

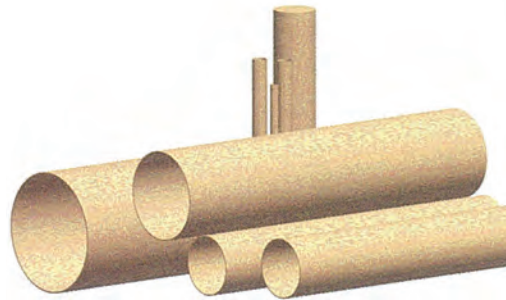
Pipes - European Standards

10 Bar

14 Bar

16 Bar

20 Bar



Material : CuNi 90/10 (CuNi 10Fe1Mn) | CuNi 70/30 (CuNi 30Fe1Mn)

Outside Diameter of Pipe - ØD		BS / DIN				EEMUA 144			
		10 Bar		14 Bar		16 Bar		20 Bar	
Nominal (Inch)	Actual (mm)	Wall Thickness Actual (mm)	Theoretical Weight (Kg/ m)	Wall Thickness Actual (mm)	Theoretical Weight (Kg/ m)	Wall Thickness Actual (mm)	Theoretical Weight (Kg/ m)	Wall Thickness Actual (mm)	Theoretical Weight (Kg/ m)
SEAMLESS									
1/2	16	1.0	0.42	1.0	0.42	2.0	0.79	2.0	0.79
1/2	20	1.0	0.53	1.0	0.53	-	-	-	-
3/4	25	1.5	0.99	1.5	0.99	2.0	1.30	2.0	1.30
1	30	1.5	1.20	2.0	1.60	2.5	1.93	2.5	1.93
1¼	38	1.5	1.54	2.0	2.05	2.5	2.50	2.5	2.50
1½	44.5	1.5	1.81	2.0	2.41	2.5	2.95	2.5	2.95
2	57	1.5	2.34	2.0	3.12	2.5	3.83	2.5	3.83
2½	76.1	2.0	4.16	2.0	4.16	2.5	5.17	2.5	5.17
3	88.9	2.0	4.88	2.5	6.07	2.5	6.07	2.5	6.07
4	108	2.5	7.41	2.5	7.41	3.0	8.85	3.0	8.85
5	133	2.5	9.16	3.0	10.95	3.0	10.95	3.0	10.95
6	159	2.5	10.99	3.0	13.14	3.0	13.14	3.5	15.29
7	193.7	2.5	13.43	3.5	18.70	3.0	16.07	3.5	18.70
8	219.1	3.0	18.21	3.5	21.19	4.0	24.17	4.5	27.12
10	267	3.0	22.24	4.0	29.55	4.5	33.18	5.5	40.39
12	323.9	4.0	35.94	5.0	44.78	5.5	49.18	7.0	62.30
SEAMLESS OR SEAM WELDED									
14	368	4.0	40.89	5.5	56.00	6.5	65.99	8.0	80.89
16	419.1	4.0	46.62	6.0	69.60	7.0	81.00	9.0	103.64
18	457.2	4.0	50.91	6.0	76.03	8.0	100.93	9.5	119.45
20	508	4.5	63.63	6.5	91.55	8.5	119.24	11	153.54
SEAM WELDED									
24	610	5.0	84.96	8.0	135.26	10.5	176.79	13.0	217.97
28	711	6.0	118.80	9.0	177.45	12.0	235.58	15.0	293.22
32	813	6.0	135.99	10.0	225.53	13.5	303.14	17.0	380.06
36	914	8.0	203.57	11.0	278.98	15.5	391.14	19.0	477.60

* Other wall thicknesses are also available upon request.



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Pipes - U.S. Standards

10 Bar

14 Bar

16 Bar

20 Bar

Material : CuNi 90/10
 SEAMLESS ASTM B 466 Alloy UNS C70600
 SEAM WELDED ASTM B 467 Alloy UNS C70600

CuNi 70/30
 SEAMLESS ASTM B 466 Alloy UNS C71500
 SEAM WELDED ASTM B 467 Alloy UNS C71500

