

**SHOP
DRAWING
REVIEW**

X

NOT REVIEWED
REVIEWED
REVIEWED AS NOTED
REVISE AND RESUBMIT

This review by Hilditch Architect Inc. is for the sole purpose of ascertaining conformance with the general design concept features only, and does not in any way constitute review of the design of engineering elements which form part of the Contract Documents prepared by others. This review shall not mean that Hilditch Architect Inc. approves the design detail inherent in the shop drawings, responsibility for which shall remain with the Contractor submitting same, and such review shall not relieve the Contractor of his responsibility for errors or omissions in the shop drawings or of his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all trades.

Hilditch Architect Inc.

By: Sasha Stairs

Project No: 1809

Date Rec'd:

Date Rev'd: 2025.05.12

GC/CM: 2025.05.09

Consultant: 2025.05.12

Submittal No.70

Expansion Tanks - Shop


Drawing

Project Name:
Neshama Hospice

Owner:
Neshama

Prime Consultant:
Hilditch Architect Inc

General Contractor: Renokrew

SHOP DRAWING <hr/> SUBMITTAL REVIEW	JOB NAME	Neshama Hospice
	JOB #	24-130
	DATE	May 09, 2025
	REVIEWED <input type="checkbox"/>	
REJECTED <input type="checkbox"/>	This review is for general conformance of plans and specifications only. Approvals are subject to subcontractors performance within the confines of the contract documents. Review of dimensions will not serve to relieve the subcontractor of contractual responsibility for any deviation from the contract requirements.	
REVIEW & RESUBMIT <input type="checkbox"/>	SPECIFICATION	 23 08 10
REVIEW AS NOTED <input type="checkbox"/>	<input checked="" type="checkbox"/> SHOP DRAWING	CHECKED BY:
	<input type="checkbox"/> PRODUCT DATA	REVIEWED BY:
	<input type="checkbox"/> DOCUMENTATION	TOTAL PAGES: 5
	<input type="checkbox"/> LETTER	

SustainGlobe Ltd. <small>THIS DRAWING REVIEWED SOLELY FOR GENERAL CONFORMITY WITH DESIGN CONCEPTS, QUANTITIES, DETAILS, DIMENSIONS AND DESIGNS INHERENT IN THE SHOP DRAWINGS ARE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY DATA WITH FIELD DIMENSIONS. CONTRACTOR IS SOLELY RESPONSIBLE FOR DESIGN OF MANUFACTURED ITEMS, FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION AND INSTALLATION OF EQUIPMENT.</small>	
DATE RECEIVED: May 9, 2025	<input checked="" type="checkbox"/> MECHANICAL <input type="checkbox"/> ELECTRICAL <input type="checkbox"/> OTHERS
THIS DRAWING IS: <input checked="" type="checkbox"/> REVIEWED <input type="checkbox"/> REVIEWED AS NOTED <input type="checkbox"/> REVIEWED AND TO BE RESUBMIT	BY: TL DATE: May 12, 2025 PROJ. NO.: 18031



54 Audia Court, Unit 2
Concord, ON L4K 3N5
(905)-738-1400

Submittal 24-256-021

PROJECT NAME	PROJECT ADDRESS	DATE SUBMITTED
NESHAMA HOSPICE	24-256 3 Cadillac Avenue North York, ON M3H 1R9	May 9, 2025

TO	FROM
Taranjeet Singh	INZAMAN KHAN
COMPANY	COMPANY
1568796 ONTARIO INC. C/A RENOKREW	Consult Mechanical Inc.
EMAIL	EMAIL
taranjeet@renokrew.com	inzaman@consultmechanical.com
ADDRESS	ADDRESS
43 LEPAGE COURT TORONTO, ON M3J 1Z9	54 Audia Court, Unit 2 Concord, ON L4K 3N5

Title

Expansion Tanks - ET-1,2

Description

- Expansion tanks ET-1 and ET-2
 - a. PLT35
 - b. AX-120V-125

Package Items

SPEC	SUBSECTION	ITEM	TYPE
------	------------	------	------

For Water Heater and Hot Water Storage Tank Applications

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

LEAD FREE*

Series PLT

Potable Water Expansion Tanks

Series PLT Potable Water Expansion Tanks are designed to absorb the increased volume of water created by thermal expansion and to maintain balanced pressure throughout the potable water supply system.

