

BRYAN. BOILERS.



100 years of boiler
technology leadership.

A subsidiary of Burnham Holdings



BRYAN. **BOILERS.**

Compact Boiler Feed Systems

Capacities from 20 to 80 boiler HP
15 through 150 PSI boilers



Model CFS-100-80-80-D

The Bryan compact boiler feed system requires a minimal amount of boiler room space while providing many of the same rugged features as competitive stand-mounted feed systems.

Features

- Atmospheric tank built from heavy ¼" minimum steel thickness
- Tank sizes from 20 to 80 gallons
- Factory packaged for ease of installation
- Packages based on 1 gallon storage per 1 BHP minimum
- Available with simplex and duplex pump packages
- Top mounted pumps for ease of maintenance and replacement
- TEFC pump motors are standard
- All units designed to fit through standard 36" doorway

Horizontal Boiler Feed Systems

Capacities to 500 boiler HP
15 through 250 PSI boilers



Model HFS-15-100-100-D

The Bryan horizontal boiler feed system is a conventional stand-mounted feed system that is completely packaged, but is also flexible to meet each customer's specific needs.

Features

- Atmospheric tank built from heavy ¼" minimum steel thickness
- Tank sizes from 50 to 500 gallons
- Factory packaged for ease of installation
- Packages based on 1 gallon storage per 1 BHP minimum
- Available with single or multiple pump packages
- Pumps mounted in front of tank for ease of maintenance and replacement
- TEFC pump motors and NEMA 12 enclosures are standard
- Heavy duty stand with pump platform
- Integral steam preheater optional

Boiler technology leaders since 1916.

Spray Type and Tray Type Deaerator Features

- Constructed and Stamped to ASME Section VIII, Division 1 for 50 psig
- 1/16" corrosion allowance
- Easily accessible manway
- 10 minutes of deaerated water storage to overflow
- All internal surfaces that contact undeaerated water are constructed of stainless steel
- 2-stage deaeration
- Structural steel stand/pump platform
- Available as completely packaged unit including pumps and control panel

Why Deaerate Boiler Feedwater?

There are many advantages to deaerating water prior to boiler input, but they all boil down to reduced cost operations.

- Water is heated during deaeration to near the temperature of the boiler water, thus minimizing the risk of thermal shock damage to a high value boiler system.
- The deaerating process removes noncondensable gases (oxygen and carbon-dioxide) which tend to act as insulators inhibiting the transfer of heat within the boiler.
- Removal of corrosive oxygen and carbon-dioxide controls corrosion within the boiler and piping, extending the life expectancy of the system and reducing maintenance cost.
- Higher temperature feedwater reduces the drop in boiler operating pressure which can occur when cold water is added.
- Recycling of steam from vents and flash steam from traps that would otherwise be vented to the atmosphere can result in appreciable energy savings.
- Mechanical deaeration by a feedwater deaerator can cut the amount of chemical consumables used for water conditioning for a continuing operating cost saving.

Pressurized Spray Type Deaerator

Capacities from 5,000 pph - 60,000 pph



Model DSH-150-5-2-2

Bryan spray-scrubber type deaerators offer a competitive alternative for feedwater deaeration. The initial investment is lower, yet they offer comparable results, particularly where wide or rapid fluctuations in load are not anticipated.

The spray type deaerator may also be advantageous in situations where headroom in the boiler room is restricted.

The Bryan spray type deaerator is rated for oxygen removal to .005cc/l (7 PPB) and CO₂ to zero measurable across its entire operating range. With its all stainless steel spring loaded spray valve and second stage steam scrubber, the spray type deaerator is a good choice for most deaerator applications.

Units are available with a complete range of boiler feedpumps and control options making them a total deaerator package with minimal amount of field assembly.

Pressurized Tray Type Deaerator

Capacities from 5,000 pph - 300,000 pph and beyond

The Bryan tray type deaerator is unsurpassed in performance and reliability. These units are ASME Code pressurized units, and are guaranteed to deliver deaerated water at a maximum oxygen content of .005cc/l (7 PPB) and zero measurable CO₂. All internal surfaces that come in contact with undeaerated water are constructed of type 304L stainless steel for long life and low maintenance. Residence time for undeaerated water inside a tray type deaerator is longer, providing more efficient deaeration, particularly where wide load swings occur. A large diameter hinged door affords easy access to internal trays. Spray tubes are accessible from outside of the vessel for maintenance and replacement.

A complete line of boiler feedpump and control packages are available making the Bryan tray deaerator a completely packaged unit ready for installation with the minimum amount of field assembly.



