

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



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

Verify correct size

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.

Materials

Diaphragm: Butyl rubber

Inlet Connection: Stainless Steel

Verify correct size

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

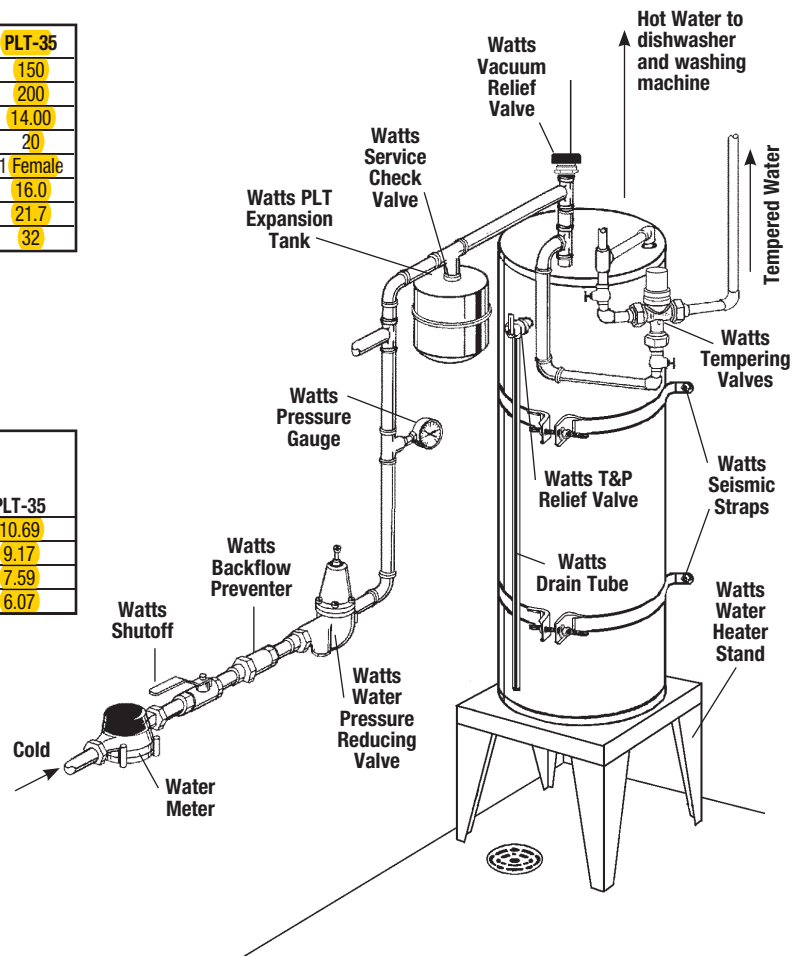
	PLT-5		PLT-20
	PLT-12		PLT-35
	Multiple tanks required - consult factory		

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



A Watts Water Technologies Company



ISO 9001-2008
CERTIFIED

USA: No. Andover, MA • Tel. (978) 688-1811 • Fax: (978) 794-1848 • www.watts.com
Canada: Burlington, ONT. (905) 332-4090 • Fax: (905) 332-7068 • www.wattscanada.ca

TABLE OF CONTENTS

VENDOR	VENDOR PART	DESCRIPTION
GWH		
LOCHINVAR CORPORATION	SNA401125	SNA401125 WATER HEATER
WATTS REGULATOR COMPANY	LF3012	LF3012 2" FXC DIELECTRIC UNION
WATTS REGULATOR COMPANY	PLT35	PLT35 EXPANSION TANK
LOCHINVAR CORPORATION	KIT3087	KIT3087 CONDENSATE NEUTRALIZATION

Manufacturer cut sheet not included in this submittal.

Verify correct size

Manufacturer cut sheet not included in this submittal.

SECTION NAME:
GWH

ITEMS CONTAINED IN SECTION:

- SNA401125 WATER HEATER
- LF3012 2" FXC DIELECTRIC UNION
- PLT35 EXPANSION TANK
- KIT3087 CONDENSATE NEUTRALIZATION

Manufacturer cut sheet
not included in this

Verify correct size

Manufacturer cut sheet not
included in this submittal.



Shop Drawing Submittal Review

Transmitted To: Cannon Design

Date: November 15, 2016

Attention: stl-cac@cannondesign.com

Contact Person / WTA Field Inspector:
Patrick Garner

Project Name: Webster University-**ISB**

Reviewed by: Mike Whitworth (WES)

Project No. WT 14127.01
WES 607

☐ UPS

☐ Courier

☒ **Email**

Copies	No.	Description
1 PDF	223400P01B	(Submittal No.'s:)
		(Cannon #22 3400-010-REV002) - (Paric #15051-0317) – (WES #607)
		➤ Water Heater Product Data Resubmission
		(Fuel Fire Domestic Water Heater)

***Remarks: See Submittal Review from Webb Engineering.**

c: Kelvin Patel
Kpatel@cannondesign.com

☒ ***Reviewed**

☒ ***No Exceptions Taken**

☐

☒ ***Make Corrections As Noted,
No Resubmittal Required**

Corrections or comments made on shop drawings during this review do not relieve contractor from compliance with requirements of drawings and specifications. This check is only for review of general conformance with the design concept of project and general compliance with information given in contract documents. Contractor is responsible for: confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating his work with that of all other trades; and performing his work in a safe and satisfactory manner.



