



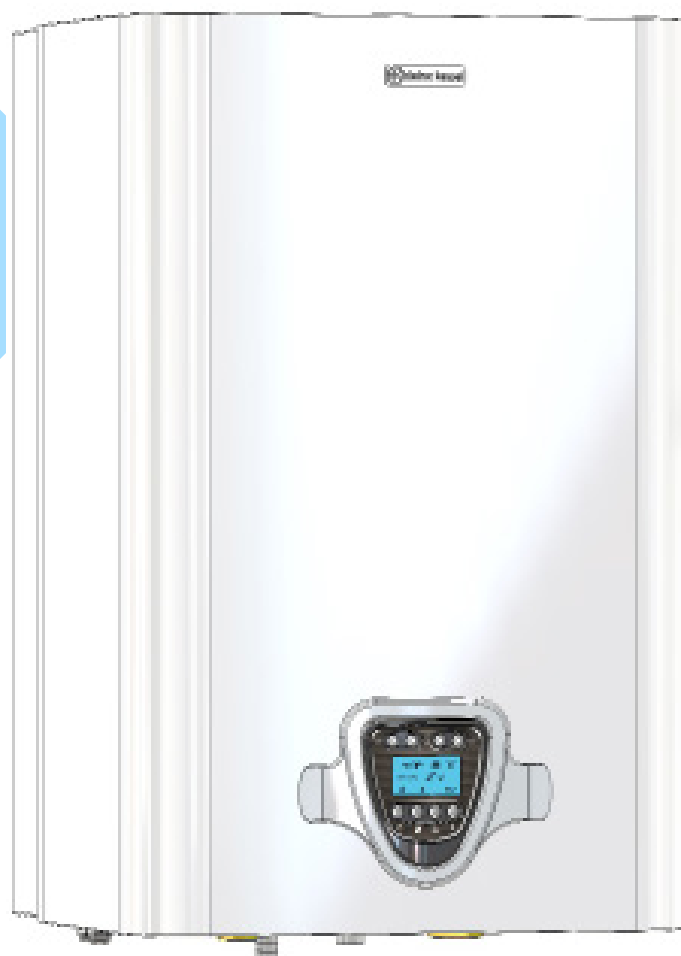
YOUR COMFORT ZONE.

