DURABOND SIGNATURE EVENTS
Dura-Bond is a successful business built upon the proud accomplishments of three generations of Norris family members and our experienced team of pipe manufacturing, steel fabrication and corrosion protection professionals.

- 1980: Acquired Greensboro, NC facility
- 1982: Acquired 10.7 miles of Conrail track and created a short-line railroad
- 1983: Acquired pipe coating mill in McKeesport, PA
- 1985: Acquired steel fabricating plant in Jacksonville, FL
- 1993: Acquired pipe coating facility in Steelton, PA
- 2003: Acquired former Bethlehem Steel Corp LSAW pipe plant in Steelton, PA
- 2013: Opened FBE pipe coating facility in Duquesne, PA
- 2016: Acquired former US Steel McKeesport Tubular ERW pipe operations

AMERICA’S ENERGY RELIES ON DURABOND
Steel pipe manufacturing, protective coatings, steel fabrication

Dura-Bond was founded in 1960 by J.M. Norris to provide corrosion protection services for manufacturers and users of steel products. Today, Dura-Bond Industries operates four plants strategically located in Western Pennsylvania’s Marcellus/Utica Shale Region. The facilities utilize advanced steel manufacturing and protective coating technologies.

Each plant, unique in its capabilities, complements the others by enabling Dura-Bond to serve a wide range of customer-specific requirements for steel pipe, protective pipe coatings and fabricated steel products. Though each plant utilizes distinct processes to expand our product offerings, they all share Dura-Bond’s trademark reputation for quality, safety and excellent customer service.

Through the years, Dura-Bond has invested heavily in its facilities to add innovative new processes and enhance proven techniques and equipment. These investments provide our customers with the high degree of quality and services they have come to expect from Dura-Bond Industries.
LONGITUDINAL SUBMERGED ARC WELD (LSAW) PIPE

24" - 42" diameter, up to 80' length

LSAW pipe manufacturing utilizes both external and internal longitudinal submerged arc welding to produce a high-quality straight seam weld that is unmatched in reliability and integrity. UOE pipe cold forming begins with flat plates being side crimped, pressed to a U and O shape, welded and hydraulically expanded. The forming and welding processes maintain the integrity of steel plate's unique properties and assure performance specifications are satisfied.

Dura-Bond hydraulically expands each piece of LSAW pipe to ensure exact body size and roundness. The pipe is pressurized with water until the steel reaches specified yield strength. It is then forced against a steel die for uniform final shape and diameter. The expansion also allows for each pipe's yield strength to be monitored and recorded.

Our unique hydraulic expansion process assures even dimensions throughout the pipe. This is especially important when making field cuts and fitting up the cut ends. Additionally, over-pressurization exposes any weakness in the product's long seam weld and body.

Most importantly, since the pressure is known at the point where the pipe starts to yield, Dura-Bond can determine if the yield strength of each joint of pipe meets the production specification, unlike other mill's random testing.

LSAW straight seam welding produces less weld per lineal foot than spiral welded pipe, minimizing opportunities for weld-related issues.

**DURA-BOND LSAW STEEL PIPE PROCESS**

**AMERICAN-MADE STEEL PIPE: ENERGY and UTILITY MARKETS**

Quality steel pipe in grades up to X80

Dura-Bond's Steelton plant manufactures large diameter longitudinal submerged arc weld (LSAW) pipe (24”-42”) for oil, gas and water markets. Our API approved manufacturing processes and operation meet the pipeline industry's highest standards for American-made steel pipe quality.

Dura-Bond manufacturing systems employ the tubular industry's most advanced welding, pipe mill tracking and non-destructive testing. The Steelton pipe mill is recognized industry-wide for quality, safety and excellent customer service.

Dura-Bond operated as an on-site coater for Bethlehem Steel since 1993. After idling pipe making operations in 1998, the former Bethlehem Steel Corp pipe manufacturing facility was purchased and newly reopened by Dura-Bond. Today, this unique Dura-Bond mill is producing API certified steel pipe for some of North America's largest pipeline projects.

Dura-Bond has invested heavily in the Steelton facility to add innovative new processes and enhance proven techniques and equipment. These investments provide our customers with the high degree of quality and services they have come to expect from Dura-Bond.
DURA-BOND ELECTRIC RESISTANCE WELDED (ERW) PIPE
(8" - 20" diameter, up to 80’ length)

Dura-Bond Pipe McKeesport manufactures ERW steel pipe at our McKeesport, Pennsylvania facility. The McKeesport plant sits on the site of the original National Tube Works, which was later operated by US Steel. This 317,000 square foot plant has been modernized to accommodate the most technically advanced ERW processes. Dura-Bond also updated plant logistics with the improvement of rail and road connections. Pipe coating services are offered within close proximity at neighboring Duquesne, PA.

Dura-Bond’s API certified ERW line pipe is a tubular product produced by continuously forming flat steel and welding the longitudinal seam using high-frequency electric resistance welding. Domestic manufactured steel coil is conditioned and prepped for welding before passing through a series of cold-forming rolls that transform it from flat steel to a round pipe section.

A high-frequency welder heats the edges of the rolled strip and pressure rollers then squeeze the heated edges together to form a fusion weld. Every weld is ultrasonically inspected to assure integrity and precise adherence to API and ASTM specifications.

Next, the pipe is heat-treated to remove welding stresses and produce a uniform normalized grain structure. It is then cooled and sent to the sizing mill, where rollers straighten the pipe and size it to the correct outside diameter.

