Product Catalogue
2015

hajdu
...with renewable energy...

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Legend:

Energy saving | Renewable energy | Suitable for solar systems | Water tap included | Complies with European safety requirements

Electrical, electronic equipment contains components (for example, cables) which, after becoming waste, are classified as hazardous waste. Hazardous materials that can be found in electrical, electronic equipment have a harmful impact on the environment (primarily the soil and groundwater) and human health if they are not used or operated in compliance with provisions on environmental protection. Thus, in accordance with EU directives and in the interest of the protection of the environment, we request that you comply with the following provisions:
- Electrical, electronic equipment that has become waste must be collected separately and may not be placed in the same waste collector as municipal waste, furthermore it cannot be disposed of as municipal waste.
- In general, within the area of the European Union, used electrical, electronic equipment that has become waste can be handed over to the distributor free of charge, at the distribution site.
- Through your activities you undertake a valuable role in the re-use, and preparation for re-use, of electrical, electronic equipment, and in the reduction in the quantity, in the recovery and in other forms of recycling of electrical, electronic equipment that has become waste.
- In principle, manufacturers bear liability for all costs arising in connection with fulfilment of the abovementioned obligations and expectations within the area of the European Union.

HAJDU Zrt. reserves the right to change these terms/prices.

Valid: till September 2015

Company History

HAJDU Hajdúsági Ipari Zrt.'s forerunner Hajdúsági Iparművek was founded by the Hungarian government in 1952 for the purposes of military industry. In 1957 the company started to build household appliances whose assortment as well export were constantly growing. By manufacturing its own developed as well as licensed products and setting up corresponding machinery it managed to grow into a medium-sized enterprise by the 1980s.
After 1998 – with a purpose of using up its free capacities – and after 2002 (primarily due to parts produced by sheet metal forming) the company also opened up to a car industry.

In 1993 it was transformed into an incorporated company and in 1994 it was privatized by Hungarian investors.

The ISO 9001 quality assurance certification was introduced in 1993, whilst the ISO 14001 environmental management certification was implemented in 2001.
In October 2005 HAJDU Hajdúsági Iparművek Rt. split into three separate companies. HAJDU Hajdúsági Ipari Rt. continued to produce traditional products such as hot water storage tanks, washing machines, and spin dryers.

The other two companies:
HAJDU Autotechnika Ipari Zrt. deals with metalworking – it characteristically manufactures metal sheet produced automobile parts – and designing as well as manufacturing machine tools.
HAJDU Infrastruktúra Szolgáltató Zrt. operates an Industrial Park which also hosts both of the other HAJDU companies. It occupies quite an extensive area and offers a number of services to the enterprises that have settled there.

In 2006 HAJDU Hajdúsági Ipari Rt. was transformed into a private limited company.

In 2008 new branch of business was established, focusing on developing products that use renewable energy as well as launching them onto Hungarian market. This orientation has become one of the company's main strategies.
In the same year the company began realizing a two-year investment program, partly financed by European Union, which enabled a significant technological development of the production process.

Between 2010 and 2015 HAJDU brand received several awards thus getting recognition for the quality of its product development and business process.

Our mission, philosophy, plans
HAJDU Hajdúsági Ipari Zrt. meets customer demands by providing environmentally friendly household appliances and complex systems that offer a natural helping hand to families, public institutions as well as enterprises.

Our goal is to strengthen HAJDU brand's position on regional market and to meet customer demands in Europe as well as in other parts of the World. In order to achieve that we have started following ISO 9001 quality assurance standards in 1993 and ISO 14001 environmental management standards in 2001.

Excellent and constant quality of our products as well as their regular development are guaranteed by systematic on-site controls performed by various accredited – both domestic and international – testing institutes (TÜV Rheiland InterCert, VDE, LCIE, etc.)

Our company puts a lot of emphasis on environment protection and on minimizing negative impact on the environment. We thus strive to employ an environmentally friendly technology and use resources (materials, energy) in an economical way.

Electric and indirect hot water storage tanks with closed internal circular system

Z.., AQ.., IND/IDE.., AQ IND.., HR-N/HR-T.., STA.., AQ STA…, HB..

HAJDU electric hot water storage tanks with closed internal circular system are here to provide domestic hot water for household, communal and industrial use. Given the wide range of products we offer you will easily find the one that fully meets your demands. Tank of the electric water heater with closed system is made of steel, while special vitreous enamel coating and a built-in magnesium anode guarantee protection against corrosion. These appliances can supply heated water to multiple faucets or showers. The appliances are insulated with hard Freon-free polyurethane foam.
Operating the hot water storage tank at 65 °C will prolong its life, limit the formation of limescale, and save energy!
Following the instruction manual and performing regular maintenance will prolong life of the appliance!

Vertical hot water tanks, called **Z… types,** can hold 10 (placed under or above the sink), 30, 50, 80, 120, 150 and 200 liters of water, the horizontal ones hold 80, 120, 150 and 200 liters, whilst the floor-standing tank has a volume of 200–300 liters.
Our company also manufactures closed system electric hot water storage tanks – with a volume of 30, 50, 80, 100, 120, 150 and 200 liters – under the brand **Aquastic.**

While these appliances provide hot water the same way as those with the brand name HAJDU, they are slightly different in terms of technical and warranty parameters and thus enable a cost reduction.

HAJDU tanks with an indirect heating come with a volume of 75, 100, 150 or 200 liters and a coil on the bottom third of the tank that heats up water in an indirect way. Their interior surface is coated with vitreous enamel in order to make them suitable for both heating up domestic hot water as well as storing it.
IND….F/S – without a heater – indirect hot water tanks
IDE…..F/S – with a heater (2.4 kW) – indirect hot water tanks (advantage: domestic hot water supply even without using a boiler or solar collector)
Connection with a solar collector is recommended for 150 and 200 liter tanks. Boiler (solar collector) as well as temperature of stored water can be regulated by a single controller, the temperature can be turned up to 65 °C.

Both wall mounting (**IND/E….F**) and floor standing (**IND/E….S**) designs are available.
They have an active anode protection against corrosion (an anode rod, placed on the flange plate, prevents corrosion of the tank), and possess penetration bimetal termometer.

Aquastic tanks are also available in this series that are designed to be wall-mounting and floor standing (**AQ IND…FC and AQ IND…SC**). They are provided with a circulation stub which – in the case of an established system – ensures an instant supply of hot water from a distant faucet. To **AQ IND…SC** floor standing designed appliance can be ordered a compact heater (2 or 3 kW) which ensures production of hot water without connecting any outside appliances (solar collector, boiler). The required water temperature can be set by the turning knob.

A different type version of the Aquastic brand, **AQ IND…FC Sztea,** is fitted with a steatite cover (without heating element), onto which a 2.4 kW steatite heating element can be installed at a later date. When installing or replacing the heating element there is no need to dismantle the cover or drain the water from the storage tank.

The other family of HAJDU tanks with an indirect heating includes **high-performance tanks,** suitable for heating water with a boiler. As their heat exchanger has a large surface area they are especially applicable to low-temperature heating systems and condensing boilers.
The **HR-T** version is equipped with a transfer contact temperature regulator that can be turned up to 65 °C as well as a contact thermometer. The mantle of the tanks is made of white powder-coated steel.
The **HR-N** version comes with an anode level indicator and a liquid tension thermometer, whilst the casing is made of grey plastic. The insulation is 47 mm thick.

HAJDU also produces **multi-energy solar STA… storage tanks with a big volume:** 200, 300, 400, 500, 800 or 1000 liters. They are equipped with a coil that can be found on the bottom third of the **STA…C** type or on the bottom and top third of the **STA…C2** type. The coil helps us heat up domestic hot water in the storage tank in an indirect way.
The features of STA appliances:

- They are built as floor-standing storage tanks.
- They come with an anode corrosion protection (an anode rod, placed on the top lid, prevents the occurrence of leaks on the storage tank).
- They are provided with a circulation stub which – in the case of an established system – ensures an instant supply of hot water from a distant faucet.

- Their interior surface is coated with vitreous enamel, which makes the appliances suitable for both producing and storing domestic hot water.
- They can be equipped with a heater (3 kW; 6 kW, 3 x 1.2 kW, 3 x 1.6 kW) which ensures production of hot water without connecting any outside appliances (solar collector, boiler).
  The 200–500 liter STA storage tanks are provided with insulation.
  In the case of 800 and 1000 liter STA tanks both insulation and a jacket can be purchased separately.

This series can also be obtained in a steatite version with type designation **STA...C. Sztea.** Associated steatite heating elements: 2.4 kW (**STA200...**) and 3.2 kW (**STA300...**). Its advantage is that when installing the steatite heating element it is necessary to insert it into the steatite pocket tube of the cover and thus there is no need to dismantle the cover.

Aquastic tanks are also available in this series with type designation **AQ STA...Cx.** They can be equipped with a compact heater (2 or 3 kW) which ensures production of hot water without connecting any outside appliances (solar collector, boiler).

HAJDU **hot water tanks with a heat pump** were categorized as the **HB...** type.

A heat pump uses air in the apartment to heat up water in the tank up to 60 °C.

We can heat our premises with a heat pump by keeping thus produced air indoors. We enable air conditioning of the premises or apartment by transferring the air coming out of the appliance outdoors. The appliance can be connected to the house's ventilation system. It dries air in the apartment by removing humidity.

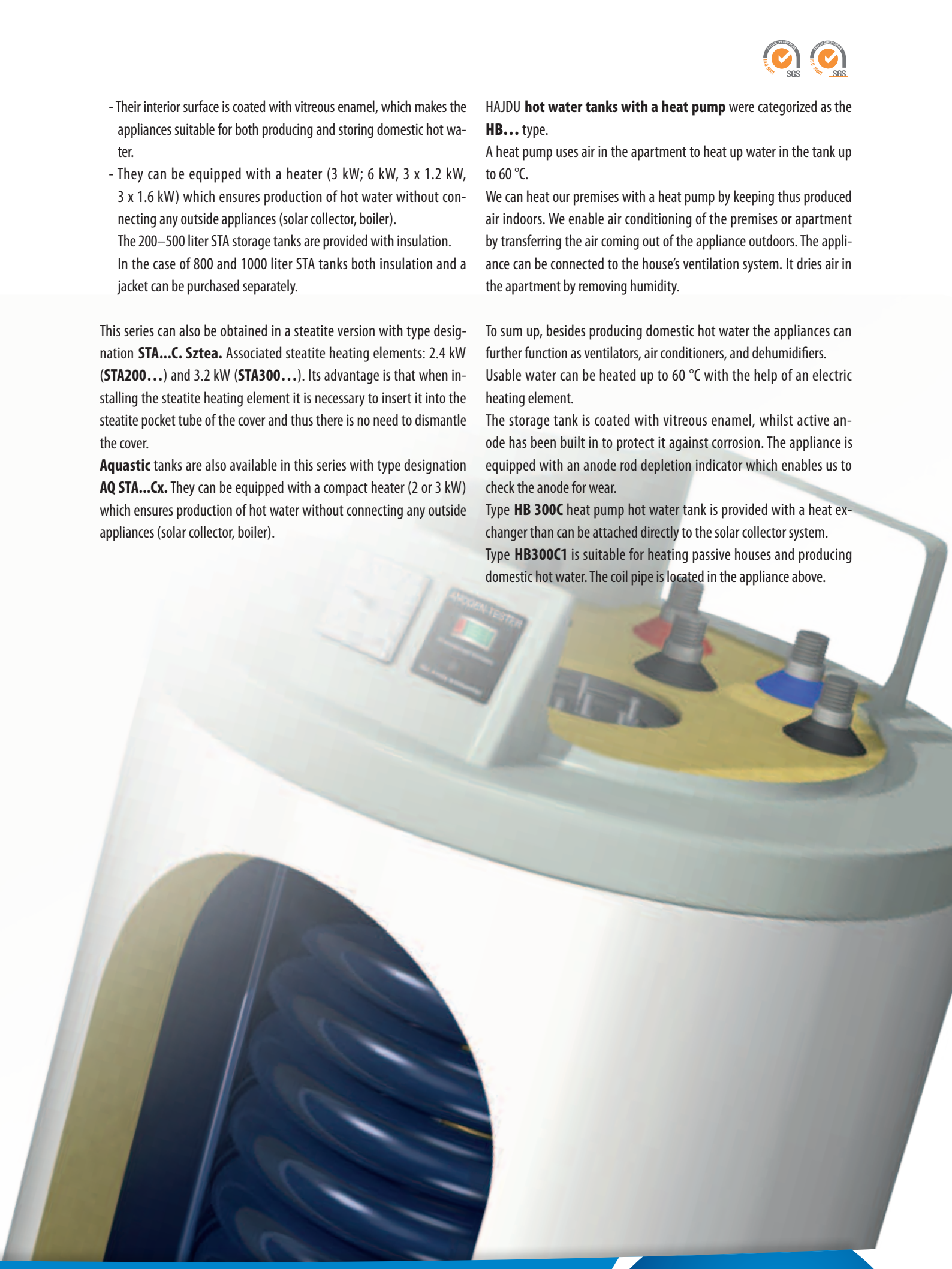
To sum up, besides producing domestic hot water the appliances can further function as ventilators, air conditioners, and dehumidifiers.

