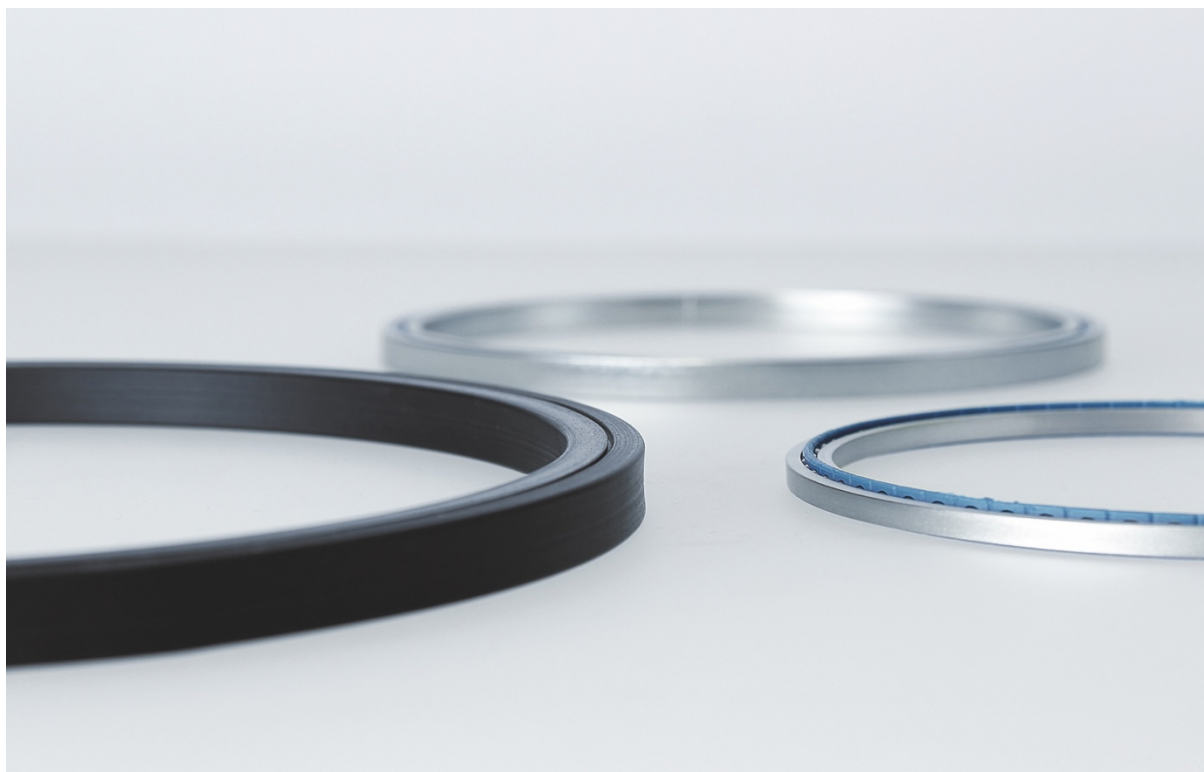


Franke Slim Bearings - High performance at minimum space

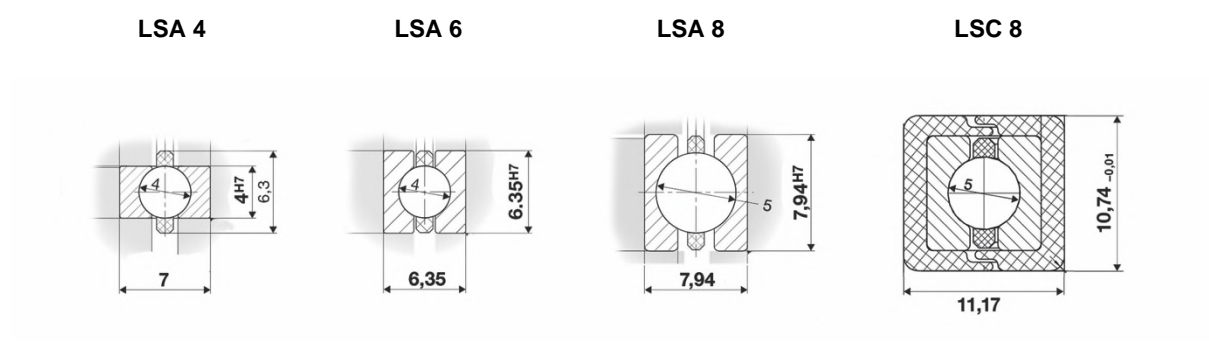


Franke Drahtwälzlager liegt ein einfaches, aber geniales Prinzip zugrunde: Einzelne Laufringe aus Draht sind mit einer Laufbahn versehen, die exakt an den Durchmesser der Wälzkörper angepasst ist. Der Abrollvorgang erfolgt dadurch nicht unmittelbar zwischen Wälzkörper und umschließender Konstruktion, sondern reibungsarm auf den vier offenen Laufringen. Dieses Konstruktionsprinzip ermöglicht die freie Gestaltung der umschließenden Konstruktion bezüglich Geometrie und Werkstoffwahl.

