



IVEN.⁰⁴

Unical

Essentiality and compactness

MODEL		nominal output kW	minimum output kW
IVEN 04 CTN 24	natural draught	24	9,9
IVEN 04 CTFS 24	room sealed forced draught	24	9,9
IVEN 04 CTFS 28	room sealed forced draught	28	9,8

IVEN 04: new in three versions

Born in 2002, renewed and adjourned, here is IVEN 04.

Available in combi and only-heating versions, with natural and forced draught, for operation with Natural Gas or L.P.G. Safe and easier, available also in 28 kW version, is the answer for who needs more strongness, compactness and performances.

IVEN 04 CTFS 28 a variation on the theme

Much capacity available both in Domestic Hot Water production and Central Heating mode! With the same look and dimensions, the user will have an higher comfort level, by maintaining safety and soundness excellent standards.

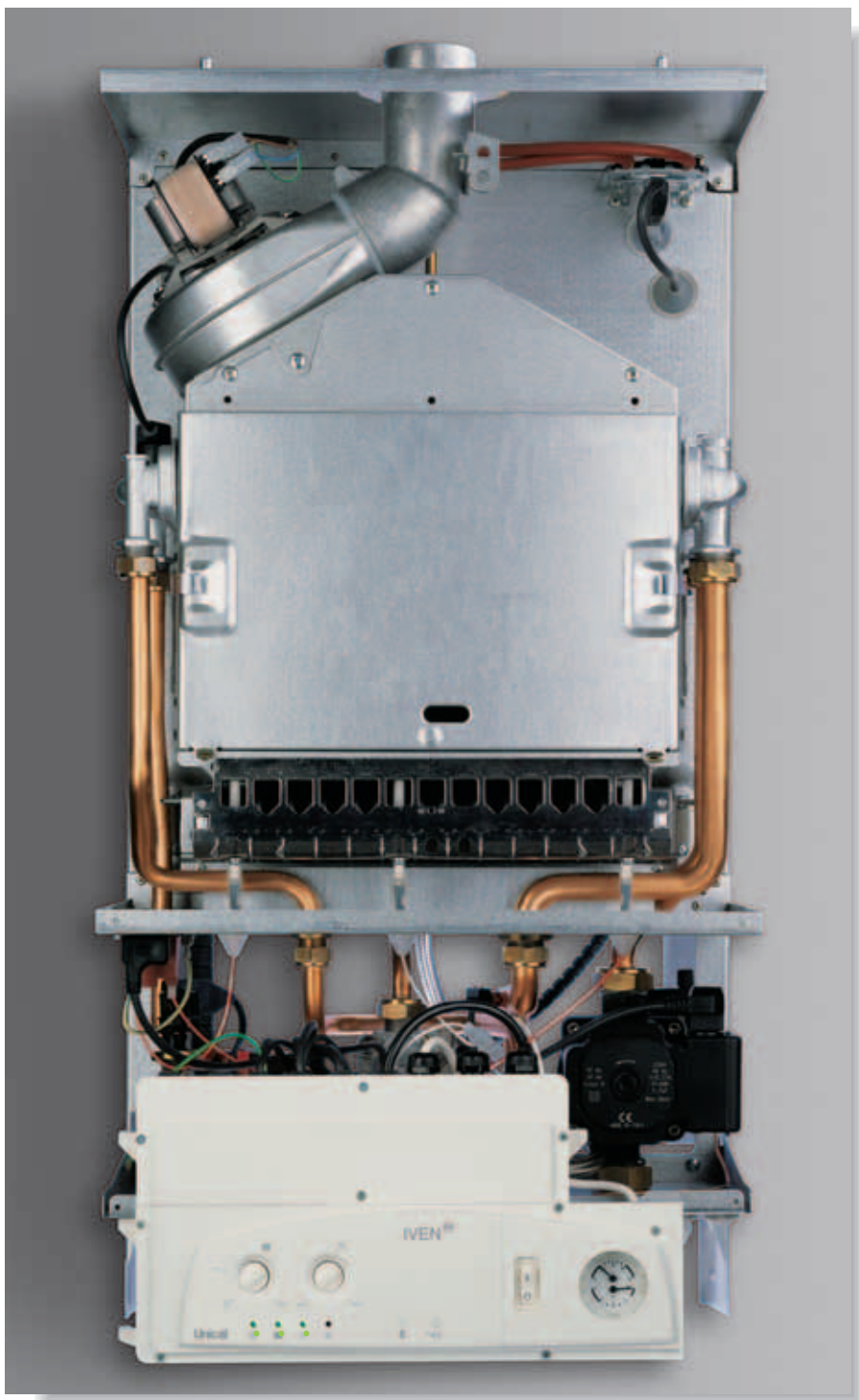
No problems with Hot Water production, thanks to the 16 litre/min and to the high modulating capacity, that reduces the heating times in each installation.

