

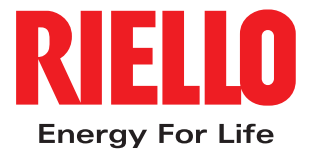
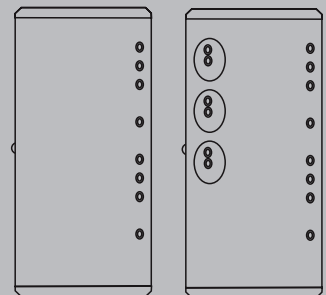
Thermal solar and cylinders



Riello 7200/2 HV Plus Riello 7200/3F HV – HV Plus

Flanged DHW double-coil cylinders

Flanged double-coil solar cylinders
Production of domestic hot water



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Riello 7200/2 HV Plus

Riello 7200/3F HV – HV Plus

PRODUCT DESCRIPTION

Vertical steel solar cylinders, protected with glazing.

The accurate study of tank and coil geometries in combination with 3F models) allow to obtain excellent performance in terms of stratification, heat exchange and recovery times. Arrangement of the connections at different heights to use different types of heat generators, without affecting the stratification. Insulation in CFC-free polyurethane to limit heat losses; cupel structure for easy installation. In "3F" models, the use of three flanges allows the insertion of exchangers with different surface available as accessories.

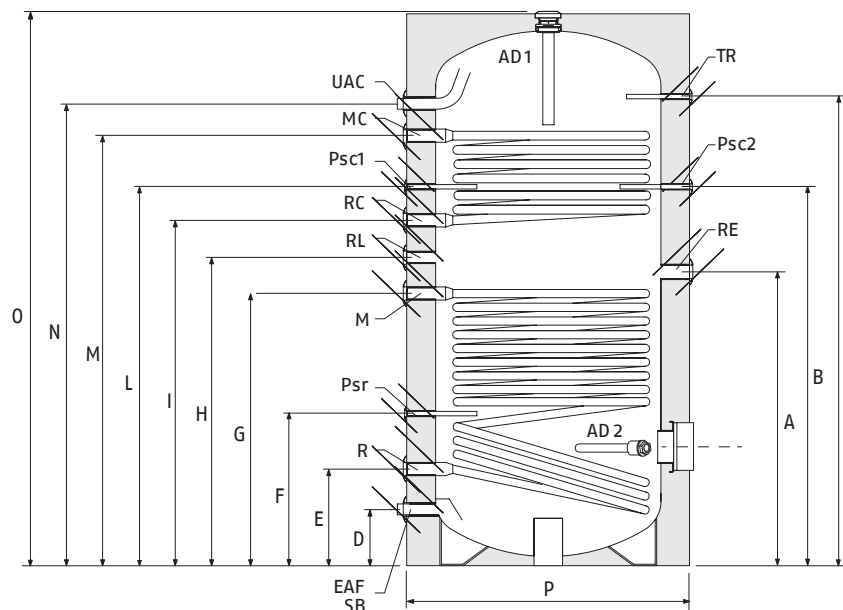
Anodic protection against corrosion. Easy maintenance thanks to the side inspection flange (7200/2 HV models). 5-year warranty.

7200/2 HV PLUS TECHNICAL DATA

Description		7200/2 1500 HV PLUS	7200/2 2000 HV PLUS
Cylinder type			Glazed
Cylinder layout			Vertical
Exchanger layout			Vertical
Cylinder capacity	l	1390	1950
Non-solar usable volume	l	525	800
Diameter of cylinder with insulation	mm	1200	1300
Diameter of cylinder with no insulation	mm	1000	1100
Height with insulation	mm	2185	2470
Height without insulation	mm	2120	2370
Insulation thickness	mm		100
First magnesium anode (∅ x length)	mm		32 x 700
Second magnesium anode (∅ x length)	mm		32 x 400
Flange diameter	mm		290/220
Diameter/length of sensor-holder pocket	mm		8x200
Sleeve for heating element (not supplied)	∅		1"1/2
Lower coil water content	l	19.4	28.1
Upper coil water content	l	10.4	16.9
Lower coil exchange surface	m ²	3.4	4.6
Upper coil exchange surface	m ²	1.8	2.8
Absorbed power (*) of lower coil	kW	88	120
Absorbed power (*) of upper coil	kW	47	73
Domestic hot water production (*) - lower coil	l/h	2200	2900
Domestic hot water production (*) - upper coil	l/h	1200	1800
Maximum cylinder operating pressure	bar	8	8
Maximum operating temperature	°C	99	99
Maximum coil operating pressure	bar	10	10
Maximum coil operating temperature	°C		110
Dissipation according to EN 12897:2006 (T ₄ 5°C, ambient temperature 20°C and storage at 65°C)	W kWh/24h	162 3.89	186 4.46
Thermal dissipation UNI TS 11300	W/K	3.60	4.13
Energy efficiency class		C	C
Net weight with insulation	kg	324	544

(*) With ΔT= 35°C and primary circuit temperature = 80°C.

