PG-27.4.3 Any additive thickness represented by the general term C may be considered to be applied on the outside, the inside, or both. It is the responsibility of the designer using these equations to make the appropriate selection of diameter or radius to correspond to the intended location and magnitude of this added thickness. The pressure- or stress-related terms in the formula should be evaluated using the diameter (or radius) and the remaining thickness which would exist if the "additive" thickness had not been applied or is imagined to have been entirely removed.

The values of C below do not include any allowance for corrosion and/or erosion, and additional thickness should be provided where they are applicable. Likewise, this allowance for threading and minimum structural stability is not intended to provide for conditions of misapplied external loads or for mechanical abuse.

Threaded Pipe [Note (1)]	Value of C, in. (mm) [Note (2)]
$D \leq \frac{3}{4}$ in. (19 mm) nominal	0.065 (1.65)
$D > \frac{3}{4}$ in. (19 mm) nominal	Depth of thread h [Note (3)]

NOTES:
(1) Steel or nonferrous pipe lighter than Schedule 40 of ASME B36.10M, Welded and Seamless Wrought Steel Pipe, shall not be threaded.
(2) The values of C stipulated above are such that the actual stress due to internal pressure in the wall of the pipe is no greater than the values of S given in Section II, Part D, Subpart 1, Table 1A, as applicable in the equations.
(3) The depth of thread h in in. (mm) may be determined from the formula $h = 0.8/n$ ($h = 20/n$), where n is the number of threads per inch (25 mm) or from the following:

n	h
8	0.100 (2.5)
$11\frac{1}{2}$	0.0696 (1.77)

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e = 0.04 (1.0) over a length at least equal to the length of the seat plus 1 in. (25 mm) for tubes expanded into tube seats, except

  = 0 for tubes expanded into tube seats provided the thickness of the tube ends over a length of the seat plus 1 in. (25 mm) is not less than the following:

    (a) 0.095 in. (2.41 mm) for tubes $1\frac{1}{4}$ in. (32 mm) O.D. and smaller

    (b) 0.105 in. (2.67 mm) for tubes above $1\frac{1}{4}$ in. (32 mm) O.D. and up to 2 in. (50 mm) O.D., incl.

    (c) 0.120 in. (3.05 mm) for tubes above 2 in. (50 mm) O.D. and up to 3 in. (75 mm) O.D., incl.

    (d) 0.135 in. (3.43 mm) for tubes above 3 in. (76 mm) O.D. and up to 4 in. (100 mm) O.D., incl.

    (e) 0.150 in. (3.81 mm) for tubes above 4 in. (100 mm) O.D. and up to 5 in. (125 mm) O.D., incl.

  = 0 for tubes strength-welded to tubesheets, headers, and drums. Strength-welded tubes shall comply with the minimum weld sizes of PW-16.

PG-27.4.5 While the thickness given by the formula is theoretically ample to take care of both bursting pressure and material removed in threading, when steel pipe is threaded and used for steam pressures of 250 psi (1.7 MPa) and over, it shall be seamless and of a weight at least equal to Schedule 80 in order to furnish added mechanical strength.

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y = a coefficient having values as follows:

Value of T_{TD} [Note (1)]	Values of y [Note (2)]		
	$y = 0.4$	$y = 0.5$	$y = 0.7$
$T_{TD} \leq 900°F$ (480°C)	DT $\leq$ 900°F (480°C)	DT = 950°F (510°C)	DT $\geq$ 1,000°F (540°C)
$T_{TD} > 900°F$ (480°C)	DT $\leq T_{TD}$	DT = T_{TD} + 50°F (28°C)	DT $\geq T_{TD}$ + 100°F (56°C)

GENERAL NOTE: DT = design temperature

NOTES:
(1) T_{TD} = the lowest lowest temperature value listed in the maximum allowable stress tables from Section II, Part D [see Notes – Time–Dependent Properties for respective table] at which the allowable stress values are obtained from time-dependent properties.
(2) Values of y between temperatures listed may be determined by interpolation.

Values of y between temperatures listed may be determined by interpolation. For nonferrous materials not listed, $y = 0.4$.

PG-27.4.7 If pipe is ordered by its nominal wall thickness, as is customary in trade practice, the manufacturing tolerance on wall thickness must be taken into account. After the minimum pipe wall thickness t is determined by the formula, this minimum thickness shall be increased by an amount sufficient to provide the maximum manufacturing tolerance allowed in the applicable pipe specification. The next heavier commercial wall thickness may then be selected from Standard thickness schedules as contained in ASME B36.10M. The manufacturing tolerances are given in the several pipe specifications listed in PG-9.

PG-27.4.8 When computing the allowable pressure for a pipe of a definite minimum wall thickness, the value obtained by the equations may be rounded up to the next higher unit of 10 psi (0.1 MPa).

PG-27.4.9 The maximum allowable working pressure P need not include the hydrostatic head loading, PG-22, when used in this equation.