



Common Standards

For Pipes, Fittings and Flanges			
Classification	Pipe	B. W. Fittings	Flanges
Carbon Steels	A 106 Grade A	A 234 Grade WPA	A 105 Grade I
	A 106 Grade B	A 234 Grade WPB	A 105 Grade II
Alloy Steels	A 355 Grade P 1	A 234 Grade WP 1	A 182 Grade F 1
	A 355 Grade P 5	A 234 Grade WP 5	A 182 Grade F 5
	A 355 Grade P 7	A 234 Grade WP 7	A 182 Grade F 7
	A 355 Grade P 9	A 234 Grade WP 9	A 182 Grade F 9
	A 355 Grade P 11	A 234 Grade WP 11	A 182 Grade F 11
	A 355 Grade P 12	A 234 Grade WP 12	A 182 Grade F 12
	A 355 Grade P 22	A 234 Grade WP 22	A 182 Grade F 22
Steels for Low-Temperature Service	A 333 Grade 1	A 420 Grade WPL 1	A 350 Grade LF 1
	A 333 Grade 3	A 420 Grade WPL 3	A 350 Grade LF 3
	A 333 Grade 4	A 420 Grade WPL 4	A 350 Grade LF 4
	A 333 Grade 6	A 420 Grade WPL 6	A 350 Grade LF 6
	A 333 Grade 8	A 420 Grade WPL 8	A 350 Grade LF 8
Stainless Steels	A 312 Grade TP 304	A 403 Grade WP 304	A 182 Grade F 304
	A 312 Grade TP 304H	A 403 Grade WP 304H	A 182 Grade F 304H
	A 312 Grade TP 304L	A 403 Grade WP 304L	A 182 Grade F 304L
	A 312 Grade TP 316	A 403 Grade WP 316	A 182 Grade F 316
	A 312 Grade TP 316H		A 182 Grade F 316H
	A 312 Grade TP 316L	A 403 Grade WP 316L	A 182 Grade F 316L
	A 312 Grade TP 321	A 403 Grade WP 321	A 182 Grade F 321
	A 312 Grade TP 321H	A 403 Grade WP 321H	A 182 Grade F 321H
	A 312 Grade TP 347	A 403 Grade WP 347	A 182 Grade F 347
	A 312 Grade TP 347H	A 403 Grade WP 347H	A 182 Grade F 347H



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Corrosion - Resistant Alloys (CRA)



Grade	DIN Designation	UNS	SS	AFNOR	AISI	BS
1.4005	X 12 CrS 13	S 41600	2380	Z 12 CF 13	416	416 S 21
1.4006	X 10 Cr 13	S 41000	2302	Z12 C 13	410	410 S 21
1.4016	X 6 Cr 17	S 43000	2320	28 C 17	430	430 S 15
1.4021	X 20 Cr 13	S 42000	2303	Z 8 C 17	420	420 S 37
1.4034	X 46 Cr 16		(2304)	Z 20 C13		(420 S 45)
1.4057	X 12 CrNi 172	S 43100	2321	Z 40 C 14	431	431 S 29
1.4104	X 12 CrMoS 17	S 43020	2383	Z 15 Cr162	430F	(441 S 29)
1.4112	X 90 CrMov 18	S 44003		Z 10 CF 17		4408
1.4122	X 35 CrMo 17					
1.4301	X 5 CrNi 18 10	S 30400	2332	Z 6 CN 18.09	304	304 S 15
1.4305	X 10 Cr NiS 18 9	S 30300	2346	Z 10 CNF 18.09	303	303 S 21
1.4306	X 2 CrNi 19 11	S 30403	2352	Z 2 CN 18.09	304L	304 S 12
1.4310	X 12 CrNi 17 7	S 30100	2331	Z 12 CN 17.07	301	
1.4401	X 5 CrNiMo 17 12 2	S31600	2347	Z 6 CND 17.11	316	316 S 16
1.4404	X 2 CrNiMo 17 13 2	S 31603	2348	Z 2 CND 17.12	316L	316 S 12
1.4435	X 2 CrNiMo18 14 3	S 31603	2353	Z 2 CND 17.13	316L	316 S 16
1.4436	X 5 CrNiMo 17 13 3	S 31600	2343	Z 6 CND 17.12	316	317 S 12
1.4438	X2 CrNiMo 18 16 4	S 31703	2367	Z 2 CND 19.15	317L	4 5 2116
1.4439	X 2 CrNiMoN 17 13 5				317LNM	
1.4449	X 5 CrNiMo 17 13	S 31700			317	317 S 12
1.4460	X 8 CrNiMo 27 5	S 32900	2324			329
1.4462	X 2 CrNiMoN 22 5	S 31803		Z 5 CND 21.08		
1.4539	X 2 CrNiMo Cu 25 20 5	N 08904	2562	Z 1 NCDU 25.20		
1.4541	X 6 CrNiTi 18 10	S 32100	2337	Z 6 CNT 18.10	321	321 S 12
1.4550	X 6 CrNiNb 18 10	S 34700	2338	Z 6 CNNB 18.10	347	347 S 17
1.4571	X 6 CrNiMoTi 17 12 2	S 31635	2350	Z 6 CNDT 17.12	316Ti	320 S 17
1.4713	X 10 CrAl 7			Z 8 Ca 7		
1.4724	X 10 CrAl 13					
1.4742	X 10 CrAl 18			Z 10 CAS 18		
1.4762	X 10 CrAl 24	(S44600)	(2322)	Z 10 CAS24	(446)	
1.4821	X 20 CrNiSi 25 4					
1.4828	X 15 CrNiSi 20 12	(S 30900)		Z 15 CNS 20.12	(309)	(309 S 24)
1.4841	X 15 CrNiSi 25 20	S 31400		Z 12 CNS 25.20	314	
1.4845	X 12 CrNi 25 21	S 31008	2361	Z 12 CN 25.20	310S	310 S 24
1.4864	X 12 CrNiSi 36 16	N 08330		(Z 12 NC 37.18)	330	
1.4876	X 10 CrNiAlTi 32 20			Z 8 NC 32.21		3076 NA 15 H
1.4878	X 12 CrNiTi 18 9	S 32100	2337	Z 6 CNT 18.12	321	321 S 20
2.4068	LC Ni 99.2				B 160	
2.4360	Ni Cu 30 Fe				B 164	3076NA 13
2.4375	Ni Cu 30 Al					3076NA 18
2.4610	Ni Mo 16 Cr 16 Ti					3076NA45
2.4816	Ni Cr 15 Fe				B 166	3076Na14
2.4856	Ni Cr 21 Mo					3076NA 43

