

ECO COMBI 1 PDC

MULTI-HEAT ENERGY BUFFER FOR HEAT PUMP
WITH 316L STAINLESS STEEL DHW CORRUGATED PIPE



APPLICATION

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

MATERIAL

- **BUFFER TANK:** made in mild steel outside painted. There is no need of any anti-corrosion treatment due to the fact that the buffer is in a closed circuit without any adding air.
- **DHW STORAGE:** 316L stainless steel corrugated pipe, suitable drinkable water according to D.M. n. 174 dated 06.04.04.

TECHNICAL DESCRIPTION

Multi-heat Energy tanks EcoCombi 1 are used in units with a typically discontinuous energy source for double use: heating system and domestic hot water.

- Heating system with a biomass generator as energy source, combining the possibility to produce domestic hot water. 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 creation of corrosive condensate (smokes side).

- In this system, the high potentiality of the Eco Combi allows to obtain a good DHW production, even if temperatures of the primary system are not so high (e.g. 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 DHW storage and ensure high heating exchange performances.

INSULATION

High thermal insulation with ecological polyurethane hard foam. Grey PVC external lining

WARRANTY

5 years - See general sales conditions and warranty

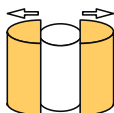
ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.

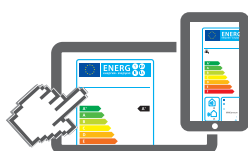


ECO COMBI 1 PDC VB

Model	HARD FOAM insulation Art. Nr.	Heat pump max output [kW]	316L STAINLESS STEEL CORRUGATED PIPE FOR D.H.W. PRODUCTION		ENERGY EFFICIENCY CLASS ErP
			Volume [lt]	Surface [m²]	
300	3270162310002	26	26,6	4,5	C
500	3270162310003	26	31	5,3	C



Model	DISMOUNTABLE HARD FOAM insulation Art. Nr.	Volume [lt]	Surface [m²]	ENERGY EFFICIENCY CLASS ErP
800	3270162310005	35	45	C



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On line ErP label tool

Accessories on request

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)	



Kit Recirculation

Art. Nr.
5221000000019
Attacco 3/4"

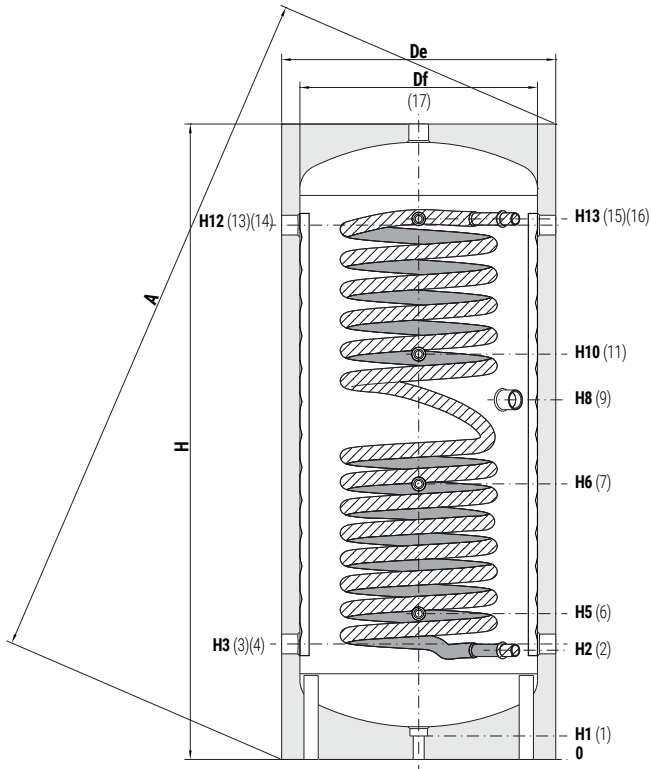
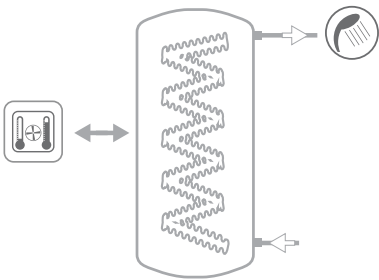


ECO COMBI 1 PDC

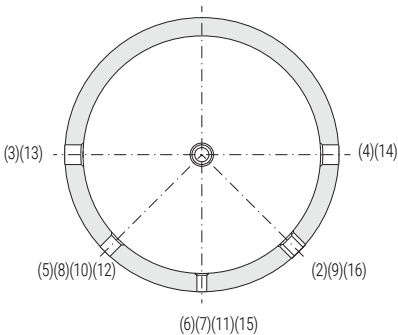
MULTI-HEAT ENERGY BUFFER FOR HEAT PUMP
WITH 316L STAINLESS STEEL DHW CORRUGATED PIPE

STORAGE		CORRUGATED DHW STAINLESS STEEL PIPE
Pmax	Tmax	Pmax
3 bar	99 °C	6 bar

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.



