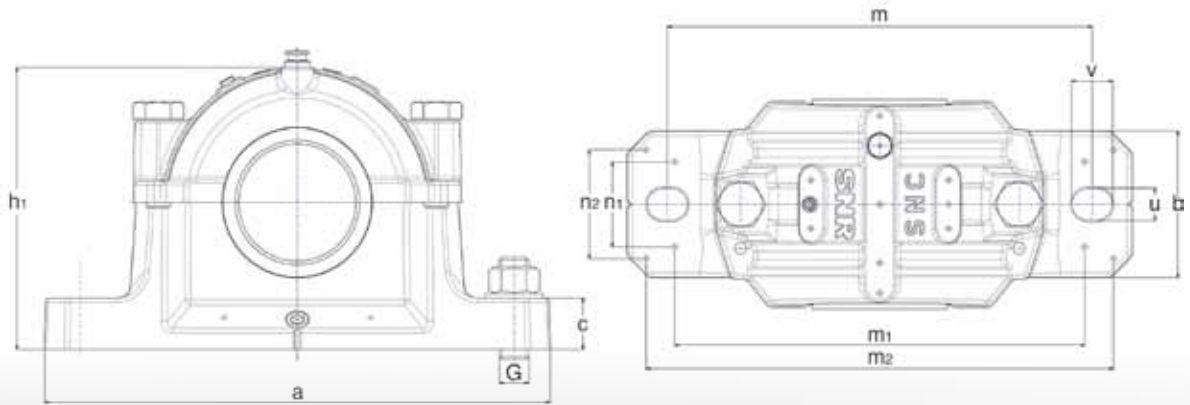
Felt strip seal
SC..FS



Felt strip seal + V-Ring
SC..FS V..A

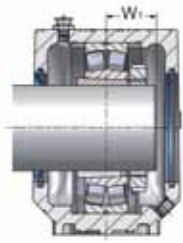
| Housing | Seal ¹⁾ | V-Ring ²⁾ | Cover | w1 | l1 | l2 | l3 | Regulation disc | Rolling bearing | Adapter sleeve | Location ring |
|-------------|--------------------|----------------------|-------------|------|-----|-----|-----|-----------------|-----------------|----------------|----------------|
| | | | | | | | | | | | 2x per housing |
| | | | | [mm] | | | | | | | |
| SNC 511-609 | SC511DS | V50A | SC511-609EC | 25,5 | 107 | 162 | 117 | RDC511 | 1211K | H211 | FR100x11,5 |
| | SC511FS | | | 27,5 | | | | | 2211K | H311 | FR100x9,5 |
| | SC511SV | | | 27,5 | | | | | 2221K | H311 | FR100x9,5 |
| | SC511LA | | | | | | | | | | |
| | SC511TA | | | | | | | | | | |
| SNC 513-611 | SC611DS | V50A | SC513-611EC | 29,5 | 122 | 177 | 132 | RDC611 | 1311K | H311 | FR120x11 |
| | SC611FS | | | 36,5 | | | | | 2311K | H2311 | FR120x4 |
| | SC611SV | | | 29,5 | | | | | 2131K | H311 | FR120x11 |
| | SC611LA | | | 36,5 | | | | | 2231K | H2311 | FR120x4 |
| | SC611TA | | | | | | | | | | |
| SNC 512-610 | SC512DS | V55A | SC512-610EC | 26,5 | 117 | 172 | 127 | RDC512 | 1212K | H212 | FR110x13 |
| | SC512FS | | | 29,5 | | | | | 2212K | H312 | FR110x10 |
| | SC512SV | | | 29,5 | | | | | 2221K | H312 | FR110x10 |
| | SC512LA | | | | | | | | | | |
| | SC512TA | | | | | | | | | | |
| SNC 515-612 | SC612DS | V55A | SC515-612EC | 31,0 | 127 | 184 | 137 | RDC612 | 1312K | H312 | FR130x12,5 |
| | SC612FS | | | 38,5 | | | | | 2312K | H2312 | FR130x5 |
| | SC612SV | | | 31,0 | | | | | 21312K | H312 | FR130x12,5 |
| | SC612LA | | | 38,5 | | | | | 22312K | H2312 | FR130x5 |
| | SC612TA | | | | | | | | | | |
| SNC 513-611 | SC513DS | V60A | SC513-611EC | 28,0 | 122 | 177 | 132 | RDC513 | 1213K | H213 | FR120x14 |
| | SC513FS | | | 32,0 | | | | | 2213K | H313 | FR120x10 |
| | SC513SV | | | 32,0 | | | | | 22213K | H313 | FR120x10 |
| | SC513LA | | | | | | | | | | |
| | SC513TA | | | | | | | | | | |
| SNC 516-613 | SC613DS | V60A | SC516-613EC | 33,0 | 135 | 195 | 142 | RDC613 | 1313K | H313 | FR140x12,5 |
| | SC613FS | | | 40,5 | | | | | 2313K | H2313 | FR140x5 |
| | SC613SV | | | 33,0 | | | | | 21313K | H313 | FR140x12,5 |
| | SC613LA | | | 40,5 | | | | | 22313K | H2313 | FR140x5 |
| | SC613TA | | | | | | | | | | |

Dimension table

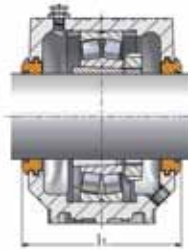


| d | TYP | D | a | b | c | g | h | l | m | G | u | v | h1 | m1 | n2 | m2 | n1 | n3 | Weight |
|------------|-------------------------|-----|-----|-----|----|----|-----|-----|-----|-----|----|----|-----|-----|----|-----|----|-----|--------|
| Shaft [mm] | Housing dimensions [mm] | | | | | | | | | | | | | | | | | | kg |
| 65 | SNC 515 | 130 | 280 | 80 | 30 | 56 | 80 | 115 | 230 | M16 | 18 | 24 | 155 | 220 | 58 | 257 | 48 | 72 | 7,3 |
| | SNC 615 | 160 | 345 | 100 | 35 | 65 | 100 | 140 | 290 | M20 | 22 | 28 | 192 | 280 | 74 | 319 | 58 | 80 | 13,5 |
| 70 | SNC 516 | 140 | 315 | 90 | 32 | 58 | 95 | 120 | 260 | M20 | 22 | 28 | 175 | 252 | 66 | 288 | 52 | 72 | 10,4 |
| | SNC 616 | 170 | 345 | 100 | 35 | 68 | 112 | 145 | 290 | M20 | 22 | 28 | 212 | 280 | 70 | 317 | 58 | 88 | 15,6 |
| 75 | SNC 517 | 150 | 320 | 90 | 32 | 61 | 95 | 125 | 260 | M20 | 22 | 28 | 183 | 252 | 66 | 292 | 52 | 76 | 10,2 |
| | SNC 617 | 180 | 380 | 110 | 40 | 70 | 112 | 160 | 320 | M24 | 26 | 32 | 215 | 300 | 78 | 348 | 66 | 104 | 18,4 |

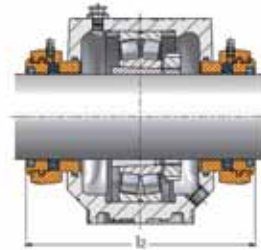
1) Seals must be ordered for each side of the housing.
 2) Optional V-ring available for felt strip seal (FS).



