

EXTRA 3

POLYWARM® COATED CALORIFIERS WITH 3 STAINLESS STEEL EXTRACTABLE HEAT EXCHANGERS



APPLICATION

Production and storage of domestic hot water.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - DVGW - W270 - UBA - WRAS)

HEAT EXCHANGER

3 316L stainless steel heat exchangers (upper, middle: straight - lower: Antilegionella® with tubes bent to the bottom).

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 and flange cover

CATHODE PROTECTION

2 magnesium anodes.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

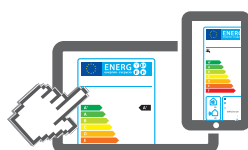
Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel exchanger head with anticorrosion treatment.

WARRANTY

5 years - See general sales conditions and warranty

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



www.cordivari.com/erp

On line ErP label tool

EXTRA 3 WXB

Model	HARD FOAM insulation Art. Nr.	STAINLESS STEEL HEAT EXCHANGER SURFACE			ENERGY EFFICIENCY CLASS
		Lower	Middle	Upper	
1500	3094162360106	3	3	1,5	C
2000	3094162360107	4	4	2	C

EXTRA 3 WXC

Model	DISMOUNTABLE SOFT FLEECE insulation Art. Nr.	STAINLESS STEEL HEAT EXCHANGER SURFACE			ENERGY EFFICIENCY CLASS
		Lower	Middle	Upper	
1500	3092162360136	3	3	1,5	C
2000	3092162360137	4	4	2	C
3000	3092162360109	6	6	3	
5000	3092162360112	10	10	5	

ELECTRICAL IMMERSION HEATERS

Mod.	Volume of water heated by the electrical immersion [lt]	MONOPHASE			THREEPHASE				
		1,5 kW	2 kW	3 kW	4 kW	5 kW	6 kW	9 kW	12 kW
		52400000000051	52400000000052	52400000000053	52400000000047	52400000000048	52400000000049	52400000000050	52400000000031
		Ignition time from 10 °C to 45 °C with immersion heaters [min]							
1500	288	516	387	258	194	155	129	86	65
2000	443	793	595	396	297	238	198	132	99
2500	577	1033	775	517	387	310	258	172	129
3000	577	1033	775	517	387	310	258	172	129
5000	1040	1864	1398	932	699	559	466	311	233

Accessories on request

"Easy Control" Electronic Display

ART. NR.	FOR MODELS
5005000310002	WXC
5005000310003	WXB



Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
52000000000011	1500
52000000000013	2000÷5000

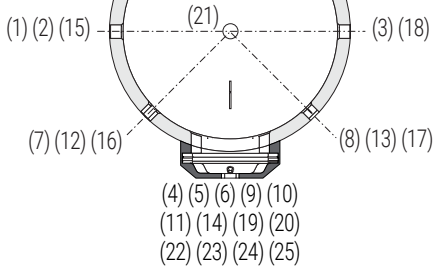
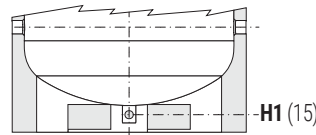
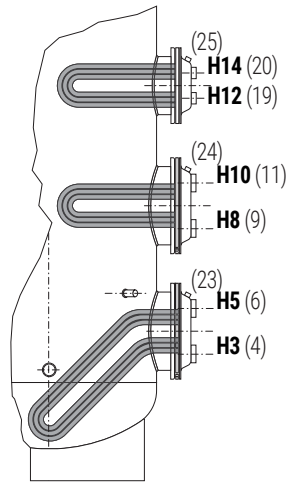
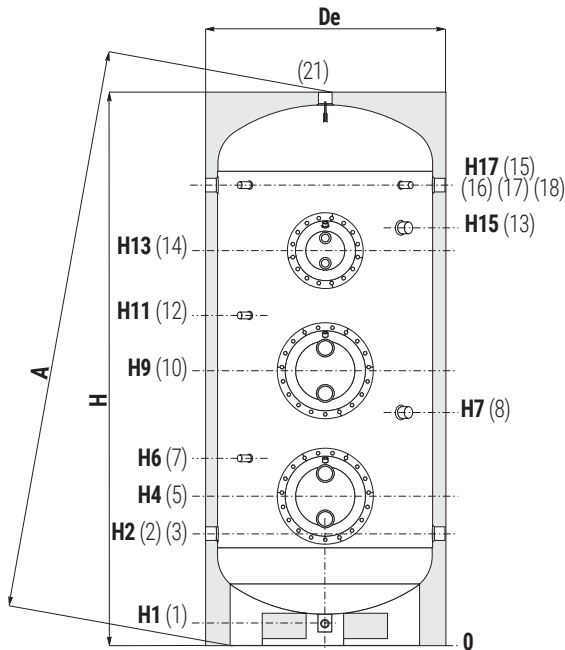
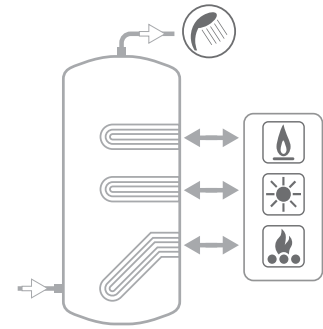


