

# BOLLY® 1 ST INOX

## STAINLESS STEEL 316L DOMESTIC HOT WATER CALORIFIER WITH 1 FIXED STAINLESS STEEL HEAT EXCHANGER



### APPLICATION

Production and storage of domestic hot water (DHW). All the connections are aligned on the front and on the back for quick and easy installation.

### MATERIAL

Stainless Steel 316 L suitable for domestic hot water

### HEAT EXCHANGER:

1 Fixed stainless steel 316L heat exchanger.

### 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.

### CATHODE PROTECTION

Magnesium anode - Models > 800 n° 2 magnesium anodes.

### DRAIN

External confluence through drain connection

### GASKET- FLANGE PLATE

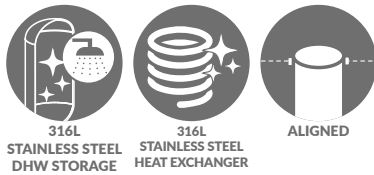
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE); Stainless steel blind flange.

### WARRANTY

5 years (See general sales conditions and warranty)

### ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



### BOLLY® 1 ST XB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE INOX 316L	ENERGY EFFICIENCY CLASS
		[m <sup>2</sup> ]	ErP
150	3104052010001	0,6	B
200	3104052010002	0,7	B
300	3104052010003	1	B
400	3104052010004	1,4	C
500	3104052010005	1,7	C



### BOLLY® 1 ST XC

Model	DISMOUNTABLE SOFT FLEECE INSULATION Art. Nr.	HEAT EXCHANGER SURFACE INOX 316L	ENERGY EFFICIENCY CLASS
		[m <sup>2</sup> ]	ErP
800	3103052010281	2,4	C
1000	3103052010282	2,9	C
1500	3103052010283	3,6	C
2000	3103052010284	3,8	C

## ACCESSORIES

### ELECTRIC IMMERSION HEATERS

Mod.	MONOPHASE		
	1,5 kW	2 kW	3 kW
	5240000000051	5240000000052	5240000000053
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
	82	62	41
150	46		
200	53	95	71
300	83	148	111
400	138	247	185
500	150	269	202
800	279	500	375
1000	381	682	511
1500	640	1147	860
2000	919	1646	1235

THREEPHASE				
4 kW	5 kW	6 kW	9 kW	12 kW
5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
31	//	//	//	//
36	//	//	//	//
56	45	//	//	//
93	74	//	//	//
101	81	67	//	//
188	150	125	83	63
256	205	170	114	85
430	344	287	191	143
617	494	412	274	206

### HEAT MANAGER + electric immersion heater 1,5 kW + probe +3m cable

Art. Nr.	ELECTRIC IMMERSION HEATER
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW

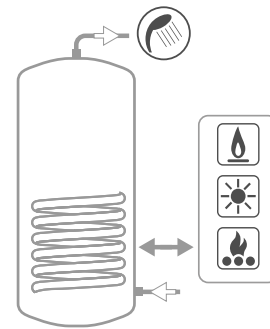
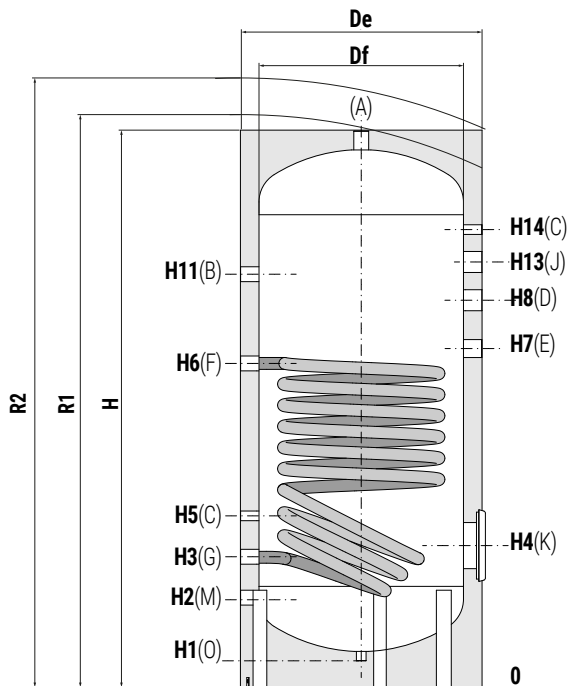
### Thermometer