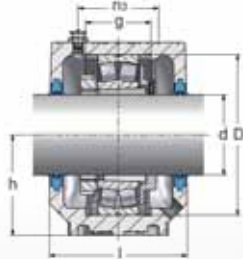
V-ring seal + Cover
SC..SV SC..EC



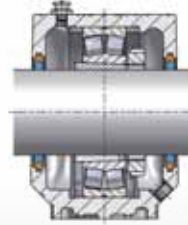
Labyrinth seal
SC..LA



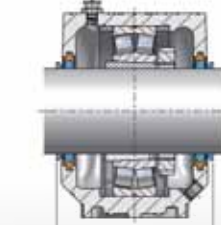
Taconite seal
SC..TA



Double lip seal + Regulation disc
SC..DS RDC



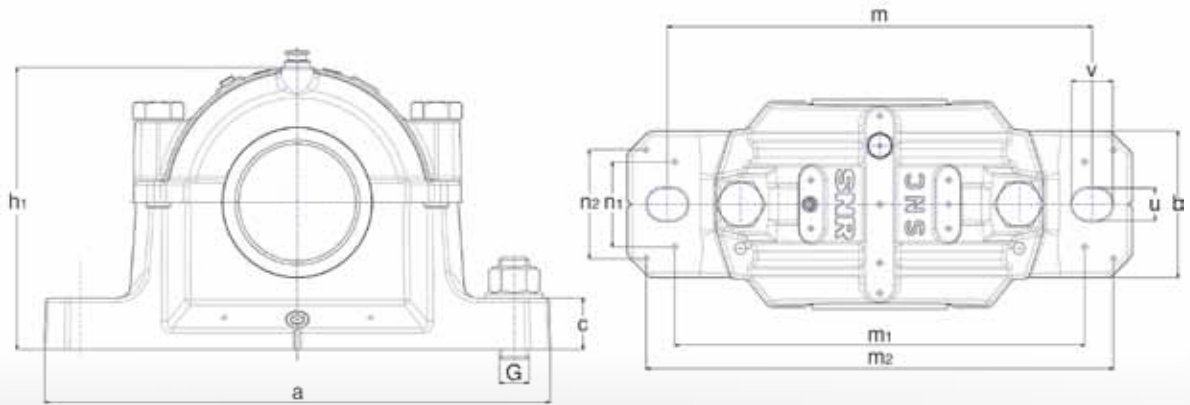
Felt strip seal
SC..FS



Felt strip seal + V-Ring
SC..FS V..A

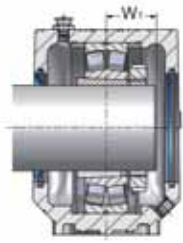
| Housing | Seal ¹⁾ | V-Ring ²⁾ | Cover | w1 | l1 | l2 | l3 | Regulation disc | Rolling bearing | Adapter sleeve | Location ring | |
|-------------|--------------------|----------------------|-------------|------|-----|-----|----------------|-----------------|-----------------|----------------|---------------|--|
| | | | | [mm] | | | | | | | | |
| | | | | | | | 2x per housing | | | | | |
| SNC 515-612 | SC515DS | V65A | SC515-612EC | 30,0 | 127 | 184 | 137 | RDC515 | 1215K | H215 | FR130x15,5 | |
| | SC515FS | | | 33,0 | | | | | 2215K | H315 | FR130x12,5 | |
| | SC515SV | | | 33,0 | | | | | 22215K | H315 | FR130x12,5 | |
| | SC515LA | | | | | | | | | | | |
| | SC515TA | | | | | | | | | | | |
| SNC 518-615 | SC615DS | V65A | SC518-615EC | 36,0 | 155 | 221 | 162 | RDC615 | 1315K | H315 | FR160x14 | |
| | SC615FS | | | 45,0 | | | | | 2315K | H2315 | FR160x5 | |
| | SC615SV | | | 36,0 | | | | | 21315K | H315 | FR160x14 | |
| | SC615LA | | | 45,0 | | | | | 22315K | H2315 | FR160x5 | |
| | SC615TA | | | | | | | | | | | |
| SNC 516-613 | SC516DS | V70A | SC516-613EC | 32,5 | 135 | 195 | 147 | RDC516 | 1216K | H216 | FR140x16 | |
| | SC516FS | | | 36,0 | | | | | 2216K | H316 | FR140x12,5 | |
| | SC516SV | | | 36,0 | | | | | 22216K | H316 | FR140x12,5 | |
| | SC516LA | | | | | | | | | | | |
| | SC516TA | | | | | | | | | | | |
| SNC 519-616 | SC616DS | V70A | SC519-616EC | 39,0 | 159 | 216 | 172 | RDC616 | 1316K | H316 | FR170x14,5 | |
| | SC616FS | | | 48,5 | | | | | 2316K | H2316 | FR170x5 | |
| | SC616SV | | | 39,0 | | | | | 21316K | H316 | FR170x14,5 | |
| | SC616LA | | | 48,5 | | | | | 22316K | H2316 | FR170x5 | |
| | SC616TA | | | | | | | | | | | |
| SNC 517 | SC517DS | V75A | SC517EC | 34,5 | 140 | 205 | 152 | RDC517 | 1217K | H217 | FR150x16,5 | |
| | SC517FS | | | 38,5 | | | | | 2217K | H317 | FR150x12,5 | |
| | SC517SV | | | 38,5 | | | | | 22217K | H317 | FR150x12,5 | |
| | SC517LA | | | | | | | | | | | |
| | SC517TA | | | | | | | | | | | |
| SNC 520-617 | SC617DS | V75A | SC520-617EC | 41,0 | 174 | 231 | 187 | RDC617 | 1317K | H317 | FR180x14,5 | |
| | SC617FS | | | 50,5 | | | | | 2317K | H2317 | FR180x5 | |
| | SC617SV | | | 41,0 | | | | | 21317K | H317 | FR180x14,5 | |
| | SC617LA | | | 50,5 | | | | | 22317K | H2317 | FR180x5 | |
| | SC617TA | | | | | | | | | | | |

Dimension table

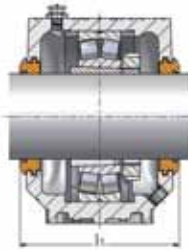


| d | TYP | D | a | b | c | g | h | l | m | G | u | v | h1 | m1 | n2 | m2 | n1 | n3 | Weight |
|------------|-------------------------|-----|-----|-----|----|----|-----|-----|-----|-----|----|----|-----|-----|----|-----|----|-----|--------|
| Shaft [mm] | Housing dimensions [mm] | | | | | | | | | | | | | | | | | | kg |
| 80 | SNC 518 | 160 | 345 | 100 | 35 | 65 | 100 | 140 | 290 | M20 | 22 | 28 | 192 | 280 | 74 | 319 | 58 | 80 | 13,5 |
| | SNC 618 | 190 | 380 | 110 | 40 | 74 | 112 | 160 | 320 | M24 | 26 | 32 | 220 | 300 | 78 | 348 | 66 | 104 | 18,5 |
| 85 | SNC 519 | 170 | 345 | 100 | 35 | 68 | 112 | 145 | 290 | M20 | 22 | 28 | 212 | 280 | 70 | 317 | 58 | 88 | 15,6 |
| | SNC 619 | 200 | 410 | 120 | 45 | 80 | 125 | 175 | 350 | M24 | 26 | 32 | 242 | 320 | 88 | 378 | 74 | 110 | 24,7 |
| 90 | SNC 520 | 180 | 380 | 110 | 40 | 70 | 112 | 160 | 320 | M24 | 26 | 32 | 215 | 300 | 78 | 348 | 66 | 104 | 18,4 |
| | SNC 620 | 215 | 410 | 120 | 45 | 86 | 140 | 185 | 350 | M24 | 26 | 32 | 271 | 330 | 88 | 378 | 74 | 122 | 30,0 |

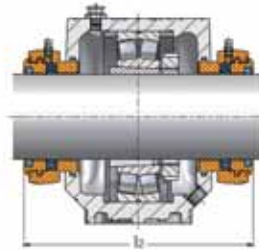
1) Seals must be ordered for each side of the housing.
 2) Optional V-ring available for felt strip seal (FS).



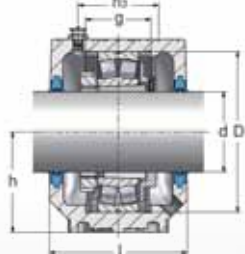
V-ring seal + Cover
SC..SV SC..EC



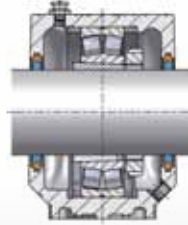
Labyrinth seal
SC..LA



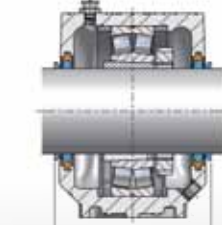
Taconite seal
SC..TA



Double lip seal + Regulation disc
SC..DS RDC



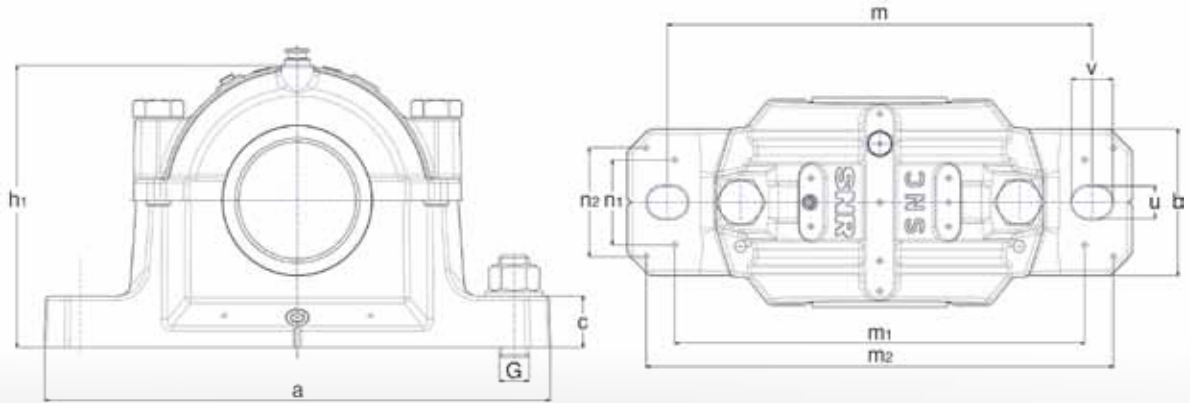
Felt strip seal
SC..FS



Felt strip seal + V-Ring
SC..FS V..A

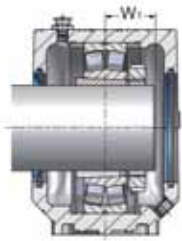
| Housing | Seal ¹⁾ | V-Ring ²⁾ | Cover | w1 | l1 | l2 | l3 | Regulation disc | Rolling bearing | Adapter sleeve | Location ring | |
|-------------|--------------------|----------------------|-------------|------|-----|-----|-----|-----------------|-----------------|----------------|----------------|--|
| | | | | [mm] | | | | | | | 2x per housing | |
| SNC 518-615 | SC518DS | V80A | SC518-615EC | 35,5 | 155 | 221 | 167 | RDC518 | 1218K | H218 | FR160x17,5 | |
| | SC518FS | | | 40,5 | | | | | 2218K | H318 | FR160x12,5 | |
| | SC518SV | | | 40,5 | | | | | 22218K | H318 | FR160x12,5 | |
| | SC518LA | | | 46,8 | | | | | 23218K | H2318 | FR160x6,25 | |
| | SC518TA | | | | | | | | | | | |
| SNC 318-618 | SC618DS | V80A | SC318-618EC | 42,0 | 172 | 229 | 187 | RDC618 | 1318K | H318 | FR190x15,5 | |
| | SC618FS | | | 52,5 | | | | | 2318K | H2318 | FR190x5 | |
| | SC618SV | | | 42,0 | | | | | 21318K | H318 | FR190x15,5 | |
| | SC618LA | | | 52,5 | | | | | 22318K | H2318 | FR190x5 | |
| | SC618TA | | | | | | | | | | | |
| SNC 519-616 | SC519DS | V85A | SC519-616EC | 37,5 | 159 | 216 | 172 | RDC519 | 1219K | H219 | FR170x18 | |
| | SC519FS | | | 43,0 | | | | | 2219K | H319 | FR170x12,5 | |
| | SC519SV | | | 43,0 | | | | | 22219K | H319 | FR170x12,5 | |
| | SC519LA | | | | | | | | | | | |
| | SC519TA | | | | | | | | | | | |
| SNC 522-619 | SC619DS | V85A | SC522-619EC | 44,0 | 189 | 246 | 202 | RDC619 | 1319K | H319 | FR200x17,5 | |
| | SC619FS | | | 55,0 | | | | | 2319K | H2319 | FR200x6,5 | |
| | SC619SV | | | 44,0 | | | | | 21319K | H319 | FR200x17,5 | |
| | SC619LA | | | 55,0 | | | | | 22319K | H2319 | FR200x6,5 | |
| | SC619TA | | | | | | | | | | | |
| SNC 520-617 | SC520DS | V90A | SC520-617EC | 39,5 | 174 | 231 | 187 | RDC520 | 1220K | H220 | FR180x18 | |
| | SC520FS | | | 45,5 | | | | | 2220K | H320 | FR180x12 | |
| | SC520SV | | | 45,5 | | | | | 22220K | H320 | FR180x12 | |
| | SC520LA | | | 52,7 | | | | | 23220K | H2320 | FR180x4,85 | |
| | SC520TA | | | | | | | | | | | |
| SNC 524-620 | SC620DS | V90A | SC524-620EC | 46,0 | 199 | 256 | 212 | RDC620 | 1320K | H320 | FR215x19,5 | |
| | SC620FS | | | 59,0 | | | | | 2320K | H2320 | FR215x6,5 | |
| | SC620SV | | | 46,0 | | | | | 21320K | H320 | FR215x19,5 | |
| | SC620LA | | | 59,0 | | | | | 22320K | H2320 | FR215x6,5 | |
| | SC620TA | | | | | | | | | | | |

Dimension table

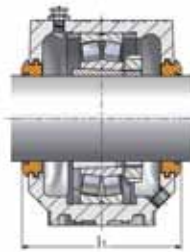


| d | TYP | D | a | b | c | g | h | l | m | G | u | v | h1 | m1 | n2 | m2 | n1 | n3 | Weight |
|------------|-------------------------|-----|-----|-----|----|-----|-----|-----|-----|-----|----|----|-----|-----|-----|-----|-----|-----|--------|
| Shaft [mm] | Housing dimensions [mm] | | | | | | | | | | | | | | | | | | kg |
| 100 | SNC 522 | 200 | 410 | 120 | 45 | 80 | 125 | 175 | 350 | M24 | 26 | 32 | 242 | 320 | 88 | 378 | 74 | 110 | 24,7 |
| 110 | SNC 524 | 215 | 410 | 120 | 45 | 86 | 140 | 185 | 350 | M24 | 26 | 32 | 271 | 330 | 88 | 378 | 74 | 122 | 30,0 |
| 115 | SNC 526 | 230 | 445 | 130 | 50 | 90 | 150 | 190 | 380 | M24 | 28 | 35 | 290 | 370 | 92 | 414 | 80 | 122 | 36,6 |
| 125 | SNC 528 | 250 | 500 | 150 | 50 | 98 | 150 | 205 | 420 | M30 | 35 | 42 | 302 | 400 | 108 | 458 | 92 | 128 | 42,6 |
| 135 | SNC 530 | 270 | 530 | 160 | 60 | 106 | 160 | 220 | 450 | M30 | 35 | 42 | 323 | 430 | 116 | 486 | 100 | 140 | 55,2 |
| 140 | SNC 532 | 290 | 550 | 160 | 60 | 114 | 170 | 235 | 470 | M30 | 35 | 42 | 344 | 450 | 116 | 506 | 100 | 155 | 63,0 |

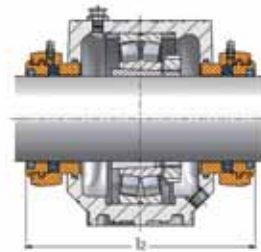
1) Seals must be ordered for each side of the housing.
 2) Optional V-ring available for felt strip seal (FS).



