

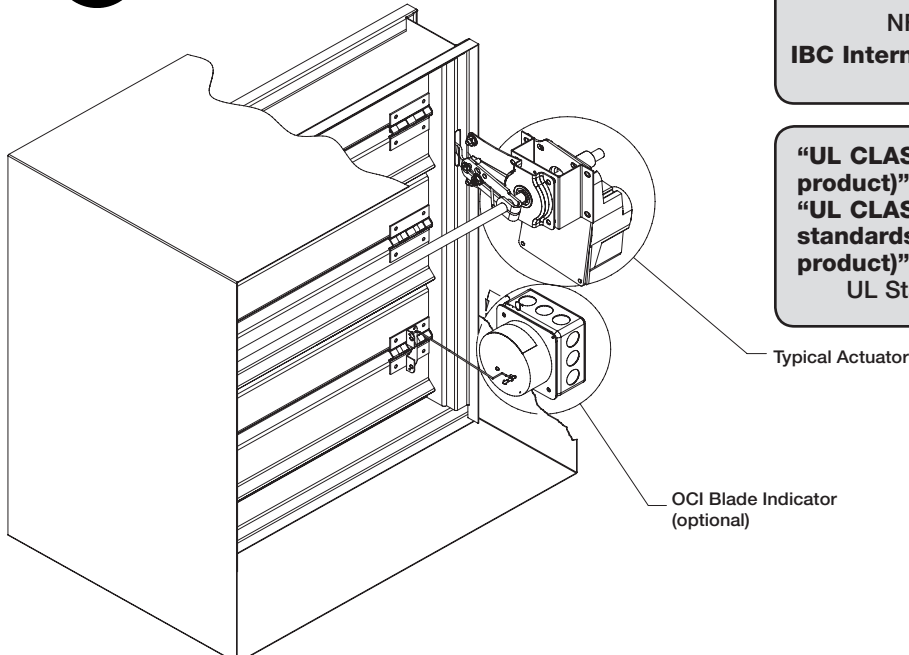


Part Number 464086 SMD-MXXX SERIES MODELS

Leakage Rated Smoke Dampers
Vertical or Horizontal Mount

Installation, Operation, and Maintenance Instructions

These instructions apply to the installation of SMD-MXXX series leakage rated smoke dampers supplied with factory installed damper actuators. Specific requirements in these instructions are mandatory. These instructions meet the requirements of UL 555S and UL classification R13317.



SMD-MXXX Model Dampers are intended for installation in accordance with smoke damper requirements established by:

National Fire Protection Association
NFPA Standards 92A, 92B & 105
IBC International Building Codes

“UL CLASSIFIED (see complete marking on product)”
“UL CLASSIFIED to Canadian safety standards (see complete marking on product)”

UL Standard 555S (Classification #R13317)

RECEIVING AND HANDLING

Upon receiving dampers, check for both obvious and hidden damage. If damage is found, record all necessary information on the bill of lading and file a claim with the final carrier. Check to be sure that all parts of the shipment, including accessories, are accounted for.

Dampers must be kept dry and clean. Indoor storage and protection from dirt, dust and the weather is highly recommended. Do not store at temperatures in excess of 38°C.

WARRANTY

Greenheck warrants this equipment to be free from defects in material and workmanship for a period of one year from the purchase date. Any units or parts which prove to be defective during the warranty period will be repaired or replaced at our option. Greenheck shall not be liable for damages resulting from misapplication or misuse of its products. Greenheck will not be responsible for any installation or removal costs. Greenheck will not be responsible for any service work or backcharges without prior written authorization.

SAFETY WARNING:

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating, and maintenance instructions thoroughly before installing or servicing this equipment.

Due to continuing research, Greenheck reserves the right to change specifications without notice.

This manual is the property of the owner, and is required for future maintenance. Please leave it with the owner when the job is complete.

Pre-Installation Guidelines

The basic intent of a proper installation is to secure the smoke damper in, not to, the opening or duct in such a manner as to prevent distortion and disruption of damper operation. The following items will aid in completing the damper installation in a timely and effective manner.

- 1) Lift or handle damper using sleeve or frame. Do not lift damper using blades or actuators.
- 2) Damper (rectangular) has label on outside of sleeve indicating a 'No Screw' area. Do not install screws into this area as screws may interfere with unexposed blade linkage and prevent damper blades from opening and/or closing.
- 3) Damper must be installed into duct or opening square (round) and free of twist or other misalignment. Damper must not be squeezed or stretched into duct or opening. Out of square, out of round, racked, twisted or misaligned installations can cause excessive leakage and/or torque requirements to exceed damper/actuator design.
- 4) Damper and actuator must be kept clean and protected from dirt, dust and other foreign materials prior to and after installation. Examples of such foreign materials include but are not limited to:
 - a) Mortar dust
 - b) Drywall dust
 - c) Firesafing materials
 - d) Wall texture
 - e) Paint overspray
- 5) Damper should be sufficiently covered as to prevent overspray if wall texturing or spray painting will be performed within 1524mm of the damper. Excessive dirt or foreign material deposits on damper can cause excessive leakage and/or torque requirements to exceed damper/actuator design.
- 6) Caulking is not necessary, nor is it allowed, between the damper sleeve and the wall or floor opening (annular space). However, caulking may be applied to the retaining angles.
- 7) The Code Authority Having Jurisdiction (AHJ) must evaluate and provide approval of final installation where variations to these instructions are necessary.

