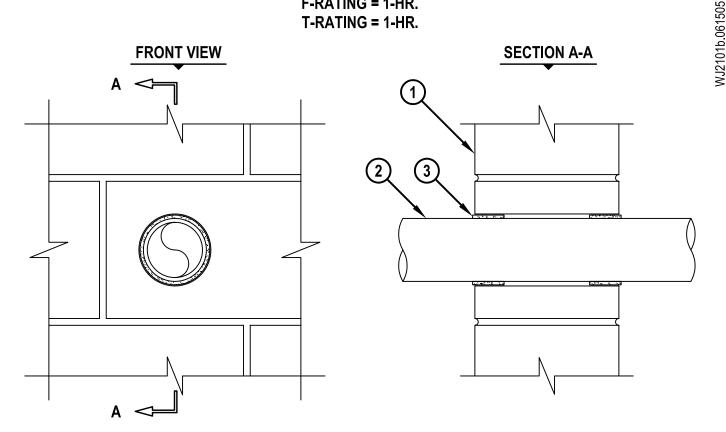
UL SYSTEM NO. W-J-2101

PLASTIC PIPE THROUGH CONCRETE WALL OR BLOCK WALL ASSEMBLY

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



- 1. CONCRETE WALL ASSEMBLY (1-HR. FIRE-RATING):
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 4-3/4" THICK).
 - **B. ANY UL CLASSIFIED CONCRETE BLOCK WALL.**
- 2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
 - A. MAXIMUM 3" NOMINAL DIAMETER PVC PLASTIC PIPE (CELLULAR OR SOLID CORE).
 - B. MAXIMUM 3" NOMINAL DIAMETER CPVC PLASTIC PIPE (CLOSED PIPING SYSTEM ONLY).
- 3. HILTI CP 648E WRAP STRIP (NOMINAL 3/16" THICK x 1-3/4" WIDE) CONTINUOUSLY WRAPPED AROUND THE OUTER CIRCUMFERENCE OF THE PIPE, COVERING ONE TIME, WITH ENDS BUTTED AND HELD IN PLACE WITH TAPE. WRAP STRIP TO BE SLID INTO ANNULAR SPACE. SUCH THAT 1/8" OF THE WRAP STRIP PROTRUDES BEYOND EACH WALL SURFACE.

NOTES: 1. MAXIMUM DIAMETER OF OPENING = 4".

- 2. ANNULAR SPACE = NOMINAL 1/4".
- 3. CLOSED OR VENTED PIPING SYSTEMS. (PVC = SCHEDULE 40, CPVC = SDR 13.5).
- 4. AS AN ALTERNATE TO HILTI CP 648E WRAP STRIP, HILTI CP 648S/1.5", CP 648S/2" AND CP 648S/3" WRAP STRIP MAY BE USED ON 1-1/2", 2" AND 3" PIPES, RESPECTIVELY. WRAP HILTI CP 648S WRAP STRIP AROUND THE CIRCUMFERENCE OF THE PIPE AND HOLD IN PLACE WITH INTEGRATED TAPE. WRAP STRIP TO BE SLID INTO ANNULAR SPACE, SUCH THAT 1/8" OF THE WRAP STRIP PROTRUDES BEYOND EACH WALL SURFACE.



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Sheet	1 of 1
Scale	3/16" = 1"
Date	June 15, 2005

Drawing No. WJ 2101b