

Products for Strand Guide Rolls in Continuous Casting Plant

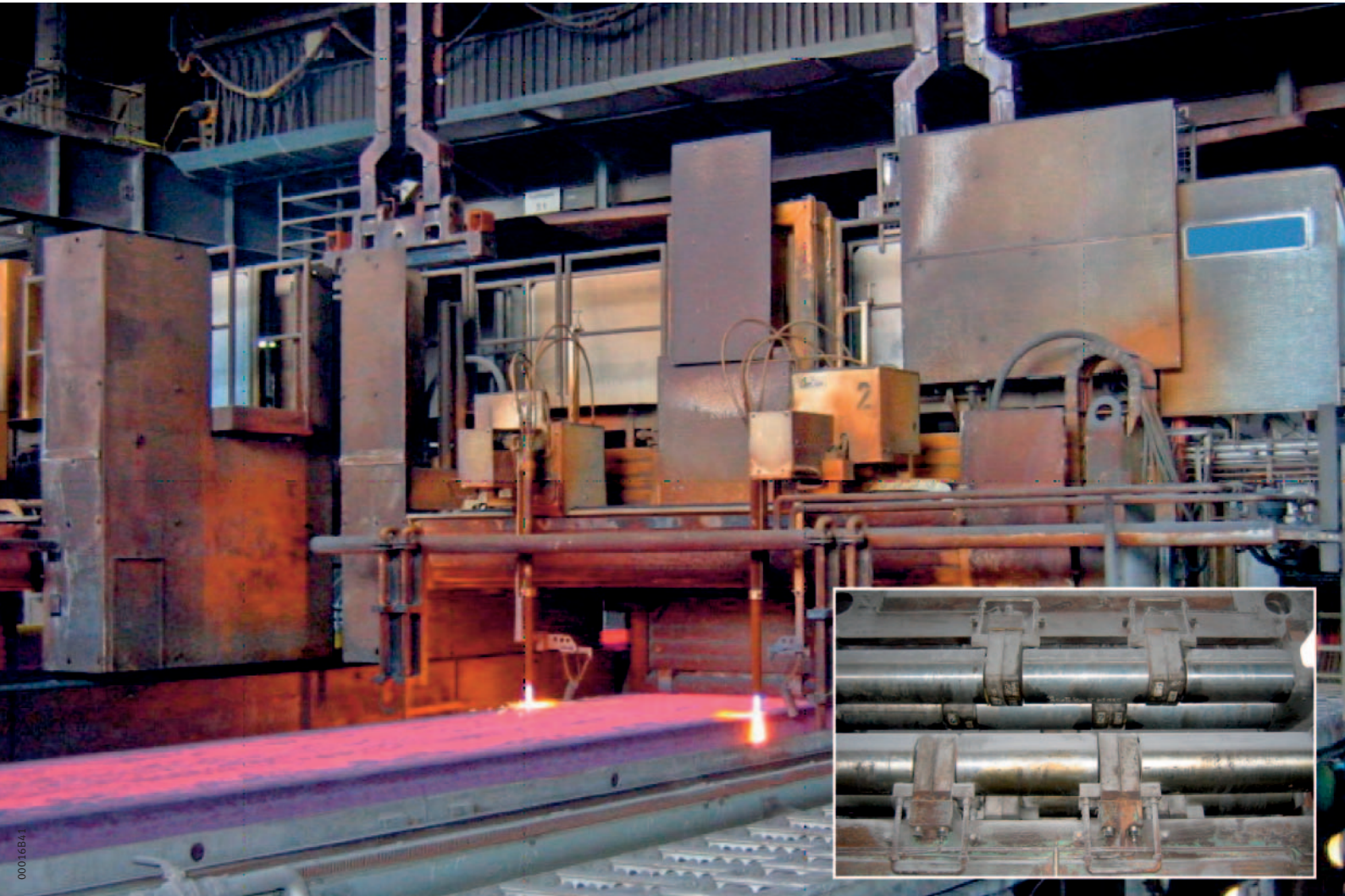


Figure 1 · Continuous Casting Plant 1 in Beckerwerth

ThyssenKrupp Steel Europe AG

Hundreds of steel plants benefit from the quality of custom-tailored solutions provided by the Schaeffler Group.

The precise orientation to challenging, widely divergent operating conditions is reflected in a wide variety of bearing designs for very specific applications.

With its CoCaB program (Continuous Caster Bearing), Schaeffler Group Industrial offers bearing solutions for application specifically on continuous casting plant.

For use as non-locating bearings, full complement cylindrical roller bearings with an optimised raceway geometry were developed.

In a long term field test on the strand guide rolls at ThyssenKrupp Steel Europe AG, they reliably achieved the required production output of 2 million tonnes, *Figure 1*.

