COMBI TANK WARRANTY

> SAFETY INSTALLATION CONDITIONS
> SAFETY RECOMMENDATIONS FOR THE INSTALLATION AND MAINTENANCE OF THE COMBI 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.

EN ISO 9001:2015 TÜV NORD

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IMPORTANT INFORMATION

COMBI 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 combi tank hygienically and thoroughly and in accordance with current standards
– Rinse the combi 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.

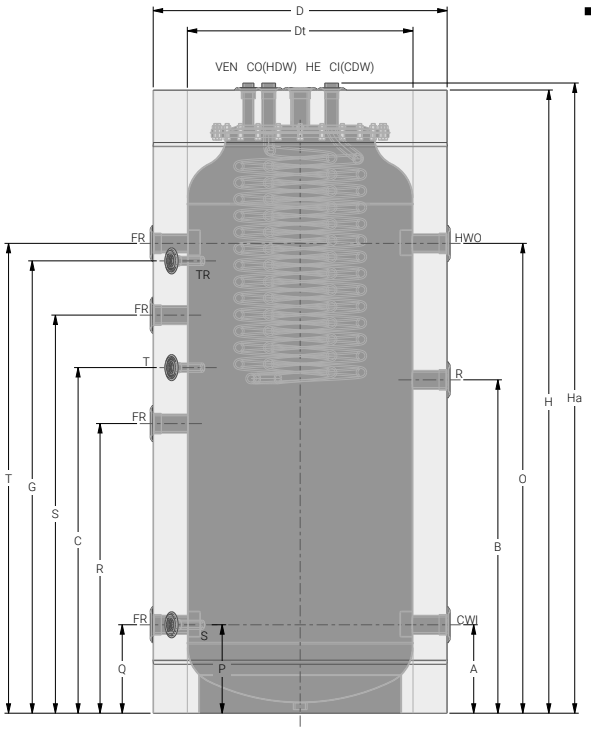
Devise maintenance
The water heater tank maintenance must be performed according to the plan determined upon delivery. The maintenance book must always be completed after the maintenance man's visit.

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

ACCUMULATOR BOILER WITH INOX COIL BAC-0-CI

DIMENSION & EXPLANATORY BOARD



TYPE		200L		300L		500L	
PART NUMBER		BAC-0 CI 200		BAC-0 CI 300		BAC-0 CI 500	
-	Tank capacity (Liter)	186		280		459	
-	Coil SS capacity (Liter)	17,2		17,2		17,2	
Ha	Coil SS inlet (HDW)	1"	1374	1"	1655	1"	1754
Ha	Coil SS outlet (CDW)						
-	Coil SS length (m)	30		30		30	
-	Coil SS surface (m^2)	3,11		3,11		3,11	
B	Recirculation (R)	1 1/2"	722	1 1/2"	933	1 1/2"	951
A	Cold Water Inlet (CWI)	1 1/2"	222	1 1/2"	233	1 1/2"	251
O	Hot Water Outlet (HWO)		1112		1323		1341
C	Thermostat (T)	1/2"	757	1/2"	968	1/2"	986
G	Thermometer (TR)		1062		1273		1291
P	Sensor (S)		222		233		251
Q	Free outlet (FR)	1 1/2"	222	1 1/2"	233	1 1/2"	251
R	Free outlet (FR)		597		808		826
S	Free outlet (FR)		907		1118		1136
T	Free outlet (FR)		1112		1323		1341
VEN	Ventilation	-	-	-	-	3/4"	1724
D	External Diameter	590		630		840	
Dt	Internal Diameter	480		520		640	
H	Height	1344		1743		1776	
Ha	Total height	1374		1655		1816	
-	Tilt height	1467		1743		1918	
-	Weight	82		95		124	

