



## Carbon Steel Tubes

STANDARD	
	ASTM A106/ASTM A53
Lengths:	5-7 or 10-12 m (Or to agreement)
Packing:	Sizes up to 6 <sup>2</sup> inclusive in bundles, Other Sises: Loosed

ASTM A53/ASTM A106														
O.D.	O.D.	Sch.	Sch.	Sch.	Stand	Sch.	Extra	Sch.	Sch.	Sch.	Sch.	Sch.	Sch.	Double
SIZE		10	20	30	Weight	40	Strong	60	80	100	120	140	160	Extra
Inch	mm	Kg/m	Kg/m	Kg/m	Kg/M	Kg/m	Kg/m	Kg/m	Kg/m	Kg/m	Kg/m	Kg/m	Kg/m	Strong
1/4"	13,7				0,63	0,63	0,80		0,80					
3/8"	17,1				0,85	0,85	1,10		1,10					
1/2"	21,3				1,27	1,27	1,62		1,62				1,95	2,55
3/4"	26,7				1,68	1,68	2,19		2,19				2,89	3,63
1"	33,4				2,50	2,50	3,23		3,23				4,23	5,45
1 1/4"	42,2				3,38	3,38	4,47		4,47				5,60	7,76
1 1/2"	48,3				4,05	4,05	5,41		5,41				7,24	9,55
2"	60,3				5,44	5,44	7,48		7,48				11,11	13,45
2 1/2"	73,0				8,62	8,62	11,41		11,41				14,91	20,39
3"	88,9				11,29	11,29	15,27		15,27				21,33	27,67
3 1/2"	101,6				13,57	13,57	18,62		18,62					
4"	114,3				16,07	16,07	22,31		22,31		28,30		33,53	41,02
5"	141,3				21,78	21,78	30,95		30,95		40,28		49,09	57,42
6"	168,3				28,26	28,26	42,56		42,56		54,20		67,55	79,18
8"	219,1		33,31	36,79	42,53	42,53	64,63	53,09	64,63	75,89	90,43	100,93	111,25	107,87
10"	273,1		41,77	51,00	60,29	60,29	81,54	81,54	95,97	114,74	133,00	155,10	172,25	155,10
12"	323,9		49,72	65,20	73,82	79,72	97,44	108,96	132,01	159,85	186,92	208,04	238,72	186,92
14"	355,6	54,68	67,94	81,28	81,28	94,49	107,38	126,68	158,08	194,90	224,60	253,53	281,68	
16"	406,4	62,63	77,86	93,21	93,21	123,29	123,29	160,12	203,48	245,50	286,62	333,11	365,30	
18"	457,0	70,59	87,79	122,36	105,14	155,91	139,19	205,80	254,59	309,76	363,65	408,45	459,51	
20"	508,0	78,54	117,07	155,10	117,07	183,37	155,10	247,85						
22"	559,0	86,50	129,01	171,01	129,01		171,01	355,02						
24"	610,0	94,45	140,94	209,54	140,94	255,14	186,92							

