

UL/cUL SYSTEM NO. F-A-5070

INSULATED METAL PIPE THROUGH CONCRETE FLOOR OVER METAL DECKING ASSEMBLY

F-RATING = 2-HR. OR 3-HR.

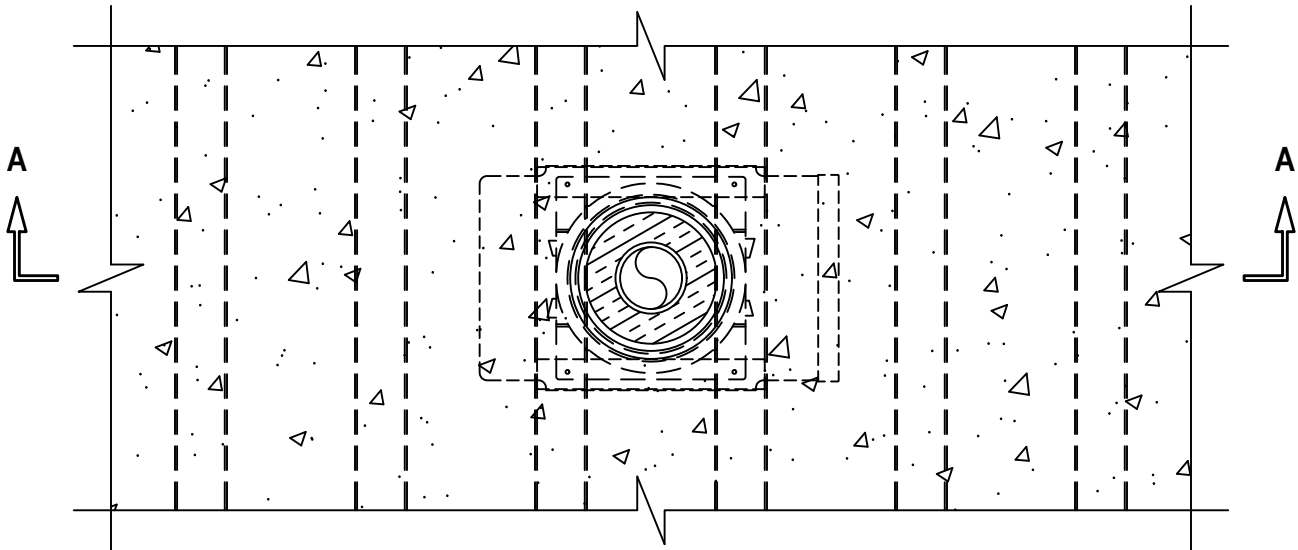
T-RATING = 3/4-HR., 1-HR., 1-3/4-HR., 2-1/2-HR., OR 3-HR. (SEE TABLE BELOW)

L-RATING AT AMBIENT = SEE TABLE BELOW

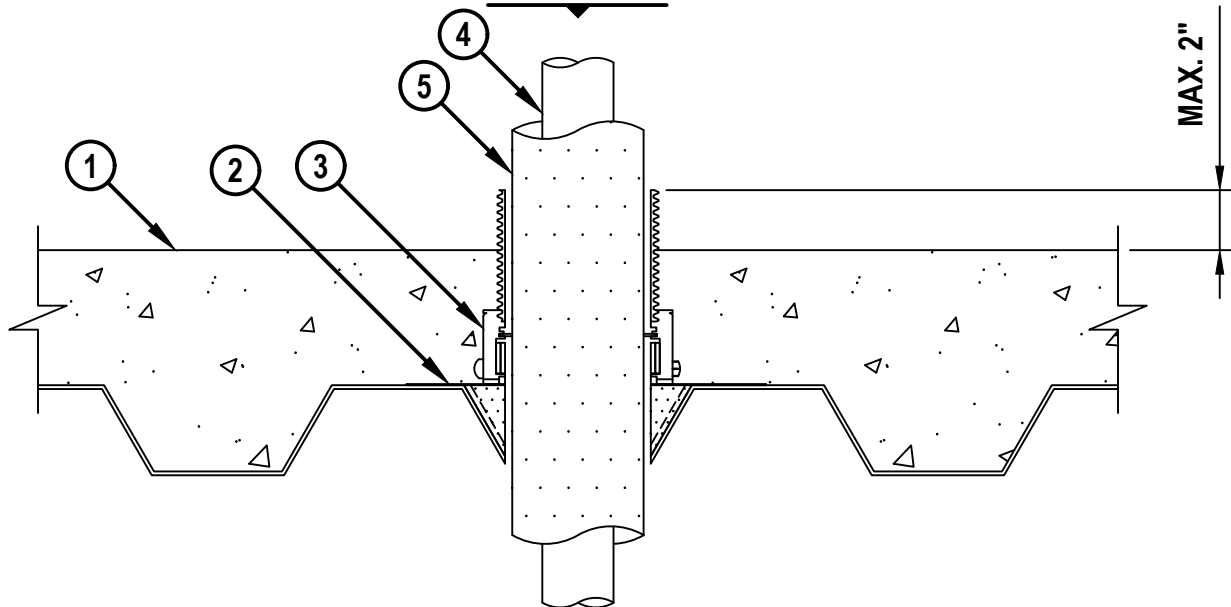
L-RATING AT 400°F = SEE TABLE BELOW

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TOP VIEW



SECTION A-A



1. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OVER METAL DECKING ASSEMBLY (UL/cUL CLASSIFIED D900 SERIES) WITH 2" OR 3" FLUTED DECKS :
 - A. MINIMUM 2-1/2" THICK (2-HR FIRE-RATING).
 - B. MINIMUM 4-1/2" THICK (3-HR FIRE-RATING).



