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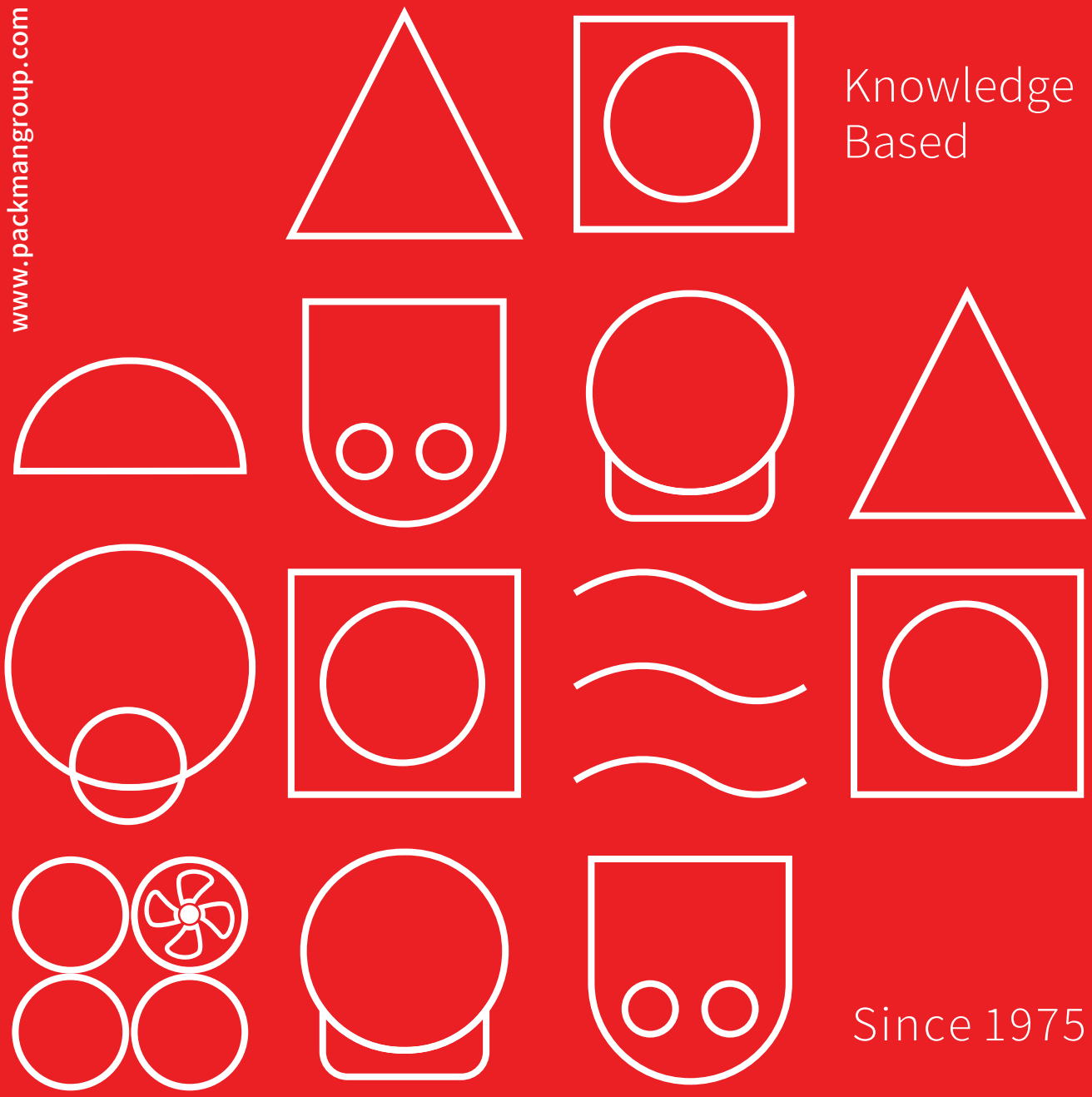


Knowledge
Based

Since 1975

PACKMAN
Industrial Group

Open Expansion Tank

powered by PACKMAN industrial group

Open Expansion Tank

www.packmangroup.com

Product Description

An expansion tank or expansion vessel is a small tank used to protect closed (not open to atmospheric pressure) water heating systems and domestic hot water systems from excessive pressure. The tank is partially filled with air, the expansion tank cushions the system from water hammer shocks and absorbs excess water pressure caused by thermal expansion. In other words open Expansion tanks are used as safety accessories in the heating systems where, due to legal reason it is forbidden to install closed expansion tanks. An expansion tank is composed of a cover unit where all the including over flow, supply & circulating water Nozzles are installed. Open expansion Tanks must be installed 2 to 3 meters above the consumer in the highest level. The tanks must have a volume equal to or greater than the expansion volume of the system's total water content, the value of which should be declared.