26"	660,0	127,50	202,83		152,87		202,83							
28"	711,0	137,42	218,73	272,18	164,80		218,73							
30"	762,0	147,36	234,64	292,06	176,73		234,64							
32"	813,0	157,28	250,55	311,95	188,66	342,70	250,55							
34"	864,0	167,20	266,46	331,83	200,59	364,58	266,46							
36"	914,0	177,13	282,36	351,72	212,52	420,56	282,36							
O.D.	O.D.	Sch.	Sch.	Sch.	Stand	Sch.	Extra	Sch.	Sch.	Sch.	Sch.	Sch.	Sch.	Double
SIZE		10	20	30	Weight	40	Strong	60	80	100	120	140	160	Extra
Inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Strong
1/4"	13,7				2,24	2,24	3,02		3,02					
3/8"	17,1				2,31	2,31	3,20		3,20					
1/2"	21,3				2,77	2,77	3,73		3,73				4,78	7,47
3/4"	26,7				2,87	2,87	3,91		3,91				5,56	7,82
1"	33,4				3,38	3,38	4,55		4,55				6,35	9,09
1 1/4"	42,2				3,56	3,56	4,85		4,85				6,35	9,70
1 1/2"	48,3				3,68	3,68	5,08		5,08				7,14	10,15
2"	60,3				3,91	3,91	5,54		5,54				8,74	11,07
2 1/2"	73,0				5,16	5,16	7,01		7,01				9,53	14,02
3"	88,9				5,49	5,49	7,62		7,62				11,13	15,24
3 1/2"	101,6				5,74	5,74	8,08		8,08					
4"	114,3				6,02	6,02	8,56		8,56		11,13		13,49	17,12
5"	141,3				6,55	6,55	9,53		9,53		12,70		15,68	19,05
6"	168,3				7,11	7,11	10,97		10,97		14,27		18,26	21,95
8"	219,1		6,35	7,04	8,18	8,18	12,70	10,31	12,70	15,09	18,26	20,62	23,01	22,23
10"	273,1		6,35	7,80	9,27	9,27	12,70	12,70	15,09	18,26	21,44	25,40	28,58	25,40
12"	323,9		6,35	8,38	9,53	10,31	12,70	14,27	17,48	21,44	25,40	28,58	33,32	25,40
14"	355,6	6,35	7,92	9,53	9,53	11,13	12,70	15,09	19,05	23,83	27,79	31,75	35,71	
16"	406,4	6,35	7,92	9,53	9,53	12,70	12,70	16,66	21,44	26,19	30,96	36,53	40,49	
18"	457,0	6,35	7,92	11,13	9,53	14,20	12,70	19,05	23,83	29,36	34,93	39,67	45,24	
20"	508,0	6,35	9,53	12,70	9,53	15,09	12,70	20,62						
22"	559,0	6,35	9,53	12,70	9,53		12,70							
24"	610,0	6,35	9,53	14,27	9,53	17,48	12,70	24,61						
26"	660,0	7,92	12,70		9,53		12,70							
28"	711,0	7,92	12,70	15,88	9,53		12,70							
30"	762,0	7,92	12,70	15,88	9,53		12,70							
32"	813,0	7,92	12,70	15,88	9,53	17,48	12,70							
34"	864,0	7,92	12,70	15,88	9,53	17,48	12,70							

## STEEL REQUIREMENTS

Standard	Steel grade	Chemical requirements					Mechanical requirements		
		C	Mn	P	S	Si	Tensile	Yield limit	Elongation
		max.	max.	max.	max.	max.	strength	R <sub>p0.2</sub>	A min.
		(%)	(%)	(%)	(%)	(%)	N/mm <sup>2</sup>	N/mm <sup>2</sup>	(%)
ASTM	A	0,25	0,95	0,05	0,045	-	min. 330	min. 205	calculation
ASTM A53	B	0,3	1,2	0,05	0,045	-	min. 415	min. 240	acc. to W.T.
ASTM A 106	A	0,25	0,27-0,93	0,05	0,045	-	min. 330	min. 210	calc. acc.to
	B	0,3	0,29-1,06	0,05	0,045	-	min. 415	min. 240	wall thick.
<b>NOTES</b>									
<b>LENGTHS</b>	Random length: 5-7 m (16,4-23 ft) or 10-12 m (32,8-40,1 ft)								
	Random lengths as per agreement.								
	Fixed lengths within the manufacture lengths range, Tolerances:± 100 mm (± 3,94 ft)								
<b>CHEMICAL*</b>	For X56 and X60 min: Nb 0,05%, V 0,02%, Ti 0,03% For X65, X70, X80 chemical composition acc. to agreement								
<b>PROTECTION</b>	Unprotected or external oiled/external varnished								
	At customers each pipe is provided with plastic protectors at both ends								
<b>ELONGATION</b>	<ul style="list-style-type: none"> <li>Minimum elongation on the gauge length 50,80 mm (2 in.) is calculate according to the formula <math>e=625\ 000 \times A^{0,2}/U^{0,9}</math> e=minimum elongation on the gauge length 50,80 mm (2 in.) A=cross-sectional area of the measuring bar determined upon the specified outside diameter or upon the nominal width of the test piece and the specified wall thickness, in sq. in. U=specified tensile strength in psi.</li> </ul>								
<b>MARKING</b>	Die stamping or/and paint stenciled according to standard or per customer request								
	Technical details can be also marked on tags attached to each bundle.								
<b>DELIVERY</b>	In bundles of maximum 2500 Kg, tied in minimum four places with steel strips.								
	Sizes of above size 6" loosed (For API 5L pipes above size 4")								
<b>MILL TEST REPORT</b>	Mill test reports are issued to customer requirements.								
	Usually they comply with EN 10204 - 3.1.B (DIN 50049 - 3.1.B)								
<b>THIRD PARTY INSPECTION</b>	LRS, BV, DNV, SGS, GL or similar to be agreed; EN 10204-3.1.C. (DIN 50049/3.1.C.)								

OLMAX GmbH

Fra. F. Grabovca 22/V, 10000 ZAGREB/Croatia

( Work Tel#: +385 1 4663 449

7 Fax#: +385 1 4650 787 7 Fax#: +1 720 3840 904 7 Fax#: +44 709 2384 3443