



Experience the changes...

TSB..,TDB.. and PROWATT SERIES STORAGE WATER HEATERS





TSB... TDB.. and PROWATT Series
Storage Water Heaters

WHERE WE ARE...

- At residences, apartments and housing complexes,
- Shopping malls and recreational areas,
- Hotels and tourist facilities,
- Hospitals,
- Military facilities,
- Dormitories, boarding schools,
- Social facilities,
- Sports facilities,
- Factories

and in short, everywhere that needs hot water ...

For rapid heating and storage of
domestic and process water
TANPERA Storage Water Heaters



For your high comfort



GENERAL FEATURES

- It is presented for our customers in various capacities from 100 liters to 5000 liters.
- Double layer enamel coated, equipped with single/double indirect pipe coil or with stainless steel electric heater.
- Thanks to the optimum design of the heating coil, it provides a high amount of hot water for all needs with high performance and efficient heat transfer.
- As the primary energy source, it is possible to efficiently use alone solid, liquid or gaseous fuel boilers, solar collectors, heat pumps and electricity, or some of them together.

- It is delivered as perfectly insulated to minimize energy loss.

- The surfaces that come into contact with the domestic water are covered with high quality enamel, which provides both the protection against corrosion and the surface smoothness required for hygiene.

- Since the special design of the heater coil does not leave a cold zone in the tank, the risk of bacterial (eg legionella) reproduction is avoided and a homogenous heat distribution is provided in the tank.

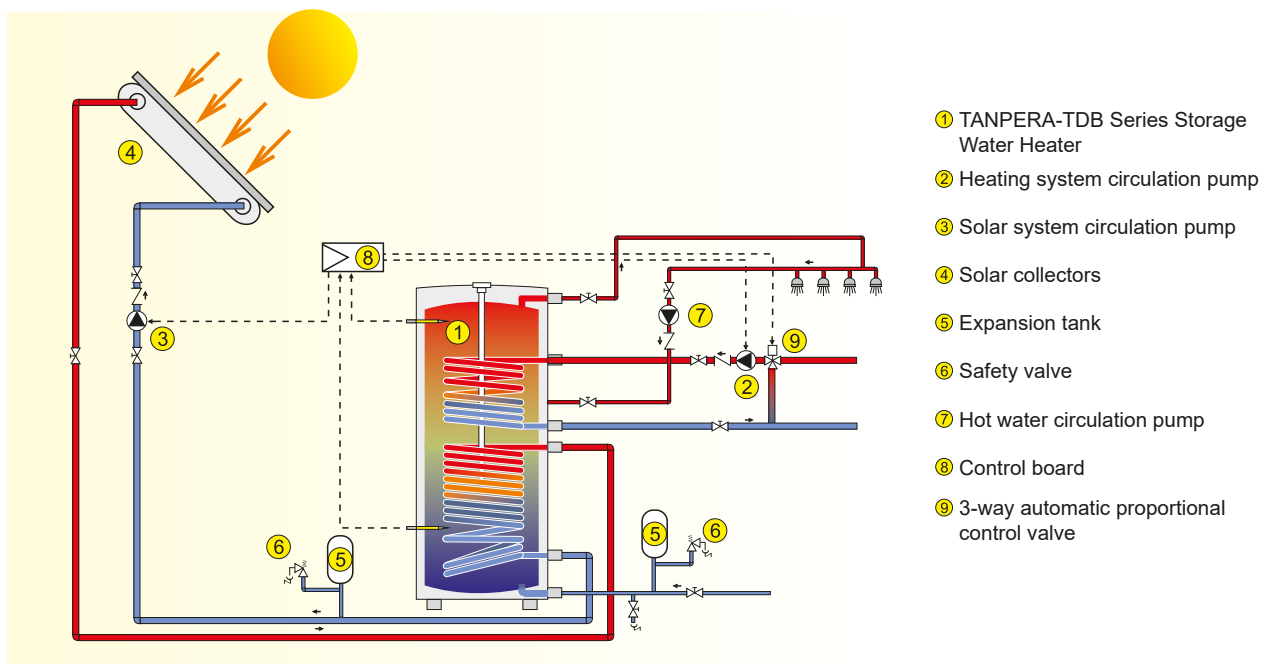
- With connection ports of suitable diameter and position, it is ready to be mounted.

