



Standard Symbols for Dimensions of Plastic Pipe Fittings¹

This standard is issued under the fixed designation D2749; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 These symbols specify terminology for the dimensions of pipe fittings made of plastic materials. It consists of a list of letter designations with definitions, followed by drawings of typical fittings, with the significant dimensions labeled in accordance with these letter designations.

1.2 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*²

F1498 Specification for Taper Pipe Threads 60° for Thermoplastic Pipe and Fittings

3. Letter Designations of Dimensions

3.1 The letter designations are defined as follows:

A	=	socket entrance diameter, measured at intersection of socket diameter and chamfer or radius, regardless of length "C",
B	=	socket bottom diameter, measured at intersection of socket diameter and radius,
C	=	socket depth, measured from socket entrance face to socket bottom face,
D	=	inside diameter of body,
E	=	wall thickness of socket, min,
F	=	wall thickness of body,
G	=	intersection of socket center lines to socket bottom (center-to-socket bottom), 90° elbows, tees, crosses, and shoulder on insert fittings; a laying length,

H	=	intersection of socket center lines to end of fitting (center-to-end), 90° elbows, tees, crosses; center to face,
J	=	intersection of socket center lines to socket bottom (center-to-socket bottom), 45° elbow; a laying length,
K	=	intersection of socket center lines to end of fitting (center-to-end), 45° elbow,
L	=	length over-all, coupling,
M	=	outside diameter of hub,
N	=	socket bottom to socket bottom or seat thickness (center stop thickness or pipe stop thickness),
P	=	insert length,
Q	=	distance or width across flat,
R	=	height of head,
S	=	length of male thread, includes pilot,
T	=	length of female thread, includes pilot,
V	=	root diameter of barbs,
W	=	cap height,
XA	=	male end of spigot at top, see Fig. 1,
XB	=	male end of spigot at bottom, see Fig. 1
Y	=	length of barb section,
Z	=	outside diameter of barbs
CB	=	Pilot on the first thread of internal and external threaded fittings equal to $\frac{1}{2}$ to $\frac{3}{4}$ the width of the thread pitch as described in Specification F1498, Section 4.5 and Figures 2b and 2c.
CM	=	length of male end, bushing,
DJ	=	inside diameter, major, bushing,
EJ	=	wall thickness of socket, major, bushing; wall thickness of male end, bushing,
EN	=	wall thickness of socket, minor, bushing,
EW	=	radius on socket entrance,
EX	=	thickness with 30° taper on socket entrance; 30° entrance chamfer width, and
EZ	=	thickness with 45° taper on socket entrance; 45° entrance chamfer width.

¹ These symbols are under the jurisdiction of ASTM Committee F17 on Plastic Piping Systems and is the direct responsibility of Subcommittee F17.10 on Fittings. Current edition approved July 1, 2022. Published July 2022. Originally approved in 1968. Last previous edition approved 2013 as D2749 – 13 which was withdrawn March 2022 and reinstated in July 2022. DOI: 10.1520/D2749-22.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

3.2 When there are two different values for one categorical dimension on a fitting, the large one shall be designated with the letter for that category followed by a J meaning major, and the small one shall be designated by the same letter followed by an N meaning minor; for example, on a 45-deg Y-branch, there are two J dimensions, the longer one is designated as JJ and the shorter one as JN. When there are more than two different values for one categorical dimension, they are designated with the proper letter followed by an arabic number; for

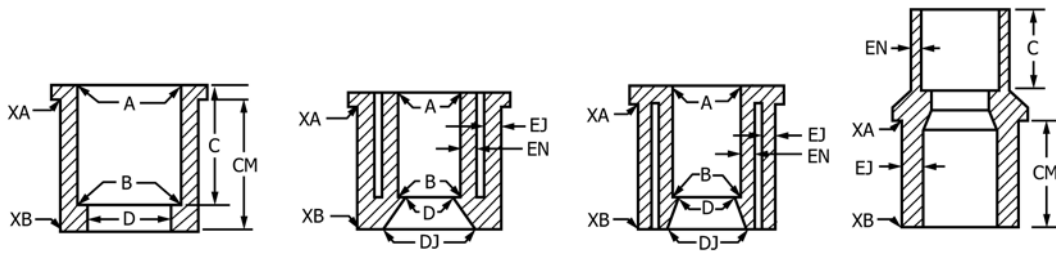


FIG. 1 Reducer Bushings-Socket

example, L1, L2, and L3 for the three lengths on a plastic adapter to connect plastic pipe to a cast iron hub.

4. Illustrations

4.1 Illustrations of typical fittings are shown in Figs. 2-22.

5. Keywords

5.1 plastic pipe fitting; symbol definitions; symbols for dimensions

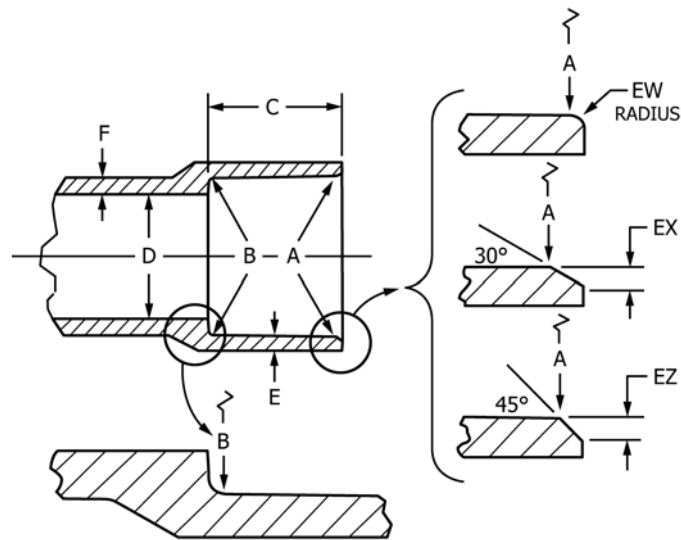


FIG. 2 Tapered Socket