28 kW: a recommended choice.

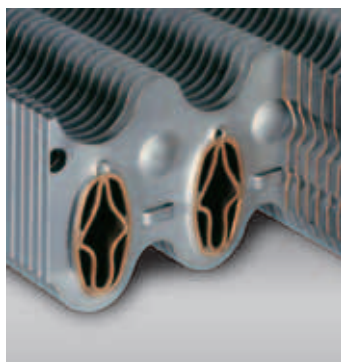
A winning combination

Improved frame and motor, excellent Hot Water production.

Compact dimensions: 800 x 420 x 345 mm.



The mechatronics of IVEN 04



High efficiency by-thermal heat exchanger >92%



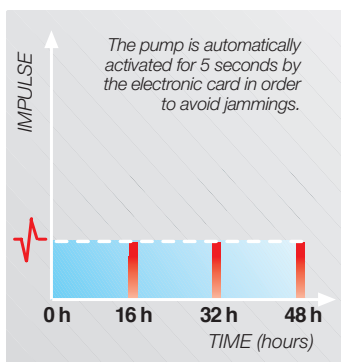
Double safety, with two electronic ignition electrodes



D.H.W. priority flow-switch, anti water hammer



Pump with built-in air vent



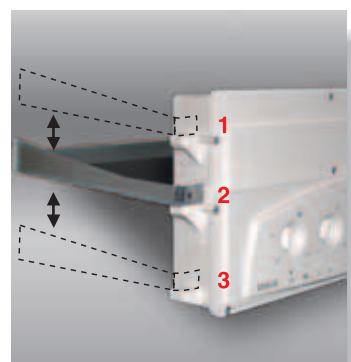
Anti-jamming pump timer



Easy control panel



Microprocessor for electronic management



Sliding control panel for easy service



Immediate working mode indication by lamps



Front thermomanometer with easy access



Easy operation filling system tap



Anti-frost protections for high reliability

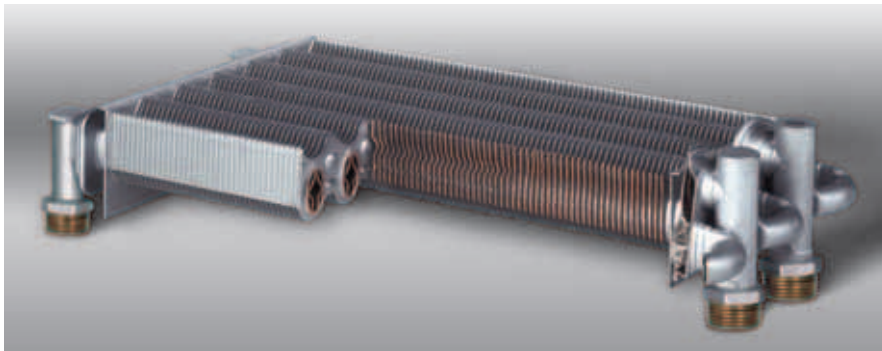
New advanced technology for better performances

Iven 04 represents the progress that Unical continues to apply at its production due to the incessant evolution of the market. New is the pump *synchronous* motor, controlled by the electrical supply frequency for a *constant head pressure*. At the variations of heat losses (24 kW), it offers better hydraulic performances, higher silence and lower consumptions.

This new technology uses the synchronous motors instead of the traditional asynchronous ones and make *"independent" the rotating speed by the voltage variations that may occur on the network*.

