



200 Tesma Way,
Concord, ON, L4K 5C2
(905) 738-1400

Submittal Package 23-214 - 011

Feb 6, 2024

PROJECT NAME	PROJECT NUMBER	PROJECT ADDRESS	DUE DATE
CHRIS GIBSON REC CENTRE	23-214	125 McLaughlin Rd N, Brampton, ON, L6X 1N9	Dec 19, 2023

To

NAME	EMAIL
Hassan Zaid	hzaidi@corebuildconstruction.com
COMPANY	ADDRESS
RAFAT GENERAL CON-TRACTOR INC.	8850 GEORGE BOLTON PKWY, BOLTON, ON, L7E 2Y4

From

NAME	EMAIL
JOSHUA STEPHENSON	josh.s@consultmechanical.com
COMPANY	ADDRESS
Consult Mechanical	200 Tesma Way, Vaughan, ON, L4K 5C2

Subject

Expansion Tanks

Notes

ET-01, ET-02 & ET-03

Package Items

Spec	Subsection	Description	Type
Mechanical	HVAC/Plumbing	ET-01, ET-02, ET-03	Shop Drawings



SUBMITTAL REVIEW FORM

384 Adelaide Street West, Suite 100
Toronto, ON M5V 1R7

t: 416 862 8800

1050 West Pender Street, Suite 2010
Vancouver, BC V6E 3S7

t: 604 674 0866

1776 Broadway, Suite 2200
New York, NY 10019

t: 212 710 4329

www.dsai.ca
info@dsai.ca

To:	Rafat General Contractor Inc. 8850 George Bolton Parkway Caledon, ON L7E 2Y4	Submittal No:	029
		Project No:	201014
		File No:	4-6-22
Attention:	Pino Antelope, Bashar Mikha	Date:	December 20, 2023

Project: Chris Gibson Recreation Centre

The Architect's review is for the sole purpose of ascertaining conformance with the general design concept and for general arrangement. This review shall not mean approval of the detail design inherent in the shop drawings, responsibility for which shall remain with the Contractor 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 all dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication processes, quantities or to techniques of construction and installation and for co-ordination with related work.

Contractor Package #	Spec Section	Description	Reviewed by	Status
029	22 30 00	Expansion Tank	DSA	RN

Status Legend: **R** – Reviewed **RN** – Reviewed As Noted **RR** – Revise and Resubmit **N** – Not Reviewed

Comments: Reviewed for Architectural intent only. Refer to Consultant's review comments throughout Submittal.

CFMS review noted by Consultant as not required.

Per: Patrick Johnson



8850 GEORGE BOLTON PARKWAY, CALEDON, ONTARIO L7E 2Y4

Shop Drawings
Transmittal No:

Project Name:	Renovation of Chris Gibson Recreation Centre Drive	Project No.	T2023-125
		DATE:	
		Submittal Required Return Date:	
Submittal No:			

Title:	
--------	--

To:	Patrick Johnson Contract Administrator Halima Namugga Admin Project Coordinator 384 Adelaide Street West, Suite 100 Toronto, Ontario, Canada M5V 1R7 PJohnson@dsai.ca
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Checked by:	Hasan Zaidi (Rafat General Contractor Inc/Corebuild)	To Be Reviewed By the Following Consultants	1. RJC 2. DSI 3. IG
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Submitted for:	REVIEW
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Consultants Response	
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RAFAT	
SUBMITTAL REVIEW	
For general compliance with the design concept and contract documents, Subcontractor is solely responsible for job site coordination and correctness of all ratings, strings, type, style, dimensions, finish, quantities and satisfactory fitting to other work and equipment. This review does not change the intent of the contract document.	
<input checked="" type="checkbox"/> Reviewed	Per: HasanZaidi
<input type="checkbox"/> Make Corrections	Date: 07-Dec-2023
<input type="checkbox"/> Resubmit	
<input type="checkbox"/> Rejected	

SUBMITTAL REVIEW	
INTROBA 380 Wellington Street West Toronto, ON M5V 1G3	
<input type="checkbox"/> REVIEWED	
<input checked="" type="checkbox"/> REVIEWED AS NOTED	
<input type="checkbox"/> REJECTED - REVISE AND RESUBMIT	
<input type="checkbox"/> NOT REVIEWED	
CHECKED BY: ILITTLE	
DISCIPLINE: Mechanical	
DATE: 12/7/2023	
REVIEWED FOR GENERAL DESIGN AND COMPLIANCE WITH CONTRACT DOCUMENTS, DIMENSIONS AND SUITABILITY. FOR SITE CONDITIONS ARE THE RESPONSIBILITY OF THE CONTRACTOR. THIS REVIEW OF THE DRAWING SHALL NOT RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE CONDITIONS OF THE CONTRACT DOCUMENTS.	

IRB Comments:
- Install all piping connections as per manufacturer's recommendations.