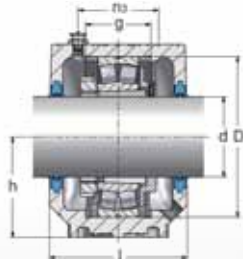
V-ring seal + Cover
SC..SV SC..EC



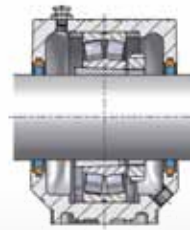
Labyrinth seal
SC..LA



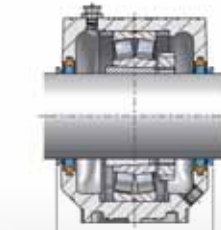
Taconite seal
SC..TA



Double lip seal + Regulation disc
SC..DS RDC



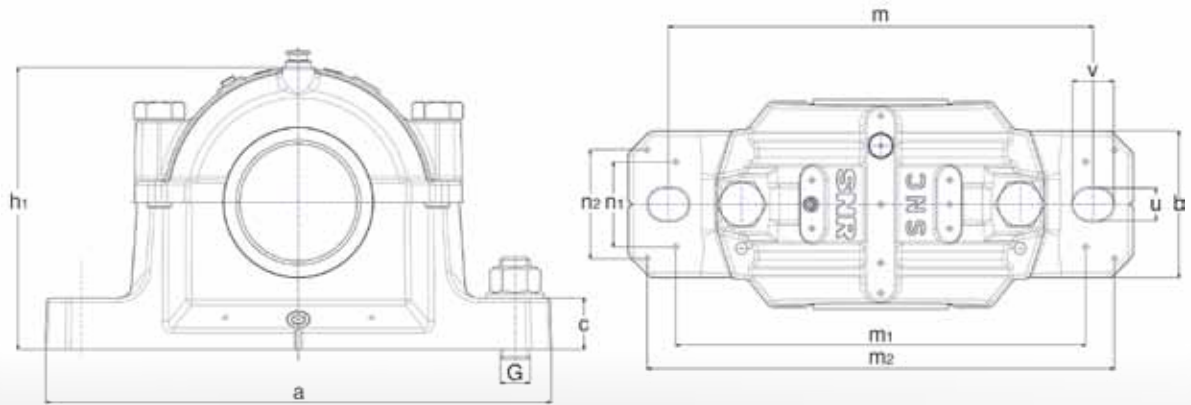
Felt strip seal
SC..FS



Felt strip seal + V-Ring
SC..FS V..A

| Housing | Seal ¹⁾ | V-Ring ²⁾ | Cover | w1 | l1 | l2 | l3 | Regulation disc | Rolling bearing | Adapter sleeve | Location ring |
|-------------|--------------------|----------------------|-------------|------|-----|-----|-----|-----------------|-----------------|----------------|----------------|
| | | | | | | | | | | | 2x per housing |
| SNC 522-619 | SC522DS | V100A | SC522-619EC | 42,5 | 189 | 246 | 202 | RDC522 | 1222K | H222 | FR200x21 |
| | SC522FS | | | 50,0 | | | | | 2222K | H322 | FR200x13,5 |
| | SC522SV | | | 50,0 | | | | | 22222K | H322 | FR200x13,5 |
| | SC522LA | | | 58,4 | | | | | 23222K | H2322 | FR200x5,1 |
| | SC522TA | | | | | | | | | | |
| SNC 524-620 | SC524DS | V110A | SC524-620EC | 53,5 | 199 | 256 | 216 | RDC524 | 22224K | H3124 | FR215x14 |
| | SC524FS | | | 62,5 | | | | | 23224K | H2324 | FR215x5 |
| | SC524SV | | | | | | | | | | |
| | SC524LA | | | | | | | | | | |
| | SC524TA | | | | | | | | | | |
| SNC 226-526 | SC526DS | V120A | SC226-526EC | 57,5 | 207 | 269 | 221 | RDC526 | 22226K | H3126 | FR230x13 |
| | SC526FS | | | 65,5 | | | | | 23226K | H2326 | FR230x5 |
| | SC526SV | | | | | | | | | | |
| | SC526LA | | | | | | | | | | |
| | SC526TA | | | | | | | | | | |
| SNC 228-528 | SC528DS | V130A | SC228-528EC | 60,5 | 222 | 284 | 236 | RDC528 | 22228K | H3128 | FR250x15 |
| | SC528FS | | | 70,5 | | | | | 23228K | H2328 | FR250x5 |
| | SC528SV | | | | | | | | | | |
| | SC528LA | | | | | | | | | | |
| | SC528TA | | | | | | | | | | |
| SNC 230-530 | SC530DS | V140A | SC230-530EC | 65,0 | 236 | 301 | 251 | RDC530 | 22230K | H3130 | FR270x16,5 |
| | SC530FS | | | 76,5 | | | | | 23230K | H2330 | FR270x5 |
| | SC530SV | | | | | | | | | | |
| | SC530LA | | | | | | | | | | |
| | SC530TA | | | | | | | | | | |
| SNC 232-532 | SC532DS | V140A | SC232-532EC | 70,5 | 254 | 319 | 266 | RDC532 | 22232K | H3132 | FR290x17 |
| | SC532FS | | | 82,5 | | | | | 23232K | H2332 | FR290x5 |
| | SC532SV | | | | | | | | | | |
| | SC532LA | | | | | | | | | | |
| | SC532TA | | | | | | | | | | |

Dimension table

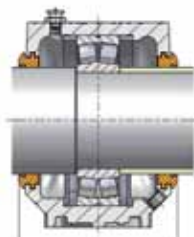


| d | TYP | d1 | D | a | b | c | g | h | l | m | G | u | v | h1 | m1 | n2 | m2 | n1 | n3 | Weight |
|------------|-------------------------|----|----|-----|----|----|----|----|----|-----|-----|----|----|-----|-----|----|-----|----|----|--------|
| Shaft [mm] | Housing dimensions [mm] | | | | | | | | | | | | | | | | | | | kg |
| 25 | SNC 205 | 30 | 52 | 165 | 46 | 19 | 25 | 40 | 67 | 130 | M12 | 15 | 20 | 74 | 116 | 32 | 152 | 28 | 36 | 1,5 |
| | SNC 305 | 30 | 62 | 185 | 52 | 22 | 32 | 50 | 77 | 150 | M12 | 15 | 20 | 89 | 130 | 38 | 172 | 25 | 44 | 2,1 |
| 30 | SNC 206 | 35 | 62 | 185 | 52 | 22 | 32 | 50 | 77 | 150 | M12 | 15 | 20 | 89 | 130 | 38 | 172 | 25 | 44 | 2,1 |
| | SNC 306 | 35 | 72 | 185 | 52 | 22 | 34 | 50 | 82 | 150 | M12 | 15 | 20 | 93 | 135 | 38 | 172 | 25 | 46 | 2,4 |
| 35 | SNC 207 | 45 | 72 | 185 | 52 | 22 | 34 | 50 | 82 | 150 | M12 | 15 | 20 | 93 | 135 | 38 | 172 | 25 | 46 | 2,3 |
| | SNC 307 | 45 | 80 | 205 | 60 | 25 | 39 | 60 | 85 | 170 | M12 | 15 | 20 | 107 | 160 | 44 | 188 | 34 | 50 | 3,1 |

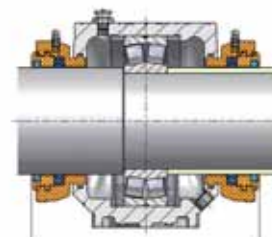
1) Seals must be ordered for each side of the housing.
 2) Optional V-ring available for felt strip seal (FS).