Usable water can be heated up to 60 °C with the help of an electric heating element.

The storage tank is coated with vitreous enamel, whilst active anode has been built in to protect it against corrosion. The appliance is equipped with an anode rod depletion indicator which enables us to check the anode for wear.

Type **HB 300C** heat pump hot water tank is provided with a heat exchanger than can be attached directly to the solar collector system.

Type **HB300C1** is suitable for heating passive houses and producing domestic hot water. The coil pipe is located in the appliance above.

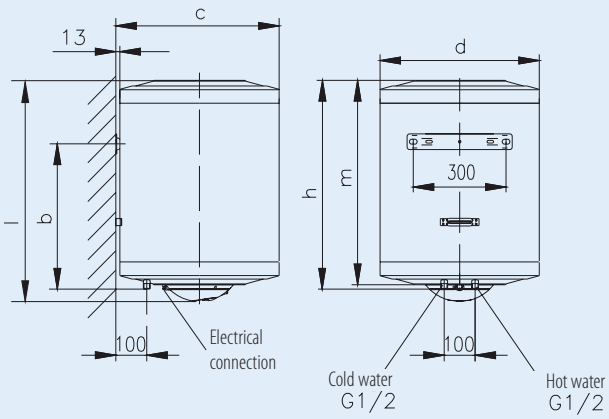


Closed system electric hot water tanks, vertical wall mounting design

Z...EK-1

Type		Z30E	Z50EK-1	Z80EK-1	Z120EK-1	Z150EK-1	Z200EK-1
Volume	[liter]	30	50	80	120	150	200
b	[mm]	350	340	500	750	950	1 270
c	[mm]	423			528		
d	[mm]	410			515		
h	[mm]	515	495	665	945	1 140	1 500
m	[mm]	493	480	650	930	1 125	1 447
l	[mm]	573	530	700	980	1 175	1 500
Water pipe connection					G1/2		
Max. working pressure	[MPa]				0.6		
Electric power	[kW]			1.8			2.4
Heating up time (to 65 °C)	[h]	1.5	1.8	2.8	4.2	5.3	5.5
Stand by energy consumption	[kWh/24h]	0.95	0.9	1.1	1.5	1.8	2.2
Weight	[kg]	18	22	27	33	45	50
Temperature of heated water	[°C]	max. 80			max. 65		

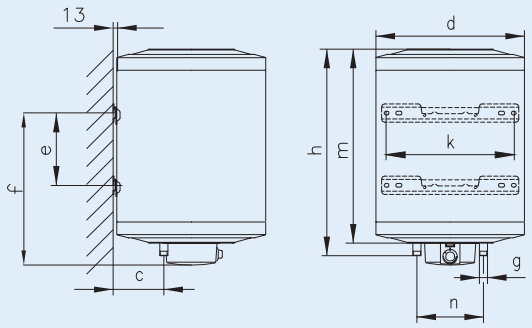
Z30E



MADE IN HUNGARY

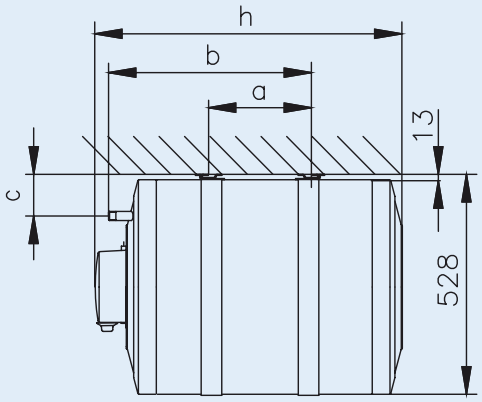
2-year full warranty + 5-year storage tank warranty

Closed system electric hot water tanks, vertical wall mounting design, with Steatite heating element



Type		Z50EK-Sztea	Z80EK-Sztea	Z100EK-Sztea	Z150EK-Sztea	Z200EK-Sztea
Volume	[liter]	50	80	100	150	200
c	[mm]	100		175		
d	[mm]	410		515		544
e	[mm]	–	–	–	800	
f	[mm]	605	530	605	1075	
g	[mm]	G1/2		G3/4		
k	[mm]	350		440		
h	[mm]	735		880	1215	1295
m	[mm]	710	695	845	1175	1259
n	[mm]	100		230		
Electric power	[kW]	1.2		2.4		
Stand by energy consumption	[kWh/24h]	0.68	1.1	1.3	1.8	2.1
Weight	[kg]	22	27	35	47	53

Closed system electric hot water tanks, horizontal wall mounting design



Type		ZV80	ZV120	ZV150	ZV200
Volume	[liter]	80	120	150	200
Diameter	[mm]	515			544
a	[mm]	250	500	800	
b	[mm]	500	750	1050	
c	[mm]	175			
h	[mm]	750	1030	1225	1300
Water pipe connection		G3/4			
Distance between two water pipes	[mm]	230			
Max. working pressure	[MPa]	0.6			
Electric power	[kW]	1.2	1.8	2.4	
Heating up time (to 65 °C)	[h]	4.2		3.9	5
Stand by energy consumption	[kWh/24h]	1.9	2.3	2.8	3
Weight	[kg]	32	45	54	60
Hot water temperature	[°C]	regulable, max. 80			

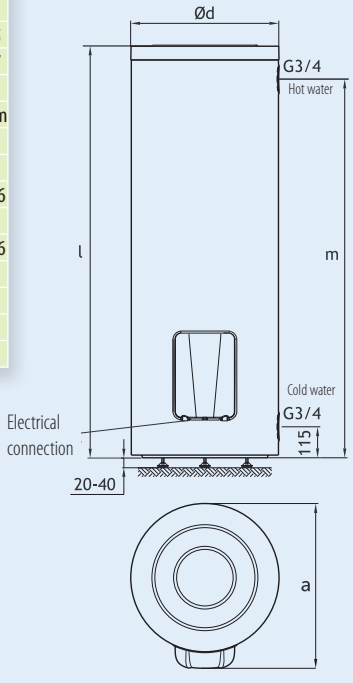
The casing is made of white powder-coated steel.
The appliances are designed to be installed on either left- or right-hand side and fixed to wall or ceiling.

MADE IN HUNGARY

2-year full warranty +
5-year storage tank warranty

Closed system electric hot water tanks, floor-standing design

Type		Z200TP	Z300TP
Volume	[liter]	200	300
a	[mm]	608	720
d	[mm]	546	661
l	[mm]	1530	1535
m	[mm]	1403	1387
Insulation thickness	[mm]	47	50
Insulation material		FCKW-free PU foam	
Water pipe connection		G3/4	
Max. working pressure	[MPa]	0.6	
Electric power (one-phase installation)	[kW]	2×1.2	2×1.6
Heating time to 65 °C	[h]	5.3	6
Electric power (three-phase installation)	[kW]	3×1.2	3×1.6
Heating up time (to 65 °C)	[h]	3.5	4
Stand by energy consumption	[kWh/24h]	1.8	2.5
Weight	[kg]	47	92
Hot water temperature	[°C]	max. 65	



MADE IN HUNGARY

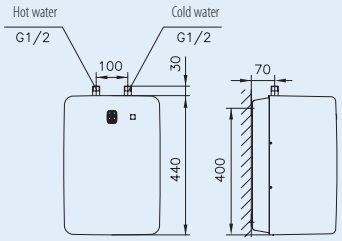
2-year full warranty +
3-year storage tank warranty

Closed system electric hot water tanks, 10 liter volume

Lower placement (ZA10)

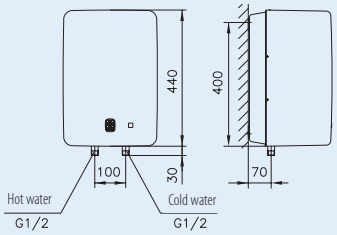
Type		ZF10	ZA10
Volume	[liter]	10	
Length	[mm]	440	
Width	[mm]	340	
Depth	[mm]	270	
Water pipe connection		G1/2	
Max. working pressure	[MPa]	0.6	
Electric power	[kW]	1.2	2
Heating up time (to 65 °C)	[min]	30	18
Stand by energy consumption	[kWh/24h]	0.6	
Weight	[kg]	8	
Hot water temperature	[°C]	max. 65	

Upper placement (ZF10)



MADE IN HUNGARY

2-year full warranty +
5-year storage tank warranty



Closed system electric hot water tanks, vertical wall mounting design

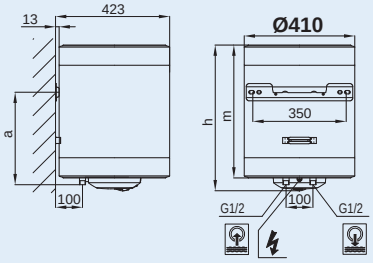
Type		AQ30	AQ50	AQ80	AQ100	AQ120	AQ150	AQ200
Volume	[liter]	30	50	80	100	120	150	200
a	[mm]	343	340	500	570	750	950	1230
m	[mm]	495	480	650	800	930	1125	1400
h	[mm]	540	527	697	847	977	1172	1447
Water pipe connection		G1/2						
Max. working pressure	[MPa]	0.6						
Electric power	[kW]	1.8						2.4
Heating up time (to 65 °C)	[h]	1	1.8	2.8	3.5	4.2	5.3	
Weight	[kg]	16	20	25	29	32	39	48
Hot water temperature	[°C]	max. 80	max. 65					

AQUASTIC

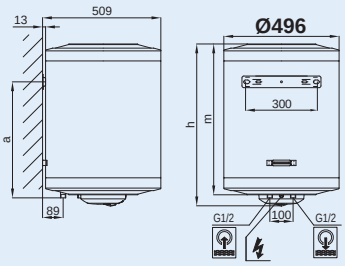
MADE IN HUNGARY

2-year full warranty +
3-year storage tank warranty

AQ 30



AQ 50–200



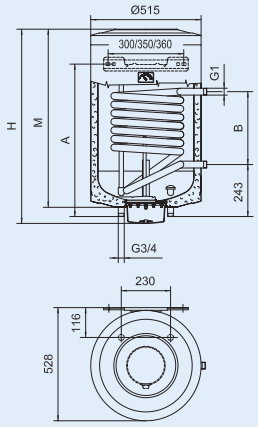
Indirect hot water tanks, floor-standing and wall mounting design

