

Precise and safe lubrication

of the inner surfaces of riding rings at rotary kilns

KLUBER LUBRICATION

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Precise, safe and exactly dosed - with the portable, manually operated "ss. LUBAC Ring Star" lubricating gun or the "Automatic Ring Star" application unit from ss.LUBAC, the lubricant can be applied precisely into the ring gap or on the surface of the axial stopper and of the riding ring. A proved solution among experts in the cement industry.

Rotary kilns in the cement industry and in industrial sectors such as the refractory industry, pulp production or the chemical industry are high-quality capital goods. They are usually in operation every day, 24 hours and have to be serviced regularly by maintenance staff. The furnace shell of these furnaces is exposed to extreme conditions with temperatures of up to 400 ° C and is supported by riding rings. Because of the different thermal expansion, the riding rings are not level with the furnace shell. Brackets, which must be lubricated regularly, compensate these expansion differences.

Precise lubrication despite difficult conditions

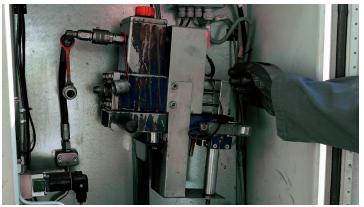
So far, manual lubricant application into the ring gap, i.e. the gap between brackets and riding ring, has been a challenge for the maintenance stuff. The reason: High temperatures and the rotating kiln are a significant potential risk. With the ss.LUBAC Ring Star units, the lubricant can now be applied precisely, from a safe distance and in sufficient quantity.

Automatic filling - proven method - safe for the employee

With the manual, compressed air operated lubricant gun, the lubricant can be applied with high speed directly into the ring gap. The ss. LUBAC Ring Star lubricating gun is connected via a compressed air quick coupling and a handy hose line to the



Lubricating the ring gap



Safely stored away: The filling station including automatic filling station of the ss. LUBAC Ring Star - lubricant gun in cement plant LEUBE

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compressed air supply network at the place of operation. As soon as the lubricating gun has been filled with the lubricant, it is immediately ready for operation. The standard equipment includes a filling connection and a level sensor for filling. Companies, such as the cement plant LEUBE in Austria have installed an automatic filling station.

"The ss. LUBAC Ring Star - lubricating gun has been in use at LEUBE for several years. Directly at the rotary kiln installed is the automatic filling station and at each riding ring is a connection to the compressed air system. We prefer the manual version of the Ring Star because the maintenance staff can make service inspections on the rotary kiln at the same time," explains Christian Wörgötter, Head of Plant Management and Maintenance of the Zementwerk LEUBE GmbH.

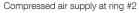
The advantage for the customer: The lubricant can be applied with the ss.LUBAC Ring Star with a specific "shot" from a safe distance. "Because of this guided shot our lubricant WOLFRACOAT C FLUID gets directly into the ring gap. The amount of lubricant is properly portioned and there is no contamination in the surrounding area of the rotary kiln," says Werner Gschwandtner, Technical Consultant at Klüber Lubrication Austria. "This precision also serves the safety of the employees. They can work precisely in spite of high temperatures."

Preventing contamination of the plant and accordingly the safe and precise application of the lubricant were also the deciding factors for the development of the ss.LUBAC Ringstar. "A longtime customer contacted ss.LUBAC. He had seen other lubricating systems, but could not see his ideas of precision and cleanliness in the current



Technical data	"Manual Ring Star"	"Automatic Ring Star"
Weight	Approx. 4.5 kg	Approx. 50 kg
Container volume	1.5 cdm	
Max. spray distance	1,500 mm	
Operating temperature range	+10 to +45 °C	
Input air pressure	1.5 – 4 bar	1.8 – 8 bar
Required air quality	744 (ISO 8573-1)	
Air pressure filter	270 μm	







Rotary kiln 3 and preheater tower at the cement plant LEUBE.

application solution realized," confirmed Thomas W. Schulz, Managing Director of ss.LUBAC in Bad Ischl. "We incorporated all the suggestions of the experts from the cement plants into the development. We were also in close contact with Klüber Lubrication. It was clear from the start that our solution with WOLFRACOAT C FLUID must be functional, as this lubricant is known as one of the leading products for this application on the world market."

The result: Lubricating gun and lubricant are perfectly matched. This not only serves the safety and precision, but also the sustainable use of lubricants.

As an alternative to the manual Ring Star applicator gun, the ss.LUBAC Ring Star system can also be set up stationary and for fully automatic operation. In these stationary systems, all components are housed in a sheet metal cabinet and are kept at operating temperature with an integrated Vortec compressed air cooling system. When building such systems in a fixed position close to the furnace, on site requirements and customer preferences are considered. These systems installed fixed at the kiln are controlled by sensors, depending on the respective operating parameters of the furnace and deliver the lubricant to the ring gap with the utmost precision.



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