

CANADOIL
PIPE

PIPES







Length: 11895

Length: 11895

CP5L
OD 24"
07-
THAILAND

CP5L
OD 24" STD
SN07-00161
THAILAND

CP5L
OD 24" STD
SN07-001596
THAILAND

Canadoil, Your Solution

At Canadoil, our aim to provide value added solutions to our customers' projects comes as our first priority. Our customers gain benefits from better control on supply chain management, product quality, and cost. All of these are contributed through our one-stop-shop concept. From laboratory testing on materials, manufacturing of piping components, fabricated products and preparation works for assembly, coating/painting to quality testing and inspection, Canadoil have got you covered.



About us

Canadoil Group started manufacturing pipes in 2005. The piping facility, **Canadoil Pipe (CPIPE)**; together with **pipe coating** facility, are located in Thailand at the same strategic location as our fitting and fabrication facilities which contribute to our **one-stop-shop service** to provide **state-of-the art technology** for our customers.

We manufacture both **steel tubular line pipes** and **process pipes** in thickness up to 100 mm (4") and diameter ranging from 4" to larger than 120" with **wide range of steel materials-carbon steel, high yield steels, stainless steel, alloy, clad and other exotic steel materials-for use in offshore and onshore, oil & gas industry, LNG, CNG storage and transportation, refinery and petrochemical, power plants, wind energy, water treatment and other engineering projects, no matter how challenging the service conditions and environments are.**

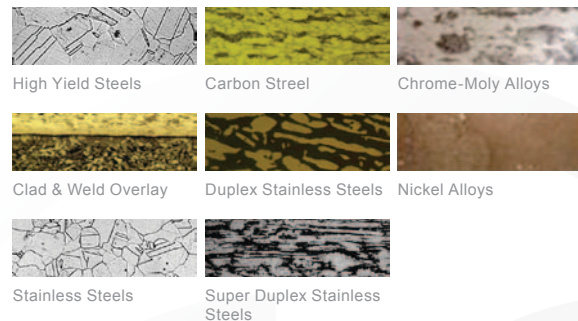


Manufacturing Division



Raw Materials

Canadoil offers products in materials ranging from plain carbon steel and low temperature grades to high yield grades, low and high alloys, other nickel alloys, stainless steel, chrome-moly and clad materials. The above production range is produced under, but not limited to, the following materials:



Product Range

Type	Diameter Size Range	Thickness	Length
Line Pipes (LSAW)	16" - 60"	0.25" - 2.5"	3, 12, 15 meters
Process Pipes	4" to more than 120"	0.25" - 6"	Up to 12 meters

Canadoil's One Stop Shop piping solutions serve all major industries across the Energy and Environmental Value Chain

CNG Storage & Transportation

Geothermal Power

LNG

Oil & Gas

Onshore & Offshore Pipelines

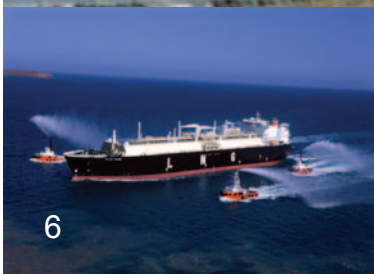
Refinery & Petrochemical

Subsea


Thermal & Nuclear Power

Water Treatment / Desalination

Wind Energy







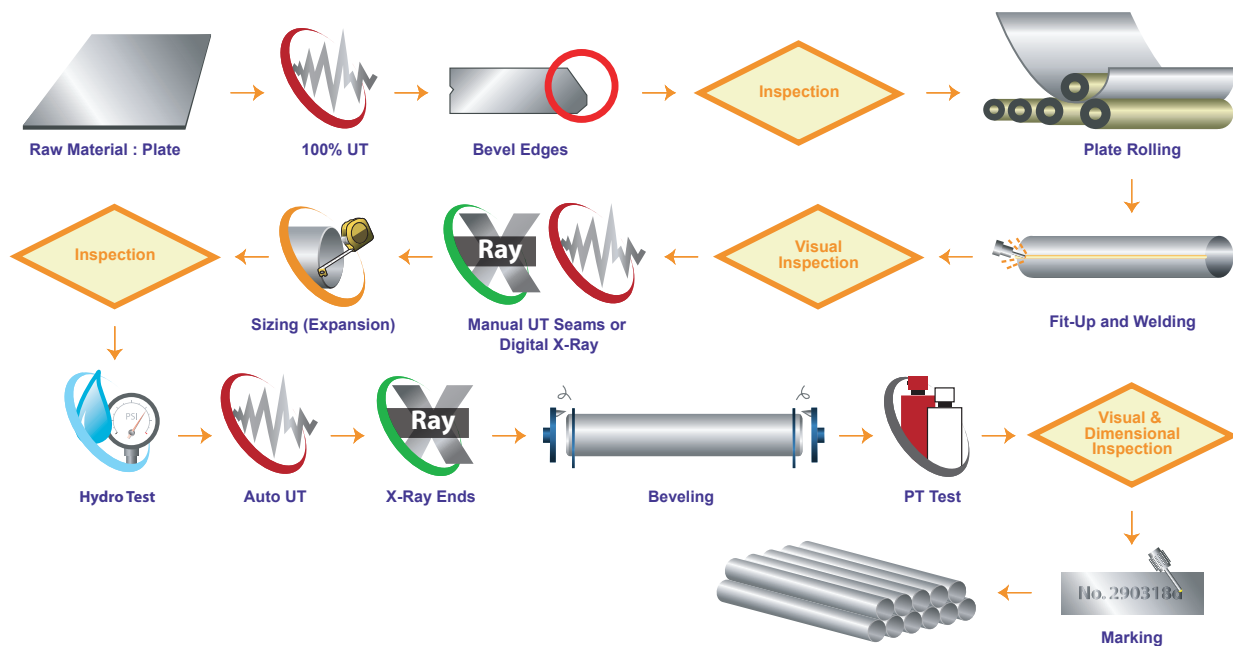
**They are more than just pipes.
They drive our future.
They add value to our customers.
Each pipe tells its own story:**

- Customers
- Dedication and Hard work
- Integrity
- Quality
- Modern technologies
- Technical know-how