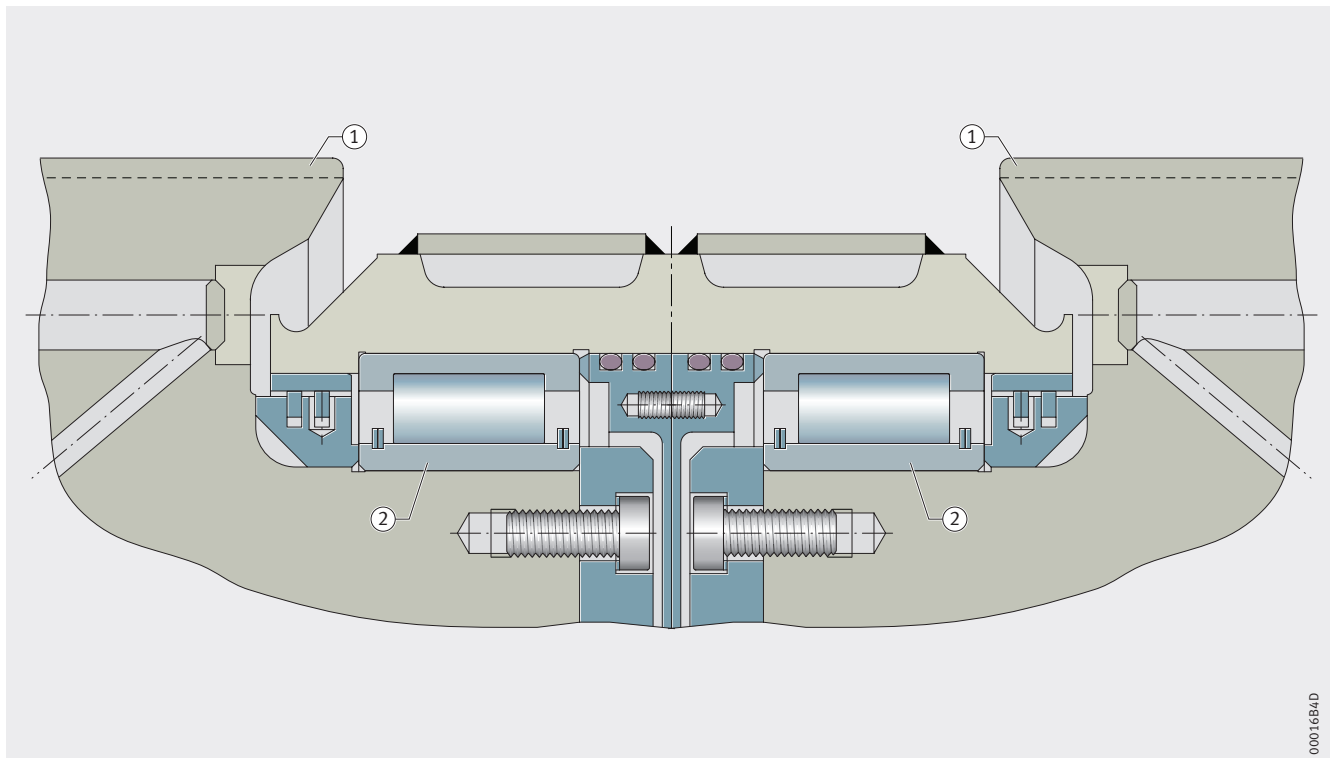


Figure 2 · Centre bearing arrangement of strand guide rolls
 ① Strand guide rolls, ② FAG cylindrical roller bearing, full complement

Technical data

of ThyssenKrupp Steel Europe AG continuous casting plant 1 in Beeckerwerth.

- Manufacturer:
 - Demag/SMS
- Year of construction, upgrades:
 - 1974/85/98
- Type:
 - Curved mould
- Slab cross section:
 - Width: 1 180 mm to 2 040 mm
 - Thickness: 255 mm
- Number of strands:
 - 2
- Annual output capacity:
 - 1,3 million tonnes/strand
- Casting speed
 - 1,35 m/min.

Bearing arrangement of strand guide rolls

- Locating bearings:
 - FAG spherical roller bearings
- Non-locating bearings,
 - Figure 2 and Figure 3:
 - FAG cylindrical roller bearings, full complement.

Characteristics and advantages of the centre bearings

The full complement FAG cylindrical roller bearings used:

- are specifically designed to compensate misalignments
- compensate the thermal expansion within the bearing in an ideal manner
- ensure equal load conditions in all axial positions
- simplify mounting and dismounting
- require no previous axial adjustment
- require no special mounting tools.

Non-locating bearings (example)

FAG cylindrical roller bearing, full complement F-551471.NU with the dimensions:

- Bore $d = 120$ mm
- Outside diameter $D = 180$ mm
- Width $B = 60$ mm.



Figure 3 · FAG cylindrical roller bearing, full complement

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