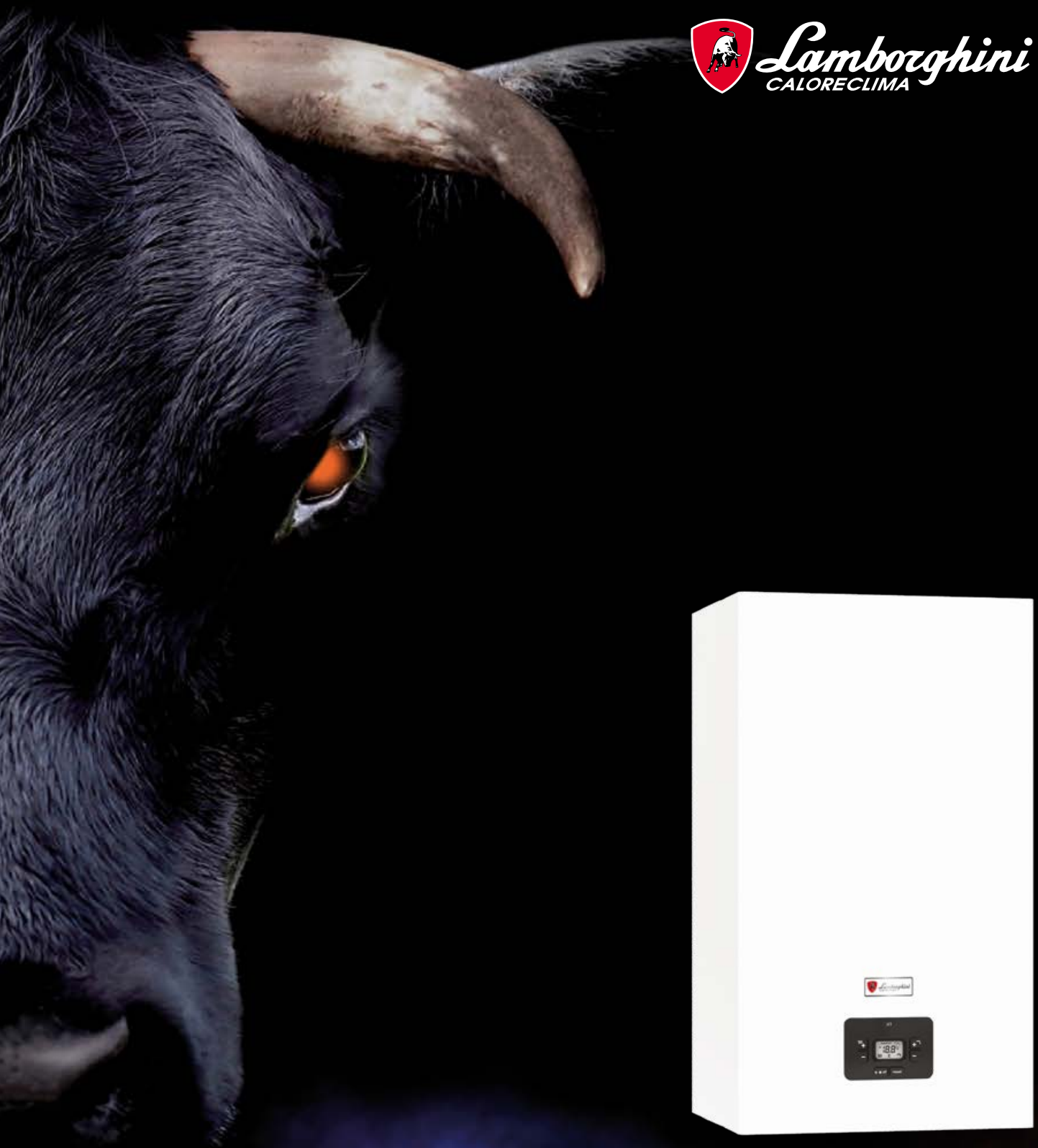
Lamborghini
CALORECLIMA



iXinox Jet

Wall hung condensing boilers with instantaneous domestic hot water production

iXINOX JET

The range of generators is equipped with the tested stainless steel heat exchanger. Designed and built according to the new ErP directives for eco-friendly design and labelling, IXINOX JET is the top in its category.

iXinox Jet	CRM	External probe (to connect to the boiler)

THE RANGE

model operating with both natural gas and LPG

mod. 24 C

COMBINED (14 l/min at ΔT 25°C)

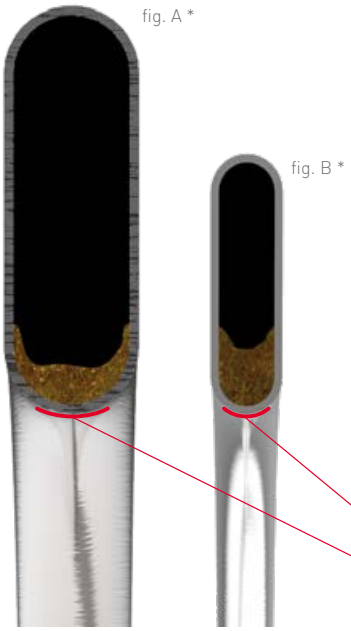


fig. A *

fig. B *

TOP EFFICIENCY ALSO ON OLD SYSTEMS (REPLACEMENTS)

