The new degree of comfort.®

RHC 2U

SS316L CALORIFIER WITH 2 UTUBE BUNDLE COILS

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CONSTRUCTION

RHC 2U

TANK MATERIAL	STAINLESS STEEL AISI 316L
INTERNAL SURFACE TREATMENT	PICKLING AND PASSIVATION
EXTERNAL SURFACE TREATMENT	PICKLING AND PASSIVATION
CAPACITY	1000 TO 10000L
VERSION	VERTICAL
CONNECTIONS	THREADED
COIL MATERIAL	STAINLESS STEEL AISI 316L
PRIMARY CHEST MATERIAL	STAINLESS STEEL AISI 316L
INSULATION | 1000 L	HARD POLYURETHANE 85MM REMOVABLE SHELLS
INSULATION | 1500-2000 L	PLFH 120 MM HIGH DENSITY ECO-FRIENDLY POLYESTER FIBER
INSULATION | 2500-5000 L	PLF 50 MM ECO-FRIENDLY POLYESTER FIBER
CLADDING	LIGHT GREY RAL7035, ALUMINIUM
ACCESSORIES	ALUMINIUM

STANDARD WORKING CONDITIONS

	Capacity-L	1000	1500	2000	2500	3000	4000	5000
Tank working pressure	bar	ATM-8*	ATM-8*	ATM-8*	ATM-8*	ATM-8*	ATM-8*	ATM-8*
Tank working temperature	°C	AMB-99	AMB-99	AMB-99	AMB-99	AMB-99	AMB-99	AMB-99
Coil working pressure	bar	ATM -12	ATM -12	ATM -12	ATM -12	ATM -12	ATM -12	ATM -12
Coil working temperature	°C	AMB-99	AMB-99	AMB-99	AMB-99	AMB-99	AMB-99	AMB-99

*ATM -10 optional

GENERAL CHARACTERISTICS - VERTICAL STANDARD VERSION

	Capacity-L	1000	1500	2000	2500	3000	4000	5000
DIMENSIONS								
Diameter without insulation	mm	800	1000	1200	1200	1250	1400	1600
Diameter with insulation	mm	970	1240	1440	1300	1350	1500	1700
Overall height	mm	2185	2265	2184	2590	2790	2869	2960
Overturning height with|without insulation	mm	2297 | 2201	2441 | 2270	2426 | 2197	2773 | 2595	2976 | 2795	3088 | 2878	3232 | 2977

Calorifiers made of Stainless Steel AISI 316L pickled and passivated with two removable tube bundle coils for production and storage of DHW. Designed for connection to one or two different primary energy sources.

The calorifiers of the RHC 2U range stand out for the wide choice of capacities, from 1000 to 10000L as standard and over upon request.

2U Nomenclature - 50HZ

RH C 1U G1 V 113 060 060 08 1000

- 1000 → TANK CAPACITY: 500 TO 30000 l
- 08 → PRESSURE RATING: 08 - 8 BAR, 10 - 10 BAR
- 060 → ELECTRIC BACKUP KW : 60 KW
- 060 → UPPER HEX KW: 60 KW
- 113 → LOWER HEX KW : 113 KW
- V → ORIENTATION: VERTICAL
- G1 → MATERIAL OF CONSTRUCTION: G1 - SS316L
- 1U → TYPE OF HEX: 1U - 1 UTUBE
- C → C - CALORIFIERS
- RH → BRAND : RH - RHEEM

