

## **Instruction Sheet CA EXP Tank Replacement Bag**

BEAD LOCATED ON OD OF NOZZLE OF BAG MUST BE CENTERED BETWEEN

THESE TWO BOLT HOLES TO ENSURE PROPER BAG ALIGNMENT.

CONNECTION

COVER

PLUG

THRU CA2500

CA600

HOSE

ASSY

EFFECTIVE: October 16, 2015

PRE-CHARGE LABEL

CHARGING VALVE CLOSURE

**PLUG** 

SIGHT GLASS

OPTION

FOR CA600

THRU CA2500

402-013

PLANT I.D. #001-952

SUPERSEDES: December 1, 2014



WARNING: FAILURE TO COMPLY WITH THESE INSTRUCTIONS REGARDING THIS PRODUCT CAN RESULT IN SERIOUS PERSONAL INJURY OR DEATH AND/OR SEVERE PROPERTY DAMAGE.

Before proceeding with replacement, read instructions carefully and check that you have the required tools and supplies available:

Plumbers tool box Source for compressed air Portable pump with 20 feet of suction hose 20 foot power cord Chain block Rope

Pressure Gauge Air valve tool to remove valve core

Replacement bag

Long wooden stick, at least 1 foot longer than tank height Magic marker

Vacuum cleaner

WARNING: DO NOT REMOVE THE PIPE PLUGS LOCATED ON THE SIDE AND BOTTOM OF THE TANK (TANK DRAINS). THESE PLUGS SHOULD NEVER BE REMOVED UNLESS NECESSARY AND THEN ONLY AFTER THE AIR PRES-SURE IN THE TANK HAS BEEN BLED OFF TO ZERO GAUGE PRESSURE. BEFORE BLEEDING OFF ANY OF THE AIR CHARGE, ALWAYS REMOVE AND DISCONNECT THE TANK FROM THE SYSTEM.

#### TO REMOVE EXISTING BAG:

- A. Isolate and disconnect tank from system.
- Remove air valve core and bleed remaining air from tank.

#### NOTE: MARK FLANGES WITH A MAGIC MARKER IN ORDER TO RE-ASSEMBLE CORRECTLY.

- C. When tank is at zero gauge pressure, remove head bolts, upper flange and head assembly and spacer washers where provided.
- D. Siphon out any water remaining in bag.
- E. Lubricate inner surface of nozzle and bottom inside corner of nozzle with soap or soapy water.

#### NOTE: DO NOT USE HYDROCARBON GREASE OR OIL, AS THEY ATTACK THE BAG MATERIAL.

- F. Using a chain or power hoist, if necessary, lift bag out of tank with a twisting braid like motion. If the tank starts to lift, ease off hoisting and push the bag back 6 to 9 inches and re-twist for a smaller braid and try hoisting again.
- G. Do not remove tank drains unless there is water in the tank.

#### NOTE: A METAL PLATE LOOSELY COVERS BOTTOM DRAIN.

- H. If a drain plug is removed, re-install after draining, using a seal compound or equivalent. Connection must be absolutely air tight, otherwise, air charge will be lost.
- Sweep inside of tank; vacuum up all residue; check surfaces for burrs.

#### NOTE: To install bag: follow steps A thru K below.

#### TO INSTALL NEW BAG:

- A. Roll up new bag lengthwise so that roll is central to nozzle. Tie with twine at several evenly spaced locations along the length of the bag, to keep bag rolled during installation.
- Position nozzle side of bag to face side of tank nearest tank nozzle. The top seam
- of bag should be positioned to run perpendicular to the tank nozzle, lifting ring and charging valve centerline.

#### NOTE: IF BAG HAS BEEN POSITIONED CORRECTLY, A RAISED BEAD ON THE OUTSIDE EDGE OF BAG NOZZLE FLANGE WILL BE POSI-TIONED BETWEEN THE TWO LOWEST TANK FLANGE HOLES.

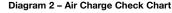
- C. Remove twine ties as they near tank opening.
- D. When the bag has been inserted into the tank up to the nozzle, all that remains is to tuck the top of the bag into the tank, which will allow the bag flange to lie flat on the tank flange.

