

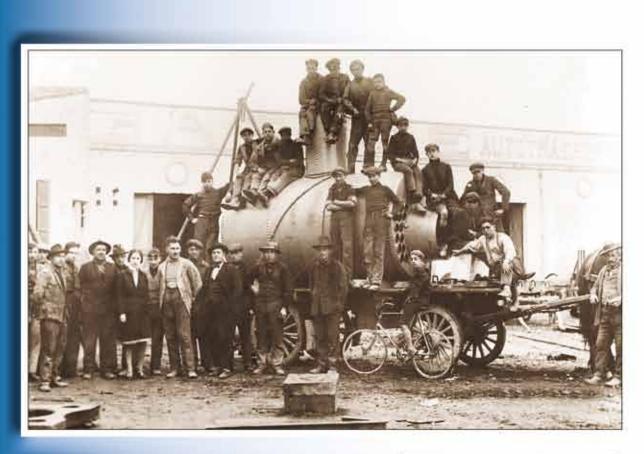
made in Italy

# PROFILE

steam boilers since1929

200

## our history



Our long story goes in parallel with the history of steam, the oldest and most natural energy, which has always accompanied the evolution of technology and industry.

MINGAZZINI SRL origins are deeply rooted in the Padan plain, where the first food preserving and dairy industries developed and where consequently the need to introduce steam in the industrial processes rose.

Here, in 1918, VITTORIOSA company of Mingazzini & C. passed from the production of "movable steam engines" to the study and construction of the first steam boilers.



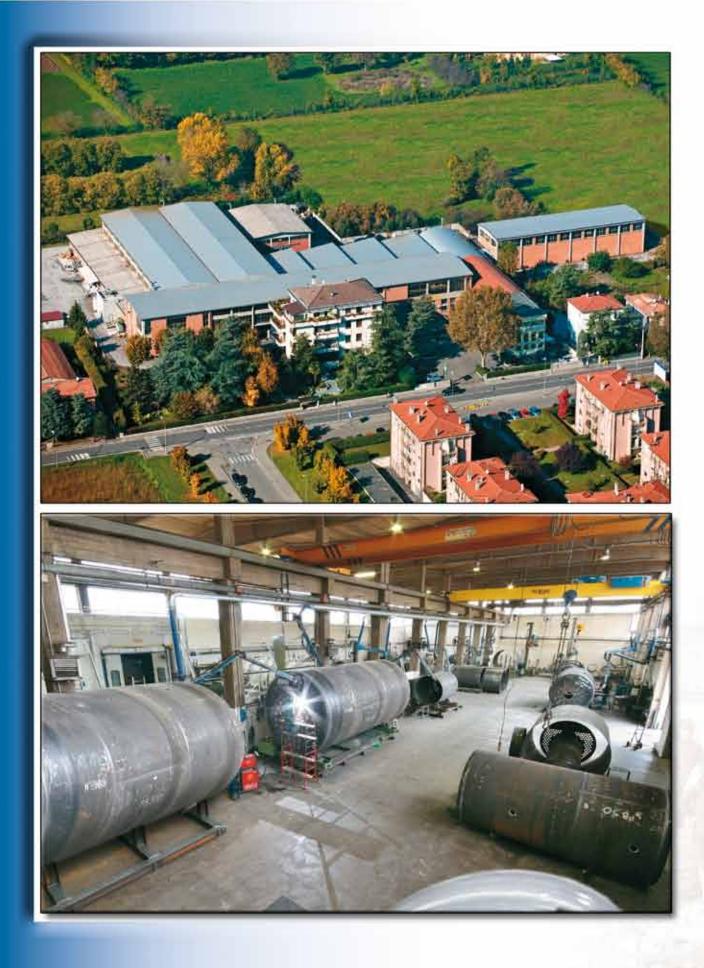


Since 1929, when it became MINGAZZINI, the company has always followed, starting from its origin, the industrial development of Italy, been dedicated to the manufacturing of boilers more and more powerful, up to the creation of modern thermal plants, for the industrial production on a wide scale.

Our markets also, either in technology terms or geographic ones, have constantly been enlarged, so that nowadays our clients show a very variegated configuration.