EXTRA 3

POLYWARM® COATED CALORIFIERS WITH 3 STAINLESS STEEL EXTRACTABLE HEAT EXCHANGERS

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
6 bar	90 °C	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.



The calorifier have two grippos on the bottom which allow the use of forklift when handling and already equipped with mounted drainage tube.

- 1 Drain 1" F
- 2 Domestic cold water circuit inlet 1/2" F
For models > 1500 connection 2" F
- 3 Alternative domestic cold water circuit inlet or connection for more boilers 1/2" F
For models > 1500 connection 2" F
- 4 Lower heat exchanger outlet 2" F
- 5 Heat exchanger flange Lower
- 6 Lower heat exchanger inlet 2" F
- 7-12 Connection for instrumentation 1/2" F
- 8 Connection for magnesium anode 1"1/4 F
- 9 Middle heat exchanger outlet 2" F
- 10 Middle heat exchanger flange
- 11 Middle heat exchanger inlet 2" F
- 13 Connection for 2nd anode 1"1/4 F (only for models > 1500)
- 14 Heat exchanger flange Upper
- 15-18 Connection for recirculation or for domestic hot water 1/2" F
For models > 1500 connection 2" F
- 16-17 Connection for instrumentation 1/2" F
- 19 Upper heat exchanger outlet 2" F
- 20 Upper heat exchanger inlet 2" F
- 21 Domestic hot water outlet 2" F
- 23-24 Heat exchangers air purge 3/8" Gas F
- 25

HARD FOAM INSULATION (WXB)

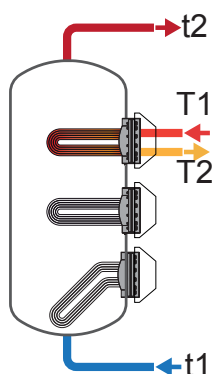
Model	Volume	Weight	De	H	A	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H17
	[lt]	[kg]	[mm]																		
1500	1455	291	1100	2415	2654	109	440	585	675	765	825	1075	1160	1250	1340	1400	1785	1875	1965	//	2050
2000	1991	430	1300	2492	2811	91	467	587	692	797	867	842	1157	1262	1367	1437	1727	1817	1907	1592	2057

SOFT FLEECE INSULATION (WXC)

Model	Volume	Weight	De	H	A	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H17
	[lt]	[kg]	[mm]																		
1500	1455	291	1210	2440	2485	109	440	585	675	765	825	1075	1160	1250	1340	1400	1785	1875	1965	//	2050
2000	1991	430	1360	2492	2560	91	467	587	692	797	867	842	1157	1262	1367	1437	1727	1817	1907	1592	2057
3000	2933	557	1350	2811	2940	140	551	731	836	941	1011	1036	1371	1476	1581	1651	2086	2176	2266	1926	2391
5000	4996	882	1700	2915	3120	94	580	750	855	960	1030	1035	1400	1505	1610	1680	2010	2115	2220	1855	2420

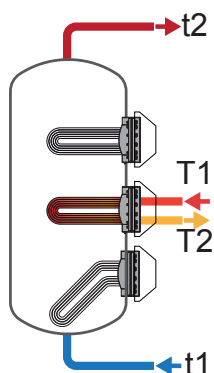
EXTRA3 - HEAT EXCHANGERS TECHNICAL DATA

Cordivari heat exchangers, with tubes bent to the bottom, are able to heat the complete quantity of volume in an homogeneous way. Energy storing is therefore improved and Ignition time data have to be referred to the complete volume of the tank, while in traditional straight heat exchangers equipped calorifires, a range between 9-17% of volume remains cold.



