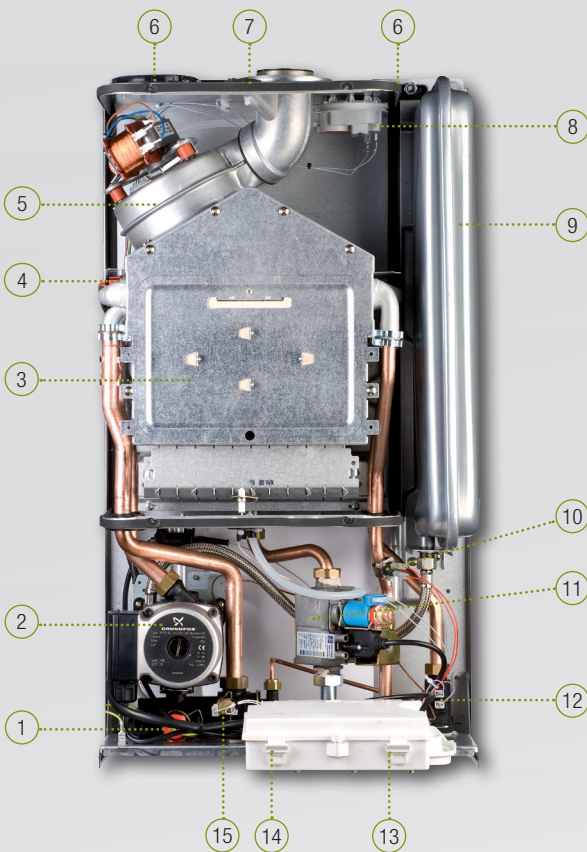




- The new CIAO, **extremely compact in dimensions and low lift weight**, characterized by a linear design, enables a flexible installation almost anywhere in the home, even in small spaces.
- The **wide CIAO range** is available both as room-sealed version with 20, 24 and 28 kW outputs, and as conventional flue version with 24 and 28 kW outputs, to meet the different comfort needs.
- **Beretta patented bi-thermic heat exchanger in copper**
- Efficiency ★★★★★ according to European Directive EEC 92/42 (C.S.I. models).
- Intuitive and easy-to-use control panel with digital display.
- 3-speed circulator with 5 metres head (on 28 kW model) and single-speed with 4 metres head (on the 20-24 kW models).
- S.A.R.A. system: automatic temperature control in heating mode.
- **Built-in climatic thermoregulation** that can be activated through the external probe (as option) for a high comfort level inside the home.
- **“Survivor” function** in DHW mode: allowing the boiler, in the event of failure of the DHW NTC probe, to continue to operate.
- 8 litres expansion vessel (7 litres on the 20 kW model).
- IPX5D electrical protection.
- Frost protection down to -10 °C by using the specific kit available as option.
- **Double air inlet** allowing to fit easily in the existing flues.
- Upper and lower covers available as option (for 20-24 C.S.I. models).
- Fast and easy installation thanks to template and accessories supplied as standard.
- Hydraulic connections, gas and DHW taps available as option.
- Suitable for connection with Beretta remote control panels (optional).

High comfort level from compact dimensions



- ① Safety valve
- ② Circulation pump with anti-blocking function
- ③ Combustion chamber with bi-thermic heat exchanger
- ④ Central heating NTC probe
- ⑤ Fan
- ⑥ Double air inlet for twin system
- ⑦ Flue gas analysis
- ⑧ Flues evacuation pressure switch
- ⑨ Expansion vessel
- ⑩ DHW NTC probe
- ⑪ Gas valve
- ⑫ Flow switch
- ⑬ Climatic thermoregulation (optional external probe)
- ⑭ Electronic board
- ⑮ Water pressure switch

This photo represents only 20 e 24 C.S.I. e models



- ① Backlight digital display
- ② On/Off/Summer/Winter/Reset/ Heating temperature/ “S.A.R.A. function” selector
- ③ Domestic hot water temperature selector
- ④ Hydrometer

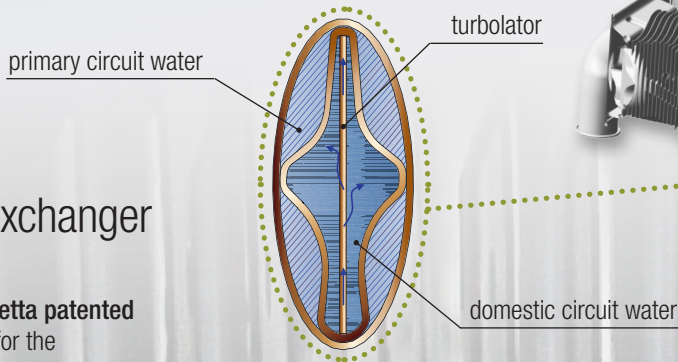
User-friendly approach

The new CIAO, thanks to the essential design, blends easily into any setting. The intuitive backlight digital display provides the end-user immediately with all information about the boiler status. Two user-friendly selectors allow to easily control all the boiler functions.