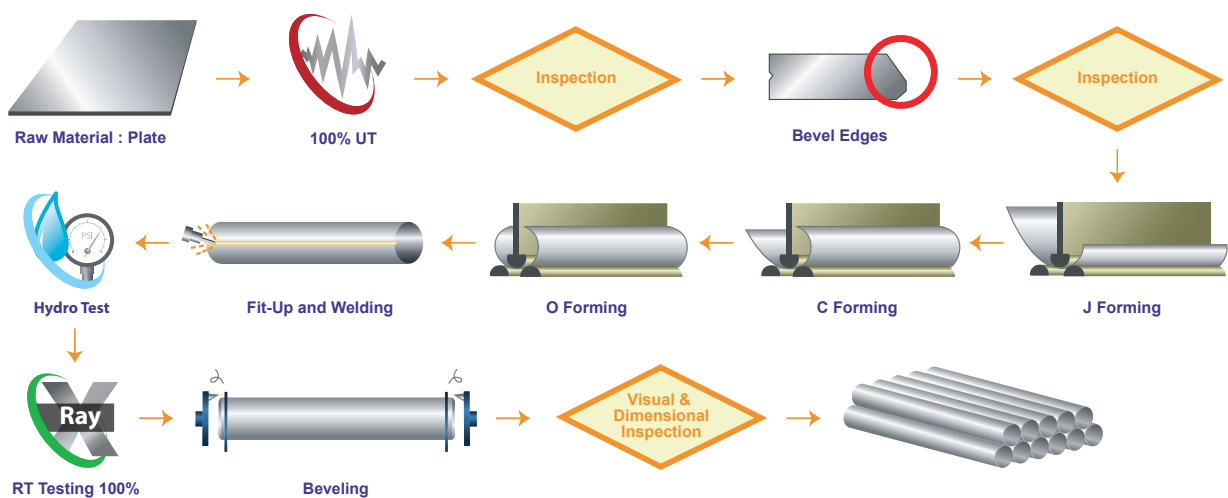


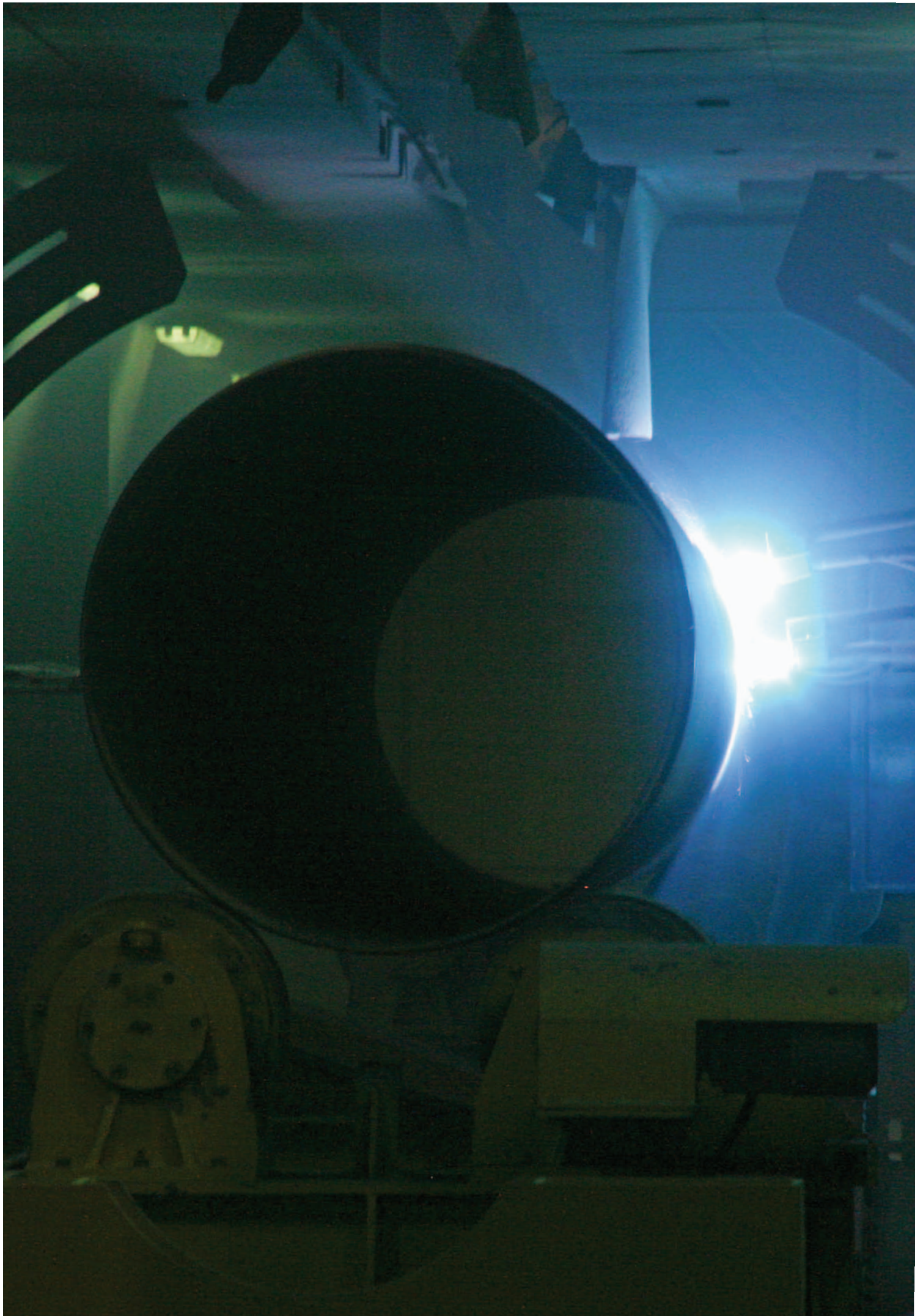
Roll Bending Lines





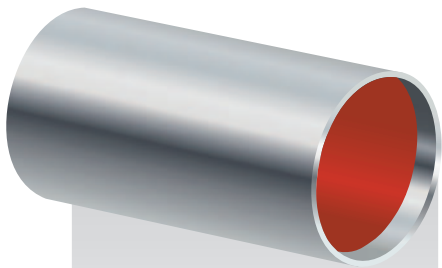
JCO Forming Lines



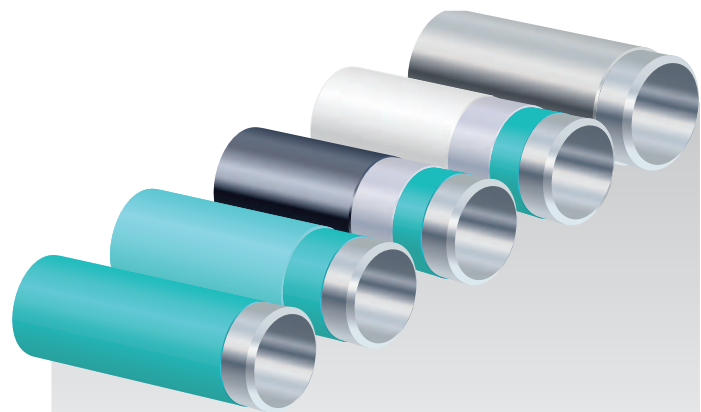




Pipe Coating

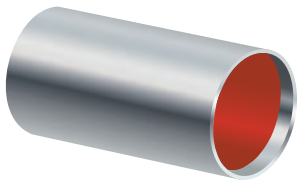


Internal
Coating

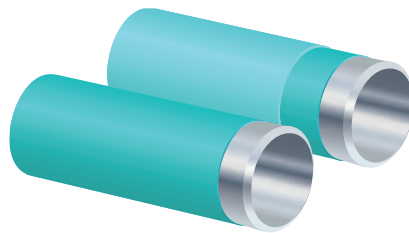


External
Coating

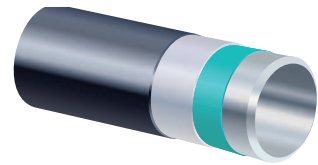
Coating Range



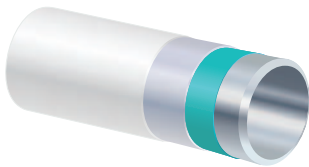
**Powder/Liquid
Epoxy**



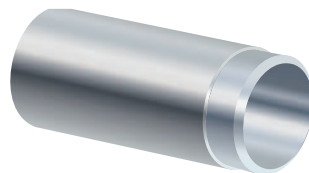
FBE
Fusion Bonded Epoxy



PE
Polyethylene



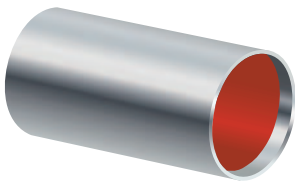
PP
Polypropylene



TSA
Thermal Spray Aluminum

Internal Coating

Powder/Liquid Epoxy



Oil & Gas pipelines



Large diameter pipelines

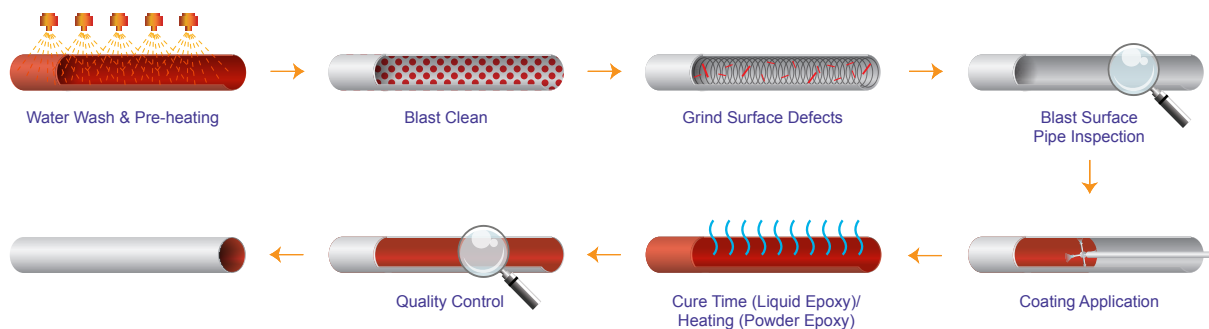


Small diameter pipelines



Waterworks pipelines

Coating Process



Internal coating is a plant applied powder/liquid epoxy lining for steel pipes where internal corrosion or smooth surface is required for improved flow.

Outside Diameters

