

Products for ladle turrets in continuous casting plant



FAG



Figure 1 · Ladle turret

With its CoCaB range (**C**ontinuous **C**aster **B**earings), the Schaeffler Group offers bearing solutions that precisely fulfil the requirements of continuous casting plant.

For the carrying arm linkages of the ladle turret, the start of the continuous casting line, maintenance-free spherical plain bearings are available with linings made from dry sliding material, *Figure 1*:

- ELGOGLIDE® (PTFE fabric) and
- GFK (plastic with glass fibre and PTFE).

The bearings:

- are maintenance-free
- have a high load carrying capacity
- can support shocks
- have a small design envelope
- are suitable for oscillating motion
- require no maintenance work
- can be reconditioned
- have a very long operating life.

These bearings have been used successfully worldwide in ladle turrets since 1975. Depending on the turret size, with capacities of 150 t/h to 500 t/h, bearings with a nominal size of 180 mm to 600 mm are used.

Example of a spherical plain bearing design for a ladle turret size with a capacity of 160 t/h, *Figure 2*.

Operating parameters

The spherical plain bearings operate under the following conditions:

- temperature t 100 °C – 120 °C
- swivel angle β 18°
- swivel frequency f 4 /h
- load direction unilateral
- operating hours/day 20 h
- operating days/year 200 days

Spherical plain bearing arrangements for ladle turrets

In this ladle turret, the following spherical plain bearings are used on each turret, *Figure 3*:

- ① 8×GE180 UK-2RS
- ② 4×GE220 UK-2RS
- ③ 8×GE180 UK-2RS

Based on selection of these bearing sizes, the rating life calculation gives values of 60 years to 100 years.

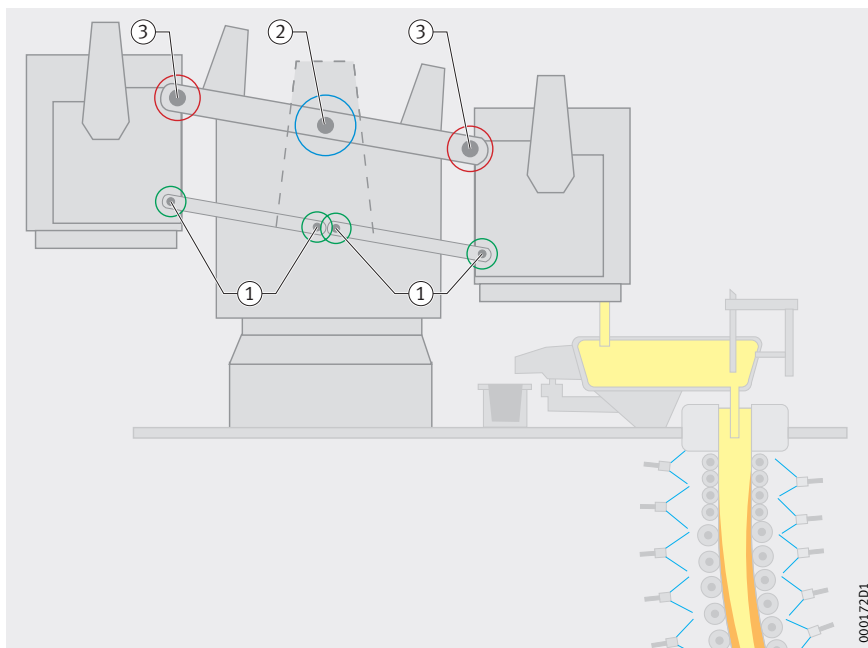


Figure 2 · Spherical plain bearing arrangement according to customer standard

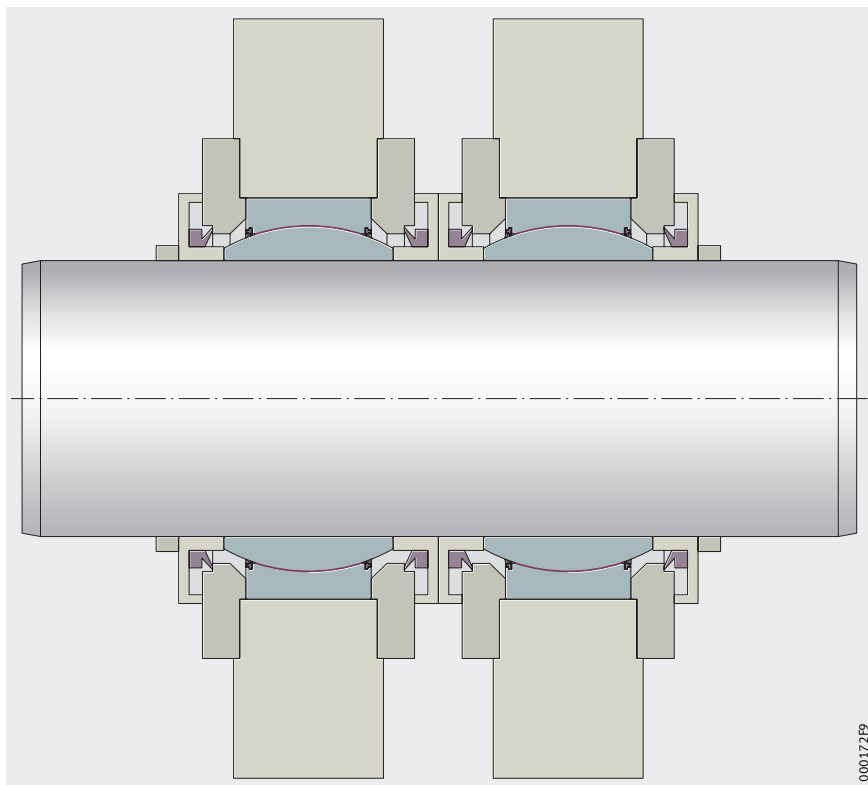


Figure 3 · Spherical plain bearings GE for ladle turret

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