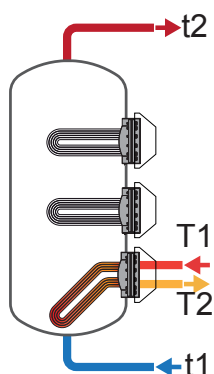
UPPER STRAIGHT HEAT EXCHANGERS

Model	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
	T1/t2				T1				T1			
	55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
1500	69	68	48	30	23	37	44	59	571	909	1088	1466
	88	89	61	39	19	29	35	46	465	722	855	1137
2000	76	77	52	33	33	53	64	86	815	1309	1572	2128
	93	94	65	41	28	44	52	69	688	1077	1281	1712
3000	63	63	43	27	51	82	98	133	1256	2023	2429	3293
	77	77	54	34	44	68	81	109	1075	1688	2009	2685
5000	81	81	56	35	84	134	160	216	2066	3965	5353	
	99	100	69	44	71	111	131	174	1755	2734	3244	4314



MIDDLE STRAIGHT HEAT EXCHANGERS

Model	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
	T1/t2				T1				T1			
	55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
1500	68	68	47	30	51	82	98	133	1259	2026	2430	3295
	82	83	57	37	44	68	81	109	1077	1690	2011	2687
2000	70	70	48	30	69	111	133	180	1702	2741	3293	4463
	84	85	59	37	59	93	111	148	1468	2306	2744	3668
3000	71	72	49	31	100	159	190	255	2465	3931	4698	6325
	88	89	62	40	84	130	154	204	2086	3229	3821	5057
5000	78	78	54	35	162	253	301	400	3998	6275	7459	9924
	99	100	71	46	135	204	239	312	3338	5055	5930	7735



CURVED HEAT EXCHANGERS

Model	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
	T1/t2				T1				T1			
	55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
1500	120	119	82	51	51	81	98	133	1256	2022	2428	3290
	145	146	100	64	44	68	81	108	1075	1687	2008	2684
2000	121	122	83	52	69	111	133	180	1699	2738	3288	4453
	146	147	101	65	59	93	111	148	1465	2302	2741	3665
3000	128	127	87	55	100	159	190	255	2461	3926	4694	6321
	456	157	110	70	84	130	154	204	2082	3224	3817	5053
5000	137	138	96	61	162	253	301	401	3992	6270	7450	9921
	176	179	125	82	135	204	239	312	3332	5049	5923	7727

EXTRA3 - HEAT EXCHANGERS TECHNICAL DATA

Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continue way from 10 °C at t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Flow rate	Exchanger pressure loss	
T1/t2				T1/t2				[m³/h]	[mm.H ₂ O]	[mbar]
55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
520	683	713	776	882	1259	1402	1704	6	682	66,9
503	652	674	721	797	1109	1215	1441	3	179	17,6
811	1062	1106	1199	1327	1891	2102	2547	10	1311	128,6
790	1024	1058	1130	1226	1706	1869	2214	5	341	33,4
1081	1427	1495	1639	1877	2708	3033	3724	15	2181	213,9
1051	1371	1425	1538	1732	2440	2697	3238	7,5	560	54,9
2152	2282	2921	3152	3461	2367	5432	6542	20	2314	226,9
2101	2716	2801	2979	3212	4447	4855	5711	10	592	58,1

DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Flow rate	Exchanger pressure loss	
T1/t2				T1/t2				[m³/h]	[mm.H ₂ O]	[mbar]
55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
1149	1512	1579	1723	1947	2795	3118	3810	15	2181,03	213,9
1119	1456	1509	1622	1801	2526	2783	3324	7,5	560,28	54,9
1595	2095	2187	2382	2672	3831	4273	5209	20	2846,25	279,1
1556	2023	2096	2250	2485	3483	3834	4573	10	728,1	71,4
2303	3021	3149	3420	3865	5511	6124	7426	20	2745,34	269,2
2240	2904	3003	3209	3561	4949	5423	6411	10	700,69	68,7
3882	5066	5263	5674	6414	9040	9987	11959	20	4472,31	438,6
3772	4863	5008	5309	5886	8064	8764	10208	10	290,29	28,5

DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Flow rate	Exchanger pressure loss	
T1/t2				T1/t2				[m³/h]	[mm.H ₂ O]	[mbar]
55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
1855	2394	2462	2605	2651	3675	4000	4689	15	2295	225,1
1825	2338	2392	2504	2506	3407	3664	4204	7,5	589,6	57,8
2546	3285	3377	3571	3622	5019	5459	6391	20	2996	293,8
2507	3212	3285	3439	3435	4670	5021	5761	10	766,42	75,2
3748	4827	4955	5226	5307	7314	7928	9230	20	2836	278,1
3685	4710	4809	5015	5004	6752	7226	8215	10	723	70,9
6362	8166	8363	8775	8891	12137	13081	15058	20	4707	461,6
6252	7963	8109	8409	8363	11161	11860	13303	10	1192	116,9

EXTRA3 - PRESSURE LOSS - LOWER CURVED HEAT EXCHANGERS



Lower heat exchanger surface [m²]

