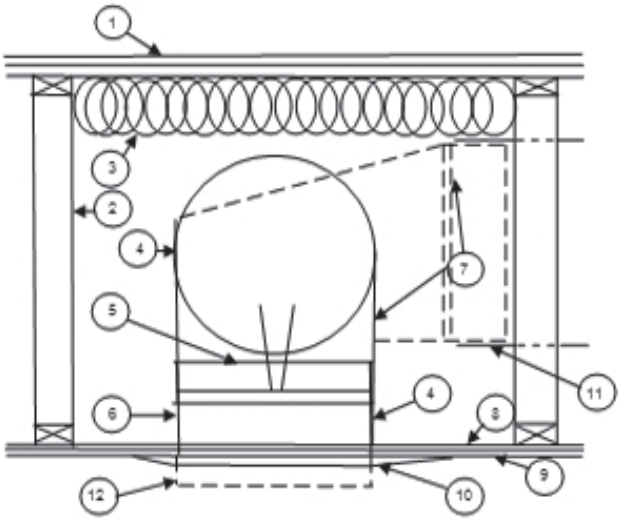
INSTALLATION INSTRUCTIONS
Series 50 With Boot - CRD

For installation in Design No. L-528/L-558/L-562/L-563/L-574/L-585/L-587 Floor - Ceiling Assemblies and P-533/P-544/P-545/P-547/P-556/P-580 Roof - Ceiling Assemblies with rating of 1 hour or less



ITEM DESCRIPTION:

1. Finish Floor system
2. Wood Trusses
3. Insulation
4. Galvanized Steel Boot "L", Straight, or End
5. UL 555C Ceiling Damper
6. Register Clearance - 2"
7. Inlet/outlet Collar (1) Parallel to, or transverse to Trusses
8. Resilient Channels
9. Gypsum board ceiling material
10. Register, grille, diffuser (by others)
11. Class 0, or class 1 Flex-duct (by others)
12. Alternate duct drop connection

INSTALLATION INSTRUCTIONS:

1. Measure the distance between the trusses, add 7", and cut the "S" slip for mounting, 28ga minimum and 2 pieces per boot assembly. Snap the "S" slips onto the appropriate opposite sides of the register opening of the box onto the mounting flange.
2. Locate the position of the boot (must have ¾" clearance between the boot and the side of either/both truss[es]) and cut only one (only if necessary) resilient channel to clear the dimension of the boot. Attach the mounting rails to the bottom of the trusses, two fasteners, minimum at each point using #6 nails, or #8 or #10 screws, having minimum length of 1½". Ensure the bottom of the boot is in the same plane as the resilient channels (top side of the gypsum board ceiling), use small firring blocks if necessary.
3. Cycle the ceiling damper several times to insure there is no impediment to damper function. Squeeze the ceiling damper blades together and set the fusible link in place.
4. Attach Class 0, or Class 1 flex-duct as prescribed by the manufacturers installation instructions provided with that product.
5. Hole in the gypsum board ceiling material shall not exceed register opening by more than $^{1}/_{16}$" on any side.
6. Register, grille, or diffuser shall be attached with screws sufficiently long enough to penetrate the ceiling and the plaster guard flange (1½", min), sandwiching the ceiling material, as located by the mounting holes found in those products.
7. Fastener positions must not interfere with ceiling damper blade operation.

CLASSIFIED C UL US

See Details on UL Classification Marking on Enclosed Product.

These instructions have been reviewed by UL and found to comply with all applicable requirements of UL 555C and UL 263 at the time of evaluation.

