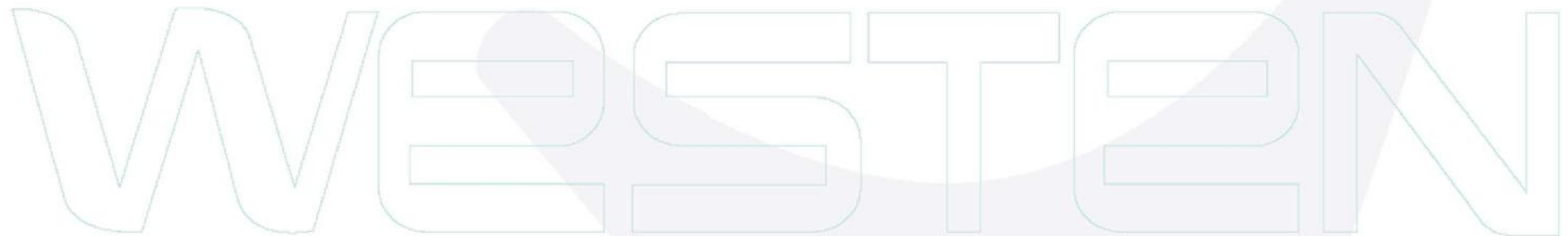


A new Star in the horizon

**The second generation of
Westen Star Condens**

A large, faint, light blue watermark of the word "WESTEN" is positioned at the bottom of the slide. The letters are outlined and semi-transparent, serving as a background element.

Second generation of Star Condens

WESTEN

A comprehensive range of models:

Heating only

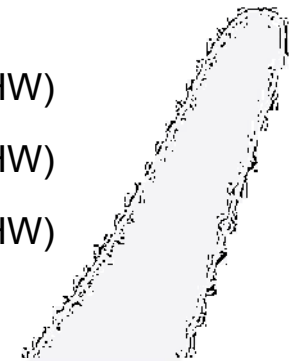
- ★ STAR CONDENS 1.12 (12 CH kW)
- ★ STAR CONDENS 1.24 (24 CH kW)

Heating & DHW

- ★ STAR CONDENS 24 (20 kW CH, 24 kW DHW)
- ★ STAR CONDENS 28 (24 kW CH, 28 kW DHW)
- ★ STAR CONDENS 33 (28 kW CH, 33 kW DHW)

With Integrated Storage Tank

- ★ BOYLER CONDENS 24 (45 litres storage)
- ★ BOYLER CONDENS 33 (45 litres storage)



WESTEN

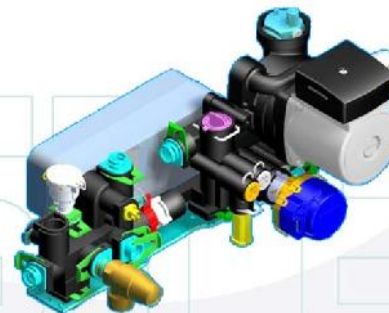
Second generation of Star Condens

WESTEN



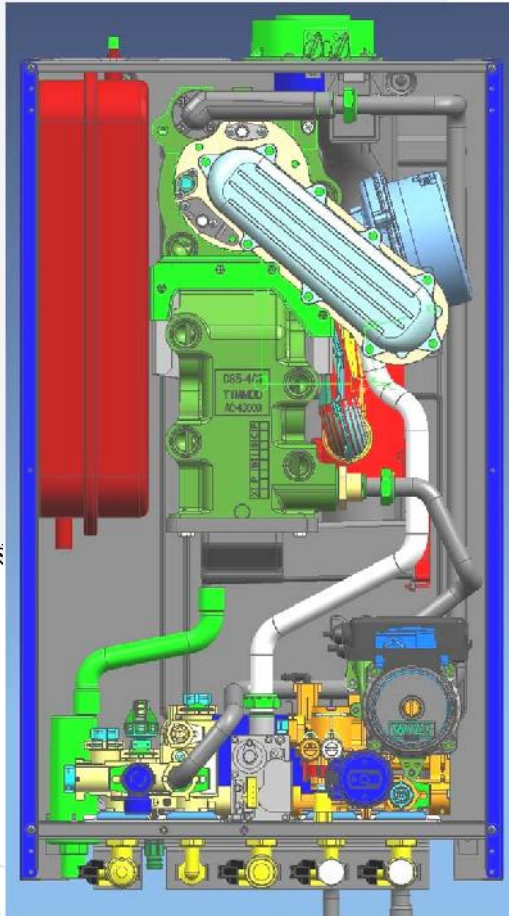
Enhanced characteristics:

- ★ High modulation range 1:7
- ★ Gas adaptive control
- ★ Digital control panel with backlight display
- ★ New sound-proofing casing for a noiseless operation
- ★ Same hydraulic connections of present range
- ★ New complete range of accessories



Star Condens - Main features

WESTEN



- ★ Aluminium-silicon alloy Primary exchanger
- ★ Compact hydraulic group including automatic bypass, filling tap, safety valve, electric diverter valve (combi models) and filters.
- ★ New electronic function «system venting» to facilitate the air removal during commissioning
- ★ Digital manometer to control the pressure of the system directly on the display.
- ★ Higher DHW comfort thanks to the flowmeter sensor.

WESTEN

Star Condens - Technical data



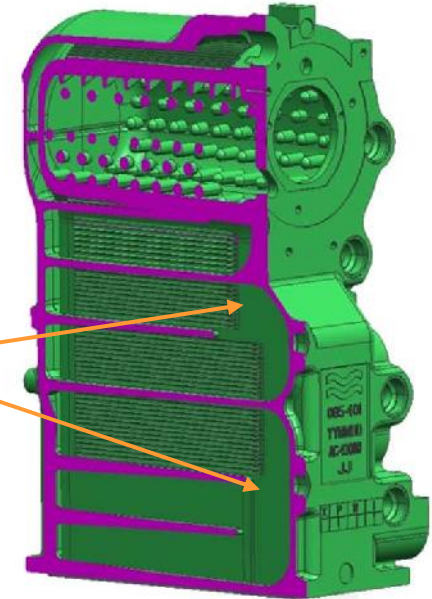
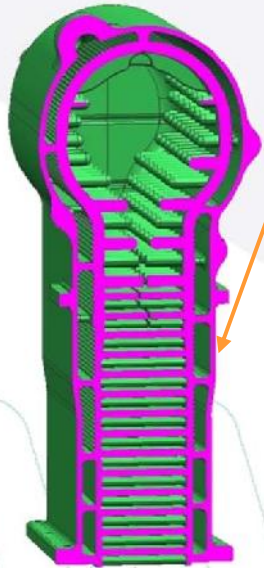
TECHNICAL FEATURE	STAR CONDENS				
	1.12	1.24	24	28	33
Type of gas	G20-G31	G20-G31	G20-G31	G20-G31	G20-G31
DHW Heat Input (max) [kW]	-	-	24,7	28,9	34
Central Heating Heat Input (max) [kW]	12,4	24,7	20,6	24,7	28,9
DHW Heat Output (max) [kW]	-	-	24	28	33
Central Heating Heat Output (max 80/60°C) [kW]	12	24	20	24	28
Central Heating Heat Output (max 50/30°C) [kW]	13,1	26,1	21,8	26,1	30,6
Central Heating Heat Output (min 80/60°C) [kW]	2	3,4	3,4	3,8	4,7
Central Heating Heat Output (min 50/30°C) [kW]	2,2	3,7	3,7	4,1	5,1
Nominal Efficiency 100% (50/30°C)	105,8	105,7	105,8	105,8	105,8
Efficiency at 30% (Tr=30°C)	107,8	107,6	107,6	107,6	107,7
NOx Class (EN 483)	5	5	5	5	5
Expansion Vessel Capacity/Pre-charge [l/bar]	8/0,8	8/0,8	8/0,8	8/0,8	10/0,8
Central Heating Adjustable Temperature min/max [°C]	25-80	25-80	25-80	25-80	25-80
DHW Adjustable Temperature min/max [°C]	-	-	35-60	35-60	35-60
Production of DHW with T 25°C [l/min]	-	-	13,8	16,1	18,9
Coaxial Flue Max Length D. 60/100 [m]	10	10	10	10	10
Dual Flue Max Length D. 80 [m]	80	80	80	80	80
Dimensions (hxlxp) mm	763 x 450 x 345				
Degree of Protection	IPX5D	IPX5D	IPX5D	IPX5D	IPX5D

