



Unical



SATAL.

New frontiers ...

MODEL	Height mm	Width mm	Depth mm
 SATAL wall mounted model	585	430	140
 SATAL INC encased model	750	480	150

Multi family buildings such as a condominium, where high quality performances equivalent to those obtained in single homes are demanded, can be satisfied by special heating modules called SATAL, which differ from the classical centralized heating system and from the 'independent wall mounted boiler'. The SATAL is built essentially from the hydraulic part of a combined wall mounted boiler without a combustion system. The central heating and domestic hot water, withdrawn from the centralized heating system's feed piping, is distributed via their own independent pump. The SATAL units are available in two models:

- SATAL wall mounted unit
- SATAL INC – encased unit

The SATAL units respond to precise objectives requested by the end user:

- Self management
- Safety
- "Pay for what I consume"
- Reduced maintenance
- Privacy

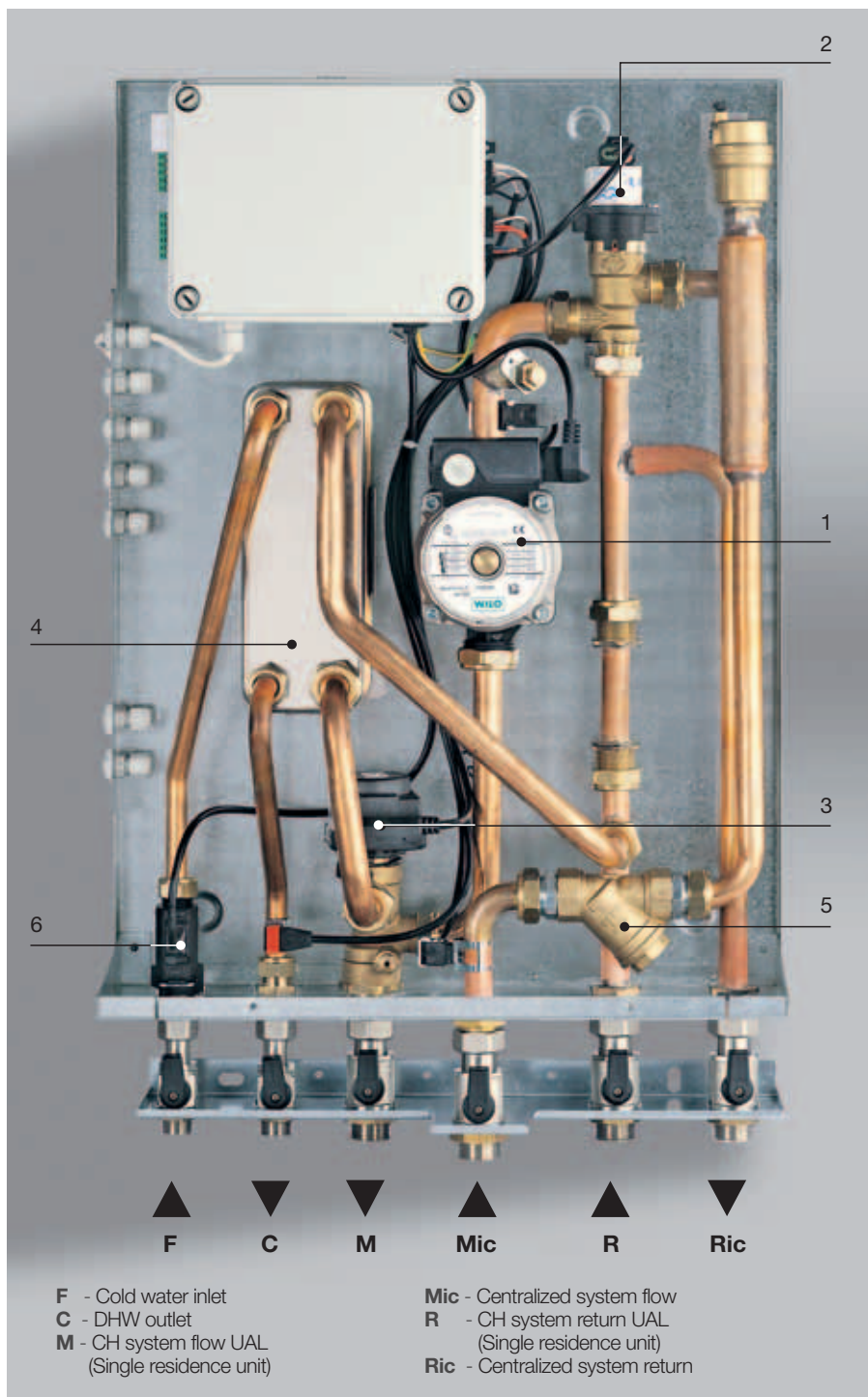
and by the fuel supplier:

- A single boiler
- Efficiency optimization
- Management and remote control and related heat cost allocation

These units can be installed in new or renovated buildings, but also when transforming existing centralized heating systems, with horizontal heat distribution piping, into autonomous systems.