Art. Nr.
5032240000107
5 units box

# BOLLY® 1 ST INOX

STAINLESS STEEL 316L DOMESTIC HOT WATER CALORIFIER  
WITH 1 FIXED STAINLESS STEEL HEAT EXCHANGER

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
6 bar	95 °C	12 bar	110 °C



<b>A</b>	Domestic hot water outlet
<b>B</b>	Recirculation
<b>C</b>	Connection for instrumentation 1/2" G F
<b>D</b>	Connection for electric immersion heater
<b>E</b>	Connection for magnesium anode 1"1/4 G F
<b>F</b>	Primary circuit inlet 1" G F
<b>G</b>	Primary circuit outlet 1" G F
<b>J</b>	Connection for 2nd magnesium anode 1"1/4 G F (Models > 800)
<b>K</b>	Flange for inspection
<b>M</b>	Domestic cold water circuit inlet
<b>O</b>	Drain

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

## BOLLY® 1 ST INOX - HARD FOAM INSULATION (XB)

Model	Volume		Df	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H8	H11	H14
	[lt]	[kg]														
<b>150</b>	150	31	400	500	1420	1510	65	200	310	310	420	799	830	960	1060	1180
<b>200</b>	192	35	450	550	1440	1540	65	210	320	320	430	847	880	1010	1094	1200
<b>300</b>	293	56	550	650	1495	1638	70	240	350	380	460	870	910	1040	1110	1230
<b>400</b>	425	73	600	700	1770	1907	65	250	360	390	470	1010	1040	1170	1325	1480
<b>500</b>	503	81	650	750	1796	1950	65	260	370	405	480	1060	1090	1220	1335	1490

Model	A	B	C	D	E	Connections F		K	M	O
						G				
<b>150</b>	1"	3/4"	1/2"	1"1/2"	1"1/4"	1"	1"	Øi120/Øe180	3/4"	1/2"
<b>200</b>	1"	3/4"	1/2"	1"1/2"	1"1/4"	1"	1"	Øi120/Øe180	3/4"	1/2"
<b>300</b>	1"	1"	1/2"	1"1/2"	1"1/4"	1"	1"	Øi120/Øe180	1"	1/2"
<b>400</b>	1"	1"	1/2"	1"1/2"	1"1/4"	1"	1"	Øi120/Øe180	1"	1/2"
<b>500</b>	1"	1"	1/2"	1"1/2"	1"1/4"	1"	1"	Øi120/Øe180	1"	1/2"

## BOLLY® 1 ST INOX - DISMOUNTABLE SOFT FLEECE INSULATION (XC)

Model	Volume		Df	De	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H8	H11	H13	H14
	[lt]	[kg]																
<b>800</b>	759	140	790	990	1943	1968	2185	114	323	443	473	563	998	1033	1193	1413	//	1563
<b>1000</b>	902	160	790	990	2193	2231	2415	114	318	443	473	563	996	1047	1233	1493	1683	1813
<b>1500</b>	1398	238	1000	1240	2197	2260	2530	114	327	462	492	582	1012	1042	1182	1432	1652	1782
<b>2000</b>	2018	346	1250	1470	2070	2204	2555	85	350	485	515	605	939	965	1105	1305	1485	1605

