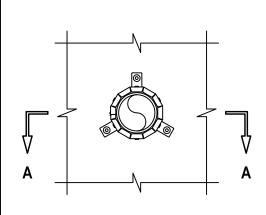
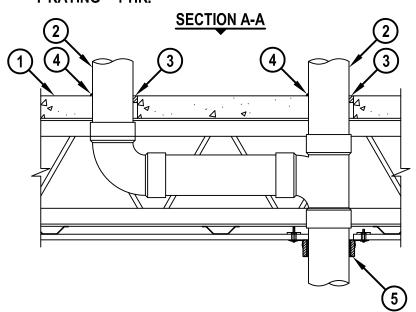
UL SYSTEM NO. F-E-2033

PLASTIC PIPE THROUGH CONCRETE FLOOR/CEILING ASSEMBLY

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

BOTTOM VIEW





- 1. CONCRETE AND STEEL JOIST FLOOR/CEILING ASSEMBLY (UL/cUL CLASSIFIED G500 SERIES) (1-HR. FIRE-RATING).
- 2. PENETRATING ITEM AND [OPTIONAL] BRANCH PIPING TO BE ONE OF THE FOLLOWING:
 - A. MAXIMUM 4" NOMINAL DIAMETER PVC PLASTIC PIPE (CELLULAR OR SOLID CORE).
 - B. MAXIMUM 4" NOMINAL DIAMETER ABS PLASTIC PIPE (CELLULAR OR SOLID CORE).
- 3. MINIMUM 3/4" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT.
- 4. MINIMUM 1/4" BEAD HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.
- 5. HILTI CP 643N FIRESTOP COLLAR SECURED TO GYPSUM CEILING WITH 1/4" DIAMETER x 1-1/2" LONG TOGGLE BOLTS WITH 3/4" DIAMETER STEEL WASHER.

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

- 2. DIAMETER OF OPENING THROUGH FLOOR SHALL BE MINIMUM 1/2" TO MAXIMUM 1" LARGER THAN OUTER DIAMETER OF PIPE.
- 3. DIAMETER OF OPENING THROUGH GYPSUM CEILING SHALL BE MAXIMUM 1/2" LARGER THAN OUTER DIAMETER OF PIPE.
- 4. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1/2".
- 5. PIPE MAY BE INSTALLED WITH CONTINUOUS POINT OF CONTACT THROUGH GYPSUM CEILING.
- 6. CLOSED OR VENTED PIPING SYSTEM (PVC, ABS = SCHEDULE 40).
- 7. BRANCH PIPING MAY TERMINATE IN A MAXIMUM 4" DIAMETER TOILET FLANGE THAT CORRESPONDS TO THE TYPE OF BRANCH PIPING.



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Scale 3/32" = 1"

Date Jan. 08, 2015

FE 2033b

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