

ECO-COMBI 2

MULTI-HEAT ENERGY BUFFER WITH 316L STAINLESS STEEL D.H.W. CORRUGATED PIPE
AND 1 FIXED HEAT EXCHANGER



APPLICATION

Heating hot water storage and D.H.W. production.

MATERIAL

- BUFFER TANK: Mild steel construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.
- D.H.W. STORAGE: 316L stainless steel corrugated pipe, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.

HEAT EXCHANGER:

1 fixed heat exchanger.

TECHNICAL DESCRIPTION

Multi-Heat Energy tanks EcoCombi 2 are used in units with a typically discontinuous energy source for double use: heating system and sanitary hot water system.

- Heating system with a biomass generator as energy source, combining the possibility to produce hot water for sanitary use. In such case, storage heating volume allows the generator to regularly work, limiting number of stops due to the inadequate energy request of the heating system. Moreover, it limits the emission of smoke and the creation of corrosive condensate (smokes side).

- Domestic hot water production systems for domestic and sanitary use where heating water is stored. In this system, the high potentiality of the Eco Combi allows to obtain a good production of hot sanitary water even if temperatures of the primary system are not so high (i.e. using heating pumps as primary source and solar source as support).

The particular shape of the corrugated pipe is avoiding any problem relating to the storage of sanitary hot water and ensure high heating exchange performances.

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam.
- SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

Grey PVC external lining complete with top cover

WARRANTY

5 years - See general sales conditions and warranty

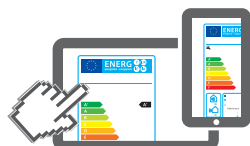
ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



ECO-COMBI 2 VB

Model	HARD FOAM insulation Art. Nr.	316L STAINLESS STEEL CORRUGATED PIPE FOR D.H.W. PRODUCTION		LOWER HEAT EXCHANGER		ENERGY EFFICIENCY CLASS
		Volume [lt]	Surface [m²]	Volume [lt]	Surface [m²]	
500	3270162316101	26,6	4,5	11,5	1,9	C
600	3270162316102	31,0	5,3	13	2,1	C
800	3270162316103	33,4	5,8	16,3	2,5	C
1000	3270162316104	45,5	7,8	20,7	3,1	C
1250	3270162316105	45,5	7,8	22,3	3,4	C
1500	3270162316106	55,3	9,5	25,3	3,8	C
2000	3270162316107	72,2	12,3	29,6	4,6	C



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On line ErP label tool

ECO-COMBI 2 VC

Model	DISMOUNTABLE SOFT FLEECE insulation Art. Nr.	316L STAINLESS STEEL CORRUGATED PIPE FOR D.H.W. PRODUCTION		LOWER HEAT EXCHANGER		ENERGY EFFICIENCY CLASS
		Volume [lt]	Surface [m²]	Volume [lt]	Surface [m²]	
800	3270162282272	33,4	5,8	16,3	2,5	C
1000	3270162282273	45,5	7,8	20,7	3,1	C
1250	3270162282274	45,5	7,8	22,3	3,4	C
1500	3270162282275	55,3	9,5	25,3	3,8	C
2000	3270162282276	72,2	12,3	29,6	4,6	C

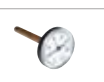
Accessories on request

Monophase and threephase electrical immersion

Available kit:	
[Kw]	Tension [V]
da 1,5 a 3	220 - MONOPHASE
da 4 a 9	400 - TRIPHASE
See accessories	

Thermometer

Art. Nr.
5032240000107
5 units box



Buffer tanks connecting kit

Art. Nr.	Connection
5006170001001	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)	



