

Schaeffler Global Technology Solutions

Raw material extraction and processing

Mátrai Erőmű Zrt., Hungary

Mátrai Erőmű satisfied with lubrication systems for over 6 years – Approximately 200 lubrication systems in use by 2020 –

Customer

The energy provider Mátrai Erőmű Zrt. at Visonta operates one of the largest power plants in Hungary. Mátrai has a power generation capacity of around 950 megawatts and is supplied by the opencast mines in Visonta and Bükkábrány. In addition to lignite, the power plant also uses biomass, photovoltaics and natural gas. Approximately 2,000 people are employed at the plant.

Challenge for Schaeffler

At the opencast mine in Visonta, the drive motors which power the belt pulleys along the several kilometres of conveyor belt are constantly in motion. As a result, it must be ensured that lubrication, which is appropriate to requirements and capable of functioning under extremely harsh conditions, is used here. In the past, electrochemically driven lubricant cartridges were used for electric motors, however, a significant disadvantage of this solution is that the automatic single point lubrication systems do not always operate smoothly due to fluctuating outside temperatures.

Schaeffler Solution

Schaeffler experts recommended the use of the CONCEPT 2 lubrication system filled with the quality Arcanol MULTITOP. This solution allows continuous and reliable lubrication of the bearings in the drive motors and belt pulleys as well as in the paddle wheel in the excavator during operation. The installation of the lubrication systems and the replacement of the lubricant cartridges was carried out by the locally authorised Schaeffler sales partner Euro-Borsod Trade Kft.



MÁTRAI ERŐMŰ ZRT.

Technical information about the plant

Visonta opencast mine

Raw material supplied

Lignite

Annual delivery quantity

4,5 -5 million tons

Conveyor belt length

40 km

Pulley diameter

Up to 1500 mm

Output of drive motors

450 KW - 630 KW

Bearings

- FAG deep groove ball bearings and
- FAG cylindrical roller bearings
- FAG spherical roller bearings



Schaeffler CONCEPT2 in protective housing on drive motor



Schaeffler CONCEPT2 in protective housing on drive motor



Schaeffler CONCEPT2 in protective housing on drive motor

Customer Benefits

- Prevention of unplanned downtime
- Longer bearing life
- Automatic lubrication irrespective of temperature
- Reduction in repairs
- Service from one source

In particular, the customer was convinced in technical terms by the ease of operation and the robust design of the lubrication system. A further benefit here is that the personnel assigned to lubrication can be utilised for other important tasks in the plant with immediate effect.

What's special

The installation of a total of 65 CONCEPT 2 lubrication systems by 2020 represents a further step in the cooperation. To date, a total of 130 CONCEPT 8 lubrication systems with 800 cm³ Arcanol cartridges have been commissioned for the belt pulleys (see also [customer reference 0113](#)). In 2020, Mátrai Erőmű Zrt. plans to introduce further lubrication systems at the Visonta power plant for large fans and motors.

Are you looking for a solution for your system? We will be happy to advise.

Contact

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Technical Information about the solution

Lubrication system

65 CONCEPT2 lubrication systems for electric motors

Operating mode

Internal time control

Cartridge with lubricant store

250 cm³

Lubricants

Arcanol MULTITOP

Hoses

- FAG PA12 hoses
- OD 6 mm, ID 4 mm

Lubrication system

130 CONCEPT8 lubrication systems for the belt pulley bearings

Operating mode

Internal time control

Cartridge with lubricant store

800 cm³

Lubricants

Arcanol LOAD460

Hoses

- FAG PA66 hoses
- OD 8 mm, ID 5 mm