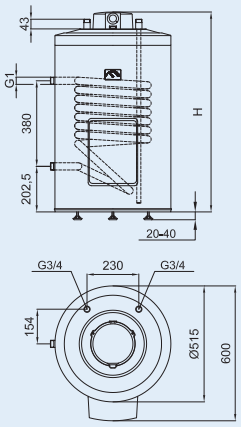
Type with electric auxiliary heating without electric auxiliary heating		IDE75F IND75F	IDE100F IND100F	IDE150F IND150F	IDE200F IND200F	IDE100S IND100S	IDE150S IND150S	IDE200S IND200S
Volume	[liter]	75	100	150	200	100	150	200
A	[mm]	500	570	1050	1050		–	
B	[mm]	260		340			–	
H	[mm]	750	906	1245	1506	890	1215	1490
M	[mm]	670	840	1170	1431		–	
Water pipe connection					G3/4			
Max. working pressure	[MPa]				0.6			
Electric power*	[kW]				2.4			
Heating up time (to 65 °C)*	[h]	1.9	2.5	3.7	5	2.5	3.7	5
Surface of the coil	[m^2]	0.615			0.81			
Connection of the coil					G1			
Flow impedance of the coil	[mbar]				82			
Peak performance	[liter/first 10 minutes]	125	155	215	255	155	215	255
Constant performance	[liter/h]	450			590			
Constant power	[kW]	18.5			24			
Hot water temperature	[°C]				max. 65			
Stand by energy consumption	[kWh/24h]	1.1	1.4	1.8	2.2	1.4	1.8	2.2
Weight	[kg]	39/38	45/44	56/55	67/66	49/48	59/58	68/67

The performance data are valid for flow water at 80 °C, storage at 60 °C and DHW at 45/10 °C.
* - indicates IDExxxF and IDExxxS types

IND; IDE...F

IND; IDE...S





2-year full warranty +
5-year storage tank warranty

Indirect hot water tanks, floor-standing and wall mounting design

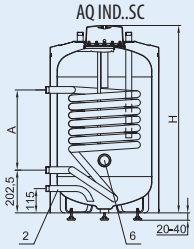
Type		AQ IND75FC	AQ IND100FC	AQ IND150FC	AQ IND200FC	AQ IND100SC	AQ IND150SC	AQ IND200SC
Volume	[liter]	75	100	150	200	100	150	200
Diameter	[mm]	496					515	
A	[mm]	260	340	340	340	380	460	460
B	[mm]	500	570	1050	1050	-	-	-
C	[mm]	670	830	1160	1431	-	-	-
H	[mm]	710	870	1200	1474	890	1215	1490
Water pipe connection		G3/4						
Max. working pressure	[MPa]	0.6						
Surface of the coil	[m²]	0.615	0.81				1.06	
Connection of the coil		G1						
Flow impedance of the coil	[mbar]	82						
Peak performance	[liter/first 10 minutes]	125	155	215	255	155	215	255
Constant performance	[liter/h]	450	590				690	
Constant power	[kW]	18.5	24				28	
Hot water temperature	[°C]	max. 65						
Stand by energy consumption	[kWh/24h]	1.42	1.51	2.38	2.75	1.4	1.8	2.2
Weight	[kg]	38	45	62	67	48	59	69

AQUASTIC

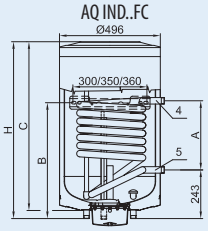
AQ IND..FC (sztea)

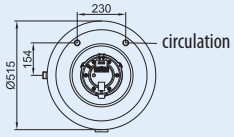
The performance data are valid for flow water at 80 °C, storage at 60 °C and DHW at 45/10 °C.

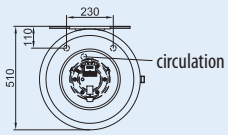
AQ IND..SC



AQ IND..FC





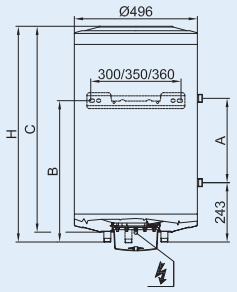


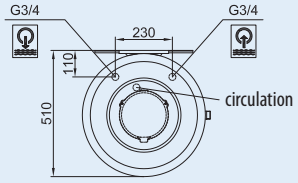
AQ IND..SC

Serie with Steatite heating element

Típus		AQ IND75FC Sztea	AQ IND100FC Sztea	AQ IND150FC Sztea	AQ IND200FC Sztea
Volume	[liter]	75	100	150	200
A	[mm]	260	340	340	340
B	[mm]	500	570	1050	1050
C	[mm]	670	830	1160	1431
H	[mm]	710	870	1200	1474
Water pipe connection		G3/4			
Max. working pressure	[MPa]	0.6			
Surface of the coil	[m²]	0.615	0.81		
Connection of the coil		G1			
Flow impedance of the coil	[mbar]	82			
Peak performance	[liter/first 10 minutes]	125	155	215	255
Constant performance	[liter/h]	450	590		
Constant power	[kW]	18.5	24		
Heating up time (to 65 °C)	[°C]	max. 65			
Stand by energy consumption	[kWh/24h]	1.42	1.51	2.38	2.75
Weight	[kg]	38	45	62	66

AQ IND..FC Sztea





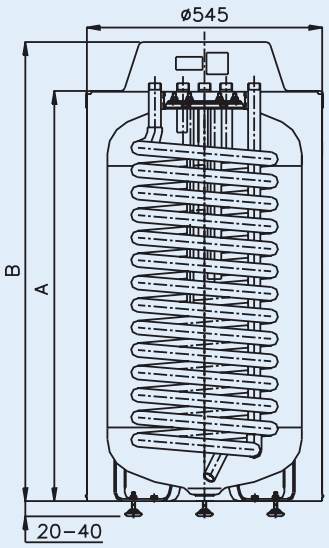
MADE IN HUNGARY

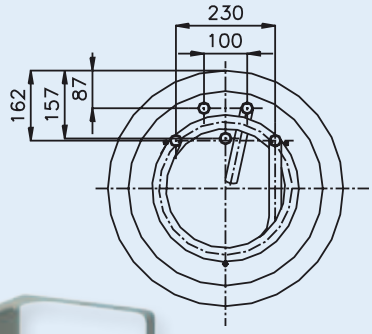
2-year full warranty +
5-year storage tank warranty

High-performance indirect hot water tanks

Type		HR-N30	HR-N40	HR-T30	HR-T40
Volume	[liter]	120	160	120	160
A	[mm]	947	1142	947	1142
B	[mm]	1061	1256	1027	1222
Water pipe connection		G3/4			
Max. working pressure	[MPa]	0.6			
Surface of the coil	[m^2]	1.4			
Connection of the coil		G3/4			
Flow impedance of the coil	[mbar]	120			
Peak performance	[liter/first 10 minutes]	180	215	180	215
Constant performance	[liter/h]	1030			
Constant power[1)]	[kW]	42			
Heating up time (to 65 °C)	[°C]	max. 95		[2)] max. 95	
Weight	[kg]	64	70	67	73

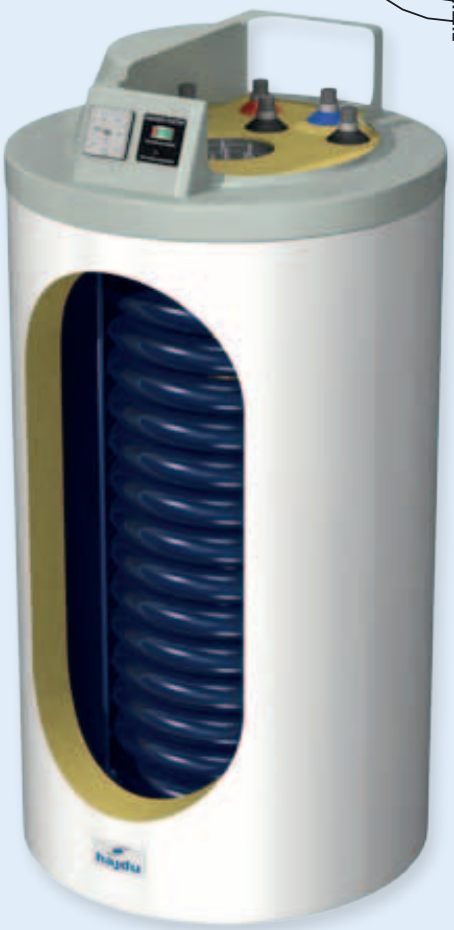
[1)] The performance data are valid flow water at 80 °C, storage at 60 °C and DHW at 45/10 °C.
[2)] In the case of in-built regulator max 65 °C.





HR-T

HR-N



MADE IN HUNGARY

2-year full warranty + 5-year storage tank warranty

Multi-energy (solar) storage tanks

Type		STA200C	STA300C	STA200C2	STA300C2
Volume	[liter]	200	300	200	300
Insulation thickness	[mm]	47	50	47	50
Insulation material		FCKW-free PU foam			
Water pipe connection		G3/4			
Max. working pressure	[MPa]	0.6			
Stand by energy consumption	[kWh/24h]	1.9	2.5	1.9	2.5
Surface of the coil	[m^2]	1	1.5	1+0.8	1.5+1
Connection of coil pipe		Rp 3/4			
Flow impedance of the coil	[mbar]	90	130	170	220
Peak performance*	[liter/first 10 minutes]	340	510	370	545
Constant performance*	[liter/h]	735	1100	1125	1590
Constant power*	[kW]	30	45	46	65
Hot water temperature	[°C]	**max. 95			
Weight	[kg]	73	93	89	109

	STA 200...	STA 300...
H	1 530	1 535
D	546	661
A	220	210
B	570	630
C	880	930
E	416	364
F	975	1 025
G	1 387	1 403
I	840	890
J	608	720

* The data are valid for indirect heating only. The performance data are valid for flow water at 80 °C, storage at 60 °C and DHW at 45/10 °C.
** In case of a built-in controller the maximum temperature is 65 °C.

Multi-energy (solar) storage tanks with Steatite heating element

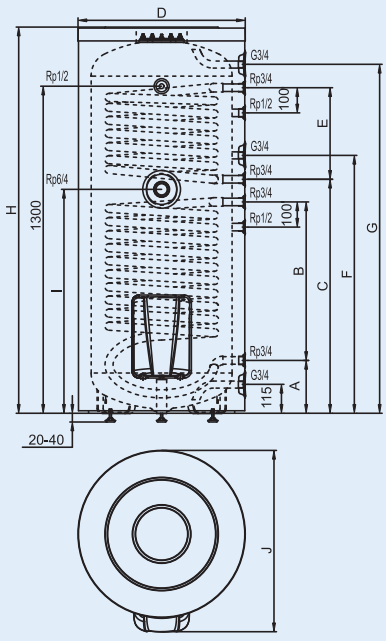
Type		STA200C Sztea	STA300C Sztea	STA200C2 Sztea	STA300C2 Sztea
Volume	[liter]	200	300	200	300
Insulation thickness	[mm]	47	50	47	50
Insulation material		FCKW-free PU foam			
Water pipe connection		G3/4			
Max. working pressure	[MPa]	0.6			
Stand by energy consumption	[kWh/24h]	1.9	2.5	1.9	2.5
Surface of the coil	[m^2]	1	1.5	1+0.8	1.5+1
Connection of coil pipe		Rp 3/4			
Flow impedance of the coil	[mbar]	90	130	170	220
Peak performance*	[liter/first 10 minutes]	340	510	370	545
Constant performance*	[liter/h]	735	1100	1125	1590
Constant power*	[kW]	30	45	46	65
Hot water temperature	[°C]	**max. 95			
Weight	[kg]	73	93	89	109

	STA 200… Sztea	STA 300… Sztea
H	1530	1535
D	546	661
A	220	210
B	570	630
C	880	930
E	416	364
F	975	1025
G	1387	1403
I	840	890
J	608	720

* The data are valid for indirect heating only. The performance data are valid for flow water at 80 °C, storage at 60 °C and DHW at 45/10 °C.
** In case of a built-in controller the maximum temperature is 65 °C.

