



1. SCOPE & FRAMEWORK COMPLIANCE

This official technical data sheet outlines the dimensional boundaries, structural weights, chemical limits, and mechanical prerequisites for non-alloy longitudinally welded steel tubes manufactured strictly according to the European Standard **EN 10255** for Steel Grade **S195T**. These industrial tubes are engineered for Water Supply, Fire Protection, HVAC Systems, Compressed Air Lines, and General Industrial Piping.

- **Manufacturing Process:** High-Frequency Electric Resistance Welding (ERW).
- **Primary Technical Execution:** Processed to support immediate project site preparations, including cold-grooving, CNC thread turning, and standard joint welding.
- **Product Profile Coverage:** Available in Heavy(H),Medium(M),Light(L1),and Light(L2) series.

2. CHEMICAL COMPOSITION & MECHANICAL PROPERTIES

Raw material casting analysis and standard lot assessments remain governed by the following precise specification matrices:

Table 2.1: Ladle Chemical Composition (Standard Limits)

Element	Standard Limit (Maximum Specification %)
Carbon (C)	≤ 0.20%
Manganese (Mn)	≤ 1.40%
Phosphorus (P)	≤ 0.035%
Sulfur (S)	≤ 0.030%

Table 2.2: Mechanical Performance Requirements

Mechanical Parameter	EN 10255 Official Value Criteria
Yield Strength (R_e)	≥ 195 MPa
Tensile Strength (R_m)	320 to 520 MPa
Elongation (A)	≥ 20%
Technological Testing	Mandatory physical lot sampling covering complete Flattening and Cold Bend criteria

3. DIMENSIONAL PARAMETERS & SERIES WEIGHT MATRIX

To maximize structural legibility, parameters are segmented below into their specific mechanical series brackets. This structural layout provides direct lookups for wall profiles and shipping weights.

Table 3.1: Medium and Heavy Series Dimensions & Mass

Thread Size R (in)	Nominal Size DN	Outside Diameter (mm)		Medium Series M			Heavy Series H		
		max.	min.	T (mm)	Plain End (kg/m)	Threaded & Socketed (kg/m)	T (mm)	Plain End (kg/m)	Threaded & Socketed (kg/m)
1/4"	DN 8	13.9	13.2	2.0	0.567	0.571	2.0	0.567	0.571
3/8"	DN 10	17.4	16.7	2.0	0.750	0.756	2.0	0.750	0.756
1/2"	DN 15	21.7	21.0	2.3	1.080	1.090	2.6	1.200	1.210
3/4"	DN 20	27.1	26.4	2.3	1.400	1.410	2.6	1.560	1.570
1"	DN 25	34.0	33.2	2.9	2.200	2.220	3.2	2.410	2.440
1 1/4"	DN 32	42.7	41.9	2.9	2.820	2.850	3.2	3.100	3.140
1 1/2"	DN 40	48.6	47.8	2.9	3.250	3.290	3.2	3.560	3.610
2"	DN 50	60.7	59.6	3.2	4.510	4.580	3.6	5.030	5.100
2 1/2"	DN 65	76.6	75.3	3.2	5.750	5.870	3.6	6.430	6.540
3"	DN 80	89.5	88.0	3.2	6.760	6.930	4.0	8.370	8.530
4"	DN 100	115.0	113.1	3.6	9.830	10.10	4.5	12.20	12.50
5"	DN 125	140.8	138.5	4.5	15.00	15.50	5.0	16.60	17.10
6"	DN 150	166.5	163.9	4.5	17.80	18.40	5.0	19.80	20.40

Table 3.2: Light Type L1 Dimension Tolerance and Unit Mass

Thread Size R (in)	Nominal Size DN	Outside Diameter (mm)		Wall Thickness T (mm)	Mass per Unit Length of Bare Tube (kg/m)	
		max.	min.		Plain End	Threaded and Socketed
1/4"	DN 8	13.9	13.2	2	0.57	0.574
3/8"	DN 10	17.4	16.7	2	0.742	0.748
1/2"	DN 15	21.7	21.0	2.3	1.08	1.09
3/4"	DN 20	27.1	26.4	2.3	1.39	1.4
1"	DN 25	34.0	33.2	2.9	2.2	2.22
1 1/4"	DN 32	42.7	41.9	2.9	2.82	2.85
1 1/2"	DN 40	48.6	47.8	2.9	3.24	3.28
2"	DN 50	60.7	59.6	3.2	4.49	4.56
2 1/2"	DN 65	76.3	75.2	3.2	5.73	5.85
3"	DN 80	89.4	87.9	3.6	7.55	7.72
4"	DN 100	114.9	113.0	4	10.8	11.1

