

PLUMBING AND MECHANICAL
INTERPRETATION MANUAL



CODE: 2000 IRC

DATE:

CODE REF: Section 3003.4.5

11/5/2003

SUBJECT: 4X3 closet flange

Question: Can the drainage pipe be used as a socket fitting for a 4X3 closet flange?

Section 3003.4.5 States the following:

P3003.4.5 Joints between drainage piping and water closets. Joints between drainage piping and water closets or similar fixtures shall be made by means of a closet flange compatible with the drainage system material, securely fastened to a structurally firm base. The inside diameter of the drainage pipe shall not be used as a socket fitting for a four by three closet flange. The joint shall be bolted, with an approved gasket or setting compound between the fixture and the closet flange.

RP3005.1.4 Water closet connection between flange and pipe. One-quarter bends 3 inches (76 mm) in diameter shall be acceptable for water closet or similar connections, provided a 4-inch-by-3-inch (102 mm by 76 mm) flange is installed to receive the closet fixture horn. Alternately, a 4-inch-by-3-inch (102 mm by 76 mm) elbow shall be acceptable with a 4-inch (102 mm) flange.

Answer: The inside diameter of the drainage pipe may not be reduced to less than 3 in. thus; the vertical portion of a closet stub which is 3 in. may not be used as a socket to solvent weld a closet flange.

Additionally, if we consult table P3005.4.1 when the 3 in. drain pipe is used for a socket for the flange it reduces the interior dimension of the pipe to 2-½ in. and according to this table 2-½ in. pipe and footnote b, prohibits the use of a water closet.

However, if the vertical portion of the closet stub is 4 in. then the drainage pipes may be used as a socket for a closet flange that is design to solvent weld inside the 4 in. drainage pipe.

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