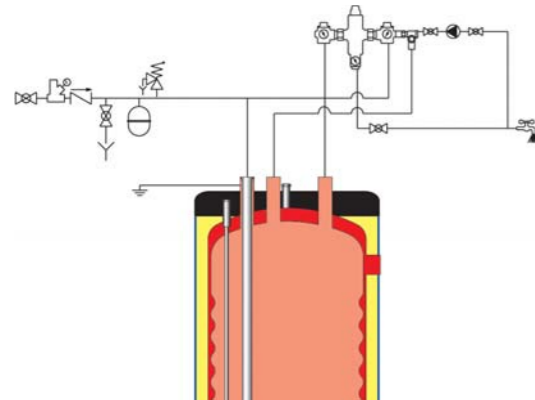


## OPTIONS



### SAFETY KIT

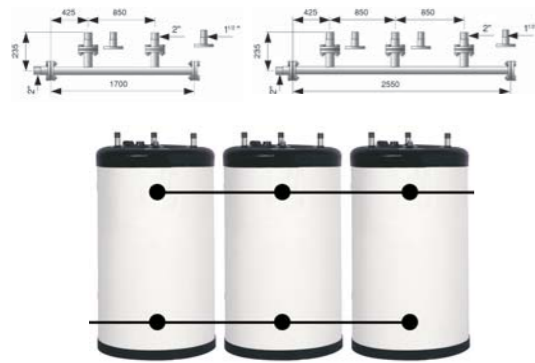
From 100 to 240 L, the Smart can be equipped with a kit that includes the safety group, the thermostatic mixer tap and a connection to the expansion vessel.



### THERMOSTATIC CONTROL TAP

The Smart is equipped with a sanitary connection for attachment to a sanitary loop, ensuring immediate availability of hot water.

ACV recommends the use of its Compact Mix mixer, which is perfectly suited to this application.



### MODULARITY

The SMART 320, 420, 600 and 800 can be installed in battery formation. A kit is available for connecting the primary circuits in parallel.



Covering all the hot water needs of the modern family



### WHEN SHOULD I INSTALL A SMART?



For all cases where an ample hot water supply is desirable: simultaneous bath and shower, Jacuzzi, hydro-massage bath.



For all tertiary and industrial applications that demand a high rate of hot water generation such as hotels, sports clubs, restaurants, camping areas, etc.



The Smart Duplex is the ideal solution for thalassotherapy solutions (spas, Jacuzzi, mini-pools) and all applications with highly chlorinated water.

# smartline

**HOT WATER HEATER  
TANK IN TANK  
MADE OF STAINLESS STEEL**

Ideal for all residential, commercial and industrial applications

Ample hot water supply

Superior insulation and craftsmanship

Self-descaling

Anti-legionellae,  
Anti-bacterial,

Low maintenance



DISTRIBUTOR

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excellence in hot water

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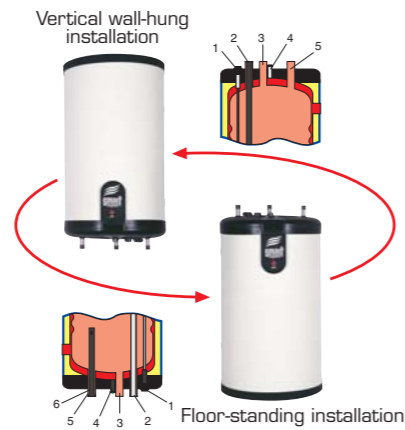


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## WATER HEATER MULTI-POSITION

The Smart is designed for vertical installation. Up to 240 L, it can be placed on the floor or hung on the wall.

The Smart is equipped with a diffusion tube that improves performance when placed with the hot water connections below.



### Vertical wall-hung installation

1. Control thermostat
2. Hot water outlet
3. Sanitary loop return
4. Drain
5. Cold water inlet
6. Aerator

### Floor-standing installation

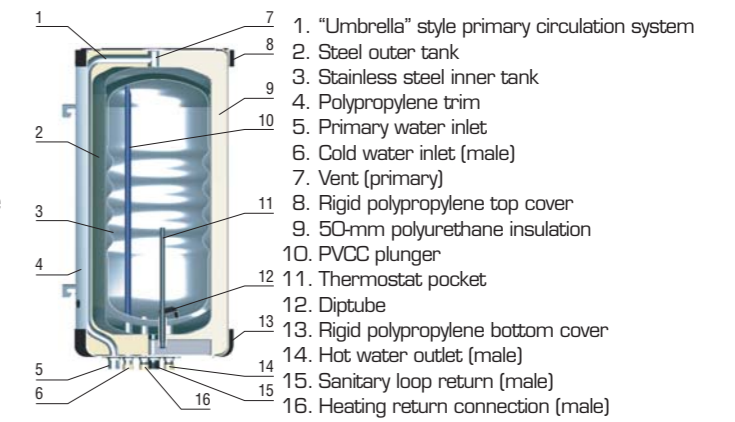
1. Control thermostat
2. Cold water inlet
3. Sanitary loop return
4. Vent
5. Hot water outlet