Heated water expands, and in a domestic hot water system, the system may be closed when the potable water system is isolated from the public water supply by a one-way valve such as pressure reducing valve, backflow preventer or check valve. Provisions must be made for this expansion.

Series PLT expansion tanks absorb the increased volume of water created when the hot water storage tank is heated and keeps the system pressure below the relief setting of the T&P relief valve.

It is a pre-pressurized steel tank with an expansion membrane that prevents contact of the water with the air in the tank. This prevents loss of air to the water and insures long and trouble-free life for the system. These tanks may be used with all types of Direct Fired Hot Water Heaters (gas, oil or electric) and hot water storage tanks.

Features

- Rugged flexible butyl diaphragm
- Field adjustable pre-charge
- In-line and free standing models
- Can be used with most standard hot water heaters and storage tanks

Models

PLT-5-M1 has 3/4" male connection, tank volume 2.1 gal.

PLT-12-M1 has 3/4" male connection, tank volume 4.5 gal.

PLT-20-M1 has 3/4" male connection, tank volume 8.5 gal.

PLT-35-M1 has 1" female connection, tank volume 14.00 gal.

Specifications

The potable water expansion tank shall be of drawn steel construction. It shall have a Butyl diaphragm separating the air chamber from the water containing chamber. Inlet connector shall be Stainless Steel. Materials of manufacture for the diaphragm shall be FDA approved.

The potable water expansion tank shall be a Watts Model PLT.

***The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.**

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

PLT-20

PLT-12

PLT-5

PLT-35



Standards

Models PLT-5, PLT-12 and PLT-20

are Listed by IAPMO.

Certified to ANSI/NSF 61

Model PLT-35

Certified to ANSI/NSF 61



(73°F/23°C)

Note: The potable water expansion tank shall be installed in the cold water service pipe line on the supply side of the water heater (or water storage tank). A pressure relief valve sized and installed in accordance with local codes must be incorporated in the system.

In those systems requiring a combined temperature and pressure safety relief valve, the temperature and pressure relief valve should be sized and installed in accordance with local codes. Adequate drainage provisions should be provided where water flow will cause damage.

See chart on back

WATTS®

Selection

This Quick Reference Selection Guide may be used as an alternative to using a formula to determine the correct expansion tank for the system. This table is based upon a relief valve setting of 150psi (10.3 bar), and a maximum of 50°F temperature rise.

To select the correct model PLT series tank, simply go the supply pressure equal to the system supply pressure (for pressures between those shown use next highest supply pressure shown), read across the chart to the correct tank as indicated by the water heater capacity (for capacities between those shown, use next highest capacity).

To accommodate the thermal expansion required for higher temperature and/or higher pressure systems, multiple tanks may be used. Please contact the factory for sizing information.

SUPPLY PRESSURE (PSIG)	WATER HEATER (GALLONS)						
	20	30	40	50	80	100	120
40							
50							
55							
60							
70							
80							
90							
100							
110							
120							