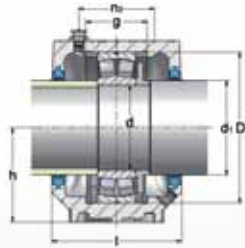
V-ring seal + Cover
SC..SV SC..EC



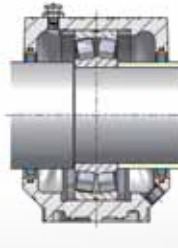
Labyrinth seal
SC..LA



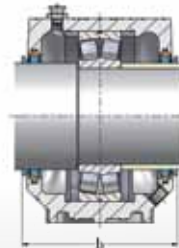
Taconite seal
SC..TA



Double lip seal + Regulation disc
SC..DS RDC



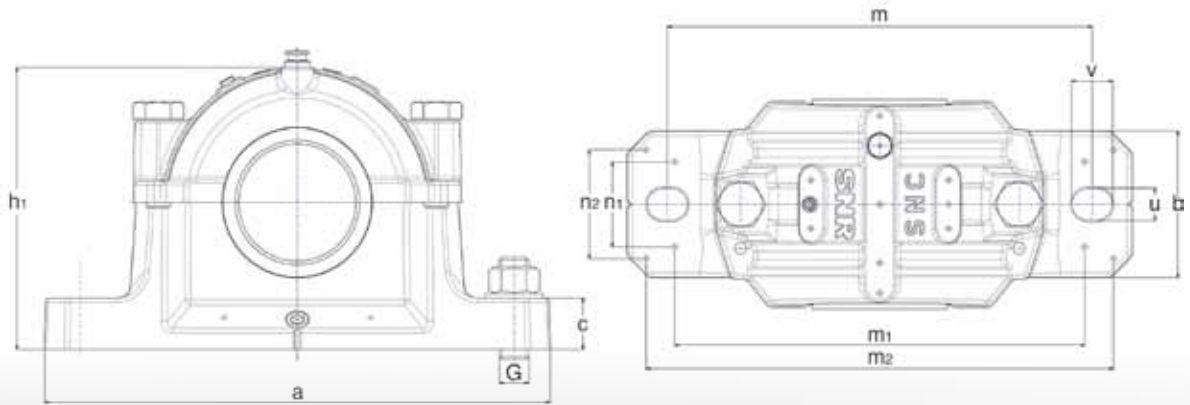
Felt strip seal
SC..FS



Felt strip seal + V-Ring
SC..FS V..A

| Housing | Seal ¹⁾ | V-Ring ²⁾ | Cover | w1 | I1 | I2 | I3 | Regulation disc | Rolling bearing | Location ring |
|-------------|--------------------|----------------------|-------------|------|----|-----|-----|-----------------|-----------------|----------------|
| | | | | [mm] | | | | | | 2x per housing |
| SNC 205 | SC205DS | V30A | SC506-605EC | 17 | 89 | 143 | 85 | RDC205 | 1205 | FR52x5 |
| | SC205FS | | | 18,5 | | | | | 2205 | FR52x3,5 |
| | SC205LA | | | 18,5 | | | | | 22205 | FR52x3,5 |
| | SC205TA | | | | | | | | | |
| SNC 206-305 | SC507DS | V30A | SC507-606EC | 18 | 89 | 143 | 95 | RDC305 | 1305 | FR62x7,5 |
| | SC305FS | | | 21,5 | | | | | 2305 | FR62x4 |
| | SC305SV | | | 18 | | | | | 21305 | FR62x7,5 |
| | SC305LA | | | | | | | | | |
| | SC305TA | | | | | | | | | |
| SNC 206-305 | SC206DS | V35A | SC507-606EC | 18,5 | 89 | 143 | 95 | RDC206 | 1206 | FR62x8 |
| | SC206FS | | | 20,5 | | | | | 2206 | FR62x6 |
| | SC206SV | | | 20,5 | | | | | 22206 | FR62x6 |
| | SC206LA | | | | | | | | | |
| | SC206TA | | | | | | | | | |
| SNC 507-606 | SC206DS | V35A | SC507-606EC | 20 | 93 | 147 | 100 | RDC306 | 1306 | FR72x7,5 |
| | SC206FS | | | 24 | | | | | 2306 | FR72x3,5 |
| | SC206SV | | | 20 | | | | | 21306 | FR72x7,5 |
| | SC206LA | | | | | | | | | |
| | SC206TA | | | | | | | | | |
| SNC 207-306 | SC207DS | V45A | SC509EC | 20 | 94 | 148 | 104 | RDC207 | 1207 | FR72x8,5 |
| | SC207FS | | | 22 | | | | | 2207 | FR72x5,5 |
| | SC207SV | | | 22,5 | | | | | 22207 | FR72x5,5 |
| | SC207LA | | | | | | | | | |
| | SC207TA | | | | | | | | | |
| SNC 208-307 | SC510DS | V45A | SC510-608EC | 21 | 94 | 151 | 107 | RDC307 | 1307 | FR80x9 |
| | SC307FS | | | 26 | | | | | 2307 | FR80x4 |
| | SC307SV | | | 21 | | | | | 21307 | FR80x9 |
| | SC307LA | | | | | | | | | |
| | SC307TA | | | | | | | | | |

Dimension table

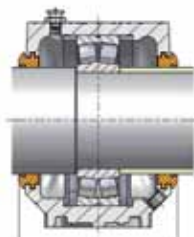


| d | TYP | d1 | D | a | b | c | g | h | l | m | G | u | v | h1 | m1 | n2 | m2 | n1 | n3 | Weight |
|------------|-------------------------|----|-----|-----|----|----|----|----|-----|-----|-----|----|----|-----|-----|----|-----|----|----|--------|
| Shaft [mm] | Housing dimensions [mm] | | | | | | | | | | | | | | | | | | | kg |
| 40 | SNC 208 | 50 | 80 | 205 | 60 | 25 | 39 | 60 | 85 | 170 | M12 | 15 | 20 | 107 | 160 | 44 | 188 | 34 | 50 | 3,1 |
| | SNC 308 | 50 | 90 | 205 | 60 | 25 | 41 | 60 | 90 | 170 | M12 | 15 | 20 | 113 | 160 | 44 | 188 | 34 | 53 | 3,4 |
| 45 | SNC 209 | 55 | 85 | 205 | 60 | 25 | 30 | 60 | 85 | 170 | M12 | 15 | 20 | 110 | 160 | 44 | 188 | 34 | 44 | 3,1 |
| | SNC 309 | 55 | 100 | 255 | 70 | 28 | 44 | 70 | 95 | 210 | M16 | 18 | 24 | 127 | 200 | 49 | 234 | 40 | 56 | 5,1 |
| 50 | SNC 210 | 60 | 90 | 205 | 60 | 25 | 41 | 60 | 90 | 170 | M12 | 15 | 20 | 113 | 160 | 44 | 188 | 34 | 53 | 3,5 |
| | SNC 310 | 60 | 110 | 255 | 70 | 30 | 48 | 70 | 105 | 210 | M16 | 18 | 24 | 133 | 200 | 54 | 234 | 40 | 64 | 5,4 |

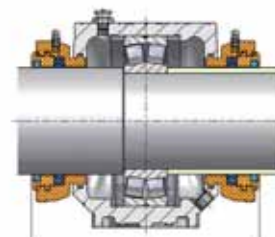
1) Seals must be ordered for each side of the housing.
 2) Optional V-ring available for felt strip seal (FS).



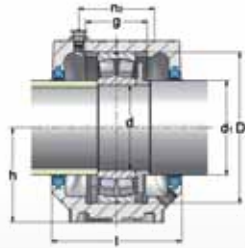
V-ring seal + Cover
SC..SV SC..EC



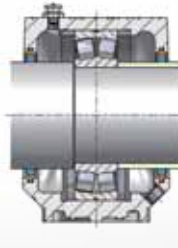
Labyrinth seal
SC..LA



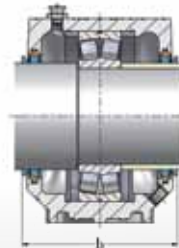
Taconite seal
SC..TA



Double lip seal + Regulation disc
SC..DS RDC



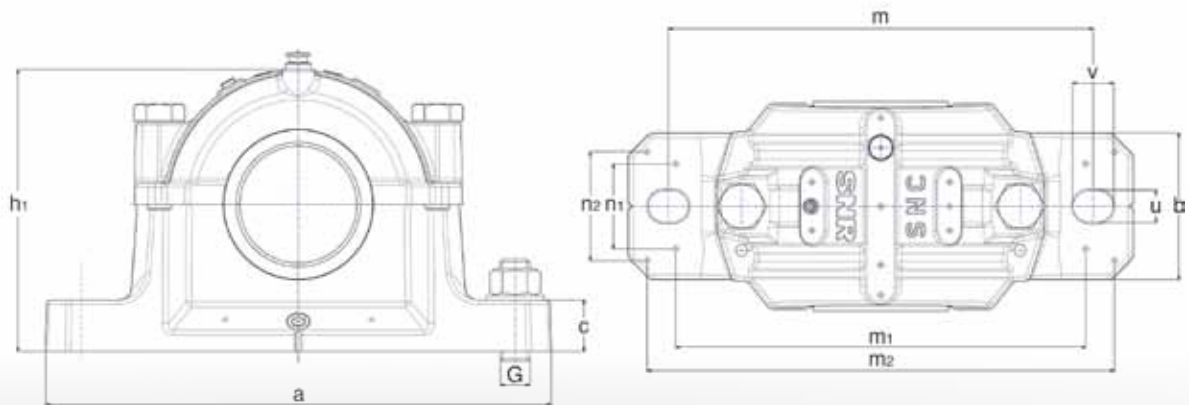
Felt strip seal
SC..FS



Felt strip seal + V-Ring
SC..FS V..A

| Housing | Seal ¹⁾ | V-Ring ²⁾ | Cover | w1 | I1 | I2 | I3 | Regulation disc | Rolling bearing | Location ring |
|-------------|--------------------|----------------------|-------------|------|-----|-----|-----|-----------------|-----------------|----------------|
| | | | | | | | | | | 2x per housing |
| SNC 208-307 | SC208DS | V50A | SC510-608EC | 20,5 | 97 | 151 | 107 | RDC208 | 1208 | FR80x10,5 |
| | SC208FS | | | 23 | | | | | 2208 | FR80x8 |
| | SC208SV | | | 23 | | | | | 22208 | FR80x8 |
| | SC208LA | | | | | | | | | |
| | SC208TA | | | | | | | | | |
| SNC 510-608 | SC208DS | V50A | SC510-608EC | 23 | 100 | 154 | 112 | RDC308 | 1308 | FR90x9 |
| | SC208FS | | | 28 | | | | | 2308 | FR90x4 |
| | SC208SV | | | 23 | | | | | 21308 | FR90x9 |
| | SC208LA | | | 28 | | | | | 22308 | FR90x4 |
| | SC208TA | | | | | | | | | |
| SNC 209 | SC209DS | V55A | SC511-609EC | 22 | 97 | 151 | 107 | RDC209 | 1209 | FR85x5,5 |
| | SC209FS | | | 24 | | | | | 2209 | FR85x3,5 |
| | SC209SV | | | 24 | | | | | 22209 | FR85x3,5 |
| | SC209LA | | | | | | | | | |
| | SC209TA | | | | | | | | | |
| SNC 511-609 | SC209DS | V55A | SC511-609EC | 25 | 106 | 160 | 117 | RDC309 | 1309 | FR100x9,5 |
| | SC209FS | | | 30,5 | | | | | 2309 | FR100x4 |
| | SC209SV | | | 25 | | | | | 21309 | FR100x9,5 |
| | SC209LA | | | 30,5 | | | | | 22309 | FR100x4 |
| | SC209TA | | | | | | | | | |
| SNC 210-308 | SC210DS | V60A | SC512-610EC | 23,5 | 102 | 156 | 112 | RDC210 | 1210 | FR90x10,5 |
| | SC210FS | | | 25 | | | | | 2210 | FR90x9 |
| | SC210SV | | | 25 | | | | | 22210 | FR90x9 |
| | SC210LA | | | | | | | | | |
| | SC210TA | | | | | | | | | |
| SNC 512-610 | SC210DS | V60A | SC512-610EC | 27 | 116 | 170 | 127 | RDC310 | 1310 | FR110x10,5 |
| | SC210FS | | | 23,5 | | | | | 2310 | FR110x4 |
| | SC210SV | | | 27 | | | | | 21310 | FR110x10,5 |
| | SC210LA | | | 33,5 | | | | | 22310 | FR110x4 |
| | SC210TA | | | | | | | | | |

Dimension table

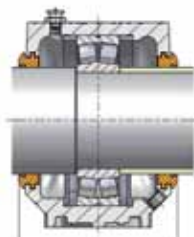


| d | TYP | d1 | D | a | b | c | g | h | l | m | G | u | v | h1 | m1 | n2 | m2 | n1 | n3 | Weight |
|------------|-------------------------|----|-----|-----|----|----|----|----|-----|-----|-----|----|----|-----|-----|----|-----|----|----|--------|
| Shaft [mm] | Housing dimensions [mm] | | | | | | | | | | | | | | | | | | | kg |
| 55 | SNC 211 | 65 | 100 | 255 | 70 | 28 | 44 | 70 | 95 | 210 | M16 | 18 | 24 | 127 | 200 | 49 | 234 | 40 | 56 | 5,0 |
| | SNC 311 | 65 | 120 | 275 | 80 | 30 | 51 | 80 | 110 | 230 | M16 | 18 | 24 | 148 | 220 | 58 | 252 | 48 | 63 | 7,0 |
| 60 | SNC 212 | 70 | 110 | 255 | 70 | 30 | 48 | 70 | 105 | 210 | M16 | 18 | 24 | 133 | 200 | 54 | 234 | 40 | 64 | 5,3 |
| | SNC 312 | 70 | 130 | 280 | 80 | 30 | 56 | 80 | 115 | 230 | M16 | 18 | 24 | 155 | 220 | 58 | 257 | 48 | 72 | 7,3 |
| 65 | SNC 213 | 75 | 120 | 275 | 80 | 30 | 51 | 80 | 110 | 230 | M16 | 18 | 24 | 148 | 220 | 58 | 252 | 48 | 63 | 6,7 |
| | SNC 313 | 75 | 140 | 315 | 90 | 32 | 58 | 95 | 120 | 260 | M20 | 22 | 28 | 175 | 252 | 66 | 288 | 52 | 72 | 10,4 |

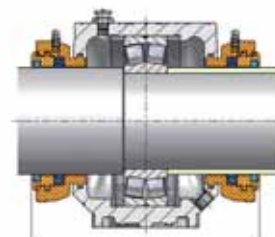
1) Seals must be ordered for each side of the housing.
 2) Optional V-ring available for felt strip seal (FS).



