

ECONCEPT TECH

Wall-hung gas-fired condensing boiler for central heating and instant hot water production ready for solar panel systems







ECONCEPT TECH

Introduction



ECONCEPT TECH is the product that FERROLI has developed with the aim of satisfying the latest and strictest limits on energy consumption laid down by recent standards.

The heat generator has been designed to ensure maximum efficiency energy and performance both in central heating mode and in the delivery of domestic hot water, putting it at the top of its category.

Despite being a technologically advanced heat generator, **ECONCEPT TECH** maintains all the characteristics of simplicity and rational construction that distinguish Ferroli products.

ECONCEPT TECH is a room-sealed and forced draught boiler for central heating and the instant production of domestic hot water.

By using a premix air/gas supply system and a ceramic burner with reverse micro-flame, the appliance comes into class 5 as regards NOx emissions.

The **ECONCEPT TECH** features the maximum efficiency in its category. It in fact has a 4 star rating according to Directive 92/42 EEC on energy classification.

The range

is made up of 4 models, both operating on either natural gas or LPG:

25A Heat input 25,2 kW

25C Heat input 25,2 kW

15,2 l/min domestic hot water at ∆t 25°C

35A Heat input 34,8 kW

35C Heat input 34,8 kW

19,6 l/min domestic hot water at ∆t 25°C





Components

Modulating high-pressure fan

Aluminium heat exchanger with high efficiency, up to 109.1%

Motor-driven 3-way selector valve with progressive opening



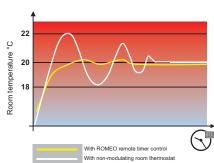
Ceramic plate burner with reverse micro-flame to ensure combustion with low NOx emissions

High efficiency domestic hot water heat exchanger made from steel plates

REMOTE TIMER CONTROL

The "ROMEO" REMOTE TIMER CONTROL available as an accessory can be used to start and control the boiler from a distance, with the convenience of not having to go outside and open the door on the cabinet. ROMEO can be used to set the room temperature and the weekly program for both the ambient comfort conditions and domestic hot water delivery.





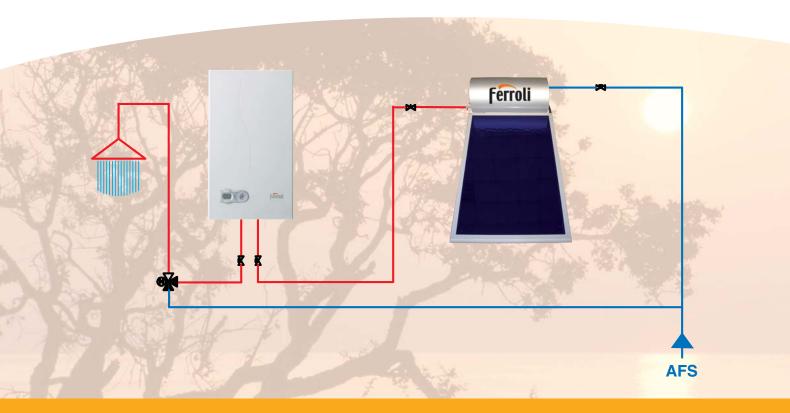
- Weekly CENTRAL HEATING timer with: 3 daily room temperature levels; minimum programming interval 30 minutes; 5 predefined programs; possibility of MANUAL operation; ambient frost protection always active.
- Weekly DOMESTIC HOT WATER timer with 2 types of operation: ECO/COMFORT; minimum programming interval 30 minutes; 2 predefined programs.



ECONCEPT TECH Strong points

With solar heating systems...

ECONCEPT TECH has been designed to be easily integrated into systems developed using the latest technology. The boiler in fact features electronics that simplify the combined use with solar panels, with both natural and forced circulation. A sensor installed in the domestic hot water circuit continuously monitors the temperature of the water coming from the solar panels, igniting the burner only when the water temperature falls below the level required to guarantee optimum comfort for the user.





Functions...