frente



Designação	UNS#	Tubos	Coleira	Forjados	Chopos	Barros	Fundidos
1/2 Chrome	K11597	A335 A691	A234	A182 A336	A387	A182 A739	A182 A739
2 1/2 Chrome	K21590	A335 A369	A234	A182 A336	A387	A182 A739	A182 A739
5 Chrome	K41545	A335 A369	A234	A182 A336	A387	A182	A182
9 Chrome	S50400	A335 A369	A234	A182 A336	A387	A182	A182
P91 Chrome	S50460	A335 A369	A234	A182 A336	A387	A182	A182
304 Stainless Steel	S30400	A312 A338 A376	A403*	A182 A473	A240	A276 A479	A351 CF8 A744 A743
304L Stainless Steel	S30403	A312 A338	A403*	A182 A473	A240	A276 A479	A351 CF3 A744 A743
316 Stainless Steel	S31600	A312 A338 A376	A403*	A182 A473	A240	A276 A479	A351 CF8M A744 A743
316L Stainless Steel	S31603	A312 A338	A403*	A182 A473	A240	A276 A479	A351 CF3M A744 A743
321 Stainless Steel	S32100	A312 A338 A378	A403*	A182 A473	A240	A276 A479	
347 Stainless Steel	S34700	A312 A338 A376	A403*	A182 A473	A240	A276 A479	A351 CF8C A744 A743
317L Stainless Steel	S31703	A312	A403*	A182	A240		
254 SMO	S31254	A312 A338	A403*	A182	A240	A276 A479	A351 CK3MCuN
Remanit 64565S	S34565	A312 A338	A403*	A182	A240	A479	
Duplex (2205)	S31803	A790 A928	A815*	A182	A240	A276 A479	A890 4A A995
Duplex	S31200	A790 A928		A182	A240		
Ferratum	S32550	A790 A928	A815*		A240	A479	A890 CD-4MCu
410 SS/F6A	S41000	A268	A815*	A182 A473	A240	A276 A479	A217 CA15 A743
F6NM	S41500	A268	A815*	A182 A473	A240	A276 A479	A743 F-6NM
Alloy 20B	N08020	B464 B729 B747	B366*	B462	B463 A240	B473	A351 CN7M A744 A743
Nickle 200	N02200	B161 B725 A358	B366*	B564	B162	B160	A494 CZ100
Nickle 201	N04400	B165 B725	B366*	B564	B127	B164	A494 M35-1 M35-2
INCONEL ®600*	N06600	B167 B517	B366*	B564	B168	B166	A494 CY40
INCONEL ®625	N06625	B444 B705	B366*	B564	B443	B446	A494 CW-6MC
INCOLOY®B800	N08800	B407 B514 A358	B366*	B564	B409 A240	B408	A351 CT15C
INCOLOY®B800H	N08810	B407 B514 A358	B366*	B564	B409 A240	B408	A351 CT15C
INCOLOY®B800HT	N08811	B407	B366*	B564	B409 A240	B408	
INCOLOY®B825	N08825	B423 B705	B366*	B564	B424	B425	A494 CU5MCuC
RA330	N08330	B535 B710 B546	B366*		B536	B511	
Uddeholm904L	N08904		B366*		B625 A240	B649	
Al6 XN (6 Mo)®B	N08367	B675 A312 A358	B366*	B564 B462	B688 A240	B472 B691	A743 A744 CN-3MN
Hastelloy®X*	N06002	B619 B622	B366*		B435		
Hastelloy®G	N06007	B619 B622	B366*		B582 B581		
Hastelloy®C-4	N06455	B619 B622	B366*		B575		A990 CW-2M
Hastelloy®G-2	N06975	B619 B622	B366*		B582		
Hastelloy®B	N10001	B619 B622	B366*		B333		A494 N12MV
Hastelloy®C276	N10276	B619 B622	B366*	B564 B462	B575		A494 CW12MVW
Hastelloy®B2	N10665	B619 B622	B366*	B564 B462	B333		A494 N-7M
Titanium GR2	R50400	B861 B862	B363*	B381	B265	B348	B367 C2
Titanium GR7	R52400	B861 B862	B363*	B381	B265	B348	B367 Ti-Pd 78
Zirconium	R60702	B658	B653	B493	B551	B550	B752 702C
Zirconium-Niobium	R60705	B658	B653	B493	B551	B550	B752 705C
Aluminum 3003	A90601	B241 B345	B361	B247	B209	B211 B221	
Aluminum 6061	A90601	B241 B345	B361	B247	B209	B211 B221	
Aluminum 6083	A90603	B241 B345	B361	B211			
Copper Nickel 90/10	C70600	B466 B467 B608			B122 B171	B122	
Copper Nickel 70/30	C71500	B466 B467 B608			B122 B171	B122	

WP (S) = Sem costura WP (W) = Soldado WP (WX) = Soldado com 100% R/X

WP (U) = Soldado com 100% Exame Ultrason

CR = Resistente a corrosão Conforme MSS SP-43

verso



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Corrosion - Resistant Alloys (CRA)					
Alloy Designation	ASTM	BS	Material Wst.Nr.	DIN Designation	Trade Name
Nickel 200	UNS N02200	3074 NA 11	2.4066	Ni 99.2	
Nickel 201	UNS N02201	3074 NA 12	2.4068	LC-Ni 99	
Alloy 400	UNS N04400	3074 NA 13	2.4360	Ni Cu 30 Fe	MONEL 400
Alloy 600	UNS N06600	3074 NA 14	2.4816	Ni Cr 15 Fe	INCONEL 600
Alloy 800	UNS N08810	3074 NA 15	1.4876	X10 Ni Cr-AlTi32 20	INCOLOY 800
Alloy 825	UNS N08825	3074 NA 16	2.4858	Ni Cr 21 Mo	INCOLOY 825
Alloy DS (330)	UNS N08330	3074 NA 17	1.4864	X 12 Ni Cr-Si 36 16	
Alloy K-500	UNS N05500	3074 NA 18	2.4375	Ni Cu 30 Al	MONEL K-500
Alloy 75			2.4951	Ni Cr 20 Ti	
Alloy 601	UNS N06601		2.4851	Ni Cr 23 Fe	INCONEL 601
Alloy 625	UNS N06625		2.4856	Ni Cr 22 Mo 8 Nb	INCONEL 625
904L	UNS N08904		1.4539	X1 Ni Cr MoCuN25	CRONIFER 1925 LC
Alloy C-276	UNS N10276		2.4819	NiMO 16Cr15w	HASTELLOY C-276
Alloy C-22	UNS N06022		2.4602	Ni Cr 20 Mo 14W	HASTELLOY C-22
Alloy C-4	UNS N06455		2.4610	Ni Mo 16 Cr16Ti	HASTELLOY C-4
Alloy B-2	UNS N10655		2.4617	Ni Mo 28	B-2
Alloy G-3	UNS N06985		2.4619	Ni Cr 22 Mo 7 Cu	G-3
Titan Gr.1			3.7025		TITANIUM GR-1
Titan Gr.2			3.7035		TITANIUM GR-2
Alloy 2205	UNS NS31803		1.4462		DUPLEX STEEL
	UNS NS32750				SUPER DUPLEX STEEL
	UNS NS32760				SUPER DUPLEX STEEL
	UNS NS31250				250 SMO
	UNS NS31254				254 SMO
	UNS NS31256				256 SMO
	UNS NS34565		1.4565		REMANIT 45655



