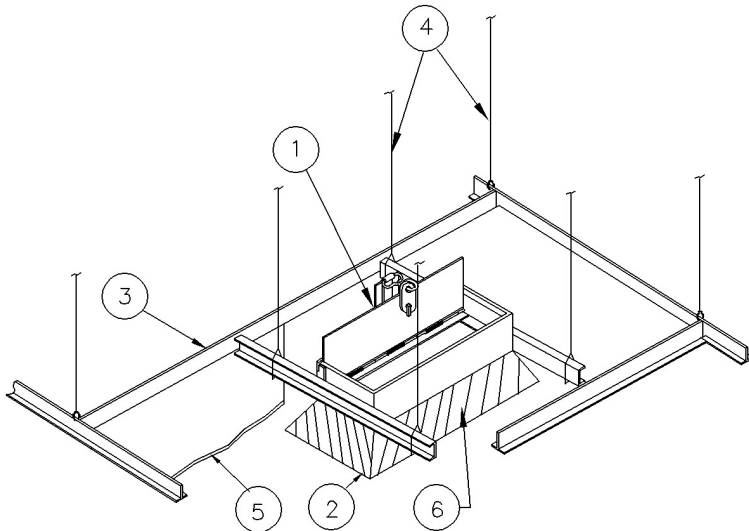
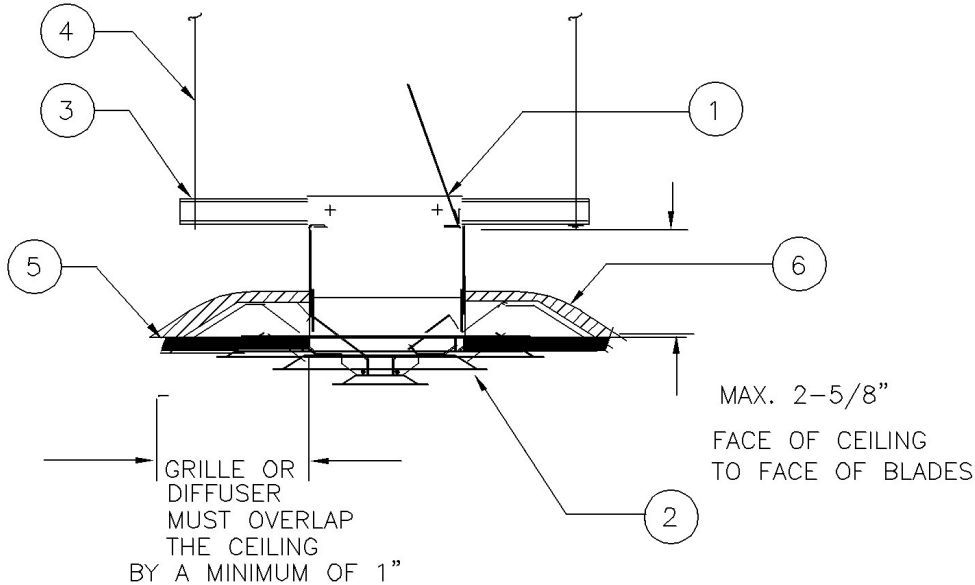




INSTALLATION INSTRUCTION

Model: CRD50-4X & CRD50-6X (Rectangular)
Partition ratings of 3 hours or less
Ducted Supply or Return



ITEM DESCRIPTION

- 1. 3 hour rated model CRD50-4X & CRD50-6X (Rectangular) ceiling radiation damper
- 2. Steel duct drop sleeve (less #3 plenum permitted)
- 3. Branch duct plenum
- 4. 12 SWG hanger wires (4) MIN Reqd.
- 5. Steel support channels
- 6. Thermal blanket

Note: fasteners & other hardware must not interfere with dampers .
Verify damper operation & complete damper closure after installations.

Rectangular ceiling damper size limitations (Maximum 288 SQ./IN.)

