

UL/cUL SYSTEM NO. F-A-5016

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

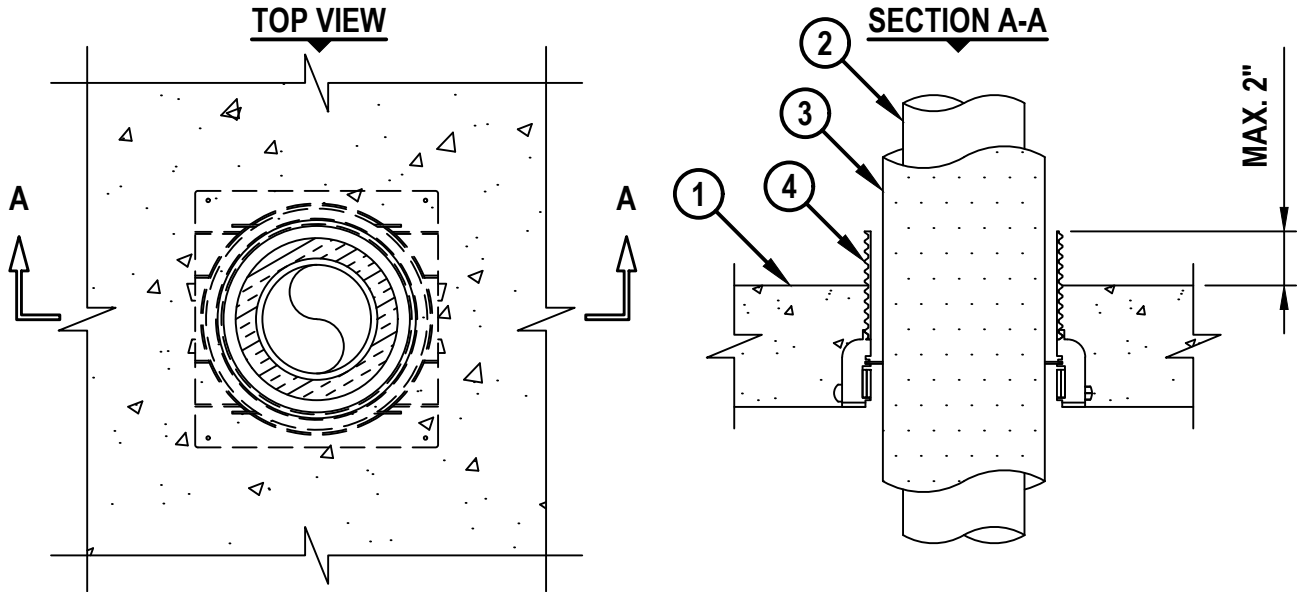
F-RATING = 3-HR.

T-RATING = 0-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

FA5016k.051821



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

Sheet	1 of 2
Scale	9/64" = 1"
Date	May 18, 2021

Drawing No.
**FA
5016k**

Saving Lives through Innovation and Education

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1. CONCRETE FLOOR ASSEMBLY (3-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 4-1/2" THICK).
 - B. STEEL FLOOR UNIT/FLOOR ASSEMBLY - LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 4-1/2" THICK) OVER METAL DECKING.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING (SEE TABLE BELOW) :
 - A. MAXIMUM 4" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
 - B. MAXIMUM 4" NOMINAL DIAMETER COPPER PIPE OR TUBING.
3. NOMINAL 3/4" OR 1" THICK AB/PVC FLEXIBLE FOAM PIPE INSULATION.
4. HILTI CP 680-M, CP 680-P, OR CP 680-PX CAST-IN FIRESTOP DEVICE CAST OR GROUTED INTO CONCRETE FLOOR (SEE TABLE BELOW).

NOM PIPE DIAMETER (SEE NOTE 2)	NOM PIPE COVER-IN. (MM)	FIRESTOP	T (FT, FTH) RATING-HR	L RATING AT AMBIENT CFM/SQ FT (L/S/M ²)	L RATING AT 400F (204°C) CFM/SQ FT (L/S/M ²)
1/2 IN. (13 MM)	1 (25)	CP 680-M 2", CP 680-P 2", CP 680-PX 2"	3	LESS THAN 1 (LESS THAN 5.1)	LESS THAN 1 (LESS THAN 5.1)
1 IN. (25 MM)	1 (25)	CP 680-M 4", CP 680-P 4"	3/4	N/A	N/A
1 IN. (25 MM)	1 (25)	CP 680-M 3", CP 680-P 3", CP 680-PX 3"	3/4	LESS THAN 1 (LESS THAN 5.1)	LESS THAN 1 (LESS THAN 5.1)
2 IN. (51 MM)	3/4 (19) OR 1 (25)	CP 680-P 4", CP 680-M 4"	3	LESS THAN 1 (LESS THAN 5.1)	LESS THAN 1 (LESS THAN 5.1)
2-1/2 IN. (63.5 MM)	3/4 (19) OR 1 (25)	CP 680-P 4", CP 680-M 4"	3/4	LESS THAN 1 (LESS THAN 5.1)	LESS THAN 1 (LESS THAN 5.1)
4 IN. (102 MM)	3/4 (19) OR 1 (25)	CP 680-P 6", CP 680-M 6"	3/4	LESS THAN 1 (LESS THAN 5.1)	LESS THAN 1 (LESS THAN 5.1)

NOTES : 1. FOR CONCRETE FLOOR OVER METAL DECKING APPLICATIONS, A METAL DECK ADAPTER KIT IS REQUIRED.
 2. 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, AND THE T-RATING OF THE SYSTEM IS 0-HR.



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