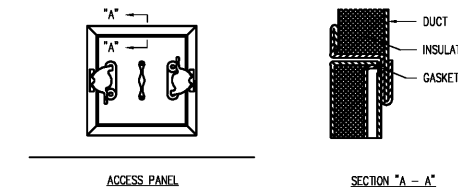
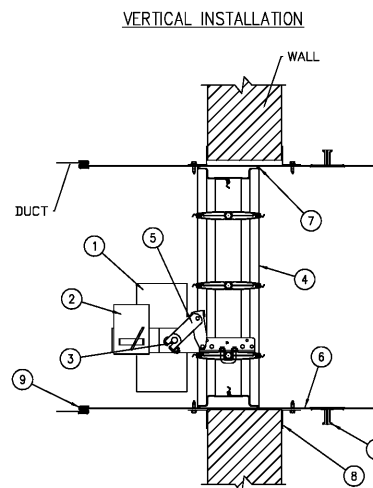
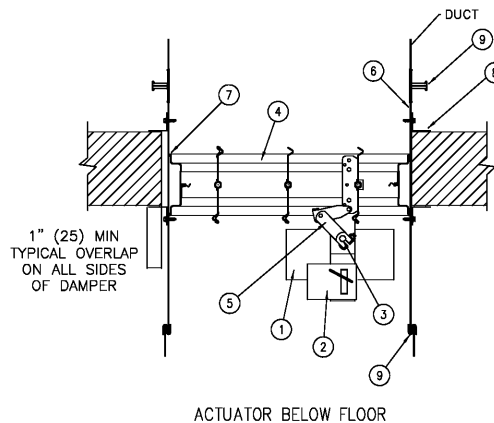
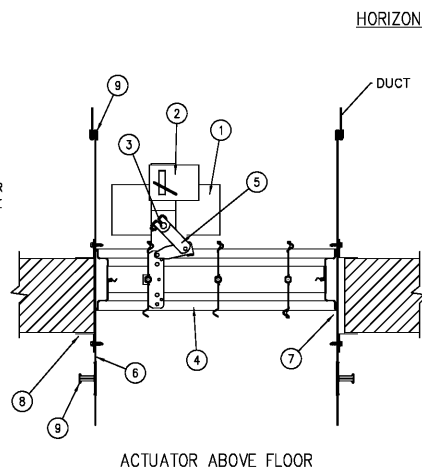


- | ITEM | DESCRIPTION  |
|------|--|
| 1.   | ACTUATOR (LOCATION MAY VARY). DAMPER MAY BE SUPPLIED WITHOUT ACTUATOR INSTALLED. RUSKIN'S UL LISTED FIRE DAMPER ACTUATORS MAY BE FIELD INSTALLED IF PROPERLY LABELED. SEE ACTUATOR INSTALLATION INSTRUCTIONS FOR FIELD MOUNTING OF DAMPER ACTUATORS. |
| 2.   | OPTIONAL FIRESTAT OR SP100   |
| 3.   | AUXILIARY OPERATING JACK SHAFT   |
| 4.   | DAMPER   |
| 5.   | OVER CENTER LOCK   |
| 6.   | SLEEVE   |
| 7.   | CAULKING MATERIAL (MAY BE ON EITHER SIDE OF DAMPER FRAME)  |
| 8.   | PFMA OR CONVENTIONAL MOUNTING ANGLES   |
| 9.   | S-JOINT/DUCT MATE, SLEEVE TO DUCT  |

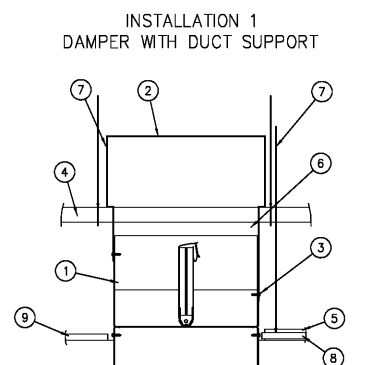


NOTES:

