

MF100-WTS Series



MF100-WTS WIND TURBINE HYDRAULIC SYSTEM TRAINING SIMULATOR

The MF100-WTS Wind Turbine Hydraulic System simulators have the same superb capability as the MF100 series simulators for teaching a complete course in Practical (Basic) Hydraulics. However, an extensive component package has been added to increase their capability to include a comprehensive course in wind turbine hydraulic systems and troubleshooting hydraulic components using leakage path analysis methods.

DESCRIPTION:

The Wind Turbine industry needs skilled maintenance professionals who are trained in all aspects of state-of-the-art wind turbines, which includes, among other things, hydraulics.

The MF100-WTS hydraulic training simulator is designed to teach students vital aspects of wind turbine technology with respect to hydraulics:

- Hydraulic safety
- How to read and understand hydraulic schematics
- Hydraulic principles and laws
- Hydraulic component theory of operation
- Electro-hydraulics
- Proactive maintenance
- Diagnostics

The extremely versatile MF100-WTS incorporates everything an instructor needs to teach all of the above because it has the identical hydraulic components found on a hydraulically-controlled wind turbine:

- Electro-hydraulic blade pitch control system
- Brake system

Both the hydraulic and electronic systems are based on a "build-and-drive" platform.

Wind turbine diagnostics MUST be executed with utmost precision to avoid safety hazards unique to wind turbines – especially unnecessary trips navigating immense towers. The MF100-WTS features pressure/leak testing – a technique for testing hydraulic components that is so unique that over 95% of the components on a wind turbine can be diagnosed with the unit safely locked out. Pressure/leak testing can be done without removing a component from the system or disassembling a component.

All the hydraulic components on the MF100-WTS can be faulted at the flick of a switch. The fault is absolutely identical to a fault a trained technician will experience on-the-job.

Included in the price of the MF100-WTS:

1. State-of-the-art wind turbine hydraulic training simulator – single-sided or dual
2. Student workbook covering:
 - a) Hydraulic safety
 - b) Basic hydraulic laws and principles
 - c) Complete guide to ANSI and ISO symbols
 - d) Hydraulic component theory of operation

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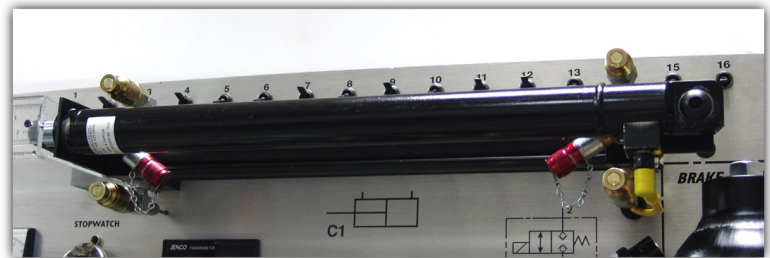


MFI00-WTS Series

- e) Simulator activities including complete Wind Turbine hydraulic system set-up and diagnostics
- f) Accumulator charging kit so students can learn how to safely and correctly service and maintain accumulators
- g) Instructor workbook
- h) PowerPoint presentation
- g) Train-the-trainer workshops (call for details and pricing)

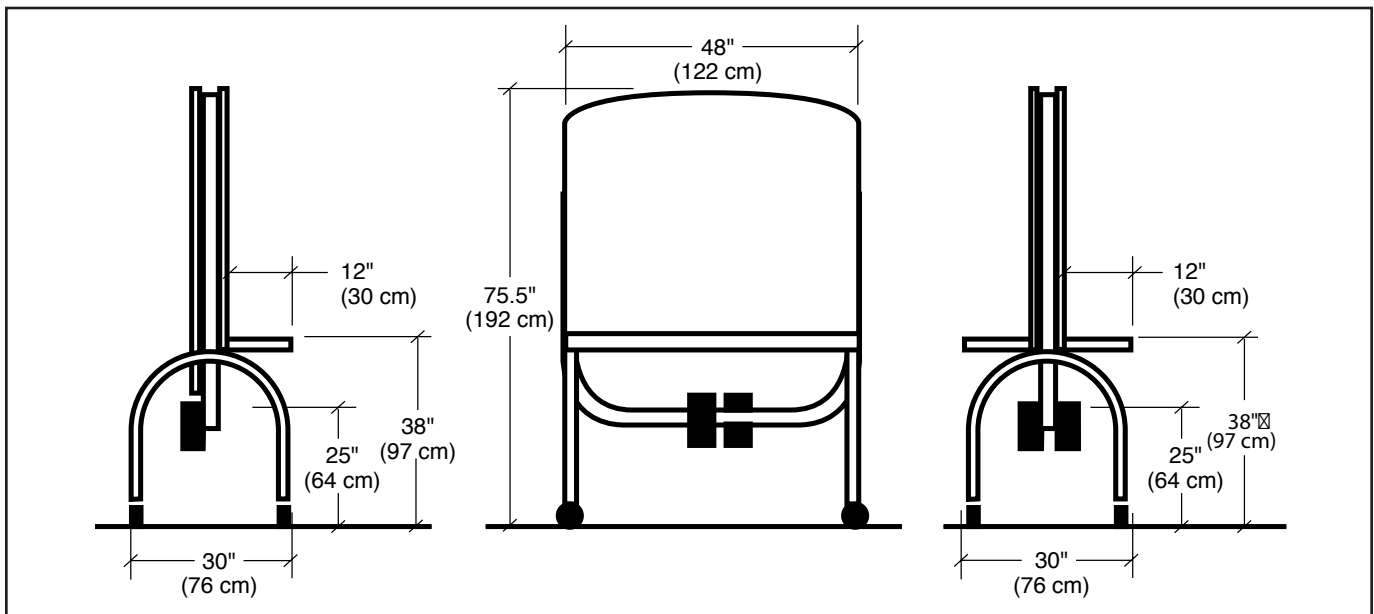
Here's a very brief description of how the troubleshooting portion of the system works:

After the student constructs the circuit on the simulator, the activity in the student workbook instructs them to activate one or more switches which instantly transforms one or more "healthy" components into one or more worn components.



Troubleshooting switches introduce "faults" into otherwise "healthy" components on the simulator

Using the identical diagnostic instruments they will use in the "real-world," the students begin the process of testing the "suspect" components one at a time until all the defective components have been identified.



Shipping Specifications:

Shipping weight: Double: 1000 lbs. (454 kgs.) Single: 850 lbs. (386 kgs.)
Shipping dimensions: 75.5" tall x 48" wide x 30" deep
(192 cm x 122 cm x 76 cm)

Warranty:

FPTI™ warrants its products against defect in materials or workmanship for a period of two years from date of delivery.



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