# CSP SERIE

LIGHT COMMERCIAL  
GAS BOILERS

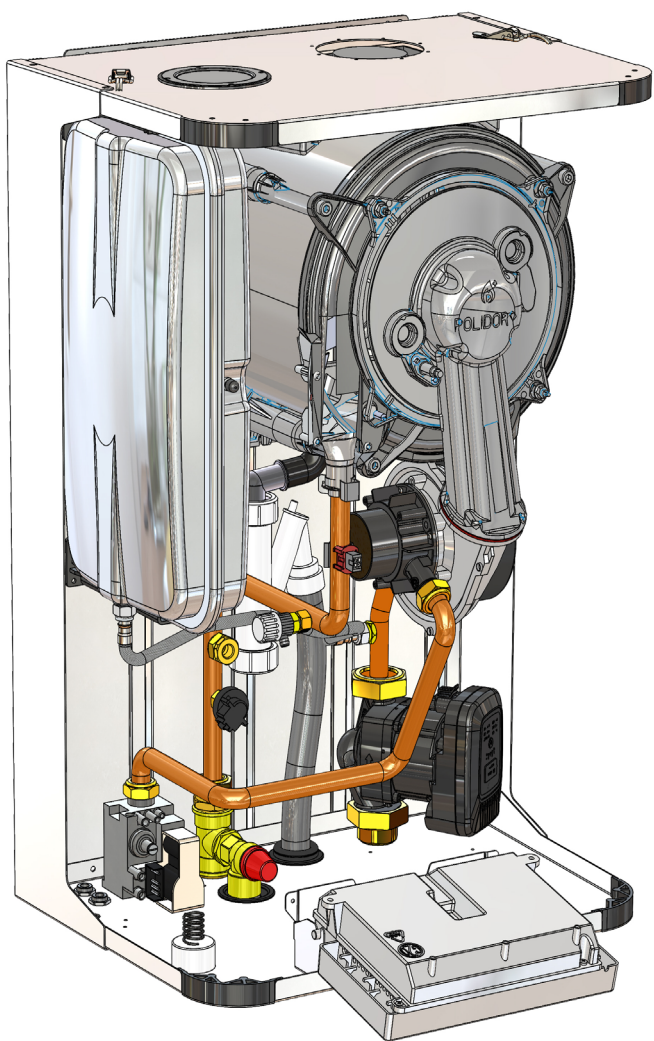
## BIG POWERS

CSP boiler achieves maximum of energy efficiency thanks to the stainless steel heat exchanger. Stainless steel is a durable material and not sensitive to corrosion. The heat transfer coefficient does not decrease, consequently the efficiency of the heat exchanger remains constant throughout the product's life cycle.

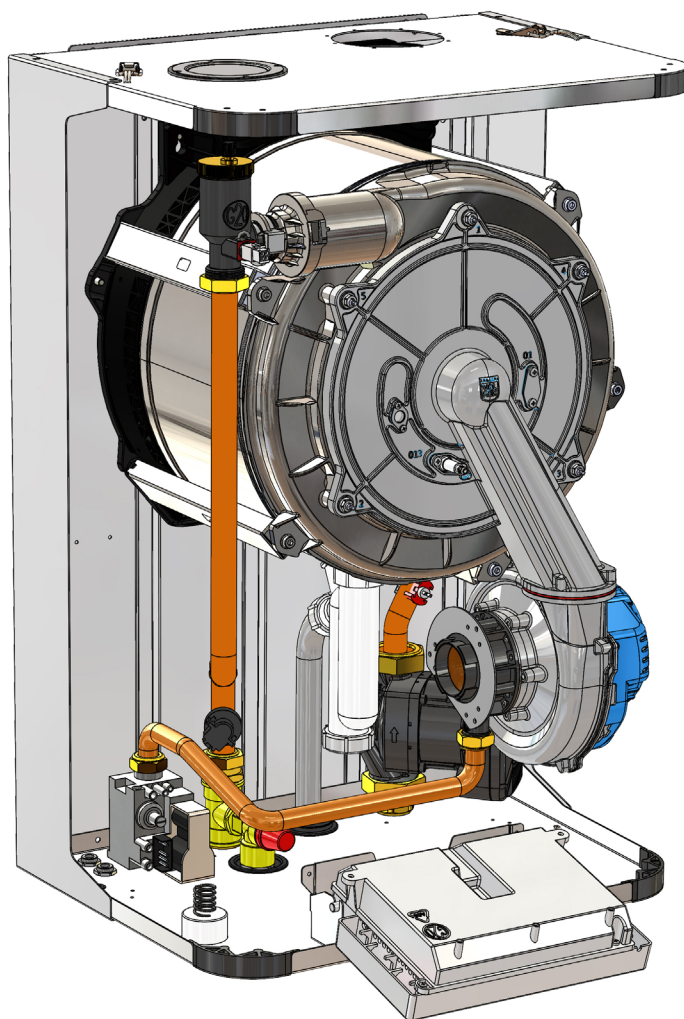


## THE RANGE

CSP is a condensing wall-mounted generator with power ratings from 45 up to 70 kW.



**CSP 45**



**CSP 70**

The design of the boiler allows the internal components to be fully accessible. This guarantees perfect maintenance when needed.



Electronic control panel, elegant and efficient for **CSP**.

