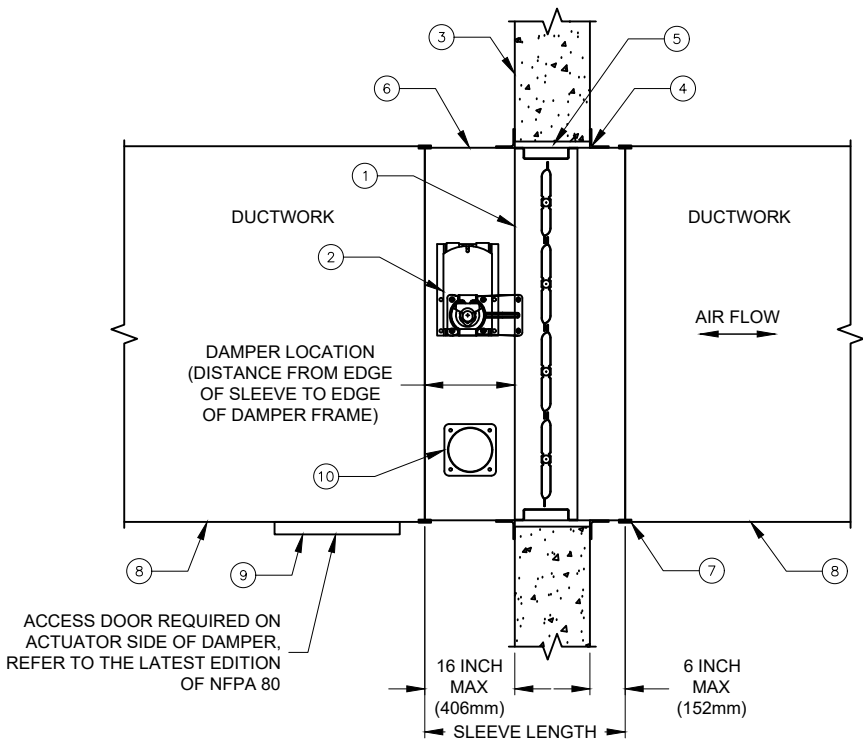


REVISION	SYM
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- ITEM:
- UL CLASSIFIED AS BOTH A FIRE DAMPER AND A LEAKAGE RATED SMOKE DAMPER
 1.1 1-1/2 HR. LABEL - FOR FIRE SEPARATIONS RATED LESS THAN 3 HOURS
 1.2 3 HR. LABEL - FOR FIRE SEPARATIONS 3 HRS OR GREATER (MODEL FSD-331)
 - UL QUALIFIED DAMPER/ACTUATOR ASSEMBLY (ELECTRIC)
 - RATED BARRIER
 - RETAINING ANGLES
 - EXPANSION CLEARANCE
 - DAMPER SLEEVE
 - BREAKAWAY JOINT
 - STEEL DUCT
 - ACCESS DOOR (NFPA 80 AND 105)
 - UL LISTED HEAT RESPONSIVE DEVICE (RRL, RRL/OCI, TOR)
- NOTE:
- 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 DAMPER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 - DAMPER RATING SHALL MEET THE REQUIREMENTS OF INTERNATIONAL BUILDING CODE (IBC) AND COMPLY WITH LOCAL CODE REQUIREMENTS.
 - DAMPERS SHALL BE RATED FOR VERTICAL OR HORIZONTAL MOUNTING AS REQUIRED AND SHOWN ON PROJECT PLANS.
 - DAMPER OPENING (EXPANSION GAPS) SHALL BE PER DAMPER MANUFACTURER'S UL APPROVED INSTALLATION INSTRUCTIONS.
 - MAXIMUM DAMPER OPENING MAY NOT EXCEED THE DAMPER MANUFACTURER'S MAXIMUM UL LISTED SIZE.
 - SLEEVE GAUGE, TERMINATIONS AND RETAINING ANGLES SHALL BE AS REQUIRED AND COMPLY WITH UL AND SMACNA REQUIREMENTS.
 - 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.
 - ACCESS DOORS SHALL BE PROVIDED FOR INSPECTION, TESTING AND MAINTENANCE TO COMPLY WITH NFPA 80 AND 105.
 - FSD-311 MAY BE MOUNTED EITHER HORIZONTALLY OR VERTICALLY. BLADE AXIS MUST REMAIN HORIZONTAL.
 - 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)

PART NO.	MAT'L	GAUGE	DESCRIPTION
			DRAWN BY BERNETT DATE 10/29/2025 SUPERSEDES SCALE 1/8 CAD DRAWING NO. 100551107
FSD,VERTICAL MOUNT,INSTALL DETAIL			ECD ENG. REF. TITLE 13