Franke Slim Bearings are the logical development of the wire race bearing technology. Due to the special profile of the raceways with two contact points on each of the rolling elements, the 4-point-contact principle is maintained. The races are open and available in any desired diameter within 3" and 30". Installation and adjustment are just as easy as with conventional slim bearings with a large gain in load capacity (see table, values shown for slim bearing with KKØ 300mm).

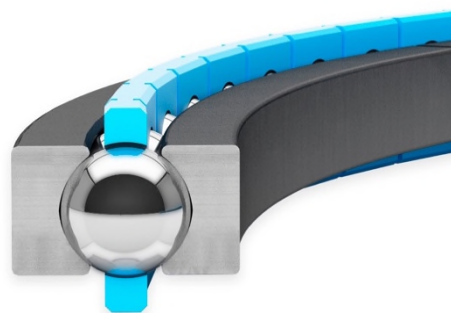
Type LSA/LSC	4	6	8	Other bands
Cr [kN]	8	8	11	7
Ca [kN]	9	9	13	19
Cor [kN]	36	49	55	26
Coa [kN]	76	105	117	75

Franke slim bearings are distinguished by their compact design. The LSA 4 is satisfied already with an installation space of 4 x 7 mm. Below please find the different sizes in comparison:

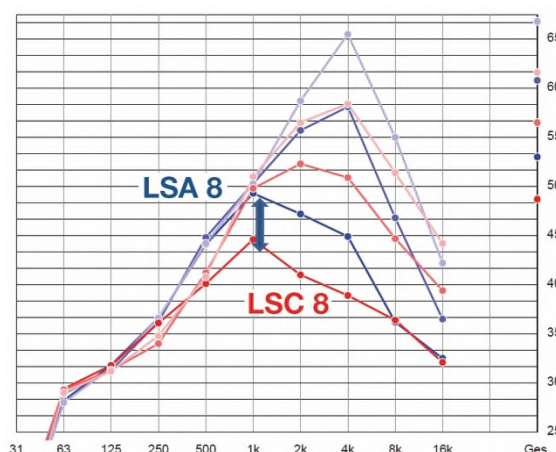
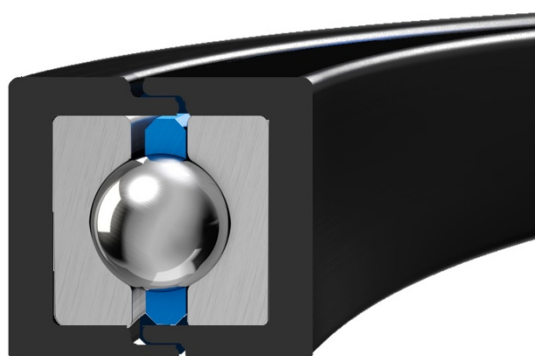


Franke slim bearings are perfectly suited for applications with small installation dimensions and medium loads. They are quick and easy to install, even in serial production.

