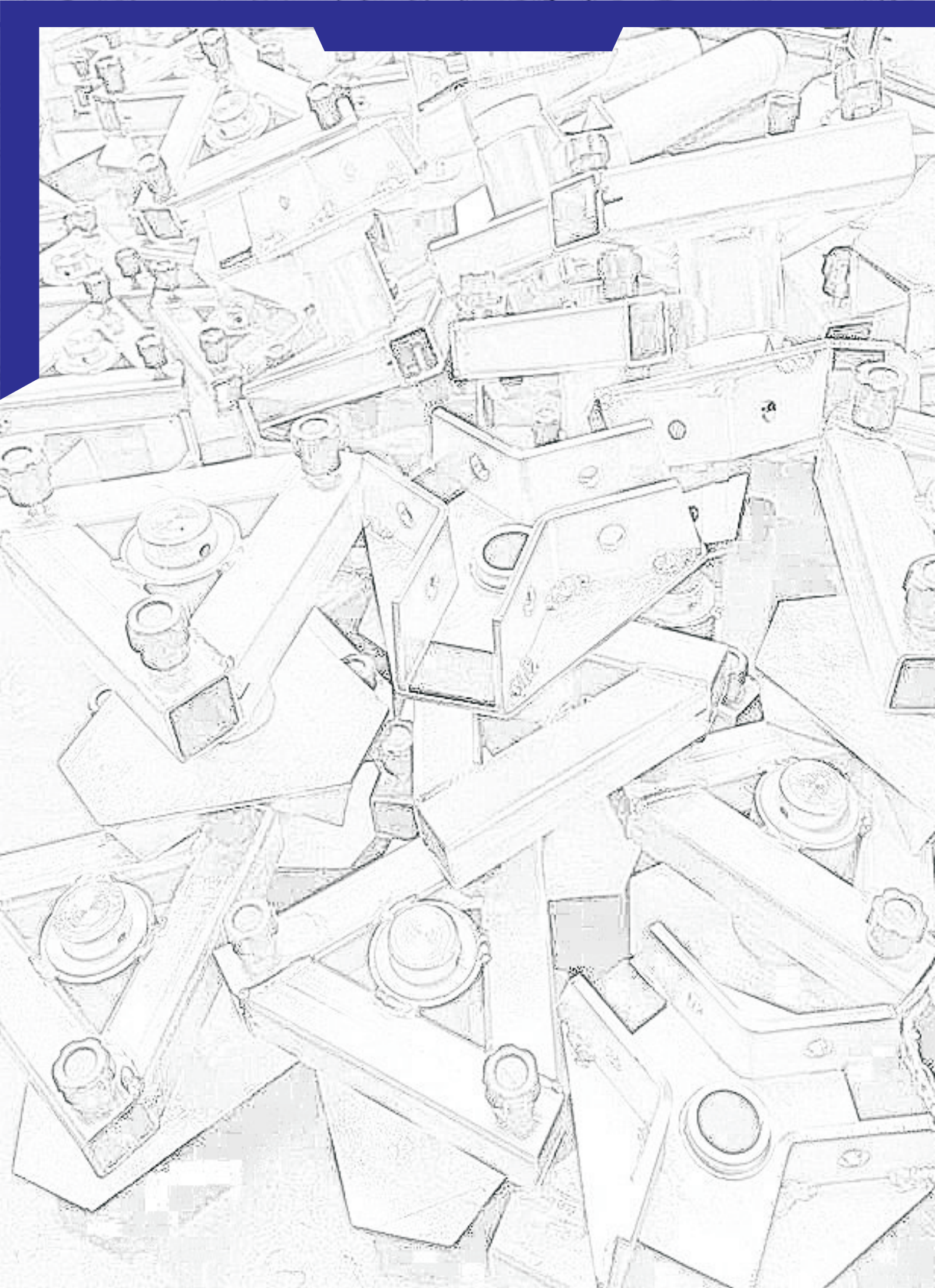




# Efficient energy management



2020



The history of the KHT company dates back to 1989, as a small enterprise, which united the engineering and technical staff in the company. The main area of activity was the design, installation and commissioning of industrial and heat engineering equipment. We are one of the first firms, which from the very beginning of its existence and still aims to introduce modern solutions in the field of heating technology and sanitary systems.



Today, KHT is a powerful industrial company with more than 100 employees. The production and warehouse space of the company is more than 15000 m<sup>2</sup>



We conduct production and trading activities in the field of modern heat supply systems, develop projects and implement them. The company has created a design office, which generates new modern solutions in the field of heat supply. We have developed and introduced a wide range of accumulation tanks, thermal energy distribution equipment, indirect water heaters and other projects.



A clear management system and maximum utilization of our potential have given us a stable position in the Ukrainian market. We are always trying to find the right solution by adopting a flexible approach to customer needs. We strive to continue to meet your needs and work together to solve emerging issues. We look forward to mutually beneficial cooperation.



## Water heaters

6

- BT series 200 - 500 L with solid thermal insulation
- BT series 750 - 2000 L with soft thermal insulation
- BTI series stainless steel 200 -1500 L
- BBT series 1000 – 10000 L



## Storage tanks

16

- HPT series 60 – 500 L with solid thermal insulation
- EA series, EAF series, EAI series, EAM series 350 – 10000 L with soft removable thermal insulation



## Heat exchangers

28

- ▣ TU series
- TB series



## Boiler room equipment

30

- ▣ Hydraulic separators
- Hydraulic separators with manifolds
- Manifolds
- Safety groups
- Fastening



## Expansion vessels

44

- EVA series
- EVH series



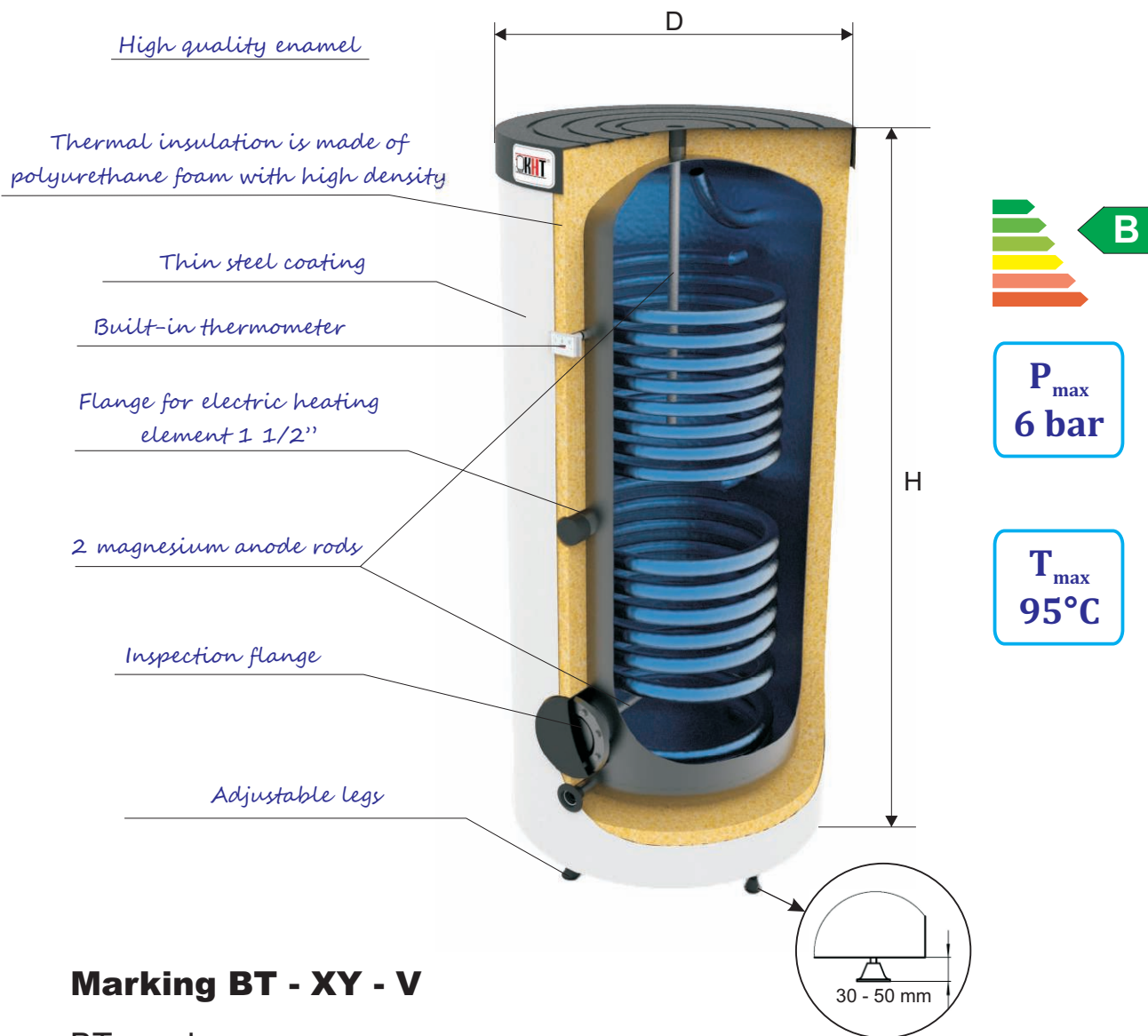
## Underfloor heating

46

- Pump groups
- Manifolds
- Tools

**BT series with solid thermal insulation. Capacity: 200 – 500 L**

BT series

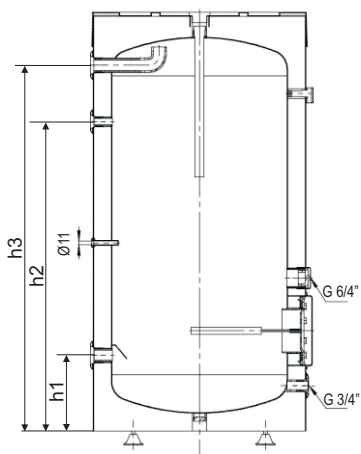


**Marking BT - XY - V**

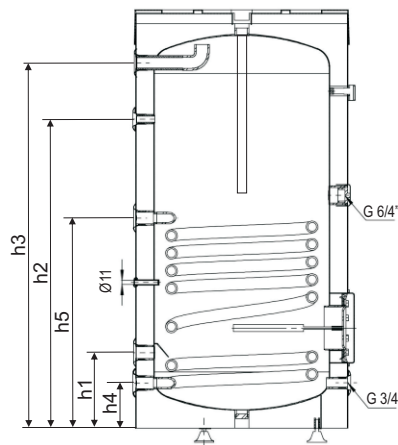
- BT - serie
- X - upper heat exchangers quantity
- Y - lower heat exchangers quantity
- V - nominal volume

Model	BT-00				BT-01				BT-11			
Nominal volume	200	300	400	500	200	300	400	500	200	300	400	500
Volume V, l	199	296	395	457	190	280	386	549	185	274	377	449
Weight M, kg	48	56	74	84	68	79	118	130	78	100	152	171
Diameter D, mm	610	710	710	760	610	710	710	760	610	710	710	760
Height H, mm	1170	1200	1600	1650	1170	1200	1600	1650	1170	1200	1600	1650

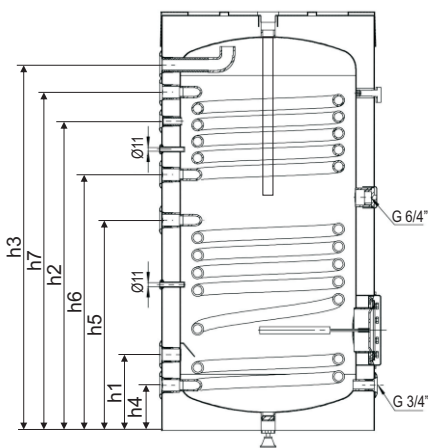
BT - 00



BT - 01

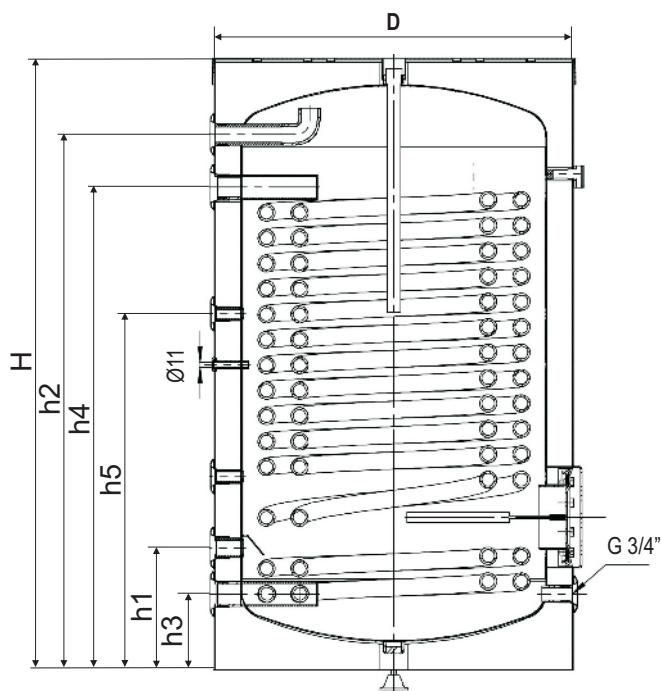


BT - 11



Characteristics	Unit	Nominal volume			
		200	300	400	500
Cold water inlet h1	" / mm	1 / 215	1 / 230	1 / 235	1 / 240
Recirculation h2	" / mm	1/2 / 880	1/2 / 880	1/2 / 1080	1/2 / 1135
Hot water outlet h3	" / mm	1 / 1040	1 / 1055	1 / 1455	1 / 1465
Return line of the lower heat exchanger h4	" / mm	1 / 135	1 / 145	5/4 / 150	5/4 / 150
Supply line of the lower heat exchanger h5	" / mm	1 / 600	1 / 665	5/4 / 735	5/4 / 735
Return line of the upper heat exchanger h6	" / mm	1 / 735	1 / 755	1 / 865	1 / 865
Supply line of the upper heat exchanger h7	" / mm	1 / 970	1 / 955	1 / 1265	1 / 1265
Volume of the lower heat exchanger	l	4,4	5,9	9,6	9,6
Surface of the lower heat exchanger	m <sup>2</sup>	0,92	1,2	1,72	1,72
Operating pressure of the lower heat exchanger	MPa	1			
Volume of the upper heat exchanger	l	3	3	5,8	5,8
Surface of the upper heat exchanger	m <sup>2</sup>	0,6	0,6	1,2	1,2
Operating pressure of the upper heat exchanger	MPa	1			

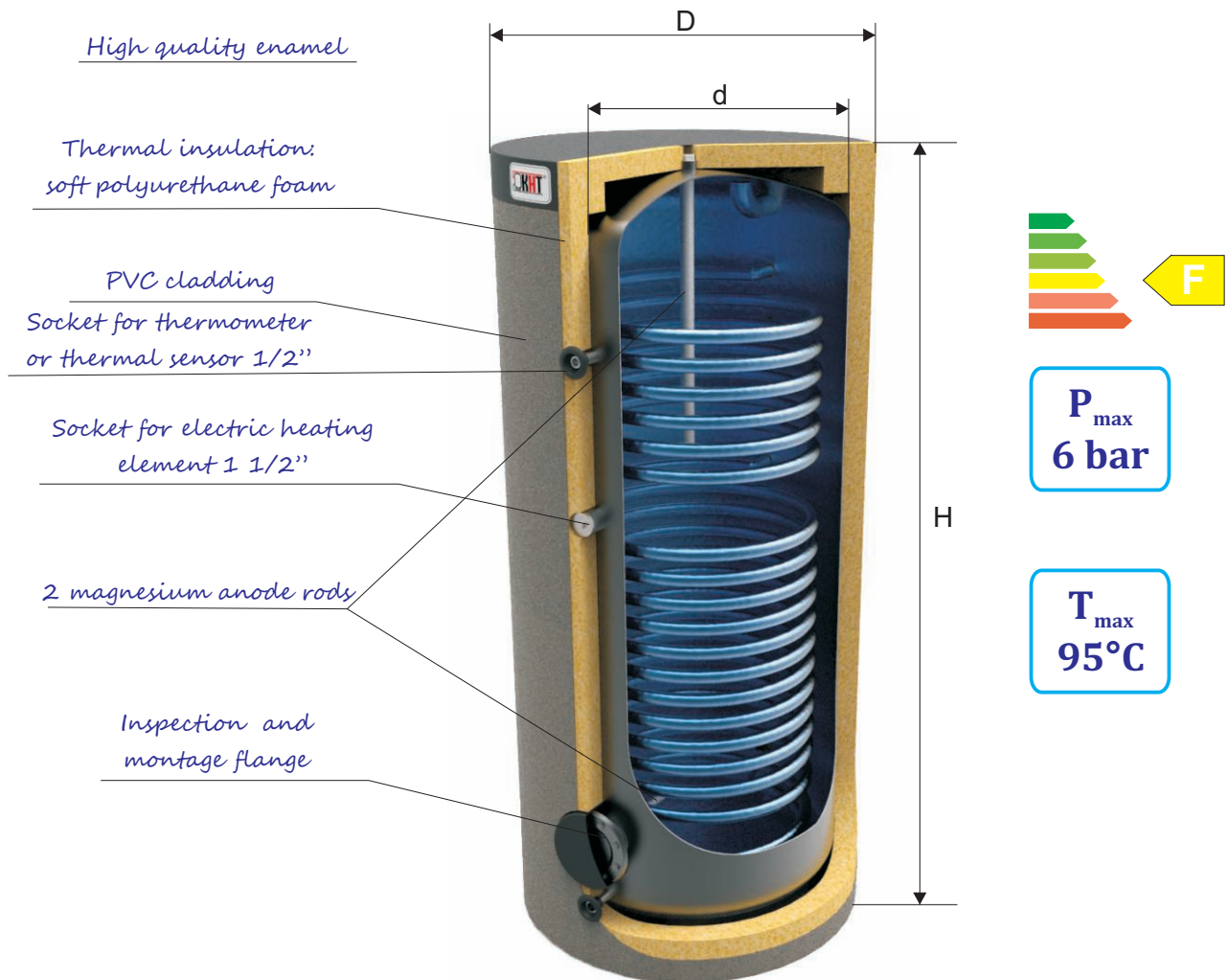
## BT DUO



Characteristics	Unit	Nominal volume		
		300	500	750
Cold water inlet, h1	" / mm	1 / 240	1 / 274	6/4 / 198
Hot water outlet, h2	" / mm	1 / 1050	1 / 1400	6/4 / 1680
Return line of the heat exchanger, h3	" / mm	5/4 / 145	5/4 / 155	5/4 / 96
Supply line of the heat exchanger, h4	" / mm	5/4 / 950	5/4 / 1327	5/4 / 1273
Recirculation, h5	" / mm	1/2 / 700	3/4 / 1046	6/4 / 1394
Volume of the heat exchanger	l	18,5	40,0	40,0
Surface of the heat exchanger	m <sup>2</sup>	3,84	6,00	6,00
Operating pressure of the heat exchanger	MPa	1	1	1
Height, H	mm	1200	1625	1848
Diameter, D	mm	710	760	760
Volume, V	l	259	435	730



**BT series with soft thermal insulation. Capacity: 750 - 2000 L**



**BT - XY - V**

BT - serie

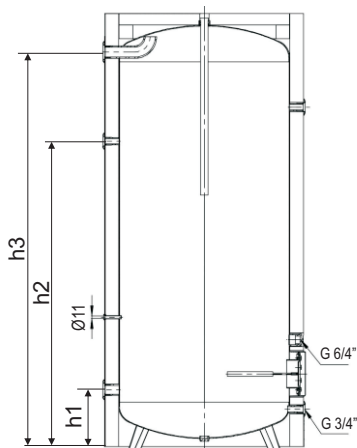
X - number of upper heat exchangers

Y - number of lower heat exchangers

V - nominal volume

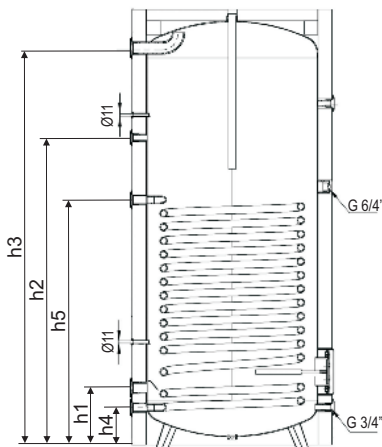
Model	BT-00				BT-01				BT-11			
Nominal volume	750	1000	1500	2000	750	1000	1500	2000	750	1000	1500	2000
Volume V, l	770	1000	1360	1966	737	910	1310	549	741	924	1310	1900
Weight M, kg	110	120	159	197	225	171	332	387	270	238	352	420
Diameter with insulation D, mm	850	950	1100	1300	850	950	1100	1300	850	950	1100	1300
Diameter without insulation d, mm	750	850	1000	1200	750	850	1000	1200	750	850	1000	1200
Total height H, mm	1890	1960	2030	2040	1890	1960	2030	2040	1890	1960	2030	2040