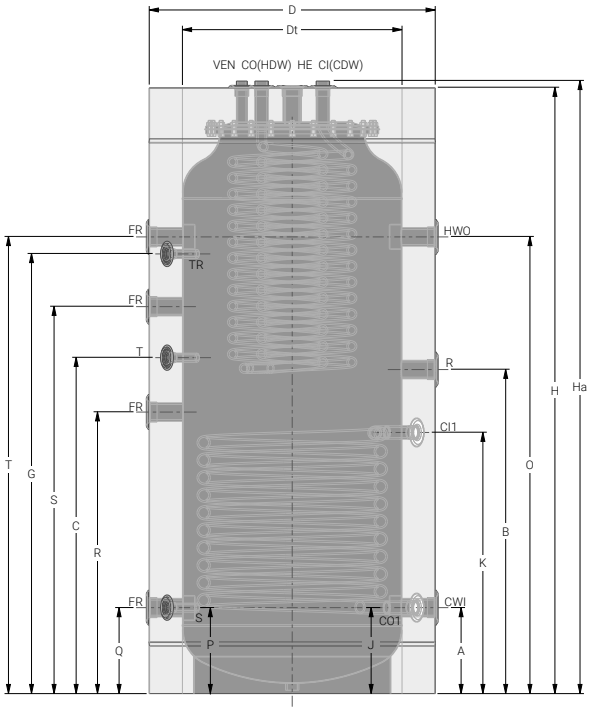
Material: Steel Sheet
Welding: Automatic Metal Welding
Maximum Working Pressure: 6 bar
Maximum Water Test Pressure: 8 bar
Maximum Operating Temperature: 95°C
Coil SS: Inox 316
Maximum Coil SS Test Pressure: 12 bar
Maximum Coil SS Temperature: 95°C
Insulation: Removable Soft Polyurethane foam of 55 mm thickness (100–300L) & 100mm (500–2000L)
Electric Resistance: Upon Request
External Cover: Soft pvc, color of your choice

All dimensions are in mm

TYPE		750L		1000L		1500L		2000L	
PART NUMBER		BAC-0 CI 750		BAC-0 CI 1000		BAC-0 CI 1500		BAC-0 CI 2000	
-	Tank capacity (Liter)	726		845		1602		1881	
-	Coil SS capacity (Liter)	17,2		17,2		22,92		22,92	
Ha	Coil SS inlet (HDW)	1"	1812	1"	2080	1"	2130	1"	2150
Ha	Coil SS outlet (CDW)								
-	Coil SS length (m)	30		30		40		40	
-	Coil SS surface (m^2)	3,11		3,11		4,14		4,14	
B	Recirculation (R)	1 1/2"	982	1 1/2"	1142	3"	1180	3"	1136
A	Cold Water Inlet (CWI)	1 1/2"	282	1 1/2"	312	3"	403	3"	443
O	Hot Water Outlet (HWO)		1372		1652		1637		1623
C	Thermostat (T)	1/2"	1017	1/2"	1227	1/2"	1265	1/2"	1221
G	Thermometer (TR)		1322		1522		1560		1516
P	Sensor (S)		282		312		372		420
Q	Free outlet (FR)	1 1/2"	282	1 1/2"	312	3"	403	3"	443
R	Free outlet (FR)		857		992		1030		988
S	Free outlet (FR)		1167		1347		1385		1343
T	Free outlet (FR)		1372		1652		1637		1623
VEN	Ventilation	3/4"	1782	3/4"	2035	3/4"	2100	3/4"	2120
D	External Diameter	1000		1000		1300		1400	
Dt	Internal Diameter	800		800		1100		1200	
H	Height	1829		2079		2143		2162	
Ha	Total height	1869		2119		2173		2192	
-	Tilt height	2043		2267		2470		2541	
-	Weight	146		167		308		343	

ACCUMULATOR BOILER WITH ONE COIL & INOX COIL BAC-1-CI

DIMENSION & EXPLANATORY BOARD



TYPE		200L		300L		500L	
PART NUMBER		BAC-1 CI 200		BAC-1 CI 300		BAC-1 CI 500	
-	Tank capacity (Liter)	179		271		443	
-	Coil capacity (Liter)	5,982		7,932		14,54	
K	Coil S1 inlet (CI1)	1"	682	1"	748	1"	766
J	Coil S1 outlet (CO1)		222		233		251
-	Coil S1 surface (m2)	0,938		1,244		2,281	
-	Coil SS capacity (Liter)	17,2		17,2		17,2	
Ha	Coil SS inlet (HDW)	1"	1374	1"	1655	1"	1754
Ha	Coil SS outlet (CDW)						
-	Coil SS length (m)	30		30		30	
-	Coil SS surface (m^2)	3,11		3,11		3,11	
B	Recirculation (R)	1 1/2"	722	1 1/2"	933	1 1/2"	951
A	Cold Water Inlet (CWI)	1 1/2"	222	1 1/2"	233	1 1/2"	251
O	Hot Water Outlet (HWO)		1112		1323		1341
C	Thermostat (T)	1/2"	757	1/2"	968	1/2"	986
G	Thermometer (TR)		1062		1273		1291
P	Sensor (S)		222		233		251
Q	Free outlet (FR)	1 1/2"	222	1 1/2"	233	1 1/2"	251
R	Free outlet (FR)		597		808		826
S	Free outlet (FR)		907		1118		1136
T	Free outlet (FR)		1112		1323		1341
VEN	Ventilation	-	-	-	-	3/4"	1724
D	External Diameter	590		630		840	
Dt	Internal Diameter	480		520		640	
H	Height	1344		1625		1776	
Ha	Total height	1374		1655		1816	
-	Tilt height	1467		1743		1918	
-	Weight	101		118		155	

