

HardLine® CIHM-R

Robot type



A product within the HardLine family

The HardLine CIHM-R is a range of EFD Induction robot-type systems for fast, reliable and cost-effective hardening and tempering of crankshafts. Suitable for use in continuous lines or as a stand-alone cell, each HardLine CIHM-R is packed with features to help ensure maximum output at minimal cost. Key benefits include:

Unrivalled quality, minimal distortion

Each HardLine CIHM-R comes with the powerful RTM-100 real-time process monitoring system as standard. The HardLine CIHM-R also features 'Active Power Variation' which dynamically adjusts the power in accordance with the crankshaft's angle of rotation during heating. This minimizes distortion by limiting heat seepage.

Robot rewards

The robot used in the HardLine CIHM-R offers outstanding part grip, and optional part buffering management. The robot also performs quality checks on each part.

Smart capital investment

A HardLine CIHM-R can handle crankshafts of any pattern up to 600mm long, with or without radii or split pins. Also, the system's modular design and coil control makes production lines more flexible, handling different crankshaft types with minimal downtime and production losses.

* The system shown is for illustrative purposes only.



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PRODUCT FEATURES

Complete control

The EFD Induction HardLine CIHM-R crankshaft hardening solution features Sinumerik 840D CNC or Simatic s7-300 PLC systems, as well as RTM100 integrated process control software.

Versatile

The HardLine CIHM-R hardens automotive and off-road crankshafts of any pattern up to a maximum length of 600mm.

Modular

The HardLine CIHM-R system is based on a modular design. You can add features in line with your budget and production demands. We also offer customized crankshaft hardening and tempering systems to meet specific production needs.

Proven solution, worldwide support

The HardLine CIHM-R is a solution from EFD Induction, one of the world's largest and best-known induction heating companies. Our equipment is widely used by many of the world's top manufacturers, and is backed by a global after-sales support program.



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TECHNICAL DATA

HardLine CIHM-R

Throughput	Up to 60 parts per hour, depending on workpiece
Power source	Sinac P range
Max. part length (mm)	600
CNC control system	Siemens Sinumerik 840D
PLC control system	Siemens Simatic s7-300
Quench media	Polymer spray or air
Tank	Stainless steel
Loading	ABB robot (manual loading optional)

Subject to modification