

2017 PRODUCT CATALOG

winland
CONNECTING THE WORLD

Seamless Copper Tubes for Medical/ Gas Piping System



Marking

- Content as per customer's request
- Durably marking: Free
- Permanently marking: Additional marking fee will be charged

Composition

- Cu + Ag: min 99.90%
- $0.015\% \leq P \leq 0.040\%$



Product supply form

Length		Packing
Straight pipe	5.8 meters	-In plastic bundles -Wooden case (additional fee will be charged)
Coils	15.0 meters	Sealed by plastic bag then in carton box

International copper designation

China	German		EU		International	USA	Japan
GB	DIN		EN		ISO	UNS	JIS
TP2	SF-Cu	2.009	Cu-DHP	CW024A	Cu-DHP	C12200	C1220

YS/T 650-2007 Seamless copper tubes for medical gases and vacuum

- Standard dimensions**

DN	O.D. (mm)	W.T.(mm)		Theoretical Weight (kg/m)	
		Type		A	B
		A	B		
4	6	1.0	0.8	0.14	0.117
6	8	1.0	0.8	0.197	0.162
8	10	1.0	0.8	0.253	0.207
10	12	1.2	0.8	0.364	0.252
15	15	1.2	1.0	0.465	0.393
-	18	1.2	1.0	0.566	0.477
20	22	1.5	1.2	0.864	0.701
25	28	1.5	1.2	1.116	0.903
32	35	2.0	1.5	1.854	1.411
40	42	2.0	1.5	2.247	1.706
50	54	2.5	2.0	3.616	2.921
65	67	2.5	2.0	4.529	3.652
-	76	2.5	2.0	5.161	4.157
80	89	2.5	2.0	6.074	4.887
100	108	3.5	2.5	10.274	7.408
125	133	3.5	2.5	12.731	9.164
150	159	4.0	3.5	17.415	15.287

- Copper designation**

Designation No.	Status	Type	Size/mm		
			O.D.	W.T.	Length
TU1, TP2	Hard (Y)	Straight	6-159	0.7-4.0	1000-6100
	Half hard (Y ₂)				
	Soft (M)				
	Soft (M)	Coil	≤28		≥15000

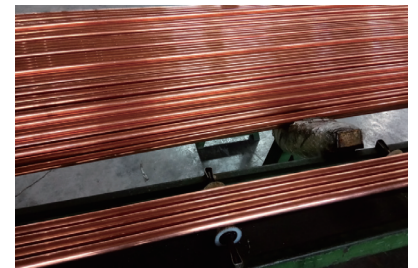
ASTM B819 Standard Specification for Seamless copper tube for

Medical Gas Systems

● Standard dimensions

Nominal Size	O.D.	O.D. Tolerances				Type K				Type L			
						Wall Thickness		Tolerance		Wall Thickness		Tolerance	
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
1/4	0.375	9.5	0.001	0.025	0.035	0.889			0.030	0.762	0.003	0.076	
3/8	0.500	12.7	0.001	0.025	0.049	1.24	0.005	0.13	0.035	0.889	0.004	0.1	
1/2	0.625	15.9	0.001	0.025	0.049	1.24	0.005	0.13	0.040	1.02	0.004	0.1	
5/8	0.750	19.1	0.001	0.025	0.049	1.24	0.005	0.13	0.042	1.07	0.004	0.1	
3/4	0.875	22.3	0.001	0.025	0.065	1.65	0.006	0.15	0.045	1.14	0.004	0.1	
1	1.125	28.6	0.0015	0.038	0.065	1.65	0.006	0.15	0.050	1.27	0.005	0.13	
1 1/4	1.375	34.9	0.0015	0.038	0.065	1.65	0.006	0.15	0.055	1.4	0.006	0.15	
1 1/2	1.625	41.3	0.002	0.051	0.072	1.83	0.007	0.18	0.060	1.52	0.006	0.15	
2	2.125	54.0	0.002	0.051	0.083	2.11	0.008	0.2	0.070	1.78	0.007	0.18	
2 1/2	2.625	66.7	0.002	0.051	0.095	2.41	0.01	0.25	0.080	2.03	0.008	0.2	
3	3.125	79.4	0.002	0.051	0.109	2.77	0.011	0.28	0.090	2.29	0.009	0.23	
3 1/2	3.625	92.1	0.002	0.051	0.12	3.05	0.012	0.3	0.100	2.54	0.01	0.25	
4	4.125	105.0	0.002	0.051	0.134	3.4	0.013	0.33	0.110	2.79	0.011	0.28	
5	5.125	130.0	0.002	0.051	0.16	4.06	0.016	0.41	0.125	3.18	0.012	0.3	
6	6.125	156.0	0.002	0.051	0.192	4.88	0.019	0.48	0.140	3.56	0.014	0.36	
8	8.125	206.0	+0.002	0.051	0.271	6.88	0.027	0.69	0.200	5.08	0.02	0.51	
			-0.006	0.150									

● Mechanical and cleanliness properties





Standard	Former	Form	Tensile Strength		Cleanliness
H58	drawn general purpose	straight lengths	36 ksi min	250 Mpa	≤0.038g/m ²

● Mechanical properties

Material condition		Tensile strength	Elongation	Hardness (indicative)
Designation in accordance with EN1173	common term	Rm Mpa min.	A % min.	HV 5
R220	annealed	220	40	(40 to 70)
R250	half hard	250	30	(75 to 100)
R290	hard	290	3	(min 100)

● Standard dimensions

Nominal outside diameter d	Nominal wall thickness								
	0.7	0.8	0.9	1.0	1.2	1.5	2.0	2.5	3.0
6				1.0					
8		0.8		1.0					
10		0.8		1.0					
12		0.8		1.0					
14				1.0					
15	0.7			1.0	1.2				
16				1.0					
18				1.0	1.2				
22			0.9	1.0	1.2	1.5			
28			0.9	1.0	1.2	1.5			
35				1.0	1.2	1.5	2.0		
42				1.0	1.2	1.5	2.0		
54				1.0	1.2	1.5	2.0		
64							2.0		
66.7					1.2		2.0		
70							2.0		
76.1						1.5	2.0		
80							2.0		
88.9							2.0		
104							2.0		
108						1.5		2.5	
133									3.0

 European recommended dimensions
 Other European dimensions