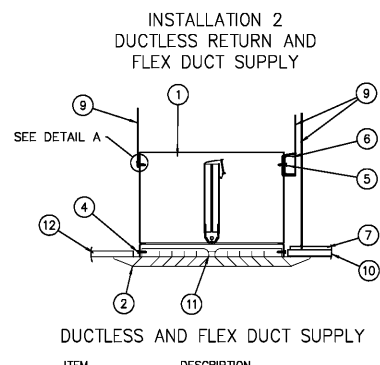
- LATCHES SHALL BE OF THE WEDGE TYPE TO CLOSE DOORS TIGHTLY.
- HINGES ON THE ACCESS DOORS SHALL HAVE NON-CORROIVE FINISH.
- PROVIDE ACCESS DOORS ON DUCTWORK INSTALLED IN RAISE, ABOVE CEILING, INSTALLED IN EQUIPMENT ROOMS. PROVIDE ACCESS PANELS ON ALL EQUIPMENT AND DUCTWORK INSTALLED IN FINISHED CEILING WHERE SPACE LIMITATIONS DO NOT ALLOW HINGED DOORS TO OPEN.
- DOORS/PANELS TO HAVE LISTING WHERE LOCATED IN RATED CHASE ASS'Y.

ACCESS DOOR AND PANEL DETAILS  
NO SCALE

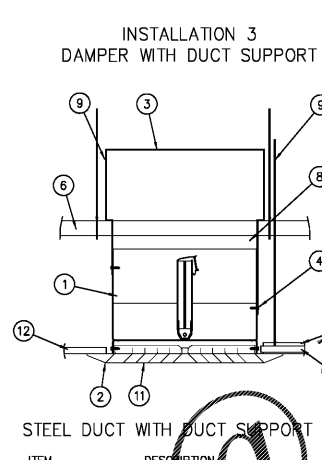
4 FIRE-SMOKE DAMPER DETAIL  
NO SCALE



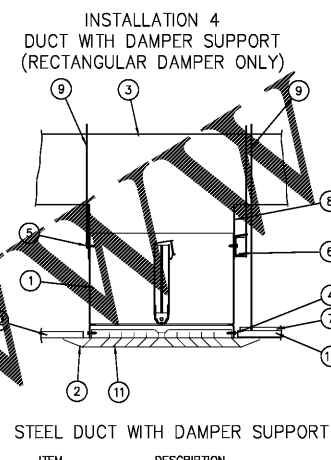
- | ITEM | DESCRIPTION                                     |
|------|---|
| 1.   | DAMPER  |
| 2.   | DUCT  |
| 3.   | #8 SHEET METAL SCREW                            |
| 4.   | 16 MSG X 1 1/2" CHANNEL                         |
| 5.   | CEILING GRID (UL CLASSIFIED)                    |
| 6.   | DUCT DROP                                       |
| 7.   | 12 SWG STEEL WIRE                               |
| 8.   | ACOUSTICAL LAY-IN PANELS (UL CLASSIFIED)        |
| 9.   | RIGID GYPSUM WALL BOARD CEILING (UL CLASSIFIED) |