Star Condens - Key parts

WESTEN

New designed Primary Heat Exchanger:

- ★ Exclusive design based on Westen R&D specification.
- ★ Compact dimension.
- ★ Bigger water ducts:
 - ★ Less obstruction possibilities,
 - ★ Silent water flow.
- ★ High water content:
 - ★ Reduced temperature fluctuations
 - ★ Better protection against overheating
 - ★ Better exploitation of the DHW pre heating function



WESTEN

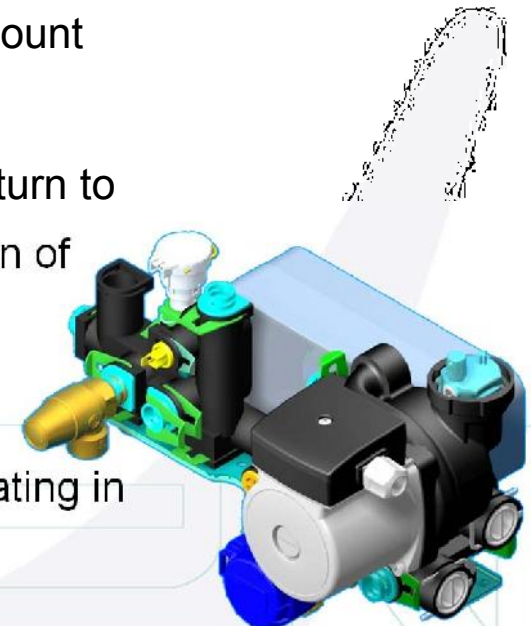
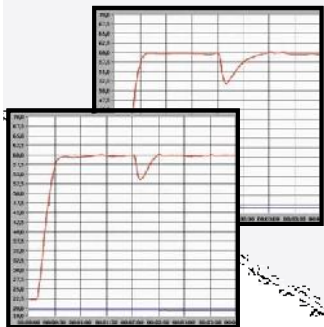
Star Condens - Key parts

WESTEN

Hydraulic group:



- ★ DHW stainless steel plates exchanger: its high exchange power is a guarantee of great comfort: up to 18,9 litres per minute at steady temperature.
- ★ Modulating DHW priority sensor (flowmeter) that adjusts the boiler's heat output according to the DHW amount for higher comfort and quicker reaction.
- ★ Electric three way valve: positioned on heating return to reduce temperature stress; full anti-frost protection of the boiler's circuits .
- ★ Built-in removable filter in the heating circuit.
- ★ Built-in automatic by-pass to avoid boiler overheating in case of flow reduction in the heating system.



