

*200,000 miles*  
of mechanical tube a year...  
one foot at a time



 **allied**  
TUBE & CONDUIT  
MECHANICAL TUBE  
DIVISION

A **tyco** INTERNATIONAL LTD. COMPANY

Allied's Mechanical Tube Division is the leading supplier of galvanized and commercial quality steel tubing to both manufacturers and metal distributors in many consumer and industrial markets. The mechanical tubing manufactured by Allied Tube & Conduit annually, if laid end-to-end, would stretch for more than 200,000 miles!

Allied Tube & Conduit was founded more than 40 years ago when a technique was developed to run welded tubing through molten zinc while still "on-line". The resulting Flo-Coat® process not only revolutionized the steel tubing industry at that time, but also created a culture of innovation that continues at Allied today.

## Hundreds of Satisfied Customers...

Every time Allied has entered a new market, it has been with innovative products designed to cut costs without sacrificing performance. Allied changed the electrical construction industry with the introduction of IMC (Intermediate Metal Conduit), a lighter, stronger, and less expensive alternative to heavy wall rigid conduit. Allied "XL" galvanized sprinkler pipe, introduced to the fire protection industry in the early 1980's, was the first metal piping product to be developed specifically for use in sprinkler systems. And Allied's Gatorshield® galvanized steel tubing, combining superior corrosion resistance and high yield strength, has become the product of choice for many OEM and structural applications.

In 1987 Allied was acquired by Tyco International, giving Allied the resources to sustain its continued growth and emphasis on research and development. Tyco (NYSE:TYC) is a worldwide corporation whose continued growth and success has given Allied the ability to invest in upgrading and improving equipment, processes and products. In the last five years alone, Allied/Tyco has spent nearly \$200 million dollars to improve facilities, increase capacity, advance technology and introduce new products.

But what does all that mean to a purchaser of steel tubing? It means Allied can offer a wider range of products, better quality tubing, shorter and more flexible lead times, as well as technical and marketing assistance. The bottom line is that Allied is positioned to better serve its customers... one order at a time.

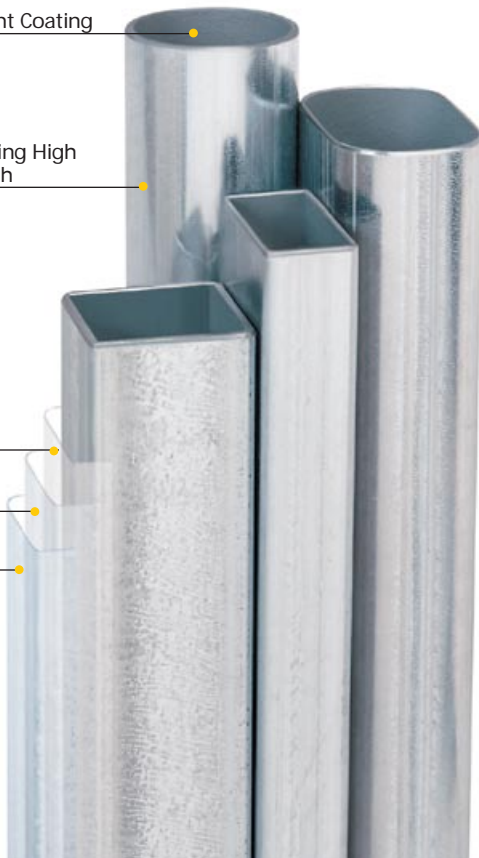
Interior Corrosion Resistant Coating

Cold-Formed Steel Providing High Yield/High Tensile Strength

Flo-Coat® Uniform Zinc Galvanizing

Conversion Coating

Clear Organic Coating





one order  
at a time



no matter what path you choose  
for your company, **allied** can help  
point you in the  
*right direction*

Allied offers the widest range of product options in the tubing industry.

- Sizes from 0.500" - 5.000" outside diameter
- Variety of shapes: round, square, rectangle and oval. Specialty shapes upon request.
- Galvanized products with exterior coating weight range of 0.4 to 1.0 oz/ft<sup>2</sup>
- Commercial quality products with a Qwik-Coat™ primer or oil-coated finish on the exterior
- Galvanized or commercial quality products with or without corrosion-resistant interior coating
- Various tube strength options to meet specific end-use applications
- Fabrication options... precise cutting, punching, swaging, bending, threading, powder-coating, embossing, etc.

