

OEM LONG TERM SUPPORT AGREEMENT LTSA



PERFORMANCE ASSESSMENT
REMOTE MONITORING SYSTEM
HIGH LEVEL RECOMMENDATION
TECHNOLOGICAL ASSISTANCE
OEM SPECIALIST SITE PRESENCE
EMERGENCY REPAIR
SPARE PARTS MANAGEMENT

PERIODIC INSPECTION
COMBUSTION TUNING
ENGINEERING STUDIES
ROOT CAUSE ANALYSIS REPORT
METALLURGICAL EXAMINATION
PROCEDURES / GUIDELINES
EXPERIENCED SUPERVISORY
PRESSURE PARTS REPLACEMENT



AC BOILERS S.p.A.
formerly Ansaldo Caldaie

Sofintergroup

MACCHI
STEAM & POWER GENERATION

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Sofintergroup

Sofinter Group Boiler Service

SOFINTER GROUP BOILER SERVICE is the business unit that combines Macchi Service, for Industrial Boilers and HRSGs, and AC Boilers Service for Utility Boilers, HRSGs and WtE Boilers. Technological competences, engineering experiences, project management, pressure parts and spare parts supplied from a single source.



OEM LONG TERM SUPPORT AGREEMENT

As the leading Original Equipment Manufacturer (OEM) of multi-fuel Natural Gas / Oil / Coal boilers, industrial boilers, recovery boilers and Waste to Energy boilers for power and steam generation, SOFINTER SERVICE offers continuous techno-commercial Operator support services under frame contracts for long period:

A Partnership for efficient Operation

SERVICE MODULE	Full LTSA package	Individual frame agreements
OEM TECHNOLOGICAL ASSISTANCE ON CALL	INCLUDED	INCLUDED
BOILER REMOTE MONITORING SYSTEM	INCLUDED	OPTION
MULTIANNUAL INSPECTION	INCLUDED	OPTION
OEM SPECIALIST PERMANENT SITE PRESENCE	OPTION	OPTION
OEM EMERGENCY REPAIRS	OPTION	OPTION
OEM GENUINE PRESSURE & SPARE PARTS SUPPLY	OPTION	OPTION

NOTE: Reaction time for emergency repairs, OEM Specialists availability, 24/7 assistance, performance optimization, outages minimization, and other Services depends on the type of Service Agreement extension selected.

TECHNOLOGICAL ASSISTANCE ON CALL

Fast access to AC BOILERS / MACCHI highly qualified engineering consultancy on Call-Off basis with prioritized deployment of OEM on-site experienced specialists.



Engineers & Specialists

- Mechanical
- Process
- Combustion
- Automation/Control
- Instrumentation
- Project Management
- Site Supervision
- Commissioning
- Quality

Technologies, Studies & Procedures

- Efficiency/Performance improvement
- Design output restoring
- Boiler upgrade
- Fuel conversion feasibility
- Low emission burners and in-furnace emission reduction system
- Design modification for pressure parts
- Boiler retrofit
- Lifetime extension
- Boiler assessment plan
- Inspection test plan
- Failure analysis
- Metallurgical examination of samples
- Repair schedule
- Method of statement
- Erection guideline
- Restoring/Replacement of pressure parts
- Regulatory Compliance Support

BOILER REMOTE MONITORING SYSTEM

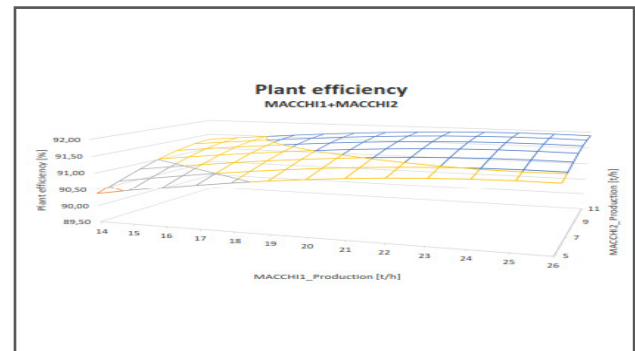
AC BOILERS and MACCHI proprietary digital solution for Boiler Remote Monitoring for the efficient boiler operation and maintenance planning.



AC Boilers "AC Performance Plus" is based on the most advanced IoT, Cloud and Machine Learning technologies. The system elaborates predictive indications measures to reduce shutdown risks and optimize outages for maintenance, improving the technical performance, efficiency and reliability of the plant.



Macchi "Advanced Boiler Systems-ABS" is based on several proprietary algorithms, to operate boilers in a more efficient way under different perspectives (operations, environmental emissions and predictive maintenance), to improve performance and reduce cost.



Periodic reports will include high level recommendations for the optimization of the operation and the necessary maintenance of the boiler to maintain highest reliability and performance.

NOTE: AC Boilers and MACCHI remote monitoring systems can be used both on new boilers and on existing units (boilers of all brands and type).

