



## March 2004 Program 2

<b>Program:</b>	Eaton-Cutler Hammer Tour Power Protection and Conditioning Sponsored by: Pittsburgh Section IEEE, ASME and AFE
<b>Date:</b>	March 23, 2004
<b>Time:</b>	6 - 7 PM Dinner 7 - 8:00 PM Presentation
<b>Location:</b>	Eaton Electrical Power Quality Division RIDC West 150 Industry Drive Pittsburgh, PA 15275
<b>Parking:</b>	Free
<b>Dinner/Cost: (on site)</b>	Chicken Romano with Herbed Butter Noodles, and Fresh Vegetable. Fresh Spinach Salad with Sliced Yellow Delicious Apples, Toasted Pecans, Danish Bleu Cheese and Honey Dijon Vinaigrette. Rolls and butter. Cappuccino Torte, Coffee & Tea. Members and Guests - \$22. There is no charge for the tour alone Please call to reserve a space.
<b>Contact:</b>	For registration or more information, contact: Al Bouvy, 724-875-4484, <a href="mailto:arbouvy@aol.com">arbouvy@aol.com</a> Reservations are not guaranteed until payment is received.
<b>RSVP:</b>	By Tuesday, March 16, 2004 - Reservations are a MUST

### **Program Description:**

*Power Protection and Conditioning Seminar*  
Sponsored by the Pittsburgh Section IEEE, ASME and AFE

The Quality Industry is rapidly changing due to the demand for increased reliability, the heightened sensitivity of loads, and new Power Quality products and solutions. The talk will provide an update on these issues, technologies and trends, as well as new surge protection and power conditioning products now available. Topics will include designing a facility-wide protection plan, ideas for effective power quality solutions, and new technologies such as electronic voltage regulation and sag ride through. A mix of theory and practical applications will be discussed. Expert advice on power quality concerns and possible solutions will be shared. Guest Speaker will be Alan Chiste, Product Manager of the Eaton Electrical Power Quality Division.

### **Biography:**

Alan Chiste graduated with honors from the Electrical Engineering program at the Southern Alberta Institute of Technology (SAIT). Prior to his present responsibilities with Power Quality he held positions with Cutler-Hammer Strategic Sales Force and as a Marketing/Engineering Specialist for Westinghouse Control Products, which was acquired by Eaton's Cutler-Hammer business in 1994. As Product Manager for Eaton Electrical Power Quality Division, Alan oversees product development, applications and technical training for surge suppression and power conditioning products and solutions. He has also been involved in numerous events throughout Canada, the United States, Mexico and Central America, including power quantity training sessions and site consultations. His authorships include Power Quality Magazine and EC&M.

## Early April 2004 Program

<b>Program:</b>	Kennametal Tour
<b>Date:</b>	Tuesday, April 06, 2004
<b>Time:</b>	3:30 PM
<b>Location:</b>	Kennametal Headquarters 1600 Technology Way (Rt. 981 across from Arnold Palmer Regional Airport) Latrobe, PA 15650
<b>Parking:</b>	Free
<b>Dinner</b>	TBD (on-site)
<b>Dinner Cost:</b>	ASME Members, Students, Unemployed Members, and Guests, \$18. Program is during dinner. No charge for tour only, which does not include social with appetizers and program.
<b>Contact:</b>	For registration or more information, contact: Al Bouvy, (412)-967-1900, <a href="mailto:arbouvy@aol.com">arbouvy@aol.com</a> Reservations are not guaranteed until payment is received.
<b>RSVP:</b>	By Tuesday, March 30, 2004 SPACE IS LIMITED - Reservations are a MUST

### Tour Description:

Kennametal Inc. aspires to be the premier tooling solutions supplier in the world, providing customers with a broad range of technologically advanced tools, tooling systems and engineering services aimed at improving customers' manufacturing competitiveness. Join us for a tour, informative program, and dinner on Tuesday, April 6th, 2004, at the Kennametal campus in Latrobe. The tour will feature Kennametal's Quentin C. McKenna Technology Center where most of the research and development efforts for the company are located. This building includes a complete pilot plant facility that showcases Kennametal's vertical integration capabilities for materials such as tungsten carbides and ceramics, showing the process from raw powders up through a product ready to cut the toughest metals, rock, or resist highly corrosive environments at extreme temperatures.

The included program will highlight the new National Center for Defense Manufacturing and Machining (NCDMM), operated by Kennametal Inc. The mission of NCDMM is to deliver state-of-the-art manufacturing solutions to key stakeholders to ensure the quality, affordability, maintainability, and rapid deployment of existing and yet-to-be developed defense systems through a collaborative effort between government, industrial, and academic organizations.

Tours will start from the Kennametal Corporate Center lobby at about 3:30pm with the on-site dinner/program scheduled to begin at about 5pm.

For more information on Kennametal, check out the website:

[http://www.kennametal.com/en/kennametal/about\\_kennametal.jhtml](http://www.kennametal.com/en/kennametal/about_kennametal.jhtml)

# Message from the Chair

Dear members.