### QUALITY ASSURANCE & TESTING

To assure conformance to Allied's high standards, rigorous quality tests are performed on incoming materials. The steel used in the manufacture of Allied's mechanical tubing meets ASTM A-569; the zinc is a special high-grade 99.99% pure spelter conforming to ASTM B-6.

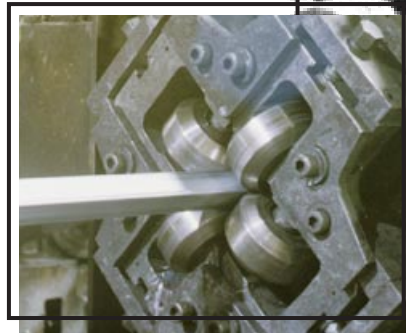
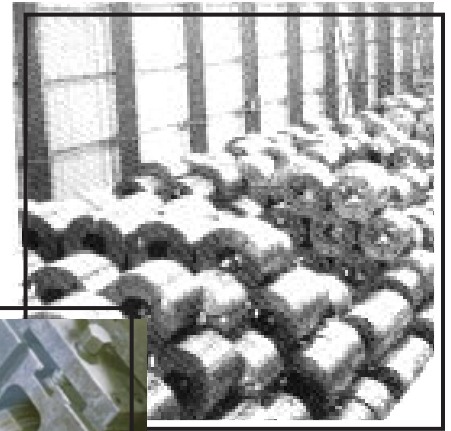
The most important aspect of our Quality Assurance program is ensuring that our customers receive the very best components for their end products. The successful design and manufacture of those products is dependent upon the success of our QA program. The following tests are just a part of our overall quality initiative:

# Thousands of Product Options...



#### Special Metal Processing Facility

Allied recently opened a new state-of-the-art steel coil processing facility, allowing us to exercise more control over the quality and availability of raw materials. No other steel tube producer has this advantage.



#### Mechanical Tests

- Tensile Test—Determines the tensile strength of the tube by applying force until failure.
- Flexural Test—Evaluates bending strength by applying a concentrated load on a freely supported tube.
- Metallographic Analysis—Electron and optical microscopy helps us achieve the proper combination of metallic structure and mechanical properties.

#### Weld Quality Tests

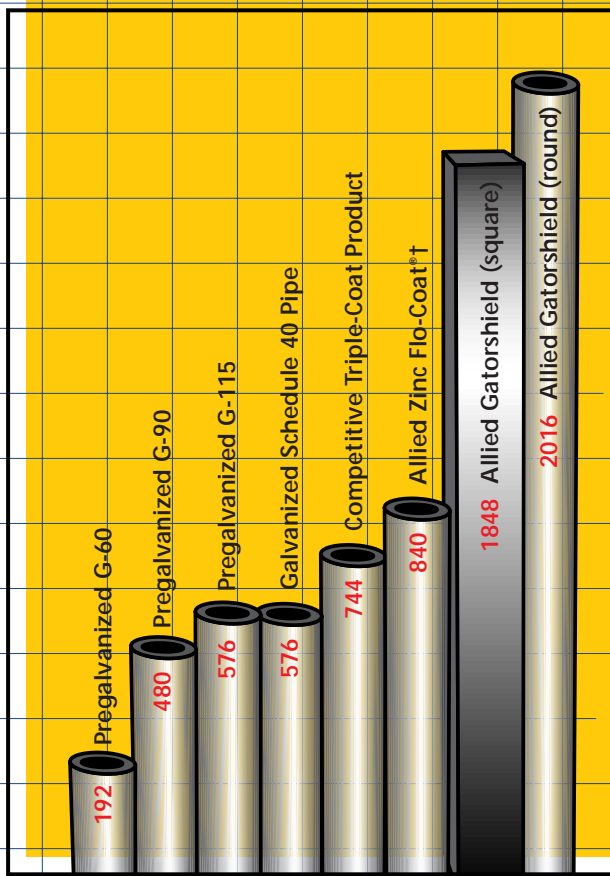
- Eddy Current Testing
- In-line Laser Image Monitoring

#### Coating Tests

- Coating Analysis—Pre-shipment samples are examined for viscosity, color, cure rate and solids.
- Salt Spray Testing—Corrosion resistance is continuously monitored by exposure to salt fog per ASTM B-117.

