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CE 400380

BUFFER TANK WARRANTY

> SAFETY INSTALLATION CONDITIONS
> SAFETY RECOMMENDATIONS FOR THE INSTALLATION AND MAINTENANCE OF THE BUFFER TANK

Read carefully the safety installation manual, maintenance and warranty terms before installing the device, so as to avoid possible damage and to protect yourself from any risks.

CONTENTS

TEXT MARK EXPLANATIONS:

SAFETY TIPS

LEGAL NOTE

IMPORTANT INFORMATION

WATER HEATER TANK WARRANTY

THE COMPANY OFFERS THE FOLLOWING WARRANTY:

> For the heat tank five (5) years warranty.

FURTHERMORE, THE WARRANTY IS VALID ONLY WHEN THE FOLLOWING TERMS ARE SATISFIED:

1. The heat tank must be installed and maintained by specified and certified personnel.
2. The magnesium bar of the heat tank, must necessarily be checked every year and it must be replaced instantly if it has been outworn to a percentage above 50% or it has been covered by the accumulation of salts.
3. The standard of the water quality used by the system should not be lower than the potable (*page 4 table*)
4. The tank should be grounded.
5. The water supply pressure should not exceed 6 bars, otherwise a pressure reducer should be installed.
6. System temperature and pressure should not exceed the specifications as indicated in the device's technical manual.
7. The tank should always have safety valves that will protect the system from the maximum temperature and maximum operating pressure. For the proper operation of the heat tank, it is necessary to check the safety valves and in case of malfunction must be replaced .
8. The area where the system is to be installed must have a functional water drainage on the floor.
9. The user must take all appropriate measures to exclude the overheating phenomenon.
10. The hydraulic connections to the tank must be such as to exclude the phenomenon of electrolysis.
11. The tank should not be damaged by a drop or a hit during transport or installation.
12. Maintenance of the heat tank must be in accordance with the maintenance schedule which the installer has design.
13. The installer and maintainer should record the tasks and the reason why they were called in the maintenance book. This record file is a key element of the warranty and should be made available on request.
14. All repairs or maintenance must be carried out using quality spare parts which are specific indicated in the device's maintenance book. Under no circumstances should you exercise any welding on the tank's metal structure. You risk to deteriorate or destroy the tank.
15. The installation must meet the conditions described in the installation manual which is an integral part of the warranty.
16. The tank does not feature a heating element. Upon request by the user a heating element may be placed in any of the free sockets indicated only by a certified installer and a certified electrician. Only special heating element shall be placed in the tank. The certified installer is responsible to indicate the appropriate position and type of the heating element – always guided by the instructions provided by the heating element manufacturer. The constant and unreasonable use of the heating element may cause damage to the tank and will set it beyond warranty.

CAUTION!

Safety tips

The active part of the heating element shall not be inside the socket (tank's coupling or neck). Instead it shall be as closer as possible to the center of the tank, so as the heated water can be naturally alternated over the heating element's surface.

The tank shall always be placed on a totally flat surface (without any inclination) so that no air is captured in the couplings or any other part, especially if this part is close to the heating element.

The heating element shall always be totally covered by water.

ATTENTION!

Very poor water quality at the water outlet can result in salt formation and salts may block the safety valve. In this case, the tank remains unprotected against very high temperatures above 95°C and high pressure (greater than 6 bars).

THE WARRANTY DOES NOT COVER:

- The magnesium rod in the tank.
- Damage to the heating element.
- Damage to safety valves (if are included in the tank's packaging) of the tank, by excessive concentration of salts or external bodies.
- Tank damage due to excessive pressure of the water supply network.
- Damage of the tank caused by overheating.
- Damage caused by unauthorised third party intervention.
- Damage caused by improper maintenance.
- Damage caused by extreme operating conditions and extrinsic factors (*vandalism, fire, etc.*).
- The sealing flange

NOTE:

In the event of a breakdown, the workshop's fees and transport costs are borne by the customer in any case. The manufacturer reserves the right to change the terms without notice.

WATER SPECIFICATIONS TABLE

ELEMENT	PRICES
pH	7–9
Total hardness	6–15° dH
Chlorides	< 100 mg/l
Free chlorine	< 0,5 mg/l
Sulphates	< 80 mg/l
Conductance	< 650 mS/cm 25°C

SAFE INSTALLATION CONDITIONS

This is an integral part of the warranty to which it refers. It is not an installation guide.
It refers to the appropriate conditions for a safe and right installation.

GENERAL INSTRUCTIONS

1. This manual is an essential and indispensable part of this device. It has to be carefully kept and always accompany the device.
2. Please read the instructions and warnings carefully. They contain crucial information concerning the safe installation, operation and maintenance of this new device.
3. The responsibility of installation lies with the buyer and has to be performed by an authorized specialist.
4. Using the device for reasons other than those specified in the manual is strictly prohibited. The manufacturer shall not be held liable for any damage caused by improper or unjustifiable use or by failure to comply with the instructions in the manual.
5. Installation, maintenance, and other special work on the device have to be performed by a specialist, always in compliance with existing instructions provided by the manufacturer.
6. Faulty installation may cause personal injury or damage your property. The manufacturer shall not be held liable for such damage.
7. Keep all packaging materials (*clips, plastic bags, polystyrene foam*) out of reach of children, as hazards may occur.
8. All repairs must be performed exclusively by an authorized specialist, using only the appropriate parts. Failing to comply with the instructions above may affect your safety and relieves the manufacturer of all responsibility.

CAUTION!

The installation must comply with local regulations, concerning hydraulic and electrical installations. Removing the packaging must be done on site, in order to protect the device from being damaged.

RISK TO HEALTH

Improper installation work can contaminate the potable water.
– Install the buffer tank hygienically and thoroughly and in accordance with current standards
– Rinse the buffer tank and piping thoroughly with potable water.

Install and equip the potable water pipes according to your country's applicable regulations and instructions.

INSTALLATION & SPACE REQUIREMENTS FOR THE INSTALLATION

Before installing the water heater tank, you have to choose the right location carefully and check the surface, to ensure it can bear the device's weight. The water heater tank must be installed on a flat surface with adequate bearing capacity.

INSTALLATION PARTICULARITIES

In case the chosen surface is not compatible with the standard equipment provided, another kind of equipment will have to be used. Responsibility for choosing the equipment lies solely on the installation expert and not on the manufacturer. It is up to the installation expert, whether they will suggest using another kind of equipment to the customer, to which the customer has to have agreed upon prior to the installation.

WORKING CONDITIONS

Keep the installation area clean and free of objects that may hinder the installation process. Do not allow other people, apart from the installation expert, to get near the tools, as well as the installation location.
Use only parts that are compatible with the water heater you bought. The use of other parts or unsuitable tools may cause accidents or pose other hazards.