## SMART 90 PLUS

Suitable for installation with most wall-hung boilers



The "umbrella" style primary circulation system of the Smart 90+ maximises heat exchange rates and hot water performance levels. Thanks to its compact size and its stylish design, the Smart 90+ is perfectly matched to boilers of all makes for all applications that demand ample hot water supply.



## TANK IN TANK CONCEPT

### Large heat exchange surface

Reduced refill time and energy consumption with minimum space requirements

The hot water tank is made of stainless steel. It constitutes the inner tank of the Tank in Tank water heater, completely immersed in the primary water of the heating circuit.

Its large heat exchange surface (1.5 to 2.5 times more than that of a traditional coil) enables it to heat a large quantity of domestic hot water in a very short time, which reduces the volume of water stored and limits energy losses.

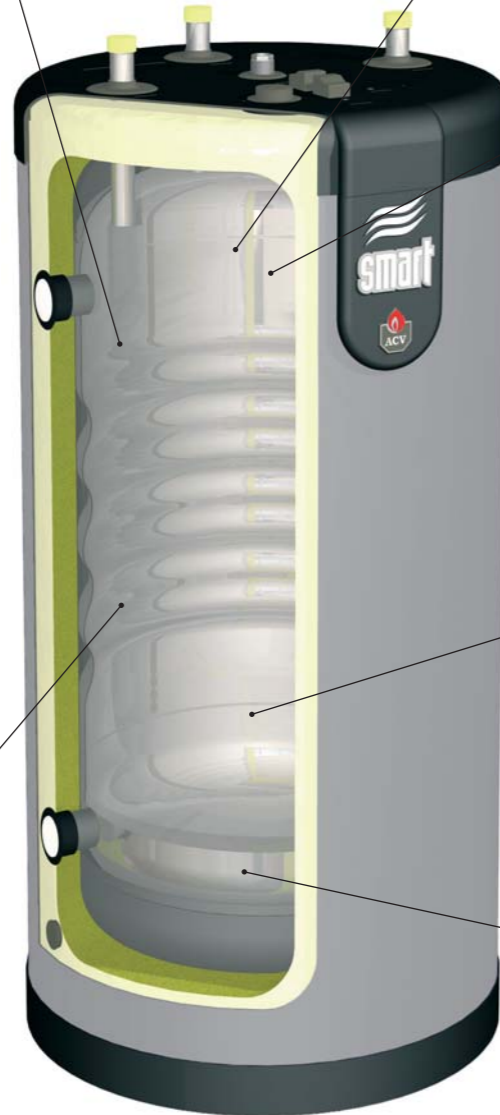
In addition, the large heat exchange surface reduces the number of stop/start cycles of the boiler supplying the water heater. This improves the overall energy efficiency of the installation, minimises harmful emissions (NOx, CO) and extends the service life of the boiler.

### Stainless steel

Corrosion resistant

Stainless steel construction, an area in which ACV specialises, renders the hot water tank exceptionally resistant to corrosion.

The **Smart** is also available in stainless steel Duplex resistant to corrosive water containing up to 2,000 mg of chlorides per litre.



### Self-descaling

Long service life, consistent efficiency over time

The corrugated walls vibrate in response to pressure variations and prevent lime scale deposits from forming, which ensures consistent efficiency over time.

### Anti-legionellae

Hot water safety

The large heat exchange surface of the tank, which is completely immersed in the primary water, makes it possible to maintain the hot water at a uniform temperature of at least 60°C, thereby preventing the formation of legionellae.

The Tank in Tank system eliminates the need for anode protection, another potential source of bacterial development.

### Low maintenance

Low cost of operation

Thanks to its stainless steel tank, the **Smart** water heater requires no protection anode and its self-descaling feature eliminates the need for regular descaling.

### Optimal insulation

Reduced static losses, minimal energy consumption

The **Smart** is thermally insulated along its entire surface by 50 mm of injected polyurethane insulation. Static heat losses are limited to less than 0.35°C per hour (at a storage temperature of 85°C).