STA...C, STA...C Sztea

STA...C2, STA...C Sztea



MADE IN HUNGARY

2-year full warranty +
5-year storage tank warranty

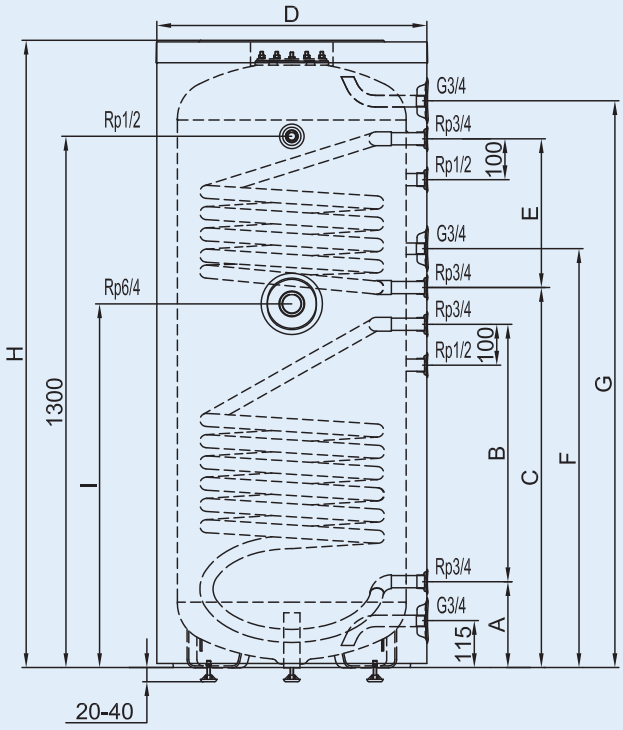
Multi-energy (solar) storage tanks

Type		AQ STA200C	AQ STA300C	AQ STA200C2	AQ STA300C2
Volume	[liter]	200	300	200	300
Insulation thickness	[mm]	47	50	47	50
Insulation material		FCKW mentes PU			
Water pipe connection		G3/4			
Max. working pressure	[MPa]	0.6			
Stand by energy consumption	[kWh/24h]	1.9	2.5	1.9	2.5
Surface of the coil	[m^2]	0.8	1	0.8+0.615	1+0.7
Connection of coil pipe		Rp 3/4			
Flow impedance of the coil	[mbar]	80	90	80+65	90+70
Peak performance*	[liter/first 10 minutes]	255	460	255+150	460+220
Constant performance*	[liter/hour]	590	770	590+440	770+500
Constant power*	[kW]	24	31	24+18	31+20
Hot water temperature	[°C]	**max. 95			
Weight	[kg]	63	81	83	93

	AQ STA 200...	AQ STA 300...
H	1530	1535
D	546	661
A	220	210
B	570	630
C	880	930
E	416	364
F	975	1025
G	1387	1403
I	840	890

The data are valid for indirect heating only. The performance data are valid for flow water at 80 °C, storage at 60 °C and DHW at 45/10 °C.

AQUASTIC



2-year full warranty +
3-year storage tank warranty

Multi-energy, big-volume solar indirect water heaters

Type		STA400C	STA500C	STA800C	STA1000C	STA400C2	STA500C2	STA800C2	STA1000C2
Volume	[liter]	400	500	800	1000	400	500	800	1000
Insulation thickness	[mm]	50		105		50		105	
Insulation material		FCKW-free PU foam		environmentally friendly ECO SKIN polyester		FCKW-free PU foam		environmentally friendly ECO SKIN polyester	
Water pipe connection		G1		G6/4		G1		G6/4	
Max. working pressure	[MPa]	1		0.6		1		0.6	
Stand by energy consumption	[kWh/24h]	2.5	2.7	3.8	4.2	2.5	2.8	4	4.4
Surface of the coil	[m^2]	1.8	2		2.4	1.8+1.0	2.0+1.0	2.0+1.2	2.4+1.2
Connection of the coil		G1		G5/4		G1+G1		G5/4+G1	
Flow impedance of the coil	[mbar]	53	41	42	48	53+12	42+19	42+13	48+27
Peak performance*	[liter/first 10 minutes]	600	750	1200	1500	628	785	1257	1570
Constant performance*	[liter/h]	863	942	878	952	863+531	942+499	878+572	952+598
Constant power*	[kW]	35	38	36	39	35+22	38+20	36+23	39+24
Hot water temperature	[°C]	max. 95							
Weight	[kg]	145	160	268	284	158	172	284	320

* The data are valid for indirect heating only. The performance data are valid flow water at 80 °C, storage at 60 °C and DHW at 45/10 °C.

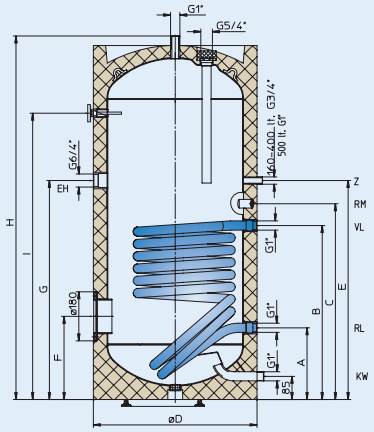
	STA400C2	STA500C2
H	1 832	1 838
ØD	670	750
A	320	370
B	880	930
C	1000	1095
E	1100	1195
F	1460	1465
G	345	370
I	1000	1095
J	1521	1498
K	910	960
L	1490	1465
M	560	
N	370	310

	STA800C	STA1000C	STA800C2	STA1000C2
H	2 000	2 350	2 000	2350
ØD	1000			
A	415			
B	1080	1255	1080	1255
C	1125	1300	1125	1300
E	120			
F	380			
G	860	1025	860	1025
I	1025	1190	1025	1190
J	–		1150	1335
K	–		1465	1785
L	–		1580	1920

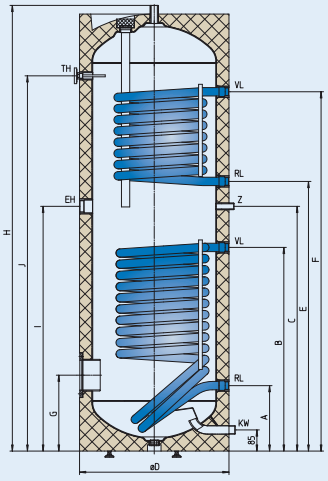
	STA400C	STA500C
H	1 832	1 838
D	670	750
A	320	370
B	880	930
C	960	1010
E	1000	1095
F	345	370
G	1000	1095
I	1521	1498

2-year full warranty +
5-year storage tank warranty

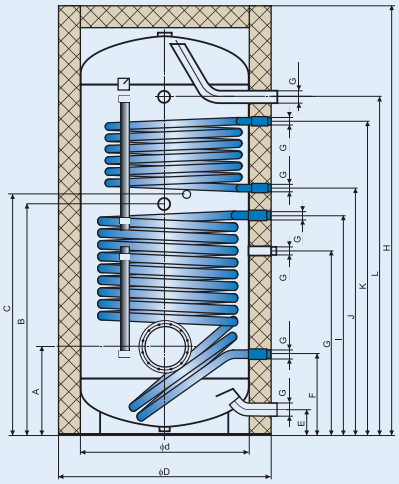
STA400-500C



STA400-500C2



STA800-1000C2**



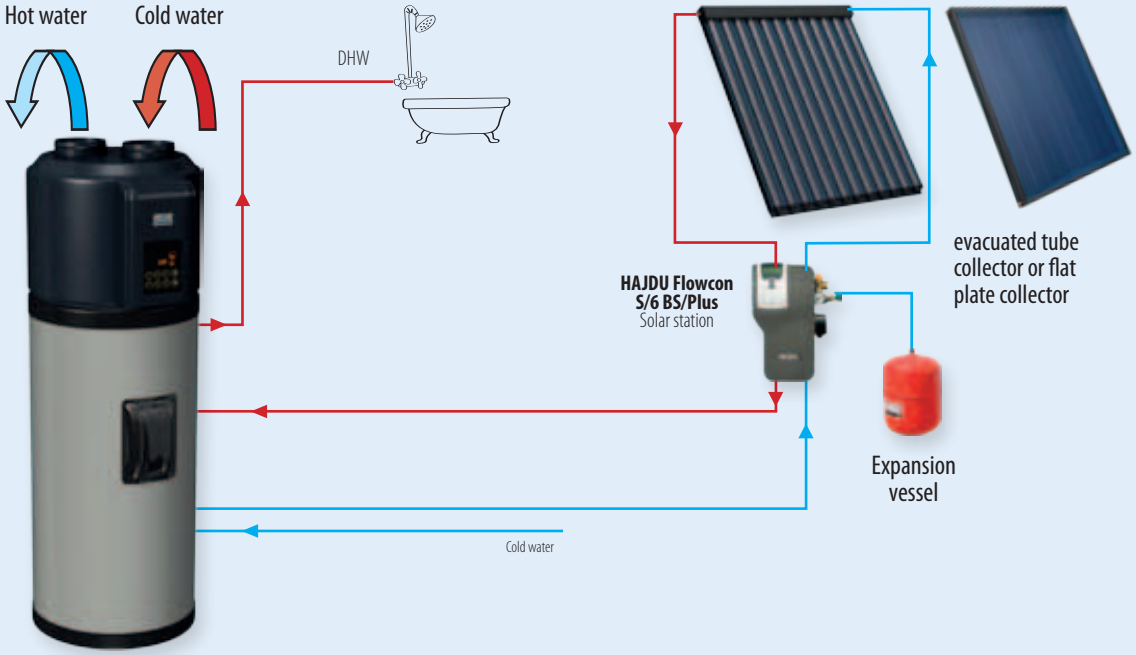
**STA800-1000C: without the superior coil.

Hot water tanks with a heat pump

Type	HB 200	HB 200C	HB 300	HB 300C	HB 300C1
Dimensions: diameter/height/depth	Ø661/1517/720		Ø661/1950/720		
Voltage/frequency	L/N/PE 230V~ / 50Hz				
Safety fuse	16 A				
Storage tank					
Nominal pressure	0,6 MPa				
Nominal volume	195 l		300 l		
Water pipe connection	G3/4				
Surface of the coil	—	1,45 m^2	—	1,5 m^2	0,7 m^2
Insulation/thickness	Freon-free PUR insulation/50mm				
Corrosion protection	special vitreous enamel + Mg anode				
Heat pump					
Type	air (interior)				
Ventilation connection (in/out)	Ø190 mm				
Condenser	safety heat exchanger				
Heating medium/quantity	R134a / 1100 g				
Max. power consumption	1200W				
Average power consumption	850W				
Convection	~ 500 m^3/h				
Range of operating temperature	-7 – +43 °C				
Max water temperature	60 °C				
COP 7 °C (EN 16147)	COP 2,15				
COP 15 °C (EN 16147)	COP 2,62				
Electric heating					
Nominal performance	1800W				
Max water temperature	60 °C				
Other					
Controls	programmable electronics				
Mg anode maintenance	anode depletion indicator				
Electric connection	fixed				
Leg	adjustable				

