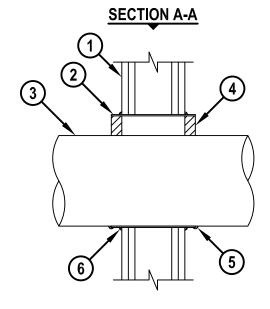
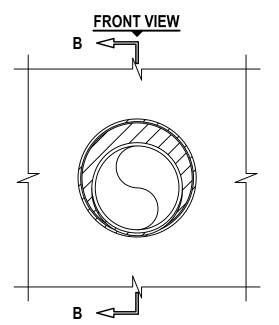
### UL/cUL SYSTEM NO. W-L-1465

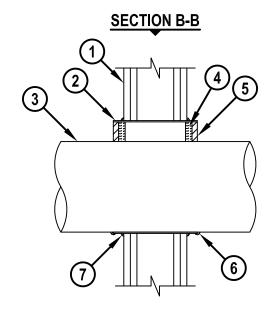
# METAL PIPE THROUGH GYPSUM WALL ASSEMBLY

F-RATING = 1-HR. OR 2-HR.
T-RATING = 0-HR. OR 1/4-HR.
L-RATING AT AMBIENT = LESS THAN 1 CFM / SQ FT
L-RATING AT 400° F = LESS THAN 1 CFM / SQ FT

FRONT VIEW
A









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

Sheet	1 of 2
Scale	7/64" = 1"
Date	Jan. 12, 2015

WL 1465c

WL1465c.011215

### UL/cUL SYSTEM NO. W-L-1465

## METAL PIPE THROUGH GYPSUM WALL ASSEMBLY

F-RATING = 1-HR. OR 2-HR.
T-RATING = 0-HR. OR 1/4-HR.
L-RATING AT AMBIENT = LESS THAN 1 CFM / SQ FT
L-RATING AT 400° F = LESS THAN 1 CFM / SQ FT

WL1465c.01121

- 1. GYPSUM WALL ASSEMBLY (UL/cUL 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. GALVANIZED SHEET METAL SLEEVE (MIN. 28 GA.) HAVING A MINIMUM 1" OVERLAP ALONG THE LONGITUDINAL SEAM. SLEEVE SHALL BE FLUSH OR EXTEND MAXIMUM 1" BEYOND WALL SURFACES.
- 3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
  - A. MAXIMUM 8" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
  - B. MAXIMUM 8" NOMINAL DIAMETER CAST OR DUCTILE IRON PIPE.
  - C. MAXIMUM 6" NOMINAL DIAMETER STEEL CONDUIT.
  - D. MAXIMUM 4" NOMINAL DIAMETER COPPER PIPE OR TUBING.
  - E. MAXIMUM 4" NOMINAL DIAMETER EMT.

### **CONFIGURATION A**

- 4. MINIMUM 1" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT OR HILTI CP 606 FLEXIBLE FIRESTOP SEALANT FLUSH WITH BOTH ENDS OF SLEEVE.
- 5. MINIMUM 1/4" BEAD HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT OR HILTI CP 606 FLEXIBLE FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.
- 6. MINIMUM 1/4" BEAD HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT OR HILTI CP 606 FLEXIBLE FIRESTOP SEALANT APPLIED AT SLEEVE/GYPSUM BOARD INTERFACE WHEN SLEEVE EXTENDS BEYOND THE WALL SURFACE.

#### **CONFIGURATION B**

- 4. MINIMUM 5/8" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) OR HILTI CP 767 SPEED STRIPS TIGHTLY PACKED.
- 5. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT OR HILTI CP 606 FLEXIBLE FIRESTOP SEALANT.
- 6. MINIMUM 1/4" BEAD HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT OR HILTI CP 606 FLEXIBLE FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.
- 7. MINIMUM 1/4" BEAD HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT OR HILTI CP 606 FLEXIBLE FIRESTOP SEALANT APPLIED AT SLEEVE/GYPSUM BOARD INTERFACE WHEN SLEEVE EXTENDS BEYOND THE WALL SURFACE.

NOTES: 1. MAXIMUM DIAMETER OF OPENING = 10".

2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1-7/8".



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

Sheet	2 of 2
Scale	-
Date	Jan. 12, 2015

WL 1465c

Saving Lives through Innovation and Education