Model	A	B	C	D	E	Connections F		J	K	M	O
						G					
<b>800</b>	1"1/4"	1"	1/2"	1"1/2"	1"1/4"	1"1/4"	1"1/4"	//	Øi120/Øe180	1"	3/4"
<b>1000</b>	1"1/4"	1"	1/2"	2"	1"1/4"	1"1/4"	1"1/4"	1"1/4"	Øi120/Øe180	1"	3/4"
<b>1500</b>	2"	2"	1/2"	2"	1"1/4"	1"1/4"	1"1/4"	1"1/4"	Øi170/Øe240	2"	1"
<b>2000</b>	2"	2"	1/2"	2"	1"1/4"	1"1/4"	1"1/4"	1"1/4"	Øi170/Øe240	2"	1"

# BOLLY® 1 ST INOX

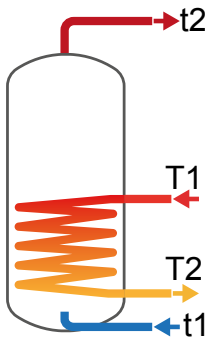
## HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at t2, input 10 °C and output 45 °C;
- 4) Non-scaling sanitary water

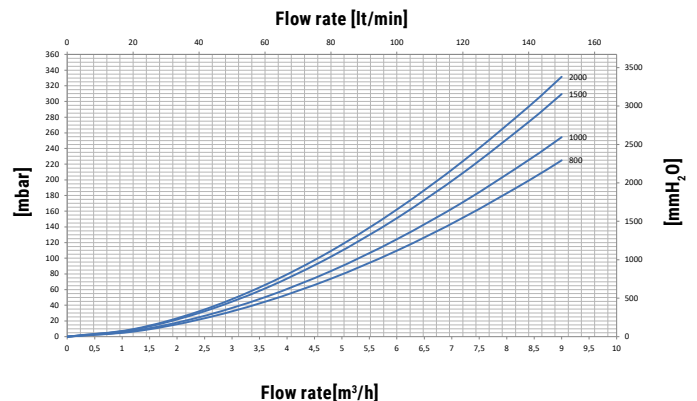
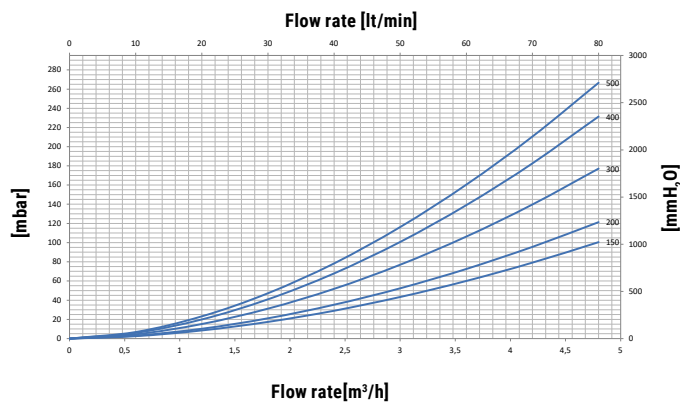
LOWER  
HEAT EXCHANGER



Model	Primary flow rate [m³/h]	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
150	2	112	118	79	50	5,3	6,6	8,5	12,0	108	110	142	203
	1	128	135	89	57	4,9	6,2	7,9	11,0	100	102	131	185
200	2,5	111	116	79	51	6,7	8,4	10,8	15,2	139	141	182	259
	1,25	124	131	88	57	6,3	7,9	10,1	14,0	130	132	169	238
300	3	108	112	78	50	10,3	13,0	16,7	23,4	218	221	285	403
	1,5	121	127	87	57	9,7	12,3	15,6	21,6	206	209	266	371
400	3,5	115	120	83	55	13,9	17,6	22,5	31,5	297	301	386	544
	1,75	130	136	95	62	13,2	16,6	21,0	29,0	280	284	361	501
500	3,5	118	123	86	56	16,2	20,4	26,0	36,4	345	350	449	630
	1,75	135	141	99	65	15,2	19,3	24,3	33,4	325	330	418	577
800	6	121	126	89	58	23,3	29,3	37,4	52,2	500	506	647	906
	3	136	142	100	66	22,0	27,8	35,1	48,3	473	480	607	837
1000	6	127	132	93	61	26,6	33,4	42,6	59,3	571	578	738	1031
	3	144	150	106	70	25,1	31,7	39,8	54,6	539	547	690	948
1500	6	163	169	120	79	32,6	41,1	52,1	72,4	703	711	905	1259
	3	187	195	139	92	30,7	38,7	48,5	66,1	660	671	842	1149
2000	6	220	229	162	107	35,0	44,1	56,0	77,5	755	765	972	1349
	3	254	265	189	126	32,9	41,6	52,0	70,6	709	720	902	1228

