

STEEL BARS MANUFACTURER INSTALLS HIGH-HEAT CABLE, SAVES \$15,422

TPC Wire & Cable serves steel customers in scrap yards, melt shops, pot lines, casters, mills, foundries, and just about every other layer in the process. One such steel bars manufacturer has been operating since 1901, specializing in transforming steel scrap and iron ore into steel products across many industries. Construction, automotive, agricultural, steel service center, and energy markets can be found at the top of their list. The company boasts 100 North America locations and employs approximately 9,000 people across the U.S. and Canada.

A LEGACY BUSINESS WITH A COMMITMENT TO QUALITY AND SUSTAINABILITY

At the core of this company's values, not only will you find that quality and safety are big drivers for business success, but you'll find community and environmental awareness are top priority, too. With more than 30 facilities dedicated to recycling, this busy steel manufacturer is committed to preventing millions of tons of steel per year from ending up in landfills.

**Total Savings in
Material & Labor =
\$15,422**

**TPC PRODUCT:
THERMO-TREX® 500K CABLE
WITH STAINLESS STEEL
OVERBRAID**



*Source: TPC Cost Value
Analysis Report #3382*



AS EXPECTED, THE MELT SHOP IS HOT, HOT, HOT

The Melt Shop in a steel mill is responsible for melting scrap charge into liquid steel using a combination of temperature and chemical analysis to meet required alloy specifications – it's a big job and it's a hot job, but someone's gotta do it!

This process takes place in a furnace that operates with a shared set of electrical equipment that operates at up to 850 volts and 135,000 amps, which is a lot of power. In turn, the inside of an industrial arc furnace can get up to 3,272 °F (1,800 °C), so there is no surprise that this customer was replacing their existing power cables on each operating furnace every single week due to the harsh conditions in this application.



The cable was subject to high temperatures, a large amount of molten steel dropping onto the jacket (which also becomes abrasive once hardened), and cuts in the outside of the jacket from being dragged around. These were all contributing factors to the constant cable replacements.

To keep orders on-time, this steel manufacturer needed a longer-lasting product to help prevent unexpected faults, minimize downtime, and maximize productivity to stay ahead of the competition by continuing to deliver quality products on a tight deadline. After all, routinely replacing cable once a week is costly when the result is unplanned maintenance.

POWER CABLE DOESN'T HAVE TO BE AVERAGE

Most commodity power cables in the market, even those labeled as being able to handle high temperatures, will inevitably fail sooner than a cable specially equipped to handle multiple extreme conditions all at once. Many steel manufacturers have come to accept these failures as par for the course because what cable wouldn't cower at the sheer sight of molten metal?

There is a rugged, high-temperature cable that defies that "business as usual" mindset. A power cable that persists longer than ordinary cable despite continuous flexing, that resists abrasions, that isn't afraid of a little, or a lot of heat. A true solution for a steel manufacturer who has a mission to deliver quality on a tight timeline.

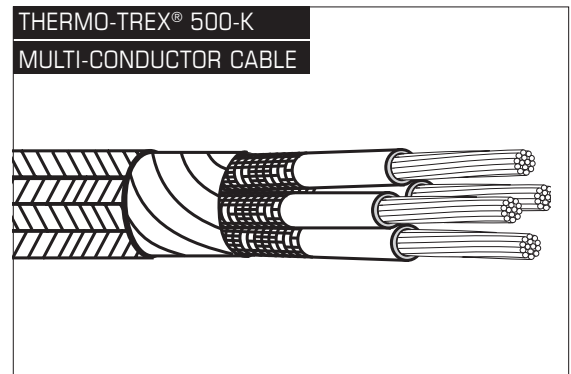
FURNACE CHALLENGE

When this long-time customer called TPC with another challenge, the local field specialist was eager to check it out and start troubleshooting the problem. After looking the application over and learning about the weekly cable replacements across six units, the field specialist started to dig into the costs associated with these frequent failures. It turned out that over 10 month period, this cable was replaced 40 times, which resulted in more than \$16,000 in associated labor and material costs – not including the expense of unexpected downtime.

TPC SOLUTION

Already having an established relationship made it easy for this customer to put more confidence into TPC products. The first recommendation that came to the field specialist's mind for this tough challenge was Thermo-Trex® 500-K Multi-Conductor Cable because of the product family's great ability to withstand high-heat applications.

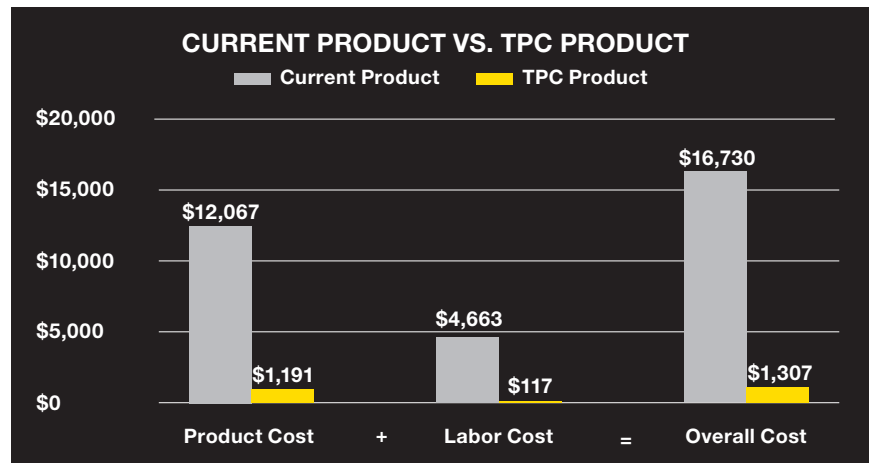
On the outside, the jacket is comprised of a heat- and moisture-resistant Aramid fiber braid jacket that gives extra protection against abrasion. On the inside, a silicone rubber insulation gives an added layer of resistance to heat, moisture, and chemicals that might cause ordinary cable to fail prematurely under this plant's sweltering conditions. For applications with extreme temperatures present, the Thermo-Trex cable has a TFE wrap that serves two purposes; one, it provides a thermal barrier to extend product life, and two, it improves performance where flexing is present. Needless to say, TPC's cable was the longer-lasting solution that this steel manufacturer needed.



STEEL MANUFACTURER'S SOLUTION

Knowing that TPC Wire & Cable Corp. has been a reliable partner before, the customer purchased and installed TPC's product across all six of their units. The result was that over a period of 10 months, TPC's product only required one replacement, whereas the previously used product was being replaced 40 times during the same timeframe.

Imagine going from a big job like replacing a furnace cable weekly, to replacing cable once a year – what a time and cost savings! For an initial investment of \$1,307, this customer saved more than \$15,000 in less than a year. Realize the savings you can achieve in your operations with your own cost value analysis.



REQUEST YOUR OWN COST VALUE ANALYSIS