Steam boiler serial number PR 3158 tested on 12/07/1929

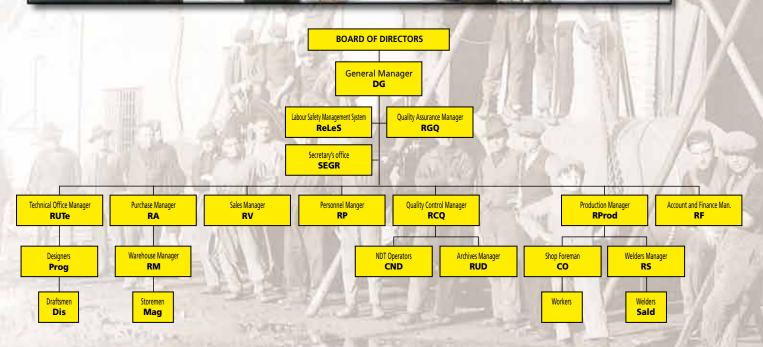
# our organization



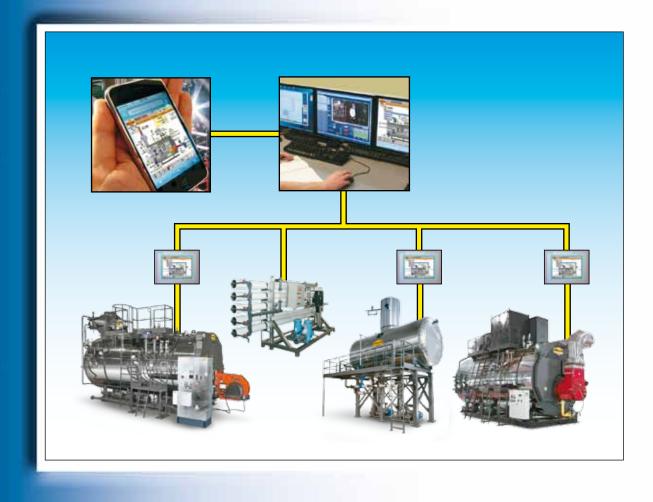
Our history led us to produce now, in a plant with a total surface of 25,000 sm. of which 10,500 are covered, steam boilers, hot and superheated water boilers, steam accumulator vessels, exchangers and degassing units studied in the minimum details and designed on the measure for the specific needs of industrials.





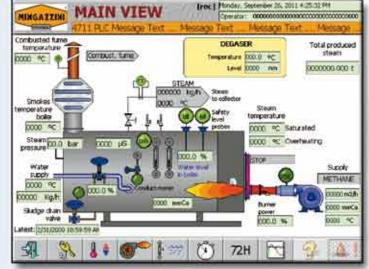


# reaserch & developn



MINGAZZINI's products are the result of a systematic research activity in order to obtain the following results:

- innovative solutions to anticipate market requests;
- technological updating of fabrication plants and processes, monitoring the performance;
- high quality level of product/process.



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## know-how and process technology



## quality



Our Quality System has obtained the certificate of approval in compliance with ISO 9001 Standard by Messrs. Lloyd's



Register Certification s.r.l. since 2001.

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Moreover, MINGAZZINI SRL has obtained since May 2002, with reference to fire tube boilers, in accordance with the PED European Directive, the certificate of approval of Quality System with Full Quality Assurance according to H1 Module (Certificate of assessment of Quality System according to Module H1, as per Annex III of PED European Directive, concerning design, manufacture, final inspection and testing of pressure equipment belonging to the category IV).

## other certifications



Our products are complete with certifications for sale and use not only in the European Community, but also in almost every part of the world.

The complete product range of steam, superheated water boilers, steam manifolds, economizers and deaerators is complete with Conformity Assessment Certification to the relevant and applicable Technical Norms (TR-CU 010/2011 and/or TR-CU 032/2013) and Certification for use in the Russian Federation.

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# details making the di

Hereby we can remember some relevant features in order to understand our technical and design choices:

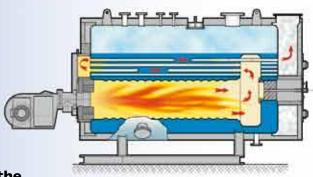


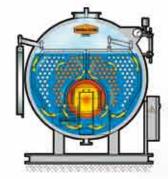
Flanged tube plates (NOT flat tube plates),

allowing butt welding to boiler main body, to avoid stress problems connected with flat tube plates with angle weldings.

#### Wet back

without any refractory to eliminate maintenance costs, the loss of heat through radiation and the overheating of rear tube plate.