The IXINOX JET **(fig. A)** thermal unit heat exchanger compared to the more classic and popular steel exchanger **(fig. B).**
This shape enables the heat exchanger to work at almost maximum design efficiency, even in partially clogged conditions, whereas with the same amount of deposits and sediment (e.g. due to installation on old systems), the heat exchanger in **fig. B** tends to get clogged more quickly in the part in contact with the flame as a result of the reduced fluid flow area, where an actual barrier of deposits * forms obstructing the heat exchange and reducing the efficiency to below nominal values.

* Ref.: same amount (5 gr.) of scaling and deposits in heat exchanger (A) and (B), with the same pipe length section. Scale 150% of the actual measurement.

Heat exchange section with a flame

CHARACTERISTICS
PRODUCT BENEFITS

- Boiler with single-circuit stainless steel primary exchanger without joints and/or welding, it maintains high efficiency even in old systems.
- **MC²: M**ulti **C**ombustion **C**ontrol, new combustion system with gas-adaptive patented technology of industrial origin for better adaptability of use to the varying gas mains conditions (e.g. pressure fluctuations or drops)
- **M.G.R: M**ethane, **L**PG, Propane-air **R**eady with a simple configuration the boiler can run on methane, LPG and propane-air without using additional conversion kits
- **Instantaneous production** of domestic hot water with **a dedicated** DHW plate exchanger
- User interface with display and multi-purpose keys to adjust and set the parameters
- **Bypass as per standard**
- **Solar system set up:** set up for the production of domestic hot water combined with solar panel systems
- **Minimum polluting emissions** (class 6 according to EN 15502-1)
- **Sliding temperature operating mode** through external probe (optional)
- **Low consumption modulating** circulator (ErP Ready - Class A)
- **Digital flame control** with three ignition tries if operation gets blocked due to failed flame detection (methane mod.)
- **Place of installation:** also outdoors, in a partially protected place down to -5°C as per standard and even -15°C with the addition of the optional antifreeze heaters kit

THE PRODUCT IN BRIEF

Device operates with **climatic control** and sliding system temperature (optional external temperature probe)

Remote control of boiler parameters via remote control

This equipment is designed specifically to offer **particularly simple** installation and maintenance

Operation **in a partially protected location** with a minimum temperature of **-5°C for the standard version** and, if fitted with the antifreeze kit, even temperatures down to **-15°C**

Appliance can be combined with **preheating** systems for the **domestic hot water**

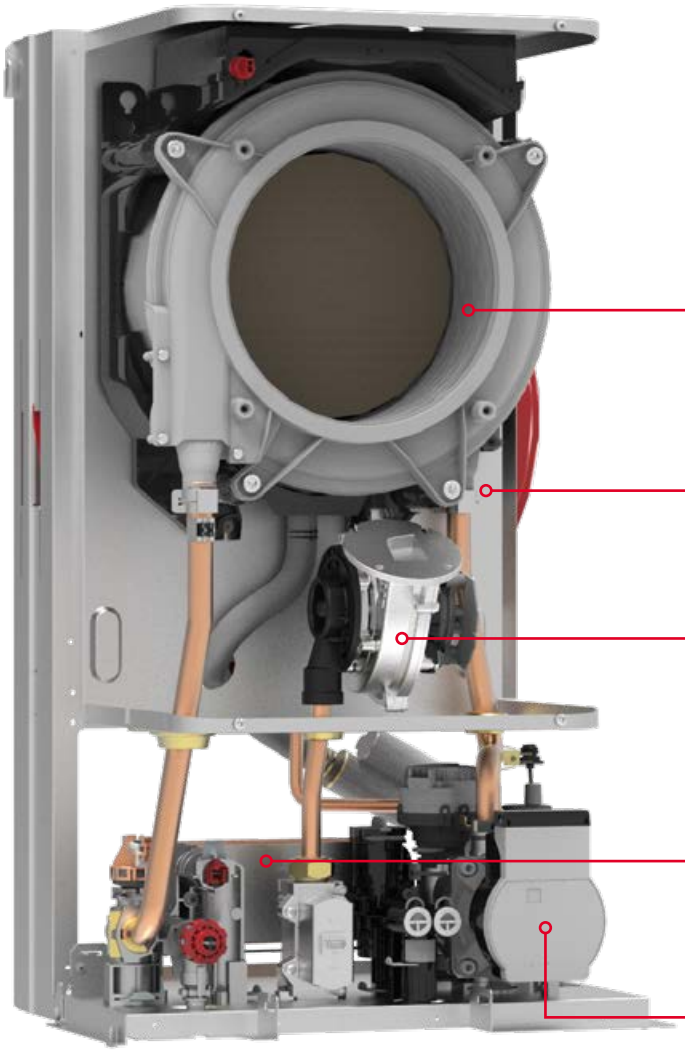
MC²: Multi **C**ombustion **C**ontrol, new combustion system with patented gas-adaptive technology