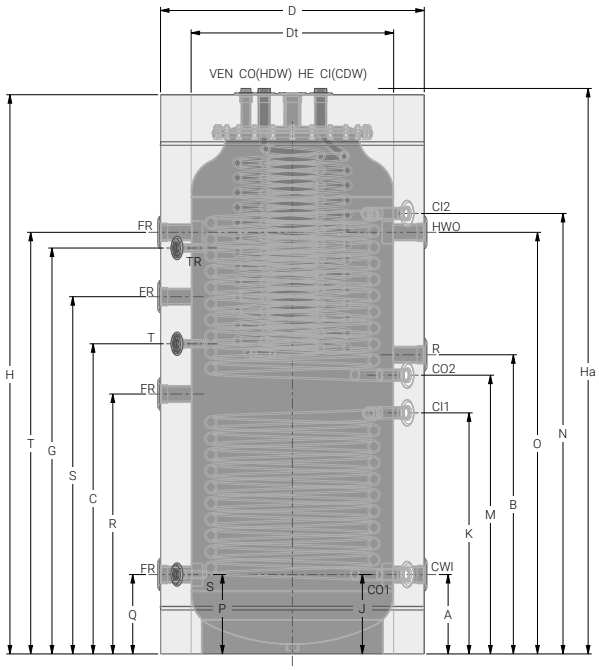
Material: Steel Sheet
Welding: Automatic Metal Welding
Maximum Working Pressure: 6 bar
Maximum Water Test Pressure: 8 bar
Maximum Operating Temperature: 95°C
Coil: Steel Tube
Total Coil Pressure: 16 bar
Total Coil temperature: 160°C
Maximum Coil Test Pressure: 25 bar
Coil SS: Inox 316
Maximum Coil SS Test Pressure: 12 bar
Maximum Coil SS Temperature: 95°C
Insulation: Removable Soft Polyurethane foam of 55 mm thickness (100–300L) & 100mm (500–2000L)
Electric Resistance: Upon Request
External Cover: Soft pvc, color of your choice

All dimensions are in mm

	TYPE	750L		1000L		1500L		2000L	
	PART NUMBER	**BAC-1 CI 750**		**BAC-1 CI 1000**		**BAC-1 CI 1500**		**BAC-1 CI 2000**	
-	Tank capacity (Liter)	706		824		1578		1856	
-	Coil capacity (Liter)	16,52		19,83		21,15		23,79	
K	Coil S1 inlet (CI1)	1"	797	1"	932	1"	955	1"	983
J	Coil S1 outlet (CO1)		282		312		340		393
-	Coil S1 surface (m^2)	2,592		3,11		3,31		3,732	
-	Coil SS capacity (Liter)	17,2		17,2		22,92		22,91	
Ha	Coil SS inlet (HDW)	1"	1812	1"	2080	1"	2130	1"	2150
Ha	Coil SS outlet (CDW)								
-	Coil SS length (m)	30		30		40		40	
-	Coil SS surface (m^2)	3,11		3,11		4,14		4,14	
B	Recirculation (R)	1 1/2"	982	1 1/2"	1142	3"	1180	3"	1136
A	Cold Water Inlet (CWI)	1 1/2"	282	1 1/2"	312	3"	403	3"	443
O	Hot Water Outlet (HWO)		1372		1652		1637		1623
C	Thermostat (T)	1/2"	1017	1/2"	1227	1/2"	1265	1/2"	1221
G	Thermometer (TR)		1322		1522		1560		1516
P	Sensor (S)		282		312		372		420
Q	Free outlet (FR)	1 1/2"	282	1 1/2"	312	3"	403	3"	443
R	Free outlet (FR)		857		992		1030		986
S	Free outlet (FR)		1167		1347		1385		1341
T	Free outlet (FR)		1372		1652		1637		1623
VEN	Ventilation	3/4"	1782	3/4"	2035	3/4"	2100	3/4"	2120
D	External Diameter	1000		1000		1300		1400	
Dt	Internal Diameter	800		800		1100		1200	
H	Height	1829		2079		2143		2162	
Ha	Total height	1869		2119		2173		2192	
-	Tilt height	2043		2267		2470		2541	
-	Weight	183		252		353		393	

