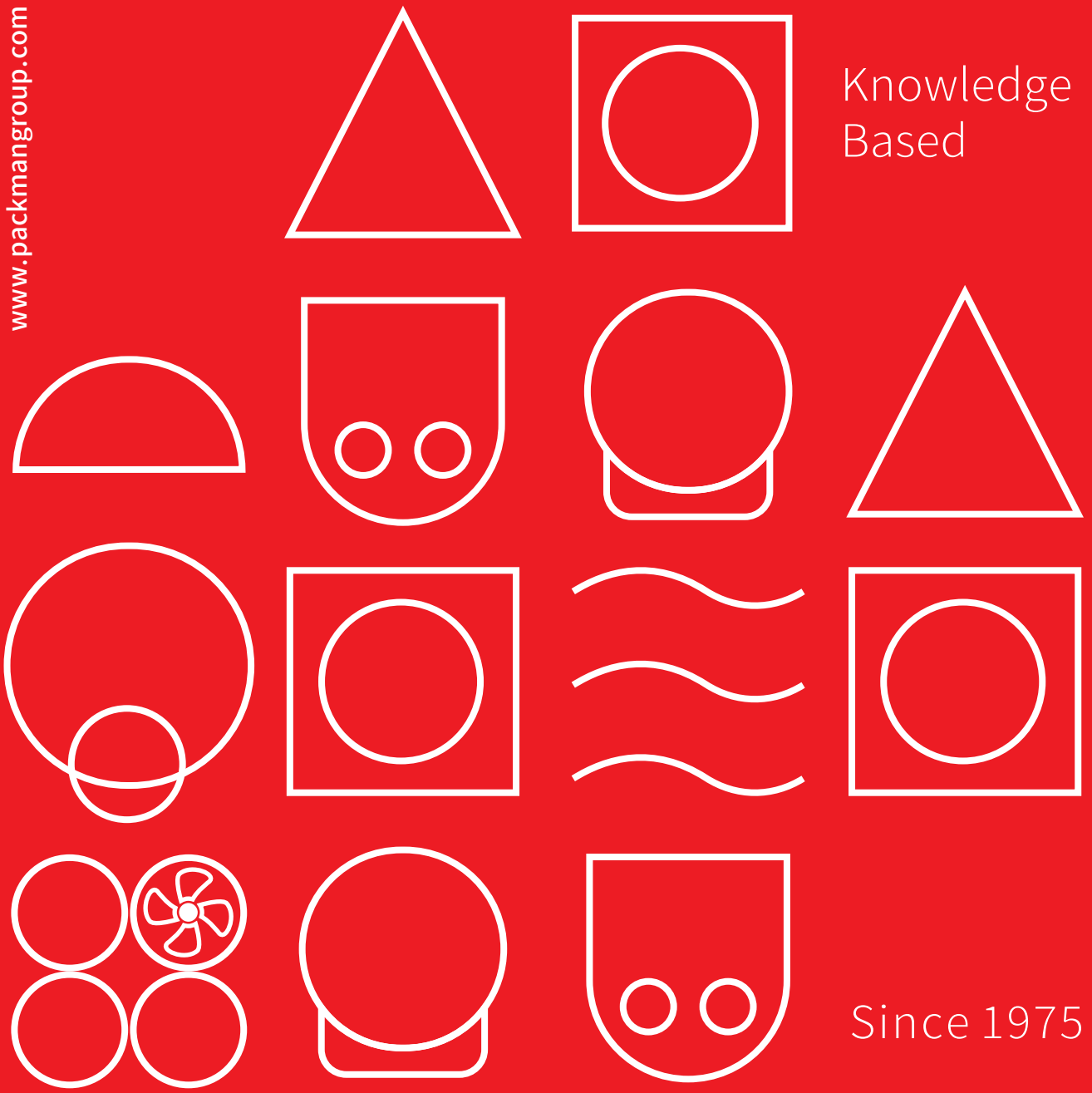


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Knowledge Based

Since 1975



**PACKMAN**  
Industrial Group

 Domestic Hot Water Tank



# Domestic Hot Water Tank



## Product Description

Water heaters equipped with tank are suitable solutions for hospitals, sports arenas, hotels, apartment blocks and similar large buildings. The product's scope of application covers storage and heating with a demand for high performance, comfort and hygiene resource-efficient operation. The systems can be combined with a second or multiple DHW storage tanks to meet on-site requirements.