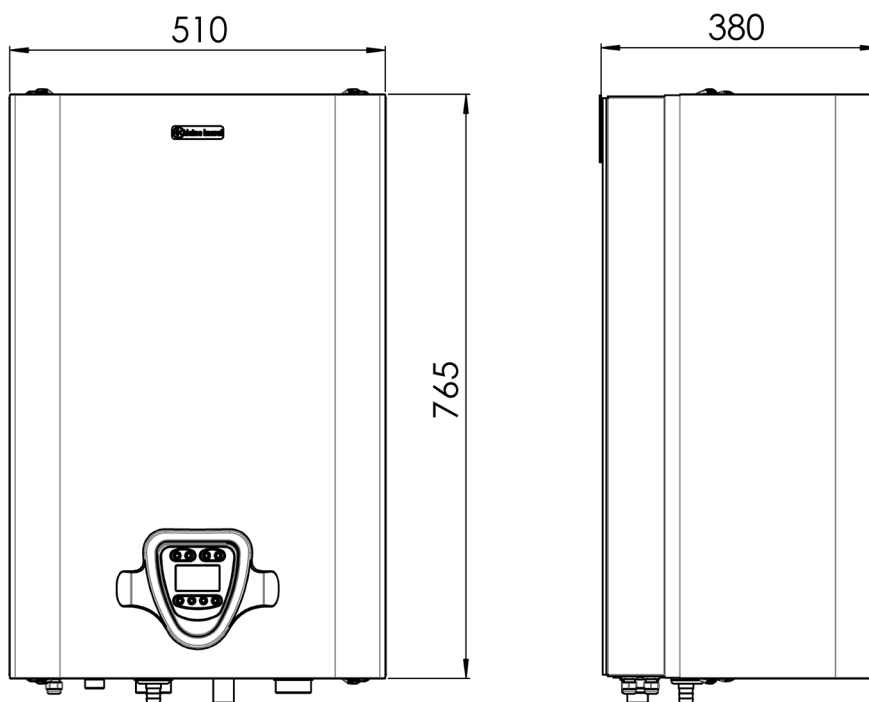
# TECHNICAL DATA

| TECHNICAL DATA                                                     | U.M.         | CSP 45<br>II2H3P        | CSP 70<br>II2H3P        |
|--------------------------------------------------------------------|--------------|-------------------------|-------------------------|
| Device category                                                    |              |                         |                         |
| Appliance classification                                           |              | B23 C13 C33 C43 C53 C83 | B23 C13 C33 C43 C53 C83 |
| Nominal thermal flow                                               | [ kW ]       | 46,89                   | 71,02                   |
| Minimum thermal flow                                               | [ kW ]       | 8,58                    | 14,06                   |
| Nominal thermal power (80°/60°)                                    | [ kW ]       | 45,57                   | 68,92                   |
| Minimum thermal power (80°/60°)                                    | [ kW ]       | 8,35                    | 13,69                   |
| Maximum condensing power (50°/30°)                                 | [ kW ]       | 48,4                    | 75,9                    |
| Minimum condensing power (50°/30°)                                 | [ kW ]       | 9,0                     | 14,5                    |
| Useful efficiency at nominal heat output (80°/60°)                 | [ % ]        | 97,2                    | 97,1                    |
| Useful efficiency at min thermal power (80°/60°)                   | [ % ]        | 97,5                    | 97,4                    |
| Useful efficiency at maximum condensing power (50°/30°)            | [ % ]        | 105                     | 105                     |
| Partial load efficiency (50°/30°)                                  | [ % ]        | 106,2                   | 106,6                   |
| Smoke temperature<br>(Tf-Tamb ) maximum*                           | [ °C ]       | 72,5                    | 73,1                    |
| Smoke mass flow<br>at the nominal heat input                       | [ gr/s ]     | 21,9                    | 33,3                    |
| Fume mass flow rate at minimum thermal flow rate                   | [ gr/s ]     | 4,08                    | 6,58                    |
| Leaks in the fireplace with the burner off                         | [ % ]        | 0,12                    | 2,37                    |
| Chimney leak with burner on<br>at the nominal heat input           | [ % ]        | 2,12                    | 1,64                    |
| Chimney leak with burner lit at minimum heat input                 | [ % ]        | 1,63                    | 0,15                    |
| Shell loss at nominal heat input                                   | [ % ]        | 0,7                     | 0,58                    |
| Shell loss at minimum heat input                                   | [ % ]        | 1,05                    | 1,01                    |
| NOx class                                                          |              | 5                       | 5                       |
| Max discharge+intake residual head<br>(separate tubes 0.5 Ø 80 mm) | [ Pa ]       | 138,5                   | 240                     |
| Nominal heat input<br>for domestic hot water                       | [ kW ]       | /                       | /                       |
| Min/max heat input for domestic hot water                          | [ bar ]      | 0,8/3                   | 0,8/3                   |
| Power supply                                                       | [ Volt -Hz ] | 230-50                  | 230-50                  |
| Maximum absorbed electric power                                    | [ W ]        | 220                     | 220                     |
| Electrical protection degree                                       | [ IP ]       | X4D                     | X4D                     |
| Expansion vessel                                                   | [ lt ]       | 10                      | /                       |
| Expansion tank                                                     | [ bar ]      | /                       | /                       |
| Maximum sanitary pressure                                          | [ bar ]      | /                       | /                       |
| Minimum sanitary pressure                                          | [ bar ]      | /                       | /                       |
| Specific flow rate of hot water with Δ t 35°C                      | [ l/min ]    | /                       | /                       |
| Minimum domestic water flow                                        | [ l/min ]    | /                       | /                       |
| Flow limiter                                                       | [ l/min ]    | /                       | /                       |