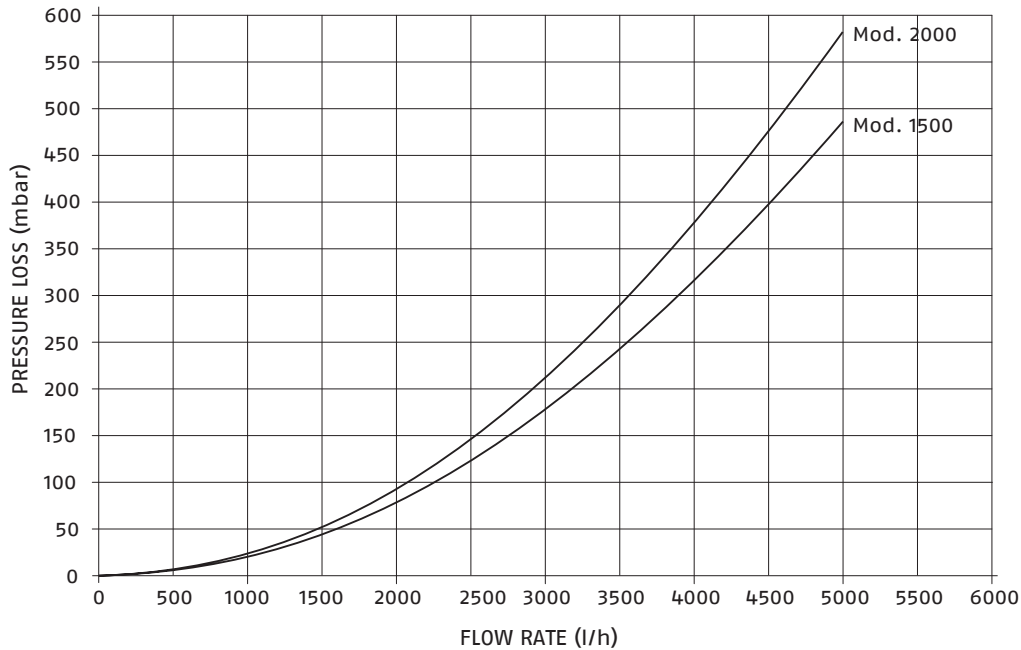
OVERALL DIMENSIONS AND COUPLINGS



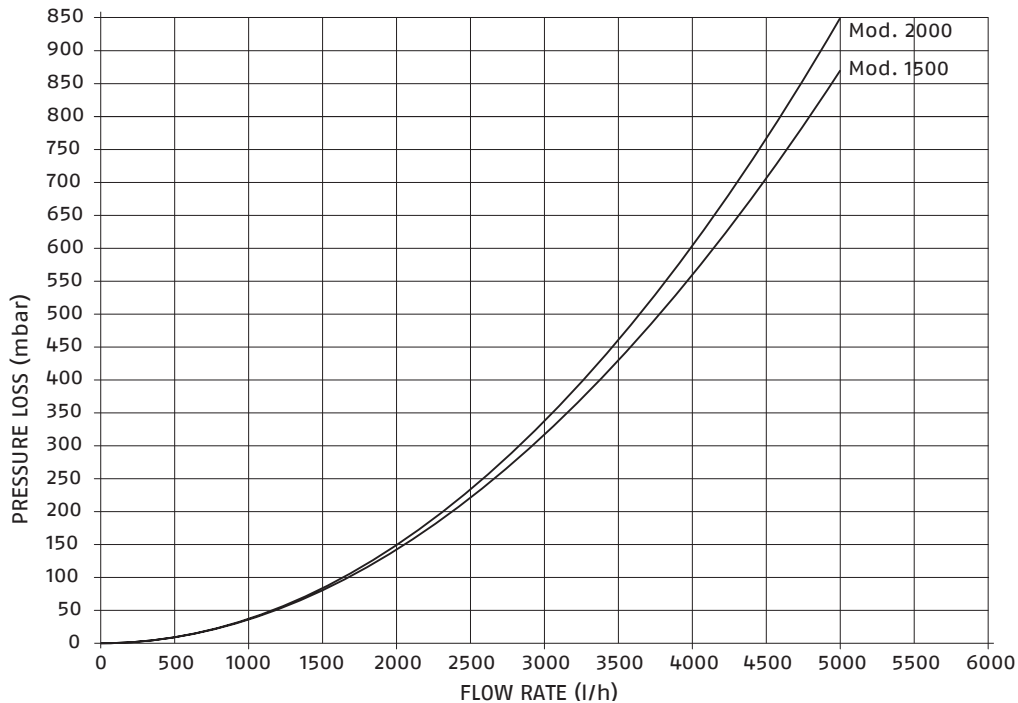
Description		MODEL 7200/2	
		1500 HV PLUS	2000 HV PLUS
UAC - Domestic hot water outlet	∅	1"1/2 F	
MC - Boiler delivery line	∅	1"1/4 F	
RC - Boiler return line	∅	1"1/4 F	
M - Solar delivery line	∅	1"1/4 F	
R - Solar return	∅	1"1/4 F	
RL - DHW recirculation	∅	1" F	
EAF (SB) - Domestic cold water inlet (Cylinder drain)	∅	1"1/2 F	
Psc1 - Diameter/length of boiler sensor pocket	mm	8/200	-
Psc2 - Diameter/length of boiler sensor pocket	mm	-	8/200
Psr - Diameter/length of solar regulation sensor pocket	mm	8/200	
RE - Sleeve for heating element (not supplied)	∅	1"1/2 F	
AD1 - Diameter/length of first magnesium anode	∅/mm	32/700	
AD2 - Diameter/length of second magnesium anode	∅/mm	32/400	
TR - Thermometer	∅	1/2" F	
A	mm	1230	1340
B	mm	-	1487
C	mm	1775	2000
D	mm	280	250
E	mm	415	400
F	mm	525	662
G	mm	1125	1205
H	mm	1225	1315
I	mm	1325	1425
L	mm	1420	-
M	mm	1730	1870
N	mm	1890	1990
O	mm	2120	2045
P	mm	1200	1300

