



CATCO
CATALYTIC HEATER COMPANY

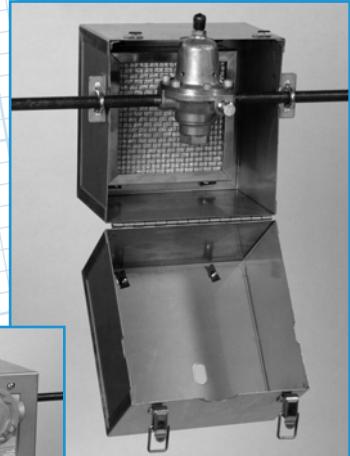
www.catcoUSA.com • P. O. Box 188 • Terrell, Texas 75160

Heater Enclosure Packages for High Pressure Instrumentation Regulators

Small capacity high pressure regulators are commonly used in applications that require gas pressure to be reduced before the gas is provided for instrumentation, control, or fuel. 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 condensation that can interfere with

downstream equipment and instrumentation.

In these applications, a CATCO enclosure "clamshells" around the regulator body. A catalytic heater is mounted on one or both sides of the enclosure. The enclosure serves to protect the face of the catalytic heater from rain and snow while placing the heater will direct the radiant energy onto the valve body.



Model 70-096

ADVANTAGES OF CATALYTIC HEATERS

Efficiency

Radiant energy can be directed onto a specific target and is not wasted on heating the surrounding air. CATCO heaters convert easily accessible fuel directly into heat energy.

Safety

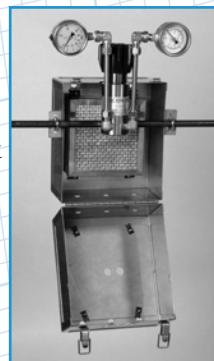
CATCO heaters are ideally suited for use in areas where a flame or conventional high temperature electrical heater is not safe. The face temperature of the heater is always well below the temperature needed to ignite natural gas or LPG in the open atmosphere (about 1300°F). CATCO heaters are available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

Simplicity

CATCO heaters are fundamentally simple with basically no moving parts and nothing requiring 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.

Economy

CATCO heaters are economical to install and operate. Installation is usually a matter of placing the enclosure over the regulator and running a fuel supply. There are no wear parts to replace, chemicals to supply, or extensive electrical installation required.



Model 70-429



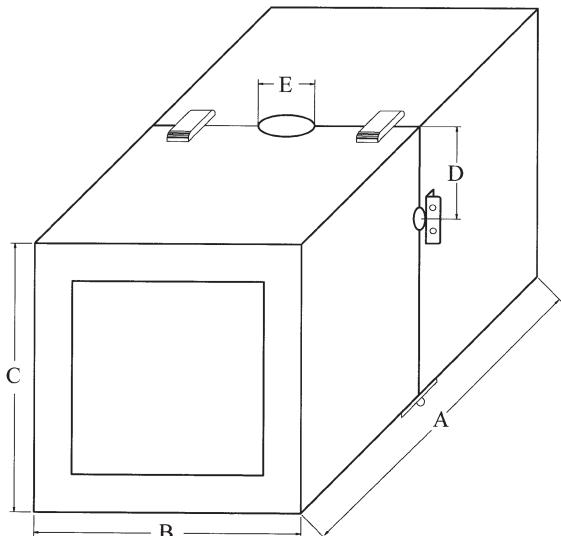
HOW THEY WORK:

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.

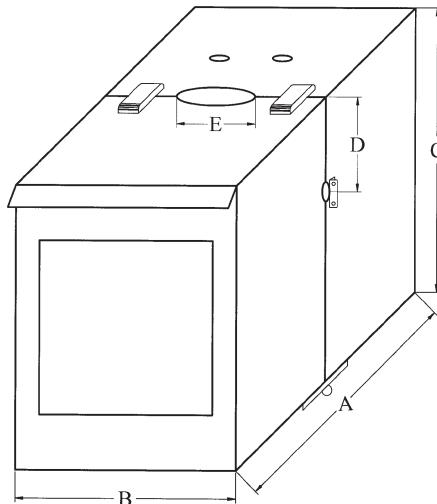
The catalytic reaction is typically started using electricity to energize a heating element that pre-heats the catalyst bed to at least 250°F. Electrical power can come from a battery or line source and is needed for starting only.

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 70-096



Model 70-429

				DIMENSIONS (INCHES)				
MODEL NO.	APPLICATION	HEATER SIZE	BTU	A	B	C	D	E
70-096				10.00	8.00	8.00	2.75	1.50
70-429				8.00	8.00	9.00	3.00	2.50

DESIGN CONSIDERATIONS AND FEATURES

The design of these heater enclosure packages is intended to make the package as compact as possible to take up a minimum amount of space.

The enclosure design allows for one enclosure to fit several brands of commonly used high pressure instrumentation regulators.

Enclosure design allows for access to the valve adjuster without removing the heater. Holes are provided for installation of gauges viewable outside of the enclosure.

When practical, enclosures are hinged and secured closed with draw latches, making installation a snap.

Don't See What You Need Here?

Catalytic Heater Company has available hundreds of different enclosure designs to fit many different equipment applications. Custom made packages can be designed for special applications. 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*.