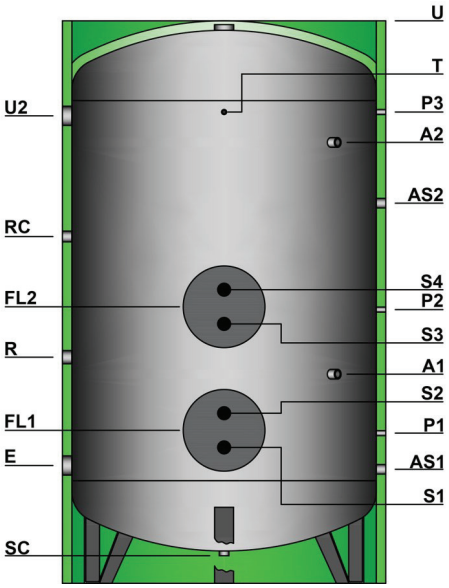
INSTALLATION ASSUMPTIONS

CONNECTIONS

E	Cold water supply	mm | Ø	420 | 2”	480 | 2”½	504 | 2”½	590 | 3”	525 | 3”	559 | 3”	620 | 3”
U	DHW return	mm | Ø	2185 | 2”	2265 | 2”½	2184 | 2”½	2590 | 3”	2790 | 3”	2869 | 3”	2960 | 3”
U2	DHW additional return	mm | Ø	—	—	—	—	—	2399 | 3”	2460 | 3”
RC	Recirculation	mm | Ø	1405 | 1”½	1395 | 1”½	1319 | 1”½	1645 | 1”½	1730 | 1”½	1764 | 1”½	1825 | 1”½
R	Immersion electric heater	mm | Ø	885 | 2”	950 | 2”	899 | 2”	1100 | 2”	1095 | 2”	1129 | 2”	1190 | 2”
P1	Sensor	mm | Ø	610 | ½”	650 | ½”	649 | ½”	700 | ½”	695 | ½”	729 | ½”	790 | ½”
P2	Sensor	mm | Ø	1080 | ½”	1150 | ½”	1099 | ½”	1300 | ½”	1345 | ½”	1379 | ½”	1440 | ½”
P3	Sensor	mm | Ø	1700 | ½”	1680 | ½”	1714 | ½”	2190 | ½”	2385 | ½”	2419 | ½”	2480 | ½”
T	Thermometer	mm | Ø	1800 | ½”	1840 | ½”	1714 | ½”	2190 | ½”	2385 | ½”	2419 | ½”	2480 | ½”
A1	Anode	mm | Ø	810 | ½”	860 | ½”	834 | ½”	1010 | ½”	1005 | ½”	1039 | ½”	1100 | ½”
A2	Anode	mm | Ø	—	1680 | ½”	1554 | ½”	2030 | ½”	2225 | ½”	2259 | ½”	2320 | ½”
AS1	Spare	mm | Ø	420 | 1”¼	450 | 1”¼	484 | 1”¼	510 | 1”¼	505 | 1”¼	539 | 1”¼	600 | 1”¼
AS2	Spare	mm | Ø	1820 | 1”¼	1850 | 1”¼	1284 | 1”¼	1910 | 1”¼	1905 | 1”¼	1939 | 1”¼	2000 | 1”¼
FL1	Lower heat exchanger manhole	mm	610	650	649	700	695	729	790
		mm | Ø	300x380	300x380	300x380	300x380	300x380	350x430	350x430
FL2	Upper heat exchanger manhole	mm	1080	1150	1099	1300	1345	1379	1440
		mm | Ø	300x380	300x380	300x380	300x380	300x380	350x430	350x430
S1	Lower heat exchanger return	mm | Ø	535 | 2”	575 | 2”	574 | 2”	625 | 2”	620 | 2”	629 | 2”	690 | 2”
S2	Lower heat exchanger supply	mm | Ø	685 | 2”	725 | 2”	724 | 2”	775 | 2”	770 | 2”	829 | 2”	890 | 2”
S3	Upper heat exchanger retunrn	mm | Ø	1005 | 2”	1075 | 2”	1024 | 2”	1225 | 2”	1270 | 2”	1279 | 2”	1340 | 2”
S4	Upper heat exchanger supply	mm | Ø	1155 | 2”	1225 | 2”	1174 | 2”	1375 | 2”	1420 | 2”	1479 | 2”	1540 | 2”
SC	Drain	mm | Ø	95 | 1”¼	130 | 1”¼	109 | 1”¼	135 | 1”¼	125 | 1”¼	114 | 1”¼	145 | 1”¼