SHOP DRAWING REVIEW	
EFFECT ON BASE BUILDING STRUCTURE	
REVIEWED ONLY FOR EFFECT OF THIS ITEM ON THE BASE BUILDING STRUCTURE. STRUCTURAL CAPACITY OF THIS ITEM, INCLUDING ANCHORAGE AND SEISMIC RESTRAINT, IS NOT BY READ JONES CHRISTOFFERSEN LTD.	
Read Jones Christoffersen Ltd. does not warrant or represent that the information contained on this drawing is either accurate or complete. Sole responsibility for correct design, details and dimensions shall remain with the submitting party.	
<input checked="" type="checkbox"/> Reviewed	RJC Number TOR.126799.01
<input type="checkbox"/> Reviewed as Modified	Reviewed by pli
<input type="checkbox"/> Revise and Resubmit	Reviewed on 2023/12/19
<input type="checkbox"/> Not Reviewed	
Read Jones Christoffersen Ltd. 100 University Avenue, North Tower, Suite 400 Toronto, ON M5J 2X4 Canada tel 416-977-5235 fax 416-977-1427	

RJC: reviewed for loads to structures only.



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ET-01, ET-02 & ET-03

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Mechanical	HVAC/Plumbing	ET-01, ET-02, ET-03	Shop Drawings



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Submittal Item Information

Dec 6, 2023

Spec Section

Mechanical

Sub Section

HVAC/Plumbing

Type

Shop Drawings

Description

ET-01, ET-02, ET-03

**Submittal # 72838****APPROVAL REQUIRED**

Project 22006063-MECH-4- Chris Gibson Recreation Centre
Leader Nevin Wong
Job Site Chris Gipson Recreation Centre
Submission Date 2023-12-05
Sold To CONSULT MECH
Submitted By Boran Dal

Contacts

Role	Customer	Our Rep
Mechanical Contractor	Con-Sult Mechanical Inc.*	Nevin Wong
Designer	Integral Group	Graham Coote

Deliverables

Track #	246736	246735	
Tag	ET-01, ET-02	ET-03	
Description	Series B Expansion Tank	Series PTA Expansion Tank	
Quantity	2	1	
Production Lead Time	28 - 32 Weeks	28 - 32 Weeks	
Revision #	0	0	

Attention:

- 1) HTS will provide equipment in accordance with the attached shop drawings.
- 2) Upon approved submittal and customer release, HTS will release equipment to fabrication per the published lead times. Any storage fees associated with project schedule changes will be the responsibility of the purchaser.
- 3) HTS can provide freight and logistics to the purchaser as an added benefit of doing business with HTS. When freight is received by the purchaser, any noticeable damage must be recorded. Otherwise, HTS is not responsible for subsequent damage claims.

Approval Stamps

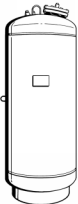
JOB: 22006063 Chris Gibson Conv

REPRESENTATIVE: HTS Engineering

UNIT TAG:
ENGINEER:
CONTRACTOR:

ORDER NO.
SUBMITTED BY:
APPROVED BY:

DATE: 2023-11-23
DATE:
DATE:



Series "B" (ASME)
Pressurized Expansion Tanks
Vertical

Not For Potable Water Systems

DESCRIPTION

Series "B" expansion tanks are ASME rated precharged bladder-type pressure vessels. The Series "B" tank is designed to absorb the expansion forces of heating/cooling system water while maintaining proper system pressurization under varying operating conditions. The heavy duty bladder contains system water thereby eliminating tank corrosion and waterlogging problems.

CONSTRUCTION

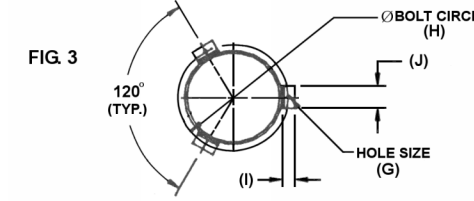
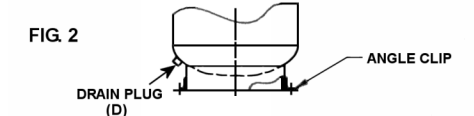
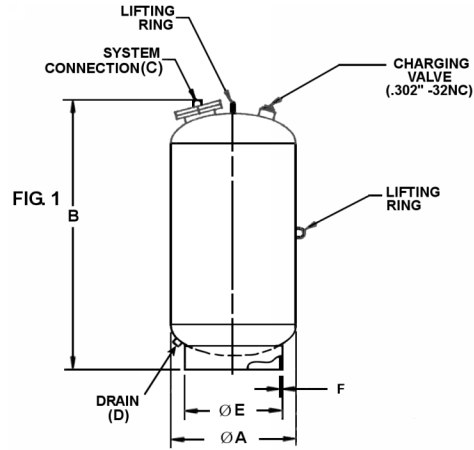
System Connection: Forged Steel
Shell: Carbon Steel
Bladder: Heavy Duty Butyl Rubber
Designed and Constructed per ASME Section VIII, Division 1

MAXIMUM OPERATING LIMITS

Maximum Design Pressure: 125 PSI (862kPa)
Design Temperature: 240°F (115°C)