Model	Maximum width	Maximum length	Minimum width	Minimum length
CRD50-4X	4"	24"	4"	4"
CRD50-6X	6"	24"	6"	6"





INSTALLATION INSTRUCTION

Model: CRD50-4X & CRD50-6X (Rectangular)

Partition ratings of 3 hours or less

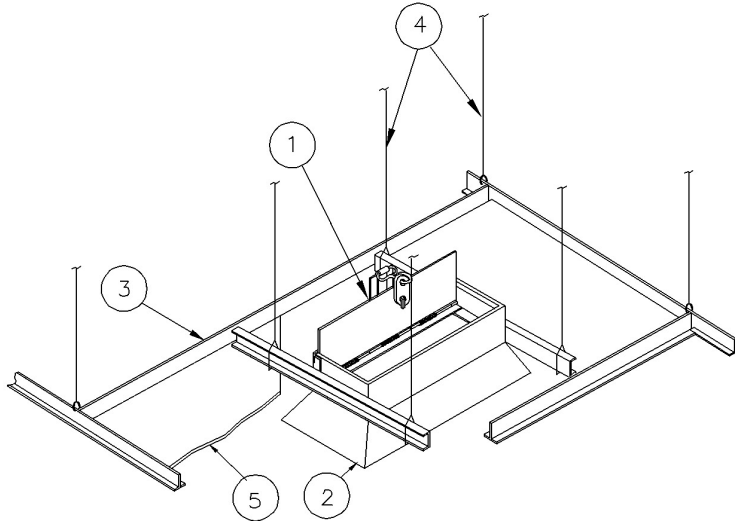
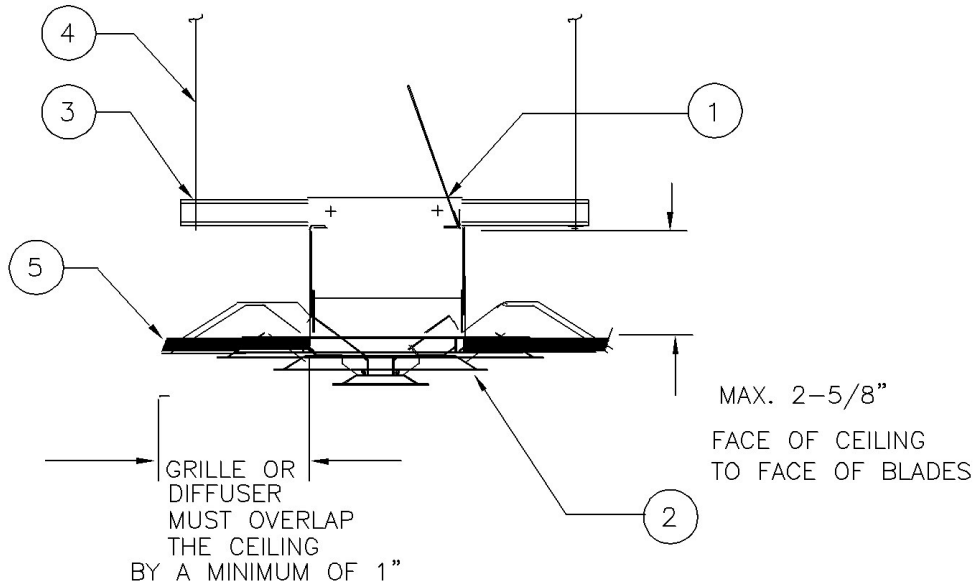
Ducted Supply or Return