OD = mm Wall thickness = mm
Weight = kg/m Vol/m = m³

ANSI PIPE Schedule - SI - units (metric)

Nominal pipe size (inches)	OD mm	5S	10S	40S	80S	10	20	30	STD	40	60	X5	80	100	120	140	160	XXS	Vol/m	
1/8	10,30	1,24	1,29	2,41	3,02				1,73	1,73		2,41	2,41						0,0001	
1/4	13,70	1,65	1,68	3,30	4,08				2,24	2,24		3,02	3,02						0,0002	
3/8	17,10	1,83	2,31	3,30	4,08				2,81	2,81		3,30	3,30						0,0003	
1/2	21,30	1,65	2,11	2,77	3,75				2,77	2,77		3,75	3,75					4,78	7,47	0,0004
3/4	26,70	1,65	2,11	2,77	3,75				2,87	2,87		3,91	3,91					5,56	7,82	0,0007
1	33,40	1,65	2,11	2,77	3,75				3,38	3,38		4,55	4,55					6,35	9,09	0,0011
1 1/4	42,20	1,65	2,11	2,77	3,75				3,56	3,56		4,88	4,88					6,35	9,09	0,0018
1 1/2	48,30	1,65	2,11	2,77	3,75				3,68	3,68		5,08	5,08					7,14	10,15	0,0023
2	60,30	1,65	2,11	2,77	3,75				3,91	3,91		5,54	5,54					8,74	11,07	0,0036
2 1/2	73,00	2,11	3,05	5,18	7,01				5,18	5,18		7,01	7,01					9,53	14,02	0,0053
3	88,90	2,11	3,05	5,18	7,01				5,49	5,49		7,62	7,62					14,92	20,39	0,0079
3 1/2	101,60	2,11	3,05	5,18	7,01				5,74	5,74		8,08	8,08					15,27	21,35	0,0103
4	114,30	2,11	3,05	5,18	7,01				6,02	6,02		8,56	8,56					11,13	17,12	0,0130
5	141,30	2,77	4,01	6,35	9,53				6,55	6,55		9,53	9,53					12,70	15,88	0,0199
6	168,30	2,77	4,01	6,35	9,53				7,11	7,11		10,97	10,97					14,27	18,26	0,0228
8	219,10	2,77	4,01	6,35	9,53				8,18	8,18		12,70	12,70					15,09	20,43	0,048
10	273,10	3,40	4,19	9,27	12,70				9,27	9,27		12,70	12,70					18,26	21,44	0,074
12	323,90	3,40	4,19	9,27	12,70				10,31	10,31		14,27	14,27					21,44	25,40	0,104
14	355,60	3,96	4,78	10,16	14,13				11,13	11,13		15,09	15,09					23,83	27,79	0,126
16	406,40	4,19	4,78	10,16	14,13				12,70	12,70		17,48	17,48					25,40	30,32	0,163
18	457,00	4,19	4,78	10,16	14,13				14,27	14,27		19,05	19,05					28,64	33,19	0,208
20	508,00	4,78	5,34	10,16	14,13				15,88	15,88		20,62	20,62					30,32	36,17	0,258
22	559,00	4,78	5,34	10,16	14,13				17,48	17,48		22,23	22,23					34,93	41,28	0,312
24	610,00	5,34	6,35	14,27	19,05				19,05	19,05		24,81	24,81					38,89	46,02	0,372
26	660,00	5,34	6,35	14,27	19,05				21,33	21,33		26,67	26,67					43,29	52,37	0,435
28	711,00	5,91	7,01	15,24	20,62				23,17	23,17		28,64	28,64					48,26	58,42	0,505
30	762,00	6,35	7,92	17,78	23,83				25,40	25,40		30,96	30,96					52,37	64,02	0,580
32	813,00	6,35	7,92	17,78	23,83				27,94	27,94		33,81	33,81					56,76	69,25	0,660
34	864,00	7,01	8,25	19,05	25,40				30,32	30,32		36,17	36,17					61,27	74,61	0,746
36	914,00	7,62	8,89	20,62	27,94				32,76	32,76		38,81	38,81					65,78	80,28	0,835

