

We pioneer motion

Lubricate more sustainably

Less grease consumption, lower CO2 emissions

In Visonta, the energy supplier MVM Mátra Energia Zrt. operates one of the largest power plants in Hungary. The provider is looking for a new, more sustainable lubrication solution for the drive motors of their belt conveyors in the open pit mine. By using CONCEPT1 gas-powered automatic lubricators, Mátra not only operates more sustainably, it reduces its maintenance efforts as well. This saves costs. In addition to CONCEPT1, MVM Mátra Energia has also been using CONCEPT2 and CONCEPT8 lubricators for years.

Customer benefits

- Grease quality is maintained because no impurities intrude into the bearings during relubrication
- Longer service life of bearings in motors and preset time intervals for lubrication
- Increased safety due to less manual work in hard-to-reach locations
- Sustainable lubricant cartridges can be filled up to three times



Customer

Application





What the customer does ...



Challenge

Every day, belt conveyors in the Visonta open pit mine move immense quantities of material over large distances. Optimal lubrication is essential for a trouble-free process – despite dirt and tremendous vibrations. Those vibrations, among other factors, significantly impact the bearing service life of the conveyor drive motors. In the past, the numerous lubrication points of the drive motors and other motors were already supplied with lubricators.

But these devivices did not entirely meet the utility's expectations for sustainability and simplicity. which is why the company contacted its local authorized Schaeffler distributor, Euro-Borsod Trade Szerviz (EBT Szerviz).

EACH YEAR, UP TO 20 MILLION CUBIC METER OF RAW MATERIALS (LIGNITE AND WASTE ROCK) ARE TRANSPORTED OVER A 40 KILOMETER CONVEYOR NETWORK



Technical information – Conveyor belt drive motors

Туре	Dimensions (mm)	Speed	Capacity
CR 5835B- AA06	2737 x 1260 x 1630	990 / rpm	630 kW
2 AOC X6	2660 x 1360 x 1580	990 / rpm	630 kW
1 LS3 334-6	2645 x 710 x 1665	990 / rpm	630 kW
DSR-80	2555 x 1380 x 1680	990 / rpm	630 kW
ROA-10/121d	2520 x 1380 x 1620	990 / rpm	630 kW
FBAO 566 E-6	2485 x 1620 x 1756	985 / rpm	500 kW

What Schaeffler offers ...

Solution

Schaeffler and EBT Szerviz recommended the CONCEPT1 automatic lubricator – the cost-effective lubrication solution.

The CONCEPT1 automatic lubrication solution has one port and consists of a refillable 125 milliliter cartridge driven by a gas-producing dry cell. The flow rate can be preset according to the amount of lubricant required for the bearings.

Around 300 CONCEPT1 units are in use on the drive motors. Since the lubricator can be filled with lubricant as many as three times, the customer has been convinced of their sustainability. CONCEPT1 also scored points for its easy installation, reduced maintenance requirements and cost savings.

What our customer says ...



With the automatic lubricator, we are not only more sustainable – we can also reduce maintenance efforts. This has enabled us to impress our customer, who is absolutely satisfied.

Peter Kutas Managing Director, EBT-Szerviz GmbH





Motores are lubricated at the right time with the right quantity of grease.

What's special

In addition to CONCEPT1, MVM Mátra Energia Zrt. has implemented other versatile Schaeffler lubricators: 130 CONCEPT8s and 60 CONCEPT2 units supply the drum belts' drive motors and roller bearings. The grease cartridges are refilled with preferred Arcanol MULTITOP or LOAD460 greases. Besides various bearing solutions in use at the plant, the first OPTIME condition monitoring sensors have also been installed on coal mills and drive motors. That number is expected to increase.

What Schaeffler offers ...



How CONCEPT1 works

Screw it into place, set the time interval, and you're ready to go! Easily installed without any special tools, CONCEPT1 is ready for immediate use. Moreover, it can be filled with lubricant up to three times, which significantly reduces the amount of waste and its ecological footprint. This flexible and cost-effective solution is particularly suitable for machines that are difficult to access. Plus, thanks to ATEX certification, CONCEPT1 also be used in potentially explosive atmospheres.

By the way – The cartridge can be filled with other lubricants. Contact Schaeffler for more information.



> Product page



CONCEPT1 specifications

Lubricant outlet	1	
Lubricants	Oil and grease, NLGI 2	
Operating pressure	Max. 5 bar	
Operating temperature	–20 °C up to +55 °C	
Operating mode	Gas-driven	
Protection class and ex-certification	IP68, ATEX and IECEX-certified	

Customer

Hungary's second-largest power generator, MVM Mátra Energia Zrt. has been part of the MVM Group since early 2020. Mátra has a power generation capacity of about 950 megawatts. It is supplied by Visonta and Bükkábrány open pit mines. In addition to lignite, biomass, photovoltaics and natural gas are also used. Around 2,000 people are employed here. The MVM Group's goal is to gradually make power generation more climate-neutral through modernization. In the coming years and decades, restructuring measures will result in new production units that will drastically reduce CO2 emissions. The history of the power plant began in Visonta in 1965.

Why Schaeffler?

- Technical know-how
- Friendly and competent customer service

Why this specific solution?

- Precise automatic lubrication
- Increased safety
- Easy to use
- Sustainable solution