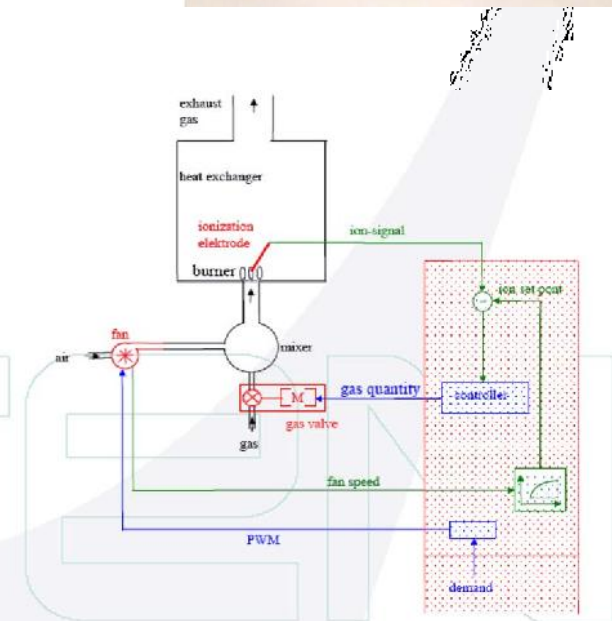
WESTEN

Star Condens - Key parts

WESTEN

Gas Adaptive Control:

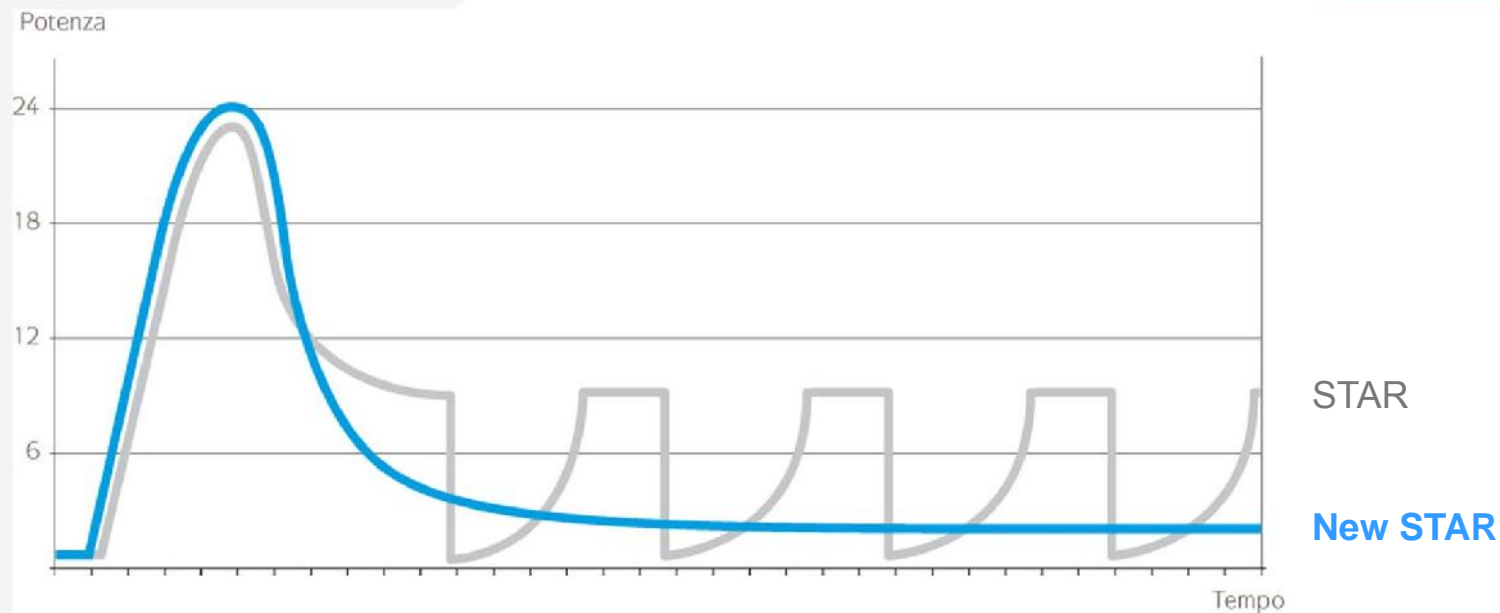
- ★ Self Commissioning of the boiler
 - ★ For installers: no settings, shorter time of installation
 - ★ For installers and service: less skilled personnel needed
 - ★ For users: certitude that boiler operates with most efficient
- ★ Settings The boilers adapts its functioning to gas quality and flue length
 - ★ For installers and wholesalers: no double stock needed (natural gas/LPG)
 - ★ For users, installers and service: no intervention needed when type of gas changes
- ★ The boiler operates according to the most efficient settings over time, where traditional boilers loose efficiency.