Cálculo de peso linear em Kg/Mt
(OD mm - WT mm) x WT mm x 0,02504

frente

verso



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Corrosion - Resistant Alloys (CRA)					
Alloy Designation	ASTM	BS	Material Wst.Nr.	DIN Designation	Trade Name
Nickel 200	UNS N02200	3074 NA 11	2.4066	Ni 99.2	
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Alloy 400	UNS N04400	3074 NA 13	2.4360	Ni Cu 30 Fe	MONEL 400
Alloy 600	UNS N06600	3074 NA 14	2.4816	Ni Cr 15 Fe	INCONEL 600
Alloy 800	UNS N08810	3074 NA 15	1.4876	X10 Ni Cr-AlTi32 20	INCOLOY 800
Alloy 825	UNS N08825	3074 NA 16	2.4858	Ni Cr 21 Mo	INCOLOY 825
Alloy DS (330)	UNS N08330	3074 NA 17	1.4864	X 12 Ni Cr-Si 36 16	
Alloy K-500	UNS N05500	3074 NA 18	2.4375	Ni Cu 30 Al	MONEL K-500
Alloy 75			2.4951	Ni Cr 20 Ti	
Alloy 601	UNS N06601		2.4851	Ni Cr 23 Fe	INCONEL 601
Alloy 625	UNS N06625		2.4856	Ni Cr 22 Mo 8 Nb	INCONEL 625
904L	UNS N08904		1.4539	X1 Ni Cr MoCuN25	CRONIFER 1925 LC
Alloy C-276	UNS N10276		2.4819	NiMO 16Cr15w	HASTELLOY C-276
Alloy C-22	UNS N06022		2.4602	Ni Cr 20 Mo 14W	HASTELLOY C-22
Alloy C-4	UNS N06455		2.4610	Ni Mo 16 Cr16Ti	HASTELLOY C-4
Alloy B-2	UNS N10655		2.4617	Ni Mo 28	B-2
Alloy G-3	UNS N06985		2.4619	Ni Cr 22 Mo 7 Cu	G-3
Titan Gr.1			3.7025		TITANIUM GR-1
Titan Gr.2			3.7035		TITANIUM GR-2
Alloy 2205	UNS NS31803		1.4462		DUPLEX STEEL
	UNS NS32750				SUPER DUPLEX STEEL
	UNS NS32760				SUPER DUPLEX STEEL
	UNS NS31250				250 SMO
	UNS NS31254				254 SMO
	UNS NS31256				256 SMO
	UNS NS34565		1.4565		REMANIT 45655



OD = mm Wall thickness = mm
Weight = kg/m Vol/m = m³

ANSI PIPE Schedule - SI - units (metric)

Nominal pipe size (inches)	OD mm	5S	10S	40S	80S	10	20	30	STD	40	60	X5	80	100	120	140	160	XXS	Vol/m
1/8	10,30	1,24	1,29	2,41	3,02				1,73	1,73		2,41	2,41						0,0001
1/4	13,70	1,65	1,68	3,29	4,08				2,24	2,24		3,29	3,29						0,0002
3/8	17,10	1,83	2,31	3,75	4,65				2,81	2,81		3,75	3,75						0,0003
1/2	21,30	1,65	2,11	2,77	3,75				2,27	2,27		3,75	3,75					4,78	7,47
3/4	26,70	1,65	2,11	2,77	3,75				2,27	2,27		3,75	3,75					5,96	7,82
1	33,40	1,24	1,33	2,13	2,52	3,29			1,69	1,69		2,20	2,20					2,50	3,64
1 1/4	42,20	1,65	2,27	3,29	4,88	5,56			2,54	2,54		4,88	4,88					4,24	5,45
1 1/2	48,30	1,65	2,27	3,29	4,88	5,56			2,54	2,54		4,88	4,88					4,24	5,45
2	60,30	1,65	2,27	3,29	4,88	5,56			2,54	2,54		4,88	4,88					4,24	5,45
2 1/2	73,00	2,11	2,52	3,75	5,18	7,01			3,38	3,38		5,18	5,18					6,38	9,70
3	88,90	2,11	2,52	3,75	5,18	7,01			3,38	3,38		5,18	5,18					6,38	9,70
3 1/2	101,60	2,11	2,52	3,75	5,18	7,01			3,38	3,38		5,18	5,18					6,38	9,70
4	114,30	2,11	2,52	3,75	5,18	7,01			3,38	3,38		5,18	5,18					6,38	9,70
5	141,30	2,77	3,40	4,88	6,88	8,86			4,62	4,62		6,88	6,88					8,56	12,83
6	168,30	2,77	3,40	4,88	6,88	8,86			4,62	4,62		6,88	6,88					8,56	12,83
8	219,10	2,77	3,40	4,88	6,88	8,86			4,62	4,62		6,88	6,88					8,56	12,83
10	273,10	3,40	4,19	6,25	8,86	11,93			6,35	6,35		8,86	8,86					11,13	17,12
12	323,90	3,40	4,19	6,25	8,86	11,93			6,35	6,35		8,86	8,86					11,13	17,12
14	355,60	3,96	4,78	7,01	10,16	13,97			7,11	7,11		10,16	10,16					12,27	18,26
16	406,40	4,19	4,78	7,01	10,16	13,97			7,11	7,11		10,16	10,16					12,27	18,26
18	457,00	4,19	4,78	7,01	10,16	13,97			7,11	7,11		10,16	10,16					12,27	18,26
20	508,00	4,78	5,54	7,01	10,16	13,97			7,11	7,11		10,16	10,16					12,27	18,26
22	559,00	4,78	5,54	7,01	10,16	13,97			7,11	7,11		10,16	10,16					12,27	18,26
24	610,00	5,54	6,35	8,86	11,93	15,88			8,56	8,56		11,93	11,93					14,27	20,26
26	660,00	5,54	6,35	8,86	11,93	15,88			8,56	8,56		11,93	11,93					14,27	20,26
28	711,00	6,35	7,92	10,16	13,97	18,26			9,52	9,52		13,97	13,97					15,27	21,26
30	762,00	6,35	7,92	10,16	13,97	18,26			9,52	9,52		13,97	13,97					15,27	21,26
32	813,00	7,92	10,16	13,97	18,26	22,23			11,18	11,18		16,01	16,01					17,27	23,26
34	864,00	7,92	10,16	13,97	18,26	22,23			11,18	11,18		16,01	16,01					17,27	23,26
36	914,00	7,92	10,16	13,97	18,26	22,23			11,18	11,18		16,01	16,01					17,27	23,26