PACKMAN Open expansion Tank Properties

PACKMAN's Open Expansion Tanks are made of SA 36 (St 37.2 in accordance with DIN standard).

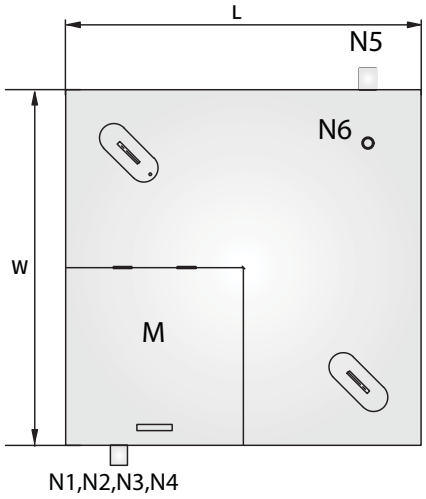
Manufacturing Standards

ASME Sec VIII, Div. 1 is observed in the construction of open expansion tanks.

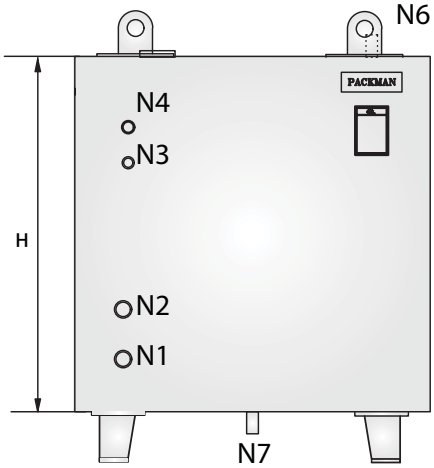
Product Capacity Calculation & Selection

In order to select the capacity of open expansion tank, the expansion volume of the system should be calculated. The volume of the open expansion tank should be about twice the volume change of the system. There are some references for estimation of the system's water content.