## TECHNICAL CHARACTERISTICS

Models		90+	100	130	160	210	240	320	420	600	800
Total capacity	L	90	105	130	161	203	242	318	413	606	772
Primary capacity	L	13	30	31	35	39	42	55	55	161	181
Heat exchange surface	m <sup>2</sup>	1,08	1,03	1,26	1,54	1,94	2,29	2,65	3,24	3,58	4,2
Pressure drop	mbar	32	17	22	37	45	51	90	95	92	100
Primary flow rate	L/60'	2700	2100	2600	3500	4200	5500	6200	6400	7200	7500
Boiler connection	∅	1"	1"	1"	1"	1" ¼	1" ¼	1" ½	1" ½	2"	2"
Hot water connection	∅	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	1" ½	1" ½	1" ½	1" ½

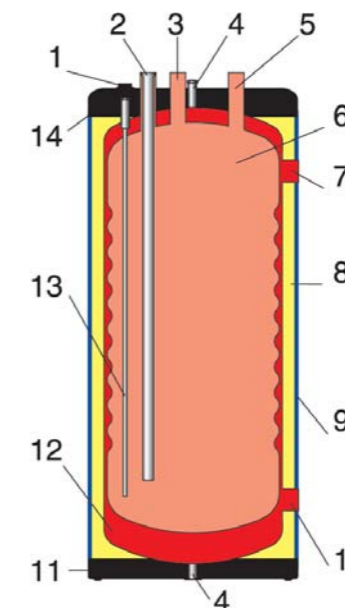
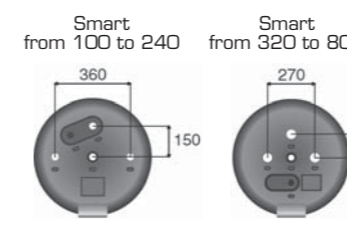
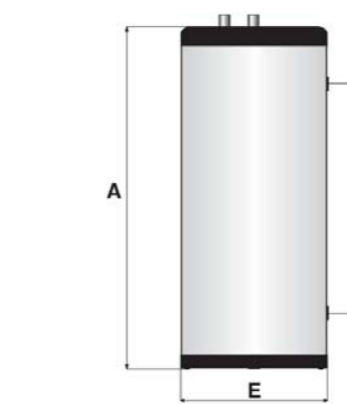
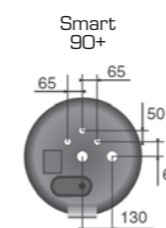
### Hot Water Performance Data (output temp. 85°C – cold water inlet temp. 10°C)

Peak flow (Δt = 40°C)	L/10'	300	236	321	406	547	700	922	1195	1345	1720
Peak flow (Δt = 60°C)	L/10'	146	117	161	209	272	337	504	620	706	903
Peak flow (Δt = 40°C)	L/60'	938	784	1063	1349	1820	2319	2666	3151	3437	3932
Peak flow (Δt = 60°C)	L/60'	426	384	549	689	913	1165	1368	1513	1733	1982
Continuous flow (Δt = 40°C)	L/h	827	658	890	1132	1527	1943	2093	2536	2511	2654
Continuous flow (Δt = 60°C)	L/h	378	320	465	576	769	994	1037	1153	1232	1302
Absorbable output	kW	29	23	31	39	53	68	73	88	88	92

### Maximum operating pressure in bars (primary/secondary)

• Smart 90+ to 240: 3/10 • Smart 320 to 800: 4/10 • Smart Duplex 90+ to 240: 3/10 • Smart Duplex 320 and 420: 6/10 • Smart Duplex 600 and 800: 5/10

DIMENSIONS		90+	100	130	160	210	240	320	420	600	800
A	mm	949	800	960	1160	1435	1680	1550	1975	1835	2235
E	mm	487	555	555	555	555	555	660	660	817	817
F	mm	555	365	525	725	997	1244	1030	1455	1328	1728
Weight empty	kg	41	49	55	65	75	87	141	167	238	280



1. Control thermostat
2. Cold water inlet (with water connections pointing up)
3. Sanitary loop return
4. Vent
5. Hot water outlet
6. Stainless steel inner tank
7. Primary water inlet
8. 50-mm polyurethane insulation
9. Heavy, shock-resistant polypropylene outer casing
10. Primary water outlet
11. Rigid polypropylene bottom cover
12. Outer steel tank containing the primary water
13. Pocket containing the control thermostat (adjustable according to water heater placement)
14. Rigid polypropylene top cover