168 mm.(6.625") to 1524 mm.(60")

Pipe Length

9.5 m. (31.7') to 12.2 m. (42.3')

Operating Temperatures

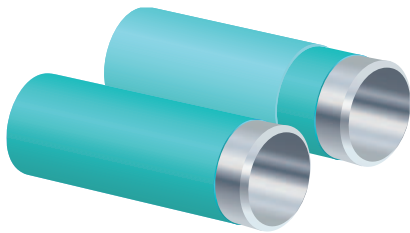
Depending on coating materials and applications

Advantages

- Reduces friction costs and compression costs
- Clean internal surface
- Corrosion protection

External Coating

Fusion Bonded Epoxy (FBE)



Oil & Gas pipelines



Large diameter pipelines

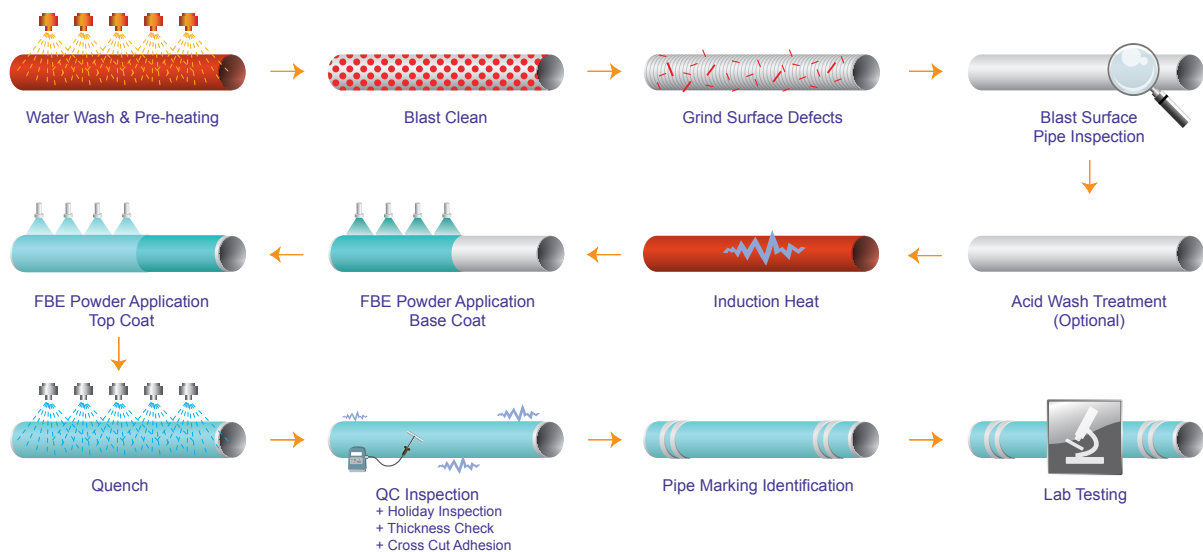


Small diameter pipelines



Waterworks pipelines

Coating Process



Outside Diameters

168 mm.(6.625") to 1524 mm.(60")

Pipe Length

9.5 m. (31.7') to 12.2 m. (40.6')

Operating Temperatures

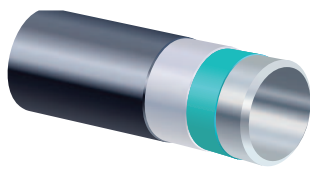
-40°C (-40°F) to 85°C (185°F)

Advantages

- Long term corrosion resistance
- High continuous operating temperature performance
- Chemical resistance, soil stress resistance, and resistance to cathodic disbondment
- Excellent adhesion to steel surface
- Dual layer FBE for mechanical protection in tough environments such as direction drill

External Coating

Polyethylene (PE)



