

## Anti-friction bearings

The type of bearings to be used is determined by the explosion group, the construction, the speed, the output and any additional loads of the motor. Depending on these parameters or the customer's specification, anti-friction or sleeve bearings are provided.

**For particularly high radial loads, motors can be provided with an additional cylindrical roller bearing at the D-end. Shaft seals are maintenance-free and provide protection against the ingress of dirt and spray water in accordance with degree of protection IP55.**

Lubricators and grease slingers ensure constant proper lubrication of the bearings. Outer bearing covers are provided with a sufficiently large space for spent grease and, where required, a grease drain.

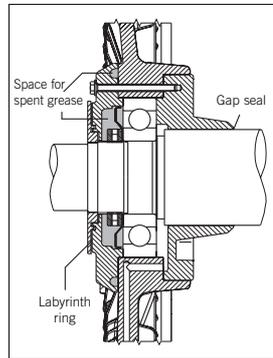
### Rib-cooled design

Series 3 anti-friction bearings. Basic-design IM B3 motors are fitted at the D-end with a grooved ball bearing (locating) and at the N-end with a cylindrical roller bearing (non-locating).

On the motor side of the bearing, a gap seal is provided, and on the outside a labyrinth ring.



Anti-friction bearing with lubricator



Anti-friction bearing arrangement

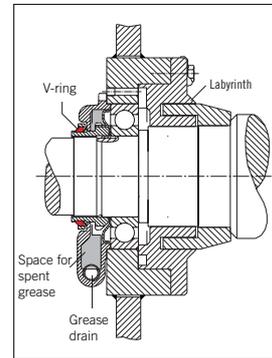
### Tube-cooled design

Series 2 or 3 anti-friction bearings. Basic-design IM B3 motors are fitted at the D-end with a grooved ball bearing (locating) and with cylindrical roller bearing at the N-end (non-locating).

As shaft seals, a labyrinth is provided at the motor side of the bearing and a V-ring on the outside.



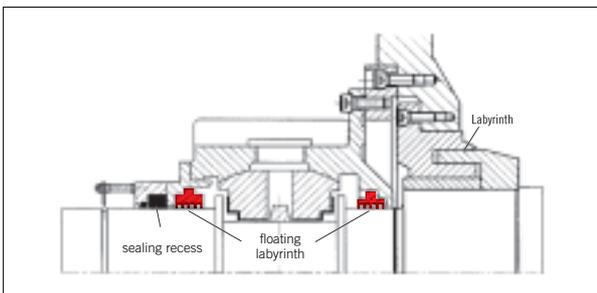
Anti-friction bearing with lubricator and grease drain



Anti-friction bearing arrangement



Sleeve bearing with ring oiler



Shaft seals for sleeve bearings

## Sleeve bearings

On request, tube-cooled motors can be fitted with sleeve bearings. These are of the split, flanged type.

**Depending on the bearing load in service, bearings with loose ring oilers (self lubrication) or with force-feed lubrication are used. Subsequent conversion from self to force-feed lubrication is possible.**

Sleeve bearings are non-locating. Shaft end float is max.  $\pm 3$  mm. On request, a locating bearing can be provided at the D-end. On the motor side of the bearing, sealing is provided by a floating labyrinth seal and a stationary labyrinth. On the bearing outside, a floating labyrinth seal and an additional sealing ring are used.

**Shaft seals are maintenance-free. They provide reliable protection against the ingress of dust and spray water in accordance with degree of protection IP55.**