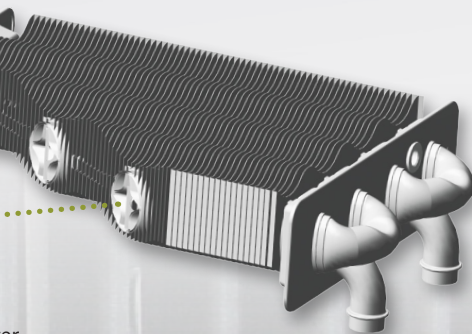
Bi-thermic heat exchanger

CIAO range features the Beretta patented bi-thermic heat exchanger, for the production both of domestic hot water and central heating. The Beretta bi-thermic heat exchanger is entirely made in copper, with a special environmentally-friendly paint coating to increase the longevity of the component. It consists of 4 concentric double pipes and a number of ‘wings’ which depends on the power of the heat exchanger. The domestic

CONCENTRIC DOUBLE PIPE SECTION



water, flowing in the internal concentric pipe (see pipe section), is warmed by the primary circuit water flowing through the external pipe, thanks to the high thermic exchange property of the copper.



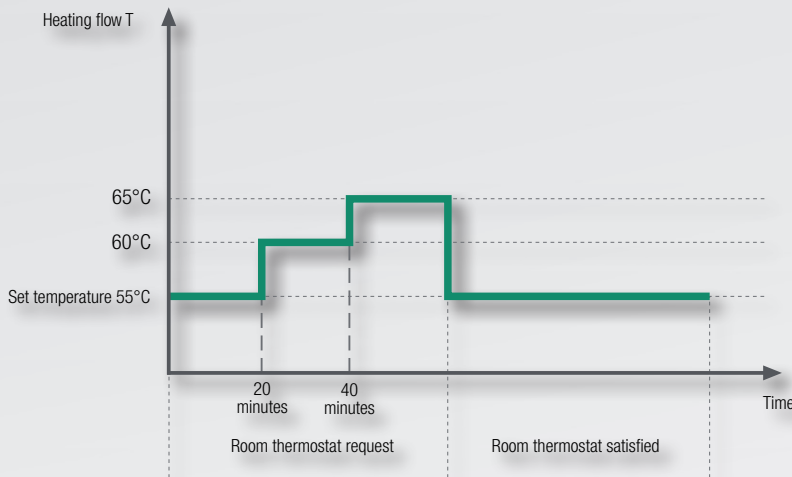
The turbolator, inside each concentric DHW pipe, increases the speed of the flowing water and widens the thermal exchange surface, while reducing the losses on DHW side.

S.A.R.A. system: comfort and saving

All the models in the CIAO range are equipped with the Beretta patented S.A.R.A. system (Automatic Temperature Control), which can be enabled by moving the temperature control knob of the central heating circuit to the dedicated “AUTO” sector (between 55°C and 65°C). The S.A.R.A. system achieves the best

compromise between the average temperature of the radiators and the quickness in reaching the required room temperature, while providing energy and money saving. When there is a demand for heating, the appliance will automatically raise the heating flow temperature twice by 5°C every 20 minutes,

in order to heat the home more quickly. When the heating request has been satisfied (see diagram), the appliance will switch off automatically till the next heating request. At that point the boiler will start again at the previously set flow temperature.



