BDR THERMEA GROUP

BAYMAK AQUA HOT WATER STORAGE, ACCUMULATION AND BUFFER TANKS

Installation and Operation Manual

63 9810 0149 – Rev.05 – 04.01.2023

OUR VALUED CUSTOMER,

Please read this manual before you start using your device.

Together with this booklet, you are also provided with the Service Organization Booklet, which contains information about the service stations where you will receive service.

Make sure that the initial start-up of your device is performed by a BAYMAK Authorized Service. Otherwise, your device will not be covered by the warranty.

The service life determined by the General Directorate of Consumer Protection and Market Surveillance of the Ministry of Customs and Trade for these devices is 10 years. In accordance with the relevant law, manufacturers and sellers undertake to provide the necessary spare parts and service for the devices so that they can fully perform their functions within this period.

This device bears the CE marking in accordance with the following directives:

CE

baymak

BDR THERMEA GROUP

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1. BAYMAK STORAGE TANK PRODUCT DESCRIPTION

1. *Baymak Makina Sanayi ve Tic. A.Ş. offers 1st class quality products to its users by using manufacturing methods supported by cutting edge technology in the storage tanks it manufactures.*

2. *Baymak storage tanks were first produced to heat and store the utility water inside by utilizing solid, liquid or gas fuel boiler. However, in addition to this, optional equipment that can also utilize electrical energy is also offered to our users. The utility water is stored in the tank and in the volume outside the coil. The nominal volume of the tank is the volume occupied by the utility water in the tank.*

3. *The heater fluid heated in a heat source is circulated between the heat source and the tank coil with the help of a circulation pump. The heater fluid transfers the heat from the heat source to the utility water in the tank. This heat source can be a solar collector and/or a gas, liquid or solid fuel boiler. (In systems where solid fuel storage tanks and storage tanks work together, storage tanks need to be used in winter months, when the solid fuel boiler is also used in building heating).*

4. *The inner surface of Baymak storage tanks is coated with enamel. Enamel coating means that the inner surface of the sheet metal is coated with glass. Thus, utility water is stored under extremely hygienic conditions.*

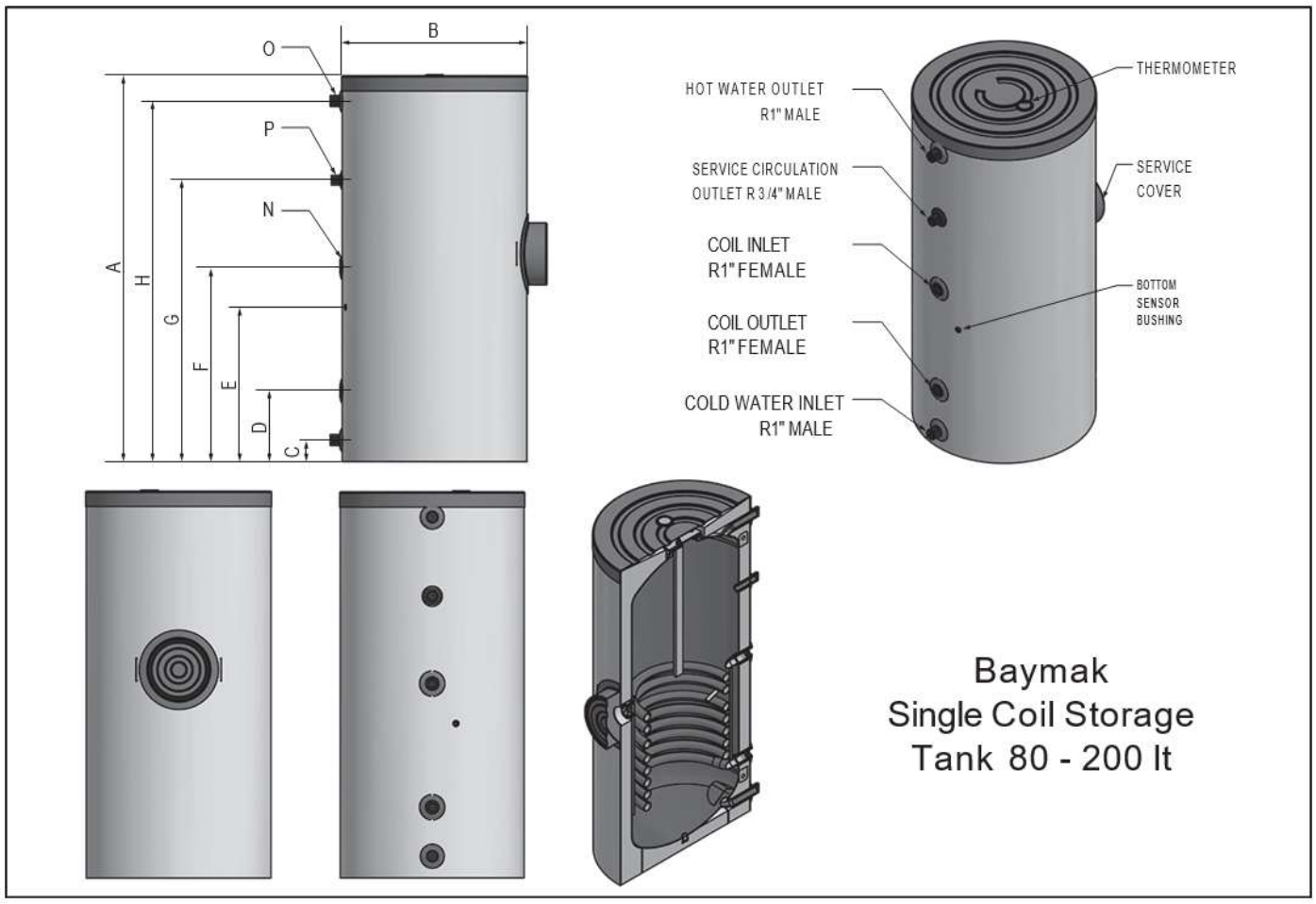
5. *Baymak storage tanks are protected with Magnesium Anode Rod in order to prevent the damages of cathodic corrosion. The magnesium anode rod must be replaced by Baymak Authorized Service every 12 months after the tank is commissioned. Magnesium anode rod is removable. The replacement of the magnesium anode rod must be carried out according to the sequence of operations written in the installation manual.*

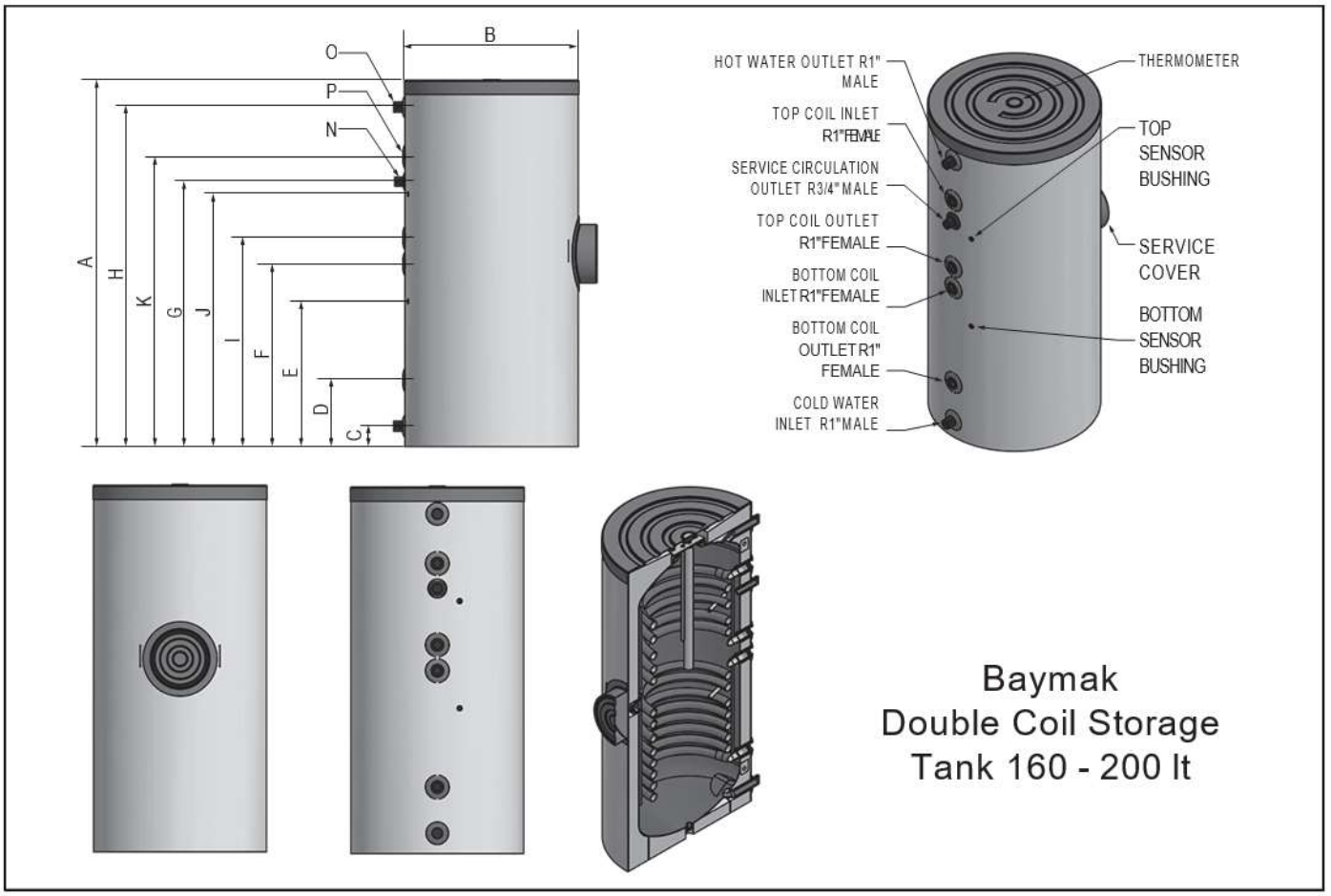
6. *The outer surface of the tank is covered with polyurethane insulation with a density of 40 kg/m3 in order to minimize heat losses. In 800 and 1000 Lt single and double coil storage tanks, removable foam insulation is used over the tank. Thus, due to the large size of the tank, this allows easy passage through the narrow doors that the tank needs to pass through during transportation and when the tank is brought to the installation site.*

7. *Baymak Storage Tanks are manufactured to adapt to all kinds of plumbing and installation methods.*

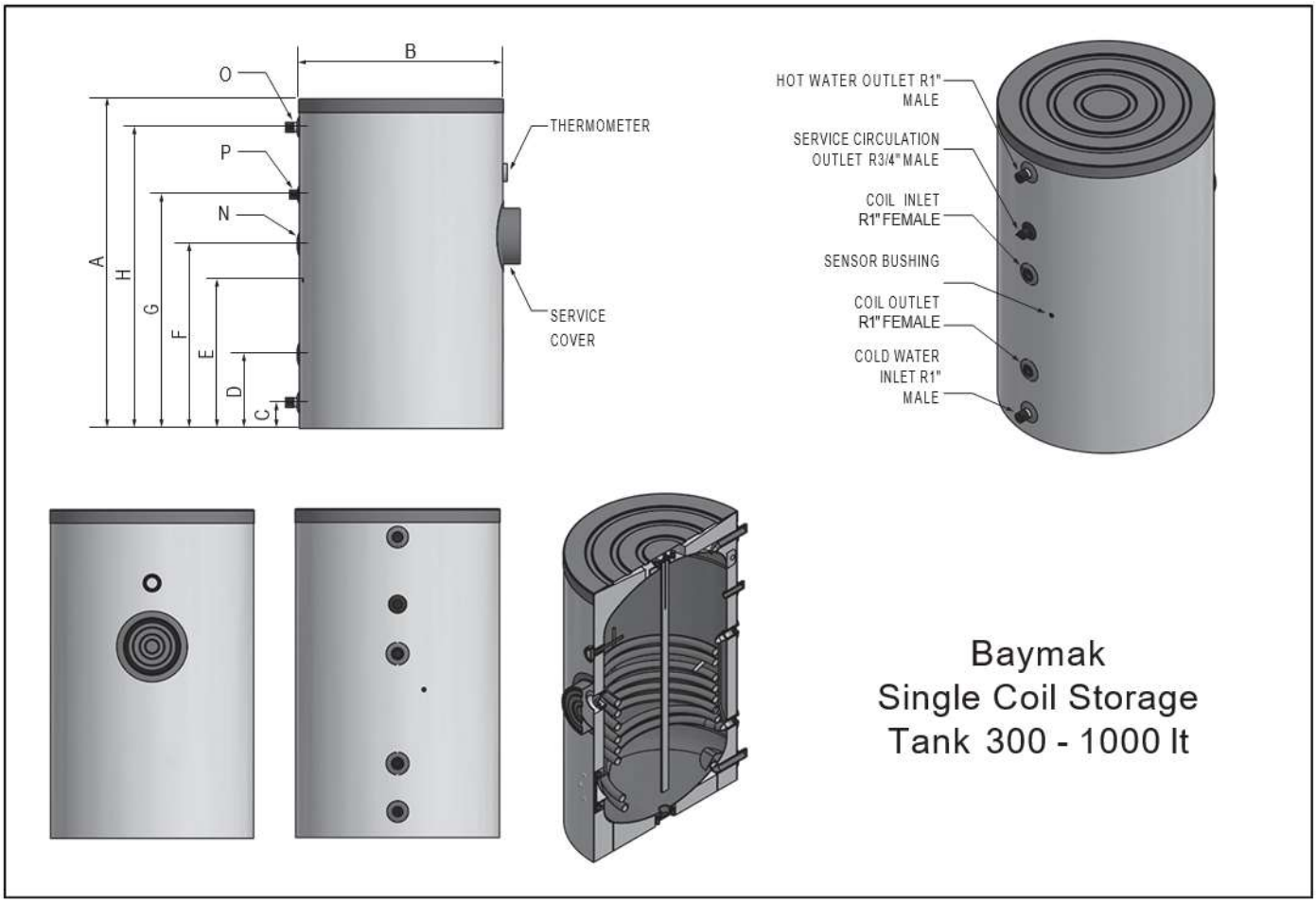
8. *According to the relevant law, the lifetime of your device is ten (10) years. This covers the period of availability of spare parts and service necessary for the product to fully perform its function.*

