

**INSULATED METAL PIPE THROUGH CONCRETE FLOOR OVER METAL DECKING ASSEMBLY**

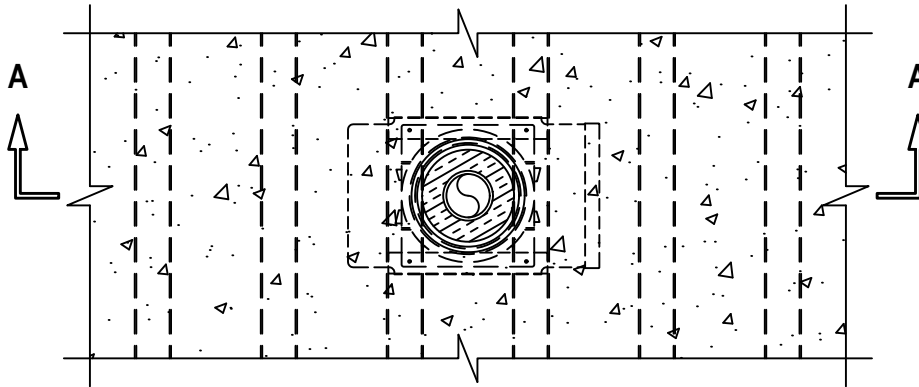
F-RATING = 2-HR. OR 3-HR.

T-RATING = 0-HR., 1/2-HR., 3/4-HR., 1-HR., OR 3-HR. (SEE TABLE BELOW)

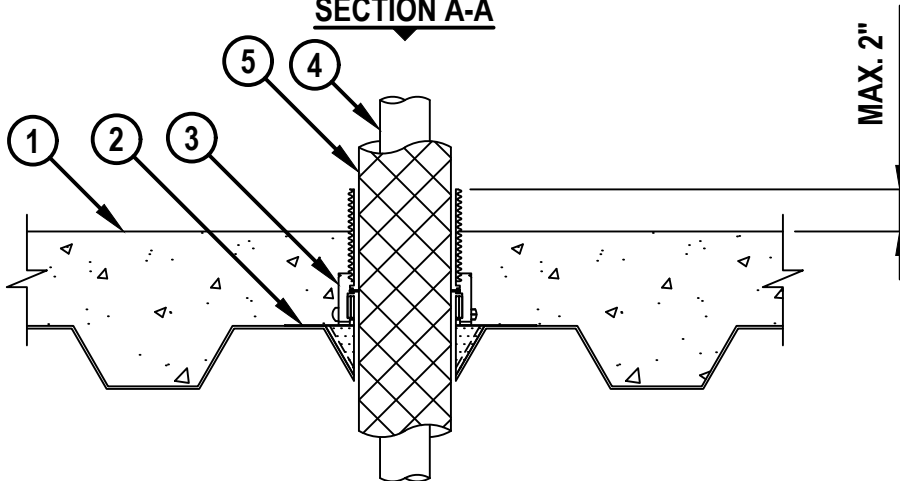
L-RATING AT AMBIENT = SEE TABLE BELOW

L-RATING AT 400°F = SEE TABLE BELOW

**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).
2. HILTI CFS-CID MD PLT [W2" OR W3"] METAL DECK PLATFORM SECURED TO DECK WITH ONE FASTENER IN EACH CORNER.
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.
4. PENETRATING ITEM TO BE ONE OF THE FOLLOWING (SEE NOTE NO. 3 BELOW) :
  - A. MAXIMUM 2-1/2" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
  - B. MAXIMUM 2-1/2" NOMINAL DIAMETER COPPER PIPE OR TUBING.
5. NOMINAL 3/4" OR 1" THICK AB/PVC FLEXIBLE FOAM PIPE INSULATION.



HILTI, Inc.  
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Sheet	1 of 2
Scale	7/64" = 1"
Date	May 20, 2021

Drawing No.  
**FA  
5069d**

**INSULATED METAL PIPE THROUGH CONCRETE FLOOR OVER METAL DECKING ASSEMBLY**

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

T-RATING = 0-HR., 1/2-HR., 3/4-HR., 1-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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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 <sup>2</sup> )	L RATING AT 400F (204°C) CFM/SQ FT (L/S/M <sup>2</sup> )
			MIN 2.5 IN. (63.5 MM) CONCRETE FLOOR TOPPING (ITEM 1A)	MIN 4.5 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	3	LESS THAN 1 (LESS THAN 5.1)	LESS THAN 1 (LESS THAN 5.1)
1 (25)	3/4 (19)	CFS-CID MD M 3", CFS-CID MD P(X) 3"	1/2	N/A	LESS THAN 1 (LESS THAN 5.1)	LESS THAN 1 (LESS THAN 5.1)
1 (25)	1 (25)	CFS-CID MD M 3", CFS-CID MD P(X) 3"	1/2	3/4	LESS THAN 1 (LESS THAN 5.1)	LESS THAN 1 (LESS THAN 5.1)
1 (25)	1 (25)	CFS-CID MD M 4", CFS-CID MD P(X) 4"	N/A	3/4	N/A	N/A
1 (25) (SEE NOTE 1)	1 (25)	CFS-CID MD M 4", CFS-CID MD P(X) 4"	1/2	N/A	N/A	N/A
2 (51)	1 (25)	CFS-CID MD M 4", CFS-CID MD P(X) 4"	1/2	N/A	LESS THAN 1 (LESS THAN 5.1)	LESS THAN 1 (LESS THAN 5.1)
2 (51)	3/4 (19) or 1 (25)	CFS-CID MD M 4", CFS-CID MD P(X) 4"	1/2	1	LESS THAN 1 (LESS THAN 5.1)	LESS THAN 1 (LESS THAN 5.1)
2-1/2 (63.5)	3/4 (19) or 1 (25)	CFS-CID MD M 4", CFS-CID MD P(X) 4"	N/A	3/4	LESS THAN 1 (LESS THAN 5.1)	LESS THAN 1 (LESS THAN 5.1)

**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.



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