## The eccentricity of the furnace downwards,

the symmetric disposition of the tube nest and the absence of any obstacle enable the intense circulation of water in the steam boiler avoiding local overheating.

**Three pass** to enable the maximum exploitation of heat thus reaching high yeld.

Big diameter firetube (FOX corrugated HOT FORMED IN ONE SINGLE PIECE, as a standard for outputs  $\ge$  10 t/h of steam or 7MW of superheated water, on request for other outputs) to enhance the efficiency and respect ecologically the emission values in the chimneys.



# ifference



Expanded pipes with expansion grooving.





**Complete accessibility and maintainability** with doors on front smoke box, as well as on rear one for immediate complete accessibility to smoke tubes and tube plates (for cleaning, maintenance and inspection by Authorities in charge for periodic inspections and tests).

**State of the Art technology of control and safety devices** for easy and trouble-free boiler room management (including multichannel control device and PLC).



By the installation of a **comburent air preheater** or an **economizer and systems for energy recovery** thermal efficiency can be increased up to 98,5%.

Assemblies designed, approved by Notified Body and manufactured, in accordance with the 2014/68/EU Directive, for operation without supervision for 24 and 72 hours.

## value for the customer

MINGAZZINI S.R.L. has always paid the greatest attention to Customer service, both as regards pre-sales technical consultancy, and post-sales.

Through its commercial office and its vast network of agents, MINGAZZINI S.R.L. is able to offer



technical support in the negotiation phase, and to propose the most suitable and advantageous technical-economic solutions in order to create genuine value for the Customer.

After the sale and startup the company offers an efficient service of support during the employment of the plant.

These services go hand in hand with an organisation to supply original spare parts. According to MINGAZZINI SRL attitude,

"value for the Customer" means not only maximum quality of the supplied equipment, but also a high level of "before and after sale service", thus creating a proactive and onecooperation to-one relationship with the Customer.







### TURNKEY BOILER ROOMS.

- Efficiency upto 98,5%.
- NOx emissions
- ≤ 70-150 mg/Nm<sup>3</sup>

Boiler room with total steam output: 24.000 kg/h.



Boiler room with total steam output: 36.000 kg/h.





Boiler room with total steam output: 32.000 kg/h.

Boiler room with total steam output: 180.000 kg/h.

## our products

Steam boilers **PVR\_EU SERIES** 

Steam output from 350 to 5.000 kg/h, rated pressure upto 18 bar (higher rated pressure on request), back flame design, wet back. They can be equipped with comburent air preheater or economizer.

Steam boiler model **PB 200 EU SERIES** with FOX corrugated firetube and complete with comburent air preheater.



#### Steam boilers **PB\_EU SERIES**

Steam output from 2.000 to 30.000 kg/h, rated pressure upto 24 bar (higher rated pressure on request), three pass (I in the firetube, 2 in pipe nest) passing flame, wet back design.

For steam output  $\ge$  10.000 kg/h, Fox corrugated firetube as a standard, on request for higher outputs. They can be equipped with comburent air preheater or economizer. They can be equipped with steam superheater.

Steam boilers **PB\_EU SERIES** complete with economizer.



Steam boilers **PB\_EU SERIES** complete with FOX corrugated firetube.



#### Superheated water boilers **PB\_HS SERIES**

Capacities from 1.400 kW to 17 MW, rated pressure upto 18 bar (higher rated pressures on request), three pass (1 in the firetube, 2 in the pipe nest), passing flame, wet back design.

For capacities  $\geq$  7 MW, Fox corrugated firetube as a standard, on request for higher capacities. They can be equipped with comburent air preheater or economizer.

#### Hot water boilers PB\_HC SERIES

Capacities from 3.500 kW to 17 MW, three pass (1 in the firetube, 2 in the pipe nest), passing flame, wet back design. For capacities  $\geq$  7 MW, Fox corrugated firetube as a standard, on request for higher capacities. They can be equipped with comburent air preheater or economizer.



lines

Atmospheric and pressurised deaerators Capacity upto 60 m<sup>3</sup>.

Waste Heat Recovery Boilers (WHRB) for steam and superheated water production PAS SERIES For heat recovery downward cogeneration or industrial processes plants, horizzontal design, 1 or 2 pass.

## "Our history and know-how to answer to every new and challenging need of the Customer"



MINGAZZINI s.r.l.