- | | |
|----------|---|
| 1 | Drain 1"1/4 Gas F |
| 2 | Domestic cold water circuit inlet |
| 3-4 | Heating return - to generator 1"1/2 Gas F |
| 6-7 | Connection for instrumentation 1/2" Gas F |
| 9 | Connection for electrical immersion 1"1/2 Gas F |
| 11 | Connection for instrumentation 1/2" Gas F |
| 13-14-17 | From Generator - Heating delivery 1"1/2 Gas F |
| 15 | Connection for instrumentation 1/2" Gas F |
| 16 | Domestic hot water outlet |



Model	Volume [litres]	De	H	A	H1	H2	H3
[mm]							
300	291	650	1585	1713	70	297	330
500	454	750	1745	1899	70	305	322
800	748	950	1940	2156	70	325	342

Model	H5	H6	H8	H10	H12	H13	2-16
[mm]							Connections
300	390	745	970	1100	1280	1315	1/2" F
500	405	760	990	1115	1468	1485	1" M
800	425	780	935	1135	1618	1635	1" M

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

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 PDC - OUTPUT AND PERFORMANCES

PERFORMANCES DURING DHW PRODUCTION PHASE

Q = Flow rate collection in litres per minute

P = Power in kW of the connected heat pump

V = Max quantity of DHW production under expressed conditions

Model		P = 0 kW		P = 5 kW		P = 10 kW		P = 15 kW	
		Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]
300	DHW 10°C/45°C	10	118	10	142	10	166	10	190
	Storage initial T	20	82	20	91	20	99	20	107
	55°C	30	47	30	50	30	54	30	57
	DHW 10°C/45°C	10	96	10	115	10	135	10	154
	Storage initial T	20	67	20	73	20	80	20	87
	50°C	30	39	30	41	30	44	30	46

Model		P = 0 kW		P = 5 kW		P = 10 kW		P = 15 kW		P = 20 kW		P = 25 kW	
		Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]
500	DHW 10°C/45°C	10	293	10	353	10	413	10	473	10	533	10	593
	Storage initial T	20	223	20	246	20	269	20	291	20	314	20	337
	55°C	30	153	30	163	30	174	30	184	30	195	30	205
	DHW 10°C/45°C	10	240	10	289	10	338	10	387	10	436	10	485
	Storage initial T	20	182	20	201	20	220	20	238	20	257	20	276
	50°C	30	125	30	134	30	142	30	151	30	159	30	168

Model		P = 0 kW		P = 15 kW		P = 20 kW		P = 25 kW		P = 30 kW		P = 35 kW	
		Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]
800	DHW 10°C/45°C	10	469	10	757	10	853	10	949	10	1045	10	1141
	Storage initial T	20	367	20	480	20	517	20	555	20	592	20	630
	55°C	30	266	30	320	30	339	30	357	30	375	30	393
	DHW 10°C/45°C	10	384	10	619	10	698	10	777	10	855	10	934
	Storage initial T	20	300	20	392	20	423	20	454	20	485	20	515
	50°C	30	218	30	262	30	277	30	292	30	307	30	322

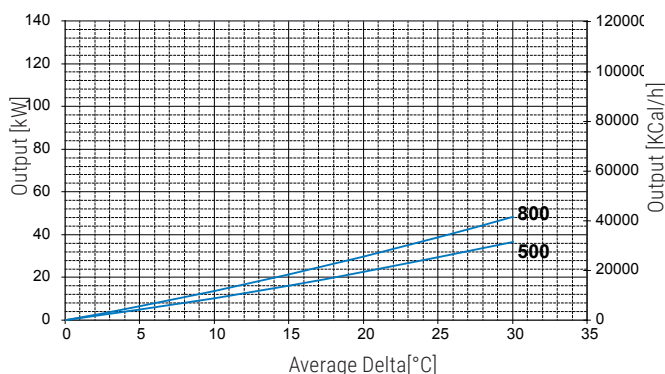
DHW collection data are meant for use with one heat pump connected to the storage, without considering possible contribution of other energy sources.