A wide range of models to meet any installation requirements

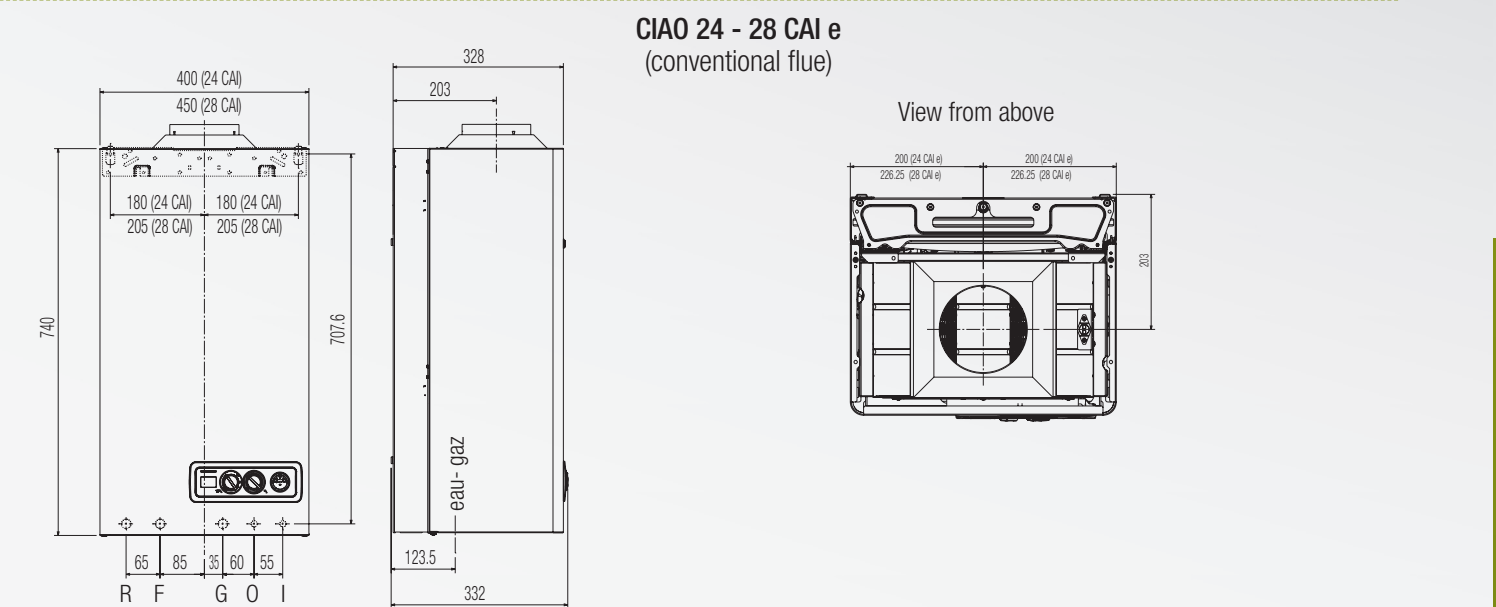
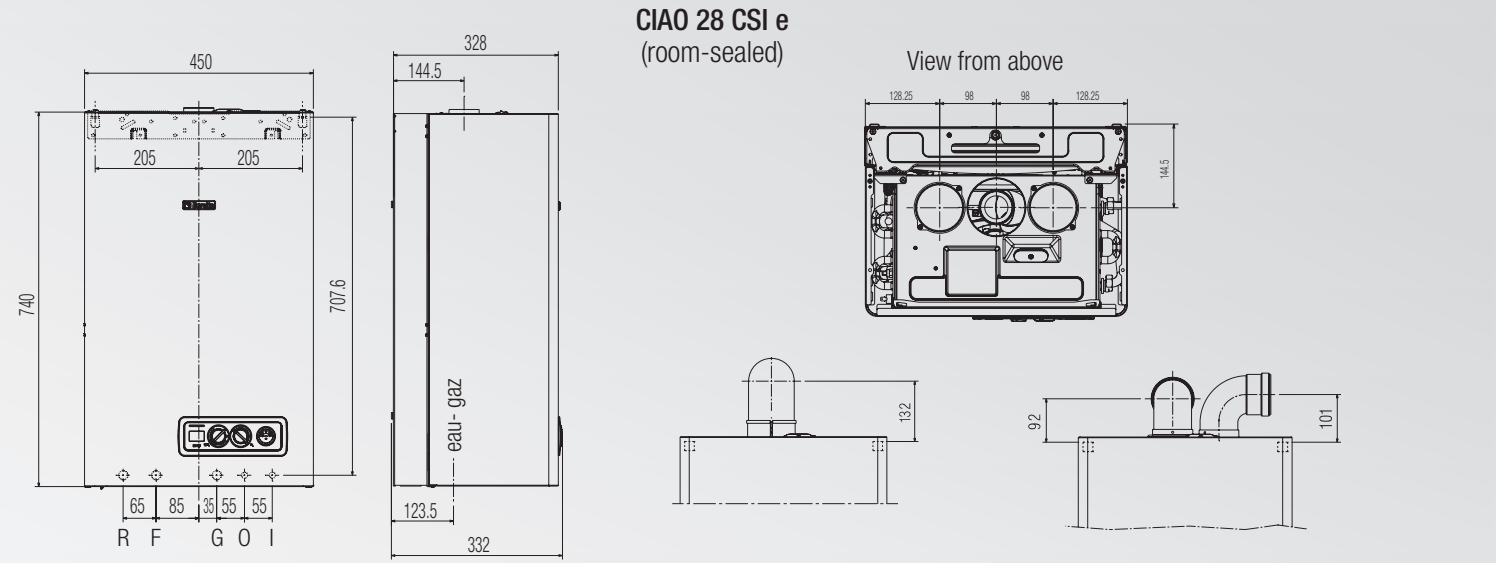
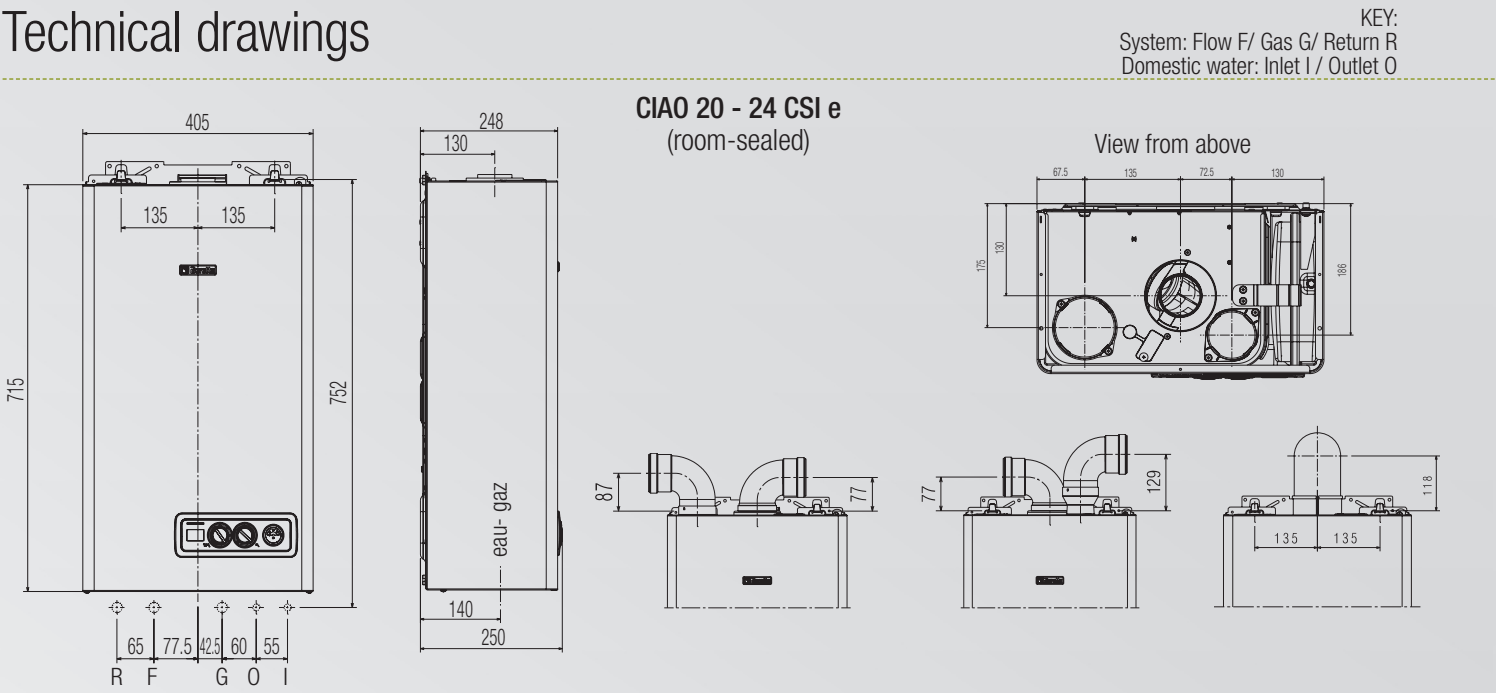
The **new CIAO range** is available in 5 combi versions both as room-sealed with 20, 24 and 28 kW outputs, and as conventional flue models with 24 and 28 kW outputs, to meet the different comfort needs.

