

# 2016 ANNUAL REPORT



## In 2017,

each HI member received a centennial poster clearly demonstrating: *Pumps Powering Possibilities*. The poster was designed to highlight the critical supporting role our products play around the globe. Without the standardization, innovation and safety advanced by our industry, the world would be a vastly different place today. The central image represents the behind the scenes work pumps do every day and serves as a reminder of the all-important work HI does for, and on behalf of, its members and pump-users. With pumps at the core, ensuring flow and motion, the poster foreshadows a brighter and greener tomorrow.

Much of 2016 was spent building new programs and planning for the upcoming centennial, but a great deal was accomplished thanks to a renewed mission that helped HI focus on advancing the pump manufacturing industry by becoming the world's resource for pumping solutions:

- Addressing Pump Systems
- Developing Standards
- Expanding Knowledge and Resources
- Educating the Marketplace
- Advocating for the Industry

## A Growing Membership

In 2016 we added 6 new members, and continued adding to the expanding cadre of standards, industry and academic partners, bringing added expertise and the end-user perspective to HI committees and programs.

<b>New Members:</b>	<b>New Associate Members:</b>	<b>New Standards Partners:</b>
<ul style="list-style-type: none"> <li>• Morrison Pump</li> <li>• Egger Turo Pumps North America Inc.</li> </ul>	<ul style="list-style-type: none"> <li>• DriveConnect</li> <li>• SunStar Electric</li> <li>• Tritec Seals</li> <li>• General Rubber</li> </ul>	<ul style="list-style-type: none"> <li>• Servicios Procur</li> <li>• PumpMan LLC</li> <li>• Carollo Engineers</li> <li>• HDR, Inc.</li> </ul>

## Rebranding

HI rebranded with a new logo this year, connecting 100 years of service to the pump industry with HI's expanding role in preparing the industry for the future.



## New Technical Programs

New Programs were also added to several meetings bringing depth and engaging in a larger shared community:

At the Extended Motor Product Label Initiative Forum during the Annual Meeting, speakers from the Department of Energy (DOE) joined Energy Efficiency Advocates (EEA), and representatives from HI, National Electrical Manufacturers Association (NEMA), Air Movement and Control Association (AMCA), and Compressed Air and Gas Institute (CAGI) to map out the next steps towards a common efficiency label approach. The forum was sponsored by the Bonneville Power Administration, Energy Trust of Oregon and the Northwest Energy Efficiency Alliance - all early supporters of the HI Energy Rating Label scheduled for launch in 2017.

A special session devoted to Computational Fluid Dynamics (CFD) kicked off the June Technical Conference. It included industry experts sharing the state of the art with the Intake Design and Pump Piping Committees and exploring the possibility and suitability of incorporating new CFD technologies into HI acceptance standards; informing members and keeping HI on the leading edge of technology and standards development.

## Engaging End-Users



Prominent New Orleans industries, Water and Oil & Gas were featured as end-user sessions during the Fall HI Meeting. Pump reliability engineers and maintenance experts from Chevron's Pascagoula Refinery shared their challenges during a lively Q&A session.

Water specialists from HDR and MR Pittman Co shared their experiences spanning the design, contracting and construction phases of large-scale, water infrastructure projects like the West Bank Closure Project whose chief engineer rounded out the panel with insights from the owner-operator perspective. Attendees were treated to a tour of the facility where they witnessed the pump discharge.



Pump Experts from the power sector shared their experiences at the HI Annual Meeting where speakers from Tucson Electric Power, Kiewit Power, Intermountain Public Service Corp and the Palo Verde Nuclear Plant all shared their unique perspectives.

## Increasing Efficiencies

The long-awaited Commercial Industrial Pump rule was released January, 2016 following 5+ years of data collection, analysis and negotiations between HI, the US Department of Energy and Energy Efficiency Advocates.

Similarly, a Circulator Pump Committee met over 20 times in 2016 to negotiate the term sheet which is expected to produce a final rule in late 2017.

## Long Term Savings

As HI looks for more opportunities to increase efficiencies, our pumps will be hard at work.

The Commercial Industrial Pump Rule was released January 2016 and is expected to net an estimated 0.27 quadrillion BTUs (Quads) of energy savings over a thirty year period, or the annual electricity use of approximately 1.5 million US households.

While not yet final, the estimated savings from the Circulator Pump Rule will total more than 0.7 Quads of energy savings over 30 years, or the annual electricity use of approximately 4 million US households.



## Setting Standards

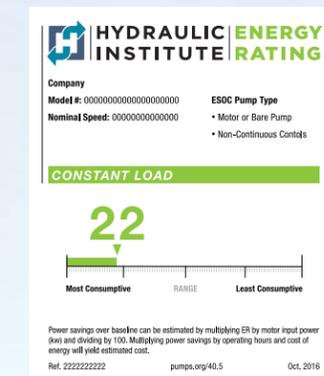
A cornerstone of HI since 1917, our standards remain the reference for pump manufacturers and end-users. In 2016, HI introduced 12 new or revised standards and industry guidelines:

10.6	Air Operated Pump Tests
10.1-10.5	Air Operated Pumps
5.1-5.6	Sealless Centrifugal Pump Piping
9.6.6	Pump Piping
7.8	CVMP Piping Guideline
9.6.5	Condition Monitoring
12.1-12.6	Slurry Pumps
3.6	Rotary Pump Tests
14.6	Rotodynamic Test Standard
9.6.4	Rotodynamic Vibration
40.5	HI Energy Rating Label Program
40.6	HI Rotodynamic Pump Test (DOE)

Red-line versions of HI standards were also made available in 2016 to help subscribers keep current.