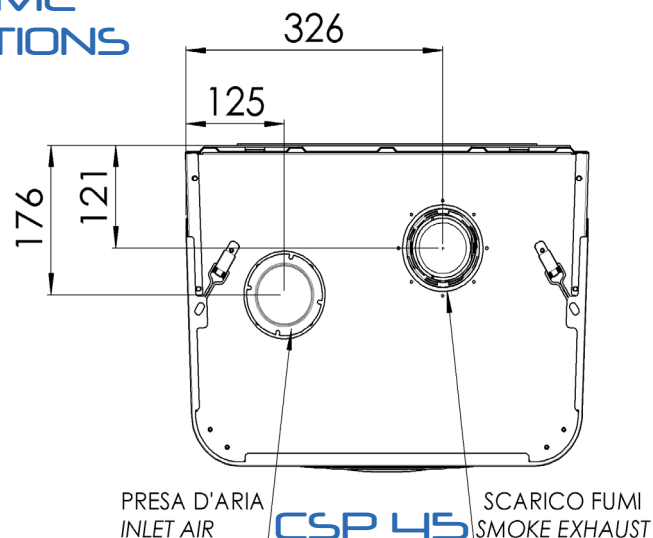
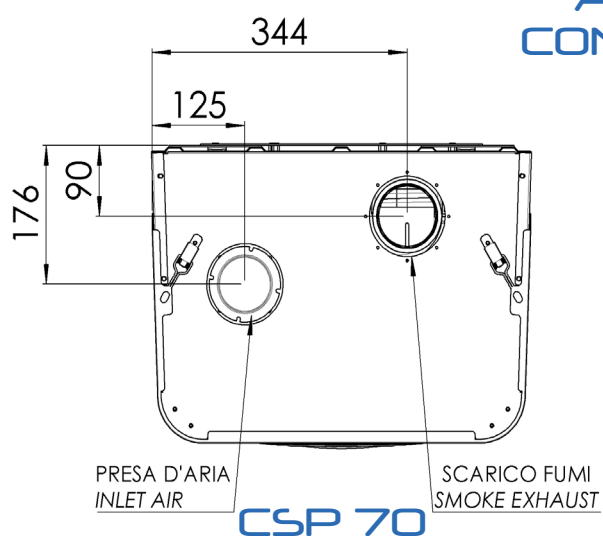
| FUEL                                       |          | CSP 45 | CSP 70 |
|--------------------------------------------|----------|--------|--------|
| Gas flow rate at nominal thermal flow rate | G20 m3/h | 4,66   | 7,5    |
|                                            | G31 kg/h | 3,37   | 5,5    |
| Gas flow at minimum thermal flow           | G20 m3/h | 0,85   | 1,4    |
|                                            | G31 kg/h | 0,6    | 1,06   |

