

Digital Power Simulators

Educational Training Equipment for the 21st Century

Bulletin 186E

H-186-1 Combustion Technology Simulator

Purpose

The **Model H-186-1** Combustion Technology Simulator serves to demonstrate principles of operation and trouble-shooting techniques of a current power plant combustion system. The module's front panel displays a complete pictorial view of the system. All functions operate as on the actual equipment and present the student with realistic problem solving opportunities.

The combustion technology simulation is based on a typical modern power plant balance draft combustion system with simulation to include air and fuel systems, analog control loops, digital controls, alarms and trips.

Operational "hands-on" activities performed by students include; real time, dynamic experience with all phases of oil and pulverized coal firing.

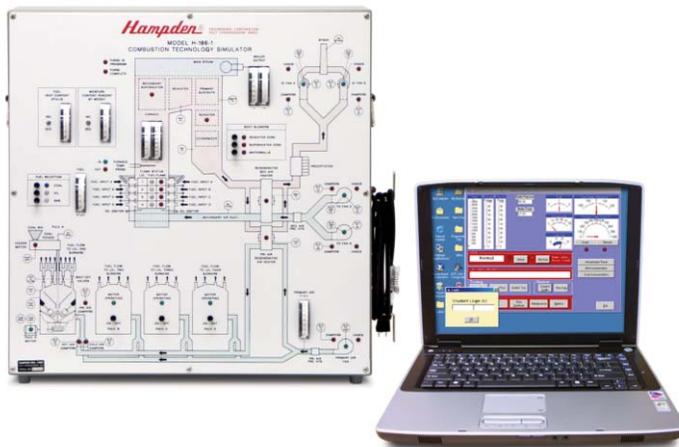
Description

The Hampden **Model H-186-1** Combustion Technology Simulator is a fully computer-controlled unit designed to interface with a provided Laptop Computer.

Combustion system, secondary air/gas, primary air, oil flow, coal pulverizer, flows, pressures, temperatures, loads and control positions are continuously displayed on screen to student and instructor.

The courseware covers all aspects of operation including:

- System Description
- Component Identification
- Controls
- Theory
- Sub-Systems Operation
- Integrated Operations



Hampden **Model H-186-1** Combustion Technology Simulator

Features

The **H-186-1** Combustion Technology Simulator can be set to simulate the following conditions:

- Cold System
- Furnace Purge Complete
- 10% Load
- 75% Load C
- 100% Load Low BTU Fuel
- Secondary Air Flow Established
- Boiler Warm Up Complete
- 50 % Load
- 100% Load

Complete your Power Plant training with these additional Hampden Digital Simulators



MODEL H-185-2A
Advanced Boiler Trainer



MODEL H-187-1
Turbine/Generator Technology Simulator



MODEL H-188-1
Electrical Generation Fundamentals Trainer

Students are able to interact with different graphic displays, view system parameters, in addition to operating digital and analog controls.

Instructors may insert simulated mechanical or electrical "faults" into the system to test a students' troubleshooting capabilities.



All Hampden units are available for operation at any voltage or frequency

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