

API 5CT J55

- ALLLAND Production Standards Overview



Definition and Applications

1. Definition

API 5CT J55 is a base steel grade defined in the American Petroleum Institute standard API Spec 5CT. It is a medium-strength oil casing primarily used in shallow and low-pressure wells. The designation J55 indicates a yield strength level of 55 ksi.

2. ALLLAND API 5CT J55 Steel Pipe Dimensions

Parameters	Dimensions
O.D.	API 5CT J55 casing : 4 1/2" - 13 3/8" (standard)
	API 5CT tubing : 1.05" - 4 1/2"
WT	API 5CT J55 casing : 5.2 mm - 22 mm
	API 5CT tubing : 2.9 mm - 10.5 mm
Length	API 5CT J55 casing : R1 R2 R3 (4.88-14.63 m)
	API 5CT tubing : R1 (6.10m), R2 (8.53 - 9.75m), R3 (11.58 - 14.63m)
End Finish	Plain End (PE), Threaded & Coupled (T&C), Upset Ends
Process	SEAMLESS / ERW
Connection	STC / LTC / BTC / NUE / EUE

3. Application

API 5CT J55 is mainly applied to shallow oil and gas wells, low-pressure production casing and tubing systems, as well as water injection and gathering wells in conventional oilfield

development, emphasizing cost efficiency, adequate strength and good ductility under low to medium pressure operating conditions.

Critical Tolerances

Our API 5CT J55 standard steel pipes are manufactured in strict compliance with the specification requirements.

Item	Tolerance	Description
O.D.	±0.5 mm	O.D. ≤ 60.3 mm
	±0.75% / ±1.0%	O.D. > 60.3 mm
WT (Seamless)	+15% / -12.5%	WT < 20 mm, O.D. ≤ 73.0 mm
	+17.5% / -10%	WT ≥ 20 mm, O.D. > 73.0 mm
WT (ERW / LSAW / SSAW)	+15.0% / -10%	WT > 5.0 mm
	+15.0% / -0.6 mm	WT ≤ 5.0 mm

Chemical and Mechanical Properties

1. Chemical Composition (wt%, max)

Element	Content (Max / Typical)
Carbon (C)	≤ 0.34%
Manganese (Mn)	0.29 – 1.06%
Phosphorus (P)	≤ 0.030%
Sulfur (S)	≤ 0.030%
Silicon (Si)	≤ 0.35%
Micro-alloying (Nb/V/Ti)	trace

2. Mechanical Properties

Property	Requirement
Yield Strength	379 – 552 MPa (55,000 – 80,000 psi)
Tensile Strength	≥ 517 MPa (≥ 75,000 psi)
Elongation	≥ 19%
Hardness	API limits (typically ≤ 241 HBW)
Impact Test	Required under PSL2 conditions

API 5CT J55 Casing & Tubing Sizes Charts

API 5CT J55 Casing Dimensions Table

OD (Outer Diameter)	OD (mm)	Nominal Weight (lb/ft)	Wall Thickness (mm)	Drift Diameter (in)	Grade
4 1/2"	114.30	9.5 / 10.5 / 11.6 / 13.5 / 15.1	5.21 – 8.56	3.965 – 3.826	J55

OD (Outer Diameter)	OD (mm)	Nominal Weight (lb/ft)	Wall Thickness (mm)	Drift Diameter (in)	Grade
5"	127.00	11.5 / 13 / 15 / 18 / 21.4	5.59 – 11.10	4.276 – 4.154	J55
5 1/2"	139.70	14 / 15.5 / 17 / 20 / 23	6.20 – 10.54	4.778 – 4.670	J55
6 5/8"	168.28	20 / 24 / 28 / 32	7.32 – 12.06	5.921 – 5.813	J55
7"	177.80	17 / 20 / 23 / 26 / 29 / 32 / 35 / 38	5.87 – 12.65	6.184 – 6.094	J55
7 5/8"	193.68	24 / 26.4 / 29.7 / 33.7 / 39	6.45 – 12.70	6.625 – 6.456	J55
8 5/8"	219.08	24 / 28 / 32 / 36 / 40 / 44	6.71 – 12.70	7.511 – 7.341	J55
9 5/8"	244.48	36 / 40 / 43.5 / 47 / 53.5	7.92 – 14.27	8.535 – 8.375	J55
10 3/4"	273.05	32.75 / 40.50 / 45.50 / 51.00 / 60.70	7.09 – 15.11	9.656 – 9.441	J55
13 3/8"	339.72	48 / 54.5 / 61 / 72 / 82 / 86	7.09 – 12.19	12.347 – 12.175	J55

