No More Frozen Assets

Bruest Catalytic Heaters

... Protect Every

- Compressor • Wellhead • Regulator • Pipeline
  with Lean, Efficient Catalytic Technology.

Proven in Thousands of Installations Worldwide.

www.bruestcatalyticheaters.com
800.835.0557 • Fax: 620.331.3402
Infrared Radiant Heaters

The Safest, Most Efficient Alternative Wherever Flameless Heat is Required

Catalytic heating is the product of intensive research efforts to quantify the effectiveness of catalysts in promoting the reaction of combustive gases with oxygen or air to produce heat. There is no flame to create a hazard, and catalytic heat can operate efficiently on low-cost natural gas, butane or propane.

The use of catalytic heaters has been approved and accepted for dozens of industrial and petrochemical applications.

How the Catalytic Principle Works

The normal ignition temperature of natural gas (80%) in air (20%) at atmospheric pressure is given as 1260°F. In the presence of the catalyst, the reaction occurs with sufficient velocity to begin a chain reaction at 225°F. Thus, if natural gas is brought into contact with the catalyst at 225°F in the presence of oxygen, it is oxidized to carbon dioxide and water vapor. Sufficient heat is, therefore, evolved to raise the temperature of the bed of the heater and oxidation will continue as long as gas and oxygen are supplied.

No flame is produced under these conditions, since the gases are well below ignition temperature (1260°F). However, approximately the same amount of heat is produced as if the gas had been burned in the normal manner.

The thermal efficiency of a catalytic heater is substantially higher than a conventional heater. In the catalytic heating principle, a considerably larger proportion of the heat produced is radiant heat of wavelengths of 2–16 microns, and much less heat is required to heat the evolved gases.

Practically no heat is utilized to heat the large volume of nitrogen associated with the oxygen as in a conventional heater because most of the heat content of the carbon dioxide and water is recovered as radiant heat.

In a catalytic heater, the temperature attained in the catalyst bed is determined by two factors: the flow of the gas to the catalyst bed, and the rate at which oxygen diffuses through the bed to replace what was consumed in the reaction.

If the rate of gas flow is too high, not enough oxygen can enter to completely burn the gas. If the rate is too low, the gas is burned deeper in the bed and the surface cools. Therefore, the temperature of a catalytic heater is self-limiting and the system will operate stably for long periods of time without intervention as long as gas and air are supplied.

The Catalytic Principle

Catalytic heat is radiant heat. Radiant heat, like light, is electromagnetic wave energy that travels in straight lines at 186,000 miles per second, casts shadows, may be transmitted, absorbed or reflected by matter, and may be focused or dispersed by lenses or prisms of the proper material.

A source of radiant energy – such as a catalytic heater – floods the area around it with heat energy in the same way that light floods the area around it. The intensity of the heat energy varies with the square of the distance (as does light) and travels any distance without loss as long as it does not contact matter which absorbs it.

The absorption of radiant energy by various materials is a property specific to each material. Certain wavelengths will be absorbed to a considerable extent, others less, and some very little or not at all. Thus, each molecular substance has an infrared absorption spectrum which is a fingerprint of that substance. The absorption data for many substances can be found in an atlas of infrared absorption spectra.

Since the absorption of radiant heat is highly selective, there are many excellent application opportunities. By selecting proper substances to act as a filter between the source and object to be heated, all but the desired wavelengths can be filtered out.

Sample Applications for Bruest Catalytic Heaters

• Compressor Gas Preheat
• Regulators and Control Valves
• Gas Wellhead Heaters
• Peak Shaving Vaporizer Valves
• Enclosures of all Types
• Oil Production Well Injection, Offshore Platform Approved
• Personnel, Fixed or Portable
• Space Heaters, Compressor Stations
• Pipeline Heaters

Bruest Catalytic Heaters are approved for use by THE CANADIAN STANDARDS ASSOCIATION and FACTORY MUTUAL SYSTEM for hazardous locations Class 1, Group D, Division 2.
For over 50 years, Bruest Catalytic Heaters has provided protection from freeze damage for sensitive measurement, regulation and distribution equipment. We believe ours are the most reliable and best performing catalytic heaters made. We have consistently been the leaders in designing innovative solutions to freeze problems as gas has become a major energy source for America.