In this way it's possible to obtain a diagram flow/manometric head with more extended performances. Furthermore, where necessary, *it's possible to obtain higher flow and manometric head, at the same space conditions*.

Iven 04 is constituted by components representing the top of the available in this sector: the exclusive copper bi-thermal heat exchanger, result of accurate planning, is constituted by high surface elements with a particular shape that allows the maximum efficiency in heating exchange. A 6 elements copper coil with oval section at high exchange capacity, transmits the thermal energy to the sanitary water (tube in tube type).

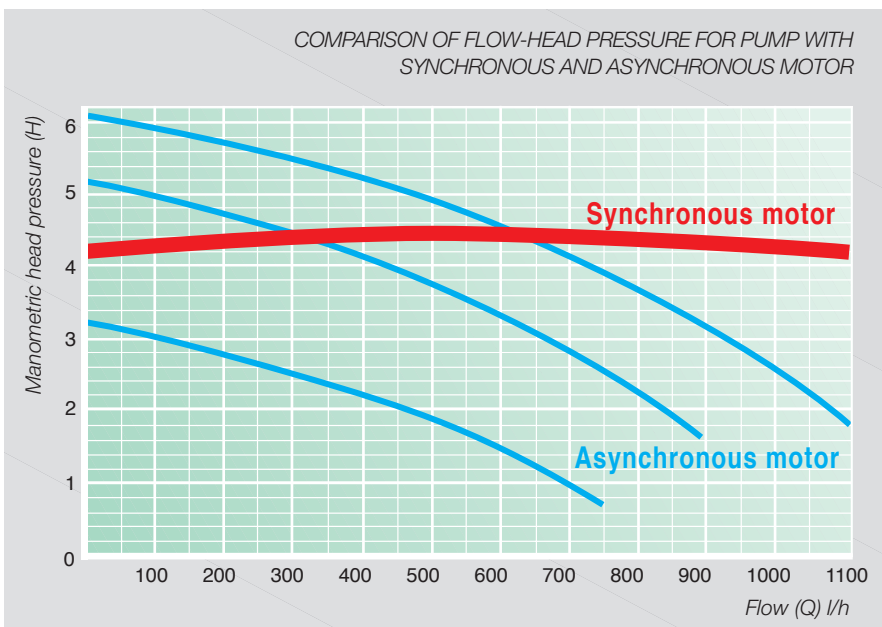


Bi-thermal heat exchanger at high wing surface

The results are:

- *immediate hot water production* if compared to the traditional instantaneous boilers wher the secondary separate heat exchanger needs a longer time in order to reach the operating temperature.
- *lower thermal resistance* with higher exchange efficiency at all the load conditions.
- *reduced temperature gap* between the primary and secondary circuits, with consequent scaling elimination.
- *quick answer to the temperature variations*, thanks to the very low inertia as result of materials and shape.
- *Sensible energy saving*.