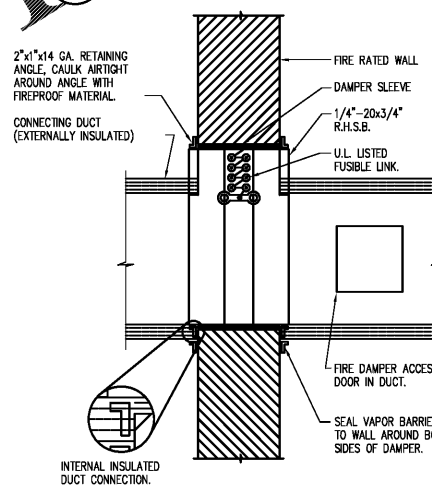
- | ITEM | DESCRIPTION  |
|------|--|
| 1.   | DAMPER   |
| 2.   | GRILLE FRAME (20 GA. MIN.)                         |
| 3.   | DUCT (WHERE SHOWN)                                 |
| 4.   | #8 SHEET METAL SCREW                               |
| 5.   | #10 SHEET METAL SCREW                              |
| 6.   | 16 MSG X 1 1/2" CHANNEL                            |
| 7.   | CEILING GRID (UL CLASSIFIED)                       |
| 8.   | DUCT DROP (WHERE SHOWN)                            |
| 9.   | 12 SWG STEEL WIRE                                  |
| 10.  | ACOUSTICAL LAY-IN PANELS (UL CLASSIFIED)           |
| 11.  | DIFFUSER OR GRILLE CORE (METALLIC OR NON-METALLIC) |
| 12.  | RIGID GYPSUM WALL BOARD CEILING (UL CLASSIFIED)    |



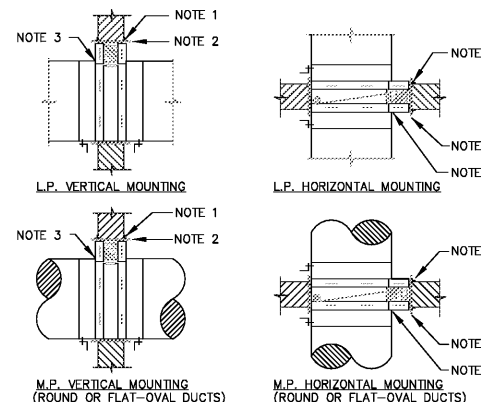
- | ITEM | DESCRIPTION  |
|------|--|
| 1.   | DAMPER   |
| 2.   | GRILLE FRAME (20 GA. MIN.)                         |
| 3.   | DUCT   |
| 4.   | #8 SHEET METAL SCREW                               |
| 5.   | #10 SHEET METAL SCREW                              |
| 6.   | 16 MSG X 1 1/2" CHANNEL                            |
| 7.   | CEILING GRID (UL CLASSIFIED)                       |
| 8.   | DUCT DROP  |
| 9.   | 12 SWG STEEL WIRE                                  |
| 10.  | ACOUSTICAL LAY-IN PANELS (UL CLASSIFIED)           |
| 11.  | DIFFUSER OR GRILLE CORE (METALLIC OR NON-METALLIC) |
| 12.  | RIGID GYPSUM WALL BOARD CEILING (UL CLASSIFIED)    |



- | ITEM | DESCRIPTION  |
|------|--|
| 1.   | DAMPER   |
| 2.   | GRILLE FRAME (20 GA. MIN.)                         |
| 3.   | DUCT   |
| 4.   | #8 SHEET METAL SCREW                               |
| 5.   | #10 SHEET METAL SCREW                              |
| 6.   | 16 MSG X 1 1/2" CHANNEL                            |
| 7.   | CEILING GRID (UL CLASSIFIED)                       |
| 8.   | DUCT DROP  |
| 9.   | 12 SWG STEEL WIRE                                  |
| 10.  | ACOUSTICAL LAY-IN PANELS (UL CLASSIFIED)           |
| 11.  | DIFFUSER OR GRILLE CORE (METALLIC OR NON-METALLIC) |
| 12.  | RIGID GYPSUM WALL BOARD CEILING (UL CLASSIFIED)    |



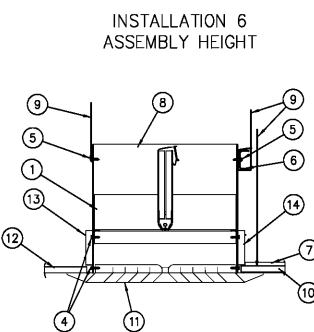
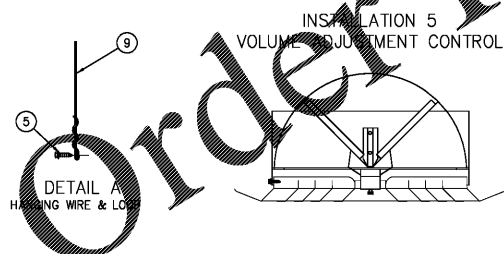
2 DUCT FIRE DAMPER DETAIL  
NO SCALE



