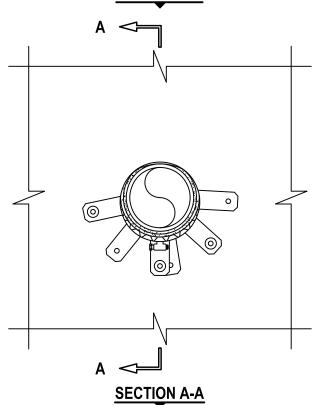
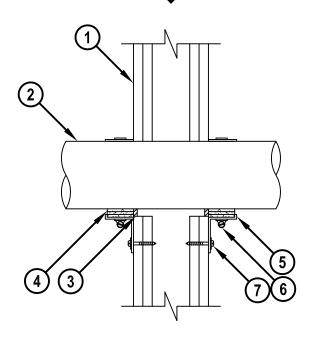
UL SYSTEM NO. W-L-2546

PLASTIC PIPE THROUGH GYPSUM WALL ASSEMBLY

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

FRONT VIEW







HILTI, Inc. Tulsa, Oklahoma USA (800) 879-8000

Sheet	1 of 2
Scale	5/32" = 1"
Date	Jan. 14, 2015

WL 2546b

FGG/=BM=/CZ

WL2546b 011415

UL SYSTEM NO. W-L-2546

FGG/=BM=/CZ

PLASTIC PIPE THROUGH GYPSUM WALL ASSEMBLY

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

WL2546b.011415

- 1. GYPSUM WALL ASSEMBLY (UL CLASSIFIED U300, U400, OR V400 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN) TO INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
 - A. [NOT SHOWN] WOOD STUDS TO CONSIST OF NOMINAL 2" x 4" LUMBER (SPACED MAXIMUM 16" OC). STEEL STUDS TO BE MINIMUM 3-1/2" WIDE (SPACED MAXIMUM 24" OC).
 - B. NOMINAL 5/8" THICK GYPSUM WALLBOARD. TYPE, NUMBER OF LAYERS, AND SHEET ORIENTATION AS SPECIFIED IN THE INDIVIDUAL UL DESIGN.
- 2. 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).
 - C. MAXIMUM 2" NOMINAL DIAMETER FLOWGUARD GOLD CPVC PLASTIC PIPE (SDR 11) (CLOSED PIPING SYSTEM).
 - D. MAXIMUM 2" NOMINAL DIAMETER BLAZEMASTER CPVC PLASTIC PIPE (SDR 13.5) (CLOSED PIPING SYSTEM).
 - E. MAXIMUM 4" NOMINAL DIAMETER ABS PLASTIC PIPE (CELLULAR OR SOLID CORE).
 - F. MAXIMUM 2" NOMINAL DIAMETER PVC CONDUIT.
- 3. MINIMUM 1/4" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT.
- 4. HILTI CP 648E WRAP STRIP (NOMINAL 3/16" THICK x 1-3/4" WIDE) TO BE INDIVIDUALLY WRAPPED AROUND THE PIPE TO THE FULLEST EXTENT POSSIBLE WHILE ALLOWING THE PENETRANT TO REMAIN AT POINT OF CONTACT WITH THE OPENING AND IN THE COLLAR (SEE TABLE BELOW).
- 5. HILTI 1-3/4" RETAINING COLLAR OVERLAPPING MINIMUM 1".
- 6. NOMINAL 1/2" WIDE STAINLESS STEEL HOSE CLAMP(S) FASTENED AT MID-HEIGHT OF RETAINING COLLAR (SEE NOTE NO. 4 BELOW).
- 7. EVERY OTHER TAB OF RETAINING COLLAR SECURED TO WALL ASSEMBLY WITH 1-1/2" LONG DRYWALL OR LAMINATE DRYWALL SCREWS IN CONJUNCTION WITH 3/4" DIAMETER STEEL WASHERS. NO ANCHOR TAB IS REQUIRED AT POINT OF CONTACT LOCATION OF COLLAR TO PENETRANT.

NOMINAL PIPE DIAMETER	NO. OF LAYERS OF CP 648E
2" AND SMALLER	2
2-1/2" TO 4"	3

NOTES: 1. MAXIMUM DIAMETER OF OPENING = 5".

- 2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1/2".
- 3. CLOSED OR VENTED PIPING SYSTEM (PVC, ABS = SCH 40; CPVC = SDR 13.5).
- 4. AS AN ALTERNATE TO COLLAR CLAMP (ITEM NO. 6 ABOVE) COLLAR MAY BE SECURED TOGETHER WITH TWO SHEET METAL SCREWS THROUGH THE OVERLAPPING PORTION OF THE COLLAR.



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Scale	-
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