#### NOTE: A SMOOTH BLUNT ROD CAN BE USED TO HELP TUCK THE TOP OF THE BAG INTO THE TANK.

- E. Insert a long smooth blunt stick down thru center of nozzle making clearance for hose assembly.
- Check flange markings, as made before disassembly, to make sure upper and lower flanges line up.
- Assemble upper flange lining up bolt holes. Install spacer ring between flanges, concentric with bolt holes. Install bolts and tighten evenly until flanges stop at spacer rings or 3/16".
- Connect an air supply to 11/2" system connection on tank flange cover and charge bag to 1 psi air pressure to ensure proper positioning of the bag, then relieve pressure.
- Re-install air valve core and charge to fill pressure or minimum operating pressure.
- Check the drain fitting, air valve and flange joint for leakage using soapy water.
- Connect tank to system, open fill-valve and check operation. NOTE: ALWAYS PRE-CHARGE TANK BEFORE COMPLETING STEP K.

· NSF/ANSI 61-G units labeled with





Specified Pre-Charge Pressure P.S.I. (at 68°F)	Ambient Temperature (°F)								
	36	44	52	60	68	76	84	92	100
12	10.4	10.8	11.2	11.6	12.0	12.4	12.8	13.2	13.6
20	17.9	18.4	18.9	19.5	20.0	20.5	21.1	21.6	22.1
30	27.3	28.0	28.6	29.3	30.0	30.7	31.4	32.0	32.7
40	36.7	37.5	38.2	39.2	40.0	40.8	41.6	42.5	43.3
50	46.1	47.1	48.0	49.0	50.0	51.0	52.0	52.9	53.9
60	55.5	56.6	57.7	58.9	60.0	61.1	62.3	63.4	64.5
70	64.9	66.1	67.4	68.7	70.0	71.3	72.6	73.9	75.1

#### How to Use the Chart

PLÜG SEALED ½" NPT AT FACTORY DO NOT REMOVE WHILE CONNECTED TO SYSTEM

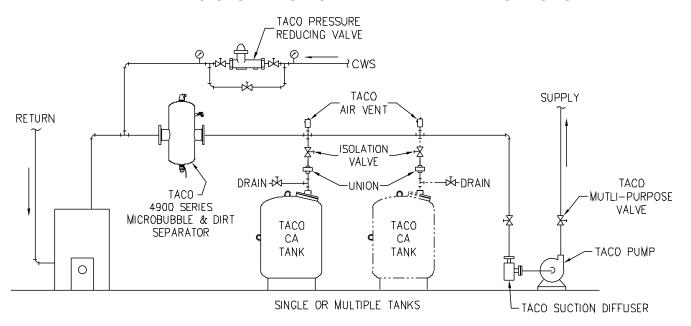
AND/OR TANK IS PRESSURIZED

DIAGRAM 1 - LOCATION OF TANK FITTINGS

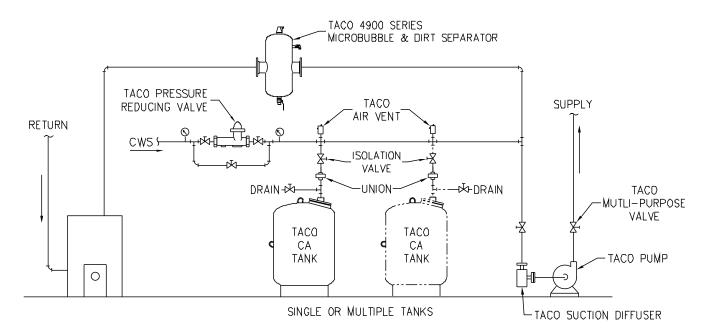
- 1. Determine ambient air temperature where the tank is being checked
- 2. Locate the specified pre-charge pressure in the left-hand column.
- Follow across horizontally to the number under the ambient air temperature.
- The number found under Step No. 3 is the temperature corrected air charge pressure in p.s.i. and should agree with the gauge reading observed at the tank.
- If the temperature corrected air charge pressure differs by more than 1 p.s.i. from the pre-charge pressure specified for the system, then correct it by bleeding pressure through the air charge valve or by adding pressure with an air compressor.

### **Captive Air Tank Piping Diagrams**

# RECOMMENDED INSTALLATION FOR HEATING SYSTEM OR CHILLED WATER APPLICATIONS



#### RECOMMENDED INSTALLATION FOR NSF/ANSI 61-G APPLICATIONS



#### See Related Documents:

400-1.2 Catalog

402-002 CA Expansion Tank Instruction Sheet 402-013 Instruction Sheet, This Document

401-083 CA Expansion Tank Submittal

401-083P CA Expansion Tank Submittal NSF

For factory contact on Taco Fall River heat transfer products, please call 508-674-5353.