COMPARISON OF FLOW-HEAD PRESSURE FOR PUMP WITH SYNCHRONOUS AND ASYNCHRONOUS MOTOR



Easy service and use



Opening of the combustion chamber with release levers



Heat exchanger removal by front ward sliding



Burner removal by front sliding without remaining the gas train



Front fan removal

Control panel

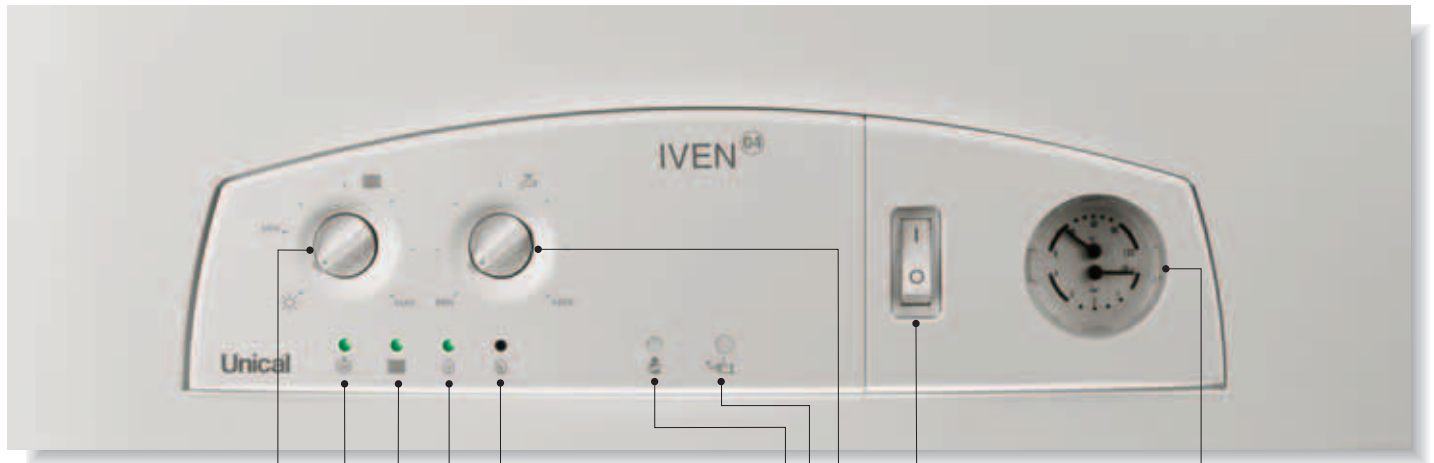
The control panel constitutes a single vertical unit that is a single part with the electronic card box.

The simplified controls located on the front part are:

- no knobs for the heating and sanitary water temperature adjusting.
- an ON/OFF main switch
- four function lamps
- a reset push button

- a chimney sweeper push button (for service use)
- a thermomanometer

The PCB (Printed Circuit Board) with microprocessor and all the electrical connections are completely protected inside this box. The sliding control panel makes easier the access to the components for a quicker and more economic service. The electronics allow the heating mode capacity adjusting independent by the D.H.W. production, and also a complete self-diagnostic.



Summer/Winter selector and Heating temperature potentiometer

Knob for setting the operation in:
 - **WINTER**: it's possible to set the temperature from 45°C to 80°C.
 - **SUMMER**: in this position, the boiler operates only in Domestic Hot Water production.

Supply line ON lamp

It indicates that the boiler is electrically feeded.

Lock-out warning lamp

It indicates the lock-out of the burner control.

Burner ON lamp

It indicates the good operation of the burner.

Central Heating mode operation lamp

It indicates a Central Heating request. It's turned OFF if simultaneously occurs a Domestic Hot Water request.

Thermomanometer

ON/OFF main switch

Domestic Hot Water temperature potentiometer

It's possible to set the temperature from 35°C to 57°C.

Reset button

It allows the boiler operation after a lock-out intervention.

Chimney sweeper function

It forces the boiler operation at the maximum capacity, and then to the minimum one, in order to allow the gas valve adjusting and combustion controls (technical use).

Accessories and mounting jig for quick connections

The distance of 15 cm between wall and connections gives quickness and ease of installation also on the most difficult replacement. Thanks to the metallic mounting jig included in the standard delivery and to the other kits (standard or optionals), the professional installer will solve any problem that may occur. Each mounting jig has its own specific indications for the boiler fixation to the wall and the connections position (flow, return, gas, cold water, hot water).

Other features and complementary functions

- Electronic flame modulation.
- Electronic adjusting (potentiometer) of the ignition ramp.
- Electronic adjusting of the maximum heating capacity.
- Gas conversion from natural gas to LPG by 1 jumper and a nozzles kit.
- NTC heating sensor.
- NTC sanitary sensor.
- Domestic Hot Water priority flow-switch.
- Minimum water pressure switch.
- Automatic air vent.