SCHEDULE

PART NUMBER		MODEL NO.	TANK AND ACCEPTANCE VOLUME GALLONS (LITERS)	TAGGING INFORMATION	QUANTITY
PRESSURIZED EXPANSION TANKS	WITH SEISMIC RESTRAINTS				
116550	116923	B-200	53 (200)		
116551	116924	B-300	80 (300)		
116552	116925	B-400	106 (400)		
116553	116926	B-500	132 (500)		
116554	116927	B-600	158 (600)		
116555	116928	B-800	211 (800)		
116556	116929	B-1000	264 (1000)	ET-01/02	2
116557	116930	B-1200	317 (1200)		
116558	116931	B-1400	370 (1400)		
116559	116932	B-1600	422 (1600)		
116560	116933	B-2000	528 (2000)		
116793	116934	B-2500	660 (2500)		
116794	116935	B-3000	792 (3000)		
116795	116936	B-3500	925 (3500)		
116796	116937	B-4000	1057 (4000)		
116819	116938	B-5000	1321 (5000)		
116841	116939	B-7500	1980 (7500)		
116842	116940	B-10000	2640 (10000)		
116843	116941	B-15000	3963 (15000)		



NOTE: Tanks are factory pre-charged at 12 psi (83 kPa)

Allow a minimum of 18"(457.2mm) clearance for system piping.

Sight glass and seismic restraints available on request.

Tanks can be installed in the horizontal position with the system connection located below the horizontal centerline of the tank.

OPTIONAL SEISMIC RESTRAINTS (FIG.2 & 3) –
DIMENSIONS IN INCHES (MM)

TANK DIAMETER	G	H	I	J
24"	9/16 (14)	21 (533)	2 (51)	2 (51)
30"	7/8 (22)	28 (711)	4 (102)	4 (102)
36"	7/8 (22)	34 (864)	4 (102)	4 (102)
48"	7/8 (22)	46 (1168)	4 (102)	4 (102)
54"	7/8 (22)	46 (1168)	4 (102)	4 (102)
60"	7/8 (22)	46 (1168)	4 (102)	4 (102)
72"	1 (25)	58 (1473)	4 (102)	4 (102)

DIMENSIONS IN INCHES (MM) AND WEIGHTS IN LBS. (KG) (FIG. 1)

PART NUMBER		MODEL NUMBER	A	B	C NPTF	D	E	F	APPROX. SHPG. WT.	APPROX. WT* 100% FULL
PRESSURIZED EXPANSION TANKS										
116550		B-200	24 (610)	36-7/8 (936)	1	3/4	19 (483)	3/16 (5)	192 (87)	629 (285)
116551		B-300	24 (610)	50-7/8 (1292)	1	3/4	19 (483)	3/16 (5)	268 (122)	928 (421)
116552		B-400	24 (610)	64-3/4 (1644)	1	3/4	19 (483)	3/16 (5)	309 (140)	1184 (537)
116553		B-500	24 (610)	78 (1981)	1	3/4	19 (483)	3/16 (5)	328 (149)	1417 (643)
116554		B-600	30 (762)	63-3/4 (1619)	1-1/2	1	24 (610)	3/16 (5)	510 (232)	1814 (823)
116555		B-800	30 (762)	81-3/4 (2076)	1-1/2	1	24 (610)	3/16 (5)	656 (297)	2306 (1046)
116556		B-1000	36 (914)	73 (1854)	1-1/2	1-1/4	30 (762)	3/16 (5)	691 (313)	2869 (1301)
116557		B-1200	36 (914)	85-3/8 (2169)	1-1/2	1-1/4	30 (762)	3/16 (5)	779 (353)	3394 (1539)
116558		B-1400	36 (914)	97-3/4 (2483)	1-1/2	1-1/4	30 (762)	3/16 (5)	905 (410)	3958 (1795)
116559		B-1600	48 (1219)	69-1/8 (1756)	1-1/2	1-1/2	42 (1067)	1/4 (6)	1183 (537)	4665 (2116)
116560		B-2000	48 (1219)	84 (2145)	1-1/2	1-1/2	42 (1067)	1/4 (6)	1264 (573)	5620 (2549)
116793		B-2500	48 (1219)	100-7/8 (2562)	2	1-1/2	42 (1067)	1/4 (6)	1445 (655)	6890 (3125)
116794		B-3000	48 (1219)	118-1/8 (2562)	2	1-1/2	42 (1067)	1/4 (6)	1630 (739)	8164 (3703)
116795		B-3500	54 (1372)	111 (2820)	2	1-1/2	42 (1067)	1/4 (6)	2110 (957)	9741 (4418)
116796		B-4000	54 (1372)	124-1/2 (3163)	2	1-1/2	42 (1067)	1/4 (6)	2230 (1011)	10950 (4967)
116819		B-5000	60 (1524)	128 (3251)	2	1-1/2	42 (1067)	1/4 (6)	2450 (1111)	13403 (6079)
116841		B-7500	72 (1829)	127 (3326)	3	1-1/2	54 (1372)	3/8 (10)	4000 (1814)	20500 (9299)
116842		B-10000	72 (1829)	159 (4039)	3	1-1/2	54 (1372)	3/8 (10)	4900 (2223)	26890 (12197)
116843		B-15000	72 (1829)	233 (5918)	3	1-1/2	54 (1372)	3/8 (10)	6000 (2721)	39010 (17695)

Dimensions are subject to change. Not to be used for construction purposes unless certified.

