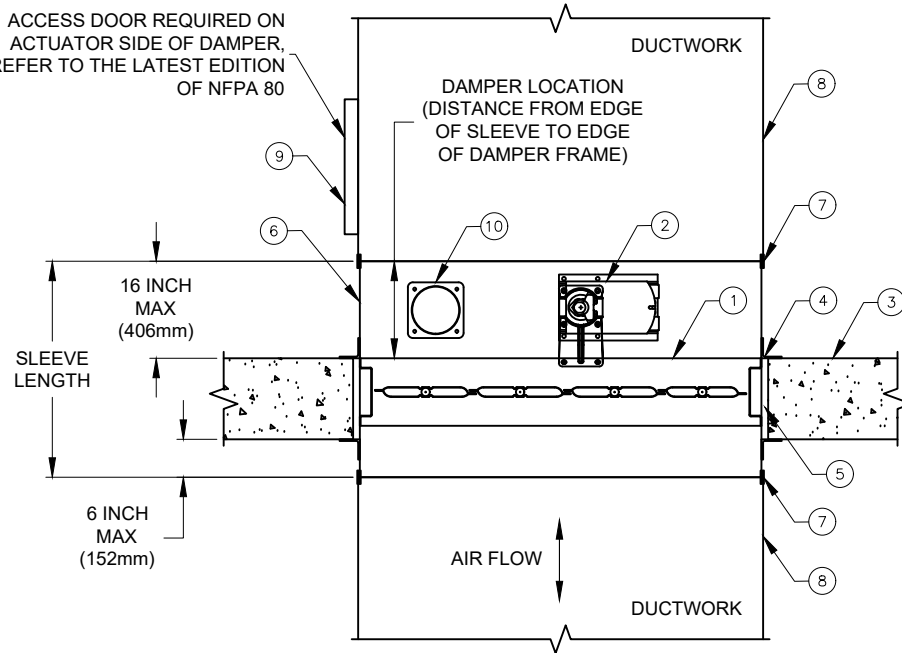


REVISION

SYM

3

ACCESS DOOR REQUIRED ON  
ACTUATOR SIDE OF DAMPER,  
REFER TO THE LATEST EDITION  
OF NFPA 80



## ITEM:

1. UL CLASSIFIED AS BOTH A FIRE DAMPER AND A LEAKAGE RATED SMOKE DAMPER
  - 1.1 1-1/2 HR. LABEL - FOR FIRE SEPARATIONS RATED LESS THAN 3 HOURS.
  - 1.2 3 HR. LABEL - FOR FIRE SEPARATIONS RATED GREATER THAN 3 HOURS (MODEL FSD-331)
2. UL QUALIFIED DAMPER/ACTUATOR ASSEMBLY (ELECTRIC)
3. RATED BARRIER
4. RETAINING ANGLES
5. EXPANSION CLEARANCE
6. DAMPER SLEEVE
7. BREAKAWAY JOINT
8. STEEL DUCT
9. ACCESS DOOR (NFPA 80 AND 105)
10. UL LISTED HEAT RESPONSIVE DEVICE (RRL, RRL/OCI, TOR)

## NOTE:

1. DAMPERS SHALL BE CONSTRUCTED, TESTED, LABELED AND INSTALLED IN ACCORDANCE WITH UL 555, UL 555S, NFPA 80, NFPA 90A, NFPA 92, NFPA 101, NFPA 105, AND MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. RATED BARRIER SHALL MEET THE REQUIREMENTS OF INTERNATIONAL BUILDING CODE (IBC) AND COMPLY WITH LOCAL CODE REQUIREMENTS.
  - 2.1. DAMPERS SHALL BE RATED FOR VERTICAL OR HORIZONTAL MOUNTING AS REQUIRED AND SHOWN ON PROJECT PLANS.
3. DAMPER OPENING (EXPANSION GAPS) SHALL BE PER DAMPER MANUFACTURER'S UL APPROVED INSTALLATION INSTRUCTIONS.
  - 3.1. MAXIMUM DAMPER OPENING MAY NOT EXCEED THE DAMPER MANUFACTURER'S MAXIMUM UL LISTED SIZE.
4. SLEEVE GAUGE, TERMINATIONS AND RETAINING ANGLES SHALL BE AS REQUIRED AND COMPLY WITH UL AND SMACNA REQUIREMENTS.
5. HEAT RESPONSIVE DEVICE SHALL BE A SINGLE TEMPERATURE ELECTRIC HEAT SENSOR OR DUAL TEMPERATURE OVERRIDE SENSOR. CHECK PROJECT SPECIFIC REQUIREMENTS AND SPECIFICATIONS FOR TYPE AND TEMPERATURE RATINGS.
6. ACCESS DOORS SHALL BE PROVIDED FOR INSPECTION, TESTING AND MAINTENANCE TO COMPLY WITH NFPA 80 AND 105.
7. FSD-311 MAY BE MOUNTED EITHER HORIZONTALLY OR VERTICALLY. BLADE AXIS MUST REMAIN HORIZONTAL.
8. BASIS OF DESIGN SHALL BE GREENHECK FSD-311 1-1/2 HOUR RATED STEEL AIRFOIL BLADE COMBINATION FIRE SMOKE DAMPER. (ALTERNATE MODELS: FSD-312 1-1/2 HOUR RATED; FSD-311M 1-1/2 HOUR RATED MODULATING; FSD-331 3 HOUR RATED)

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to make product changes without notice

| PART  | PART NO. | MAT'L | GAUGE | DESCRIPTION                  | ECO        |
|---|----------|-------|-------|------------------------------|------------|
|   |          |       |       | DRAWN BY                     | BERNETT    |
|   |          |       |       | DATE                         | 10/29/2025 |
|   |          |       |       | SUPERSEDES                   |            |
|   |          |       |       | SCALE                        | 1/8        |
| TITLE<br>FSD-311, IN<br>FLOOR, INSTALL DETAIL |          |       |       | CAD DRAWING NO.<br>100562627 |            |