



Product News

## **NSK Bearings lead to significant Savings at Ore Plant**

Edited by on 6. Jun. 2023

*Ratingen, Germany –*

When NSK solved an overheating issue involving the bearings on a dust extraction fan at an ore preparation plant, it led to annual cost savings of EUR 88,955. These ongoing savings emanate from the elimination of compressed air – previously required for cooling – thanks to NSK's correctly specified bearing and lubrication solution.



Erzaufbereitungsanlagen in Stahlwerken benötigen eine leistungsfähige Entstaubung. (Foto: Kotomiti Okuma/Shutterstock)

Dust extraction fans are necessary at ore preparation plants to help remove the high level of airborne particulates that occur from processes such as crushing, sorting, grinding, screening, decanting, filtering and drying. At this particular

facility, the running temperature of bearings on its extraction fans was proving unacceptably high. To help counter the situation and prolong bearing life, the plant was using compressed air for cooling purposes - at considerable cost.

Concerned about the ongoing expense of this activity, the facility's management team invited NSK's experienced engineers to undertake a thorough application review. The review included value proposals such as a bearing condition report and a temperature survey that revealed serious issues with the seals of the incumbent bearings. High rotational bearing speed was causing seal lip burn-off and over-lubrication, contributing to elevated running temperatures.

To combat this unwanted situation, NSK recommended its high-performance NSKHPS spherical roller bearings with SNN plummer blocks and labyrinth seals, along with proposals for correct installation procedure, lubrication intervals and quantities. SNN plummer blocks feature two lubrication holes and one draining hole to support easy maintenance. A subsequent trial showed a considerable reduction in temperature, eliminating the need to run the compressor for cooling purposes.



Schnittbild eines NSK-Stehlagers aus der SNN-Serie. (Foto: NSK)

NSK's modular SNN housing range offers various technical options to match the needs of demanding applications such as the dust extraction fan. Notably, the components are easy to fit, remove and maintain. Equipped with high-performance bearings, like the NSKHPS series, SNN split housings support companies in achieving their cost-reduction plans.

With the trial at the ore preparation plant proving highly successful, NSK's engineering team oversaw the installation and implementation of its recommendations, with the facility ultimately benefitting from increased

productivity and reduced maintenance costs, as well as the removal of compressed air. The latter alone led to annual savings of EUR 88,955.