* Approximate weight 100% full occurs if bag fails or if air charge is lost.

Xylem Inc.
8200 N. Austin Avenue
Morton Grove, IL 60053
Phone: (847)966-3700 Fax: (847)965-8379
www.bellgossett.com
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JOB: 22006063 Chris Gibson Conv

REPRESENTATIVE: HTS Engineering

UNIT TAG:
ENGINEER:
CONTRACTOR:
ORDER NO.
SUBMITTED BY:
APPROVED BY:
DATE: 2023-11-23
DATE:
DATE:


Series "PTA" (ASME)

Residential/Commercial Potable Water

Diaphragm Expansion Tanks

For Potable Water Systems

SUITABLE FOR USE WITH DOMESTIC WATER

DESCRIPTION

Series "PTA" expansion tanks are ASME rated, pre-charged diaphragm-type vessels. The Series "PTA" tank is designed to absorb the forces of expanding water and protect the domestic water system from pressure build up. The FDA approved heavy duty butyl diaphragm and polypropylene liner (sizes PTA-5 through PTA-210V) or replaceable full acceptance butyl bladder (sizes PTA-447 through PTA-457) completely isolates the water from the shell. All units include an integrated bladder integrity monitor.

Models PTA-5 through PTA-210V comply with NSF/ANSI Standard 61.

FACTORY PRE-CHARGED PRESSURE: 40 PSI

CONSTRUCTION

Shell: Carbon Steel
 System Connection: Stainless Steel

PTA-447 through PTA-457: Replaceable Butyl Bladder

PERFORMANCE LIMITATIONS

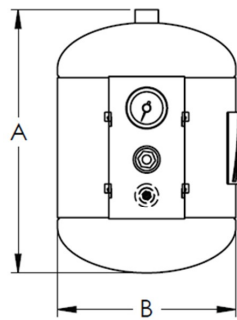
PTA-447 through PTA-457
 240°F (115°C) 150 PSI (1,035 kPa)

SCHEDULE

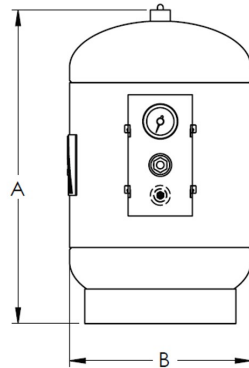
PART NUMBER	MODEL NUMBER	GALLONS (LITERS)		TAGGING INFORMATION	QUANTITY
		TANK VOLUME	Acceptance Volume		
1BN346LF	PTA-5	3.5 (13)	2.3 (9)		
1BN347LF	PTA-12	5 (19)	3.3 (12)		
1BN348LF	PTA-20V	8 (30)	5.3 (20)		
1BN349LF	PTA-30V	15 (57)	10 (38)		
1BN350LF	PTA-42V	22 (83)	14 (53)		
1BN351LF	PTA-60V	26 (98)	18 (68)		
1BN352LF	PTA-80V	35 (132)	24 (91)		
1BN353LF	PTA-100V	45 (170)	30 (113)		
1BN354LF	PTA-125V	60 (227)	40 (151)		
1BN355LF	PTA-160V	70 (265)	47 (178)		
1BN356LF	PTA-180V	80 (302)	53 (200)		
1BN357LF	PTA-210V	90 (340)	60 (227)		
1BN358LF	PTA-447	53 (200)	53 (200)		
1BN359LF	PTA-448	80 (300)	80 (300)		
1BN360LF	PTA-449	106 (400)	106 (400)		
➡ 1BN361LF	PTA-450	132 (500)	132 (500)	ET-03	1
1BN362LF	PTA-451	158 (600)	158 (600)		
1BN363LF	PTA-452	211 (800)	211 (800)		
1BN364LF	PTA-453	264 (1,000)	264 (1,000)		
1BN365LF	PTA-454	317 (1,200)	317 (1,200)		
1BN366LF	PTA-455	370 (1,400)	370 (1,400)		
1BN367LF	PTA-456	422 (1,600)	422 (1,600)		
1BN368LF	PTA-457	528 (2,000)	528 (2,000)		

DIAPHRAGM EXPANSION TANKS - PRE-PRESSURIZED
(ASME CONSTRUCTION)
DIMENSIONS AND WEIGHTS

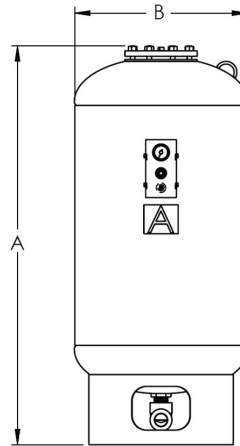
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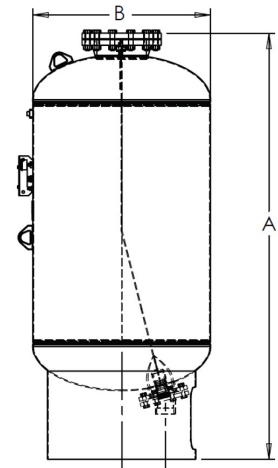
PTA-5 thru PTA-12