Dimension : ANSI / ASME B36.10M

Outside Diameter of Pipe - ØD			Schedule 5S				Schedule 10S			
Nominal (Inch)	Actual (Inch)	Actual (mm)	Wall Thickness		Theoretical Weight		Wall Thickness		Theoretical Weight	
			Actual (Inch)	Actual (mm)	Lb/ Ft	Kg/ m	Actual (Inch)	Actual (mm)	Lb/ Ft	Kg/ m
SEAMLESS										
1/8	0.405	10.29	-	-	-	-	0.049	1.24	0.19	0.28
1/4	0.540	13.72	-	-	-	-	0.065	1.65	0.33	0.49
3/8	0.675	17.15	-	-	-	-	0.065	1.65	0.42	0.63
1/2	0.840	21.34	0.065	1.65	0.54	0.80	0.083	2.11	0.67	1.00
3/4	1.050	26.67	0.065	1.65	0.69	1.03	0.083	2.11	0.86	1.28
1	1.315	33.40	0.065	1.65	0.87	1.30	0.109	2.77	1.40	2.09
1¼	1.660	42.16	0.065	1.65	1.11	1.65	0.109	2.77	1.81	2.70
1½	1.900	48.27	0.065	1.65	1.28	1.91	0.109	2.77	2.09	3.11
2	2.375	60.32	0.065	1.65	1.61	2.40	0.109	2.77	2.64	3.93
2½	2.875	73.03	0.083	2.11	2.48	3.69	0.120	3.05	3.53	5.26
3	3.500	88.90	0.083	2.11	3.03	4.51	0.120	3.05	4.33	6.45
3 1/2	4.000	101.60	0.083	2.11	3.48	5.18	0.120	3.05	4.97	7.40
4	4.500	114.30	0.083	2.11	3.92	5.84	0.120	3.05	5.61	8.36
5	5.563	141.30	0.109	2.77	6.36	9.47	0.134	3.40	7.77	11.57
6	6.625	168.30	0.109	2.77	7.60	11.32	0.134	3.40	9.29	13.84
8	8.625	219.10	0.109	2.77	9.93	14.79	0.148	3.76	13.40	19.96
10	10.750	273.05	0.134	3.40	15.19	22.63	0.165	4.19	18.65	27.78
12	12.750	323.90	0.156	3.96	20.98	31.25	0.180	4.57	24.17	36.00

Outside Diameter of Pipe - ØD			Schedule 40S				Schedule 80S			
Nominal (Inch)	Actual (Inch)	Actual (mm)	Wall Thickness		Theoretical Weight		Wall Thickness		Theoretical Weight	
			Actual (Inch)	Actual (mm)	Lb/ Ft	Kg/ m	Actual (Inch)	Actual (mm)	Lb/ Ft	Kg/ m
SEAMLESS										
1/8	0.405	10.29	0.068	1.73	0.24	0.37	0.095	2.41	0.31	0.47
1/4	0.540	13.72	0.088	2.24	0.42	0.63	0.119	3.02	0.54	0.80
3/8	0.675	17.15	0.091	2.31	0.57	0.84	0.126	3.20	0.74	1.10
1/2	0.840	21.34	0.109	2.77	0.85	1.27	0.147	3.73	1.09	1.62
3/4	1.050	26.67	0.113	2.87	1.13	1.69	0.154	3.91	1.47	2.20
1	1.315	33.40	0.133	3.38	1.68	2.50	0.179	4.55	2.17	3.24
1¼	1.660	42.16	0.140	3.56	2.27	3.39	0.191	4.85	3.00	4.47
1½	1.900	48.27	0.145	3.68	2.72	4.05	0.200	5.08	3.63	5.41
2	2.375	60.32	0.154	3.91	3.65	5.44	0.218	5.54	5.02	7.48
2½	2.875	73.03	0.203	5.16	5.79	8.63	0.276	7.01	7.66	11.41
3	3.500	88.90	0.216	5.49	7.58	11.29	0.300	7.62	10.25	15.27
3 1/2	4.000	101.60	0.226	5.74	9.11	13.57	0.318	8.08	12.51	18.63
4	4.500	114.30	0.237	6.02	10.79	16.07	0.337	8.56	14.98	22.32
5	5.563	141.30	0.258	6.55	14.62	21.77	0.375	9.53	20.78	30.97
6	6.625	168.30	0.280	7.11	18.97	28.26	0.432	10.97	28.57	42.56
8	8.625	219.10	0.322	8.18	28.55	42.55	0.500	12.70	43.39	64.64
10	10.750	273.05	0.365	9.27	40.48	60.31	0.500	12.70	54.74	96.01
12	12.750	323.90	0.375	9.53	49.56	73.88	0.500	12.70	65.42	132.08

* Other dimensions, wall thicknesses and outside diameters as well as all relevant flanges, butt weld and machined fittings are also available upon request.

