



# Solutions for Industrial Automation Applications



## Expect High Performance<sup>®</sup>

Amphenol TPC Wire & Cable is a leading supplier of high-performance wire, cable, connectors, and assemblies designed and engineered to withstand harsh industrial environments. We know how critical it is that your cables and connectors be able to survive abuse from caustic chemicals, extreme temperatures, continuous flexing, impact, and abrasion. Our products help solve the most difficult application problems by reducing your downtime, labor, overall costs, and long-outlasting commodity cable.

- ✓ Wire & Cable
- ✓ Cable Assemblies
- ✓ Cable Management
- ✓ Cordsets
- ✓ Electrical Components
- ✓ Custom Solutions

# Specialized Solutions for the Industrial Automation Industry



Industrial wire and cable play a vital role in the world of industrial automation. These essential components are the lifelines that connect and power various automated systems and machinery. From factories to warehouses, industrial wire and cable provide the necessary electrical connections that enable smooth and efficient operations. They are responsible for transmitting power, signals, and data, ensuring seamless communication between different automated devices.

For over four decades, Amphenol TPC has been partnering with its industrial automation, automation integrator, and original equipment manufacturer customer base. Our **Super-Trex®**, **Trex-Onics®** and **Hy-Trex®** products are engineered for flexibility and have an industry-leading life expectancy that saves time, labor, and overall cost of ownership. Whether it's controlling robotic arms, monitoring production lines, or coordinating complex processes, our wire and cables are designed to withstand these demanding applications.








## Featured Products

Scan the QR codes to view more product information, including full list of ratings, features and benefits.

### Hy-Trex® MP500 Power Cable



 600V    Type TC-ER    cUL CIC-TC    AWM    MTW    FT-4 Flame Rating

**Engineered to Resist**  Flexing  Abrasion  Impact  Cold Temperature



✓ **Finely Stranded Copper Conductors**  
 ✓ **Specially Compounded TPE Insulation**



**Excels in** Robot Power and Controls Low Voltage Motor Power Conveyors

Low Voltage Power Distribution Indoor and outdoor use Material Handling Equipment

### Trex-Onics® Reduced Diameter Control Cable



  Type W    2000V    Type TC-ER    Max Conductor Temperature 90°C

**Engineered to Resist**  Flexing  Abrasion



✓ **Finely Stranded Tinned Copper Conductors**  
 ✓ **Specially Compounded TPE Insulation**






**Excels in** Cable Carrier Systems Control Circuits Positioning Equipment

Festoon Systems Transfer Vehicles

### Super-Trex® Type W Portable Power and Automation Cable

  Type W    2000V    Type TC-ER    Max Conductor Temperature 90°C

**Engineered to Resist**  Flexing  Tension  Abrasion  Impact  Chemicals

✓ **Finely Stranded Tinned Copper**  
 ✓ **Polyester Tire Cord Braid Embedded in Jacket with Integral Fill Design**

**Excels in** Power Distribution Automated Equipment Arc Welders

Conveyor & Crane Systems Material Handling Systems Control Panels

## Case Study

# Vehicle Manufacturing Plants Stays Operational Longer, Saving Time & Money

## Customer Problem

A large **vehicle manufacturing plant** in Kentucky was replacing bolster cable on its stamping press every 10-11 months due to failure. The inner conductors would fatigue, deteriorate, and ultimately fail from constant environmental pressures that included flexing, motion, and tension. In addition, the outer jacket was being abraded and cut by metal scrap in the area. Over the course of 32 months, the failures added up to \$12,767 in product and labor expenses plus, as a result, the application was down for 53 hours total during that time period.

## Amphenol TPC Wire & Cable Solution

They worked with Amphenol TPC's in-house engineering team to develop a custom solution stemming from the **Trex-Onics® product line** designed for continuous flexing applications in harsh environments. The cable featured an aramid fiber braid embedded into the jacket to add 1,800 lbs. tensile strength as well as tinned copper conductors to lengthen flex life. Thermoplastic elastomer (TPE) insulation was incorporated, allowing the conductors to glide independently and thus preventing binding and corkscrewing. In addition, a polyurethane jacket served as the superior first line of defense by providing heavy-duty abrasion and cut resistance.



# \$7,622

Material Cost &  
Labor Savings



# 37 Hours

Downtime Saved

*Results from 32 Month Time Period*



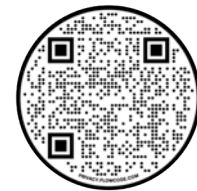
## Result

Checking in on the application 32 months after installation, it was determined that the custom bolster cable still had not yet required repair or replacement. The total cost for product & labor to implement the solution amounted to just \$5,145, **saving the customer \$7,622 and allowing the plant to increase production time by 37 hours.**

## We've Got You Covered

Amphenol TPC provides high-performance cables engineered with cost-saving durability designed for use in a number of industry-specific applications.

- Actuators
- CNC Laser & Plasma Cutting Systems
- Gantry Systems
- Machine Tools
- Milling Machinery
- Overhead Cranes
- Robot Power & Controls
- Stages



**Learn  
More**



## Performance Testing

Amphenol TPC offers a wide variety of products that adhere to the most reputable and stringent, manufacturing, quality, and performance standards.

Testing, and application protocols: For cables in flexing applications, ATPC utilizes a UL Recommended Practice for performance testing protocols, ensuring the customer receives unbiased results. Data collected from testing provides a level of confidence and expectation for cables installed in an actual application.

- ✓ Tick-Tock Test
- ✓ Torsion Test
- ✓ Continuous Flex Test (Cable Carrier Testing)

## Custom Solutions Engineered For You

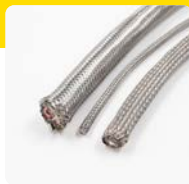


## Custom Designed to Meet Your Needs

If your industrial operation requires a unique solution, Amphenol TPC offers custom-engineered products **designed to your specifications**. These product solutions represent a unique and valuable service offered by Amphenol TPC to save you time and money. Our engineers are focused on providing the best solutions, through tested electrical, mechanical, and industrial engineering experience. There is no job that our team can't tackle. Our engineering team is ready to design a custom solution for you!



Custom Wire & Cable



Stainless Steel Braid Sleeving



Cordsets



Cable Assemblies



Custom Cable Carrier Systems



Custom Storage & Trailers



Cables Reels & Enclosures

→ For more Custom Solutions, please visit [tpcwire.com](http://tpcwire.com)



**Headquarters**  
9600 Valley View Rd.  
Macedonia, Ohio 44056

**USA** 800-521-7935 / Fax 866-528-2930  
**Canada** 800-545-0122  
**Mexico** 001-877-283-1696  
**Chile** 1230-020-0229  
**Columbia** 0-1-800-915-7519  
**Peru** 0800-54863

[tpcwire.com](http://tpcwire.com)



**WARRANTY AND DISCLAIMER:** Seller makes no warranties, express or implied, with respect to this product, and seller disclaims any implied warranties of merchantability or fitness for any particular purpose. Further, seller will not be responsible for any consequential, incidental or indirect damages (including, but not limited to, any loss of profit) from any cause whatsoever.

TPC1746 © Copyright 2024 by Amphenol TPC Wire & Cable. All rights reserved.

No portion of this publication, whether in whole or in part, can be reproduced without the express written consent of Amphenol TPC Wire & Cable.



FS 35910