Oil & Gas pipelines



Large diameter pipelines

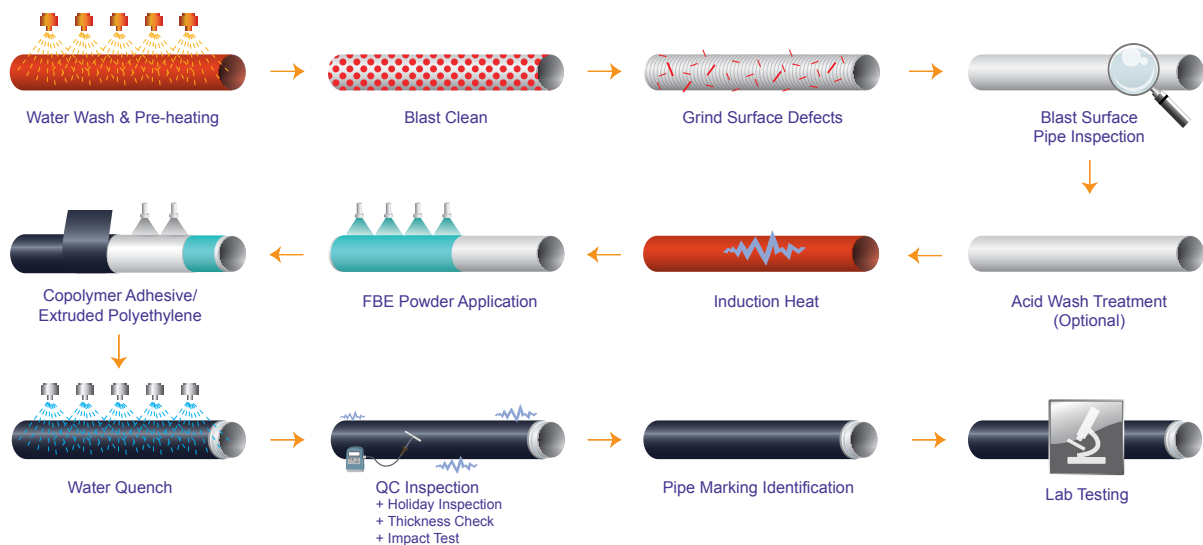


Small diameter pipelines



Waterworks pipelines

Coating Process



Outside Diameters

168 mm.(6.625") to 1524 mm.(60")

Pipe Length

9.5 m. (31.7') to 12.2 m. (40.6')

Operating Temperatures

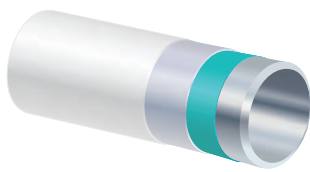
-40°C (-40°F) to 85°C (185°F)

Advantages

- Long term corrosion resistance
- High temperature performance
- Resistance to moisture penetration and mechanical damage
- Resistance to cathodic disbondment
- Excellent adhesion to steel surface

External Coating

Polypropylene (PP)



Oil & Gas pipelines



Large diameter pipelines



Small diameter pipelines

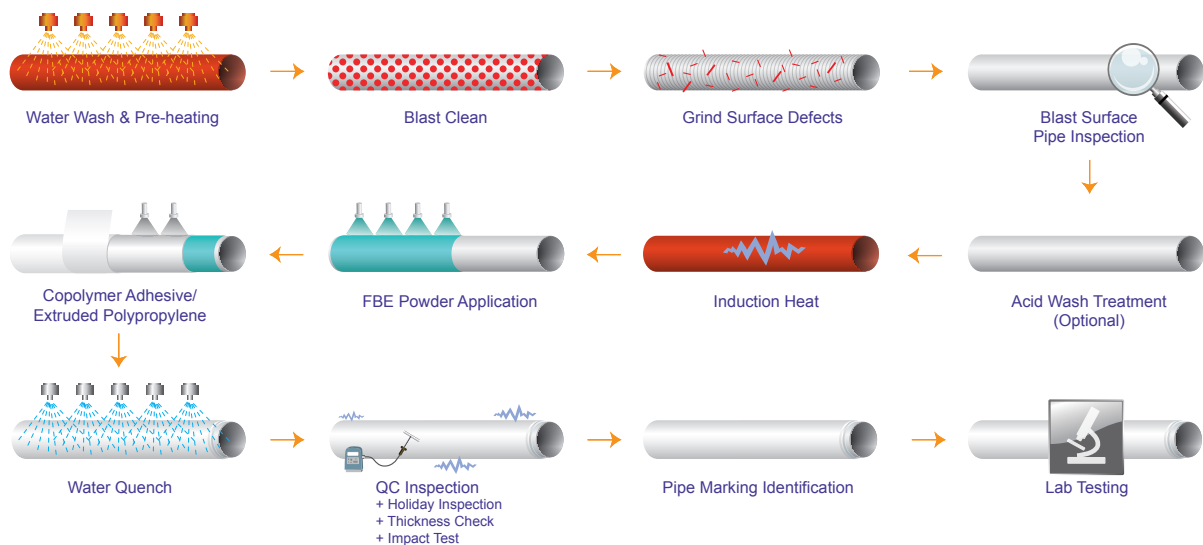


High abrasion environments



High operating temperatures

Coating Process



Outside Diameters

168 mm.(6.625") to 1524 mm.(60")

Pipe Length

9.5 m. (31.7') to 12.2 m. (40.6')

Operating Temperatures

-40°C (-40°F) to 110°C (230°F)

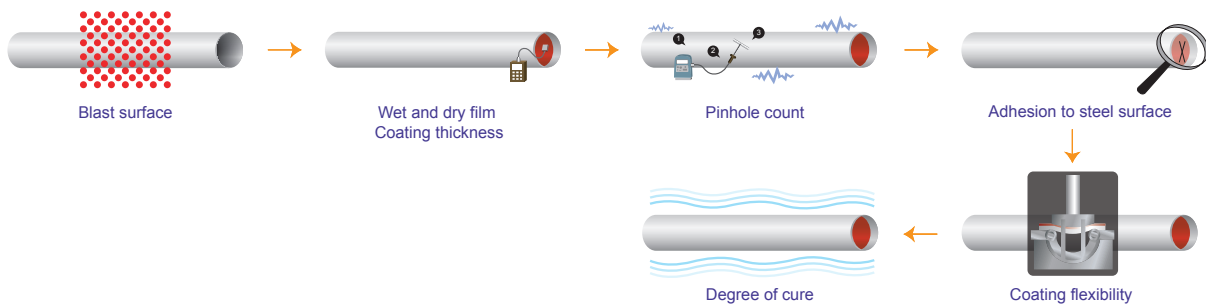
Advantages

- Long term corrosion resistance
- High temperature performance
- Resistance to moisture penetration and mechanical damage
- Excellent resistance to cathodic disbondment
- Excellent adhesion to steel surface

Testing and Inspection



Internal Coating (Powder/Liquid Epoxy)



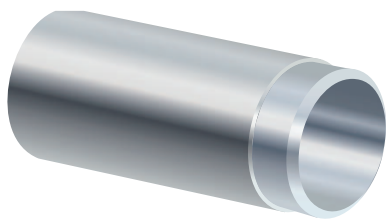
External Coating (FBE/PE/PP)



External Coating

Thermal Spray Aluminum

Coating Range



TSA

Thermal Spray Aluminum

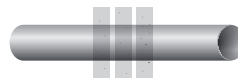
Testing and Inspection



Humidity & Temperature Test



Surface Profile Test



Dust Level Test



Visual Inspection



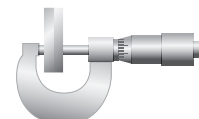
Bend Test



Pull-off Adhesion Test



TSC Porosity



Coating Thickness Test

Quality of coating is guaranteed

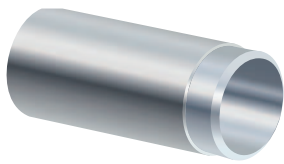
- High purity Aluminium Wire (>99.5%)
- Compressed Air cleanliness
- Purity of Blast Cleaning Abrasives
- Ambient conditions check (Dew Point and Relative Humidity)
- High quality surface preparation

Advantages

- Excellent adhesive and cohesive strength of coating
- Does not require Cathodic protection
- Corrosion protection
- Lifetime of service: Thicker coatings provide longer life, based on the sacrificial wear rate of the metal.
- Harder, better adhesion can be used for high temperature applications
- No mixing, set up or pot life limitations

External Coating

Thermal Spray Aluminum



Chemical environment (low-high pH)



Power-generating windmill towers



Bridge structure and expansion joints



Compressor components



Seals/Flanges

We also provide specialized coating systems including the “Thermal Spray Aluminum (TSA) coating” to meet the requirements of specific projects for customers around the world.

