

Condensed Catalog



Cemline Corporation® was incorporated in 1935 to make available to the public a unique method of corrosion prevention for hot water tanks and heaters, namely STONESTEEL®, a special hydraulic cement lining. Cemline Corporation has expanded from the building of STONESTEEL® hot water tanks to producing a wide variety of products for the plumbing and HVAC industry. These products are described briefly in this condensed catalog. Each product has its own descriptive brochure, contact the factory or your local representative for brochures.

Cemline® manufactures indirect fired water heaters for commercial, institutional and industrial hot water needs. Cemline indirect fired water heaters use steam, boiler water, high temperature hot water, and electricity as the heating medium. Cemline packages Unfired Steam Generators to produce clean steam for humidification, sterilization, pharmaceutical, food processing, and basic heating requirements. Cemline produces products for use in HVAC systems including Chilled Water Buffer Tanks, Hydronic Heating System Efficiency Buffer Tanks, and Electric Boilers. Cemline offers a complete line of condensate handling equipment including Flash Tanks, Boiler Blowdown Tanks, Condensate Coolers, and Non-Electric Condensate Pumps. Other products manufactured by Cemline include steel tanks for custom applications and replacement tube bundles used to replace tube bundles found in heat exchangers and water heaters.

Cemline Corporation has developed an excellent computer selection program and electronic catalog available on-line at www.cemline.com or on a CD-ROM. The sizing program allows the user to easily size Cemline products, providing detailed selection information, a specification, and a drawing. The selection information, specification, and drawing can be printed or saved on the user's computer.

The specification is saved in a text file format, which can be opened using any word processing program, while the drawings are saved in a CAD file format and can be used by any computer aided drafting programs.



Cemline's website (www.cemline.com) is a powerful resource tool for those using the Cemline products. Besides the sizing program the website contains installation operation and maintenance manuals, plant tour, product brochures, technical papers, drawings, specifications, and an agent locator. Installation operation and maintenance manuals are available for viewing and download on the website in .pdf file format. All of Cemline's product brochures are available for viewing and download in .pdf file format. Technical papers are available on a variety of subjects relating to Cemline products and their use within a system. Product drawings and isometric piping diagrams can be downloaded or viewed in .pdf or CAD file formats. An agent locator is provided to allow a user to effortlessly find their local Cemline representative.

This Cemline® Condensed Catalog offers a brief description of our complete product line as listed below. Individual detailed catalogs of each product are available upon request.

Plumbing Products:

- Instantaneous Water Heaters **SEH Series**
- Semi-Instantaneous Water Heaters **SSH Series**
- Storage Type Water Heaters **SWH Series**
- Cement Lined Storage Tanks **CST Series**
- Jacketed Storage Tanks **JST Series**
- Electric Water Heaters **EHB & FTB Series**
- Combination Steam
& Electric Water Heaters **CTB Series**
- Feed Forward Water Heaters **FFH Series**
- Storage Plate Water Heaters..... **SPH Series**
- Brazed Plate Water Heaters..... **BPH Series**
- Plate and Frame Water Heaters **PFH Series**
- Solar Water Heaters **SLR Series**
- Solid State Water Heater
Control Module **CEM-TROL® Series**

HVAC Products:

- Unfired Steam Generators **USG Series**
- Electric Boilers **EHB Series**
- Chilled Water Buffer Tanks **CWB Series**
- System Efficiency Buffer Tanks **SEB Series**



Condensate Products:

- Flash Tanks **FST Series**
- Blowdown/Condensate Coolers **CBO Series**
- Blow Off Tanks **BOT Series**
- Non-Electric Condensate Pumps **CCP Series**
- Heat Recovery Systems **HRS Series**

Other Products:

- Replacement Tube Bundles **RTB Series**
- Steel Tanks **BST Series**



Plumbing Products

Cemline plumbing products are traditionally used in commercial, institutional, and industrial facilities.

Instantaneous, Semi-Instantaneous, Storage Type Water Heaters – Cemline Water Heaters provide a high quality, high capacity, packaged water heater for use with steam, boiler water, or high temperature hot water as the heating medium. Factory packaging keeps contractor installation time to minimum; the only connections required are cold and hot water lines and connections of steam and condensate or boiler water, or high temperature hot water, and electric.

