

Method of Payment

Registration Fee: \$150 per person.

(Early bird discount available - see registration form)

Method of Payment:

- ▶ Check Enclosed
(in US funds, payable to Peerless Pump)
- ▶ Purchase Order # _____
- ▶ Credit Card
(see reverse side for required contact information)
 Visa Mastercard American Express

Mail registration form to:

Peerless Pump Learning and Development
DepartmentBox 7026
Indianapolis, IN 46207-7026
Phone: 317-924-7348

For Technical information contact

Pete Noll at 513-295-9346 or
training@peerlesspump.com.

A Strong Energy Portfolio for a Strong America. Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.



Peerless Pump Learning and Development
bOX 7026
Indianapolis, IN 46207-7026



www.epumptraining.com
www.peerlesspump.com

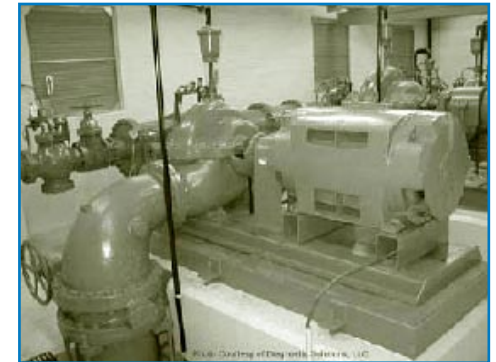


U.S. Department of Energy
Energy Efficiency and Renewable Energy
Bringing you a prosperous future where energy
is clean, abundant, reliable, and affordable.



Pumping System Assessment

Industrial training workshop



Peerless Pump
Learning and Development
Department
2005 Dr. Martin Luther King Jr St.
Indianapolis, IN 46202

Overview

Register for the Pumping System Assessment workshop to identify energy savings opportunities in your pump systems. Developed for the U.S. DOE, the Pumping System Assessment Tool (PSAT) calculates the energy and cost savings you can recover from pump system optimization. After quickly assessing existing pump and motor efficiency, PSAT calculates final results based on algorithms from Hydraulic Institute standards and motor performance characteristics from the Motor Master database. After completing this training session, you will understand how PSAT can help you determine the best configuration for your pump systems.

Instructor

Pete Noll is a 30+ year pump veteran that has experience in both North America and International sales/marketing/technical service of centrifugal pumps. Pete has a Bachelor of Science degree in Mechanical Engineering from Brown University and has held positions in application engineering, field engineering, sales & service, marketing, and strategic alliance management.

Pete has presented to various national societies, Pulp & Paper, Mining, AWWA, Vibration Institute, as well as other regional workshops. Pete works with Purdue University as an instructor in Total System Evaluation workshops with their technical alliance customers.

Pete Noll has completed the DOE PSAT training and is further certified as an Instructor in this DOE PSAT tool.



Energy | Efficiency | Economics



Agenda

8:00 - 8:30 Registration

8:30 - 12:00 Morning Session

- Motor system asset management
- Fluid systems
 - Fundamental fluid relationships
 - Static and dynamic head
 - Sources of friction
- Pump performance characteristics
 - Head
 - Power
 - Efficiency versus flow rate
 - Affinity laws
- Motor performance
 - Current
 - Power factor
 - Input power
 - Efficiency versus load
- ASD performance
 - Efficiency versus speed and load
 - Effect on motor and pump
- Developing a system performance curve based on field measurements
- Calculating system and pump heads
- Evaluating pump condition from fluid measurement

12:00 - 1:00 Lunch (provided*)

1:00 - 4:00 Afternoon Session

- Informal discussion may cover topics such as:
 - Available and required pump net positive suction head
 - The effects of scale buildup in piping systems
 - More detail on motor performance and reliability issues ranging from motor bearing problems to drive overvoltage tips
- Case studies

*Vegetarian meals available upon request at least one (1) week in advance

Optimize your pump systems and
reduce energy costs...

Registration Form

Register early to ensure space - seating is limited!
Registration fee is \$150 per person.
(Early bird price, \$100 if registered by August 6, 2009)
Please see reverse side for payment information.

First Name and Last Name (PLEASE PRINT)

Company Name

Billing Address

City State Zip

Phone Fax

Credit Card Number Expiration Date
(If paying by Credit Card, pay with Visa or Master Card only)

Signature
(If paying by Credit Card)

Accommodations

For those traveling for this workshop, we recommend the Hampton Inn Downtown in Indianapolis (317-261-1200). Please contact Jessica at the Hampton Inn and ask for the "Peerless Discount."

Transportation from the hotel to the training facility will be provided. If you will be utilizing this service, please let Pete know.

Persons with disability requiring special accommodation while participating in this conference may call 317-924-7348. If accommodation is not requested at least 2 weeks in advance, we cannot guarantee availability of accommodation on site.