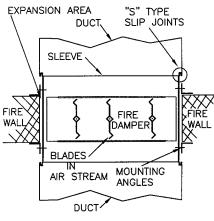
FIRE/SMOKE DAMPER

"S" TYPE SLIP JOINTS EXPANSION AREA FIRE **BLADES** WALL DUCT AIR STREAM Downstream FIRE side of DAMPER damper Optional-Upstream Jackshaft side of Locations damper Blade Seals DUCT MOUNTING SLEEVE **ANGLES**

VERTICAL INSTALLATION



INSTALLATION INSTRUCTIONS IN CONFORMANCE TO UNDERWRITERS LABORATORIES REQUIREMENTS

HORIZONTAL INSTALLATION

INSTALLATION INSTRUCTIONS

VERTICAL OR HORIZONTAL MOUNT 1-1/2 HR RATING

(Bi-Directional)(For use in 2 Hour or less rated partitions) Damper shall be fastened to sleeve with No.10 x 3/4 Sheet Metal Screws on 6" centers (max). No further than 2" from end. See notes 2 and 3 for duct connections. Angles shall be a minimum of 1-1/2" X 1/16" and

fastened to the sleeve and damper only on all (4) sides with 1/4" bolts, 1/2" long welds, or #10 sheet metal screws on 8" maximum centers. (See note 4 for expansion and overlap.) Angles shall not be fastened to each other at the corners or fastened to the fire wall. Angles may be reversed when diffusers or grills require flush mountings.

Installation per NFPA.90A, UL555, and SMACNA Fire Smoke and Radiation Installation Guide.
FASTENERS MUST BE PLACED WHERE THEY DO NOT INTERFERE

WITH THE DAMPER OPERATION.

Sleeves shall be of the same gauge or heavier than the duct to which it is attached. Gauges shall conform to SMACNA or ASHRAE standards.

- 2. When the following sleeve connections are used, the minimum gauge of the sleeve shall be 16 gauge on dampers not exceeding 36" W X 24"H and 14 gauge on larger dampers.
 - a. Angle reinforced standing seam.b. Angle reinforced pocket lock.

Companion angles.

- d. Metal fasteners approximately 16" on centers.

 3. The following breakaway sleeve connections may be used on all systems:
 a. Plain "S" slip e. Reinforced bar slip
 - a. Plain "S" slip b. Hemmed "S" slip
- f. Angle slip

- c. Bar slip g. Inside slip joint
 d. Standing "S" slip h. Double "S" slip
 4. Clearance for expansion of 1/8" per foot of sleeve dimension is required.
 Angles should lap masonry a minimum of 1" around the entire opening.
- 5. Maximum Sleeve Extension is 6" on Both Sides of Wall or Floor Opening for dampers without actuators.

Maximum Sleeve Extension is 16" on Both Sides of Wall or Floor

- Opening for dampers with actuators.
 6. Dampers may be installed in wall or partition (masonry or gypsum wallboard) or concrete floor.
- 7. The connecting ducts shall not be continuous, but shall terminate at the sleeve or frame.
- 8. Dampers are supplied with factory mounted actuators designed to close automatically upon detecting heat, or the loss of actuator power.
- 9. The jackshaft side of the damper may be installed either "Upstream
- 10. A continuous bead of Dow Corning RTV-732, Dow Corning 999A, or GE-1200 Silicone Rubber Sealant shall be applied between the damper and the sleeve for its entire profile on one side of the installation as a minimum.

Installed damper units require operational checks upon completion to insure proper functioning.

- 12. An Access Door is a NFPA requirement for damper inspection and testing.
- 13. For use in static and dynamic systems at labeled temp, velocities, and W.G.
- 14. Electric actuator connections shall conform to the National Electric Code.
- 15. Pneumatic actuators require metallic airline connections, and a minimum of 20 PSI supply air. (Not to exceed 30 PSI)
- 16. CAUTION: THE HEAVY DAMPER CLOSURE SPRING IS UNDER LOAD.

MAXIMUM DAMPER SIZES

| I DAMAIL LIX | <u> </u> |
|--------------|------------------------------|
| SINGLE UNITS | IN INCHES |
| Height | Width |
| 36 | 36 |
| 36 | 36 |
| | SINGLE UNITS Height 36 |

FUSIBLE LINKS

165° F is standard. Located in pin grooves.

CLLOYD-61-REV-C



INDUSTRIES

231 COMMERCE DRIVE

MONTGOMERYVILLE, PA. 18936

TEL: 215-412-4445 FAX: 215-412-4409

EMAIL: LLOYDIND@FIREDAMPER.COM

5858 BROADWAY AVE. JACKSONVILLE, FL. 32254

TEL: 904-378-8440 FAX: 904-378-8441

EMAIL: LLOYDINDI@BELLSOUTH.NET

WEB SITE: FIREDAMPER.COM