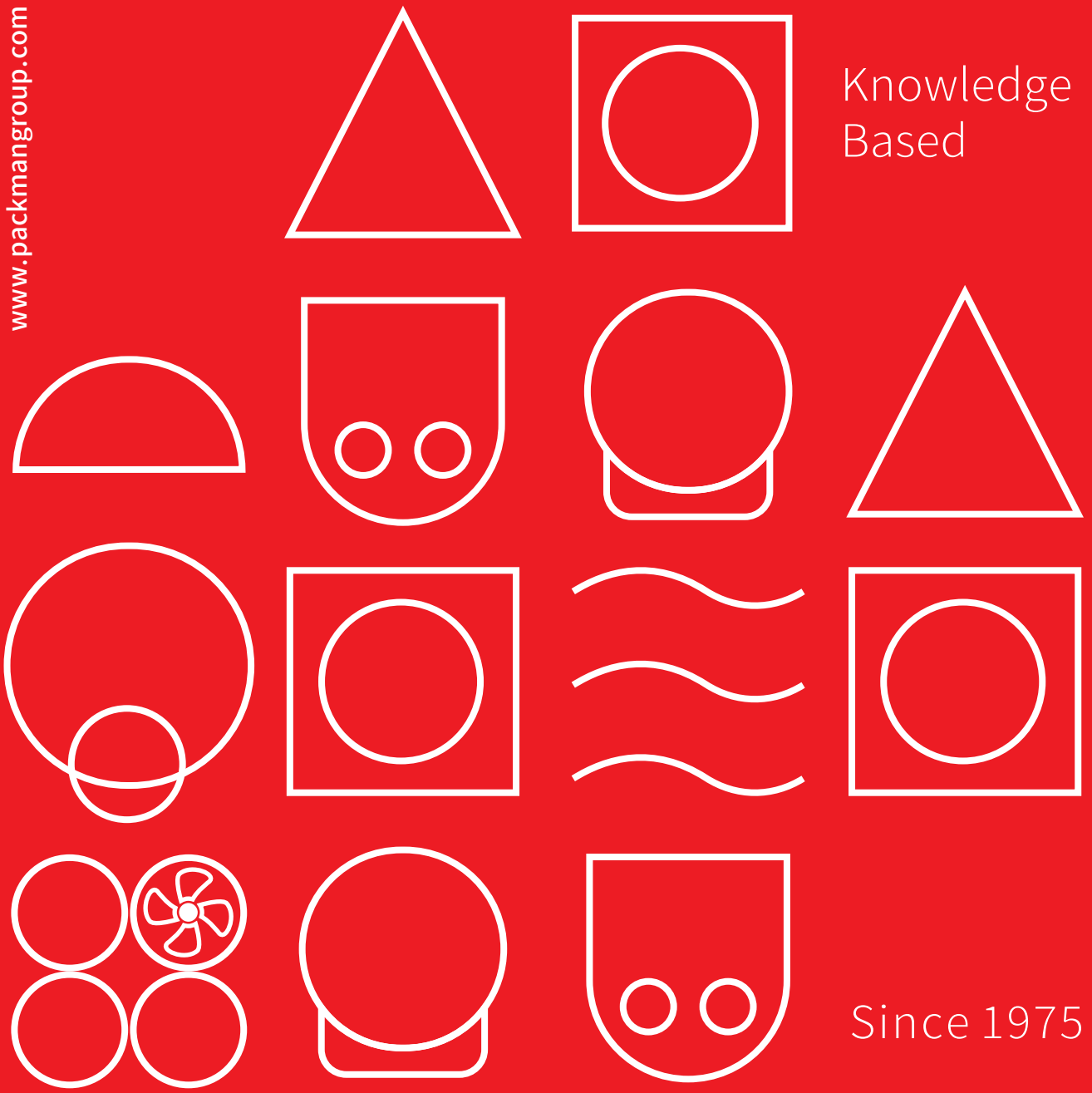


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Knowledge Based

Since 1975



PACKMAN
Industrial Group

 Condensate Tank



Condensate Tank



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Product Description

Condensate Tanks recover condensate returns and add fresh water to meet boiler or deaerator water requirements. It means that One purpose of the condensate tank is to deliver the condensate back to the boiler where there is insufficient differential pressure to flow the condensate to the boiler plant. Also at the main condensate collection point in the boiler operation, where there is a need to collect the condensate and pumping it to the pressurized deaerator system. The preferred method of receiving and delivering condensate to the boiler plant operation is by using a properly sized and designed condensate tank with an electric-motor-driven pump. An efficient steam system will collect condensate in the plant and either return it to a deaerator, send it to a boiler feed tank, or use it in another process. A high percentage of these systems are modulating process steam systems, where steam pressure to the heat transfer varies with the processes. These modulating systems require condensate to flow by gravity from the heat transfer equipment to a vented condensate tank system. The condensate tank system is always vented to the atmosphere to keep pressure out of the condensate return lines.