- Equipped with magnesium anode for cathodic protection.

- Before delivery, the tanks are tested under pressure 1,5 times higher than the operating pressure.



TANPERA Storage Water Heater is a product that both heat and store domestic water and, thanks to its compact design, can be easily installed. It provides a wide range of possibilities for designers and investors, thanks to the possibility to utilize different primary energy sources in combination, such as boiler, solar, heat pump and electricity.



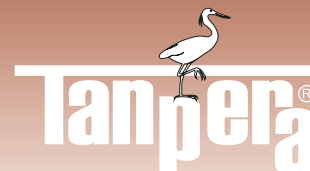
Schematic installation diagram of TANPERA-TDB series double-coil water heater in a solar-assisted hot water heating system

For the most accurate selection of a water heater, the expected magnitude and duration of the peak hot water demand should be determined realistically. If the recovery rate of the selected water heater is larger than the peak draw rate, the duration of the demand and the storage capacity of the heater will not matter much. During hot water demand, after the pre-stored water is exhausted, the heating system circulation pump is switched on to meet this demand instantaneously. When the demand ends, the pump continues to operate until the water in the reservoir is reheated. In this case, the number of heating pump switches will be relatively low. On the other hand, if the recovery of the selected water heater is smaller than the peak draw rate, storage capacity of the heater and duration of demand will become important. Since the difference between draw rate and recovery rate is met with pre-stored hot water, the stored water must be sufficient until the end of demand. Otherwise, as the usage continues, the water heater will not be able to provide water at the desired temperature. **If the capacities of our standard products do not fully meet your design needs, please consult our company. Our expert engineers will provide you with the most suitable product and system solutions.**

A safety valve, with opening pressure suitable to the operating pressure of the boiler, should be installed at the domestic water circuit. Depending on storage capacity, up to 750 liters the minimum diameter should be 3/4" and 1" for the larger volumes. It is also advisable to install an expansion tank at the appropriate capacity on this circuit.

Appropriate safety precautions must be taken to remove the risk of scalding with hot water.

TECHNICAL DATA



TSB.., TDB.. and PROWATT Series
Storage Water Heaters

TSB-Single Coil Storage Water Heater

Type	Storage Capacity (l)	Recovery Rate (l/h)				Primary side pressure drop (*) (mSS)
		Primary and secondary side inlet/outlet temperatures (°C)				
		80/60 10/45	80/60 10/60	90/70 10/45	90/70 10/60	
TSB 100	100	415	180	570	290	0,10
TSB 160	160	800	410	1110	560	0,15
TSB 200	200	1050	540	1430	720	0,25
TSB 300	300	1230	640	1680	850	0,45
TSB 500	500	1860	945	2530	1280	1,25
TSB 800	800	2270	1380	3080	1690	2,50
TSB 1000	1000	2270	1380	3080	1690	2,50
TSB 1500	1500	3020	1520	4100	2080	3,70
TSB 2000	2000	3700	1880	4980	2540	6,00
TSB 2500	2500	5400	2700	6900	3700	7,00
TSB 3000	3000	5400	2700	6900	3700	7,00

(*) Applicable for systems where the primary and secondary circuit water temperatures are 90/70 - 10/45°C. The pressure drops for other water temperatures will be lower.

