WCTI Technical Achievement Awards

Class of 2005

Wire & Cable Technology International's WCTI Technical Achievement Awards are given out annually to individuals in the wire and cable industry that have been responsible for major technical developments related to equipment, materials or accessories for making wire and cable. The award honors individuals responsible for major practical technical developments that have improved the way wire and cable is made and in some cases, how it performs.

Award recipients have been selected from nominations made to this magazine. We reviewed each nomination, consulted outside advisors when necessary and made the final decisions; WCTI staff are not eligible to make nominations.

Also, there is no time limit on when a nominee's technical development was made—it could have been in the last year, several decades ago or somewhere in between. In addition, there is not a minimum or maximum number of awards granted each year.

Wire & Cable Technology International is proud to now present the second *WCTI Technical Achievement Awards, Class of 2005*: **Eric and Brian Fisk**, **George Kepes**, **Marcus Paech** and **Werner Lepach**. You can read about each person's contributions to the industry in the boxed-in areas of this article. Congratulations to all five men. Nominations for the *Class of 2006* are due by August 31, 2005.

Eric & Brian Fisk

Nominated for their development of Percon® cadmium-free alloy conductors, **Eric Fisk** and his brother **Brian Fisk** are President and Vice President, respectively, of **Fisk Alloy Wire Inc.**, Hawthorne, NJ, USA. Eric earned BA and BS degrees from the University of Washington in 1976, and an MS degree from Columbia University in 1983. He has 25 years in the copper alloy wire business. Brian earned a BSME degree from Purdue University in 1978, and has 23 years in the copper alloy wire business.

Fisk Alloy Wire Inc. was started in 1973 by Eric and Brian's dad, **John Fisk**, to make high precision square, round and flat copper alloy wire for electronic connectors and components. Brian took a year off from college to help start the firm and was the first machine operator and paid employee. Eric, having spent the intervening years working in Alaska, joined the company in 1980 to handle sales and general administration. After graduating from Purdue and following stints at **Alcoa** and **Boeing**, Brian rejoined the company in 1982 to take over production and engineering. By the end of the decade, John had fully retired and the brothers had built the wire mill from an 8000 ft^2 to a 125,000 ft^2 operation having expanded and integrated manufacturing operations from finish drawing and rolling capabilities through heat treating, electroplating and heavy gauge processing into alloy development.

The efforts to develop new high-performance copper alloys in wire has been driven by electronic engineering demands. Higher current densities and temperatures, better formability and softening resistance required copper alloys that were not commercially produced in wire. Developing new alloys and the related production technologies to process those alloys into redraw wire ultimately lead the firm into applications in wire and cable.

The Percon family of alloy conductors is the result of their work to produce environmentally "green" cadmium-free conductors for the wire and cable industry. As the mechanical capabilities of copper are limited, wire and cable applications requiring high strength, high flex life, resistance to thermal softening or wire miniaturization use copper alloy conductors. Copper alloys historically used to meet performance demands have used cadmium as the principal element added to copper for improved properties. Cadmium is an excellent alloy additive and cadmium-copper alloys have set high product performance standards that are not easily met. Anticipating the environmental concern for heavy metals and the RoHS limitations on their use by more than a decade, the technical achievement of the Fisk brothers has been to develop cadmium-free copper alloys that reliably process into fine and ultra-fine gauge wire that meets existing cadmium-copper conductor specs, and also the process technologies to produce these alloys into finished conductors.

Fisk introduced the first two Percon alloys in 1992. By 1998, it developed the first cadmium-free alloy conductor to exceed the critical performance specifications found in *ASTM B624*. In 2000, Fisk began production of finish single-end bobbins and stranded alloy conductors. The Percon family now stands at five alloys, each designed and engineered for specific wire and cable applications along with a very high-strength specialty shielding alloy, Microshield. Fisk promises that more will follow. Supplying redraw wire to other conductor manufacturers and producing finished conductors for the insulating industry, the Fisk brothers now sell their 21st century, cadmium-free, RoHS-compliant Percon alloy conductors worldwide.

Eric Fisk (left) & Brian Fisk (right)