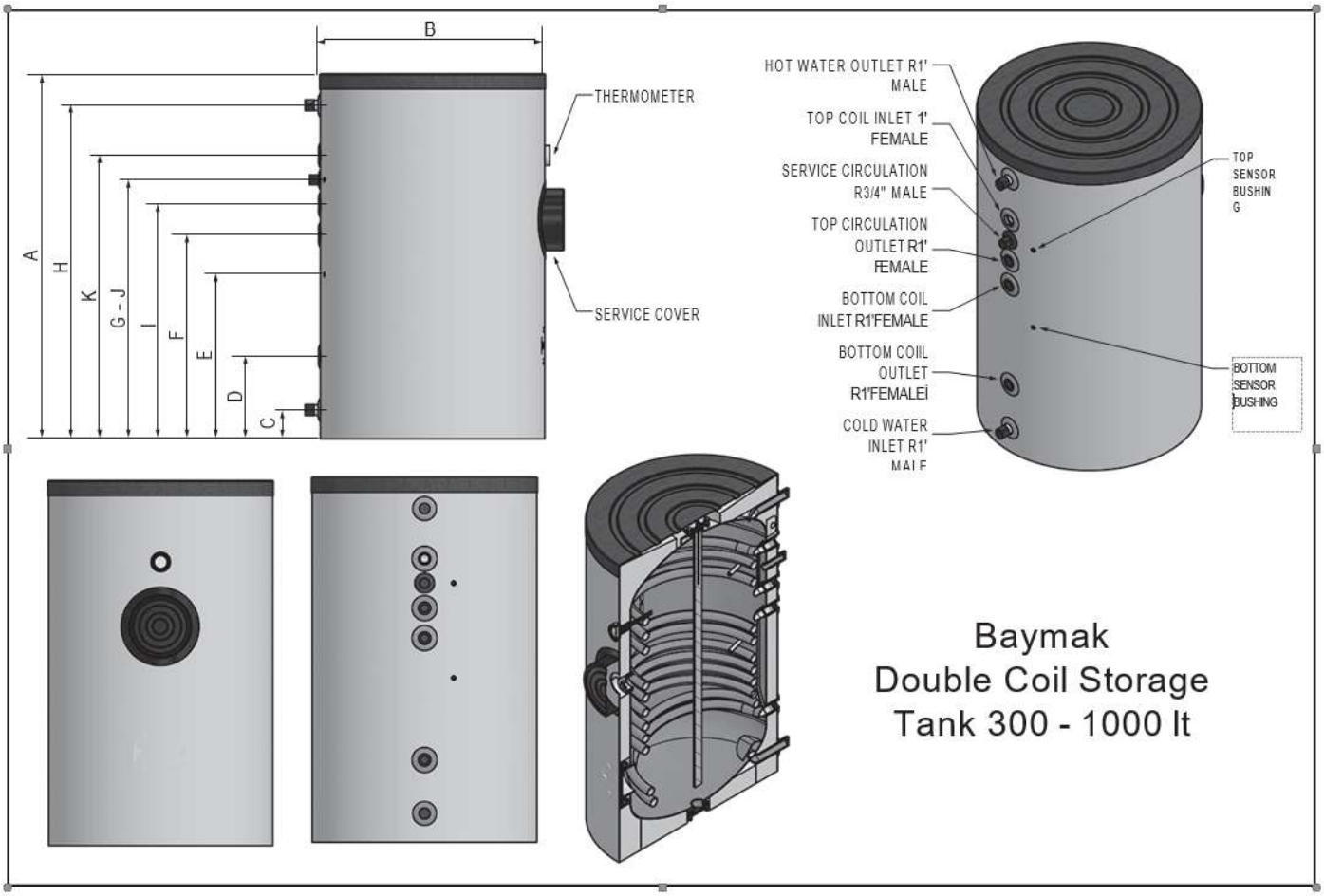
2. BAYMAK 80-200 Lt SINGLE and 160-200 Lt. DOUBLE COIL STORAGE TANK