HEAT EXCHANGER POWER ECO COMBI 3 PDC

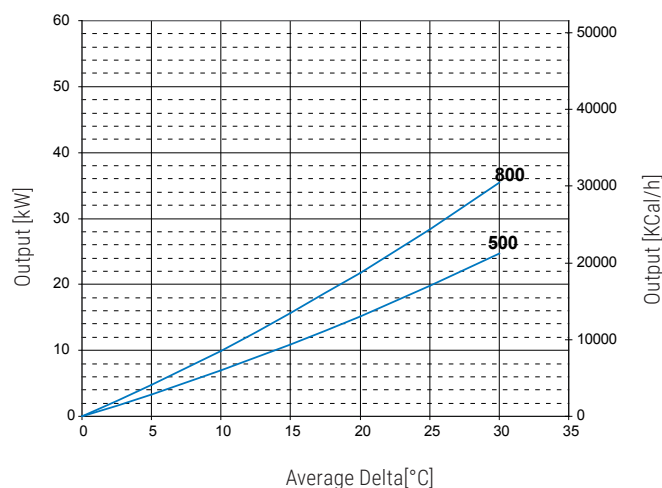
EcoCombi PDC lower heat exchangers exchanged power according to average Delta T between primary and storage (flow rate of 3 m³/h circulating in the exchanger)

Exchangeable thermal powers are expressed both in kW and Kcal/h according to the average temperature difference between primary and secondary, having a primary flow rate of 3 m³/h.

LOWER HEAT EXCHANGER



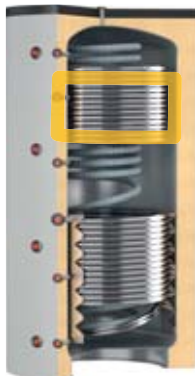
UPPER HEAT EXCHANGER



ECO COMBI PDC - OUTPUT AND PERFORMANCES

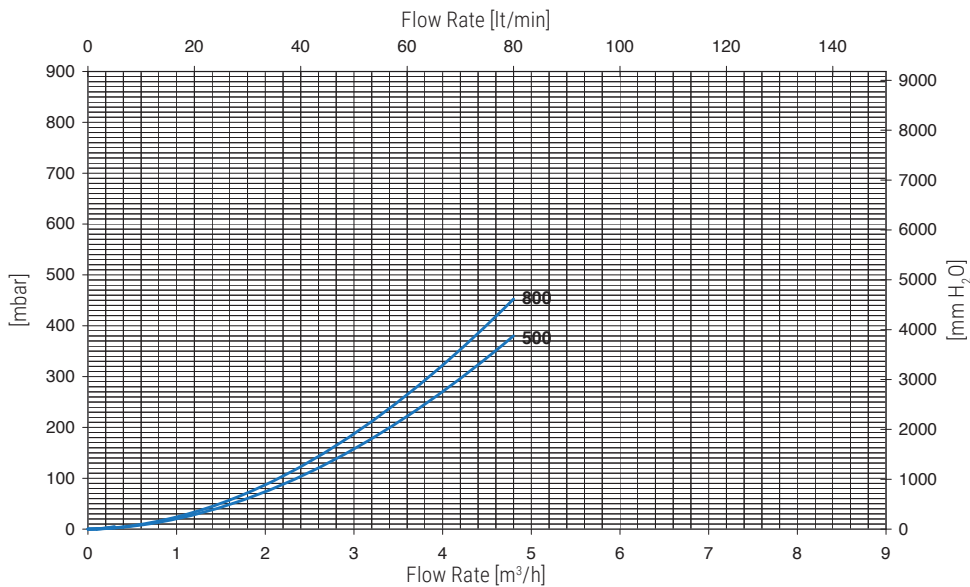
PERFORMANCES DURING DHW PRODUCTION PHASE

ECO COMBI 2 PDC - ECO COMBI 3 PDC UPPER HEAT EXCHANGER PRESSURE LOSS



Upper
Heat exchanger surface

300	0,7
500	1,2
800	1,7



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



Lower
Heat exchanger surface

300	1,2
500	2,2
800	2,6