**BT - 00**



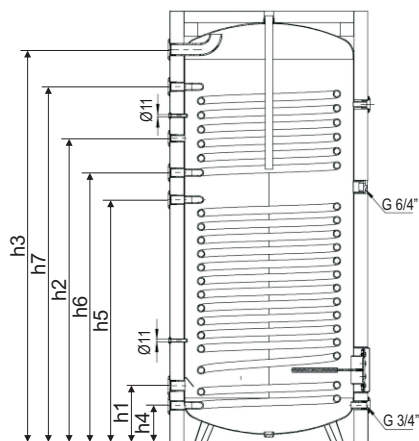
Characteristics	Unit	Nominal volume			
		750	1000	1500	2000
Cold water inlet h1	” / mm	5/4 / 240	6/4 / 285	6/4 / 310	6/4 / 320
Recirculation pipe h2	” / mm	3/4 / 1345	3/4 / 1380	3/4 / 1305	3/4 / 1140
Hot water outlet h3	” / mm	5/4 / 1740	6/4 / 1770	6/4 / 1800	6/4 / 1810

**BT - 01**



Characteristics	Unit	Nominal volume			
		750	1000	1500	2000
Cold water inlet h1	” / mm	5/4 / 240	6/4 / 285	6/4 / 310	6/4 / 325
Recirculation h2	” / mm	3/4 / 1345	3/4 / 1380	3/4 / 1305	3/4 / 1145
Hot water outlet h3	” / mm	5/4 / 1740	6/4 / 1770	6/4 / 1800	6/4 / 1810
Return line of the lower heat exchanger h4	” / mm	5/4 / 160	6/4 / 195	6/4 / 220	6/4 / 230
Supply line of the lower heat exchanger h5	” / mm	5/4 / 1060	6/4 / 1260	6/4 / 1090	6/4 / 920
Volume of the lower heat exchanger	l	19	29	29	29
Surface of the lower heat exchanger	m <sup>2</sup>	3,19	4,79	4,79	4,79
Operating pressure of the lower heat exchanger	MPa	1			

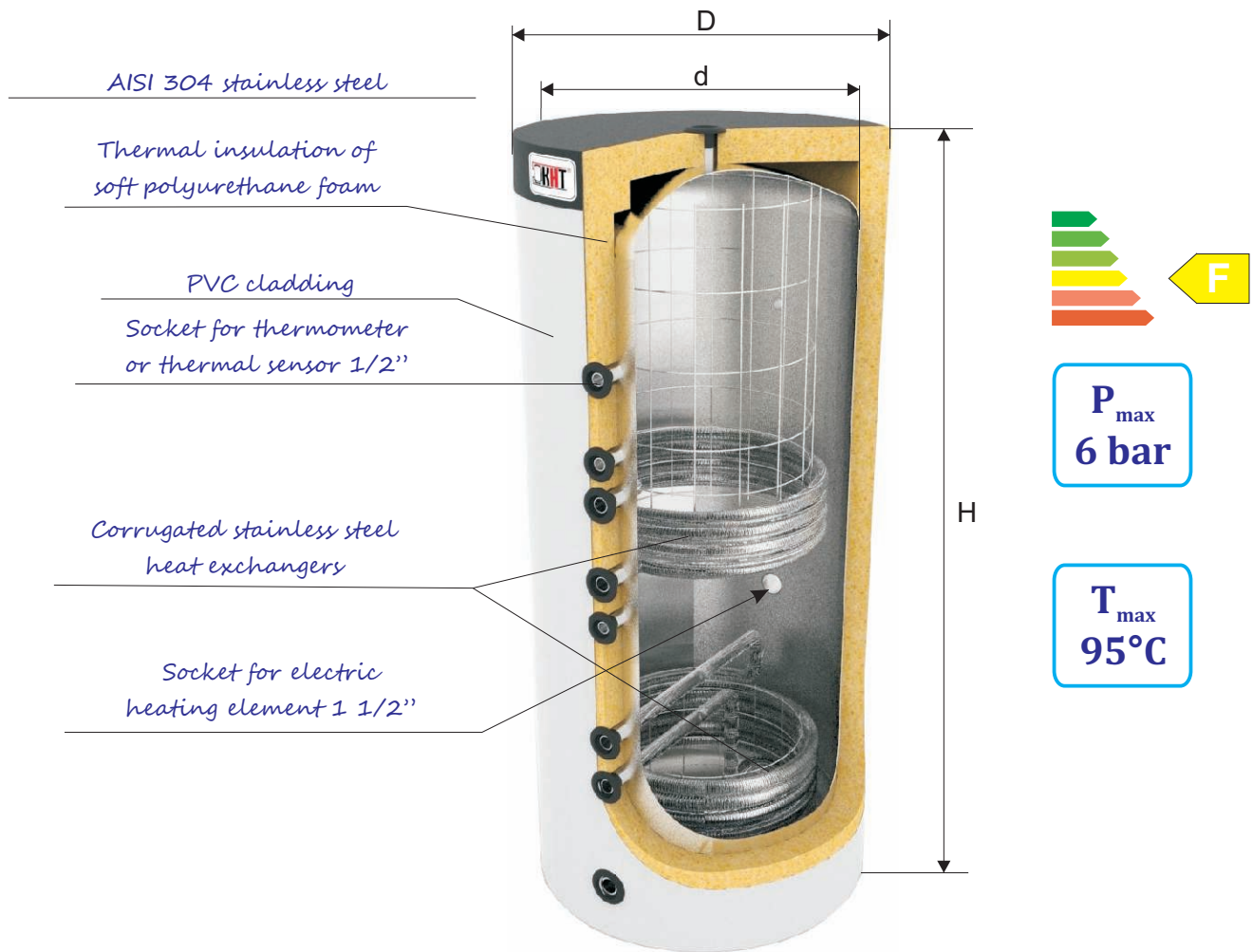
BT - 11



Charasteristics	Unit	Nominal volume			
		750	1000	1500	2000
Cold water inlet h1	" / mm	5/4 / 250	6/4 / 285	6/4 / 310	6/4 / 325
Recirculation h2	" / mm	3/4 / 1345	3/4 / 1105	3/4 / 1130	3/4 / 1145
Hot water outlet h3	" / mm	5/4 / 1740	6/4 / 1770	6/4 / 1800	6/4 / 1810
Return line of the lower heat exchanger h4	" / mm	5/4 / 160	6/4 / 195	6/4 / 220	6/4 / 230
Supply line of the lower heat exchanger h5	" / mm	5/4 / 1060	6/4 / 1260	6/4 / 1090	6/4 / 920
Return line of the upper heat exchanger h6	" / mm	1 / 1185	5/4 / 1000	5/4 / 1035	5/4 / 1050
Supply line of the upper heat exchanger h7	" / mm	1 / 1565	5/4 / 1300	5/4 / 1335	5/4 / 1350
Volume of the lower heat exchanger	l	11,9	11,9	19,3	29
Surface of the lower heat exchanger	m <sup>2</sup>	2,44	2,44	3,19	4,79
Operating pressure of the lower heat exchanger	MPa	1			
Volume of the upper heat exchanger	l	5,9	9,6	9,6	9,6
Surface of the upper heat exchanger	m <sup>2</sup>	1,22	1,72	1,72	1,72
Operating pressure of the upper heat exchanger	MPa	1			

**BTI series stainless steel. Capacity: 150 - 1500 L**

BTI series



**Marking BTI - XY - V**

BTI - serie

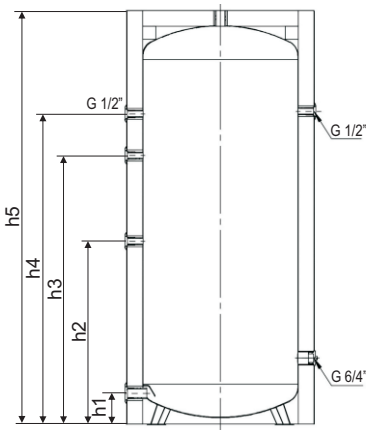
X - number of upper heat exchangers

Y - number of lower heat exchangers

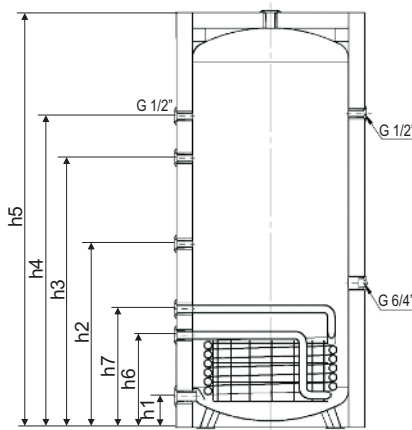
V - nominal volume

Nominal volume	150	200	300	400	500	750	1000	1500
Total height H, mm	1026	1540	1590	1600	1850	1970	1980	2080
Diameter without insulation d, mm	450	450	550	600	600	750	850	1000
Diameter with insulation D, mm	550	550	670	720	720	870	970	1120

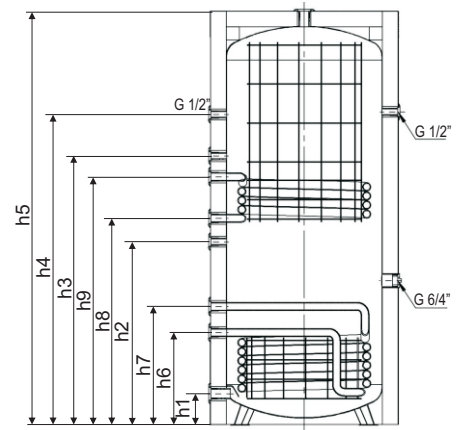
BTI - 00



BTI - 01



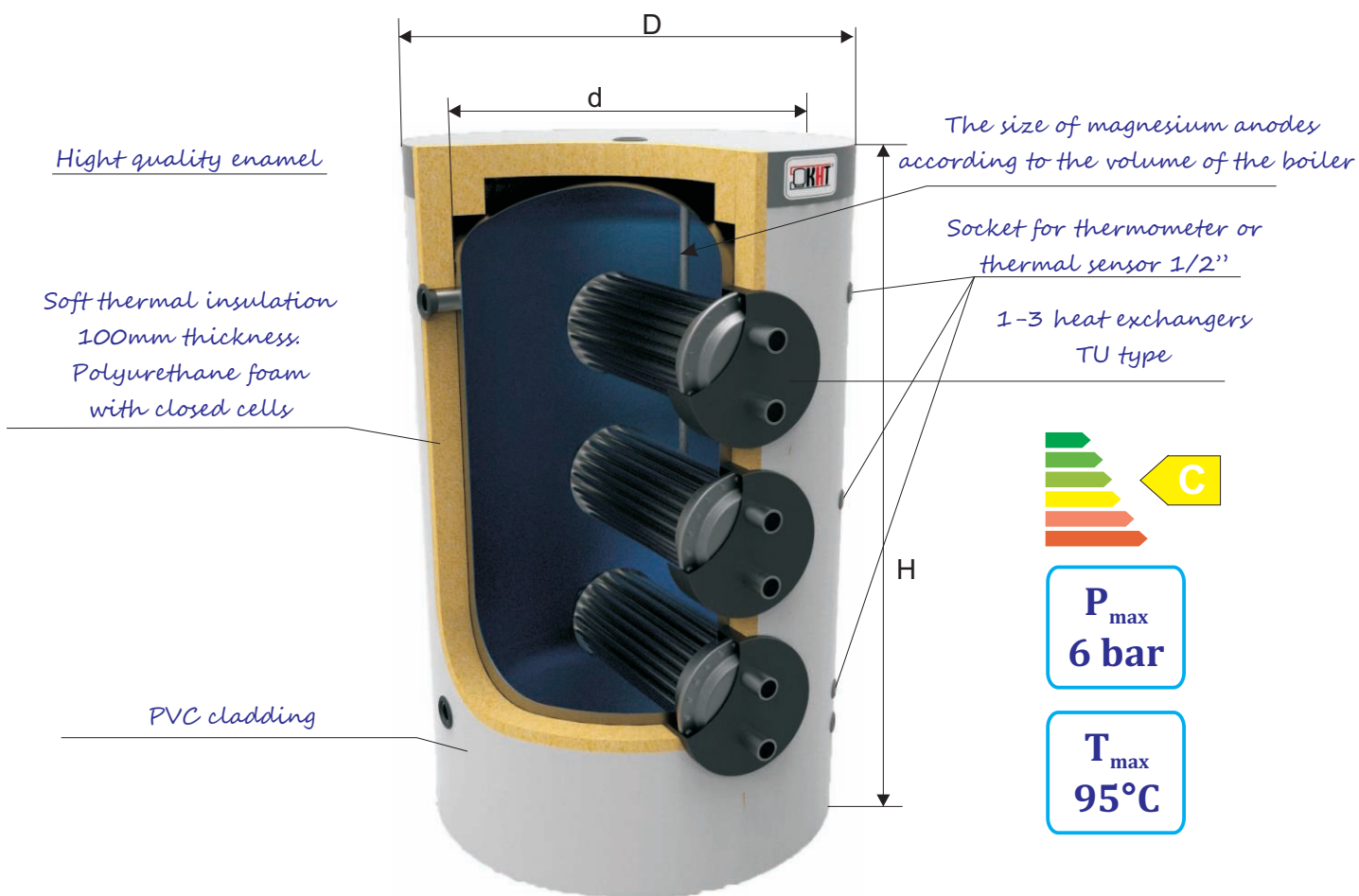
BTI - 11



Characteristics	unit	Nominal volume							
		150	200	300	400	500	750	1000	1500
The volume of the BTI-00 model	l	142	220	328	409	481	770	1000	1607
The weight of the BTI-00 model	kg	26	30	38	42	60	90	96	121
The volume of the BTI-01 model	l	138	216	324	402	471	760	978	1593
The weight of the BTI-01 model	kg	37	45	44	50	70	86	108	163
The volume of the BTI-01 model	l		214	321	397	466	775	971	1584
The weight of the BTI-11 model	kg		61	65	82	110	139	150	186
Cold water inlet h1	"/ mm	1 / 78	1 / 78	1 / 120	1 / 120	5/4 / 115	5/4 / 180	5/4 / 180	5/4 / 235
Safety valve connection h2	"/ mm	1/2 / 515	1/2 / 664	1/2 / 705	1/2 / 705	3/4 / 705	3/4 / 770	3/4 / 772	3/4 / 825
Recirculation h3	"/ mm	1/2 / 665	1/2 / 994	1/2 / 1035	1/2 / 1035	3/4 / 1170	3/4 / 1350	3/4 / 1350	3/4 / 1405
Thermal sensor connection h4	"/ mm	1/2 / 810	1/2 / 1188	1/2 / 1195	1/2 / 1195	1/2 / 1445	1/2 / 1509	1/2 / 1510	1/2 / 1566
Hot water outlet h5	"/ mm	1 / 1030	1 / 1527	1 / 1585	1 / 1592	5/4 / 1842	5/4 / 1966	5/4 / 1960	5/4 / 2070
Return line of the lower heat exchanger h6	"/ mm	1 / 265	1 / 264	1 / 305	1 / 354	1 / 425	1 / 440	1 / 470	1 / 495
Supply line of the lower heat exchanger h7	"/ mm	1 / 365	1 / 364	1 / 405	1 / 454	1 / 525	1 / 540	1 / 570	1 / 595
Return line of the upper heat exchanger h8	"/ mm		1 / 754	1 / 795	1 / 795	1 / 920	1 / 1000	1 / 1000	1 / 1040
Supply line of the upper heat exchanger h9	"/ mm		1 / 914	1 / 955	1 / 955	1 / 1095	1 / 1160	1 / 1160	1 / 1215
Volume of the lower heat exchanger	l	2,6	2,6	2,8	5,0	6,6	7,8	8,7	9,9
Surface of the lower heat exchanger	m <sup>2</sup>	0,53	0,53	0,57	1,03	1,35	1,48	1,65	1,88
Operating pressure of the lower heat exchanger	MPa	1							
Volume of the upper heat exchanger	l		1,7	1,8	3,0	4,02	4,02	5,7	5,7
Surface of the upper heat exchanger	m <sup>2</sup>		0,36	0,37	0,6	0,76	0,76	1,08	1,08
Operating pressure of the upper heat exchanger	MPa	1							

**BBT series. Capacity 1000 - 10000 L**

BBT series



**Marking BBT - XYZ - V**

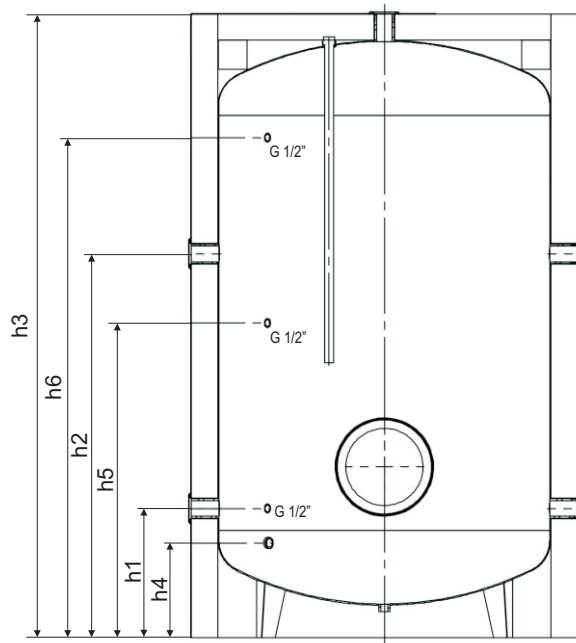
BBT - serie

- X - the presence of the upper flange
- Y - the presence of the middle flange
- Z - the presence of the lower flange
- V - nominal volume

XYZ value:

- 0 - without flange
- 1 - flange DU 120
- 2 - flange DU 210
- 4 - flange DU 350

Nominal volume	1000	1500	2000	2500	3000	4000	5000	7000	10000
Height H, mm	1863	2204	2305	2245	2350	2440	3140	3940	5440
Diameter with insulation D,mm	1050	1200	1400	1500	1600	1800	1700	1800	1800
Diameter without insulation D,mm	850	1000	1200	1300	1400	1600	1500	1600	1600
Volume, l	1000	1357	1965	2320	2697	3614	4474	6628	9643
Weight, kg	143	181	227	247	366	437	517	681	920

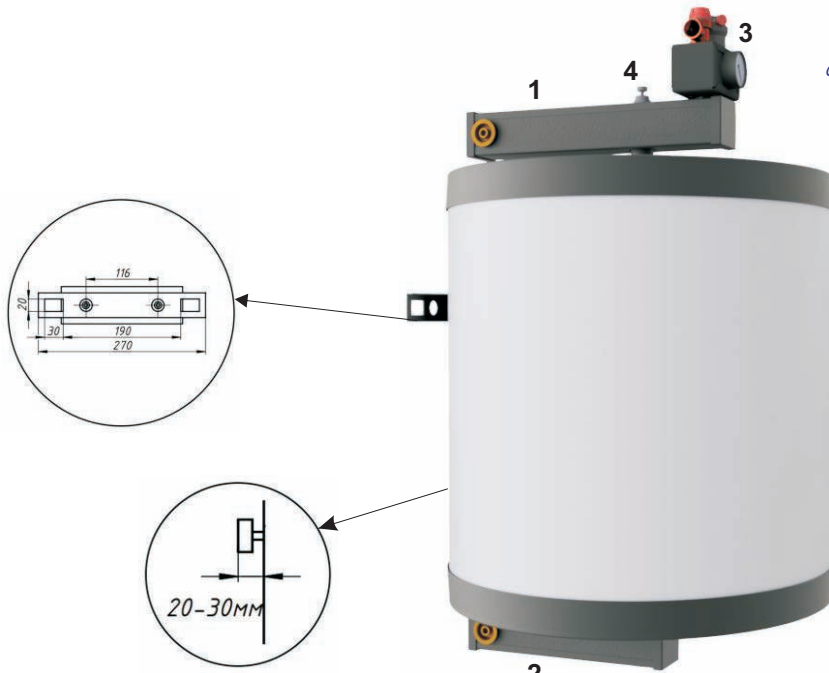


Characteristics	unit	Nominal volume								
		1000	1500	2000	2500	3000	4000	5000	7000	10000
Cold water inlet h1	" / mm	6/4 / 370	6/4 / 450	2 / 465	2 / 465	2 / 495	2 / 555	3 / 490	3 / 538	3 / 537
Recirculation h2	" / mm	1 / 1290	1 / 1370	1 / 1306	1 / 1370	1 / 1420	1 / 1466	1 / 2180	1 / 2948	1 / 4442
Hot water outlet h3	" / mm	6/4 / 2065	6/4 / 2204	2 / 2305	2 / 2245	2 / 2350	2 / 2440	3 / 3140	3 / 3940	3 / 5440
Drain valve plug h4	" / mm	1 / 245	1 / 325	1 / 340	1 / 330	1 / 380	1 / 430	1 / 390	1 / 422	1 / 425
Thermal sensor connection h5	" / mm	3/4 / 1240	3/4 / 1320	3/4 / 1135	3/4 / 1125	3/4 / 1175	3/4 / 1225	3/4 / 1560	3/4 / 1973	3/4 / 2725
Thermal sensor connection h6	" / mm	3/4 / 1710	3/4 / 1790	3/4 / 1806	3/4 / 1788	3/4 / 1845	3/4 / 1890	3/4 / 2605	3/4 / 3396	3/4 / 4895

Heat/cold accumulators with solid insulation 60 - 500 l HPT series

HPT series

Wall mounted 60 - 150 L



HEAT/COLD ACCUMULATOR can be equipped with the upper (1) and the lower (2) KHP collectors, HW mini safety group (3) and the sleeve of the temperature sensor (4).



