Installation Instructions

Damper Actuator Protective Cover

DAMPACTXXCOV

NOTE: Read the entire instruction manual before starting the installation.

This symbol → indicates a change since the last issue.

SAFETY CONSIDERATIONS

Recognize safety information. This is the safety-alert symbol ⚠. When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, and CAUTION. These words are used with the safety-alert symbol. DANGER identifies the most serious hazards which **will** result in severe personal injury or death. WARNING signifies a hazard which **could** result in personal injury or death. CAUTION is used to identify unsafe practices which **would** result in minor personal injury or product and property damage.

⚠ **CAUTION: A damper actuator can prematurely fail due to rusting if repeat exposure to condensation exists.**

INTRODUCTION

The Damper Actuator Protective Cover was developed to help eliminate the possibility of condensation occurring on zoning damper actuators during cooling operation. This protective cover can also be used to protect the acuator from dirt. A damper actuator, installed in an unconditioned space, can experience condensation if its surface temperature falls below the dewpoint of the surrounding air. Repeated condensation can cause rusting of metal parts and eventual seizing of the actuator.

The Damper Actuator Protective Cover is placed over the actuator and over the duct insulation. It is taped onto the duct insulation, forming a sealed vapor barrier around the actuator that will help prevent condensation on the actuator surface and internal parts.

This cover is a *one size fits all* design. It can be wrapped around a round style damper as small as 6″ in diameter or can be used on the flat surface of a rectangular style damper. It is made of Lexan, an extremely tough material. Under normal circumstances, you can bend, wrinkle, or fold it and it will not crack or break. It will withstand temperatures from -40° F to 300° F.

HOW IT WORKS

This cover is a vapor barrier and at the same time, it is a poor thermal insulator. This allows the actuator to be slightly warmed by the surrounding external air, making it warmer than the duct surface under the insulation. Any water vapor trapped under the cover or under the duct insulation is condensed on the coldest surface, which is the duct itself. The actuator, just slightly warmer, experiences no condensation. The outside surface of the cover may condense, but the inside will stay dry.

The positive pressure inside the duct tends to expel air, through duct leakage, into the space under the insulation and the cover. This means air will flow OUT any leaks rather than in, blocking inward moisture flow from the ambient area.

INSTALLATION

NOTE: Ensure proper damper wiring and operation before installing cover. Once actuator is covered, it may not be easily serviced or accessed.

Lay the cover over the actuator so that it overlaps the duct insulation on all sides. Route the actuator wire down the wiring channel provided, and tape all four sides down to the duct insulation, using common duct tape. See Fig. 1.

It is best if the duct insulation is not sealed around the actuator, allowing the air space under the insulation to be connected to the air space under the cover.

An additional layer of insulation may be applied over the entire actuator and cover, if desired. Be sure to use flexible insulation containing a vapor barrier. This layer will reduce cooling losses and lessen the chance of condensation on the outside of the cover.

Form: IM-DAMP-09 Cancels: NEW Printed in U.S.A. 1-00 Catalog No. 63DA-MP5

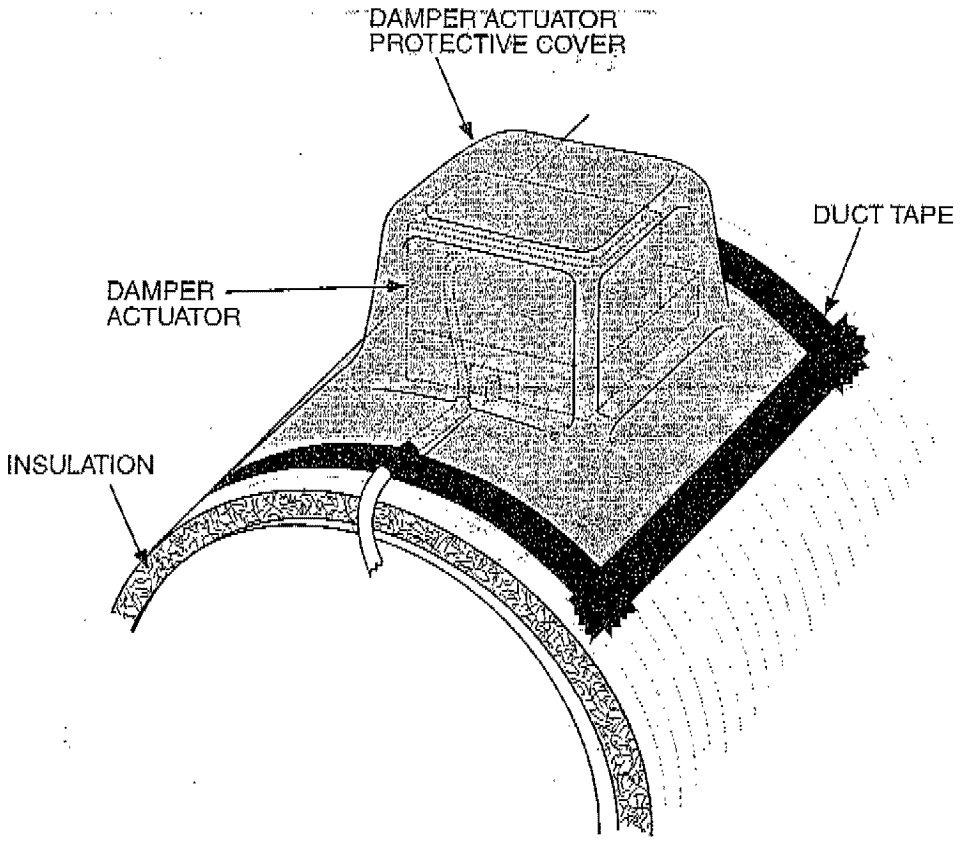

Fig. 1—Damper Actuator Protective Cover

A99433