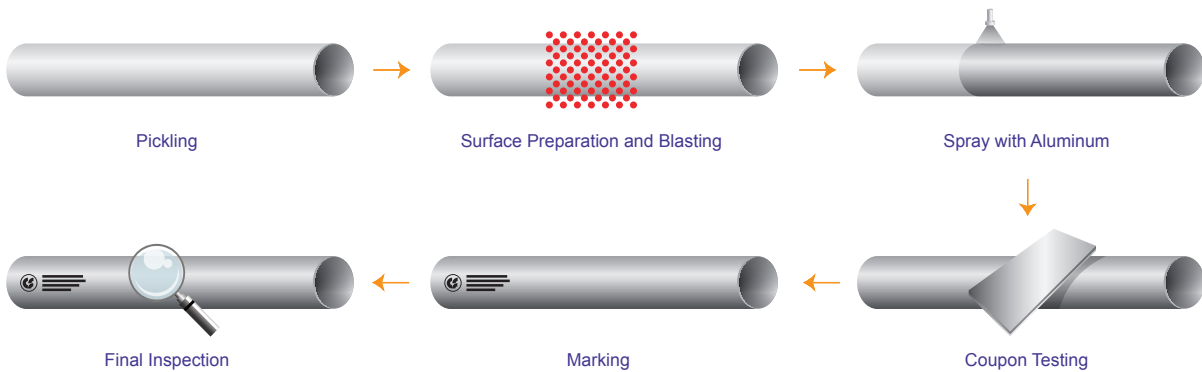


Marine environments, both fresh and oceanic

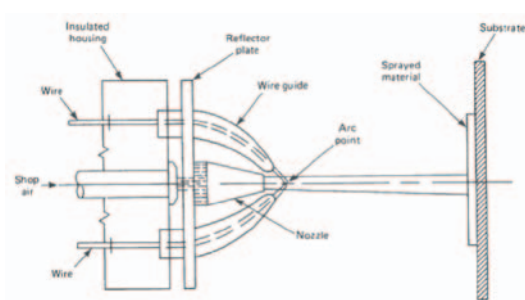


Temperature /Oxidation protection (thermal barrier coatings)

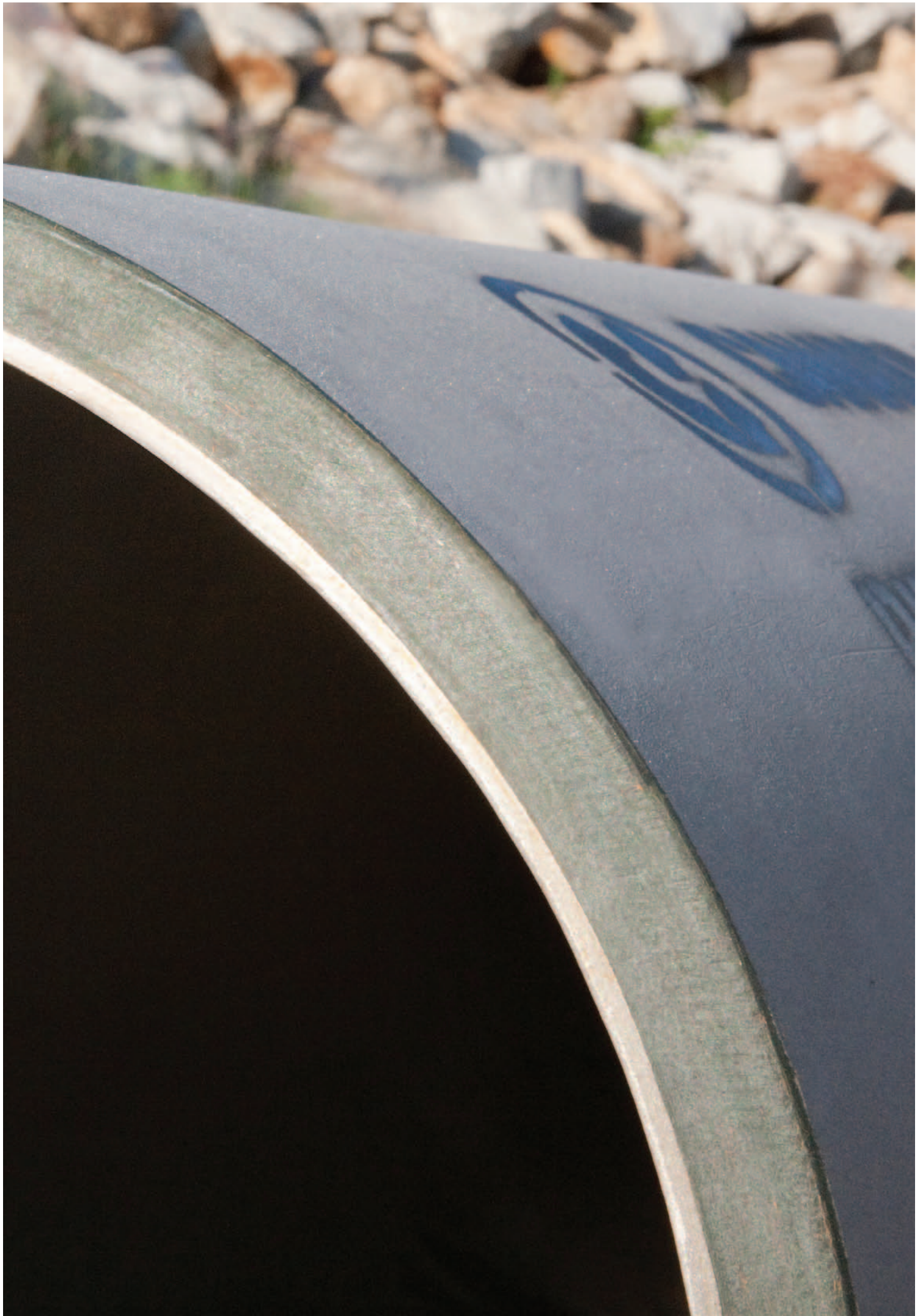
Coating Process



Twin Wire ARC Method (ARC Spray)

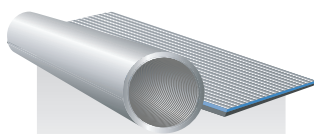


Twin Wire Arc systems functions by pulling or pushing two electrically charged wires into a gun head assembly where they are arced together. Located immediately behind this hot plasma zone is a compressed air jet which blows across the arc area, atomizing and propelling the molten metal particles forward to coat the substrate.

