



*Lamborghini*  
CALORECLIMA



**FL D**

Instantaneous wall-mounted boilers  
with double exchanger

# EFFICIENCY, FUNCTIONALITY, STURDINESS

**FL D is the new wall-mounted boiler with double exchanger offered by Lamborghini CaloreClima. Its sturdy construction and functional arrangement of internal components perfectly complete a sophisticated control system and a complete set of standard functions.**

- > **Primary heat exchanger** with compact geometry **made entirely of copper**
- > **Instantaneous production** of domestic hot water with **dedicated plates exchanger**
- > Simple and complete revamped control panel, **user interface with display** and setting keys
- > **Circulator with 3 levels** di flow rate/head pressure with **anti-blocking system** that is activated for a few seconds every 24 hours of inactivity
- > New **hydraulic group specifically designed** to allow **quick and easy maintenance** by the installer
- > The domestic water **inlet filter** can be easily **extracted** from the inside **without having to remove the hydraulic connections** of the boiler
- > The disassembly and **replacement of the plate exchanger, if required**, can only take place **by removing two Allen bolts** that can be accessed from the front
- > **Compact size** and contained weight
- > Sliding temperature **operating mode** through external probe (optional)
- > Can be combined with the **modulating remote control timer** (optional)
- > Modulating **thermal flow** during both heating and production of DWH, managed by a microprocessor **electronic card**
- > ECO/COMFORT system for **fast production** of DWH
- > **Preset for solar energy system:** pre-set for production of domestic hot water combined with solar panel systems (SUN EASY)
- > **E.C.S.** Innovative combustion control that ensures optimal operation at various heat load and chimney conditions



## THE RANGE

**Five models for heating and for production of domestic hot water**

### model C24

NATURAL DRAUGHT, OPEN FLUE  
THERMAL OUTPUT 23.5 kW - DHW 13.4 l/min Δt 25°C

### model F24

FORCED FLUE, ROOM SEALED  
THERMAL OUTPUT 24 kW - DHW 13.7 l/min Δt 25°C

### model C32

NATURAL DRAUGHT, OPEN FLUE  
THERMAL OUTPUT 31.3 kW - DHW 17.9 l/min Δt 25°C

### model F32

FORCED FLUE, ROOM SEALED  
THERMAL OUTPUT 32 kW - DHW 18.3 l/min Δt 25°C

### model F37

FORCED FLUE, ROOM SEALED  
THERMAL OUTPUT 37 kW - DHW 21.1 l/min Δt 25°C

**2 models for heating only**

### model HF24

FORCED FLUE, ROOM SEALED  
THERMAL OUTPUT 24 kW

### model HF32

FORCED FLUE, ROOM SEALED  
THERMAL OUTPUT 32 kW

## PRODUCT IN PILLS



Operation in a **partially protected area** with a minimum temperature of **-5°C as standard**



Appliance that works with **climatic adjustment** at a sliding system temperature (optional external temperature probe)



**Remote control** of the boiler parameters via the remote control (CRM)



Appliance that can be used with **preheating systems for domestic hot water**



**E.C.S. EVOLVED COMBUSTION SYSTEM** it ensures optimal combustion during changes in the thermal load and conditions of existing flues