PRESSURE LOSSES

7200/2 HV PLUS UPPER COIL



7200/2 HV PLUS LOWER COIL

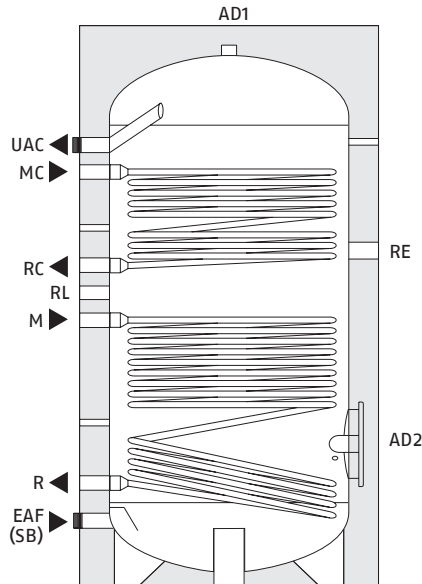


THERMAL SOLAR AND CYLINDERS

Flanged DHW double-coil cylinders

HYDRAULIC CIRCUIT

Mod. 7200/2 1500 HV PLUS – 2000 HV PLUS



UAC	- Domestic hot water outlet
MC	- Delivery line
RC	- Return line
M	- Delivery line
R	- Return line
DR	- DHW recirculation
EAF	- Domestic cold water inlet
CD	- Cylinder drainage
Heating element	- Electric resistance sleeve (not supplied)
AD1 - AD2	- Magnesium anode

The RIELLO 7200/2 HV PLUS solar cylinder is not equipped with load circulation pumps that must be suitably sized and installed on the system.

For the recommended flow rate of the solar circuit, refer to the installation instructions of the solar collector and the Riello manual for the commissioning and maintenance of the solar system.

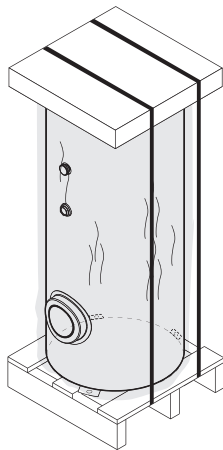
PRODUCT RECEPTION

The Riello 7200/2 and 1500 HV PLUS solar cylinders are supplied in a single package, protected by a nylon bag and placed on wooden pallets.

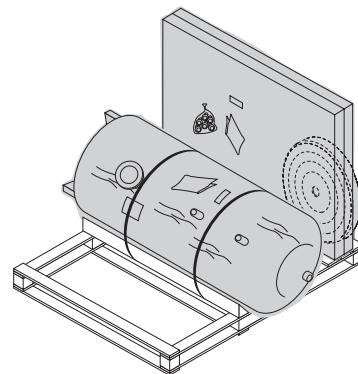
Riello 7200/2 2000 HV PLUS solar cylinders are supplied in two separate packages:

- the first package consists of the painted tank, protected by a nylon bag and placed on wooden pallets.
- the second package, also protected by a nylon bag, is made of polyurethane insulation with an elegant external coating, outer sleeve lining rings, thermoformed cover, flange covers, identification plates and documentation.

Mod. 7000/2 1500 HV PLUS



Mod. 7000/2 2000 HV PLUS



The following material is supplied in a plastic bag positioned inside the package:

- Instruction manual
- Warranty Certificate and barcode label
- Spare parts list
- Hydraulic test certificate
- no. 3 adjustable feet
- no. 2 threaded inserts for solar regulator fixing (accessory).

