



## Calorifiers and Combi water heaters

With coil exchanger

- A compact, safe solution for producing hot water from multiple energy sources, including solar energy.

### Operation

Semi-instantaneous hot water production tanks featuring an optimised coil that fully heats the tank and provides a stable temperature when water is drawn.

The tanks can operate from two sources of energy, primary fluid in the winter and electricity in the summer, for example.



### Technical characteristics

- Securex mineral lining (anti-corrosion and anti-perforation)
- Sanitary working pressure: 7 bars (testing pressure at 12 bars), primary service: 4 bars
- Maintenance cover as standard (dia. 150)
- M1, M0 flexible jacket or metal jacket with polyurethane foam insulation
- Steel RST 235 tank
- Bottom dome drain 50/60

### Additional characteristics for the Se Combi water heaters

- Sheathed elbow heating element (Incoloy 800) to fully heat the tank (no lukewarm area at the bottom of the tank that could encourage bacterial growth)
- Control thermostat with thermal cut-out safety device

### Technical data

	Exchanger output (1) (kW)	Exchanger surface area (m <sup>2</sup> )	Exchanger capacity (L)	Load loss (mBar)	Initial heat-up time (2) (hour)	Flow at 60°C (3)			Sheathed heating element output (kW)	Heat-up time (4) (hour)	Energy consumption in kWh/24h	
						1 <sup>st</sup> hour (L)	Continuous (L/h)	In 10 minutes (L)			Steel jacket	Flexible jacket
500 Se	43.5	1.06	7	50	1	1464	1064	726	-	-	3.7	7
500 Se Combi	43.5	1.06	7	50	1	1464	1064	726	5	6h30	3.7	7

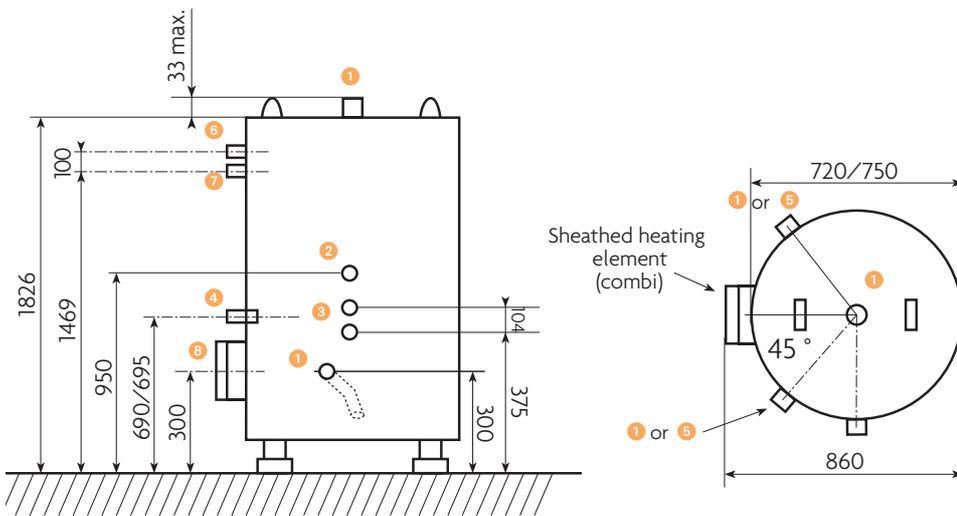
(1) primary = 90°C, flow 2m<sup>3</sup>/h – secondary = C/W 10°C, H/W 45°C (2) from 10 to 60°C, primary = 90°C/ 2m<sup>3</sup>/h (3) primary = 90°C, flow 2m<sup>3</sup>/h – storage at 65°C (4) from 15 to 65°C

Please consult us if you require other outputs.

## Applications

- Hotels • Residential buildings • Gyms • Cafeterias • Hospitals • Barracks • Industries
- Any installation with large requirements for hot water

## 500 litres Se and Se Combi



### Built-in exchanger

*Tank-heater version*

- ① M26/34: Cold water inlet/hot water outlet
- ② M26/34: Optional socket for loop-back connection
- ③ F26/34: Main circuit
- ④ M15/21: Socket for adapting a thermostat to control the main circulation pump
- ⑤ M26/34: Siphon draining

*For combi water-heaters only*

- ⑥ F15/21: Thermometer socket
- ⑦ F15/21: Adaptation socket for additional safety thermostat
- ⑧ Electric heating element



Coil exchanger



## Calorifiers and Combi water heaters

### Removable/removable mixed exchanger

750- to 3000-l range simple version with tubular exchanger and mixed version with tubular exchanger and sheathed heating element for full heating of the tank capacity.

#### Operation

**For the tank-heater version**, heating is provided all the year round by one source of energy: primary fluid.

**For the combi water heater version**, water can be heated from 2 sources of energy (primary fluid and electricity). In winter, the exchanger heats the water from energy obtained from the primary source. In summer, water is heated by the electric heating element (the boiler is shut down).