MULTIANNUAL INSPECTION

Assistance for regular inspections and assessment campaigns to ensure a more reliable operation and maintenance of the boiler

BOILER ALREADY IN OPERATION SINCE X YEARS

Scheduled Maintenance

← Inspection to be done when reached →

^x Year of operation	+1	+2	+3	+4	+5	+6	+7	...	...	...	...	When reached
BOILER	G	S	S	I	S	S	G	...	...	...	...	G 100.000

S: Short inspection

I: Intermediate inspection

G: General inspection

100.000: inspection after 100.000 operating hours - OPTION

Minimized Downtimes

OEM SPECIALISTS PERMANENT SITE PRESENCE

It refers to AC BOILERS / MACCHI capability to provide temporary or permanent OEM On-Site Technical Advisors, according to skills, quantities and duration required to professionally execute the service tasks

Decrease Risk

Increase Reliability



Decrease OPEX

Increase Profit



OEM EMERGENCY REPAIR

Local emergency repair service - directly or by means of local partners - for fastest restart of the boiler.

Immediate Intervention

NOTE: The availability to provide the ad-hoc emergency repair service depends on the individual frame agreements / LTSA Package selected and might become executed by MACCHI/AC Boilers cooperation with local partners in the specific country of reference.

Maximized Production



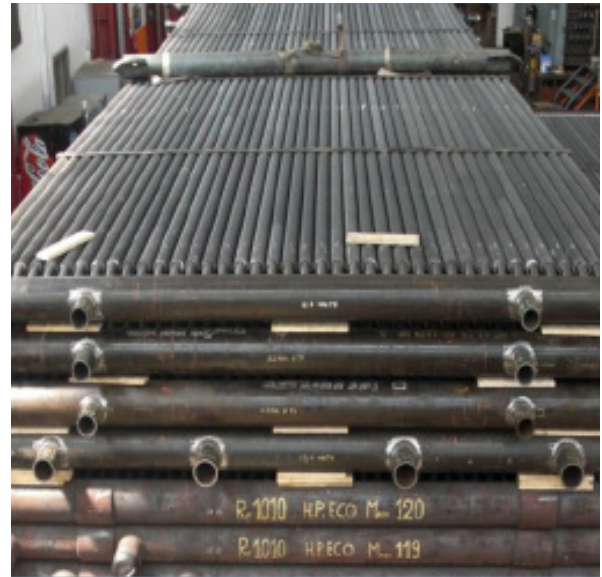
OEM GENUINE SPARE PARTS

Spare parts inventory, manufacturing and supply to maintain original boiler quality.

Original design drawings for Sofinter Group Boiler brands of: AC Boilers (formerly Ansaldo Caldaie), Macchi, CCT, Franco Tosi, Breda

AC BOILERS / MACCHI own manufacturing facilities operated by Sofinter Group experienced personnel

Spare parts Supply management according to AC BOILERS/ MACCHI OEM quality standards for third party items.



BOILER SERVICE CONTACTS

- Sofinter Group
Boiler Service

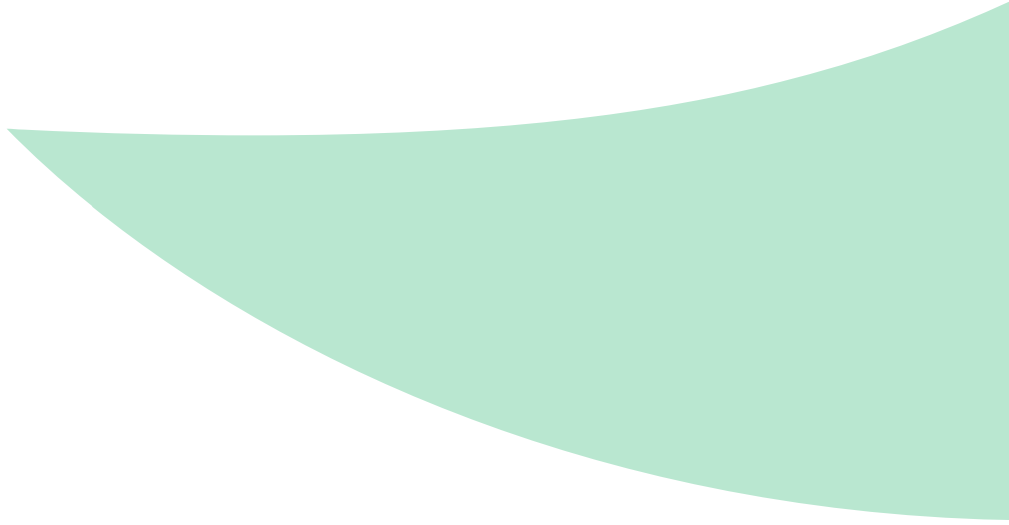
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- Countries with Sofinter Installed Units
- Sofinter Headquarters
- Sofinter Companies and Branches

www.sofinter.it