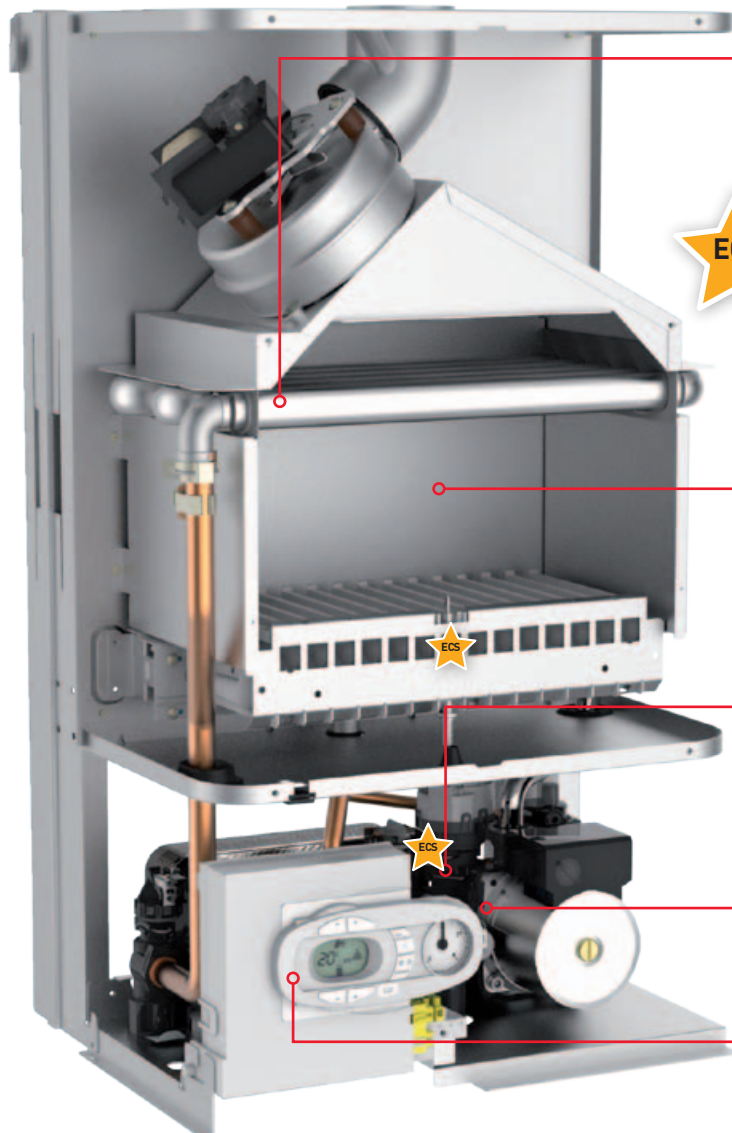
Appliance specifically designed to feature a **particularly simple** installation and maintenance



Product for extra EU markets only

# COMPONENTS

## PRODUCT PLUSES



### PRIMARY EXCHANGER

Primary central heating copper exchanger, protected by a non-toxic aluminium treatment

ECS

### ECS EVOLVED COMBUSTION SYSTEM

Innovative combustion control that ensures optimal operation at various heat load conditions and chimney types

### BURNER

Burner is made in stainless steel sections. Modulation occurs in central heating and domestic hot water mode

### NEW HYDRAULIC GROUP

Specifically designed to allow quick and easy maintenance by the installer

### PUMP

Settable on 3 speeds

### CONTROL BOARD

Includes display, setting buttons, Service input, pressure gauge

## FOCUS ON ...

### NEW HYDRAULIC GROUP



New hydraulic group specifically designed to allow quick and easy maintenance by the installer. The domestic water **inlet filter** can be easily **extracted** from the inside **without having to remove the hydraulic connections** of the boiler. The disassembly and **replacement of the plate exchanger, if required**, can only take place **by removing two Allen bolts** that can be accessed from the front.

**KEY** 1 Water pressure switch 2 DHW exchanger: stainless steel plates 3 DHW filter - flow restrictor 4 Electric diverting valve 5 Pump with automatic air vent 6 Automatic bypass 7 System filling tap 8 DHW flow meter 9 3 bar relief valve combined with drain tap

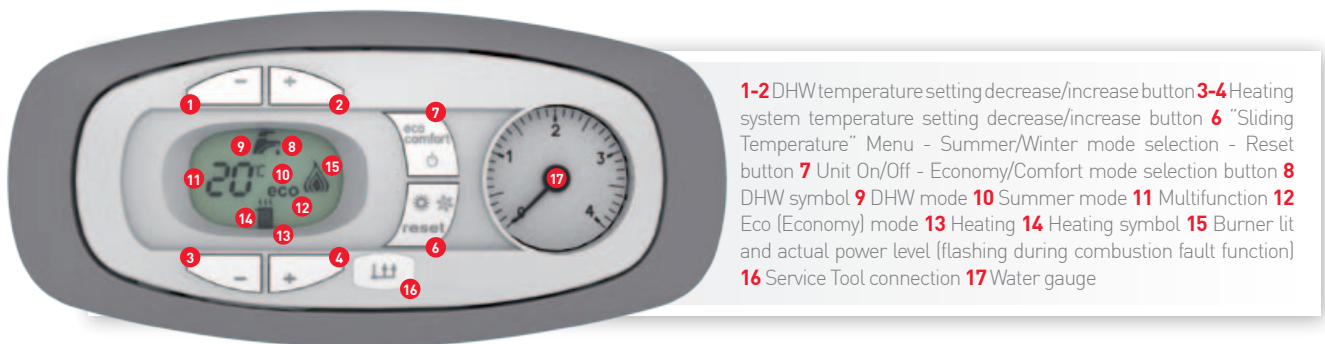
# CONTROL BOARD

## CONTROL BOARD AND FUNCTIONS

Control board of FL D consists in a smart and user-friendly interface with backlit display.

