

UL SYSTEM NO. W-L-2649

PLASTIC PIPE THROUGH GYPSUM WALL ASSEMBLY

F-RATING = 1-HR. OR 2-HR.

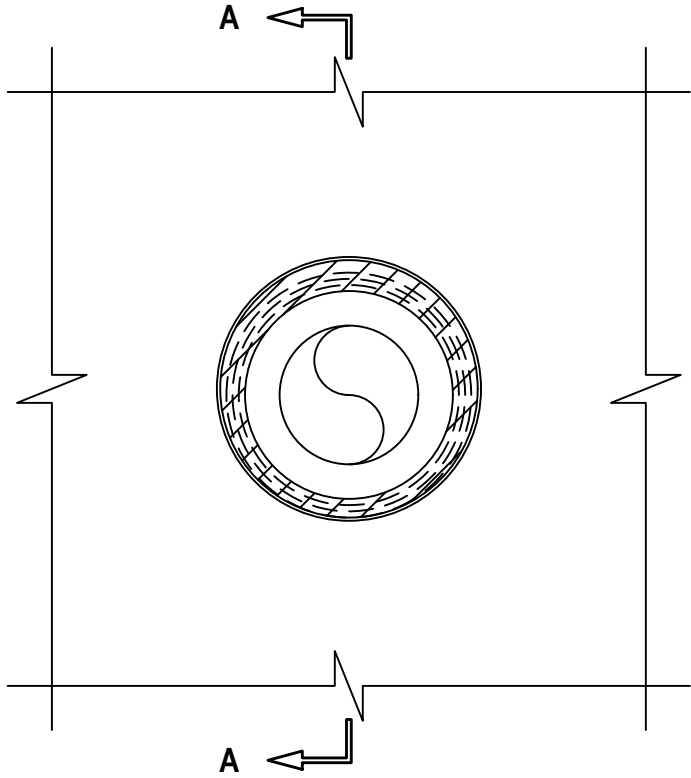
T-RATING = 1-HR. OR 2-HR.

L-RATING AT AMBIENT = 1.2 CFM / SQ FT

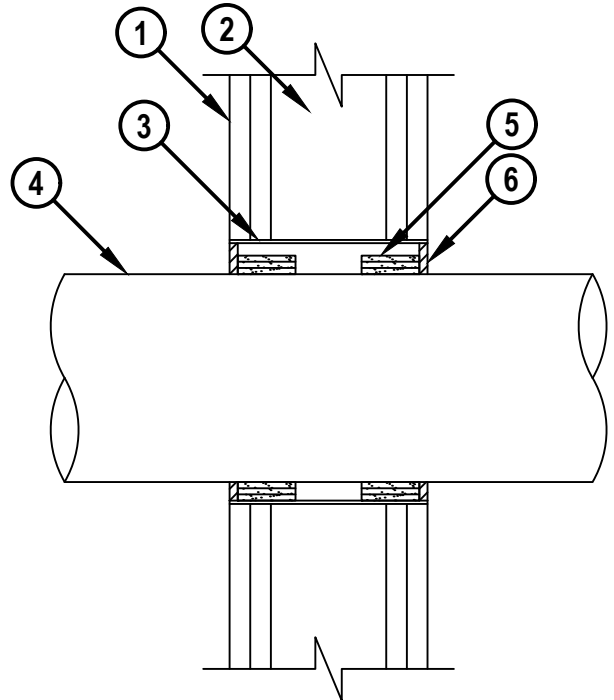
L-RATING AT 400°F = LESS THAN 1 CFM / SQ FT

WL2649b.082321

FRONT VIEW



SECTION A-A



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

Sheet	1 of 2
Scale	1 1/64" = 1"
Date	Aug. 23, 2021

Drawing No.

**WL
2649b**

Saving Lives through Innovation and Education

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1. GYPSUM WALL ASSEMBLY (UL CLASSIFIED U300, U400, V400, OR W400 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN).
2. (NOT SHOWN) WOOD STUDS TO CONSIST OF NOMINAL 2" x 4" LUMBER. STEEL STUDS TO BE MINIMUM 3-1/2" WIDE.
3. SHEET METAL SLEEVE (MIN. 28 GA.) WITH 1" OVERLAP ALONG LONGITUDINAL SEAM.
4. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
 - A. NOMINAL 6" (160 MM OD) DIAMETER COSMOPLAST POLYPROPYLENE (PP-R) PLASTIC PIPE (SDR 6) (CLOSED PIPING SYSTEM).
 - B. NOMINAL 6" (160 MM OD) DIAMETER COPRAX POLYPROPYLENE (PP-R) PLASTIC PIPE (SDR 6) (CLOSED PIPING SYSTEM).
 - C. MAXIMUM 6" (160 MM OD) NOMINAL DIAMETER AQUATHERM GREENPIPE POLYPROPYLENE (PP-R) PLASTIC PIPE (SDR 7.4 OR 11) (CLOSED PIPING SYSTEM).
 - D. NOMINAL 6" (152 MM OD) DIAMETER HIGH DENSITY POLYETHYLENE (HPDE) PLASTIC PIPE (SDR 11) (CLOSED PIPING SYSTEM).
 - E. MAXIMUM 6" (160 MM OD) NOMINAL DIAMETER AQUATHERM BLUEPIPE POLYPROPYLENE (PP-RCT) PLASTIC PIPE (SDR 9 OR 11) (CLOSED PIPING SYSTEM).
 - F. MAXIMUM 6" (160 MM OD) NOMINAL DIAMETER NUPI AMERICAS NIRON POLYPROPYLENE (PP-RCT) PLASTIC PIPE (SDR 7.3, 11, OR 17) (CLOSED PIPING SYSTEM).
 - G. MAXIMUM 6" (160 MM OD) NOMINAL DIAMETER AQUATECHNIK NA FUSION-TECH POLYPROPYLENE (PP-RCT) PLASTIC PIPE (SDR 7.4 OR 11) (CLOSED PIPING SYSTEM).
 - H. MAXIMUM 6" (160 MM OD) NOMINAL DIAMETER UPONOR POLYPROPYLENE (PP-RCT) PLASTIC PIPE (SDR 9 OR 11) (CLOSED PIPING SYSTEM).
5. HILTI CP 648E WRAP STRIP (NOMINAL 3/16" THICK x 1-3/4" WIDE) CONTINUOUSLY WRAPPED AROUND THE OUTER CIRCUMFERENCE OF THE PIPE, AS SPECIFIED IN THE TABLE BELOW, WITH ENDS BUTTED AND HELD IN PLACE WITH TAPE. WRAP STRIP TO BE RECESSED 1/4" FROM EACH SURFACE OF THE WALL TO ACCOMMODATE FIRESTOP SEALANT.
6. MINIMUM 1/4" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT.

MAX PIPE SIZE	MAXIMUM DIAMETER OF OPENING	ANNULAR SPACE		NUMBER OF LAYERS
		MINIMUM	MAXIMUM	
3"	4-1/2"	3/16"	3/4"	1
4"	6"	3/8"	1-1/8"	2
6"	8"	9/16"	1-3/16"	3

NOTE : FOR L-RATINGS TO APPLY, HILTI FS-ONE MAX MUST EXTEND OVER THE EDGE OF THE STEEL SLEEVE AND LAP ONTO THE SURFACE OF GYPSUM ON BOTH SIDES OF THE WALL.



Hilti Firestop Systems

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