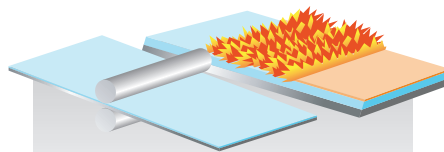




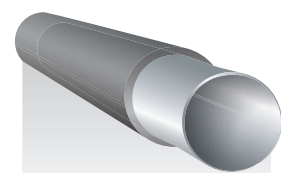
Cladding



Weld Overlay



Roll Bond/Explosion Bond



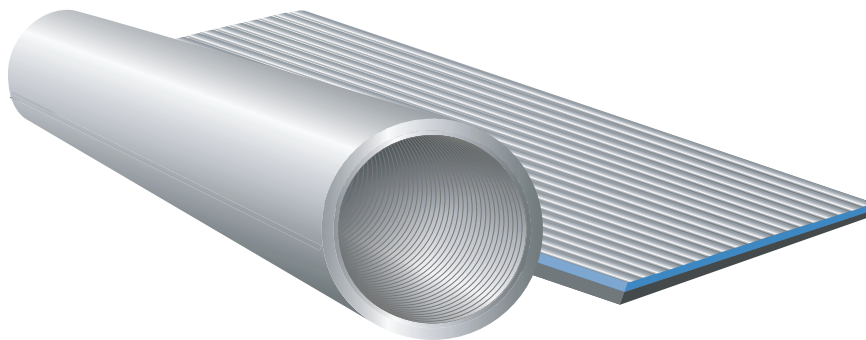
Mechanical Bond

Base & Clad Materials

Canadoil can produce piping components and vessels in various clad materials

Base (Backer)	Cladding			
Carbon steel : ASTM A671/A672	Stainless steel 304, 316L, 317L, 321, 347, 2205, 904L	Ni Alloy 200, 400, 600, 625, 825, C276, C22, 686CTP, ALLOY 59	Cu Ni 70/30, 90/10	Titanium Grade 6, Grade 7
Carbon steel : API 5L				
Chromium-Molybdenum : ASTMA387 Gr.11				

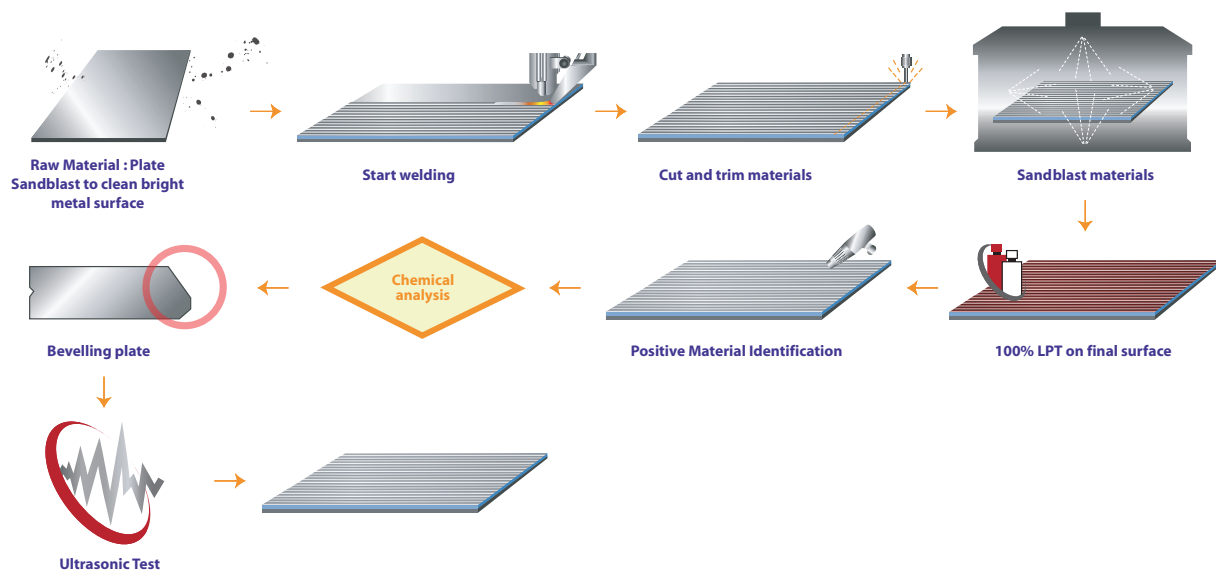
Weld Overlay



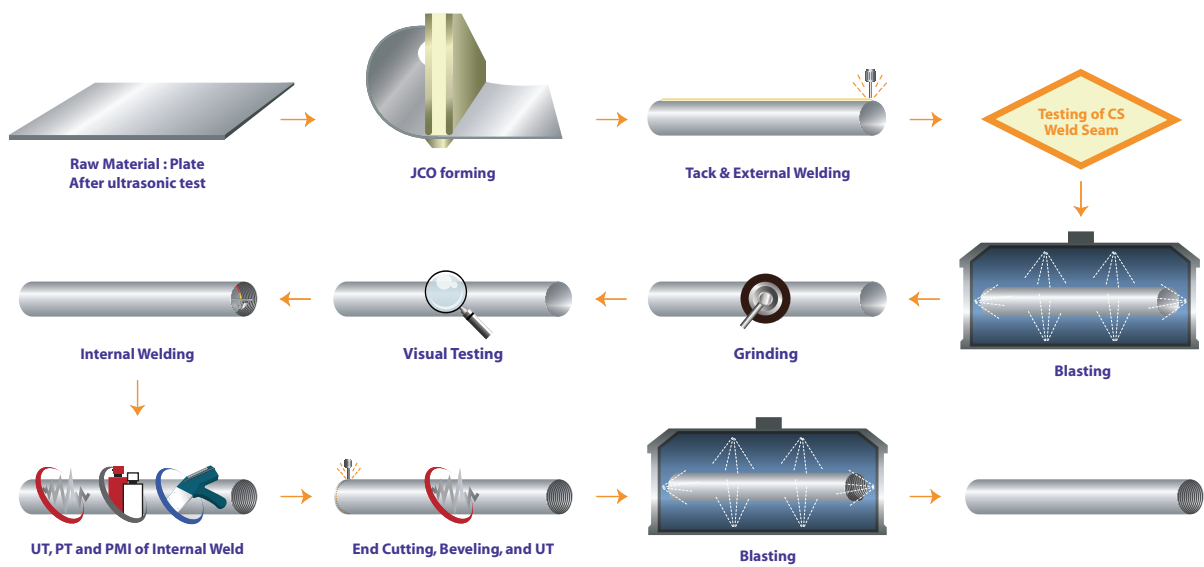
Advantages

- Providing a long-life and highreliability corrosion resistance to harsh environment applications.
- Very economical way to provide excellent corrosion resistance for steel structures without jeopardizing design thickness.
- Mainly used for Small Quantities and Complex requirements.

