



PROVIDENCE
PIPE
PRODUCTS

PRODUCT INFORMATION GUIDE

2023

PHONE: 562-803-1273

Mailing Address:

**1465 Tamarind Ave #229
Los Angeles, 90028
USA**

**Warehouse:
12310 Woodruff Ave
Downey, Los Angeles
County 90241
USA**

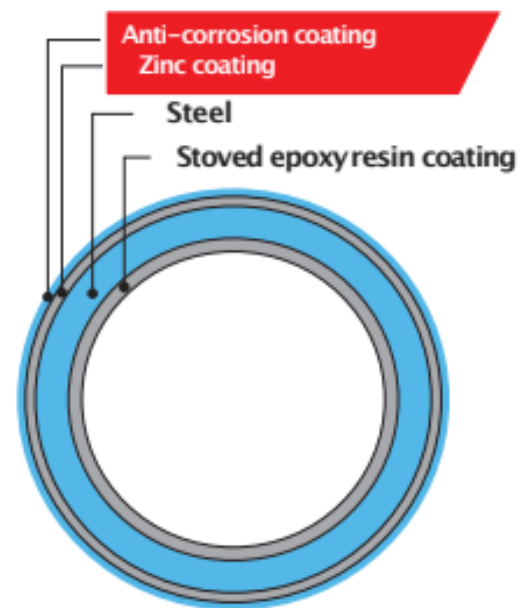
OUTSTANDING FEATURES

Superior galvanizing by in-line hot-dip process for greater protection against corrosion. Finished with durable and clear anti-corrosion coating for higher protection outside and higher grade epoxy coating inside.

Features

- 1) Easy and accurate bending :
Our conduit is made of high quality steel and processed by high frequency induction welding to prevent cracking when bend.
- 2) Easy wire pushing and pulling :
The high-grade stoved epoxy resin coating on the inside wall makes wire-pulling easy and protects against corrosion.
- 3) Easy coupling and fast installation :
Precise, sharp threads cut by automated machinery mean fast and easy installation. Precise thread also makes our conduit virtually moisture-tight.
- 4) High corrosion resistance :
Pure zinc coating on the exterior wall and stoved epoxy resin finish on the inside protects our conduit from corrosion, even by harsh chemicals and sea air.
- 5) Uniform quality :
Flat steel is rolled, zinc-coated and threaded in one continuous automated process for uniform high quality.

CROSS-SECTIONAL VIEW



UL Product IQ™

FJMX.E312420 - Electrical Metallic Tubing

Note: We are enhancing our systems and you may notice missing/updated data. During this interim period, please refer to your Certificate of Compliance or contact our Customer Service at https://www.ul.com/usa/locations

Electrical Metallic Tubing

PROVIDENCE PIPE PRODUCTS INC
12310 Woodruff Ave
Downey, CA 90241-5610 United States

E312420

Electrical metallic tubing, Model(s): 1 (27) [+a], 1-1/2 (16) [+a], 2 (35) [+a], 2-1/2 (41) [+a], 3 (34) [+a], 3-1/2 (4)

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Assemblies, Constructions, Designs, Systems, and/or Certifications (list) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings); 2. The statement "Reprinted from the Online Certifications Directory with permission from UL" must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "© 2021 UL LLC"

UL 312420 (EMT)

UL Product IQ™

DYIX.E312421 - Rigid Ferrous Metal Conduit

Rigid Ferrous Metal Conduit

PROVIDENCE PIPE PRODUCTS INC
12310 Woodruff Ave
Downey, CA 90241-5610 United States

E312421

Rigid Ferrous Metal Conduit, Model(s): 1 (27) [+a], 1/2 (16) [+a], 1-1/2 (41) [+a], 1-1/4 (35) [+a], 2 (35) [+a], 2-1/2 (41) [+a], 3 (78) [+a], 3/4 (21) [+a], 3-1/2 (91) [+a], 4 (103) [+a], 5 (129) [+a], 6 (155) [+a]