Main components

1. Pump
2. Mixing valve driven by a stepper
3. Diverting valve
4. DHW plate heat exchanger
5. Impurity filter
6. Flow switch



▲ F ▼ C ▼ M ▲ Mic ▲ R ▼ Ric

F - Cold water inlet
C - DHW outlet
M - CH system flow UAL
 (Single residence unit)

Mic - Centralized system flow
R - CH system return UAL
 (Single residence unit)
Ric - Centralized system return

...for autonomous heating systems

How they function

The diverting valve permits the water drawn from the centralized heating system to be 'pushed' by means of a pump into the single flat's heating circuit, whilst the special mixing valve driven by a stepper motor regulates, with the utmost precision, the temperature in order to supply exactly the right heat needed. Thereby reducing dispersions and management costs.

Temperature always under control

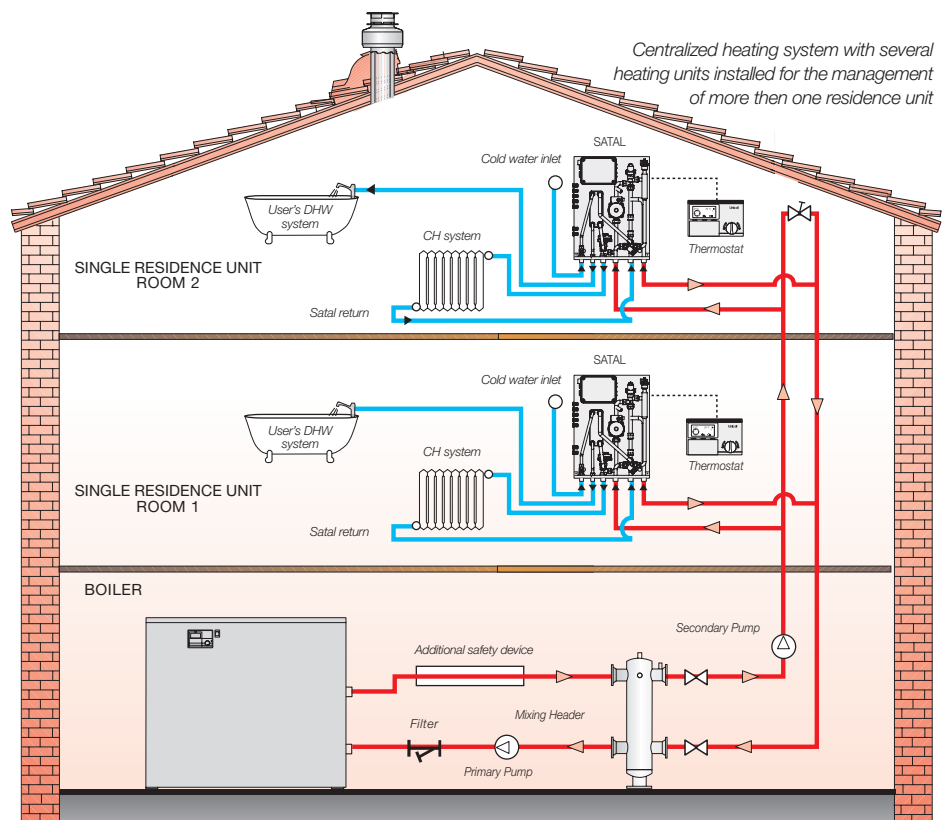
A temperature sensor placed on the heating circuit inlet flow and one placed on the single flat's system flow (please refer to the habitation diagram on this page) supply the electronic board with the information needed to maintain the desired temperature under the room thermostat's continuous supervision. When the hot water tap is opened, the flow switch diverts the water into the plate heat exchanger, who in turn heats the water for domestic use.