A storage water heater operates by releasing hot water from the top of the tank when the hot water tap is turned on. To replace that hot water, cold water enters the bottom of the tank, ensuring that the tank is always full.

### PACKMAN'S Domestic hot water Tank's Properties

PACKMAN'S Domestic hot water Tanks are made of SA 36 (St 37.2 in accordance with DIN standard) or in case of customer's request they can be made of 17MN4 (which is suitable for boiler construction) with a certain thickness. PACKMAN'S domestic hot water tank is used for supplying clean hot water, for buildings and industries. These tanks are capable of operation in both steam and hot water systems. The shells are made of either steel with three-layers of epoxy coating, hot-galvanized steel (suitable for the manufacturing of pressure vessels with no direct heat exposure) or 17MN4.

The tanks are made of vertical cylinders with two heads, in various diameters and thicknesses. Epoxy coating/galvanizing methods are used to provide potable & clean water. Normally PACKMAN suggests shells with epoxy coating instead of galvanized shells because of the lead issues present in galvanized tanks.

The tank contains a copper coil with a thickness of 1 mm for transferring heat from hot fluid to the cold one. The tank also has a hand hole for capacities lower than 2000 liters (ManHoles are used for greater capacities) which provide accessibility to its inside. It should be noted that access to the inside of the tank is also possible through the coil flange.

### Manufacturing Standards

ASME Standard is observed in construction of Domestic hot water tanks. PACKMAN'S Domestic hot water tank's head is Tori spherical. This type of head provides long life and a high pressure resistance for the system compared to the other shapes with the same thickness. The production price per



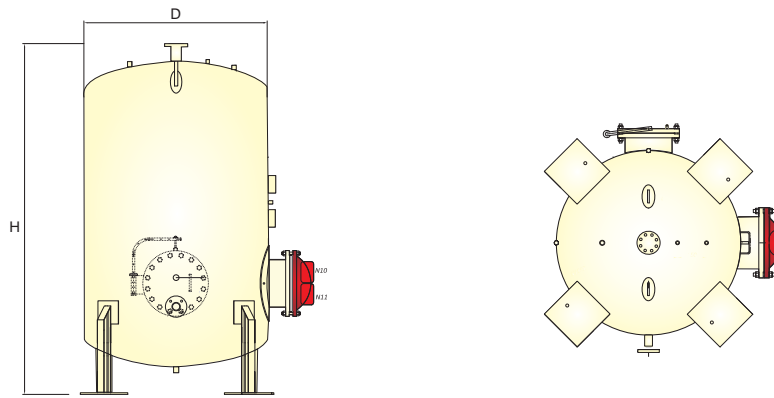
kilo of these heads can reach to twice the price ratio of the usual heads on the market.

### **Welding Procedure**

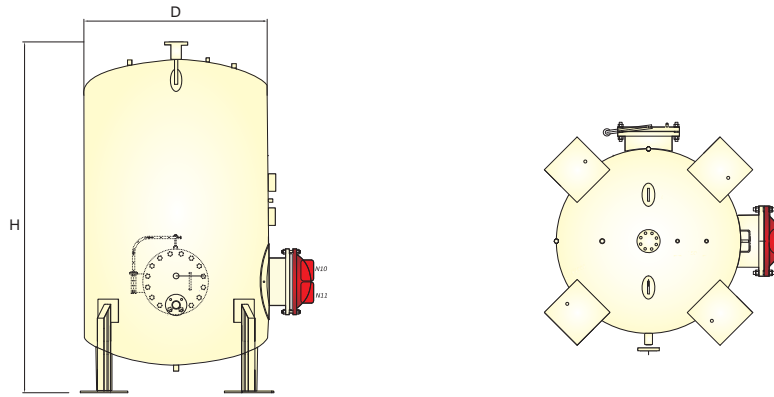
Welding is done with Swedish ISBU submerged arc welding equipment. After constructing the tank and welding the lugs, the body of the tank is connected to the heads using a submerged welding method. Interior and exterior coating and painting conditions PACKMAN'S DHW is coated with three layers of epoxy colors with a total thickness of 305 microns and is heat-resistant and suitable for use in sanitary applications. The outer surface of the tank is also covered with an epoxy layer and an industrial paint layer with a total thickness of 150 microns. Galvanized shells will only be sprayed with industrial colors.