INSTALLATION INSTRUCTIONS

1. SMOKE DAMPER REQUIREMENTS

Smoke dampers are required to close and prevent the passage of air and smoke through ducts or ventilation openings in smoke barriers. Smoke dampers are also applied in engineered smoke control systems to establish air pressure differentials and thereby prevent the spread of smoke.

2. LOCATION OF DAMPER IN DUCTWORK

Place the damper assembly in its proper position relative to the barrier as shown (in figure 1). The plane of the closed damper blades must be within 610mm of the rated smoke barrier and before any duct inlets or outlets.

3. ATTACHING DAMPER TO THE DUCT

Attach the damper to the duct using M4.8 sheet metal screws, M6 diameter bolts and nuts, tack or spot welds, or 5mm diameter steel pop rivets. Attachments must be made at each flange spaced a maximum of 152mm on centers and a maximum of 51mm from corners on rectangular dampers, and on round dampers as follows: Ducts 559mm in diameter and smaller shall have three attachments. Ducts larger than 559mm in diameter up to and including 914mm, have five attachments.

4. INSTALLING MULTIPLE DAMPER SECTION ASSEMBLIES

The damper assembly is not restricted to a maximum number of sections, but must not exceed the section sizes and assembly sizes shown below.

Damper Model	Maximum Single Section Size	Maximum Overall Size for Multi-section Dampers
SMD-M201	914mm x 1219mm or 813mm x 1270mm	7315mm x 1270mm or 3658mm x 2540mm

The damper sections must be attached together with M4.8 sheet metal screws, M6 diameter nuts and bolts, 13mm long welds, or 5mm diameter steel pop rivets.

On multiple section damper assemblies, the temperature rating of wiring run in the airstream shall be at least equal to the damper temperature rating plus 10°C.

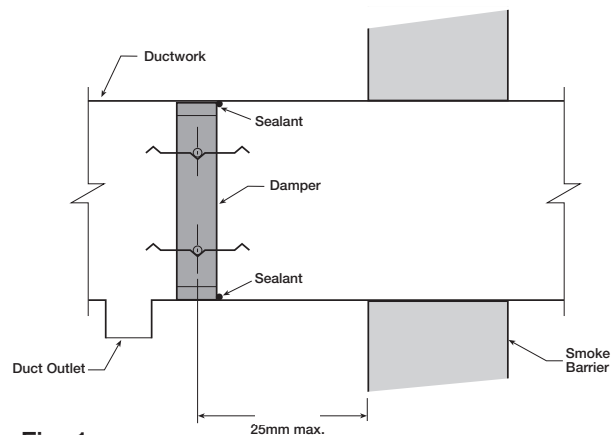


Fig. 1

5. SEALING THE INSTALLATION

After installing the damper in the ductwork, seal the joint between the damper frame and the duct using Dow Corning RTV 732 Sealant. Make sure to press the sealant into the joint to guarantee a proper seal. Use the minimum amount of material required to completely seal the joint. See Figure 1 on page 2.

6. ACTUATOR CONNECTIONS

Electrical and/or pneumatic connections to damper actuators should be made in accordance with wiring and piping diagrams developed in compliance with applicable codes, ordinances and regulations.

Damper Maintenance

Dampers do not typically require maintenance as long as they are kept dry and clean. If cleaning is necessary, use mild detergents or solvents. If lubrication is desired for components such as axle bearings, jackshaft bearings and jamb seals, do not use oil-based lubricants or any other lubricants that attract contaminants such as dust.

Damper actuator(s) must be maintained, cycled, and tested in accordance with:

- The latest editions of NFPA 90A, 92A, 92B, 105, UL864, AMCA 503-03 and local codes.
- Actuator manufacturer recommendations.

Damper Troubleshooting

The following is a possible cause and correction list for common concerns with the dampers.

Sympton	Possible Cause	Corrective Action
Damper does not fully open and/or close	Frame is 'racked' causing blades to bind on jamb seals	Adjust frame such that it is square and plumb
	Actuator linkage loose	Close damper, disconnect power, adjust and tighten linkage
	Defective motor	Replace
	Screws in damper linkage	Damper installed too far into wall. Move out to line as designated on damper label
	Contaminants on damper	Clean with a non-oil based solvent (see Damper Maintenance)
RRL or TOR sensor tripped	Heat	Push reset button located on backside of RRL or TOR
Damper does not operate	No power supplied to the actuator	Add power supply