Our products are easy to install, and perform on both everyday applications and more involved gas systems.

Selection of a Bruest catalytic heater assures a top quality product that will deliver many years of maintenance-free service. Some of our systems have been in constant use for thirty years without the need for overhaul or repair.

**One additional factor you may find compelling: every Bruest catalytic heater has a special warranty of two full years – double the warranty provided by other catalytic heater manufacturers.**

We at Bruest constantly strive to improve our products with an ongoing development program focused on the changing needs of the gas industry.

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ROUND AND SQUARE CATALYTIC HEATERS
PRODUCE FLAMELESS INFRARED RADIANT HEAT

- Factory Mutual System and Canadian Standards Association approved for Group D locations
- Bruest gas fueled flameless infrared radiant heaters are extremely safe
- Face temperature approximately 850°F
- Bruest heaters can be thermostatically controlled
- Long life catalyst pad – no moving parts
- Over 50 years field proven reliability
- Easily installed in the field
- Fuel: natural gas, L.P. (propane) or butane gas
- Sizes: 1500 - 72,000 BTU input

TYPICAL APPLICATIONS

- Freeze protection and instrument heating on:
  > Chokes
  > Instrumentation
  > Meters
  > Orifice Taps
  > Regulators
  > Valves
- Emergency heating – portable self-contained units for:
  > Remote Areas
  > Personnel

FREEZE PROTECTION FOR MEASUREMENT OR
REGULATION EQUIPMENT

Heaters are normally installed in an enclosure designed to fit a specific piece of equipment. This affords protection from wind or rain when used outdoors and improves heat transfer to the equipment.

FREEZE PROTECTION FOR INSTRUMENTS

Small heaters can focus radiant heat directly on control instruments that are at risk for localized freezing. Thermostatic controls are available to prevent overheating equipment with sensitive seals and internal parts.
CATALYTIC HEATER SPECIFICATIONS

Standard, FM and CSA Model Heaters
Stainless Steel

<table>
<thead>
<tr>
<th>HEATER MODEL</th>
<th>BTU/HR. INPUT</th>
<th>CU.FT./HR.</th>
<th>HEATER DIMENSIONS INCHES</th>
<th>FUEL INLET NPT</th>
<th>SHIPPING WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-6</td>
<td>1500</td>
<td>1.5 1.5</td>
<td>6.12 6.12 6.0</td>
<td>1/4&quot;</td>
<td>8 lbs.</td>
</tr>
<tr>
<td>R-8</td>
<td>2500</td>
<td>2.5 1.0</td>
<td>8.12 8.12 5.5</td>
<td>1/4&quot;</td>
<td>6 lbs.</td>
</tr>
<tr>
<td>8-8</td>
<td>2650</td>
<td>2.7 1.1</td>
<td>8.12 8.12 6.0</td>
<td>1/4&quot;</td>
<td>8 lbs.</td>
</tr>
<tr>
<td>6-12</td>
<td>3000</td>
<td>3.0 1.2</td>
<td>6.12 12.12 6.0</td>
<td>1/4&quot;</td>
<td>8 lbs.</td>
</tr>
<tr>
<td>R-12</td>
<td>5000</td>
<td>5.0 2.0</td>
<td>12.12 12.12 6.0</td>
<td>1/4&quot;</td>
<td>11 lbs.</td>
</tr>
<tr>
<td>10-12</td>
<td>5000</td>
<td>5.0 2.0</td>
<td>10.12 12.12 6.0</td>
<td>1/4&quot;</td>
<td>8 lbs.</td>
</tr>
<tr>
<td>12-12</td>
<td>6000</td>
<td>6.0 2.4</td>
<td>12.12 12.12 6.0</td>
<td>1/4&quot;</td>
<td>12 lbs.</td>
</tr>
</tbody>
</table>

**NOTE:**

1. Specify when ordering:
   a) Model of heater - FM - CSA - Standard
      - Standard catalytic heaters are for use in non-hazardous locations
      - FM approved catalytic heaters are for use in Class 1, Division 2, Group D locations
      - CSA approved catalytic heaters are for use in Class 1, Division 1 and 2, Group D locations
   b) Fuel
      - Natural gas, L.P. (propane) or butane gas
   c) Starting voltage
      - 12 volt DC
      - 120 volt AC
      - 208 volt AC
      - 240 volt AC
      - 480 volt AC

2. Catalytic heaters are designed and orificed to operate on a standard fuel inlet pressure of 3 1/2˝ or 7˝ W.C. for natural gas and 11˝ W.C. for L.P. (propane) and butane gas.

