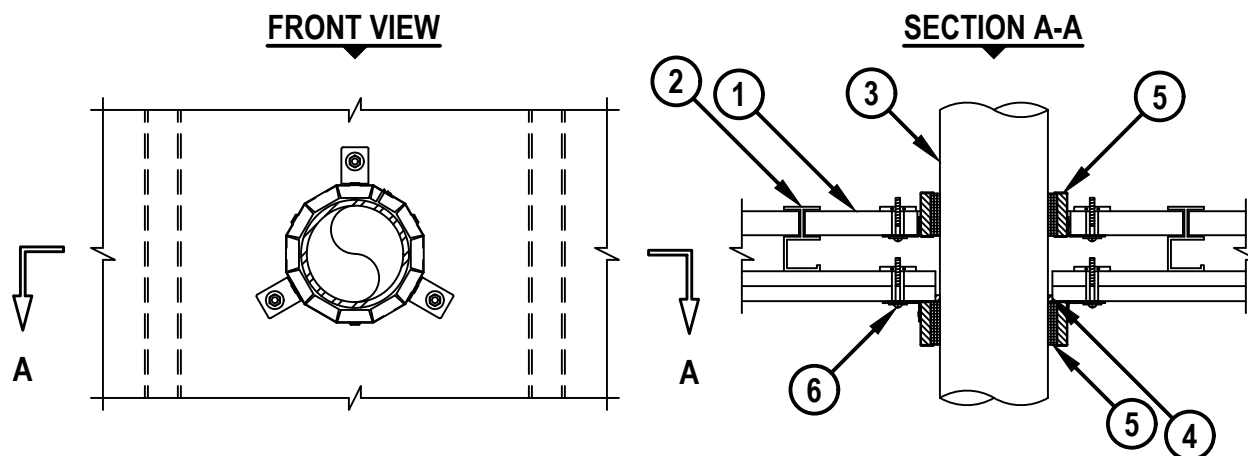


**PLASTIC PIPE THROUGH GYPSUM SHAFT WALL ASSEMBLY**

F-RATING = 2-HR.

T-RATING = 0-HR.

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1. GYPSUM SHAFT WALL ASSEMBLY (UL CLASSIFIED U400 SERIES) (2-HR. FIRE-RATING).
2. "C-H" OR "C-T" SHAPED STUDS (1-5/8" WIDE x 2-1/2" DEEP, MIN. 25 GA.) SPACED MAXIMUM 24" C/C.
3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
  - A. MAXIMUM 4" NOMINAL DIAMETER PVC PLASTIC PIPE (CELLULAR OR SOLID CORE).
  - B. MAXIMUM 4" NOMINAL DIAMETER CPVC PLASTIC PIPE (CLOSED PIPING SYSTEM ONLY).
4. MINIMUM 1/4" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT.
5. HILTI CP 643N FIRESTOP COLLAR WITH FASTENING HOOKS (SEE TABLE BELOW) (SEE NOTE NO. 3 BELOW).
6. HILTI 3/16" TOGGLER BOLTS AND MINIMUM 3/4" DIAMETER WASHERS TO ATTACH EACH FASTENING HOOK TO GYPSUM WALL ASSEMBLY.

NOMINAL PIPE DIAMETER	PRODUCT DESCRIPTION	MAX. HOLE SIZE IN 1" GYPSUM LINER	MAX. HOLE SIZE IN GYPSUM BOARD
1-1/2"	CP 643 50/15" N	2-7/8"	2-1/8"
2"	CP 643 63/2" N	3-1/2"	2-5/8"
3"	CP 643 90/3" N	4-7/8"	4"
4"	CP 643 110/4" N	6"	5"

NOTES : 1. ANNULAR SPACE IN GYPSUM BOARD = MINIMUM 0", MAXIMUM 1/4".

2. CLOSED OR VENTED PIPING SYSTEMS (PVC = SCHEDULE 40; CPVC = SDR 17).

3. FOR THE HILTI CP 643N INSTALLED WITHIN THE 1" GYPSUM LINER, ATTACH THE FASTENING HOOKS TO THE COLLAR BODY WITH NO. 7 SHEET METAL SCREWS MAXIMUM 5/16" IN LENGTH).

4. AS AN ALTERNATE TO THE ABOVE SHAFT WALL ASSEMBLY, A 2-HR. GYPSUM WALL ASSEMBLY MAY BE USED (U300, U400 OR V400 SERIES). STEEL STUDS TO BE MINIMUM 2-1/2" WIDE. WOOD STUDS TO CONSIST OF NOMINAL 2 x 4 LUMBER.

**HILTI**  
Hilti Firestop Systems

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

Sheet 1 of 1  
Scale 5/32" = 1"  
Date Jan. 16, 2026

Drawing No.

**WL**  
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