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

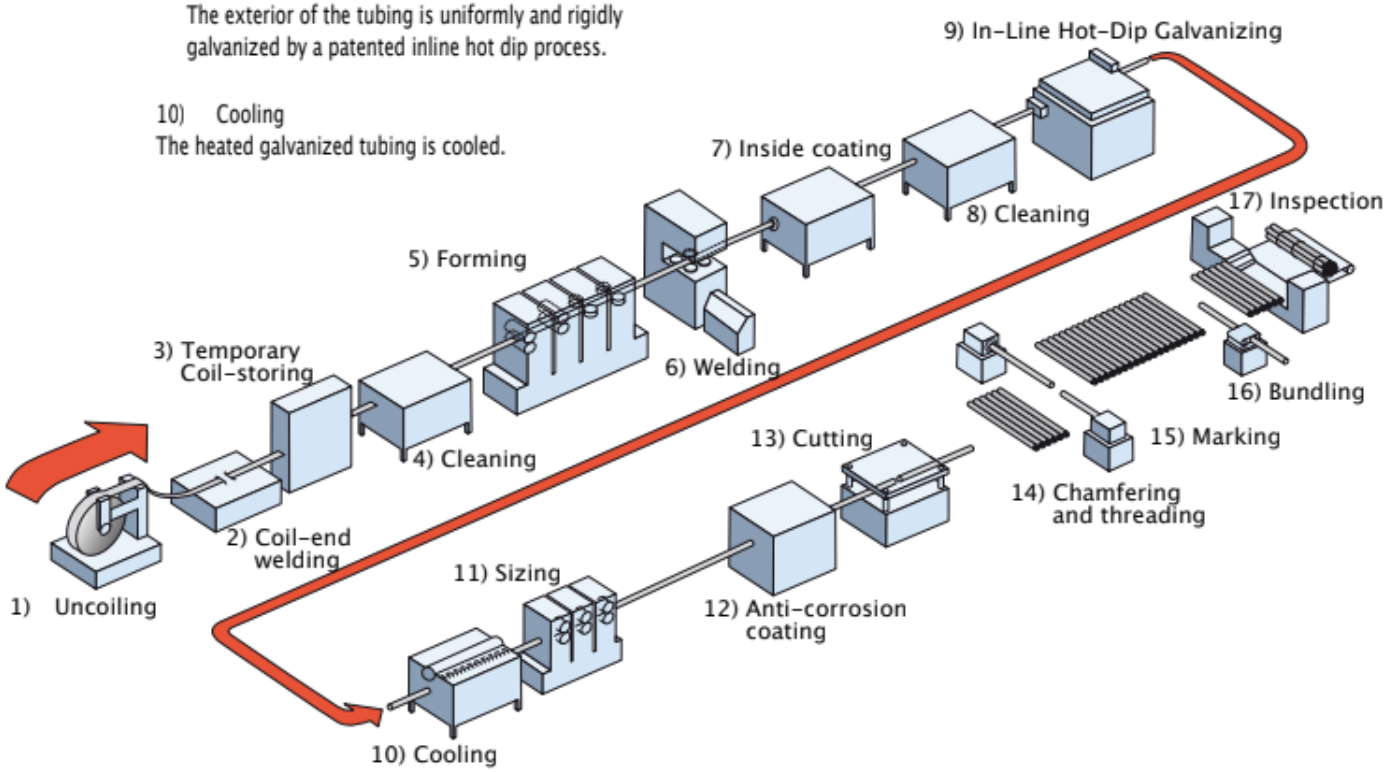
UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Assemblies, Constructions, Designs, Systems, and/or Certifications (list) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings); 2. The statement "Reprinted from the Online Certifications Directory with permission from UL" must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "© 2021 UL LLC"

UL 312421 (RIGID)

FLOW CHART OF MANUFACTURING PROCESS

- 1) Uncoiling
High quality strip steel coils are uncoiled and sent to the forming mills.
- 2) Coil-end welding
Both ends of the coils are welded to form a single strip.
- 3) Temporary coil-storing
Strip steel is stored here temporarily for coil end welding without stopping the main line.
- 4) Cleaning
All surface scale and oil on the strip steel are removed to assure accurate forming and rigid welding.
- 5) Forming
The flat strip steel is rolled into basic tubing.
- 6) Welding
Basic tubes are welded by a high frequency induction welder. This type of welding assures rigidity, splitting-resistance and effectively eliminates inside flash.
- 7) Inside coating
The inside wall of the conduit is coated with epoxy resin.
- 8) Cleaning
All surface scale and oil are removed from the tubing Prior to galvanizing.
- 9) In-line Hot-Dip Galvanizing
The exterior of the tubing is uniformly and rigidly galvanized by a patented inline hot dip process.

- 10) Cooling
The heated galvanized tubing is cooled.
- 11) Sizing
The cooled, galvanized tubing is rolled to precise outside diameters in accordance with customer Specifications.
- 12) Anti-corrosion coating
For protection in addition to zinc coating, the galvanized surface is finished with a clear Anticorrosion coating.
- 13) Cutting
Tubing is square-cut to the specified lengths.
- 14) Chamfering and threading
Both ends of the cut conduit are chamfered and threaded to precise tolerance.
- 15) Marking
Brand name, size, standards, production codes, etc. Are marked on the conduit.
- 16) Bundling
Finished conduit is steel strapped into approximately one metric ton bundle.
- 17) Inspection
At all steps of production, strict quality control is enforced. Unless customer specifies UL, or other Certificates, all conduit is inspected according to factory specifications.



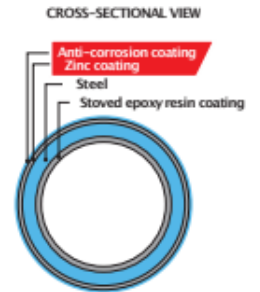
OUTSTANDING QUALITY

Superb Outside Surface

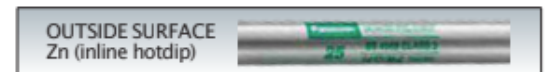
- TwoLayers Coating Technology

- Copper sulphate

Outside coating : Coated with zinc by in-line galvanizing process which makes our coating better. Moreover, we have final anti-corrosion coating for additional protection.



