

## Installation, Operation & Maintenance Manual

SUPERSEDES: New

EFFECTIVE: December 30, 2014

### GENERAL

All Taco Buffer Tanks are designed and fabricated in accordance with the ASME Code for Unfired Pressure Vessels, Sect. VIII Div. 1.

Prior to shipment, all buffer tanks are hydrostatically tested to 1.3 times their rated working pressure and accepted by an independent insurance inspector.

Upon receipt of each tank, the shipping container should be examined for external damage. If the shipping container has been damaged in transit, the contents of the packaging should also be examined prior to acceptance of the shipment. If the tank appears to be damaged the shipment should be refused and or signed for as damaged. If the tank is damaged, the local Taco representative should be contacted for further instructions.

**WARNING:** The tank design working pressure and maximum rated working temperature limits are stamped on to the ASME nameplate welded to the tank. Confirmation of the suitability of this tank for the application within your system should be obtained from the system design engineer prior installing this product.

**WARNING:** The installation of an automatic air vent (by others) into the vent connection provided on the tank should be completed prior to the initial filling of the system. After initial filling of the system this vent should be checked for proper operation.

### INSTALLATION

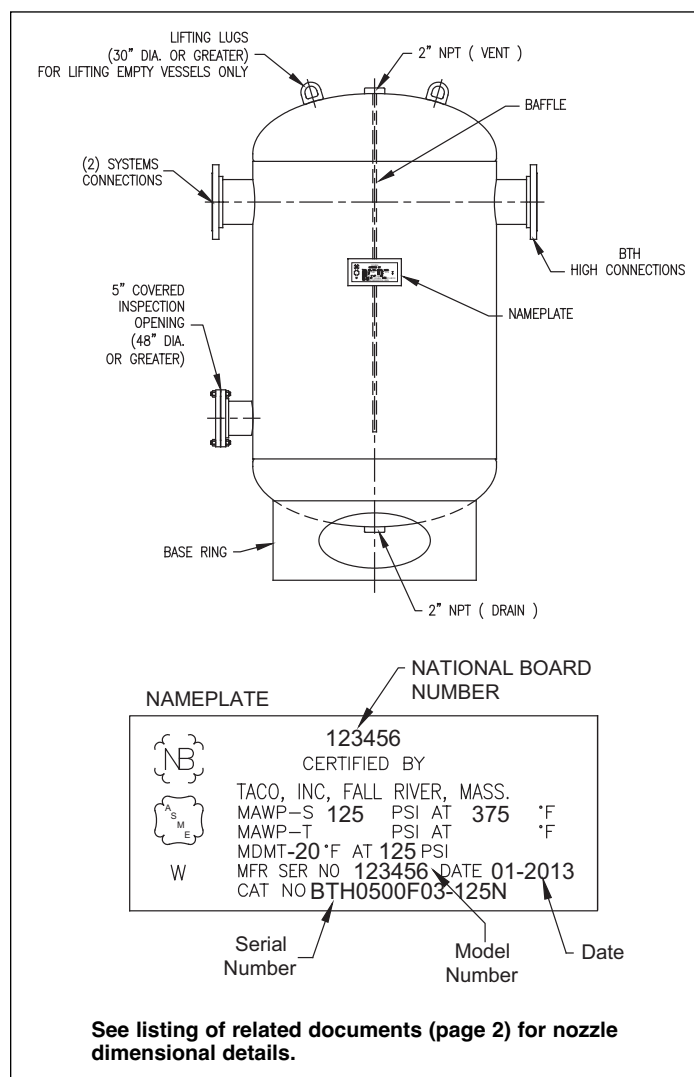
Taco Buffer tanks are designed for installation in hydronic systems. The purpose of the buffer tank is to reduce/eliminate short cycling in either a hot water or chiller water system. These units are not designed to withstand external piping loads which may be transmitted to the nozzles from the piping system. Should external piping loading requirements be present, confirmation from Taco's Design Engineering department regarding the suitability of the tanks design should be obtained prior to installing this product.