Model	Primary flow rate [m³/h]	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				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mmH <sub>2</sub> O]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
150	2	188	231	237	247	257	258	284	333	213	21
	1	187	230	235	244	250	252	275	318	62	6
200	2,5	241	296	303	316	329	331	364	425	413	40
	1,25	240	295	301	313	322	324	353	409	120	12
300	3	371	455	466	486	509	512	563	657	782	77
	1,5	369	453	463	480	500	502	548	632	229	23
400	3,5	535	657	671	698	723	727	795	921	1345	132
	1,75	532	654	667	691	710	713	775	887	395	39
500	3,5	632	777	793	824	851	855	934	1079	1551	152
	1,75	629	774	788	815	835	839	909	1036	456	45
800	6	951	1169	1192	1235	1267	1272	1385	1592	1118	110
	3	946	1164	1185	1224	1246	1251	1353	1537	328	32
1000	6	1126	1385	1412	1460	1488	1493	1621	1856	1266	124
	3	1121	1380	1404	1447	1462	1468	1583	1789	375	36
1500	6	1715	2116	2148	2207	2160	2167	2322	2605	1542	151
	3	1708	2109	2137	2189	2126	2135	2271	2517	454	45
2000	6	2432	3010	3045	3108	2910	2918	3084	3385	1653	162
	3	2424	3003	3033	3088	2873	2882	3028	3289	487	48

## HEAT EXCHANGERS PRESSURE DROP

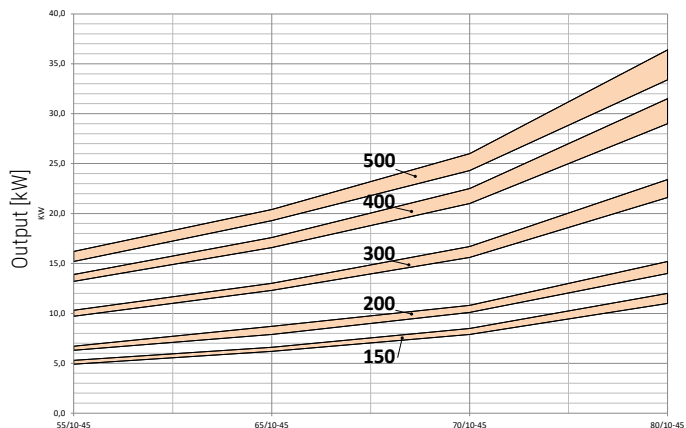


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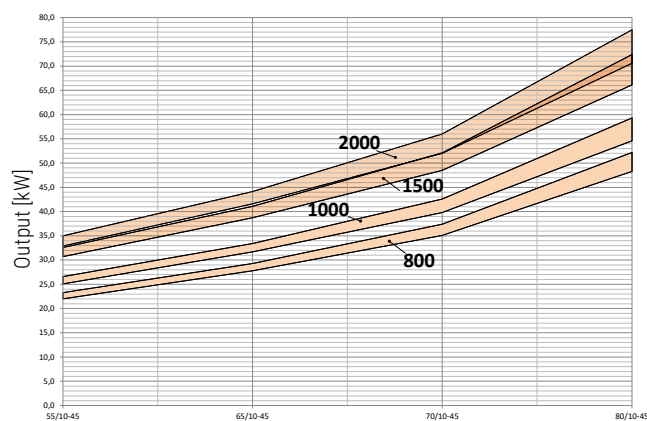
## HEAT EXCHANGERS TECHNICAL DATA



Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate).