Cálculo de peso linear em Kg/Mt
(OD mm - WT mm) x WT mm x 0,02504


frente

verso



SCHULZ


OD = polegadas Wall thickness = polegadas
Weight = lbs/ft Vol/m = ft³



ANSI PIPE Schedule - Inch units

Nominal pipe size inches	OD inches	5S	10S	40S	80S	10	20	30	STD	40	60	X5	80	100	120	140	160	XXS	Vol/ft ft ³
1/8	0.405	0.087 0.19	0.068 0.24	0.095 0.119	0.088 0.24				0.088 0.24	0.095 0.31	0.095 0.31								0.001
1/4	0.540	0.065 0.41	0.068 0.41	0.091 0.41	0.119 0.41				0.068 0.41	0.091 0.41	0.119 0.41								0.002
3/8	0.675	0.045 0.47	0.065 0.47	0.091 0.47	0.126 0.47				0.091 0.47	0.091 0.47	0.126 0.47								0.003
1/2	0.840	0.065 0.55	0.083 0.68	0.109 0.87	0.147 1.11				0.109 0.85	0.109 0.85	0.147 1.09						0.188 1.31	0.294 1.71	0.004
3/4	1.050	0.065 0.73	0.083 0.88	0.113 1.15	0.154 1.50				0.113 1.13	0.113 1.13	0.154 1.47						0.154 1.24	0.154 1.44	0.007
1	1.315	0.065 0.87	0.091 1.43	0.113 1.71	0.154 2.21				0.113 1.68	0.113 1.68	0.154 2.17						0.154 2.17	0.154 2.17	0.010
1 1/4	1.660	0.065 1.21	0.109 1.83	0.154 2.32	0.218 3.06				0.140 2.27	0.140 2.27	0.191 3.00						0.191 3.00	0.191 3.00	0.019
1 1/2	1.900	0.065 1.41	0.109 2.13	0.145 2.77	0.200 3.50				0.145 2.77	0.145 2.77	0.200 3.50						0.200 3.50	0.200 3.50	0.025
2	2.375	0.065 1.64	0.109 2.69	0.154 3.72	0.218 5.12				0.154 3.65	0.154 3.65	0.218 5.02						0.218 5.02	0.218 5.02	0.039
2 1/2	2.875	0.083 2.53	0.120 3.60	0.166 5.91	0.228 7.81				0.166 5.79	0.166 5.79	0.228 7.66						0.228 7.66	0.228 7.66	0.057
3	3.500	0.083 3.09	0.150 4.42	0.216 7.72	0.300 10.46				0.216 7.58	0.216 7.58	0.300 10.25						0.300 10.25	0.300 10.25	0.085
3 1/2	4.000	0.083 3.55	0.150 5.07	0.228 9.28	0.318 12.76				0.228 9.11	0.228 9.11	0.318 12.50						0.318 12.50	0.318 12.50	0.111
4	4.500	0.083 4.05	0.150 5.72	0.237 11.01	0.337 15.26				0.237 10.79	0.237 10.79	0.337 15.06			0.438 16.00			0.337 14.98	0.337 14.98	0.140
5	5.563	0.109 4.49	0.154 7.91	0.258 14.91	0.375 21.20				0.258 14.62	0.258 14.62	0.375 20.78			0.500 20.78			0.375 20.78	0.375 20.78	0.214
6	6.625	0.109 7.75	0.188 9.48	0.278 19.15	0.422 29.14				0.280 18.97	0.280 18.97	0.422 28.57			0.562 28.57			0.422 28.57	0.422 28.57	0.301
8	8.625	0.109 10.13	0.188 13.47	0.322 29.12	0.500 44.36		0.350 23.56	0.277 24.70	0.322 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.534 44.36	0.719 60.71	0.812 60.71	0.906 60.71	0.875 60.71	0.517
10	10.750	0.134 15.49	0.188 19.01	0.365 25.83	0.500 35.83		0.350 28.54	0.307 34.24	0.365 40.48	0.365 40.48	0.500 54.74	0.500 54.74	0.534 64.42	0.719 77.93	0.844 77.93	1.000 104.13	1.125 115.64	1.250 134.40	0.797
12	12.750	0.154 17.75	0.188 24.65	0.375 30.55	0.500 46.73		0.350 36.71	0.330 44.61	0.406 54.37	0.406 54.37	0.500 72.09	0.500 72.09	0.534 106.13	0.719 150.79	0.844 170.21	1.000 189.11	1.125 211.81	1.250 231.64	1.120
14	14.000	0.150 23.53	0.188 28.38	0.375 36.71	0.500 55.63		0.350 44.61	0.312 54.37	0.375 63.44	0.375 63.44	0.500 85.05	0.500 85.05	0.534 130.83	0.719 192.13	0.844 219.13	1.000 251.64	1.125 284.25	1.250 318.40	1.356
16	16.000	0.166 28.46	0.188 32.30	0.375 40.55	0.500 62.73		0.350 52.57	0.312 62.73	0.375 72.09	0.375 72.09	0.500 107.50	0.500 107.50	0.534 156.61	0.719 219.13	0.844 251.64	1.000 294.25	1.125 331.86	1.250 370.40	1.776
18	18.000	0.166 32.30	0.188 36.48	0.375 44.61	0.500 72.09		0.350 60.71	0.312 72.09	0.375 82.27	0.375 82.27	0.500 138.17	0.500 138.17	0.534 192.13	0.719 264.14	0.844 300.79	1.000 342.40	1.125 384.64	1.250 430.40	2.239