Open Exp Tank-Cubic



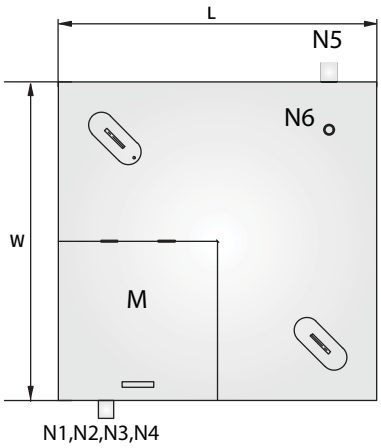
TOP VIEW



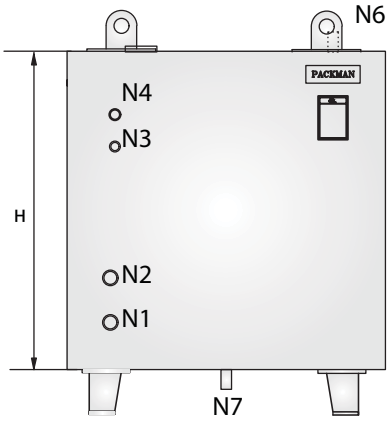
VIEW A

Model	Unit	POET-100	POET-200	POET-300	POET-500	POET-700	POET-800	POET-1000
Technical Data								
Design Standard	-	ASME SEC.VIIII.DIV.1						
Vessel Type	-	Vertical-Cubic						
Volume Capacity	liter	100	200	300	500	700	800	1000
Connectoins Size								
Circulation Water (N1)	in	3/4	3/4	1	1 1/4	1 1/4	1 1/4	1 1/2
Expansion (N2)	in	3/4	3/4	1	1 1/4	1 1/4	1 1/4	1 1/2
Permanent Filler (N3)	in	3/4	3/4	3/4	1	1	1	1
Quick Filler (N4)	in	1	1	1	1 1/4	1 1/4	1 1/4	1 1/4
OverFlow (N5)	in	1 1/4	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 1/2
Vent (N6)	in	3/4	3/4	3/4	1	1	1	1 1/4
Drain (N7)	in	3/4	3/4	3/4	1	1	1	1
Man Hole (M)	in	150*150	550*250	550*275	720*360	400*900	450*900	500*500
Material								
Shell	-	Carbon Steel						
Vessel Dimensions								
Vessel Height	mm	600	800	1000	1000	1000	1000	1000
Vessel Length	mm	400	500	550	720	900	900	1000
Vessel Width	mm	400	500	550	720	800	900	1000

Open Exp Tank-Cubic



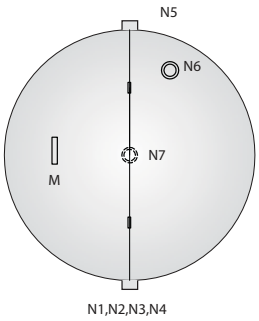
TOP VIEW



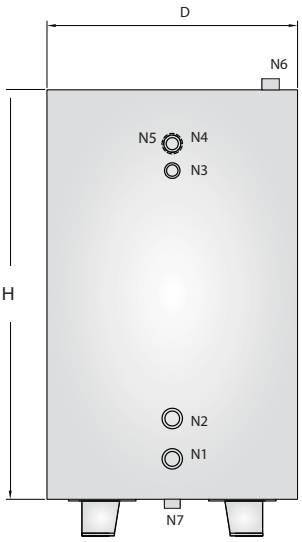
VIEW A

Model	Unit	POET-1200	POET-1500	POET-2000	POET-2500	POET-3000	POET-4000	POET-5000
Technical Data								
Design Standard	-	ASME SEC.VIIII.DIV.1						
Vessel Type	-	Vertical-Cubic						
Volume Capacity	liter	1200	1500	2000	2500	3000	4000	5000
Connectoins Size								
Circulation Water (N1)	in	1 1/2	1 1/2	2	2	2	2	2 1/2
Expansion (N2)	in	1 1/2	1 1/2	2	2	2	2	2 1/2
Permanent Filler (N3)	in	1	1	1 1/4	1 1/4	1 1/4	1 1/4	1 1/2
Quick Filler (N4)	in	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 1/2	2
OverFlow (N5)	in	1 1/2	1 1/2	2	2	2	2	2 1/2
Vent (N6)	in	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 1/2	2
Drain (N7)	in	1	1	1	1	1 1/4	1 1/4	1 1/2
Man Hole (M)	in	500*500	500*500	500*500	500*500	500*500	500*500	500*500
Material								
Shell	-	Carbon Steel						
Vessel Dimensions								
Vessel Height	mm	1000	1000	1000	1000	1000	1000	1250
Vessel Length	mm	1200	1500	2000	2000	2000	2000	2000
Vessel Width	mm	1000	1000	1000	1250	1500	2000	2000

Open Exp Tank-Cylindrical



TOP VIEW



GENERAL VIEW

Model	Unit	POET-300	POET-500	POET-1000	POET-2000
Technical Data					
Design Standard	-	ASME SEC. VIII. DIV.1			
Vessel Type	-	Vertical-Cylindrical			
Volume Capacity	liter	300	500	1000	2000
Connectoins Size					
Circulation Water (N1)	in	1	1 1/4	1 1/2	2
Expansion (N2)	in	1	1 1/4	1 1/2	2
Permanent Filler (N3)	in	3/4	1	1	1
Quick Filler (N4)	in	1	1 1/4	1 1/4	1 1/4
OverFlow (N5)	in	1 1/4	1 1/2	1 1/2	2
Vent (N6)	in	3/4	1	1 1/4	1 1/2
Drain (N7)	in	3/4	1	1	1
Man Hole (M)	in	Half Circle			
Material					
Shell	-	Carbon Steel			
Head	-	Carbon Steel			
Vessel Dimensions					
Vessel Diameter	mm	640	820	930	1300
Vessel Heigth	mm	1000	1000	1520	1520

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

Knowledge Based

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