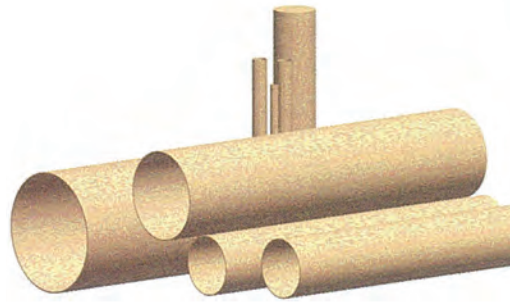


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Pipes - U.S. Navy Standards



Material : CuNi 90/10
MIL-T-16420K Alloy 706 (90/10)
US Navy Specification

CuNi 70/30
MIL-T-16420K Alloy 715 (70/30)
US Navy Specification

Outside Diameter of Pipe - ØD			Class 200				Class 700			
			Minimum Wall Thickness		Theoretical Weight		Minimum Wall Thickness		Theoretical Weight	
Nominal (Inch)	Actual (Inch)	Actual (mm)	Actual (Inch)	Actual (mm)	Lb/ Ft	Kg/ m	Actual (Inch)	Actual (mm)	Lb/ Ft	Kg/ m
SEAMLESS										
-	0.250	6.35	0.035	0.89	0.09	0.14	-	-	-	-
-	0.500	12.70	0.035	0.89	0.20	0.29	0.065	1.65	0.34	0.51
1/8	0.540	13.72	0.065	1.65	0.38	0.56	0.065	1.65	0.38	0.56
3/8	0.675	17.15	0.065	1.65	0.48	0.72	0.072	1.83	0.53	0.79
1/2	0.840	21.34	0.065	1.65	0.61	0.91	0.072	1.83	0.67	1.00
3/4	1.050	26.67	0.065	1.65	0.78	1.16	0.083	2.11	0.98	1.45
1	1.315	33.40	0.065	1.65	0.99	1.47	0.095	2.41	1.41	2.10
1¼	1.660	42.16	0.072	1.83	1.39	2.07	0.095	2.41	1.81	2.69
1½	1.900	48.27	0.072	1.83	1.60	2.39	0.109	2.77	2.38	3.54
2	2.375	60.32	0.083	2.11	2.32	3.45	0.120	3.05	3.30	4.91
2½	2.875	73.03	0.083	2.11	2.82	4.20	0.134	3.40	4.47	6.65
3	3.500	88.90	0.095	2.41	3.93	5.85	0.165	4.19	6.70	9.97
3 1/2	4.000	101.60	0.095	2.41	4.51	6.71	0.180	4.57	8.37	12.45
4	4.500	114.30	0.109	2.77	5.83	8.68	0.203	5.15	10.61	15.78
-	5.000	127.00	0.120	3.05	7.14	10.62	0.203	5.15	11.84	17.62
5	5.563	141.30	0.125	3.18	8.29	12.34	0.220	5.59	14.32	21.30
6	6.625	168.30	0.134	3.40	10.58	15.75	0.259	6.58	20.08	29.89
-	7.625	193.70	0.134	3.40	12.21	18.17	0.284	7.21	25.38	37.76
8	8.625	219.10	0.148	3.76	15.28	22.74	0.340	8.64	34.32	51.07
-	9.625	244.48	0.187	4.75	21.49	31.98	0.340	8.64	38.46	57.23
10	10.750	273.05	0.187	4.75	24.05	35.79	0.380	9.65	47.96	71.37
12	12.750	323.90	0.250	6.35	38.05	56.63	0.454	11.53	67.97	101.15
Class 50										
SEAMLESS OR SEAM WELDED										
14	14.000	355.60	0.165	4.19	27.78	41.35	0.473	12.01	77.90	115.87
-	15.000	381.00	-	-	-	-	0.503	12.77	88.80	132.04
16	16.000	406.40	0.165	4.19	31.80	47.32	0.534	13.56	101.00	149.58
18	18.000	457.20	0.180	4.57	39.03	58.10	-	-	-	-
20	20.000	508.20	0.180	4.57	43.41	64.62	-	-	-	-
SEAM WELDED										
22	22.000	558.80	0.180	4.57	47.80	71.12	-	-	-	-
-	22.750	577.85	0.180	4.57	49.50	73.57	-	-	-	-
30	30.000	762.00	0.250	6.35	90.54	134.77	-	-	-	-
40	40.000	1016.00	0.312	7.92	150.70	224.19	-	-	-	-

* Special classes, class 1650, class 3300 and class 6000 as well as all relevant flanges, butt weld and machined fittings are also available upon request.