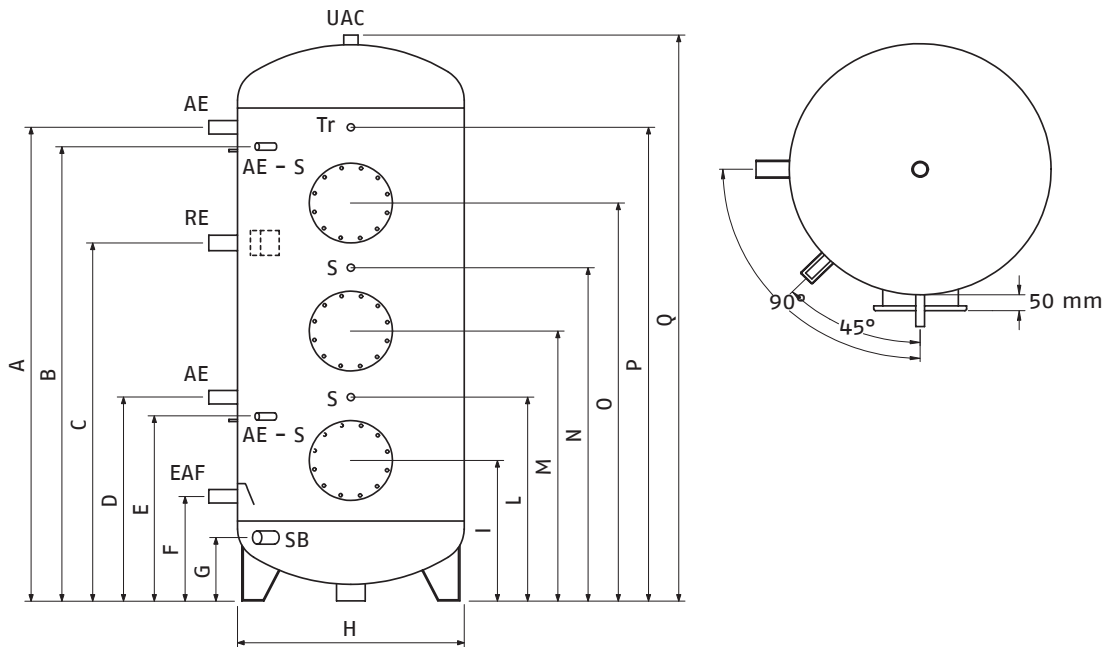
The instruction manual is an integral part of the cylinder, and should therefore be carefully read and stored in a safe location.

7200/3F HV – HV PLUS TECHNICAL DATA

Description		7200/3F 800 HV	7200/3F 1000 HV	7200/3F 1500 HV PLUS	7200/3F 2000 HV PLUS	7200/3F 3000 HV PLUS
Cylinder type	I	Glazed				
Cylinder layout	mm	Vertical				
Exchanger layout	mm	Vertical				
Cylinder capacity	mm	749	955	1430	1990	2959
Diameter of cylinder with insulation	mm	990	990	1200	1300	1450
Diameter of cylinder with no insulation	mm	790	790	1000	1100	1250
Height with insulation	mm	1855	2205	2185	2470	2680
Height without insulation	mm	1810	2140	2120	2425	2650
Insulation thickness	mm	100				
First magnesium anode (∅ x length)	mm	32x700				
Second magnesium anode (∅ x length)	mm	-	-	32x400	32x700	
Flange diameter	mm	290/220				
Diameter/length of sensor-holder pockets	mm	8/2				
Sleeve for heating element (not supplied)	∅	1"1/2				
Maximum cylinder operating pressure	bar	10	10	8	8	8
Maximum cylinder operating temperature	°C	99				
Dissipation according to EN 12897:2006 $\Delta T=45^{\circ}\text{C}$ (ambient temperature 20°C and storage at 65°C)	w	130	142	162	186	344
	kWh/24h	3.12	3.408	3.888	4.464	8.26
Energy class		C				
Insulation type		Cupel soft PU				
Net weight with insulation	kg	150	190	305	325	543