HILTI, Inc.
Plano, Texas USA (800) 879-8000

| | |
|-------|----------------|
| Sheet | 1 of 2 |
| Scale | 5/32" = 1" |
| Date | Sept. 22, 2025 |

Drawing No.
**FA
5070e**

Saving Lives through Innovation and Education

INSULATED METAL PIPE THROUGH CONCRETE FLOOR OVER METAL DECKING ASSEMBLY

F-RATING = 2-HR. OR 3-HR.

T-RATING = 3/4-HR., 1-HR., 1-3/4-HR., 2-1/2-HR., OR 3-HR. (SEE TABLE BELOW)

L-RATING AT AMBIENT = SEE TABLE BELOW

L-RATING AT 400°F = SEE TABLE BELOW

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2. HILTI CFS-CID MD PLT [W2" OR W3"] METAL DECK PLATFORM SECURED TO DECK WITH ONE FASTENER IN EACH CORNER (SEE NOTE BELOW).
3. HILTI CFS-CID MD [M, P, OR PX] [2", 3", OR 4"]/[2.5" OR 4"] FIRESTOP CAST-IN DEVICE FOR METAL DECK SECURED TO HILTI CFS-CID MD PLT METAL DECK PLATFORM WITH SCREWS. THE 2.5" HEIGHT DEVICES ARE INTENDED FOR A 2-1/2" CONCRETE TOPPING AND THE 4" HEIGHT DEVICES ARE FOR CONCRETE TOPPINGS GREATER THAN 2-1/2" THICK.
4. PENETRATING ITEM TO BE ONE OF THE FOLLOWING (SEE NOTE NO. 3 BELOW) :
 - A. MAXIMUM 2" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
 - B. MAXIMUM 2" NOMINAL DIAMETER COPPER PIPE OR TUBING.
5. NOMINAL 1" AND 1-1/2" THICK GLASS-FIBER PIPE INSULATION.

| NOM PIPE DIAM, IN. (MM) (SEE NOTE 1 AND 2) | NOM PIPE COVERING THICKNESS, IN. (MM) | FIRESTOP DEVICE | T, FT AND FTH RATINGS, HR | | L RATING AT AMBIENT CFM/SQ FT (L/S/M ²) | L RATING AT 400°F (204°C) CFM/SQ FT (L/S/M ²) |
|---|---------------------------------------|--|--|---|---|---|
| | | | MIN 2-1/2 IN. (64 MM) CONCRETE FLOOR TOPPING (ITEM 1A) | MIN 4-1/2 IN. (114 MM) CONCRETE FLOOR TOPPING (ITEM 1A) SEE FOOTNOTE ++ | | |
| 1/2 (13) | 1 (25) | CFS-CID MD M 2", CFS-CID MD P(X) 2" | 3/4 | 2-1/2 | 3 (15.2) | 1.5 (7.6) |
| 1 (25) | 1 (25) | CFS-CID MD M 3", CFS-CID MD P(X) 3" | 3/4 | 1-3/4 | 3 (15.2) | 1.5 (7.6) |
| 1 (25) (SEE NOTE 1) | 1-1/2 (38) | CFS-CID MD M 4", CFS-CID MD P(X) 4" | 3/4 | 3 | N/A | N/A |
| 2 (51) | 1 (25) | CFS-CID MD M 4" | 1 | 1-3/4 | 3 (15.2) | 1.5 (7.6) |
| 2 (51) | 1 (25) | CFS-CID MD P(X) 4" | 1 | 2-3/4 | 3 (15.2) | 1.5 (7.6) |

NOTES : 1. WHEN USING A NOMINAL 1" DIAMETER PIPE WITH 1-1/2" THICK INSULATION IN A 4" DEVICE, TIGHTLY PACK A MINIMUM 2" THICKNESS OF MINERAL WOOL (MIN. 4 PCF DENSITY) FLUSH WITH THE TOP OF FIRESTOP DEVICE.

2. FOR MINIMUM 4-1/2" CONCRETE FLOOR THICKNESS, WHEN PIPE SIZES ARE LESS THAN INDICATED ABOVE, MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) MAY BE TIGHTLY PACKED BETWEEN THE PIPE AND PERIPHERY OF CAST-IN DEVICE, FLUSH WITH THE TOP SURFACE OF DEVICE.

3. FOR HILTI CFS-CID MD M OR CFS-CID MD P ONLY, AS AN ALTERNATIVE TO CFS-CID MD PLT METAL DECK PLATFORM (ITEM 2), THE HILTI METAL DECK ADAPTOR KIT MAY BE USED.



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