Model DTA-150-300-60-4



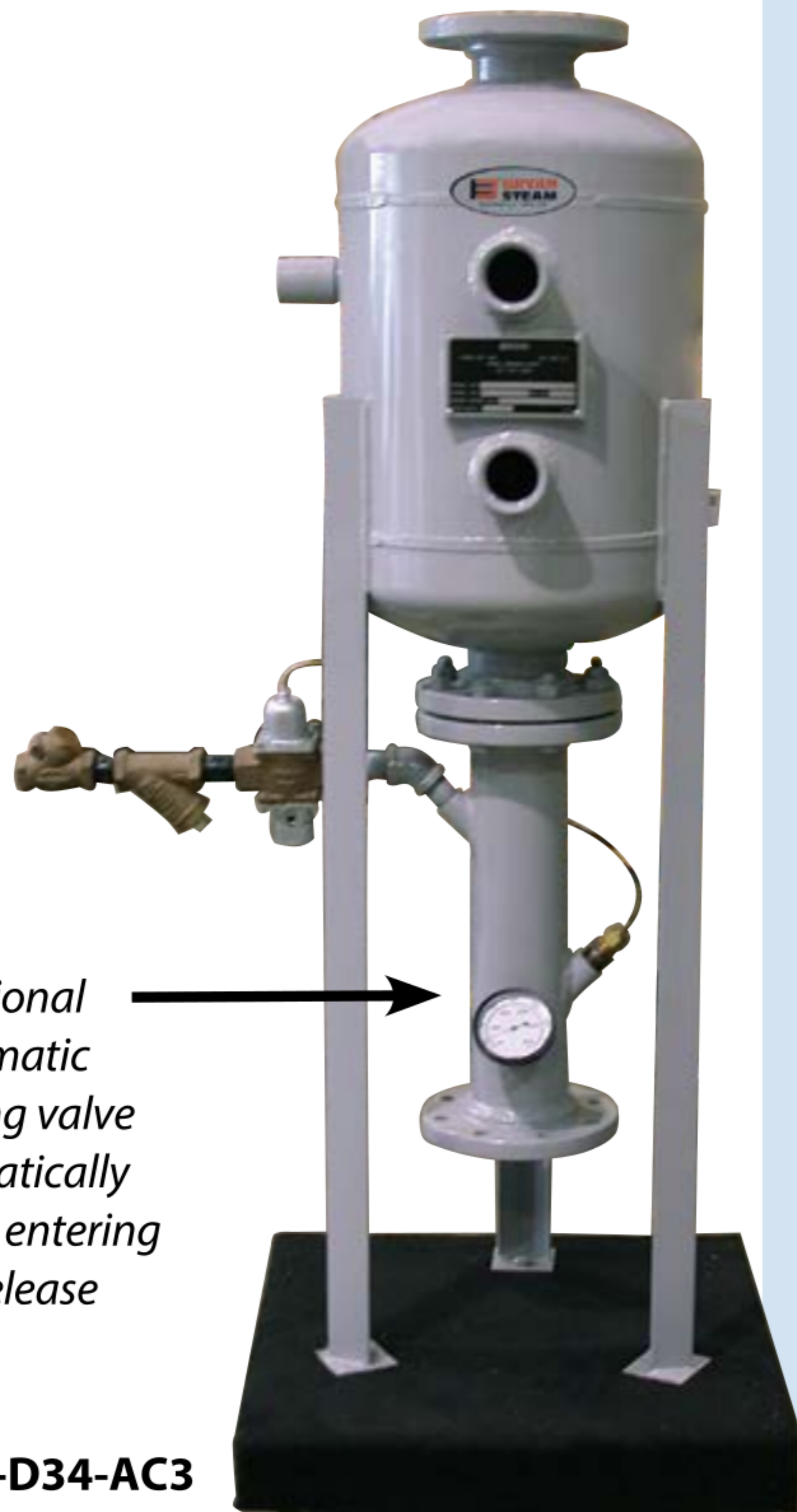
Model DTV-150-5-1-2

The Bryan "Low Profile" tray type deaerator is the industry leader in compact, space saving design. This series packs all of the same high performance design features as other Bryan tray type deaerators. The combination of the Bryan tray type deaerator and the industry's first true 1' NPSH pump has resulted in a true space saving unit. The overall height saved is unparalleled.



Model LDTV-150-5-1-1

Boiler technology leaders since 1916.