ACCUMULATOR BOILER WITH TWO COILS & INOX COIL BAC-2-CI

DIMENSION & EXPLANATORY BOARD



TYPE		200L		300L		500L	
PART NUMBER		BAC-2 CI 200		BAC-2 CI 300		BAC-2 CI 500	
-	Tank capacity (Liter)	174		262		427	
-	Coil S1 / S2 capacity (Liter)	5,982 / 4,66		7,932 / 7,932		14,54 / 14,54	
K	Coil S1 inlet (CI1)	1"	682	1"	748	1"	766
N	Coil S2 inlet (CI2)		1102		1383		1401
J	Coil S1 outlet (CO1)		222		233		251
M	Coil S2 outlet (CO2)		802		868		886
-	Coil S1 / S2 surface (m^2)	0,938 / 0,731		1,244 / 1,244		2,281 / 2,281	
-	Coil SS capacity (Liter)	17,2		17,2		17,2	
Ha	Coil SS inlet (HDW)	1"	1374	1"	1655	1"	1754
Ha	Coil SS outlet (CDW)						
-	Coil SS length (m)	30		30		30	
-	Coil SS surface (m^2)	3,11		3,11		3,11	
B	Recirculation (R)	1 1/2"	722	1 1/2"	933	1 1/2"	951
A	Cold Water Inlet (CWI)	1 1/2"	222	1 1/2"	233	1 1/2"	251
O	Hot Water Outlet (HWO)		1112		1323		1341
C	Thermostat (T)	1/2"	757	1/2"	968	1/2"	986
G	Thermometer (TR)		1062		1273		1291
P	Sensor (S)		222		233		251
Q	Free outlet (FR)	1 1/2"	222	1 1/2"	233	1 1/2"	251
R	Free outlet (FR)		597		808		826
S	Free outlet (FR)		907		1118		1136
T	Free outlet (FR)		1112		1323		1341
VEN	Ventilation	-	-	-	-	3/4"	1724
D	External Diameter	590		630		840	
Dt	Internal Diameter	480		520		640	
H	Height	1344		1625		1776	
Ha	Total height	1374		1655		1816	
-	Tilt height	1467		1743		1918	
-	Weight (kg)	116		139		187	

Material: Steel Sheet
Welding: Automatic Metal Welding
Maximum Working Pressure: 6 bar
Maximum Water Test Pressure: 8 bar
Maximum Operating Temperature: 95°C
Coil: Steel Tube
Total Coil Pressure: 16 bar
Total Coil temperature: 160°C
Maximum Coil Test Pressure: 25 bar
Coil SS: Inox 316
Maximum Coil SS Test Pressure: 12 bar
Maximum Coil SS Temperature: 95°C
Insulation: Removable Soft Polyurethane foam
of 55mm thickness (100–300L) & 100mm (500–2000L)
Electric Resistance: Upon Request
External Cover: Soft pvc, color of your choice

