



# Tanpera®

*Makes You Experience the Change..*



**PRO.. SERIES**  
**HOT WATER ACCUMULATION TANKS**

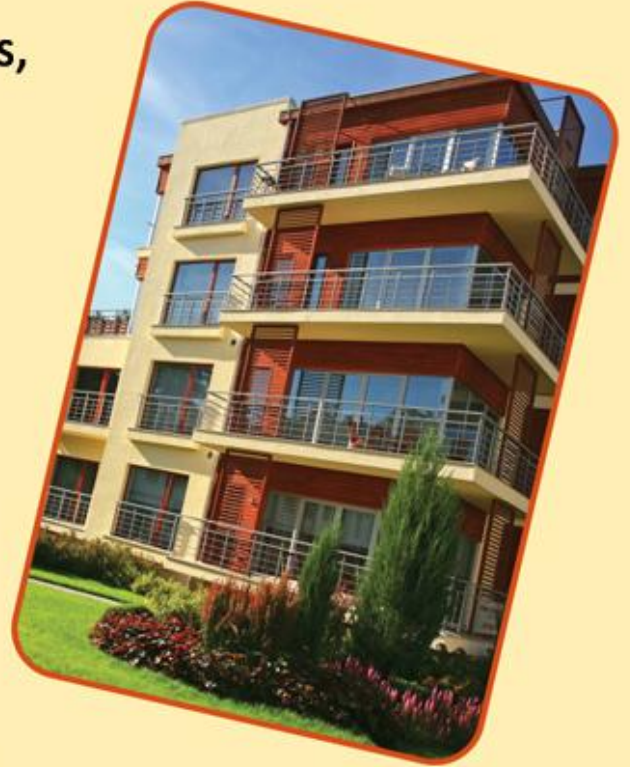


WHERE IT IS USED...

**Tanpera®**

PRO.. Series  
Hot Water Accumulation Tanks

In gated communities, apartment buildings,  
Detached houses,  
Tourism and accommodation facilities,  
Hospitals,  
Military facilities,  
Dormitories, boarding schools,  
Sport facilities, factories...



Hot Water  
Accumulation Tanks

Ranging in size from 100 to  
5000 litres capacity

Heat insulated structure

Resistant to corrosion

Easy mounting
















PRO.. Series  
Hot Water Accumulation Tanks

## GENERAL FEATURES



-  Our hot water tanks are specially designed to store the hot water for utilization in apartment blocks and any facilities equipped with central hot water system.
-  With **TANPERA-ORW series plate heat exchangers**, they enable the highest level of efficiency and flexibility in **"Water Based Heating and Storing Systems"**.
-  Our tanks are available ranging in size from 100 to 5000 litres capacity.
-  They are delivered in the form of highly insulated thermal storage vessels to minimize the energy loss and maximize the efficiency.
-  The tanks are coated with the best available materials to ensure corrosion resistance.
-  They are delivered ready to install with connection inlets on both sides to enable a flexible installation.
-  They are fitted with connection inlets for air vent/relief valve, temperature sensor, thermostat, thermometer, etc.
-  Multiple connection inlets enable Electric Water Heaters with Serpentine (Thermo-Boiler) assembling and installation.
-  The tanks are tested under 1.5 times more pressure than the operating pressure before delivering to the costumers.



# WHY ACCUMULATION TANKS SHOULD BE USED...



PRO.. Series  
Hot Water Accumulation Tanks

Generally hot water usage in houses or facilities tends to peak at certain times of the day and mostly the hot water demand is below average. Besides, any time during the usage, hot water demand may tend to fluctuate. Therefore, using tankless plate heat exchangers may actually increase operating costs and create various disadvantages if the hot water is used during peak times.

In order to eliminate these disadvantages, we suggest you:

To use **TANPERA-PRO Series Hot Water Accumulator Tanks** in combination with **TANPERA-ORW Series Plate Heat Exchangers** in hot water systems.

