



SKF ConRo cuts roll line operating costs by up to 50%

Fully sealed roll unit is lubricated for life for enhanced reliability

Benefits

- Reduce maintenance costs
- Reduce planned and unplanned downtime
- Eliminate re-lubrication costs
- Simplify water treatment
- Protect slab surface quality
- Reduce hazardous wastes
- Lessen environmental impact

Typically, continuous caster roll units are lubricated with grease pumped through the bearings, and cooled by water running through a closed system.



But even under the best operating conditions, the grease and water will mix. When the mixture is exposed to high temperatures, it solidifies on the

rolls, causing bearings and therefore roll lines to become blocked and surface imperfections to occur on the slabs. As a result, the caster must be shut down for costly, unplanned maintenance, and productivity drops.

<https://podshipnikru.com/skf>

To help prevent these unplanned stops and rather poor-quality slabs, casters must schedule frequent planned maintenance shutdowns to remove rolls for overhauling. It's an expensive cycle that keeps maintenance costs on the rise as productivity and profits fall.

The SKF ConRo solution

Available in two platforms for both top and lower zones, fully sealed, re-lubrication free SKF ConRo units deliver enhanced reliability for increased productivity. Significant cost savings also result, as grease consumption and downtime for repairs and maintenance drop significantly due to simplified mounting procedures. There is also far less hazardous waste generated during wash downs, so the overall environmental impact of the mill is reduced. Overall, SKF ConRo units are helping casters:

- Cut operating costs up to 50% per roll line
- Increase roll service life by 25% or more
- Change rolls up to 30% faster
- Enjoy as many as two fewer stops per year





Applying SKF knowledge engineering to improve machine reliability and efficiency in the metals industry

Few environments can match the demands placed on equipment used in the metals industry, from continuous casters and vessels to travelling cranes and ventilation systems. SKF engineers work closely with steel mills to meet application challenges and deliver the benefits they need to stay competitive.

These benefits include increased machine reliability, extended maintenance intervals and reduced costs, increased productivity, reduced energy consumption and optimized life cycle costing. Below is just one example of how SKF knowledge engineering helped a metals industry customer improve efficiency and profitability.

The SKF ConRo system helps steel mill (Arcelor Bremen) increase output and reduce costs significantly

In 1999 Arcelor Bremen, a German steel producer, increased capacity by widening the slabs from 2,4 to 2,67 metres. Due to the widening, problems with the rolls occurred. As a result, on segment no.2 the tonnage dropped from 2,4 to 0,9 million tonnes.

To restore the target output, Arcelor Bremen worked on different technical solutions and finally agreed to test the SKF ConRo system – even though being sceptical about a “fully sealed” and “lubricated for a complete lifecycle” roll unit. Based on this uncertainty and the importance of the installation, the rolls were equipped with a back-up piping for lubrication.

The SKF ConRo units proved their 100% reliability and made it possible for Arcelor Bremen to restore the production level of 2,4 million tonnes.



Moreover the steel mill installed additional units without backup lubrication. There has been a production of 3,3 million tonnes on segment no. 2 since the installation of SKF ConRo units.

An additional benefit of the new rolls is the reduction of the number of routine maintenance stops. Prior to the modification, the mill stopped the line

approximately every six weeks. With SKF ConRo units, it is manageable to have planned maintenance stops approximately every ten weeks. Not to mention that unplanned stops are occurring less frequently as well.

The SKF ConRo system helped reduce the steel mill's costs significantly.



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