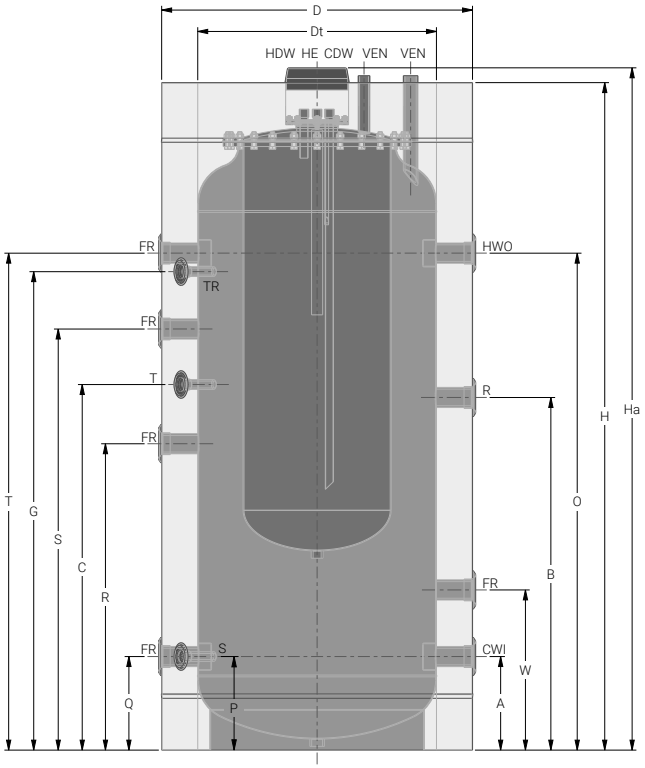
All dimensions are in mm

TYPE		750L		1000L		1500L		2000L	
PART NUMBER		BAC-2 CI 750		BAC-2 CI 1000		BAC-2 CI 1500		BAC-2 CI 2000	
-	Tank capacity (Liter)	691		810		1555		1841	
-	Coil S1 / S2 capacity (Liter)	16,52 / 16,52		19,83 / 19,83		21,15 / 21,15		23,79 / 23,79	
K	Coil S1 inlet (CI1)	1"	797	1"	932	1"	955	1"	983
N	Coil S2 inlet (CI2)		1432		1672		1690		1678
J	Coil S1 outlet (CO1)		282		312		340		393
M	Coil S2 outlet (CO2)		917		1052		1075		1093
-	Coil S1 / S2 surface (m^2)	2,592 / 2,592		3,11 / 3,11		3,31 / 3,31		3,732 / 3,732	
-	Coil SS capacity (Liter)	17,2		17,2		22,92		22,92	
Ha	Coil SS inlet (HDW)	1"	1812	1"	2080	1"	2130	1"	2150
Ha	Coil SS outlet (CDW)								
-	Coil SS length (m)	30		30		40		40	
-	Coil SS surface (m^2)	3,11		3,11		4,14		4,14	
B	Recirculation (R)	1 1/2"	982	1 1/2"	1142	3"	1180	3"	1136
A	Cold Water Inlet (CWI)	1 1/2"	282	1 1/2"	312	3"	403	3"	443
O	Hot Water Outlet (HWO)		1372		1652		1637		1623
C	Thermostat (T)	1/2"	1017	1/2"	1227	1/2"	1265	1/2"	1221
G	Thermometer (TR)		1322		1522		1560		1516
P	Sensor (S)		282		312		372		420
Q	Free outlet (FR)	1 1/2"	282	1 1/2"	312	3"	403	3"	443
R	Free outlet (FR)		857		992		1030		986
S	Free outlet (FR)		1167		1347		1385		1341
T	Free outlet (FR)		1372		1652		1637		1623
VEN	Ventilation	3/4"	1782	3/4"	2035	3/4"	2100	3/4"	2120
D	External Diameter	1000		1000		1300		1400	
Dt	Internal Diameter	800		800		1100		1200	
H	Height	1829		2079		2143		2162	
Ha	Total height	1869		2119		2173		2192	
-	Tilt height	2043		2267		2470		2541	
-	Weight (kg)	218		281		398		444	

ACCUMULATOR BOILER TANK IN TANK BAC-0-TT

DIMENSION & EXPLANATORY BOARD

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 100mm thickness
Electric Resistance: Upon Request
External Cover: Soft pvc, color of your choice