PTA-20V thru PTA-210V



PTA-447 thru PTA-449



PTA-450 thru PTA-457

DIMENSIONS IN INCHES (MM)

MODEL NUMBER	A HEIGHT	B DIAMETER	SYSTEM CONNECTION	CHARGING VALVE	Shipping Wt Lbs. (Kg)
PTA-5	14 (356)	10 (254)	3/4" NPTF	.302"-32 NC	22 (10)
PTA-12	14 (356)	12 (305)	3/4" NPTF	.302"-32 NC	28 (13)
PTA-20V	21 (508)	12 (305)	3/4" NPTF	.302"-32 NC	34 (15)
PTA-30V	25 (610)	16 (406)	1" NPTF	.302"-32 NC	50 (23)
PTA-42V	31 (787)	16 (406)	1" NPTF	.302"-32 NC	57 (26)
PTA-60V	34 (864)	16 (406)	1" NPTF	.302"-32 NC	62 (28)
PTA-80V	45 (1,143)	20 (508)	1" NPTF	.302"-32 NC	80 (36)
PTA-100V	39 (991)	20 (508)	1" NPTF	.302"-32 NC	110 (50)
PTA-125V	50 (1,270)	24 (610)	1" NPTF	.302"-32 NC	134 (61)
PTA-160V	47 (1,194)	24 (610)	1-1/2" NPTF	.302"-32 NC	177 (80)
PTA-180V	50 (1,270)	24 (610)	1-1/2" NPTF	.302"-32 NC	184 (83)
PTA-210V	53 (1,346)	24 (610)	1-1/2" NPTF	.302"-32 NC	193 (88)
PTA-447	43 (1,092)	24 (610)	1-1/2" NPTF	.302"-32 NC	220 (100)
PTA-448	55 (1,397)	24 (610)	1-1/2" NPTF	.302"-32 NC	236 (107)
PTA-449	49 (1,245)	30 (762)	1-1/2" NPTF	.302"-32 NC	315 (143)
➡ PTA-450	57 (1,448)	30 (762)	2" NPTF	.302"-32 NC	347 (158)
PTA-451	65 (1,651)	30 (762)	2" NPTF	.302"-32 NC	378 (172)
PTA-452	76 (1,930)	32 (813)	2" NPTF	.302"-32 NC	503 (229)
PTA-453	86.5 (2,197)	36 (914)	3" NPTF	.302"-32 NC	795 (361)
PTA-454	98.5 (2,502)	36 (914)	3" NPTF	.302"-32 NC	820 (373)
PTA-455	110.5 (2,807)	36 (914)	3" NPTF	.302"-32 NC	980 (445)
PTA-456	84 (2,134)	48 (1,219)	3" NPTF	.302"-32 NC	1,395 (634)
PTA-457	96 (2,438)	48 (1,219)	3" NPTF	.302"-32 NC	1,525 (693)

Dimensions are subject to change. Not to be used for construction purposes unless certified.

TYPICAL SPECIFICATIONS



Xylem Inc.
 8200 N. Austin Avenue, Morton Grove, IL 60053
 Phone: (847)966-3700 Fax: (847)965-8379
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Submittal Item Information

Feb 6, 2024

Spec Section

Mechanical

Sub Section

HVAC/Plumbing

Type

Shop Drawings

Description

ET-01, ET-02, ET-03

**Submittal # 72838****APPROVAL REQUIRED**

Project 22006063-MECH-4- Chris Gibson Recreation Centre
Leader Nevin Wong
Job Site Chris Gipson Recreation Centre
Submission Date 2023-12-05
Sold To CONSULT MECH
Submitted By Boran Dal

Contacts

Role	Customer	Our Rep
Mechanical Contractor	Con-Sult Mechanical Inc.*	Nevin Wong
Designer	Integral Group	Graham Coote

Deliverables

Track #	246736	246735	
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Production Lead Time	28 - 32 Weeks	28 - 32 Weeks	
Revision #	0	0	

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Approval Stamps

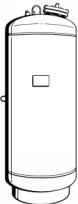
JOB: 22006063 Chris Gibson Conv

REPRESENTATIVE: HTS Engineering

UNIT TAG:
ENGINEER:
CONTRACTOR:

ORDER NO.
SUBMITTED BY:
APPROVED BY:

DATE: 2023-11-23
DATE:
DATE:



Series "B" (ASME)
Pressurized Expansion Tanks
Vertical

Not For Potable Water Systems

DESCRIPTION

Series "B" expansion tanks are ASME rated precharged bladder-type pressure vessels. The Series "B" tank is designed to absorb the expansion forces of heating/cooling system water while maintaining proper system pressurization under varying operating conditions. The heavy duty bladder contains system water thereby eliminating tank corrosion and waterlogging problems.