Optional accessories

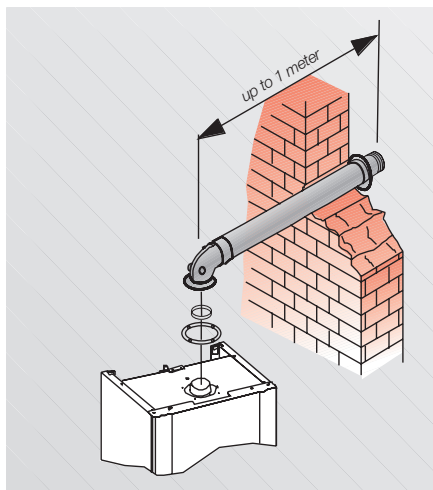


CHRONO-THERMOSTAT SD 700
DIGITAL WEEKLY
Cod. 00260738

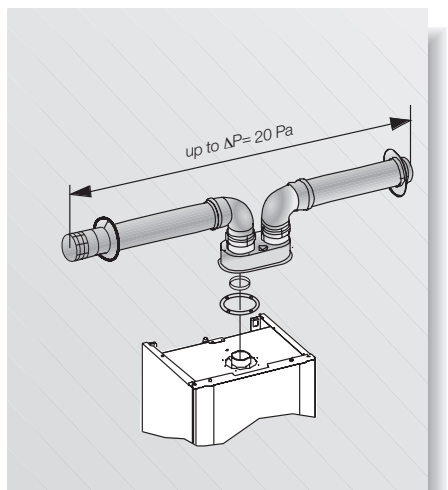


CHRONO-THERMOSTAT GA 240
ELECTRONIC DAILY
Cod. 00260737

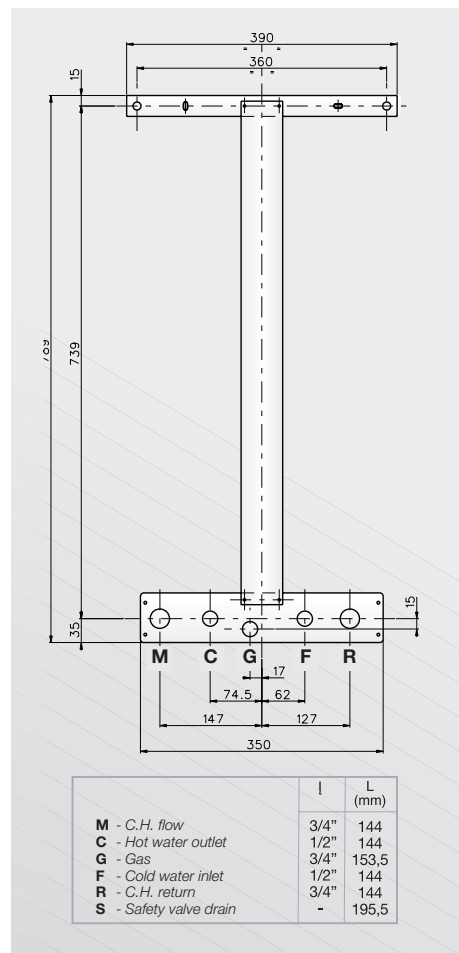
Smoke duct systems (optional)



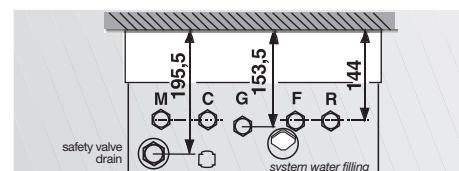
COAXIAL DUCTS Ø 60/80 mm
Cod. KIT5500C



SEPARATED DUCTS Ø 80 mm
Cod. 00360689



METALLIC MOUNTING JIG (STANDARD DELIVERY)
Cod. 00212094



CONNECTIONS (UPPER VIEW)