#### Technical characteristics

- Removable exchanger with a set of AISI 304 stainless steel tubes
- Securex mineral lining (anti-corrosion and anti-perforation)
- Working pressure: 7 bars and testing pressure: 12 bars
- In the primary pressure circuit: tubular exchanger: 10 bars, temperature: 100°C
- Bottom dome drain 50/60
- Thermometer connections for loop return and thermal cut-out adaptation
- Maintenance cover thanks to the 150- or 200-mm diameter flange depending on the model

#### Additional characteristics for the combi water heaters

- Sheathed elbow heating element (Incoloy 800 type) for completely heating the water above 60°C
- Control thermostat with thermal cut-out mechanism to be connected to a power switch (not supplied) for outputs greater than 5 kW.



## Applications

- Hotels • Residential buildings • Gyms • Cafeterias • Hospitals • Barracks • Industries
- Any facility requiring large amounts of hot water

## ● Technical data

Capacity (L)	Exchanger output (kW)	heat-up time (hour*)	Exchanger surface area	Load loss (mBar)	Exchanger capacity (L)	1 <sup>st</sup> hour (L/h)	Flow at 60°C** 1n 1 hour (L/h)	In 10 minutes (L)
750	22	2h	0.76	20	3.5	978	378	663
1000	22	3h	0.76	20	3.5	1178	378	863
1500	30	3h	1	20	4.2	1715	515	1286
2000	30	4h	1	20	4.2	2115	515	1686
2500	44	3h30	1.71	20	6.5	2756	756	2126
3000	44	4h	1.71	20	6.5	3156	756	2526

\* primary: 2m<sup>3</sup>/h at 90°C, secondary: 10 to 60°C

\*\* primary: 2m<sup>3</sup>/h at 90°C, secondary: EF 10°C, storage at 60°C

### “Combi” version

Capacity (L)	Sheathed heating element output (kW)	Initial heat-up time (hour*)	Energy consumption in kWh / 24h	
			Steel jacket	Flexible jacket
750	10	5h45	6	4.6
1000	10	6h30	6.9	5.4
1500	15	6h30	9.2	7.2
2000	24	5h30	10.9	8.5
2500	24	6h45	12.3	9.6
3000	24	8h	14	11

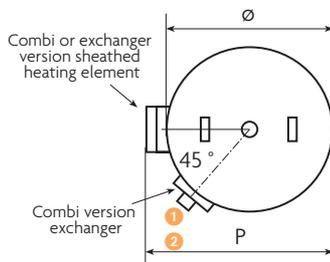
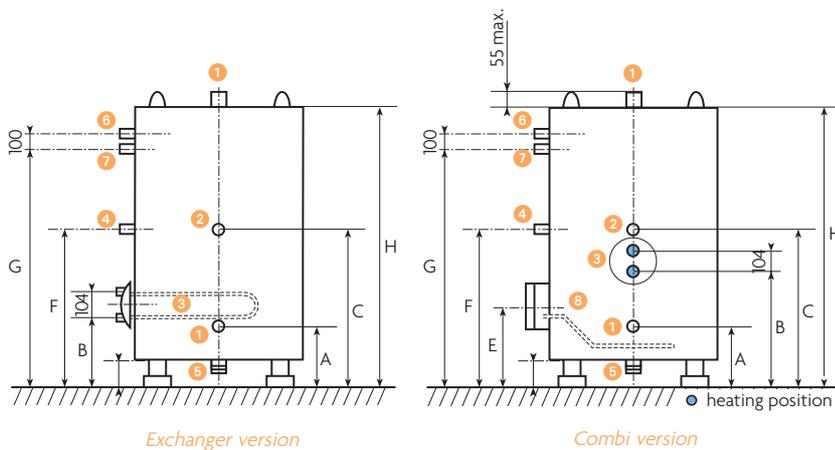
\* from 15 to 65°C



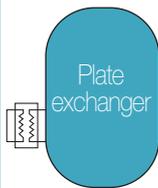
### Tubular exchanger

Stainless steel tubular exchanger fitted on to dia. 210 flange (water primary or steam 0.5 bars)

### 750 to 3000 litres with removable exchanger



- 1 Cold water inlet / hot water outlet
- 2 M33/42: Return loop tube
- 3 Primary circuit (tubular exchanger)
- 4 F40/49: Plug for exchanger control thermostat
- 5 M50/60: Drain
- 6 F15/21: Plug for thermometer
- 7 F15/21: Plug for additional safety thermostat
- 8 Electric heating element



## Turbot (plate exchanger)

Simple, compact and effective



We have designed specific appliances to provide the continuous production of large quantities of hot water.

Installed alongside a gas or fuel oil boiler, an energy recuperator or heat pump, they operate semi-instantaneously by means of a plate exchanger.

The storage tank thus absorbs peaks in consumption by reducing the output of the primary energy source to be installed.

### Operation

Semi-instantaneous production of hot water by means of a plate exchanger.

Provides continuous production of hot water.

Storage tank that absorbs peaks in consumption by reducing the power of the primary energy source to be installed.