3. BAYMAK 300-1000 lt SINGLE and DOUBLE COIL STORAGE TANKS



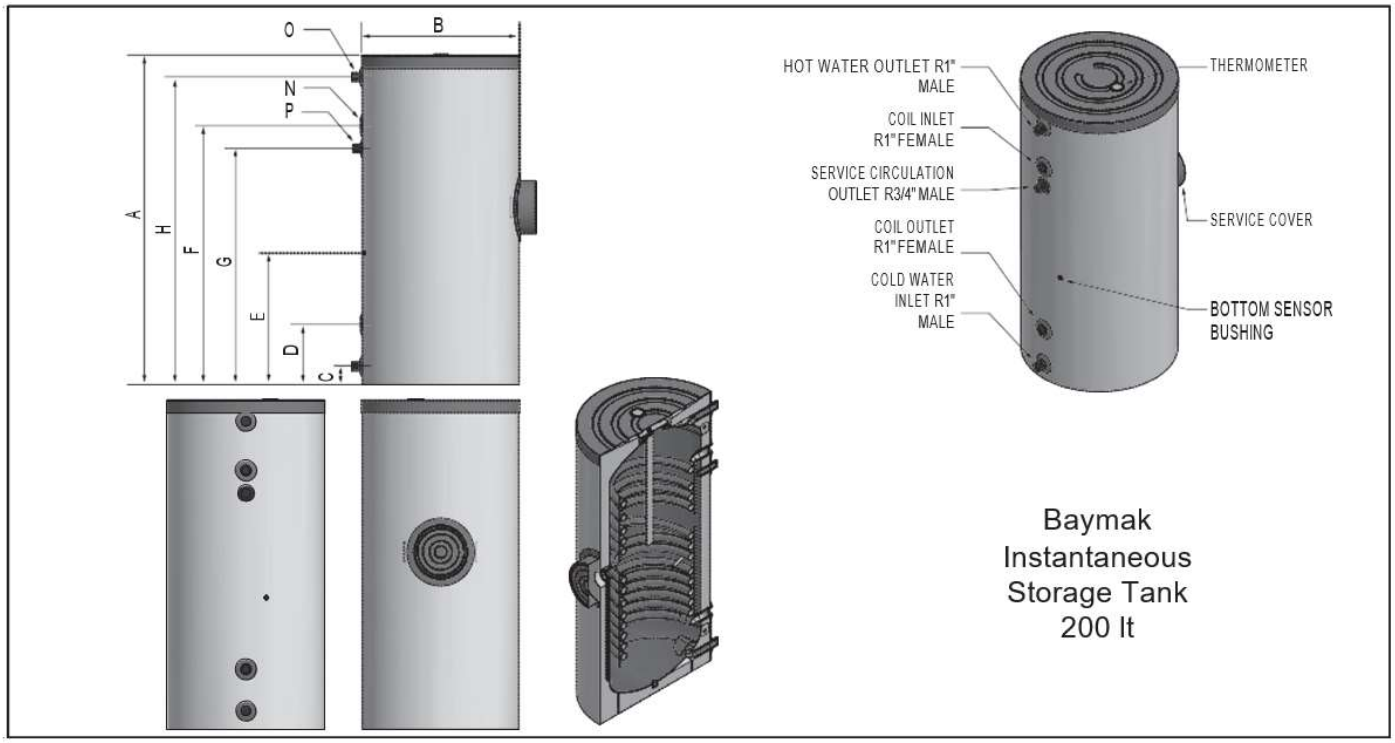


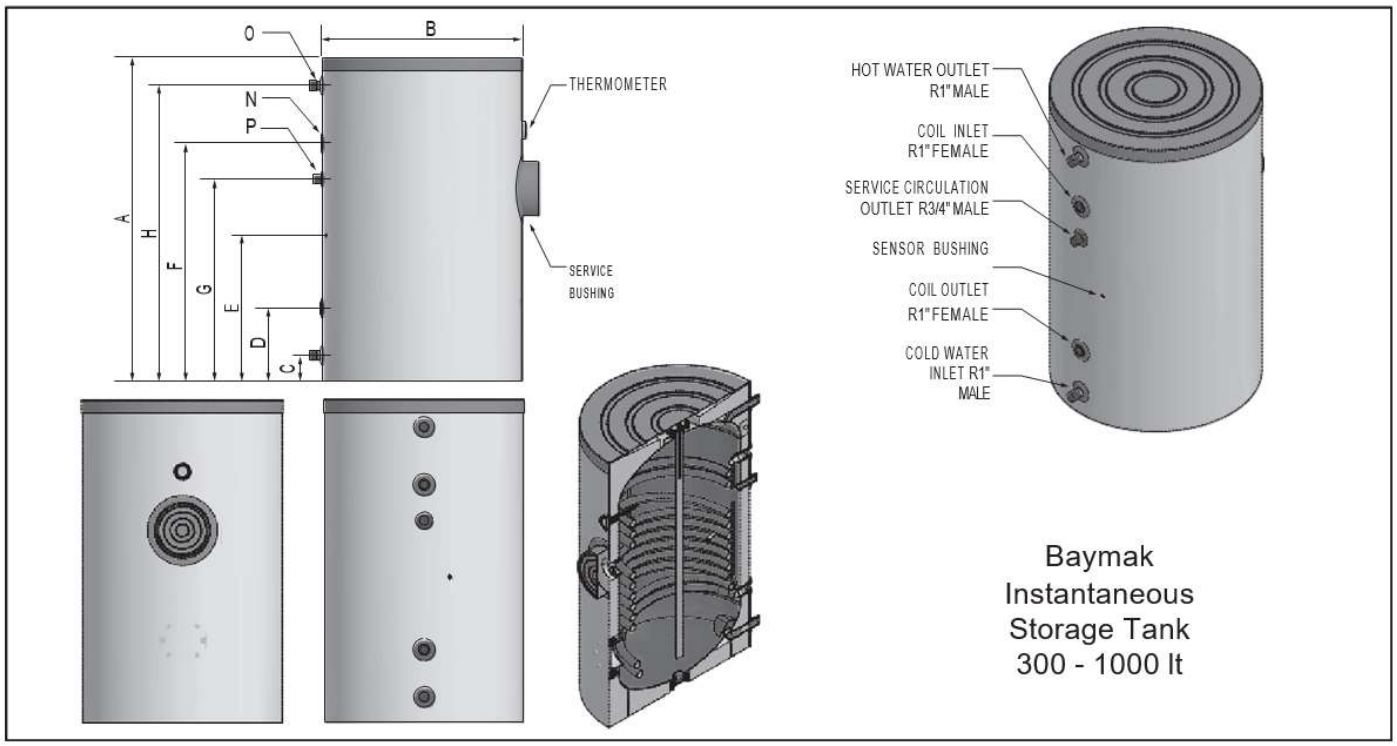
4. BAYMAK STORAGE TANK TECHNICAL TABLE

Capacity (lt)	Heat Exchanger Type	Insulation Type	Insulation Thickness	Interior Surface Coating	Mains Water Operating Pressure	Closed Loop Operating Pressure	Tank Test Pressure	Heat Exchanger Test Pressure	Number of Protective Anodes	Tank Weight (Unpackaged)
80	Single Coil	Polyurethane	50mm	Enamel	8 bars	8 bars	13 bars	13 bars	1 Piece	38kg
100	Single Coil	Polyurethane	50mm	Enamel	8 bars	8 bars	13 bars	13 bars	1 Piece	43kg
120	Single Coil	Polyurethane	50mm	Enamel	8 bars	8 bars	13 bars	13 bars	1 Piece	54kg
160	Single Coil	Polyurethane	50mm	Enamel	8 bars	8 bars	13 bars	13 bars	1 Piece	81kg
200	Single Coil	Polyurethane	50mm	Enamel	8 bars	8 bars	13 bars	13 bars	1 Piece	90kg
300	Single Coil	Polyurethane	50mm	Enamel	8 bars	8 bars	13 bars	13 bars	1 Piece	109kg
400	Single Coil	Polyurethane	50mm	Enamel	8 bars	8 bars	13 bars	13 bars	1 Piece	178kg
500	Single Coil	Polyurethane	50mm	Enamel	8 bars	8 bars	13 bars	13 bars	1 Piece	202kg
800*	Single Coil	Insulation Foam	100mm	Enamel	8 bars	8 bars	13 bars	13 bars	2 Pieces	261kg
1000*	Single Coil	Insulation Foam	100mm	Enamel	8 bars	8 bars	13 bars	13 bars	2 Pieces	295kg
160	Double Coil	Polyurethane	50mm	Enamel	8 bars	8 bars	13 bars	13 bars	1 Piece	86kg
200	Double Coil	Polyurethane	50mm	Enamel	8 bars	8 bars	13 bars	13 bars	1 Piece	98kg
300	Double Coil	Polyurethane	50mm	Enamel	8 bars	8 bars	13 bars	13 bars	1 Piece	116kg
400	Double Coil	Polyurethane	50mm	Enamel	8 bars	8 bars	13 bars	13 bars	1 Piece	190kg
500	Double Coil	Polyurethane	50mm	Enamel	8 bars	8 bars	13 bars	13 bars	1 Piece	218kg
800*	Double Coil	Insulation Foam	100mm	Enamel	8 bars	8 bars	13 bars	13 bars	2 Pieces	276kg
1000*	Double Coil	Insulation Foam	100mm	Enamel	8 bars	8 bars	13 bars	13 bars	2 Pieces	308kg

** Tank insulation can be removed and installed by the installer or user.*

5. BAYMAK INSTANTENOUS STORAGE TANKS

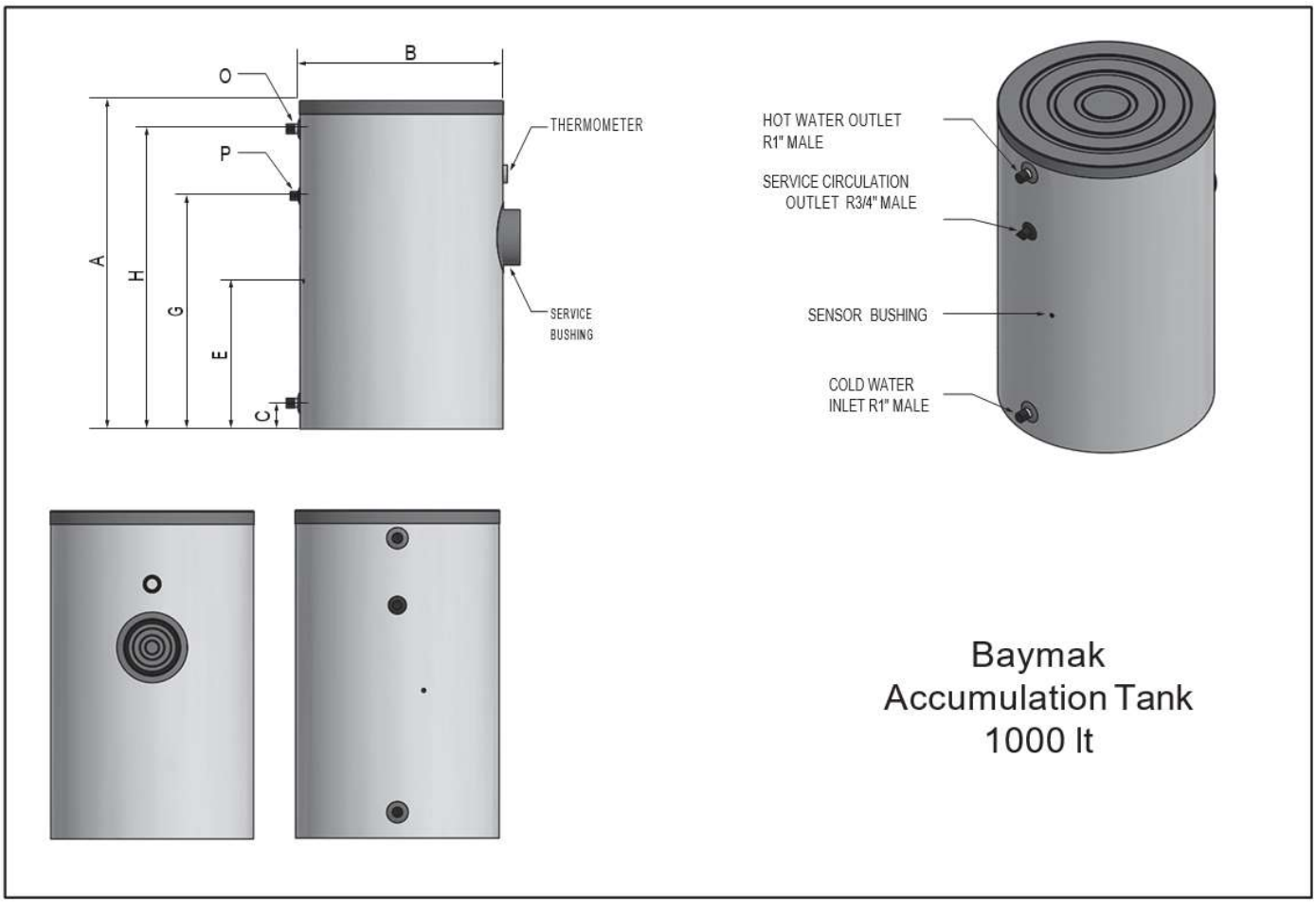




Capacity (lt)	Heat Exchanger Type	Insulation Type	Insulation Thickness	Interior Surface Coating	Mains Water Operating Pressure	Closed Loop Operating Pressure	Tank Test Pressure	Heat Exchanger Test Pressure	Number of Protective Anodes	Tank Weight (Unpackaged)
200	Single Coil	Polyurethane	50 mm	Enamel	8 bars	8 bars	13 bars	13 bars	1 Piece	98kg
300	Single Coil	Polyurethane	50 mm	Enamel	8 bars	8 bars	13 bars	13 bars	1 Piece	116 kg
500	Single Coil	Polyurethane	50 mm	Enamel	8 bars	8 bars	13 bars	13 bars	1 Piece	218 kg
1000*	Single Coil	Insulation Foam	100mm	Enamel	8 bars	8 bars	13 bars	13 bars	2 Pieces	308 kg

** Tank insulation can be removed and installed by the installer or user.*

6. BAYMAK ACCUMULATIONS TANKS



Capacity (lt)	Heat Exchanger Type	Insulation Type	Insulation Thickness	Interior Surface Coating	Mains Water Operating Pressure	Closed Loop Operating Pressure	Tank Test Pressure
1000*	Insulation Foam	100 mm	Enamel	8 bars	13 bars	2 Pieces	308 kg

* *Accumulation Tank insulation can be removed and installed by the installer or user.*

7. BAYMAK STORAGE TANKS TECHNICAL PARAMETERS AND PRODUCT DETAILS

TECHNICAL PARAMETERS

Supplier's name or trademark	BAYMAK		BAYMAK		BAYMAK		BAYMAK		BAYMAK		BAYMAK		BAYMAK		BAYMAK	
Supplier's modelidentification	AQUA T80L		AQUA T100L		AQUA T120L		AQUA T160L		AQUA T200L		AQUA T300L		AQUA T400L		AQUA T500L		AQUA T800L		AQUA T1000L	
Standing loss	38,2	W	51,4	W	53,1	W	67,7	W	67,8	W	74,1	W	74,2	W	106,1	W	122,3	W	148,7	W
Storage volume	80	lt	100	lt	120	lt	160	lt	200	lt	300	lt	400	lt	500	lt	800	lt	1000	lt

Supplier's name or trademark	BAYMAK		BAYMAK		BAYMAK		BAYMAK		BAYMAK		BAYMAK		BAYMAK	
Supplier's modelidentification	AQUA C160L		AQUA C200L		AQUA C300L		AQUA C400L		AQUA C500L		AQUA C800L		AQUA C1000L	
Standing loss	67,7	W	67,8	W	74,1	W	74,2	W	106,1	W	122,3	W	148,7	W
Storage volume	160	lt	200	lt	300	lt	400	lt	500	lt	800	lt	1000	lt

Supplier's name or trademark	BAYMAK		BAYMAK		BAYMAK		BAYMAK	
Supplier's modelidentification	INSTANTANEOUS HB200L		INSTANTANEOUS HB300L		INSTANTANEOUS HB500L		INSTANTANEOUS HB1000L	
Standing loss	67,8	W	74,1	W	106,1	W	148,7	W
Storage volume	200	Lt	300	lt	500	lt	1000	lt

