



# CATCO

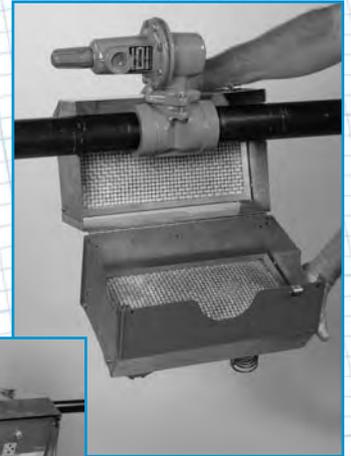
CATALYTIC HEATER COMPANY

www.catcoUSA.com • P. O. Box 188 • Terrell, Texas 75160

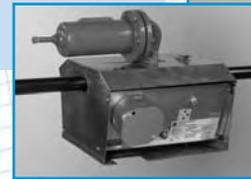
## Heater Enclosure Packages for Fisher 630 & 620 Series Regulators

Fisher 620 and 630 series (commonly called Big Joe), are used in oil and gas installations. These applications can be challenging when they involve some combination of large pressure cuts, low ambient temperatures, and potential for liquids in the gas stream. CATCO heater enclosure packages will alleviate freezing and hydrate formation.

In these applications, a CATCO enclosure “clamshells” around the regulator body. A catalytic heater may be mounted on one or both sides of the enclosure. The enclosure serves to protect the heaters from rain and snow while placing the heaters so that they focus the radiant energy onto the valve body.



Model 70-015



### ADVANTAGES OF CATALYTIC HEATERS

#### Efficiency

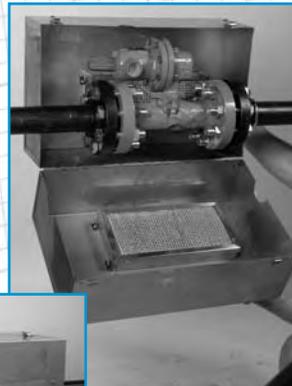
Radiant energy is directed onto a target, not wasted on heating the surrounding air. CATCO heaters convert gas directly into heat energy.

#### Safety

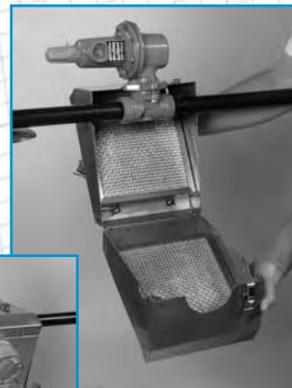
CATCO heaters are ideally suited for areas where a flame or conventional electrical heater is not safe. The face temperature of the heater is always well below the temperature needed to ignite natural gas or LPG in the open atmosphere (about 1300°F). CATCO heaters are available with certification for hazardous locations.

#### Simplicity

CATCO heaters are fundamentally simple, requiring no routine maintenance. As long as the fuel supply is clean and dry and the heater face is protected from contamination and damage, the heater will continue to function.



Model 70-016



Model 70-019

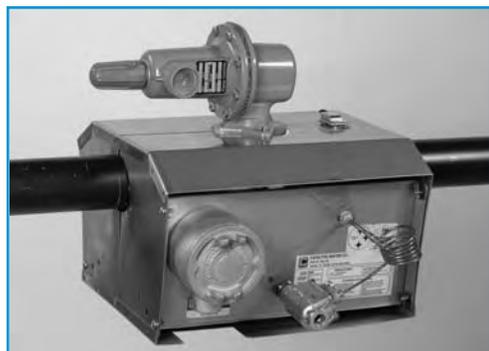
### HOW THEY WORK:

Using a catalytic chemical reaction, CATCO heaters oxidize natural gas or propane. This flameless reaction takes place at a relatively low temperature, resulting in a surface temperature always below 900°F. The reaction produces heat, emitted in the form of radiant infrared energy. The byproducts are carbon dioxide and water vapor.