### **Distinction's of PACKMAN'S Products**

- Long life span of the device As a result of the quality of welding, color and epoxy coatings.
- Manufactured with the latest technology in the world in welding and cutting.
- High strength against pressure due to the design thickness and quality of the material.
- High quality of connections and tank legs
- High quality of Epoxy and industrial colors



Model	Unit	PDHT-300	PDHT-400	PDHT-500	PDHT-800	PDHT-1000	PDHT-1500	PDHT-2000	PDHT-2500	PDHT-3000
<b>Technical Data</b>										
Design Standard	-	ASME SEC.VIII. DIV.1								
Vessel Type	-	Vertical								
Heating Surface	ft <sup>2</sup>	11	15	19	30	37	56	74	93	112
Thermal Capacity One Coil	kw	17	23	29	47	58	87	116	145	174
Thermal Capacity One Coil	kcal/hr	15,000	20,000	25,000	40,000	50,000	75,000	100,000	125,000	150,000
Volume Capacity	litre	300	400	500	800	1,000	1,500	2,000	2,500	3,000
<b>Connectoins Size</b>										
Coil Entrance	in	10	10	10	14	14	14	14	14	14
Circulation	in	3/4	3/4	3/4	3/4	1	1	1	1	1 1/4
Cold Water Inlet	in	1	1	1	1	1 1/4	1 1/4	1 1/2	1 1/2	2
Hot Water Outlet	in	1 1/4	1 1/4	1 1/4	1 1/4	1 1/2	1 1/2	2	2	2 1/2
Hand Hole (mm*mm) / Man Hole	in	210*160	210*160	210*160	210*160	210*160	210*160	210*160	210*160	210*160
Drain	in	1	1	1	1	1	1	1	1	1
Temperature Switch	in	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Monometer	in	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Termometer	in	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Safety Valve	in	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Boiler Hot Water Outlet	in	3	3	3	3	3	3	3	3	3
Boiler Hot Water Inlet	in	3	3	3	3	3	3	3	3	3
<b>Material</b>										
Shell	-	Carbon Steel								
Head	-	Carbon Steel								
<b>Vessel Dimensions</b>										
Vessel Diameter	mm	600	600	700	800	900	1100	1200	1320	1320
Vessel Height	mm	1500	1600	1790	2200	2200	2200	2200	2300	2750
<b>Vessel Weight</b>										
Shipping Weight At 6 Bar Pressure	kg	264	281	235	188	199	198	218	218	228