TDB-Double Coil Storage Water Heater

Type	Storage capacity (l)	Recovery rate (l/h)								Primary side pressure drop (*) (mSS)	
		Primary and secondary side inlet/outlet temperatures (°C)									
		80/60 10/45		80/60 10/60		90/70 10/45		90/70 10/60			
		Upper Coil	Lower coil	Upper Coil	Lower coil	Upper Coil	Lower coil	Upper Coil	Lower coil		
TDB 160	160	350	550	150	285	500	730	245	390	0,08	0,12
TDB 200	200	550	710	285	360	30	945	390	510	0,15	0,24
TDB 300	300	640	810	315	410	860	1130	480	620	0,28	0,50
TDB 500	500	1050	1800	540	945	1430	2400	720	1280	0,52	1,24
TDB 800	800	1150	2270	580	1300	1580	3000	790	1600	0,65	2,00
TDB 1000	1000	1150	2270	580	1300	1580	3000	790	1600	0,65	2,00
TDB 1500	1500	1370	3000	710	1500	1800	4000	1000	2000	1,25	3,40
TDB 2000	2000	1650	3650	910	1800	2100	4800	1120	2450	1,40	5,80
TDB 2500	2500	2400	5300	1400	2400	2900	6600	1800	3200	2,00	6,00
TDB 3000	3000	2400	5300	1400	2400	2900	6600	1800	3200	2,00	6,00

(*) Applicable for systems where the primary and secondary circuit water temperatures are 90/70 - 10/45°C. The pressure drops for other water temperatures will be lower.

PROWATT Electric Water Heater

Type	Storage capacity (l)	Electric coil capacity (*) (kW)
PROWATT 100	100	4,5
PROWATT 160	160	6
PROWATT 200	200	9
PROWATT 300	300	12
PROWATT 500	500	20
PROWATT 800	800	30
PROWATT 1000	1000	45
PROWATT 1500	1500	Consult us
PROWATT 2000	2000	Consult us
PROWATT 2500	2500	Consult us
PROWATT 3000	3000	Consult us

(*)Standart electric coil capacities are determined so that the water in the tank is heated from 10°C to 45° C ($\Delta T = 35^\circ C$) in one hour.

Product Type Code

TANPERA - TSB 500 / 10

Storage water heater type code

TSB: Single pipe coil water heater

TDB: Double pipe coil water heater

PROWATT: Electric water heater

Total storage capacity (liters)

Nominal operating pressure (bar)

TSB, TDB-Series Storage Water Heater

Capacity	: 100 – 3000 liter
Designated use	: Hot water not exceeding 90°C
Operating pressure	: 10 bar
Mounting position	: Vertical
Coating of water-contact surfaces	: Enamel
Insulation	: 100 to 500 liters 50 mm thick hard polyurethane, 800 to 3000 liters 80 mm thick open cell soft polyurethane
Protective sleeve	: 100 to 500 liters electrostatic powder coated steel sheet, 800 to 3000 liters vinyl sheath
Standard accessories	: Protective anode, thermometer

Notes: Upon request;

- Products can also be delivered in non-standard capacities.
- Electrical heater and panel can be added.

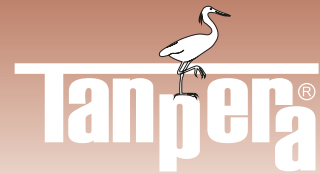
PROWATT-Series Electric Storage Water Heater

Capacity	: 100 – 3000 liter
Designated use	: Hot water not exceeding 90°C
Operating pressure	: 10 bar
Mounting position	: Vertical
Coating of water-contact surfaces	: Enamel
Electric coil	: Made of stainless steel, suitable for 380 V - 50 Hz
Insulation	: 100 to 500 liters 50 mm thick hard polyurethane, 800 to 3000 liters 80 mm thick open cell soft polyurethane
Protective sleeve	: 100 to 500 liters electrostatic powder coated steel sheet, 800 to 3000 liters vinyl sheath
Control panel	: Microprocessor controlled, LCD screen, legionella protection function, programmable
Standard accessories	: Protective anode, thermometer

Notes: Upon request;

- Products can also be delivered in non-standard capacities.
- Pipe coil heater can be added.

