

# ECO-COMBI 3

MULTI-HEAT ENERGY BUFFER WITH 316L STAINLESS STEEL D.H.W. CORRUGATED PIPE  
AND 2 FIXED HEAT EXCHANGERS



## 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:

2 fixed heat exchangers.

## TECHNICAL DESCRIPTION

Multi-Heat Energy tanks EcoCombi 3 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

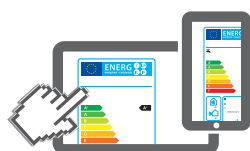
## ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



## ECO-COMBI 3 VB

Model	HARD FOAM insulation	316L STAINLESS STEEL CORRUGATED PIPE FOR D.H.W. PRODUCTION		UPPER HEAT EXCHANGER		LOWER HEAT EXCHANGER		ENERGY EFFICIENCY CLASS
		Volume	Surface	Volume	Surface	Volume	Surface	
	Art. Nr.	[lt]	[m²]	[lt]	[m²]	[lt]	[m²]	
500	3270162316201	26,6	4,5	8	1,3	11,5	1,9	C
600	3270162316202	31,0	5,3	8	1,3	13	2,1	C
800	3270162316203	33,4	5,8	11,8	1,8	16,3	2,5	C
1000	3270162316204	45,5	7,8	16,3	2,5	20,7	3,1	C
1250	3270162316205	45,5	7,8	16,3	2,5	22,3	3,4	C
1500	3270162316206	55,3	9,5	16,8	2,8	25,3	3,8	C
2000	3270162316207	72,2	12,3	19,1	2,8	29,6	4,6	C



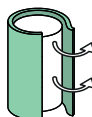
[www.cordivari.com/erp](http://www.cordivari.com/erp)

On line ErP label tool



## ECO-COMBI 3 VC

Model	DISMOUNTABLE SOFT FLEECE insulation	316L STAINLESS STEEL CORRUGATED PIPE FOR D.H.W. PRODUCTION		UPPER HEAT EXCHANGER		LOWER HEAT EXCHANGER		ENERGY EFFICIENCY CLASS
		Volume	Surface	Volume	Surface	Volume	Surface	
	Art. Nr.	[lt]	[m²]	[lt]	[m²]	[lt]	[m²]	
800	3270162282282	33,4	5,8	11,8	1,8	16,3	2,5	C
1000	3270162282283	45,5	7,8	16,3	2,5	20,7	3,1	C
1250	3270162282284	45,5	7,8	16,3	2,5	22,3	3,4	C
1500	3270162282285	55,3	9,5	16,8	2,8	25,3	3,8	C
2000	3270162282286	72,2	12,3	19,1	2,8	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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AND 2 FIXED HEAT EXCHANGERS

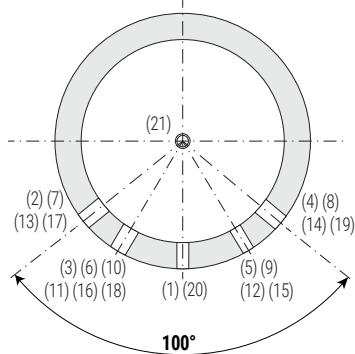
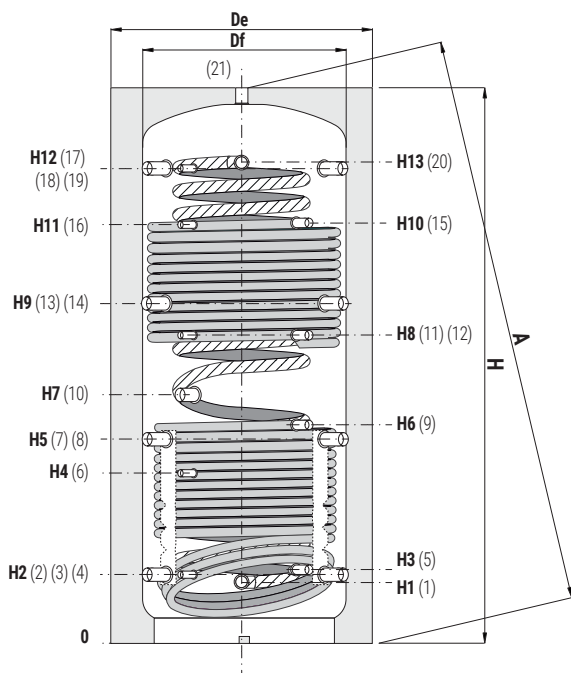
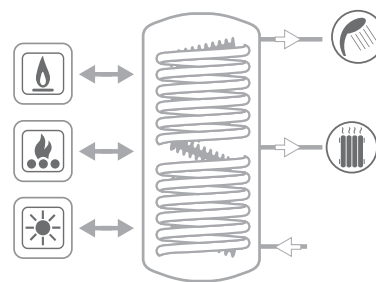
STORAGE	CORRUGATED DHW STAINLESS STEEL PIPE	FIXED HEAT EXCHANGER
Pmax Tmax 3 bar 99 °C	Pmax 6 bar	Pmax Tmax 12 bar 110 °C



