

# **FLOWTHERM**<sup>TM</sup> Systems

Complete Packaged Systems for Mechanical,  
Plumbing, and Heat Transfer Applications.



# About Us

FlowTherm Systems™ pre-engineered, packaged systems provide a unique product to our industry. We eliminate the assembly downtime on site that can cut into tight deadlines and budgets. In addition to our standard systems, we create site-specific packages to meet unique spatial, environmental and sustainability needs.

We are proud to partner with leading equipment and parts manufacturers in the industry to offer only the highest quality systems. Our packages are built to rigid specifications and code compliance. With decades of proven system application experience, FlowTherm Systems™ is a leading supplier of complete packaged systems for mechanical, plumbing and industrial applications.

FlowTherm Systems™ continues to develop control strategy solutions that reduce energy usage and operating cost. No Demand Shutdown (NDS) and Dynamic Set Point Adjust (DSA) are standard on all of our booster packages.

Have site-specific needs? Interested in creating a sustainable solution for a new or existing site? We are here to help make your job as efficient, safe and effective as it can be. All of our systems are designed with 3D CAD software for increased project clarity. Our engineers will work with you and your team to assess the overall system requirements, pinpoint every detail, and find the most robust and efficient solution to customize any job. Creativity is our specialty!

# FlowTherm Systems Packages

## FLOWTHERM SYSTEM PACKAGES

- Pressure Booster Pumping Systems
- Hydronic Heating Systems
- Domestic Hot Water Systems
- Heat Transfer Systems
- Chilled/Hot/Condenser Water Pumping Systems
- Water Source Heat Pump Systems
- Process Colling Water Systems
- Tempered Water Mixing Stations
- Custom Systems

## STANDARD SPECIFICATIONS

- NSF/ANSI 372 Drinking Water System Components-Lead Conten
- UL certified for Packaged Pumping & Heat Transfer Systems
- UL 508 listed, NEMA-rated industrial control panels & wiring systems
- NSF/ANSI 61 Drinking Water System Components-Health Effects

### **Standard welding specifications:**

- ASME section IX for welded steel piping
- AWS D1.1 for structural steel frames & support welding

### **Pipe welding standards:**

- ASME/ANSI B31.9 Building Services Piping
- ASME/ANSI B31.3 Process Piping
- ASME/ANSI B31.1 Power Piping

# Pressure Booster Pumping Systems



FlowTherm Systems™ has some of the most efficient and reliable booster systems in the business. Built on structural steel frames and using equipment with wetted parts that are NSF/ANSI 61 and NSF/ANSI 372 certified, these systems are built to reliably deliver safe potable and reclaimed water in any environment. FlowTherm Systems™ booster systems are easy to start up and service, and every system is guaranteed to perform according to its specifications.

Every booster can be customized to meet the unique needs of your job site. Interested in creating a more sustainable system? Our team is an eco-conscious group, focused on saving materials, conserving water, and ultimately saving you money.

## Multistage Variable Speed FMV Boosters

- Standard or customized sizing
- Standard flow rates up to 1250 gpm, boost pressures up to 225 psi
- Custom sizes available to meet specific project requirements
- UL listed
- NSF/ANSI 372 and 61 certified
- Control panel includes high resolution color touch screen
- Control panel algorithms include Dynamic Set Point (DSP) adjustment which meets the ASHRAE Standard 90.1-2010 without need of remote sensors
- Control panels are available with Building Management System (BMS) connections including BACnet, ModBus, LonWorks and SCADA



# Hydronic Heating Systems



FlowTherm Systems™ Hydronic Heating systems provide highly efficient and cost saving solutions for any commercial, institutional or industrial building. We customize our hydronic heating systems to the unique needs of every site and have helped to create more sustainable buildings. Engineered and manufactured in Hayward, CA or Vancouver, WA, these systems will arrive pre-assembled, tested, and ready to install and start-up.

Many of our hydronic heating systems are custom designed for the specific capacities and requirements of our projects. Systems are available in excess of 10 million BTU/HR down to less than 100,000 BTU/HR. Standard pre-engineered packages are also available, designated as hydronic heating modules (HHM's). These pre-engineered packages include many features as listed below.

#### **HHM-C HYDRONIC HEATING MODULES FEATURES:**

- Indoor and outdoor-rated condensing boilers with variable system pumps
- Variable primary and variable primary/variable secondary pump control strategies
- Structural steel frame with full coverage plate steel deck
  - Includes lifting and anchor points
  - Seismic spring isolator-ready anchor chairs
- Master/member boiler sequencing control system
- System air separator and auto air vent
- System thermal expansion tank
- System chemical pot feeder
- Magnetic filter system

#### **SYSTEM INTEGRATION PANEL (SIP) INCLUDES:**

- HMI with 12" high resolution color touch screen
- NEMA 1, NEMA 3R or NEMA 4 enclosure
- Three phase single point power
- VFDs with individual disconnects for each system pump
- Wire-to-water power optimization staging of system pumps
- BACnet or LONWorks interface

# Domestic Hot Water Systems



No matter how big or small your project, FlowTherm Systems™ can customize your domestic water heating package to meet your site's unique needs. These systems have capacities from 50,000 BTU/HR to over 5 million BTU/HR, and offer Instantaneous or Semi-Instantaneous hot water. With ease in customization FlowTherm Systems™ Domestic Hot Water Systems will will seamlessly fit into your project.