As we approach the end of another fiscal year, there are a number of important items to bring to your attention. First, we are again offering another high-value professional development seminar on Wednesday March 10<sup>th</sup>, on Finite Element Analysis (FEA). This course runs from 9-5 and offers continuing education credits to participants. An instructor from Algor, Inc. will teach the course in a computer learning-laboratory at the University of Pittsburgh School of Engineering. The cost of the course is \$60.00 (members), \$80.00 (nonmembers), and \$30.00 (students), and includes a copy of limited use Algor software to take home, morning and afternoon snacks, and a gourmet deli lunch. Please contact Al Bouvy at 724-875-4484 or [arbouvy@aol.com](mailto:arbouvy@aol.com) to register or obtain more information. Seating is limited, so please register now. We will post more information as it becomes available to <http://www.asme.org/sections/pgh/#mar10>. Then on Thursday March 25<sup>th</sup>, ASME and IEEE will jointly tour the Eaton Cutler Hammer facility at RIDC West. Mr. Al Bouvy is also handling reservations for this event: 724-875-4484 or [arbouvy@aol.com](mailto:arbouvy@aol.com). This tour is free, as usual, and the optional after tour dinner cost is \$22.00. More information can be found at: <http://www.asme.org/sections/pgh/#mar23>. Finally, the Kennametal tour has been rescheduled for April 6<sup>th</sup> (Al Bouvy, 724-875-4484 or [arbouvy@aol.com](mailto:arbouvy@aol.com)) and our annual awards banquet is set for May 4<sup>th</sup>. Each year we honor a company and member with the Industry Recognition Award and the Engineer of the Year Award. If you think a company or member deserves recognition for outstanding contribution and would like to nominate them for these two awards, please contact me immediately so that they can be considered. At the awards banquet, we continue our longstanding tradition of honoring the outstanding students whose projects represented the best mechanical engineering projects from the 65th Pittsburgh Regional Science and Engineering Fair portion of the Pittsburgh International Science and Technology Festival (Sci-Tech Festival). We are seeking volunteers to meet and help select these talented students at the fair on the afternoon of Friday April 2<sup>nd</sup>. Please contact Dr. Darrell Rapp at (412) 992-5358 or [rappd1@asme.org](mailto:rappd1@asme.org) for more

information about judging. For more information on the Science Fair, go to [http://www.scitechfestival.org/mainsf\\_over.asp](http://www.scitechfestival.org/mainsf_over.asp)

Finally, I would like to thank you for voting for next year's chair, who will be Doug Koebler and five new directors (Frank Faron, Bill Spohn, Jeff Vipperman, and Al Bouvy). If you have interest in getting involved with the executive committee, I encourage you to join us for our next meeting on March 12<sup>th</sup> in Monroeville. More details can be found at <http://www.asme.org/sections/pgh/#Meetings>. Hope to see you soon.

With Best Regards,  
Jeffrey S. Vipperman, Chair  
[jsv@pitt.edu](mailto:jsv@pitt.edu)

Nominating Committee Chair

## Nominate a Company for the ASME Industry Recognition Award!

Pittsburgh Section Industry Award Evaluation Criteria:

1. Company is a local company with international recognition, which has made a significant impact on the profession of Mechanical Engineering.
2. Company encourages their employees to join Technical Societies and supports employees who are involved in the ASME and other Technical Societies.
3. Company engineers have made presentations at Section meetings, held ASME offices and served on the Executive Committee with full support of the company.
4. Company has provided their facilities for ASME meetings, educational purposes and tours.
5. Company has provided opportunities for their employees to participate in technical activities sponsored by the ASME and other Technical Societies.
6. Company is a supporter and contributor to our section Newsletter and National publications.

For more details please contact:  
Bill Spohn at [bspohn@testo.com](mailto:bspohn@testo.com)

# KEROTEST DESIGNS HIGH-QUALITY NATURAL GAS VALVES WITH FEA



*"We chose ALGOR software because it is easy to learn and use and would be effective in providing significant insight into our design."*

Richard W. Conley, Chief Engineer



Photo Courtesy: Memphis Light, Gas and Water Division

Above: A construction worker installs a Kerotest POLYBALL™ valve into a new piping system.

For nearly a century, Kerotest Manufacturing Corporation has specialized in manufacturing valves that help companies like New England Gas Company, New York State Electric & Gas Corporation, The Philadelphia Gas Works and Sierra Pacific Power Company distribute natural gas to our homes and businesses. Kerotest developed their new POLYBALL™ polyethylene ball valves to remain competitive in the global marketplace.

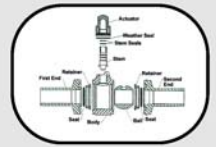
## Challenge

To design a product line of polyethylene valves that outperforms the competition and offers more features at a lower cost while meeting or exceeding industry safety standards.

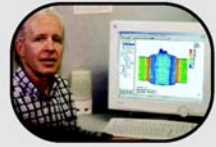
## Solution

Kerotest engineers studied a series of ½" to 12" valves using linear static stress analysis software from ALGOR. Based on the results, they optimized parameters such as the wall thickness, the shape of the transition into the piping and the inside shape of the valve through which the gas flows to reduce excess material and high stresses. The final design passed extensive prototype tests on the first iteration and the valves are on the market today backed by a 5-year warranty.

### Concept



### Design



Richard Adams, Senior Design Engineer

### Manufacturing



### Market



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800.918.917

Singapore  
800.120.3775

Italy  
800.783.132

United Kingdom  
800.731.0399

For this complete story, visit [valves.ALGOR.com](http://valves.ALGOR.com).

## Grants Available, First-Come, First-Serve

The Board on Diversity and Outreach's Partners in Mechanical Engineering (Partners) Program provides grants to ASME Sections for innovative projects and activities that support collaboration with local sections or chapters of organizations that support women and underrepresented minority groups in engineering. Grants are awarded on a first-come, first-served basis and range from \$500 to \$1,000, depending on the size and scope of the activity.

Applications for Partners grants may be submitted throughout the year. For additional information, go to <http://www.asme.org/communities/diversities/bdo/partners.html>

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