Boiler technology leaders since 1916.

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 ensures quiet operation. Constructed and stamped to ASME code Sect. VIII for 150 psig. Standard sizes for boilers up to 250 psig, 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 150 psig. Wide range of standard sizes for boilers up to 250 psig. Models for higher pressures available.

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.

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

Horizontal Transfer Systems
Capabilities 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.
- TEFC pump motors and NEMA 12 enclosures are standard.
- Heavy duty stand with pump platform.
- Integral steam preheater optional.

Your complete boiler room solution.
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 0.1” minimum steel thickness
- Tank sizes from 30 to 50 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 and replacement
- Top-mounted pumps for ease of maintenance and replacement
- Packages based on 1 gallon storage per 1 BHP minimum
- Tank sizes from 15 to 50 gallons

Why Deaerate Boiler Feedwater?
There are many advantages to deaerating water prior to boiler input, but all they 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 noncondensible 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 deaerator feedwater heater can cut the amount of chemicals consumables used for water conditioning for a continuing operating cost saving.

Pressurized Spray Type Deaerator

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 Bryan spray type deaerator is rated for oxygen removal to <0.005 cc/l (7 PPB) and CO2 to zero measurable across its entire operating range. With 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.

The Bryan spray-scrubber 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 (0.025 cc/l) 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 allows easy access to internal traps. Spray tubes are accessible from outside of the vessel for maintenance and replacement.

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

Horizontal Boiler Feed Systems

Capacities to 500 boiler HP

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

Features
- Atmospheric tank built from 0.1” minimum steel thickness
- Tank sizes from 30 to 500 gallons
- Factory packaged for ease of installation
- Packages based on 1 gallon storage per 1 BHP minimum
- Available with simplex or duplex pump packages
- Pumps mounted in front of tank for ease of maintenance and replacement
- TEFC pump motors and NEMA 12 enclosures are standard and replacement
- Pumps mounted in front of tank for ease of maintenance and replacement
- Packages based on 1 gallon storage per 1 BHP minimum
- Tank sizes from 50 to 500 gallons

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

Compact Boiler Feed Systems

Capacities from 20 to 80 boiler HP

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 0.1” minimum steel thickness
- Tank sizes from 30 to 50 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 and replacement
- Top-mounted pumps for ease of maintenance and replacement
- Packages based on 1 gallon storage per 1 BHP minimum
- Tank sizes from 15 to 50 gallons

Why Deaerate Boiler Feedwater?
There are many advantages to deaerating water prior to boiler input, but all they 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 noncondensible 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 deaerator feedwater heater can cut the amount of chemicals consumables used for water conditioning for a continuing operating cost saving.
Spray Type and Tray Type Deaerator Features

- **Construction and Stamped to ASME Section VIII Division 1 per U.S. Code.**
- **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 deaerator.**
- **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 noncondensible 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 costs. 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 chemicals consumables used for water conditioning for a continuing operating cost saving.

Pressurized Spray Type Deaerator

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 all stainless steel spring loaded spray valves and a 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

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 .002% (7 PPB) and zero measurable CO2. All internal surfaces that come in contact with undeaerated water are constructed of type 316 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 allows easy access to internal trays. Spray tubes are accessible from outside of the vessel for maintenance and replacement. A complete line of boiler feedpumps and control packages are available making the Bryan tray type deaerator completely packaged and ready for installation with the minimum amount of field assembly. 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.
Compact Boiler Feed Systems
Capacities from 20 to 40 boiler HP
15 through 150 PSI boilers
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.

Spray Type and Tray Type Deaerator Features
- Constructed and Stamped to ASME Section VIII, Division 1
- 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 deaerator
- 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 noncondensible 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 of condensate returned to boiler will result in appreciable energy savings.
- Mechanical deaeration by a deaerator prevents corrosion within the boiler and piping, extending the life expectancy of the system and reducing maintenance cost.
- Inhibiting the transfer of heat within the boiler.

Pressurized Spray Type Deaerator
Capacities from 5,000 pph - 60,000 pph
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.

Why Deaerate Boiler Feedwater?
There are many advantages to deaerating water prior to boiler input, but they all boil down to reduced cost operations.
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- 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 of condensate returned to boiler will result in appreciable energy savings.
- Mechanical deaeration by a deaerator prevents corrosion within the boiler and piping, extending the life expectancy of the system and reducing maintenance cost.
- Inhibiting the transfer of heat within the boiler.

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/liter) 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.

Horizontal Boiler Feed Systems
Capacities to 500 boiler HP
15 through 200 boiler HP
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 specific needs.

Spray Type and Tray Type Deaerator Features
- Atmospheric tank built from heavy 1/2" minimum steel thickness
- Tank sizes from 30 to 160 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 and replacement
- Available with simplex and duplex pump packages
- Packages based on 1 gallon storage per 1 BHP minimum
- Factory packaged for ease of installation
- Tank sizes from 50 to 500 gallons

Boiler technology leaders since 1916.
Your complete boiler room solution.
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Leaders Since 1916
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Vertical Blowdown Tank
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Heat Exchanger Type
Pool Heater
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- Packages based on 1 gallon storage per 1 BHP minimum.
- Available with multiple pumps and different electrical packages.
- TEFC pump motors and NEMA 12 enclosures are standard.
- Heavy duty stand with pump platform.
- Integral steam preheater optional.