1500	3
2000	4
3000	6
5000	10



Chart for surfaces of: 0,5 m² / 0,75 m² / 1 m²

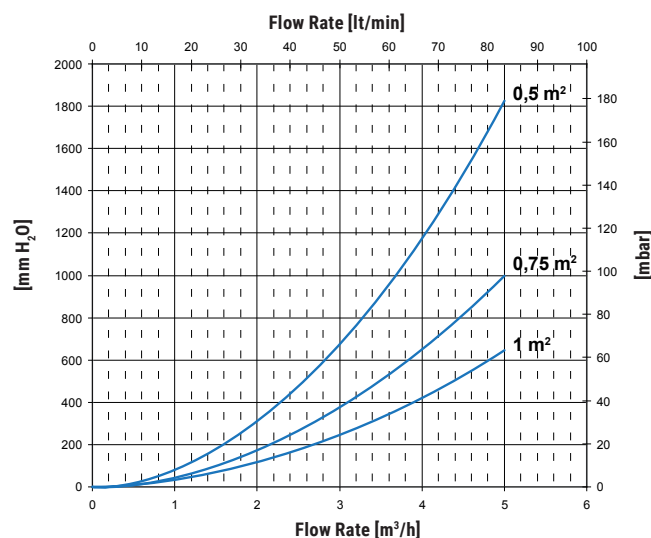


Chart for surfaces of: 1,5 m² / 2 m² / 3 m²

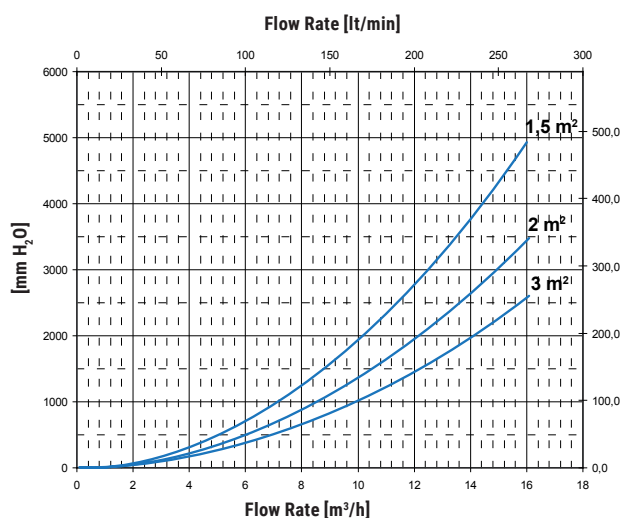


Chart for surfaces of: 4 m² / 5 m²

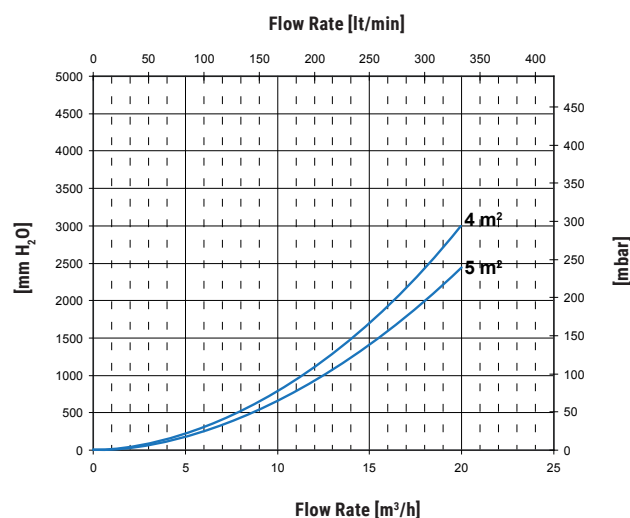


Chart for surfaces of: 6 m² / 8 m²

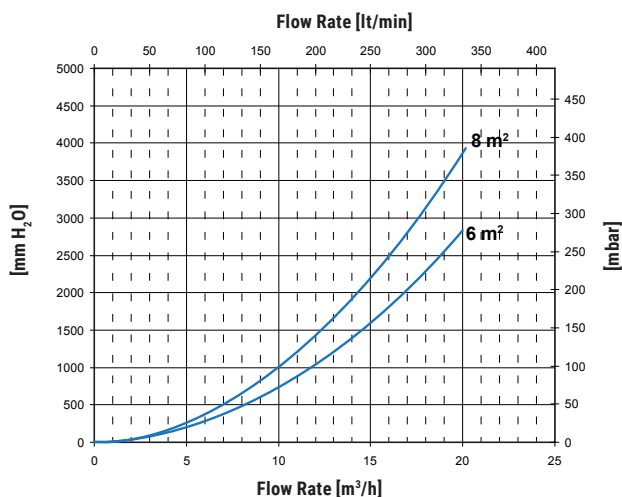
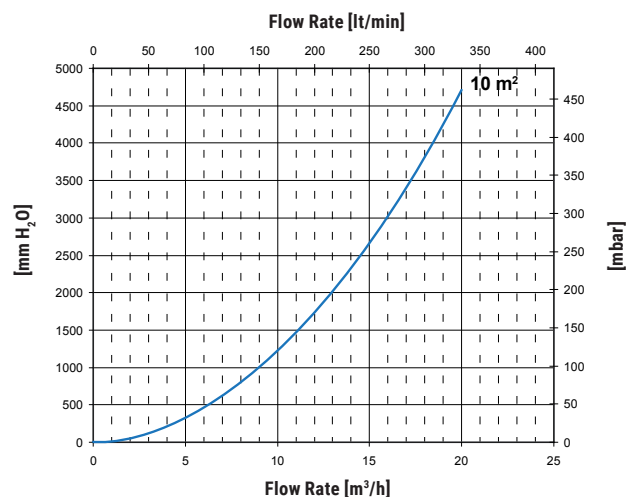


Chart for surfaces of: 10 m²





	Heat exchanger surface [m²]	
	Middle	Upper
1500	3	1,5
2000	4	2
3000	6	3
5000	10	5