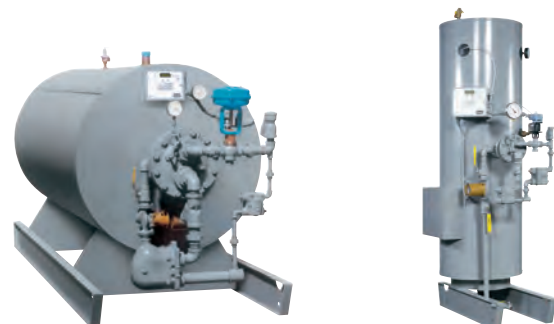
Instantaneous Water Heater - SEH Series – Featuring small size for installation in new or existing boiler rooms and a wide selection of capacities that are adequate for most hot water applications. Small size makes it ideal for a replacement unit as the SEH heater is narrow enough to fit through most doorways. In any location where space is at a premium, Cemline SEH Water Heaters should be used. Cemline SEH Heaters give the designer flexibility combined with space savings. Instantaneous Water Heaters work best when building recirculation is 20% to 30% of the recovery.



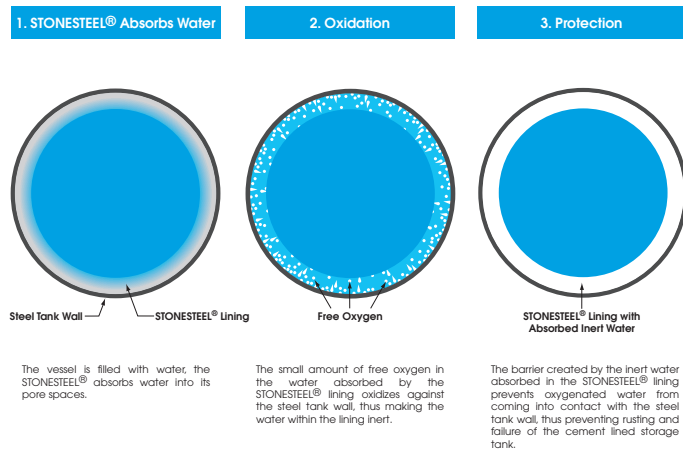
Semi-Instantaneous Water Heater - SSH Series – Featuring small size for installation in new or existing boiler rooms and a wide selection of capacities that are adequate for most domestic hot water applications. Small size makes it ideal for a replacement unit as the SSH heater is narrow enough to fit through most doorways. In any location where space is at a premium, Cemline SSH Water Heaters should be used. Cemline SSH heaters give the designer flexibility combined with space savings. The small storage tank is designed to adequately absorb any residual heat in the heating coil, thereby preventing temperature fluctuations commonly found in instantaneous heaters.



Storage Type Water Heater - SWH Series – comes in a wide selection of capacities which are adequate for most domestic hot water applications. The **STONESTEEL®** cement lined storage tank provides a long life of service preventing rust and corrosion. Customers can mix and match storage tank and recovery to suit any application. Product offering includes a full line of heaters in both vertical and horizontal configuration with vessel sizes ranging from 120 gallons to 8000 gallons storage.

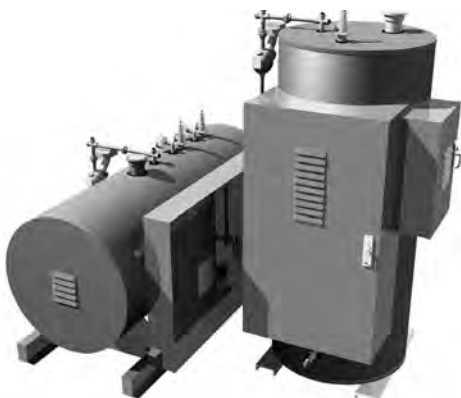


STONESTEEL® Tank Lining - Cemline **STONESTEEL®** lining is a formulation of hydraulic cement which has been designed to expand and contract with the same thermal coefficient of expansion and contraction as the steel tank shell. In this way, any rapid water temperature changes have no ill effect on the lining. The **STONESTEEL®** lining applied to tanks is the most durable, reliable, trouble free lining known for water storage.



Electric Water Heaters - EHB & FTB Series -

Cemline Commercial Electric Water Heaters are furnished as a complete package for one source responsibility. The **STONESTEEL®** cement lined storage tank provides a long life of service preventing rust and corrosion. Product offering includes full line of commercial electric water heaters in both vertical and horizontal configuration ranging from 120 gallons to 8000 gallons storage and up to 432 KW for operation on 208, 240, or 480 volts. Many optional extra features can be supplied based upon the application.



