

**Region:** 5

**Location:** MD003

**CSS #:** 16749

**Maximo Work Order No.:** 6867

**Asset #:** 1631

**Date Issued:** 12/8/18

**Original Description:** Expansion tank bladder has erupted and requires replacement

**Repairs Needed:**

Remove and install new Expansion Tank (See additional detail in quote provided)

**RS Means Line Buildup and Labor Summary (Data Version 2017, Q4):**

Quantity	Line Item Number	Description	Labor Hours	Labor Rate/Hr	Materials	Equipment	Total
1	NA	LF 68.0 Gal Vert Extrol ASME TA Armstrong 572005-103(See additional costs breakdown attached)	--	--	\$2,858.00	--	\$2,858.00
--	NA	Labor	8	\$80.00	--	--	\$640.00
--	NA	PM Credit	--	--	--	--	(\$250.00)

**Estimate Summary:**

Labor Hours	Labor Cost	Material Cost	PM Credit	Total Cost	CE Factor	Total Estimate
8	\$640.00	\$2,858.00	(\$250.00)	\$3,248.00	102%	<b>\$3,312.96</b>



## WORK ESTIMATE

CSS #: 16749

Work Order #: 6867

Emergency ☐ Urgent ☐

Routine ☒

Company Name:	Tidewater, Inc.	Facility ID:	MD003
Contractor POC:	Adam Colopy		
Telephone No:	740-819-6207	Building/Location; (e.g., Classroom/Room #)	
E-Mail Address:	<a href="mailto:adam.colopy@tideh2o.net">adam.colopy@tideh2o.net</a>		
Assigned Technician(s):	John Brown		

### DESCRIPTION of WORK and EXPLANATION for REPAIRS or REPLACEMENT

Labor and materials to install LF 68.0 GAL VERT EXTROL ASME EXP TA ARMSTRONG 572005-103

LABOR/MATERIAL		MATERIAL/ SUB UNIT DOLLAR AMOUNT	LBR/HR \$80	LINE ITEM TOTAL DOLLAR AMOUNT
ITEM	QUANTITY			
Labor			8	\$640.00
68 Gal expansion tank model Armstrong 572005-103	1	\$2,520.00		\$2,520.00
Freight				\$200.00
Sales Tax				\$138.00
SUB-TOTAL COSTS:		Materials Total	\$2,858.00	Labor \$640.00
TOTAL			\$3,498.00	



FERGUSON ENTERPRISES #2020  
4501 HOLLINS FERRY ROAD  
SUITE 120  
BALTIMORE, MD 21227-4618  
Phone: 443-543-1300  
Fax: 410-242-4893

Deliver To:  
From: Jotham Hyatt  
Comments:

16:03:24 DEC 11 2018

Page 1 of 1

FERGUSON ENTERPRISES #1300

Price Quotation

Phone: 443-543-1300

Fax: 410-242-4893

**Bid No:** B268527  
**Bid Date:** 12/11/18  
**Quoted By:** JXH

**Cust Phone:** 443-983-5377  
**Terms:** NET 10TH PROX

**Customer:** TIDEWATER INC  
6625 SELNICK DRIVE  
ELKRIDGE, MD 21075

**Ship To:** TIDEWATER INC  
6625 SELNICK DRIVE  
ELKRIDGE, MD 21075

**Cust PO#:** A-120V EXP TANK

**Job Name:**

Item	Description	Quantity	Net Price	UM	Total
AAX120V	LF 68.0 GAL VERT EXTROL ASME EXP TA ARMSTRONG 572005-103	1	2100.000	EA	2100.00
	----- ESTIMATED FREIGHT 7-10 DAY LEAD-TIME				200.00
<b>Net Total:</b>					\$2300.00
<b>Tax:</b>					\$138.00
<b>Freight:</b>					\$0.00
<b>Total:</b>					\$2438.00

Quoted prices are based upon receipt of the total quantity for immediate shipment (48 hours). SHIPMENTS BEYOND 48 HOURS SHALL BE AT THE PRICE IN EFFECT AT TIME OF SHIPMENT UNLESS NOTED OTHERWISE. QUOTES FOR PRODUCTS SHIPPED FOR RESALE ARE NOT FIRM UNLESS NOTED OTHERWISE.