NOTES:

- ANGLES SHALL BE A MINIMUM OF 1-1/2x1-1/2x1/8. FASTEN TO COLLAR ONLY W/ 1/4" DIA. NUTS BOLTS. ANGLES REQ'D ON ALL FOUR SIDES OF WALL OR FLOOR SLAB. (TYP. ALL FIRE DAMPERS)
- COLLAR GAUGES SHALL CONFORM TO SMACNA STDS. (TYP. ALL FIRE DAMPERS)
- USE SLIP JOINT CONN. AS RECOMMENDED BY SMACNA (TYP. ALL FIRE DAMPERS)
- PROVIDE AN ACCESS DOOR IN DUCTWORK FOR EACH DAMPER FOR ACCESS TO FUSIBLE LINKS. CONTRACTOR SHALL ASSURE ACCESS THRU CEILING AND STRUCTURE. ACCESS DOORS SHOWN ON PLANS FOR CLARITY.

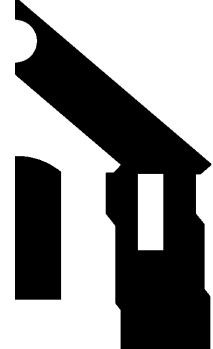
3 FIRE DAMPER DETAILS  
NO SCALE



- | ITEM | DESCRIPTION   |
|------|---|
| 1.   | DAMPER  |
| 2.   | GRILLE FRAME (20 GA. MIN.)                          |
| 3.   | DUCT (WHERE SHOWN)                                  |
| 4.   | #8 SHEET METAL SCREW                                |
| 5.   | #10 SHEET METAL SCREW                               |
| 6.   | 16 MSG X 1 1/2" CHANNEL                             |
| 7.   | CEILING GRID (UL CLASSIFIED)                        |
| 8.   | DUCT DROP (WHERE SHOWN)                             |
| 9.   | 12 SWG STEEL WIRE                                   |
| 10.  | ACOUSTICAL LAY-IN PANELS (UL CLASSIFIED)            |
| 11.  | DIFFUSER OR GRILLE CORE (METALLIC OR NON-METALLIC)  |
| 12.  | RIGID GYPSUM WALL BOARD CEILING (UL CLASSIFIED)     |
| 13.  | 16 SWG STEEL WIRE                                   |
| 14.  | THERMAL BLANKET INSULATION-REFRACTORY CERAMIC FIBER |

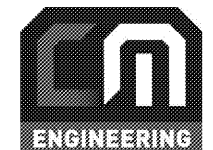
NOTE:  
FIRE DAMPERS ARE TO BE LISTED & LABELED, AND COMPLY WITH U.L. 555.  
SMOKE DAMPERS ARE TO BE LISTED & LABELED, AND COMPLY WITH U.L. 555S.  
FIRE-SMOKE DAMPERS ARE TO BE LISTED & LABELED, AND COMPLY WITH U.L. 555 & 555S.  
RADIATION DAMPERS ARE TO BE LISTED & LABELED, AND COMPLY WITH U.L. 555C.

5 RADIATION DAMPER DETAIL  
NO SCALE



WLA

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CONSULTING - DESIGN-BUILD  
NC LICENSE #P-1248

CRABTREE NORTH APTS.  
2251 Charles Drive  
Raleigh, North Carolina  
EYC COMPANIES

PROJECT 1915  
DATE 010CT19  
DRAWN BY CME  
CHECKED BY CME  
MECHANICAL DETAILS

M1.3