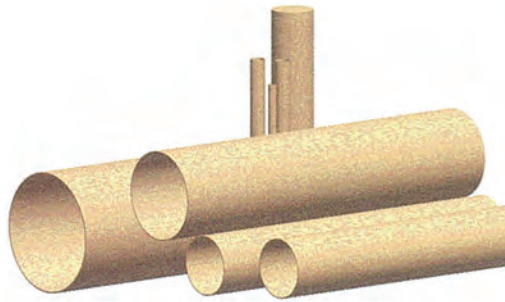


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Japanese Maritime Specification



Material : CuNi 90/10 | CuNi 70/30
 JIS H 3300 Alloy C7060 T or TS | JIS H 3300 Alloy C7150 T or TS

Nominal Diameter		Metric Size			Navy Dimension Inch Size						M.M. (NDS) Size		
					5 K			10 K					
M/M	Inch	Outside Diam. (mm)	Wall Thick. (mm)	Theore. Weight (Kg/m)	Outside Diam. (mm)	Wall Thick. (mm)	Theore. Weight (Kg/m)	Outside Diam. (mm)	Wall Thick. (mm)	Theore. Weight (Kg/m)	Outside Diam. (mm)	Wall Thick. (mm)	Theore. Weight (Kg/m)
SEAMLESS													
6 A	1/8	-	-	-	-	-	-	6.35	0.89	0.14	-	-	-
10 A	3/8	16	1.0	0.42	-	-	-	12.71	0.89	0.29	15	1.5	0.57
15 A	1/2	20	1.0	0.53	15.14	1.21	0.47	15.14	1.65	0.62	20	1.5	0.78
20 A	3/4	25	1.5	0.99	21.49	1.21	0.69	21.49	1.65	0.92	25	1.5	0.99
25 A	1	30	1.5	1.20	28.25	1.42	1.07	28.25	1.65	1.23	30	1.5	1.20
32 A	1¼	38	1.5	1.54	34.60	1.42	1.32	34.60	1.65	1.53	38	2.0	2.02
40 A	1½	44.5	1.5	1.81	40.95	1.42	1.58	40.95	1.83	2.01	45	2.0	2.41
50 A	2	57	1.5	2.34	54.05	1.62	2.39	54.05	2.11	3.08	55	2.0	2.98
65 A	2½	76.1	2.0	4.16	66.75	1.62	2.96	66.75	2.41	4.35	70	2.0	3.82
80 A	3	88.9	2.5	6.07	79.86	1.82	3.99	79.86	2.41	5.24	85	3.0	6.91
90 A	3 1/2	-	-	-	-	-	-	-	-	-	95	3.0	7.75
100 A	4	108	2.5	7.41	106.27	2.33	6.80	106.27	2.77	8.05	110	3.0	9.02
125 A	5	133	2.5	9.16	131.67	2.33	8.46	131.67	3.18	11.47	130	3.0	10.70
150 A	6	159	2.5	10.99	157.68	2.64	11.49	157.68	3.40	14.73	160	4.0	17.52
175 A	7	-	-	-	-	-	-	-	-	-	180	4.0	19.77
200 A	8	219.1	3.0	18.21	208.48	2.64	15.26	208.48	3.76	21.61	210	4.0	23.14
225 A	-	-	-	-	-	-	-	-	-	-	230	4.0	25.39
250 A	10	267	3.0	22.24	260.50	3.25	23.48	260.50	4.75	34.11	260	4.5	32.29
300 A	12	323.9	4.0	35.94	312.11	3.68	31.87	312.11	6.35	54.52	310	5.5	47.03
350 A	14	368	4.0	40.89	-	-	-	-	-	-	-	-	-
400 A	16	419.1	4.0	46.62	-	-	-	-	-	-	-	-	-
SEAMLESS OR SEAM WELDED													
450 A	18	457.2	4.0	50.91	-	-	-	-	-	-	-	-	-
500 A	20	508	4.5	63.63	-	-	-	-	-	-	-	-	-
SEAM WELDED													
600 A	24	610	5.0	84.96	-	-	-	-	-	-	-	-	-
700 A	28	711	6.0	118.80	-	-	-	-	-	-	-	-	-

* Other dimensions and wall thicknesses are also available upon request.



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