Model	Unit	PDHT-3500	PDHT-4000	PDHT-5000	PDHT-6000	PDHT-7000	PDHT-8000	PDHT-9000	PDHT-10000	PDHT-15000
<b>Technical Data</b>										
Design Standard	-	ASME SEC.VIII. DIV.1								
Vessel Type	-	Vertical						Horizaontal		Vertical
Heating Surface	ft <sup>Λ</sup>	130	149	186	223	261	298	335	372	559
Thermal Capacity One Coil	kw	203	233	291	349	407	465	523	581	872
Thermal Capacity One Coil	kcal/hr	175,000	200,000	250,000	300,000	350,000	400,000	450,000	500,000	750,000
Volume Capacity	Litr	3,500	4,000	5,000	6,000	7,000	8,000	9,000	10,000	15,000
<b>Connectoins Size</b>										
Coil Entrance	in	14	16	16	16	16	16	16	16	16
Circulation	in	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	2	2	2	2
Cold Water Inlet	in	2	2	2 1/2	3	3	3	3	3	3
Hot Water Outlet	in	2 1/2	2 1/2	3	4	4	4	4	4	4
Hand Hole (mm*mm) / Man Hole	in	210*160	16	16	16	16	16	16	16	16
Drain	in	1	1	1 1/2	2	2	2	2	2	2
Temperature Switch	in	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Monometer	in	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Termometer	in	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Safety Valve	in	3/4	3/4	3/4	1	1	1 1/2	1 1/2	1 1/2	1 1/2
Boiler Hot Water Outlet	in	3	4	4	4	4	4	4	4	4
Boiler Hot Water Inlet	in	3	4	4	4	4	4	4	4	4
<b>Material</b>										
Shell	-	Carbon Steel								
Head	-	Carbon Steel								
<b>Vessel Dimensions</b>										
Vessel Diameter	mm	1320	1592	1592	1750	1750	1910	1910	1910	1910
Vessel Height	mm	3000	2700	3200	3250	3350	3400	2450	2450	2450
<b>Vessel Weight</b>										
Shipping Weight At 6 Bar Pressure	kg	229	379	373	560	419	421	588	580	600

# PACKMAN GROUP

## History

The Packman Company was founded in February 1975, and was soon afterwards registered in companies Registration Office. In early years the Packman construction and service branch focused on building installations. Different mega power plants were built by cooperating with Brown Boveri and Asseck companies in 1976.

The company started its official activities in construction of High-Pressure Vessels such as Hot-Water Boilers, Steam Boilers , Storage Tanks, Softeners and Heat Exchangers from 1984.

Packman Company is one of the first companies which supplied the high quality and standard hot water boilers to the customers.

Packman has exported its products to countries such as Uzbekistan, United Arab Emirates and other countries in the Middle East. It is one of the largest producers of hot-water and steam boilers in the Middle East.

Now we are proud to announce that the Packman industrial group has five major sub-brands that have product titles in all field of HVAC equipment and engineering services, and we do not know this success except with the help and support of our customers.

1. Construction Services Industry Association
2. Industry Association
3. Construction Companies' Syndicate
4. Technical Department Association
5. Mechanical Engineering Association
6. Engineering Standard Association

### Departements:

#### Sales Deps:

- ∩ Power Plant & Petrochemical
- ∩ Industrial
- ∩ Hospitally Service
- ∩ Commercial & Residential
- ∩ Sport Complex & Pool

#### Technical Deps:

- ≡ Manufacturing R&D
- ≡ Innovation Center
- ≡ EPC Execute Unit
- ≡ Product Develop Unit
- ≡ Sales Engineering Dep.

#### Others:

- ≈ After Sales Service
- ≈ Project Control
- ≈ Financial Office
- ≈ Commercial Office
- ≈ Marketing Department



# PACKMAN GROUP Brands



**PACKMAN**  
Industrial Group

Designer & manufacturer of Condensing, Hot Water, Steam, Hot Oil & Waste Heat Boilers, Heat Exchangers, Autoclave Pressure & Storage Vessels & etc



**GREENMAN**  
Green mindset, green future

Engineering & Designing Commercial Greenhouse Plant, CO2 Dosing System, Flue gas Condenser & Special HVAC Systems, Sustainable Agriculture & etc



**ROMAN**  
Water solution

Designer & manufacturer Reverse Osmosis Plant & Package, Water Treatment, Softener & Filters and Chemical Dosing Systems & etc



**RAADMAN**  
a look to the future

Designer & manufacturer of Industrial Mono & Dual Block Gas, LPG, Light & Heavy Oil Burners, Premixed & Postmixed Burners, Water tube burners, Process burners, Special application burners & Combustion Solutions & etc



**CHILLMAN**  
Coolest hvac around

Designer & manufacturer of Air & Water Cooled Chillers, Air Handling Units, Fancoil, HVAC Equipment, Cold Storage Room & etc



1. Isfahan Factory



2. Vilashahr Factory



3. Parand Factory



4. Parand (2) Factory



5. Bonyad Factory



# SOME OF Certificates are



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