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



<b>1</b>	Domestic cold water circuit inlet 1" Gas M
<b>2-4</b>	Heating return/To Generator 1 1/2" Gas F
<b>3</b>	Connection for instrumentation 1/2" Gas F
<b>5</b>	Lower fixed heat exchanger outlet 1" Gas F
<b>6</b>	Connection for instrumentation 1/2" Gas F
<b>7-8</b>	Heating return/To Generator 1 1/2" Gas F
<b>9</b>	Lower fixed heat exchanger inlet 1" Gas F
<b>10</b>	Electrical immersion 1 1/2" Gas F
<b>11</b>	Connection for instrumentation 1/2" Gas F
<b>12</b>	Upper fixed heat exchanger outlet 1" Gas F
<b>13-14</b>	Heating return/To additional generator / Heating delivery 1 1/2" Gas F
<b>15</b>	Upper fixed heat exchanger inlet 1" Gas F
<b>16</b>	Connection for instrumentation 1/2" Gas F
<b>17-19-21</b>	Heating return / Heating delivery 1 1/2" Gas F
<b>18</b>	Connection for instrumentation 1/2" Gas F
<b>20</b>	Domestic hot water outlet 1" Gas M



Model	Volume [litres]	Df (vers. VC) [mm]	De (vers. VC) [mm]	De (vers. VB) [mm]	H	A	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13
<b>500</b>	478	//	//	750	1619	1745	230	247	260	533	629	744	841	930	1011	1231	1231	1343	1360
<b>600</b>	560	//	//	750	1869	1979	230	247	260	582	695	855	915	1060	1144	1361	1382	1593	1610
<b>800</b>	803	790	1010	950	1838	2001	248	265	278	584	690	762	823	988	1115	1332	1332	1541	1558
<b>1000</b>	944	790	1010	950	2128	2270	248	265	284	656	787	953	998	1188	1309	1661	1588	1831	1843
<b>1250</b>	1248	900	1160	1050	2201	2378	296	313	326	705	835	884	986	1068	1357	1641	1586	1879	1896
<b>1500</b>	1432	950	1210	1100	2250	2442	296	313	336	736	845	1006	1061	1286	1377	1673	1653	1909	1921
<b>2000</b>	1970	1100	1360	1300	2319	2567	330	347	370	770	879	1001	1060	1300	1411	1687	1687	1943	1955

EXTRA-BOLLY®  
CALORIFIERS

BOLLYTERM®  
CALORIFIERS

STAINLESS STEEL  
CALORIFIERS

CALORIFIERS FOR  
HEAT PUMP

MULTIFUEL ENERGY  
CYLINDERS - PUFFER

HYDRONIC

INERTIAL  
TANKS

WATER PRESSURE  
TANKS

COMPRESSED AIR  
RECEIVERS

ACCESSORIES  
AND SPARE PARTS

TECHNICAL  
SUPPORT

# 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 <sup>2</sup> ]	[lt/min]	[litres]	[lt/min]	[litres]	
<b>500</b>	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	
<b>600</b>	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	
<b>800</b>	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	