$P_{max}$   
3 bar

$T_{min}$   
-20°C

$T_{max}$   
95°C

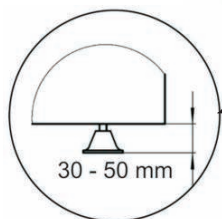
Floor standing 200 - 500 L



Thermal insulation is made of polyurethane foam with high density

Thin steel coating

200-500 l models made with adjustable legs

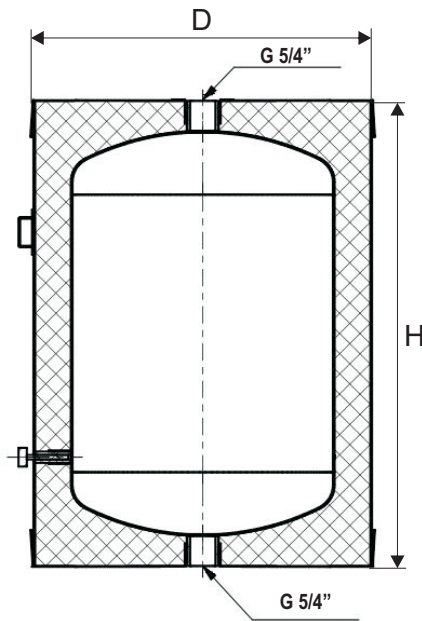


Marking HPT - V

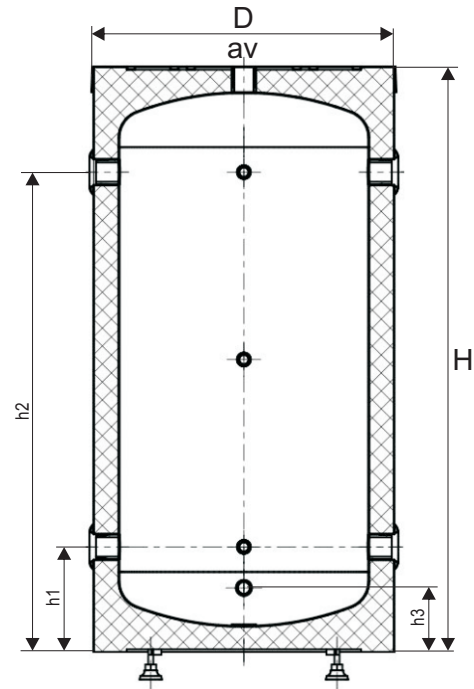
HPT - serie  
V - nominal volume



HPT 60-150



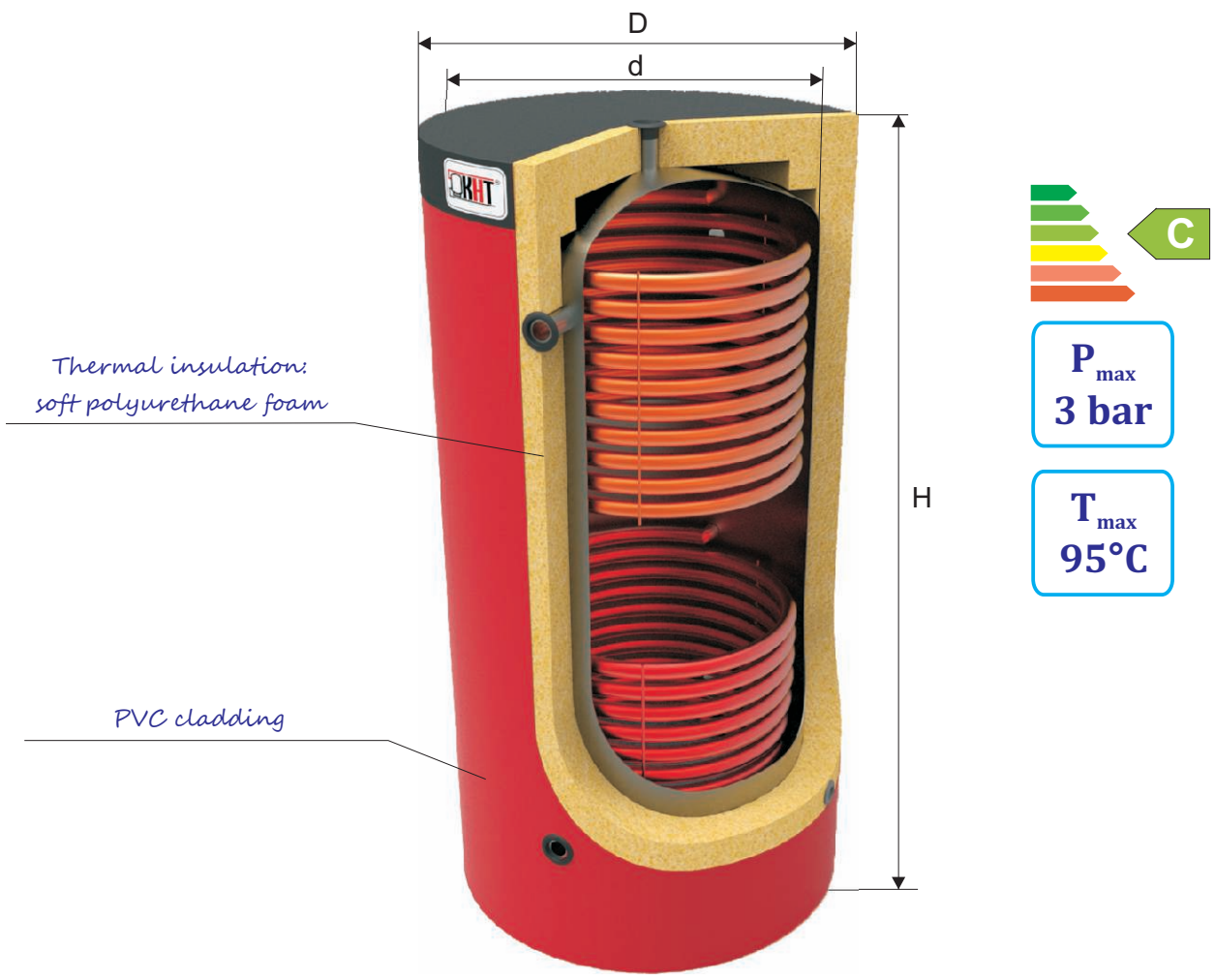
HPT 200-500



Characteristics	unit	Nominal volume						
		60	90	150	200	300	400	500
Volume	l	59	90	152	199	296	395	458
Weight	kg	13,35	16,65	23,2	27,87	34,41	44,53	48,34
Diameter D	mm	530	600	600	600	700	700	750
Height H	mm	664	664	974	1160	1200	1621	1621
Connections h1	" / mm				5/4 / 200	6/4 / 225	6/4 / 225	6/4 / 225
Connections h2	" / mm				5/4 / 950	6/4 / 975	6/4 / 1375	6/4 / 1375
Connections h3	" / mm				3/4 / 118	3/4 / 143	3/4 / 144	3/4 / 144
Connection av	" / mm				5/4 / 1160	6/4 / 1160	6/4 / 1621	6/4 / 1621
Operating pressure	MPa				0,3			

EA series with soft thermal insulation. Capacity: 500 – 10000 L

EA series



Thermal insulation:  
soft polyurethane foam

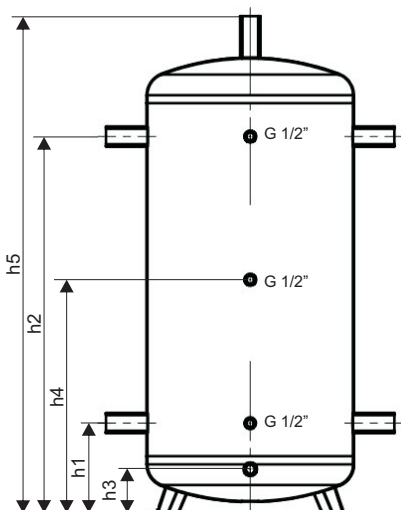
PVC cladding

Marking **EA - XY - V**

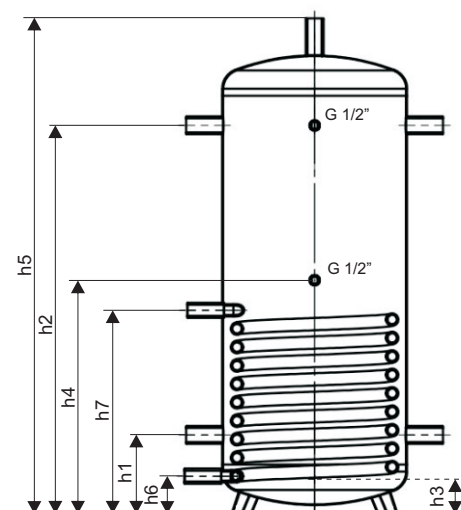
- EA - serie
- X - upper heat exchangers quantity
- Y - lower heat exchangers quantity
- V - nominal volume

Nominal volume	350	500	750	1000	1500	2000	2500	3000	3500	4000	5000	7000	10000
Height H, mm	1830	1890	2025	1995	2070	2105	2160	2145	2210	2205	2965	3705	5204
Diameter with insulation D, mm	700	800	950	1050	1200	1400	1500	1600	1700	1800	1700	1800	1800
Diameter without insulation d, mm	500	600	750	850	1000	1200	1300	1400	1500	1600	1500	1600	1600

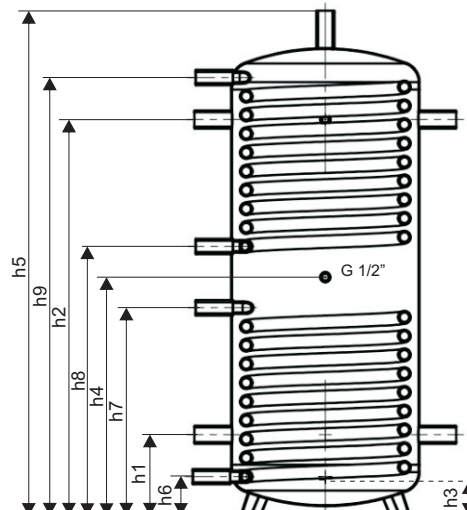
## EA-00



## EA-01



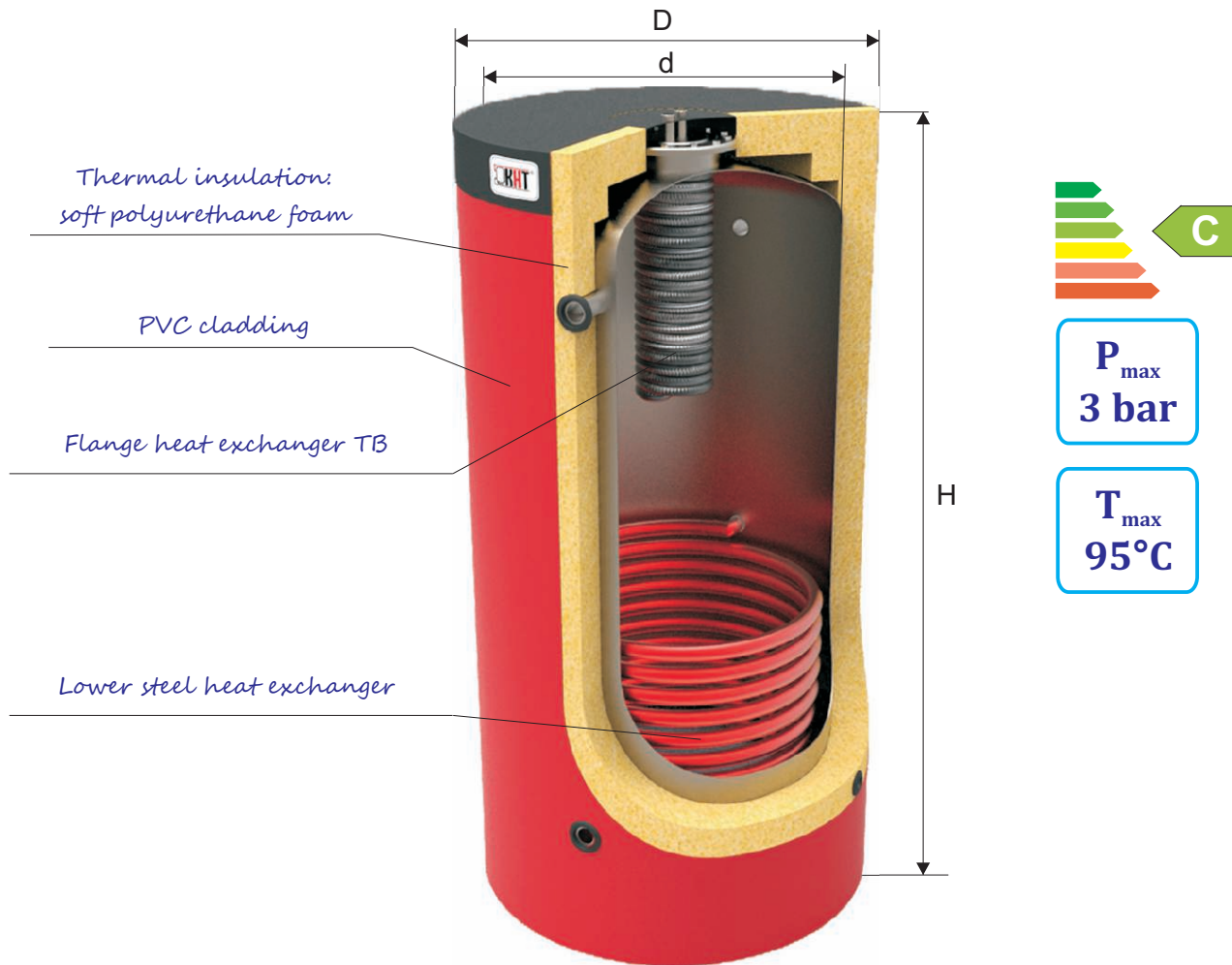
## EA-11



Characteristics	unit	nominal volume					
		350	500	750	1000	1500	2000
Volume	l	344	472	748	985	1357	1965
The weight of the EA-00 model	kg	54	69	95	108	117	187
The weight of the EA-01 model	kg	94	143	170	216	304	362
The weight of the EA-11 model		135	179	204	252	339	398
Return line outlet h1	"/ mm	5/4 / 203	5/4 / 224	6/4 / 314	6/4 / 301	6/4 / 334	2 / 368
Supply line inlet h2	"/ mm	5/4 / 1542	5/4 / 1562	6/4 / 1654	6/4 / 1641	6/4 / 1674	2 / 1708
Drain valve plug h3	"/ mm	3/4 / 93	3/4 / 127	3/4 / 203	3/4 / 190	3/4 / 223	3/4 / 257
Thermal sensor socket h4	"/ mm	1/2 / 882	1/2 / 908	1/2 / 984	1/2 / 971	1/2 / 1004	1/2 / 1038
Supply line inlet h5	"/ mm	5/4 / 1826	5/4 / 1886	6/4 / 2022	6/4 / 1994	6/4 / 2066	2 / 2105
Operating pressure	MPa	0,3					
Return line of the lower heat exchanger h6	"/ mm	1 / 93	1 / 116	1 / 190	5/4 / 163	5/4 / 200	5/4 / 233
Supply line of the lower heat exchanger h7	"/ mm	1 / 584	1 / 913	1 / 840	5/4 / 764	5/4 / 988	5/4 / 1032
Surface of the lower heat exchanger	m <sup>2</sup>	1,22	2,44	2,44	3,19	4,78	4,78
Volume of the lower heat exchanger	l	4,7	9,4	9,4	12,4	18,6	18,6
Operating pressure of the lower heat exchanger	MPa	1					
Return line of the upper heat exchanger h8	"/ mm	1 / 1150	1 / 1233	1 / 1457	1 / 1507	1 / 1573	1 / 1621
Supply line of the upper heat exchanger h9	"/ mm	1 / 1660	1 / 1690	1 / 1754	1 / 1757	1 / 1769	1 / 1821
Surface of the upper heat exchanger	m <sup>2</sup>	1,22	1,22	1,22	1,22	1,22	1,22
Volume of the upper heat exchanger	l	4,7	4,7	4,7	4,7	4,7	4,7
Operating pressure of the upper heat exchanger	MPa	1					

Characteristics	unit	Nominal unit						
		2500	3000	3500	4000	5000	7000	10000
Volume	l	2501	3051	3250	3615	4474	6630	9646
The weight of the EA-00 model	kg	207	227	287	304	400	513	691
The weight of the EA-01 model	kg	383	403					
The weight of the EA-11 model	kg	419	440					
Return line outlet h1	" / mm	2 / 420	2 / 408	2 / 444	2 / 449	3 / 465	3 / 469	3 / 469
Supply line inlet h2	" / mm	2 / 1762	2 / 1748	2 / 1784	2 / 1789	3 / 2515	3 / 3269	3 / 4769
Drain valve connection h3	" / mm	3/4 / 311	3/4 / 283	3/4 / 333	3/4 / 338	3/4 / 334	3/4 / 337	3/4 / 337
Thermal sensor connection h4	" / mm	1/2 / 1092	1/2 / 1078	1/2 / 1114	1/2 / 1119	1/2 / 1490	1/2 / 1869	1/2 / 2619
Air vent connection h5	" / mm	2 / 2159	2 / 2145	2 / 2210	2 / 2203	3 / 2961	3 / 3704	3 / 5204
Operating pressure	MPa	0,3						
Return line of the lower heat exchanger h6	" / mm	5/4 / 333	5/4 / 317					
Supply line of the lower heat exchanger h7	" / mm	5/4 / 1077	5/4 / 1006					
Surface of the lower heat exchanger	m <sup>2</sup>	4,78	4,78					
Volume of the lower heat exchanger	l	18,6	18,6					
Operating pressure of the lower heat exchanger	MPa	1						
Return line of the upper heat exchanger h8	" / mm	1 / 1674	1 / 1660					
Supply line of the upper heat exchanger h9	" / mm	1 / 1874	1 / 1860					
Surface of the upper heat exchanger	m <sup>2</sup>	1,22	1,22					
Volume of the upper heat exchanger	l	4,7	4,7					
Operating pressure of the upper heat exchanger	MPa	1						

EAF series with soft thermal insulation. Capacity 350 - 3000 L



Marking **EAF - XY - V**

EAF - serie

X - upper heat exchangers quantity

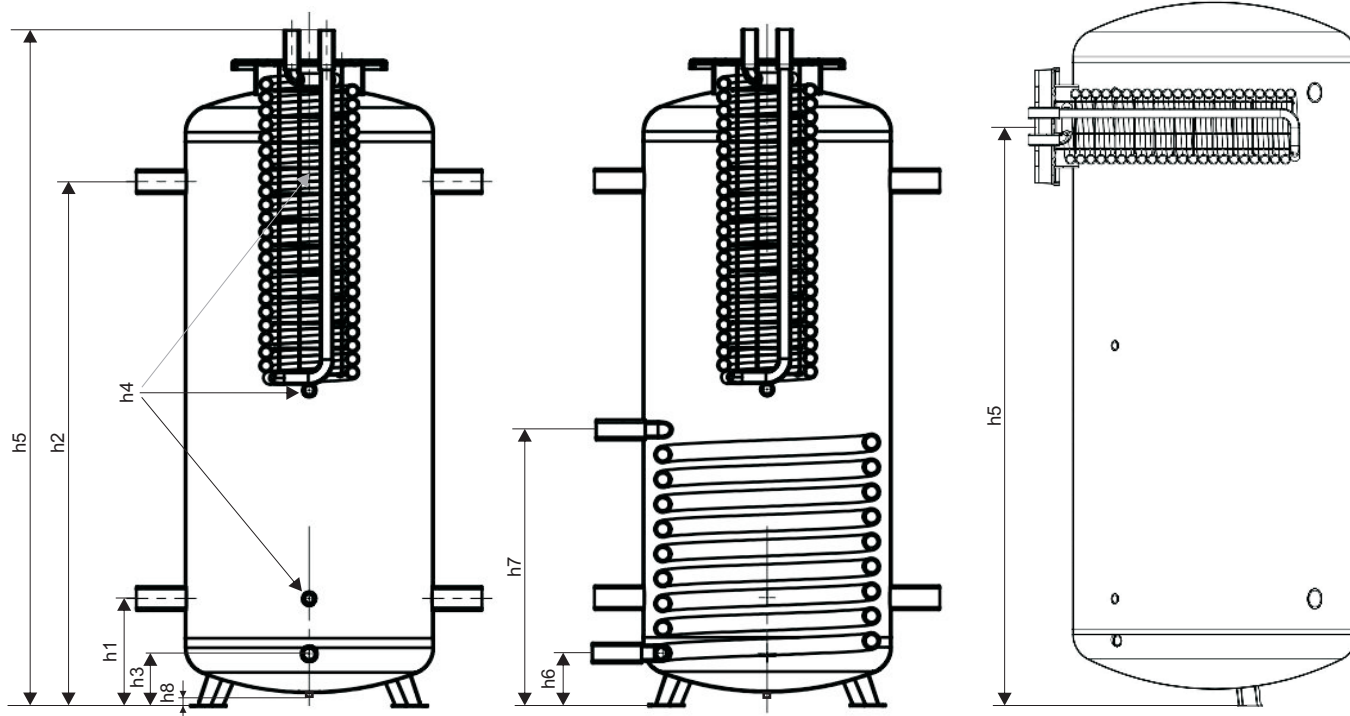
Y - lower heat exchangers quantity

V - nominal volume

Nominal volume	350	500	750	1000	1500	2000	2500	3000
Height, mm	1397	1900	2045	2020	2090	2130	2205	2170
Diameter with insulation, mm	700	800	950	1050	1200	1400	1500	1600
Diameter without insulation, mm	500	600	750	850	1000	1200	1300	1400