3. FM model catalytic heaters are approved by Factory Mutual Research for use in Class 1, Division 2, Group D locations, and are equipped with a thermocouple – safety shut-off valve – and steel junction box. An explosion-proof junction box is optional at an additional charge.

4. Canadian Standards Association model catalytic heaters are approved for use in Class 1, Division 1 and 2, Group D locations, and are equipped with a thermocouple – safety shut-off valve – explosion-proof junction box – appliance type regulator (natural gas only) and manual shut-off valve.
RECTANGULAR CATALYTIC HEATERS PRODUCE FLAMELESS INFRARED RADIANT HEAT

- Factory Mutual System and Canadian Standards Association approved for Group D locations
- Bruest gas fueled flameless infrared radiant heaters are extremely safe
- Face temperature approximately 850°F
- Bruest heaters can be thermostatically controlled
- Long life catalyst pad - no moving parts
- Over 50 years field proven reliability
- Easily installed in the field
- Fuel: natural gas, L.P. (propane) or butane gas
- Sizes: 1500 - 72,000 BTU input

TYPICAL APPLICATIONS

- Building heating
  > Compressor Buildings
  > Fire Pump Buildings
  > Meter House Heating
  > Personnel Heating-Fixed or Portable
  > Pipeline Heating
  > Offshore Platforms
- Instrument heating
  > Control Instruments
  > Small Regulators
  > Small Valves
  > Electronic Measurement Devices
- Freeze protection
  > Chokes
  > Dump Valves
  > Level Controllers
  > Meters
  > Orifice Fittings
  > Valves
  > Regulators

METER HOUSE HEATING

Small capacity Bruest rectangular heaters are used extensively for heating meter houses, and when applied properly, will prevent freezing in almost any climate, with exceptional safety. Bruest heaters conserve energy by heating troublesome equipment, frequently replacing larger, more expensive line-type heaters.

HAZARDOUS SPACE HEATING

When heat is required in an area where a hazardous condition exists, Bruest has the answer. Examples include compressor buildings, meter houses, flammable materials storage, offshore platforms and many other locations.
NOTE:

1. Specify when ordering:
   a) Model of heater - FM - CSA - Standard
      • Standard catalytic heaters are for use in non-hazardous locations
      • FM approved catalytic heaters are for use in Class 1, Division 2, Group D locations
      • CSA approved catalytic heaters are for use in Class 1, Division 1 and 2, Group D locations
   b) Fuel
      • Natural gas, L.P. (propane) or butane gas
   c) Starting voltage
      • 12 volt DC
      • 120 volt AC
      • 208 volt AC
      • 240 volt AC
      • 480 volt AC

2. Catalytic heaters are designed and orificed to operate on a standard fuel inlet pressure of 3 1/2” or 7” W.C. for natural gas and 11” W.C. for L.P. (propane) and butane gas.

3. FM model catalytic heaters are approved by Factory Mutual Research for use in Class 1, Division 2, Group D locations, and are equipped with a thermocouple – safety shut-off valve – and steel junction box. An explosion-proof junction box is optional at an additional charge.

4. Canadian Standards Association model catalytic heaters are approved for use in Class 1, Division 1 and 2, Group D locations, and are equipped with a thermocouple – safety shut-off valve – explosion-proof junction box – appliance type regulator (natural gas only) and manual shut-off valve.
FREEZ-FITER PILOT-REGULATOR HEATER PREVENTS FREEZE-UPS

- Heats gas supply to controllers, pilots and instrument regulators
- Heat source - Bruest flameless catalytic heater
- Fuel: natural gas, L.P. (propane) or butane gas
- Low fuel consumption
- FM models suitable for use in Class 1, Division 2, Group D locations
- CSA models suitable for use in Class 1, Division 1 and 2, Group D locations
- Single coil standard - dual coil model available (use with 2 regulators)
- Low pressure fuel gas regulator comes with unit (maximum 50 PSI inlet pressure)
- Preheat fuel gas tube

