

**TOLERANCES A-513 Type 2**  
**WELDED MECHANICAL STEEL TUBE**  
**As-Welded Round Cold Rolled Electric Weld (CREW)**

**DIAMETER TOLERANCES**

OUTSIDE DIAMETER SIZE RANGE INCHES	WALL THICKNESS		OUTSIDE DIAMETER TOLERANCE, INCHES	
	BWG	INCHES	PLUS	MINUS
1/4 TO 3/8 INCH	22 to 14	.028 to .083	.0025	.0025
Over 3/8 to 5/8, incl	22 to 16	.028 to .065	.003	.003
Over 3/8 to 5/8, incl	14 to 12	.083 to .109	.003	.003
Over 5/8 to 1-1/8, incl	22 to 14	.028 to .083	.0035	.0035
Over 5/8 to 1-1/8, incl	13 to 11	.095 to .120	.0035	.0035
Over 1-1/8 to 2, incl	22 to 14	.028 to .083	.005	.005
Over 1-1/8 to 2, incl	13 to 9	.095 to .148	.005	.005
Over 2 to 2-1/2, inc.	20 to 14	.035 to .083	.006	.006
Over 2 to 2-1/2, incl	13 to 9	.095 to .148	.006	.006
Over 2-1/2 to 3, incl	20 to 18	.035 to .049	.008	.008
Over 2-1/2 to 3, incl	16 to 9	.065 to .148	.008	.008
Over 3 to 3-1/2, incl	20 to 9	.035 to .148	.009	.009
Over 3-1/2 to 4, incl	20 to 8	.035 to .165	.010	.010
Over 4 to 5, incl	16 to 14	.065 to .083	.020	.020
Over 4 to 5, incl	13 to 8	.095 to .165	.015	.015
Over 5 to 6, incl	16 to 8	.065 to .165	.020	.020

NOTE 1 - Measurements for diameter are to be taken at least 2 inches from the ends of the tubes.

NOTE 2 - OVALITY shall be within the above tolerances except when the wall thickness is less than 3% of the outside diameter, in such cases the ovality may be 50 percent greater than the outside tolerances but the mean outside diameter shall be within the specified tolerances.

**WALL TOLERANCES**

WALL THICKNESS		OUTSIDE DIAMETER, INCHES									
INCHES	BWG	3/4 to 1, incl		OVER 1 to 1-15/16 incl		OVER 1-15/16 to 3-3/4 incl		OVER 3-3/4 to 4-1/2, incl		OVER 4-1/2 to 8, incl	
		WALL THICKNESS TOLERANCES, INCHES									
		Plus	Minus	Plus	Minus	Plus	Minus	Plus	Minus	Plus	Minus
.028	22	.001	.005	.001	.005	-	-	-	-	-	-
.035	20	.002	.005	.001	.005	.001	.005	-	-	-	-
.049	18	.003	.006	.002	.006	.002	.006	-	-	-	-
.065	16	.005	.007	.004	.007	.004	.007	.004	.007	.004	.007
.083	14	.006	.007	.005	.007	.004	.007	.004	.007	.004	.007
.095	13	.006	.007	.005	.007	.004	.007	.004	.007	.004	.008
.109	12	-	-	.006	.008	.005	.008	.005	.008	.005	.009
.120	11	-	-	.007	.008	.006	.008	.005	.008	.005	.009
.134	10	-	-	.007	.008	.006	.008	.005	.008	.005	.009

**GENERAL AND TECHNICAL INFORMATION**