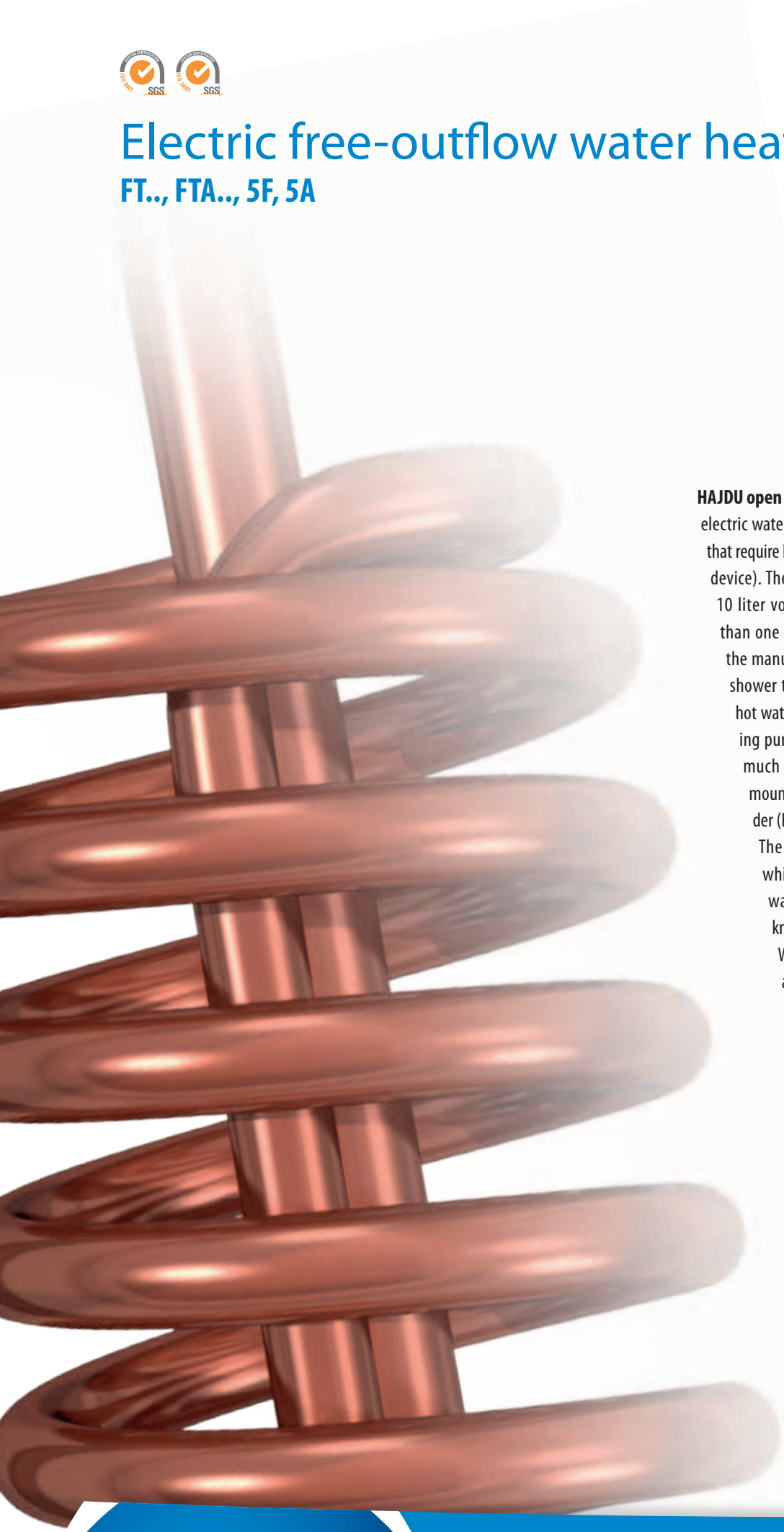
2-year full warranty +
5-year storage tank warranty

Modern Hot water production by hot water tank with a heat pump



Electric free-outflow water heaters

FT.., FTA.., 5F, 5A



HAJDU open system (free outflow system) electric water heaters are suitable for applications that require less water (kitchen sink, hand-washing device). The **FT…** and **FTA…** types with 5 and 10 liter volume can deliver water to no more than one tap and function reliably only when the manufacturer's tap is added (the usage of shower taps/heads is prohibited). The stored hot water is appropriate for cleaning and eating purposes. The appliances do not require much space (washbowl, sink) can only be mounted vertically above (FT types) or under (FTA types) the kitchen counter.

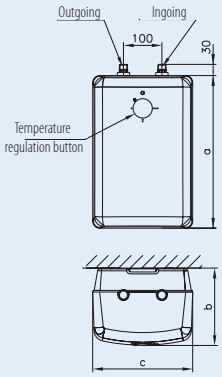
The casing is angular and is made of a white shiny plastic material. The desired water temperature can be set with a knob control and cannot exceed 80 °C.

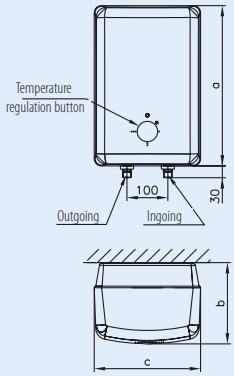
We also produce and distribute 5 liter appliances under the brand **Aquastic.** They come with a tap and can be placed under or above the sink. Their functioning principles fully comply with those of the FT/FTA types.

Free-outflow water heaters that supply water to one tap
Placed under (FTA...) or above (FT...) the sink

FT10

FTA5





MADE IN HUNGARY

2-year full warranty + 3-year storage tank warranty

Type		FT5	FT10	FTA5	FTA10
Volume	[liter]	5	10	5	10
a	[mm]	396	440	396	440
b	[mm]	200	270	200	270
c	[mm]	260	305	260	305
Water connection pipe		G1/2	G1/2	G3/8	G3/8
Max. working pressure	[MPa]	0			
Electric power	[kW]	1.5			
Heating up time (to 65 °C)	[minutes]	14	28	14	28
Stand by energy consumption at 65 °C	[kWh/24h]	0.55	0.65	0.55	0.65
Weight	[kg]	3.5	5	3.5	5
Hot water temperature	[°C]	regulable, max. 80			

Accessories: tap, pipe, and casing (white plastic). Water tap designs may vary.

Free-outflow water heaters that supply water to one tap
Placed under (5A) or above (5F) the sink

5F

5A

Water tap designs may vary.

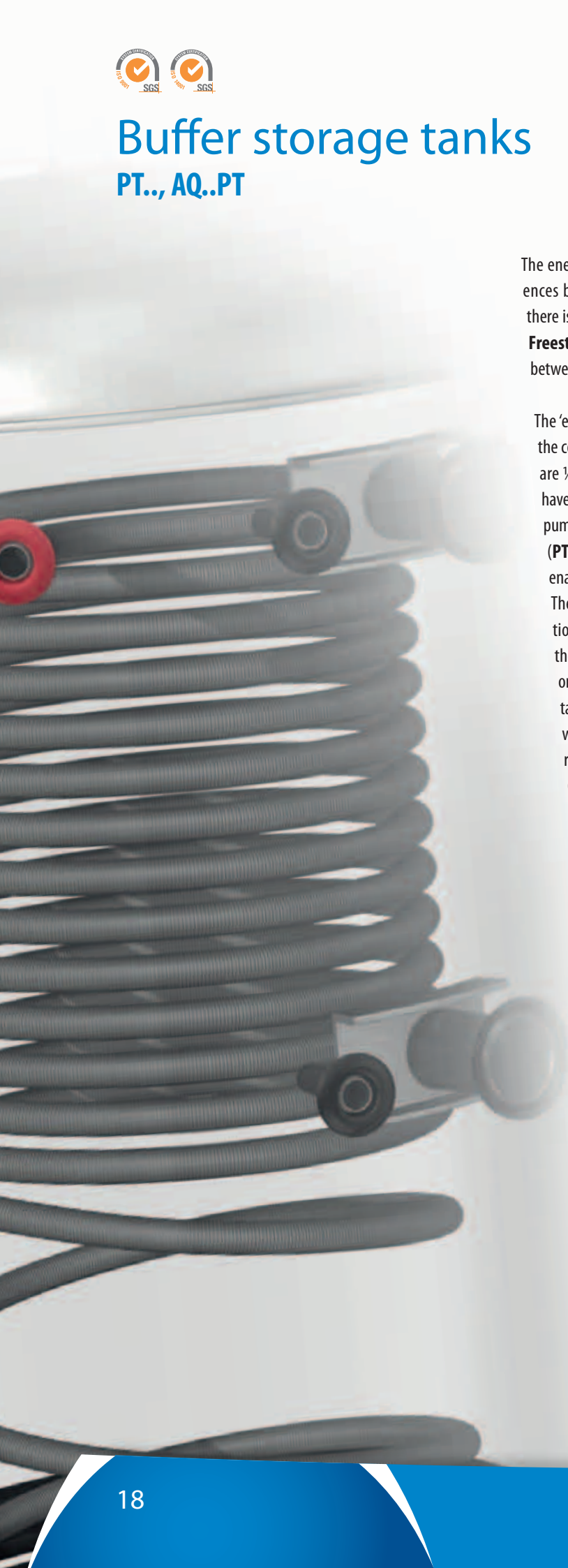
Type		5F	5A
Volume	[liter]	5	
Length (without tap)	[mm]	422	
Depth	[mm]	200	
Width	[mm]	260	
Water pipe connection		G1/2	G3/8
Nominal working pressure	[MPa]	0	
Voltage	[V]	230	
Electric power	[W]	2000	
Heating up time (to 65 °C)	[minutes]	12	
Weight	[kg]	2.6	
Hot water temperature	[°C]	regulable, max. 85	

MADE IN HUNGARY

1-year full warranty + 3-year storage tank warranty

Buffer storage tanks

PT.., AQ..PT



The energy store for heating systems. Buffer storage tanks even out differences between when energy is generated by heating systems and when there is an actual energy demand, thereby ensuring maximum convenience. **Freestanding HAJDU buffer storage tanks** are available with volumes of between 300–1000 litres, in 'empty', coil pipe and combi versions.

The 'empty' storage tanks (**PT types**) have nine 6/4" connecting joints for the connection to the heat generators and the radiators. Furthermore, there are ½" joints for the heat sensors. The coil pipe versions (**PT…C types**) have a heat exchanger which allows for a direct connection to solar or heat pump systems. Besides the abovementioned features, combi storage tanks (**PT…CF types**) are also fitted with a flexible stainless steel pipe which enables the production of domestic hot water.

The internal surface of the buffer tank does not have corrosion protection, therefore it may only be filled with heating water. The exterior of the storage tanks has an attractive insulation jacket, which can be fitted on-site. This solution makes it easier to transport and install the storage tanks. With the insulation removed even the largest capacity buffer tank will fit through a door of width 800 mm. This ensures that the client receives a product in pristine condition.

Combi buffer storage tanks can also produce DHW through the stainless steel coil pipe with a large surface area installed in the storage tank. When combined with an indirect storage tank, the simple buffer storage tank system is similarly capable of providing a hot water supply, either directly from the heat generator or with the energy gained from the buffer storage tank.

Our company also manufactures and distributes – under the brand name **Aquastic** – buffer storage tanks with volumes of between 300 litres right up to 2000 litres. In order to achieve a lower cost, these **AQ PT types** differ from the PT types as regards a few technical and guarantee parameters.

The most significant difference is evident in the double coil pipe configuration, where instead of a stainless steel (DHW) heat exchanger a steel heat exchanger has been installed. DHW cannot be obtained directly from the storage tank; however, the heat generator equipment can be used with a greater number of variations with this product. These storage tanks can be combined as required with an indirect storage tank also having an independent electric heating option for the production of DHW.

Insulation for the tank Aquastic can be purchased separately, except the AQ PT 300 and 300C types, which have PU insulation.

Buffer storage tanks

PT...CF

hajdu

MADE IN HUNGARY

3 Year WARRANTY

* 3-year full warranty

AQ PT...C2

AQUASTIC

MADE IN HUNGARY

2 Year WARRANTY

* 2-year full warranty

Type		PT 300	PT 500	PT 750	PT 1000	PT 300C	PT 500C	PT 750C	PT 1000C	PT 500CF	PT 750CF	PT 1000CF
Nominal volume	[liter]	300	500	750	1000	300	500	750	1000	500	750	1000
Diameter (without insulation)	[mm]	–	650	790	790	–	650	790	790	650	790	790
Diameter (with insulation)	[mm]	660	850	990	990	660	850	990	990	850	990	990
Height	[mm]	1535	1870	1910	2310	1535	1870	1910	2310	1870	1910	2310
Max. working pressure	[MPa]											
- Storage tank	[Mpa]		0.6		0.5		0.6		0.5	0.6		0.5
- Solar coil pipe	[MPa]		–						0.6			
- DHW pipe	[MPa]				–					1		
Water pipe connection							Rp6/4					
Cartridge connection for the electric heater							Rp6/4					
Sensor connections							Rp1/2					
DHW connections										G1"		
Surface of the coil	[m^2]		–			1.5	2.2	2.8		2.2	2.8	
Surface of the DHW coil	[m^2]				–					6.8		
Weight	[kg]	87	107	130	139	97	140	171	177	160	192	197

Type		AQ PT 300	AQ PT 500	AQ PT 750	AQ PT 1000	AQ PT 1500	AQ PT 2000	AQ PT 300C	AQ PT 500C	AQ PT 750C	AQ PT 1000C	AQ PT 1500C	AQ PT 2000C	AQ PT 500C2	AQ PT 750C2	AQ PT 1000C2	AQ PT 1500C2	AQ PT 2000C2
Nominal volume	[litres]	300	500	750	1000	1500	2000	300	500	750	1000	1500	2000	500	750	1000	1500	2000
Diameter (without insulation)	[mm]	–	650	790	790	1000	1100	–	650	790		1000	1100	650	790		1000	1100
Diameter (with insulation)	[mm]	660	850	990		1200	1300	660	850	990		1200	1300	850	990		1200	1300
Height (with insulation)	[mm]	1535	1725	1910	2255	2235	2465	1535	1725	1910	2255	2235	2465	1725	1910	2255	2235	2465
Max. operating pressure	[MPa]																	
- storage tank	[Mpa]	0.6			0.3			0.6				0.3						
- lower solar coil pipe	[MPa]				–							0.6						
- upper solar coil pipe	[MPa]					–								0.6				
Connection to water supply										Rp6/4								
Electric heating element										Rp6/4								
Sensor connection										Rp1/2								
Coil pipe connection				–				Rp3/4				Rp1						
Coil pipe surface area - lower	[m^2]			–				1.5	1.7	2.9	3	3.6	4.2	1.7	2.9	3	3.6	4.2
Coil pipe surface area - upper	[m^2]					–								1	1.8	2	2.4	2.8
Weight	[kg]	80	69	93	107	205	237	91	95	130	147	236	297	106	157	172	269	353

Gas-fired appliances

GB.., HGK..