Minimum polluting emissions already in compliance with the requirements of the ErP Directive of 26.09.2018 (NOx emissions < 56mg/kWh)

Stainless steel high performance mono-thermal **primary exchanger**

M.G.R: Methane **L**PG Propane-air **R**eady, with a simple configuration, the boiler can run on methane or LPG without using additional conversion kits

iXINOX JET
VIEW INSIDE



The design of IXINOX JET was focused on maximising its functional benefits and construction sturdiness, as well as enabling simple maintenance.
All main components can be easily accessed, thus minimising the time required for routine maintenance.

EXCHANGER

Stainless **steel high-pass single-circuit**, exchanger, clog-resistant and easy to clean

STEEL FRAME

Made with high precision automated processes.
Incorporates an **8-litre expansion vessel**

FAN

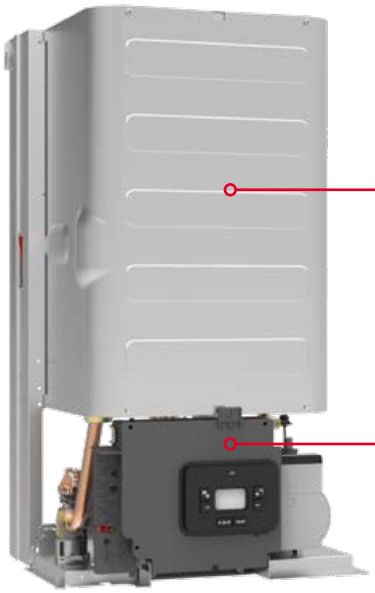
Offset fan, to make **maintenance on the primary heat exchanger easier without disassembly**

DOMESTIC HOT WATER HEAT EXCHANGER

Made of stainless steel, with copper brazing

CIRCULATOR

High efficiency, for heating and exchange with the DHW circuit



SEALED CHAMBER

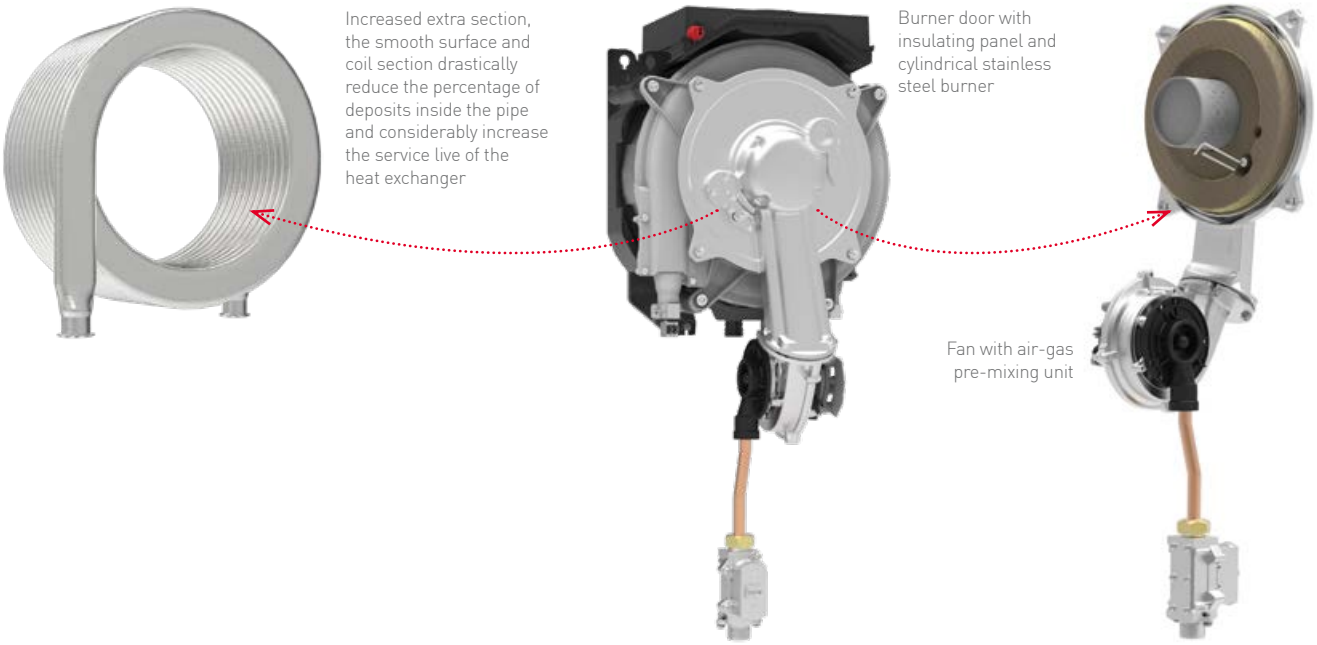
Removable steel panel to protect the combustion chamber

ELECTRIC PANEL

Large **removable electric panel** as protection against any damage caused by water that may be used during normal maintenance.
Easy access to electrical connectors.