API 5CT J55 Tubing Dimensions Table

OD (inch)	OD (mm)	Wall Thickness (mm)	Weight (lb/ft)	Drift Diameter (in)	Grade
1.05"	26.7	2.87 – 3.18	1.14 – 1.20	0.433 – 0.450	J55
1.315"	33.4	3.18 – 4.00	1.70 – 1.80	0.546 – 0.560	J55
1.66"	42.2	3.68 – 4.83	2.30 – 2.40	0.669 – 0.684	J55
2 3/8"	60.33	3.91 – 6.45	4.60 – 5.80	1.901 – 1.965	J55
2 7/8"	73.03	5.51 – 7.01	6.40 – 7.90	2.441 – 2.347	J55
3 1/2"	88.90	5.49 – 8.05	9.20 – 12.70	2.992 – 3.068	J55
4 1/2"	114.30	6.35 – 10.54	12.60 – 13.50	3.826 – 3.965	J55

API 5CT J55 Standard Color Code

According to the API Spec 5CT standard, all oil country tubular goods (OCTG: casing and tubing) must be marked with a color code to facilitate quick identification of the steel grade and prevent misuse.

The color code for API 5CT J55 is **green**, typically applied as a color band or by painting the entire end.

Advantages of API 5CT J55

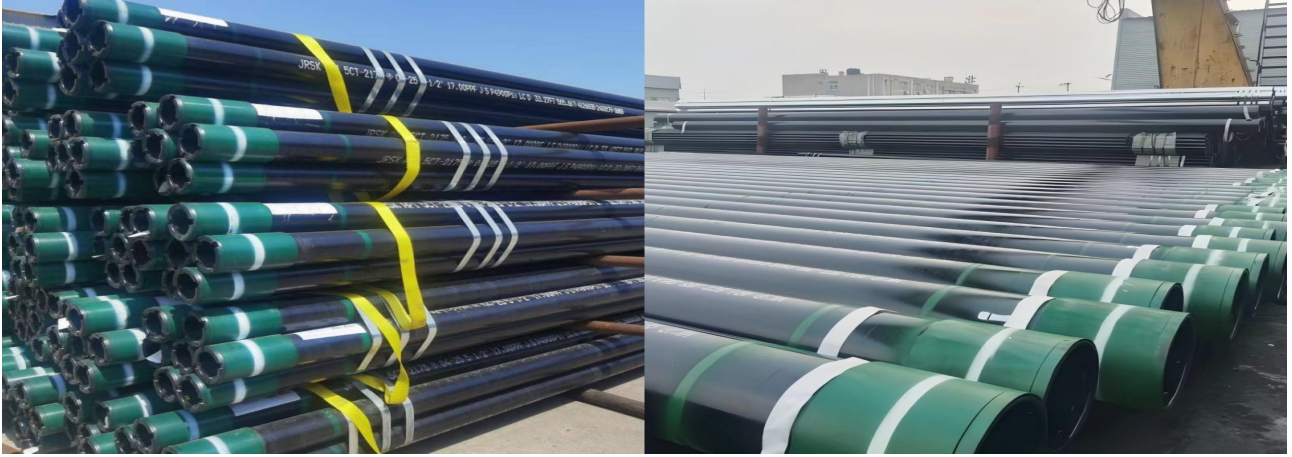
API 5CT J55 is a common low-grade OCTG steel under the API 5CT standard.

- Yield strength: **379 MPa (55 ksi)**, tensile strength $\geq$ **517 MPa**.
- Used in **shallow wells and low-pressure oil & gas, water, and geothermal wells**.
- Compared to N80/L80/P110, it has **lower cost and simpler production**.
- Offers **good weldability and machinability** with stable global supply.
- It has **stable global supply and is widely standardized under API 5CT**.

Surface treatment

Method: Oil Coating, Black Coating, Clear Coating, FBE, 3LBE, 3LPP.

ALLLAND API 5CT J55 Product Images



The image shows steel pipes actually produced by our company