(**) With cylinder average temperature = 60°C and ambient temperature = 20°C

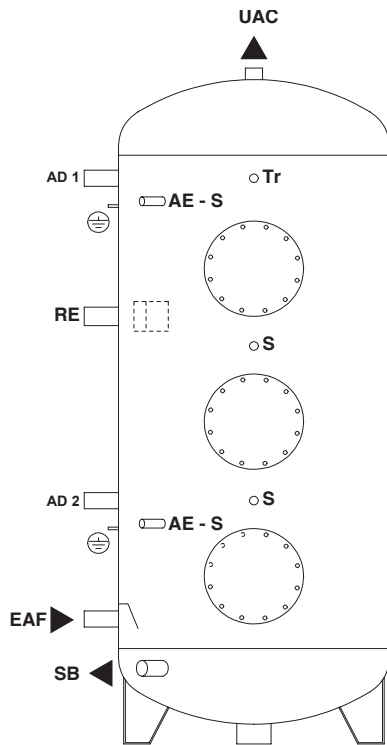
OVERALL DIMENSIONS AND COUPLINGS



Description		7200/3F HV PLUS				
		800	1000	1500	2000	3000
UAC - Domestic hot water outlet	∅	1"1/2 F	1"1/2 F	1"1/2 F	2" F	2" F
EAF - Domestic cold water inlet	∅	1"1/2 F			2" F	2" F
SB - Cylinder drain	∅	-	1" F	1"1/4 F	1"1/4 F	1"1/4 F
AE - Magnesium anode	∅	1"1/4 F	1"1/4 F	1"1/4 F	1"1/4 F	1"1/4 F
AE - S - Diameter/length of sensor-holder pocket or electronic anode	mm	8/200	8/200	8/200	8/200	8/200
S - Diameter/Length of the sensor-holder pocket	mm	8/200	8/200	8/200	8/200	8/200
Tr - Thermometer	∅	1/2" F	1/2" F	1/2" F	1/2" F	1/2" F
RE - Sleeve for heating element (not supplied)	∅	1"1/2 F	1"1/2 F	1"1/2 F	1"1/2 F	1"1/2 F
A	mm	1500	1830	1720	1990	2265
B	mm	1430	1760	1650	1920	2195
C	mm	1130	1295	1250	1345	1455
D	mm	670	760	800	820	865
E	mm	600	690	730	750	795
F	mm	350	350	435	410	475
G	mm	240	240	280	250	190
H	mm	790	790	1000	1100	1250
I	mm	470	470	545	555	580
L	mm	-	-	760	820	865
M	mm	940	1075	1075	1085	1165
N	mm	1130	1295	1290	1345	1455
O	mm	1320	1610	1505	1670	1860
P	mm	1510	1830	1720	1990	2265
Q	mm	1810	2140	2120	2425	2700
Net weight with insulation	kg	168	188	303	321	543

STRUCTURE

Mod. 72000/3F 800 HV - 1000 HV - 1500 HV PLUS - 2000 HV PLUS - 3000 HV PLUS



Key

UAC	Domestic hot water outlet
EAF	Domestic cold water inlet
SB	Cylinder drain
EA	Electronic anode
HE	Heating element sleeve (not supplied)
P	sensor
Tr	Thermometer
AD1 - AD2	Magnesium anode

The Riello 7200/3F HV - HV Plus solar cylinder is not equipped with load circulation pumps that must be suitably sized and installed on the system.

For the recommended flow rate of the solar circuit, refer to the installation instructions of the solar collector and the Riello manual for the commissioning and maintenance of the solar system.

THERMAL SOLAR AND CYLINDERS

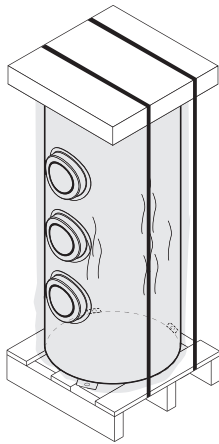
Flanged DHW double-coil cylinders

PRODUCT RECEPTION

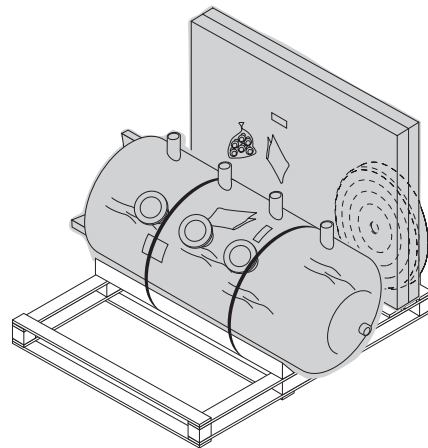
The Riello 7200/3F 800 HV, 1000 HV and 1500 HV PLUS solar cylinders are supplied in a single package, protected by a nylon bag and placed on wooden pallets.

The Riello 7200/3F 2000 HV PLUS and 3000 HV PLUS solar cylinders are supplied in two separate packages:
- the first package consists of the painted tank, protected by a nylon bag and placed on wooden pallets.
- the second package, also protected by a nylon bag, is made of polyurethane insulation with an elegant external coating, outer sleeve lining rings, thermoformed cover, flange covers, identification plates and documentation.