20	20.000	0.188 40.38	0.218 46.98	0.375 52.57	0.500 82.27		0.350 68.75	0.312 82.27	0.375 92.57	0.375 92.57	0.500 156.61	0.500 156.61	0.534 219.13	0.719 294.25	0.844 331.86	1.000 374.40	1.125 415.64	1.250 462.40	2.777
22	22.000	0.188 44.68	0.218 51.72	0.375 60.71	0.500 92.57		0.350 76.81	0.312 92.57	0.375 107.50	0.375 107.50	0.500 181.25	0.500 181.25	0.534 251.64	0.719 331.86	0.844 374.40	1.000 415.64	1.125 457.64	1.250 504.40	3.359
24	24.000	0.218 56.48	0.250 64.48	0.375 72.09	0.500 104.13		0.350 84.85	0.312 104.13	0.375 120.40	0.375 120.40	0.500 219.13	0.500 219.13	0.534 294.25	0.719 374.40	0.844 415.64	1.000 457.64	1.125 500.00	1.250 548.40	4.005
26	26.000	0.218 60.71	0.250 70.40	0.375 82.27	0.500 116.40		0.350 92.57	0.312 116.40	0.375 134.67	0.375 134.67	0.500 251.64	0.500 251.64	0.534 331.86	0.719 415.64	0.844 457.64	1.000 500.00	1.125 548.40	1.250 596.40	4.683
28	28.000	0.218 64.48	0.250 76.81	0.375 92.57	0.500 128.64		0.350 100.60	0.312 128.64	0.375 150.79	0.375 150.79	0.500 294.25	0.500 294.25	0.534 374.40	0.719 457.64	0.844 500.00	1.000 548.40	1.125 596.40	1.250 644.40	5.437
30	30.000	0.250 81.02	0.312 100.91	0.375 116.40	0.500 140.80		0.350 108.64	0.312 140.80	0.375 162.89	0.375 162.89	0.500 331.86	0.500 331.86	0.534 415.64	0.719 496.00	0.844 548.40	1.000 596.40	1.125 644.40	1.250 692.40	6.244
32	32.000	0.250 85.27	0.312 105.59	0.375 120.40	0.500 152.96		0.350 116.40	0.312 152.96	0.375 175.00	0.375 175.00	0.500 374.40	0.500 374.40	0.534 457.64	0.719 536.00	0.844 596.40	1.000 644.40	1.125 692.40	1.250 740.40	7.105
34	34.000	0.250 89.52	0.312 110.79	0.375 125.60	0.500 165.04		0.350 124.40	0.312 165.04	0.375 183.04	0.375 183.04	0.500 415.64	0.500 415.64	0.534 496.00	0.719 575.20	0.844 635.20	1.000 692.40	1.125 740.40	1.250 788.40	8.031
36	36.000	0.250 93.77	0.312 116.00	0.375 130.80	0.500 177.12		0.350 132.00	0.312 177.12	0.375 196.64	0.375 196.64	0.500 457.64	0.500 457.64	0.534 536.00	0.719 614.40	0.844 675.20	1.000 740.40	1.125 788.40	1.250 836.40	8.990
38	38.000	0.250 98.02	0.312 121.21	0.375 136.00	0.500 189.20		0.350 140.00	0.312 189.20	0.375 206.72	0.375 206.72	0.500 496.00	0.500 496.00	0.534 575.20	0.719 653.60	0.844 714.40	1.000 788.40	1.125 836.40	1.250 884.40	10.023
40	40.000	0.250 102.27	0.312 126.42	0.375 141.12	0.500 201.28		0.350 148.00	0.312 201.28	0.375 216.80	0.375 216.80	0.500 536.00	0.500 536.00	0.534 614.40	0.719 692.80	0.844 753.60	1.000 836.40	1.125 884.40	1.250 932.40	11.111
42	42.000	0.250 106.52	0.312 131.63	0.375 146.24	0.500 213.36		0.350 156.00	0.312 213.36	0.375 227.36	0.375 227.36	0.500 575.20	0.500 575.20	0.534 653.60	0.719 732.00	0.844 792.00	1.000 874.40	1.125 922.40	1.250 970.40	12.252
44	44.000	0.250 110.77	0.312 136.84	0.375 151.36	0.500 225.44		0.350 164.00	0.312 225.44	0.375 237.44	0.375 237.44	0.500 614.40	0.500 614.40	0.534 692.80	0.719 771.20	0.844 831.20	1.000 914.40	1.125 962.40	1.250 1010.40	13.447
46	46.000	0.250 115.02	0.312 142.05	0.375 156.48	0.500 237.52		0.350 172.00	0.312 237.52	0.375 249.52	0.375 249.52	0.500 653.60	0.500 653.60	0.534 732.00	0.719 810.40	0.844 860.40	1.000 944.40	1.125 994.40	1.250 1040.40	14.683
48	48.000	0.250 119.27	0.312 147.26	0.375 161.60	0.500 249.60		0.350 180.00	0.312 249.60	0.375 261.60	0.375 261.60	0.500 692.80	0.500 692.80	0.534 771.20	0.719 849.60	0.844 900.00	1.000 984.40	1.125 1034.40	1.250 1080.40	15.988