Cement Lined Storage Tank - CST Series - Water Storage Tanks for Hot and Cold Water Storage, and Hot Water Generators. A **STONESTEEL®** tank is constructed with a steel shell which completely supports a uniform, water resistant lining of hydraulic **STONESTEEL®**. The rusting and corrosion common with steel tanks is prevented because the water touches only non-corrosive surfaces. The **STONESTEEL®** is applied in a continuous arch against the metal wall and will not be injured by ordinary use or handling.



Jacketed Storage Tank - JST Series - combine the corrosion resistance of STONE, the strength of STEEL and the insulating ability of Fiberglass in one package. Cemline JST Series tanks are lined with **STONESTEEL®** hydraulic cement lining. This time-tested lining type has proved for over 50 years to be the most reliable and durable tank lining for water storage tanks. JST Tanks are used as water storage tanks for hot and cold water storage, and hot water generators.



Combination Water Heaters - CTB Series - are storage type heaters using dual energy source for heating water. This heater utilizes building steam or boiler water in the winter, and electricity in the summer. The **STONESTEEL®** cement lined storage tank provides a long life of service preventing rust and corrosion, which is available from 120 gallons to 8000 gallons storage.

CEM-TROL® - incorporates operating and limit functions in one solid-state controller. The controller features an LED display of the temperature and on board operating PID temperature control along with high temperature safety cut offs and alarm indications. The **CEM-TROL®** simplifies the control of Cemline packaged water heaters, enhances the look of the product, and follows industry trend to solid-state controls.



Plumbing Products (continued)

Plate Water Heaters – are a perfect solution for domestic water heating systems using hydronic boilers including high efficiency condensing, cast iron, copper tube or water tube boilers. The plate heat exchanger allows high efficiency condensing boilers to operate more efficiently since the plate heat exchanger can return boiler water to the hydronic boiler at lower temperatures than the traditional u-bend heat exchanger. The boiler water can be returned to the boiler as low as 90° F from the plate water heater.

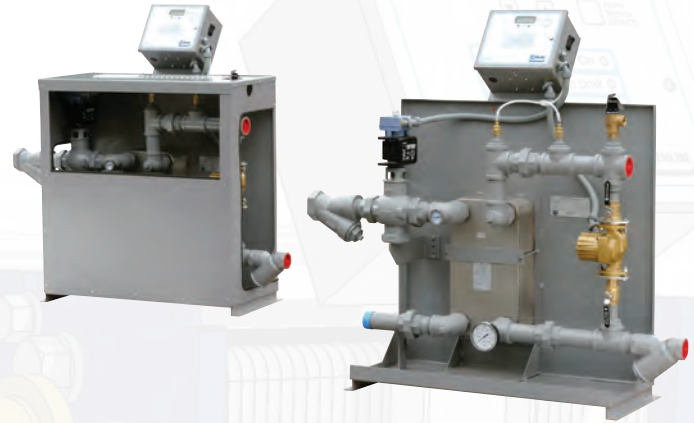
Cemline offers three versions of plate water heaters.

Storage Plate Heaters - SPH Series - is a packaged water heater with a vertically mounted storage tank. The unit includes brazed plate or plate and frame heat exchanger, Cem-trol® operating controller, control valve, intra-tank circulator, and T-P relief valve.

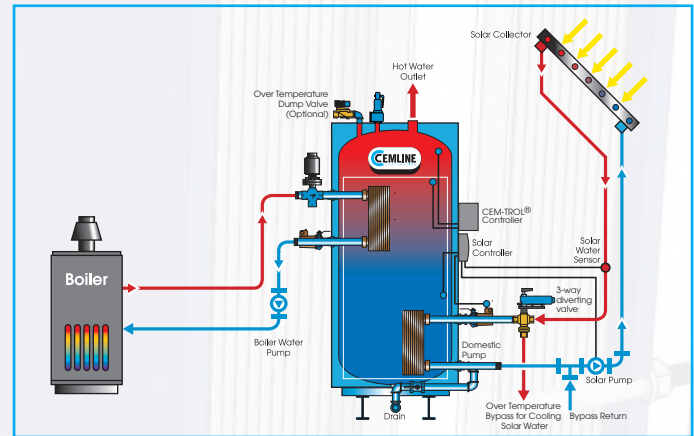
Brazed Plate Heaters - BPH Series - is a packaged water heater less the storage tank. The unit includes brazed plate (single or double walled) heat exchanger, Cem-trol® operating controller, control valve, intra-unit circulator, and T-P relief valve.

