

MULCAHY MINUTE

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ARI 400 Certification

Plate & Frame Heat Exchangers are utilized often in Hydronic Systems. Designers especially like the ability of plate and frame heat exchangers to have a very close approach temperature between the hot and cold fluids (Sometimes only 2 degrees F apart). However, as the approach temperature gets smaller, the heat exchanger gets larger and more expensive by an inverse proportion. This is often where unscrupulous manufacturers take advantage of engineer's specifications. The difference in heat exchanger size between a 2 and a 2.5 degree F approach heat exchanger is about 25%. The key is the PERCENTAGE change. The water may only be ½ a degree cooler/warmer, but the heat exchanger will be a lot smaller. If the smaller heat exchanger can work, the engineer should make that decision, not a supplier trying to be lower priced than his competitors. Computer printouts can easily be manipulated to provide a convincing statement that the unit will meet specifications. Now, how can an engineer be sure that they are getting what they are asking for? The answer is fairly simple. Specify that the heat exchanger be ARI 400 certified. This is a relatively new standard regulating how manufacturers can rate their units. Many manufacturers

have signed on so there is nothing proprietary about requiring it.

Bell & Gossett is pleased to announce that its popular line of Model GPX gasketed plate-and-frame heat exchangers are among the first in the HVACR industry to receive the Air-Conditioning and Refrigeration Institute's (ARI) new certification for liquid-to-liquid heat exchangers.

The recently initiated ARI Standard 400 certification designates product performance and was developed to provide a common and consistent method of evaluating the thermal performance of liquid-to-liquid heat exchangers for all manufacturers. Certification is granted only to heat exchangers that, when tested, meet or exceed the manufacturers published thermal performance rating.

The ARI certification covers all (34) Bell & Gossett GPX models from the Model P4 to the Model P200 and provides our customers with reassurance that they can depend on Bell & Gossett for products with guaranteed performance.

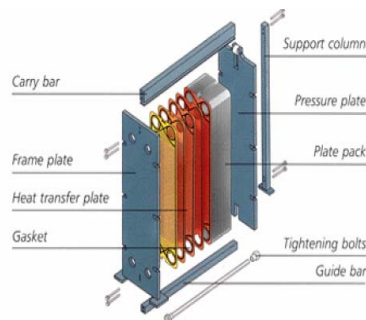
At one time or another, everyone has struggled to compete on a level playing field when proposing GPX Gasketed Plate & Frame heat exchangers. Your GPX Plate & Frame - ARI 400

Specification should now include ARI 400 Certification requirement in Section VI.

When specifying a GPX unit, Engineers should insist on the ARI 400 Certification. This certification provides an unbiased, uniform method to assure the heat exchanger manufacturer can document the published thermal performance of their heat exchanger to a third party. Currently two manufacturers can comply with ARI 400: Alfa Laval and Bell & Gossett. The suggested specification allows other manufacturers to comply with this specification by performing witnessed certified performance tests on their units per ARI 400 standards.

You may download this new specification at:

www.bjmulcahy.com/Literature/GPXSpec.doc



Upcoming Events

- KN-10 Informational Seminar
- RBI Boiler Venting School
- RBI Service School
- DeDietrich Information Seminar
- Celine Information Seminar
- Highland Tank Seminar

Check our website for dates.



B. J. MULCAHY COMPANY INC.
SPECIALISTS IN HYDRONIC & STEAM

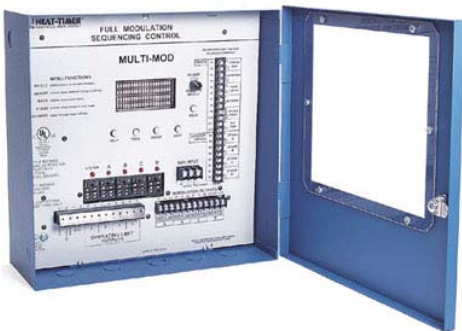
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*Representing Quality Products With
Quality Engineering*

*See you March 10
at the PHCC
Multi-State Convention*

Stop by our booth for an
exciting demo!



Multi-Mod

**Sequences up to 4 Fully
Modulating Stages for Tem-
perature or Pressure systems.**

The Multi-Mod is the perfect control whenever multiple fully modulating stages are required for heating or cooling applications. The Multi-Mod controls the on/off and the modulation of each stage to maintain precise set point control using PID type control logic.

Controls 0-5 V, 4-20 mA, or 135 ohm modulating motors.

The Multi-Mod is designed to accurately control the output from 0 to 100% of modulation for each of these different types of motors. One Multi-Mod can even control two different types of motors.

HEAT-TIMER®
CORPORATION

Only One Sensor.

The Multi-Mod requires only one sensor located in the common output header of all stages.

Digital Display of all System Settings.

The Multi-Mod's 80 character alphanumeric digital display names each system parameter in plain English and shows its precise value. The easy to follow menu system allows user to quickly make changes to any system setting without having to learn any specialized codes or keyboard commands. Password protection is available to prevent unauthorized users from making adjustments to control settings.

Automatic Rotation among States.

Rotating the first stage to be activated on a call for output promotes even wear on each stage. The Multi-Mod has three modes of rotation : Manual, First ON/First OFF, or automatically every selected time period from every hour to every 7 days.

Outdoor Reset Capability.

The Multi-Mod can be connected to existing or new Heat-Timer outdoor reset controls (HWR for hot water heat, or MPC for steam heat). The Multi-Mod also has built in hot water reset with adjustable reset ratios, offset and outdoor cutoff.

Connects to Energy Management Systems.

All Multi-Mods can be disabled by an Energy Management System (EMS) or other controller when there is no output requirement. Multi-Mods that control temperature systems can also accept a 4-20 mA input signal from an EMS to adjust the set point according to outdoor temperature or other factors.

Monitors Stage Status.

The Multi-Mod is designed to accept Lockout inputs from each stage. If any stage is in Lockout, the Multi-Mod will automatically skip it when adding more capacity. If a stage goes into Lockout during normal operation, the next stage will be activated immediately to maintain the desired output capacity.

System Output is Active when Any Stage is Active.

This output can be used to activate a system pump, combustion air damper, or perform any other function that is required when any stage is active. A System Prove input checks the status of components activated by the System output before stages can be activated.

Remote Communication Upgrade Available.

The Multi-Mod can be upgraded to Heat-Timer's Visual Gold system to monitor and control all Multi-Mod functions from **remote location**. The Visual Gold upgrade also allows the Multi-Mod to accept sensors, to monitor their status, and to provide alarms if the sensor values are not in the correct range.

Additional features include:

A purge timer, a low fire adjustment, a firing point setting for the next stage based on the firing rate of the current stage, a lag stage timer, a last stage hold adjustment, and many others.



INTRODUCTION OF ADDITIONAL SIZE!!!

We are happy to inform you that the Check-Trol™ and Isolation Flanges are now available with 1-1/2" size system connections. The addition of the 1-1/2" valves will complement the existing sizes of 3/4", 1" and 1-1/4". The valves are available in either NPT or sweat connections to fit the B&G NRF, NBF, SSF, Series 100, LR, PR, HV, PL-30, PL-36, PL-45, PL-50 PL-55 PL and most Series 60 pumps.