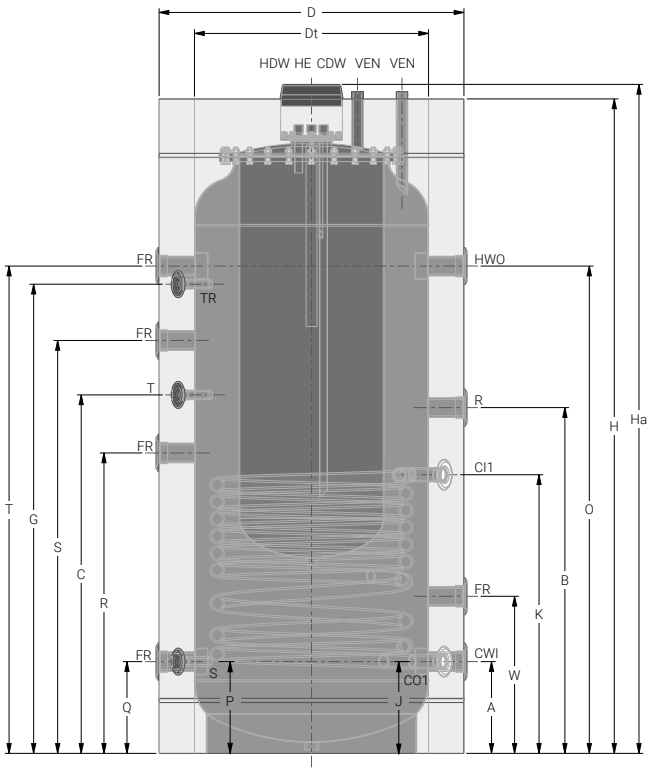
All dimensions are in mm

TYPE		500L		750L		1000L		1500L		2000L	
PART NUMBER		BAC-0 TT 500		BAC-0 TT 750		BAC-0 TT 1000		BAC-0 TT 1500		BAC-0 TT 2000	
-	Tank capacity (Liter)	315		570		691		1452		1732	
-	Inner Tank capacity (Liter)	160		170		170		170		170	
-	Recirculation inner tank (R)	3/4"		3/4"		3/4"		3/4"		3/4"	
Ha	Cold domestic water (CDW)	1"		1"		1"		1"		1"	
Ha	Hot domestic water (HDW)										
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
VEN	Ventilation	3/4"	1822	3/4"	1894	3/4"	2144	3/4"	2208	3/4"	2227
D	External Diameter	840		1000		1000		1300		1400	
Dt	Internal Diameter	640		800		800		1100		1200	
H	Height	1822		1874		2124		2188		2207	
Ha	Total height	1842		1914		2164		2228		2247	
-	Tilt height	1988		2124		2348		2545		2614	
-	Weight	142		164		185		313		348	

ACCUMULATOR BOILER TANK IN TANK BAC-1-TT

DIMENSION & EXPLANATORY BOARD

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 100mm thickness
Electric Resistance: Upon Request
External Cover: Soft pvc, color of your choice



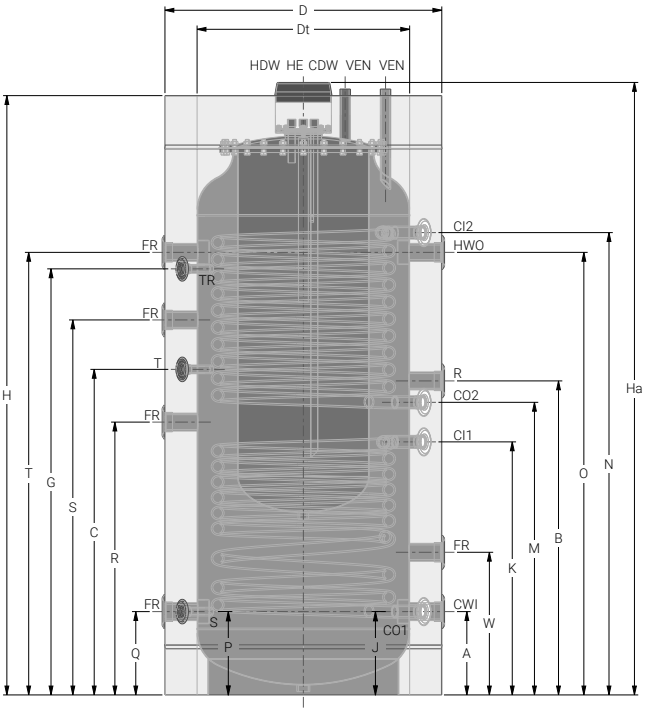
All dimensions are in mm

TYPE		500L		750L		1000L		1500L		2000L	
PART NUMBER		BAC-1 TT 500		BAC-1 TT 750		BAC-1 TT 1000		BAC-1 TT 1500		BAC-1 TT 2000	
-	Tank capacity (Liter)	300		553		670		1430		1706	
-	Coil capacity (Liter)	14,54		16,52		19,83		21,15		23,79	
-	Inner Tank capacity (Liter)	160		170		170		170		170	
-	Recirculation inner tank (R)	3/4"		3/4"		3/4"		3/4"		3/4"	
Ha	Cold domestic water (CDW)	1"		1"		1"		1"		1"	
Ha	Hot domestic water (HDW)										
K	Coil S1 inlet (CI1)	1"	766	1"	797	1"	932	1"	955	1"	983
J	Coil S1 outlet (CO1)		251		282		312		340		393
-	Coil S1 surface (m^2)	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		988
S	Free outlet (FR)		1136		1167		1347		1385		1343
T	Free outlet (FR)		1341		1372		1652		1637		1623
VEN	Ventilation	3/4"	1822	3/4"	1894	3/4"	2144	3/4"	2208	3/4"	2227
D	External Diameter	840		1000		1000		1300		1400	
Dt	Internal Diameter	640		800		800		1100		1200	
H	Height	1822		1874		2124		2188		2207	
Ha	Total height	1842		1914		2164		2228		2247	
-	Tilt height	1988		2124		2348		2545		2614	
-	Weight	173		201		246		358		398	

