

# Custom Process Trainer with Remote Supervision



# Model: 120-CPT

## **What Is Process Control?**

Process control systems automate the monitoring and adjustment of complex manufacturing processes to consistently produce quality products. Used in a variety of continuous mass production industries, process control systems allow a few workers to control a large number of complex processes with a high degree of efficiency. Process control systems also improve safety, lower production costs, save energy, and decrease environmental impacts.

## **What Industries Use Process Control Systems?**

Process control systems play an important role in most advanced manufacturing facilities, especially within industries focused on continuous mass production. Popular industries that rely heavily on process control include: power generation, oil and gas, chemical processing, pulp and paper, food and beverage, biotechnology, pharmaceuticals, semiconductors, plastics, petrochemicals, and water/wastewater.

## **What Types of Process Control Variables Are There?**

Process variables can consist of anything that affects a physical or chemical process. The most common process variables fall into five major types: level, flow, temperature, analytical, and pressure. Analytical process variables are often called chemical variables, because they involve chemical properties like acidity. Other process variables include density, velocity, speed, stress, force, and weight.

Bayport Technical's Custom Process Trainer with Remote Supervision (120-CPT) provides hands-on training for process operators and maintenance technicians. This unit replicates real-world operating equipment and consists of separate functions all integrated into a compact, effective unit to safely train personnel in the process industry.

The Custom Process Trainer with Remote Supervision features pumps, tanks, piping, level control, pressure control, flow control, temperature control, a programmable logic controller (PLC), two ANSI process pumps (mounted in parallel), an orifice flow control loop, a fixed wattage heater, and a variety of safety features.

All tanks and piping are stainless steel to minimize corrosion. The level control regulates the level in the top receiver. The trainer has an orifice flow control loop on it. The unit includes a temperature control system with a side stream which flows through a fixed wattage heater. For safety reasons, the heating unit is equipped with a high temperature shutdown and an over-pressure relief valve.

The PLC is wireless and comes with a touch screen that allows the instructor to program different functions from anywhere nearby. It is integrated to all the control loop functions of the trainer. It is programmed to operate the system, as well as to provide cascading abilities between various loops. It can also be programmed to provide supervisory interlock functions.

This process trainer is capable of a minimum of 38 specific training and educational functions with an endless number of potential variables for troubleshooting scenarios on piping, valves, flanges, flow, level, pressure, electrical, instrumentation, and pneumatics.

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## **SPECIFICATIONS**

- Pumps
- Tanks
- Piping
- Level control
- Pressure control
- Flow control
- Temperature control
- Programmable logic controller (PLC)
- ANSI process pumps (two, mounted in parallel)
- Orifice flow control loop
- Fixed wattage heater
- Safety features

## **UTILITIES**

- Contact Bayport Technical for electrical requirements.

## **PRODUCT DIMENSIONS**

- Coming soon.

### **Address**

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