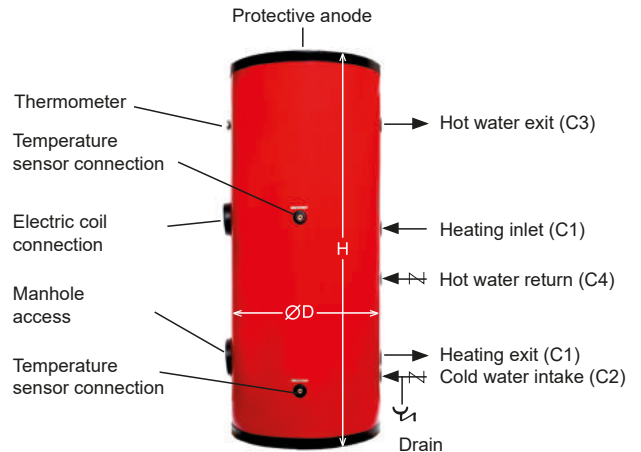
INSTALLATION DIMENTIONS



TSB., TDB.. and PROWATT Series
Storage Water Heaters

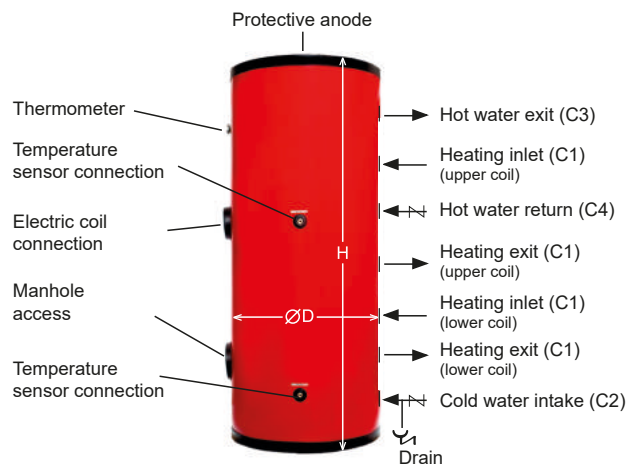
Storage Water Heater With Indirect Pipe Coil – Single Coil (TSB)

Type	Dimentions						Empty Weight (kg)
	OD (mm)	H (mm)	C1	C2	C3	C4	
TSB 100	500	1100	1"	3/4"	3/4"	3/4"	67
TSB 160	600	1130	1 1/4"	3/4"	3/4"	3/4"	88
TSB 200	600	1330	1 1/4"	3/4"	3/4"	3/4"	110
TSB 300	700	1250	1 1/4"	3/4"	3/4"	3/4"	130
TSB 500	750	1830	1 1/4"	1"	1"	1"	200
TSB 800	900	2100	1 1/4"	1"	1"	1"	265
TSB 1000	1000	2100	1 1/4"	1 1/4"	1 1/4"	1 1/4"	290
TSB 1500	1200	2300	1 1/4"	1 1/4"	1 1/4"	1 1/4"	400
TSB 2000	1300	2350	1 1/4"	1 1/4"	1 1/4"	1 1/4"	600
TSB 2500	1500	2250	1 1/2"	1 1/2"	1 1/2"	1 1/2"	730
TSB 3000	1500	2600	1 1/2"	1 1/2"	1 1/2"	1 1/2"	860



