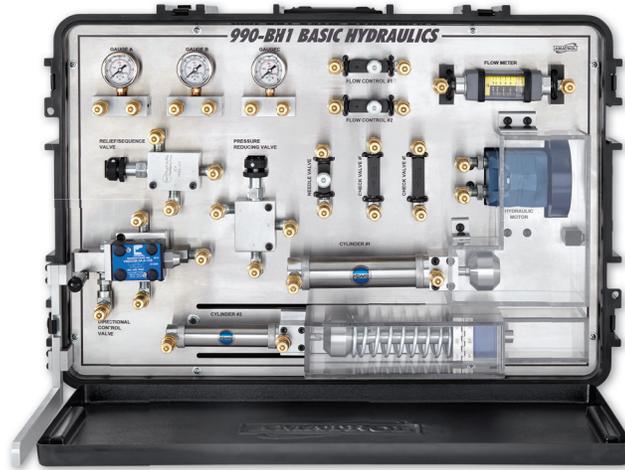
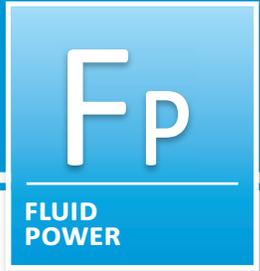


# Portable Basic Hydraulics Learning System

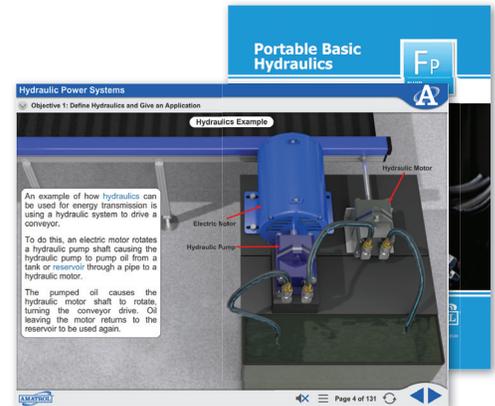
990-BH1



Portable Basic Hydraulic Learning System

Portable Workstation

990-BH1 Student Reference Guide



Interactive Multimedia Curriculum

## Learning Topics:

- Hydraulic Power Systems
- Basic Hydraulic Circuits
- Principles of Hydraulic Pressure & Flow
- Hydraulic Speed Control
- Pressure Control Circuits
- Pumps and Valves
- Hydraulic Schematics

Amatrol's Portable Basic Hydraulics Training System (990-BH1) allows learners to gain skills by studying topics like basic hydraulic circuits, pressure control circuits, hydraulic schematics, and sequence valves. Also, given the compact nature of the Portable Basic Hydraulics system, for the first time you can teach hydraulics in a limited space. This learning system allows learners to study and practice how to read a pressure gauge, as well as liquid level and temperature in the reservoir, connecting hydraulic circuits, operating a bi-directional hydraulic motor, converting between absolute and gauge pressure, and connecting and adjusting the pressure setting of a pressure relief valve (PRV).

The mobile Basic Hydraulics training includes gauges, manifolds, cylinders, valves (relief/sequence, pressure reducing, check, directional control, etc.), flow meter, and hydraulic motor. The components of this portable trainer are all industrial quality, not only to ensure durability, but also to help learners become better prepared for what they will encounter on the job. All Amatrol products are made from top-notch materials and carefully crafted to create tough, attractive, well designed learning systems that facilitate learning and will serve teachers and learners for years. Amatrol uses components that learners will find on-the-job in order to give the best opportunity to build confidence and industrial competencies.



## Technical Data

Complete technical specifications available upon request.

### Portable Console

Durable ABS Plastic  
99-HHF Hydraulic Hose and Fittings Package  
99-HPS1 Compact Hydraulic Power Unit  
Drip Pan  
Bracket Stabilizer  
Student Curriculum – Interactive Multimedia (M19144)  
Virtual Trainer (N12240)  
Instructor's Guide (C19144)  
Installation Guide (D19144)  
Student Reference Guide (H19144)

### Additional Requirements:

See <http://www.amatrol.com/support/computer-requirements>

### Utilities Required:

Electricity 115/230 VAC, 50/60 Hz, Single Phase

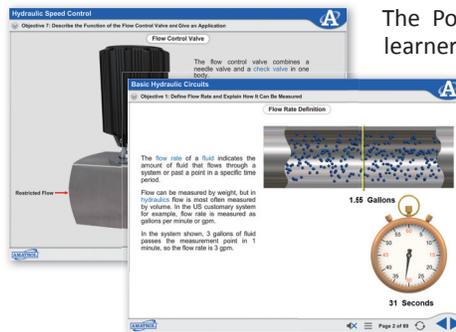
## Real-World Applications for Hydraulic Principles

Portable Basic Hydraulics has a remarkably small footprint, allowing hydraulics to be taught in spaces that precluded that training previously. Its components are all industrial quality not only to ensure durability, but also to help learners become better prepared for what they will encounter on the job. Learners will use these components to practice vital hydraulics skills, such as: connecting and adjusting a flow control valve to control the speed of an actuator; designing an independent speed control circuit and two-speed actuator circuit; and operating a double-acting cylinder, and operating of an integral check valve.



## Interactive Curriculum and Hands-On Skills

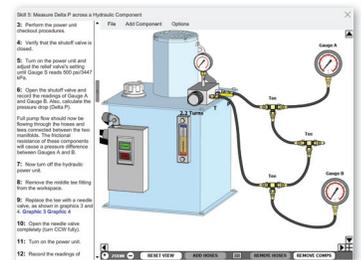
This portable hydraulics training system also includes Amatrol's world-class multimedia curriculum, which combines strong theoretical knowledge and concepts with hands-on skills for the best industrial competency-building on the market. This thorough, exceptionally detailed curriculum is built to begin with the basics and steadily advance to more complex concepts and skill.



The Portable Basic Hydraulics Learning System teaches learners not only how to operate, install, design, and troubleshoot basic hydraulics for various applications, but also to understand concepts like flow rate versus cylinder speed and pressure versus cylinder force. Portable Basic Hydraulics' curriculum covers major objectives like pumps, gauges, hydraulic motors, cylinders, and numerous valves, including schematic symbols for each component, creating the ability to read and draw their own hydraulic schematics.

## Virtual Trainer for Online Hydraulic Skill-Building

The Basic Hydraulic Training System also features a virtual multimedia trainer! Amatrol's virtual trainers replicate hands-on equipment in such great detail that learners will feel like they are using the actual equipment. Learners will perform essentially the same tasks using virtual trainers that they would perform using equipment hardware. Transition from theory to hands-on is a seamless process.



## The 990-BH1: Mobile, Durable, Efficient

Set within a durable ABS plastic case, the 990-BH1 features wheels and a handle to create a completely mobile learning experience. This highly-efficient learning system also includes a lock for safety and a storage pouch on the inside cover for loose components, such as hydraulic hoses used to connect various valves. Additionally, the system's front cover is easily removable, enabling the case to sit upright on a flat surface for more convenient use. It will be a breeze to both transport the learning system and store it.



## Complimentary Student Reference Guide

A sample copy of the Basic Hydraulic Student Reference Guide is included with the learning system. Sourced from the curriculum, the Student Reference Guide takes the entire series' technical content contained in the learning objectives and combines them into one perfectly-bound book. If you would like to inquire about purchasing additional Student Reference Guides for your program, contact your local Amatrol Representative for more information.