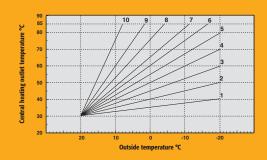
ECO-COMFORT function

Activating the comfort function ensures the temperature is maintained in the domestic hot water exchanger and consequently significantly decreases the waiting time for domestic hot water.

Operation with TEMPERATURE COMPENSATION

The "Outside probe" kit can be installed to operate the boiler with temperature compensation. This means that without using the buttons on the system's temperature controller, the boiler automatically adapts to the variations in the outside temperature.

As a result this brings energy savings while still guaranteeing maximum comfort for the user.



FROST PROTECTION function

If the temperature in the boiler falls to 5°C, the burner automatically ignites, the three-way valve moves to half-way between the domestic hot water and central heating positions and the pump is started, so as to protect the appliance against any damage caused by frost. This function is active when the boiler is supplied by the gas mains and powered.

Comfort my way...

The control electronics on the **ECONCEPT TECH** allow users to customise the operation of the appliance and *manage ambient comfort based on their own needs*.









Domestic hot water request



Central heating request



Operating temperature - Fault codes



Economy mode activated (Comfort deactivated)



Burner on - Output modulation indication



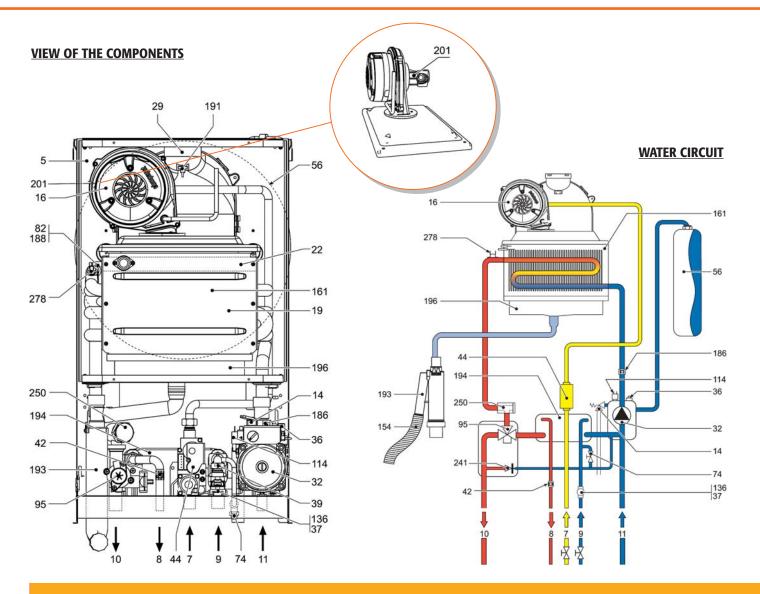
Summer mode activated (Winter deactivated)

The **control panel** on the unit has been designed with an easy-to-ready and straightforward display, with control buttons for setting the central heating outlet temperature, the domestic hot water temperature, to start the appliance and to activate the Economy function. The "dashboard" is completed by the hydrometer that controls the pressure in the boiler.

- 1 LCD display
- **2** Buttons for setting the DHW temperature
- ON-OFF and comfort mode button
- 4 Hydrometer
- Buttons for setting the CH temperature
- Reset, summer/winter selection, fill system and climate mode button



ECONCEPT TECH Technical specifications



KEY

- 5 Room-sealed chamber
- Gas inlet
- 8 Domestic hot water outlet
- 9 Domestic hot water inlet
- 10 Central heating flow outlet
- Central heating return inlet
- 14 Safety valve
- 16 Fan
- 19 Combustion chamber
- 22 Main burner
- 29 Flue gas outlet manifold

- 32 Central heating pump
- Automatic air vent Cold water inlet filter 36
- 37
- Flow regulator
- DHW temperature probe
- Gas valve 44
- 56 Expansion vessel
- Filling cock
- Detection electrode
- Selector valve
- 114 Water pressure switch