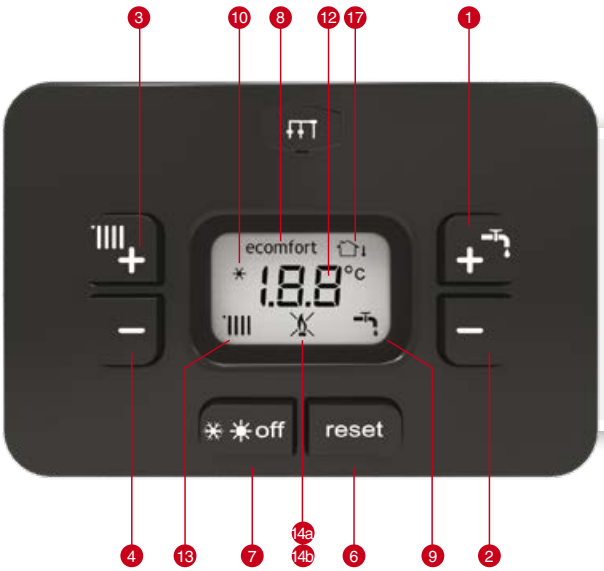
THE MOTOR
COMBUSTION CHAMBER

The pipe used in the IXINOX JET heat exchanger is made of **stainless steel**, a material that creates an **extremely smooth surface**, thereby less affected by scaling and deposits.



BOILER CONTROL
CONTROL BOARD AND FUNCTIONS

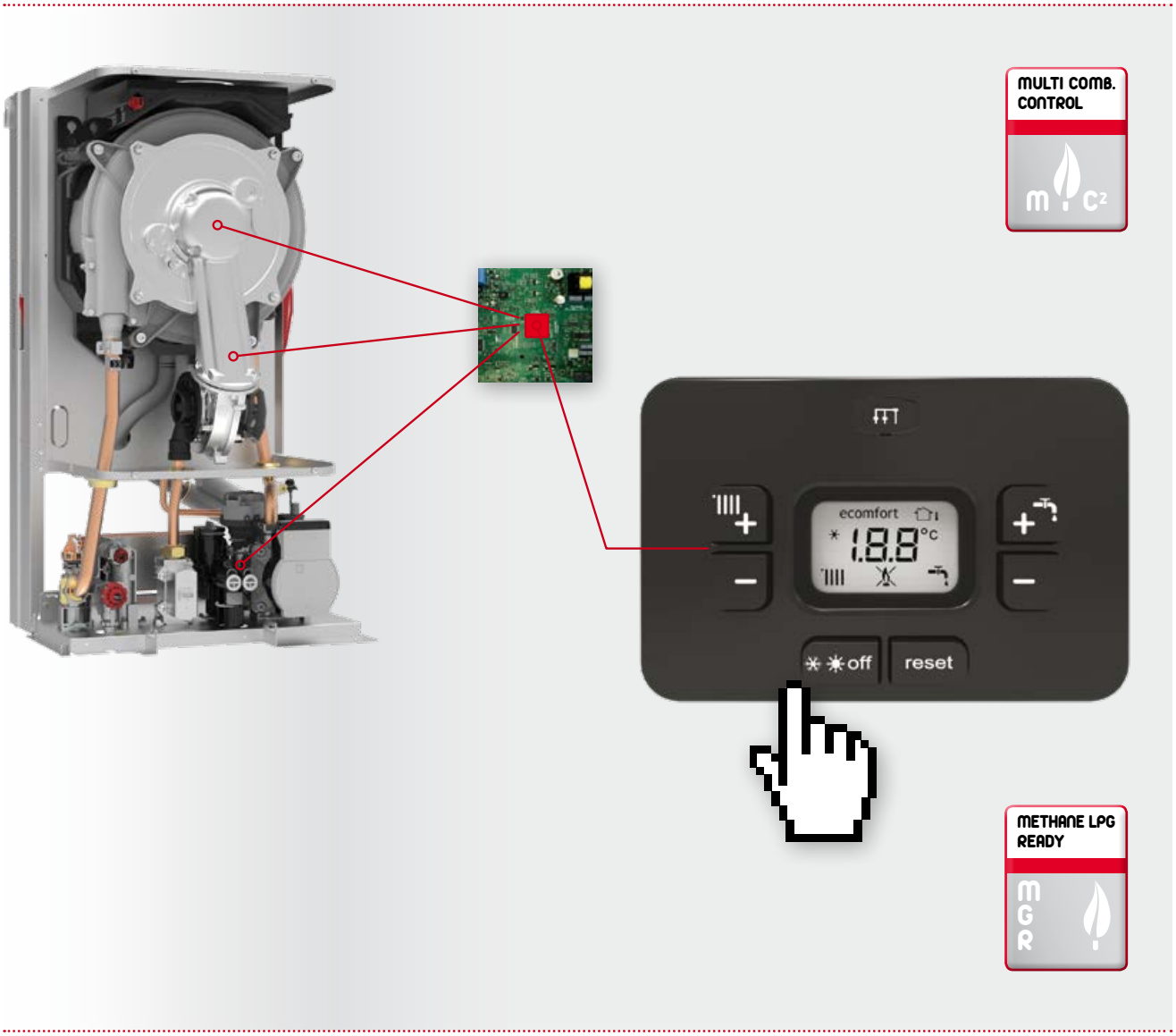
The **IXINOX JET** control unit consists of an easy-to-use interface with a **backlit display**.
The buttons allow you to easily adjust the heating delivery temperature and the domestic hot water setpoint, switch the generator on/off or activate the comfort function, while monitoring the boiler status. The control panel is complete with a traditional pressure gauge that can control the system pressure at any time.