There are two types of **HAJDU wall mounting gas-fired water heaters** with storage capabilities: **GB…1** with an escape vent and **GB…2** without an escape vent. They are wall mounting closed system appliances that can deliver water to several taps at the same time and are also suitable for shower taps. Both appliances with 80 and 120 liter storage tanks are available. The appliances were designed with aesthetic touch: their casing is made of shiny white powder-coated steel, while the bottom of the heater is covered with white plastic.

We start the appliance with the help of a pilot light and a piezoelectric igniter. The desired temperature can be set with a knob.

The water heaters without an escape went are supplied with ODS (Oxygen Depletion Sensor) safety function, i.e., in the case oxygen level drops to the point where it could represent a health risk, the appliance switches off.

HAJDU condensation gas boilers offer an all-round solution for setting up heating and hot water systems. Moreover, they are perfectly suitable for being used in solar collecting systems. HAJDU **HGK… type** of condensation gas boilers come in a wall mounting design.

A specially designed heat exchanger makes it possible for heat and water to be produced independently from each other. The heat exchanger is made of aluminum and copper, which helps prolong the boiler's life.

Application of the most advanced condensation technique raises the boiler's operational efficiency, while also rendering it environmentally friendly.

The boiler can be set to perform three different water heating functions based on requirements: traditional, comfortable, and ECO – self-taught).

Since the appliance is equipped with neither a sequence valve nor a plate heat exchanger, it does not require maintenance or the change of components in the case of malfunction.

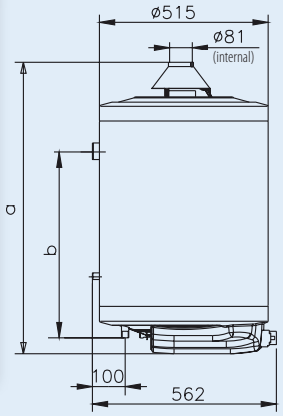
An accurate modulation and a special heat exchanger enable the boiler to function as per customer's specific needs. This raises the efficiency of water heating in a selected operational mode up to 107–108 percents, which would be unimaginable when traditional gas boilers are concerned. While normally running on natural gas (G20), they can be transformed to run on propane (G31). They are compact, easy to use and do not require much maintenance. Following versions of the appliances (hot water/heating) are available: 24/18, 28/24, 36/30 and 36/42 kW. The appliances are not provided with built-in safety components (closed expansion tank, safety valve) and can therefore be operated in open heating system, too. A closed 8 liter expansion tank can be purchased separately. The boiler is further equipped with a built-in weather dependant regulator which enables – if connected to an external heat sensor – optimal heating. The sensor is easy to program as it is automatically recognized by the appliance! We can connect it to a DHV storage tank by installing a sequence valve!

Gas-fired hot water storage tanks for gases H and S, with and without an escape went

GB...1

Type		With an escape went			Without an escape went	
		GB80.1	GB120.1	GB150.1	GB80.2	GB120.2
Volume	[liter]	80	120	150	80	120
a	[mm]	877	1152	1352	859	1124
b	[mm]	500	750	1015	500	750
Escape vent Ø	[mm]	81 (internal)			—	
Water pipe connection		G1/2				
Max. power pressure	[MPa]	0.6				
Heat load for gas H	[kW]	5.3	5.6	6	2	
Heat load for gas S	[kW]	4.6	4.8	5.2	1.73	
Efficiency	[%]	90*	91*	92*	93	
Heating up time (to 55°C)	[h,min]	0.56	1.09	1.28	2.19	3.37
Gas consumption	[m³/h]	0.56	0.59	0.63	0.21	
Net weight	[kg]	35	44	53	35	45
Hot water temperature	[°C]	Regulable, max. 80				
Flame supervision device		thermoelectric				

Outer casing: coated steel plate, plastic bottom part
* Factory specified, certified value > 84%



MADE IN HUNGARY

2-year full warranty +
3-year storage tank warranty

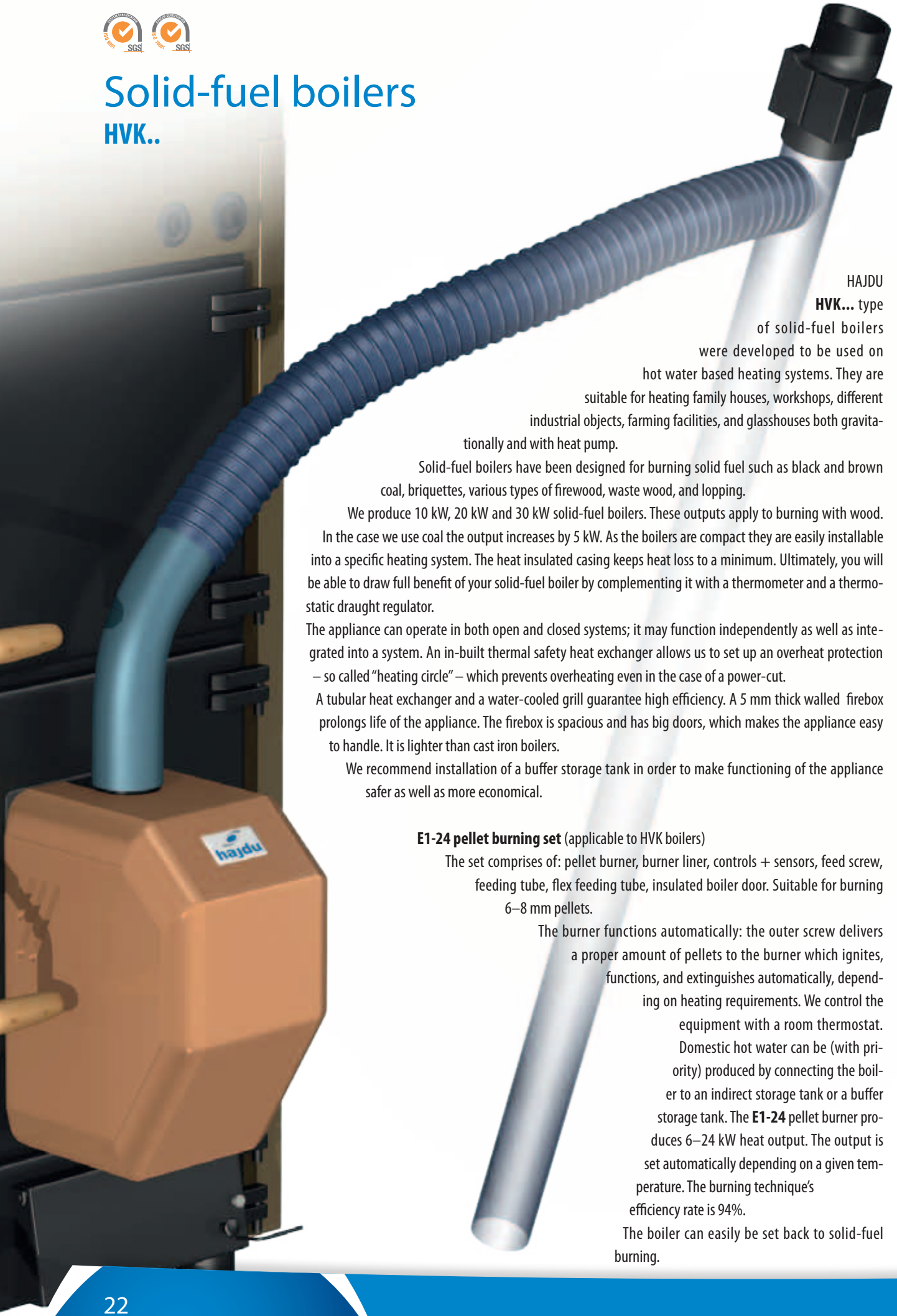
Condensation gas boilers

		HGK-24	HGK-28	HGK-36	HGK-47
Nominal performance	[kW]	24/18	28/24	36/30	47/42
Domestic hot water (DHW)					
Nominal performance	[kW]	5.6–22.1	7.1–28.0	7.2–32.7	7.2–32.7
DHW threshold value	[l/min]	2			
DHW flow 60 °C	[l/min]	6	7.5	9	
DHW flow 40 °C	[l/min]	10	12.5	15	
DHW temperature	[°C]	60			
Effective wait time	[sec]	<1			
Heating					
Nominal performance 80/60 °C	[kW]	5.4–17.8	6.9–22.8	7.1–26.3	7.7–40.9
Nominal performance 50/30 °C	[kW]	5.9–18.5	7.6–23.4	7.8–27.1	8.5–42.2
Max. working pressure	[Mpa]	0.3			
Max. heated water temperature	[°C]	90			
Gas consumption (G20)	[m³/h]	0.59–2.30	0.75–2.90	0.75–3.40	0.8–4.41
Water heating efficiency	[%]	107	108		
Electrical specifications					
Nominal voltage	[V]	230			
Protection	[IP]	IP44			
Energy consumption: full load	[Wh]	105			190
Energy consumption: part load	[Wh]	40			
Energy consumption: standby	[Wh]	2.4			2
Dimensions and weight of the boiler					
Height	[mm]	590	650	710	
Width	[mm]	450			
Depth	[mm]	240			
Weight	[kg]	30	33	36	

* 6-year warranty against heat exchanger leakage, +
2-year warranty against other defects.

Solid-fuel boilers

HVK..



HAJDU **HVK...** type of solid-fuel boilers were developed to be used on hot water based heating systems. They are suitable for heating family houses, workshops, different industrial objects, farming facilities, and glasshouses both gravitationally and with heat pump.

Solid-fuel boilers have been designed for burning solid fuel such as black and brown coal, briquettes, various types of firewood, waste wood, and lopping.

We produce 10 kW, 20 kW and 30 kW solid-fuel boilers. These outputs apply to burning with wood. In the case we use coal the output increases by 5 kW. As the boilers are compact they are easily installable into a specific heating system. The heat insulated casing keeps heat loss to a minimum. Ultimately, you will be able to draw full benefit of your solid-fuel boiler by complementing it with a thermometer and a thermostatic draught regulator.

The appliance can operate in both open and closed systems; it may function independently as well as integrated into a system. An in-built thermal safety heat exchanger allows us to set up an overheat protection – so called "heating circle" – which prevents overheating even in the case of a power-cut.

A tubular heat exchanger and a water-cooled grill guarantee high efficiency. A 5 mm thick walled firebox prolongs life of the appliance. The firebox is spacious and has big doors, which makes the appliance easy to handle. It is lighter than cast iron boilers.

We recommend installation of a buffer storage tank in order to make functioning of the appliance safer as well as more economical.

E1-24 pellet burning set (applicable to HVK boilers)

The set comprises of: pellet burner, burner liner, controls + sensors, feed screw, feeding tube, flex feeding tube, insulated boiler door. Suitable for burning 6–8 mm pellets.

