### We pioneer motion

# All in One: Mounting and Service saves time, reduces costs, prevents accidents

Mounting bearings on roller presses is a challenge the maintenance team at the Batisöke cement plant near Izmir, Turkey, faces regularly. Conventional methods, such as oil bath or blowtorch, are time-consuming and cost-intensive and carry a high risk of occupational accidents. The cement manufacturer therefore looked for an alternative solution. Their choice for the future: the induction system with medium-frequency technology.

### The result: more than 85 percent time savings during maintenance work.

### **Customer Benefits**

- More opportunities: suitable for thermal mounting and dismounting, also of large work pieces
- More flexibility: choice between flexible and fixed inductors
- More sustainability: energy-efficient heating process
- More mobility: the MFT goes to the workpiece, not the other way round
- More efficiency: lower costs and higher productivity, no mechanical wear of tool
- More safety: for both man and machine

medias.schaeffler.de/en/success-stories

# Customer Success Story

# BATISÖKE

#### Customer

Batısöke, a part of Bati Anadolu Group, Turkey **Sector** Cement **Appication** Roller press bearing **Solution** Mounting & Mounting Service



# What drives our customer ...



Limestone quarries of Batisöke, are forested after closure

### Challenge

The roller press performs an important task in a cement plant. It is used to crush hard to mediumhard materials such as clinker or crushed raw stone. The bearings of the roller press are subjected to high stresses in the process. Therefore, the bearings of the roller press have to be checked regularly and, if necessary, reconditioned or replaced. After reconditioning two bearings, the maintenance department was faced with the question of how these bearings could be mounted within a minimum amount of time. At the same time, the mounting procedure should not pose any safety risk to the employees. Therefore, methods such as heating with an oil bath or "blowtourch" were no longer an option. The maintenance department of Batisöke Cement turned to Schaeffler Turkey for order to be able to use an alternative mounting method.



# Machine type KHD COMFLEX ® SC16-320 clinker grinding Roller Press Nominal value 2 x 799.950 Nm Power 2 x 1600 Kw Size RPS 16-170/180 with ROLCOX®

Technical information - Roller press

# What Schaeffler has to offer ...

# Solution

Schaeffler Turkey recommended the use of its medium frequency technology (MFT) induction system, an environmentally friendly and innovative solution that heats bearings in an energy efficient way.

The customer decided to rent a Schaeffler MFT induction system and commissioned the corresponding Schaeffler mounting service to carry out the work. First, the outer ring of the bearings was heated by attaching the inductor to the outer ring. The inner ring was then heated by attaching the inductor to the inner ring. The bearing could then be drawn onto the shaft. The Schaeffler transport and mounting tool was used for this purpose. This tool prevents the inner and outer rings from oscillating.

### Induction units with medium frequency technology

Induction units with medium-frequency technology are not only suitable for thermal mounting but also for removal. They can also be used to heat up very large and heavy components.

Each unit comprises a generator and inductor that is positioned on the workpiece. A rigid or flexible inductor is used, depending on requirements.

Depending on the application, flexible inductors can be fitted in the bore or on the outside diameter of the workpiece. They are suitable for heating of bearing inner rings or for large components.

Rigid inductors are particularly well suited for volume production. Flexibility is less of a priority here than short setup times and a high level of process reliability.

## What's special

The customer was impressed. The two engineers worked accurately and quickly. After only two hours, the mounting work was completed. In the past, this work took a total of 16 hours.



Schaeffler induction system with medium frequency technology in the old design.



Technical information on the new medium-frequency system

MFT	MF-GENERATOR3.0-44KW
Power	44 kW
Outlet frequency	10-25 kHz
Frequency	50 to 60 Hz
Dimensions (L x W x H)	600 x 650 x 580 mm
Weight	78 kg



Flexible Inductor

# What our customer says ...



Mounting large bearings used to be challenging and time-consuming. By using the MFT, the professional mounting team has shown us that mounting bearings can be easy.

My conclusion: With the Schaeffler mounting service and MFT, maintenance work is child's play.

Çağdaş Alp, Mechanical Maintenance Chief

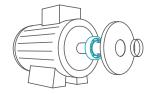
Mounting service as well as tools (MFT) are part of the Schaeffler Lifetime Solutions portfolio, which offers a comprehensive range of products, services and solutions for industrial maintenance. It is designed to support maintenance engineers throughout a machine's entire lifetime.

www.schaeffler.de/en/lifetime-solutions



Lubricate





Monitor

Mount

### Why Schaeffler?

- Technical know-how
- Friendly and knowledgeable customer service
- Quality of tools

### Why this specific solution?

- More safety for the staff
- Environmentally friendly method
- Time saving quick and easy mounting

### Customer

Batisöke, part of Batı Anadolu Çimento Sanayii A.Ş since 1993, contributes significantly to the regional and national economy with its clinker and cement production volume. The Batisöke cement plant is one of the most modern production plants for cement, clinker and aggregates in Turkey.

In addition to Batisöke, six other companies belong to the Batı Anadolu Çimento Sanayii A.Ş Group, which has more than 1,000 employees in total.



Plant of the cement manufacturer Batisöke