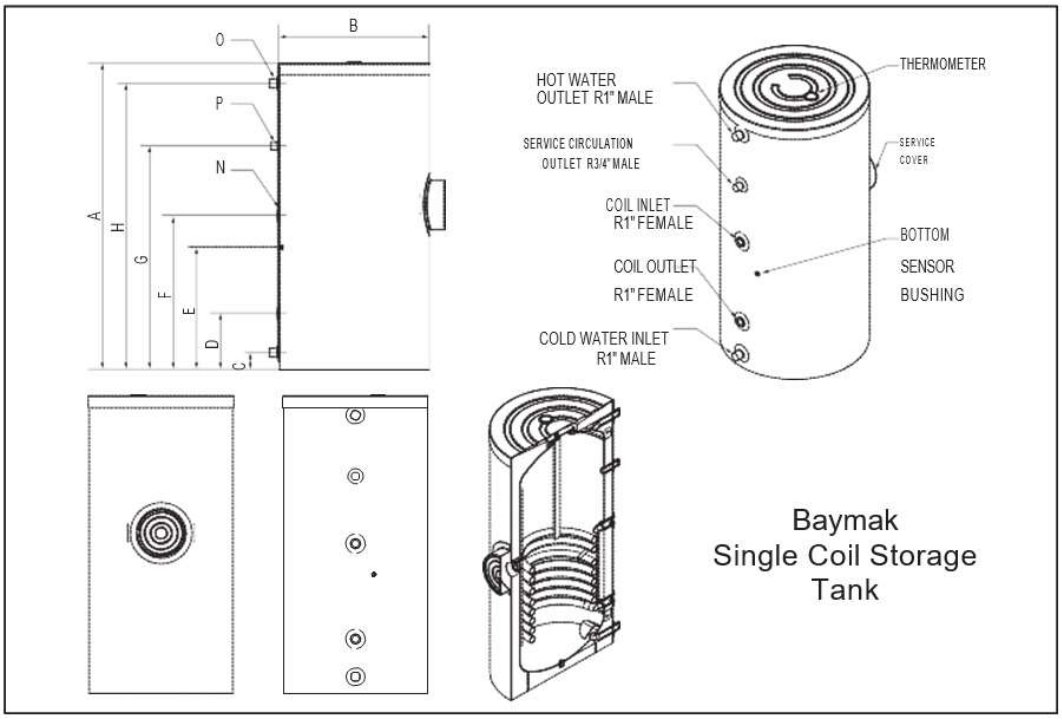
PRODUCT FICHE

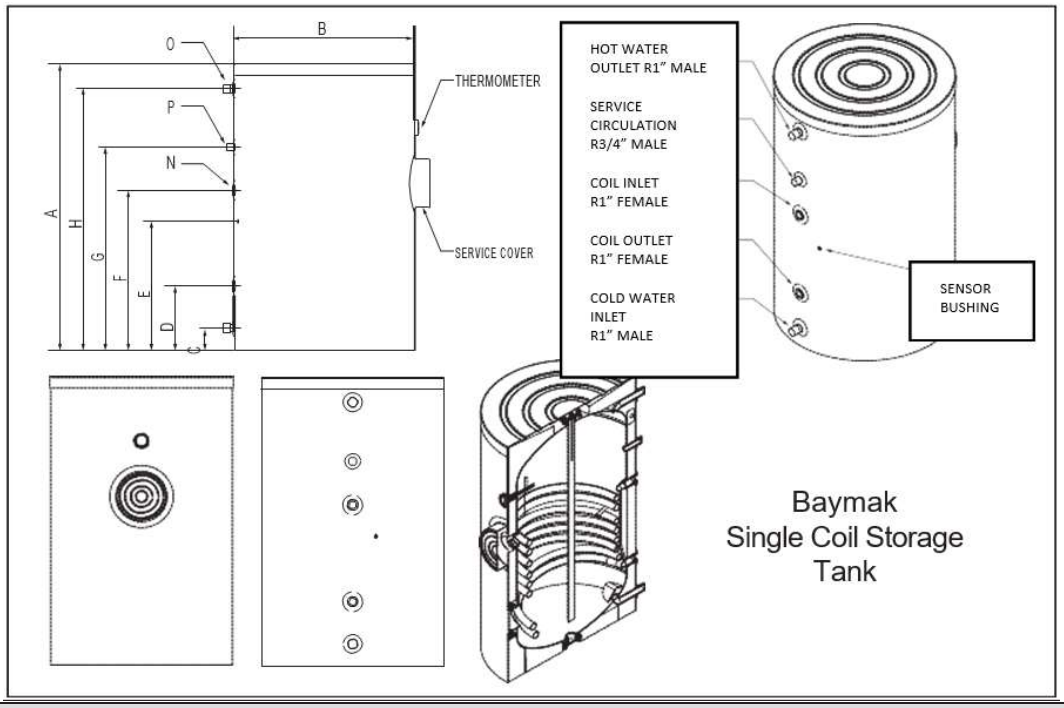
Supplier's name or trademark	BAYMAK		BAYMAK		BAYMAK		BAYMAK		BAYMAK		BAYMAK		BAYMAK		BAYMAK	
Supplier's modelidentification	AQUA T80L		AQUA T100L		AQUA T120L		AQUA T160L		AQUA T200L		AQUA T300L		AQUA T400L		AQUA T500L		AQUA T800L		AQUA T1000L	
Energy efficiency class	B		C		C		C		C		C		B		C		C		C	
Standing loss	38	W	51	W	53	W	68	W	68	W	74	W	74	W	106	W	122	W	149	W
Storage volume	80	lt	100	lt	120	lt	160	lt	200	lt	300	lt	400	lt	500	lt	800	lt	1000	lt

Supplier's name or trademark	BAYMAK		BAYMAK		BAYMAK		BAYMAK		BAYMAK		BAYMAK		BAYMAK	
Supplier's modelidentification	AQUA C160L		AQUA C200L		AQUA C300L		AQUA C400L		AQUA C500L		AQUA C800L		AQUA C1000L	
Energy efficiency class	C		C		C		B		C		C		C	
Standing loss	68	W	68	W	74	W	74	W	106	W	122	W	149	W
Storage volume	160	lt	200	lt	300	lt	400	lt	500	lt	800	lt	1000	lt

Supplier's name or trademark	BAYMAK		BAYMAK		BAYMAK		BAYMAK	
Supplier's modelidentification	INSTANTANEOUS HB200L		INSTANTANEOUS HB300L		INSTANTANEOUS HB500L		INSTANTANEOUS HB1000L	
Energy efficiency class	C		C		C		C	
Standing loss	68	W	74	W	106	W	149	W
Storage volume	200	lt	300	lt	500	lt	1000	lt

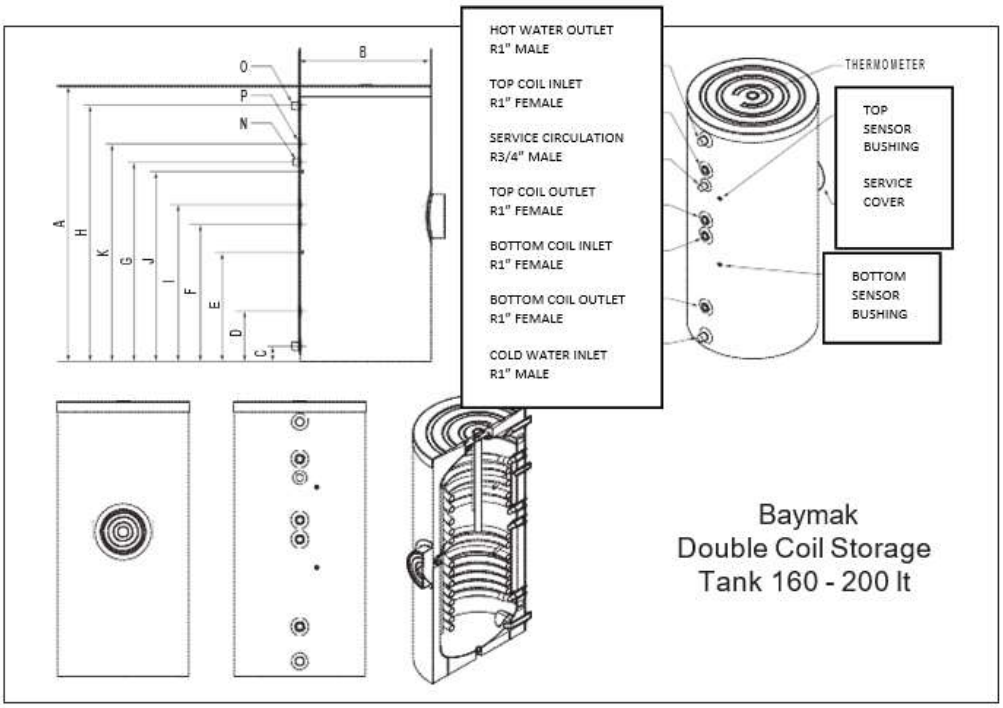
8. BAYMAK SINGLE COIL STORAGE TANKS DIMENSION TABLE

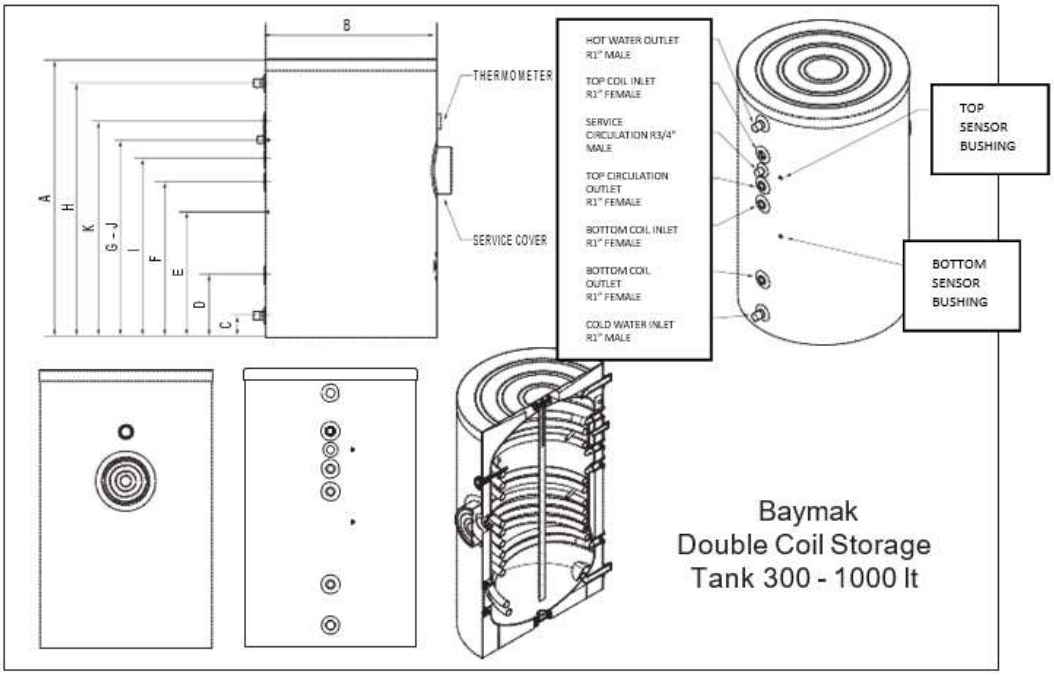




SINGLE COIL STORAGE TANKS TECHNICAL DATA											
DIMENSION	DESCRIPTION		CAPACITY								
			T80L	T100L	T120L	T160L	T200L	T300L	T400L	T500L	T800L	T1000L
A	Height	mm	845	1000	825	1125	1280	1210	1560	1860	1700	2045
B	Diameter including insulation	mm	500	500	600	600	600	740	740	740	1050	1050
C	Mains inlet	mm	70	70	80	80	80	85	85	85	105	105
D	Bottom coil outlet	mm	220	220	245	245	245	280	280	280	320	340
E	Bottom sensor bushing	mm	350	400	420	375	520	555	605	650	785	1025
F	Bottom coil inlet	mm	505	550	505	600	650	685	780	875	1005	1260
G	Service circulation line	mm	635	790	600	785	935	875	1225	1525	1250	1610
H	Hot water outlet	mm	790	945	760	1060	1210	1135	1490	1785	1570	1935
L	Cleaning cover height	mm	-	-	-	-	-	320	320	320	475	480
M	Cleaning cover		-	-	-	-	-	DN 100	DN 100	DN 100	DN 100	DN 100
N	Coil inlet/outlet diameter	inch	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"
O	Coil inlet / Hot water outlet	inch	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"
P	Service circulation line	inch	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
U	Weight	kg	38	43	54	81	90	109	178	202	249	295