The burner functions automatically: the outer screw delivers a proper amount of pellets to the burner which ignites, functions, and extinguishes automatically, depending on heating requirements. We control the equipment with a room thermostat. Domestic hot water can be (with priority) produced by connecting the boiler to an indirect storage tank or a buffer storage tank. The **E1-24** pellet burner produces 6–24 kW heat output. The output is set automatically depending on a given temperature. The burning technique's efficiency rate is 94%.

The boiler can easily be set back to solid-fuel burning.

Solid-fuel boilers

Type		HVK-20	HVK-30	HVK-40
Nominal performance (wood)	[kW]	20	30	40
Nominal performance (coal)	[kW]	25	35	45
Weight	[kg]	189	214	246
Height	[mm]	1344	1344	1462
Width	[mm]	426	526	526
Depth	[mm]		578	
Water volume	[dm^3]	37	55	61
Max. working pressure	[MPa]		0.25	
Test pressure	[Mpa]		0.4	
Efficiency	[%]		> 80	
Firebox wall thickness	[mm]		5	
Outer thickness of the heat exchanger	[mm]		3	
Pipe connection	[“]		2”	
Safety valve stub	[“]		3/4”	
Thermal safety wall stub	[“]		3/4”	
Stub for waste and feeding	[“]		3/4”	
Draught regulator, thermometer			yes	
Safety water area			yes	
Safety			MSZ EN 12809, Act CLV of 1997, Government Decree 151/203. (IX.22.)	

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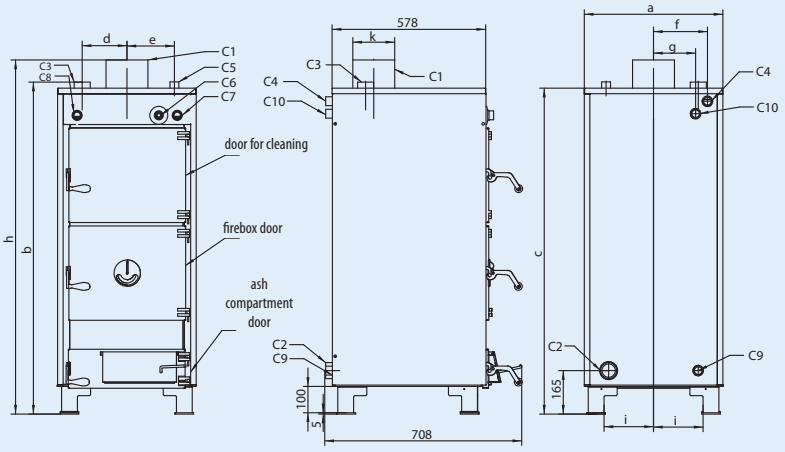
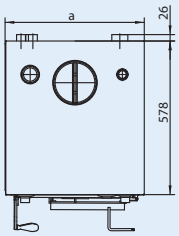
2-year full warranty

Dimensions (mm)			
Sign	HVK-20	HVK-30	HVK-40
a	426	526	526
h	1344	1344	1462
b	1262	1262	1377
c	1237	1237	1355
d	140	170	170
e	140	180	180
f	155	205	205
g	110	160	160
i	120	170	170
k	159x4	159x4	178x6

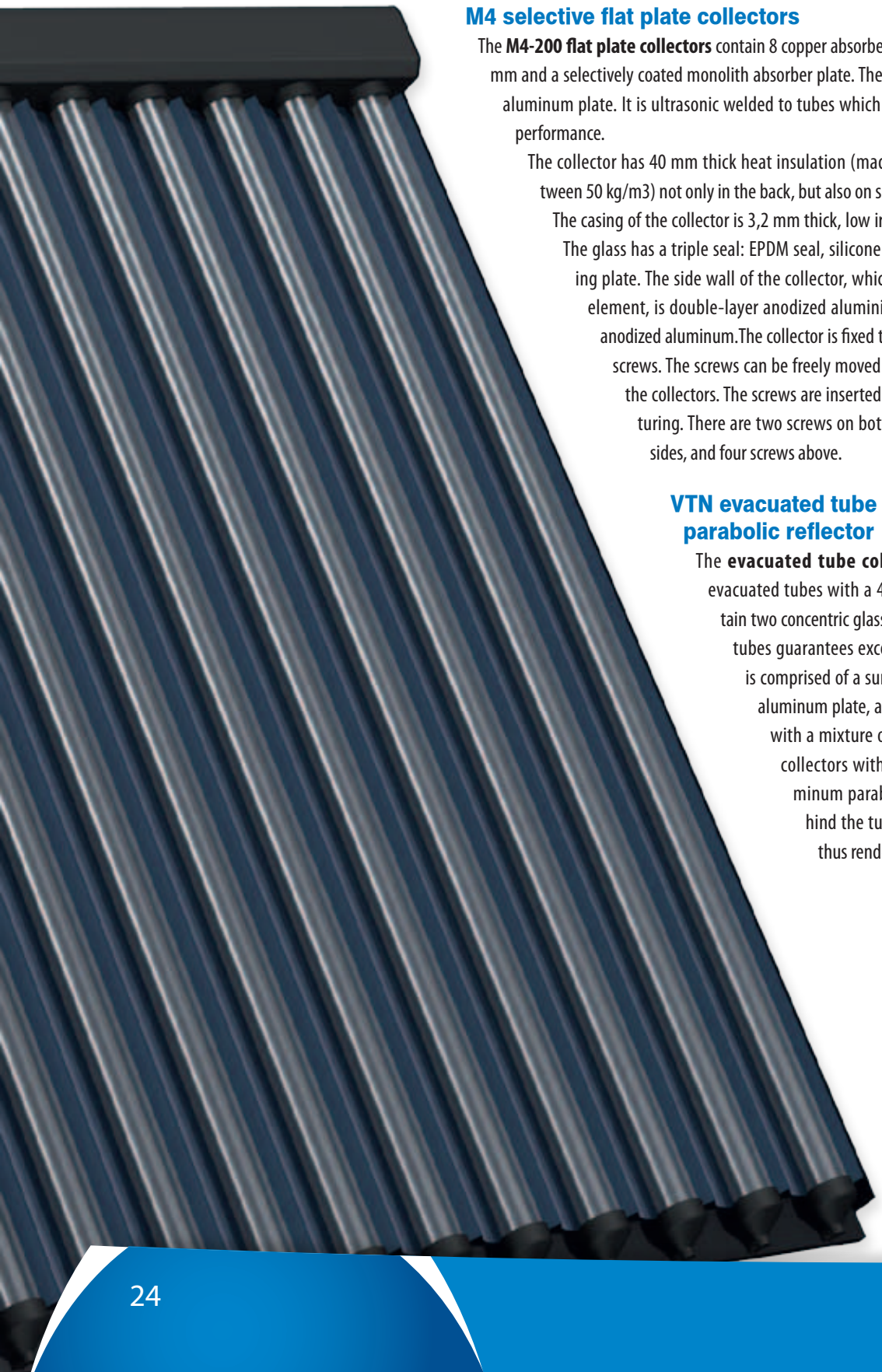




List of studs		
Sign	Name	Connector size
C1	Smoke pipe stud (external diameter)	160 mm (HVK 20, 30) 180 mm (HVK 40)
C2	Heating water in	2” External flow
C3	Heating water out	2” External flow
C4	Cooling water in	3/4” Internal flow
C5	Cooling water out	3/4” Internal flow
C6	Stud for measuring temperature	3/4” Internal flow
C7	Draught controller	3/4” Internal flow
C8	Thermostat stud	3/4” Internal flow
C9	Outflow stud	3/4” Internal flow
C10	Reserve stud	3/4” Internal flow

Solar collectors

M4, VTN



M4 selective flat plate collectors

The **M4-200 flat plate collectors** contain 8 copper absorber tubes each with a diameter of 8 mm and a selectively coated monolith absorber plate. The absorber plate is a 0,5 mm thick aluminum plate. It is ultrasonic welded to tubes which enables its quality heat transfer performance.

The collector has 40 mm thick heat insulation (made of rock wool with density between 50 kg/m3) not only in the back, but also on sides.

The casing of the collector is 3,2 mm thick, low iron content tempered solar glass. The glass has a triple seal: EPDM seal, silicone gel and a flexible fixing/clamping plate. The side wall of the collector, which is also a supporting structural element, is double-layer anodized aluminium. The back plate are made of anodized aluminum.The collector is fixed to the supporting structure by M8 screws. The screws can be freely moved in the rail formed in the sides of the collectors. The screws are inserted in the collector during manufacturing. There are two screws on both the lower left- and right-hand sides, and four screws above.

VTN evacuated tube collectors with a parabolic reflector

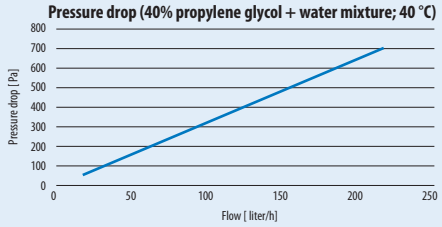
The **evacuated tube collectors** consist of 1.5 m long evacuated tubes with a 47 mm diameter. The tubes contain two concentric glass tubes. The vacuum between the tubes guarantees excellent insulation. The inner tube is comprised of a sunray absorbing selective coating, aluminum plate, and a U-shaped copper tube filled with a mixture of antifreeze and water. We offer collectors with either 12 or 16 tubes. The aluminum parabolic reflective plate, placed behind the tubes, draws sunrays to the tubes, thus rendering the collector more efficient.

M4-200 selective flat plate collectors

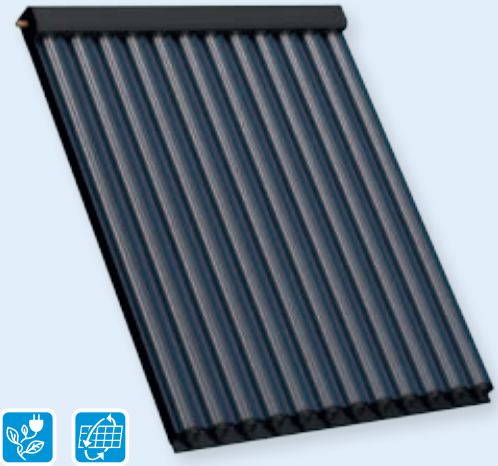
5-year full warranty

	M4-200
Collector:	
Dimensions: height/width/thickness	2060/970/90 mm
Weight	35 kg
Gross surface area	2.00 m^2
Cover	3.2 mm heat treated glass
Glass surface (aperture):	1.86 m^2
Abszorber	
Absorber surface	1.83 m^2
Type	monolith
Material	selectively coated 0,5 mm aluminium plate + copper, D = 8 mm
Coating	selective
Absorption factor:	a > 0.95
Emission factor:	e < 0.05
Optical efficiency η_0:	0.755
Efficiency factor a_1:	3.89 W/(m^2K)
Efficiency factor a_2:	0.013 W/(m^2K^2)
Volume:	1.6 l
Insulation and casing:	
Insulation material	rock wool
Insulation thickness	40 mm
Casing (frame, back plate)	anodized aluminum
Sealing	EPDM
Connection size	22 mm
Threshold limit value:	
Maximum operating temperature:	177.6 °C
Maximum operating pressure:	1 MPa
Energy output: (Germany, Würzburg)	690 kWh/m^2/year
Certification	
EN 12975-2/ISO 9806-1 – Solar Keymark 305/2011/EU - NMÉ Nemzeti Műszaki Értékelés (275/2013 (VII. 16.) Kormányrendelet)	

M4-200 flat plate collectors – Pressure drop



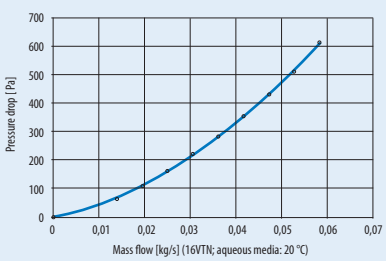
VTN evacuated tube collectors with a parabolic reflector



5-year full warranty

	12VTN	16VTN
Collector		
Dimensions: height/width/thickness	1600/1330/100 mm	1600/1770/100 mm
Weight	35 kg	45.5 kg
Gross surface area	2.13 m^2	2.83 m^2
Usable surface area	1.96 m^2	2.61 m^2
Number of vacuum tubes	12	16
External diameter of the vacuum tube	47 mm	
Length of vacuum tube	1500 mm	
Material of vacuum tube	borosilicate	
Thickness of the vacuum tube wall	1.5 mm	
Pressure	p < 0.005 Pa	
Absorber		
Absorber material: external diameter of the copper tube, aluminum plate	9.5 mm / 0.8 mm	
Coating	selective	
Absorption factor	a > 0.92	
Emission factor	e < 0.08	
Optical efficiency η_0	0.56	
Efficiency factor a_1	1.48 W/(m^2K)	
Efficiency factor a_2	0.008 W/(m^2K^2)	
Absorbing glass tube diameter	33 mm	
Volume	2.6 l	3.4 l
Material of the heat transfer medium	glycol + water mixture	
Insulation and housing		
Insulation thickness in house	30 mm	
Insulation material	fiberglass+polyurethane	
Casing material	aluminium	
Connection size	18 mm	
Limit values		
Max. operating temperature	227.3 °C	
Max. operating pressure	1 MPa	
Test pressure	1.5 MPa	
Energy output (Germany, Würzburg)	650 kWh/m^2/year	
Certification		
305/2011/EU – National Technical Assessments (NMÉ) (Government Decree 275/2013 (VII.16.))		

