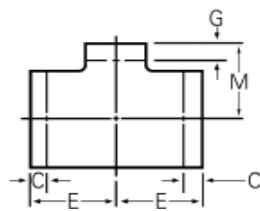
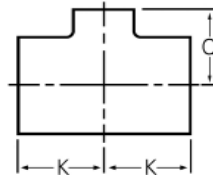


# Copper-Nickel Butt Welding Fittings

## Reducing Tees - NAVSEA 810-1385880, Revision D



NAVSEA



ANSI B16.9

■ **UNS Designation Numbers:** 90-10 (UNS C70600) and 70-30 (UNS C71500).

■ **Nominal Chemicals 90-10:** Copper 88.6%, Nickel 10.0%, Iron 1.4%.

■ **Nominal Chemicals 70-30:** Copper 69.5%, Nickel 30.0%, Iron 0.5%.

Nominal Pipe Size	OD		K	M	C (Min)	G (Min)	E	Q	Nominal Wall	Weight	90-10 Part Number	70-30 Part Number	
1 1/4 x 1 1/4 x 3/4	1.66	x 1.66	x 1.05	1 7/8	1 11/16	9/16	13/32	1 7/8	1 7/8	.072	.4	259366	478211
x 1			x 1.315	1 7/8	1 3/4	9/16	7/16	1 7/8	1 7/8	.072	.4	265511	478237
1 1/2 x 1 1/2 x 1/2	1.90	x 1.90	x .840	2 1/4	1 3/4	11/16	3/8	2 1/4	2 1/4	.072	.6	231041	478245
x 3/4			x 1.05	2 1/4	1 13/16	11/16	13/32	2 1/4	2 1/4	.072	.6	259358	478853
x 1			x 1.315	2 1/4	1 7/8	11/16	7/16	2 1/4	2 1/4	.072	.6	265529	478279
x 1 1/4			x 1.66	2 1/4	2	11/16	1/2	2 1/4	2 1/4	.072	.6	127616	478287
2 x 2 x 1/2	2.375	x 2.375	x .840	2 1/2	1 15/16	23/32	3/8	2 1/2	1 3/4	.083	.8	127674	478300
x 3/4			x 1.05	2 1/2	2	23/32	13/32	2 1/2	1 3/4	.083	.8	249345	478326
x 1			x 1.315	2 1/2	2 1/16	23/32	7/16	2 1/2	2	.083	.8	127682	478342
x 1 1/4			x 1.66	2 1/2	2 3/16	23/32	1/2	2 1/2	2 1/4	.083	.8	127705	478350
x 1 1/2			x 1.90	2 1/2	2 7/16	23/32	5/8	2 1/2	2 1/4	.083	1	127721	478376
2 1/2 x 2 1/2 x 1	2.875	x 2.875	x 1.315	3	2 5/16	7/8	7/16	3	2 1/4	.083	1	127763	473148
x 1 1/4			x 1.66	3	2 7/16	7/8	1/2	3	2 1/2	.083	1	231059	468232
x 1 1/2			x 1.90	3	2 11/16	7/8	5/8	3	2 5/8	.083	1.5	127789	420242
x 2			x 2.375	3	2 3/4	7/8	21/32	3	2 3/4	.083	1.5	127802	478392
3 x 3 x 1/2	3.5	x 3.5	x .840	3 3/8	2 1/2	29/32	3/8	3 3/8	2 1/2	.095	2	127886	478407
x 3/4			x 1.05	3 3/8	2 9/16	29/32	13/32	3 3/8	2 9/16	.095	2	127909	478423
x 1			x 1.315	3 3/8	2 5/8	29/32	7/16	3 3/8	2 5/8	.095	2	127925	473164
x 1 1/4			x 1.66	3 3/8	2 3/4	29/32	1/2	3 3/8	2 3/4	.095	2	127941	478431
x 1 1/2			x 1.90	3 3/8	3	29/32	5/8	3 3/8	2 7/8	.095	2	127967	473122
x 2			x 2.375	3 3/8	3 1/16	29/32	21/32	3 3/8	3	.095	2	127983	266737
x 2 1/2			x 2.875	3 3/8	3 5/16	29/32	25/32	3 3/8	3 1/4	.095	2	128002	473130
3 1/2 x 3 1/2 x 1 1/2	4	x 4	x 1.90	3 3/4	3 1/4	15/16	5/8	3 3/4	3 1/8	.095	3	128060	478465
x 2			x 2.375	3 3/4	3 5/16	15/16	21/32	3 3/4	3 1/4	.095	3	243080	478481
x 2 1/2			x 2.875	3 3/4	3 9/16	15/16	21/32	3 3/4	3 1/2	.095	3	128044	478504
x 3			x 3.5	3 3/4	3 11/16	15/16	21/32	3 3/4	3 5/8	.095	4	128086	478512
4 x 4 x 1 1/2	4.5	x 4.5	x 1.90	4 1/8	3 1/2	31/32	5/8	4 1/8	3 3/8	.109	4	128125	128141
x 2			x 2.375	4 1/8	3 9/16	31/32	21/32	4 1/8	3 1/2	.109	4	128167	478538
x 2 1/2			x 2.875	4 1/8	3 13/16	31/32	25/32	4 1/8	3 3/4	.109	4	128183	413601
x 3			x 3.5	4 1/8	3 15/16	31/32	27/32	4 1/8	3 7/8	.109	4	128206	478554
x 3 1/2			x 4	4 1/8	4	31/32	7/8	4 1/8	4	.109	4.5	111607	478570
5 x 5 x 2	5.56	x 5.56	x 2.375	4 7/8	4 5/16	1 3/32	21/32	4 7/8	4 1/8	.125	7	128832	478596
x 2 1/2			x 2.875	4 7/8	4 3/8	1 3/32	25/32	4 7/8	4 1/4	.125	7	128816	478619
x 3			x 3.50	4 7/8	4 7/16	1 3/32	27/32	4 7/8	4 3/8	.125	7	128793	478635
x 3 1/2			x 4.00	4 7/8	4 9/16	1 3/32	7/8	4 7/8	4 1/2	.125	7	128777	292924
x 4			x 4.50	4 7/8	4 5/8	1 3/32	29/32	4 7/8	4 5/8	.125	7.5	132611	478651