Mod. 7200/3F 800 HV – 7200/3F 1000 HV – 7200/3F 1500 HV PLUS



Mod. 7200/3F 2000 HV PLUS – 7200/3F 3000 HV PLUS



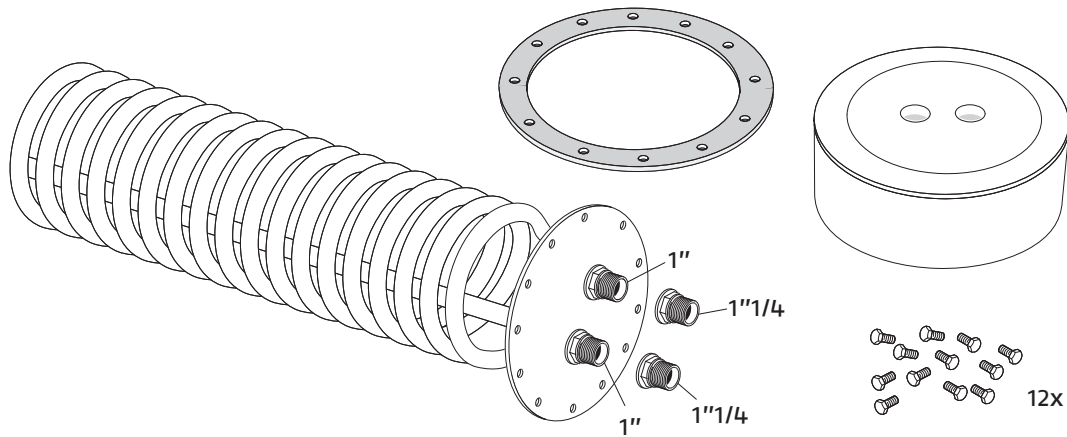
The following material is supplied in a plastic bag positioned inside the package:

- Instruction manual
- Warranty Certificate and barcode label
- Spare parts list
- Hydraulic test certificate
- no. 3 adjustable feet
- no. 2 threaded inserts for solar regulator fixing (accessory).

The instruction manual is an integral part of the cylinder, and should therefore be carefully read and stored in a safe location.

ACCESSORIES

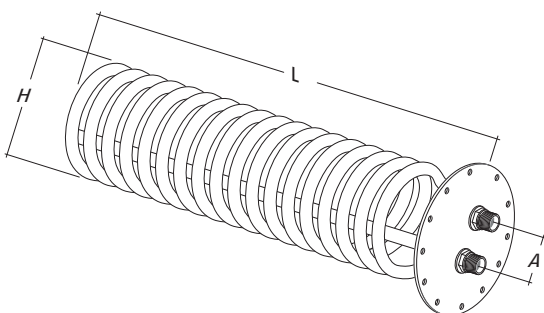
EXCHANGER COIL KIT (ACCESSORY THAT CAN BE COMBINED WITH 7200/3F HV – HV PLUS MODELS ONLY)



TECHNICAL DATA

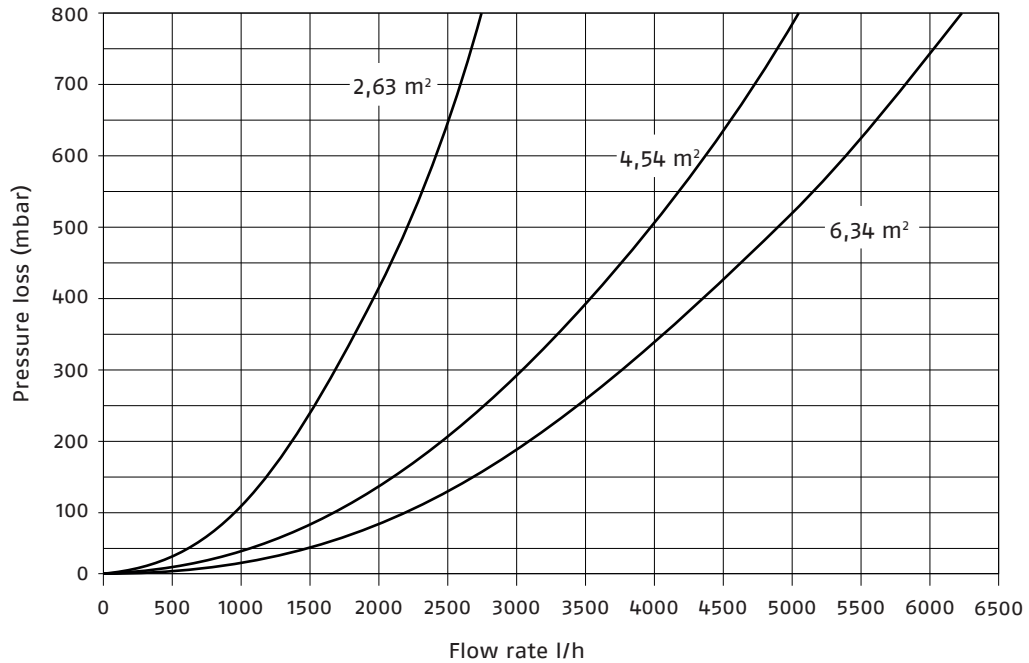
Description		2,63 m ²	4,54 m ²	6,34 m ²
Exchanger type		Externally tinned finned copper, suitable for DHW (tinned side)		
Exchanger layout		Horizontal installation in flange		
Exchange surface	m ²	2,63	4,54	6,36
Rated power output	kW	53,00	91,0	127,0
Required primary flow rate to the coil (DIN 4708)*	l/h	2300	3900	5500
Domestic Hot water production	l/h	1300	2200	3100
Number of wrapping principles	n°	1	2	2
Diameter and Insulation pipe	mm	18 x 1	18 x 1	18 x 1
Water Capacity	l	1,74	3,56	5,10
Exchanger wrap diameter (H)	mm	DN 200	DN 200	DN 200
Coil length (L)	mm	580,00	750,00	980,00
Centre distance hydraulic connections (A)	mm	80,0	80,0	80,0
Net weight	kg	14,9	22,6	29,0
Maximum cylinder operating pressure	bar	10,0	10,0	10,0
Maximum cylinder operating temperature	°C	99,0	99,0	99,0