CONTACT YOUR SALES REPRESENTATIVE IMMEDIATELY FOR ASSISTANCE WITH DBE/MBE/WBE/SMALL BUSINESS REQUIREMENTS.

Seller not responsible for delays, lack of product or increase of pricing due to causes beyond our control, and/or based upon Local, State and Federal laws governing type of products that can be sold or put into commerce. This Quote is offered contingent upon the Buyer's acceptance of Seller's terms and conditions, which are incorporated by reference and found either following this document, or on the web at [http://wolseleyna.com/terms\\_conditionsSale.html](http://wolseleyna.com/terms_conditionsSale.html).  
Govt Buyers: All items are open market unless noted otherwise.

LEAD LAW WARNING: It is illegal to install products that are not "lead free" in accordance with US Federal or other applicable law in potable water systems anticipated for human consumption. Products with \*NP in the description are NOT lead free and can only be installed in non-potable applications. Buyer is solely responsible for product selection.

# AX-V SERIES | PRE-CHARGED (ASME) EXPANSION TANK | SUBMITTAL

**File No:** 37.51  
**Date:** JULY 07, 2015  
**Supersedes:** 37.51  
**Date:** NOVEMBER 25, 2014

Job: \_\_\_\_\_ Representative: \_\_\_\_\_  
\_\_\_\_\_  
Order no.: \_\_\_\_\_ Date: \_\_\_\_\_  
Engineer: \_\_\_\_\_ Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_  
Contractor: \_\_\_\_\_ Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

## DATA

Model no. ordered: \_\_\_\_\_ Qty: \_\_\_\_\_

Tag no.: \_\_\_\_\_ Charge pressure: \_\_\_\_\_ psi/kPa

Standard factory charge is 12 psi (83 kPa) unless otherwise specified.

## MATERIALS OF CONSTRUCTION

**Shell:** Steel

**Diaphragm:** Heavy duty butyl

## MAXIMUM OPERATING CONDITIONS

**Working temperature:** 250°F (121°C)

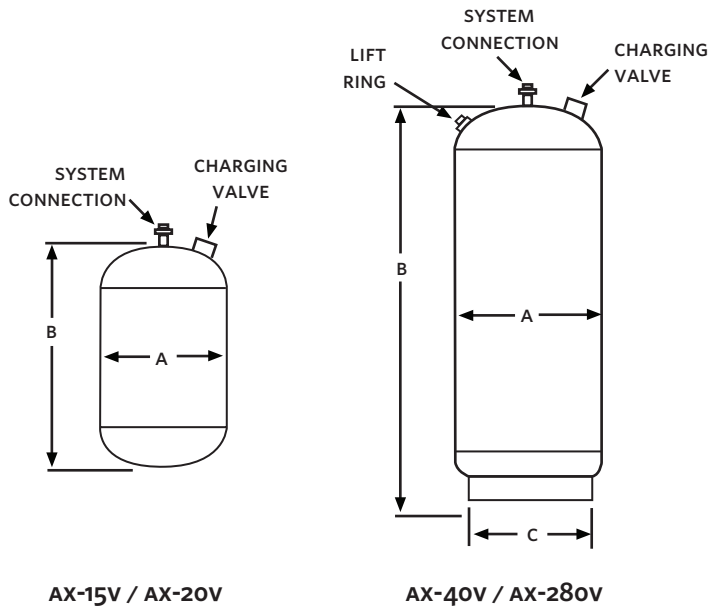
**Working pressure:** AXN 80 - AXN 280: 125 psi (862 kPa)  
AXN 15 - AXN 60: 150 psi (1034 kPa)