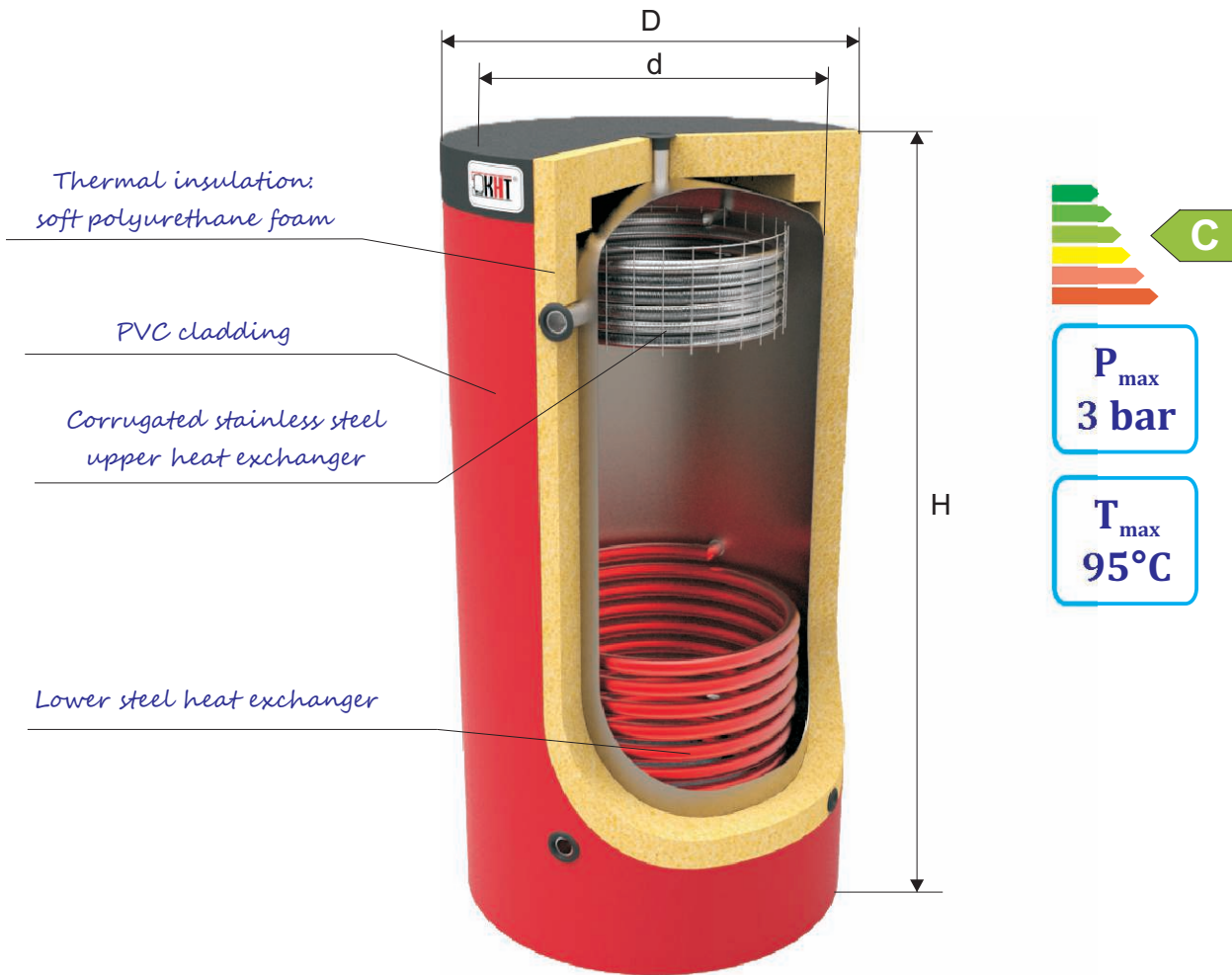
### EAF 350-500 I

### EAF 750-3000 I



Characteristics	unit	Nominal volume							
		350	500	750	1000	1500	2000	2500	3000
Volume	l	344	482	770	1000	1360	1965	2260	2700
Weight of the EAF-10 model	kg	80	96	118	135	160	219	236	256
Weight of the EAF-11 model	kg	118	154	195	244	332	391	412	432
Return line outlet h1	" / mm	5/4 / 232	5/4 / 230	6/4 / 260	6/4 / 281	6/4 / 317	2 / 350	2 / 415	2 / 408
Supply line inlet h2	" / mm	5/4 / 1075	5/4 / 1578	6/4 / 1620	6/4 / 1620	6/4 / 1656	2 / 1708	2 / 1762	2 / 1760
Drain valve plug h3	" / mm	3/4 / 130	3/4 / 116	3/4 / 170	3/4 / 175	3/4 / 220	3/4 / 244	3/4 / 313	3/4 / 310
Thermal sensor socket h4	"	1/2							
Upper heat exchanger connection h5 (TB 600/25)	" / mm	3/4 / 1397	3/4 / 1900	3/4 / 1535	3/4 / 1535	3/4 / 1580	3/4 / 1580	3/4 / 1640	3/4 / 1640
Upper heat exchanger connections h5 (TB 600/32)	" / mm	1 / 1397	1 / 1900	1 / 1535	1 / 1535	1 / 1580	1 / 1580	1 / 1640	1 / 1640
Operating pressure	MPa	0,3							
Return line of the lower heat exchanger h6	" / mm	1 / 120	1 / 120	1 / 160	5/4 / 160	5/4 / 206	5/4 / 227	5/4 / 305	5/4 / 280
Supply line of the lower heat exchanger h7	" / mm	1 / 525	1 / 920	1 / 814	5/4 / 766	5/4 / 989	5/4 / 1012	5/4 / 1080	5/4 / 1061
Surface of the lower heat exchanger	m <sup>2</sup>	1,22	2,44	2,44	3,19	4,78	4,78	4,78	4,78
Volume of the lower heat exchanger	l	4,7	9,4	9,4	12,4	18,6	18,6	18,6	18,6
Operating pressure of the lower heat exchanger	MPa	1							
Surface of the upper heat exchanger (TB 600/25 / TB 600/32 models)	m <sup>2</sup>	1,40 / 1,78							
Operating pressure of the upper heat exchanger	MPa	1							

EAI series with soft thermal insulation. Capacity 350 - 3000 L



Marking **EAI - XY - V**

EAI - serie

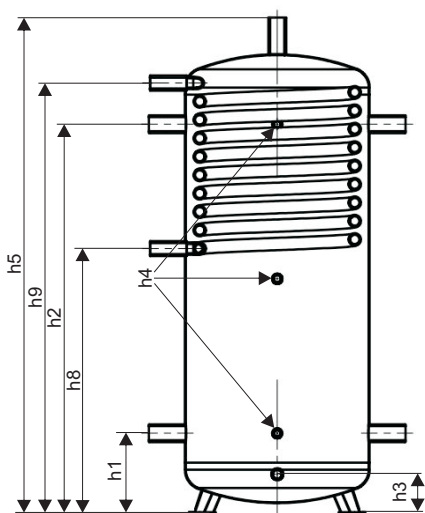
X - upper heat exchangers quantity

Y - lower heat exchangers quantity

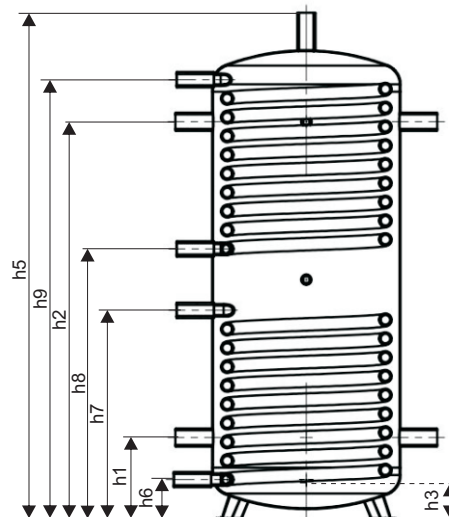
V - nominal volume

Nominal volume	350	500	750	1000	1500	2000	2500	3000
Height, mm	1840	1890	2025	1995	2070	2105	2160	2145
Diameter with insulation, mm	700	800	950	1050	1200	1400	1500	1600
Diameter without insulation, mm	500	600	750	850	1000	1200	1300	1400

### EAI-10



### EAI-11



### Technical parameters EAI serie with DU 25 heat exchanger

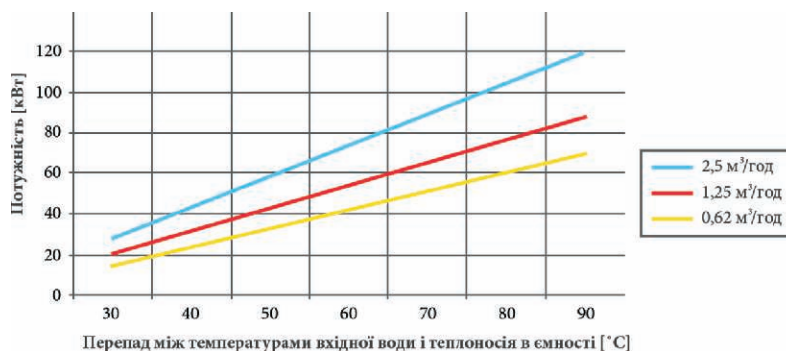
Characteristics	unit	Nominal volume							
		350	500	750	1000	1500	2000	2500	3000
Volume	l	344	472	748	985	1357	1965	2501	3051
Weight of the EAI-10 model	kg	54	90	98	115	160	203	254	280
Weight of the EAI-11 model	kg	72	118	133	175	190	235	286	406
Return line outlet h1	" / mm	5/4 / 203	5/4 / 238	6/4 / 314	6/4 / 301	6/4 / 334	2 / 368	2 / 422	2 / 408
Supply line inlet h2	" / mm	5/4 / 1542	5/4 / 1578	6/4 / 1654	6/4 / 1641	6/4 / 1674	2 / 1708	2 / 1762	2 / 1748
Drain valve plug h3	" / mm	3/4 / 93	3/4 / 127	3/4 / 203	3/4 / 190	3/4 / 223	3/4 / 257	3/4 / 311	3/4 / 283
Thermal sensor socket h4	"	1/2							
Supply line inlet h5	" / mm	5/4 / 1826	5/4 / 1886	6/4 / 2022	6/4 / 1994	6/4 / 2066	2 / 2105	2 / 2159	2 / 2145
Operating pressure	MPa	0,3							
Return line of the lower heat exchanger h6	" / mm	1 / 93	1 / 116	1 / 190	5/4 / 163	5/4 / 200	5/4 / 233	5/4 / 333	5/4 / 317
Supply line of the lower heat exchanger h7	" / mm	1 / 584	1 / 913	1 / 840	5/4 / 764	5/4 / 988	5/4 / 1032	5/4 / 1077	5/4 / 1006
Surface of the lower heat exchanger	m <sup>2</sup>	1,22	2,44	2,44	3,19	4,78	4,78	4,78	4,78
Volume of the lower heat exchanger	l	4,7	9,4	9,4	12,4	18,6	18,6	18,6	18,6
Operating pressure of the lower heat exchanger	MPa	1							
Return line of the upper heat exchanger h8	" / mm	3/4 / 1150	3/4 / 1223	3/4 / 1457	3/4 / 1487	3/4 / 1573	3/4 / 1621	3/4 / 1674	3/4 / 1660
Supply line of the upper heat exchanger h9	" / mm	3/4 / 1660	3/4 / 1690	3/4 / 1754	3/4 / 1754	3/4 / 1769	3/4 / 1821	3/4 / 1874	3/4 / 1860
Surface of the upper heat exchanger	m <sup>2</sup>	1,4							
Volume of the upper heat exchanger	l	6,7							
Operating pressure of the upper heat exchanger	MPa	1							



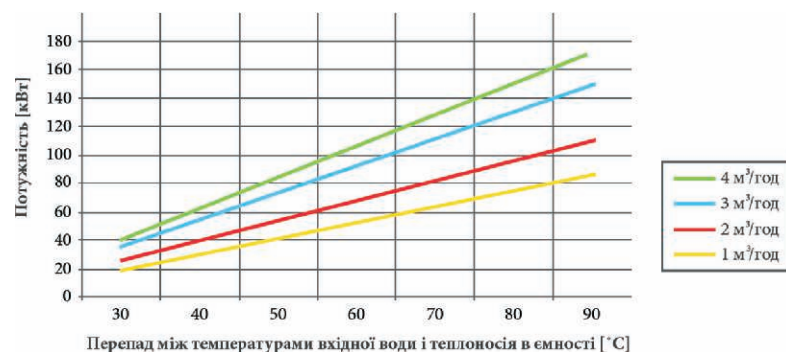
## Technical parameters EAI serie with DU 32 heat exchanger

Characteristics	unit	Nominal volume							
		350	500	750	1000	1500	2000	2500	3000
Volume	l	344	472	748	985	1357	1965	2501	3051
Weight of the EAI-10 model	kg	54	90	98	115	160	203	254	280
Weight of the EAI-11 model	kg	72	118	133	175	190	235	286	406
Return line outlet h1	" / mm	5/4 / 203	5/4 / 238	6/4 / 314	6/4 / 301	6/4 / 334	2 / 368	2 / 422	2 / 408
Supply line inlet h2	" / mm	5/4 / 1542	5/4 / 1578	6/4 / 1654	6/4 / 1641	6/4 / 1674	2 / 1708	2 / 1762	2 / 1748
Drain valve plug h3	" / mm	3/4 / 93	3/4 / 127	3/4 / 203	3/4 / 190	3/4 / 223	3/4 / 257	3/4 / 311	3/4 / 283
Thermal sensor socket	"	1/2 / 882	1/2 / 908	1/2 / 984	1/2 / 971	1/2 / 1004	1/2 / 1038	1/2 / 1092	1/2 / 1078
Supply line inlet h5	" / mm	5/4 / 1826	5/4 / 1886	6/4 / 2022	6/4 / 1994	6/4 / 2066	2 / 2105	2 / 2159	2 / 2145
Operating pressure	MPa	0,3							
Return line of the lower heat exchanger h6	" / mm	1 / 93	1 / 116	1 / 190	5/4 / 163	5/4 / 200	5/4 / 233	5/4 / 333	5/4 / 317
Supply line of the lower heat exchanger h7	" / mm	1 / 584	1 / 913	1 / 840	5/4 / 764	5/4 / 988	5/4 / 1032	5/4 / 1077	5/4 / 1006
Surface of the lower heat exchanger	m <sup>2</sup>	1,22	2,44	2,44	3,19	4,78	4,78	4,78	4,78
Volume of the lower heat exchanger	l	4,7	9,4	9,4	12,4	18,6	18,6	18,6	18,6
Operating pressure of the lower heat exchanger	MPa	1							
Return line of the upper heat exchanger h8	" / mm	1 / 1150	1 / 1223	1 / 1457	1 / 1487	1 / 1573	1 / 1621	1 / 1674	1 / 1660
Supply line of the upper heat exchanger h9	" / mm	1 / 1660	1 / 1690	1 / 1754	1 / 1746	1 / 1769	1 / 1821	1 / 1874	1 / 1860
Surface of the upper heat exchanger	m <sup>2</sup>	1,4							
Volume of the upper heat exchanger	l	6,7							
Operating pressure of the upper heat exchanger	MPa	1							

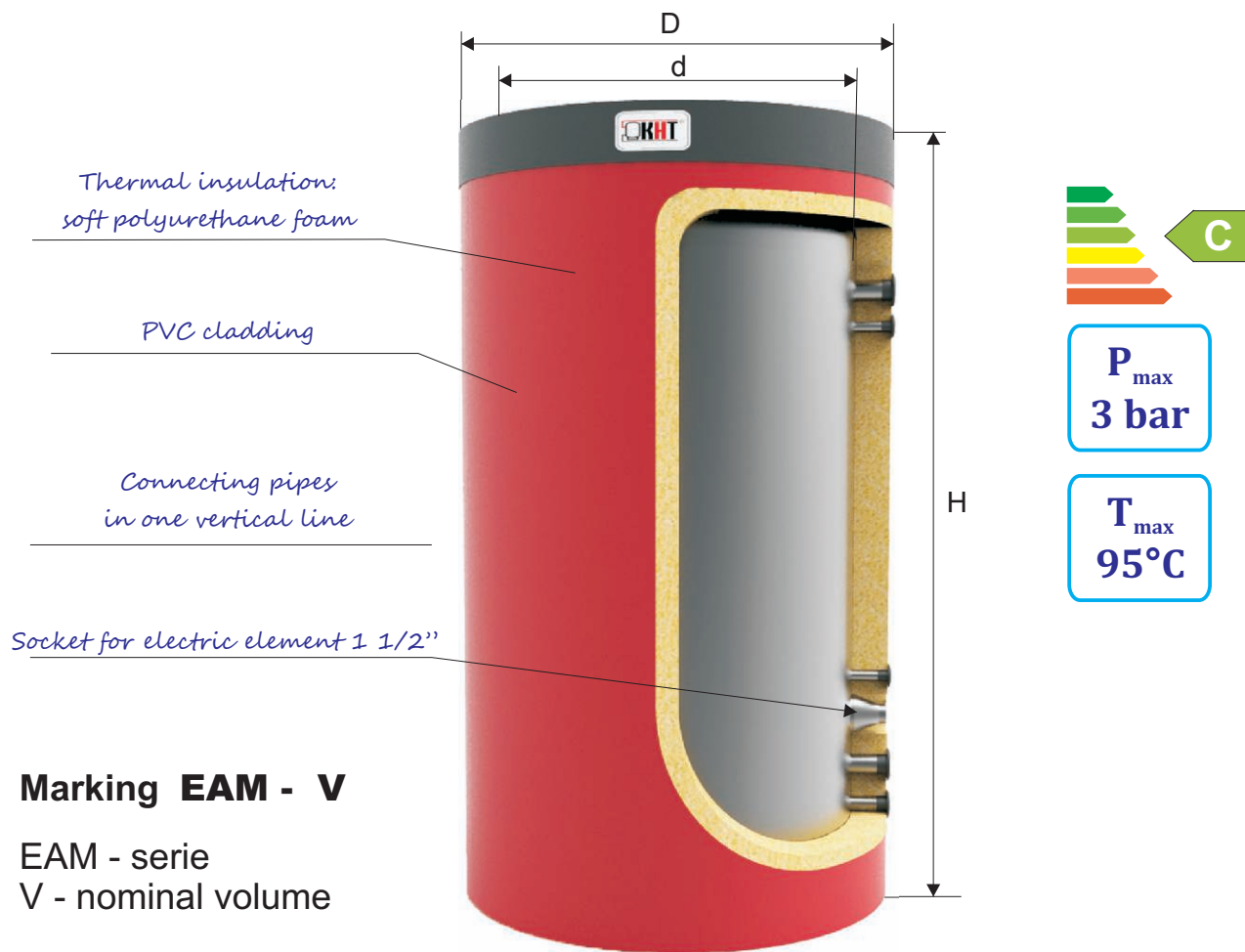
Power diagram of the upper heat exchanger DU 25



Power diagram of the upper heat exchanger DU 25



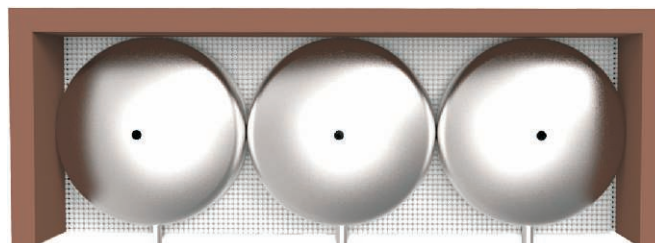
EAM series with soft thermal insulation. Capacity 350 - 3000 L



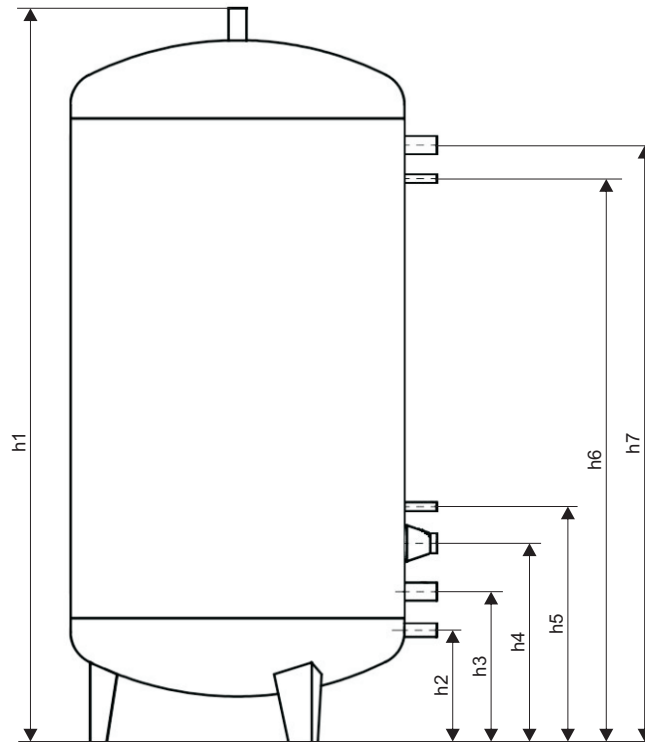
Marking **EAM - V**

EAM - serie  
V - nominal volume

Connecting nozzles in one vertical line give the possibility to connect to the cascade.