PERSONNEL REQUIREMENTS

The installation of water heaters has to be performed exclusively by authorized installation experts (*technicians*). Always wear protective glasses, suitable working attire, protective shoes and helmet.
In hazardous locations, all protection measures must be taken and only special equipment must be used.

DEVICE TRANSPORTATION:

Transportation and handling of the tank

Abrupt movements must be avoided during the transportation of the tank, as they may result in fall and damage.

- You must be extremely careful while lifting the tank and always take precautions, in order to avoid possible accidents, injuries and other hazards.
- To avoid damaging the tank, do not remove the packaging, until it reaches the installation location.
- Do not place the tank on hard or uneven surfaces.

RECOMMENDED SYSTEM INSPECTIONS

ATTENTION!

BECAUSE SYSTEM MAINTENANCE AND CONTROL ARE DEPENDING FROM EVERY LOCAL CLIMATE DATA, WATER QUALITY AND THE OWNERS USAGE THE MAINTENANCE FREQUENCY IS PART OF THE AGREEMENT BETWEEN THE SYSTEM OWNER AND THE MAINTAINER INSTALLATION AND SYSTEM CONTROLS MUST ALWAYS BE PERFORMED BY AUTHORIZED SPECIALISTS. THE DATA OF MAINTENANCE SHOULD BE ALWAYS RECORDED IN THE MAINTENANCE BOOK FROM THE INSTALLER.

SYSTEM CHECK UPS

- Annually – preferably before the start of the high usage period to ensure that the heater operates properly and all the parts are in good working condition.
- Maintenance periods are determined upon delivery of the heater. During maintenance, you have to make sure that the following parts work properly:
  - Heat exchanger circuit
  - All joints and pipes for leaks
  - Magnesium anodes
  - Pipes insulation
  - Safety valves
  - Sealing flange

ATTENTION!

IN CASE THAT ALL THE NECESSARY MEASURES ARE NOT TAKEN AND THE SYSTEM IS OVERHEATED, EXCEEDING THE SAFETY TEMPERATURE OF 95°C, THEN THE SYSTEM IS OUT OF THE WARRANTY.

Devise maintenance
The water heater tank maintenance must be performed according to the plan determined upon delivery. The maintenance book must always be completed after the maintenance man's visit.

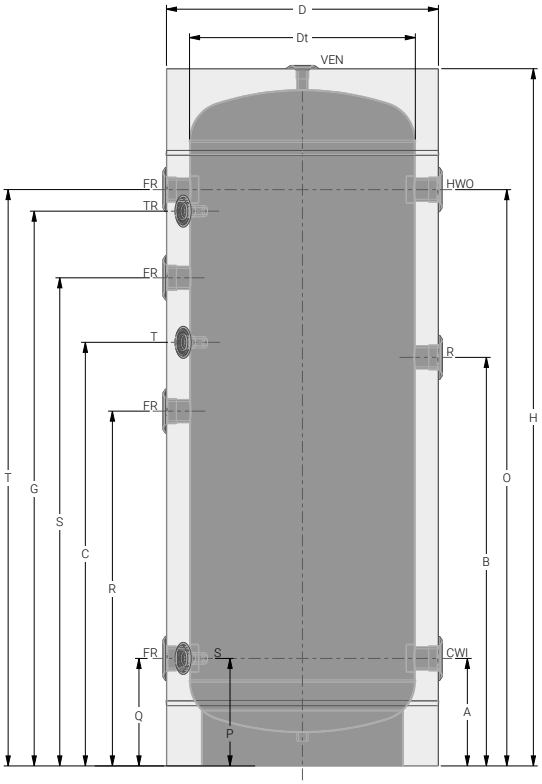
Dismantling and Disposal
All the device's materials have to be properly disposed of, according to existing legislation. Uninstalling, transportation and other costs must be paid by the owner.

During of the constant evolution and improvement of the products and services, the manufacturer reserves the right to change or modify the information or of the specifications mentioned herein manual without prior notice or other obligation

BUFER TANK WITHOUT A COIL BAC-0 (80–2000L)

DIMENSION & EXPLANATORY BOARD

All dimensions are in mm



Material: Steel Sheet
Welding: Automatic Metal Welding
Maximum Working Pressure: 6 bar
Maximum Water Test Pressure: 8 bar
Maximum Operating Temperature: 95°C
Insulation: Removable Soft Polyurethane foam of 55mm thickness (80–300L) & 100mm (500–9000L)
Electric Resistance: Upon Request
External Cover: Soft pvc, color of your choice

TYPE		80L		100L		150L		200L		300L	
PART NUMBER		BAC-0 80		BAC-0 100		BAC-0 150		BAC-0 200		BAC-0 300	
-	Tank capacity (Liter)	76		100		144		204		298	
B	Recirculation (R)	1 1/2"	564	1 1/2"	565	1 1/2"	595	1 1/2"	722	1 1/2"	933
A	Cold Water Inlet (CWI)	1 1/2"	204	1 1/2"	205	1 1/2"	235	1 1/2"	222	1 1/2"	233
O	Hot Water Outlet (HWO)		729		730		835		1112		1323
C	Thermostat (T)	1/2"	429	1/2"	430	1/2"	535	1/2"	757	1/2"	968
G	Thermometer (TR)		629		630		735		1062		1273
P	Sensor (S)		204		205		235		222		233
Q	Free outlet (FR)	1 1/2"	204	1 1/2"	205	1 1/2"	235	1 1/2"	222	1 1/2"	233
R	Free outlet (FR)		366		367		435		597		808
S	Free outlet (FR)		566		567		635		907		1118
T	Free outlet (FR)		729		730		835		1112		1323
-	Ventilation (VEN)	1/2"		1/2"		1/2"		1/2"		1/2"	
D	External Diameter	470		500		560		590		630	
Dt	Internal Diameter	360		390		450		480		520	
H	Total height	960		967		1120		1400		1630	
-	Tilt height	1052		1071		1252		1519		1748	
-	Weight (kg)	28		36		40		54		67	

ECO

TYPE		750L		1000L	
PART NUMBER		BAC-0 750 ECO		BAC-0 1000 ECO	
Insulation		Removable Soft Polyurethane foam of 55 mm thickness			
-	Tank capacity (Liter)	745		864	
B	Recirculation (R)	1 1/2"	982	1 1/2"	1142
A	Cold Water Inlet (CWI)	1 1/2"	282	1 1/2"	312
O	Hot Water Outlet (HWO)		1372		1652
C	Thermostat (T)	1/2"	1017	1/2"	1227
G	Thermometer (TR)		1322		1522
P	Sensor (S)		282		312
Q	Free outlet (FR)	1 1/2"	282	1 1/2"	312
R	Free outlet (FR)		857		992
S	Free outlet (FR)		1167		1347
T	Free outlet (FR)		1372		1652
-	Ventilation (VEN)	1 1/2"		1 1/2"	
D	External Diameter	910		910	
Dt	Internal Diameter	800		800	
H	Total height	1737		1987	
-	Tilt height	1961		2185	
-	Weight (kg)	108		129	