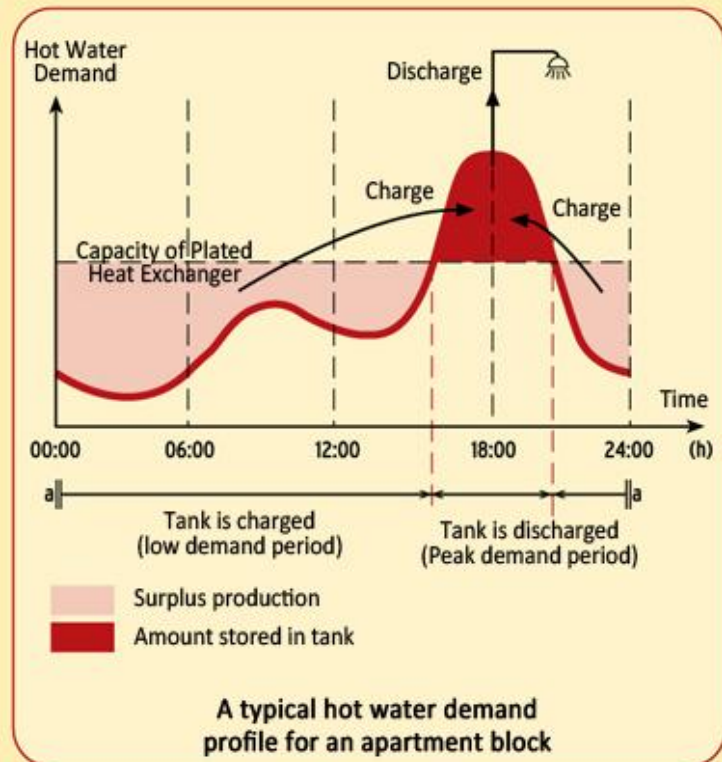
## THEREFORE,

You can eliminate fluctuations in water temperature and **ensure a comfortable utilization**,

You can eliminate the risk of sudden temperature rise that may be caused by sudden fall in hot water demand and **increase utilization safety**,

You can eliminate the necessity of high capacity equipments such as heat exchanger, central heating boiler, burner, expansion tank and circulation pump to handle the peak demand of hot water at certain times of the day so **you can save initial investment costs**,

You can eliminate the fluctuations in instant heat level caused by the plate heat exchanger and depending on the automation system you can prevent irregular activation-deactivation process of the burner. By this way, the boiler may operate at the highest level of efficiency, which **reduces energy consumption and operating costs**.







# CAPACITY DETERMINATION & PROJECT SUGGESTIONS

## PRO.. Series Hot Water Accumulation Tanks

First of all, the magnitude and duration of peak demand of hot water for utilization expected in the system and the total daily amount demand should be determined in a realistic manner in order for healthy determination of the volume of hot water required to be stored.

After determining to what extends the heat exchanger will handle the peak demand, the volume of the storage for the remaining part should be calculated. While calculating the storage need, the demand profile, the capacity of the primary heat source for the heat exchanger, the space for the storage together with installation and operating costs should be taken into account.

The size where the storing will be made and its shape must be taken into consideration with the places that the tank should be carried through its own place within the building, so that the tank required total storage capacity, if necessary, must be provided dividing into two or more tanks.