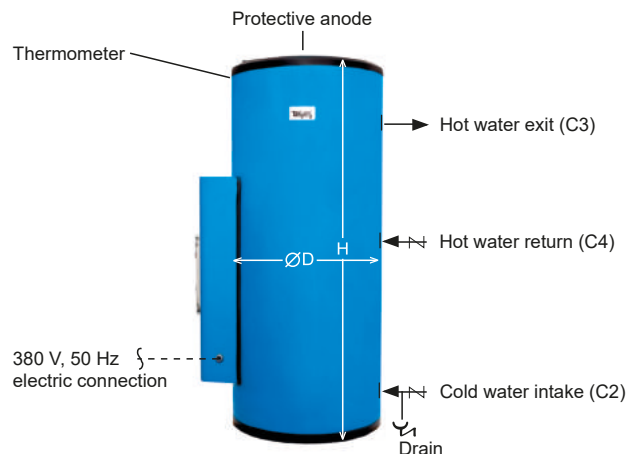
Storage Water Heater With Indirect Pipe Coil – Double Coil (TDB)

Type	Dimentions						Empty Weight (kg)
	OD (mm)	H (mm)	C1	C2	C3	C4	
TDB 160	600	1130	1"	3/4"	3/4"	3/4"	94
TDB 200	600	1330	1 1/4"	3/4"	3/4"	3/4"	115
TDB 300	700	1250	1 1/4"	1"	1"	1"	140
TDB 500	750	1830	1 1/4"	1"	1"	1"	222
TDB 800	900	2100	1 1/4"	1 1/4"	1 1/4"	1 1/4"	302
TDB 1000	1000	2100	1 1/4"	1 1/4"	1 1/4"	1 1/4"	340
TDB 1500	1200	2300	1 1/4"	1 1/4"	1 1/4"	1 1/4"	430
TDB 2000	1300	2350	1 1/4"	1 1/4"	1 1/4"	1 1/4"	660
TDB 2500	1500	2250	1 1/2"	1 1/2"	1 1/2"	1 1/2"	810
TDB 3000	1500	2600	1 1/2"	1 1/2"	1 1/2"	1 1/2"	950

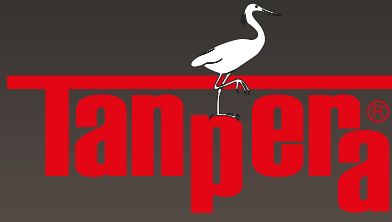


Electric Storage Water Heater (PROWATT)

Type	Dimentions				Empty Weight (kg)	
	OD (mm)	H (mm)	C2	C3		C4
PROWATT 100	500	1100	3/4"	3/4"	3/4"	65
PROWATT 160	600	1130	3/4"	3/4"	3/4"	80
PROWATT 200	600	1330	3/4"	3/4"	3/4"	96
PROWATT 300	700	1250	1"	1"	1"	125
PROWATT 500	750	1830	1"	1"	1"	180
PROWATT 800	900	2100	1 1/4"	1 1/4"	1 1/4"	260
PROWATT 1000	1000	2100	1 1/4"	1 1/4"	1 1/4"	300
PROWATT 1500	1200	2300	1 1/4"	1 1/4"	1 1/4"	380
PROWATT 2000	1300	2350	1 1/4"	1 1/4"	1 1/4"	520
PROWATT 2500	1500	2250	1 1/2"	1 1/2"	1 1/2"	580
PROWATT 3000	1500	2600	1 1/2"	1 1/2"	1 1/2"	680



- Dimensions and weights are for standard products. Please consult our company for the size and weight of the non-standard products.
- The most up-to-date installation dimensions that can be used when designing are located at www.tanpera.com.tr.



- PLATE HEAT EXCHANGERS
- STORAGE WATER HEATERS WITH INDIRECT PIPE COIL
- ELECTRIC STORAGE WATER HEATERS
- DOMESTIC HOT WATER STORAGE TANKS
- PACKAGE TYPE DOMESTIC HOT WATER SYSTEMS
- BUFFER TANKS
- EXPANSION TANKS
- DEAERATORS – DIRT SEPERATORS
- HYDROLIC SEPERATORS

The great white heron can stand for a long time in the cold water as it can perform an effective heat exchange between the blood coming from the heart at 40°C and the blood returning from the feet at 1°C.



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