Through push control buttons it is possible to easily adjust central heating flow temperature, domestic hot water setpoint, to switch on/off the generator and the comfort function, monitoring the status of the boiler.

Control panel is completed by a traditional pressure gauge which can monitor anytime CH pressure.

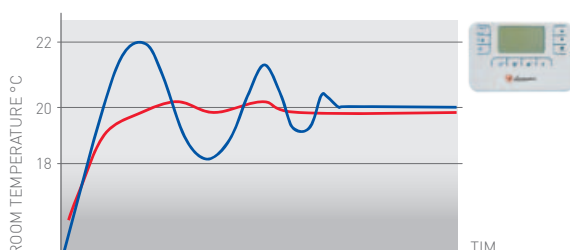
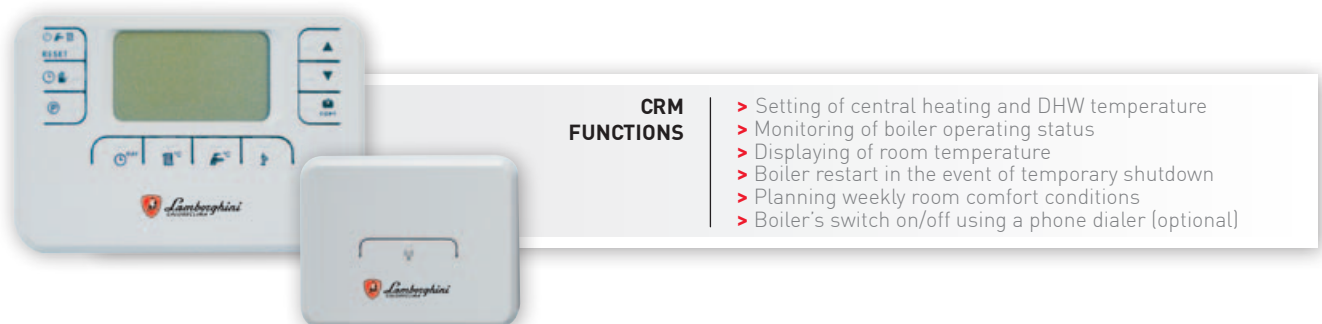


# MAXIMISING COMFORT AND SAVINGS

## CRM REMOTE CONTROL

CRM remote control enables monitoring and setting of boiler functions directly from the room where it is installed. Comfort planning is possible on weekly basis, including also holiday function.

CRM is available with wired or wireless connection.



### INDOOR TEMPERATURE COMPENSATION FUNCTION

The modulating function available on CRM allows boiler output to be modulated progressively as it approaches the set room temperature. This improves comfort by eliminating peaks in heat output, and consequently ensures energy savings.

WITH CRM REMOTE CONTROL

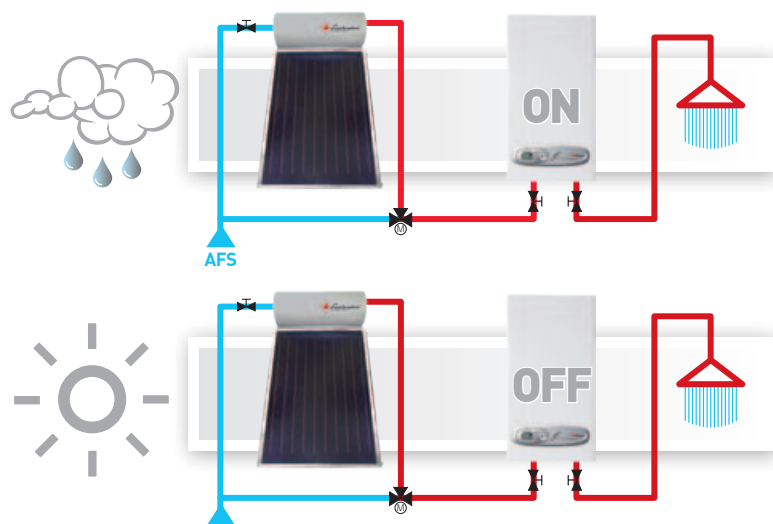
WITH NON-MODULATING ROOM THERMOSTAT



# SOLAR CIRCUIT INTEGRATION

## SUN EASY FUNCTION

FL D boasts an electronic that simplifies the integration with thermal solar systems, both natural and forced circulation. The microprocessor monitors water temperature coming from solar circuit through the DHW sensor and ignites the burner only in case it is necessary