	PLT-5		PLT-20
	PLT-12		PLT-35
	Multiple tanks required - consult factory		

Materials

Diaphragm: Butyl rubber

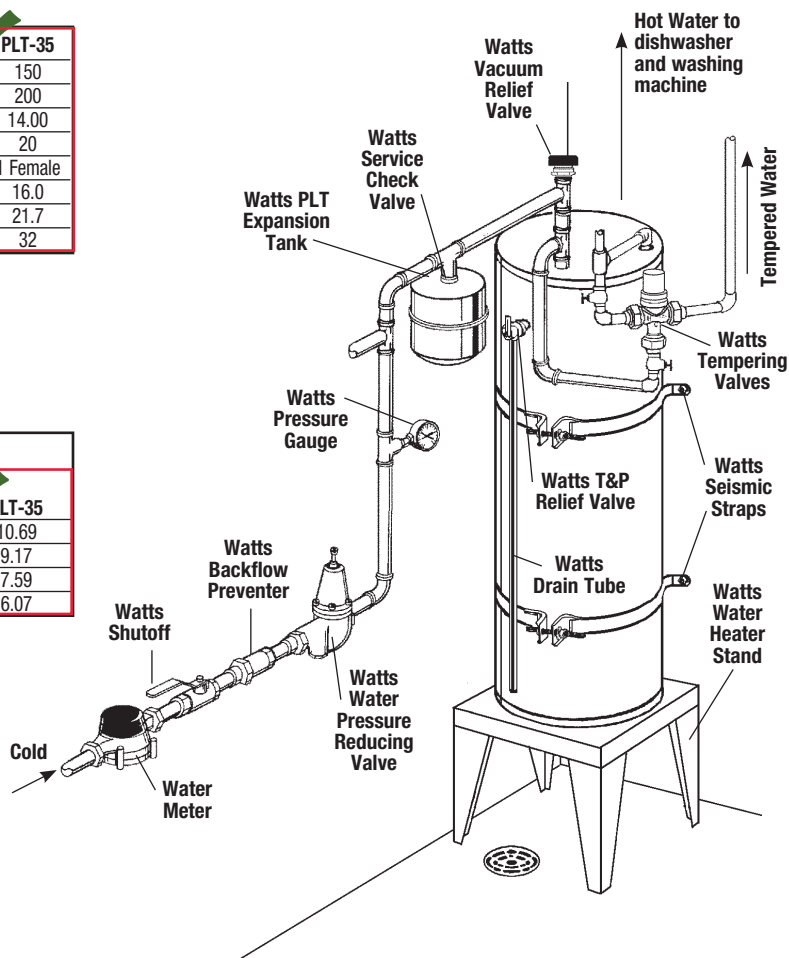
Inlet Connection: Stainless Steel

Technical Information

Description	PLT-5	PLT-12	PLT-20	PLT-35
Max. Pressure - PSI	150	150	150	150
Max. Temp. - °F	200	200	200	200
Tank Volume - Gal.	2.1	4.5	8.5	14.00
Air Pre-charge - PSI	20	20	20	20
Connections Size - Inches	¾ Male	¾ Male	¾ Male	1 Female
Diameter - Inches	8	10.5	12.5	16.0
Length - Inches	11	13.5	19.2	21.7
Weight - Lbs.	5.5	10	15	32

Acceptance Volume

Air Side Pre-pressure (psi)	Water Side Volume at 150psi (gallons)			
	PLT-5	PLT-12	PLT-20	PLT-35
20	1.48	3.42	7.102	10.69
40	1.26	2.88	5.882	9.17
60	1.0	2.49	4.705	7.59
80	.8	1.85	4.009	6.07



WATTS®

A Watts Water Technologies Company



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Canada: Burlington, ONT. (905) 332-4090 • Fax: (905) 332-7068 • www.wattscanada.ca