CONSTRUCTION

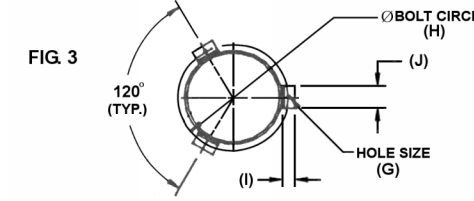
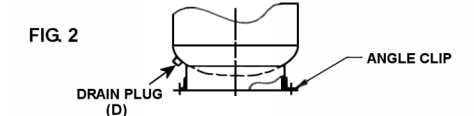
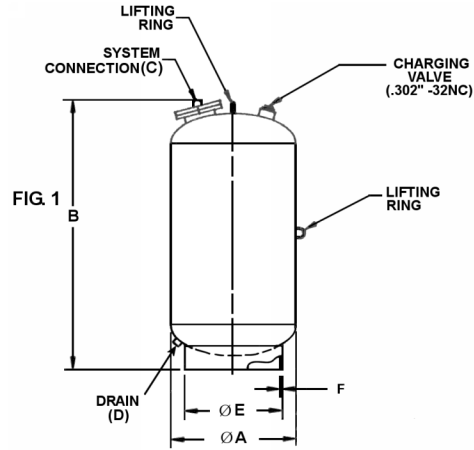
System Connection: Forged Steel
Shell: Carbon Steel
Bladder: Heavy Duty Butyl Rubber
Designed and Constructed per ASME Section VIII, Division 1

MAXIMUM OPERATING LIMITS

Maximum Design Pressure: 125 PSI (862kPa)
Design Temperature: 240°F (115°C)

SCHEDULE

PART NUMBER		MODEL NO.	TANK AND ACCEPTANCE VOLUME GALLONS (LITERS)	TAGGING INFORMATION	QUANTITY
PRESSURIZED EXPANSION TANKS	WITH SEISMIC RESTRAINTS				
116550	116923	B-200	53 (200)		
116551	116924	B-300	80 (300)		
116552	116925	B-400	106 (400)		
116553	116926	B-500	132 (500)		
116554	116927	B-600	158 (600)		
116555	116928	B-800	211 (800)		
116556	116929	B-1000	264 (1000)	ET-01/02	2
116557	116930	B-1200	317 (1200)		
116558	116931	B-1400	370 (1400)		
116559	116932	B-1600	422 (1600)		
116560	116933	B-2000	528 (2000)		
116793	116934	B-2500	660 (2500)		
116794	116935	B-3000	792 (3000)		
116795	116936	B-3500	925 (3500)		
116796	116937	B-4000	1057 (4000)		
116819	116938	B-5000	1321 (5000)		
116841	116939	B-7500	1980 (7500)		
116842	116940	B-10000	2640 (10000)		
116843	116941	B-15000	3963 (15000)		



NOTE: Tanks are factory pre-charged at 12 psi (83 kPa)

Allow a minimum of 18"(457.2mm) clearance for system piping.

Sight glass and seismic restraints available on request.

Tanks can be installed in the horizontal position with the system connection located below the horizontal centerline of the tank.

OPTIONAL SEISMIC RESTRAINTS (FIG.2 & 3) –
DIMENSIONS IN INCHES (MM)

TANK DIAMETER	G	H	I	J
24"	9/16 (14)	21 (533)	2 (51)	2 (51)
30"	7/8 (22)	28 (711)	4 (102)	4 (102)
36"	7/8 (22)	34 (864)	4 (102)	4 (102)
48"	7/8 (22)	46 (1168)	4 (102)	4 (102)
54"	7/8 (22)	46 (1168)	4 (102)	4 (102)
60"	7/8 (22)	46 (1168)	4 (102)	4 (102)
72"	1 (25)	58 (1473)	4 (102)	4 (102)

DIMENSIONS IN INCHES (MM) AND WEIGHTS IN LBS. (KG) (FIG. 1)