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Star Condens - Modulation range

WESTEN



- ★ The boiler adapts the output according to the heating demand without switching on and off: **increased reliability** (less stress of components), **more saving** (up to 10% compared to a boiler with a standard 1:3 modulation ratio) and **less noise**.
- ★ **Better DHW comfort** in combination with solar: combi boilers optimize the output according to the temperature of the pre-heated water.

Boylor Condens - Main features

WESTEN



- ★ 45 litres DHW stainless steel cylinder
- ★ High DHW performance: up to 500 litres/30 min. (ΔT 30°C)
- ★ New insulation made of graphite material (up to 15% of heat losses reduction)
- ★ Magnesium anode on the top (no need of cylinder draining for its replacement)
- ★ Stainless steel exchanger with integrated condensate tray



WESTEM

Boyle Condens - Technical data



TECHNICAL FEATURE	BOYLER CONDENS	
	24	33
Type of gas	G20-G31	G20-G31
DHW Heat Input (max) [kW]	24,7	34
Central Heating Heat Input (max) [kW]	20,6	28,9
DHW Heat Output (max) [kW]	24	33
Central Heating Heat Output (max 80/60°C) [kW]	20	28
Central Heating Heat Output (max 50/30°C) [kW]	21,8	30,6
Central Heating Heat Output (min 80/60°C) [kW]	3,4	4,7
Central Heating Heat Output (min 50/30°C) [kW]	3,7	5,1
Nominal Efficiency 100% (50/30°C)	105,8	105,8
Efficiency at 30% (Tr=30°C)	107,6	107,7
NOx Class (EN 483)	5	5
Expansion Vessel Capacity/Pre-charge [l/bar]	7,5/0,8	7,5/0,8
Central Heating Adjustable Temperature min/max [°C]	25-80	25-80
DHW Adjustable Temperature min/max [°C]	35-60	35-60
Production of DHW with T 25°C [l/min]	13,8	18,9
Coaxial Flue Max Length D. 60/100 [m]	10	10
Dual Flue Max Length D. 80 [m]	80	80
Cylinder Capacity [l]	45	45
Specific flow rate according to EN 625 [l/min]	16,6	19,5
Production of DHW with ΔT 30°C [litres in 30 min.]	385	500
Dimensions (hxlxp) mm	950 x 600 x 466	950 x 600 x 466
Degree of Protection	IPX5D	IPX5D



ROOM THERMOSTAT

- ★ Modulating, wired or wireless version
- ★ In family line with boiler's
- ★ Dimensions: 105x98 mm.



PROGRAMMABLE ROOM THERMOSTAT

- ★ Modulating, wired or wireless version
- ★ Modulating, wired or wireless version.
- ★ In family line with boiler's aesthetics.
- ★ Dimensions: 120x98 mm.



