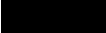


Tab.3 Dimensional range and Cost category -Hot rolled tubes for carbon boilers made in Workshop no.1 ASSEL- ARTROM STEEL TUBES

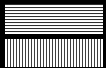
WT	7.1	8.0	8.8	10.0	11.0	12.5	14.2	16.0	17.5	20.0	22.2	25.0	28.0	30.0	32.0	35.0	36.0	40.0	45.0	50.0	55.0	60
OD	Min -Max Length (m)																					
60.300				10-12.1	9.2-12.1	8.5-12.1	7.6-12.1	7-12.1														
63.500				9.5-11.7	8.7-11.9	7.8-12.1	7.1-12.1	6.5-12.1	6.1-12.1													
70.000				8.3-11.4	7.7-11.5	6.9-11.8	6.2-12.1	5.7-12.1	5.5-12.1	5.4-12.1												
73.000				7.9-11.1	7.3-11.3	6.5-11.5	5.9-11.7	5.5-11.8	5.4-12.1	5.3-12.1												
76.100				7.5-10.9	6.9-11.1	6.2-11.3	5.6-11.5	5.4-11.7	5.3-11.8	5.3-12.1												
82.500				6.8-11.1	6.8-11.2	6-11.4	5.5-11.6	5.3-11.8	5.2-12.1	5.3-12.1	5.4-12.1	5.4-12.1										
88.900				7.3-11	6.7-11.2	5.9-11.4	5.4-11.6	5.2-12	5.1-12	5.2-12.1	5.3-12.1	5.3-12.1										
95.000				7.2-10.8	6.6-11	5.9-11.1	5.2-11.3	5-11.5	5-11.6	5.1-11.8	5.1-12	5.2-11.8										
101.600				5.4-9.3	5-9.5	5-9.5	5-9.5	5-12.0	5-12.0	5-12.0	5-12.0	5-9.4	5-8.7	5.0-10.0								
108.000				5.5-9.3	5-9.5	5-9.5	5-9.5	5-12.0	5-12.0	5-12.0	5-12.0	5-9.3	5-8.6	5-8.2								
114.300				5.5-9.3	5.5-9.3	5-9.5	5-9.5	5-12.0	5-12.0	5-12.0	5-12.0	5-9.5	5-9.5	5-9.3	5-8.9							
121.000	9.1-12	8.5-12	8.2-12	5.5-9.3	5.1-9.3	5-9.5	5-9.5	5-9.5	5-9.5	5-9.5	5-9.5	5-9.5	5-9	5-8.6	5-8.2	5-7.8	5-7.6					
127.000	8.5-12	8.5-12	7.7-12	7.3-12	5.5-9.3	5-9.3	5-9.5	5-9.5	5-9.5	5-9.5	5-9.5	5-9.5	5-9	5-8.6	5-8.2	5-7.7	5-7.6					
133.000	8.8-12	8.3-12	7.9-12	7.5-12.1	5.2-9.3	5-9.3	5-9.5	5-9.5	5-9.5	5-9.5	5-9.5	5-9.3	5-8.5	5-8.1	5-7.7	5-7.2	5-7.1	5-7.0				
139.700	8.4-12	7.9-12	7.6-12	7.2-12.1	5.2-9.3	5-9.3	5-9.5	5-9.5	5-9.5	5-9.5	5-9.5	5-9.5	5-8.9	5-8.8	5-8.3	5-7.8	5-7.7	5-7.1				
146.000	8.3-12	7.8-12	7.8-12	7.7-12.1	7.7-12.1	5-9.3	5-9.3	5-9.5	5-9.5	5-9.5	5-9.5	5-9.5	5-8.7	5-8.3	5-7.8	5-7.4	5-7.2	5-6.7				
152.400	8.3-13	7.8-12	7.8-12	7.7-12.1	7.6-12.1	5-9.3	5-9.3	5-9.5	5-9.5	5-9.5	5-9.5	5-9.4	5-9.2	5-9	5-8.6	5-8	5-7.9	5-7.3	5-7			