TYPE		500L		750L		1000L		1500L		2000L	
PART NUMBER		BAC-0 500		BAC-0 750		BAC-0 1000		BAC-0 1500		BAC-0 2000	
-	Tank capacity (Liter)	478		745		864		1626		1905	
B	Recirculation (R)	1 1/2"	951	1 1/2"	982	1 1/2"	1142	3"	1180	3"	1136
A	Cold Water Inlet (CWI)	1 1/2"	251	1 1/2"	282	1 1/2"	312	3"	403	3"	443
O	Hot Water Outlet (HWO)		1341		1372		1652		1637		1623
C	Thermostat (T)	1/2"	986	1/2"	1017	1/2"	1227	1/2"	1265	1/2"	1221
G	Thermometer (TR)		1291		1322		1522		1560		1516
P	Sensor (S)		251		282		312		372		420
Q	Free outlet (FR)	1 1/2"	251	1 1/2"	282	1 1/2"	312	3"	403	3"	443
R	Free outlet (FR)		826		857		992		1030		988
S	Free outlet (FR)		1136		1167		1347		1385		1343
T	Free outlet (FR)		1341		1372		1652		1637		1623
-	Ventilation (VEN)	1"		1 1/2"		1 1/2"		1 1/2"		1 1/2"	
D	External Diameter	840		1000		1000		1300		1400	
Dt	Internal Diameter	640		800		800		1100		1200	
H	Total height	1724		1782		2035		2100		2120	
-	Tilt height	1918		2043		2267		2470		2541	
-	Weight (kg)	96		118		139		267		302	

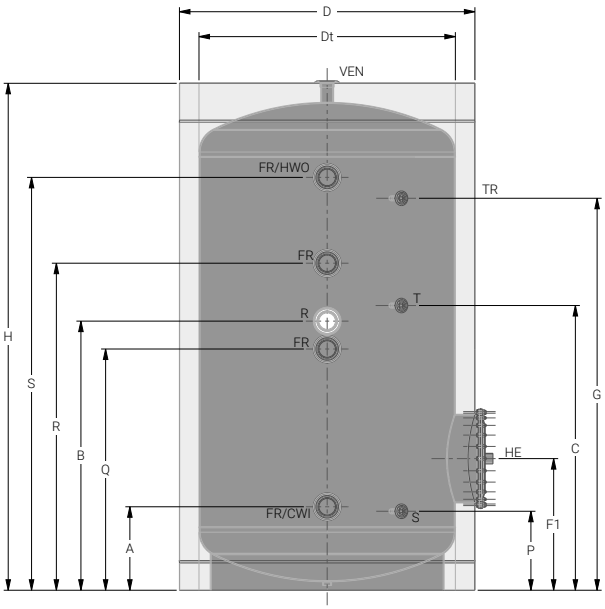
BUFER TANK WITHOUT A COIL BAC-0 (3000–9000L)

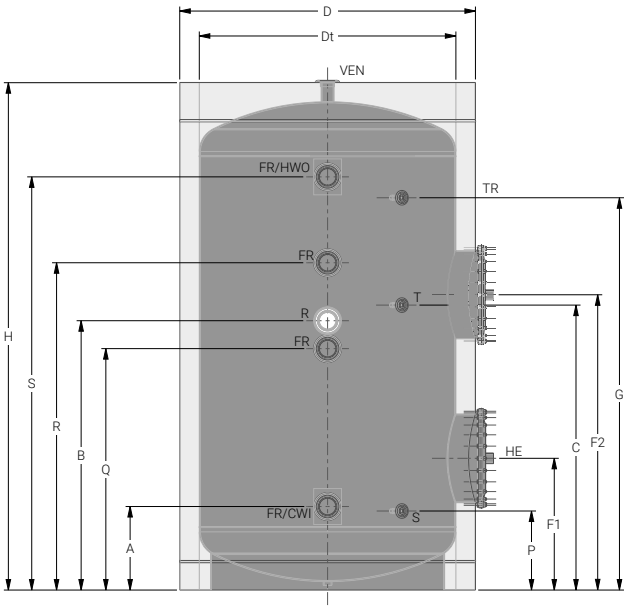
DIMENSION & EXPLANATORY BOARD

All dimensions are in mm

Material: Steel Sheet
Welding: Automatic Metal Welding
Maximum Working Pressure: 6 bar
Maximum Water Test Pressure: 8 bar
Maximum Operating Temperature: 95°C

Insulation: Removable Soft Polyurethane foam of 55mm thickness (3000–4000L) & 100mm (5000–9000L)
Electric Resistance: Upon Request
External Cover: Soft pvc, color of your choice