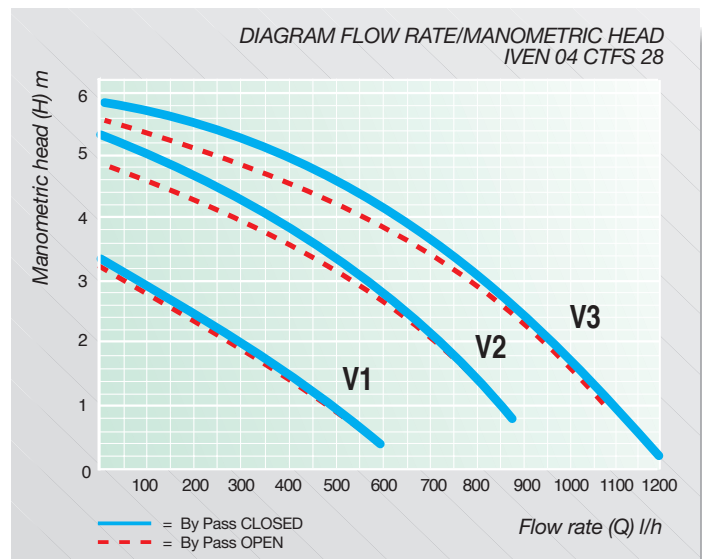
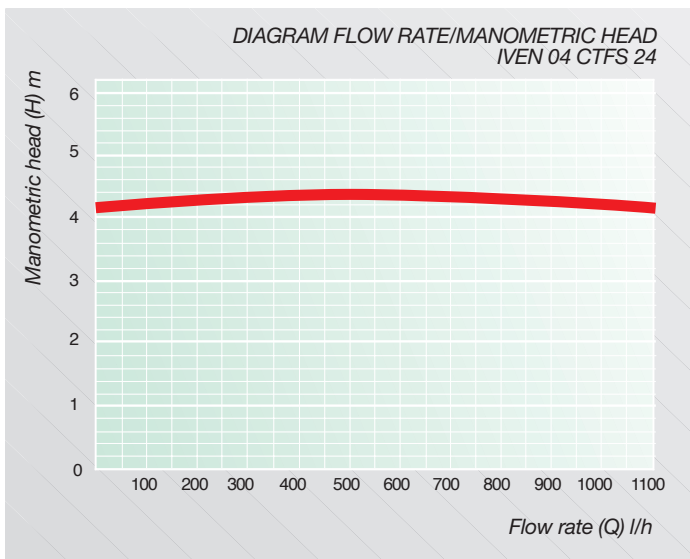
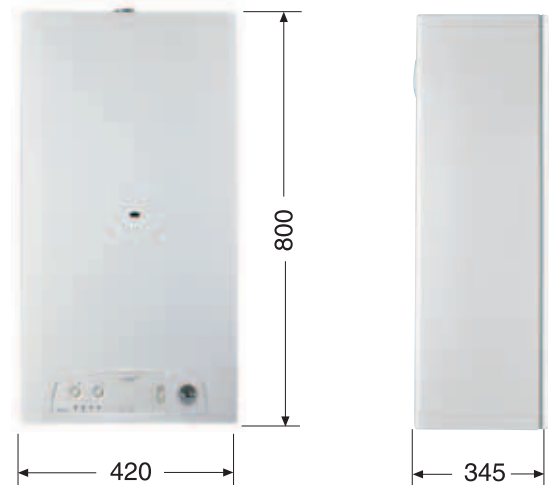
Technical data

Attention to the particulars and easy adaptability

New look, more compact dimensions (800 x 420 x 345 mm) the new 04 range solves more easily all the installation problems.

The lower jacket prolongation covers the heating system connection pipes.

The jacket is easy to remove, in three pieces, painted against heat losses and acoustic dispersions.



Model		R-CTN 24	R-CTFS 24	R-CTFS 28
NOMINAL AND MINIMUM OUTPUT	kW	23,8/10	23,9/9,9	27,4/9,8
NOMINAL INPUT	kW	26,5	26,5	30,5
WATER EFFICIENCY AT 100% LOAD	%	90,1	90,3	90,0
WATER EFFICIENCY AT 30% LOAD	%	88,5	88,6	87,4
MAX SMOKE TEMPERATURE	°C	91,8	112,5	87,7
APPLIANCE CATEGORY		II2H3+	II2H3+	II2H3+
C.H. CIRCUIT MIN/MAX WORKING PRESSURE	bar	0,5-3	0,5-3	0,5-3
D.H.W. MIN/MAX WORKING PRESSURE	bar	0,5-6	0,5-6	0,5-6
CONTINUOUS D.H.W. PRODUCTION - MIXED	l/min	13,7	13,75	15,75
ELECTRICAL SUPPLY TENSION/FREQUENCY	V/Hz	230/50	230/50	230/50
MAXIMUM OUTPUT ABSORBED	W	70	130	130
DEGREE OF PROTECTION	IP	X4D	X4D	X4D
NET WEIGHT	kg	37	37	37

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