159.000	8.0-12	7.6-12	7.2-12	6.7-12.1	6.5-11.8	6.1-11.1	5-9.3	5-9.5	5-9.5	5-9.5	5-9.5	5-9.4	5-9.1	5-9	5-8.9	5-8.5	5-8.3	5-7.7	5-7	5-6.5		
165.100	8.2-12	7.9-12	7.6-12	7.3-12.1	6.7-12.1	6.7-12.1	5-9.3	5-9.3	5-9.5	5-9.5	5-9.5	5-9.3	5-9.1	5-9	5-8.8	5-8.5	5-8.3	5-7.7	5-7.1	5-6.5		
168.300	8.0-12	7.7-12	7.7-12	7.3-12.1	7.1-12.1	6.7-12.1	5-9.3	5-9.3	5-9.5	5-9.5	5-9.5	5-9.3	5-9.1	5-9	5-8.9	5-8.3	5-8.1	5-7.5	5-6.9	5-6.4		
177.800	7.8-12	7.6-12	7.3-12	7-12.1	6.8-12.1	6.5-11.9	5-9.3	5-9.3	5-9.3	5-9.5	5-9.5	5-9.2	5-9	5-8.9	5-8.7	5-8.6	5-8.6	5-7.4	5-7	5-6.9	5-6	
193.700		7.6-12	7.1-12	6.7-12.1	6.5-12.1	6.2-11.8	6-11.3	5-9.3	5-9.3	5-9.5	5-9.4	5-9.1	5-8.9	5-8.8	5-8.7	5-8.5	5-8.5	5-8.2	5-7.5	5-7	5-6.6	5-6.5
203.000		7.6-12	7.0-12	6.8-12.1	6.6-12.1	6.3-11.8	6.1-11.3	5-9.3	5-9.3	5-9.3	5-9.3	5-9.1	5-8.9	5-8.8	5-8.6	5-8.5	5-8.4	5-8.3	5-7.7	5-7.1	5-6.7	5-6.5
216.000		7.5-12	7.2-12	6.3-11.9	6-11.9	5.8-11.3	5.5-10.8	5-9.3	5-9.3	5-9.3	5-9.3	5-9	5-8.8	5-8.7	5-8.6	5-8.4	5-8.4	5-8.2	5-7.7	5-7.4	5-6.9	5-6.5
219.100		7.3-12	7.0-12	6.4-11.7	6.1-11.7	5.8-11.1	5.5-10.6	5-9.3	5-9.3	5-9.3	5-9.2	5-9	5-8.8	5-8.6	5-8.5	5-8.4	5-8.3	5-8.2	5-8.1	5-7.6	5-7.1	5-6.7
224.000										5-9.3	5-9.2	5-9	5-8.8	5-8.7	5-8.5	5-8.4	5-8.3	5-8.2	5-8	5-7.6	5-7.1	5-6.7
229.000										5-9.3	5-9.2	5-8.9	5-8.8	5-8.6	5-8.5	5-8.4	5-8.3	5-8.2	5-8	5-7.4	5-6.9	5-6.5
244.500										5-9.1	5-9.1	5-8.9	5-8.7	5-8.6	5-8.4	5-8.3	5-8.2	5-8.1	5-7.9	5-7.4	5-6.8	5-6.4
254.000												5-8.6	5-8.5	5-8.4	5-8.3	5-8.2	5-8.1	5-7.9	5-7.6	5-7	5-6.5	5-6.1
260.000														5-8.5	5-8.3	5-8.2	5-8.1	5-7.9	5-7	5-6.8	5-6.3	5-5.9
265.000														5-7	5-7	5-7	5-7	5-6.5	5-6	5-5.5	4.5-5	4.5-5
267.500														5-7	5-7	5-7	5-7	5-6.5	5-6	5-5.5	4.5-5	4.5-5

 H1 category & Mannesmann ASSEL mill

 H2 category & redicing mill

 H3 category & calibration mill with OD/WT>4

 H4 category & calibration mill with OD/WT<=4

 Polygonal aspect at ID, fall into tolerances & reducing mill with OD/WT<5
 Polygonal aspect at ID with a length >9.5m

 Dimensions greater than 11 m (33% for the length of 10.6-11.5 m for DRL and 67% for the length of 8-11 m are acceptable)