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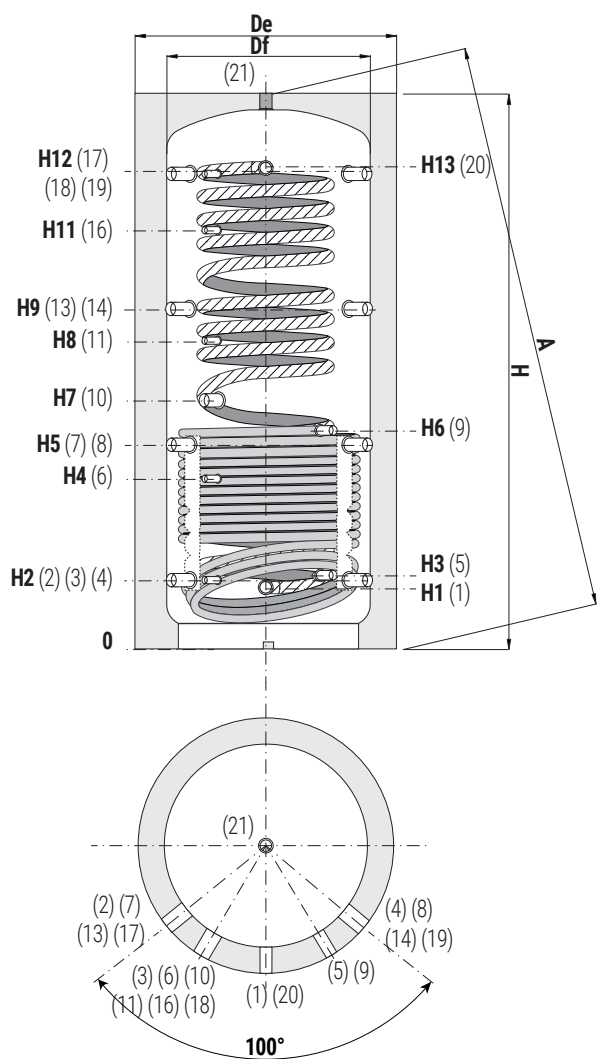
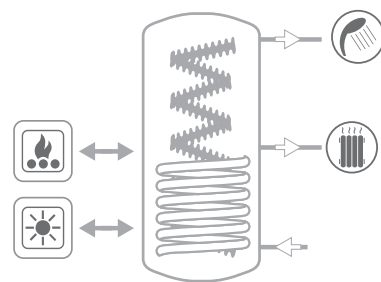
STORAGE		CORRUGATED DHW STAINLESS STEEL PIPE	FIXED HEAT EXCHANGER	
Pmax	Tmax	Pmax	Pmax	Tmax
3 bar	99 °C	6 bar	12 bar	110 °C



CORDIVARI Lab
TÜV Rheinland Energie
und Umwelt GmbH states
that test procedures and
Cordivari LAB are certified conforming
to European standard EN 15332, as
indicated by Ecodesign ErP Directive.



**ASK ALWAYS FOR
CERTIFIED LABORATORIES
DATA RESULTS**



1 Domestic cold water circuit inlet 1" Gas M

2-4 Heating return/To Generator 1"1/2 Gas F

3 Connection for instrumentation 1/2" Gas F

5 Lower fixed heat exchanger outlet 1" Gas F

6 Connection for instrumentation 1/2" Gas F

7-8 Heating return/To Generator 1"1/2 Gas F

9 Lower fixed heat exchanger inlet 1" Gas F

10 Electrical immersion 1"1/2 Gas F

11 Connection for instrumentation 1/2" Gas F

13-14 Heating return/To additional generator/
Heating delivery 1"1/2 Gas F

16 Connection for instrumentation 1/2" Gas F

17-19-21 Heating return/ Heating delivery 1"1/2 Gas F

18 Connection for instrumentation 1/2" Gas F

20 Domestic hot water outlet 1" Gas M



Model	Volume [lt]	Df (vers. VC) [mm]	De (vers. VC) [mm]	De (vers. VB) [mm]	H	A	H1	H2	H3	H4	H5	H6	H7	H9	H11	H12	H13
500	478	//	//	750	1619	1745	230	247	260	533	629	744	841	1011	1231	1343	1360
600	560	//	//	750	1869	1979	230	247	260	582	695	855	915	1144	1382	1593	1610
800	803	790	1010	950	1838	2001	248	265	278	584	690	762	823	1115	1332	1541	1558
1000	944	790	1010	950	2128	2270	248	265	284	656	787	953	998	1309	1588	1831	1843
1250	1248	900	1160	1050	2201	2378	296	313	326	705	835	884	986	1357	1586	1879	1896
1500	1432	950	1210	1100	2250	2442	296	313	336	736	845	1006	1061	1377	1653	1909	1921
2000	1970	1100	1360	1300	2319	2567	330	347	370	770	879	1001	1060	1411	1687	1943	1955