1-2 DHW temperature control **3-4** Heating system temperature control **6** Reset button - Sliding Temperature Menu **7** "Winter", "Summer", "Appliance OFF", "ECO", "COMFORT" mode selection key **8** Eco (Economy) or Comfort mode symbol **9** DHW symbol **10** Winter mode symbol **12** Multifunction symbol **13** Heating symbol **14a** Burner ON symbol (flashing during calibration and self-diagnosis phases) **14b** Appears when a fault is triggered and the appliance is blocked. To reset device operation, press RESET (part. 6) **17** External sensor detected (with optional external probe)

MC²
MULTI COMBUSTION CONTROL

The electronic device controls the flame ionisation current in order to ensure **perfect combustion** according to the change in air density or gas quality. The ratio between the air/gas flow (λ) and the flame ionisation signal is used to control the air-gas ratio and, therefore, combustion. **MC²: Multi Combustion Control**, the new combustion system with **gas-adaptive** patented technology for better adaptability of use to the varying gas mains conditions (e.g. pressure fluctuations or drops).

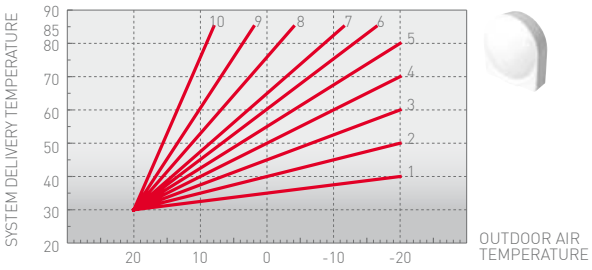


MGR
METHANE, LPG, PROPANE-AIR READY

Thanks to the new electronics, gas exchange is extremely simple.
The MC² combustion control monitors the quality of combustion constantly and simply by modifying an electronic board parameter (operation to be carried out by qualified staff only), it is possible to operate the boiler with Natural gas, LPG or Propane-air. **The additional accessories kit does not need to be purchased.**

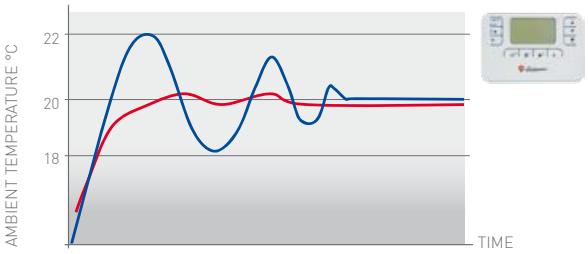
REMOTE CONTROL
ENVIRONMENT AND CLIMATE

IXINOX JET can be coupled with a wide range of remote control timers for adjusting and controlling the device. The CRM range comprises several models with weekly comfort programming and the option to choose either wired or wireless connection.



EXTERNAL CLIMATIC COMPENSATION

With connection to the external probe, IXINOX JET can change the **system's temperature based on the outdoor temperature** measured according to the climatic curves set, thus ensuring greater user comfort as the outdoor climate conditions change. This function is inside the boiler's electronic board and **does not require a remote control**, thus facilitating setting operations in the event of replacement.



ENVIRONMENTAL CLIMATIC COMPENSATION

The modulating function of CRM allows the boiler's **power to be modulated** as the **value of the set room temperature** is reached. This improves the quality of comfort by eliminating heat peaks with consequent energy savings.

WITH CRM REMOTE CONTROL TIMER

WITH NON-MODULATING AMBIENT THERMOSTAT

EASY MAINTENANCE
PROBLEM-FREE MAINTENANCE

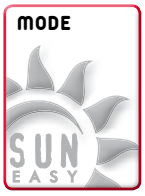
When servicing the device for the first time, technicians can appreciate the care with which each part has been designed to facilitate their work. As a result of easy access to the main components, the IXINOX JET thermal unit enables maximum accuracy and fast maintenance.
A few examples:

- The electric box of the electronic board can be easily removed from the chassis, giving **free access to the internal parts**.
- Easy access to the burner unit by removing the 4 screws and **quick coupling (clip) of the fan.**
- The **extra-increased pass heat exchanger** is designed to challenge extremely hard water conditions and can be **easily cleaned** thanks to the non-manifold single pipe circuit.
- The DHW **inlet filter** can be easily **removed** directly from the inside, **without having to remove the boiler water connections**.
- Disassembly and **replacement of the plate heat exchanger** is carried out easily **by removing the two hex bolts** that can be accessed from the front.