- Can be manufactured with one or more water heaters
- Can be assembled with or without storage tanks
- Systems that include storage tanks are pre-piped with circulating pumps
- Can be built with recirculation pumps and domestic hot water tempering valves
- Standard Domestic Water Heater Systems are assembled with condensing or high-efficiency boilers, thermal expansion tanks, circulating pumps, and a complete control system with a single point power connection

# Heat Transfer Systems



FlowTherm Systems™ Heat Transfer Systems are pre-fabricated at our Hayward, California manufacturing site and shipped to your job site, ready to install and operate. Whether for industrial, institutional, or in commercial application, these systems are designed to provide an extremely reliable source of heating hot water and are guaranteed to work under their specifications.

Our team of CAD designers and engineers will help custom design the system that best fits your project requirements. We coordinate the steam piping, condensate piping, hot water piping, and utility connections.

**Packages typically include one or more types of heat exchangers:**

- Shell-and-tube (steam-to-water, water-to-water)
- Gasketed plate and frame heat exchangers
- Brazed plate heat exchangers

Most of our packages include hot water system pumps with hydronic components for ease of installation. Electric or steam-powered condensate units can also be included with these systems. Our systems are versatile! They can be controlled by building management systems or configured with standalone digital control systems monitored by a BMS. Control systems include Pump VFD's, steam control valves, and hot water automatic isolation valves when multiple heat exchangers are used.



# Chilled/Hot/Condenser Water Pumping Systems



FlowTherm Systems™ pumping packages are designed for seamless installation. Whether for chilled water, hot water or condenser water systems, every package is pre-fabricated with all piping connections installed at optimum locations for smoothest operation. Control panels are available with VFD's and controller with single point power connections.

**Benefits of a FlowTherm Systems™ pumping package:**

- Pre-piped for easy installation and less field time
- Rugged structural frame allows for easy rigging and landing at site
- Frames are able to accept spring isolators for sensitive locations
- Controls are available for efficient variable volume pumping and primary/secondary pump control
- Systems come in sizes of less than 100 GPM to over 10,000 GPM

# Water Source Heat Pump Systems



FlowTherm Systems™ Water Source Heat Pump Systems provide high-performance heating and cooling systems for commercial, multi-facility, and retail buildings. Acting as the central plant for water source heat pump loops, Flowtherm's systems are state-of-the-art, assembled with only the highest efficiency equipment. As with all of Flowtherm's packages, our Water Source Heat Pumps are pre-fabricated and ready for easy installation once they reach your site.

#### Most systems include:

- Closed loop fluid cooler
- Gas-fired high efficiency boilers
- Condenser water circulating pumps
- Air separator
- Expansion tank
- Chemical treatment for fluid cooler and condenser water loop

#### System Sizes:

- Available between 50 to 500 tons of cooling
- On larger systems, cooling towers with plate and frame heat exchangers are provided
- For steam-heated systems, steam-to-water heat exchangers are installed
- Multiple boilers and pumps can be installed for redundancy or for operation at partial load conditions

#### Control Systems:

Fully integrated controls are available, including VFD's, digital controllers, and PLC's with integration capabilities to the building management system (BMS).



# Process Cooling Water Systems



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FlowTherm Systems™ builds Process Cooling Water Systems for some of the biggest manufacturers in the business, from automotive to consumer goods to manufacturing. We understand the importance of keeping a line running! We use only the best parts and take the utmost care in assembly of these systems.

## Features:

- Systems are available for reverse osmosis filtered water and deionized water from 1-20 megohm
- One or more stainless steel gasketed plate and frame heat exchangers, pre-piped to receive chilled water on one side of the heat exchanger and clean process water on the other
- Stainless steel or plastic piping, pumps, and valves
- May include water filtration using media filter, UV purifiers, water softener, and reverse-osmosis

# Benefits of Flowtherm Systems™

More than ever before, engineers, building owners, and contractors are choosing Flowtherm Systems™ packages for their mechanical, plumbing and industrial projects. We have a long track record of customer satisfaction! We understand that time is money, accuracy is key, and a happy customer makes for better business on all fronts. Below are just a few of the benefits of using FlowTherm Systems™ for your projects. Questions? Call us!

## The benefits of FlowTherm Systems™ :

- Up-front cost assurance eliminates unknown labor costs when compared to field-installed components
- Single source response for warranty issues
- Minimized field coordination and labor
- Rugged structural steel platforms for easy rigging and installation at the job site
- High-quality system construction that exceeds national code requirements
- Guaranteed system performance
- High quality components installed in accordance with industry standards and manufacturers' recommendations
- Extensive selection of standard configured packages
- Experienced application assistance
- Assurance of matched and compatible system components
- Equipment manufactured to ASME/ANSI standards
- UL third party certification for quality assurance on all packaged systems
- Flexible system configurations and options for custom requirements
- Complete customer support including: full submittals; O&M instructions; 3D CAD drawings with BIM drawings; layout and application assistance throughout the project

## Some of Our Customers



### Questions? We're ready to help

FlowTherm Systems™ has a highly trained staff of representatives, designers and engineers who can help you find the best system for your mechanical, plumbing and industrial projects. Contact us and we will connect you with the right team member!

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