



CUSTOM BOLSTER CABLE SAVES AUTO COMPONENTS MANUFACTURER \$34,000, ADDS 105 HOURS

**Total Savings
in Material
& Labor =
\$34,479**

**Increased
Production by
105 HOURS**

**TPC PRODUCT:
TREX-ONICS®
CUSTOM BOLSTER
CABLE**

CUSTOMER PROBLEM:

A manufacturer of metal components & assemblies for the automotive industry was experiencing frequent failure of a commodity OEM cable on its front-moving bolster line. The 70-foot run of cable, which featured power, control, and air line in one jacket, was subjected to constant flexing & motion. It was also exposed to jacket-softening oils, and it was cut by metal scrap typical of the environment. The customer tried placing the air line and cable in a hose for protection, but the cable continued to fail every 2 months. For each instance of failure, the cost to replace cable was \$1,800 in product and labor plus 4 hours of downtime, which was adding up significantly over time.

TPC SOLUTION:

The customer's TPC representative worked with TPC's in-house engineering team to develop a custom solution from the Trex-Onics® product line designed for continuous flexing in harsh environments. The cable features 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. A fluoropolymer insulation extruded onto the conductors allows them to glide independently, which prevents binding and corkscrewing. The OD of the cable is reduced given smaller wall thicknesses can be used with fluoropolymer insulation, which provides for a smaller bend radius that enhances flex life. A polyurethane jacket serves as a superior first line of defense against oils, chemicals, tearing, and abrasion.

CUSTOMER RESULT:

After 42 months in use (nearly 4 years!), the cable was still running without failure and with no need for repair. The jacket looked good and showed little sign of wear. The total cost in product and labor for TPC's solution was just \$5,421 compared to the \$39,900 the customer would've spent repairing and replacing the commodity product 21 times during that same timeframe — a \$34,479 savings! Plus, the customer avoided downtime and actually increased production by 105 hours!

** Based on original installation data 2008-2011. Cable design still applicable & in use as of 2017.*

Source: TPC Cost Value
Analysis Report #2338