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PACKMAN Condensate Tank Properties

PACKMAN's Atmospheric Condensate Tanks are made of SA 36 (St 37.2 in accordance with DIN standard) or in the case of a customer's emphasis they can be made of 17MN4 (which is Suitable for boiler construction) with a certain thickness and without changing the price.

Manufacturing Standards

ASME Sec VIII, Div. 1 is used in the construction of atmospheric condensate tanks.

Torispherical / Elliptical Head

PACKMAN's Condensate tank head is Torispherical. This type of head has a longer life and a higher pressure strength at the same thickness against other shapes. The production price/per kilo of these heads is even up to two times the size of the usual heads on the market.

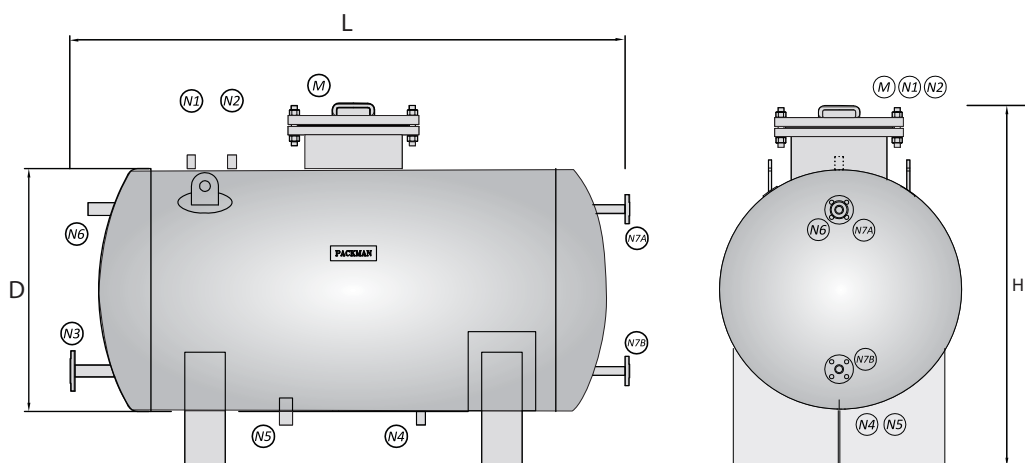
Welding Procedure

Welding is done by using the Swedish ISBU submerged arc welding equipment. After constructing the condensate tank and welding the lugs, the body of the tank will be connected to the heads by welding with a submerged welding method. In addition, the head is welded internally and externally, which increases the lifetime and the strength of the heads. In the welding root pass, the TIG, argon or welding methods with the 6010 cellulose electrode is used. The EW7018 electrode is used in welding fill pass. The submerged method using EW7018 electrodes in the welding cover pass.

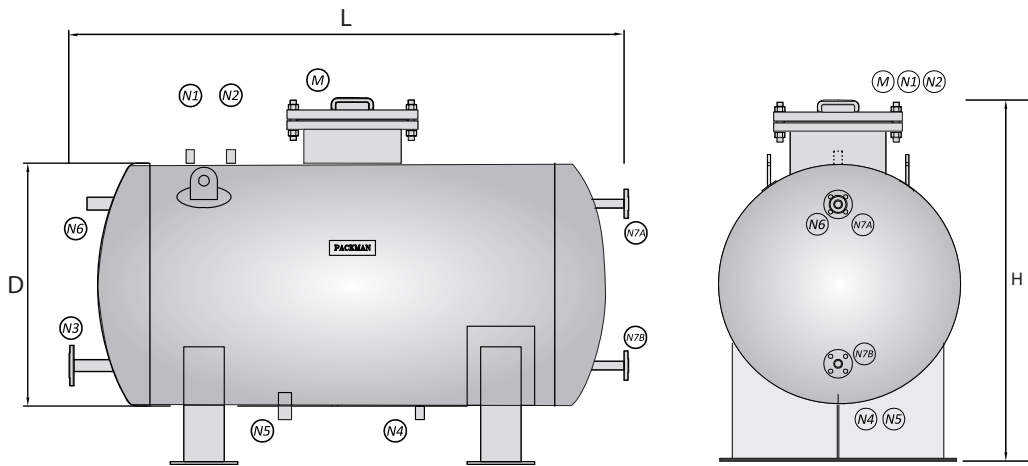
Product Capacity Calculation & Selection:

Selection of a Condensate Storage Tank is based on boiler size, pump required flow, and water storage requirements. Contact your local PACKMAN authorized representative for detailed component sizing information.