## Transforming Markets

In addition to standards, HI developed several new tools in 2016 to provide clarity and prepare for the anticipated market transformation.



Building on the DOE regulations, the HI labeling committee completed the *HI 40.5 Program Guide for the Pump Energy Rating Program*. This guide allows manufacturers of pumps within scope of the DOE regulation to label the performance of their pumps, which positions labeled pumps for incentive programs.

HI's **Pump Test Lab Approval Program** gained traction and market acceptance, providing additional validation behind the test results and serving as a prerequisite for the HI Energy Rating Label.

A **PEI Calculator** was also launched on HI's website helping the entire pump community better understand the new regulations and calculate performance.

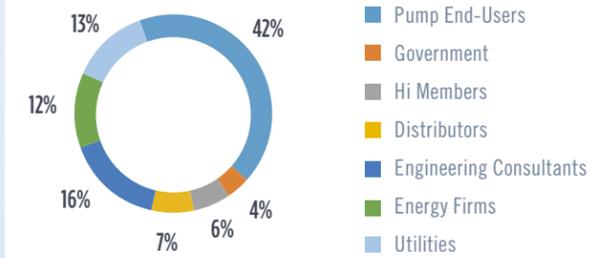
## Sharing Knowledge

By steadily increasing its focus on end-user needs, HI was able to increase the number of training contact hours by 25% in 2016. It achieved this by hosting more webinars, staging more courses and reaching more end-users than ever before.

Taught by an increasing number of HI approved Instructors (24 instructors from 22 different HI member/partner companies), HI courses continue to expand into specific user markets such as chemical processing, water & wastewater, oil, building services, pump/motor rebuild facilities and municipalities.

HI's training arm, **Pump Systems Matter** is now the provider of choice for a growing number of utilities like ConEdison, Portland General Electric, Duke Energy, Toronto Hydro and Xcel Energy who seek product neutral/non-commercial educational courses for pump systems designers, engineering, maintenance, operations and reliability professionals to optimize and assess complex pumping systems.

Training Participants by Segment

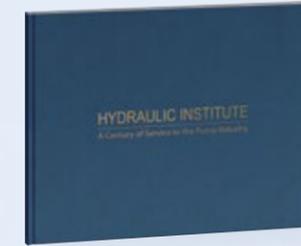


## Celebrating Our Past

Pumps are everywhere, but often unseen. HI's centennial is an opportunity to bring into focus the quality-of-life improvements connected to pumping systems, and relate these improvements to HI members and their contributions that helped shape modern society.

A milestone anniversary is the perfect occasion to highlight the progress made by our industry along with the downstream benefits our products produce. By recognizing the impact of pumps on modern society, HI will better position the industry for the next generation of professionals seeking worthwhile careers that make a difference.

Much of the work to prepare the celebration was done behind the scenes this year so that, in 2017, we can celebrate our past and focus on the challenges ahead.



Hydraulic Institute Yearbook



Hydraulic Institute Poster



Hydraulic Institute Video



## Celebrating Our Industry

HI relies on hundreds of volunteers and thousands of hours dedicated to enriching and expanding its body of technical knowledge and standards. Each year at the annual meeting, HI takes a moment to honor several deserving individuals whose contributions have significantly advanced HI, its mission and the industry at large.

Nominees for new **HI Awards for Industry Excellence** in Technology and Innovation, Energy Efficiency and the Environment were solicited in 2016, setting the stage for even greater recognition of the impact of our industry. Targeting end-users, these new awards will raise the profile of HI and the work of its members even further in the years to come.



## Preparing for the Future

### Pump Industry Leaders of Tomorrow (PILOT)

HI launched its first PILOT Program at the Fall Conference where HI potentials and recent hires at member companies gathered for sessions on career skills, pump industry knowledge, and networking. Part leadership training, part HI-onboarding, the PILOT Program helps prepare the next generation of Industry leaders and augments Members' existing leadership training programs with an industry wide perspective.

## Launching Programs

In addition to growing its user base, HI focused on expanding its content. Three new day-long courses were developed along with nine new webinars. The Pump Systems Assessment (PSA) Certificate launched in August as HI's first certificate course and the PD Pump Fundamentals and Rotodynamic Pump Fundamentals courses followed later in the year. These three new certificate courses deliver training materials while integrating testing to evaluate the knowledge transfer.

All of HI's education and training resources are now available on a new portal which also launched in 2016 and serves as a one-stop-shop for e-learning, webinars and certificate courses. This portal also enables bulk purchases for members.



Lifetime Achievement  
Jack Claxton  
Patterson Pump Company



Member of the Year  
Paul Ruzicka  
Xylem AWS



Young Engineer of the Year  
Patrick Hogg  
Nidec Motor Corporation



PSM Leadership  
William C. Livoti  
WEG Electric, Corp.

**ATTRACT**

**PROMOTE**

**CELEBRATE**

**RECOGNIZE**

**EXPLORE**



**Discover the Centennial Site**  
**[www.pumps.org/100](http://www.pumps.org/100)**