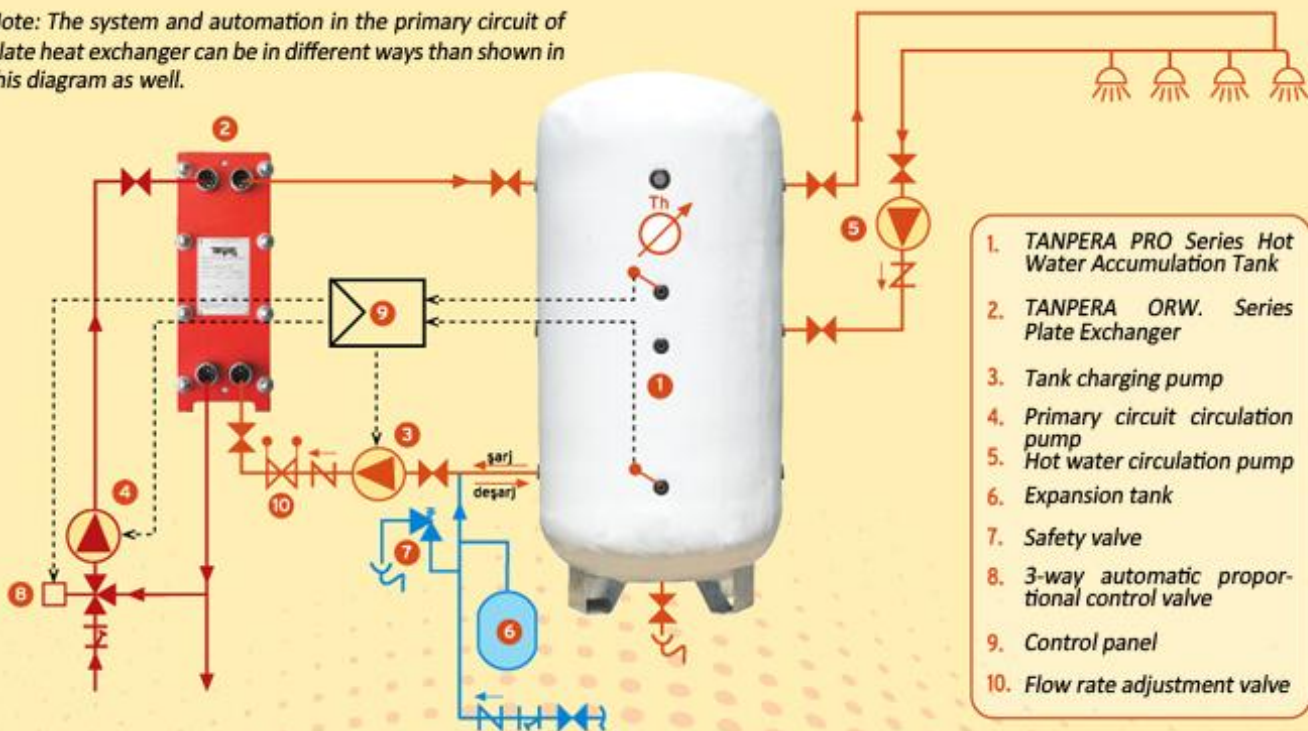
The compression height as well as the tank charging pumps flow and the heat exchanger secondary circuit flow should be chosen to meet the pressure downs in this circuit; the semi-dry and wet-rotor pumps should be preferred for this task.

The vertical positioned tanks, except in compulsory situations, should be used to benefit in the most efficient manner from the volume of hot water in the tank ensuring better temperature stratification.

A safety valve that is selected in opening pressure in accord with the tank's operating pressure and the utilization water circuit should be placed; according to tank capacity, the minimum diameter up to 750 liters should be  $\frac{3}{4}$ ", up to 3000 liters should be 1", and for larger tanks should be 1  $\frac{1}{4}$ ". In addition, an expansion tank in appropriate capacity is suggested for this circuit.

The appropriate security measures must be taken in order to eliminate the users' burning risk by hot water as a result of possible automation failures.