# Salt Spray Tests - Galvanized Products

(Number of Hours Until First Sign of Red Rust)



## Corrosion Resistance

Allied's galvanized steel tubing receives a triple-layer of corrosion protection—first, 99.99% pure zinc bonds to the tube, and is followed by a conversion coating. The third coating is a clear organic topcoat which "seals" the surface. The result is a smooth, shiny end product that is unmatched in terms of strength and durability. Allied's tubing resisted rust and corrosion longer than any competitive product in salt spray tests conducted by Scientific Control Labs (see above). For a copy of these test results, contact your local Allied representative.

## ISO 9002 REGISTRATION

The UL's ISO 9000 Registration Program is designed to evaluate and register facilities to the International Organization for Standardization standards for quality. The objective of this program is to provide independent assurance of our facilities' capability to consistently provide products which conform to given specifications. To date, our two major manufacturing facilities have been evaluated to these quality standards and registered to ISO 9002.




## RESEARCH & DEVELOPMENT

Allied is committed to continuously improving our products and processes. Between our six manufacturing facilities, we have over 50 engineers and technicians on staff. With numerous new product introductions and continuous product refinement, the technical development group is a vital part of Allied's success. This group is also available to our customers for consultation on issues such as product design and fabrication.



incredibly small tolerance for imperfection  
or error make **allied** the  
**gauge**  
against which all others are measured

# passing one test at a time



Over 40 years as the  
undisputed leader  
in value-added  
tubular technology  
& innovation...

every day is a race; against the  
*clock*  
against your competitors.  
Set a winning pace with **allied**.

**A**llied Tube & Conduit has been making high-quality, galvanized steel tubing for over 40 years. During these years we have grown significantly, introduced many new products, improved our processes and helped our customers meet their demands time and time again. So now it's time to compare: check out all the benefits of being an Allied customer.

### Product Benefits

- Wide Variety of Coatings
- Wide Range of Shapes & Sizes
- Cost-Effectiveness vs. Competitive Products
  - Superior mechanical properties allow for down-sizing / down-gauging
  - Lighter for ease of handling, assembly and installation
  - Unmatched corrosion resistance for longer product life
  - Primer topcoat ready to paint or powder coat
  - Consistent fabrication characteristics
- Manufactured to customer specifications
- Various carbon levels for specific strength needs
- Steel/chemistry traceability



### Service Benefits

- Allied Personnel
  - Knowledgeable/experienced sales force
  - Responsive Customer Service Team
  - Over 50 engineers/technicians
- Total Logistics Network
  - Nationwide Manufacturing/Distribution
  - Rail, truck, water, air and intermodal transportation
  - Customer Stocking Programs
  - Industry Stocking Programs
- Fabrication Options
  - Embossing
  - Powder Coating
  - Punching
  - Secondary Cutting
  - Stencilling
  - Swaging
  - Threading
- Technical Support
  - Engineering
  - Product Design
  - Process Development
  - Quality Assurance
- Marketing Support
  - Sales Lead Generation
  - Co-op Advertising
  - Co-op Sales Literature
  - Direct Mail Programs
  - Market Research

### Company Benefits

- Part of Tyco International
- Long-term financial stability, resources
- Commitment to quality products
- Continuing product innovation
- All products made in North America