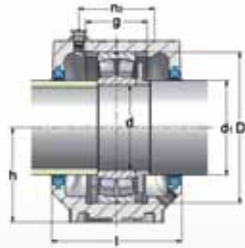
V-ring seal + Cover
SC..SV SC..EC



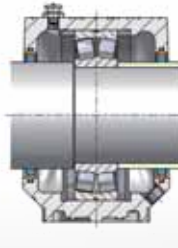
Labyrinth seal
SC..LA



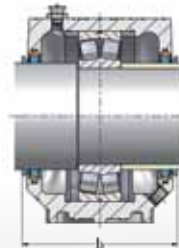
Taconite seal
SC..TA



Double lip seal + Regulation disc
SC..DS RDC



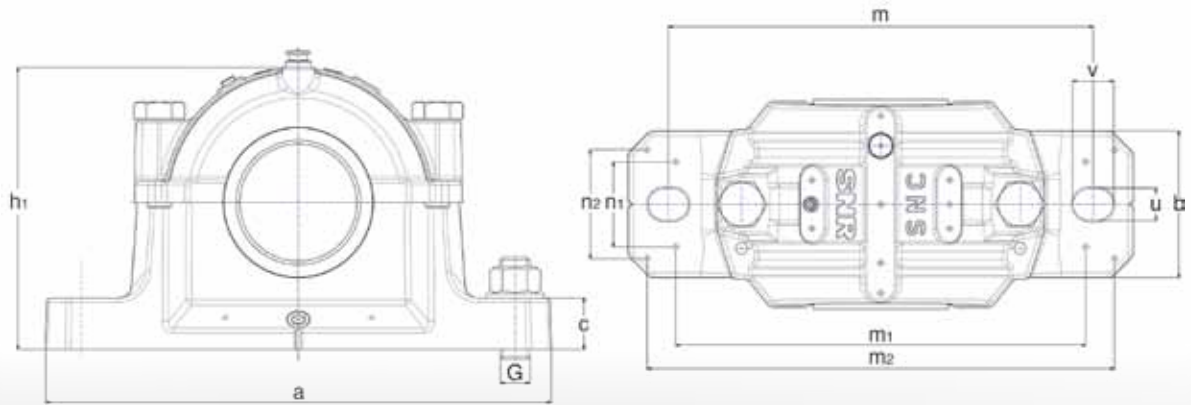
Felt strip seal
SC..FS



Felt strip seal + V-Ring
SC..FS V..A

| Housing | Seal ¹⁾ | V-Ring ²⁾ | Cover | w1 | I1 | I2 | I3 | Regulation disc | Rolling bearing | Location ring |
|-------------|--------------------|----------------------|-------------|------|-----|-----|-----|-----------------|-----------------|----------------|
| | | | | [mm] | | | | | | 2x per housing |
| SNC 211-309 | SC211DS | V65A | SC513-611EC | 25 | 107 | 162 | 117 | RDC211 | 1211 | FR100x11,5 |
| | SC211FS | | | 27 | | | | | 2211 | FR100x9,5 |
| | SC211SV | | | 27 | | | | | 22211 | FR100x9,5 |
| | SC211LA | | | | | | | | | |
| | SC211TA | | | | | | | | | |
| SNC 513-611 | SC211DS | V65A | SC513-611EC | 29 | 121 | 176 | 132 | RDC311 | 1311 | FR120x11 |
| | SC211FS | | | 36 | | | | | 2311 | FR120x4 |
| | SC211SV | | | 29 | | | | | 21311 | FR120x11 |
| | SC211LA | | | 36 | | | | | 22311 | FR120x4 |
| | SC211TA | | | | | | | | | |
| SNC 212-310 | SC212DS | V70A | SC515-612EC | 26 | 119 | 174 | 132 | RDC212 | 1212 | FR110x13 |
| | SC212FS | | | 29 | | | | | 2212 | FR110x10 |
| | SC212SV | | | 29 | | | | | 22212 | FR110x10 |
| | SC212LA | | | | | | | | | |
| | SC212TA | | | | | | | | | |
| SNC 515-612 | SC212DS | V70A | SC515-612EC | 30,5 | 128 | 183 | 142 | RDC312 | 1312 | FR130x12,5 |
| | SC212FS | | | 38 | | | | | 2312 | FR130x5 |
| | SC212SV | | | 30,5 | | | | | 21312 | FR130x12,5 |
| | SC212LA | | | 38 | | | | | 22312 | FR130x5 |
| | SC212TA | | | | | | | | | |
| SNC 213-311 | SC213DS | V75A | SC516-613EC | 27 | 125 | 180 | 137 | RDC213 | 1213 | FR120x14 |
| | SC213FS | | | 31 | | | | | 2213 | FR120x10 |
| | SC213SV | | | 31 | | | | | 22213 | FR120x10 |
| | SC213LA | | | | | | | | | |
| | SC213TA | | | | | | | | | |
| SNC 516-613 | SC213DS | V75A | SC516-613EC | 32 | 135 | 190 | 147 | RDC313 | 1313 | FR140x12,5 |
| | SC213FS | | | 39,5 | | | | | 2313 | FR140x5 |
| | SC213SV | | | 32 | | | | | 21313 | FR140x12,5 |
| | SC213LA | | | 39,5 | | | | | 22313 | FR140x5 |
| | SC213TA | | | | | | | | | |

Dimension table

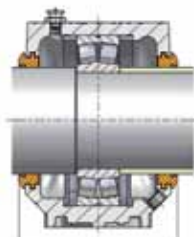


| d | TYP | d1 | D | a | b | c | g | h | l | m | G | u | v | h1 | m1 | n2 | m2 | n1 | n3 | Weight |
|------------|-------------------------|----|-----|-----|-----|----|----|-----|-----|-----|-----|----|----|-----|-----|----|-----|----|----|--------|
| Shaft [mm] | Housing dimensions [mm] | | | | | | | | | | | | | | | | | | | kg |
| 70 | SNC 214 | 80 | 125 | 275 | 80 | 30 | 44 | 80 | 115 | 230 | M16 | 18 | 23 | 154 | 220 | 58 | 252 | 48 | 66 | 7,6 |
| | SNC 314 | 80 | 150 | 320 | 90 | 32 | 61 | 95 | 125 | 260 | M20 | 22 | 28 | 183 | 252 | 66 | 292 | 52 | 76 | 10,2 |
| 75 | SNC 215 | 85 | 130 | 280 | 80 | 30 | 56 | 80 | 115 | 230 | M16 | 18 | 24 | 155 | 220 | 58 | 257 | 48 | 72 | 7,0 |
| | SNC 315 | 85 | 160 | 345 | 100 | 35 | 65 | 100 | 140 | 290 | M20 | 22 | 28 | 192 | 280 | 74 | 319 | 58 | 80 | 13,5 |
| 80 | SNC 216 | 90 | 140 | 315 | 90 | 32 | 58 | 95 | 120 | 260 | M20 | 22 | 28 | 175 | 252 | 66 | 288 | 52 | 72 | 9,5 |
| | SNC 316 | 90 | 170 | 345 | 100 | 35 | 68 | 112 | 145 | 290 | M20 | 22 | 28 | 212 | 280 | 70 | 317 | 58 | 88 | 15,6 |

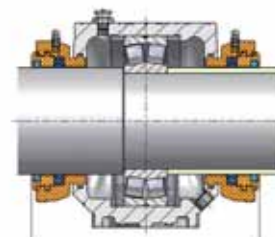
1) Seals must be ordered for each side of the housing.
 2) Optional V-ring available for felt strip seal (FS).