Table 3.3: Light Type L2 Dimension Tolerance and Unit Mass

Thread Size R (in)	Nominal Size DN	Outside Diameter (mm)		Wall Thickness T (mm)	Mass per Unit Length of Bare Tube (kg/m)	
		max.	min.		Plain End	Threaded and Socketed
1/4"	DN 8	13.6	13.2	1.8	0.515	0.519
3/8"	DN 10	17.1	16.7	1.8	0.67	0.676
1/2"	DN 15	21.4	21.0	2	0.947	0.956
3/4"	DN 20	26.9	26.4	2.3	1.38	1.49
1"	DN 25	33.8	33.2	2.6	1.98	2
1 1/4"	DN 32	42.5	41.9	2.6	2.54	2.57
1 1/2"	DN 40	48.4	47.8	2.9	3.23	3.27
2"	DN 50	60.2	59.6	2.9	4.08	4.15
2 1/2"	DN 65	76.0	75.2	3.2	5.71	5.83
3"	DN 80	88.7	87.9	3.2	6.72	6.89
4"	DN 100	113.9	113.0	3.6	9.75	10

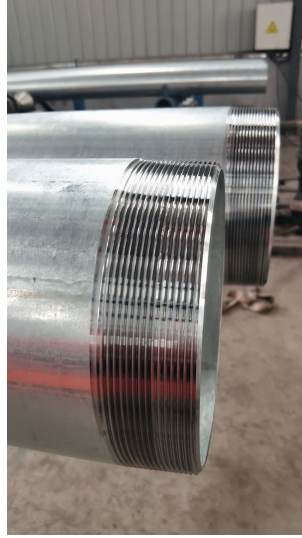
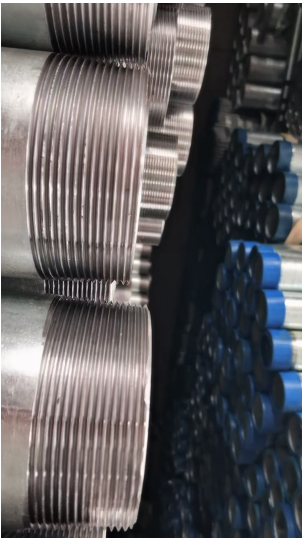
Technical Notes:

- WT indicates nominal Wall Thickness. Mass values reflect bare, Plain End and Threaded/Socketed theoretical weights as specified in EN 10255.
- Tolerances on nominal wall thickness: $\pm 12.5\%$ for Series M and H; -8.0% with positive tolerance restricted by mass parameters for Light Type L1 and L2 series.

4. FABRICATION OPTIONS & END CONDITIONS

Materials are customized to specific project engineering parameters to streamline onsite installation workflows:

- **Surface Finishes:** Available in mill-finish bare steel, uniform rust-inhibitive oil treatment, thin industrial protective black lacquer, or premium heavy hot-dip galvanized protective zinc layers.
- **End Condition Engineering:** Square cut Plain Ends, CNC turned high-tolerance male threads with color-coded plastic protectors, matched industrial threaded sockets/couplings, or prefabricated roll-grooved end steps.
- **Length Configurations:** Standard structural lengths provided at fixed 6.00-meter limits, or precision cut to targeted contract lengths within tight linear mill tolerances.



5. PRODUCT FINISHES: CFA G/ G DD@MCDH-CBG

GB 8163 (A) GHY DjdYg UFY Uj Uj UW Y j b j Uf ci g g fZUW ZjbJg Yg UbX YbX WcbX]hcbg hc a YYhX]ZYfybhd fc YVW fYeI JfYa Ybrg"

G fZUW: j b j g C d h c b g

- Black Bare Steel Pipe
- Oiled Steel Pipe
- Hot-Dip Galvanized Steel Pipe
- Industrial Protective Coating

9bX 7cbX]hcbg

j D U j b 9bX fD9L

j H fYUXYX 9bX fHL

j H fYUXYX UbX 7ci d YX fH 7L

- Roll ; fccj YX 9bX

j 6Yj YXX 9bX

@b[H C d h c b g

j G h U b X U f X * "\$ a

j) , ' a

j % % , ' a

j % & \$ ' a

j 7i g t c a @ b [H 5 j U j U W Y