frente




Weights for stainless steel condenser and heatexchanger tubes
For minimum wall acc. ASTM A 213 add 10%

Fractions in.	Decimals in.	Milli meters	BWG Birmingham wire gauge BWG																	
			20	18	16	15	14	13	12	11	10									
			in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm				
1/4	.250	6.350	.08	1.12	.11	0.16	.13	0.19												
5/16	.313	7.950	.10	1.15	.14	0.21	.17	0.25	.19	0.28										
3/8	.375	9.525	.13	1.19	.17	0.25	.21	0.31	.23	0.34	.26	0.39								
1/2	.500	12.700	.17	0.25	.23	0.34	.30	0.45	.33	0.49	.37	0.55	.41	0.61	.46	0.68	.48	0.72		
5/8	.625	15.875	.22	0.33	.30	0.45	.39	0.58	.43	0.64	.48	0.71	.54	0.80	.60	0.89	.65	0.97		
3/4	.750	19.050	.27	0.40	.37	0.55	.4													



SCHULZ


OD = polegadas Wall thickness = polegadas
Weight = lbs/ft Vol/m = ft³



ANSI PIPE Schedule - Inch units

Nominal pipe size inches	OD inches	5S	10S	40S	80S	10	20	30	STD	40	60	X5	80	100	120	140	160	XXS	Vol/ft ft ³
1/8	0.405	0.087 0.19	0.068 0.24	0.095 0.119					0.088 0.24	0.088 0.24	0.095 0.31	0.095 0.31							0.001
1/4	0.540	0.065 0.41	0.068 0.41	0.119 0.55					0.088 0.41	0.088 0.41	0.119 0.55	0.119 0.55							0.002
3/8	0.675	0.065 0.41	0.083 0.41	0.109 0.55	0.126 0.55				0.091 0.41	0.091 0.41	0.126 0.55	0.126 0.55							0.003
1/2	0.840	0.065 0.55	0.083 0.68	0.109 0.87	0.147 1.11				0.109 0.87	0.109 0.87	0.147 1.11	0.147 1.11					0.188 1.31	0.294 1.71	0.004
3/4	1.050	0.065 0.77	0.083 0.88	0.113 1.15	0.154 1.50				0.113 1.13	0.113 1.13	0.154 1.47	0.154 1.47					0.188 1.31	0.294 1.71	0.004
1	1.315	0.065 0.87	0.083 1.43	0.113 1.71	0.154 2.21				0.113 1.13	0.113 1.13	0.154 1.47	0.154 1.47					0.230 1.68	0.338 2.17	0.005
1 1/4	1.660	0.065 1.21	0.109 1.85	0.140 2.32	0.191 3.06				0.140 2.27	0.140 2.27	0.191 3.00	0.191 3.00					0.230 1.68	0.338 2.17	0.005
1 1/2	1.900	0.065 1.41	0.109 2.15	0.145 2.77	0.200 3.50				0.145 2.77	0.145 2.77	0.200 3.50	0.200 3.50					0.230 1.68	0.338 2.17	0.005
2	2.375	0.065 1.64	0.109 2.69	0.154 3.72	0.218 5.12				0.154 3.65	0.154 3.65	0.218 5.02	0.218 5.02					0.230 1.68	0.338 2.17	0.005
2 1/2	2.875	0.083 2.53	0.120 3.60	0.200 5.91	0.276 7.81				0.200 5.79	0.200 5.79	0.276 7.66	0.276 7.66					0.230 1.68	0.338 2.17	0.005
3	3.500	0.083 3.09	0.150 4.42	0.216 7.72	0.300 10.46				0.216 7.58	0.216 7.58	0.300 10.25	0.300 10.25					0.230 1.68	0.338 2.17	0.005
3 1/2	4.000	0.083 3.55	0.150 5.07	0.226 9.28	0.318 12.76				0.226 9.11	0.226 9.11	0.318 12.50	0.318 12.50					0.230 1.68	0.338 2.17	0.005
4	4.500	0.083 4.05	0.150 5.72	0.237 11.01	0.337 15.26				0.237 10.79	0.237 10.79	0.337 14.96	0.337 14.96					0.230 1.68	0.338 2.17	0.005
5	5.563	0.109 6.49	0.154 7.91	0.258 14.91	0.375 21.20				0.258 14.62	0.258 14.62	0.375 20.78	0.375 20.78					0.230 1.68	0.338 2.17	0.005
6	6.625	0.109 7.75	0.188 9.48	0.276 19.15	0.422 29.14				0.276 18.97	0.276 18.97	0.422 28.57	0.422 28.57					0.230 1.68	0.338 2.17	0.005
8	8.625	0.109 10.13	0.188 13.07	0.322 29.12	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517
10	10.750	0.134 12.49	0.188 15.01	0.365 25.83	0.500 41.29	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517
12	12.750	0.154 14.49	0.188 17.01	0.375 28.35	0.500 46.73	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517
14	14.000	0.150 16.25	0.188 19.25	0.375 30.55	0.500 55.63	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517
16	16.000	0.165 18.06	0.188 21.28	0.375 32.83	0.500 66.73	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517
18	18.000	0.165 20.06	0.188 23.48	0.375 35.10	0.500 78.83	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517
20	20.000	0.188 22.06	0.218 25.78	0.375 37.37	0.500 91.93	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517
22	22.000	0.188 24.06	0.218 27.98	0.375 39.64	0.500 105.03	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517
24	24.000	0.218 26.06	0.218 30.18	0.375 41.91	0.500 118.13	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517
26	26.000	0.218 28.06	0.218 32.38	0.375 44.18	0.500 131.23	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517
28	28.000	0.250 30.06	0.312 34.58	0.500 46.45	0.625 154.35	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517
30	30.000	0.250 32.06	0.312 36.78	0.500 48.72	0.625 177.45	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517
32	32.000	0.250 34.06	0.312 39.00	0.500 51.00	0.625 200.55	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517
34	34.000	0.250 36.06	0.312 41.22	0.500 53.22	0.625 223.65	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517
36	36.000	0.250 38.06	0.312 43.44	0.500 55.44	0.625 246.75	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517
38	38.000	0.250 40.06	0.312 45.66	0.500 57.66	0.625 269.85	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517
40	40.000	0.250 42.06	0.312 47.88	0.500 59.88	0.625 292.95	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517
42	42.000	0.250 44.06	0.312 50.10	0.500 62.10	0.625 316.05	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517
44	44.000	0.250 46.06	0.312 52.32	0.500 64.32	0.625 339.15	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517
46	46.000	0.250 48.06	0.312 54.54	0.500 66.54	0.625 362.25	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517
48	48.000	0.250 50.06	0.312 56.76	0.500 68.76	0.625 385.35	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.500 44.36	0.350 23.56	0.277 24.70	0.332 28.35	0.322 28.35	0.406 28.35	0.500 44.36	0.517

frente



Weights for stainless steel condenser and heatexchanger tubes
For minimum wall acc. ASTM A 213 add 10%

Fractions in.	Decimals in.	Milli meters	BWG Birmingham wire gauge BWG																
			20	18	16	15	14	13	12	11	10								
			in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm			
1/4	.250	6.350	.08	1.21	.11	0.16	.13	0.19											
5/16	.313	7.925	.10	1.15	.14	0.21	.17	0.25	.19	0.28									
3/8	.375	9.525	.13	1.19	.17	0.25	.21	0.31	.23	0.34	.26	0.39							
1/2	.500	12.700	.17	0.25	.23	0.34	.30	0.45	.33	0.49	.37	0.55	.41	0.61	.46	0.68	.48	0.72	
5/8	.625	15.875	.22	0.33	.30	0.45	.39	0.58	.43	0.64	.48	0.71	.54						



SCHULZ

COBRE NÍQUEL

Pipes - European Standards: CUNI 90/10 - CuNi10Fe1Mn
CUNI 70/30 - CuNi30Fe1Mn

Outside diameter of pipe OD			10 bar		14 bar		16 bar		20 bar	
			Wall thickness	Theoretical weight	Wall thickness	Theoretical weight	Wall thickness	Theoretical weight	Wall thickness	Theoretical weight
inch	nominal	actual	actual	Kg/m	actual	Kg/m	actual	Kg/m	actual	Kg/m
1/8		10	1,0	0,26	1,0	0,26	1,0	0,26	1,0	0,26
1/4		12		0,31		0,31		0,31		
3/8	10	16		0,42		0,42		0,42		
1/2	15	20		0,53		0,53		0,53		
3/4	20	25	1,5	0,99	1,5	0,99	2,0	1,30	2,0	1,30
1	25	30		1,20		1,20		1,20		
1 1/4	32	38		1,54		1,54		1,54		
1 1/2	40	44,5		1,81		1,81		1,81		
2	50	57	2,0	2,34	2,0	2,34	2,5	2,95	2,5	2,95
2 1/2	65	76,1		4,16		4,16		4,16		
3	80	88,9		4,88		4,88		4,88		
4	100	108		7,41		7,41		7,41		
5	125	133	2,5	9,16	3,0	10,95	3,0	10,95	3,0	10,95
6	150	159		10,99		10,99		10,99		
7	175	193,7		13,43		13,43		13,43		
8	200	219,1		18,21		18,21		18,21		
10	250	267	3,0	22,24	4,0	29,55	4,0	24,17	4,5	27,12
12	300	323,9		35,94		35,94		35,94		
14	350	368		40,89		40,89		40,89		
16	400	419,1		46,62		46,62		46,62		
18	450	457,2	4,0	50,91	6,0	76,03	8,0	100,93	9,5	119,44
20	500	508		63,63		63,63		63,63		
24	600	610	5,0	84,96	8,0	135,26	10,5	176,79	13,0	217,97
28	700	711		118,80		118,80		118,80		
32	800	813		135,99		135,99		135,99		
36	900	914		203,57		203,57		203,57		