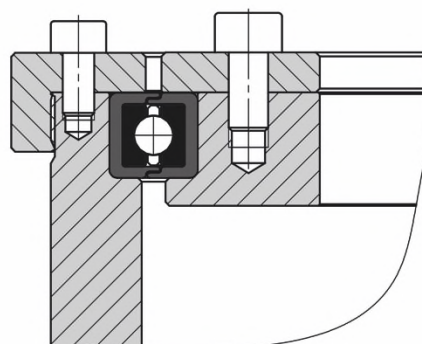
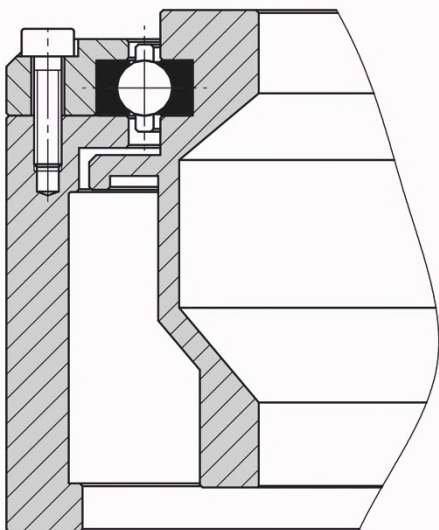
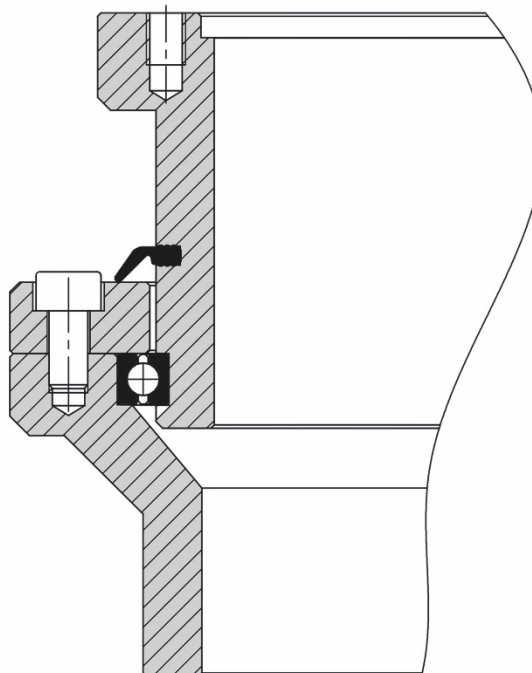
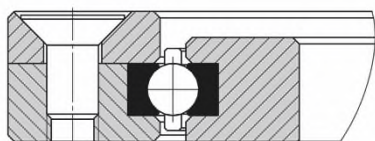
Franke slim bearings of type LSA deliver a convincingly smooth run, require extremely compact mounting space, ensure simple assembly and come at a favorable price. Slim bearings type LSA consist of one inner and one outer race ring with hardened and profiled raceway and a plastic cage with retained balls. The rolling elements touch the race rings at two points each, hence ensuring the 4-point system. The race rings are separated; their diameter can therefore be altered elastically for mounting.



Franke slim bearings of type LSC are covered by elastomer profiles, which take over the sealing, tolerance compensation and vibration elimination of the bearing. Due to the overlapping lips of the elastomer sleeves further sealing of the bearing is not necessary.

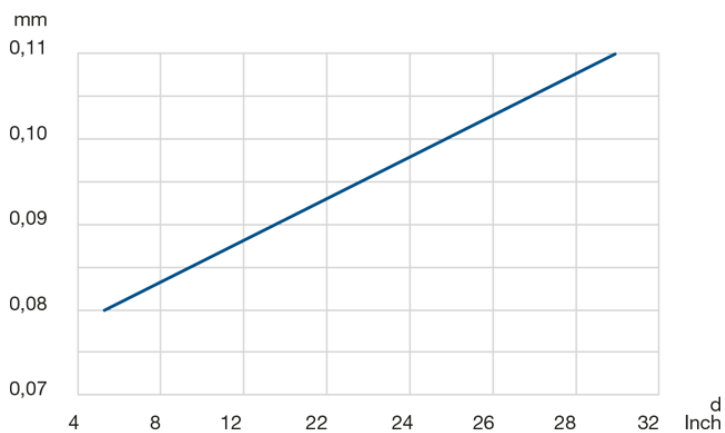


Construction examples show how easily Franke Slim Bearings can be integrated into the mating structure. Franke Slim bearings are available in continuous diameter ranges and can be adapted easily to given diameters.



The slim bearing determines the overall construction's load bearing capacity. Hence the mating construction can be made of alternative materials such as steel, aluminium or plastic.

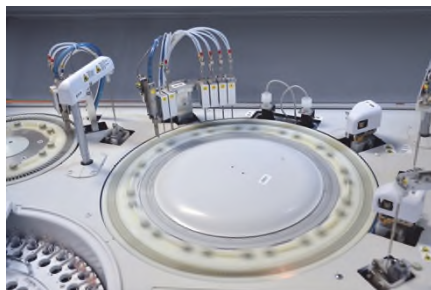
Axial and radial accuracy (see diagram) are defined to a substantial extent by the mating components. These properties can be enhanced by boosting the accuracy of manufacture.



Franke slim bearings are used wherever small installation space and medium load capacity are required. The compact dimensions and easy mounting of the bearings make them a first choice for serial production. Examples of successful applications are:

1. Medical centrifuges

- Minimal mounting space
- Medium loads
- Diameter as desired
- Cost efficient



2. Medical ceiling lights

- High load capacity and precision
- Smooth and silent running
- Diameter as desired
- Light and smooth rotation



3. Wind turbines (small)

- Minimal mounting space
- Medium loads
- Insensitive to deformations
- Diameter as desired



The benefits of Franke Slim Bearings summed up:

- Space saving design
- Quick & easy mounting
- 4-point-contact design takes loads from all directions
- With series diameter infinitely variable from 3" to 30"
- Up to 50% cheaper than conventional slim bearings