

# The PC Systems, Inc. CONEXPO – CON/AGG Show Newsletter



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Who is PC Systems?

Using LEAN Manufacturing to keep your price low.

What can you use for abrasion resistance on a harness?

Changes in interconnect industry that affect you!

## PC Systems, Inc. aims to supply Heavy Equipment Manufacturers with cost effective harness solutions.

PC Systems, Inc. is an ISO9001:2008 registered manufacturer of wire harnesses and electrical interconnects. They are currently supplying both wire harness solutions and heated window interconnects to some of the largest Construction and Agriculture Machine OEMs.

company that has positioned itself to accommodate the predicted growth in the Con/Ag markets.



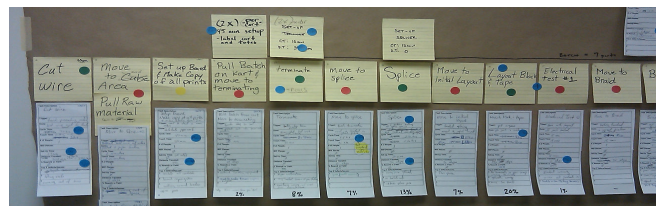
With a growing Engineering department and low base cost manufacturing solutions, PC Systems, Inc. is a

### Industry Trends:

- Most suppliers within the wire industry are now RoHS compliant, including PC Systems, Inc.
- More advanced CAD software is making designing wire harnesses easier.
- Rising fuel costs and overabundance of skilled labor is making "onshoring" more attractive.
- Increased knowledge-share within wire harness industry (i.e. WHMA) is making everyone more competitive.

## LEAN exercises used to combat rising material cost (instead of raising product pricing).

In Q1 of 2011, the Harness Production department partnered with the NWIRC (Northwest Industrial Resource Center) of Pennsylvania to conduct a Value Stream Mapping and 5S exercise. The intent was to improve productivity and decrease cost to combat inflationary pricing pressures for raw materials. The team identified potential reductions of 15-20% in both cycle time and walking distances!



## What options do you have for abrasion resistance on your harness?



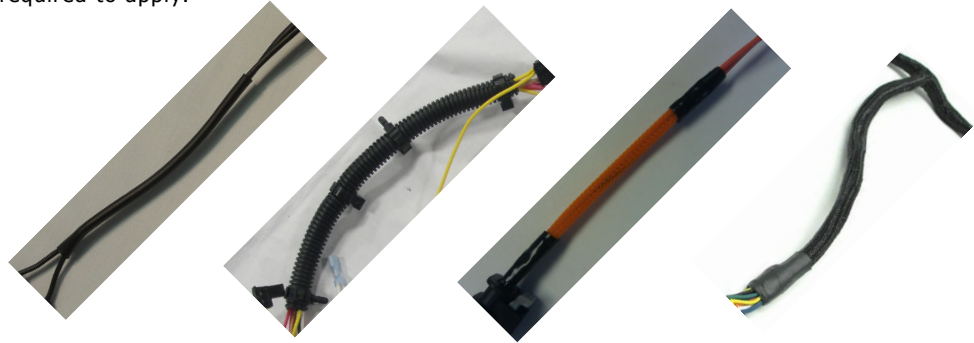
If you are familiar with wire harnesses, you have seen multiple methods for providing abrasion resistance in an application. There are benefits and drawbacks to each solution, which are identified below:

**Taping or Heatshrink** – Cheap, flexible and ideal for field work.

**Split Loom** – Multiple materials and colors, robust, but not production friendly. Loom can be applied in any “garage” shop, which is why you find this in many Engine bays.

**Expandable Sleeving** – Multiple materials and colors, looks “cleaner” than loom typically. Not production friendly.

**PVC Coated Nylon Braid** – Superior aesthetics and capabilities. Dedicated machines required to apply.



## Let’s talk Connection Systems for Heavy Equipment Harnesses.

*“There have been recent changes with regards to suppliers of connection systems for the Heavy Equipment market, which is affecting the cost of your wire harness.”*

Kalen Fitch,  
Engineering Mgr  
PC Systems, Inc.

There have been recent changes with regards to suppliers of connection systems for the Heavy Equipment market, which is affecting the cost of your wire harness. The harsh environments that these connectors are subjected to require a robust solution, but many suppliers are quick to suggest their components are the best to meet your needs.

Deutsch Industrial Products has long been the standard in this application and has been providing environmentally sealed connectors for well over 40 years.

([www.laddinc.com](http://www.laddinc.com))

Other connector manufacturers are

starting to recognize the value in these markets and developing solutions of their own.

Tyco has been one of the strongest suppliers in the Automotive market for a long time, but now have also been successful in getting some large OEMs to adopt their AMPSEAL connectors, particularly on Tier IV upgrades.

([www.tycoelectronics.com](http://www.tycoelectronics.com))

Amphenol has developed the AT series to be a drop-in replacement for the Deutsch DT series and have test results to prove it. ([www.sineco.com](http://www.sineco.com))

Finally, as wire harnesses become more technologically advanced,

such as introduction of Ethernet, additional solutions will be needed that may have never been seen in our Industry before. This could lead to the introduction of even more suppliers.

From a cost standpoint, this competition should be welcomed as it will ultimately lead to lower pricing in the connector market. A high amount of diligence will be required to validate each system to make sure it meets the needs of your application.