CASE STUDY · RAIL

DISMOUNTING RINGS FROM TRAIN WHEELS.

Rolling stock and railway maintenance companies face the ongoing challenge of efficiently disassembling ring sets and labyrinth rings during wheelset maintenance.

INDUCTION HEATING

READ ONLINE

THE CHALLENGE.

Traditional removal methods often rely on mechanical pullers, open-flame heating, or cutting the rings. Mechanical approaches risk damaging the component, flame heating can alter material properties and prevent reuse, and cutting destroys the component entirely.

Maintenance companies therefore require a reliable, repeatable and non-destructive removal method.

OUR SOLUTION.

Induction heating creates controlled thermal expansion of the ring, which enables safe removal without excessive mechanical force. EXTRATHERM generators with custom fixed coils heat the ring fast and uniformly, so both the ring and the wheelset shaft can be reused.



AN EXTRATHERM SOLUTION.

EXTRATHERM generators with custom fixed coils, engineered around the wheelset, deliver fast and uniform heating with precise temperature control.

PROVEN RESULTS.

- Elimination of ring cutting
- Preservation and reuse of ring sets and labyrinth rings
- Reduced risk of damage to wheelset shafts
- Prevention of overheating and material degradation
- Fast and uniform heating with precise temperature control
- Reduced maintenance time and equipment downtime
- Clean operation without open flames, smoke or combustion
- Lower maintenance costs through component reuse

Maintaining wheelsets? Tell us about your wheelset configuration and we will engineer a custom, non-destructive induction heating solution.

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TM'S 5 PRODUCT CATEGORIES.

A complete range of induction heating solutions, structured into five product families. Each series matches a specific application level and workpiece range, from compact and portable solutions to heavy-duty and fully customized systems.



EASYTHERM SERIES

Versatile workshop induction heaters for daily assembly and maintenance tasks. Programmable temperature control, automatic demagnetization and a wide range of models for workpieces from 1 to 300 kg.



SURETHERM SERIES

Advanced heaters that heat uniformly and demagnetize automatically, with controlled temperature ramps for fast, repeatable shrink-fit installations. Equipped with the original dual-sensor technology that TM invented and introduced to the market. Heats workpieces from 1 to 1600 kg.



EXTRATHERM SERIES

Compact mid-frequency heater that frees fixed parts and components in seconds: clean, targeted heat anywhere without flames or mess. The generator can be supplied with various flexible or custom coils.



PROTHERM SERIES

Fully custom-built induction heating systems engineered for your specific workpiece and process. Five product lines: U-LINE, H-LINE, S-LINE, STATOR HOUSING-LINE and ROTOR-LINE, covering industries from e-mobility to mining, heating parts up to 100 tonnes (100,000 kg).

EXPECTED
IN H2, 2026

PORTATHERM SERIES

Ultra-portable induction heater for on-site maintenance, field service and workshop applications. Compact, lightweight design with multi-frequency output for fast, flameless heating anywhere.

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TM INDUCTION HEATING