FREEZ-FILTER SPECIFICATIONS

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>EXCHANGER COIL</th>
<th>HEATER</th>
<th>CASE DIMENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1800</td>
<td>3/8” OD Type 304 Stainless Steel • Operating Pressure 2500 PSI Max. • Test Pressure 5000 PSI • Exchanger Coil Pipe Fittings 1/4” NPT</td>
<td>Bruest-SR-8 Catalytic Heater • Start-up Voltage 12 Volt or 120 Volt • Stainless Steel Case • 2500 BTU Input • Fuel - Natural Gas at 3 1/2” W.C. • LP Gas at 11” W.C.</td>
<td>Size 12” x 12” x 4” with 1” Fiberglass Insulation • Stainless Steel Case</td>
</tr>
<tr>
<td>4000</td>
<td>Same as Above</td>
<td>Bruest-SR-12 Catalytic Heater • Start-up Voltage 12 Volt or 120 Volt • Stainless Steel Case • 5000 BTU Input • Fuel - Natural Gas at 3 1/2” W.C. • LP Gas at 11” W.C.</td>
<td>Size 16” x 16” x 4” with 1” Fiberglass Insulation • Stainless Steel Case</td>
</tr>
</tbody>
</table>

ACCESSORY OPTIONS

- High pressure fuel gas regulator; 6000 PSI max; 10-75 PSI outlet; Fisher 1301F
- Thermostat: 100° - 200°F range (Invensys)
- Explosion-proof junction box is standard on CSA models and optional on FM models
- 16 ft. - 12V electrical pigtail with battery clips for a standard or explosion-proof junction box
- 25 ft. - 12V electrical pigtail with battery clips for a standard or explosion-proof junction box
- Nupro relief valve (set @ 45 PSI) 1/4” npt
Freez-Fiter
Pilot Regulator Heater
APPLICATIONS
MODEL 1800 AND 4000

- Pilot Operated Regulators
  Grove Flexflow
  American Axial Flow
  Fisher 399 and 310
  Mooney
  Sprague
- Instrument Regulators
- Chromatographs
- Options: preheat fuel tube

SAMPLE DUAL COIL INSTALLATION

SAMPLE INSTALLATION
FREEZ-FITER PLUS+

“AMERICA’S FAVORITE PILOT HEATER” NOW PROVIDES HIGHER ACCURACY, UPDATED FEATURES, AND CUSTOMIZATION TO YOUR NEEDS!

Transmission and distribution companies, and public utilities have trusted Freez-Fiter from Bruest for more than 30 years.

Now, there are even more reasons to specify the field-proven performance of genuine Freez-Fiter heaters.

Advantages of Freez-Fiter Plus:

- Freez-Fiter Plus has been re-engineered for greater airflow efficiency, and more uniform temperature control.
- New 6˝ enclosure has the same convenient O.D. (12˝ X 12˝) and uses the same R8 2500 BTU heater, but the case is now 6˝ deep for significantly greater airflow performance.
- Single or double coil serpentines are 3/8˝ stainless steel, and have 2500 lbs. of maximum working pressure. They are tested to 5000 lbs.
- Bulk heads have been re-engineered, and all high pressure connections are external: there are no high-pressure connections inside the enclosure.
- The low pressure regulator is a standard 912, (BelGas or Fisher). These direct-operated, spring-loaded regulators have limited-capacity external relief across the diaphragm to minimize over-pressure. Using natural gas, they have a 50 psi maximum inlet. The outlet is 3.5˝ w.c. to operate the Freez-Fiter.
- The Mertek thermostatic gas valve replaces the older thermostat and Baso valve. Both the gas valve and safety valve are CSA and FM approved.
- For greatest safety and convenience, a shutoff valve turns the gas off on the fuel inlet entering the heater.
- All units have a preheat fuel tube, which prevents high pressure regulator freeze-up.
- A filter on the low side of the fuel inlet slows the moisture and debris and prevents it from entering the heater. This filter also extends the service life of the pad.