ACCUMULATOR BOILER TANK IN TANK BAC-2-TT

DIMENSION & EXPLANATORY BOARD

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 100mm thickness
Electric Resistance: Upon Request
External Cover: Soft pvc, color of your choice



All dimensions are in mm

	TYPE	500L		750L		1000L		1500L		2000L	
	PART NUMBER	**BAC-2 TT 500**		**BAC-2 TT 750**		**BAC-2 TT 1000**		**BAC-2 TT 1500**		**BAC-2 TT 2000**	
-	Tank capacity (Liter)	283		518		656		1406		1692	
-	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	
-	Inner Tank capacity (Liter)	160		170		170		170		170	
-	Recirculation inner tank (R)	3/4"		3/4"		3/4"		3/4"		3/4"	
Ha	Cold domestic water (CDW)	1"		1"		1"		1"		1"	
Ha	Hot domestic water (HDW)										
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
J	Coil S1 outlet (CO1)		251		282		312		340		393
M	Coil S2 outlet (CO2)		886		917		1052		1075		1093
-	Coil S1 / S2 surface (m^2)	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		988
S	Free outlet (FR)		1136		1167		1347		1385		1343
R	Free outlet (FR)		1341		1372		1652		1637		1623
VEN	Ventilation	3/4"	1822	3/4"	1894	3/4"	2144	3/4"	2208	3/4"	2227
D	External Diameter	840		1000		1000		1300		1400	
Dt	Internal Diameter	640		800		800		1100		1200	
H	Height	1822		1874		2124		2188		2207	
Ha	Total height	1842		1914		2164		2228		2247	
-	Tilt height	1988		2124		2348		2545		2614	
-	Weight	205		236		278		403		450	

TRANSFERRING THE COMBI TANK

The combi 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 combi tank fully packed to the installation room. This ensures protection during transportation.

POSITIONING THE HOT WATER TANK

The combi 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.

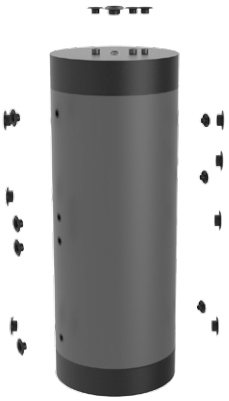
CAUTION!

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

DHW STAINLESS STEEL COIL REMOVAL

01

02



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DHW TANK REMOVAL

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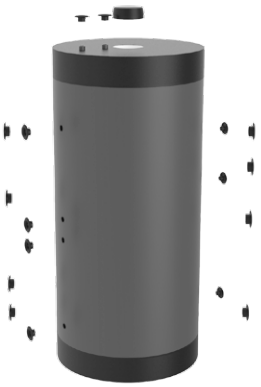

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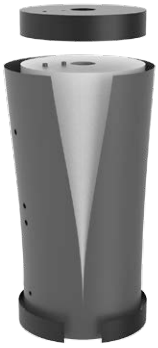

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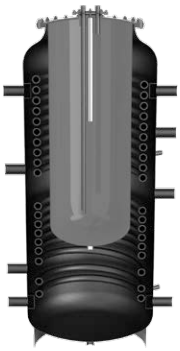

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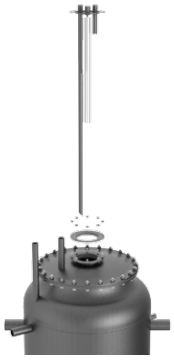

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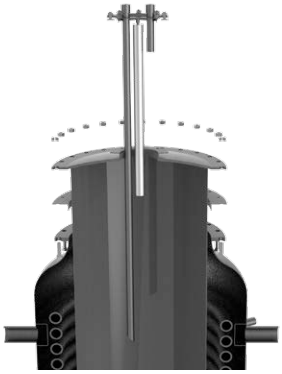


08

INITIAL START OF COMBI TANK

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

CAUTION!

Concerning the Tank in Tank unit first the inner tank (domestic water tank) shall be filled in and then the outer tank (closed circuit). If the opposite happens the inner tank may be destroyed because of the pressure difference. During the filling of the outer tank (closed circuit) the inner tank (open circuit, domestic water) shall be already filled and connected to the network supply so as the outer pressure shall not crush the inner tank.