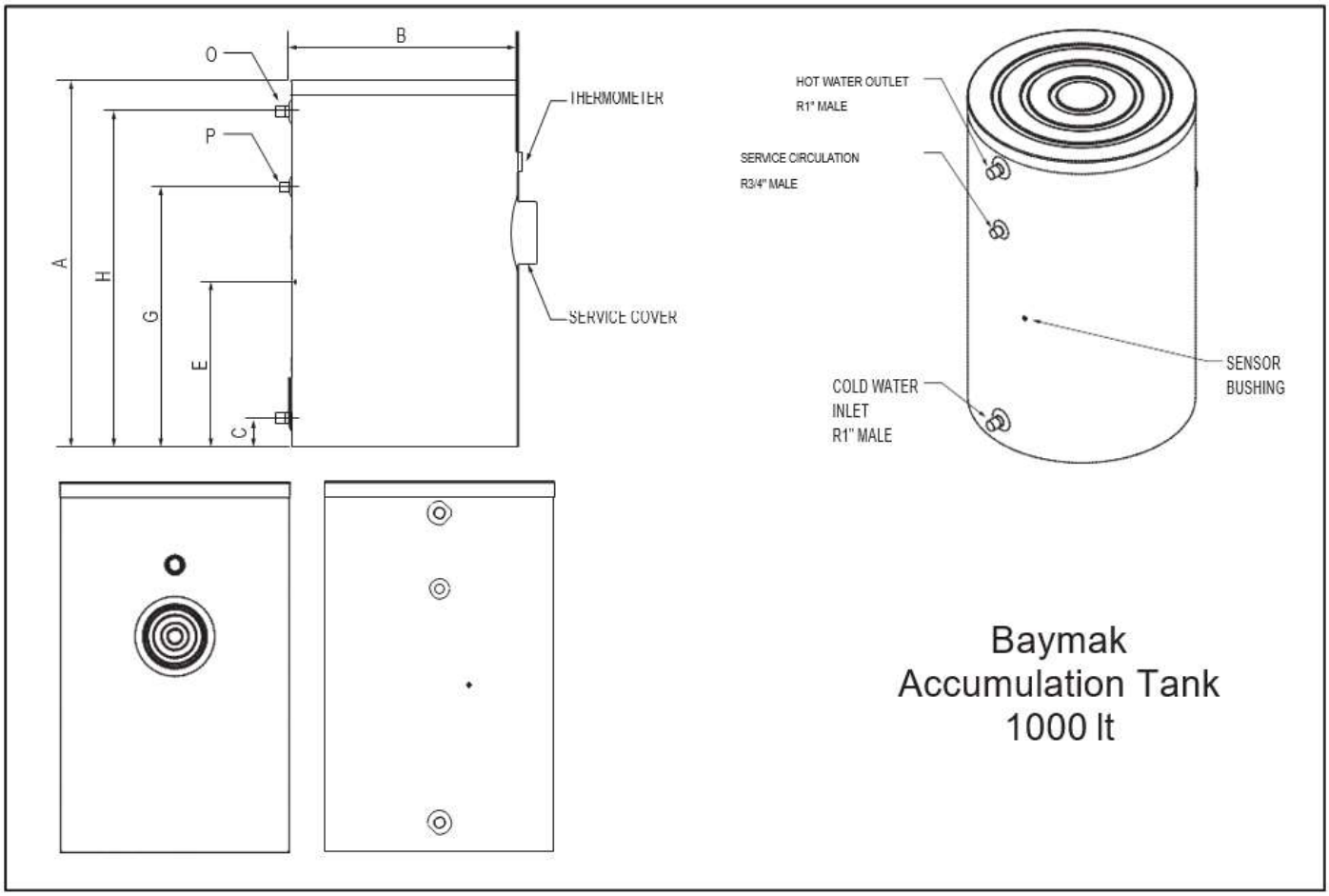
9. BAYMAK DOUBLE COIL STORAGE TANKS DIMENSION TABLE





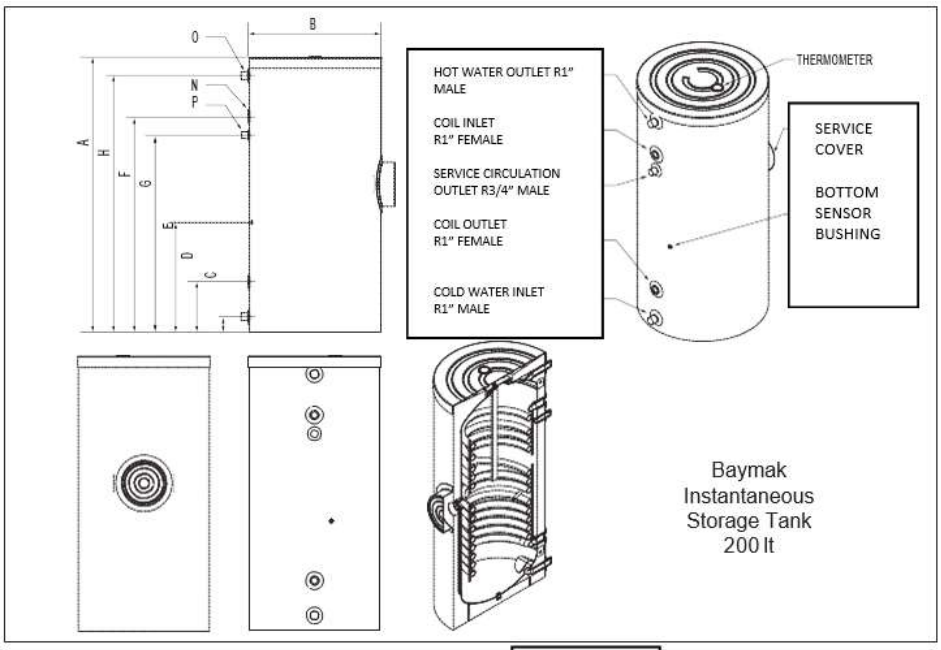
DOUBLE COIL STORAGE TANKS TECHNICAL DATA											
DIMENSION	DESCRIPTION		CAPACITY								
			C80L	C100L	C120L	C160L	C200L	C300L	C400L	C500L	C800L	C1000L
A	Height	mm	-	-	-	1125	1280	1210	1560	1860	1700	2045
B	Diameter including insulation	mm	-	-	-	600	600	740	740	740	1050	1050
C	Mains inlet	mm	-	-	-	80	80	85	85	85	105	105
D	Bottom coil outlet	mm	-	-	-	245	245	280	280	280	320	340
E	Bottom sensor bushing	mm	-	-	-	375	520	555	605	650	785	1025
F	Bottom coil inlet	mm	-	-	-	600	650	685	780	875	1005	1260
G	Service circulation line	mm	-	-	-	785	935	860	1205	1505	1250	1610
H	Hot water outlet	mm	-	-	-	1060	1210	1135	1490	1785	1570	1935
I	Top coil outlet	mm	-	-	-	705	740	780	955	1160	1160	1395
J	Top sensor bushing	mm	-	-	-	785	890	960	1135	1385	1250	1610
K	Top coil inlet	mm	-	-	-	870	1025	945	1290	1590	1390	1730
L	Cleaning cover height	mm	-	-	-	-	-	320	320	320	475	480
M	Cleaning cover		-	-	-	-	-	DN 100	DN 100	DN 100	DN 100	DN 100
N	Coil inlet/outlet diameter	inch	-	-	-	1"	1"	1"	1"	1"	1"	1"
O	Coil inlet / Hot water outlet diameter	inch	-	-	-	1"	1"	1"	1"	1"	1"	1"
P	Service circulation line diameter	inch	-	-	-	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
U	Weight	kg	-	-	-	86	98	116	190	218	260	308

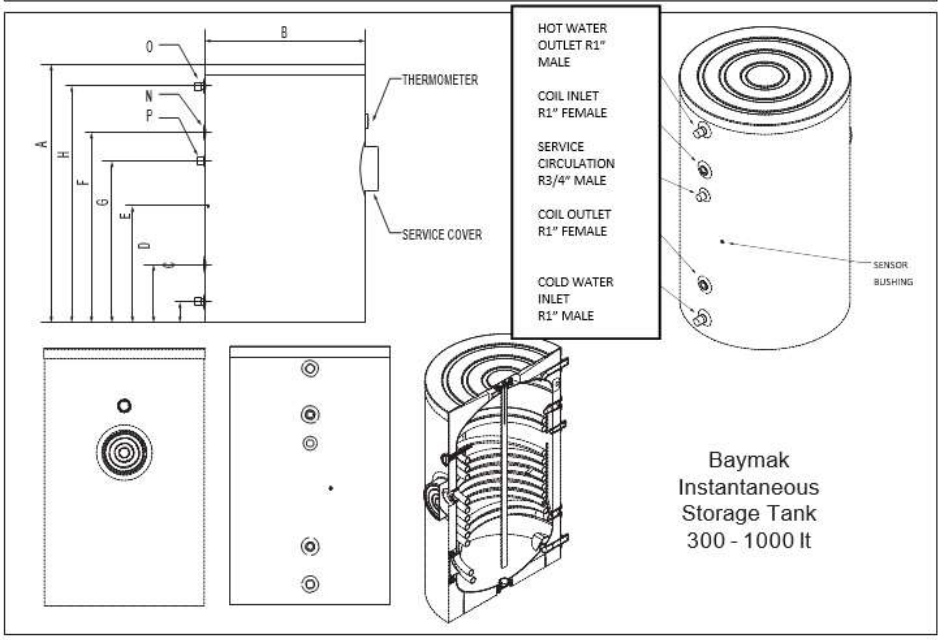
10.BAYMAK ACCUMULATION TANKS DIMENSION TABLE



ACCUMULATION TANK TECHNICAL DATA			
DIMENSION	DESCRIPTION		CAPACITY
			1000L
A	Height	mm	2045
B	Diameter including insulation	mm	1050
C	Mains inlet	mm	105
E	Bottom sensor bushing	mm	1025
G	Service circulation line	mm	1610
H	Hot water outlet	mm	1935
L	Cleaning cover height	mm	480
M	Cleaning cover		DIN100
P	Service circulation line diameter	inch	1 1/2"
U	Weight	kg	537

11.BAYMAK INSTANTENOUS HOT WATER STORAGE TANK DIMENSION TABLE





INSTANTANEOUS STORAGE TANKS TECHNICAL DATA						
DIMENSION	DESCRIPTION		CAPACITY			
			T200L	T300L	T500L	T1000L
A	Height	mm	1280	1210	1860	2045
B	Diameter including insulation	mm	600	740	740	1050
C	Mains inlet	mm	80	85	85	105
D	Bottom coil outlet	mm	245	280	280	340
E	Bottom sensor bushing	mm	520	555	650	1025
F	Bottom coil inlet	mm	650	685	875	1260
G	Service circulation line	mm	935	875	1525	1610
H	Hot water outlet	mm	1210	1135	1785	1935
L	Cleaning cover height	mm	-	320	320	480
M	Cleaning cover		-	DN 100	DN 100	DN 100
N	Coil inlet/outlet diameter	inch	1"	1"	1"	1"
O	Coil inlet / Hot water outlet diameter	inch	1"	1"	1"	1"
P	Service circulation line diameter	inch	3/4"	3/4"	3/4"	3/4"
U	Weight	inch	98	116	218	308

12. BAYMAK STORAGE TANK INSTALLATION INSTRUCTION

12.1. Transportation of Storage Tanks to the Installation Area

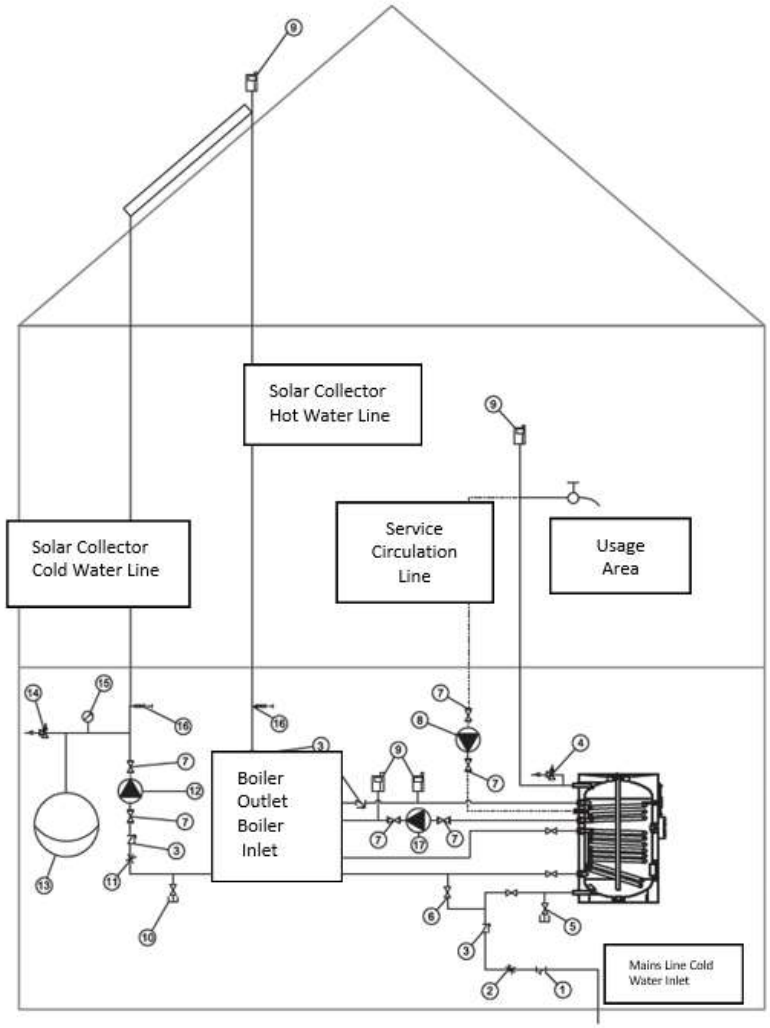
- *During transportation and shipping, the device must be transported without damaging the packaging of the device.*
- *The device must not be kept for long periods of time in places where it will be directly exposed to sunlight.*
- *The device must not come into contact with any sharp objects during transportation or stowage.*
- *The device must be protected from impact during transportation or stowage.*
- *Damage to the inlet and outlet pipe ends must be prevented while transporting the device.*
- *After removing the packaging from the device, the packaging must be kept out of the reach of children.*