*Note: The system and automation in the primary circuit of plate heat exchanger can be in different ways than shown in this diagram as well.*



1. TANPERA PRO Series Hot Water Accumulation Tank
2. TANPERA ORW. Series Plate Exchanger
3. Tank charging pump
4. Primary circuit circulation pump
5. Hot water circulation pump
6. Expansion tank
7. Safety valve
8. 3-way automatic proportional control valve
9. Control panel
10. Flow rate adjustment valve

*By the installation layout proposed in the above scheme, TANPERA PRO Series Hot Water Accumulation Tank, depending on instant demand, can be discharged regularly by the hot water with desired temperature.*



## TANPERA-PRO 1000/10-GV → Position; V:Vertical H: Horizontal

Hot water  
accumulation tank

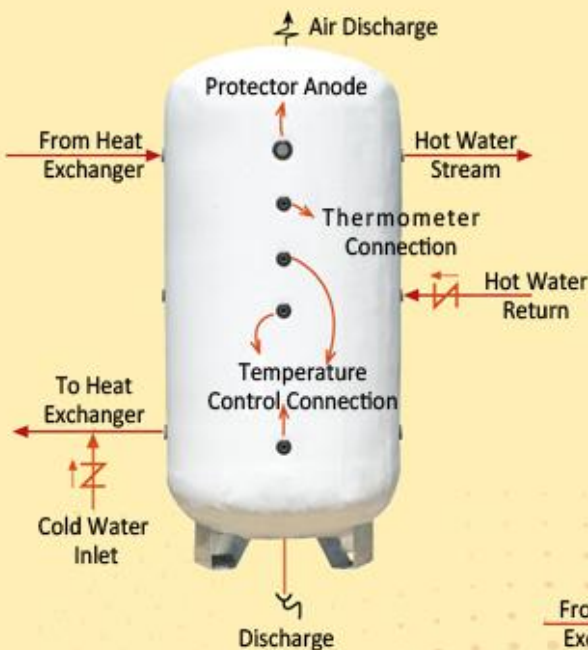
Total storing  
capacity (litres)

Type of coating;  
G: Galvanized steel E: Enamelled  
Nominal operating  
pressure (bar)

### Enameled Tanks

<b>Capacity</b>	: 100-2000 liters
<b>Use</b>	: Hot water not exceeding 90 ° C
<b>Operating pressure</b>	: 10 bar/16 bar
<b>Mounting position</b>	: Vertical
<b>Coating</b>	: Double enameled inside and outside
<b>Heat insulation</b>	: 50mm thickness of rigid polyurethane (100-600 liters) or open-cell soft polyurethane (800-2000 liters)
<b>Shielding</b>	: Electrostatic powder coated steel (100-600 liters) or vnyl (800-2000 liters)
<b>Standard accessories</b>	: Protective anode, thermometer

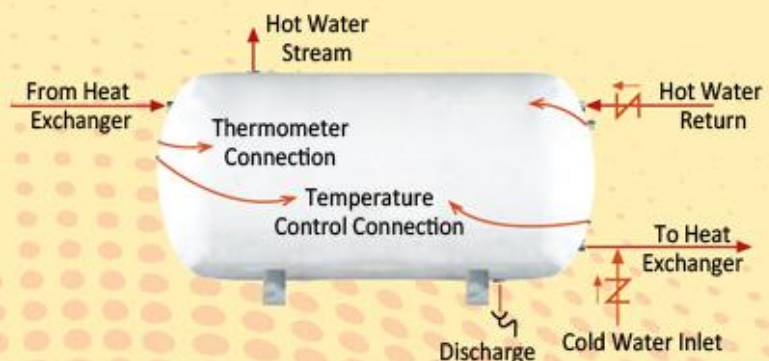
Note: On special request, models having capacity over 600 liters can be produced with enamel coating.



### Galvanized Tanks

<b>Capacity</b>	: 750-5000 liters
<b>Use</b>	: Hot water not exceeding 90 ° C
<b>Operating pressure</b>	: 10 bar / 16 bar
<b>Mounting position</b>	: Vertical (option for 2000 liters and higher: Horizontal)
<b>Coating</b>	: Hot-dip galvanized coating with 75 microns thickness inside and outside
<b>Thermal insulation</b>	: 50 mm thickness of open-cell soft polyurethane
<b>Shielding</b>	: Vnyl
<b>Standard Accessorise</b>	: Protective anode

Note: On special request, galvanized tank in smaller capacities can be delivered.





