

Roll Neck Mounting of a Two-High Skin Pass Hill

FAG

Examples of Application Engineering

WL 17 507 EA



Builder: Sundwiger Eisenhütte, Hemer-Sundwig / In operation in Finland

On this skin pass mill copper and brass strips of a width of 500 to 1050 mm are rolled. The maximum thickness for the initial pass is 4 mm, the minimum final thickness 0,2 mm.

“Counterbending” is a special feature of this mill. The rolling loads lead to elastic deflection of the rolls. This deflection is compensated by counterbending forces applied to the roll necks outside the bearing assembly via spherical roller bearings. Thus a

uniform strip thickness over the total width is ensured.

Operating Data

Two-high roll diameters	690/650 mm
Roll length	1 150 mm
Max. rolling speed	230 m/min
Max. rolling load	8 000 kN
Max. counterbending force per roll neck	1 300 kN

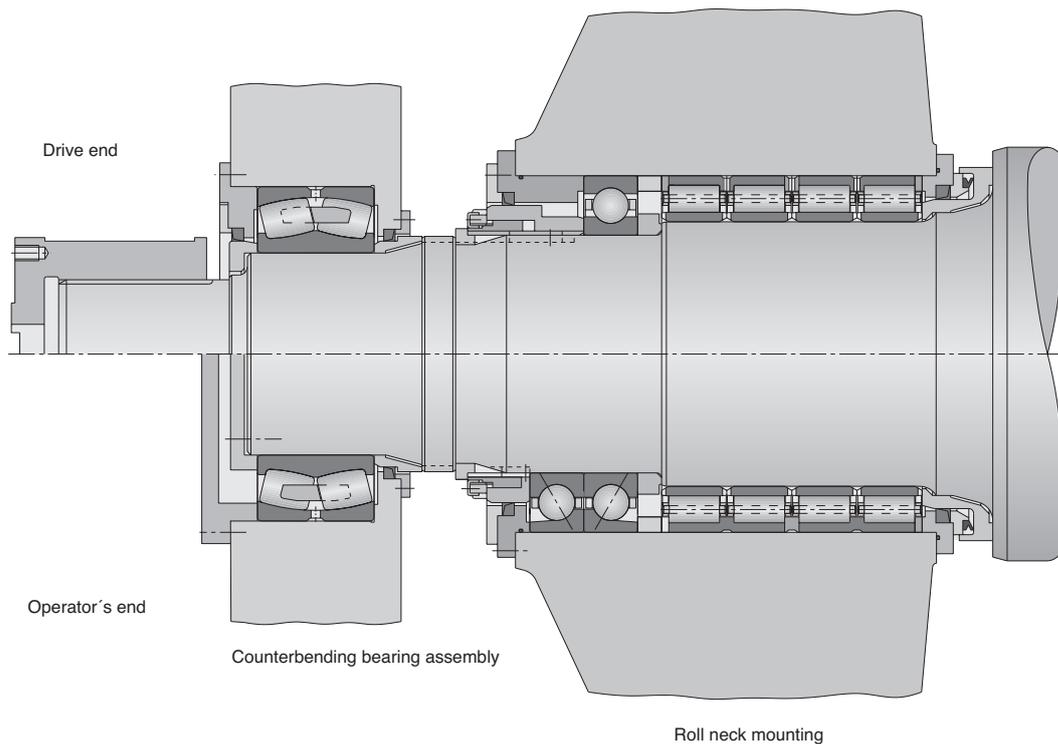
Counterbending Bearing Assembly

The counterbending forces are applied through spherical roller bearings FAG **24068-B-MB**.

Dimensions (d×D×B):
340×520×180 mm

Bearing seat tolerances:
Inner ring to e7;
Outer ring to H6

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Radial Roll Neck Mounting

At each end a four-row cylindrical roller bearing FAG **Z-547961.ZL** is mounted.

Dimensions (d×D×B): 445×600×435 mm

Bearing seat tolerances:

Inner ring +0,160 / +0,200 mm,

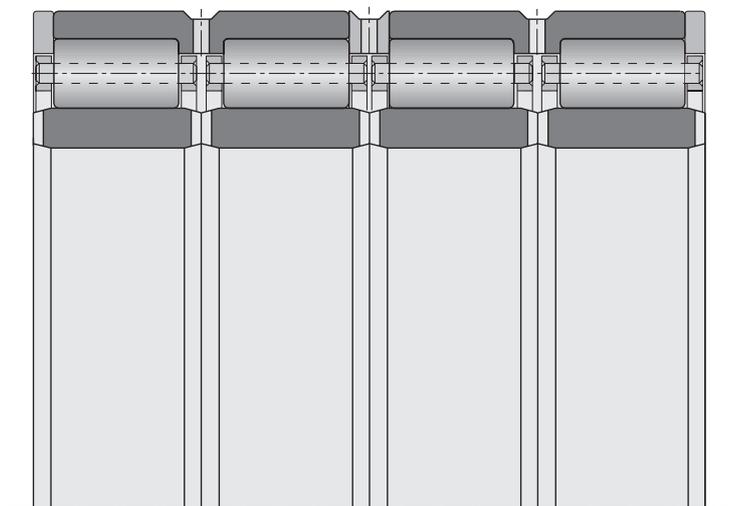
Outer ring to H6

Four-row cylindrical roller bearing Z-547961.ZL for the radial bearing mounting

Like the other bearings the cylindrical roller bearings are also lubricated with a grease containing EP additives.

Easy relubrication is provided through the lubrication holes and grooves in the outer ring and spacers. The inner ring grooves serve for extraction of the inner ring.

The cylindrical roller bearings have pin-type cages.



Four-row cylindrical roller bearing Z-547961.ZL

Axial Roll Neck Mounting

The axial loads are accommodated at the operator's end by two angular contact ball bearings FAG **Z-507227.SKL-N10BA**.

Dimensions (d×D×B): 400×600×90 mm.

The deep groove ball bearing FAG **6080-M-C3** (400×600×90 mm) at the drive end locates the chock on the roll neck.

Bearing seat tolerances:

Inner ring to f6; the outer rings are not radially supported.

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