



BEARINGS FOR HEAVY INDUSTRY





BEARINGS FOR STEEL INDUSTRY

The working conditions of bearings in steel industry are characterized by high temperatures and dust and debris contamination. The quality of ZVL bearings ensures maximized operation life of heavy-duty devices in steel plants and rolling mills.

ZVL SLOVAKIA supplies double row self-aligning ball bearings for gear-box applications in conveyors.

We also supply bearings to steel production machinery and non-ferrous metal production devices.

In this segment, spherical and cylindrical bearings in **standard and special make** are mostly used.

The main requirements on bearings used in various applications in heavy industry are reliability, effectiveness and safe operation. ZVL bearings meet special customers' requirements and they are ready to be used in extreme environments.

The essential properties of ZVL bearings for use in heavy industry:

- Acceptance of high loads
- Easy service
- Resistance to vibrations and impacts
- Easy mounting and dismounting



BEARINGS FOR MINING AND PROCESSING INDUSTRY

ZVL SLOVAKIA offers a wide range of bearings for customers managing mines, quarries and cement production facilities.

ZVL bearings are supplied to surface mining machines, underground mining machines and conveyors transporting the ore.



The use in mining machines for mines and quarries

ZVL bearings are used in **gear-boxes and special arrangements** in mining machines and devices for surface and underground coal, ore and stone mining. The following criteria must be met when using bearings in ore mining and processing machines:

- Static and dynamic loads
- Rotation speed
- Durability
- Operating environment

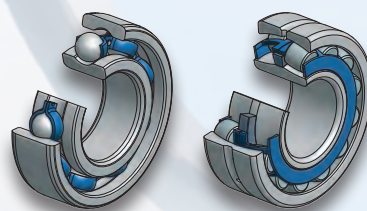
We offer **standard arrangement designs** as well as **special ball bearings designed** on demand of specific industry.

ZVL bearings are supplied to machinery used in coal mines, stone mining and processing, and copper mines:

- Excavators
- Bulldozers
- Diggers
- Crushers
- Mills

WE OFFER:

- Double-row spherical roller bearings
- Cylindrical bearings
- Radial and axial ball bearings



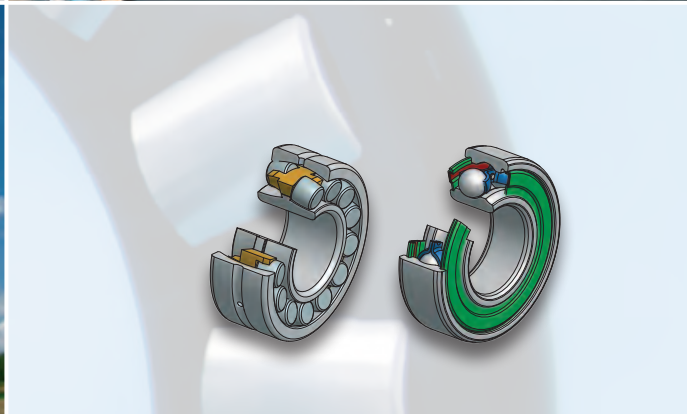
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Conveyors in surface mines

In surface mines conveyors transport huge amounts of ore for the long distances.

The drums of the conveyor belts are equipped with:

- **double-row spherical bearings** designed to carry high loads in drive drums
- **ball bearings** in non-drive drums



BEARINGS FOR ENERGY INDUSTRY

Integral part of our range are bearings applied in various arrangements in devices used in energy industry.

In this segment, **spherical roller thrust bearings** and **double-row spherical roller bearings** are used in special arrangements in turbines in hydroelectric plants and power plants.

The wide range of **spherical bearings** is used in gear-box applications.



BEARINGS FOR PAPER INDUSTRY AND CELLULOSE PROCESSING

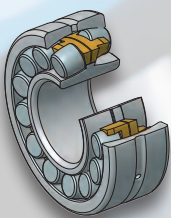
Bearings for paper industry and cellulose processing are also classified as bearings for heavy industry. Paper machines adapted to special customers' requests contain high reliability, long-life bearings.

The paper manufacturing process consists of several steps: chipping the logs, pulp preparation, beating with chemical additives, chemical pulp bleaching, turning pulp into paper, finishing the paper. Bearings used in paper manufacturing machines are exposed to high loads combined with high temperatures, high rotation speed, humidity and shaft bending. High load and high temperature resistant double-row spherical roller bearings are used in paper machine drums.

Ball bearings and cylindrical bearings are used in special arrangements in paper machines and printing machines. The main part of bearing supplies goes to various conveyor rollers. The ZVL bearing offer ranges from standard types to special system solutions.

The use of bearings:

- Printing machines
- Paper machines
- Cellulose processing machines





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