



Our seminars meet the training needs of the manufacturing industry. Attendees value both the hands-on labs and the quality of our instructors.

Personnel with better skills can provide your company with a competitive edge by:

- Increasing plant production rates
- Delivering reduced downtime
- Decreasing maintenance costs
- Engaging and showing loyalty

What attendees are saying

HANDS-ON!

Norfolk Southern

"The mixture of lecture and hands-on lab instruction combined with real world application & experience stories made it easy to understand and be applied to my job."

PRACTICAL

WSAC

"I liked the way the class started with the basics and moved on to the application of difficult components in the lab."

INSTRUCTOR EXPERIENCE

Hydraulic System Design Student

"The instructor's wealth of knowledge and detailed examples provided easy to access information on valving and equipment."

Livingston & Haven is an innovative solutions provider and strives to be an essential partner in the successful future of U.S. Manufacturing. **We are the experts in hydraulics and fluid power systems.**

www.LivHaven.com/Training

PRINCIPLES OF





PRINCIPLES OF

INDUSTRIAL HYDRAULICS

The go-to introduction for hydraulic competence.

From Pascal's Law through schematics and hands-on exercises to 10 fundamental circuits used at plants.

PRINCIPLES OF

PNEUMATICS

Safety, components, schematics, systems and maintenance in a busy hands-on course.

HYDRAULIC PUMPS & CONTROLS

Understand hydraulic pump types and their controls; as used in industrial systems including maintenance considerations and troubleshooting.

MECHATRONICS

Advanced training focusing on key concepts used in mechatronic system design, troubleshooting and maintaining mechatronic systems. Sizing, optimization, coding, multi-axis synchronization.

OSHA

Contact us to be included in our 10-hour course focusing on recognition, avoidance, and prevention of safety and health hazards in the workplace.

PRINCIPLES OF

MOBILE HYDRAULICS

Hands-on focus for technicians with mobile hydraulic equipment responsibility.

From hydraulic principles and application to mobile equipment: pumps and controls,

ELECTRICITY

Theory, practical knowledge and structured hands-on lab exercises with an industrial electrical focus.

From AC and DC theory to schematics. Measurement and hands-on problems with circuits and introduction to PLCs.

HYDRAULIC SYSTEM DESIGN

An advanced training seminar to understand system design and optimization.

Optimal design reduces equipment cost, energy, maintenance effort, and production outage.

* Prerequisite

3 DAYS

UNDERSTANDING PROPORTIONAL VALVES

Learn the function and operation of electro-proportional hydraulic valves within a system.

Recommended for electrical and mechanical technicians and engineers.

HYDRAULIC SPECIALIST REVIEW & CERTIFICATION

International Fluid Power Society (IFPS) hydraulic specialists are recognized throughout the industry.

2.5 day review followed by the certification test. 80% pass rate in 2015.

HYDRAULIC SYSTEM MAINTENANCE

Second-level training seminar for maintenance personnel who already have an understanding of hydraulic principles.

Hands-on work to improve efficiency, reliability, maintenance, troubleshooting and testing.

* Prerequisite

ON-SITE TRAINING

We will bring customized fluid power and lubrication training to your company to increase general understanding using **your** equipment and schematics. On-site training is individually tailored so your maintenance personnel will understand how your own equipment works and how it needs to be maintained.



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5 DAYS

valves, actuators, schematics and circuits.