Other wall thicknesses also available upon request

Cálculo de peso linear em Kg/Mt
(OD mm - WT mm) x WT mm x 0,02810

frente

European Standards: CUNI 90/10 - CuNi10Fe1Mn
CUNI 70/30 - CuNi30Fe1Mn

	FRANCE	GERMANY	UNITED KINGDOM
	CuNi 90/10		CuNi10Fe1Mn
SEAMLESS	NFA 51102 up to OD 50 mm GAM Mm11 (French Navy) S.T.F. 22.54 / C. 004 (French Navy)	DIN 85004 (Germany Navy) WL 2.1972.11 or .22 Mechanicals Chemicals DIN 86019 Dimensional DIN 17664 alloy 2.0872 Chemicals DIN 17671 ALLOY 2.0872.10 Mechanicals DIN 1755 Dimensional	BS 2871 (Part 2) alloy CN 102 EEMUA Pub N° 144 alloy UNS 7060X NES 779 Part 3 (British Navy)
SEAM WELDED		DIN 17664 alloy 2.0872 Chemicals DIN 17670 alloy 2.0872.10 Mechanicals DIN 86018 Dimensional	BS 2875 CN 102 (plates) EEMUA Pub N° 144 alloy UNS 7060X
	CuNi 70/30		CuNi30Fe1Mn
SEAMLESS	GAM MM11 (French Navy) S.T.F. 22.54 / C. 005 (French Navy)	DIN 17664 alloy 2.0882 Chemicals DIN 17671 alloy 2.0882.10 Mechanicals DIN 1755 Dimensional	BS 2871 Part 2 CN 107 NES 780 Part 3 (British Navy)
SEAM WELDED		DIN 17664 alloy 2.0882 Chemicals DIN 17670 alloy 2.0882.10 Mechanicals DIN 86018 Dimensional	BS 2875 alloy Cn107 (plates)

verso



SCHULZ

COBRE NÍQUEL

Pipes - European Standards: CUNI 90/10 - CuNi10Fe1Mn
CUNI 70/30 - CuNi30Fe1Mn

Outside diameter of pipe OD			10 bar		14 bar		16 bar		20 bar	
			Wall thickness	Theoretical weight	Wall thickness	Theoretical weight	Wall thickness	Theoretical weight	Wall thickness	Theoretical weight
inch	nominal	actual	actual	Kg/m	actual	Kg/m	actual	Kg/m	actual	Kg/m
1/8		10	1,0	0,26	1,0	0,26	1,0	0,26	1,0	0,26
1/4		12		0,31		0,31		0,31		
3/8	10	16		0,42		0,42		0,42		
1/2	15	20		0,53		0,53		0,53		
3/4	20	25	1,5	0,99	1,5	0,99	2,0	1,30	2,0	1,30
1	25	30		1,20		1,20		1,20		
1 1/4	32	38		1,54		1,54		1,54		
1 1/2	40	44,5		1,81		1,81		1,81		
2	50	57	2,0	2,34	2,0	2,34	2,5	2,95	2,5	2,95
2 1/2	65	76,1		4,16		4,16		4,16		
3	80	88,9		4,88		4,88		4,88		
4	100	108		7,41		7,41		7,41		
5	125	133	2,5	9,16	3,0	10,95	3,0	10,95	3,0	10,95
6	150	159		10,99		10,99		10,99		
7	175	193,7		13,43		13,43		13,43		
8	200	219,1		18,21		18,21		18,21		
10	250	267	3,0	22,24	4,0	29,55	4,0	24,17	4,5	27,12
12	300	323,9		35,94		35,94		35,94		
14	350	368		40,89		40,89		40,89		
16	400	419,1		46,62		46,62		46,62		
18	450	457,2	4,0	50,91	6,0	76,03	8,0	100,93	9,5	119,44
20	500	508	4,5	63,63	6,5	91,55	8,5	119,24	11	153,54
24	600	610	5,0	84,96	8,0	135,26	10,5	176,79	13,0	217,97
28	700	711	6,0	118,80	9,0	177,45	12,0	235,58	15,0	293,22
32	800	813		135,99	10,0	225,53	13,5	303,14	17,0	380,06
36	900	914	8,0	203,57	11,0	278,98	15,5	391,14	19,0	477,60

Other wall thicknesses also available upon request

Cálculo de peso linear em Kg/Mt
(OD mm - WT mm) x WT mm x 0,02810

frente

European Standards: CUNI 90/10 - CuNi10Fe1Mn
CUNI 70/30 - CuNi30Fe1Mn

	FRANCE	GERMANY	UNITED KINGDOM
	CuNi 90/10		CuNi10Fe1Mn
SEAMLESS	NFA 51102 up to OD 50 mm GAM Mm11 (French Navy) S.T.F. 22.54 / C. 004 (French Navy)	DIN 85004 (Germany Navy) WL 2.1972.11 or .22 Mechanicals Chemicals DIN 86019 Dimensional DIN 17664 alloy 2.0872 Chemicals DIN 17671 ALLOY 2.0872.10 Mechanicals DIN 1755 Dimensional	BS 2871 (Part 2) alloy CN 102 EEMUA Pub N° 144 alloy UNS 7060X NES 779 Part 3 (British Navy)
SEAM WELDED		DIN 17664 alloy 2.0872 Chemicals DIN 17670 alloy 2.0872.10 Mechanicals DIN 86018 Dimensional	BS 2875 CN 102 (plates) EEMUA Pub N° 144 alloy UNS 7060X
	CuNi 70/30		CuNi30Fe1Mn
SEAMLESS	GAM MM11 (French Navy) S.T.F. 22.54 / C. 005 (French Navy)	DIN 17664 alloy 2.0882 Chemicals DIN 17671 alloy 2.0882.10 Mechanicals DIN 1755 Dimensional	BS 2871 Part 2 CN 107 NES 780 Part 3 (British Navy)
SEAM WELDED		DIN 17664 alloy 2.0882 Chemicals DIN 17670 alloy 2.0882.10 Mechanicals DIN 86018 Dimensional	BS 2875 alloy Cn107 (plates)

verso