

# Vertical Separator Trainer



Model: 295-101

DAC Worldwide's Vertical Separator Trainer (295-101) is a reduced-scale, three-phase vertical separator that mimics its real-world counterpart by using alternate production stream components, refined oil, air, and water.

This Vertical Separator Training System includes components like on-board supply pumps, a regenerative blower, a static mixer, metered valves, flowmeters, a custom-fabricated, large-diameter, clear acrylic, vertical separator vessel, and more. The vessel features internal components including an inlet diverter, overflow weir, mist eliminator, and strategically- located and reinforced outlet connections.

DAC Worldwide's Oil & Gas Production training product is mounted on a mobile, formed-steel, powder-coated support frame assembly that can be moved through standard doors and from classroom to classroom.

## **Specialized Vertical Oilfield Separator Training System**

Oilfield separators use gravity separation to efficiently separate mixed raw oil and gas production streams into their component parts: crude oil, gas, and water. An inlet diverter immediately meets the flow crude oil and a spreader at the oil-water interface helps to separate oil from water.

### **FEATURES & SPECIFICATIONS**

- Formed-steel, welded, and powder-coated mounting frame
- Four leveling and locking casters
- Laminated, MDF front panel face and side panels providing moisture resistance and stable mounting surfaces

- On-board 19" X 34" instrument rack, allowing for electrical enclosure mounting, and provision for installation of optional advanced instrumentation and controls by the user
- Front face-mounted 1" and ½", clear PVC supply and return piping system, including control/maintenance valving and service drain.
- Three, variable-area flowmeters (rotameters) at critical inlet locations
- Clear acrylic inlet static mixer
- Six metered ball valves allowing for precise repeatable control of inlet and outlet streams and providing backpressure, if desire, during operation
- Two magnetic drive, seal-less centrifugal vertical process pumps, ½ HP, 0-2 GPM @ 0-10 PSI

### **SEPARATOR DETAILS**

- Custom-manufactured, 12" diameter X 23" Tall, 1/4" wall, clear acrylic separator, with removable flanged top head and reinforced, threaded inlet, and outlet connections
- Separator includes level measurement scale and multiple quick-connect pressure taps for monitoring pressures and differential pressures across the mist eliminator, using optional or user-provided measurement devices
- Separator includes replaceable inlet deflector, oil over-flow simplex weir plate assembly, and replaceable, full-diameter, mist extractor assembly featuring reticulated screen retainers, representative wire mesh media, and assembly retainers
- Front face-mounted operator control panel, including pump and blower on/off control, pilot lights, 24 VDC power connections, and provision for pump and blower control via banana jack-accessed contacts
- Rack-mounted primary power enclosure and control panel including system power breaker, system GFCI, and lighted system stop/start station
- Eight, "free line" (open conduit) connections between power enclosure, and front operator control panel
- Front panel-mounted, modular pressure gauge mounting bracket
- Two, 15-gallon, polyethylene water and oil reservoirs, with covers, and provision for mounting of vertical centrifugal pumps.
- Five, quick-disconnect fittings throughout, allowing for measuring or monitoring of pressure and/or differential pressure at multiple points throughout the system, including the separation vessel.

### **PRODUCT DIMENSIONS**

- 48"L x 37.5"W x 7"H (1220 x 950 x 1975 mm)
- 450 lbs (205 kg)

### **OPTIONS** No Options

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