EXTROL®

Hydronic Expansion Tanks: Vertical AX Series ASME

125 PSIG Working Pressure

Construction

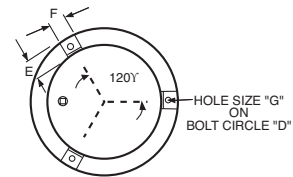
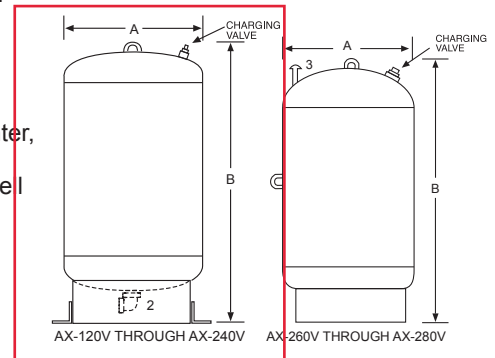
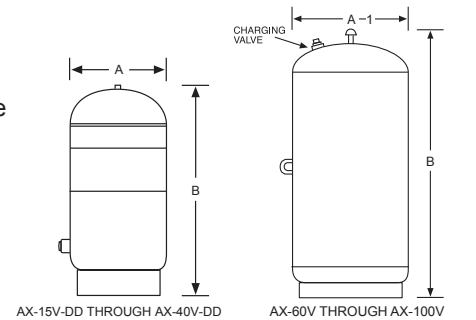
Shell	ASME Approved Steel
Diaphragm	Heavy Duty Butyl/EPDM
System Connection	NPTF ¹ Malleable Iron Center NPTM ² Steel Pipe, Top Offset
Finish	Red Oxide Primer
Air Valve	Schrader Valve w/EPDM Seats
Factory Precharge	12 PSIG (.8 bar)

Performance

Maximum Operating Temperature	240°F (115°C)
Maximum Working Pressure	125 PSIG (8.6 bar)
Warranty	3-Years

Application

- For use in closed, non-potable hydronic heating and chilled water systems.
- Designed to meet all ASME Code Section VIII, Division 1 standards.
- Available with optional sight glass and seismic restraints.
- Suitable in propylene glycol applications with mixtures up to 50%.
- Deep drawn models are lighter, stronger and more compact than traditional head and shell construction.



BOTTOM VIEW

Deep Drawn ASME Models

Model Number	Tank Volume		Max. Accept. Volume		A Tank Diameter		B Tank Height		Sys. Conn	Shipping Weight	
	Gal	Lit	Gal	Lit	In	mm	In	mm		Lbs	Kg
AX-15V-DD	8.6	33	3.2	12.1	12	305	22	559	3/4" ¹	38	17
AX-20V-DD	16.5	63	11.3	43	15	381	25	636	3/4" ¹	51	23
AX-40V-DD	23	88	11.3	43	15	381	33	838	3/4" ¹	72	34

Head & Shell ASME Models

Model Number	Tank Volume		Max. Accept. Volume		A Tank Diameter		B Tank Height		Sys. Conn	Shipping Weight	
	Gal	Lit	Gal	Lit	In	mm	In	mm		Lbs	Kg
AX-60V	33.6	127.2	11.3	42.8	16	356	45	1143	1/2" ¹	99	45
AX-80V	44.4	168.1	22.6	85.5	24	610	29	737	1" ¹	166	75
AX-100V	55.7	211.8	22.6	85.5	24	610	34	863	1" ¹	178	81
AX-120V	68.0	257.4	34.0	128.7	24	610	47	1194	1" ²	220	100
AX-144V	77.0	291.5	34.0	128.7	24	610	52	1321	1" ²	232	105
AX-180V	90.0	340.7	34.0	128.7	24	610	60	1524	1" ²	241	109
AX-200V	110.0	416.4	34.0	128.7	24	610	66	1676	1" ²	269	122
AX-240V	132.0	500.0	46.0	174.0	30	762	58	1473	1" ²	432	196
AX-260V	159.0	600.0	56.0	212.0	30	762	65	1651	1 1/4" ³	475	215
AX-280V	211.0	800.0	84.0	318.0	30	762	82	2083	1 1/4" ³	599	272

Optional Seismic Restraints

Tank Diameter	Bolt Circle	Dim.	Dim.	Hole Size
B	D	E	F	G
12	12 3/4	2	2	9/16
16 1/4	14 3/4	2	2	9/16
24	18	2	2	9/16
30	27	3	3	3/4

All dimensions and weights are approximate.

Job Name _____	Notes _____
Engineer _____	_____
Contractor _____	_____
P.O. No. _____	_____
Sales Rep. _____	_____
Model No. _____	_____