For the normal installation, it has been found customary to select a receiver of sufficient size to hold a volume equivalent to the condensate evaporated by the boiler in a one-third to one-half hour period at the normal firing rate of the boiler. First of all, we determine the volume of the condensate source based on the amount of steam output from the boiler in kilograms per hour and the percentage of total return condensation and the time required to store the return condensate in the tank and the amount of boiler blown-off.



| Model | Unit | PCT-300 | PCT-400 | PCT-800 | PCT-1000 | PCT-1500 | PCT-2000 | PCT-2500 | PCT-3000 | PCT-4000 |
|--------------------------|------|----------------------|---------|---------|----------|----------|----------|----------|----------|----------|
| Technical Data | | | | | | | | | | |
| Design Standard | - | ASME SEC.VIII. DIV.1 | | | | | | | | |
| Vessel Type | - | Horizontal | | | | | | | | |
| Volume Capacity | litr | 300 | 400 | 800 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 |
| Connectoins Size | | | | | | | | | | |
| Vent | in | 3/4 | 3/4 | 3/4 | 3/4 | 1 | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 |
| Drain | in | 1 | 1 | 1 | 1 | 1 | 1 1/2 | 1 1/2 | 1 1/2 | 2 |
| Level Gauge | in | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Water Outlet | in | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 | 2 | 2 | 2 | 2 | 3 |
| Hand Hold/ Man Hole | in | 8 | 8 | 8 | 14 | 14 | 16 | 16 | 16 | 16 |
| Water Inlet | in | 1 | 1 | 1 | 1 | 1 1/2 | 2 | 2 | 2 | 3 |
| Condensate Inlet | in | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 | 2 | 2 1/2 | 2 1/2 | 2 1/2 | 3 |
| Overflow | in | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 | 2 | 2 1/2 | 2 1/2 | 2 1/2 | 2 1/2 |
| Material | | | | | | | | | | |
| Shell | - | Carbon Steel | | | | | | | | |
| Toris Head | - | Carbon Steel | | | | | | | | |
| Vessel Dimensions | | | | | | | | | | |
| Vessel Diameter (D) | mm | 610 | 610 | 800 | 900 | 1100 | 1200 | 1320 | 1320 | 1600 |
| Vessel Length (L) | mm | 1500 | 1500 | 2200 | 2200 | 2200 | 2200 | 2200 | 2600 | 2650 |
| Vessel Height (H) | mm | 960 | 960 | 1200 | 1400 | 1600 | 1800 | 1900 | 1800 | 2100 |



| Model | Unit | PCT-5000 | PCT-6000 | PCT-7000 | PCT-8000 | PCT-9000 | PCT-10000 | PCT-20000 | PCT-25000 |
|--------------------------|------|----------------------|----------|----------|----------|----------|-----------|-----------|-----------|
| Technical Data | | | | | | | | | |
| Design Standard | - | ASME SEC.VIII. DIV.1 | | | | | | | |
| Vessel Type | - | Horizontal | | | | | | | |
| Volume Capacity | litr | 5000 | 6000 | 7000 | 8000 | 9000 | 10000 | 20000 | 25000 |
| Connectoins Size | | | | | | | | | |
| Vent | in | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 |
| Drain | in | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 1/2 |
| Level Gauge | in | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Water Outlet | in | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| Hand Hold/ Man Hole | in | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Water Inlet | in | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| Condensate Inlet | in | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| Overflow | in | 2 1/2 | 2 1/2 | 2 1/2 | 2 1/2 | 2 1/2 | 2 1/2 | 2 1/2 | 2 1/2 |
| Material | | | | | | | | | |
| Shell | - | Carbon Steel | | | | | | | |
| Toris Head | - | Carbon Steel | | | | | | | |
| Vessel Dimensions | | | | | | | | | |
| Vessel Diameter (D) | mm | 1600 | 1750 | 1750 | 1910 | 1910 | 1910 | 2250 | 2500 |
| Vessel Length (L) | mm | 3200 | 3300 | 3550 | 3400 | 3800 | 4300 | 6000 | 5850 |
| Vessel Height (H) | mm | 2100 | 2250 | 2250 | 2400 | 2400 | 2400 | 2400 | 3050 |

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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