In case of unfavourable solar irradiation, the boiler releases only the necessary heat to DHW which had already pre-heated by collectors, in order to reach the setpoint required by the user.

Should sun and the solar system "fulfil" their duty, no boiler integration will be of course necessary and hot water will be conveyed to the tap, with no need of additional devices, but thermostatic mixing valves on boiler inlet and outlet for safety reasons.

SUN EASY function thus enables considerable savings even during cooler seasons, exploiting and integrating even the smallest solar contribution, otherwise lost.

## SAFETY AND COMFORT

### PRODUCT FEATURES

#### ANTIFROST

Also in standby-mode, in case the temperature in the boiler drops to 5°C (temperature detected by CH or DHW sensor), the burner is automatically ignited at the minimum output and pump is also switched on. Thereby the appliance is protected against damages caused by frost. This function is active when the boiler is gas and power supplied.

#### POST-CIRCULATION

This function permits to recover all heat stocked for thermal inertia in the central heating exchanger and transfer it to the heating system, and as a consequence to the rooms. It is a timed function (with customisable span) and it is active after the burner switches off in heating mode.

#### TEMPERATURE COMPENSATION OPERATION

The "outside probe" kit can be installed to operate the boiler with system flow 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 results in energy savings while still guaranteeing maximum comfort for the user.

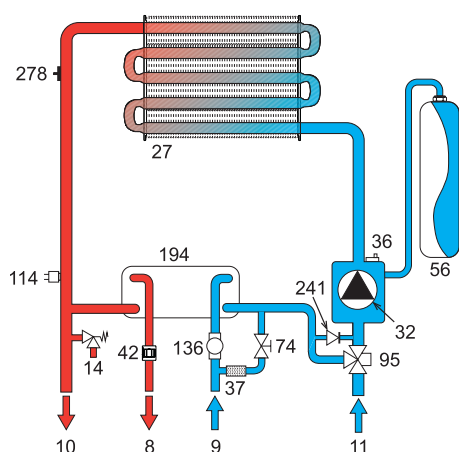
#### EASY CONTROL

The Opentherm communication protocol is adopted in FL D control board. Opentherm allows integration of other system ancillaries, such for example, Romeo remote control, specially studied to combine with the boiler microprocessor operational logics. Opentherm, as a digital protocol, permits complete boiler-satellite integration, with full control of functions and information from the boiler and likewise from its satellite.

# SPECIFICATIONS

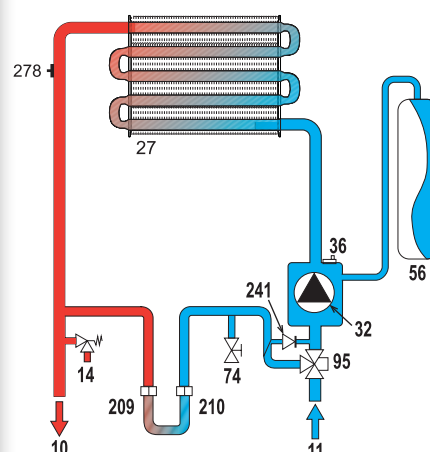
## HYDRAULICS / SUMMARY TABLE

FL D C / F

**KEY**

- 5** Sealed chamber
- 8** DHW outlet - Ø 1/2"
- 9** DHW inlet - Ø 1/2"
- 10** System delivery - Ø 3/4"
- 11** System return - Ø 3/4"
- 14** Safety valve
- 16** Fan
- 19** Combustion chamber
- 22** Burner
- 27** Copper exchanger for heating and DHW
- 28** Fume manifold
- 29** Fume outlet collar
- 32** Heating circulating pump
- 36** Automatic air vent
- 37** Cold water inlet filter
- 42** DHW temperature sensor
- 44** Gas valve
- 56** Expansion vessel
- 74** System filling faucet
- 81** Ignition and detection electrode
- 95** Diverter valve
- 114** Water pressure switch
- 136** Flowmeter
- 137** Pressure sensor
- 187** Fume baffle
- 194** DHW exchanger
- 209** Hot water tank delivery Ø 3/4"
- 210** Hot water tank return Ø 3/4"
- 241** Automatic bypass
- 278** Double sensor (Safety + heating)