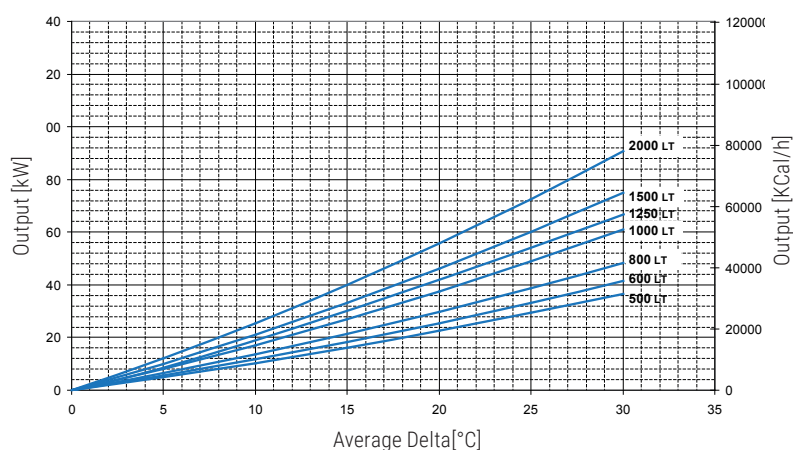
## ECO COMBI 2 - ECO COMBI 3 LOWER FIXED HEAT EXCHANGERS POWERS CHART

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

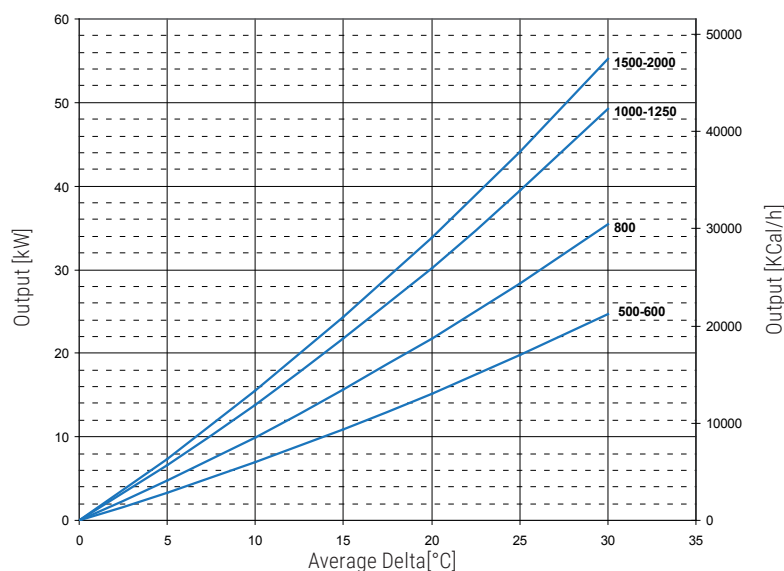
For example, a 1000 liters ECOCOMBI 2 with a water flow of 3 m<sup>3</sup>/h at 80 °C inlet and outlet at 70 °C, has on the storage of water an average temperature of 60 °C, the mean difference of temperature will be:

$(80 + 70) / 20 - 60 = 15$  °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 m<sup>3</sup>/h.

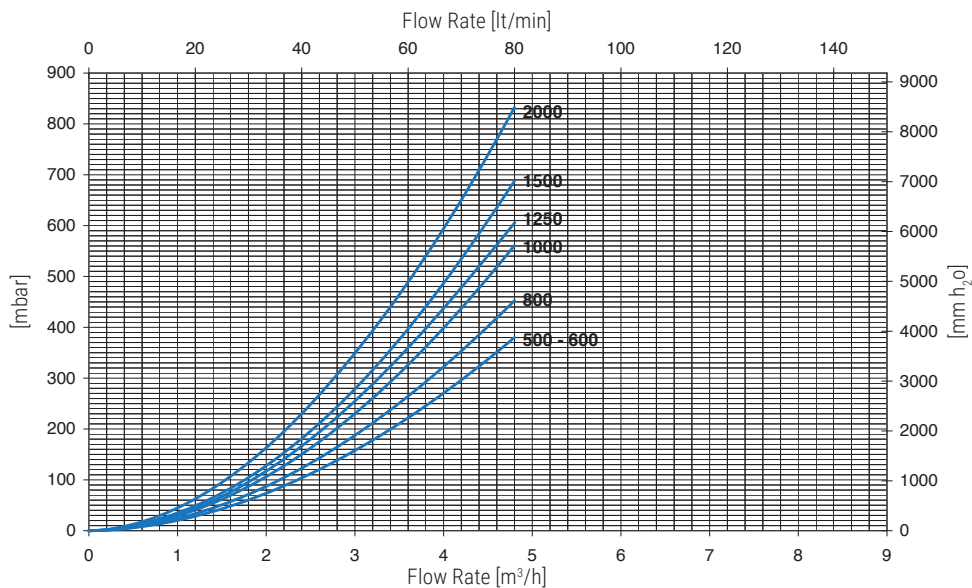


# ECO-COMBI - OUTPUT AND PERFORMANCES

## 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