Plate & Frame Heater - PFH Series - is a packaged water heater less the storage tank. The unit includes a plate & frame (single or double walled) heat exchanger, Cem-trol® operating controller, control valve, intra-unit circulator, and T-P relief valve.

Storage Plate Heaters - SPH Series – Vertical Packaged Storage Boiler Water Fired Plate Heat Exchanger Water Heater is a perfect solution for domestic water heating systems using hydronic boilers including cast iron, copper tube, water tube, or specialty high efficiency condensing boilers. The SPH heat exchanger allows high efficiency condensing boilers to operate more efficiently since the SPH heat exchanger can return the boiler water to the hydronic boiler at lower temperatures than the traditional u-bend heat exchanger. The boiler water can be returned to the boiler as low as 90° F from the SPH water heater.



Solar Water Heaters - SLR Series – use solar energy from an external solar collector or can be dual energy source unit using either boiler water, steam, or electric as the back-up energy source for times when solar energy is not enough or unavailable. The solar water heater uses a double walled brazed plate heat exchanger to maximize heat transfer between the solar and the domestic waters.



Feed-Forward Water Heater - FFH Series – The Cemline Steam Fired Feed Forward Instantaneous Water Heaters use a pressure sensing blending valve to mix overheated hot water with cold water to make hot domestic water. Cold water is passed through the tubes of the heat exchanger while 2 to 15 psig steam is piped to the shell of the heat exchanger which overheats the water in the tubes. A differential pressure sensing head control valve then blends the cold water with the over heated hot water to deliver domestic hot water at a stable temperature with an adjustable range of 105° F to 180° F. This water heater is recommended for on/off applications such as laundries, wash down stations, and cage washers.



HVAC Equipment

Unfired Steam Generators - USG Series – are designed to produce clean steam with steam or high temperature hot water as an energy source for use where there is a need to produce clean steam from boiler steam or high temperature hot water. Cemline Unfired Steam Generators are required for humidification, sterilization, pharmaceutical, food processing, and basic heating requirements.

Humidification: Previously, Boiler House steam was used for humidification purposes. Boiler House steam contains chemicals and additives which are thought to be injurious to health and many jurisdictions now require a clean steam source for steam heating.

Sterilization: Medical Sterilization and laboratories require steam. A Cemline Unfired Steam Generator is the correct choice for providing clean steam for sterilization.

Pharmaceutical: Many Pharmaceutical applications require clean steam. Cemline Unfired Steam Generators meet this need. NOTE: This steam is not pure steam for WFI.

Food Processing: Cooking or blanching where steam comes in contact with food requires a source of clean steam. Cemline Unfired Steam Generators meet this need.

Basic Heating Requirements: Complexes which use high temperature hot water as the basic energy source often require Steam Generators in individual buildings for steam heating and other use. Cemline Unfired Steam Generators convert high temperature hot water to steam.



HVAC Equipment (continued)