1. Before installing dampers:
Model CRD50-4X & CRD50-6X (rectangular), open blade and hook the fusible link over the "S" hook bracket and the fusible link blade hook.
2. Support the damper with (2) 16 Ga. cold-rolled steel support channels, 1-1/2 or 2 inches deep with 1/2 inch flanges. Place the support channels at the top of the damper adjacent to both sides of the damper. Use 12 SWG galvanized steel hanger wire to independently support channels on each end, from the structural members of the floor or roof above. Use fasteners specified in line item #3 to secure channel to damper. Refer to line item #7 for locations. All hanger wires shall be supported directly from the structural members of the floor or the roof by vertical (not diagonal) hanger wires. Cold-rolled channels shall be used as required to insure that the grid and damper are supported from the structural members by vertical hanger wires (not diagonal).
3. Fasten the ceiling damper to channels 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, 3/16 inch diameter steel rivets or spot welds at 6 inches on center maximum and a minimum of (3) places. Pre-assembly of ceiling radiation dampers to channels is permitted using the listed fastening methods.
4. The clearance between each side of the ceiling damper and lay-in panel shall be 1/8 inch maximum.
5. Damper outlets in lay-in ceilings should be field located in an acoustical ceiling panel or tile. Where it is necessary to cut a main runner or cross tee, each cut end shall be supported by a vertical 12 gauge hanger wire. A 1/2 inch clearance shall be maintained between the duct outlet and each cut end of main runner or cross tee. The duct outlet shall be located so that no more than one main runner or cross tee is cut when penetrating the ceiling membrane.
6. Steel grille or diffuser to be attached to the duct drop or ceiling damper using No. 8 by 1-1/2 inch long sheet metal screws, 3/16 tubular rivets, or 1/4 tack welds .
7. Fastener positions must not interfere with damper blade operation.



INSTALLATION INSTRUCTION

Model: CRD50-4X & CRD50-6X (Rectangular)
Partition ratings of 3 hours or less
Non-Ducted Supply or Return



ITEM DESCRIPTION

- 1. 3 hour rated model CRD50-4X & CRD50-6X
- 2. Mounted steel grille or diffuser
- 3. Steel support channels
- 4. 12 SWG hanger wires (4) MIN Reqd.
- 5. Ceiling: Acoustical Panel/Tile (lay-In)

Note: fasteners & other hardware must not interfere with dampers .
Verify damper operation & complete damper closure after installations.

Rectangular ceiling damper size limitations (Maximum 288 SQ./IN.)

Model	Maximum width	Maximum length	Minimum width	Minimum length
CRD50-4X	4"	24"	4"	4"
CRD50-6X	6"	24"	6"	6"





INSTALLATION INSTRUCTION

Model: CRD50-4X & CRD50-6X (Rectangular)

Partition ratings of 3 hours or less

Non-Ducted Supply or Return

1. Before installing dampers:
Model CRD50-4X & CRD50-6X (rectangular), open blade and hook the fusible link over the "S" hook bracket and the fusible link blade hook.
2. Support the damper with (2) 16 Ga. cold-rolled steel support channels, 1-1/2 or 2 inches deep with 1/2 inch flanges. Place the support channels at the top of the damper adjacent to both sides of the damper. Use 12 SWG galvanized steel hanger wire to independently support channels on each end, from the structural members of the floor or roof above. Use fasteners specified in line item #3 to secure channel to damper. Refer to line item #7 for locations. All hanger wires shall be supported directly from the structural members of the floor or the roof by vertical (not diagonal) hanger wires. Cold-rolled channels shall be used as required to insure that the grid and damper are supported from the structural members by vertical hanger wires (not diagonal).
3. Fasten the ceiling damper to channels 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, 3/16 inch diameter steel rivets or spot welds at 6 inches on center maximum and a minimum of (3) places. Pre-assembly of ceiling radiation dampers to channels is permitted using the listed fastening methods.
4. The clearance between each side of the ceiling damper and lay-in panel shall be 1/8 inch maximum.
5. Damper outlets in lay-in ceilings should be field located in an acoustical ceiling panel or tile. Where it is necessary to cut a main runner or cross tee, each cut end shall be supported by a vertical 12 gauge hanger wire. A 1/2 inch clearance shall be maintained between the duct outlet and each cut end of main runner or cross tee. The duct outlet shall be located so that no more than one main runner or cross tee is cut when penetrating the ceiling membrane.
6. Steel grille or diffuser to be attached to the duct drop or ceiling damper using No. 8 by 1-1/2 inch long sheet metal screws, 3/16 tubular rivets, or 1/4 tack welds .
7. Fastener positions must not interfere with damper blade operation.