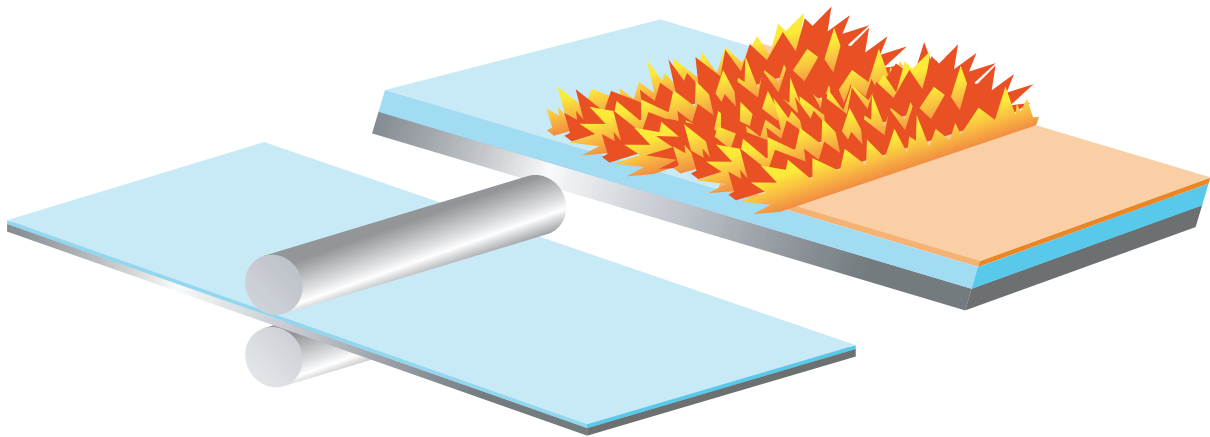
Weld Overlay Process - Plates



Weld Overlay Process - Pipes



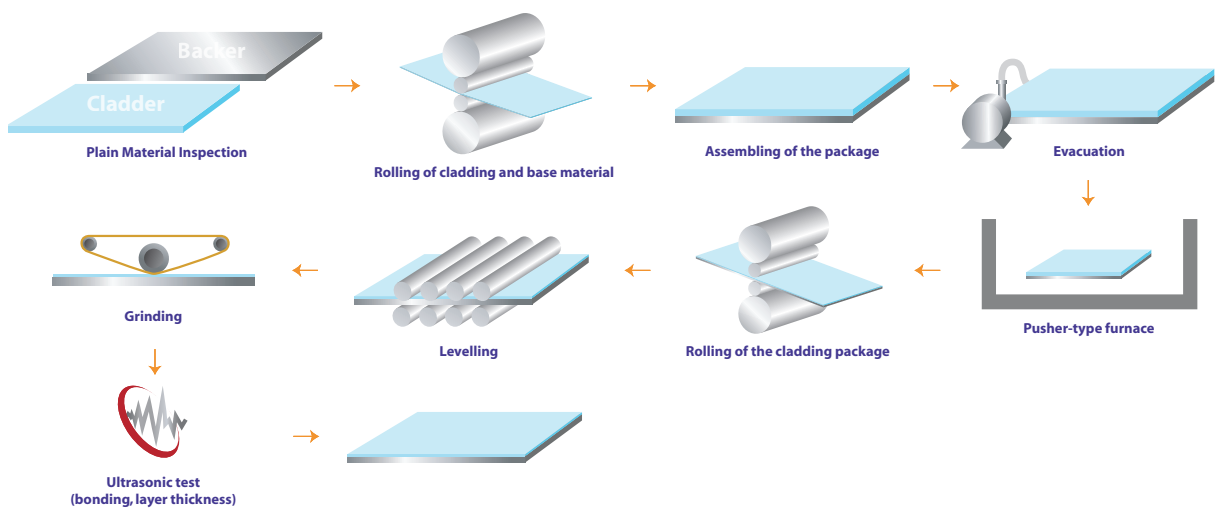
Roll Bond/Explosion Bond



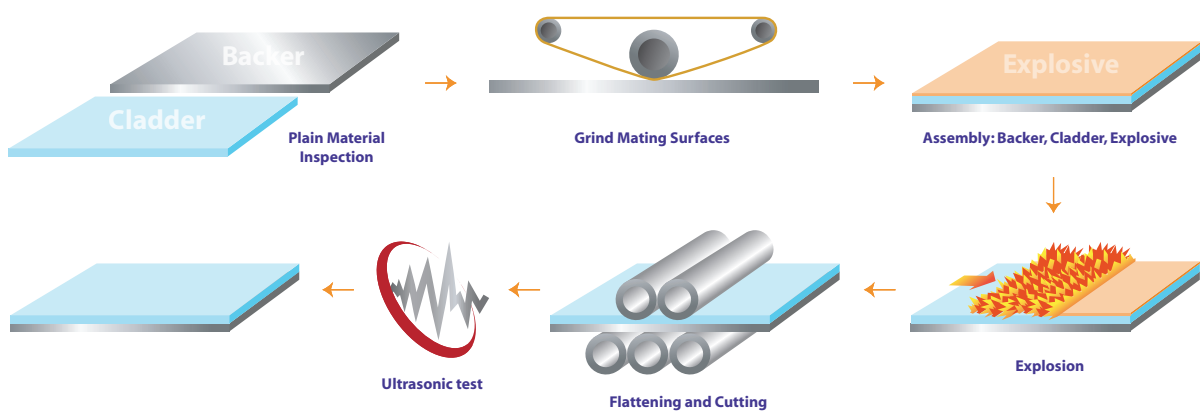
Advantages

- Roll-bonded clad plates are the economical alternative to expensive high-alloy solid plates. The mechanical properties of the base material and the corrosion resistance of the cladding material result in an optimum combination.
- Thinner wall thicknesses and better workability compared with solid plates.
- Better surface compared with overlay welding.
- More homogeneous bonding and a wider range of dimensions compared with explosion cladding.