Test Std : UL797 Clause 6.2.2(Protective Zinc coating)
 Criteria : Product passes if they do not show a bright adherent deposit of copper after four 60seconds immersions in the copper sulphate solution.



Test Std: BS4568 ClauseA.3.3 (Protective Zinc coating)
 Criteria : Product pass if they do not show a bright adherent deposit of copper after four 60second immersions in the copper sulphate solutions.
 Result : **No formation of red rust.** (Superior resistance to corrosion)

0 cycle	1 cycle	2 cycle	3 cycle	4 cycle
	Pass	Pass	Pass	Pass

CLISO,Test (Cleaning additional coating before test)	Outside	0 cycle	1 cycle	2 cycle	3 cycle	4 cycle

Result : Fully confirm to the above requirement of UL

- Salt spray test

Method : It involves spraying of salt solution on the sample being tested inside a temperature controlled chamber.

Duration : 480hours or more.

Result : No formation of red rust. (Superior resistance to corrosion)

96 hours	168 hours	240 hours	336 hours	408 hours	480 hours
Result White Rust 30%	Result White Rust 80%	Result White Rust 90%	Result White Rust 100%	Result White Rust 100%	Result White Rust 100%

- Under testing corrosion will appear as -White rust & Red rust

White rust

It is the formation of zinc oxide and looks like white powder on top of Zinc plated steel. The good thing about it is that this form of rust is not affecting the base material. It does not indicate serious degradation of zinc coating nor does necessarily it imply any likely reduction in the expected life of the product .



White rust

Red rust

It is caused by the corrosion of steel substrate where zinc coating has broken down completely. The most important thing about red rust is that this form of rust is affecting the base material resulting in the degradation of material .

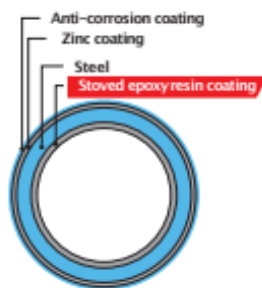


Red rust

OUTSTANDING QUALITY

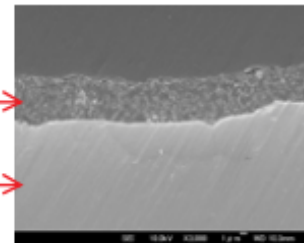
Superb Inside Surface

- Rust Proof & Smooth Seam, Special Coating Technology



Inline method
Dense and uniform
coating film

Stoved epoxy resin coating
Steel



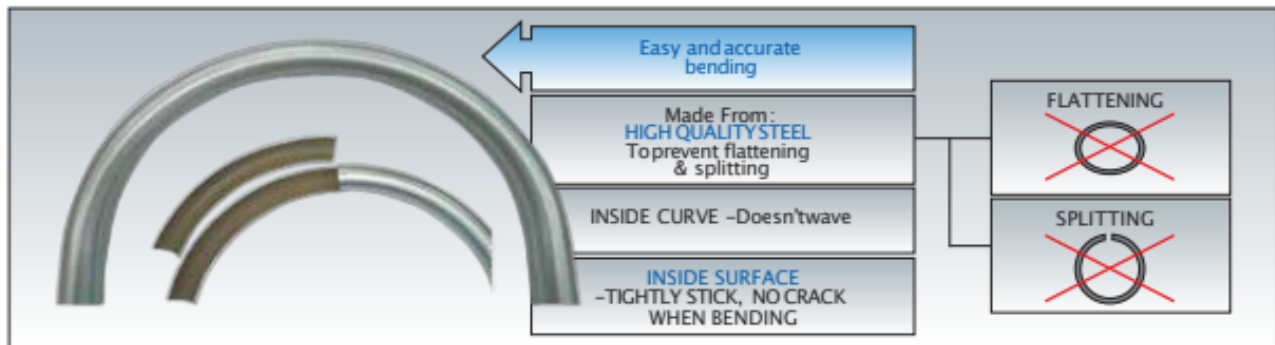
INSIDE SURFACE ENAMEL COATING THOROUGHLY	Corrosion resistance Uniform Quality	OUTSIDE SURFACE -INLINE HOTDIP => UNIFORM & SMOOTH
 ✓ Easy wire pulling ✓ Protect wire insulation ✓ Protect from corrosion	 INSIDE SEAM	Easy wire pushing & pulling INSIDE SURFACE -ENAMEL COATING INSIDE SEAM -SMOOTH & SMALL

OUTSTANDING QUALITY

Superb Bending

- Smoothly and No Damage in Any Bending Angle
Exclusive Material & Process

By the use of high quality manufacturing and high quality steel conduit can bend smoothly and there is no damage in any bending angle.



Our conduits are manufactured from high quality steel & processed by high frequency induction welding therefore the finished tube is uniform in OD, wall thickness & ductility.