



Pressurized fluids are often used to **perform work** in hydraulic, pneumatic and material-transport systems. A failure in a fluid system can result in property damage, personal injury or even death. As a result, it is critical to follow **safe practices** in assembling and working with pressurized systems and their components.

## INTRODUCING SAFETYWORKS

SafetyWorks training promotes awareness of the importance of following proper practices and maintaining safe conditions with regard to fluid systems. It is offered by Parker Hannifin and its authorized distributors to help prevent injury to people and damage to property from escaping fluids and component failures.

SafetyWorks training is highly interactive and collaborative. Participants are encouraged to share stories and experiences relevant to the content of each module to help reinforce the importance of the material and relate it to their jobs.

The program is a series of four modules (see list), each about 20 - 30 minutes long. They can be delivered within an existing training schedule or can be used as a supplementary program, for noon-time learning, at plant shift changes, or at the beginning or end of the day. Individual modules are designed to help individuals to:

- Avoid injection injuries and understand the importance of timely treatment should an injection injury occur
- Follow proper hose assembly and routing guidelines to help prevent premature failures
- Understand the conductive nature of hoses and the effects of residual pressure
- Implement a product-selection process for safe and efficient fluid-systems design and use

Instructional materials include a Participant's workbook for each module as well as additional support materials such as videos and product samples for some modules.

### Who Should Participate?

Often, the safety manager is tasked with promoting safe practices and assuring safe working conditions. Ultimately, however, safety is everyone's business. SafetyWorks will help enhance people's knowledge and awareness of safe practices regardless of their job or function. Participation in SafetyWorks training is highly recommended for anyone working with fluids under pressure and/or systems in motion, including:

- equipment operators
- repair-service technicians
- assemblers
- safety managers
- engineers

### PARKER: Your Partner in Promoting Safety

Safety is a commitment. The SafetyWorks program is part of Parker's commitment to helping people in all types of jobs to learn, understand and follow safe practices. For more information about SafetyWorks, please contact your local Parker distributor or the Parker Technical Development Team at **216-896-2267** or e-mail to [safetyworks@parker.com](mailto:safetyworks@parker.com).



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# SafetyWorks Modules

## Injection Injuries

Injection injuries can be caused by many sources in addition to hydraulics, but all have potentially devastating outcomes. Injection injuries initially may appear to be insignificant, however they are classified as surgical emergencies with nearly half resulting in amputation.

Course number SAFTYWKS-INJURY

## Representative Results

- Review fluid-injection facts and view a short video about injection injuries.
- Discuss the information medical authorities will need for proper treatment.
- Review what happens if medical attention is not received within different timeframes.
- Discuss safe practices when working with, on and around pressurized systems.

## Parker & SAE Hose Safety Standards

Improper selection or use of hose, tubing, fittings or related accessories can cause personal injury, property damage or death. By following safety standards when designing and/or using fluid systems, the risk of these occurrences can be reduced.

## Representative Results

- Discuss the importance of safe practices and introduce an SAE video about safety.
- Review the provided safety standard and identify key factors for individuals' experiences with regard to hose and fitting selection, assembly, installation, maintenance and replacement.

Course number SAFTYWKS-HOSE

## Hose Conductivity and Residual & Live Pressure

Hydraulic hose assemblies can conduct electricity, creating a hazard for operators and equipment. Residual (or trapped) pressure in hydraulic systems can cause component damage and increases the risk of personal injury. Understanding the conductive nature of hoses and the effects of residual pressure is essential to maintaining a safe environment.

## Representative Results

- Review electricity and how design variables contribute to hose conductivity.
- Discuss identification criteria for non-conductive hoses.
- Define residual pressure. How is it generated in a hydraulic system?
- Learn about components specifically designed for use in connect-under-pressure service.

Course number SAFTYWKS-CONDCT

## S.T.A.M.P.E.D. Process

Proper product selection is critical to system performance and reliability. S.T.A.M.P.E.D. is a systematic method of product selection to assist in identifying fluid connectors and conductors for different applications.

Course number SAFTYWKS-STAMPD

## Representative Results

- Understand how S.T.A.M.P.E.D. provides a systematic method for proper product selection.
- Share experiences of what happens when someone makes a product selection without all needed information.
- Discuss how varying operating conditions can impact product selection and system performance.

To schedule a module, reference course number (above). To schedule all four, reference SAFTYWKS-TRNING.

Fluid systems are complex and require specialized knowledge and training beyond the scope of SafetyWorks training. If you do not understand how to perform a task in a safe manner, stop and seek guidance before beginning or continuing to work.

See SAFETY GUIDE FOR SELECTING AND USING HOSE, TUBING, FITTINGS AND RELATED ACCESSORIES, Parker publication 4400-B.1, for additional assistance.