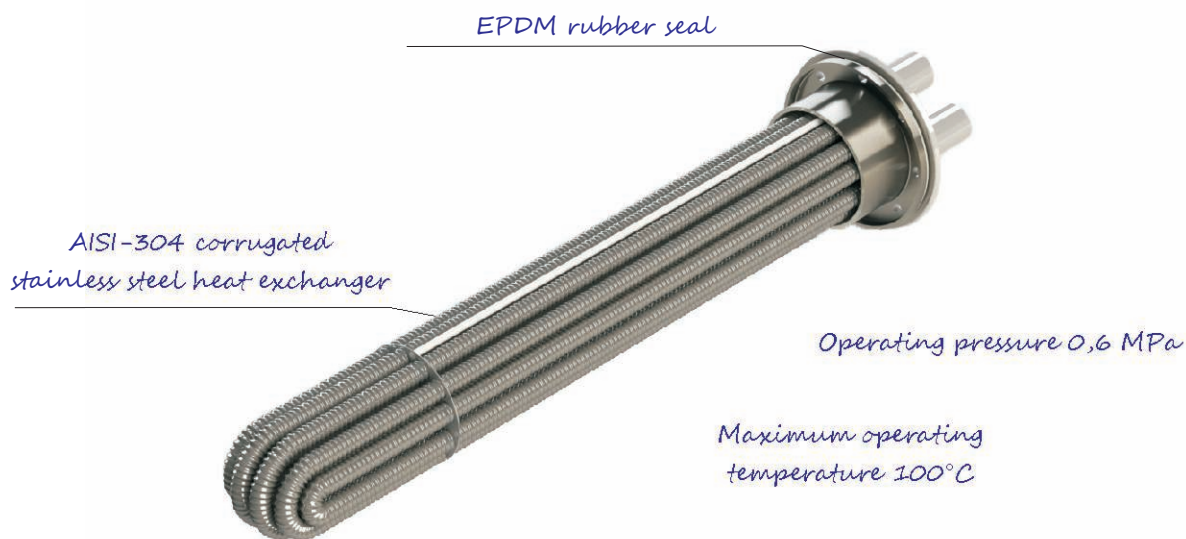


Nominal volume	350	500	750	1000	1500	2000	2500	3000
Height H, mm	1866	1908	1967	2047	2204	2232	2168	2156
Diameter with insulation, mm	700	800	950	1050	1200	1400	1500	1600
Diameter without insulation, mm	500	600	750	850	1000	1200	1300	1400



Characteristics	unit	Nominal volume							
		350	500	750	1000	1500	2000	2500	3000
Volume	l	328	472	748	1000	1357	1965	2300	3051
Weight without thermal insulation	kg	70	80	110	128	158	205	230	251
Supply line inlet h1	" / mm	5/4 / 1866	5/4 / 1908	5/4 / 1967	6/4 / 2007	6/4 / 2204	2 / 2232	2 / 2168	2 / 2156
Drain valve plug h2	" / mm	1 / 121	1 / 140	1 / 173	1 / 194	1 / 337	1 / 327	1 / 317	1 / 291
Return line outlet h3	" / mm	5/4 / 230	5/4 / 258	5/4 / 285	6/4 / 304	6/4 / 417	2 / 445	2 / 428	2 / 416
Conical branch pipe for installation electric heater h4	" / mm	6/4 / 374	6/4 / 400	6/4 / 431	6/4 / 460	6/4 / 598	6/4 / 590	6/4 / 573	6/4 / 561
Thermal sensor socket h5	" / mm	1/2 / 500	1/2 / 520	1/2 / 546	1/2 / 560	1/2 / 708	1/2 / 700	1/2 / 683	1/2 / 671
Thermal sensor socket h6	" / mm	1/2 / 1490	1/2 / 1500	1/2 / 1527	1/2 / 1544	1/2 / 1693	1/2 / 1685	1/2 / 1468	1/2 / 1656
Supply line inlet h7	" / mm	5/4 / 1570	5/4 / 1589	5/4 / 1631	1/2 / 1638	6/4 / 1793	2 / 1785	2 / 1568	2 / 1756
Operating pressure	MPa	0,3							

## Heat exchangers TU series



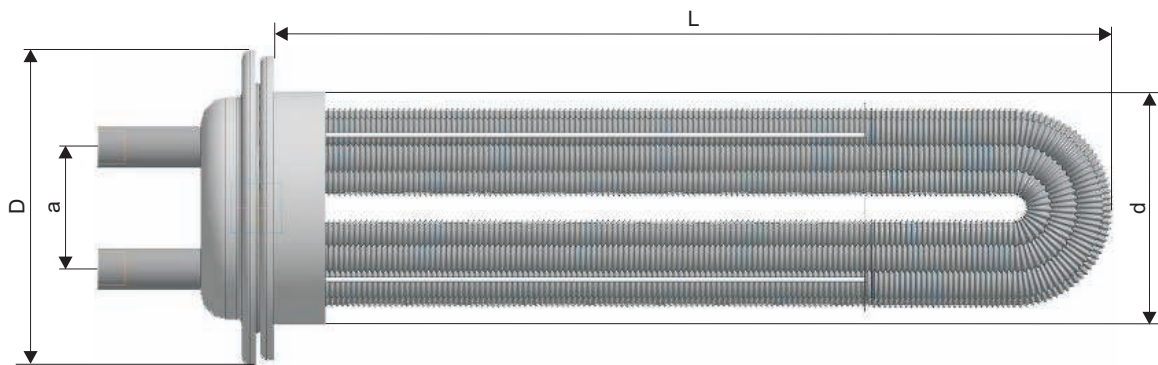
### Heat exchangers marking

TU<sub>x</sub> - S

TU - model

x - standard size, x=1 (DU 120), 2 (DU 220), 4 (DU 350)

S - heat transfer surface



Technical parameters TU1 series

Characteristics	unit	Model									
		0,7	0,9	1,1	1,3	1,5	1,8	2,2	2,3	2,5	
Heat transfer surface	m <sup>2</sup>	0,72	0,86	1,1	1,3	1,5	1,83	2,16	2,3	2,48	
Total length L	mm	395	510	620	730	845	1010	1175	1285	1400	
Flange diameter D	mm	193	193	193	193	193	193	193	193	193	
Distance between pipes a	mm	52	52	52	52	52	52	52	52	52	
Pipe connections	inch	1	1	1	1	1	1	1	1	1	
Inner diameter d	mm	128	128	128	128	128	128	128	128	128	

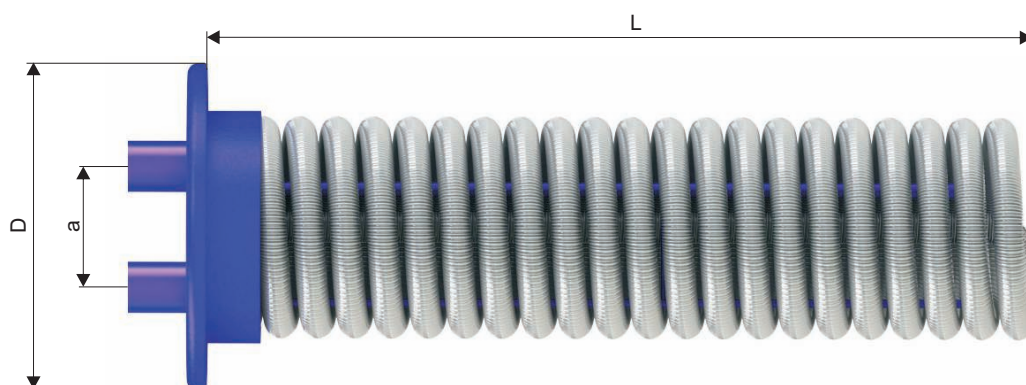
## Technical parameters TU2 series

Characteristics	unit	Model						
		1,8	2,1	2,5	2,9	3,4	4,0	4,7
Heat transfer surface	m <sup>2</sup>	1,75	2,05	2,54	2,87	3,36	4,01	4,67
Total length L	mm	620	720	850	990	1150	1350	1580
Flange diameter D	mm	312						
Distance between pipes a	mm	123						
Pipe connections	inch	5/4						
Inner diameter d	mm	220						

## Technical parameters TU4 series

Characteristics	unit	Model							
		3,6	4,3	5,4	6,1	7,1	8,6	10,0	10,5
Heat transfer surface	m <sup>2</sup>	3,64	4,28	5,35	6,06	7,13	8,56	9,98	10,5
Total length L	mm	600	700	850	950	1090	1300	1500	1560
Flange diameter D	mm	442							
Distance between pipes a	mm	200							
Pipe connections	inch	2							
Inner diameter d	mm	360							

## Heat exchangers TB type



## Heat exchangers marking

- TB L/d
- TB - model
- L - length
- d - DU of corrugated pipe

## Technical parameters TB series

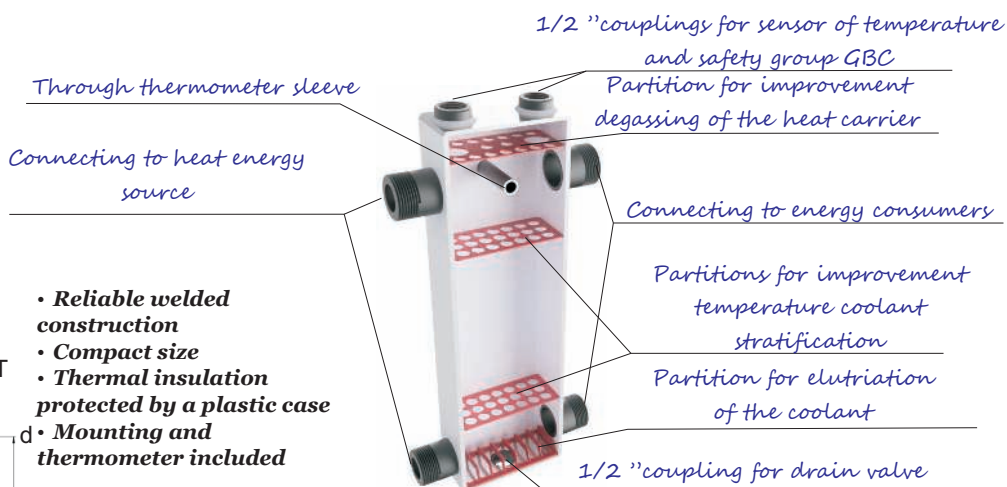
Characteristics	unit	Model	
		TB 600/25	TB 600/32
Heat transfer surface	m <sup>2</sup>	1,40	1,78
Total length L	mm	600	600
Flange diameter D	mm	312	312
Distance between pipes a	mm	65	65
Pipe connections	inch	3,4	1

Hydraulic separators are used to separate the contours of the heat sources and consumption. Provide independence of contours without necessity streams balancing.

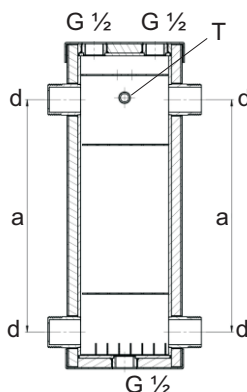
## HS series up to 8 m<sup>3</sup>/h

### HS series marking

HS(DN) DN - nominal diameter - 25, 32, 40, 50



- **Reliable welded construction**
- **Compact size**
- **Thermal insulation protected by a plastic case**
- **Mounting and thermometer included**



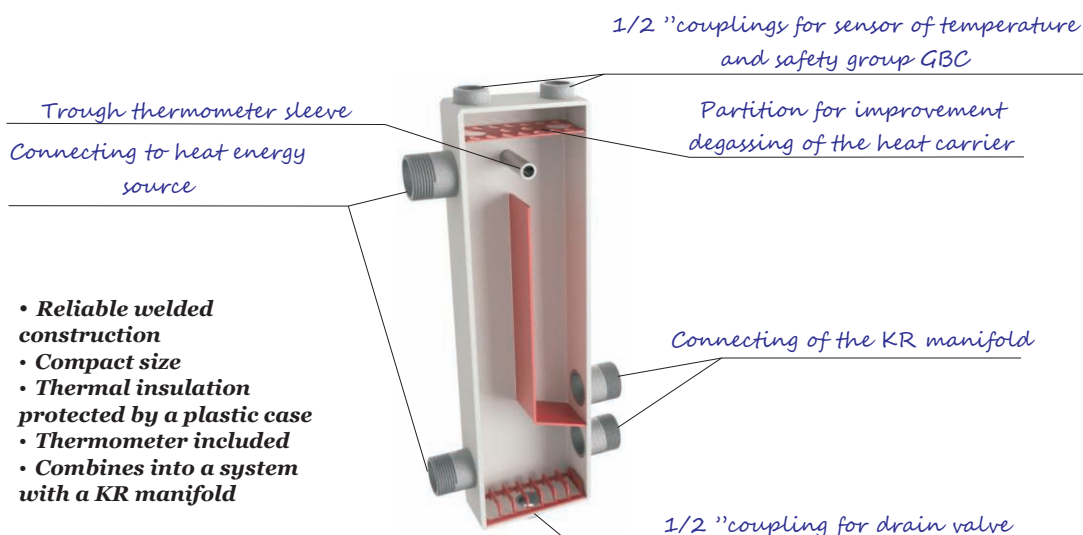
### Technical parameters HS series

Model DN	Q m <sup>3</sup> /h	kW <sub>Δt=20</sub>	a [mm]	d [inch]	P [bar]	T <sub>max</sub> [°C]
25	2	45	250	1	6	90
32	3,5	80	250	1 1/4	6	90
40	5	115	300	1 1/2	6	90
50	8	185	300	2	6	90

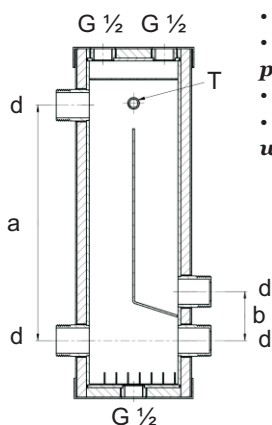
## HSK series up to 8 m<sup>3</sup>/h

### HSK series marking

HSK(DN) DN - nominal diameter - 25, 32, 40, 50



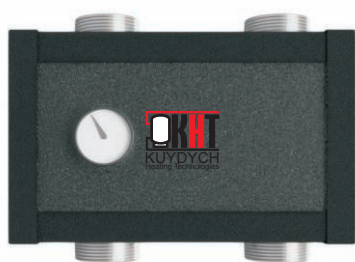
- **Reliable welded construction**
- **Compact size**
- **Thermal insulation protected by a plastic case**
- **Thermometer included**
- **Combines into a system with a KR manifold**



### Technical parameters HSK series

Model DN	Q m <sup>3</sup> /h	kW <sub>Δt=20</sub>	a [mm]	b [mm]	d [inch]	P [bar]	T <sub>max</sub> [°C]
25	2	45	250	52	1	6	90
32	3,5	80	250	65	1 1/4	6	90
40	5	115	300	80	1 1/2	6	90
50	8	185	300	115	2	6	90

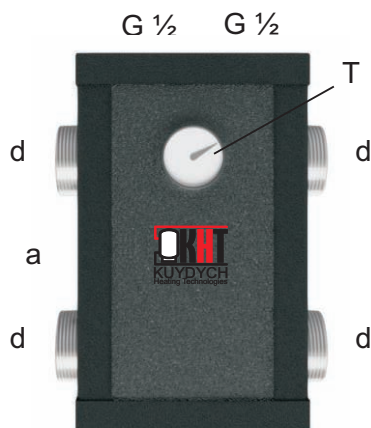
## HSCompact series (HSC) up to 5 m<sup>3</sup>/h



### HSC series marking

HSC(DN) DN - nominal diameter

- Vertical or horizontal installation
- Reliable welded construction
- Compact size
- Thermal insulation protected by a plastic case
- Thermometer included
- Combines into a system with KRC or KR manifolds
- Possible to connect GPC safety group



### Technical parameters HSC series

Model DN	a [mm]	d [inch]	Q m <sup>3</sup> /h	kW $\Delta t=20$	P [bar]	T <sub>max</sub> [°C]
25	90	1	2	45	6	90
40	125	1 1/4	5	115	6	90

## HSF series



**This series is designed for use in systems with a large volumes of the heat carrier and complexes with a large capacity of heating.**

### HSF marking

HSF(DN)-(d) (DN - nominal diameter, d - diameter without insulation)

### Description

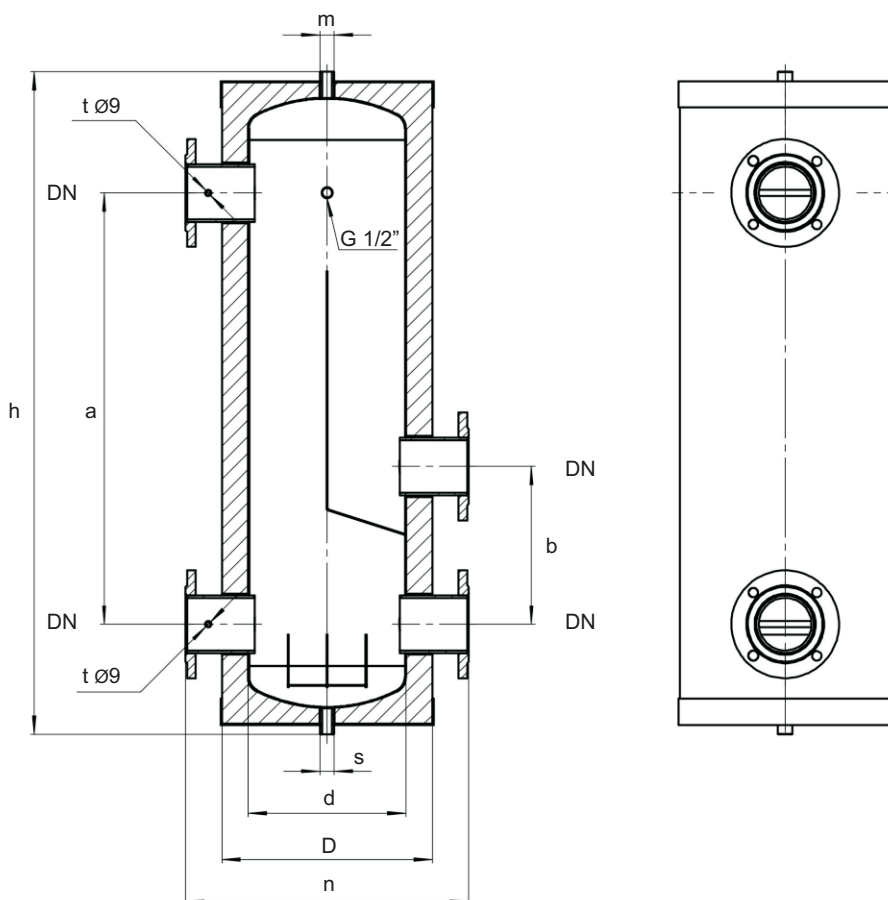
Hydraulic arrow is designed as a steel cylinder made of low-carbon steel, painted from the outside. Four flange connections on both sides of the arrow are used to connect the heat source (long side **a**) and the heat consumer manifold (side **b**). 1/2 "pipes on the front and rear side are used to install the thermometer and / or temperature sensor. Through sleeves T Ø9 on the pipelines of the supply and return heat circuit are used for the installation of sensors for measuring the temperature of the coolant. The upper pipe "m" is used to remove air from the hydraulic separator. Partitions in the lower part of the hydraulic separator support the process of elutriation of the coolant. Accordingly, the pipe in the lower part serves to drain the coolant and remove sludge. Hydraulic separators can be made with thermal insulation from rigid polyurethane foam 50 mm thick, protected by thin steel covering. The upper and lower parts of the insulation cylinder are closed with plastic linings.