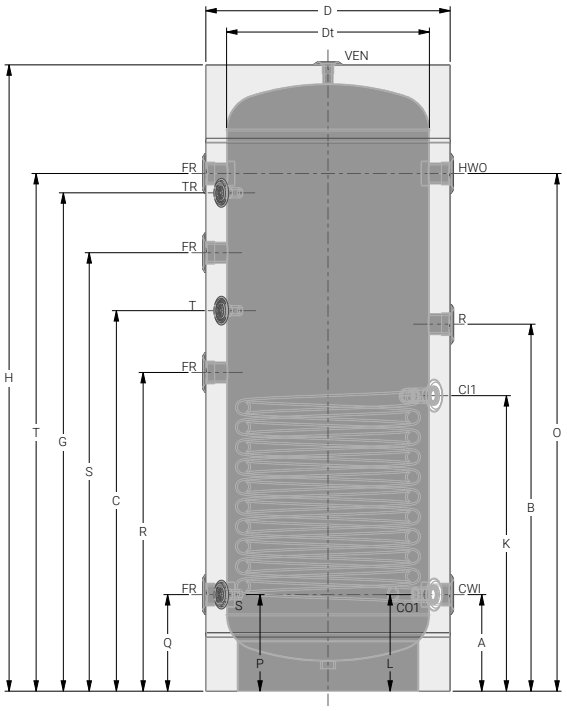


TYPE		3000L		4000L		5000L		7000L		9000L	
PART NUMBER		BAC-0 3000		BAC-0 4000		BAC-0 5000		BAC-0 7000		BAC-0 9000	
-	Tank capacity (Liter)	2990		4100		4920		7150		9040	
B	Recirculation (R)	3”	1379	3”	1275	3”	1507	4”	1714	4”	1758
A	Cold Water Inlet (CWI)	3”	427	3”	466	3”	500	4”	559	4”	603
O	Hot Water Outlet (HWO)		2116		2155		2294		2649		2705
C	Thermostat (T)	1/2”	1459	1/2"	1498	1/2"	1587	1/2"	1794	1/2"	1838
G	Thermometer (TR)		2009		2048		2187		2554		2598
P	Sensor (S)		404		443		477		521		565
Q	Free outlet (FR)	3”	427	3”	466	3”	500	3”	547	3”	591
R	Free outlet (FR)		1236		1418		1344		1491		1535
S	Free outlet (FR)		1676		1715		1819		2076		2120
T	Free outlet (FR)		2116		2155		2294		2661		2693
F1	Free outlet (FR)	1 1/2"	674	1 1/2"	713	1 1/2"	747	1 1/2"	894	1 1/2"	938
F2	Free outlet (FR)		-		-		1577		1924		1968
-	Ventilation (VEN)	1 1/2"		1 1/2"		1 1/2"		1 1/2"		1 1/2"	
D	External Diameter	1500		1700		1800		2000		2200	
Dt	Internal Diameter	1300		1500		1600		1800		2000	
H	Total height	2650		2700		2850		3261		3340	
-	Tilt height	3003		3169		3371		3825		3999	
-	Weight (kg)	615		820		930		1270		1655	

BUFER TANK WITH ONE COIL BAC-1 (150–300L)

DIMENSION & EXPLANATORY BOARD

All dimensions are in mm



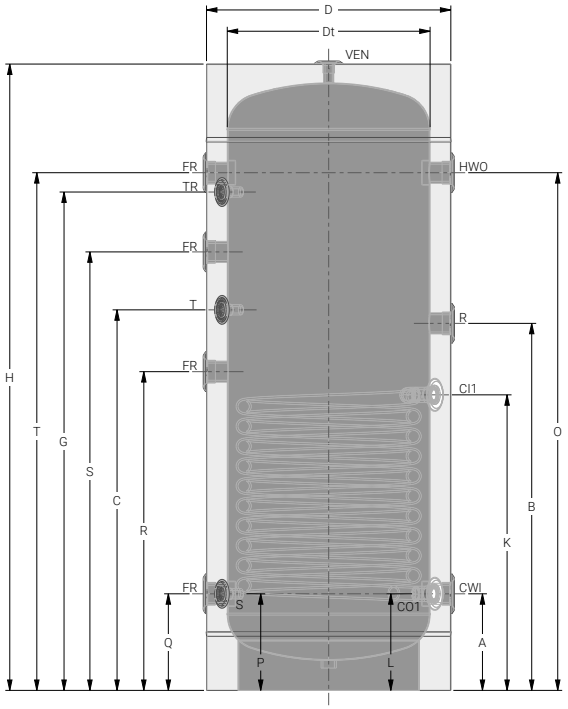
Material: Steel Sheet
Welding: Automatic Metal Welding
Maximum Working Pressure: 6 bar
Maximum Water Test Pressure: 8 bar
Maximum Operating Temperature: 95°C
Insulation: Removable Soft Polyurethane foam of 55mm thickness
Electric Resistance: Upon Request
External Cover: Soft pvc, color of your choice

TYPE		150L		200L		300L	
PART NUMBER		BAC-1 150		BAC-1 200		BAC-1 300	
-	Tank capacity (Liter)	139		197		289	
-	Coil capacity (Liter)	4,66		5,98		7,93	
K	Coil S1 inlet (CI1)	1”	535	1”	682	1”	748
L	Coil S1 outlet (CO1)		235		222		233
-	Coil S1 surface (m2)	0,731		0,938		1,244	
B	Recirculation (R)	1 1/2"	595	1 1/2"	722	1 1/2"	933
A	Cold Water Inlet (CWI)	1 1/2"	235	1 1/2"	222	1 1/2"	233
O	Hot Water Outlet (HWO)		835		1112		1323
C	Thermostat (T)	1/2”	535	1/2”	757	1/2”	968
G	Thermometer (TR)		735		1062		1273
P	Sensor (S)		235		222		233
Q	Free outlet (FR)	1 1/2"	235	1 1/2"	222	1 1/2"	233
R	Free outlet (FR)		435		597		808
S	Free outlet (FR)		635		907		1118
T	Free outlet (FR)		835		1112		1323
-	Ventilation (VEN)	1/2”		1/2"		1/2"	
D	External Diameter	560		590		630	
Dt	Internal Diameter	450		480		520	
H	Total height	1120		1400		1630	
-	Tilt height	1252		1519		1748	
-	Weight (kg)	61		73		90	

BUFER TANK WITH ONE COIL BAC-1 (500–2000L)

DIMENSION & EXPLANATORY BOARD

All dimensions are in mm



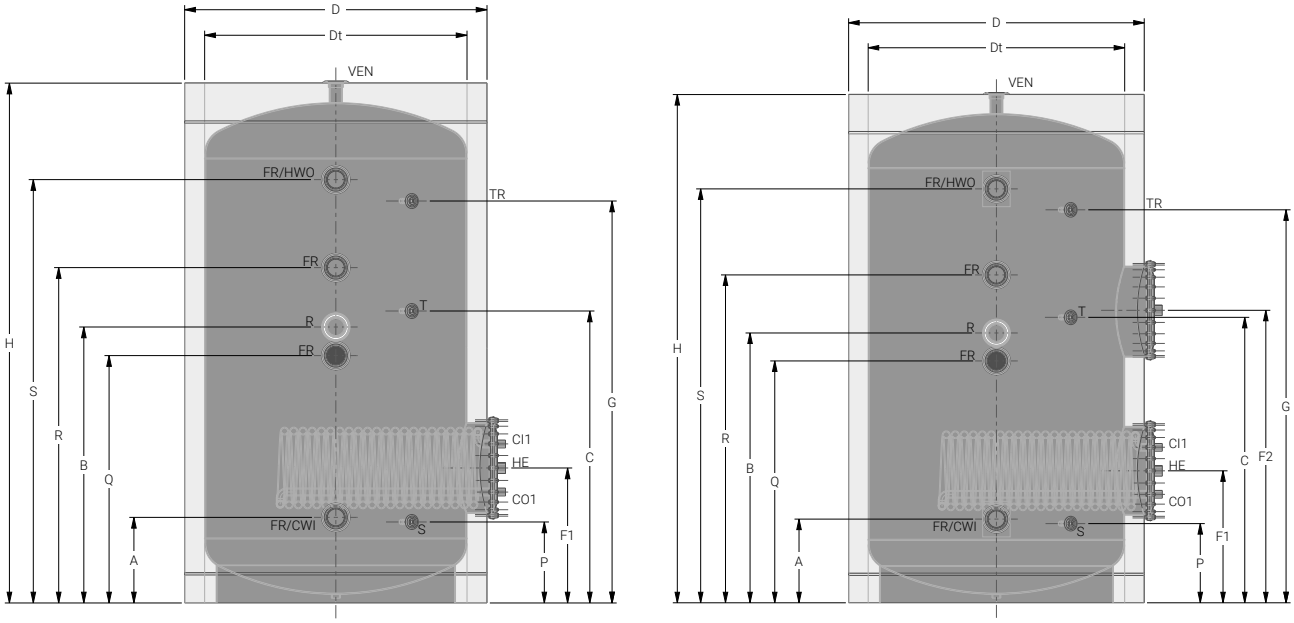
Material: Steel Sheet
Welding: Automatic Metal Welding
Maximum Working Pressure: 6 bar
Maximum Water Test Pressure: 8 bar
Maximum Operating Temperature: 95°C
Total Coil Pressure: 16 bar
Maximum Coil Test Pressure: 25 bar
Insulation: Removable Soft Polyurethane foam of 100mm thickness
Electric Resistance: Upon Request
External Cover: Soft pvc, color of your choice