- Freez-Fiter Plus units have a 0-15˝ w.c. gauge, easily visible from the front.
- Freez-Fiter units have a new rain-bill feature that protects the unit from rainwater.
- Every unit is leak-tested and pressure-checked in the Bruest lab.
- Heater is Class 1, Division 1 and 2, Group D approved. (CSA and FM)

Options for the Freez-Fiter Plus include a 12 volt or 120 volt design and several types of high pressure regulators. A larger unit, 16X16”, with an R12 5000 BTU heater is also available.

Freez-Fiter Plus is a field-proven pilot heater backed by Bruest, the nation’s most respected provider of heating systems for gas transmission and distribution lines, and utilities.

Freez-Fiter Plus is a versatile system engineered for pilots, and for inline heating, too. It is ideal for the heating of gas lines that run to actuators, regulators or other equipment.
SUPER FREEZ-FITER IS THE PIPELINE HEATER FOR HIGH PRESSURE CUT, LOW FLOW HEATING APPLICATIONS

The Super Freez-Fiter pipeline heater has all the power, performance and pedigree of the industry-leading Bruest HotCat pipeline heater. Yet it’s specifically engineered for high-pressure, low-flow applications.

Super Freez-Fiter:

- Sources and conditions its own fuel
- Provides direct heating and maximum heat transfer efficiency. Only heat to duty required
- Can have 2, 4 or 6 flameless catalytic heaters, and one to three 21” coils exposed to the heat, providing optimum dwell time for low-flow applications
- Monitors the heated gas outlet temperature
- Modulates the fuel flow to minimize fuel consumption
- Pipeline heater is stand-alone, and self-contained
- 28,000 BTU, 56,000 BTU and 86,000 BTU units are available, standard

This unique pipeline heater has a small footprint, and weighs just 500 lbs., so it can be handled without an autocar, and hauled in a truck. Super Freez-Fiter is also easy to install. It requires just input and output gas connections, and an electrical source for preheating the unit’s heaters.

Super Freez-Fiter can be started with 12 volt DC or 120 volt AC. It is for use in Class I, Division 1 or Division 2, Group D locations and has FM, CSA and ATEX certification.

The Super Freez-Fiter pipeline heater is ruggedly constructed, with a stainless steel body, stainless steel serpentines, and a galvanized skid. It requires very little maintenance and is easy to service. It also has great “environmentals”, there is no open flame or ethylene glycol, virtually no NOx or VOCs – and no complaint-producing "firetube roar!"

Super Freez-Fiter is the ultimate in pipeline freeze protection for low volume flow applications. Designed as a manual system, units can also be manufactured as a fully automatic system with an Allen-Bradley FlexLogix PLC. Gauges, regulators, and high-temp shut-down instrumentation are all built-in.
**PIPELINE HEATER PACKAGES**

- Use to heat the gas upstream of pressure regulators and measurement facilities
- Indoor or outdoor installation
- Standard pipe sizes - 2” through 20” (contact factory for larger sizes)
- Simple field installation
- Stainless steel construction
- Over 50 years of field proven reliability
- Contact factory for correct sizing

**PIPELINE HEATER SPECIFICATIONS**

<table>
<thead>
<tr>
<th>HEATER MODEL</th>
<th>PIPE SIZE</th>
<th>BTUH INPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-6-24</td>
<td>2”</td>
<td>6,000</td>
</tr>
<tr>
<td>2-6-24</td>
<td>2” , 3” , 4”</td>
<td>12,000</td>
</tr>
<tr>
<td>2-12-24</td>
<td>4” , 6” , 8”</td>
<td>24,000</td>
</tr>
<tr>
<td>2-12-36</td>
<td>4” , 6” , 8” , 10”</td>
<td>36,000</td>
</tr>
<tr>
<td>2-12-48</td>
<td>4” , 6” , 8” , 10”</td>
<td>48,000</td>
</tr>
<tr>
<td>2-12-60</td>
<td>4” , 6” , 8” , 10”</td>
<td>60,000</td>
</tr>
<tr>
<td>2-12-72</td>
<td>4” , 6” , 8” , 10”</td>
<td>72,000</td>
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<td>2-18-36</td>
<td>4” , 6” , 8” , 10”</td>
<td>56,000</td>
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<td>2-18-48</td>
<td>4” , 6” , 8” , 10”</td>
<td>74,000</td>
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<td>2-18-60</td>
<td>4” , 6” , 8” , 10”</td>
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<td>2-24-48</td>
<td>4” , 6” , 8” , 10”</td>
<td>100,000</td>
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<tr>
<td>2-24-60</td>
<td>4” , 6” , 8” , 10”</td>
<td>120,000</td>
</tr>
<tr>
<td>2-24-72</td>
<td>4” , 6” , 8” , 10”</td>
<td>144,000</td>
</tr>
</tbody>
</table>

*Stainless steel reflector replaces one heater.
Pipeline Heater Package Dimensions available upon request.