- Not for domestic potable water systems.
- California code sight-glass available upon request.
- Designed and constructed per ASME section VIII, division 1.
- This submittal supercedes 37.51 and 37.50

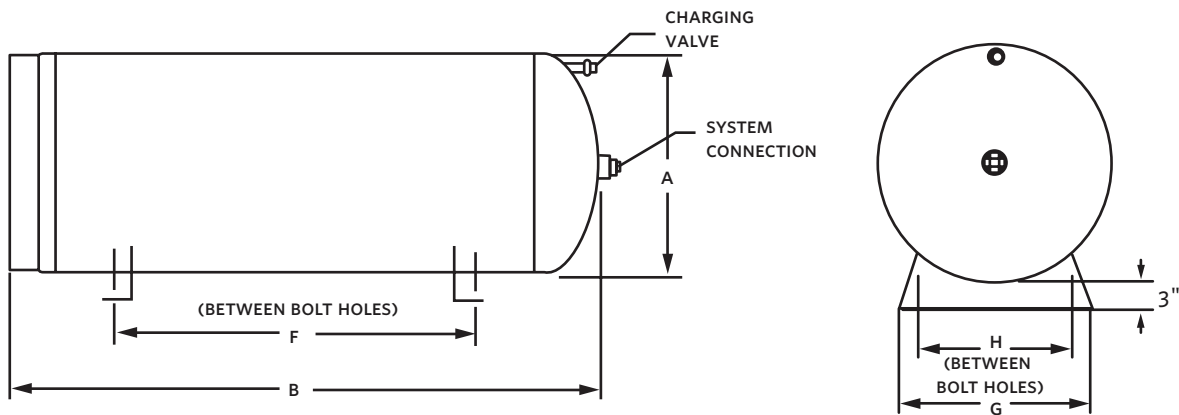
## TYPICAL SPECIFICATION

Furnish and install, as shown on the plans, Armstrong model AX-\_\_\_\_\_v ASME Pre-charged Diaphragm Expansion Tank, stamped 125 psi (862 kPa) working pressure. Each tank will be supplied with a heavy duty butyl diaphragm. Tank shall be supplied with a ring base, lifting rings, NPT system connection. An air charging valve connection (standard tire valve) shall be provided to facilitate adjusting pre-charge pressure to meet actual system conditions.