PART NUMBER		MODEL NUMBER	A	B	C NPTF	D	E	F	APPROX. SHPG. WT.	APPROX. WT* 100% FULL
PRESSURIZED EXPANSION TANKS										
116550		B-200	24 (610)	36-7/8 (936)	1	3/4	19 (483)	3/16 (5)	192 (87)	629 (285)
116551		B-300	24 (610)	50-7/8 (1292)	1	3/4	19 (483)	3/16 (5)	268 (122)	928 (421)
116552		B-400	24 (610)	64-3/4 (1644)	1	3/4	19 (483)	3/16 (5)	309 (140)	1184 (537)
116553		B-500	24 (610)	78 (1981)	1	3/4	19 (483)	3/16 (5)	328 (149)	1417 (643)
116554		B-600	30 (762)	63-3/4 (1619)	1-1/2	1	24 (610)	3/16 (5)	510 (232)	1814 (823)
116555		B-800	30 (762)	81-3/4 (2076)	1-1/2	1	24 (610)	3/16 (5)	656 (297)	2306 (1046)
116556		B-1000	36 (914)	73 (1854)	1-1/2	1-1/4	30 (762)	3/16 (5)	691 (313)	2869 (1301)
116557		B-1200	36 (914)	85-3/8 (2169)	1-1/2	1-1/4	30 (762)	3/16 (5)	779 (353)	3394 (1539)
116558		B-1400	36 (914)	97-3/4 (2483)	1-1/2	1-1/4	30 (762)	3/16 (5)	905 (410)	3958 (1795)
116559		B-1600	48 (1219)	69-1/8 (1756)	1-1/2	1-1/2	42 (1067)	1/4 (6)	1183 (537)	4665 (2116)
116560		B-2000	48 (1219)	84 (2145)	1-1/2	1-1/2	42 (1067)	1/4 (6)	1264 (573)	5620 (2549)
116793		B-2500	48 (1219)	100-7/8 (2562)	2	1-1/2	42 (1067)	1/4 (6)	1445 (655)	6890 (3125)
116794		B-3000	48 (1219)	118-1/8 (2562)	2	1-1/2	42 (1067)	1/4 (6)	1630 (739)	8164 (3703)
116795		B-3500	54 (1372)	111 (2820)	2	1-1/2	42 (1067)	1/4 (6)	2110 (957)	9741 (4418)
116796		B-4000	54 (1372)	124-1/2 (3163)	2	1-1/2	42 (1067)	1/4 (6)	2230 (1011)	10950 (4967)
116819		B-5000	60 (1524)	128 (3251)	2	1-1/2	42 (1067)	1/4 (6)	2450 (1111)	13403 (6079)
116841		B-7500	72 (1829)	127 (3326)	3	1-1/2	54 (1372)	3/8 (10)	4000 (1814)	20500 (9299)
116842		B-10000	72 (1829)	159 (4039)	3	1-1/2	54 (1372)	3/8 (10)	4900 (2223)	26890 (12197)
116843		B-15000	72 (1829)	233 (5918)	3	1-1/2	54 (1372)	3/8 (10)	6000 (2721)	39010 (17695)

Dimensions are subject to change. Not to be used for construction purposes unless certified.

* Approximate weight 100% full occurs if bag fails or if air charge is lost.

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JOB: 22006063 Chris Gibson Conv

REPRESENTATIVE: HTS Engineering

UNIT TAG:
ENGINEER:
CONTRACTOR:
ORDER NO.
SUBMITTED BY:
APPROVED BY:
DATE: 2023-11-23
DATE:
DATE:


Series "PTA" (ASME)

Residential/Commercial Potable Water

Diaphragm Expansion Tanks

For Potable Water Systems

SUITABLE FOR USE WITH DOMESTIC WATER

DESCRIPTION

Series "PTA" expansion tanks are ASME rated, pre-charged diaphragm-type vessels. The Series "PTA" tank is designed to absorb the forces of expanding water and protect the domestic water system from pressure build up. The FDA approved heavy duty butyl diaphragm and polypropylene liner (sizes PTA-5 through PTA-210V) or replaceable full acceptance butyl bladder (sizes PTA-447 through PTA-457) completely isolates the water from the shell. All units include an integrated bladder integrity monitor.

Models PTA-5 through PTA-210V comply with NSF/ANSI Standard 61.

FACTORY PRE-CHARGED PRESSURE: 40 PSI

CONSTRUCTION

Shell: Carbon Steel
 System Connection: Stainless Steel

PTA-447 through PTA-457: Replaceable Butyl Bladder

PERFORMANCE LIMITATIONS

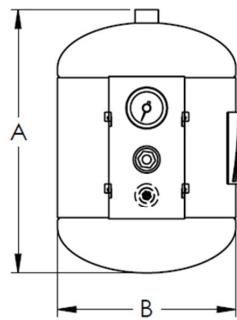
PTA-447 through PTA-457
 240°F (115°C) 150 PSI (1,035 kPa)