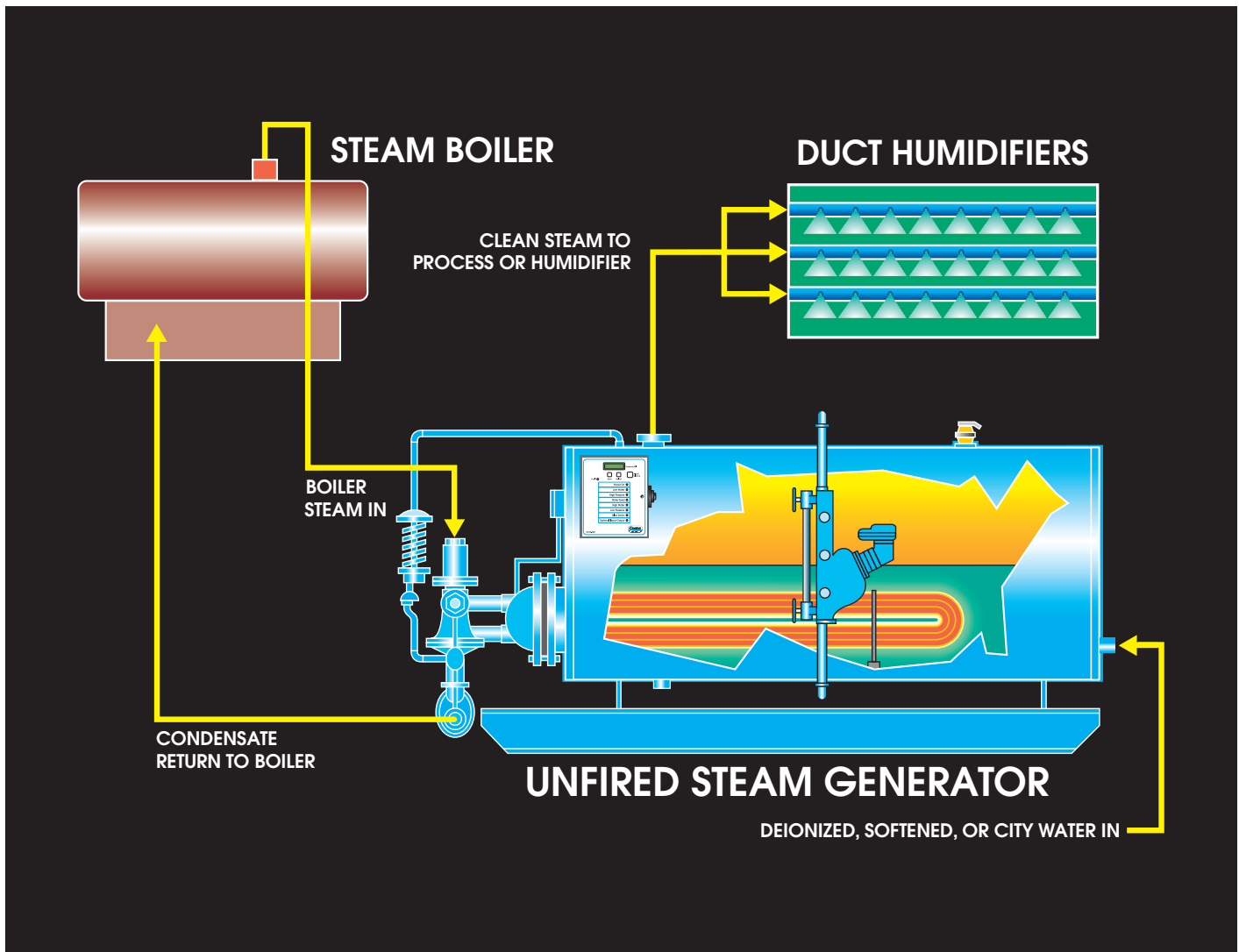
Cemline is a world leader in Clean Steam Generators with over 65 years of experience.

Clean Steam Generators for Humidification of:

- Clean Rooms
- Hospitals
- Pharmaceutical

USG Features:

- Most Economical Method of Producing Clean Steam
- Energy Source - Boiler Steam or High Temperature Hot Water
- 316-L Stainless Steel or Carbon Steel
- Solid State Control Module with Building Automation Control Interface



Cemline Corporation is the industry leader for Unfired Steam Generators with leading edge sizing software, application knowledge, and advanced technology. As a standard Cemline supplies features including control valve, level controls, feedwater solenoids, steam separator, and a solid state control panel with contacts indicating functions and alarms for the Building Automation Systems (BAS).

Cemline can package Unfired Steam Generators with a variety of advanced options to meet the customer needs. Cemline's ability to package feedwater pumps, feedwater preheaters, high water cut-offs, automatic blowdowns, and blowdown vessels directly on the skid allows for easy installation, start-up, and operation of the Unfired Steam Generator.

Chilled Water Buffer Tanks - CWB Series – are designed for use with chillers which do not have water volumes of sufficient size in relation to the chiller. Insufficiently sized systems do not have enough buffer capacity for the chilled water causing poor temperature control, erratic system operation and excessive compressor cycling.

System Efficiency Buffer Tanks - SEB Series – are designed to solve the problem of short cycling of high efficiency gas fired boilers. Low water content boilers operating at low loads will short cycle, which leads to sooting, premature component failure, and nuisance shutdowns. The SEB also eliminates the need for an air separator in the system. The tanks have an opening to accept building automation controls, or a factory supplied electronic digital temperature sensor.

