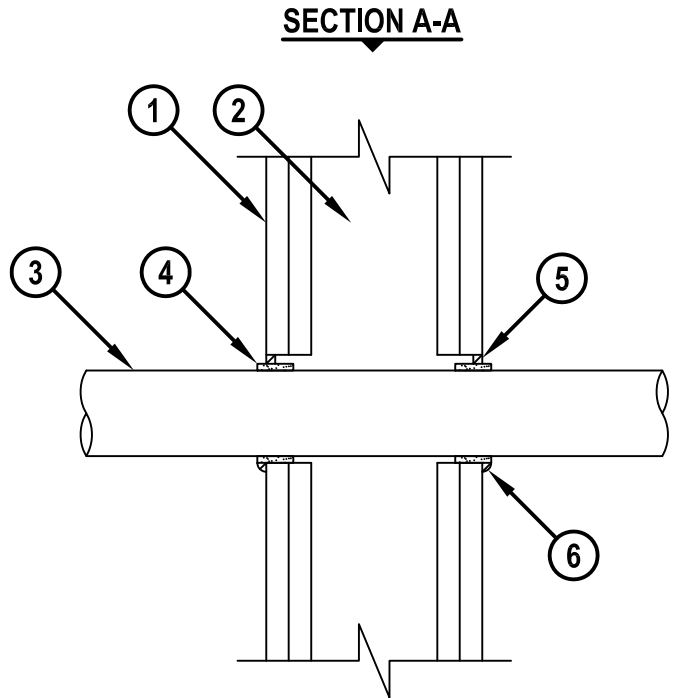
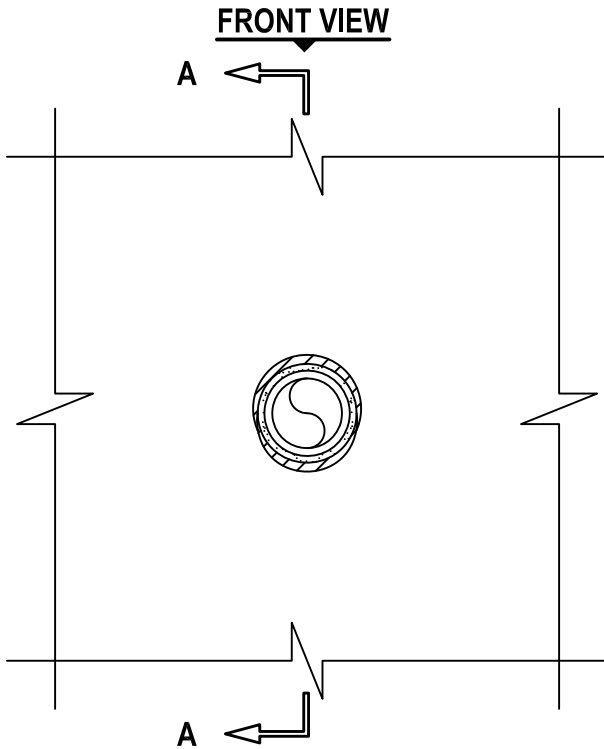


UL SYSTEM NO. W-L-2044

**PLASTIC PIPE THROUGH GYPSUM WALL ASSEMBLY**

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

WL2044b.011215



1. GYPSUM WALL ASSEMBLY (UL CLASSIFIED U300, U400 OR V400 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. MAXIMUM 2" NOMINAL DIAMETER POLYPROPYLENE (PP) PLASTIC PIPE (SCHEDULE 80) (CLOSED OR VENTED PIPING SYSTEM).
4. HILTI CP 648S WRAP STRIP WRAPPED CONTINUOUSLY AROUND THE OUTER CIRCUMFERENCE OF THE PIPE (ON BOTH SIDES OF WALL) AND HELD IN PLACE WITH INTEGRATED TAPE. WRAP STRIPS TO BE SLID INTO ANNULAR SPACE SUCH THAT THE ENDS EXTEND 1/4" BEYOND EACH WALL SURFACE (SEE TABLE BELOW).
5. MINIMUM 1/4" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT.
6. MINIMUM 1/4" BEAD HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.

| NOMINAL PIPE DIAMETER | PRODUCT DESCRIPTION | MAXIMUM DIAMETER OF OPENING | ANNULAR SPACE |         |
|-----------------------|---------------------|-----------------------------|---------------|---------|
|                       |                     |                             | MINIMUM       | MAXIMUM |
| 1-1/2"                | CP 648S - 1.5"      | 2-3/8"                      | 3/16"         | 5/16"   |
| 2"                    | CP 648S - 2"        | 3"                          | 3/16"         | 5/16"   |



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

|       |               |
|-------|---------------|
| Sheet | 1 of 1        |
| Scale | 3/16" = 1"    |
| Date  | Jan. 12, 2015 |

Drawing No.  
**WL 2044b**

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