Sizes and reductions not shown are available on request. Dimensions are in inches. All weights are approximate. Specifications: pg. 60. Tolerances: pg. 58.

Sizes not shown may be available upon request.

Available in "regular" thickness (similar to Schedule 40s).

## Copper-Nickel Butt Welding Fittings

### Reducing Tees - NAVSEA 810-1385880, Revision D (continued)

Nominal Pipe Size	OD	K	M	C (Min)	G (Min)	E	Q	Nominal Wall	Weight	90-10 Part Number	70-30 Part Number	
6 x 6	x 2	6.625 x 6.625 x 2.375	5 5/8	4 13/16	1 11/64	21/32	5 5/8	4 3/4	.134	10	231033	478669
	x 2 1/2	x 2.875	5 5/8	5 1/16	1 11/64	25/32	5 5/8	4 3/4	.134	10	128670	478685
	x 3	x 3.5	5 5/8	5	1 11/64	27/32	5 5/8	4 7/8	.134	10	128696	478708
	x 3 1/2	x 4.0	5 5/8	5 1/16	1 11/64	7/8	5 5/8	5	.134	10	128719	478716
	x 4	x 4.5	5 5/8	5 1/8	1 11/64	29/32	5 5/8	5 1/8	.134	10.5	128735	111746
	x 5	x 5.562	5 5/8	5 3/8	1 11/64	1 1/32	5 5/8	5 3/8	.134	11	128751	259502
8 x 8	x 2 1/2	8.625 x 8.625 x 2.875	7	5 7/8	1 3/8	25/32	7	6	.148	20	128638	478724
	x 3	x 3.5	7	6	1 3/8	27/32	7	6	.148	20	272958	466793
	x 3 1/2	x 4	7	6 1/16	1 3/8	7/8	7	6	.148	20	128468	478732
	x 4	x 4.5	7	6 1/8	1 3/8	29/32	7	6 1/8	.148	20.5	128442	471683
	x 5	x 5.562	7	6 3/8	1 3/8	1 1/32	7	6 3/8	.148	21	128426	406599
	x 6	x 6.625	7	6 9/16	1 3/8	1 1/8	7	6 5/8	.148	21.5	128400	454649
10 x 10	x 3	10.75 x 10.75 x 3.5	8 1/2	7 1/16	1 9/16	27/32	8 1/2	7 1/4	.187	41	231025	478740
	x 4	x 4.5	8 1/2	7 3/16	1 9/16	29/32	8 1/2	7 1/4	.187	41	128573	259497
	x 5	x 5.562	8 1/2	7 7/16	1 9/16	1 1/32	8 1/2	7 1/2	.187	42	128531	462244
	x 6	x 6.625	8 1/2	7 5/8	1 9/16	1 1/8	8 1/2	7 5/8	.187	43	128557	439071
	x 8	x 8.625	8 1/2	8	1 9/16	1 5/16	8 1/2	8	.187	44	128387	478758
12 x 12	x 5	12.75 x 12.75 x 5.562	10	8 7/16	1 11/16	1 1/32	10	8 1/2	.250	74	128612	478766
	x 6	x 6.625	10	8 5/8	1 11/16	1 1/8	10	8 5/8	.250	76	128599	478774
	x 8	x 8.625	10	9	1 11/16	1 5/16	10	9	.250	78	128361	478782
	x 10	x 10.75	10	9 3/8	1 11/16	1 1/32	10	9 1/2	.250	81	128345	473009