When tanks are installed, care should be taken to allow access to the ASME name plates, air vent (by others) and drain plug (by others).

All piping to each tank should be installed full size, to match the vessel's connections, isolation valves on each side of the unit should be installed for future maintenance. The isolation valves are used during maintenance to reduce the loss of system fluid.

### MAINTENANCE

A regular inspection schedule should be adopted and carried out by competent personnel to examine the pressure vessel for corrosion and its cause, extent and possible arrest, to determine minimum metal thicknesses, maximum metal temperatures, calculation of reduction in allowable working pressure and to conduct hydrostatic tests. Also, defects such as cracks, laminations and distortion of shell, heads or connec-

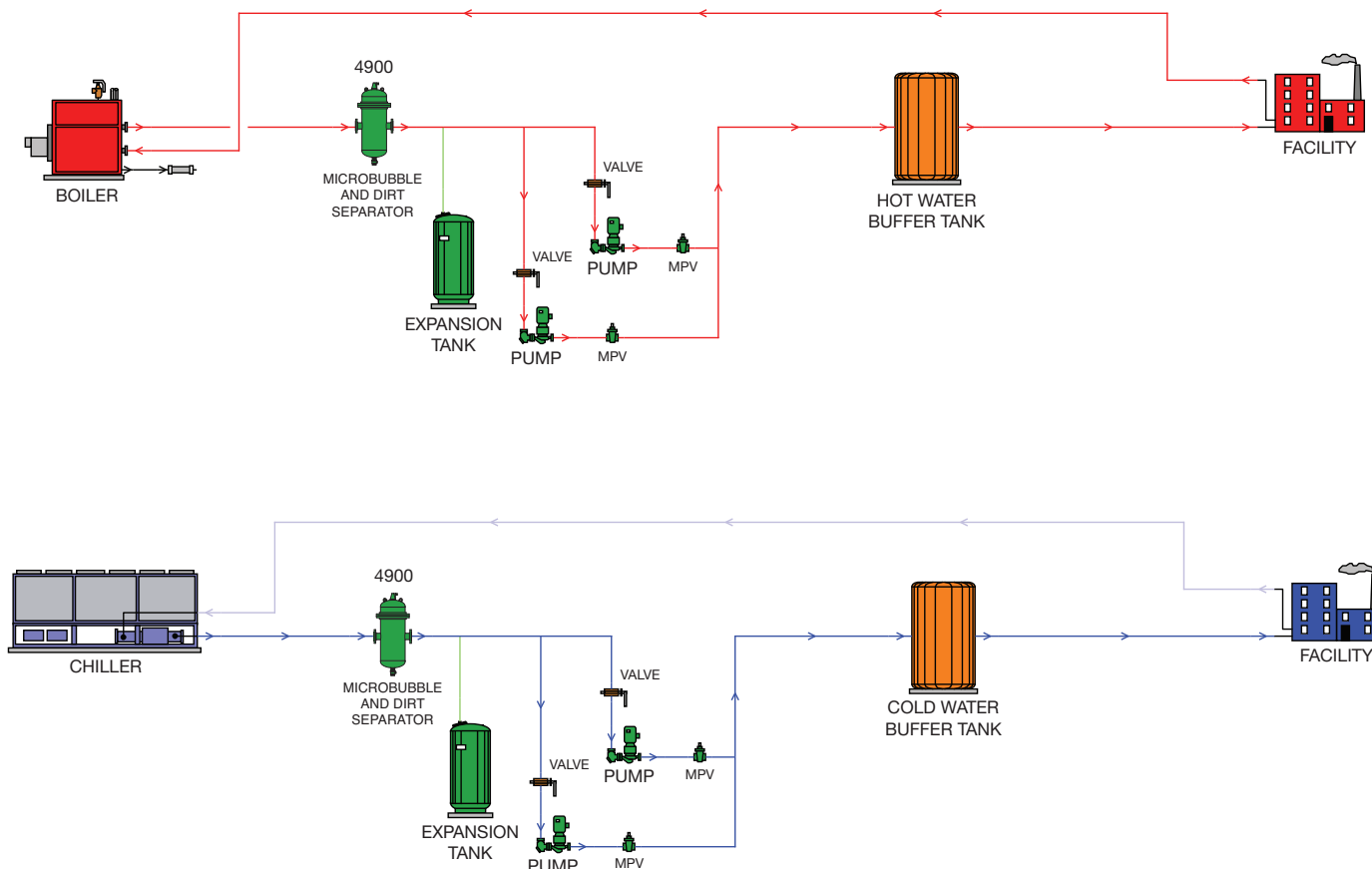


tions should be noted and repaired if possible, after consultation with and acceptance by a commissioned authorized inspector who shall be involved at all stages of any repairs or alterations of the ASME vessel.

**CAUTION: NEVER OPEN A VESSEL UNTIL THE SYSTEM PRESSURE IS OFF AND THE VESSEL HAS BEEN ISOLATED AND DRAINED. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS INJURY OR DEATH.**

Installation and maintenance should only be performed by trained personnel. Standard Taco buffer tanks are designed for indoor use. Outdoor applications should be submitted to the Taco technical services department for review.

Tanks should have ample space around the unit to access the ASME nameplate and to inspection the tank as required. Tanks are to be installed on a flat level surface capable to support the flooded weight during operation.



**See Related Documents:** 400-5.0 Catalog  
 401-085, 087, 088, 104, 105, 106, 120, 121, 127 & 128 BTH Submittals  
 401-086, 089, 090, 101, 102, 103, 122, 123, 129 & 130 BTL Submittals  
 402-106 IOM, **This Document**

## LIMITED WARRANTY STATEMENT

Taco, Inc. will repair or replace without charge (at the company's option) any product or part which is proven defective under normal use within one (1) year from the date of start-up or one (1) year and six (6) months from date of shipment (whichever occurs first).