Picture of Baymak Storage Tank Packaging

12.2. Installation of Storage Tanks

- *If the device is to be placed on the floor, it must have a dry and moisture-free surface.*
- *A safety valve must be installed on the mains water inlet pipe of the device, which provides discharge at the 8 Bar pressure value specified by BAYMAK. The discharge of the safety valve must be released to a suitable drain.*
- *If the mains water pressure in the area where the device is installed is equal to or exceeds 6.5 Bar with fluctuations or constantly, a pressure regulator must be installed on the tank mains water inlet line and the pressure regulator must be adjusted so that the outlet pressure value is maximum 6.4 Bar.*
- *For the storage tanks to work efficiently, the plumbing system in which the tank is installed must be built exactly as indicated in the diagram and the capacity of the heat sources (such as the number of solar collectors, boiler capacity) must be selected in accordance with the hot water requirement.*
- *The type of tank (double or single coil) must be selected according to the means by which the utility water will be heated. For example, if it will be heated only with solar collector or only with boiler, the Baymak Single Coil Storage Tank must be used and, if combined heating will be applied with boiler and solar collector, the Baymak Double Coil Storage Tank must be used.*
- *In Baymak Double Coil Storage Tanks, solar collector must be connected to the bottom coil and boiler line must be connected to the top coil.*
- *When the storage tanks are placed on the ground in the place where they will be installed, they must be placed on a concrete base and raised above ground level.*
- *It is recommended to use 1 more safety valve on the system (as this will prevent damage to the boiler by activating in case the first valve fails for any reason).*
- *Baymak Mak. San. ve Tic. A.Ş. does not accept any responsibility for inefficient operation or physical damage to the tank due to faults that occur during installation, transportation, etc.*
- *The safety valve must be discharged into a suitable drain.*

12.2.1. Double Coil Storage Tank / Solar Collector / Tank Connection Diagram



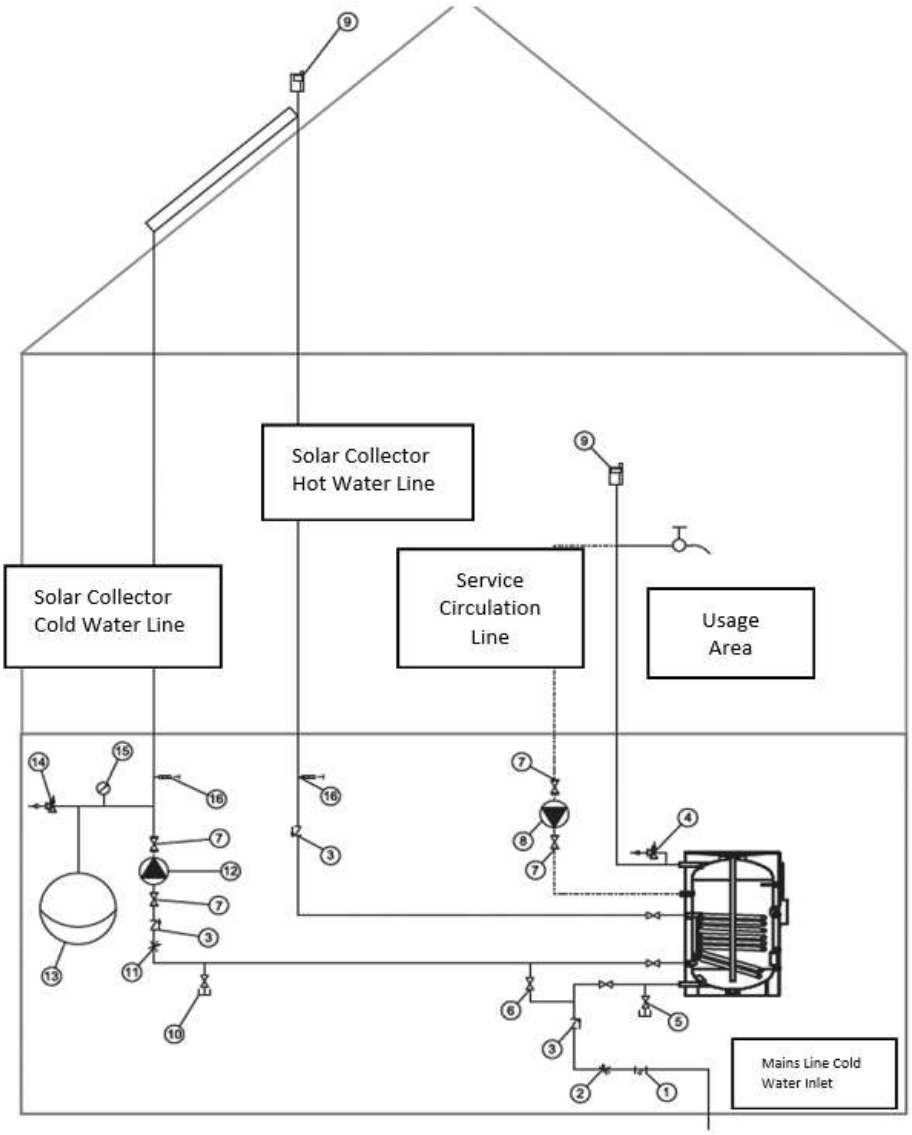
System Components

1. *Dirt Trap*
2. *Pressure Regulator*
3. *Check valve*
4. *Safety Valve (Opening pressure must be 8 bars.)*
5. *Tank Discharge Line*
6. *Closed Loop Pressurizing Line*
7. *Pump Connection Fitting*
8. *Service Circulation Line Pumpı*
9. *Automatic Air Release Device*
10. *Closed Loop Discharge Line*
11. *Flow Regulating Valve*
12. *Circulation Pump*
13. *Closed Expansion Tank*
14. *Safety Valve (Opening pressure varies according to building static height)*
15. *Manometer*
16. *Thermometer*
17. *Storage Tank-Boiler Line Circulation Pump*

! NOTE

Only mechanical installation drawings are illustrated in this diagram. There are no automation system connections. Safety and fittings components such as safety valve, expansion tank, check valve, valves that must be installed in the boiler circuit are not illustrated in the drawing.

12.2.2. Single Coil Storage Tank / Solar Collector Connection Diagram



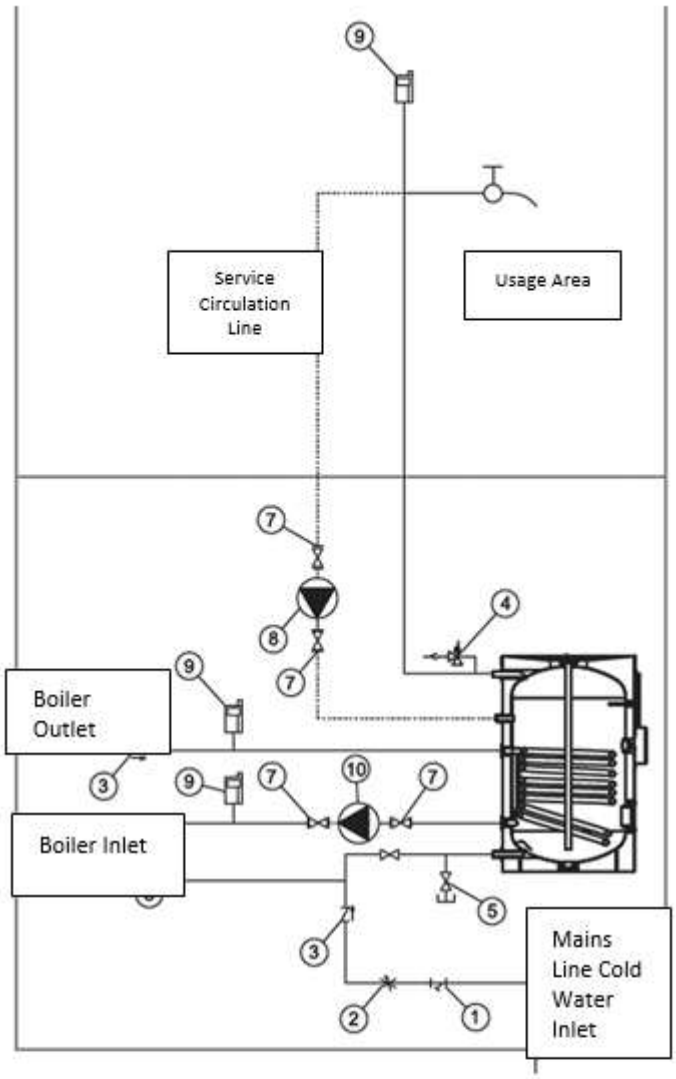
System Components

1. *Dirt Trap*
2. *Pressure Regulator*
3. *Check valve*
4. *Safety Valve (Opening pressure must be 8 bar.)*
5. *Tank Discharge Line*
6. *Closed Loop Pressurizing Line*
7. *Pump Connection Fitting*
8. *Service Circulation Line Pump*
9. *Automatic Air Release Device*
10. *Closed Loop Discharge Line*
11. *Flow Regulating Valve*
12. *Circulation Pump*
13. *Closed Expansion Tank*
14. *Safety Valve (Opening pressure varies according to building static height)*
15. *Manometer*
16. *Thermometer*

! NOTE

Only mechanical installation drawings are illustrated in this diagram. There are no automation system connections. Safety and fittings components such as safety valve, expansion tank, check valve, valves that must be installed in the boiler circuit are not illustrated in the drawing.

12.2.3. Single Coil Storage Tank / Boiler Connection



System Components

1. Dirt Trap
2. Pressure Regulator
3. Check valve
4. Safety Valve (Opening pressure should be 8 bars.)
5. Tank Discharge Line
6. Closed Loop Pressurizing Line
7. Pump Connection Fitting
8. Service Circulation Line Pump
9. Automatic Air Release Device
17. Storage Tank-Boiler Line Circulation Pump

! NOTE

Only mechanical installation drawings are illustrated in this diagram. There are no automation system connections. Safety and fittings components such as safety valve, expansion tank, check valve, valves that must be installed in the boiler circuit are not illustrated in the drawing.

ATTENTION

Baymak Storage Tanks are manufactured for maximum 8 Bar operating pressure. Storage Tanks are tested at 12 Bar pressure. If the mains pressure value in the vicinity where the tank is installed fluctuates or continuously equals or exceeds 6.5 Bar, a pressure regulator must be installed at the tank inlet or main installation inlet. The outlet pressure of the pressure regulator must be set to a maximum of 6.4 Bar.

ATTENTION

A safety valve must be connected to the mains inlet of Baymak Tank at 8 Bar opening pressure. The safety valve must be installed on the line between the tank and the check valve as indicated in the installation diagrams.

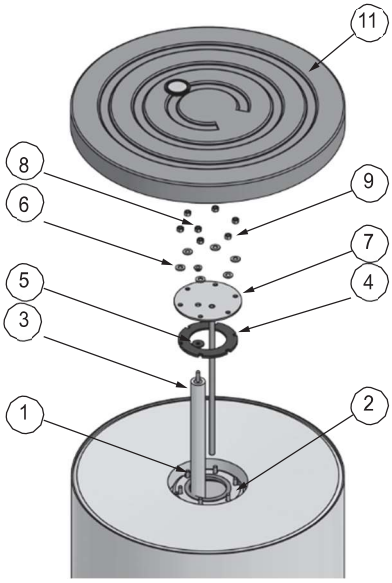
ATTENTION

Baymak Storage Tanks must be installed a drain line at the mains inlet and a shut-off valve at the end of the line as specified in the installation diagrams to drain the tank during maintenance or 2nd transportation.

12.3. Anode Replacement Procedure Information

The anode rod must be replaced periodically every 18 months after the tank is put into operation. This must be carried out by Baymak Authorized Service.

For capacities between 80 Lt and 200 L:



1. In the storage tanks, the valve at the mains water line inlet must be closed to prevent entry of water into the tank.

2. Drain 5-10 liters of water from the discharge line that needs to be connected to the tank water inlet line.

3. Dismantle the service cover numbered (11) by unscrewing the bolts at the joints. While disassembling the service cover, the thermometer and thermometer coupling extension connected to the cover must not be damaged.

4. Remove the rock wool or foam insulation without damaging them.

5. Dismantle the anode grounding cable first through the flange cover (7) and then through the flange (2).

6. Dismantle the flange (7) by unscrewing the bolts on it.

7. Remove the flange gasket (4).

8. Dismantle the nut (8) on the flange (7) connected to the anode rod.

9. When removing the former anode rod (3) from the flange, retain the anode insulating bushing and anode gasket (5).

10. Insert the new anode rod with the anode gasket (5) on the enameled side of the flange (7) and the anode insulating bushing on the other side and mount the nut on the threaded part of the anode protruding from the back of the flange.