LEAK TEST

USER NOTE

Carry out the combi 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.

SHUTDOWN TIPS

In the case of long periods of absence of the facility owner we recommend the following:
Keep the hot water tank in operation. If you ever need to shut down the hot water tank, when you start using it again, observe the hygiene and potable water requirements applicable in your country

CAUTION!

BOILER DAMAGE
The combi 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 combi 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 combi 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 combi 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 combi 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.

Tank in Tank preparation for cleaning/maintenance
ATTENTION: First of all we empty the closed circuit tank and then the open circuit tank, never the opposite.

Closed circuit tank empty process:
– Remove the supply of the heating system and disconnect the heating element (if available).
– Empty the tank by closing the water supply valve. Drain the tank, if there would be a maintenance in the same tank. For ventilation open the valve or the top socket.

Open circuit tank empty process:
– Remove the supply and disconnect the heating element (if available).
– Remove the cover lid and the insulation.
– Unscrew the hexagonal screws, remove the flange and the sealant flange.
– Drain the tank.

SAFETY AND HYGIENE RECOMMENDATION

During the system's use there might be gathered precipitates, other materials and Biofilm in the tank. This is mainly due to the bad water quality, to the water supply network, to the water pipes and to the water heating exchanger inside the tank. The for mentioned phenomenon might deteriorate the water quality so it is recommended apart from the scheduled tank cleaning also a filter placement to the water inlet from the water network.

Check the hot water tank interior for scale (salt) deposits. If there are scale deposits inside the hot water tank, these should be removed. You can increase the cleaning effect by heating up the empty hot tank; the thermo-shock effect releases scale deposits more easily from the heat exchanger coil. Remove the residues with a wet & dry vacuum cleaner with plastic suction tube. If the deposits inside the hot water tank are too hard, you can remove them with chemical cleaning. It is recommended to employ a specialised technical company for the chemical cleaning

CAUTION!

DAMAGE OF THE INSTALLATION
from damaged surface finish.
– *Never use hard objects or objects with sharp edges to clean the interior walls of the hot water tank.*
– *If you observe or notice damage or destruction of the tank's finish, you should contact with the supplier from which it was bought to carry out the planned actions*

CAUTION!

PREVENT LEGIONELLA RISK
IN THE HOT WATER TANK
The primary method used to control the risk from Legionella is water temperature control.
The water temperature at the bottom of the tank shall at least once per week, depending on the use and the water quality, reach or overpass 60°C for at least 30 minutes. This period shall be adjusted by the installer.

USER NOTE

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

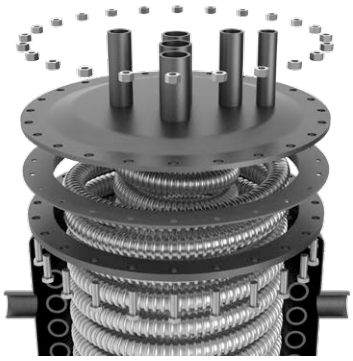
CAUTION!

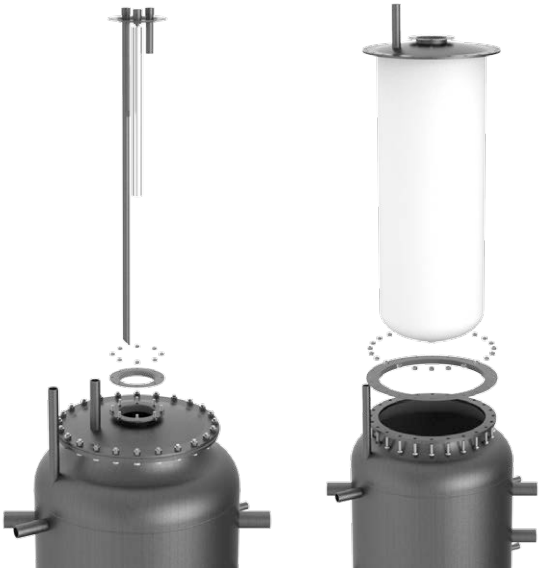
Under no circumstances should you exercise any welding on the tank's metal structure. You risk to deteriorate or destroy the tank. If there is such a need it should be effected only by specialized personnel.

CAUTION!

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

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





MAGNESIUM ANODE CHECK

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.

The magnesium anode is a protective anode, which is consumed during the operation of the combi 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.

MAINTENANCE BOOK

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

RETAILER: .....

.....

INSTALLER INFORMATION: .....

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