

# HIGH PRESSURE PIPE

**HIGH PRESSURE STEEL PIPE** is engineered for critical fluid transport in energy, petrochemical, and hydraulic systems. Manufactured from high-grade alloy/carbon steel (P91, X70, 316L) via seamless or longitudinal/submerged arc welding processes, it undergoes rigorous heat treatment and NDT to withstand extreme pressure and temperature. Features multi-layer anti-corrosion and thermal insulation coatings, ensuring integrity in corrosive, high-stress environments (e.g., subsea pipelines, steam lines).



- **Outside Diameter:**  $\Phi 50\text{mm} - 1500\text{mm}$  (2" - 60" )
- **Wall Thickness:** 6.0 - 100mm (0.24" - 4")
- **Pressure Rating:** 20 - 100 MPa (2900 - 14500 psi)
- **Quality Standards:** API 5L, ASME B31.3, ASTM A106/A53, EN 10208, ISO 3183
- **Length:** 6 - 18m (custom up to 24m)
- **Coating:** FBE (Fusion Bonded Epoxy), 3LPE/3LPP, Internal Cladding, or project-specific

## Specification

Parameters	Typical range	Extreme range	Standard basis	Engineering constraints
Outside diameter	$\Phi 200\text{mm} \sim \Phi 800\text{mm}$	$\Phi 50\text{mm} \sim \Phi 1500\text{mm}$	API 5L / ASME	>1200mm requires special forging
Wall thickness	10mm~40mm	6.0mm~100mm	ASTM A106	.>50mm requires PWHT
Pressure rating	25MPa~60MPa	20MPa~100MPa	ASME B31.3	>80MPa needs autofrettage design
Length	12m (standard)	6m~24m	ISO 3183	>18m requires transport permits

**HIGH PRESSURE PIPE Specification Range Reference Table**

Classification	Standard	Positioning	Applicability
Core Standard	API 5L	Global oil/gas transmission	Onshore/offshore pipelines
Process Standard	ASME B31.3	Industrial process piping systems	Refineries, power plants
Material Standard	ASTM A106	High-temp seamless carbon steel pipe	Steam lines (>425°C)
Safety Standard	EN 10208	European hazardous fluid transport	Chemical processing plants
Quality Standard	ISO 3183	International pipeline delivery quality	Cross-country projects

**HIGH PRESSURE PIPE Standards and Applications Comparison Table**