

ONSHORE PIPELINE

ONSHORE PIPELINE is the core infrastructure for the long-distance transportation of oil, natural gas, water resources, and industrial media on land. They are made of high-strength welded steel pipes (such as LSAW/SSAW/ERW). Through strict material selection, welding processes, and multi-layer anti-corrosion treatments, they ensure safe operation under complex geological and climatic conditions. Their typical design life is 30-50 years, suitable for high-pressure, high-flow transportation scenarios, with advantages such as high efficiency, low loss, and easy maintenance.



- **Outside Diameter:** $\Phi 219\text{mm} - 1420\text{mm}$ (8.6" - 56")
- **Wall Thickness:** 5.0 - 25mm (0.2" - 1")
- **Quality Standards:** API 5L、ISO 3183、ASME B36.10M、DNV-ST-F101、AS 2885.2:2007、CSA Z662:2007
- **Length:** 6 - 18m (20"- 60")
- **Coating:** FBE, 3LPE, 3LPP, Concrete Weight Coating (CWC), or as per project requirements

Specification

Parameters	Typical range	Extreme range	Standard basis	Engineering constraints
Outside diameter	$\Phi 406\text{mm} \sim \Phi 1219\text{mm}$	$\Phi 203\text{mm} \sim \Phi 1422\text{mm}$	API 5L	>1219mm requires specialized transport
Wall thickness	8.0mm~20mm	6.0mm~40mm	ASME B31.4	Thickness >30mm requires PWHT
Length	12m (double random)	10m~18m	ISO 3183 10m~18m	>14m requires special handling

ONSHORE PIPELINE Specification Range Reference Table

Classification	Standard	Positioning	Applicability
Material Standard	API 5L PSL2	Global baseline for line pipe	Mandatory for all oil/gas transmission projects
Design Standard	ASME B31.4/B31.8	US pressure pipeline code	Oil (B31.4) / Gas (B31.8) systems
Corrosion Control	ISO 21809-1	External coating qualification	High-risk corrosion environments
Safety Standard	DNVGL-ST-F101	Integrated pipeline design	Arctic, seismic, and HVDC zones

ONSHORE PIPELINE Standards and Applications Comparison Table