Aire Technologies, Inc | 1502 Industrial Drive, Monongahela, PA 15063 | 1-866-421-AIRE | AireTechnologies.com

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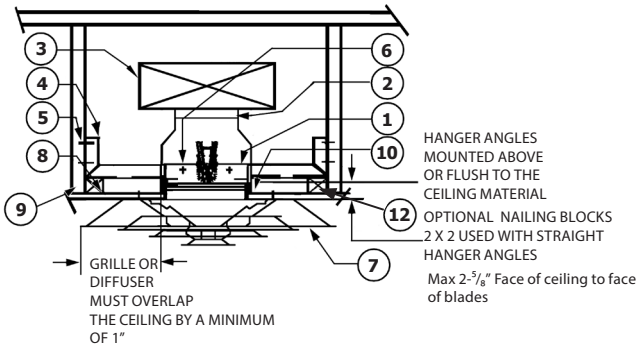
GENERAL NOTES:

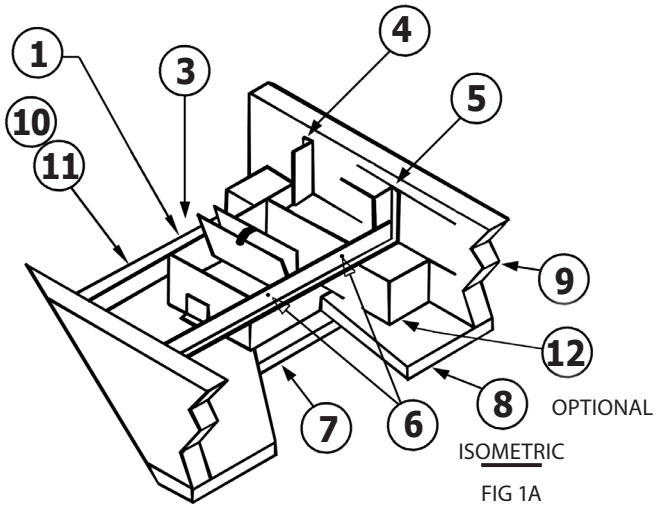
Series 50 ceiling radiation dampers are classified to UL555C as 3-hour or less heat barriers illustrated in the UL Fire Resistance Directory. Refer to the partition classification information in the Fire Resistance Directory regarding the use of these dampers in the various floor-ceiling and roof-ceiling 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 and roof-ceiling assemblies. The combination of damper, partition, and installation establish this 3 hour or less UL Fire Rating.

Aire Technologies model Series 50 is laboratory approved for installation in all 3-hour or less rated non-combustible fire barriers listed in the UL 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, or approval of local authorities.



INSTALLATION INSTRUCTIONS:

1. Before installing the damper, set the fusible link in place.
2. Measure the actual spacing between the joists or other structural members. Allowing for 3" 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 1¼" long screws.
3. Series 50 is 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. Series 50 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 $^{3}/_{16}$" diameter by ½" long steel bolts, #8 by ½" steel sheet metal screws or $^{3}/_{16}$" diameter steel rivets at 6" o.c. and a minimum of (3) places. For flexible ducting: connect with draw clamps, #16 SWG wire, or cable ties as per SMACNA Standards requirements.
7. The clearance between each side of the ceiling damper and the duct drop shall be $^{1}/_{8}$" maximum.
8. Steel/Alum grille or diffuser to be attached to the duct drop or ceiling damper using #8 X 1½" long sheet metal screws.



ISOMETRIC

FIG 1A

1. Series 50 Ceiling Radiation Damper with boot
2. Steel duct drop (less #3 plenum permitted)
3. Branch plenum, or plenum duct
4. Hanger angles (2) 1½" X 1½" X 16 gauge
5. #5 common nails or #8 X 1¼" screws
6. Mounting fasteners (bolts, screws, rivets)
7. Surface mounted steel grille, diffuser, or drop ducting to plenum
8. Ceiling: gypsum wallboard, acoustical tile or acoustical panel (lay-in)
9. Joists, trusses, beams
10. Stabilizing angles (2) ½" X 1½" X 16 ga. X 3"
11. Mounting fasteners (bolts, screws, rivets)

CLASSIFIED C UL US

Installation Instructions In Conformance To Underwriters Laboratories Requirements

These instructions have been reviewed by UL and found to comply with all applicable requirements of UL 555C and UL 263 at the time of evaluation.

ALL INSTALLATIONS ARE SUBJECT TO LOCAL AUTHORITY APPROVAL PRIOR TO ORDERING DAMPERS AND DAMPER INSTALLATION

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