Remote control

The SATAL and SATAL INC can be supplied with modulating programmable thermostats and/or outdoor sensors. One sensor is mounted outside of the building, which accelerates the system's reply to real variations in the climate. This guarantees numerous advantages:

- Lower heating bills for the end user
- Reduces fuel consumption and the system is paid off quickly
- Environmentally friendly thanks to lower production of CO2 and other polluting emissions

On the contrary to other products, the employment of these units is also advantageous with condensing boilers, as the regulation system incorporated with the stepper valve combined with the use of modulating thermostats (optional



accessories) and, if fitted, to an outdoor sensor, programmes the exact amount of heat needed at the optimum required heating temperature.

Moreover, the room thermostats select the lowest temperatures possible based on the design temperature of the heating system installed (underfloor heating, radiators, convector heaters or other types of systems).

This contributes to lowering the boiler's return circuit temperature; a very important factor for obtaining the condensation phenomenon.

Unlimited DHW production

It is a well known fact that DHW production depends on the heat exchanger's temperature, but also on the boiler's output. In the case of SATAL, the energetic contribution can be supplied by a powerful centralized heating system, or otherwise by a remote control system, therefore practically any type of request can be satisfied.

The excellent stainless steel, 22 plate, brazed heat exchanger is able to produce over 17 litres a minute!

The water temperature can be selected at pleasure via the modulating programmable room thermostat.

Accessories (optional)



BOX for encased model SATAL INC
Code 00361424

WATER FLOW METER CONNECTION KIT
Code 00361420 (cold water outlet)

SATAL wall mounted model:

FIXING JIG + WALL MOUNTING TEMPLATE
Code 00361443

PIPE COVERING KIT for SATAL wall
mounted model
Code 00361482

SATAL INC encased model:

FIXING JIG + WALL MOUNTING TEMPLATE
Code 00361445



SIM-PLEX REMOTE ROOM TEMPERATURE
CONTROLLER: controls without programmable
room thermostat
code 00262077



SIM-CRONO REMOTE ROOM TEMPERATURE
CONTROLLER: 7 day programmer
code 00262079



'REGOLAFACILE' REMOTE ROOM
TEMPERATURE CONTROLLER:
7 day programmer
code 00260878



WATER FLOW METER KIT
Code 00361444

Composed of: •5" cold water meter recorder, 110 mm in length, nominal flow rate 1,5 m3/h, magnetic transmission, self-aligned turbine, protection from water deposits, according to standard DIN 2401, impulse values outlet, with freeze protection feature.



ELECTRONIC HEAT METER with m bus
communication
Code 00361441

Composed of: multi-jet impeller meter equipped with PT500 heat sensors, nominal flow rate 1,5 m3/h, diameter •5", equipped with electronic calculation for recording heat consumption.



OUTDOOR SENSOR
code SND0140C

Dimensions and technical data

Model		SATAL	SATAL INC
Output			
NOMINAL HEAT INPUT	kW	35	35
Minimum HEAT INPUT	kW	11,6	11,6
DHW			
Maximum TEMPERATURE	°C	50	50
Minimum TEMPERATURE	°C	30	30
Maximum PRESSURE	bar	6	6
Minimum PRESSURE	bar	0,5	0,5
DHW PRODUCTION with Δt 25°C	l/min	17	17
CH			
Maximum TEMPERATURE	°C	85	85
Minimum TEMPERATURE	°C	30	30
Maximum PRESSURE	bar	6	6
Minimum PRESSURE	bar	0,5	0,5
WATER CONTENT	l	2,2	2,2
Hydraulic connections			
BOILER HOT WATER INLET	ø	3/4"	3/4"
BOILER HOT WATER OUTLET	ø	3/4"	3/4"
CH SYSTEM FLOW	ø	3/4"	3/4"
CH SYSTEM RETURN	ø	3/4"	3/4"
DOMESTIC COLD WATER INLET	ø	1/2"	1/2"
DOMESTIC COLD WATER OUTLET (optional)	ø	1/2"	1/2"
DHW OUTLET	ø	1/2"	1/2"
DHW circuit control			
SYSTEM FLOW TEMPERATURE ADJUSTMENT		Modulation + outdoor sensor	Modulation + outdoor sensor
DHW TEMPERATURE ADJUSTMENT		Modulation via programmable room thermostat	
Measurement of heat consumption			
FLOW RATE VOLUMETRIC METER	m³/h	1,5	1,5
WATER FLOW METER WITH IMPULSE VALUES	m³/h	1,5	1,5