As the continuous length of pipe moves toward the mill’s exit, a flying cut-off slices lengths of pipe to manageable sizes without interrupting the production flow. Each pipe is hydrostatic tested to ensure rated strength and weld integrity under pressure.

Finally, the weld is ultrasonically inspected and the pipe body is fully examined by automated electromagnetic inspection equipment. Customer identity and project information is stenciled on each pipe.

CHARACTERISTICS AND ADVANTAGES

Eighty Foot Lengths – Ultra-long lengths of Dura-Bond ERW pipe minimize handling time during transportation and installation, significantly reducing field welding labor, time and costs.

High Quality ERW Pipe – Domestically manufactured coil is fused by high frequency electric resistance welders into rugged pipe that meet exacting tolerances and strength specifications.

Uniform Dimensions and Quality – Continuous non-destructive and visual inspection is combined with state-of-the-art hydrostatic testing to assure the manufacture of uniform pipe that meet the highest quality standards.
DURA-BOND COATING SYSTEMS

Dura-Bond’s plant-applied fusion bond epoxy pipe coating operations can accommodate diameters ranging from 4” to 42” and lengths up to 80’. Specialty coatings can be applied on 4” to 92” diameter pipe.

Fusion Bond Epoxy Coatings (FBE)

Fusion Bond Epoxy (FBE) is an environmentally-safe thermosetting coating that is sprayed onto the pipe surface after it has been cleaned and heated to over 450º F. Epoxy powder melts onto the steel surface and fuses to the pipe, creating a hard barrier. Dura-Bond’s FBE coating has been laboratory and field-tested to assure customers of field-proven protection that will last for generations.

Abrasion Resistant Overcoating (ARO)

Our FBE Dual Coating System is a hard, mechanically strong overcoating for use on top of any brand of fusion bond epoxy coatings. ARO coating enhances the performance of the first layer of FBE corrosion protection. It is applied to the base coating to form a tough outer layer that is resistant to gouge, impact, abrasion and penetration. This coating is specifically designed to protect the primary corrosion coating from damage during pipeline directional drilling, bores, river crossing and installation in rough terrain.

Internal Diameter Coating (ID Lining)

Dura-Bond applies internal coatings for uses ranging from water/wastewater treatment to mainline gas transmission. The application of internal diameter coating adds corrosion protection and increases flow efficiency to the inside of steel line pipe. Dura-Bond can provide high performance specialty linings that meet MIL-C-4556E military specifications for use on pipelines that transfer jet fuel.

SPECIALTY COATINGS

Dual Layer

Dura-Bond offers dual layer FBE coatings for use in the most critical pipeline environments. Our plants utilize a modern dual powder application booth to keep both layers separated for maximum performance. Dura-Bond’s advanced equipment and processes can apply any brand of fusion bond epoxy and satisfy the most demanding specifications. Our dual layer coatings provide abrasion resistance during pipeline installation, improve cathodic protection and are ideal for use in rough terrain.

Powercrete®

Powercrete® is the pipeline industry’s most specified concrete overcoating and Dura-Bond is North America’s leading applicator of this field-proven abrasion protection. Dura-Bond and Powercrete® can provide superior adhesion and abrasion resistance for below ground and submerged pipelines. Powercrete® is impervious to soil stress and is fully compatible with FBE. This tough plural component epoxy concrete is sprayed hot over freshly applied FBE coating in a thickness of 20 to 125 mils. It is recommended for use on pipe that is to be pulled under a river, road or wetland area through a directional bore.

Liquid Epoxy

Dura-Bond applies NSF epoxy linings to the inside diameter of pipelines that are required for sanitary applications and exterior liquid epoxy coatings for exterior protection.
QUALITY ASSURANCE
Dura-Bond’s quality policy and objectives are fully endorsed by the top management and reflect the commitment of its employees to performance excellence. Dura-Bond Industries is committed to achieving customer satisfaction by supplying quality pipe products and services. To achieve this goal, Dura-Bond will manage its business activities to:
- Build a work environment and work force focused on safety, customer needs, and cost-effectiveness.
- Manufacture pipe and provide coating services meeting agreed requirements, specifications, and standards.
- Continually improve quality through analysis and review of processes and suppliers, and involving employees in development of innovative solutions.

SAFETY INITIATIVE
The Dura-Bond Safety Initiative declares that all workplace accidents are preventable. Our team pulls together to create a high level of safety awareness in our work environment. Dura-Bond maintains a safety development program that encourages manufacturing exceptionalism. This company-wide initiative places the focus squarely on safety and quality.

LOGISTICS
Dura-Bond can accommodate truck, rail, and barge transport from our conveniently located Pennsylvania facilities. Our access to interstate highways, heavy haul rail lines and navigable waterways create unique opportunities to match logistics to each customer’s preferable choice of transport. Dura-Bond also maintains expansive pipe storage areas where customer product can be staged for just-in-time delivery.

FIELD-PROVEN
ENERGY AND UTILITY PIPELINE PRODUCTS
Dura-Bond offers the latest in pipeline products for in-field installation, rehabilitation, storage and post installation.

Promark Utility Supply
- Test Stations

Polyken Tape Systems
- Polyken Tape Products

STOPAQ
- Self Healing Coating
- Rehab Systems
- Outerwraps

Tinker and Rasor
- Holiday Detectors

Powercrete®
- Powercrete® R-95
- Powercrete® F-1
- Powercrete® J

Girard Industries
- Pipeline Pigging Products

3M Liquid Epoxy
- 2 part Epoxy Sticks
- Liquid 2 part Epoxies

Delstar Technologies
- Rockshield

CCI Pipeline Systems
- Casing Spacers
- End Seals
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