(*) Nominal output in accordance with DIN 4708, with primary at 80–60°C and storage at 10–45°C in accordance with DIN 4708 with continuous withdrawal of water from the storage tank; in order to obtain the declared performance, the values of power input and required flow rate to the coil shown in the table, must be observed.

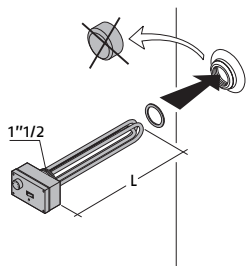


Match	2,63 m ²	4,54 m ²	6,34 m ²
7300/3F 800 HV	•	•	
7300/3F 1000 HV	•	•	
7300/3F 1500 HV PLUS	•	•	•
7300/3F 2000 HV PLUS	•	•	•
7300/3F 3000 HV PLUS	•	•	•

PRESSURE LOSSES



HEATING ELEMENT KIT



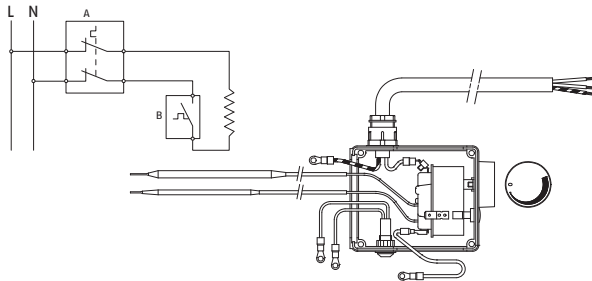
ATTENTION: Check the hydraulic tightness after installing the heating element.

ST Safety thermostat
 ST Setting Thermostat
 (*) Single-phase
 (**) Three-phase

	L (mm)	Power supply	"ST"	"SeT"	Minimum cylinder size (litres)
1500 W (*)	341 mm	1 x 230 V	90°C	30-70°C	200 - 300
2200 W (*)	341 mm	1 x 230 V	90°C	30-70°C	300 - 430
3000 W (*)	341 mm	1 x 230 V	90°C	30-70°C	430
3800 W (**)	340 mm	4 x 400 V	98°C	9-75°C	550 - 800 - 1000

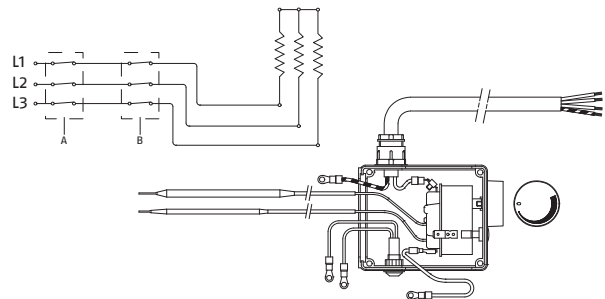
ELECTRICAL CONNECTIONS

SINGLE-PHASE HEATING ELEMENT WIRING DIAGRAM



- A Safety thermostat contacts (90°C)
- B Setting thermostat contacts (30±70°C)

THREE-PHASE HEATING ELEMENT WIRING DIAGRAM



- A Safety thermostat contacts (98°C)
- B Setting thermostat contacts (9±75°C)

It is forbidden to use water pipes to earth the device.

It is forbidden to lay the power supply cables in the vicinity of any hot surfaces (delivery pipes). If there is a risk of contact with hot parts, with temperatures exceeding 50°C, a suitable type of cable must be utilized.

The manufacturer is not to be held responsible in case of damages caused by failure to earth the device or failure to comply with what indicated in the wiring diagrams.

INSTALLATION ON OLD SYSTEMS OR SYSTEMS REQUIRING REFURBISHMENT

When the solar cylinders of the HV PLUS range are installed

- on old systems or systems to be upgraded, check that:
- The installation is carried out with safety and control devices in compliance with specific standards
 - The system is washed, cleaned of sludge, scale, de-aerated and the hydraulic seals have been checked
 - A treatment system is provided when the supply/refill water has particular features (the values shown in the table can be considered as reference values).