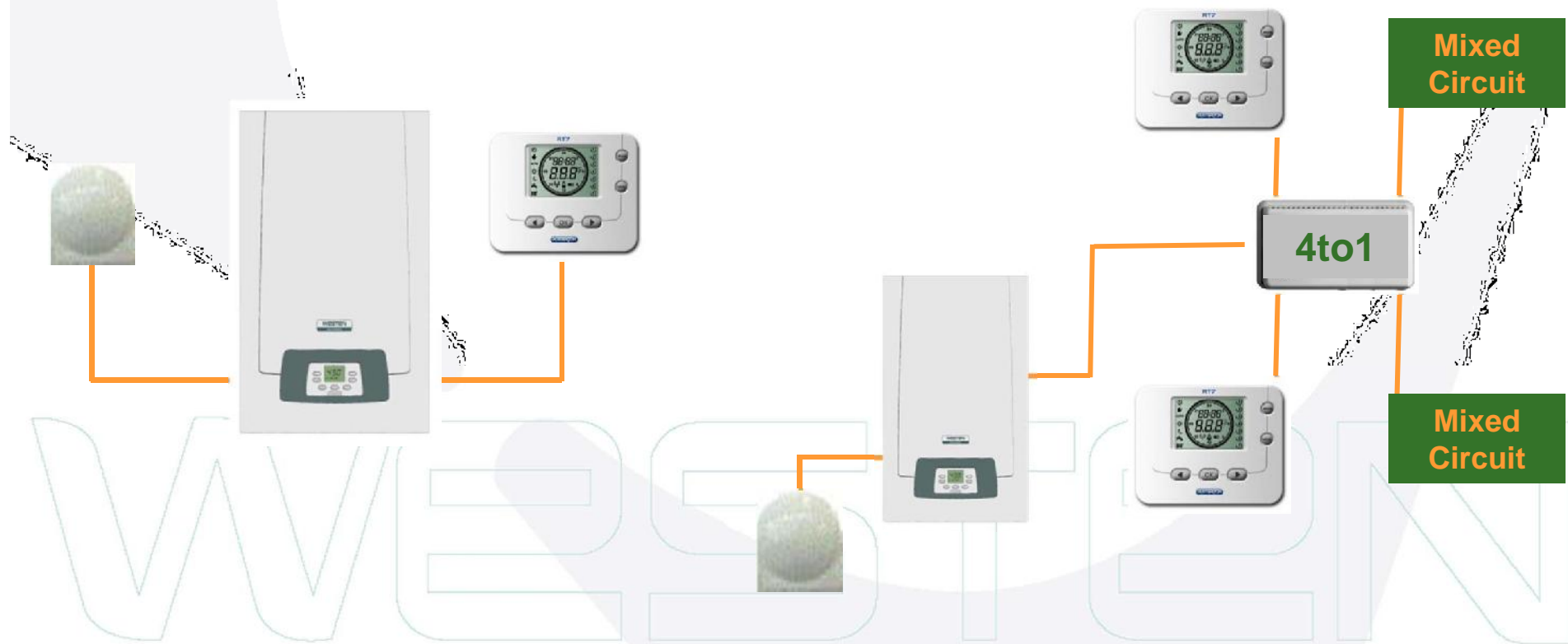
WIRELESS OUTDOOR SENSOR

Condens - Installation examples

WESTEN

- ★ Direct management of one room unit (wired or wireless) plus the outdoor sensor.

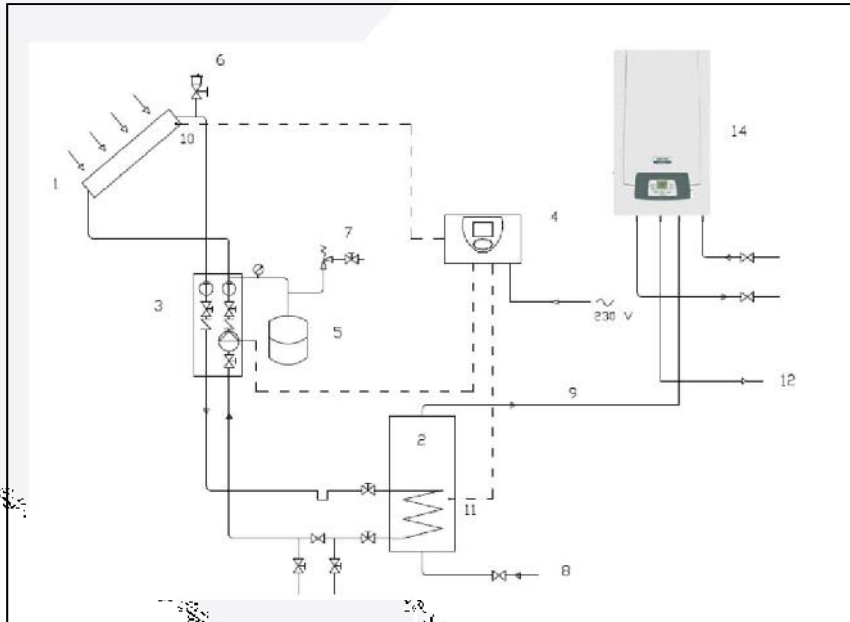
- ★ 4to1 expansion module to manage more room units (wired or wireless), wireless outdoor sensor and mixed circuits