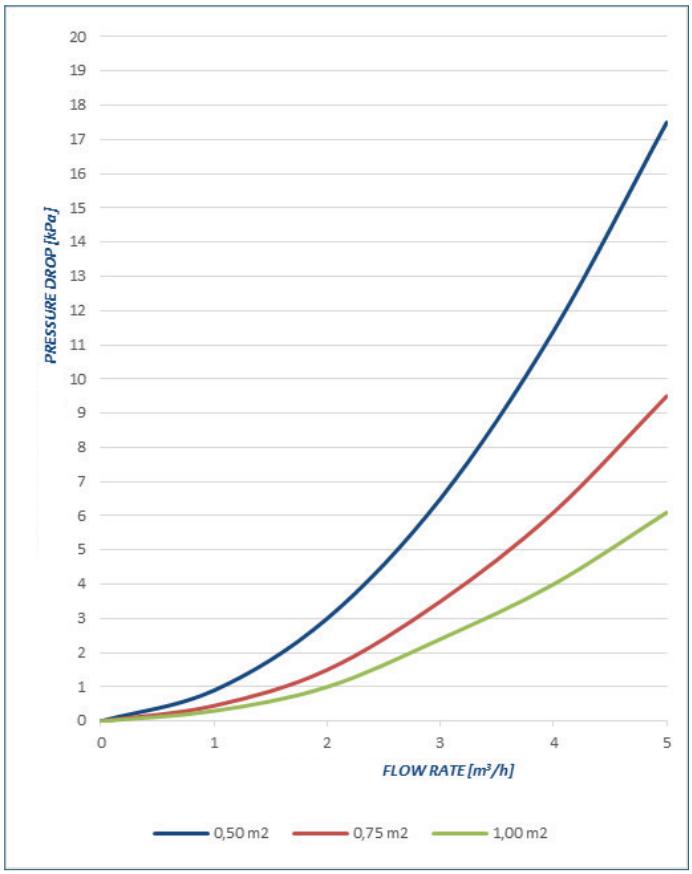
COIL PERFORMANCES

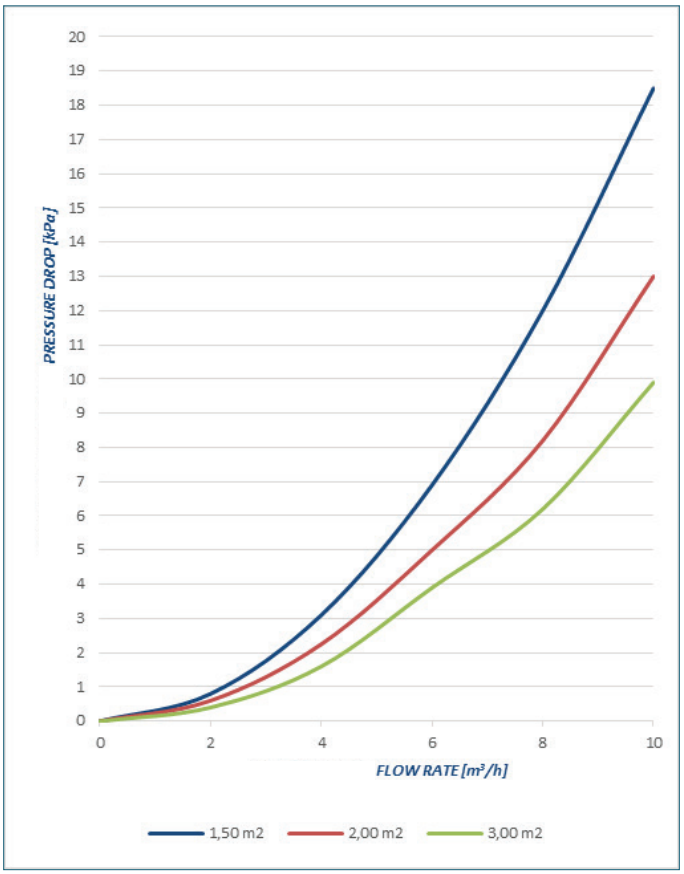
Lower coil heating surface area	m^2	2,00	3,00	4,00	5,00	6,00	8,00	10,00
Lower coil output (Prim. 80/70°C-Sec10/45°C)	kW	72	108	144	180	215	287	359
Upper coil heating surface	m^2	2,00	3,00	4,00	5,00	6,00	8,00	10,00
Upper coil output (Prim. 80/70°C - Sec.	kW	72	108	144	180	215	287	359