1400 S. 3rd Street, Suite 201
St. Louis, Missouri 63104
Phone: (314) 588-0600
Fax: (314) 588-0604

Letter of Transmittal

To: **wtashop@wmtao.com**

From: **Mike Whitworth**

Date: **November 13, 2016**

Re: **Webster University ISB**

WES No: **607**

☐ For your Files

☐ For Review

☐ Please Comment

☐ Please Reply

Item No.	Description	No. of Copies	Date
1	Shop Drawing Review – REV 002 223400 Fuel Fire Domestic Water Heater	1	11-13-2016

•Signature: Mike Whitworth

**WEBB
ENGINEERING
SERVICES INC.**www.webb-engineering.com

The review of this submittal is limited to the general conformance with the designated design concept and intent of this project and with the general compliance of the information provided in the contract documents. All comments, remarks and notations made on the submittal(s) as a result of this review do not relieve the contractor from full compliance with requirements of the contract documents. Approval for a specific item shall not include approval of an assembly of which the item is not a component. The contractor is solely responsible for rough-in and installation confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordination of this work with that of other trades on this project; and in a safe and satisfactory manner. All work shall be installed in full compliance with the manufacturer's recommendation, Federal, State and Local rules and regulation and the Authority Having Jurisdiction (AHJ) and applicable adopted codes and standards.

PROJECT NAME: Webster University ISBLOCATION: St. Louis MissouriCLIENT PROJ. No.: N/AWES PROJ. No.: 607SPEC SECTION: 223400
Fuel Fire Domestic
Water HeaterSUBMITTAL ITEM:: See Below -CONTRACTOR: Deluca Plumbing, LLC.CTR. SUBMITTAL # 22 3400-010 REV002SUBMITTAL DATE: November 09, 2016DATE RECEIVED: November 10, 2016RECEIVED VIA: E-MailRECEIVED FROM: WTADATE RETURNED: NOVEMBER 13, 2016RETURNED VIA: E-MAILRETRURNED TO: WTASHOP@WMTAO.COM

STATUS KEY:

NEC	MCN	AAR	REJ	REV	NO EXCEPTION TAKEN	
					MAKE CORRECTIONS NOTED, NO RESUBMITTAL:	
					AMEND AND RESUBMIT	
					REJECTED, SEE REMARKS:	
					REVIEWED ONLY	
					ITEM	REMARKS
X					Domestic Water Heater Lochinvar Model - SNA401125	
X					Dielectric Union Watts Model - LF3012	1. Manufacturer cut sheet not included in this submittal.
	X				Expansion Tank Watts Model - PLT35	1. Verify correct size.
X					DWH Neutralization Kit Lochinvar Model - KIT 3087	1. Manufacturer cut sheet not included in this submittal.

REVIEWED BY: Michael R. WhitworthDATE: November 13, 2016

THESE COMMENTS ARE TO BE ATTACHED TO ALL COPIES OF THE SHOP DRAWING REFERENCED ABOVE.



77 Westport Plaza
Suite 250
St. Louis, MO 63146

TRANSMITTAL

No. 15051-0317

Paric Corporation

PROJECT: 15051-Webster University Interdisciplinary Science Building

DATE: 11/09/2016

TO: Cannon Design
1100 Clark Ave
St Louis MO 63102

RE: Water Heater Product Data ReSubmission

ATTN: Kelvin Patel

JOB: 15051

WE ARE SENDING:		SUBMITTED FOR:	ACTION TAKEN:
☐ Shop Drawings		☒ Approval	☐ Approved as Submitted
☐ Letter		☐ Your Use	☐ Approved as Noted
☐ Prints		☐ As Requested	☐ Returned After Loan
☐ Change Order		☐ Review and Comment	☐ Resubmit
☐ Plans			☐ Submit
☐ Samples		SENT VIA:	☐ Returned
☐ Specifications		☐ Attached	☐ Returned for Corrections
☒ Other: Product Data		☐ Separate Cover Via:	☐ Due Date:

Item	Package	Code	Rev.	Copies	Date	Description	Status
Submittal		223400-010	2		11/09/2016	Water Heater Product Data ReSubmission	Submitted

NOTES:

CC:

Signed: _____
Devin Gates

Shop Drawing Submittal

Project Name: WEBSTER ISB

Specification # **223400-02**

Specification Description: Domestic Water Heater

Date: 11-9-16

General Contractor / Construction Manager: PARIC

ARCHITECT: KWA

ENGINEER: William Tao / Webb

Contractor: DeLuca Plumbing, L.L.C.
8465 Delport Drive
St. Louis, MO 63114

Supplier: Atlas

Manufacturer: Lochinvar

Reviewed & Approved by: DeLuca Plumbing 11-09-16

Action: Forward to GC/CM for Review & Approval

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