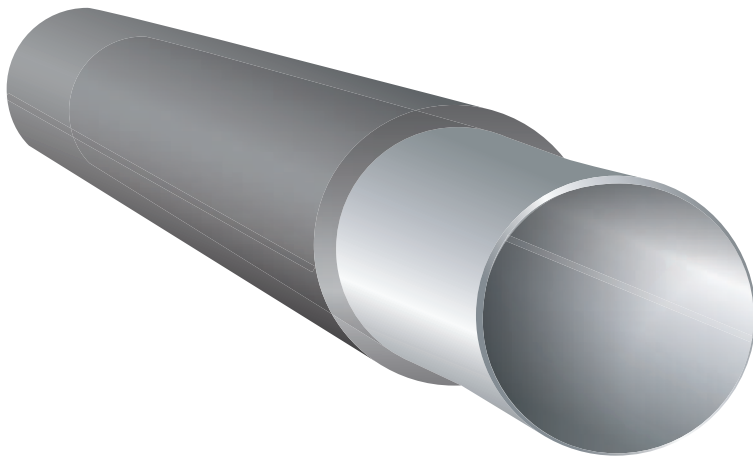
Roll Bond Process



Explosion Bond Process



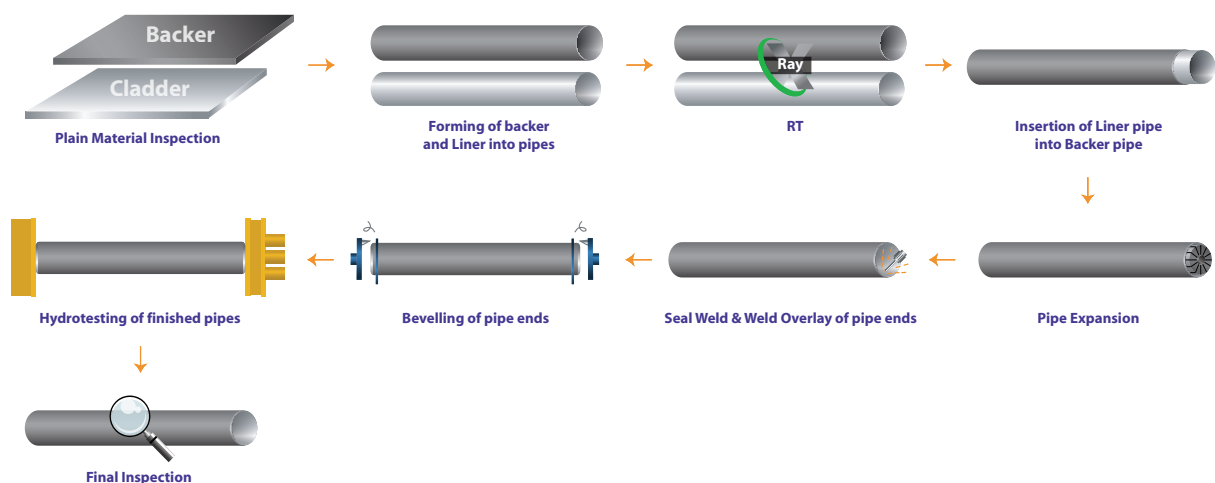
Mechanical Bond



Advantages

- Provides the most economical method of CRA protection.
- Can be on seamless or welded pipes, small or large quantities.
- Provides excellent corrosion protection, using the Backer material as strength portion.

Mechanical Bond Process

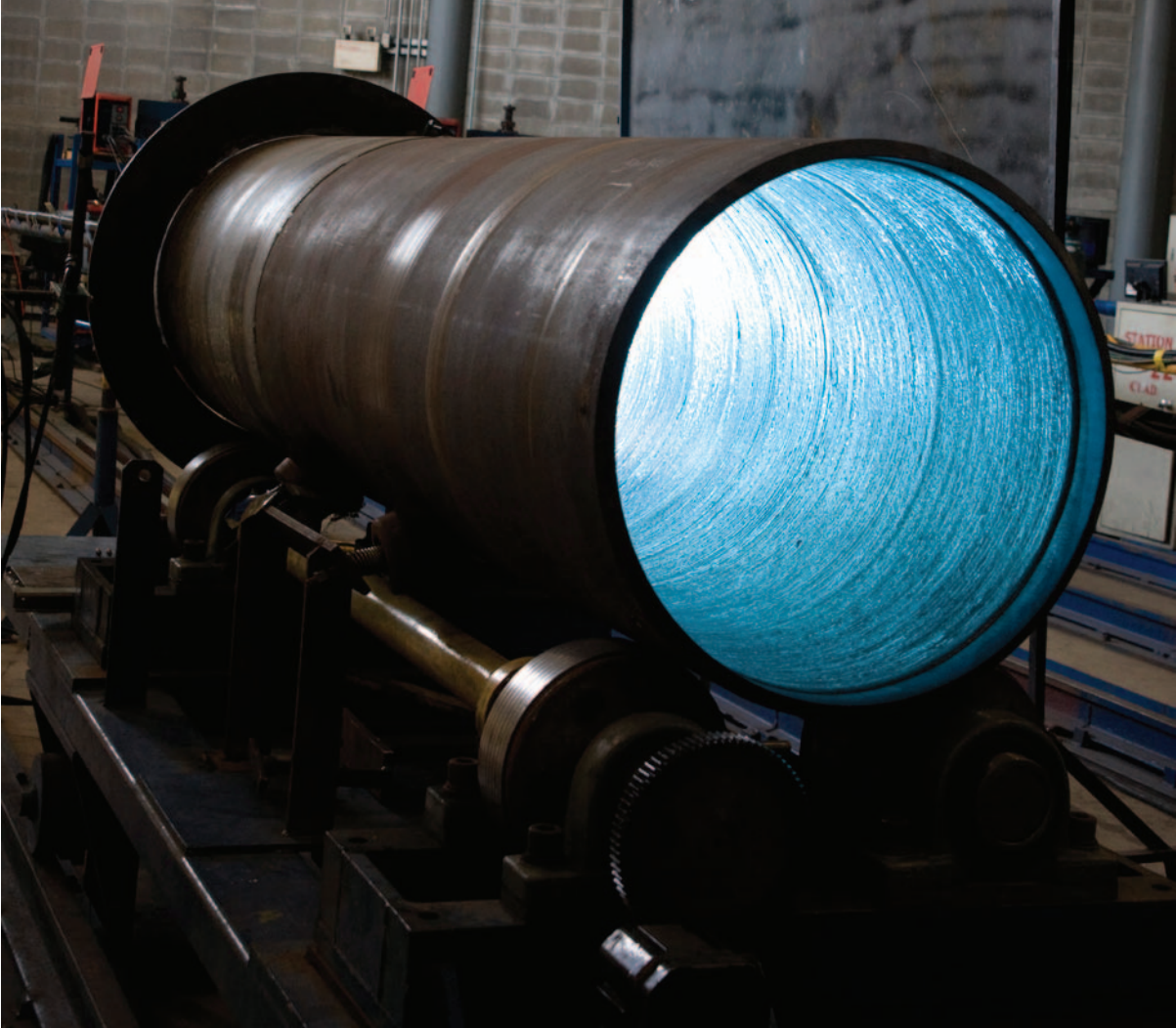


Product Range

Product Range

Plate Weld Overlay	Width	Thickness	Length
Maximum	3490	54	6096
Minimum	1500	25.2	1490

Pipe Weld Overlay	O.D.	W.T.	Length
Maximum	3048mm (120")	100mm (4")	12m (6000mm)
Minimum	152.4mm (4")	6.35mm (1/4")	3m (3000mm)



Certificates of Approval

Canadoil Asia

- API Spec 2B
- API Spec 5L
- API Spec 5LD
- ASME (S STAMP)
- ASME (U STAMP)
- ASME (U2 STAMP)
- LRQ ISO 9001:2008
- Manufacture License of Special Equipment (PRESSURE VESSEL) People's Republic of China
- THE NATIONAL BOARD (NB STAMP)
- THE NATIONAL BOARD (R STAMP)

Canadoil Forge

- ISO:9000 certified according to LRQA and/or Lloyds
- ABS (Marine Approval)

Canadoil Pipe

- API ISO / TS 29001
- API Spec 2B
- API Spec 5L
- API Spec 5LD
- API Spec Q1
- APIQR ISO 9001:2008

CO.VE.CO

- BUREAU VERITAS ISO 9001: 2008

Thai Benkan

- JIS
- LRQ ISO 9001:2008



Principal Customers



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Available on the
App Store

Canadoil Piping Program Calculator
Free on the App Store

At Canadoil, we have a team of dedicated professionals in place to respond to all our customers' needs.

For more assistance or information, please contact us at our website, www.canadoilgroup.com or at one of our offices.

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