14 x 14	x 6	14 x 14 x 6.625	11	9 3/8	1 1/2	1 1/8	11	9 3/8	.250	80	461921	478805
	x 8	x 8.625	11	9 3/4	1 1/2	1 5/16	11	9 3/4	.250	82	437998	478813
	x 10	x 10.75	11	10 1/8	1 1/2	1 1/2	11	10 1/8	.250	84	436722	478839
	x 12	x 12.75	11	10 5/8	1 1/2	1 1/8	11	10 5/8	.250	86	436730	478855
16 x 16	x 8	16 x 16 x 8.625	12	10 3/4	1 1/2	1 5/16	12	10 3/4	.250	102	478889	478902
	x 10	x 10.75	12	11 1/8	1 1/2	1 1/2	12	11 1/8	.250	105	445632	473449
	x 12	x 12.75	12	11 5/8	1 1/2	1 5/16	12	11 5/8	.250	107	439089	478928
	x 14	x 14	12	12	1 1/2	1 1/2	12	12	.250	109	293394	478944
18 x 18	x 10	18 x 18 x 10.75	13 1/2	12 1/8	1 1/2	1 1/2	13 1/2	12 1/8	.250	127	562264	
	x 12	x 12.75	13 1/2	12 5/8	1 1/2	1 5/8	13 1/2	12 5/8	.250	130		
	x 14	x 14	13 1/2	13	1 1/2	1 1/2	13 1/2	13	.250	133		
	x 16	x 16	13 1/2	13	1 1/2	1 1/2	13 1/2	13	.250	135		
20 x 20	x 12	20 x 20 x 12.75	15	13 5/8	1 1/2	1 5/8	15	13 5/8	.250	153		
	x 14	x 14	15	14	1 1/2	1 1/2	15	14	.250	156		
	x 16	x 16	15	14	1 1/2	1 1/2	15	14	.250	158		
	x 18	x 18	15	14 1/2	1 1/2	1 1/2	15	14 1/2	.250	160	469018	
24 x 24	x 14	24 x 24 x 14	17	16	1 1/2	1 1/2	17	16	.250	204		
	x 16	x 16	17	16	1 1/2	1 1/2	17	16	.250	208		
	x 18	x 18	17	16 1/2	1 1/2	1 1/2	17	16 1/2	.250	211		
	x 20	x 20	17	17	1 1/2	1 1/2	17	17	.250	214		
30 x 30	x 18	30 x 30 x 18	22	19 1/2	1 1/2	1 1/2	22	19 1/2	.250	256		
	x 20	x 20	22	20	1 1/2	1 1/2	22	20	.250	261		
	x 24	x 24	22	21	1 1/2	1 1/2	22	21	.250	267		
36 x 36	x 20	36 x 36 x 20	26 1/2	23	1 1/2	1 1/2	26 1/2	23	.250	306		
	x 24	x 24	26 1/2	24	1 1/2	1 1/2	26 1/2	24	.250	314		
	x 30	x 30	26 1/2	25	1 1/2	1 1/2	26 1/2	25	.250	322		

Note: Sizes and reductions not shown are available. Dimensions are in inches. All weights are approximate. Specifications: pg. 60. Tolerances: pg. 58.

Sizes not shown may be available upon request. Available in "regular" thickness (similar to Schedule 40s).

\* ANSI B16.9 dimensions. For sizes 26" and larger, outlet dimension "K" is recommended, but not mandatory.