| TECHNICAL PARAMETERS OF THE ERP REGULATION (812/2013)    |                      |            |        |        |
|----------------------------------------------------------|----------------------|------------|--------|--------|
|                                                          |                      |            | CSP 45 | CSP 70 |
| Seasonal space heating energy efficiency class           | -                    | -          | A      |        |
| Nominal useful heat output                               | P <sub>nominal</sub> | [ kW ]     | 45     | 70     |
| Seasonal space heating energy efficiency                 | η <sub>S</sub>       | %          | 92     | 93     |
| USEFUL THERMAL POWER                                     |                      |            |        |        |
| At rated heat output and high temperature regime         | P <sub>4</sub>       | [ kW ]     | 45,57  | 68,92  |
| At 30% of nominal heat output and low temperature regime | P <sub>1</sub>       | [ kW ]     | 14,3   | 22,5   |
| EFFICIENCY                                               |                      |            |        |        |
| At rated heat output and high temperature regime         | η <sub>4</sub>       | [ % ]      | 87,5   | 87,4   |
| At 30% of rated heat output and low temperature regime   | η <sub>1</sub>       | [ % ]      | 95,7   | 96,0   |
| AUXILIARY ELECTRICITY CONSUMPTION                        |                      |            |        |        |
| Fully loaded                                             | e <sub>lmax</sub>    | [ kW ]     | 0,0865 | 0,1292 |
| Partial load                                             | e <sub>lmin</sub>    | [ kW ]     | 0,018  | 0,0219 |
| In standby mode                                          | PSB                  | [ kW ]     | 0,0039 | 0,0031 |
| OTHER PARAMETERS                                         |                      |            |        |        |
| Thermal losses in standby mode                           | P <sub>stby</sub>    | [ kW ]     | 0,07   | 0,11   |
| Annual energy consumption                                | Q <sub>HE</sub>      | [ GJ ]     | 142    | 221    |
| Sound power level                                        | LWA                  | [ dB ]     | /      | /      |
| Emissions of nitrogen oxides                             | NO <sub>x</sub>      | [ mg/kWh ] | 58     | 42     |
| FOR COMBI HEATERS:                                       |                      |            |        |        |
| Declared load profile                                    | -                    | -          | /      | /      |
| Daily electricity consumption                            | Q <sub>elec</sub>    | [ kWh ]    | /      | /      |
| Annual electricity consumption                           | AEC                  | [ kWh ]    | /      | /      |
| Energy efficiency of water heating                       | η <sub>vh</sub>      | [ % ]      | /      | /      |
| Daily fuel consumption                                   | Q <sub>fuel</sub>    | [ kWh ]    | /      | /      |
| Annual fuel consumption                                  | AFC                  | [ GJ ]     | /      | /      |

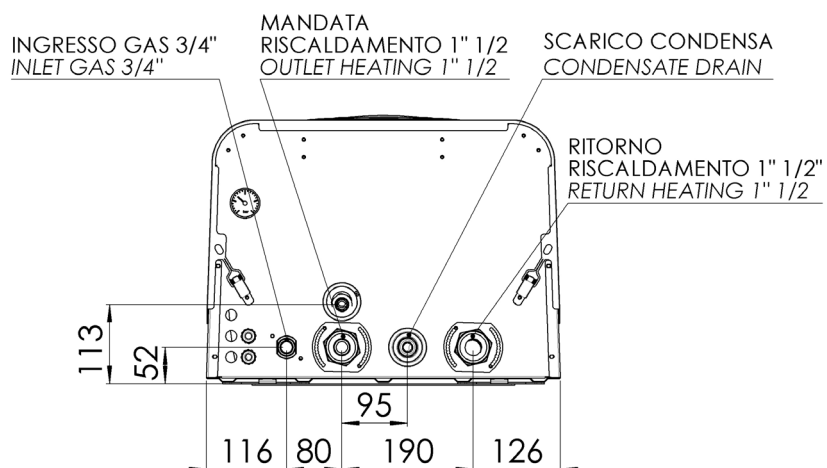
# DIMENSIONS



## AIR FUME CONNECTIONS

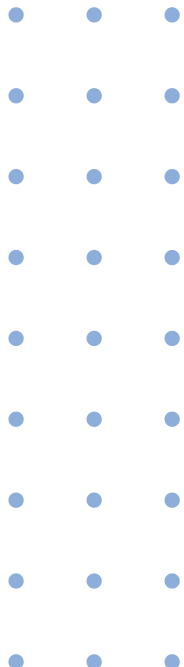


## HYDRAULIC CONNECTIONS





- Adjustable maximum power
- High-efficiency, stainless steel condensing heat exchanger
- Low emission NOx burner
- Low water resistance
- Quick-connect components for maximum accessibility
- High performance circulator
- Fully configurable management for every need
- Prepared for O.T. remote control
- Elegant and compact
- Expansion vessel (only for CSP 45)





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