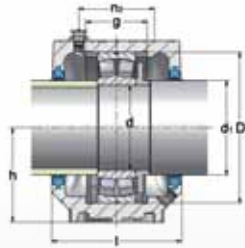
V-ring seal + Cover
SC..SV SC..EC



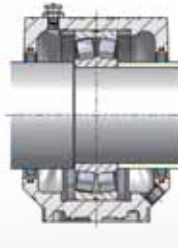
Labyrinth seal
SC..LA



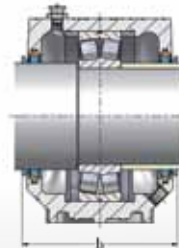
Taconite seal
SC..TA



Double lip seal + Regulation disc
SC..DS RDC



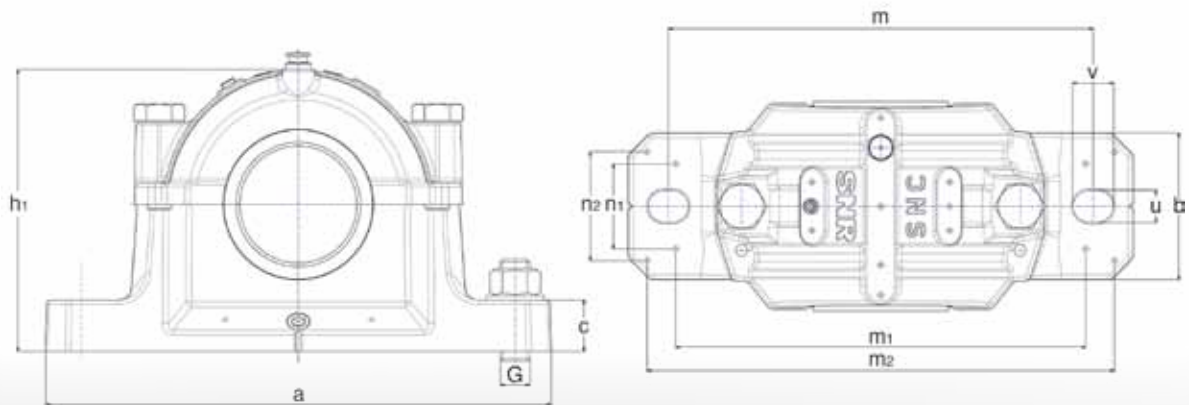
Felt strip seal
SC..FS



Felt strip seal + V-Ring
SC..FS V..A

| Housing | Seal ¹⁾ | V-Ring ²⁾ | Cover | w1 | I1 | I2 | I3 | Regulation disc | Rolling bearing | Location ring |
|-------------|--------------------|----------------------|-------------|------|-----|-----|-----|-----------------|-----------------|----------------|
| | | | | [mm] | | | | | | 2x per housing |
| SNC 214 | SC214DS | V80A | SC517EC | 28,5 | 130 | 187 | 142 | RDC214 | 1214 | FR125x10 |
| | SC214FS | | | 32 | | | | | 2214 | FR125x6,5 |
| | SC214SV | | | 32 | | | | | 22214 | FR125x6,5 |
| | SC214LA | | | | | | | | | |
| | SC214TA | | | | | | | | | |
| SNC 517 | SC214DS | V80A | SC517EC | 34 | 140 | 197 | 152 | RDC314 | 1314 | FR150x13 |
| | SC214FS | | | 42 | | | | | 2314 | FR150x5 |
| | SC214SV | | | 34 | | | | | 21314 | FR150x13 |
| | SC214LA | | | 42 | | | | | 22314 | FR150x5 |
| | SC214TA | | | | | | | | | |
| SNC 215-312 | SC215DS | V85A | SC518-615EC | 29 | 132 | 192 | 142 | RDC215 | 1215 | FR130x15,5 |
| | SC215FS | | | 32 | | | | | 2215 | FR130x12,5 |
| | SC215SV | | | 32 | | | | | 22215 | FR130x12,5 |
| | SC215LA | | | | | | | | | |
| | SC215TA | | | | | | | | | |
| SNC 518-615 | SC215DS | V85A | SC518-615EC | 35 | 157 | 217 | 167 | RDC315 | 1315 | FR160x14 |
| | SC215FS | | | 44 | | | | | 2315 | FR160x5 |
| | SC215SV | | | 35 | | | | | 21315 | FR160x14 |
| | SC215LA | | | 44 | | | | | 22315 | FR160x5 |
| | SC215TA | | | | | | | | | |
| SNC 216-313 | SC216DS | V90A | SC216-313EC | 30,5 | 137 | 203 | 147 | RDC216 | 1216 | FR140x16 |
| | SC216FS | | | 34 | | | | | 2216 | FR140x12,5 |
| | SC216SV | | | 34 | | | | | 22216 | FR140x12,5 |
| | SC216LA | | | | | | | | | |
| | SC216TA | | | | | | | | | |
| SNC 519-616 | SC316DS | V90A | SC519-616EC | 37 | 159 | 216 | 172 | RDC316 | 1316 | FR170x14,5 |
| | SC316FS | | | 46,5 | | | | | 2316 | FR170x5 |
| | SC316SV | | | 37 | | | | | 21316 | FR170x14,5 |
| | SC316LA | | | 46,5 | | | | | 22316 | FR170x5 |
| | SC316TA | | | | | | | | | |

Dimension table

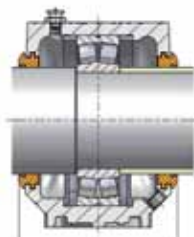


| d | TYP | d1 | D | a | b | c | g | h | l | m | G | u | v | h1 | m1 | n2 | m2 | n1 | n3 | Weight |
|------------|-------------------------|-----|-----|-----|-----|----|----|-----|-----|-----|-----|----|----|-----|-----|----|-----|----|-----|--------|
| Shaft [mm] | Housing dimensions [mm] | | | | | | | | | | | | | | | | | | | kg |
| 85 | SNC 217 | 95 | 150 | 320 | 90 | 32 | 61 | 95 | 125 | 260 | M20 | 22 | 28 | 183 | 252 | 66 | 292 | 52 | 76 | 9,8 |
| | SNC 317 | 95 | 180 | 380 | 110 | 40 | 70 | 112 | 160 | 320 | M24 | 26 | 32 | 215 | 300 | 78 | 348 | 66 | 104 | 18,4 |
| 90 | SNC 218 | 100 | 160 | 345 | 100 | 35 | 65 | 100 | 140 | 290 | M20 | 22 | 28 | 192 | 280 | 74 | 319 | 58 | 80 | 12,4 |
| | SNC 318 | 105 | 190 | 380 | 110 | 40 | 74 | 112 | 160 | 320 | M24 | 26 | 32 | 220 | 300 | 78 | 348 | 66 | 104 | 18,5 |
| 95 | SNC 219 | 110 | 170 | 345 | 100 | 35 | 68 | 112 | 145 | 290 | M20 | 22 | 28 | 212 | 280 | 70 | 317 | 58 | 88 | 15,6 |
| | SNC 319 | 110 | 200 | 410 | 120 | 45 | 80 | 125 | 175 | 350 | M24 | 26 | 32 | 242 | 320 | 88 | 378 | 74 | 110 | 24,7 |
| 100 | SNC 220 | 115 | 180 | 380 | 110 | 40 | 70 | 112 | 160 | 320 | M24 | 26 | 32 | 215 | 300 | 78 | 348 | 66 | 104 | 18,4 |

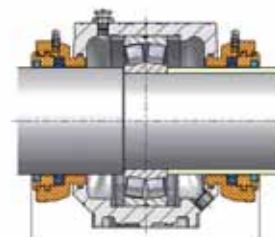
1) Seals must be ordered for each side of the housing.
 2) Optional V-ring available for felt strip seal (FS).



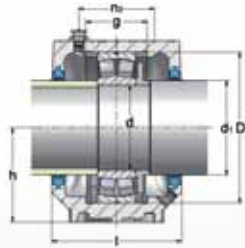
V-ring seal + Cover
SC..SV SC..EC



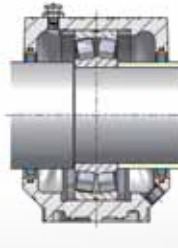
Labyrinth seal
SC..LA



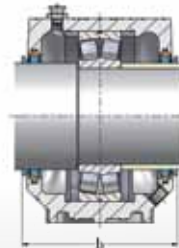
Taconite seal
SC..TA



Double lip seal + Regulation disc
SC..DS RDC



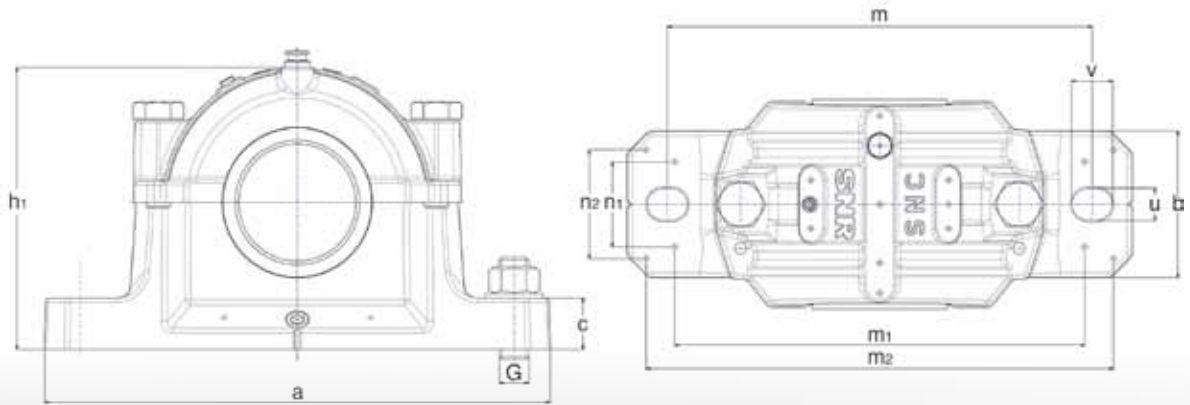
Felt strip seal
SC..FS



Felt strip seal + V-Ring
SC..FS V..A

| Housing | Seal ¹⁾ | V-Ring ²⁾ | Cover | w1 | I1 | I2 | I3 | Regulation disc | Rolling bearing | Location ring |
|-------------|--------------------|----------------------|-------------|-------|-----|-----|-----|-----------------|-----------------|----------------|
| | | | | [mm] | | | | | | 2x per housing |
| SNC 217-314 | SC217DS | V95A | SC217-314EC | 33,5 | 142 | 208 | 152 | RDC217 | 1217 | FR150x16,5 |
| | SC217FS | | | 37,5 | | | | | 2217 | FR150x12,5 |
| | SC217SV | | | 37,5 | | | | | 22217 | FR150x12,5 |
| | SC217LA | | | | | | | | | |
| | SC217TA | | | | | | | | | |
| SNC 520-617 | SC317DS | V95A | SC520-617EC | 40 | 174 | 238 | 187 | RDC317 | 1317 | FR180x14,5 |
| | SC317FS | | | 49,5 | | | | | 2317 | FR180x5 |
| | SC317SV | | | 40 | | | | | 21317 | FR180x14,5 |
| | SC317LA | | | 49,5 | | | | | 22317 | FR180x5 |
| | SC317TA | | | | | | | | | |
| SNC 218-315 | SC218DS | V100A | SC218-315EC | 35,5 | 157 | 214 | 167 | RDC218 | 1218 | FR160x17,5 |
| | SC218FS | | | 40,5 | | | | | 2218 | FR160x12,5 |
| | SC218SV | | | 40,5 | | | | | 22218 | FR160x12,5 |
| | SC218LA | | | 46,75 | | | | | 23218 | FR160x6,25 |
| | SC218TA | | | | | | | | | |
| SNC 318-618 | SC318DS | V110A | SC318-618EC | 42 | 174 | 231 | 191 | RDC318 | 1318 | FR190x15,5 |
| | SC318FS | | | 52,5 | | | | | 2318 | FR190x5 |
| | SC318SV | | | 42 | | | | | 21318 | FR190x15,5 |
| | SC318LA | | | 52,5 | | | | | 22318 | FR190x5 |
| | SC318TA | | | | | | | | | |
| SNC 519-616 | SC219DS | V110A | SC519-616EC | 36,5 | 159 | 216 | 176 | RDC219 | 1219 | FR170x18 |
| | SC219FS | | | 42 | | | | | 2219 | FR170x12,5 |
| | SC219SV | | | 42 | | | | | 22219 | FR170x12,5 |
| | SC219LA | | | | | | | | | |
| | SC219TA | | | | | | | | | |
| SNC 522-619 | SC319DS | V110A | SC522-619EC | 43 | 189 | 246 | 206 | RDC319 | 1319 | FR200x17,5 |
| | SC319FS | | | 54 | | | | | 2319 | FR200x6,5 |
| | SC319SV | | | 43 | | | | | 21319 | FR200x17,5 |
| | SC319LA | | | 54 | | | | | 22319 | FR200x6,5 |
| | SC319TA | | | | | | | | | |
| SNC 520-617 | SC220DS | V120A | SC520-617EC | 38,5 | 177 | 233 | 191 | RDC220 | 1220 | FR180x18 |
| | SC220FS | | | 44,5 | | | | | 2220 | FR180x12 |
| | SC220SV | | | 44,5 | | | | | 22220 | FR180x12 |
| | SC220LA | | | 51,65 | | | | | 23220 | FR180x4,85 |
| | SC220TA | | | | | | | | | |

Dimension table

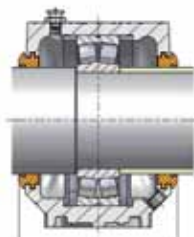


| d | TYP | d1 | D | a | b | c | g | h | l | m | G | u | v | h1 | m1 | n2 | m2 | n1 | n3 | Weight |
|------------|-------------------------|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|----|----|-----|-----|-----|-----|-----|-----|--------|
| Shaft [mm] | Housing dimensions [mm] | | | | | | | | | | | | | | | | | | | kg |
| 100 | SNC 320 | 115 | 215 | 410 | 120 | 45 | 86 | 140 | 185 | 350 | M24 | 26 | 32 | 271 | 330 | 88 | 378 | 74 | 122 | 30,0 |
| 110 | SNC 222 | 125 | 200 | 410 | 120 | 45 | 80 | 125 | 175 | 350 | M24 | 26 | 32 | 242 | 320 | 88 | 378 | 74 | 110 | 24,7 |
| 120 | SNC 224 | 135 | 215 | 410 | 120 | 45 | 86 | 140 | 185 | 350 | M24 | 26 | 32 | 271 | 330 | 88 | 378 | 74 | 122 | 30,0 |
| 130 | SNC 226 | 145 | 230 | 445 | 130 | 50 | 90 | 150 | 190 | 380 | M24 | 28 | 35 | 290 | 370 | 92 | 414 | 80 | 122 | 36,6 |
| 140 | SNC 228 | 155 | 250 | 500 | 150 | 50 | 98 | 150 | 205 | 420 | M30 | 35 | 42 | 302 | 400 | 108 | 458 | 92 | 128 | 42,5 |
| 150 | SNC 230 | 165 | 270 | 530 | 160 | 60 | 106 | 160 | 220 | 450 | M30 | 35 | 42 | 323 | 430 | 116 | 486 | 100 | 140 | 55,2 |
| 160 | SNC 232 | 175 | 290 | 550 | 160 | 60 | 114 | 170 | 235 | 470 | M30 | 35 | 42 | 344 | 450 | 116 | 506 | 100 | 155 | 63,0 |

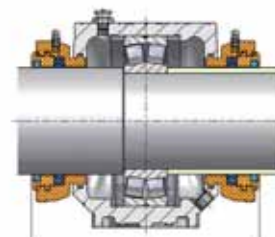
1) Seals must be ordered for each side of the housing.
 2) Optional V-ring available for felt strip seal (FS).