ECO-COMBI - OUTPUT AND PERFORMANCES

D.H.W. STORAGE PERFORMANCES

Model	COMPLETE HEATED STORAGE VOLUME				UPPER PART HEATED STORAGE VOLUME		
	DHW Volume	DHW exchanger surface	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler on	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler off	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler on	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler off	
	[litres]	[m ²]	[lt/min]	[litres]	[lt/min]	[litres]	
500	26,6	4,5	29	10 lt/min: 354 lt 25 lt/min: 227 lt	15	10 lt/min: 102 lt 25 lt/min: 75 lt	
600	31	5,3	34	10 lt/min: 400 lt 25 lt/min: 257 lt	18	10 lt/min: 115 lt 25 lt/min: 85 lt	
800	33,4	5,8	37	10 lt/min: 587 lt 25 lt/min: 377 lt	23	10 lt/min: 218 lt 25 lt/min: 160 lt	

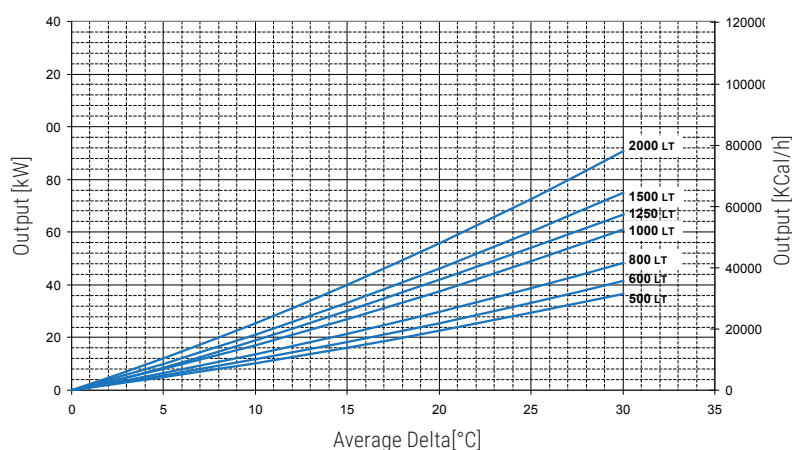
ECO COMBI 2 - ECO COMBI 3 LOWER FIXED HEAT EXCHANGERS POWERS CHART

Output of the EcoCombi 2 - EcoCombi 3 lower heat exchangers depending on the average DeltaT between primary and accumulation considering flow rate 3 m³/h.

Thermal output is given in both kW or kcal/h in terms of average temperature difference between primary and secondary circuit, all for a range of primary 3 m³/h.

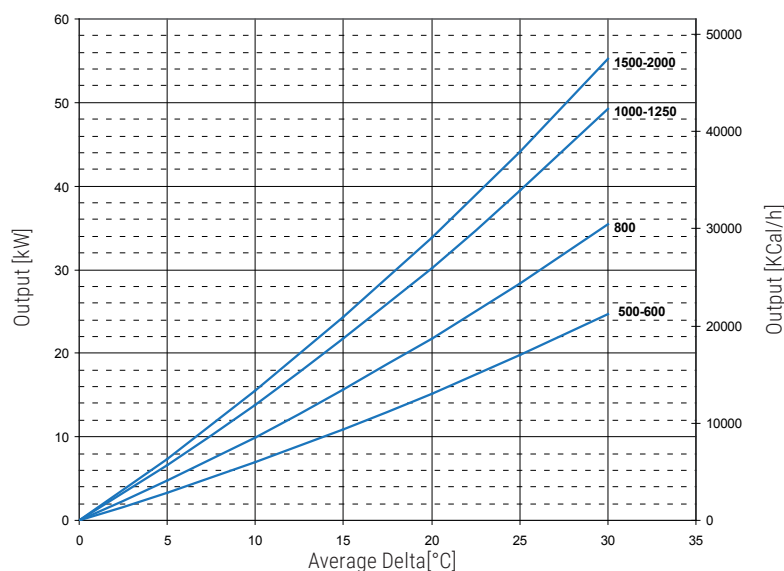
For example, a 1000 liters ECOCOMBI 2 with a water flow of 3 m³/h at 80 °C inlet and outlet at 70 °C, has on the storage of water an average temperature of 60 °C, the mean difference of temperature will be:

$(80 + 70) / 20 - 60 = 15$ °C and therefore you can exchange up to approximately 32 kW.



ECO COMBI 3 UPPER FIXED HEAT EXCHANGERS POWERS CHART

Output of the EcoCombi 3 upper heat exchangers depending on the average DeltaT between primary and accumulation considering flow rate 3 m³/h.

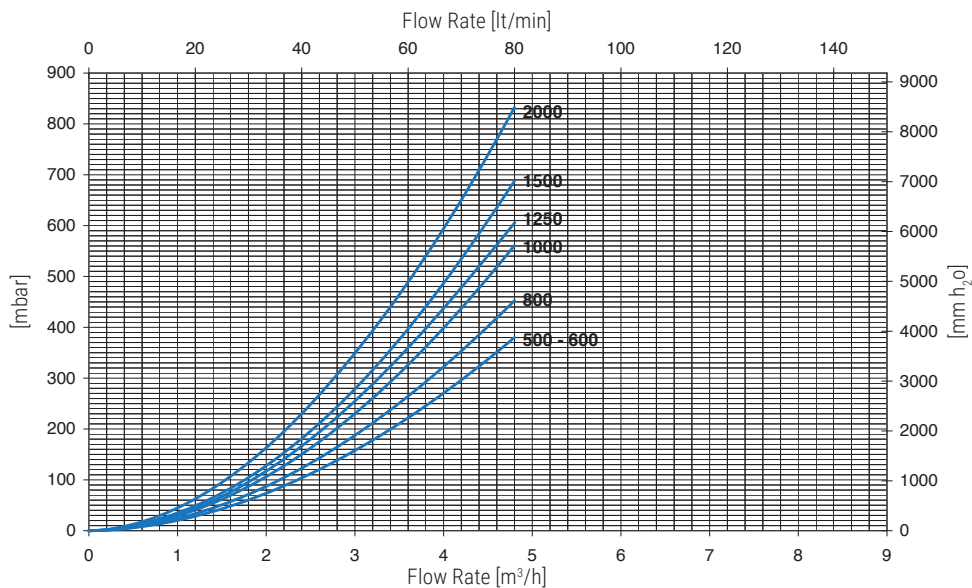


ECO-COMBI - OUTPUT AND PERFORMANCES

D.H.W. STORAGE PERFORMANCES

Model	COMPLETE HEATED STORAGE VOLUME				UPPER PART HEATED STORAGE VOLUME		
	DHW Volume	DHW exchanger surface	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler on	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler off	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler on	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler off	
	[litres]	[m²]	[lt/min]	[litres]	[lt/min]	[litres]	
1000	45,5	7,8	50	10 lt/min: 800 lt 25 lt/min: 541 lt	27	10 lt/min: 294 lt 25 lt/min: 216 lt	
1250	45,5	7,8	50	10 lt/min: 922 lt 25 lt/min: 592 lt	27	10 lt/min: 310 lt 25 lt/min: 230 lt	
1500	55,3	9,5	57	10 lt/min: 1144 lt 25 lt/min: 735 lt	34	10 lt/min: 345 lt 25 lt/min: 258 lt	
2000	72,2	12,3	74	10 lt/min: 1657 lt 25 lt/min: 1142 lt	44	10 lt/min: 463 lt 25 lt/min: 340 lt	

PRESSURE LOSS - LOWER FIXED HEAT EXCHANGER ECO COMBI 2 - ECO COMBI 3



PRESSURE LOSS - UPPER FIXED HEAT EXCHANGER ECO COMBI 3