In order to obtain service under this warranty, it is the responsibility of the purchaser to promptly notify the local Taco stocking distributor or Taco in writing and promptly deliver the subject product or part, delivery prepaid, to the stocking distributor. For assistance on warranty returns, the purchaser may either contact the local Taco stocking distributor or Taco. If the subject product or part contains no defect as covered in this warranty, the purchaser will be billed for parts and labor charges in effect at time of factory examination and repair.

Any Taco product or part not installed or operated in conformity with Taco instructions or which

has been subject to misuse, misapplication, the addition of petroleum-based fluids or certain chemical additives to the systems, or other abuse, will not be covered by this warranty.

If in doubt as to whether a particular substance is suitable for use with a Taco product or part, or for any application restrictions, consult the applicable Taco instruction sheets or contact Taco at (401-942-8000).

Taco reserves the right to provide replacement products and parts which are substantially similar in design and functionally equivalent to the defective product or part. Taco reserves the right to make changes in details of design, construction, or arrangement of materials of its products without notification.

**TACO OFFERS THIS WARRANTY IN LIEU OF ALL OTHER EXPRESS WARRANTIES. ANY WARRANTY IMPLIED BY LAW INCLUDING WARRANTIES OF MERCHANTABILITY OR FIT-**

**NESS IS IN EFFECT ONLY FOR THE DURATION OF THE EXPRESS WARRANTY SET FORTH IN THE FIRST PARAGRAPH ABOVE.**

**THE ABOVE WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR STATUTORY, OR ANY OTHER OBLIGATION ON THE PART OF TACO.**

**TACO WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF ITS PRODUCTS OR ANY INCIDENTAL COSTS OF REMOVING OR REPLACING DEFECTIVE PRODUCTS.**

This warranty gives the purchaser specific rights, and the purchaser may have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts or on the exclusion of incidental or consequential damages, so these limitations or exclusions may not apply to you.

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