## HSF series

### Technical parameters

Type	DN	Max water consumption [m <sup>3</sup> /h]	Max Δt=20 °C, kW	Operating pressure	Operating temperature	Volume, [dm <sup>3</sup> ]	Dimensions							
							D	d	n	a	h	b	m	s
HSF-65-220	65	9	236	6	110	38	320	220	425	450	840	250	½"	½"
HSF-80-300	80	20	421			65	400	300	505	600	1010	250	½"	½"
HSF-100-300	100	25	657			83	400	300	505	820	1260	300	½"	½"
HSF-125-350	125	40	1027			112	450	350	565	800	1270	300	1"	1"
HSF-150-350	150	50	1480			136	450	350	555	1000	1520	400	1"	1"
HSF-200-500	200	100	2631			326	600	500	705	1200	1820	450	2"	2"
HSF-250-650	250	180	4111			719	750	650	855	1500	2370	450	2"	2"
HSF-300-650	300	200	5920			719	750	650	855	1500	2370	600	2"	2"

Hydraulic separators of larger capacities, sizes and designs can be made to individual order.





Hydraulic separators with collectors designed for low-power boilers with the ability to connect two or three pump groups. The compact design takes up minimal space in the boiler room and simplifies installation.

**KS series**



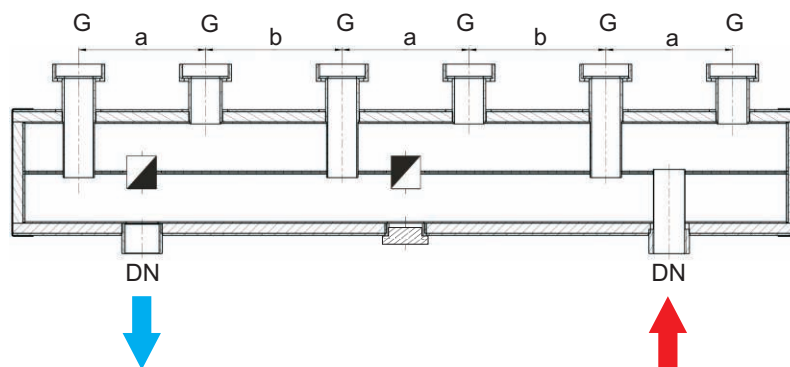
**Marking**

**KS - (N) - (DN)**

**N** – number of pump groups (2 or 3)

**DN** – nominal diameter

- *Ability to connect of 2 or 3 pump groups*
- *Compact design*
- *Simplifies system installation*
- *Insulation is protected by a plastic case*
- *Mounting included*



**Technical parameters of the hydraulic separators with manifolds**

DN	a [mm]	b [mm]	G [inch]	Q m <sup>3</sup> /h	kW <sub>Δt-20</sub>	P [bar]	T <sub>max</sub> [°C]
25	90	100	1	2	45	6	90
32	125	135	1 1/2	5	115	6	90

### KSP series



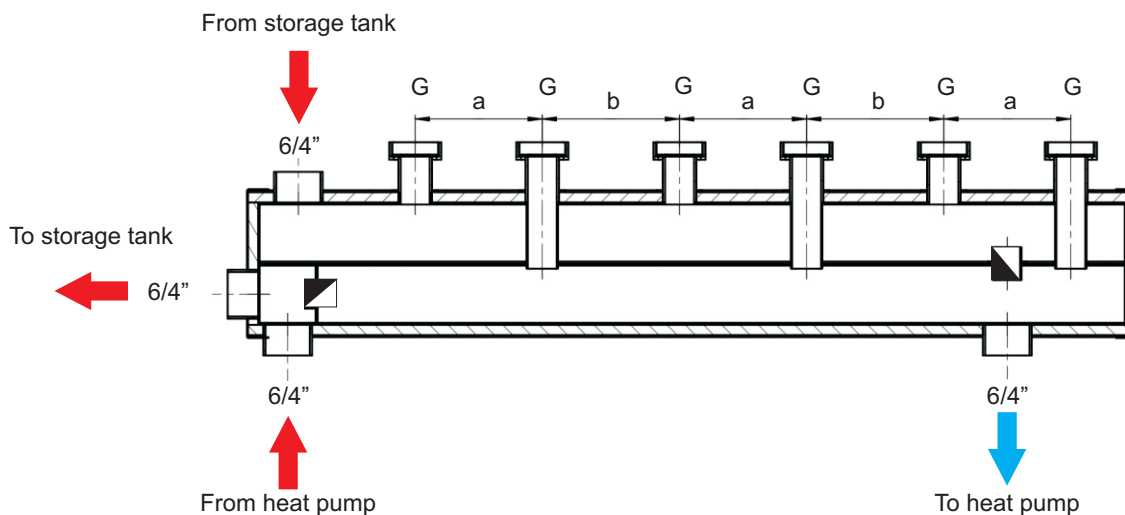
**Marking**

KS - (N) - (DN)

N – number of pump groups (2 or 3)

DN – nominal diameter

- *Created for work with heat pumps*
- *Ability to connect 2 or 3 pump groups*
- *Compact design*
- *Simplifies system installation*
- *Insulation is protected by a plastic case*
- *Mounting included*



**Technical parameters of the hydraulic separators with manifolds**

DN	a [mm]	b [mm]	G [inch]	Q m <sup>3</sup> /h	kW $\Delta t=20$	P [bar]	T <sub>max</sub> [°C]
25	90	100	1	2	45	6	90
40	125	135	1 1/2	5	115	6	90

KR series



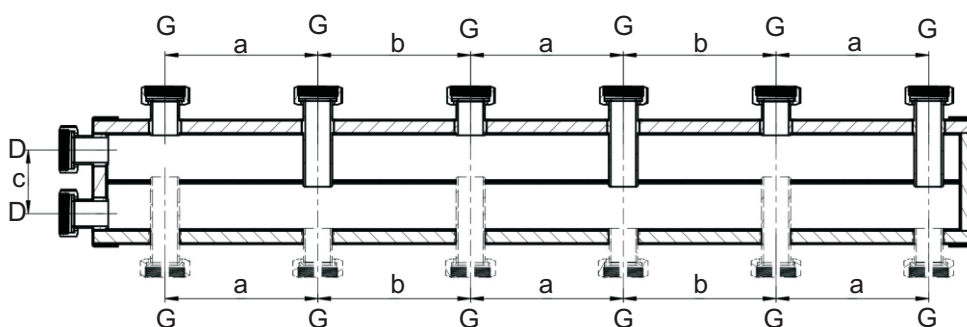
Marking KR series manifolds

$KR (D) / (N1-N2) / (a - b) / (G)$

D – diameter of connection to a hydraulic separator; a – b – distance between outlets;

N1-N2 – number of upper and lower pump groups; G – thread diameter of connection of pump groups

The KR steel collector is created for the simplification of installation of pump groups and work with the hydraulic separators HSK or HSC series. In the upper and lower part of the manifold at the request of the consumer any number of pairs of exits with cap nuts of the corresponding diameter for connection of pump groups can be established. In the lateral part there are cap nuts for connection to the HSK hydraulic separator. M6 bushings on the front and rear sides are designed for mounting a wall mount bracket. Brackets are included in product package.



Typical sizes

a [mm]	90	125	125
b [mm]	100	125	135
G [inch]	1	1; 6/4	6/4

Technical parameters of the KR series

KR serie	25	32	40	50
c [mm]	52	65	80	115
D [inch]	25	32	40	50

<sup>1</sup> - this way you can mount the manifold in any position.

## KR Compact KRC series

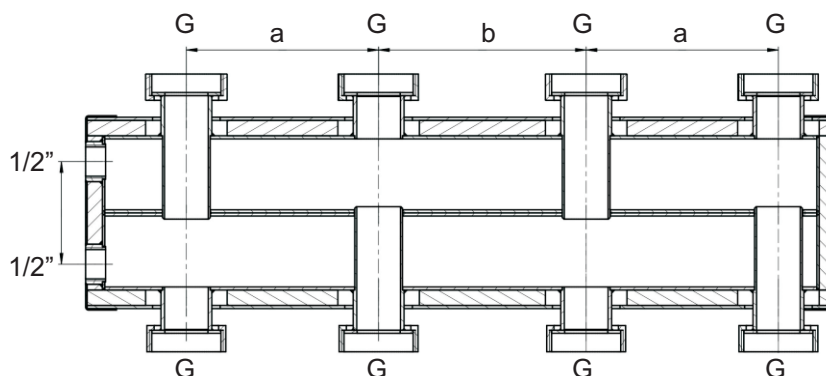


### Marking KRC manifolds

$KRC (a - b) / (G)$

$a - b$  – distance between outlets;

$G$  – diameter of connection of pump groups and a hydraulic separator HSC



The KRC steel collector is developed for simplification of installation of pump groups and work with the HSC serie hydraulic separator. In the upper and lower part of the collector there are cap nuts of appropriate diameter for connection of pump groups and hydraulic separator HSC. 1/2" couplings are located in the side part for vent valve installation, if manifold installed in the vertical position. M6 bushings on the front and rear sides are designed for mounting a wall mount bracket. Brackets are included in product package. Manifold can be installed in horizontal and vertical position.

### Technical parameters KRC serie

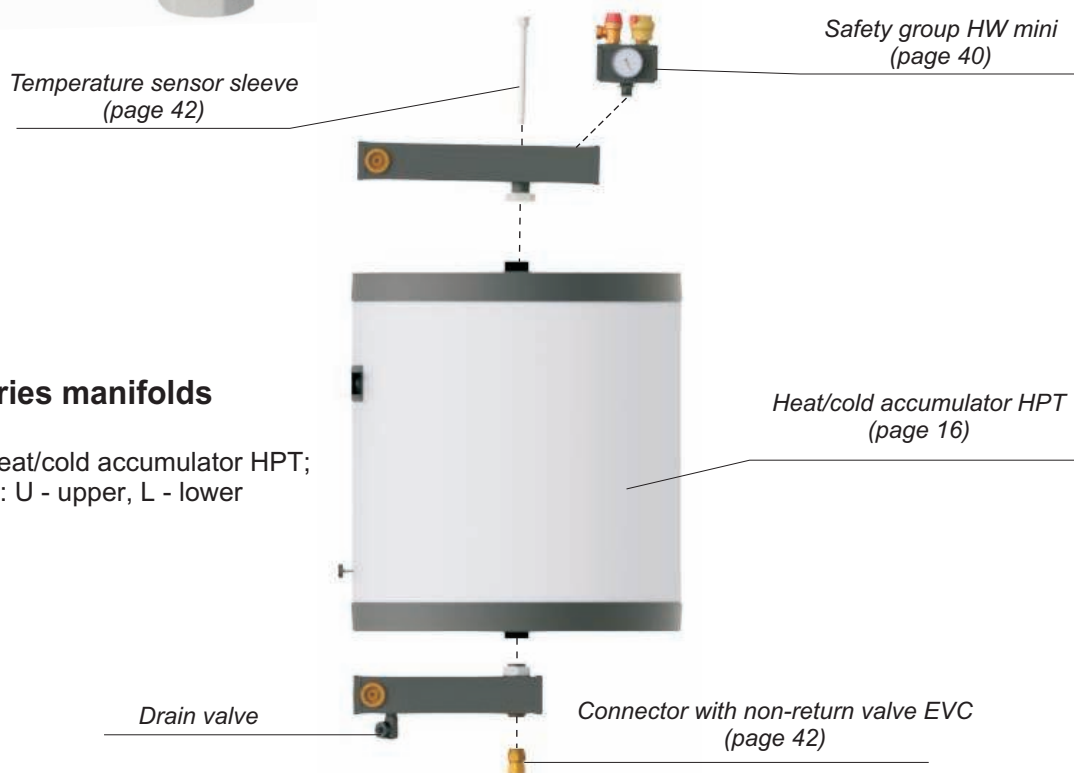
<b>a [мм]</b>	90	125
<b>b [мм]</b>	100	135
<b>G [дюйм]</b>	1	6/4
<b>D [дюйм]</b>	1/2	1/2

## K series

**Upper manifold KU**



**Lower manifold KL**



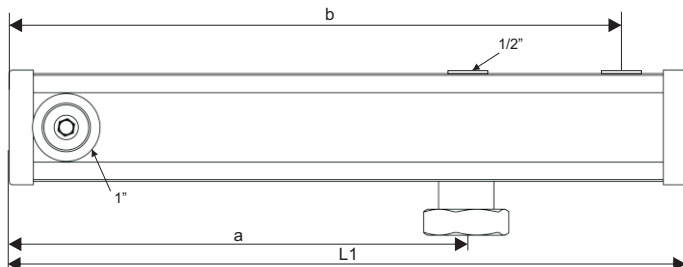
### Marking K series manifolds

**Kn - a**

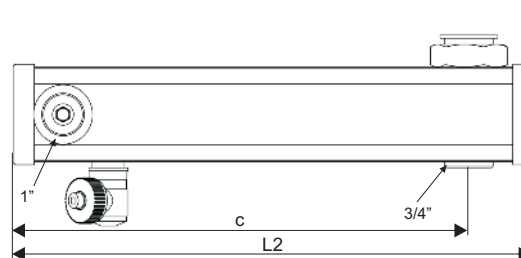
a – diameter of heat/cold accumulator HPT;  
n – manifold type: U - upper, L - lower

The KHP steel manifold kit is used in systems with HPT heat accumulators 60-150. The upper and lower manifolds have fittings with cap nuts for connecting the HPT heat accumulator. In the lateral part there are couplings of 1" for connection to system closed by bronze caps. The upper manifold has 1/2" outlets for connecting the safety group and the thermometer sleeve. The lower manifold has 1/2" outlets for the drain valve and 3/4" for connecting a small expansion vessel.

**Technical parameters KU**



**Technical parameters KL**

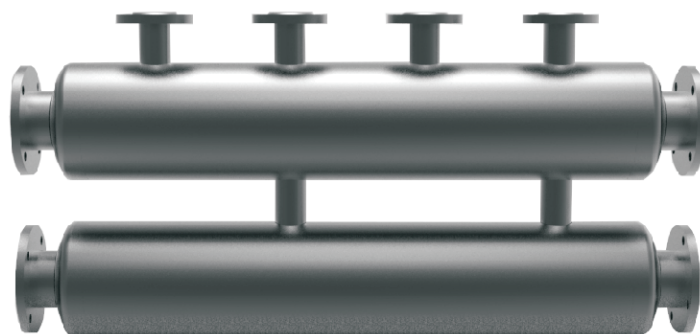


Model	KU-600	KU-700
Connecting the feed to the HPT a, " /	5/4 / 268	5/4 / 306
Safety group connection b, " / mm	1/2 / 363	1/2 / 401
Length of the upper manifold L1, mm	400	438
HPT heat/cold storage model	60	90,150

Model	KL-600	KL-700
Connecting the return to HPT c, " / mm	5/4 / 268	5/4 / 306
Length of the lower manifold L2, mm	300	338
HPT heat/cold storage model	60	90,150

## KRF series

KRF series flange manifolds are used for work with HSF series hydraulic separators. Are made individually, according to the technical task submitted by you.



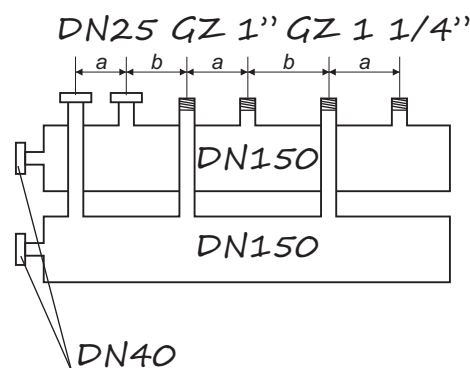
### Ordering procedure

#### Step 1

Make a sketch or drawing of the collector.

Required dimensions in the drawing:

1. Manifold diameter
2. Connection diameter of each pump group or energy consumer.
3. Diameter of connection to a hydraulic separator (energy sources).
4. Specify the wanted collector mount (legs, wall mount).
5. Specify the distances between the nozzles a, b.
6. If necessary, specify the type of insulation.



#### Step 2

Send a sketch to the manager, or to our e-mail [kht.bak@gmail.com](mailto:kht.bak@gmail.com). Please also provide a phone number to clarify the details of the order, if necessary.

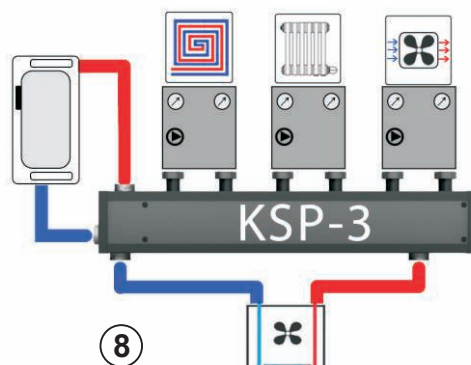
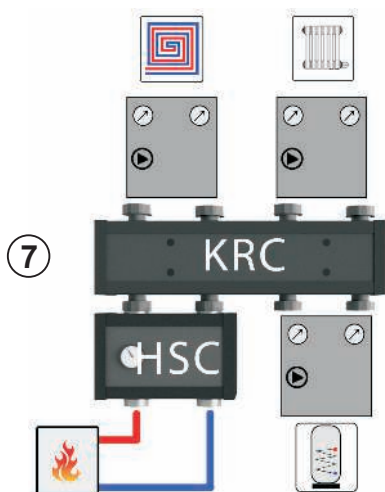
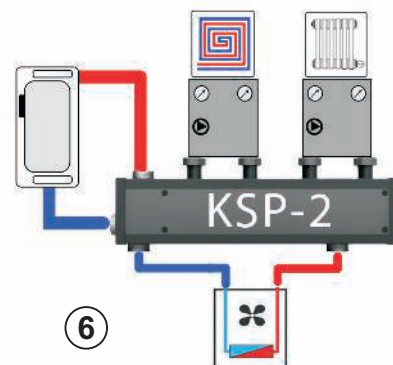
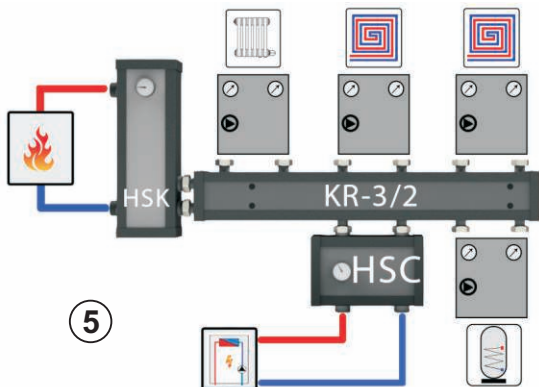
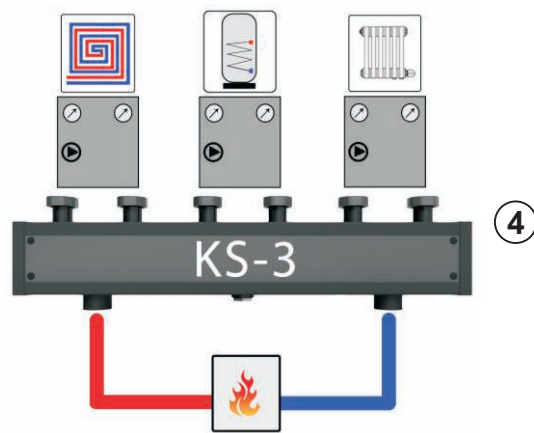
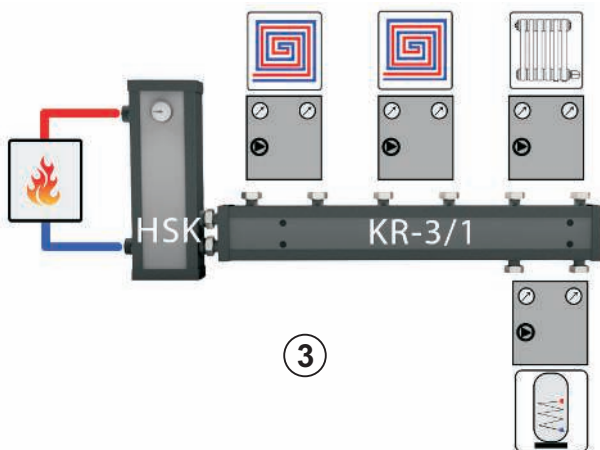
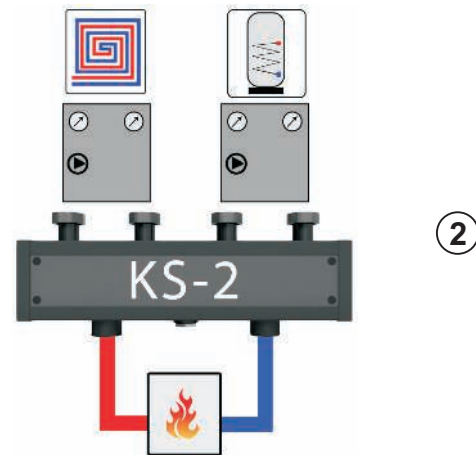
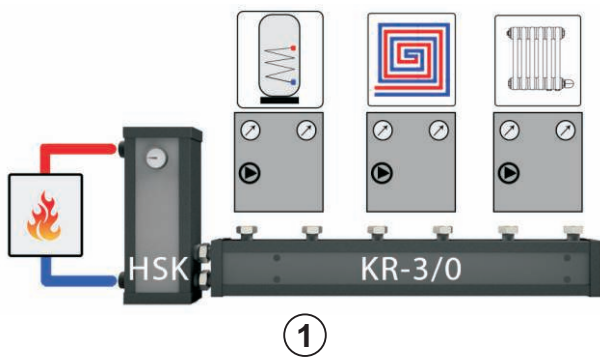
#### Крок 3

After agreeing on the price, confirm the technical drawing and pay the bill.