**LARGER PIPELINE HEATER PACKAGES AVAILABLE UPON REQUEST**

- Standard model heaters are for use in non-hazardous locations
- FM model heaters for use in Class 1, Division 2, Group D locations
- CSA model heaters for use in Class 1, Division 1 and 2, Group D locations
- Specify start-up voltage: 12V, 120V, 240V or 480V
- Specify fuel: natural gas, L.P. (propane) or butane gas
- Accessories:
  - Fuel gas manifold and regulator
  - Explosion-proof junction boxes
PORTABLE CATALYTIC HEATERS

- Bruest portable heaters produce safe infrared radiant heat, to heat people and equipment.
- Bruest portable catalytic heaters are safe. Factory Mutual models are approved for use in Class 1, Division 2, Group D locations.
- Canadian Standards Association does not approve portable heaters.
- Bruest portable catalytic heaters are ideal to provide temporary heat for equipment and personnel in compressor, instrument, meter and wellhead buildings.
- Bruest portable catalytic heaters are adjustable so the infrared heat can be directed to where it is needed.
- Fuel: natural gas, L.P. (propane) or butane gas.
- Sizes: 24,000 BTU/HR input – 72,000 BTU/HR input.
- Smaller portable catalytic heaters are available for use with small propane bottles. Contact factory for information.

### RATINGS AND DIMENSIONS

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>BTU/HR. INPUT</th>
<th>START-UP VOLTAGE</th>
<th>DIMENSIONS IN INCHES</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH20M</td>
<td>24,000</td>
<td>12-120-240</td>
<td>49” 31” 25”</td>
</tr>
<tr>
<td>PH30M</td>
<td>36,000</td>
<td>12-120-240</td>
<td>49” 43” 25”</td>
</tr>
<tr>
<td>PH40M</td>
<td>50,000</td>
<td>120-240-480</td>
<td>49” 55” 25”</td>
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<tr>
<td>PH50M</td>
<td>60,000</td>
<td>120-240-480</td>
<td>49” 67” 25”</td>
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<tr>
<td>PH60M</td>
<td>72,000</td>
<td>120-240-480</td>
<td>49” 79” 25”</td>
</tr>
</tbody>
</table>

SPECIAL ORDERS AVAILABLE UPON REQUEST
CATALYTIC HEATER ENCLOSURE PACKAGES

- Enclosures provide spot heating for valves, instruments and regulators that require heat to function in cold weather
- Enclosures are made of 304 stainless steel
- Two-piece construction facilitates field installation
- Enclosures protect the heaters from wind, rain and snow

ENCLOSURES & HEATER FOR THE FOLLOWING APPLICATIONS

CHOKES
Best
Merla
OCT
Willis
K-F

DUMP VALVES
Fisher
Kimray
Merla
Norrisal

LEVEL CONTROLLERS
Fisher
Norrisal

METERS
American
Equimeter
Roots

REGULATORS
American
Fisher
Grove
Kimray
Equimeter
Mooney

ORIFICE FITTINGS
Daniel
Peco

Heat Input
\[ Q = MC_p \Delta T \]

Heat Input
\[ Q = MC_p \ T \]
\[ Q = \text{Heat Input, BTU/HR.} \]
\[ M = \text{Flow Rate, LB/HR} = (0.0764)(SG)(SCFH) \]
\[ C_p = \text{Specific heat of Gas, BTU/LB. } {}^\circ\text{F.} (\approx 0.75) \]
\[ \Delta T = \text{Temperature Drop Due to Regulation, } (= 1^\circ \text{F/15 PSI}) \]
HEATER/ENCLOSURES FOR REGULATING EQUIPMENT

TO AVOID DELAY WHEN ORDERING ENCLOSURES, PLEASE FURNISH THE FOLLOWING INFORMATION:

Manufacturer - Fisher, American, Equimeter, Grove, Roots, Huber-Yale, Mooney, etc.
Model Number - 630, 627,041,399, 83, etc.
Body Type - A, D, ET, etc.
Operator or Pilot - 657, ZSC-100, etc.
Size - 2”, 3”, etc.
End Connections - screwed, flanged, etc.
Flange Pressure Rating - 300#, 600#, etc.
Orientation - Vertical or horizontal

GENERAL INFORMATION

Most 1” enclosure applications require one or two model R-8 heaters
Most 2” and larger enclosure applications require one or two model R-12 heaters
Applications on 6” and larger valves generally require one or two 12-24 heaters
Custom enclosures are available for special applications
Fuel gas manifolds are optional to facilitate field installation
**SPECIAL ORDER ITEMS:** Contact the factory or your representative for pricing information.

**TERMS:** Terms are net 30 days from date of invoice. Bruest accepts Visa, Mastercard and American Express. A service charge of 1% per month on the unpaid balance will be added to all past due bills where authorized by law.

**FREIGHT:** F.O.B. point on all shipments is Independence, Kansas.

**RETURNS:** Returned merchandise will not be accepted for credit, repair, or replacement without prior approval. Merchandise returned without authorization will be subject to refusal. Incoming transportation charges must be prepaid on all returned merchandise.

**GUARANTEE:** All products of Bruest Catalytic Heaters will be guaranteed against defects in material and workmanship for a period of two years from the date of purchase. Repairs within this guarantee will be made without charge if transportation costs are prepaid to the Bruest Factory in Independence, Kansas.

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**WARRANTY**

*The warranty is a Special Warranty given in connection with the sale of catalytic heaters by Bruest Catalytic Heaters. This Warranty shall provide benefits only to Purchaser and shall not be available to any subsequent owners, by purchase, transfer, or otherwise, of the heaters covered by this Special Warranty.*

This Special Warranty applies only to the “S” pad heaters.

In the event of a claim on this Special Warranty, Seller agrees, at Seller’s option, to repair or replace the heater.

Failure of the catalyst caused by tampering, abuse, unauthorized alterations or repairs, negligence, accident, improper operation, improper fuel (LP fuel must be grade HD-5 or better-natural gas must be pipeline quality as normally supplied by regulated gas distribution companies), use under abnormal conditions of temperature, moisture, dirt or corrosion, or use with corrosive materials including but not limited to lead, arsenic, hydrogen sulfide, lubricants and silicones, shall void the Special Warranty.

The “S” pad warranty will be two years from the date of purchase.
"with good reason"

20th and Sycamore • P.O. Box 827
Independence, KS 67301
620.331.0750 • Fax: 620.331.3402
E-mail: sales@bruestcatalyticheaters.com

www.bruestcatalyticheaters.com
800.835.0557

The Bruest, HOTCAT and Freeze-Fiter are registered trademarks of Bruest Catalytic Heaters, Division of Catalytic Industrial Group, Inc., Independence, KS.
Company Name: __________________________________________
Contact Name: __________________________________________
Address: ________________________________________________
________________________________________________________________________
City/State: ________________________________________________
Zip/Postal Code: __________________________________________
Country: ________________________________________________
Phone: ___________________________________________________
Fax: _____________________________________________________
E-mail: ___________________________________________________
Heater Model: ____________________________________________
Fuel Supply: __________________________Starting Voltage: ________________

Accessories:
☐ Wall Mounting Brackets
☐ Thermocouple (Serial # Required) SN#
☐ Safety Grill
☐ Safety Shut-Off
☐ 16ft. Pig Tail
☐ Thermostat
☐ High Pressure Regulator (1301)
☐ Low Pressure Regulator (912 Fisher)
☐ Appliance Regulator (Maxitrol)

Date Required: ______________________

Method of Payment: On Account (Purchase Order Number Required) ______________________
☐ Visa
☐ Mastercard
☐ American Express

Name on Card: ______________________ Card Number: ______________________
Expiration Date: ______________________

Shipping Address: __________________________________________
________________________________________________________________________

Shipping Instructions: __________________________________________
________________________________________________________________________

Tagging Instructions: __________________________________________
________________________________________________________________________

Comments: _______________________________________________________
________________________________________________________________________