FL D HF

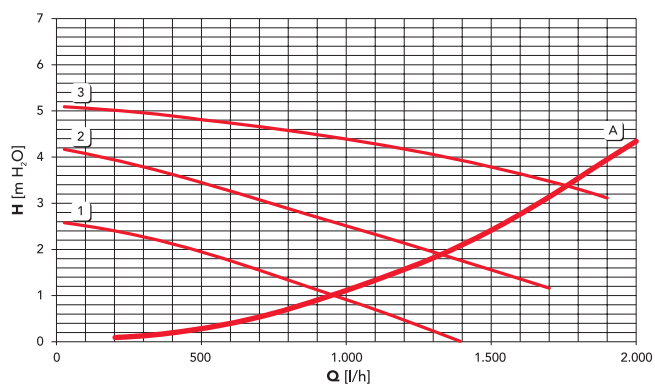


MODEL			C 24	C 32	F 24	F 32	F 37	HF 24	HF 32
Heating capacity	Max	kW	25.8	34.4	25.8	34.4	39.7	25.8	34.4
	Min	kW	8.3	11.5	8.3	11.5	14.0	8.3	11.5
Heat output in heating	Max	kW	23.5	31.3	24.0	32.0	37.0	24.0	32.0
	Min	kW	7.0	9.7	7.2	9.9	12.9	7.2	9.9
Heat output in hot water production	Max	kW	23.5	31.3	24.0	32.0	37.0	-	-
	Min	kW	7.0	9.7	7.2	9.9	12.9	-	-
Efficiency Pmax (80-60°C)		%	91.0	91.0	93	93.1	93.2	93	93.1
Efficiency 30%		%	89.6	89.8	90.5	91.0	91.0	90.5	91.0
NOx emission class		-	3	3	3	3	3	3	3
Working pressure in heating	Max	bar	3	3	3	3	3	3	3
	Min	bar	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Max heating temperature		°C	90	90	90	90	90	90	90
Heating water content		litres	1.0	1.2	1.0	1.2	1.5	1.0	1.2
Heating expansion tank capacity		litres	8	10	8	10	10	8	10
Heating expansion tank prefilling pressure		bar	1	1	1	1	1	1	1
Working pressure in hot water production	Max	bar	9	9	9	9	9	-	-
	Min	bar	0.25	0.25	0.25	0.25	0.25	-	-
DHW flow rate	Δt 25°C	l/min	13.4	17.9	13.7	18.3	21.1	-	-
	Δt 30°C	l/min	11.2	14.9	11.4	15.2	17.6	-	-
Protection rating		IP	X5D	X5D	X5D	X5D	X5D	X5D	X5D
Electrical power input		W	80	90	110	135	135	110	135
Electrical power input in hot water production		W	80	90	110	135	135	110	135
Empty weight		Kg	27	30	32	35	37	32	35