	TYPE	500L		750L		1000L		1500L		2000L	
	PART NUMBER	BAC-1 500		BAC-1 750		BAC-1 1000		BAC-1 1500		BAC-1 2000	
-	Tank capacity (Liter)	462		727		843		1603		1880	
-	Coil capacity (Liter)	14,54		16,52		19,83		21,15		23,79	
K	Coil S1 inlet (CI1)	1”	766	1”	797	1”	932	1”	955	1”	983
L	Coil S1 outlet (CO1)		251		282		312		340		393
-	Coil S1 surface (m2)	2,281		2,592		3,11		3,31		3,732	
B	Recirculation (R)	1 1/2"	951	1 1/2"	982	1 1/2"	1142	3”	1180	3”	1136
A	Cold Water Inlet (CWI)	1 1/2"	251	1 1/2"	282	1 1/2"	312	3”	403	3”	443
O	Hot Water Outlet (HWO)		1341		1372		1652		1637		1623
C	Thermostat (T)	1/2"	986	1/2"	1017	1/2"	1227	1/2"	1265	1/2"	1221
G	Thermometer (TR)		1291		1322		1522		1560		1516
P	Sensor (S)		251		282		312		372		420
Q	Free outlet (FR)	1 1/2"	251	1 1/2"	282	1 1/2"	312	3”	403	3”	443
R	Free outlet (FR)		826		857		992		1030		986
S	Free outlet (FR)		1136		1167		1347		1385		1341
T	Free outlet (FR)		1341		1372		1652		1637		1623
-	Ventilation (VEN)	1”		1 1/2"		1 1/2"		1 1/2"		1 1/2”	
D	External Diameter	840		1000		1000		1300		1400	
Dt	Internal Diameter	640		800		800		1100		1200	
H	Total height	1724		1782		2035		2100		2120	
-	Tilt height	1918		2043		2267		2470		2541	
-	Weight (kg)	127		155		200		312		352	

BUFER TANK WITH ONE COIL BAC-1 (3000–9000L)

DIMENSION & EXPLANATORY BOARD

All dimensions are in mm

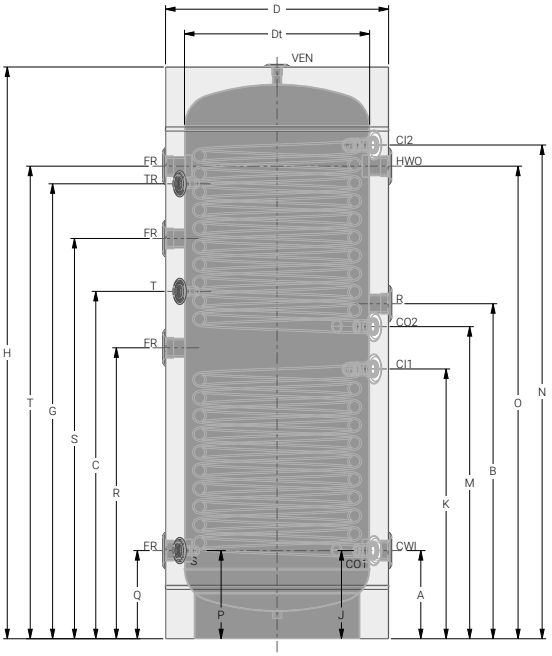


TYPE		3000L		4000L		5000L		7000L		9000L	
PART NUMBER		BAC-1 3000		BAC-1 4000		BAC-1 5000		BAC-1 7000		BAC-1 9000	
-	Tank capacity (Liter)	2954		4040		4860		7065		8958	
-	Coil S1 capacity (Liter)	34,02		56,70		56,70		79,38		79,38	
-	Coil S1 inlet (CI1)	1 1/2"		1 1/2"		1 1/2"		1 1/2"		1 1/2"	
-	Coil S1 outlet (CO1)										
-	Coil S1 surface (m2)	3,2		5,4		5,4		7,8		7,8	
B	Recirculation (R)	3"	1379	3"	1275	3"	1507	4"	1714	4"	1758
A	Cold Water Inlet (CWI)	3"	427	3"	466	3"	500	4"	559	4"	603
S	Hot Water Outlet (HWO)		2116		2155		2294		2649		2705
C	Thermostat (T)	1/2"	1459	1/2"	1498	1/2"	1587	1/2"	1794	1/2"	1838
G	Thermometer (TR)		2009		2048		2187		2554		2598
P	Sensor (S)		404		443		477		521		565
A	Free outlet (FR)	3"	427	3"	466	3"	500	3"	547	3"	591
Q	Free outlet (FR)		1236		1418		1344		1491		1535
R	Free outlet (FR)		1676		1715		1819		2076		2120
S	Free outlet (FR)		2116		2155		2294		2661		2693
F1	Free outlet (FR)	1 1/2"	674	1 1/2"	713	1 1/2"	747	1 1/2"	894	1 1/2"	938
F2	Free outlet (FR)		-		-		1577		1924		1968
-	Ventilation (VEN)	1 1/2"		1 1/2"		1 1/2"		1 1/2"		1 1/2"	
D	External Diameter	1500		1700		1800		2000		2200	
Dt	Internal Diameter	1300		1500		1600		1800		2000	
H	Total height	2650		2700		2850		3261		3340	
-	Tilt height	3003		3169		3371		3825		3999	
-	Weight (kg)	705		950		1060		1424		1809	

BUFER TANK WITH TWO COILS BAC-2 (150–300L)