Electric Boilers - EHB Series – are designed for hydronic heating systems and process heating. Capacities from 40,000 to 6,830,000 BTU/hr, 12 to 2000 KW input for operation on 208, 240, or 480 volts in both horizontal and vertical configuration used for space heating or process.



Condensate Equipment

Flash Tanks - FST Series -

CEMLINE Flash Tanks are used to flash steam from high temperature condensate prior to introducing into low pressure lines and to flash condensate prior to returning to the boiler or condensate tank. Cemline Flash Tanks are ASME code constructed and stamped for 150 psi working pressure of carbon steel and have a prime painted exterior. Vessels are registered with the National Board. Both horizontal or vertical configuration is available.



Heat Recovery System -HRS Series - recovers energy from condensate or boiler blow down. A flash tank is used to separate the flash steam from the hot liquid collected from the blow down or condensate. The hot liquid passes through a float and thermostatic trap and then a heat exchanger to recover energy by heating boiler feed water or pre-heating water while cooling the hot liquid before it is returned to the boiler or piped to a drain.

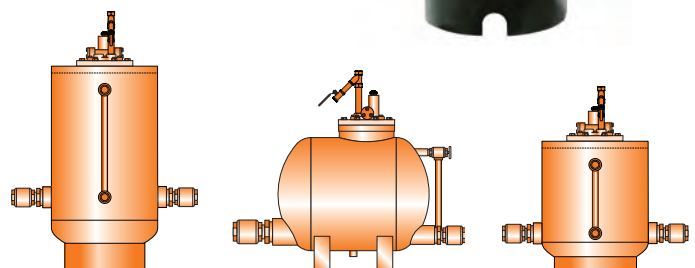


BlowDown/Condensate Coolers - CBO Series - are designed to receive blow-down from a steam boiler, flash the blow-down to steam, and cool the condensate going to drain. Cemline BlowDown/Condensate Coolers are ASME code constructed and stamped for 150 psi working pressure.



Blow Off Tanks - BOT Series - are vessels used as holding tanks to reduce the pressure and temperature of water drained from boilers and to ensure the safe release of boiler drain water into the sewage system.

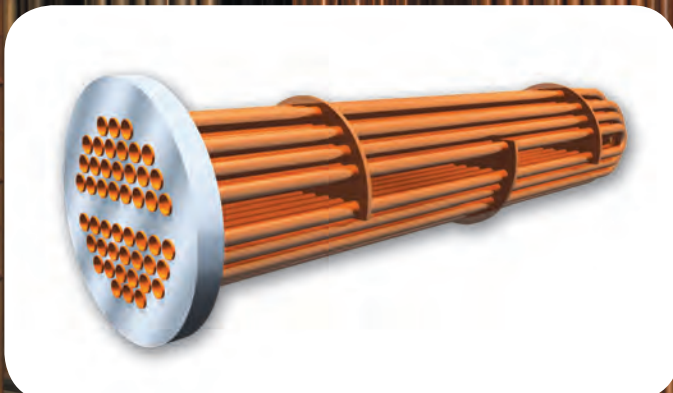
Non-Electric Condensate Pumps - CCP Series - use compressed air or steam as a motive force to move condensate. Condensate from steam systems needs to move from points of lower elevation to points of higher elevation, from points of lower to higher pressure, or from a vacuum to a point of higher pressure or elevation.