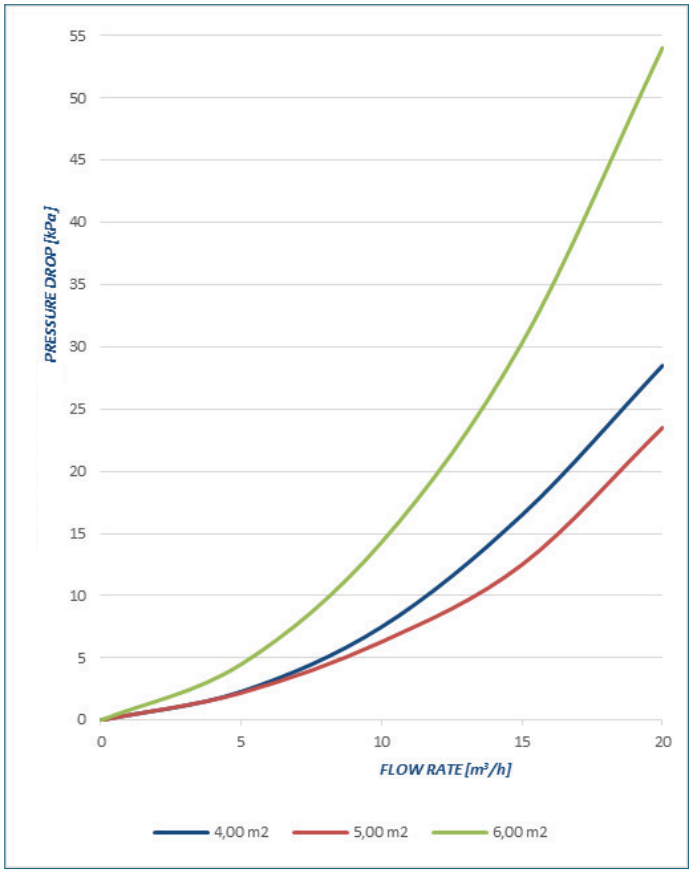


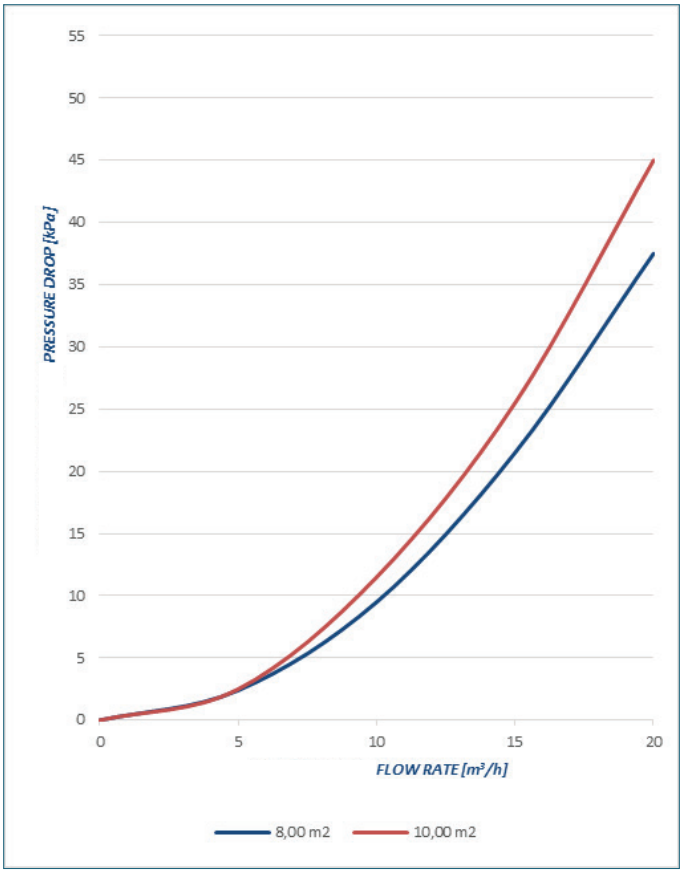
Note: All the measurements of the connections are considered “from the ground”.
The thread are female GAS type, unless otherwise