## PRO.. Series Hot Water Accumulation Tanks

### Enamel Tanks

DEVICE TYPE	CAPACITY (litres)	DIMENSIONS			EMPTY WEIGHT (kg)
		øD (mm)	H (mm)	C	
PRO- 100/10-EV	100	500	1110	1"	55
PRO- 160/10-EV	160	600	1130	1 1/4"	70
PRO- 200/10-EV	200	600	1330	1 1/4"	85
PRO- 350/10-EV	350	750	1350	1 1/4"	120
PRO- 500/10-EV	500	750	1800	1 1/4"	150
PRO- 600/10-EV	600	750	2040	1 1/4"	170
PRO- 800/10-EV	800	900	2150	1 1/2"	240
PRO- 1000/10-EV	1000	1000	2170	1 1/2"	300
PRO- 1500/10-EV	1500	1150	2500	2"	350
PRO- 2000/10-EV	2000	1250	2520	2"	450



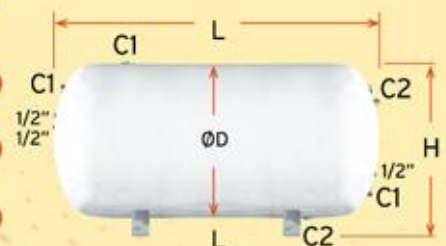
### Galvanized Tanks - Vertical Type

DEVICE TYPE	CAPACITY (litres)	DIMENSIONS				EMPTY WEIGHT (kg)
		øD (mm)	H (mm)	C1	C2	
PRO- 750/10-GV	750	850	2100	2"	1 1/2"	190
PRO- 1000/10-GV	1000	950	2160	2"	1 1/2"	220
PRO- 1500/10-GV	1500	1150	2210	2 1/2"	1 1/2"	370
PRO- 2000/10-GV	2000	1150	2800	2 1/2"	1 1/2"	440
PRO- 2500/10-GV	2500	1400	2400	3"	2"	550
PRO- 3000/10-GV	3000	1400	2820	3"	2"	600
PRO- 4000/10-GV	4000	1500	3200	3"	2"	810
PRO- 5000/10-GV	5000	1500	3810	3"	2"	930



### Galvanized Tanks - Horizontal Type








DEVICE TYPE	CAPACITY (litres)	DIMENSIONS				EMPTY WEIGHT (kg)	
		H (mm)	L (mm)	øD (mm)	C1		C2
PRO- 2000/10-GH	2000	1350	2590	1150	2 1/2"	1 1/2"	450
PRO- 2500/10-GH	2500	1600	2190	1400	3"	2"	560
PRO- 3000/10-GH	3000	1600	2610	1400	3"	2"	610
PRO- 4000/10-GH	4000	1700	2990	1500	3"	2"	820
PRO- 5000/10-GH	5000	1700	3640	1500	3"	2"	940



**Note:** The most recent measurements and mounting dimensions that can be used in designs & projects can be seen at [www.tanpera.com.tr](http://www.tanpera.com.tr) website.



## OTHER PRODUCTS

-  PLATED HEAT EXCHANGERS
-  ELECTRICAL HOT WATER PREPARATIVES
-  HOT WATER SYSTEMS FOR PACKAGE TYPE UTILIZATION
-  THERMAL BALANCE (BUFFER) TANKS
-  BOILERS
-  HYDROLIC BALANCE TANKS
-  AIR EJECTORS - STRAINERS



Great white egret can stand in very cold waters for a long time without freezing as it is able to achieve an efficient heat exchange between the blood returning with 1°C from its feet and the blood coming from heart with 40°C.

**TANPERA ENDÜSTRİ ENERJİ ve İLERİ TEKNOLOJİ ÜRÜNLERİ SAN. ve TİC. LTD. ŞTİ.**

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