FOR HORIZONTAL INSTALLATION											
MODEL	TANK VOLUME	ACCEPTANCE VOLUME	A	B	C	SYSTEM CONNECTION NPT	SHIPPING WEIGHT	F	G	H	TANK SHIPPING WEIGHT WITH SADDLES
	gal (L)		inches (mm)				lbs (kg)	inches (mm)			lbs (kg)
AX-15V	8.0 (30.3)	6.3 (23.8)	12.00 (305)	19.00 (483)	—	0.75 (19)	42 (20.0)	14.38 (365)	10.00 (254)	8.00 (203)	44 (21.0)
AX-20V	11.0 (41.6)	8.8 (33.3)	12.00 (305)	26.00 (660)	—	0.75 (19)	52 (23.0)	21.13 (537)	10.00 (254)	8.00 (203)	54 (26.0)
AX-40V	25.0 (94.6)	20.2 (76.5)	16.00 (406)	33.00 (838)	14.00 (356)	1.00 (25)	84 (38.0)	26.00 (660)	14.00 (356)	12.00 (305)	93 (45.0)
AX-60V	35.0 (132.5)	28.0 (106.0)	16.00 (406)	45.00 (1143)	14.00 (356)	1.00 (25)	97 (44.0)	36.13 (791)	14.00 (356)	12.00 (305)	106 (51.0)
AX-80V	45.0 (170.3)	36.0 (136.3)	20.00 (508)	38.00 (965)	18.00 (457)	1.00 (25)	148 (67.0)	31.13 (791)	16.00 (406)	14.00 (356)	164 (79.0)
AX-100V	60.0 (227.1)	48.5 (183.6)	20.00 (508)	49.00 (1245)	18.00 (457)	1.00 (25)	175 (79.0)	42.50 (1080)	16.00 (406)	14.00 (356)	191 (92.0)
AX-120V	70.0 (265.0)	56.5 (213.9)	24.00 (610)	46.00 (1168)	22.00 (558)	1.00 (25)	259 (117.0)	31.50 (800)	20.00 (508)	18.00 (457)	278 (133.0)
AX-144V	80.0 (302.8)	65.0 (246.1)	24.00 (610)	49.00 (1245)	22.00 (558)	1.50 (38)	268 (121.0)	33.38 (848)	20.00 (508)	18.00 (457)	287 (138.0)
AX-180V	90.0 (340.7)	73.0 (276.3)	24.00 (610)	52.00 (1321)	22.00 (558)	1.50 (38)	283 (128.0)	37.75 (959)	20.00 (508)	18.00 (457)	302 (145.0)
AX-200V	115.0 (435.3)	93.0 (352.0)	24.00 (610)	66.00 (1676)	22.00 (558)	1.50 (38)	325 (146.0)	51.25 (1302)	20.00 (508)	18.00 (457)	344 (165.0)
AX-240V	140.0 (530.0)	113.5 (429.6)	24.00 (610)	78.00 (1981)	22.00 (558)	1.50 (38)	362 (163.0)	59.50 (1511)	20.00 (508)	18.00 (457)	381 (183.0)
AX-260V	158.0 (598.1)	128.0 (484.5)	30.00 (762)	61.00 (1549)	28.00 (711)	1.50 (38)	591 (266.0)	46.00 (1168)	24.00 (610)	22.00 (559)	651 (312.0)
AX-280V	211.0 (798.7)	171.0 (647.3)	30.00 (762)	79.00 (2700)	28.00 (711)	1.50 (38)	752 (338.0)	64.00 (1626)	24.00 (610)	22.00 (559)	812 (390.0)



This tank to be mounted vertical or horizontal. For Horizontal mounting saddles can be provided.



#### **TORONTO**

23 BERTRAND AVENUE  
TORONTO, ONTARIO  
CANADA  
M1L 2P3  
+1 416 755 2291

#### **BUFFALO**

93 EAST AVENUE  
NORTH TONAWANDA, NEW YORK  
U.S.A.  
14120-6594  
+1 716 693 8813

#### **BIRMINGHAM**

HEYWOOD WHARF, MUCKLOW HILL  
HALESOWEN, WEST MIDLANDS  
UNITED KINGDOM  
B62 8DJ  
+44 (0) 8444 145 145

#### **MANCHESTER**

WOLVERTON STREET  
MANCHESTER  
UNITED KINGDOM  
M11 2ET  
+44 (0) 8444 145 145

#### **BANGALORE**

#59, FIRST FLOOR, 3RD MAIN  
MARGOSA ROAD, MALLESWARAM  
BANGALORE, INDIA  
560 003  
+91 (0) 80 4906 3555

#### **SHANGHAI**

NO. 1619 HU HANG ROAD, XI DU TOWNSHIP  
FENG XIAN DISTRICT, SHANGHAI  
P.R.C.  
201401  
+86 21 3756 6696

ARMSTRONG FLUID TECHNOLOGY  
ESTABLISHED 1934

ARMSTRONGFLUIDTECHNOLOGY.COM

MAKING  
ENERGY  
MAKE  
SENSE<sup>TM</sup>



**ARMSTRONG**

EXPERIENCE BUILDING



A-120V  
372003-103





121220



CERTIFIED BY SEC

YR 2011 USA

W MAWP 125 PSI AT 240°F

MDMT -20°F AT 125 PSI

CRN K5777.5C ANTA120V

EXPANSION TANK

ARMSTRONG

HEAT TRANSFER EXPANSION PRODUCTS

A-120V  
572006



EXCHANGE VALVE

FACTORY INSTALLED PLUG  
DO NOT REMOVE



Building 1  
Asset#1631 ET