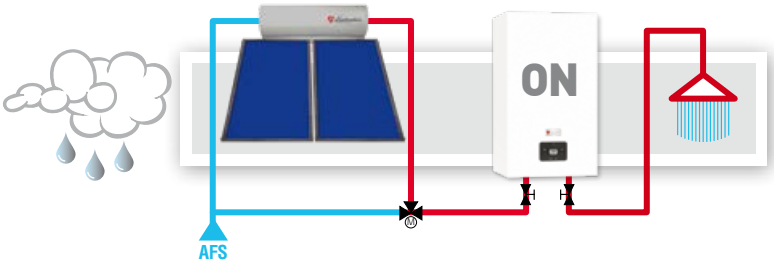
COMFORT AND SAFETY
FUNCTIONS

The designers have considered a set of functions that are able to guarantee the quality of DHW, the best power supply to the heating system as well as a longer service life of the device.

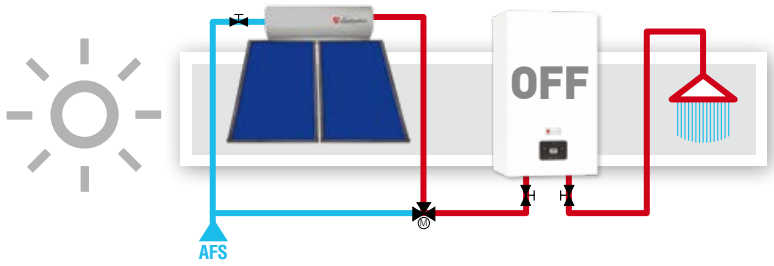
SUN EASY FUNCTION



IXINOX JET was designed to be installed easily into systems built with the most innovative technologies. The SUN EASY system is equipped with electronics that **simplify operation with solar panels**, both with natural and forced circulation. A sensor situated on the DHW circuit constantly controls the pre-heated water temperature from the solar panels, providing burner ignition only if the said temperature drops below the level required to ensure optimal user comfort.



In case of insufficient irradiation and therefore the domestic hot water being modestly pre-heated, the boiler will contribute with the necessary heat to reach the required setpoint temperature.

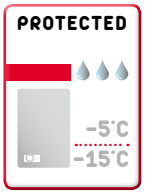


If the sun and the solar system fulfil their "duty", no integration from the boiler will be necessary; the hot water will be conveyed to the tap, without additional devices being required, with the mixing of the thermostatic valves.

STOP AND GO FUNCTION

The use of DHW taps with short mixing or very short supply for quick rinses involves boiler ignition procedure start-ups, which usually end immediately. These **«false start-ups»** can, over time, compromise the average service life of the product. For this reason, IXINOX JET has been equipped with an electronic parameter that is used to delay burner ignition (Stop and Go) by only activating it with actual DHW delivery.