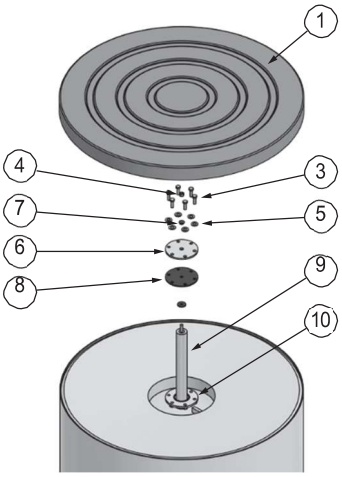
11. Place the flange gasket on the tank inlet opening. (Note: If physical deformation is observed on the gasket, a new gasket must be installed on the tank).

12. Place the flange against the corresponding flange on the tank. The tightening sequence of the bolts on the flange must be carried out as specified in the flange tightening instruction. When tightening the bolts on the flange, it must not be forgotten to fit the bolt washers (6). The corresponding flange number is indicated as (1).

13. After placing rock wool insulation on the flange, mount the thermometer coupling extension to the bushing on the flange.

14. The service cover must be inserted into the tank top cover housing. Mount the cover with bolts using the same holes drilled previously

For capacities between 300 Lt and 1000 L:



1. The valve at the inlet of the mains water line on the tank must be closed to prevent the entry of water into the tank.

2. Drain 5-10 liters of water from the discharge line that must be connected to the tank water inlet line. (For 800 and 1000 lt capacities, the entire water volume in the tank must be drained).

3. Dismantle the tank top cover numbered (1) by removing the bolts at the joints.

4. Remove the rock wool without damaging it.

5. Remove the anode grounding cable first from the flange cover (6) and then from the flange (10).

6. Dismantle the flange (6) by removing the bolts (3) on it.

7. Remove the flange gasket (8).

8. *Dismantle the nut (4) on the flange (9) connected to the anode rod.*
9. *When removing the former anode rod (9) from the flange, retain the anode insulating bushing and anode gasket (8).*
10. *Insert the new anode rod with the anode gasket (8) on one side of the flange and the anode insulating bushing (4) on the other side and mount the nut on the threaded part of the anode protruding from the back of the flange.*
11. *Place the flange gasket on the boiler inlet opening. (Note: If physical deformation is observed on the gasket, a new gasket must be installed on the boiler).*
12. *Place the flange against the corresponding flange on the tank. The tightening sequence of the bolts on the flange must be carried out as specified in the flange tightening instruction. When tightening the bolts on the flange, it must not be forgotten to fit the bolt washers (5).*
13. *The service cover must be inserted into the tank top cover housing. Mount the cover with bolts using the same holes drilled previously.*

ATTENTION

800 and 1000 Lt Baymak Storage Tanks are equipped with 2 anode rods. The other anode rod is mounted on the cleaning cover on the side wall of the tank. The following procedures must be repeated for the cleaning cover in the same order when it is time to change the anode for the tank.

12.4. Service Circulation Line

The purpose of the service circulation line is to keep the water heated in the tank ready at the taps at the usage area. It is mostly preferred in installations where the distance between the tank and the user faucet is considerably long. In an installation with a service circulation line, when the user turns on the faucet, the user does not have to wait for the hot water coming from the tank to circulate through the pipes. The pump to be used in the service circulation line must be a bronze body pump for hygienic reasons since it will circulate the utility water. The service circulation line must be installed as indicated in the installation diagrams.

12.5. Storage Tank Cleaning

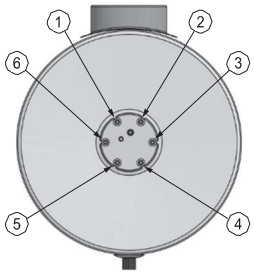
Storage Tanks must be cleaned periodically by Baymak Authorized Service. For capacities between 80-200 Lt for Baymak Storage Tanks, the cleaning cover is positioned on the tank. For capacities between 300-1000 Lt, the cleaning cover is on the side of the tank. Tank cleaning cover dimensions are designed in accordance with EN. Depending on the ratio in the water, a layer of lime will cover the tank coils over time after the tank is put into operation. Due to the lime coating on the coils, heat transfer will become difficult, and the tank efficiency will decrease over time. Therefore, the coil must be cleaned periodically through the cleaning covers.

12.6. Installation After Dismantling the Flange

The flange on the tank can be dismantled or installed only by Baymak Authorized Service.

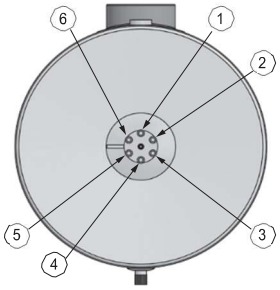
If the flange is dismantled for the purposes of cleaning or replacing the anode rod, the tightening sequence of the bolts' during re-assembly is critical in order to ensure that the gasket will not leak afterwards.

For capacities between 80 Lt and 200 L:



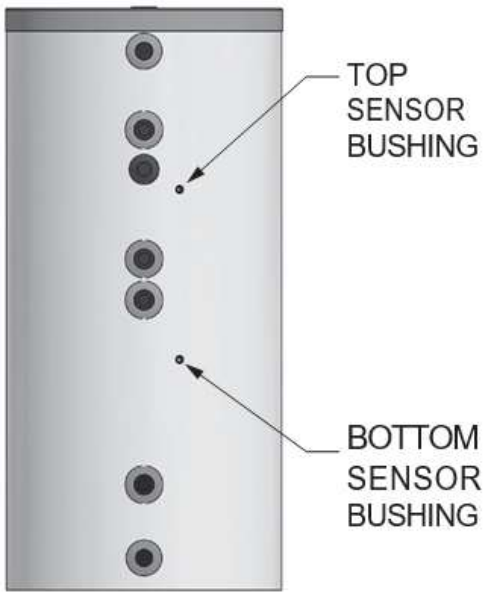
According to the figure given above, the bolts on the flange must be tightened in the order of 1-4, 6-3 and 2-5. (Tightening torque: 8N/m)

For capacities between 300 Lt and 1000 L:



According to the figure given above, the bolts must be tightened in the order of 1-4, 6-3 and 2-5 on the flange.

12.7. Sensor Layout



In an automation system, sensors detect the temperatures inside the tank and transmit the information they receive to the automation device to which they are connected, allowing the control of installation elements such as pumps, 3-way valves, etc.

In Baymak storage tanks, sensor bushings are placed at the most suitable levels for the temperature distribution in the tank. As illustrated in the figure, sensor holders are provided as an accessory element to ensure that the sensors are in contact with the wall inside the bushing and that the sensor does not fall off.

13.FAILURE SEARCH TABLE FOR STORAGE TANKS

Storage Tank Failure Table		
Failure	Reason	Solution
The tank does not supply sufficient hot water.	*Boiler capacity may be low compared to the need.*	*Increase the boiler capacity.*
	The tank volume may not have been selected as needed.	*Increase the tank capacity.*
	The pressurized hot water may be returning to the mains since the check valve is not installed on the cold-water side of the tank.	*Install a check valve on the tank mains inlet.*
	There may be a problem in the automation system.	*Have the tank installation and automation checked by Baymak Authorized Service.*
	Coil pipes may be covered with lime scale.	*Clean the coil pipes.*
Water is leaking from the safety valve on the tank. (If there is no expansion tank, it is normal for the safety valve to discharge water in order to regulate the pressure when the water heats up.	*The mains pressure can be greater than or equal to 6.5 Bar.*	*Install a pressure regulator on the mains inlet line.*
	Dirt may have gotten into the safety valve gasket seating surface.	*Clean the safety valve. Install a dirt trap at the mains inlet.*

14.IMPORTANT WARNINGS FOR BAYMAK STORAGE TANKS AND ACCUMULATION TANKS

Considerations that consumers need to pay attention regarding product warranty terms:

The product warranty provided by Baymak A.Ş. does not cover any malfunction and damage arising from failure to use under normal usage conditions.

Accordingly, the following items are presented to your attention.

1. *When you purchase the product, have the warranty certificate of your product authenticated by your authorized dealer.*
2. *In the absence of the seller's authentication that needs to be present on the warranty certificate, in case of falsification of the warranty certificate by erasure, scraping, and the erasure and falsification of the original serial number on the product.*
3. *Use your device as described in the installation and operating instructions. Malfunctions and damages that may occur due to usage errors.*
4. *Damages that may occur during transportation after the delivery date of the product to the customer.*
5. *It must not have been tampered with for maintenance, repair or any other reason by persons other than authorized service personnel.*
6. *Failures arising from the user's failure to perform periodic maintenance and checks.*

7. *The seller, dealer, agency, or representative is responsible for the delivery of the warranty certificate to the consumer.*
8. *Failures due to incorrect installation, incorrect pipe connections, incorrect capacity selection, external physical and chemical factors (aggressive environments using chlorinated, waste, corrosive and abrasive, excessively calcareous water), transportation and storage conditions.*
9. *Repairs or modifications that are not carried out by the authorized service team.*
10. *If the installation pressure is higher than the operating pressure, the responsibility belongs to the user.*
11. *The first commissioning process must be carried out by the authorized service for the storage tanks. Storage Tanks that are not commissioned by the authorized service shall not be covered by the warranty.*
12. *Before the first commissioning, the "Tank Installation Control Form" must be filled in completely by the installer company. Otherwise, the first commissioning process shall not be carried out by the Authorized Service.*

According to the Law No. 6502 on consumer protection, if it is understood that the goods are defective, the consumer may use one of the following options:

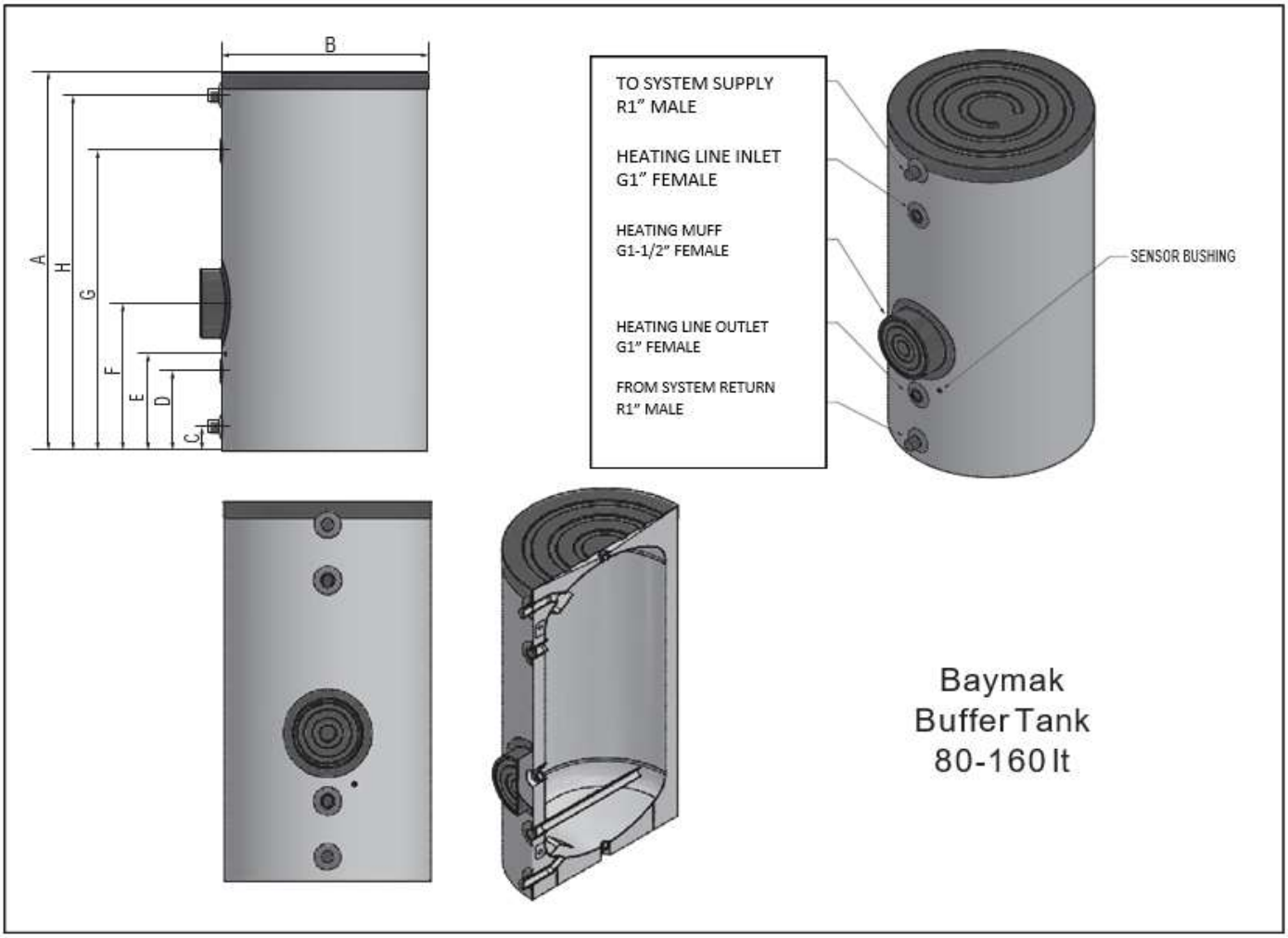
a) *Withdrawal from the contract by declaring that he/she is ready to return what is sold,*
b) *Retaining the sold goods and requesting a reduction in the sale price in proportion to the defect,*
c) *Requesting free repair of the sold goods at the seller's expense, unless it entails an excessive expense,*
d) *Requesting the replacement of the sold goods with a defect-free equivalent, if possible. The seller is under the obligation to fulfill this request opted by the consumer.*

