

## Pump Systems Matter (PSM) Authorized Training Provider Program

Pump Systems Matter (PSM) is a non-profit pump education resource established by the Hydraulic Institute to develop and provide training resources on pump systems to achieve higher energy efficiency, lower maintenance costs, and improve reliability and profitability. The PSM Authorized Training Program allows Authorized Providers to work with Authorized Instructors to deliver PSM-branded training material.

### Authorized Training Provider (ATP)

#### Eligibility

Any one of the following groups may apply to become a PSM Authorized Training Provider\*:

- The training division of a corporation or organization
- A for-profit training company
- A non-profit training organization
- A company who supplies pump services and products to any type of pumping systems

#### Requirements

- As a representative of PSM, act in an honest, ethical and professional manner in their dealings with PSM and the public
- Complete all required paperwork and pay relevant fees to PSM in full in a timely manner
- Be compatible with the PSM product neutral and non-commercial approach to training and educational initiatives
- Own the processes to market, promote and implement PSM training programs
- Serve as willing participant in PSM Educational Meetings and curriculum development process

#### Upon approval, may:

- Schedule, promote and run specific PSM training courses, as defined in the applicable agreement between PSM and the ATP
- Use PSM logo in materials when promoting PSM courses
- Be promoted by PSM as an ATP through email communications and on the PSM website
- Only use PSM Authorized Training Instructors (ATI) to present PSM courses
- Be subject to an audit by PSM with prior notice, to ensure adherence to ATP requirements

*\*Note: Organizations that qualify for HI membership are not eligible to become HI Authorized Training Providers (ATP).*

#### What is licensed?

ATP receives the right to promote specific PSM courses to their market with the use of a PSM and Hydraulic Institute logos.

#### Fees Dues

ATP Fees (Non-Member): annual fee of \$3,600 for an Authorized Training Partner to gain access to course material.

- ATP will pay PSM a \$250.00 flat rate for each person that attends a course. ATP can charge the customer a fair market value for the training program.
- ATP is required to host or secure at least two courses a year through PSM.



### **Benefits**

- ATPs host courses, collect attendee fees, and pay PSM the flat \$250 per person after submitting the sign-in sheet
- Utilize PSM marketing materials and software tools, when required
- Course curriculum and training manuals/materials
- HI Certificate of Completion and PDH/CEU credits
- PSM processes, logo and ATP brand image

### **Initial documents required**

- Business Evaluation form
- Signed agreement

### **Ongoing operational documents required**

- Calendar of PSM courses planned prior to promoting events, along with instructors used
- Copy of any promotional materials with PSM logo
- Delegate list with full contact details
- Course evaluations from each participant

### **FAQs**

Authorized Training Provider may put forward an existing trainer to become an ATI, who would, then, go through the ATI approval process.

## Courses Currently Available for Licensing

PSM offers a range of live classroom-based technology courses that cover pump fundamentals, maintenance and operations, assessments, and optimization to improve the bottom-line. Our most popular course focuses on Pump Systems Optimization based on the Hydraulic Institute Guidebook *Optimizing Pumping Systems*. Each course can be customized to meet the needs of customers or employees and can be specifically positioned as internal training or to educate end-users.

### **Pump Systems Optimization:**

#### **Energy Efficiency & Bottom-Line Savings**

Pumping systems account for a significant portion of a facility's energy use in many market segments. Oversized pumping system components, such as pumps, process components and control valves, often result in increased capital and maintenance costs as the excess energy added to the system generates higher than required levels of heat, noise and vibration. This training course focuses on systems optimization, covering a wide range of topics including how to identify energy savings opportunities and screening pumping systems to increase profitability and reliability.

*\*Note: one-day and two-day course option available*

#### **Learning Objectives:**

- Understand pump operations and system interactions
- Identify components that affect pump system efficiency
- Screen pumping systems for improvement opportunities
- Understand how to collect operating data
- Define BEP and the consequences of a pump that does not operate at BEP
- Interpret pump curves and use pump affinity rules to improve efficiency
- Conduct life cycle cost analysis

### **Pumps & Pumping Systems Fundamentals**

Any type of pumping system downtime can affect facility operations. In a demanding and ever-changing marketplace, maintenance and operations departments are routinely asked to keep a pumping system running longer, with fewer failures, at lower costs. This one-day course offers maintenance and operations professionals the knowledge to be successful in improving uptime and reliability for any pumping system.

#### **Learning Objectives:**

- Describe maintenance programs best practices
- Formulate a method to avoid potential pump failures
- Understand best practices in pump installation and operation
- Identify how to troubleshoot both pump and components to optimize the system
- Develop and explain maintenance processes and methodologies to improve reliability
- Apply system analysis and data-driven optional programs to improve performance
- Develop maintenance management programs to enhance overall system productivity



### **Pump Systems Assessment Professional (PSAP) Preparation Course**

This course offers two and half-days of in-person instruction on pump and pump system fundamentals, system optimization and assessment, and preparation for the PSAP certification exam. The course will cover the knowledge areas for conducting pump system assessment and prepares you to take the PSAP Certification Exam.

#### **Learning Objectives:**

- Explain the benefits of assessing pumping systems for optimization and the impacts of energy consumption
- Understand the interaction between pump behavior and system behavior, effectively use pump and system curves to guide pump selection and control, and understand pump system power consumption
- Understand how the system is controlled and how to vary the operating point
- Identify common operating issues in pump systems and how to resolve it
- Explain the function of different pump system components, such as drivers, bearings, seals, piping, valves, and instrumentation
- Explain the U.S. DOE regulations for certain clean water pumps and industry efforts to promote energy efficient pumps and pump systems
- Utilize the 13 step process for pump selection, specification, and acceptance
- Describe the different preventive and predictive maintenances practices
- Understand piping and instrumentation diagrams, isometrics, process flow diagrams, and engineering drawings
- Identify optimization opportunities in existing systems and new designs
- Implement optimization solutions
- Implement the 13 steps of a pump system assessment
- Prepare for the PSAP Certification Exam with work exercises and explanation of solutions

*\*Note: All courses must be instructed by an approved Authorized Training Instructor (AIT) and the PSAP Preparation Course must be instructed by a Certified PSAP as well as being an approved AIT.*