VTN collectors – Pressure drop



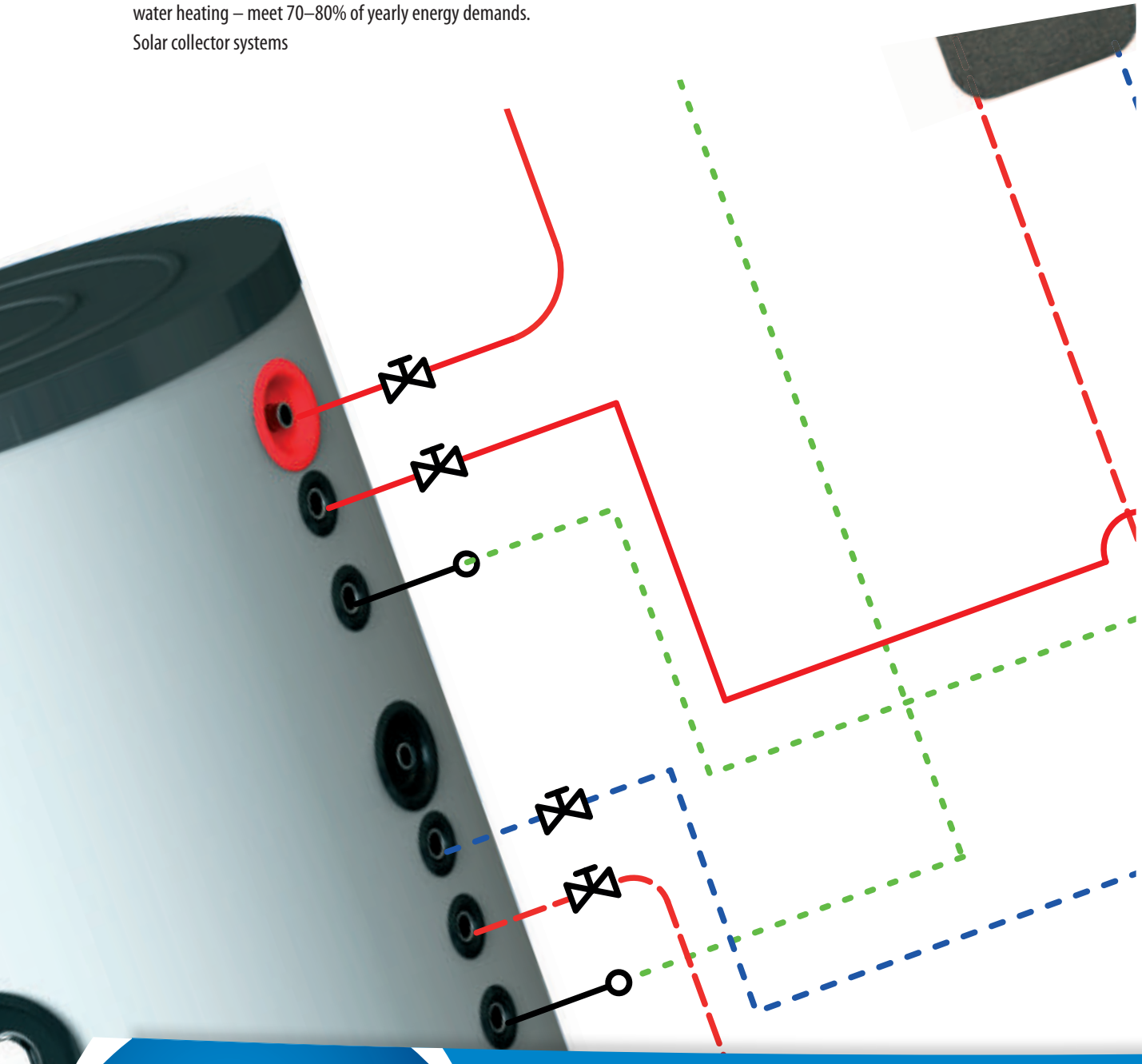
Solar systems

Solar collectors absorb sunrays and transform them into heat which is then delivered to antifreeze fluid circulating inside of it. They are covered with absorbers that have special selective coating which guarantees high efficiency, thermostability and prolongs the appliance's life; absorbers are environmentally friendly as they do not contain black chrome. A pump helps to transfer water from the collector to a hot water storage tank where it delivers solar energy through a heat exchanger.

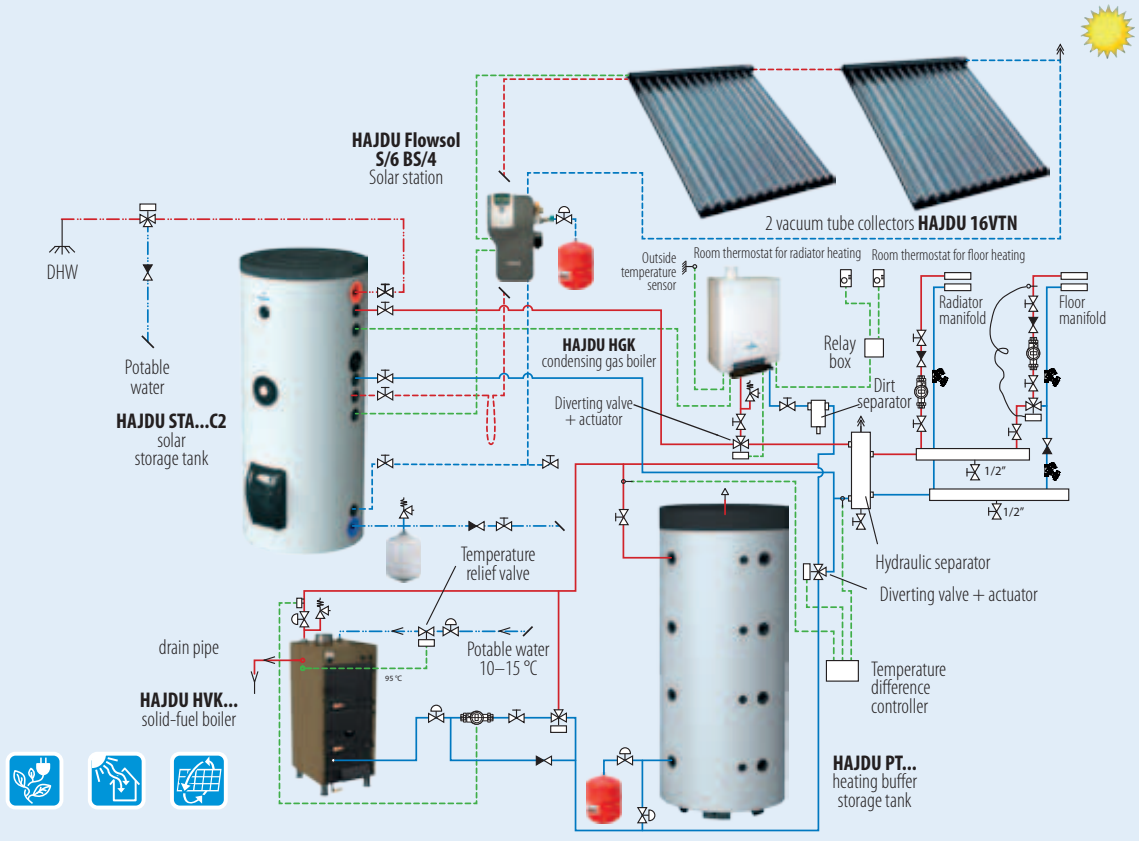
Functioning of the system is being constantly controlled by a solar regulator which is equipped with a sensor and starts or stops the pump depending on the temperature.

Our solar collector systems can be complemented with an auxiliary electric heating element built into the storage tank or with a central heating. Apart from solar collectors our company also provides all of the additional components required for functioning of the system (storage tank, solar regulator, expansion vessel etc.) Solar energy produced by these appliances can – in the case of water heating – meet 70–80% of yearly energy demands.

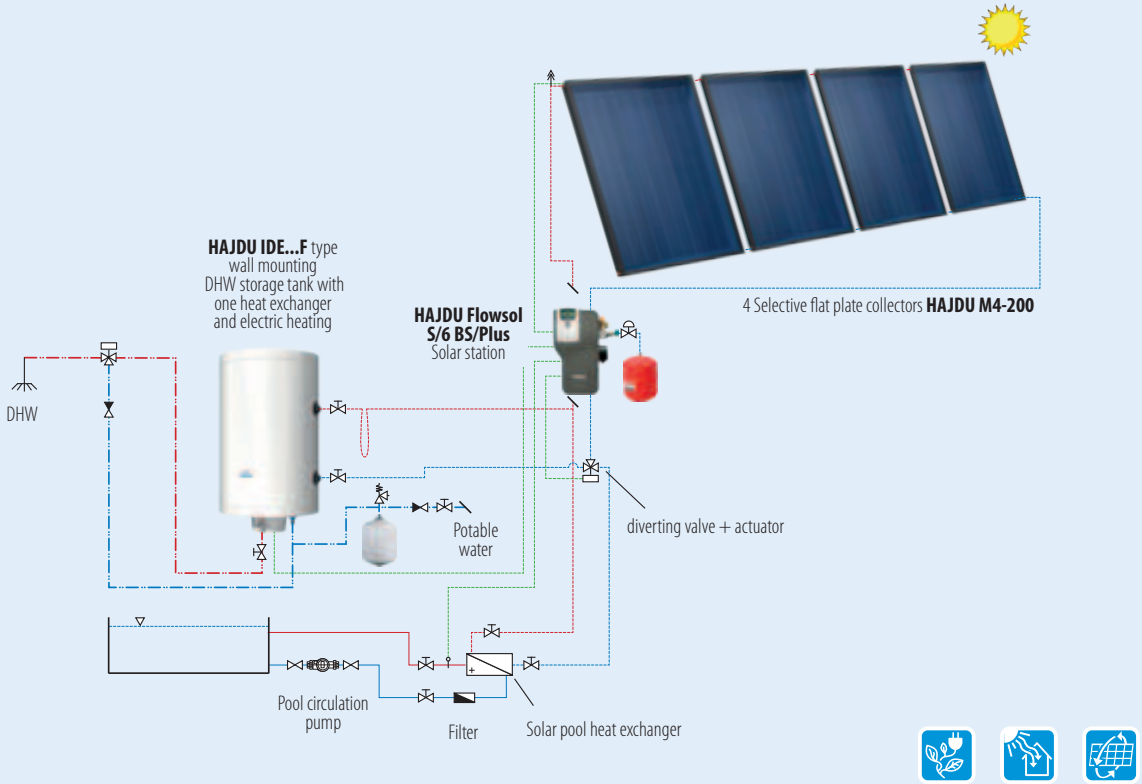
Solar collector systems



Solar collector systems



Solar collector systems



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