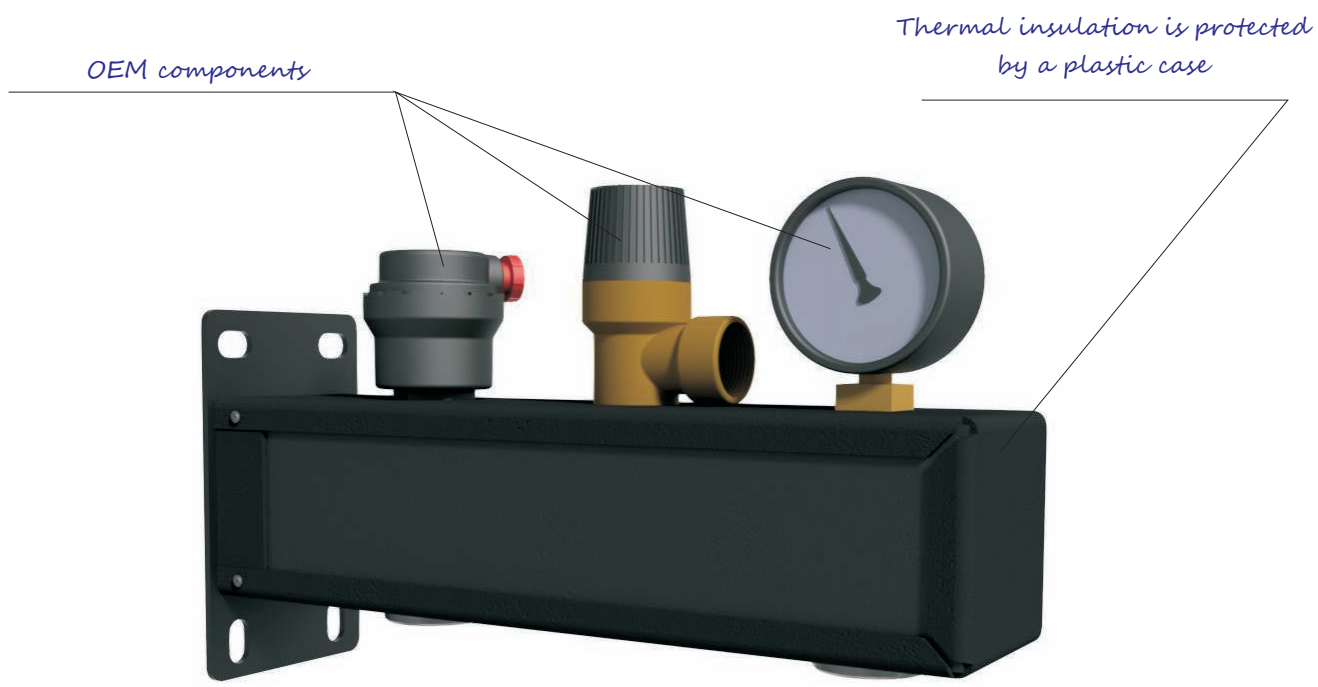
#### Крок 4

Agree with the seller on the date of manufacture, address and method of delivery.

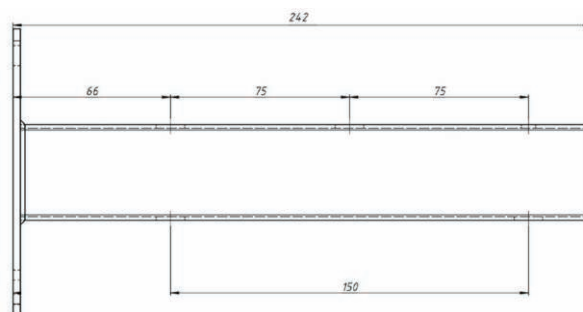
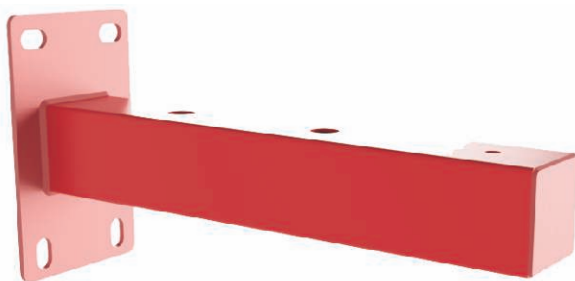
# MANIFOLDS CONNECTION OPTIONS



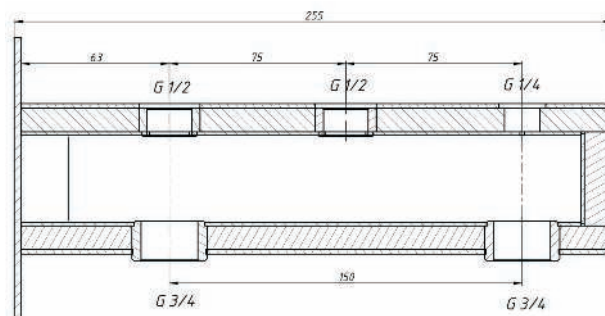
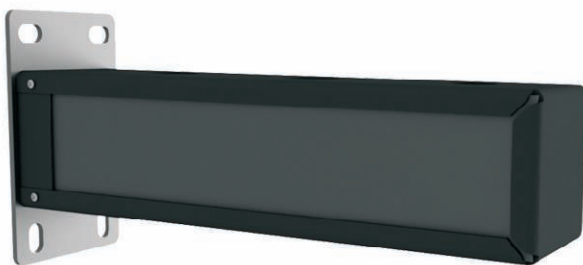
# HW series



## HW series without insulation



## HW series with insulation

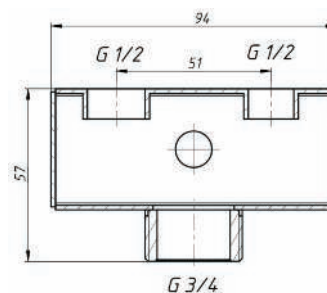




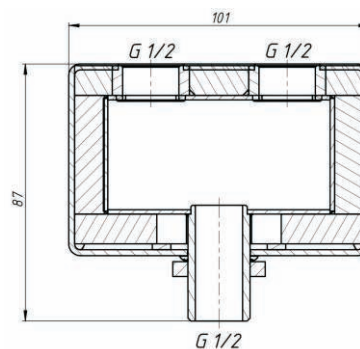
## HW mini series



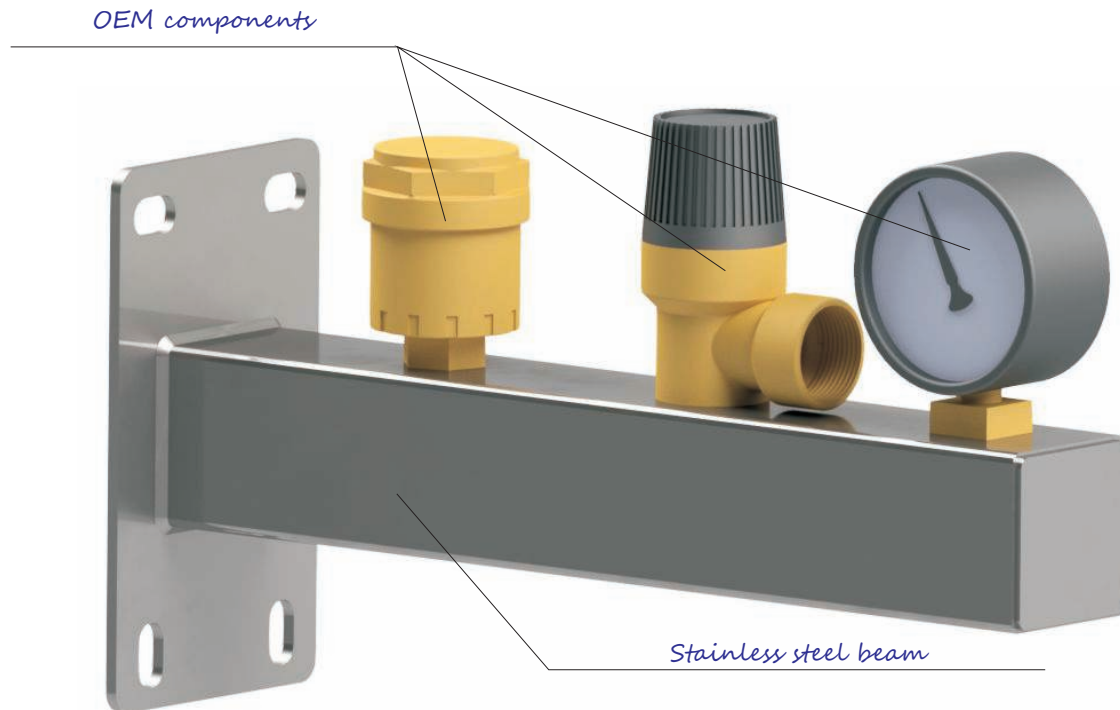
### Bar HW mini without insulation



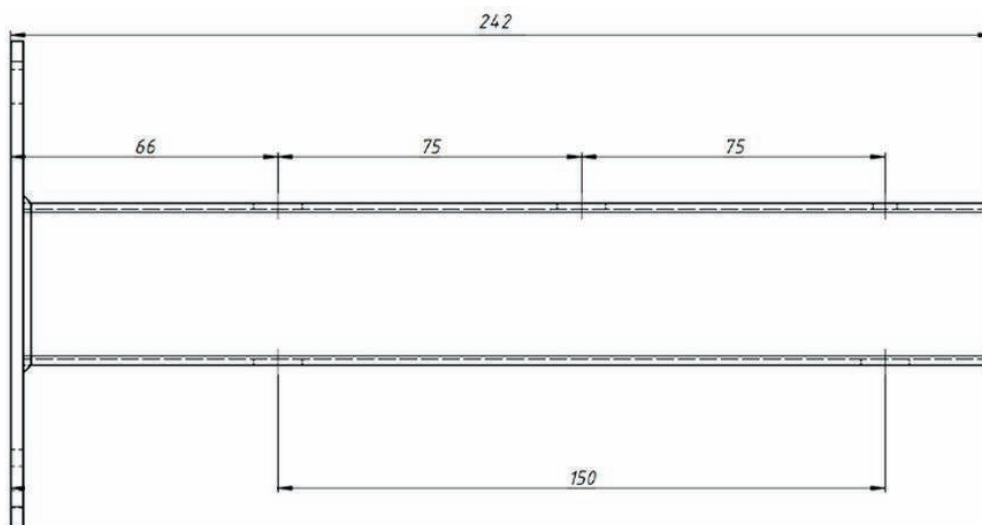
### Bar HW mini with insulation



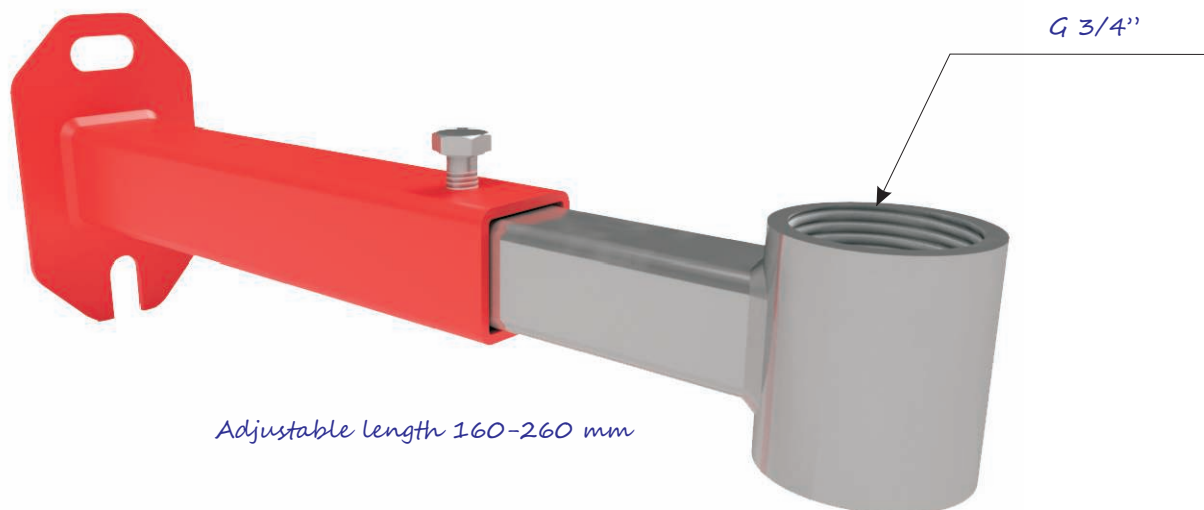
## HT stainless steel series



## HT bar without insulation



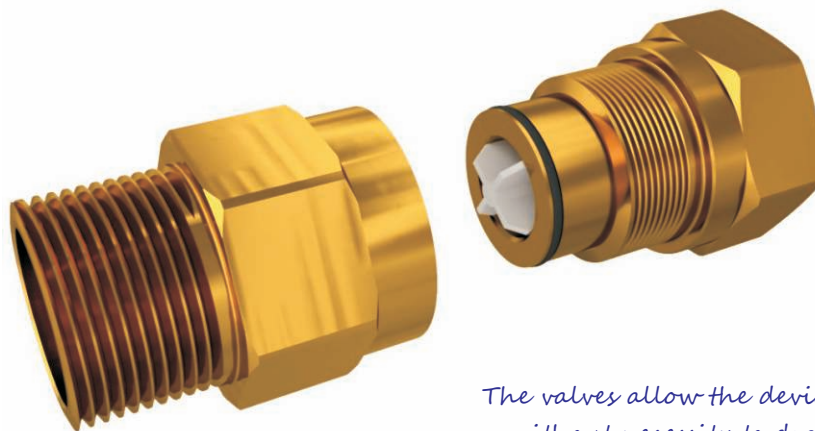
## Telescopic mounting of the expansion vessel



*Adjustable length 160-260 mm*

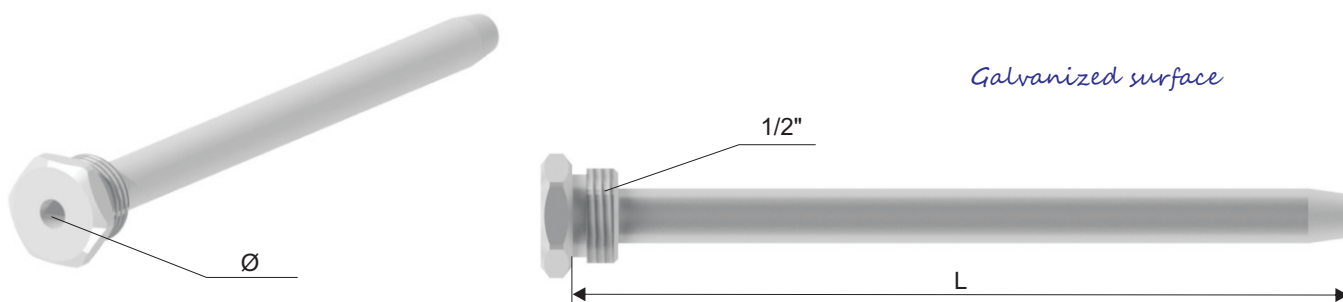
## Connector with valve EVC 3/4x3/4

*Connector with valve EVC series (expansion vessel connector)  
used to connect membrane tanks*



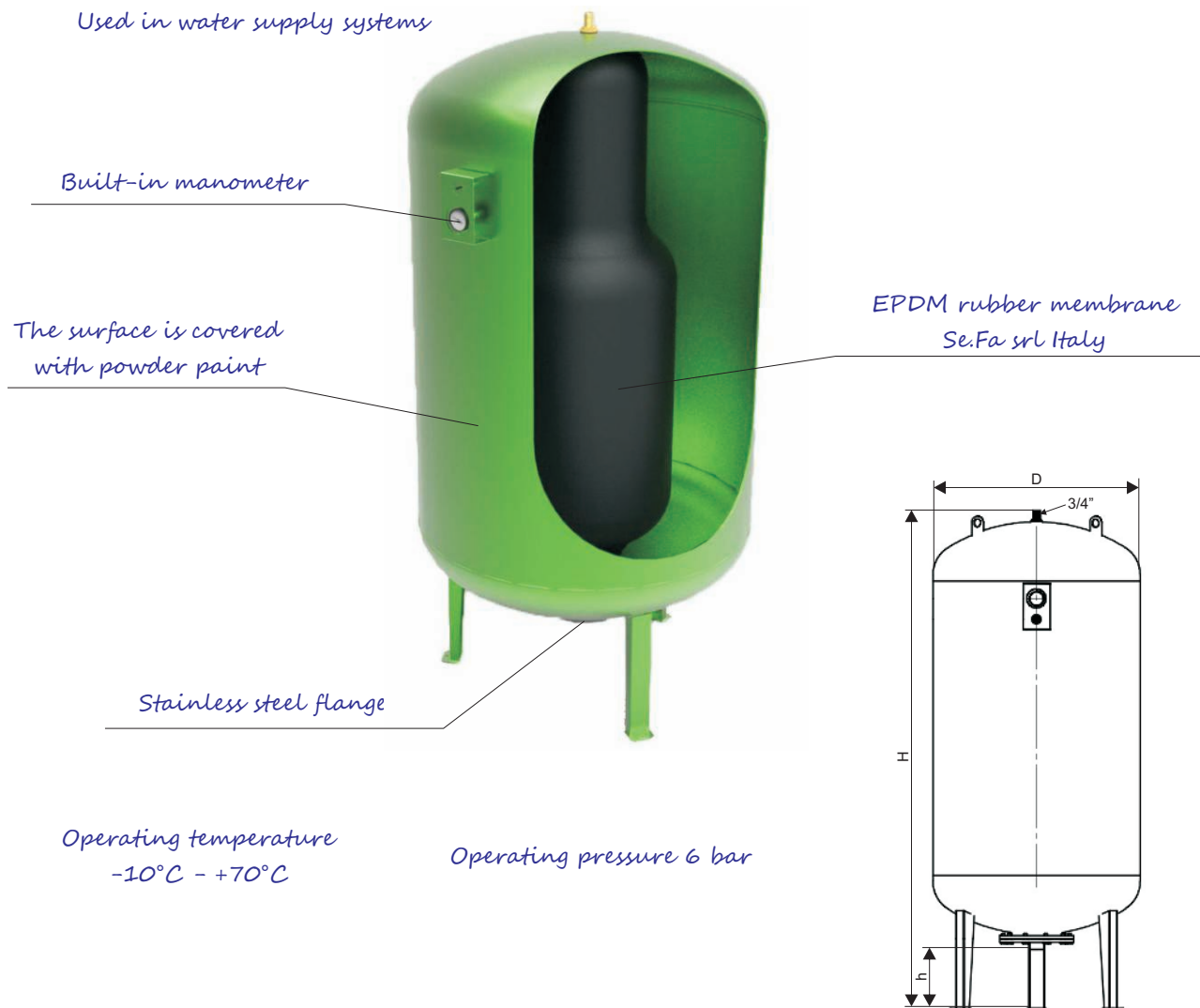
*The valves allow the device to be replaced  
without necessity to drain the coolant*

## Immersion sleeve for temperature sensor



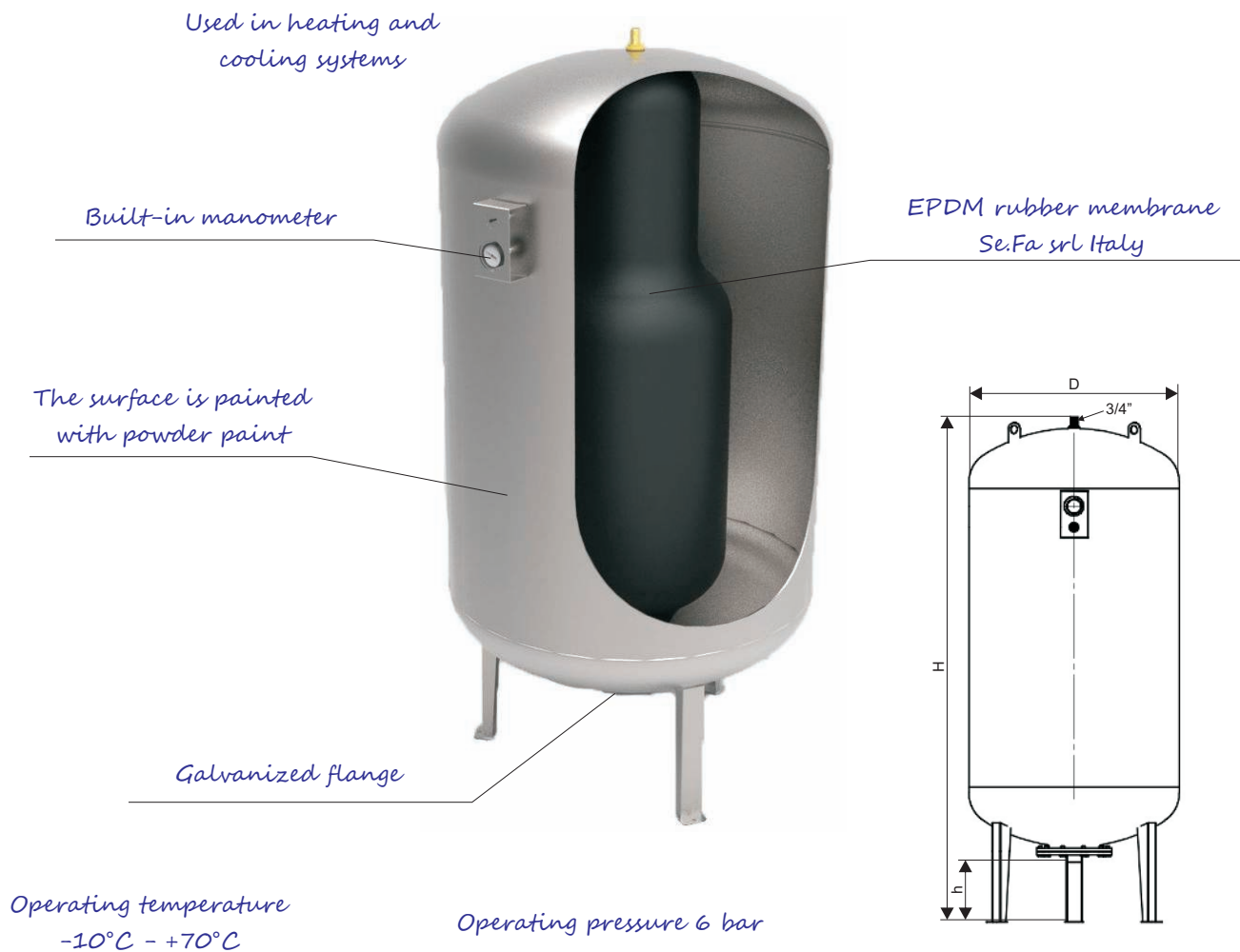
*Made in standard sizes L = 100, 150, 200, 300  
400, 500, 600, 700, 800, 900, 1000 mm*