OUTDOOR INSTALLATION - ANTIFREEZE FUNCTION

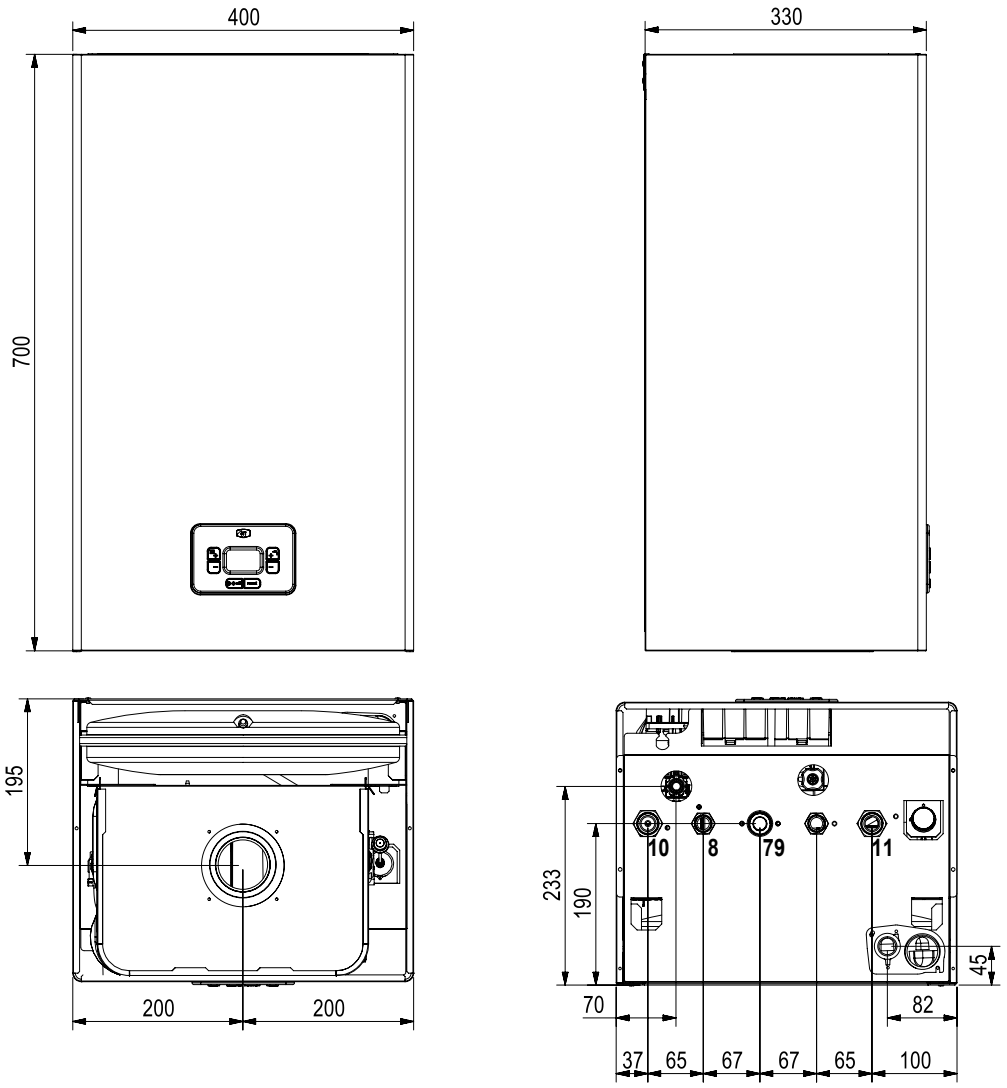


To make maximum use of the spaces available, IXINOX JET 24C can be recessed into the wall using a special kit. For more complicated installations in fully exposed areas that are not protected against harsh weather conditions, a "painted cabinet" kit is also available. If the boiler temperature drops to 5°C, the burner automatically turns on and the circulator is activated in order to **protect the device from damage caused by frost**. This function is active with the boiler supplied by the gas circuit and live.

DHW ECO-COMFORT FUNCTION

With ECO operation, DHW production is provided according to traditional standards, enabling energy saving when it is not used. As a result of the special temperature maintenance of the heat exchanger, **DHW supply is even faster and more comfortable** with COMFORT operation. The efficiency and load profiles according to the ErP directive are at the top of the category: **mod. 24 C** / A - XL