CIAO boasts some important features such as the climatic thermoregulation, that can be activated through the external probe (available as option), for a higher comfort inside the home, and it is suitable for the connection with Beretta

remote control panels (as option), to manage all the boiler functions and check the boiler status from a remote location.



Technical drawings



Technical data

- C Combi model (CH + DHW);
- A Conventional flue;
- S Room-sealed;
- I Electronic ignition, ionisation flame control;

| SPECIFICATIONS AND MODELS | | CIAO 20 C.S.I. e | CIAO 24 C.S.I. e | CIAO 28 C.S.I. e | CIAO 24 C.A.I. e | CIAO 28 C.A.I. e |
|--|----------|---------------------|---------------------|---------------------|---------------------|---------------------|
| CH nominal heat input | kW | 22,20 | 25,80 | 30,20 | 26,70 | 31,90 |
| CH maximum heat output (80°-60° C) | kW | 20,60 | 23,94 | 28,24 | 23,92 | 28,49 |
| CH minimum heat input | kW | 7,00 | 8,90 | 12,70 | 10,40 | 10,70 |
| CH minimum heat output (80°-60° C) | kW | 5,88 | 7,52 | 10,95 | 8,88 | 8,92 |
| DHW heat input | kW | 22,20 | 25,80 | 30,20 | 26,70 | 31,90 |
| DHW maximum heat output* | kW | 20,60 | 23,94 | 28,24 | 23,92 | 28,49 |
| DHW minimum heat input | kW | 7,00 | 8,90 | 10,50 | 10,40 | 10,70 |
| DHW minimum heat output* | kW | 5,88 | 7,52 | 9,05 | 8,88 | 8,92 |
| Efficiency nominal output (Pn max - Pn min) | % | 92,8 - 84,0 | 92,8 - 84,5 | 93,5 - 86,2 | 89,6 - 85,4 | 89,3 - 83,4 |
| Efficiency at partial load 30% (47°C return) | % | 91,9 | 91,8 | 92,8 | 89 | 88,7 |
| Max power consumption | W | 115 | 100 | 125 | 85 | 85 |
| Power supply | V/Hz | 230/50 | 230/50 | 230/50 | 230/50 | 230/50 |
| Electrical protection | IP | X5D | X5D | X5D | X5D | X5D |
| CENTRAL HEATING | | | | | | |
| Maximum pressure - temperature | bar - °C | 3 - 90 | 3 - 90 | 3 - 90 | 3 - 90 | 3-90 |
| Minimum pressure for standard operation | bar | 0,25 - 0,45 | 0,25 - 0,45 | 0,25 - 0,45 | 0,25 - 0,45 | 0,25 - 0,45 |
| Adjustable CH water temperature range | °C | 40/80 | 40/80 | 40/80 | 40/80 | 40/80 |
| CH expansion vessel pre-charge/Capacity | bar/l | 1/7 | 1/8 | 1/8 | 1/8 | 1/8 |
| DHW | | | | | | |
| Maximum - minimum pressure | bar | 6/0,15 | 6/0,15 | 6/0,15 | 6/0,15 | 6/0,15 |
| DHW production ΔT=25°C / ΔT=30°C / ΔT=35°C | l/min | 11,8 / 9,8 / 8,4 | 13,7 / 11,4 / 9,8 | 16,2 / 13,5 / 11,6 | 13,7 / 11,4 / 9,8 | 16,3 / 13,6 / 11,7 |
| Hot water minimum flow rate | l/min | 2 | 2 | 2 | 2 | 2 |
| Adjustable hot water temperature range | °C | 37/60 | 37/60 | 37/60 | 37/60 | 37/60 |
| CONNECTIONS | | | | | | |
| CH flow - return/Gas | Ø | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" |
| DHW inlet - outlet | Ø | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" |
| Gas | Ø | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" |
| CONCENTRIC PIPES | | | | | | |
| Diameter | mm | 60 - 100 | 60 - 100 | 60 - 100 | - | - |
| Maximum length | m | 4,25 | 4,25 | 3,4 | - | - |
| CONCENTRIC PIPES | | | | | | |
| Diameter | mm | 80-125 | 80-125 | 80-125 | - | - |
| Maximum length | m | 12,4 | 12,4 | 10 | - | - |
| TWIN PIPES | | | | | | |
| Diameter | mm | 80 | 80 | 80 | - | - |
| Maximum length | m | 10+10 | 16+16 | 14+14 | - | - |
| DIMENSIONS, WEIGHT, GAS | | | | | | |
| Boiler dimensions (HxWxD) | mm | 715x405x250 | 715x405x250 | 740x450x332 | 740x400x332 | 740x450x332 |
| Net weight | kg | 28 | 28 | 34 | 30 | 32 |
| Available gas versions | | NG/LPG** | NG/LPG | NG/LPG | NG/LPG** | NG/LPG |

* average among the different functioning conditions in DHW
** LPG version available with separate transformation kit (option)

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