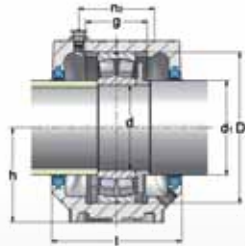
V-ring seal + Cover
SC..SV SC..EC



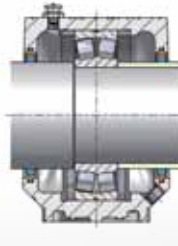
Labyrinth seal
SC..LA



Taconite seal
SC..TA



Double lip seal + Regulation disc
SC..DS RDC



Felt strip seal
SC..FS



Felt strip seal + V-Ring
SC..FS V..A

| | Housing | Seal ¹⁾ | V-Ring ²⁾ | Cover | w1 | I1 | I2 | I3 | Regulation disc | Rolling bearing | Location ring |
|--|-------------|---|----------------------|-------------|--------------------------|-----|-----|-----|-----------------|--------------------------------|--|
| | | | | | [mm] | | | | | | 2x per housing |
| | SNC 524-620 | SC320DS SC320FS SC320SV SC320LA SC320TA | V120A | SC524-620EC | 45 58 45 58 | 200 | 256 | 216 | RDC320 | 1320 2320 21320 22320 | FR215x19,5 FR215x6,5 FR215x19,5 FR215x6,5 |
| | SNC 522-619 | SC222DS SC222FS SC222SV SC222LA SC222TA | V130A | SC522-619EC | 41,5 49 49 57,4 | 193 | 249 | 206 | RDC222 | 1222 2222 22222 23222 | FR200x21 FR200x13,5 FR200x13,5 FR200x5,1 |
| | SNC 524-620 | SC224DS SC224FS SC224SV SC224LA SC224TA | V140A | SC524-620EC | 53,5 62,5 | 201 | 261 | 216 | RDC224 | 22224 23224 | FR215x14 FR215x5 |
| | SNC 226-526 | SC226DS SC226FS SC226SV SC226LA SC226TA | V150A | SC226-526EC | 57,5 65,5 | 201 | 261 | 221 | RDC226 | 22226 23226 | FR230x13 FR230x5 |
| | SNC 228-528 | SC228DS SC228FS SC228SV SC228LA SC228TA | V160A | SC228-528EC | 60,5 70,5 | 221 | 285 | 241 | RDC228 | 22228 23228 | FR250x15 FR250x5 |
| | SNC 230-530 | SC230DS SC230FS SC230SV SC230LA SC230TA | V170A | SC230-530EC | 65,0 76,5 | 236 | 300 | 256 | RDC230 | 22230 23230 | FR270x16,5 FR270x5 |
| | SNC 232-532 | SC232DS SC232FS SC232SV SC232LA SC232TA | V180A | SC232-532EC | 70,5 82,5 | 251 | 317 | 271 | RDC232 | 22232 23232 | FR290x17 FR290x5 |





Part 4

Other ranges: plummer blocks & one-piece bearing units

| | |
|------------------------------------|----|
| • Grease lubrication | 74 |
| • Oil lubrication | 75 |
| • Ultage spherical roller bearings | 76 |

Grease lubrication

| | |
|---|--|
|  | <p>SD 31 - Two-part plummer block, large size</p> <ul style="list-style-type: none"> • Suited to spherical roller bearings • Economical • Suited to heavy machine constructions, roller-crushers, conveyor augers and other machines operating in harsh environments • Shaft diameter: 150 mm - 400 mm |
|  | <p>SPW/SFCW - One-piece housing for heavy loads</p> <ul style="list-style-type: none"> • Suited for rugged industry with tough environmental conditions • Anti-corrosion treatment on components • Can be used for the quick replacement of patented inserts • Equipped with sealed spherical roller bearings • Reduced downtime and increased productivity • The SPW range is interchangeable with SN housings • Shaft diameter: 50 mm - 140 mm |
|  | <p>Double & triple bearing housings ZLG / DLG</p> <ul style="list-style-type: none"> • For two or three bearing arrangements • Grease lubrication • Adapted for high operating speeds (industrial ventilators) • High-precision shaft alignment • Felt seal with additional V-ring • Easy to install • ZLG shaft diameter: 30 mm – 120 mm / DLG: 70 mm - 120 mm |
|  | <p>Plummer block units for special applications 722500, F11200, TVN, TN</p> <ul style="list-style-type: none"> • Compact sealed bearing in grey cast iron • TVN: for continuous or intermittent operating temperatures of between +200°C and +350°C. • Suitable for critical environments: hot and humid / hot and dry • Construction of calcium silicate bricks, clinker manufacturing • TVN/TN: pillow bricks, can be installed in all positions • TVN shaft diameter: 20 mm – 75 mm / TN: 20 mm - 60 mm • F11200 / 722500: bearings with attachment flange • F11200 shaft diameter: 20 mm – 50 mm / 722500: 20 mm - 100 mm |

Oil lubrication

| | |
|---|---|
|  | <p>ZLOE - Double bearing housing</p> <ul style="list-style-type: none"> • 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 temperatures • Adapted for high speed applications (industrial ventilators) • Manufacturing process ensures accurate bearing positioning for reduced operating noise • Easy mounting of the bearings unit on the fixing surface • Efficient and low-friction seal thanks to the labyrinth system • The lubricant supply can be upgraded to a circulated system • Shaft diameter : 75 mm - 120 mm |
|  | <p>SNOE - Split plummer block-units</p> <ul style="list-style-type: none"> • Suitable for spherical roller bearings • Excellent for high operating speeds and loads • Housing Material: EN-GJS for increased strength and torsional rigidity • Internal oil distribution via a oil pick up ring • Labyrinth sealing system • Equipped with an oil-level indicator • As an option, oil circulation can be used. Oil cooling or pre-heating conduits can be supplied • Excellent heat dissipation • Fields of application: industrial fans, hammer crushers, stone crushers • Shaft diameter: 70 to 260 mm (the largest standard oil-lubricated housing available on the market) |
|  | <p>SNOL - Split Plummer Block (compact version)</p> <ul style="list-style-type: none"> • Suitable for spherical roller bearings • Low friction labyrinth sealing system • SNOL bearings can replace the grease-lubricated units from the SN series. This may be necessary in the following cases: <ul style="list-style-type: none"> - Higher operating rotation speed - Higher operating temperature - Extended service life - Longer maintenance intervals • Equipped with oil-level indicator • Shaft diameter: 60 mm - 140 mm |

ULTAGE spherical roller bearings

The concept of ultimate performance

PREMIER, the previous generation of spherical roller bearings, used and appreciated the world over, has amply demonstrated its high performance, technical quality and long service life... The latest generation of premium bearings, the ULTAGE range, now offers you even more when it comes to performance.

ULTAGE®

Born of the association of two concepts («ULTIMATE» and «STAGE»), the ULTAGE label marks out our standardized range of Spherical Roller bearings as offering you optimised performance as standard: longer service life, faster rotation speeds, reduced usage costs and an improved contribution to environmental protection.

Performance at all levels

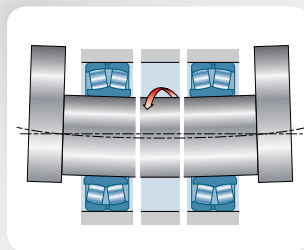
To meet your expectations, a great deal of research work has been carried out on the intrinsic components of ULTAGE bearings. These include:

- selecting better quality steel
- applying heat treatment to endow the bearings with exceptional properties.
- a new internal bearing design: increased load capacity, increased speeds, cages reinforced by specific surface treatment.
- developments with regard to seal technology, etc. At all levels, quality remains the byword, enabling your machinery to achieve its optimum performance.

Tilt Capability

NTN-SNR ULTAGE spherical roller bearings consist of:

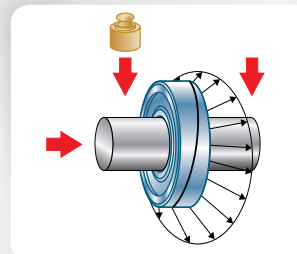
- an outer ring with spherical raceway,
- two rows of symmetrical spherical rollers held in cages,
- an inner ring with a cylindrical or tapered bore.



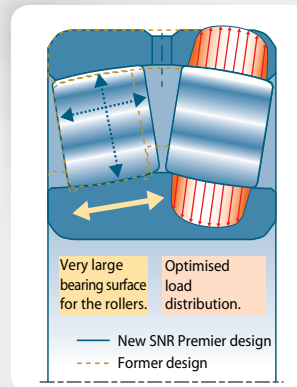
The rollers move freely in the spherical raceway of the outer ring. This allows the bending of the shaft and alignment faults on the bearing seats to be compensated for.

Very high load capacities

The internal design of double-row spherical roller bearings enables them to withstand very high radial loads and axial loads in both directions.



NTN-SNR ULTAGE spherical roller bearings are designed without any central shoulder section or floating guide ring, for supporting the heaviest of loads thanks to a maximum number of long, large-diameter rollers.



In association with the high-performance materials, optimised surfaces and surface treated cages, the precise osculation ratios between the rolling elements and the raceways that uniformly distribute the stresses in the bearing enable significant improvements to be made to the service life expectancy.