Consumers can file their applications for complaints and objections to consumer courts and consumer arbitration committe

15. BAYMAK BUFFER TANKS PRODUCT DESCRIPTION

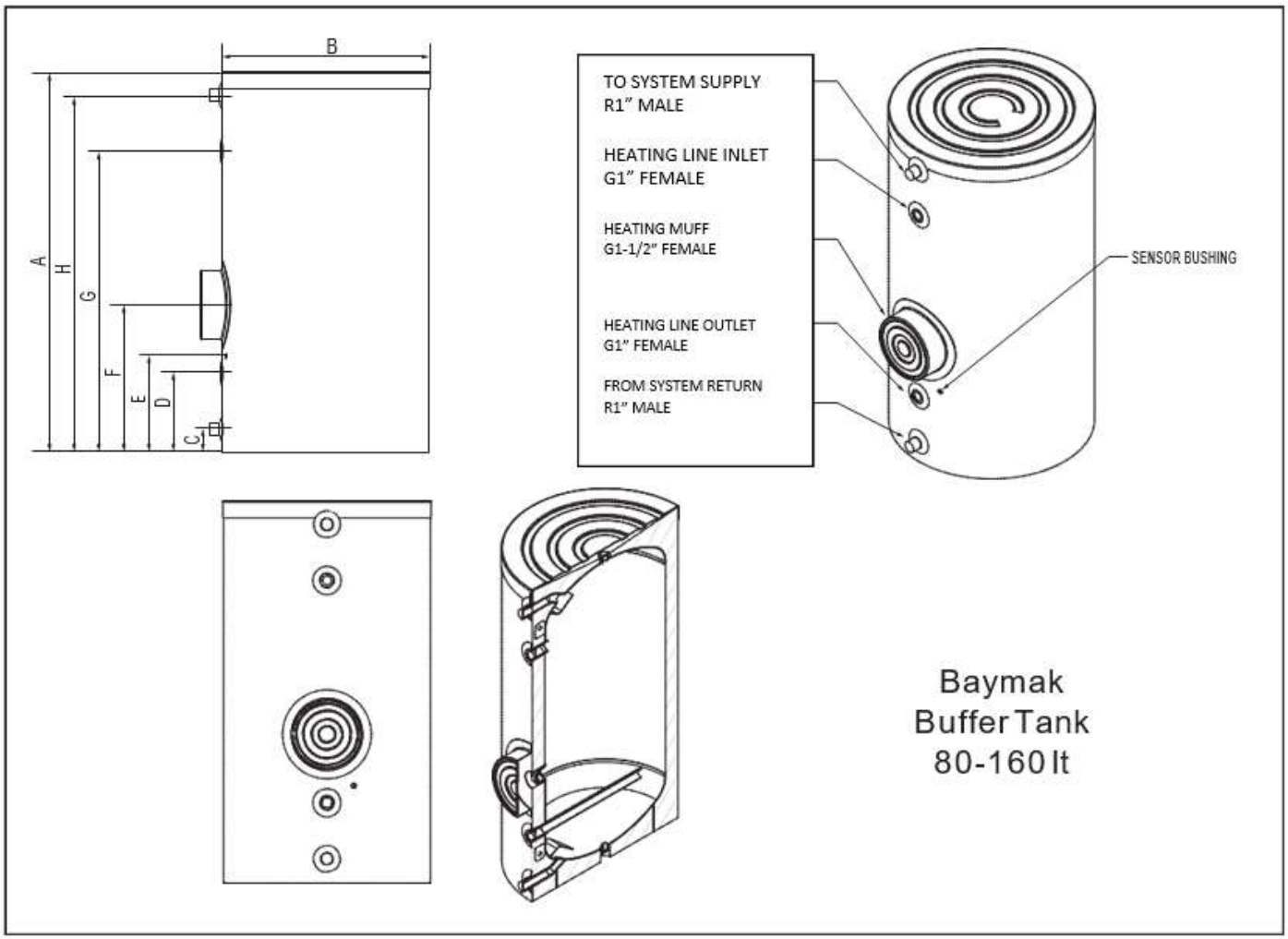
1. *Baymak Makina Sanayi ve Tic. A.Ş. offers 1st class quality products to its users by using manufacturing methods powered by cutting edge technology in its buffer tanks.*
2. *Baymak buffer tanks are designed for storing the heating water capacity in boiler and heat pump systems and thus increasing the efficiency of the heating system.*
3. *The amount of volume occupied by the installation water in the tank is the nominal volume of the buffer tank. The equipment enabling the utilization of electrical energy is provided to our users in order to utilize electrical energy and thus provide support to existing heating systems.*
4. *The outer surface of the Buffer Tanks is covered with polyurethane insulation with a density of 40 kg/m3 in order to minimize heat losses.*
5. *According to the relevant law, the lifespan of your device is ten (10) years. It covers the period of spare parts availability and service provision necessary for the product to fully perform its function.*

16.BAYMAK 80-160 LITER BUFFER TANKS



Capacity (lt)	Insulation Type	Insulation Thickness	Closed Loop Operating Pressure	Tank Test Pressure	Tank Weight (Unpackaged)
80	Polyurethane	50 mm	8 bars	13 bars	38 kg
160	Polyurethane	50 mm	8 bars	13 bars	81kg

17.BAYMAK 80-160 LITER BUFFER TANK TECHNICAL DRAWING



BUFFER TANK TECHNICAL DATA				
DIMENSIO	DESCRIPTION		CAPACITY	
			80L	160L
A	Height	m	845	1220
B	Diameter including	m	500	600
C	System inlet	m	70	70
D	Heating line outlet	m	220	235
E	Sensor bushing	m	270	285
F	Heating muff	m	355	435
G	Heating line inlet	m	635	885
H	System outlet	m	790	1050

18. BAYMAK BUFFER TANKS INSTALLATION INSTRUCTION

18.1. Transportation of Buffer Tanks to the Installation Area

- *During transportation and shipping, the device must be transported without damaging the packaging.*
- *The device should not be exposed to direct sunlight for long periods of time.*
- *The device must not come into contact with sharp objects during transportation or stowage.*
- *The device must be protected against impact during transportation or stowage.*
- *Inlet and outlet pipe ends must be protected against damage while transporting the device.*
- *After the device is unpacked, the packaging must be kept out of the reach of children.*

18.2. Installation of Buffer Tanks

- *If the device is to be used on the floor, it must have a dry and moisture-free surface.*
- *Buffer tanks must be placed on a concrete base when they are placed on the floor in the place where they will be installed, and they must be raised above ground level.*
- *Baymak Mak. San. ve Tic. A.Ş. does not accept any responsibility for inefficient operation or physical damage to the tank due to faults that occur during installation, transportation, etc.*

19.IMPORTANT WARNING FOR BAYMAK BUFFER TANKS

Considerations that consumers need to pay attention regarding product warranty terms*:*

The product warranty provided by Baymak A.Ş. does not cover any malfunction and damage arising from failure to use under normal usage conditions.

Accordingly, the following items are presented to your attention.

1. *When you purchase the product, have the warranty certificate of your product authenticated by your authorized dealer.*
2. *In the absence of the seller's authentication that needs to be present on the warranty certificate, in case of falsification of the warranty certificate by erasure, scraping, and the erasure and falsification of the original serial number on the product.*
3. *Use your device as described in the installation and operating instructions. Malfunctions and damages that may occur due to usage errors.*
4. *Damages that may occur during transportation after the delivery date of the product to the customer.*
5. *It must not have been tampered with for maintenance, repair or any other reason by persons other than authorized service personnel.*
6. *Failures arising from the user's failure to perform periodic maintenance and checks.*
7. *The seller, dealer, agency or representative is responsible for the delivery of the warranty certificate to the consumer.*
8. *Failures due to incorrect installation, incorrect pipe connections, incorrect capacity selection, external physical and chemical factors (aggressive environments using chlorinated, waste, corrosive and abrasive, excessively calcareous water), transportation and storage conditions.*
9. *Repairs or modifications that are not carried out by the authorized service team.*
10. *If the installation pressure is higher than the operating pressure, the responsibility belongs to the user.*
11. *The first commissioning process of the buffer tanks must be carried out by the authorized service for the storage tanks. Storage Tanks that are not commissioned by the authorized service shall not be covered by the warranty.*

According to the Law No. 6502 on consumer protection, if it is understood that the goods are defective, the consumer may use one of the following options:

a) *a) Withdrawal from the contract by declaring that he/she is ready to return what is sold,*

b) *b) Retaining the sold goods and requesting a reduction in the sale price in proportion to the defect,*

c) *c) Requesting free repair of the sold goods at the seller's expense, unless it entails an excessive expense,*

d) *d) Requesting the replacement of the sold goods with a defect-free equivalent, if possible. The seller is under the obligation to fulfill this request opted by the consumer.*

Consumers can file their applications for complaints and objections to consumer courts and consumer arbitration committees.

20.INSTALLATION CHECKLIST

Item	Checklist	Installer		Authorized	
		Yes	No	Yes	No
1	Have the storage tanks been installed and connected to the system in accordance with the warnings and instructions specified in the Installation and Operation Manual?				
2	Has the capacity of the tank been selected in accordance with the place where the product will be used, and the usage needs of the consumer?				
3	Is the place where the tank is installed suitable for maintenance and service?				
4	Is the place where the tank is installed protected against external factors and seasonal conditions?				
5	Is the 1/2" size, 8-bar safety valve provided by Baymak with the tank connected to the installation (to the cold-water inlet line) properly?				
6	Have the plumbing system connections been made properly? (See Installation and Operation Manual.)				
7	Is the mains pressure at an appropriate value? .....Bar(s). (It must be between 1 - 6.4 Bars)				
8	Is a pressure reducer used on the plumbing system? (If the system pressure is 6.6 Bars and above, a pressure reducer must be used).				
9	Is the opening pressure of the safety valve on the plumbing system correct? .....Bar(s). (8 Bars)				
10	If there is a heater on the tank, are the electrical connections made correctly?				
11	Has the use of the device been explained to the consumer?				
12	Is the discharge of the safety valve connected to the drain with a suitable connection?				
13	Is a by-pass line installed on the plumbing system?				
14	Have the plumbing system circuit breakers and valves been installed properly?				
15	Does the system pressure increase over time (It must be in the range of 1 - 6.4 Bars)?				
16	Is the maximum setting pressure of the pressure reducer appropriate? .....Bar(s). (max.3 Bars)				
17	Is the pressure reducer installed at least 5 meters away from the tank?				
18	Does the safety valve on the plumbing system open at the set pressure? (8 Bars)				
19	Is the positioning of all components on the system (safety valve, pressure reducer, etc.) performed correctly?				
20	If a booster is used in the system; is the operating pressure range appropriate? .....Bar(s).				
21	Is the positioning of the valves to be placed at the inlet and outlet during the connection of the tank to the plumbing system done correctly?				
22	Have the tank and plumbing system connections been tested for water leakage?				
23	Has the Installation / Operation Manual and Authorized Service Booklet been delivered to the consumer?				
24	Has the consumer been advised to read the Installation / Operation Manual and Authorized Service Booklet?				
25	Has the customer been advised to have annual maintenance?				

NOTES

NOTES

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