

Split roller bearings for conveyors



Why is split the answer for conveyors?

Is it a struggle to install or service bearings in belt conveyors or bucket elevators, particularly those between the head pulley and gearbox or motor?

The SKF Cooper split roller bearing, highly effective in most locations, is the ideal solution here. Its split-to-the-shaft construction allows easy assembly during initial manufacture, and makes it very easy to change in the field.

Split-to-the-shaft bearings can be disassembled into smaller components. This makes assembly or replacement very simple even in the most cramped or inaccessible locations. It also eases lifting and handling. Clearances are pre-

set, so no on-site adjustment is needed, and no specialist fitting tools are required.

Split-to-the-shaft bearings enable faster handling, leading to reduced downtime, increased productivity and reduced costs.

Ever wish for longer-lasting bearings?

Offering highly efficient sealing capacity, SKF Cooper split roller bearings offer excellent performance and extended bearing service life over a wide range of conditions, from moderate to extreme. Time and again they have proven their ability to continue working, even in heavily contaminated conditions and harsh environments, such as below-ground operations or cement plants.

Achieving performance gains and running existing equipment to its full potential is increasingly important to stay ahead. No one can afford large amounts of machinery downtime, whether it's at scheduled maintenance times or through failures.

SKF Cooper offers a proven answer to reducing production loss and overall machinery overhead in key applications, including in a variety of locations on belt and screw conveyors and lifts.



Bearings in a cement plant



Vertically mounted split block



Standard hanger unit on a screw conveyor



Head drum bearing



Split block in a trapped position.



Square flange housing



SKF Cooper flange on a ship loading conveyor

Tired of bearings that limit your design?

A versatile range of housings, specially designed for conveyors, makes it easy to incorporate our bearings into your design from the start, or to use them as 'swap-in' replacements for other brands.

We provide specially designed take-up units as well as split block and flange housings that enable easy application of our bearings to the shafts of belt conveyors. The take-up units as well as split block and flange housings are offered in both push or tension types.

Our hanger units, available in single-, double- and triple-boss versions, allow you to apply SKF Cooper bearings to the centre bearing positions of scroll conveyors. Here, our new 100 Series bearings further increase the benefits of using SKF Cooper bearings in that their extra-compact size offers less resistance to the flow of material.

Split block housings can be oriented at any angle, giving great design flexibility. If interchangeability is important, or if an existing standard bearing needs replacement, you will find there are no special design requirements: our blocks are available with shaft-height-to-centre and bolt hole patterns to match those of SN, SD and SAF units.

Our wide product range makes designing conveyors much easier. Equally important, you can simplify shafts, adjacent components and machinery, without compromising performance, by incorporating split bearings in your design thinking from the outset. You can design each part to do its job without worrying about fitting the bearings in.



Take-up unit – tension type



Special stainless steel hanger unit

A wide range of mounting options

SKF Cooper offers a full range of sizes from 35 mm to 600 mm and four SKF Cooper standard series: 100, 01, 02 and 03 as

well as a variety of housings available in cast iron, ductile iron, steel and stainless steel.



Split block housing with a four-bolt base



Split block housing with a two-bolt base



Take-up housing (tension type)



Hanger housing (single boss)



Flanged housing (round flange)

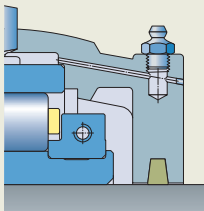


Flanged housing (square flange)

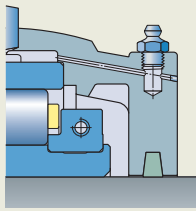
Seals

SKF Cooper bearings offer highly efficient sealing, contained in an inner housing or cartridge and mounted to the outer housing (e.g. ball and socket joint). The cartridge can accommodate misalignment between shaft and housing or framework by moving (together with shaft and bearing) up to 2.5° and the

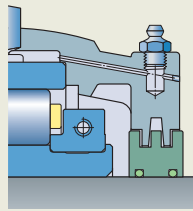
seals remain concentric with the shaft. Our product range includes general purpose felt seals, to lip seals for wet but not submerged applications (see illustrations below), to supply of non-standard materials as well as bespoke seals for specific operating environments.



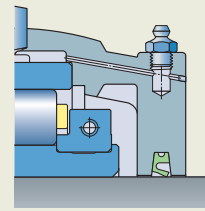
Felt (F) Standard in UK and Europe for most SKF Cooper bearings in general industrial applications.



High temperature packing (HTP) A direct replacement for felt in high temperature applications. Silicon-free version available.



Aluminium triple labyrinth (ATL) Suitable for high speed and high temperature applications.



Synthetic rubber single lip (SRS) Suitable for wet but not submerged conditions. Can be used for improved lubricant retention by mounting lip innermost.

Sealed split spherical roller bearings

SKF Cooper split spherical roller bearings offer a solution – reducing mean time to repair (MTTR) by 70%.

A conveyor pulley for an iron ore producer, equipped with sealed 231 Series 380 mm shaft spherical roller bearings. Supporting the customer with quick and easy in situ replacement with little disturbance to the shaft alignment or driveline.



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