HEAT EXCHANGER PRESSURE DROP









TUBE BUNDLE COIL OUTPUT

PRIMARY (80-70)°C | SECONDARY(10-45)°C

Storage Volume *L*	Heating Surface Area *m²*	Max Output *kW*	Primary Airflow *L/h*	SECONDARY (DHW) Continous production *L/h*	Production First 10' *L*	Production First 60' *L*
1000	2,00	72	6175	3529	1588	4529
	2,00	72	6175			
1500	3,00	108	9263	5293	2382	6793
	3,00	108	9263			
2000	4,00	144	12350	7057	3176	9057
	4,00	144	12350			
2500	5,00	180	15438	8821	3970	11321
	5,00	180	15438			
3000	6,00	215	18525	10586	4764	13586
	6,00	215	18525			
4000	8,00	287	24700	14114	6352	18114
	8,00	287	24700			
5000	10,00	359	30870	17643	7940	22643
	10,00	359	30875			

PRIMARY (70-60)°C | SECONDARY(10-45)°C

Storage Volume *L*	Heating Surface Area *m²*	Max Output *kW*	Primary Airflow *L/h*	SECONDARY (DHW) Continous production *L/h*	Production First 10' *L*	Production First 60' *L*
1000	2,00	52	4500	2571	1429	3571
	2,00	52	4500			
1500	3,00	78	6750	3857	2143	5357
	3,00	78	6750			
2000	4,00	105	9000	5143	2857	7143
	4,00	105	9000			
2500	5,00	131	11250	6429	3571	8929
	5,00	131	11250			
3000	6,00	157	13500	7714	4286	10714
	6,00	157	13500			
4000	8,00	209	18000	10286	5714	14286
	8,00	209	18000			
5000	10,00	262	22500	12857	7143	17857
	10,00	262	22500			

PRIMARY (60-50)°C | SECONDARY(10-45)°C

Storage Volume *L*	Heating Surface Area *m²*	Max Output *kW*	Primary Airflow *L/h*	SECONDARY (DHW) Continous production *L/h*	Production First 10' *L*	Production First 60' *L*
1000	2,00	35	3025	1729	1288	2729
	2,00	35	3025			
1500	3,00	53	4538	2593	1932	4093
	3,00	53	4538			
2000	4,00	70	6050	3457	2576	5457
	4,00	70	6050			
2500	5,00	88	7563	4321	3220	6821
	5,00	88	7563			
3000	6,00	106	9075	5186	3864	8186
	6,00	106	9075			
4000	8,00	141	12100	6914	5152	10914
	8,00	141	12100			
5000	10,00	176	15125	8643	6440	13643
	10,00	176	15125			

PRIMARY (55-45)°C | SECONDARY(10-45)°C

Storage Volume *L*	Heating Surface Area *m²*	Max Output *kW*	Primary Airflow *L/h*	SECONDARY (DHW) Continous production *L/h*	Production First 10' *L*	Production First 60' *L*
1000	2,00	21	1800	1029	1171	2029
	2,00	21	1800			
1500	3,00	31	2700	1543	1757	3043
	3,00	31	2700			
2000	4,00	42	3600	2057	2343	4057
	4,00	42	3600			
2500	5,00	52	4500	2571	2929	5071
	5,00	52	4500			
3000	6,00	63	5400	3086	3514	6086
	6,00	63	5400			
4000	8,00	84	7200	4114	4686	8114
	8,00	84	7200			
5000	10,00	105	9000	5143	5857	10143

