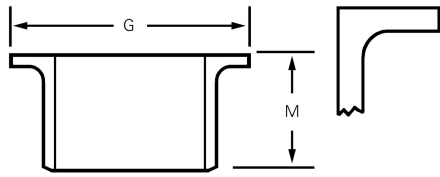
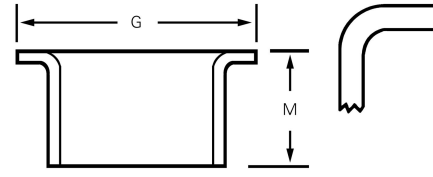


Copper-Nickel Stub Ends & Bosses

Lap-Joint Stub Ends



Type A



Type C

Nominal Pipe Size	OD	Class 200 Nominal Wall	Weight	Length M	Lap Diameter G	Type C 90-10 Part Number
1/2	.840	.065	.1	2	1 3/8	416471
3/4	1.05	.065	.2	2	1 11/16	415093
1	1.31	.065	.2	2	2	267115
1 1/4	1.66	.072	.3	2	2 1/2	267123
1 1/2	1.90	.072	.4	2	2 7/8	267131
2	2 3/8	.083	.6	2 1/2	3 5/8	266648
2 1/2	2 7/8	.083	.7	2 1/2	4 1/8	267149
3	3 1/2	.095	1	2 1/2	5	267157
3 1/2	4	.095	2	3	5 1/2	415085
4	4 1/2	.109	2	3	6 3/16	267165
5	5 9/16	.125	3	3	7 5/16	406719
6	6 5/8	.134	4	3 1/2	8 1/2	414487
8	8 5/8	.148	7	4	10 5/8	433863
10	10 3/4	.187	14	5	12 3/4	434209
12	12 3/4	.250	26	6	15	497752
	14	.250		6	16 1/4	435182
	16	.250		6	18 1/2	
	18	.250		6	21	562272
	20	.250		6	23	
	22	.250		6	25 1/4	
	24	.250		6	27 1/4	

Specifications: pg. 60. Tolerances: pg. 58.

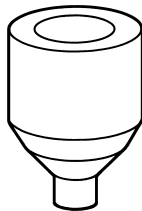
Dimension M per MSS SP-43 and ASME B16.9 (short pattern).

Sizes and lengths not shown are available upon request.

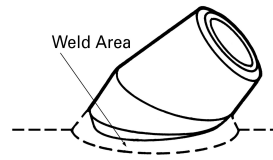
Bosses



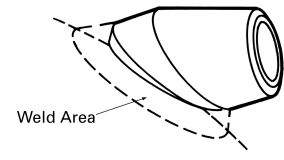
Straight Piping Outlet



NAVSEA Outlet
DWG 810-1385912



Lateral Outlet



Elbow Outlet

- Boss outlets offer a recommended method of installing outlets on piping systems, tanks and other fabrications.
- Bosses provide a contoured internal joint with a gradual transition from header to branch allowing full penetration welds while reducing installation costs over tees or other nozzle connections.
- Boss outlets can be supplied with threaded, socket welding or butt welding ends. Socket welding ends can be grooved for pre-installed sil-braze rings per MIL-F-1183.
- Bosses can be manufactured to non-standard dimensions or alloys and are available in full and reducing sizes.