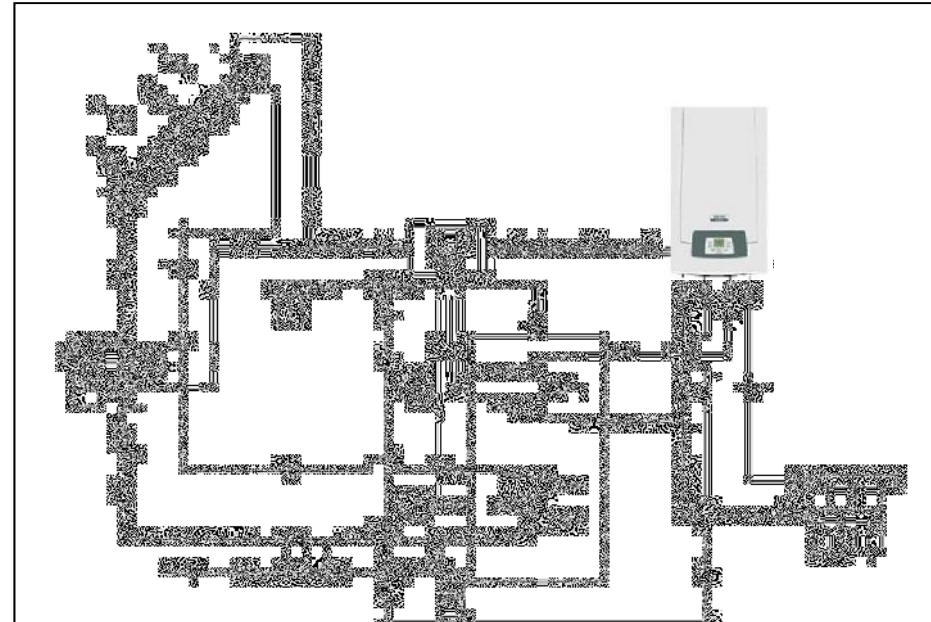
Star Condens – Solar installations

WESTEN

★ Solar + Combi boiler with solar valve



★ Solar + Heating only boiler



Solar valve



- ★ Compact solution that integrates the mixing and diverter valve
- ★ According to the temperature of the water coming from the solar cylinder, water is diverted to the boiler or directly to the use
- ★ Increased level of comfort and gas consumption reduction

Star Condens - Comparison with present

WESTEN

AVAILABILITY: Q2 2012



Feature	New STAR CONDENS	STAR CONDENS
Modulation ratio	1 ÷ 7	1 ÷ 3
Primary exchanger	Aluminium-silicon alloy	Stainless steel
Pump	Single speed	Single speed
Control Panel	LCD display and buttons	Digits and knobs
Retro illuminazione	Yes	No
Mixed Circuits Control	Yes (optional accessory)	Yes (optional accessory)
Sound-proofing	Yes	No
DHW Sensor	Flowmeter (modulating)	Flow switch (ON-OFF)
Digital Manometer	Yes	No