DIMENSION & EXPLANATORY BOARD

All dimensions are in mm



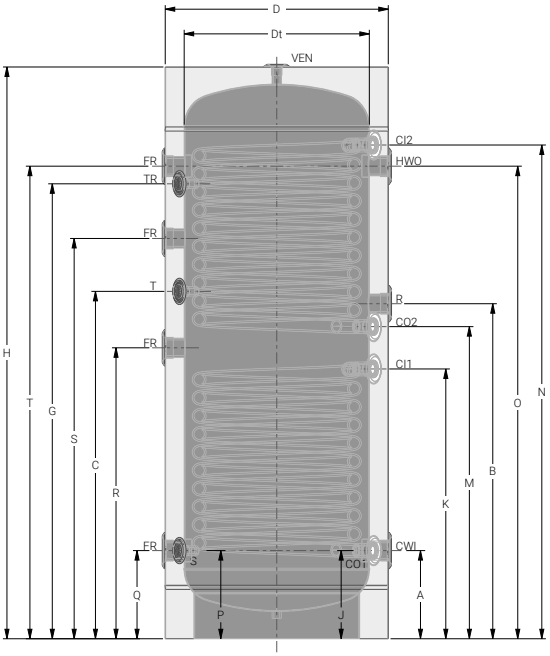
Material: Steel Sheet
Welding: Automatic Metal Welding
Maximum Working Pressure: 6 bar
Maximum Water Test Pressure: 8 bar
Maximum Operating Temperature: 95°C
Total Coil Pressure: 16 bar
Maximum Coil Test Pressure: 25 bar
Insulation: Removable Soft Polyurethane foam of 55 mm thickness
Electric Resistance: Upon Request
External Cover: Soft pvc, color of your choice

TYPE		150L		200L		300L	
PART NUMBER		BAC-2 150		BAC-2 200		BAC-2 300	
-	Tank capacity (Liter)	136		192		280	
-	Coil S1 / S2 capacity (Liter)	4,66 / 2,67		5,98 / 4,66		7,93 / 7,93	
K	Coil S1inlet (CI1)	1"	535	1"	682	1"	748
N	Coil S2 inlet (CI2)		835		1102		1383
L	Coil S1 outlet (CO1)		235		222		233
M	Coil S2 outlet (CO2)		655		802		868
-	Coil S1/S2 surface (m2)	0,731 / 0,420		0,938 / 0,731		1,244 / 1,244	
B	Recirculation (R)	1 1/2"	595	1 1/2"	722	1 1/2"	933
A	Cold Water Inlet (CWI)	1 1/2"	235	1 1/2"	222	1 1/2"	233
O	Hot Water Outlet (HWO)		835		1112		1323
C	Thermostat (T)	1/2"	535	1/2"	757	1/2"	968
G	Thermometer (TR)		735		1062		1273
P	Sensor (S)		235		222		233
Q	Free outlet (FR)	1 1/2"	235	1 1/2"	222	1 1/2"	233
R	Free outlet (FR)		435		597		808
S	Free outlet (FR)		635		907		1118
T	Free outlet (FR)		835		1112		1323
-	Ventilation (VEN)	1 /2"		1/2"		1/2"	
D	External Diameter	560		590		630	
Dt	Internal Diameter	450		480		520	
H	Total height	1120		1400		1630	
-	Tilt height	1252		1520		1748	
-	Weight (kg)	73		88		111	

BUFER TANK WITH TWO COILS BAC-2 (500–2000L)

DIMENSION & EXPLANATORY BOARD

All dimensions are in mm



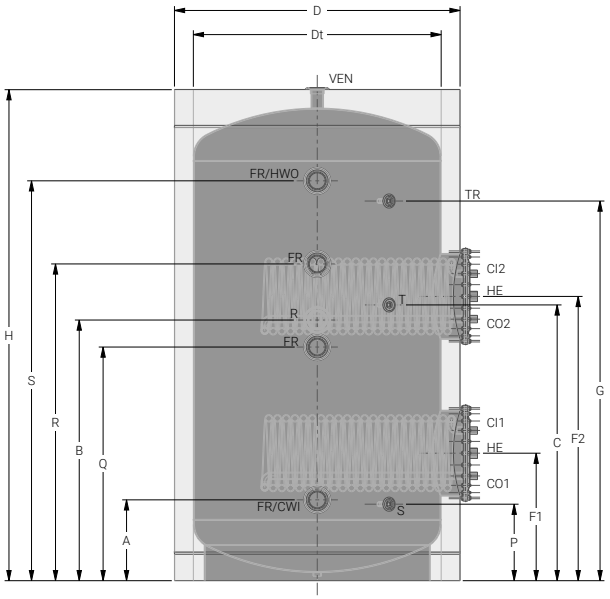
Material: Steel Sheet
Welding: Automatic Metal Welding
Maximum Working Pressure: 6 bar
Maximum Water Test Pressure: 8 bar
Maximum Operating Temperature: 95°C
Total Coil Pressure: 16 bar
Maximum Coil Test Pressure: 25 bar
Insulation: Removable Soft Polyurethane foam of 100mm thickness
Electric Resistance: Upon Request
External Cover: Soft pvc, color of your choice

TYPE		500L		750L		1000L		1500L		2000L	
PART NUMBER		BAC-2 500		BAC-2 750		BAC-2 1000		BAC-2 1500		BAC-2 2000	
-	Tank capacity (Liter)	446		710		829		1579		1865	
-	Coil S1 / S2 capacity (Liter)	14,54 / 14,54		16,52 / 16,52		19,83 / 19,83		21,15 / 21,15		23,79 / 23,79	
K	Coil S1 inlet (CI1)	1"	766	1"	797	1"	932	1"	955	1"	983
N	Coil S2 inlet (CI2)		1401		1432		1672		1690		1678
L	Coil S1 outlet (CO1)		251		282		312		340		393
M	Coil S2 outlet (CO2)		886		917		1052		1075		1093
-	Coil S1 / S2 surface (m2)	2,281 / 2,281		2,592 / 2,592		3,11 / 3,11		3,31 / 3,31		3,732 / 3,732	
B	Recirculation (R)	1 1/2"	951	1 1/2"	982	1 1/2"	1142	3"	1180	3"	1136
A	Cold Water Inlet (CWI)	1 1/2"	251	1 1/2"	282	1 1/2"	312	3"	403	3"	443
O	Hot Water Outlet (HWO)		1341		1372		1652		1637		1623
C	Thermostat (T)	1/2"	986	1/2"	1017	1/2"	1227	1/2"	1265	1/2"	1221
G	Thermometer (TR)		1291		1322		1522		1560		1516
P	Sensor (S)		251		282		312		372		420
Q	Free outlet (FR)	1 1/2"	251	1 1/2"	282	1 1/2"	312	3"	403	3"	443
R	Free outlet (FR)		826		857		992		1030		986
S	Free outlet (FR)		1136		1167		1347		1385		1341
T	Free outlet (FR)		1341		1372		1652		1637		1623
-	Ventilation (VEN)	1"		1 1/2"		1 1/2"		1 1/2"		1 1/2"	
D	External Diameter	840		1000		1000		1300		1400	
Dt	Internal Diameter	640		800		800		1100		1200	
H	Total height	1724		1782		2035		2100		2120	
-	Tilt height	1918		2043		2267		2470		2541	
-	Weight (kg)	159		190		232		357		403	

BUFER TANK WITH TWO COILS BAC-2 (3000–9000L)