REFERENCE VALUES	
pH	6-8
Electrical conductivity	less than 200 mV/cm (25°C)
Chlorine ions	less than 50 ppm
Sulphuric acid ions	less than 50 ppm
Total iron	less than 0.3 ppm
Alkalinity M	less than 50 ppm
Total hardness	less than 35°F
Sulphur ions	none
Ammonia ions	none
Silicon ions	less than 30 ppm

THERMAL SOLAR AND CYLINDERS

Flanged DHW double-coil cylinders

RIELLO 7200/2 HV PLUS

CONSTRUCTION DESCRIPTION FOR CONCISE SPECIFICATIONS

Glazed steel vertical cylinder with quick storage and double-coil heat exchanger with large surface to maximize heat exchange, with capacity of 1390 and 1950 litres, which can be integrated into solar systems for the production of domestic hot water.

CONSTRUCTION DESCRIPTION FOR SPECIFICATIONS

The double coil cylinder with large exchange area, ideal for solar systems, consisting of:

- vertical steel structure
 - internal double glazing of the cylinder to ensure the maximum hygiene of the domestic water carried out at 875°C according to the Glaslining Bayer process in accordance with DIN 4753
 - maximum operating temperature 99°C
 - upper coil of 1.8 m² for 1500 HV Plus model and 2.8 m² for 2000 HV Plus model
 - lower coil of 3.4 m² for 1500 HV Plus model and 4.6 m² for 2000 HV Plus model, to maximise heat exchange and optimise the efficiency of the solar system
 - insulation made of closed-cell polyurethane foam with a minimum thickness of 100 mm, CFC-free, to minimise heat losses
 - side flange for inspection and cleaning of the storage system
 - 2 sensor-holder pockets
 - 2 magnesium anodes for corrosion protection
 - 1 heating element holder pocket
 - 1 pocket for thermometer
 - cylinder water content of 1390 litres (1500 HV Plus) and 1950 litres (2000 HV Plus)
 - maximum cylinder operating pressure: 8 bar
 - maximum coil operating pressure: 10 bar
 - product complying with standards:
 - DIN 4753.3
 - UNI 9905
 - UNI 10025
 - European Directive 97/23/EC (PED)
- European regulation 813:2013
- Energy class C (up to model 2000 HV Plus)

MATERIAL SUPPLIED

- cylinder warranty certificate
- hydraulic test certificate
- spare parts list
- 3 adjustable feet
- 2 threaded inserts for solar regulator fixing (accessory)
- technical monograph with provisions for installation, use and maintenance
- product ID plate
-

RIELLO 7200/3F HV – HV PLUS

CONSTRUCTION DESCRIPTION FOR CONCISE SPECIFICATIONS

Glazed steel vertical cylinder with quick storage equipped with 3 flanges to allow maximum system flexibility and without coils, with capacity of 745 (800 HV Plus), 955 (1000 HV Plus), 1430 (1500 HV Plus), 1990 (2000 HV Plus) and 2959 litres (3000 HV Plus), which can be integrated into solar systems for the production of domestic hot water.

CONSTRUCTION DESCRIPTION FOR SPECIFICATIONS

The cylinder consists of:

- vertical steel structure
 - internal double glazing of the cylinder to ensure the maximum hygiene of the domestic water carried out at 875°C according to the Glaslining Bayer process in accordance with DIN 4753
 - maximum operating temperature 99°C
 - insulation made of closed-cell polyurethane foam with a minimum thickness of 100 mm, CFC-free, to minimise heat losses
 - side flange for inspection and cleaning of the storage system
 - 2 sensor-holder pockets
 - 2 magnesium anodes for corrosion protection
 - 1 heating element holder pocket
 - 1 pocket for thermometer
 - boiler water content of 745 (800 HV Plus), 955 (1000 HV Plus), 1430 (1500 HV Plus), 1990 (2000 HV Plus) and 2959 litres (3000 HV Plus)
 - maximum cylinder operating pressure: 10 bar (versions 800 HV and 1000 HV) and 8 bar (1500 HV Plus, 2000 HV Plus and 3000 HV Plus)
 - maximum coil operating pressure: 6 bar
 - product complying with standards:
 - DIN 4753.3
 - UNI 9905
 - UNI 10025
 - European Directive 97/23/EC (PED)
- European regulation 813:2013
- Energy class C

MATERIAL SUPPLIED

- cylinder warranty certificate
- hydraulic test certificate
- spare parts list
- 3 adjustable feet
- 2 threaded inserts for solar regulator fixing (accessory)
- technical monograph with provisions for installation, use and maintenance
- product ID plate

RIELLO

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RIELLO 7200

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