ACCESSORIES & SPARE PARTS

- THERMOMETER Ø65 mm | L=150 mm | (0-120)°C
- THERMOMETER Ø100 mm |L=150 mm | (0-120)°C
- SENSOR SOCKET Ø½"| L=150 mm | Ø int 10 mm
- THERMOSTAT Ø½" (0-90)°C
- ELECTRONIC ANODE KIT 1000 L
- ELECTRONIC ANODE KIT 1500-5000 L

THERMOMETER

PROBE

THERMOSTAT

ELECTRONIC ANODE

IMMERSION ELECTRIC HEATERS 3/1 PHASE SS316L / INCOLOY SCREW CONNECTION 2"| ALUMINIUM BOX IP55 | V230/400

Power	Tank capacity	Length
Watt	*L*	*mm*
2000	1000-5000	280
3000	1000-5000	380
5000	1000-5000	500
6000	1000-5000	600
9000	1000-5000	680

TUBE BUNDLE HEAT EXCHANGERS

Heating surface area	Dimensions	
	D	L
m^2	*mm*	*mm*
2,00	380	594
3,00	380	718
4,00	380	850
5,00	380	1050
6,00	380	1250
8,00	430	1250
10,00	430	1510

ANTI-CORROSION PROTECTION STEEL TREATMENTS

DHW storage tanks made of Stainless Steel 316L are treated with full immersion pickling procedures and subsequent passivation to ensure the highest hygiene standards.

CATHODIC PROTECTION

The corrosion of a metal structure occurs mainly in areas in which there is the passage of current (oxidation-reduction process) from the structure towards the outside (water or gas) causing a dissolution of the structure itself.

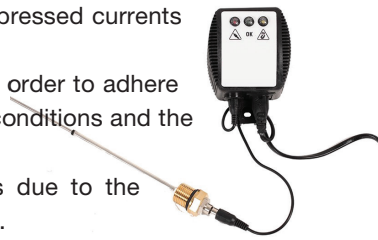
Cathodic protection by means of electronic impressed current system.

As an alternative to the galvanic system (coupling of materials with different potentials) there is a protection method which consists in applying an equal and opposite continuous current to the metallic structure to be protected, neutralising the voltages formed inside the tank.

Thanks to the modern techniques there is an innovative electronic system of cathodic protection with continuous impressed current.

The main advantages are:

- Active protection by means of impressed currents from the outside
- Excellent flexibility of operation in order to adhere to the changeable internal coating conditions and the mass of water
- Reduction of maintenance costs due to the permanent protection of the system.



INSULATIONS

Insulating material	Removable	Thickness	Density	Thermal conductivity coefficient at 45°C	Operating temperature	Fire reaction class Euroclass EN13501-1
PLF Polyester fibre	✓	50 mm	20 kg/m³	λ = 0,037 W/mK	Amb. / +99°C	B-s2, d0
PLFH High Density Polyester fibre	✓	100 mm	25 kg/m³	λ = 0,034 W/mK	Amb. / +99°C	B-s2, d0
Injected Hard Polyurethane	✗	80 mm	40-42 kg/m³	λ = 0,019 W/mK	-10°C / +99°C	F

PLFH / PLF – Polyester fibre

- 100% recyclable
- Environmental friendly
- Lightweight
- Self-supporting
- Fire-retardant
- Rot-proof
- Resistant to mould, bacteria or rodents
- Hypoallergenic
- Water repellent

Hard foam Polyurethane

Thermal and anti-condensation insulation made of hard closed cell polyurethane foam (PU), free from CFC and HCFC.

It is available in various thickness and can be injected directly to the shell of the tank to prevent it from condensation and provide the lower thermal dispersion. For some sizes it is pre-formed into half-shells to ease the insulation removal in case the tank has to pass through narrow doors.

CLADDINGS

ALUMINIUM

External cladding made of embossed aluminium sheeting suitable also for outdoor installations. The insulations made with this type of cladding consist of panels joined together by means of rivets and extruded aluminium slats with an exclusive design, specifically designed to facilitate assembly even directly at the installation site.

The coverings and flange covers made of same material securely anchored to the insulation guarantee the same levels of quality in terms of duration and outside appearance and do not risk being damaged by the wind and adverse weather conditions.

The new degree of comfort.®

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