Aftercooler — An optional aftercooler with automatic temperature regulating valve can be used to automatically cool blowdown water entering the drain to prevent release of thermal pollution.

Model BDS-1630-D34-AC3

Blowdown Separator

For new installations or retrofitting to existing boilers, Bryan Blowdown Separator vents off pressure from blowdown water and tempers it to an acceptable level before draining to the outside. Dry steam vents to the atmosphere. Stainless steel wear plate protects inlet connection. Large vent connection insures quiet operation. Constructed and stamped to ASME code Sect. VIII for 150 psig. Standard sizes for boilers up to 250 psi, models for higher pressures available.

Vertical Blowdown Tank

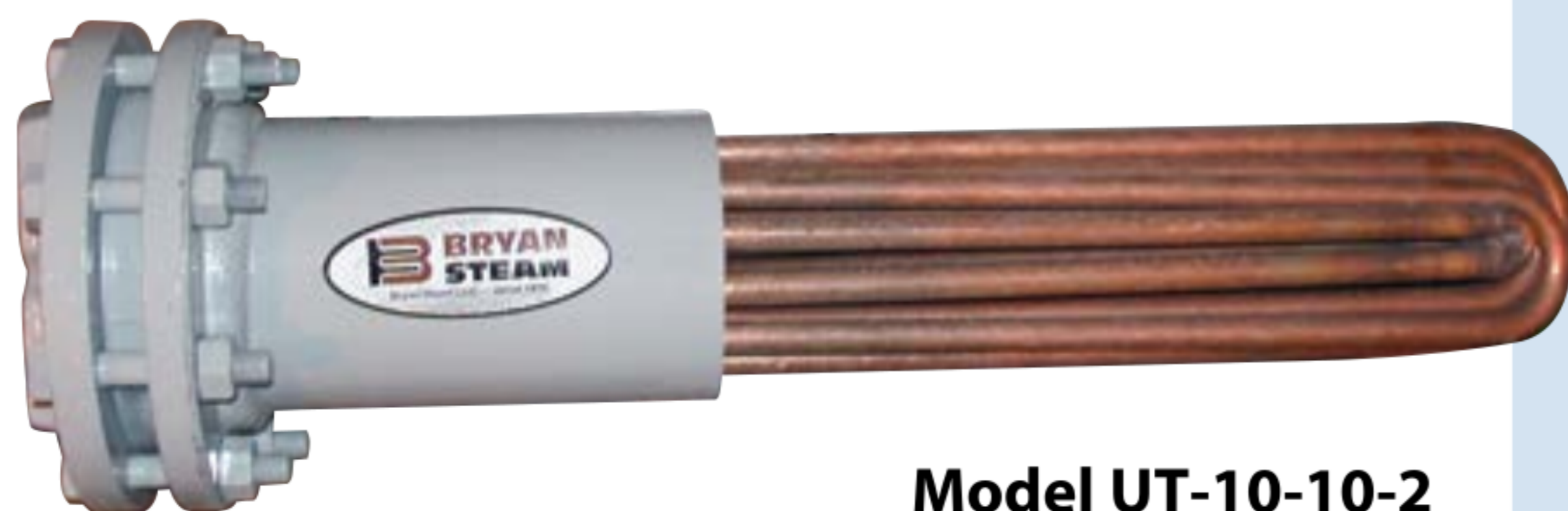
The tanks are designed to hold one boiler blowdown and they meet stringent New Jersey and National Board standards. Stainless steel wear plate protects inlet connection. Large vent connection assures quiet operation. Constructed and stamped to ASME code Sect. VIII for 50 psig. Wide range of standard sizes for boilers up to 200 psig. Models for higher pressures available.