DIMENSION & EXPLANATORY BOARD

All dimensions are in mm



Material: Steel Sheet
Welding: Automatic Metal Welding
Maximum Working Pressure: 6 bar
Maximum Water Test Pressure: 8 bar
Maximum Operating Temperature: 95°C
Total Coil Pressure: 16 bar
Maximum Coil Test Pressure: 25 bar
Insulation: Removable Soft Polyurethane foam of 100mm thickness
Electric Resistance: Upon Request
External Cover: Soft pvc, color of your choice

	TYPE	3000L		4000L		5000L		7000L		9000L	
	PART NUMBER	**BAC-2 3000**		**BAC-2 4000**		**BAC-2 5000**		**BAC-2 7000**		**BAC-2 9000**	
-	Tank capacity (Liter)	2918		3986		4800		6995		8880	
-	Coil S1 / S2 capacity (Liter)	34,02 / 34,02		34,02 / 34,02		56,70 / 56,70		79,38 / 79,38		79,38 / 79,38	
-	Coil S1 inlet (CI1)	1 1/2"		1 1/2"		1 1/2"		1 1/2"		1 1/2"	
-	Coil S2 inlet (CI2)										
-	Coil S1 outlet (CO1)										
-	Coil S2 outlet (CO2)										
-	Coil S1 / S2 surface (m2)	3,2		5,4		5,4		7,8		7,8	
B	Recirculation (R)	3"	1379	3"	1275	3"	1507	4"	1714	4"	1758
A	Cold Water Inlet (CWI)	3"	427	3"	466	3"	500	4"	559	4"	603
S	Hot Water Outlet (HWO)		2116		2155		2294		2649		2705
C	Thermostat (T)	1/2"	1459	1/2"	1498	1/2"	1587	1/2"	1794	1/2"	1838
G	Thermometer (TR)		2009		2048		2187		2554		2598
P	Sensor (S)		404		443		477		521		565
A	Free outlet (FR)	3"	427	3"	466	3"	500	3"	547	3"	591
Q	Free outlet (FR)		1236		1418		1344		1491		1535
R	Free outlet (FR)		1676		1715		1819		2076		2120
S	Free outlet (FR)		2116		2155		2294		2661		2693
F1	Free outlet (FR)	1 1/2"	674	1 1/2"	713	1 1/2"	747	1 1/2"	894	1 1/2"	938
F2	Free outlet (FR)		1504		1543		1577		1924		1968
-	Ventilation (VEN)	1 1/2"		1 1/2"		1 1/2"		1 1/2"		1 1/2"	
D	External Diameter	1500		1700		1800		2000		2200	
Dt	Internal Diameter	1300		1500		1600		1800		2000	
H	Total height	2650		2700		2880		3261		3340	
-	Tilt height	3003		3169		3371		3825		3999	
-	Weight (kg)	795		1080		1190		1578		1963	

TRANSFERRING THE BUFFER TANK

The buffer tank should be transferred to the area where it will be placed on its special transfer pallet.
Transfer and placement should be carried out by specialised personnel with the appropriate equipment.
The area where the tank will be installed should have the required specifications for a boiler room.

USER NOTE

For tank installation and maintenance, the required free space around and above the tank should be ensured during planning, so as to allow carrying out the required procedures.

CAUTION!

RISK OF INJURY from carrying heavy loads.
– Lifting and transfer should be always carried out by specialised persons.

CAUTION!

RISK OF INJURY by not securing the tank adequately during transport.
– Use only suitable means for transportation.
– Secure the transported load against falling.

USER NOTE

Where possible, transport the buffer tank fully packed to the installation room. This ensures protection during transportation.

POSITIONING THE BUFFER

The buffer tank is designed for vertical and can be installed in accordance with its dimensions. The floor has to be level and durable. Please see in the next page the guide for the proper placement of a vertical tank.

CAUTION!

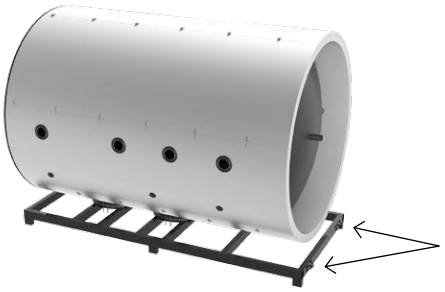
BOILER DAMAGE from frost.
– The installation area must be dry and protected from freezing.

CAUTION!

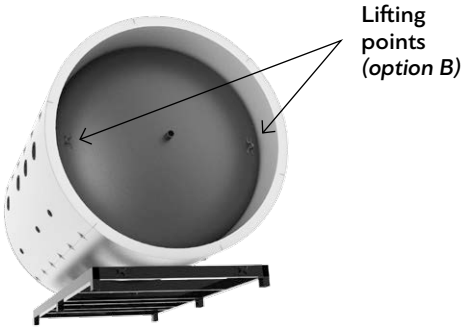
BOILER DAMAGE from corrosion.
– Use the buffer tank in closed loop systems only.
– Do not use open expansion vessels.

LIFTING INSTRUCTIONS (OVER 5000L)

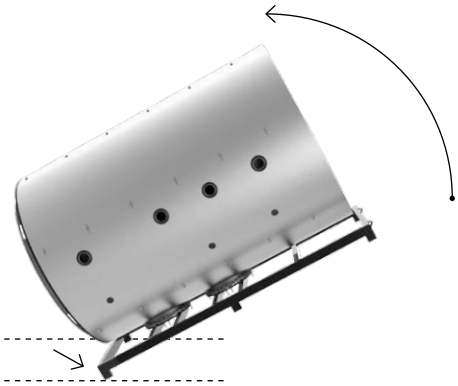
01 A



01 B



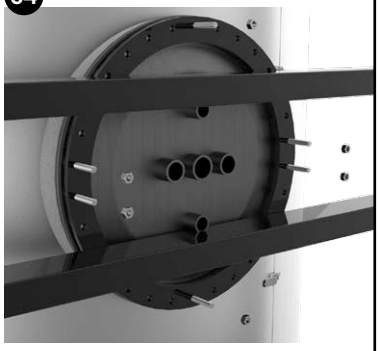
02



When lifting the tank,
the bottom part of
the metal transportation
pallet shall ALWAY S
touch the ground,
as shown in the pictures