SCHEDULE

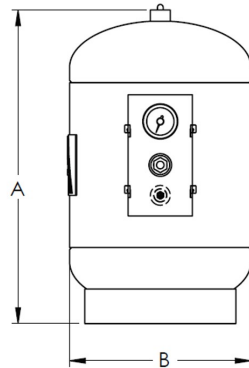
PART NUMBER	MODEL NUMBER	GALLONS (LITERS)		TAGGING INFORMATION	QUANTITY
		TANK VOLUME	Acceptance Volume		
1BN346LF	PTA-5	3.5 (13)	2.3 (9)		
1BN347LF	PTA-12	5 (19)	3.3 (12)		
1BN348LF	PTA-20V	8 (30)	5.3 (20)		
1BN349LF	PTA-30V	15 (57)	10 (38)		
1BN350LF	PTA-42V	22 (83)	14 (53)		
1BN351LF	PTA-60V	26 (98)	18 (68)		
1BN352LF	PTA-80V	35 (132)	24 (91)		
1BN353LF	PTA-100V	45 (170)	30 (113)		
1BN354LF	PTA-125V	60 (227)	40 (151)		
1BN355LF	PTA-160V	70 (265)	47 (178)		
1BN356LF	PTA-180V	80 (302)	53 (200)		
1BN357LF	PTA-210V	90 (340)	60 (227)		
1BN358LF	PTA-447	53 (200)	53 (200)		
1BN359LF	PTA-448	80 (300)	80 (300)		
1BN360LF	PTA-449	106 (400)	106 (400)		
➡ 1BN361LF	PTA-450	132 (500)	132 (500)	ET-03	1
1BN362LF	PTA-451	158 (600)	158 (600)		
1BN363LF	PTA-452	211 (800)	211 (800)		
1BN364LF	PTA-453	264 (1,000)	264 (1,000)		
1BN365LF	PTA-454	317 (1,200)	317 (1,200)		
1BN366LF	PTA-455	370 (1,400)	370 (1,400)		
1BN367LF	PTA-456	422 (1,600)	422 (1,600)		
1BN368LF	PTA-457	528 (2,000)	528 (2,000)		

DIAPHRAGM EXPANSION TANKS - PRE-PRESSURIZED
(ASME CONSTRUCTION)
DIMENSIONS AND WEIGHTS

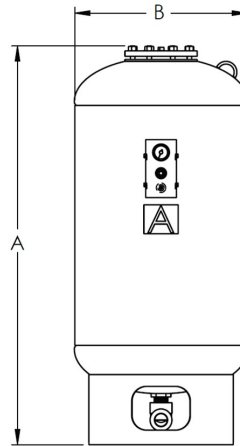
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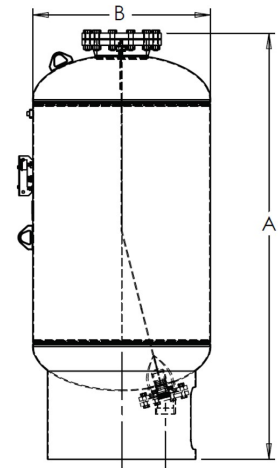
PTA-5 thru PTA-12



PTA-20V thru PTA-210V



PTA-447 thru PTA-449



PTA-450 thru PTA-457

DIMENSIONS IN INCHES (MM)

MODEL NUMBER	A HEIGHT	B DIAMETER	SYSTEM CONNECTION	CHARGING VALVE	Shipping Wt Lbs. (Kg)
PTA-5	14 (356)	10 (254)	3/4" NPTF	.302"-32 NC	22 (10)
PTA-12	14 (356)	12 (305)	3/4" NPTF	.302"-32 NC	28 (13)
PTA-20V	21 (508)	12 (305)	3/4" NPTF	.302"-32 NC	34 (15)
PTA-30V	25 (610)	16 (406)	1" NPTF	.302"-32 NC	50 (23)
PTA-42V	31 (787)	16 (406)	1" NPTF	.302"-32 NC	57 (26)
PTA-60V	34 (864)	16 (406)	1" NPTF	.302"-32 NC	62 (28)
PTA-80V	45 (1,143)	20 (508)	1" NPTF	.302"-32 NC	80 (36)
PTA-100V	39 (991)	20 (508)	1" NPTF	.302"-32 NC	110 (50)
PTA-125V	50 (1,270)	24 (610)	1" NPTF	.302"-32 NC	134 (61)
PTA-160V	47 (1,194)	24 (610)	1-1/2" NPTF	.302"-32 NC	177 (80)
PTA-180V	50 (1,270)	24 (610)	1-1/2" NPTF	.302"-32 NC	184 (83)
PTA-210V	53 (1,346)	24 (610)	1-1/2" NPTF	.302"-32 NC	193 (88)
PTA-447	43 (1,092)	24 (610)	1-1/2" NPTF	.302"-32 NC	220 (100)
PTA-448	55 (1,397)	24 (610)	1-1/2" NPTF	.302"-32 NC	236 (107)
PTA-449	49 (1,245)	30 (762)	1-1/2" NPTF	.302"-32 NC	315 (143)
➡ PTA-450	57 (1,448)	30 (762)	2" NPTF	.302"-32 NC	347 (158)
PTA-451	65 (1,651)	30 (762)	2" NPTF	.302"-32 NC	378 (172)
PTA-452	76 (1,930)	32 (813)	2" NPTF	.302"-32 NC	503 (229)
PTA-453	86.5 (2,197)	36 (914)	3" NPTF	.302"-32 NC	795 (361)
PTA-454	98.5 (2,502)	36 (914)	3" NPTF	.302"-32 NC	820 (373)
PTA-455	110.5 (2,807)	36 (914)	3" NPTF	.302"-32 NC	980 (445)
PTA-456	84 (2,134)	48 (1,219)	3" NPTF	.302"-32 NC	1,395 (634)
PTA-457	96 (2,438)	48 (1,219)	3" NPTF	.302"-32 NC	1,525 (693)

Dimensions are subject to change. Not to be used for construction purposes unless certified.

TYPICAL SPECIFICATIONS



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