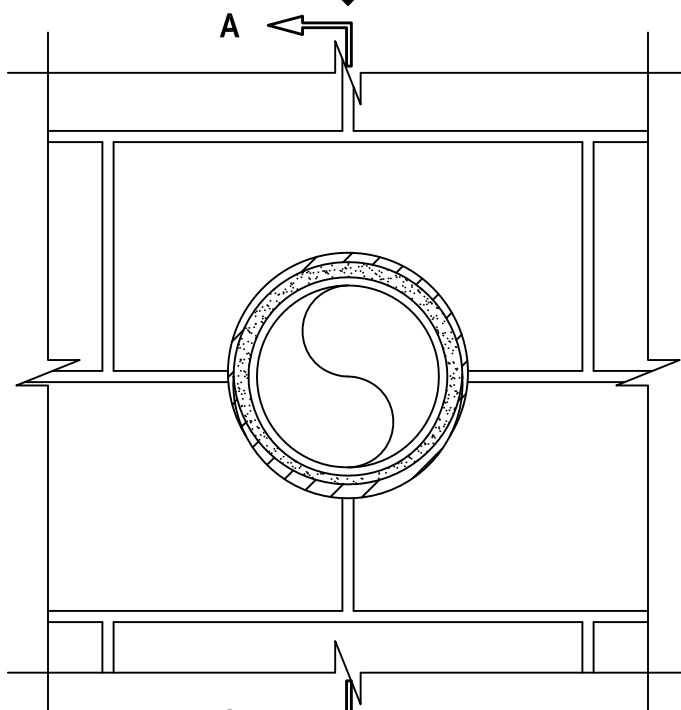


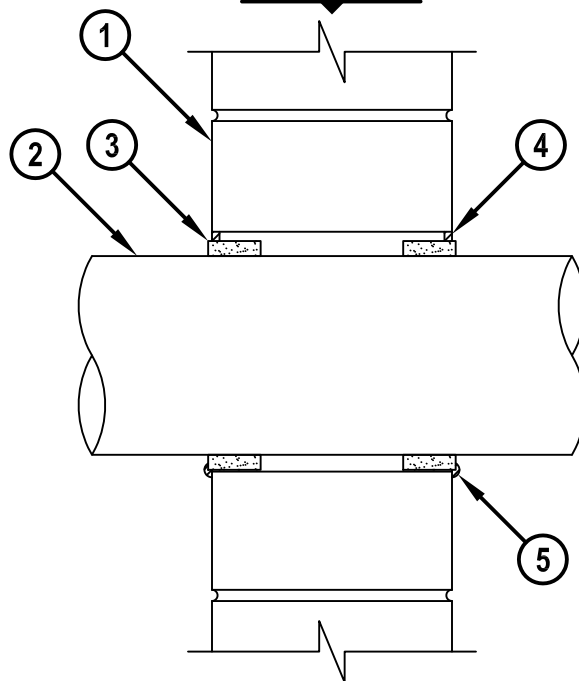
UL SYSTEM NO. W-J-2205  
**PLASTIC PIPE THROUGH CONCRETE WALL OR BLOCK WALL ASSEMBLY**

F-RATING = 1-HR. OR 2-HR.  
 T-RATING = 0-HR., 1/2-HR. OR 3/4-HR.  
 L-RATING AT AMBIENT = 1.2 CFM / SQ FT  
 L-RATING AT 400°F = LESS THAN 1 CFM / SQ FT

**FRONT VIEW**



**SECTION A-A**



WJ2205b.010915



**Hilti Firestop Systems**

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

Sheet	1 of 2
Scale	5/32" = 1"
Date	Jan. 09, 2015

Drawing No.

**WJ  
2205b**

*Saving Lives through Innovation and Education*

**PLASTIC PIPE THROUGH CONCRETE WALL OR BLOCK WALL ASSEMBLY**

F-RATING = 1-HR. OR 2-HR.  
 T-RATING = 0-HR., 1/2-HR. OR 3/4-HR.  
 L-RATING AT AMBIENT = 1.2 CFM / SQ FT  
 L-RATING AT 400°F = LESS THAN 1 CFM / SQ FT

WJ2205b.010915

1. CONCRETE WALL ASSEMBLY (1-HR. OR 2-HR. FIRE-RATING) :
  - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 6" THICK).
  - B. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
  - A. MAXIMUM 6" NOMINAL DIAMETER PVC PLASTIC PIPE (CELLULAR OR SOLID CORE).
  - B. MAXIMUM 4" NOMINAL DIAMETER ABS PLASTIC PIPE (CELLULAR OR SOLID CORE).
  - C. MAXIMUM 6" NOMINAL DIAMETER CPVC PLASTIC PIPE (CLOSED PIPING SYSTEM).
3. HILTI CP 648S FIRESTOP WRAP STRIP WRAPPED CONTINUOUSLY AROUND CIRCUMFERENCE OF PIPE AND SECURED IN PLACE WITH INTEGRATED FASTENING TAPE, SUCH THAT THE WRAP STRIP PROTRUDES 1/8" FROM WALL SURFACE.
4. MINIMUM 1/4" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT (OPTIONAL IN 1-HR. WALLS ON PIPES 4" OR SMALLER, AND IN 2-HR. WALLS ON PIPES 3" AND SMALLER).
5. MINIMUM 1/4" BEAD HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT AT WRAP STRIP/CONCRETE WALL INTERFACE (OPTIONAL IN 1-HR. WALLS ON PIPES 4" OR SMALLER, AND IN 2-HR. WALLS ON PIPES 3" AND SMALLER).

NOMINAL PIPE DIAMETER	TYPE OF PIPE	PRODUCT DESCRIPTION	MAXIMUM DIAMETER OF OPENING	ANNULAR SPACE	
				MINIMUM	MAXIMUM
1-1/2"	ALL	CP 648S - 1.5"	2-3/8"	3/16"	5/16"
2"	ALL	CP 648S - 2"	3"	3/16"	5/16"
3"	ALL	CP 648S - 3"	4"	3/16"	5/16"
4"	ALL	CP 648S - 4"	5-3/8"	3/8"	1/2"
6"	PVC AND CPVC	CP 648S -6"	8"	9/16"	13/16"

NOTES : 1. CLOSED OR VENTED PIPING SYSTEM (PVC, ABS = SCHEDULE 40; CPVC = SDR 13.5).  
 2. L-RATINGS ONLY APPLY WHEN HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT IS USED.



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Scale	-
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