# SPECIFICATIONS

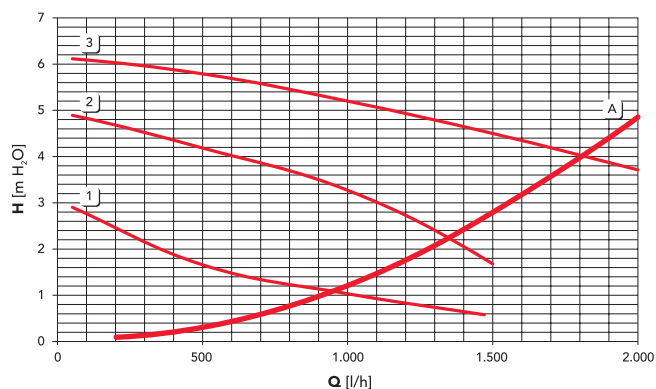
## AVAILABLE CIRCULATION HEAD / DIMENSIONS

FL D 24



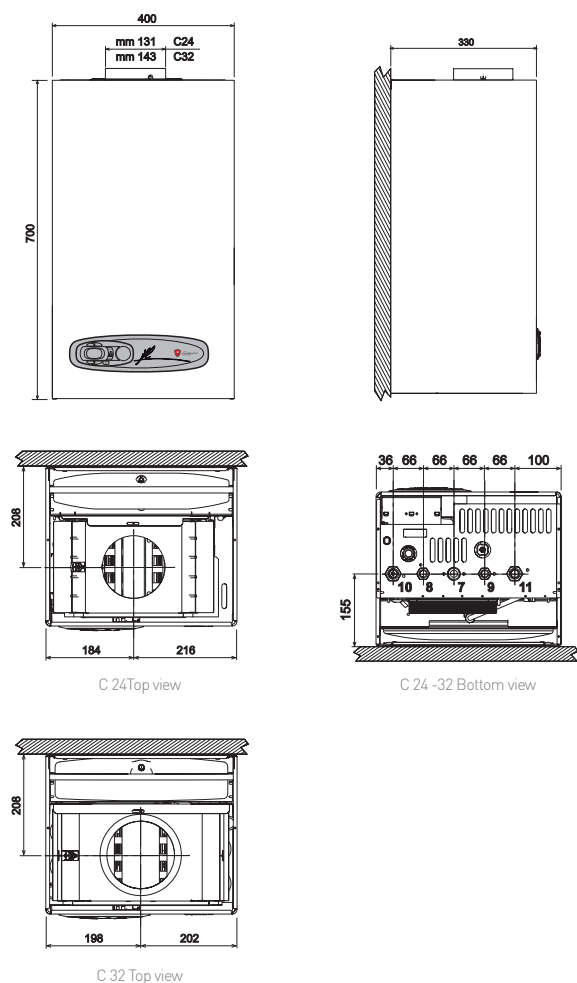
A Boiler pressure losses  
1 - 2 - 3 Circulating pump speed

FL D 32 / 37

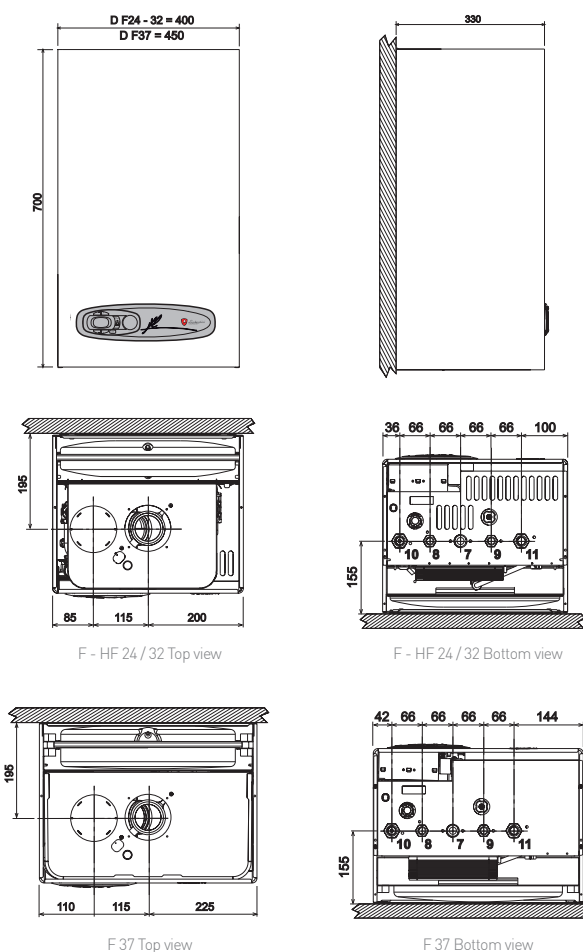


A Boiler pressure losses  
1 - 2 - 3 Circulating pump speed

FL D C 24 / 32



FL D F 24 / 32 / 37  
FL D HF 24 / 32



**KEY** 7 3/4" gas inlet 8 1/2" domestic hot water outlet (mod. C/F) / Hot water tank delivery Ø 3/4" (model HF) 9 1/2" domestic hot water inlet (model C/F) / Hot water tank return Ø 3/4" [mod. HF] 10 3/4" system delivery 11 3/4" system return