Primary circuit temperature [°C]

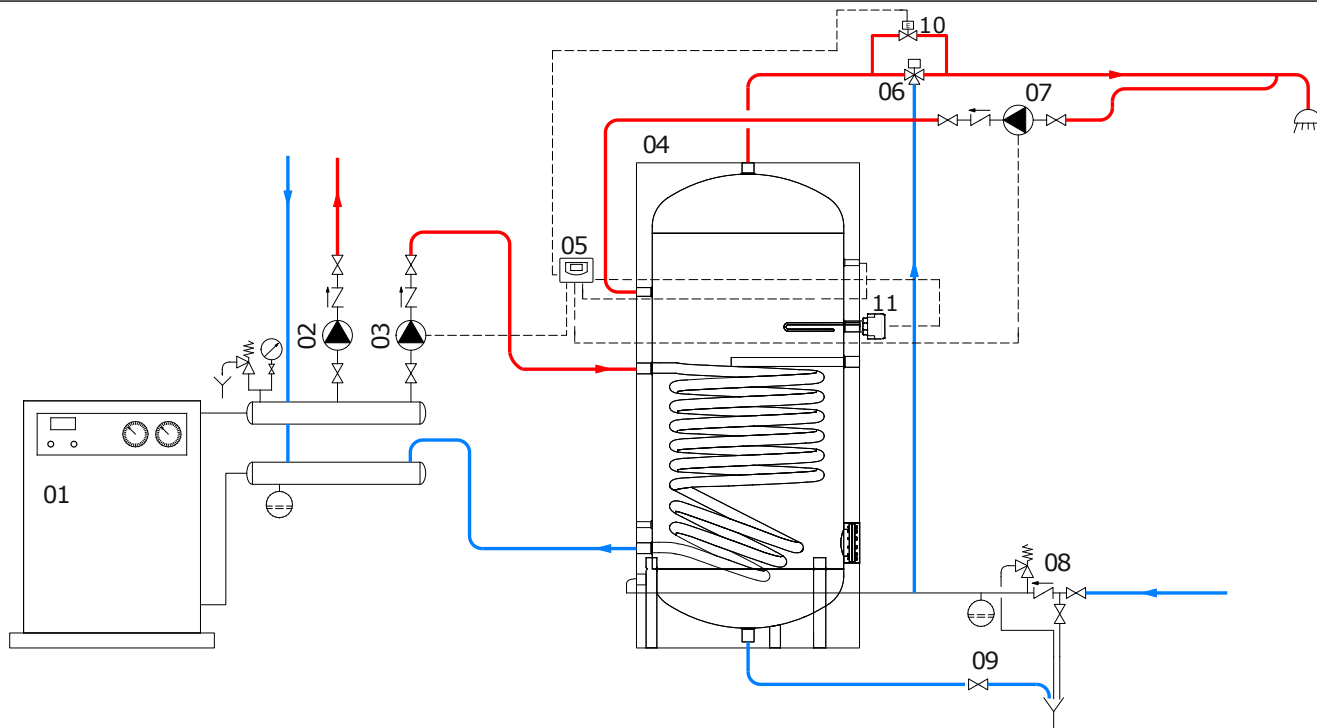


Primary circuit temperature [°C]

Model	150		200		300		400		500	
Flow rate [m³/h]	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	2	1	2,5	1,25	3	1,5	3,5	1,75	3,5	1,75

Model	800		1000		1500		2000	
Flow rate [m³/h]	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	6	3	6	3	6	3	6	3

### EXAMPLE OF INSTALLATION WITH BOLLY® 1 ST INOX



01	Generator	04	BOLLY® 1 ST INOX	07	D.H.W. recirculation group	10	By-pass solenoid valve
02	Heating system circulation group	05	Electronic Control/thermostat	08	Hydraulic safety group	11	Electric immersion heater (optional)
03	D.H.W. circulation group	06	Thermostatic mixing valve	09	Blowdown valve		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.