

CEILING RADIATION DAMPERS

GENERAL INSTALLATION INSTRUCTIONS MODEL CRD-50 and CRD-50-EA (RECTANGLE) 3 HOUR OR LESS RATED PARTITIONS

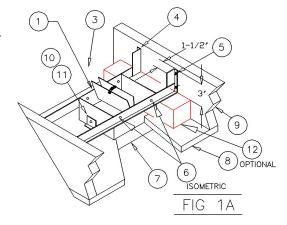
ITEM

- MODEL 50 CRD (RECTANGLE) CEILING RADIATION DAMPER
- 2. STEEL DUCT DROP(LESS #3 PLENUM PERMITTED)
- 3. BRANCH PLENUM, OR PLENUM BOOT
- 4. HANGER ANGLES (2) 1-1/2 X 1-1/2 X 16 GAUGE
- 5. #6 COMMON NAILS OR #8 X 1-1/4 SCREWS
- 6. MOUNTING FASTENERS (BOLTS, SCREWS, RIVETS)
- 7. STEEL GRILLE, DIFFUSER, OR DROP DUCTING
- CEILING: GYPSUM WALLBOARD ACOUSTICAL TILE OR ACOUSTICAL PANEL (LAY-IN)
- D. JOISTS, TRUSSES, BEAMS
- 10. STABILIZING ANGLES (2) 1/2 X 1-1/2 X 16 GA. X 3"
- 11. MOUNTING FASTENERS (BOLTS, SCREWS, RIVETS)

Model CRD50 and CRD50-EA Ceiling Radiation Dampers are Classified to

UL 555C as 3 HR or less heat barriers illustrated in the UL Fire Resistance Directory. Refer to the partition classification information in the Fire Resistance Directory regarding the use of these dampers in the various floor-ceiling and roof-ceiling assemblies. Ceiling dampers and the associated components (diffusers, grilles, ducts, etc. which are to be constructed of steel are installed in the ceiling to maintain the hourly ratings of these rated floor-ceiling, roof-ceiling, assemblies. The combination of damper, partition, and installation establish this 3 HR or less Underwriters Laboratory Fire Rating.

Lloyd Industries MODEL CRD50 and CRD50-EA are laboratory approved for installation in all 3 hr. or less rated fire barriers listed in the Underwriters Laboratory Fire Resistance Directory, where fire barriers are shown with partition penetrations. Fire barriers without penetrations, and fire barriers not listed in the UL Fire Resistance Directory are not approved for installations and require the use of "Special" Assemblies such as CRD50-BT, and CRD55-BT Laboratory Approved Assemblies, or approval of local authorities. (See spec sheets for CRD-BT Assemblies)



Notes:

- 1. Before installing the damper, CRD Model 50 (rectangle), and CRD Model 50-EA (rectangle) open the blades and hook the fusible link over the link catch on the opposite blade. Bend down the link catch to secure the link in position. For CRD Model 50-EA flex the spring wire and secure the link.
- 2. Measure the actual spacing between the joists or other structural members. Allowing for a 3.00" flange at each mounting point. Cut and bend the angles on both ends to 90 degrees. or the appropriate angle required. Mounting angles are fastened to joists or other structural members with a minimum of two fasteners for each mounting point using #6 common nails or #8 x 1-1/4" long screws.
- 3. CRD Model 50 and CRD Model 50-EA are connected to the mounting angles with sheet metal screws, rivets, or bolts. Two connections on each angle as a minimum. Note: fastener positions must not interfere with the damper blade operation.
- 4. CRD Models 50 and CRD Model 50-EA are connected to the stabilizing angles with sheet metal screws, rivets, or bolts. One connection on each angle as a minimum. The stabilizing angles are to be mounted with one face of the angle flush to the ceiling material. Note: fastener positions must not interfere with the damper blade operation.
- 5. The installation mounting position of the closed damper blade face must not exceed 2-5/8" from the face of the rated barrier.
- 6. Install the ceiling damper in the duct drop using 3/16 inch diameter by 1/2 inch long steel bolts, No. 8 by 1/2 inch steel sheet metal screws or 3/16 inch diameter by 1/2 inch long steel bolts, No. 8 by 1/2 inch steel sheet metal screws or 3/16 inch diameter steel rivets at 6 inches o.c. and a minimum of (3) places. For flexible ducting; connect with draw clamps, #16 SWG wire, or cable ties as per SMACMA Standards requirements.
- 7. The clearance between each side of the ceiling damper and the duct drop shall be 1/8 inch maximum.
- 8. The maximum size of CRD Model 50 (rectangle) and CRD Model 50-EA (rectangle) is 24" W x 24" H.
- 9. Steel/Alum, grille or diffuser to be attached to the duct drop or ceiling damper using No. 8 by 1-1/2 inch lg.sheet metal



INSTALLATION INSTRUCTIONS AND THE PRODUCTS SPECIFIED, ARE IN CONFORMANCE TO ALL OF UNDERWRITERS LABORATORIES REQUIREMENTS 555C