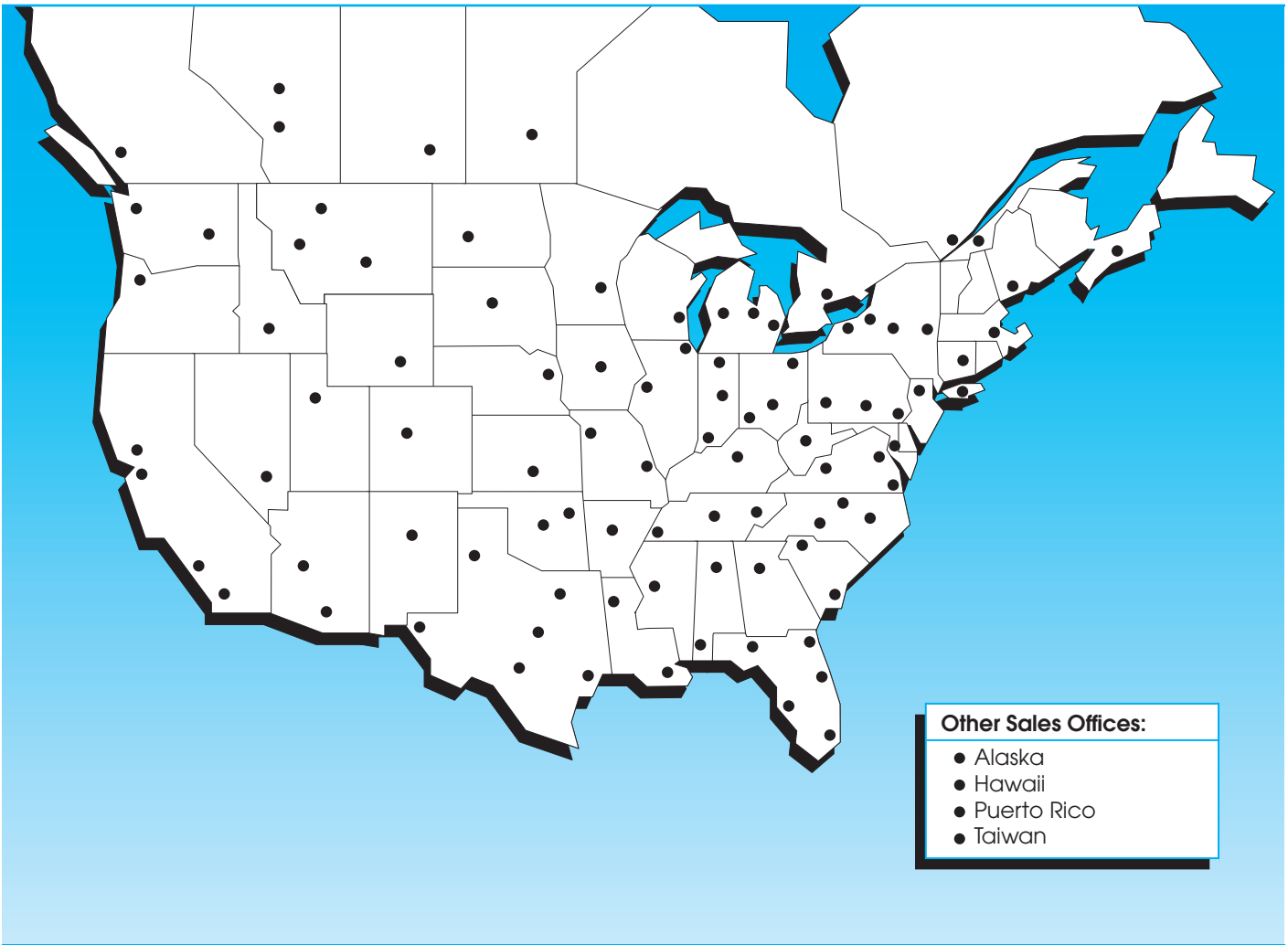


Other Products

Replacement Tube Bundles - RTB Series - Cemline is an expert in the manufacturing of replacement tube bundles used in heat exchangers and water heaters for all manufacturers. Cemline stocks copper, copper nickel and stainless steel tubes so quick shipment is never a problem. Standard lead time on a replacement tube bundle is one week or less. We can duplicate any tube bundle with an exact replacement.

Steel Tanks - Cemline Corporation manufactures tanks and pressure vessels to suit customer requirements. Tanks are custom fabricated as to size, working pressure, and openings. Cemline can build any tank to whatever configuration is specified. Material of the tanks can be carbon steel, stainless steel, or galvanized steel. Cemline steel tanks are manufactured in strict accordance with ASME code requirements and National Board Registration. Non-Code tanks are also available.





- Other Sales Offices:**
- Alaska
 - Hawaii
 - Puerto Rico
 - Taiwan

Cemline Corporation has the advantage of a superior distribution network. Cemline representatives are located in all major cities of the United States. These representatives have superior skill in understanding and designing the systems where Cemline products are used. Cemline representatives distinguished product knowledge allows specifiers confidence when they specify a Cemline product. Installers have assurance when their factory trained Cemline representative arrives to start-up a unit. The end user is secure if they need to call the Cemline representative for parts and service that they will be treated with respect and get information and help quickly.



- www.cemline.com**
- Graphical Interfaces
 - Informational Sections
 - Agent Locator
 - Plant Tour
 - Sizing programs for all products

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