

The ECO line squeezes costs in screw pumps

Earlier the Dutch company Spaans Babcock used bushings in their screw pumps. There were a lot of problems with grease leakage contaminating the environment and high operating costs. The company overcame these hurdles by using SKF sealed spherical roller bearings greased for life. The new ECO line, using sealed bearings in the lower position of the screws has become a great success for the company.

The screw pump rotates between 15 and 80 r/min and lifts the fluid from the inlet level to the maximum pumping point with only a little use of energy. Spaans Babcock developed the idea and have now manufactured Archimedean screw pumps for the last 100 years. The old solu-

Sealed Explorer advantages

- Environmentally friendly – no discharge of used grease into the water
- Maintenance free
- Operating cost savings – minimum use of energy and grease
- Manufacturing cost savings – no grease pump necessary
- Easier and safer handling and mounting

tion, with bushings, was unsatisfactory because of grease flushing through seals and out into the pumped fluid. The need for continuous refill of grease caused high operating and grease costs. It was also necessary for the plant to be monitored in order to avoid environmental pollution. Other solutions with closed oil lubrication systems were tried but nothing worked out well.

SKF sealed spherical roller bearings were the natural solution. The development resulted in the ECO line, a range of sealed bearings in the lower position of the screws. The bearings are greased for life and a grease pump is no longer necessary. This means savings of approximately 110 kg of grease and 1 500 kWh per year. There are also maintenance savings since these bearings only need to be checked every fifth year. The trial period for the ECO line has been very successful and has strengthened Spaans Babcock's leading position.

The use of sealed bearings led to considerable cost savings – e.g. reduced maintenance costs and eliminated grease and grease pump costs.

Operating conditions

Position:	Lower position of screw pump shaft
Bearings:	BS2-2208-2CS, BS2-2214-2CS, BS2-2217-2CS
Bearing load:	Up to 45 kN
Speed:	40 r/min
Operating temperature:	-10 °C to +40 °C
Lubrication:	Greased for life



This testimonial demonstrates the outstanding capabilities of SKF spherical roller bearings prior to the new Explorer execution. The customer should experience additional performance with the new Explorer series.