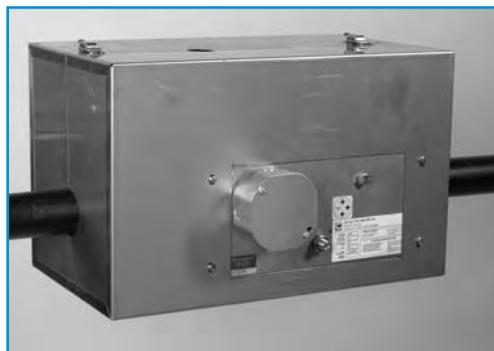
The catalytic reaction is typically started using electricity to energize a heating element that pre-heats the catalyst bed to at least 250°F. Electrical power can come from a battery or line source and is needed for starting only.

Once the catalyst bed is pre-heated, fuel gas flows into the heater, catalytic reaction begins and stabilizes at a temperature below 900°F. Electrical power is removed and the catalytic reaction continues as long as the heater has a source of clean, dry, fuel gas and adequate combustion air.

# Available Models



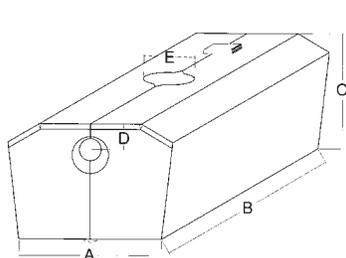
**Model 70-015**



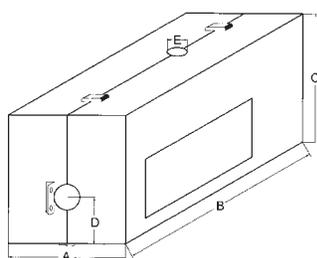
**Model 70-016**



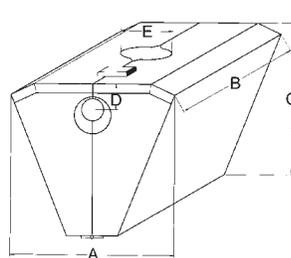
**Model 70-019**



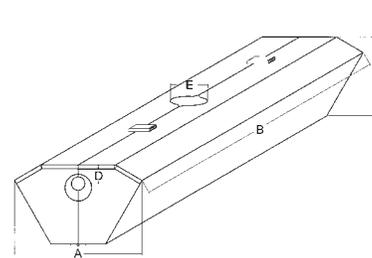
**Model 70-015**



**Model 70-016**



**Model 70-019**



**Model 70-020**

MODEL NO.	APPLICATION	HEATER SIZE	BTU	DIMENSIONS (INCHES)				
				A	B	C	D	E
70-015	1" & 2" NPT	612	3000 or 6000	11.50	12.50	7.80	2.12 / 1.73	3.50
70-016	2" FLANGED	612	3000	11.50	20.00	12.50	4.47	1.38
70-019	1" & 2" NPT	88	2667 or 5334	11.25	8.38	10.25	2.12 / 1.75	3.50
70-020	1" & 2" NPT	624	6000 or 12000	11.25	24.50	10.25	2.12 / 1.73	3.50

## DESIGN CONSIDERATIONS AND FEATURES

Screwed body 630 and 620 series regulators are mounted with an enclosure that allows the diaphragm case or actuator to extend outside of the enclosure. This allows energy to be radiated directly onto the valve body while keeping the enclosure package small and easy to mount.

Enclosures for 630 and 620 series typically provide for a heater mounted on one or both sides of the enclosures. This allows the amount of heat provided to be matched to the severity of the conditions. A catalytic heater can be added or removed in the field with a Phillips screwdriver.

Enclosures for 630 and 620 series are generally hinged and secured with draw latches, making installation a snap.

## Don't See What You Need Here?

Catalytic Heater Company has available hundreds of enclosure designs to fit many different equipment applications. Custom made packages are available for special conditions. Contact your representative or the factory for assistance.

For more detailed information about the catalytic heaters used in these heater enclosure packages please see the data sheet *Catalytic Heaters*. For information regarding accessories please see the data sheet *Parts and Accessories*.