### Technical characteristics

- Steel RST 235 tank
- Securex mineral lining (anti-corrosion and anti-perforation)
- Working pressure: 7 bars and testing pressure: 12 bars (primary: 10 bars max., temperature: 140°C)
- AISI 316 stainless steel, brazed plate exchanger
- Bottom dome drain 50/60 (optional for 300 and 500 l)
- Control bulb aquastat that controls the circulator pump (not supplied) of the primary circuit
- Manual reset bulb thermal safety mechanism to prevent overheating if the aquastat fails
- Secondary circulation pump
- 3 isolating valves for maintenance and for changing the exchanger or the pump
- Storage temperature thermometer
- Maintenance cover thanks to the 150- or 200-mm diameter flange depending on the model
- Connection for loop return.

## Applications

- Hotels from 8 to 130 rooms
- Residential units from 8 to 160 apartments
- Hospitals, etc.

## ● Technical data

Capacity (L)	Primary circuit		Output (kW)	Initial heat-up time (minutes)	Hot water flow			Number of apartments		Number of hotel rooms	
	Flow (L/h)	Load loss in m CE			Continuous (L/h)	In 1 hour (L)	In 10 mn (L)	Normal	Standing	Water draw in 1 hour	
										2★	3★ or 4★

### Primary 70°C – Secondary hot water 10°C to 55°C

300	2180	4.2	56	22	1072	1205	401	14	12	12	10
500	2940	3.8	81	25	1551	1796	633	30	24	22	17
750	3490	5.3	90	34	1723	2151	858	50	37	27	23
1000	5000	5.1	136	30	2603	3143	1190	78	62	40	34

### Primary 50°C – Secondary hot water 10°C to 55°C

300	2180	4.2	80	15	1531	1618	470	20	16	18	16
500	2940	3.8	115	18	2220	2381	730	40	30	30	25
750	3490	5.3	129	24	2469	2822	970	60	47	36	30
1000	5000	5.1	194	21	3714	4141	1357	93	74	52	45

### Primary 90°C – Secondary hot water 10°C to 55°C

300	2180	4.2	104	12	1990	2031	539	25	22	25	20
500	2940	3.8	150	14	2870	2983	831	50	39	38	32
750	3490	5.3	170	18	3250	3525	1088	77	53	45	38
1000	5000	5.1	255	16	4880	5192	1532	97	85	66	55

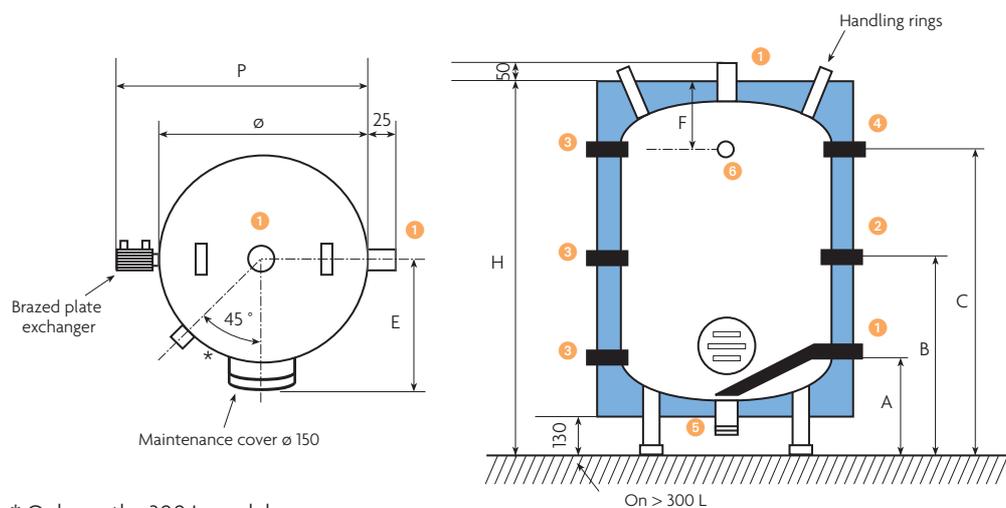
## ● Dimensions

Capacity (L)	Dimensions (mm)								C/W-H/W tubes (1 and 2)	Net weight (kg)	
	Ø Overall	H	A	B	C	E	F	P		Steel jacket	Flexible jacket
300	640	1640	300	575	1420	430	221	750	20/27	130	95
500	750	1920	300	755	1528	485	221	860	26/34	190	170
750	900	1790	400	1000	1538	560	252	1015	33/42	240	210
1000	900	2200	400	1000	1948	560	252	1015	33/42	280	270



External plate exchanger

## Turbot – Plate exchanger calorifier 300 to 1000 litres



\* Only on the 300 L model

- 1 Cold water inlet / hot water outlet
- 2 Loop return
- 3 Exchanger connection 33/42
- 4 Additional connection 33/42
- 5 Drain 50/60 on >300 L
- 6 15/21 MF pocket (thermometer)