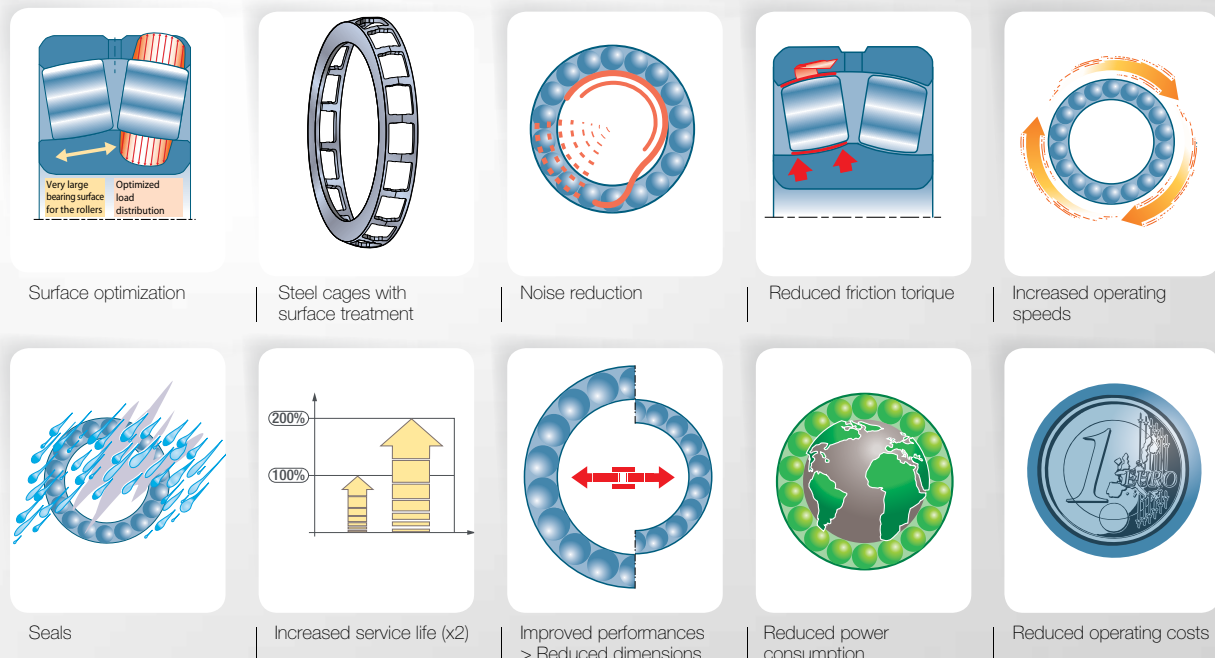
Ultimately, these optimised specifications of NTN-SNR ULTAGE spherical roller bearings make it possible to design machines that are more compact and more reliable.

NTN SNR “Premium Quality” spherical roller bearings

You are already familiar with generation E:

- Optimised design
- No central rib (except series 240xx and 241xx)
- More, larger, longer rollers
- New cages
- Increased load capacities

Now you can benefit from all the benefits of the ULTAGE generation



Designed for applications in extremely harsh operating environments (steelworks, paper mills, wind farms, mines and quarries, etc.), spherical roller bearings need to be able to withstand:

- high loads and temperatures
- major misalignments
- polluted atmospheres
- impacts, vibrations.

All these conditions call for exceptional mechanical qualities. The NTN-SNR engineers and scientists therefore work tirelessly on:

- materials selection, heat treatments, surface treatments
- product design
- the kinematics of bearings when combining the effects of lubrication with reduced friction, wear & tear and pollution
- manufacturing technologies and the improvement of the manufacturing processes...

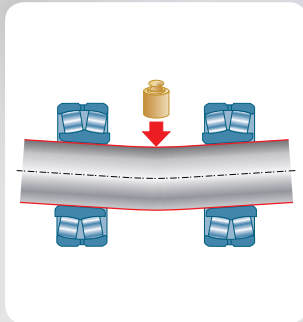
All this effort generates spectacular results.

Thanks to their dynamic load capacities, among the highest on the market, and the optimisation of all constituent parts of the bearing, NTN-SNR ULTAGE spherical roller bearings allow you to benefit from PREMIUM performance:

- double the service life compared to a standard solution
- improved reliability for your installations
- reduced costs of use.

ULTAGE, your satisfaction first and foremost

Greater load capacity for your applications



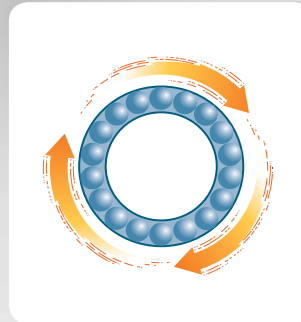
With their optimised internal geometry and surfaces, produced using high-performance materials and with a maximum number of long, large-diameter rolling elements, NTN-SNR ULTAGE spherical roller bearings guarantee you:

- the best load capacity levels on the market,
- increased operating times.

Among the benefits deriving directly from this:

- longer intervals between maintenance operations,
- size reduction with the possibility, under like-for-like operating conditions, and as standard, of using a technical solution with smaller bearings.

Optimised ROI from your Machines



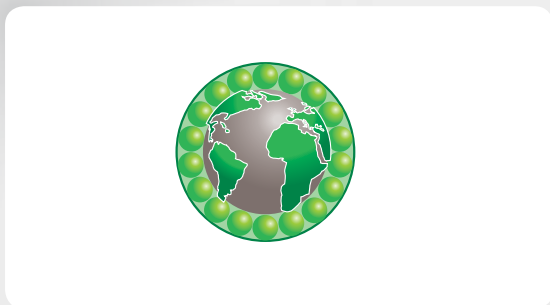
The optimised internal design offers higher speeds thanks to reduced friction.

As a result, the service life of your machines is extended and the operating temperatures are kept lower.

For you this means:

- better returns from your machine pool
- lower maintenance costs
- reduced power consumption
- reduced lubricant consumption

A solution in compliance with the new environmental challenges



Reduced maintenance costs, less noise, less friction, reduced power consumption, reduced lubricant consumption for the sealed versions and longer service life... the use of NTN-SNR ULTAGE spherical roller bearings is synonymous with:

- less impact on the environment
- less power consumption

Your satisfaction - our priority at all times



- «Premium» performance,
- Reduced Cost, Reduced Maintenance,
- Reduced environmental impact...

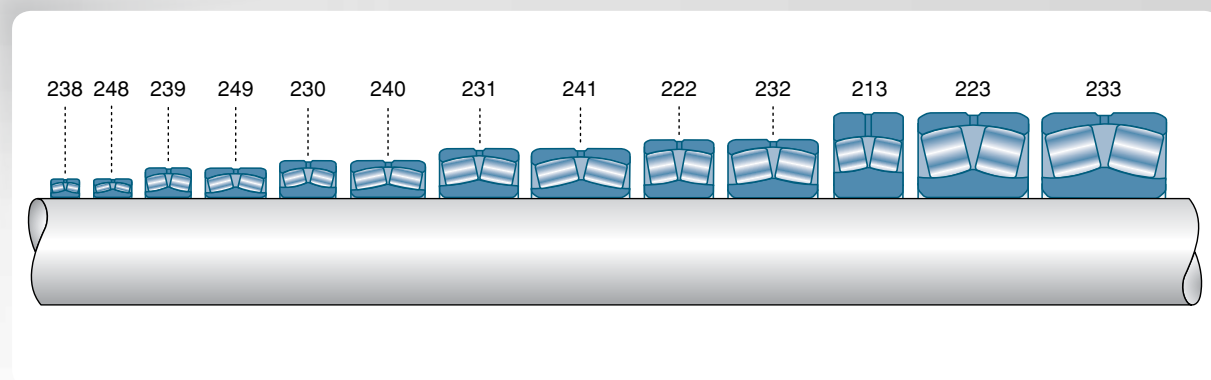
These are powerful and distinctive assets marking out the ULTAGE range, offering major benefits to guarantee your satisfaction.

Easy to identify

The NTN-SNR ULTAGE bearings keep the same standard designations (e.g., 22209EAW33). To make it easier to identify your high-performance bearings, each bearing and its box are endorsed with the ULTAGE.



The NTN-SNR range of spherical roller bearings



Description

NTN-SNR proposes a full range of spherical roller bearings with bores from 25 to 1800 mm, available with cylindrical or tapered bore. Most tapered bore bearings require the use of an adapter or withdrawal sleeve for mounting on the shaft. Most bearings are equipped with a groove and lubrication holes in the outer ring. Bearings with metal cages can operate at temperatures of up to +200°C. The dimensional stability of the steel is guaranteed by means of specific heat treatment. These bearings are available in a wide range of series designed to cater to the broadest spectrum of usages depending on your requirements in terms of loads, speeds and dimensions.







Part 5

Experts & tools services

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Mounting & dismounting tools

Experts
& Tools

Mounting and dismounting a bearing: these essential stages determine the life span of the installation as well as its correct operation.



Cold mounting

The tool case for a quick and accurate bearing fitting in complete safety.



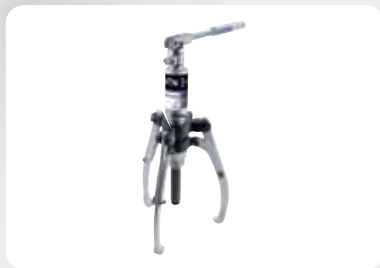
Hot mounting

Induction heating: Practical, simple, safe, environmentally-friendly.



Hydraulic mounting

Precise, effortless with a revolutionary nut, always ready for use thanks to its "back & forth" feature.



Dismounting tools

Hydraulic or mechanical dismounting:
All kinds of pullers for a safe and clean operation whatever the position and the size of the bearing.



Instruments

Simple, safe and precise temperature monitoring of your machines with the infrared laser targeting thermometer.

And more tools for bearing fitting and handling...

Lubrication: LUBSOLUTION

LUB'SOLUTIONS: we can provide support for your lubrication project from design to installation offering lubricants specially selected for your applications, single-point or multi-point lubrication systems according to your process size and requirements.

Greases

Designed for the demands of your application to ensure your bearings will operate at their best.



Universal



Heavy Duty



Vib



High Temp



Ultra High Temp



Food AL



High Speed+



Chain Oil



Automatic single-point lubricators

We have the right lubricator for all your applications thanks to our wide range of technologies combined with our top-quality bearing lubricants



Automatic Multi-Single Points POLIPUMP

If you have several points close to one another that need lubricating, the POLIPUMP is the lubricating system you need. Available in 12, 24 or 35 outlet versions, offering an independent output of between 0.01 cc and 0.13 cc/cycle for each point, 80 bar maximum pressure and a large grease tank, the POLIPUMP is a widespread easy-to-use lubricating system.



Lubrication system design and set-up

LUB'SOLUTIONS also provide experts to support you in your turnkey lubrication projects, from design to set-up. Lubrication has never been so easy!

Services

Experts & Tools

The NTN-SNR team of experts can support your organisation to obtain the best performance from your bearings and your operations



Training

Improve the skills of your maintenance technicians and designers in bearing selection and maintenance.

Whether at our training school or on your premises with our BEBOX van, we can provide made-to-measure training courses covering both theory and practice, because all customers are different.

Our teaching methods make the difference!



Bearing diagnosis

Let our experts determine the causes of your bearing failures in our lab or on your site. Our reactivity and advice can provide the keys to your improvements.



Bearing reconditioning & Machine tool spindle repair

Have your industrial bearings reconditioned by a company used to renovating aircraft jet engine & bullet train bearings.



Technical assistance for bearings and lubrication systems

Contact our specialists to organize your maintenance work: mounting and dismantling bearings, manufacturing, maintenance and extension of lubricating systems, shaft alignment using the laser technique. With BEBOX, our mobile training concept, we are always there for you!



Organization of maintenance system

Benefit from an unbiased assessment of your maintenance organization system by our industrial maintenance experts. Boost your productivity with the action plan proposed by NTN-SNR



Tool rental

Experts & Tools offers a wide range of large bearing maintenance tools for rent: induction heaters, hydraulic nuts, pumps...