*Allied Tube & Conduit has more manufacturing and distribution locations nationwide than any other steel tubing manufacturer. With seventeen tube mills running mechanical tubing, Allied has the capacity to meet your schedule. And the mills are strategically located across the country to more efficiently distribute product. In addition to our manufacturing facilities, Allied has more than twenty North American distribution locations to provide customer stock and JIT delivery programs.*

conquering one challenge at a time

## Available Literature . . . Varied Product Choices for Every Application

ATC-L-1283	<b>The Leader in Tubular Technology</b> – General information about the Mechanical Tube Division.	ATC-L-1640	<b>Structural Brochure</b> – Larger sized, heavier-gauged products for structural applications.
ATC-L-1453	<b>Gatorshield® Tough</b> – Gatorshield is coated with an extra thick layer of zinc for superior corrosion resistance.	ATC-L-1643	<b>Construction Brochure</b> – Products for residential and light commercial construction.
ATC-L-1493	<b>Welding &amp; Painting Guidelines</b> – Procedures for welding and painting galvanized steel tubing.	ATC-L-1644	<b>ArmorCoat Brochure</b> – Galvanized tubing with thermoplastic coating for extremely corrosive environments.
ATC-L-1505	<b>Qwik-Coat® Brochure</b> – Specially developed thermoplastic resin primed tubing; ready to be painted or powder coated.	ATC-L-1649	<b>SS-65 Brochure</b> – Our newest offering to the portable building market, SS-65 is made from special steel to achieve extra strength.
ATC-L-1514	<b>Gatorshield vs. G-90</b> – Compares Gatorshield tubing to pregalvanized G-90 tubing.	ATC-L-1651	<b>Agri-Tube Brochure</b> – Also made from special steel, but for the agricultural industry, Agri-Tube is a stronger, more corrosion-resistant alternative to painted steel.
ATC-L-1527	<b>Farmstead Products</b> – Typical specifications and products for the agricultural market.	ATC-L-1671	<b>Weight per Foot Chart</b> – List of available sizes/gauges with weight and specification information.
ATC-L-1532	<b>Recreational/Structural Products</b> – Typical specifications and products for outdoor recreation equipment.		
ATC-L-1533	<b>Gatorshield for Outdoor Structures</b> – Compares Gatorshield to aluminum for outdoor structures such as awnings and greenhouses.	<b>Technical Bulletins:</b>	
ATC-L-1541	<b>Galvanized Steel Tubing</b> – A “primer” on galvanized steel tubing.	502-95	Restoring Corrosion Resistance to Welds (Thermal Spray)
ATC-L-1550	<b>Oval Tube®</b> – Specifications and common sizes of oval-shaped tubing.	510-95	Restoring Corrosion Resistance to Welds (Cold Galv)
ATC-L-1569	<b>Powder Coating</b> – Guidelines and information on powder coating Allied’s tube products.	518-95	Design Considerations for Corrosive Environments
ATC-L-1608	<b>Telespar® Telescoping Square Tubing</b> – Square pre-punched tubing for industrial uses.	519-95	List of Technical Consultants
ATC-L-1620	<b>Tectron Tube</b> – Highlights the products manufactured at the Tectron plant (DePere, WI).	711-30	Specifications for Galvanized Structural Steel Tube & Pipe
ATC-L-1626	<b>The New Wave</b> – Products for the Boat Trailer industry.	714-96	Choosing a Warehouse for Galvanized Steel Tubing
ATC-L-1633	<b>Recycling Brochure</b> – Information on steel recycling and our products.	<b>Reference Manuals:</b>	
ATC-L-1635	<b>The Hole Truth</b> – Information and specifications on pre-punched tubing.	RB-1	Fabrication Guidelines
ATC-L-1636	<b>PowerCoat® Brochure</b> – Our newest corrosion-resistant coating; in-line clear powder coating.	RB-2	Forecasting Primer
ATC-L-1637	<b>Black Magic® Tubing</b> – In-line black powder coating.	RB-3	Welding & Painting Guidelines
ATC-L-1639	<b>Flo-Coat® 50 Brochure</b> – 50,000 minimum yield strength products for the portable building industry.	RB-4	Coating Information
		<b>Software:</b>	
		SP-1	Section Properties Software
		AD-1	Awning Designs

If you would like more information, or to order any of this literature, call the Mechanical Tube Division at (800) 882-5543 or fax to (708) 339-2399.



TUBE & CONDUIT  
MECHANICAL TUBE  
DIVISION

16100 South Lathrop Ave  
Harvey, Illinois 60426  
(708) 339-1610  
(800) 882-5543  
fax (708) 339-2399  
www.alliedtube.com

A tyco INTERNATIONAL LTD. COMPANY