TECHNICAL DATA
DIMENSIONS



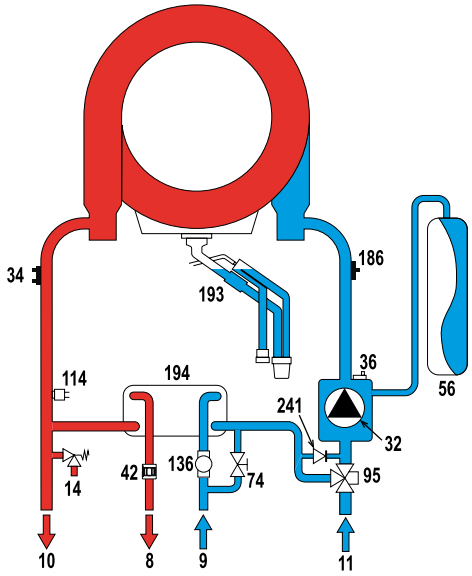
VIEW FROM ABOVE

VIEW FROM BELOW

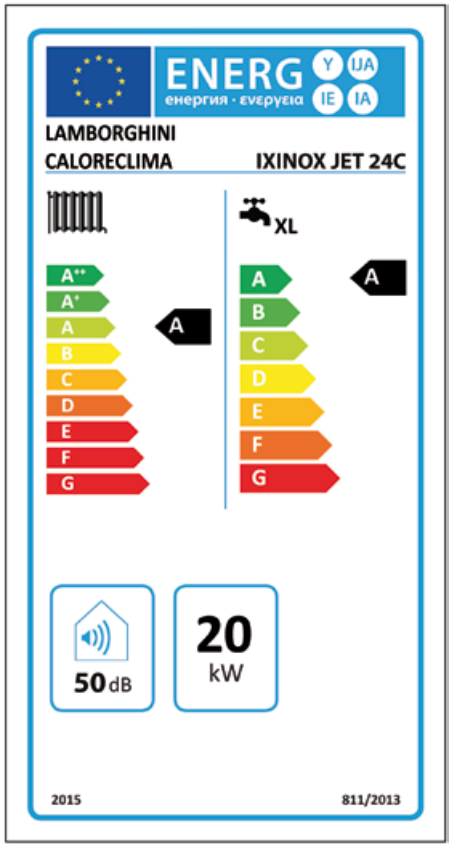
KEY

7 Gas inlet - Ø 3/4"
8 DHW outlet - Ø 1/2"
9 DHW inlet - Ø 1/2"
10 System delivery - Ø 3/4"
11 System return - Ø 3/4"

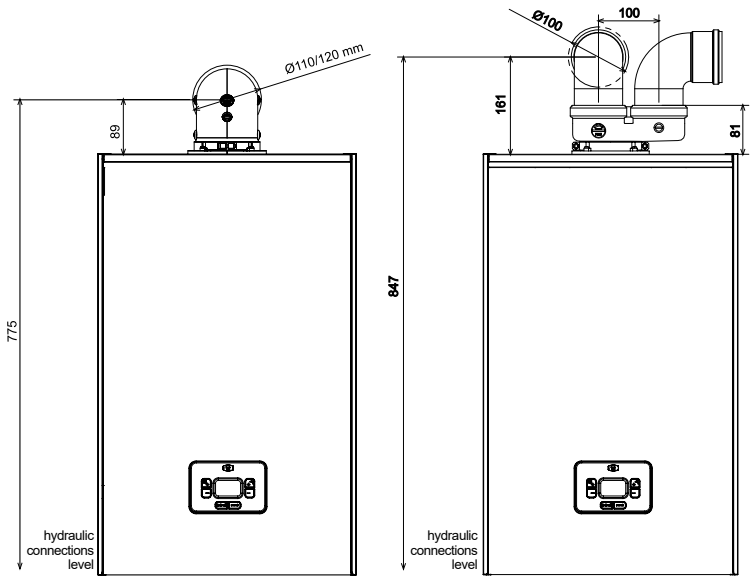
CHARACTERISTICS
HYDRAULICS - ENERGY LABEL



KEY 8 DHW outlet **9** DHW inlet **10** System delivery **11** System return **14** Safety valve **32** Heating circulator **34** Heating temperature sensor **36** Automatic air vent **42** DHW temperature probe **56** Expansion vessel **74** System filling tap **95** Diverter valve **114** Water pressure switch **136** Flowmeter **186** Return sensor **193** Siphon **194** DHW heat exchanger **241** Automatic bypass (inside the pump unit)



CHARACTERISTICS
FLUE FITTING HEIGHT

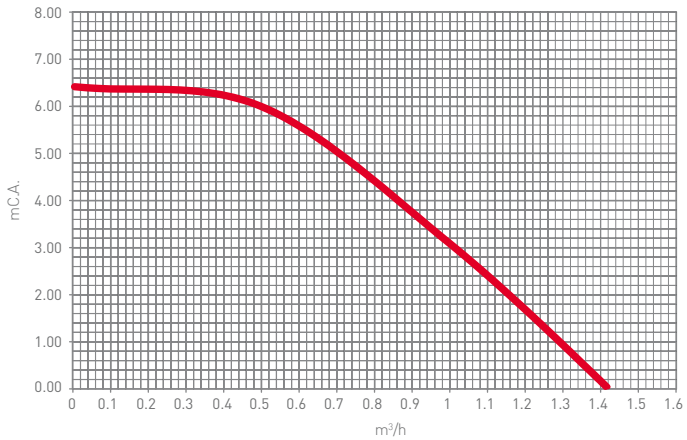


TECHNICAL DATA

SUMMARY TABLE - RESIDUAL HEAD

iXINOX JET			24 C
ERP Class		(Class G - A++)	A
		(Class G - A)	XL A
Heating max /min heat input (Hs)	kW		20.6 / 4.2
Heating max / min heat output (80/60°C)	kW		20 / 4.1
Heating max / min heat output (50/30°C)	kW		21.8 / 4.5
DHW max heat input (Hi)	kW		25
DHW min heat input (Hi)	kW		4.2
DHW max / min heat output	kW		24.3 / 4.1
Pmax efficiency (80-60°C) (Hi)	%		97.1
Pmin efficiency (80-60°C) (Hi)	%		97.0
Pmax efficiency (50-30°C) (Hi)	%		105.8
Pmin efficiency (50-30°C) (Hi)	%		106.9
Efficiency 30%	%		108.8
G20 supply gas pressure	mbar		20
G20 max gas flow rate	m^3/h		2.65
G20 min gas flow rate	m^3/h		0.44
CO_2 max / min G20	%		9.8±8.2
G31 supply gas pressure	mbar		37
G31 max/ min gas flow rate	kg/h		1.94 / 0.33
CO_2 max / min G31	%		10.8 / 9.2
NOx emission class (EN 15502-1)	-		6
Max heating working pressure	bar		3
Min heating working pressure	bar		0.8
Max heating temperature	°C		95
Heating water content	litres		2.9
Heating expansion vessel capacity	litres		8
Heating expansion vessel preload pressure	bar		0.8
DHW max working pressure	bar		9
DHW min working pressure	bar		0.3
DHW flow rate Δt 25°C	l/min		14
DHW flow rate Δt 30°C	l/min		11.7
Protection rating (IEC 60529)	IP		IPX4D
Supply voltage	V/Hz		230V / 50Hz
Absorbed electric power	W		73
Empty weight	kg		25

RESIDUAL HEAD AVAILABLE TO THE SYSTEM



Lamborghini CALORECLIMA

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