# EVA series



Characteristics	Nominal volume									
	80	100	150	200	300	500	750	1000	1100	1500
Volume, l	81	97	143	206	298	495	745	1052	1121	1513
Weight, kg	14	15	31	38	51	91	101	130	150	236
Diameter D, mm	430	430	500	550	650	700	850	850	1000	1000
Total height H, mm	740	860	1101	1275	1297	1690	1735	2235	1865	2360
System connection pipe h, "/ mm	1 / 200	1 / 200	1 / 200	2 / 200	2 / 200	2 / 200	2 / 200	2 / 200	5/4 / 200	3 / 200

# EVH series

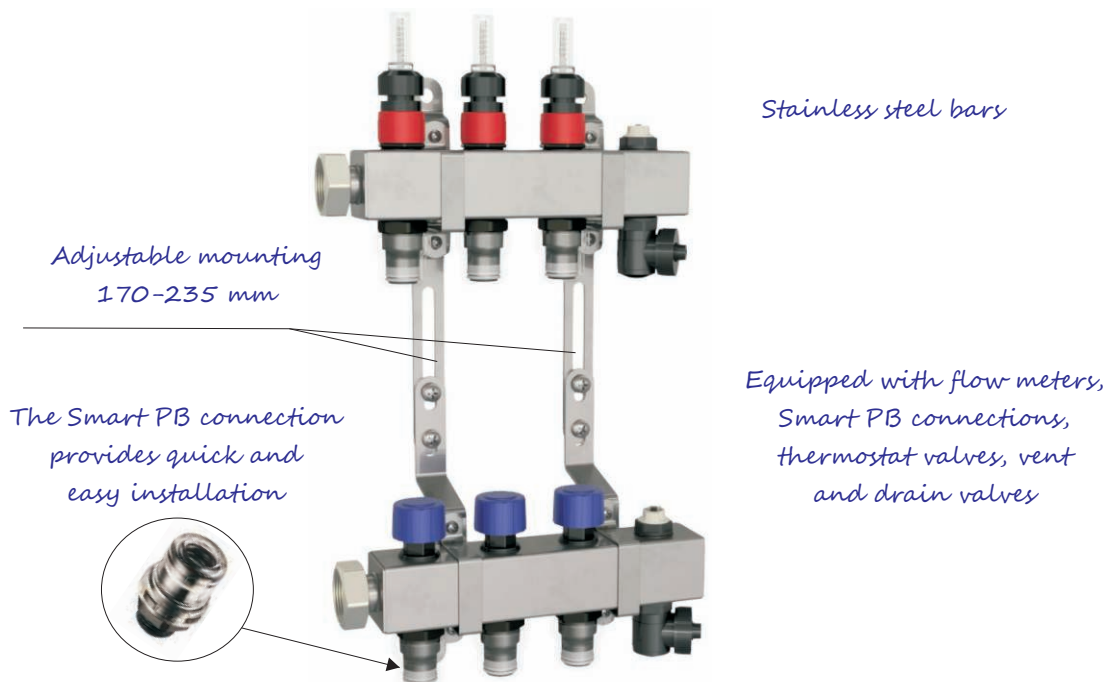


Characteristics	Nominal volume									
	80	100	150	200	300	500	750	1000	1100	1500
Volume, l	81	97	143	206	298	495	745	1052	1121	1513
Weight, kg	14	15	31	38	51	91	101	130	150	236
Diameter D, mm	430	430	500	550	650	700	850	850	1000	1000
Total height H, mm	740	860	1101	1275	1297	1690	1735	2235	1865	2360
System connection pipe h, " / mm	1 / 200	1 / 200	1 / 200	5/4 / 200	5/4 / 200	5/4 / 200	6/4 / 200	6/4 / 200	6/4 / 200	2 / 200

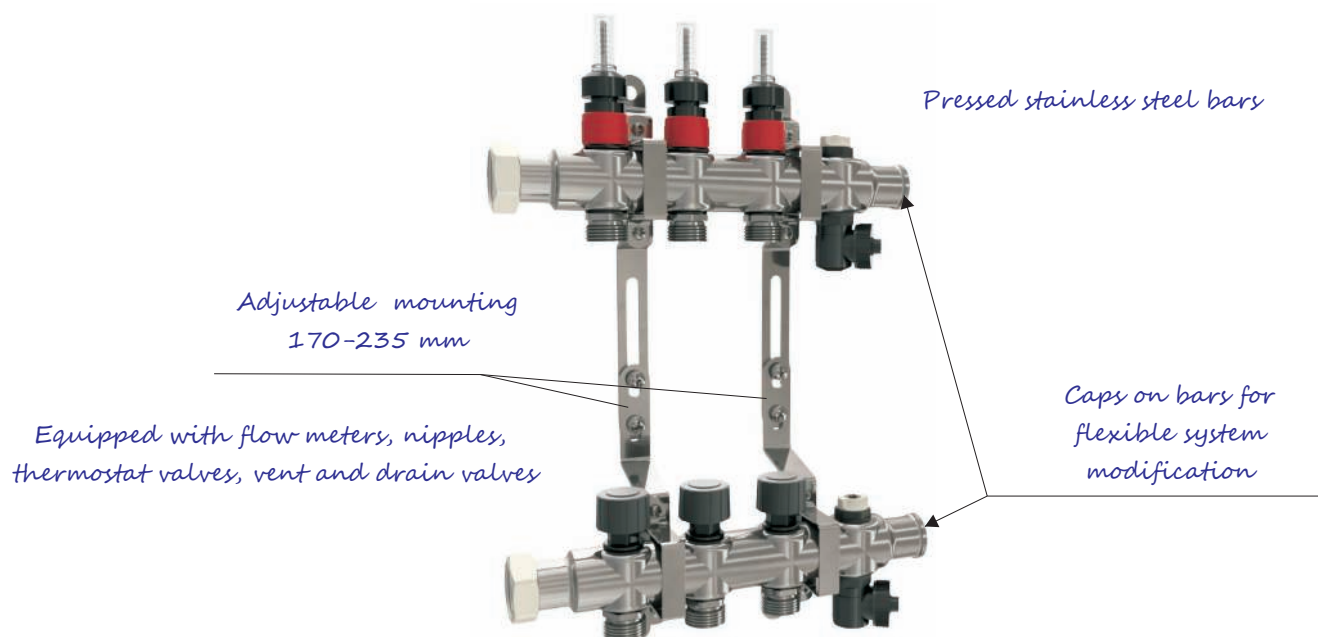
## Manifold KHT RZ2INVT Premium



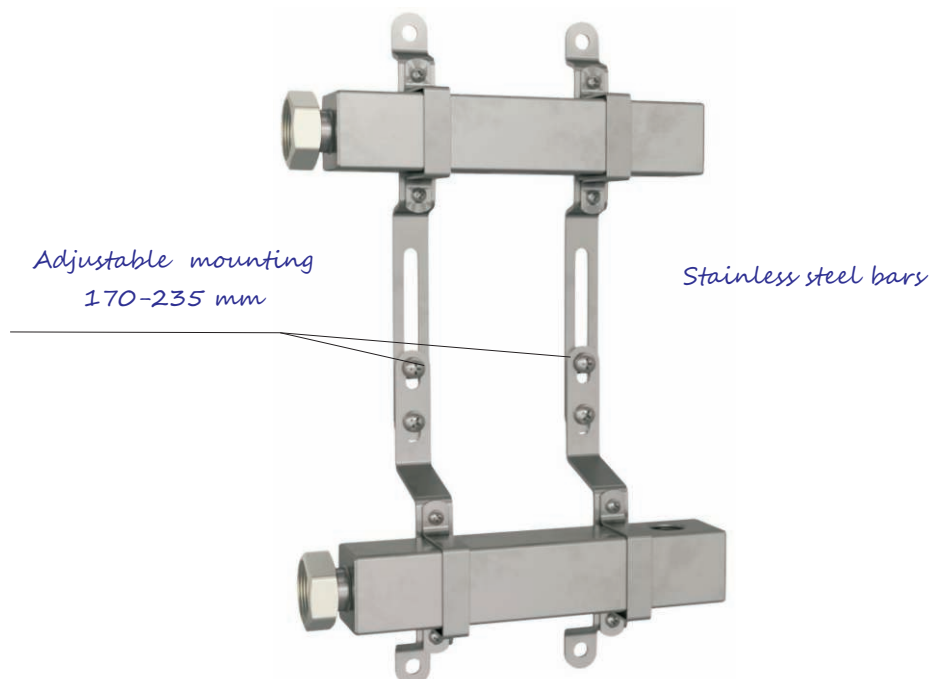
## Manifold KHT RZ2IPVT Push-Fit Premium



## Manifolds KHT Pres RS2INVT Standart



## Manifolds KHT RW1I



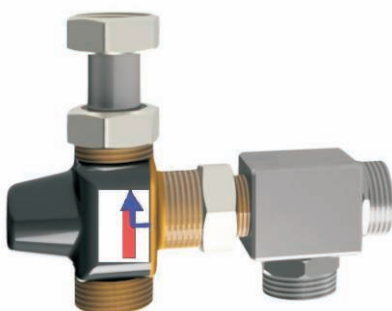
## Pump group INOX



*Thermometer 0-80°C*

*Stainless steel bars*

*Completed with the three-way  
thermostatic valve  
KHT KT-2480 20-43°C*



*Base distance 235 mm*





## Roller pipe decoiler PD-100

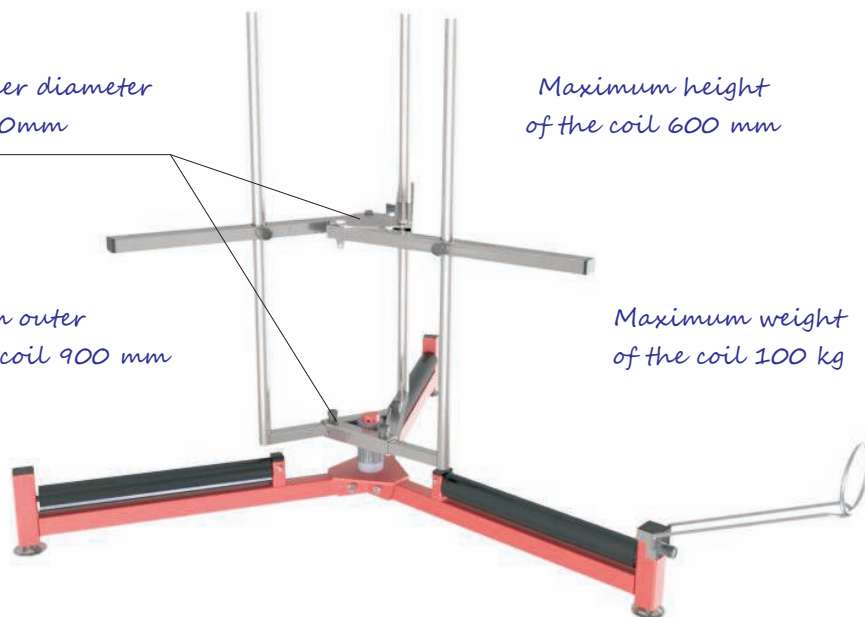
*Fast assembly / unassembly*

*Adjustable inner diameter  
300-500mm*

*Maximum height  
of the coil 600 mm*

*Maximum outer  
diameter of the coil 900 mm*

*Maximum weight  
of the coil 100 kg*



## Mobile pipe decoiler PD-200

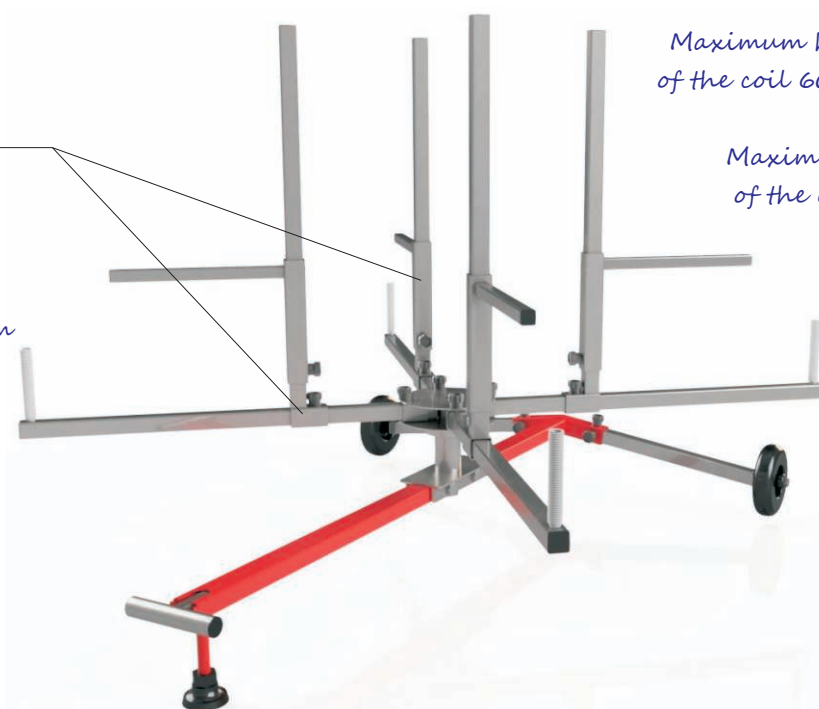
*Fast assembly / unassembly*

*Internal diameter  
from 200 mm*

*Maximum height  
of the coil 600 mm*

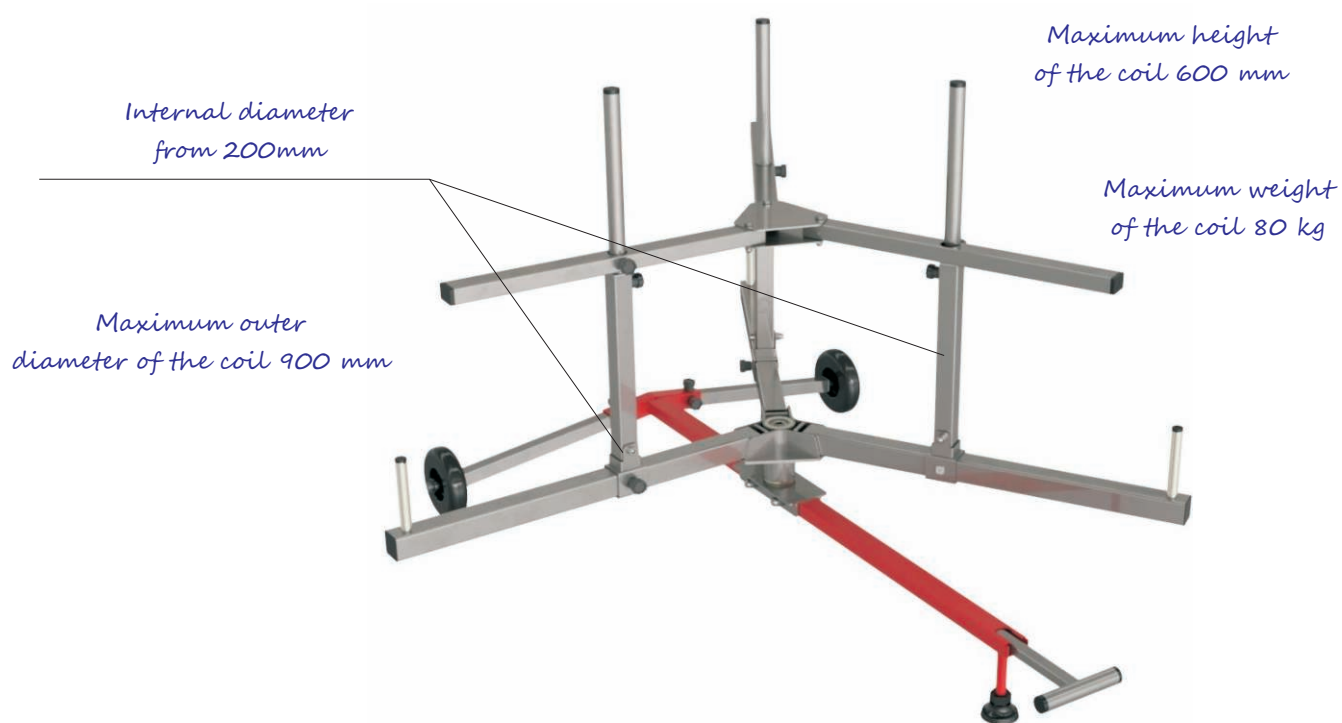
*Maximum outer  
diameter of the coil 900 mm*

*Maximum weight  
of the coil 80 kg*

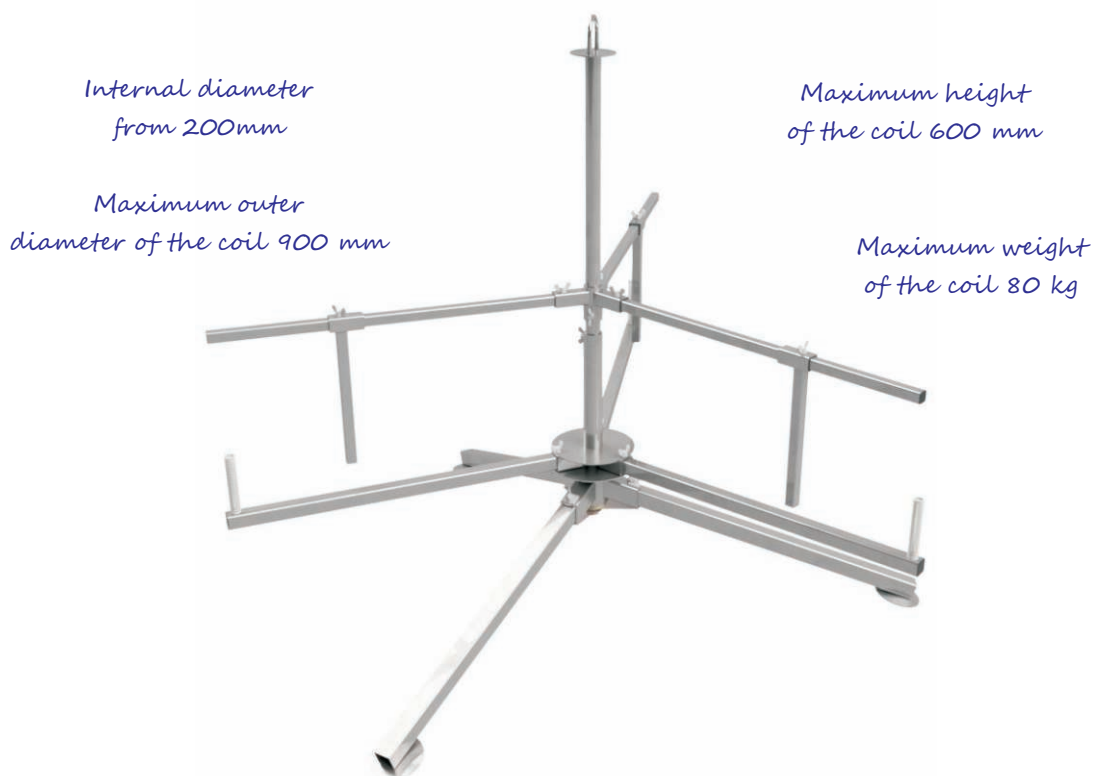


## Mobile pipe decoiler PD-300

*Fast assembly / unassembly*



## Pipe decoiler PD-400



## Pipe decoiler PD-500

*Fast assembly / unassembly*



## Tacker