Model SH-16-32-PW

Heat Exchanger Type Pool Heater

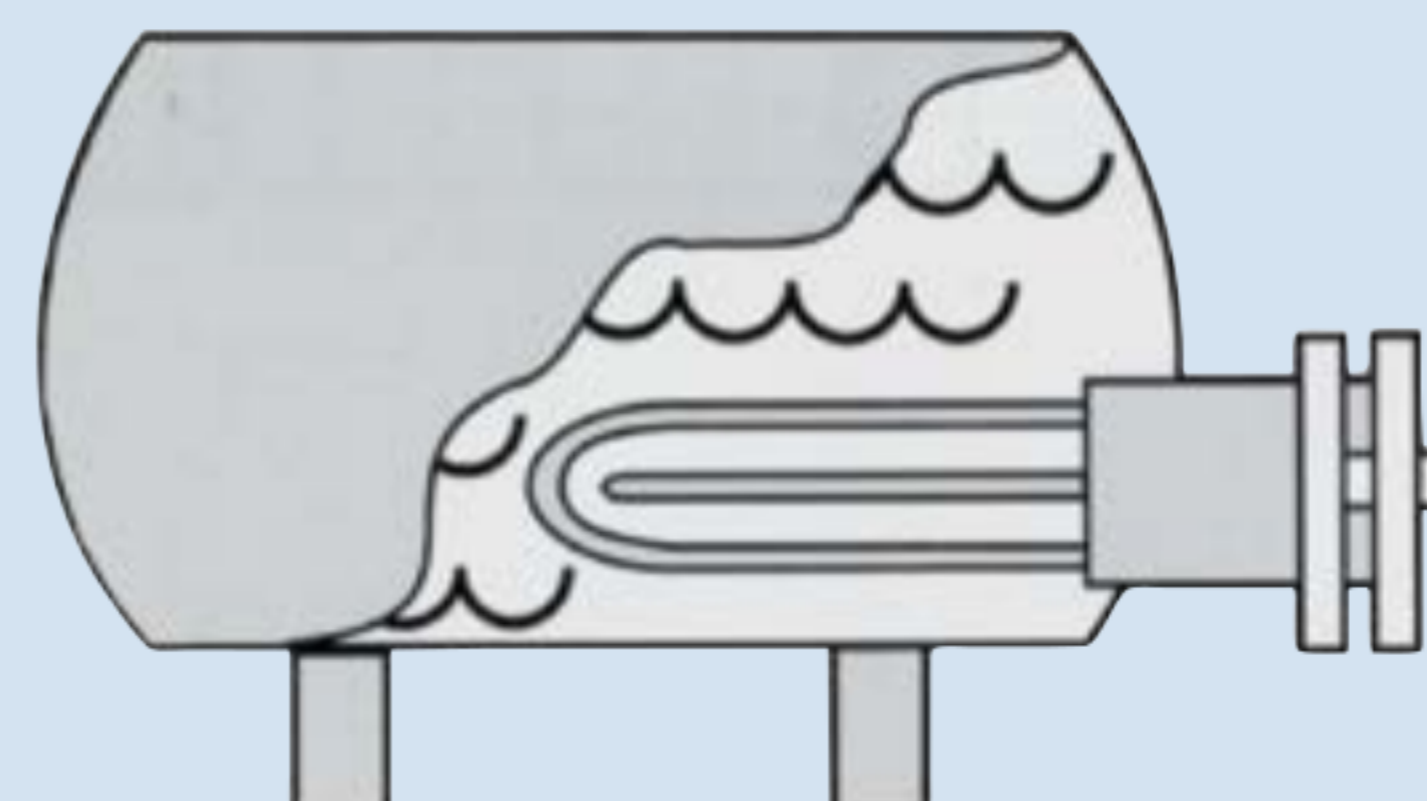
All of the features and quality of the time proven Bryan "Indirect Heaters" are now available using an existing central boiler heating plant as the heat source. Hot water or steam is taken from the heating main and circulated thru the Exchanger shell. The pool water is heated as it passes through the copper "Indirect" coil.



Model UT-10-10-2

Indirect Tank Heater

U-tube tank heaters are mounted in a new Bryan tank or supplied for mounting in an existing tank.



This installation diagram shows a typical application of the tank heater installed in the tank. Horizontal or vertical tanks are available with tank heater factory installed.

Horizontal Transfer Systems

Capacities to 1000 boiler HP 15 through 250 PSI boilers

The Bryan horizontal transfer system is also used as a boiler feed system when dished heads are preferred or more than 500 gallons is needed for storage.

Features

- Atmospheric tank with dished heads
- Tank sizes from 60-1000 gallons standard. Larger sizes available upon request.
- Factory packaged for ease of installation.
- Packages based on 1 gallon storage per 1 BHP minimum.
- Available with multiple pumps and different electrical packages.
- Various pump manufacturers available mounted and wired.
- TEFC pump motors and NEMA 12 enclosures are standard.
- Heavy duty stand with pump platform.
- Integral steam preheater optional.



Model HTS-150-100-100-D

Your complete boiler room solution.



Bryan Steam — Leaders Since 1916

783 N. Chili Ave., Peru, Indiana 46970 U.S.A.
Phone: 765-473-6651 • www.bryanboilers.com
Fax: 765-473-3074 • E-mail: inquiry@bryansteam.com