

50% increase in bearing life



#### Systems Expertise

### New: A proactive housing...

This is the life! Product life in this new generation of SNS plummer block housings is so good that spherical roller bearings last up to 50% longer than usual. This is due to a unique housing design: When in operation, the SNS housing proactively self-adjusts to the bearing.

#### Using this FAG housing generation will pay off for you in many respects

- · Longer life of the rolling bearings used
- Easy to interchange due to dimensions in accordance with the market standard
- Reduced maintenance requirements and fewer downtimes
- Lower mounting costs
- Reduced use of materials
- Lower disposal costs

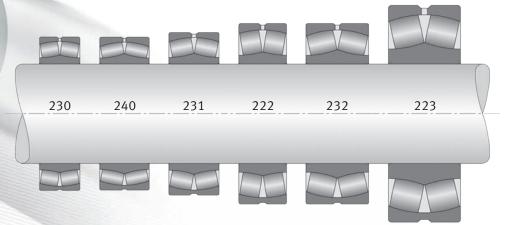
50% increase in bearing life

# **1-to-1** replacement for conventional solutions

# ... suitable for a range of bearing types

- For spherical roller bearings from series 222.., 223.., 230.., 231.., 232.., and 240..
- For split spherical roller bearings
- For toroidal roller bearings (TORB)

SNS housings are suitable for shaft diameters of 115 to 530 mm and  $47/_{16}$  to  $191/_{2}$  inch.



#### **Condition monitoring**

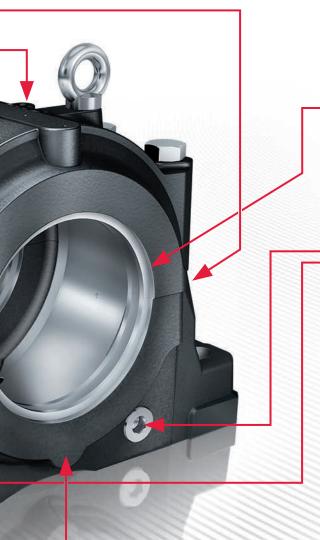
Condition monitoring for preventing unplanned downtime:

- Predefined positions for condition monitoring, for example using FAG SmartCheck, a sensor for vibration diagnosis in real time
- Grease condition monitoring using FAG GreaseCheck can be easily integrated

#### Mounting

Simple mounting and precise positioning of the housing due to:

- Lateral location faces that are reworked by machine for high dimensional accuracy
- Recessed dismantling slots for easier removal of the upper housing section
- Notches on the lower housing section for optimum positioning of the housing



#### Spheroidal graphite cast iron housing material

High-quality spheroidal graphite cast iron is used as the standard material:

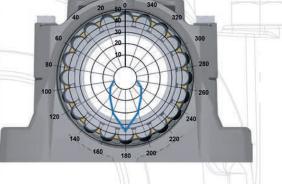
- High breaking strength
- Only slightly sensitive to shocks

#### Lubrication

User-friendly maintenance:

- Effective bearing lubrication by means of a lubrication groove in the upper housing section – for example using FAG CONCEPT8
- Lubrication is ensured in every bearing position
- Housings feature grease outlet holes as standard for optimum pressure compensation and to allow excess lubricating grease to escape during relubrication

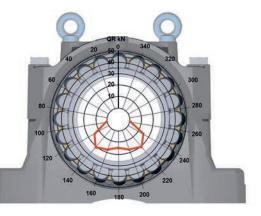
# Optimized load distribution protects the bearing...



#### Conventional load distribution

The support in the center leads to an unfavorable, restricted load zone. The rolling elements at the apex are subject to higher loads, while the load is removed from the neighboring rollers. The rolling element load also increases if the load on the bearing increases.

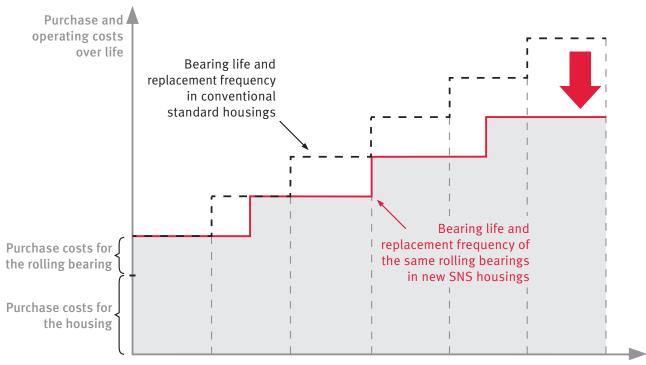
Result: Premature failure of the bearing



#### Load distribution in the SNS housing The cutaway underneath the bearing produces a significantly wider load zone. The bearing load is more evenly distributed on several rolling elements. The maximum load is not located on the roller at the apex but on the neighboring rollers. The rolling elements are subject to reduced load in the new housing.

Result: A significantly longer bearing life

### ... and helps to reduce overall costs (TCO)



Time in bearing cycles with standard housings

Conclusion: Up to 50 % longer bearing life due to the innovative and proactive housing design

#### Seals

# For use in a wide range of sectors...

- Crushers and tube mills
- Belt conveyors and hoisting plants
- Paper mills
- Drive wheels
- Fans
- Small wind turbines
- General heavy mechanical engineering

A wide range of sealing variants is available to allow flexible and cost-effective use in a variety of different applications.









### ... the optimum seal



NTS labyrinth seal for high circumferential speeds

NTS labyrinth seals are contact-free and therefore suitable for high circumferential speeds. Temperatures from -20 °C to +200 °C are permissible.

The labyrinth seal allows shaft misalignments of up to 0.3° in both directions.



#### NTC Taconite seal for extreme protection

This seal type is a combination of a labyrinth seal and a V-ring. The phosphated surface of the seal makes it suitable for use in extremely contaminated environments at temperatures of  $-40 \,^{\circ}$ C to  $+100 \,^{\circ}$ C.

The Taconite seal allows shaft misalignments of up to 0.3° in both directions.

# The standard range includes the perfect seal for every application

# For heavily loaded applications ...



#### BTAC bolt-on Taconite seal

This seal combines a labyrinth seal with a V-ring but is additionally screwed to the housing. It was specially developed for use under harsh conditions in the extraction and processing of raw materials and provides reliable protection against dust and contamination. This seal features a split fixture, which allows the bearing to be visually inspected without having to remove the upper section of the housing.

#### Split Seals

## ... and difficult installation situations

A split seal allows repairs and maintenance to be carried out very quickly. It makes installation and repair work in places that are difficult to access and on continuous shafts particularly easy when combined with split bearings. Complex additional tasks – such as removing gears and clutches, dismounting drives, and dismantling shaft lines – are no longer necessary. This saves time and money, thus allowing an unbeatable TCO reduction.



#### NTSG split labyrinth seal

Non-contact labyrinth seals for SNS plummer block housings are also available in a split design. This simplifies mounting and repair work on continuous shafts and in places that are difficult to access.

# Split housing + split bearing + split seal = unbeatable TCO reduction



Interested? Then ask us for more information. All technical data are available in the new TPI 231. Visit us online at **www.schaeffler.de/housings/sns** for detailed information.

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