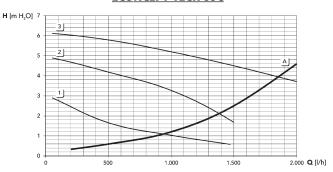
- 136 Flow meter
- Condensing heat exchanger 161
- Return sensor 186
- Ignition electrode
- 191 Flue gas temperature sensor
- Drain trap 193
- DHW heat exchanger 194
- 196 Condensate basin
- 250 Central heating flow outlet filter
- 278 Dual sensor (Safety + Central heating)

PRESSURE DROP - PUMP DISCHARGE HEAD

ECONCEPT TECH 25C

H [m H₂O] 7 2.000 Q [l/h] 1.000

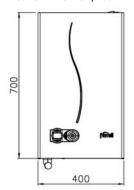
ECONCEPT TECH 35C



1 - 2 - 3 = Pump speedA = Boiler pressure drop

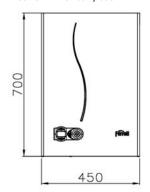


ECONCEPT TECH 25A / 25C





ECONCEPT TECH 35A / 35C

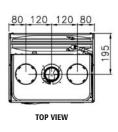


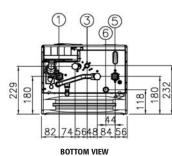


KEY

- 1 central heating flow outlet
- 2 DHW water outlet
- 3 gas inlet
- 4 DHW water inlet
- 5 central heating return inlet
- 6 safety valve discharge

ECONCEPT TECH 25A

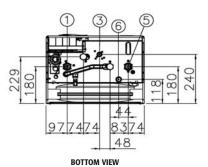




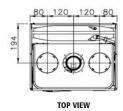
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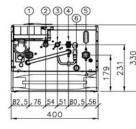
ECONCEPT TECH 35A

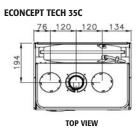


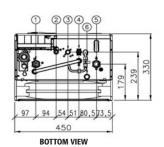


ECONCEPT TECH 25C









BOTTOM VIE	W

ECONCEPT TECH			25A	25C	35A	35C
Heat input (Hi)	P max	kW	25,2	25,2	34,8	34,8
	P min	kW	5,3	5,3	6,5	6,5
Useful heat output 80°C - 60°C	P max	kW	24,6	24,6	34,2	34,2
	P min	kW	5,2	5,2	6,3	6,3
Useful heat output 50°C - 30°C	P max	kW	26,6	26,6	36,7	36,7
	P min	kW	5,7	5,7	6,9	6,9
Useful efficiency 80°C - 60°C	P max	%	98,3	98,3	98,5	98,5
	P min	%	97,3	97,3	97,0	97,0
Useful efficiency 50°C - 30°C	P max	%	105,4	105,4	105,5	105,5
	P min	%	107,2	107,2	106,9	106,9
Useful efficiency at reduced load	30% P max	%	109,1	109,1	109,1	109,1
Energy marking (EC directive 92/42)			****	****	****	****
NOx emission class (UNI EN 297)			5	5	5	5
Maximum central heating temperature °C			95	95	95	95
Operating pressure min-max bar			0,8-3	0,8-3	0,8-3	0,8-3
Total boiler water content	nt litres			1,5	2	2
Expansion vessel capacity		litres	8	8	10	10
Expansion vessel pre-charge pressure		bar	1,0	1,0	1,0	1,0
DHW circuit operating pressure min-max		bar	_	0,25-9	-	0,25-9
Delivery domestic hot water		es/min	_	15,2	-	19,6
	∆t 30°C litr	es/min	_	12,7	_	16,3
Max DHW power input		W	120	120	140	140
Power supply /Frequency		V / Hz	230/50	230/50	230/50	230/50
Boiler empty weight		kg	36	37	41	42
Gas fitting		inches	1/2"	1/2"	1/2"	1/2"
Central heating system fittings		inches	3/4"	3/4"	3/4"	3/4"
Domestic hot water circuit fittings		inches	_	1/2"	_	1/2"





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