Chart for surfaces of: 0,5 m² / 0,75 m² / 1 m²

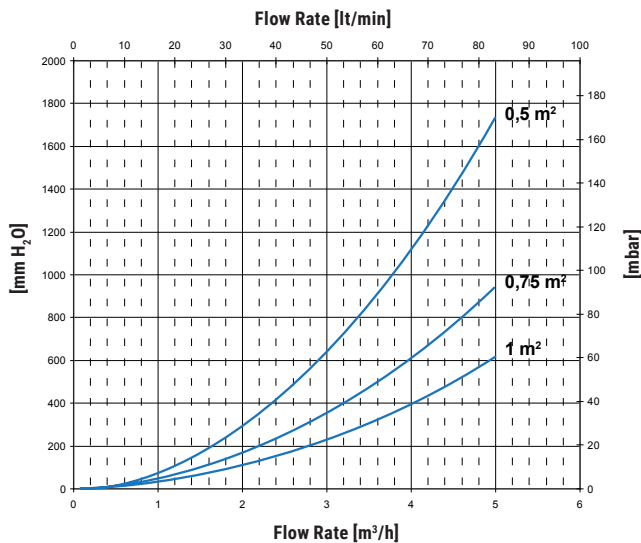


Chart for surfaces of: 1,5 m² / 2 m² / 3 m²

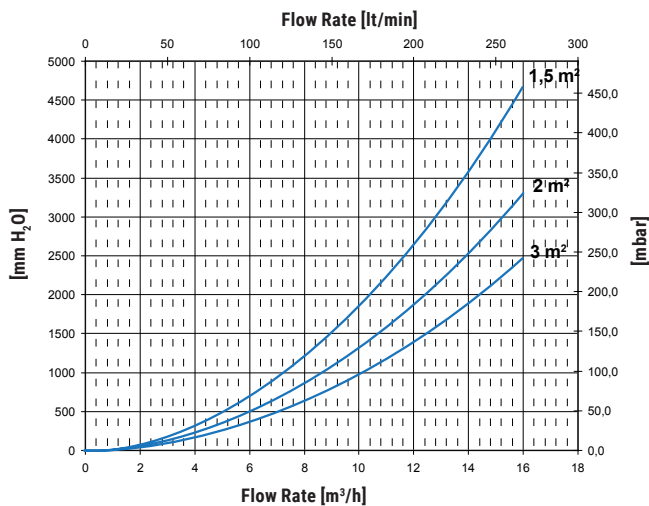


Chart for surfaces of: 4 m² / 5 m²

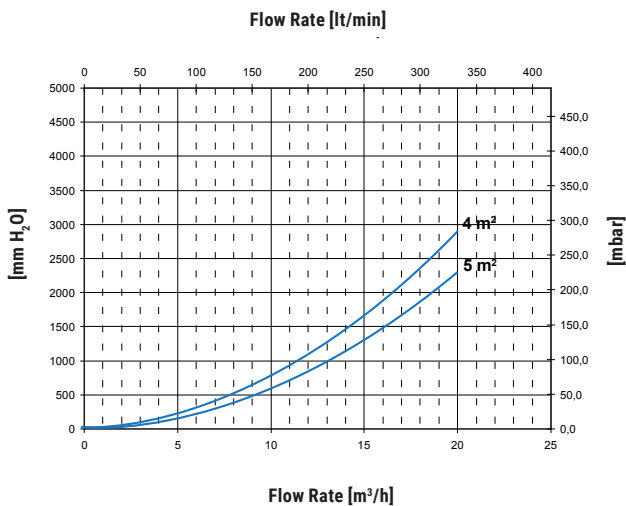


Chart for surfaces of: 6 m² / 8 m²

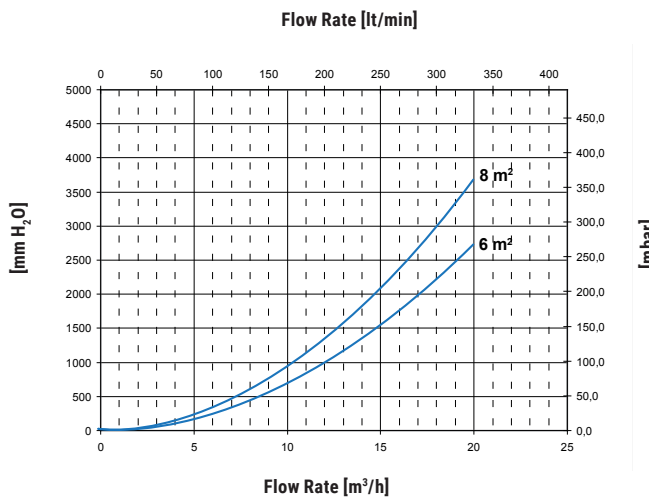


Chart for surfaces of: 10 m²