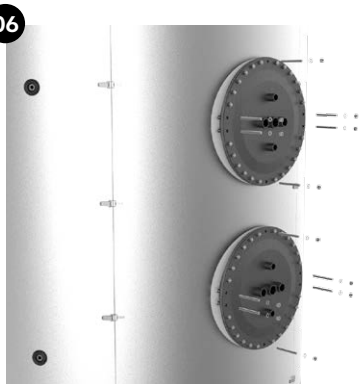
03

04



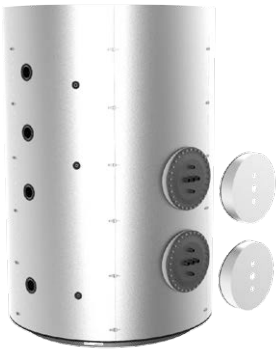
05

06

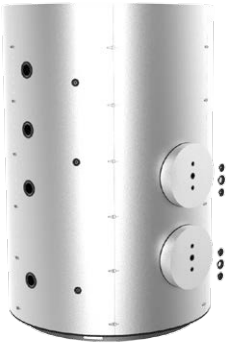


07

08

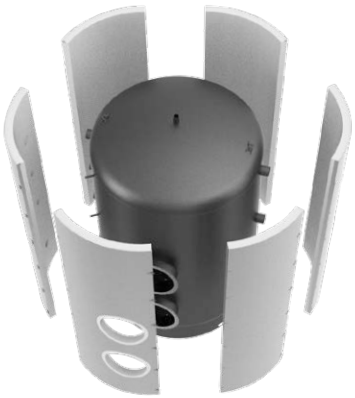


09



INSULATION PLACEMENT & REMOVAL

01



When removing and replacing the insulating shell, please follow the order as specified in the following pictures. The part with the smallest size shall be placed last.

02

03

04

05

06

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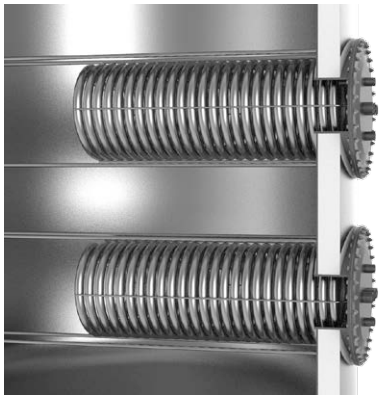
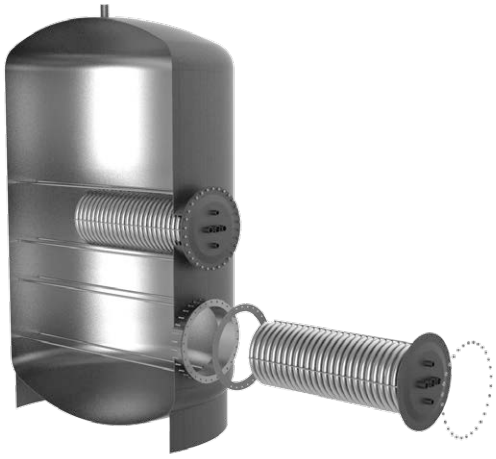
08

EXCHANGER REMOVAL





INITIAL START OF BUFFER TANK

Before putting the buffer tank into operation, check its impermeability to avoid leaks during operation.
– Vent the buffer tank by opening the vent/bleed valve or the highest faucet.
– Before heating up, check that the bufferr tank and piping are completely filled with water by opening the vent / bleed valve.
– Check all connections, piping and the cleaning port for leaks.

LEAK TEST

USER NOTE

Carry out the buffer tank leak test with potable water only. The maximum test pressure must not exceed 6 bars.

SAFETY RELIEF VALVE

(supplied by the customer)

– Place a sign with the following indication on the safety relief valve: “Don’t close the blow-off line. Water leakage may occur during heating for security reasons.”
– The blow-off line cross-section should be at least equal to the output cross-section of the safety relief valve.
– Check regularly the operational readiness of the safety relief valve with manual test.

OPERATING TIPS

Inform the facility owner that
– the relief valve blow-off line always needs to be kept clear.
– the proper functioning of the relief valve should be checked at regular intervals with manual test.
– the local heating contractor should be notified if the thermal safety cut-out on the boiler is triggered repeatedly.

CAUTION!

BOILER DAMAGE
The buffer tank can be permanently damaged by excessive pressure if the safety relief valve is blocked.
– Always keep the blow-off line of the safety relief valve open.

CAUTION!

BOILER DAMAGE
If the buffer tank ever has to remain empty for several days, signs of corrosion may appear due to residual moisture.
– Thoroughly dry the inside of the tank (e.g. with hot air) and keep the cleaning port cover open.

MAINTENANCE

It is recommended to have the tank checked by a specialized technician after the end of the first operational year. The findings (e.g. high precipitate concentration, security valve losses, anode consumption) shall determine the tank's maintenance periodicity.

Preparing the buffer tank for cleaning
– Disconnect the power supply of the heating system and disconnect all electrical power supply to the resistor, if present in the tank.
– Empty the buffer tank by closing the fresh water supply valve and drain the tank. For ventilation, open the vent/bleed valve or the highest faucet.
– Remove the casing lid and the thermal insulating element from the buffer tank.
– Unscrew the screws from the cleaning port cover.
– Remove the cleaning port cover.
– Unscrew the hex screws; remove the cleaning port gasket and the sealing gasket.

CAUTION!

Under no circumstances should you exercise any welding on the tank's metal structure. You risk to deteriorate or destroy the tank. If there is such a need it should be effected only by specialized personnel.

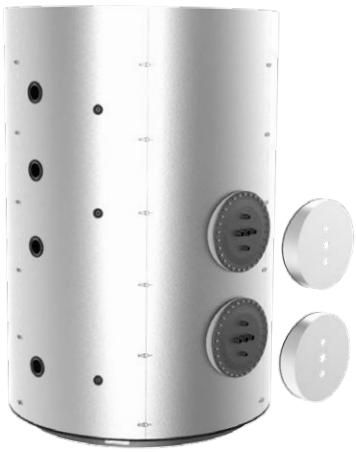
CAUTION!

BOILER DAMAGE due to unsatisfactory cleaning and maintenance.
– ***Carry out cleaning and maintenance of the*** buffer ***tank at least every two years.***
– ***Immediately restore all faults to prevent damages!***

USER NOTE

The sealing gasket feature must have at least the same technical specification with the one provided by the tank producer.

During maintanance, manhole sealing and heat exchanger flange should be removed.



MAGNESIUM ANODE CHECK

The magnesium anode is a protective anode, which is consumed during the operation of the buffer tank. The magnesium anode should be visually checked at least every year an replaced in case it is necessary . During magnesium anode check the elastic flange shall also be checked for any damages and it shall be replaced if necessary.

– Check the magnesium anode for decay. Replace the magnesium anode if its diameter has been reduced by more than 50%.

USER NOTE

Do not allow the contact of the magnesium anode rode with oil or other lubricants. Make sure that the rod is clean.

MAINTENANCE BOOK

DATE OF PURCHASE: ..... OWNER DATA: .....

RETAILER: .....

.....

INSTALLER INFORMATION: .....

MAINTENANCE DATE	MAINTAINER INFORMATION	REASON OF VISIT	EXECUTED OPERATIONS	SPARE PARTS USED