Basic Fluid Power Learning System – Double Sided A-Frame Bench with Two Hydraulic Manifolds

850-CD1





Interactive Multimedia and Student Reference Guides

Learning Topics:

- Hydraulic Power Systems
- Basic Hydraulic Circuits
- Principles of Hydraulic Pressure and Flow
- Hydraulic Speed Control
- Pressure Control Circuits
- Pneumatic Power Systems
- Basic Pneumatic Circuits
- Principles of Pneumatic Pressure and Flow
- Pneumatic Speed Control Circuits
- Flow Control Valves

Amatrol's Basic Fluid Power Learning System – Double Sided A-Frame Bench with Two Hydraulic Manifolds (850-CD1) is built to provide for both hydraulics and pneumatics training. Equipped with one set of basic hydraulics training (85-BH) panels and basic pneumatics training (85-BP) panels, the fluid power training system has the capacity to double your training capacity by adding another set of the basic fluid power training panels to the opposite side of the A-frame. This system introduces industry-relevant hydraulic and pneumatics skills while showing how they apply to fundamental fluid power principles, such as pressure and flow. After completing this learning system, learners will not only understand concepts like pressure versus cylinder force and basic motor circuits, but also be able to operate, install, design, and troubleshoot basic fluid power systems for various applications. Pneumatics and hydraulics are used in innumerable industrial applications.

In addition to the basic hydraulic training and basic pneumatic training, the fluid power training system includes a controls technology workbench, a 2.5 GPM/500 psi hydraulic power unit, student curriculum, student reference guides, and much more! Featuring standard industrial-grade components, this

learning system provides learners with real-world experience they would normally only attain on the job. Fluid power training's mobile workstation is constructed of heavy-duty welded steel to provide a sturdy, long-lasting learning station. Learners can easily store component panels in storage slots located under the work surface until needed.



Technical Data

Complete technical specifications available upon request.

A-Frame Double-Sided Controls Technology Bench Hydraulic Power Supply (85-HPS) **Basic Hydraulic Actuator Basic Hydraulic Valves Basic Hydraulic Instrumentation Panel** Hydraulic Hose and Fittings Package (85-HHF) Basic Pneumatics Actuator/Valve Panel **Basic Pneumatics Instrumentation Panel** Pneumatic Hose and Fittings Package (85-PHF) (2) Bench Manifold Kits (16141) Interactive Multimedia Curriculum (NB831 & NB834) Instructor's Guide (CB831 & CB834) Installation Guide (DB831 & DB834) Student Reference Guide (HB831 & HB834) Additional Requirements: Hand Tools Package (41220) Hydraulic Oil (16391) **Options:** Additional Basic Hydraulics Learning System (85-BH) Additional Basic Pneumatics Learning System (85-BP) Intermediate Hydraulics (85-IH) Intermediate Pneumatics (85-IP) Advanced Hydraulics (85-AH) Advanced Pneumatics (85-AP) **Utilities Required:** Electric (110V/60Hz/1Ph) Pneumatic power supply or conditioned (dry and filtered) shop air

Take Full Advantage of Available Training Area!

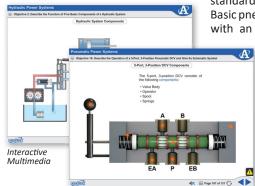
Fluid power training optimizes limited training space by providing an area for hydraulic and pneumatic panels on both sides of the system. Panels can be easily removed and repositioned as necessary to facilitate the completion of the learners' tasks. Each end of the fluid power training system is equipped with a hose storage rack that contains all the hoses needed to perform the required hydraulic skills. Also for hydraulic applications, the included hydraulic power unit has the ability to provide hydraulic fluid flow to both sides of the system where learners practice skills such as connecting and actuating basic hydraulic circuits. When precise flow rates and measurements are required, the system has the ability to limit the flow to one side or the other.



Double-Sided for Maximum Use of Training Area

Strong Curriculum with an Array of Hydraulic and Pneumatic Skills and Concepts

The fluid power training system features both basic hydraulic and pneumatic curriculum. Within hydraulics, learners will study about the physical principles of hydraulics and how hydraulic mechanisms are used in real world applications. From this building block, learners begin constructing hydraulic circuits, which gradually increase in difficulty and number of industry-



standard components as the curriculum goes along. Basic pneumatics follows this same approach, beginning with an explanation of pneumatic power and basic

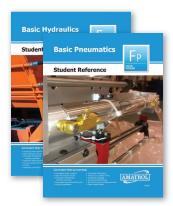
cylinder circuits before advancing to topics like pressure and flow, pneumatic leverage, pneumatic speed control circuits, and air flow control and measurement. Amatrol offers this curriculum in an interactive multimedia format. This format includes audio narrative, colorful 3D animations, video, and interactive quizzes and exercises.

Optional Hydraulic & Pneumatic Systems Available

Additional industrial training systems are available to extend the capabilities of fluid power training including an additional set of Basic Hydraulic (85-BH) panels and an additional Basic Pneumatic (85-BP) panel. Other learning systems include intermediate (85-IH) and advanced (85-AH) level hydraulics and intermediate (85-IP) and advanced (85-AP) level pneumatics. The fluid power system's storage areas allow learners to move panels under the system so that they can focus only on pneumatics or hydraulics or a combination of both.



85-IP



Student Reference Guide

Sample copies of the Basic Hydraulic and Basic Pneumatics Student Reference Guides are included with the learning system. Sourced from the multimedia curricula, these Student Reference Guides take the entire series' technical content contained in the learning objectives and combine them into perfect-bound books.



2400 Centennial Blvd. Jeffersonville, IN 47130 USA 800.264.8285 812.288.8285 www.amatrol.com Printed in the USA Copyright © 2019 Form No. 6131-C