

# PC-Consoles Control Panel

## INDUSTRIAL HMI ENCLOSURE & WORKSTATION SPEC SHEET

### 1. System Overview

The PC-Consoles Control Panel represents a heavy-duty, ergonomically designed industrial workstation tailored for Human-Machine Interface (HMI) applications, process control monitoring, and automation system management. Featuring a ruggedized steel chassis with a powder-coated blue frame and contrast-cream front maintenance doors, this station is built to withstand harsh factory floors, workshop floors, and laboratory environments.

### 2. Visual & Structural Architecture

Based on the physical profile of the unit, the hardware design is divided into three functional zones:

<b>Upper Protective Canopy</b>	A hinged, lockable top protective lid lined with inner dampening/insulation material. Designed to protect the primary HMI interface from airborne particulate matter, moisture, or unauthorized physical manipulation when the workstation is idle.
--------------------------------	---

<b>Slanted Control Deck</b>	An ergonomically optimized angled console surface layout containing a flush-mounted centralized electronic display window (HMI panel screen) along with standard industrial control pilot devices positioned on the right-hand margin.
-----------------------------	--

<b>Lower Equipment Cabinet</b>	A spacious floor-standing lower compartment secured by a front-access mechanical latch door. Provides safe housing for programmable logic controllers (PLCs), industrial computing units, power supplies, terminals, and floor-level wiring management.
--------------------------------	---

### 3. Console Interface Hardware & Pilot Devices

The operator control deck integrates a specialized physical layout to balance digital interactive diagnostics with deterministic tactile overrides:

<b>Central Display Window</b>	Bezel-mounted industrial display opening, optimal for integration with capacitive or resistive touchscreen monitors, localized SCADA interfaces, or graphics terminals.
-------------------------------	---

<b>Emergency Stop (E-Stop)</b>	A prominent, top-mounted red mushroom-head push button designed for immediate circuit interruption and hardware shutdown in safety-critical events.
<b>Status Pilot Lights</b>	Tactile colored push-actuators/indicator lamps (featuring amber and green lenses) to provide high-visibility, instant visual feedback regarding machine status, faults, or localized operational readiness.
<b>Selector / Key Switch</b>	A manual rotary/toggle selection switch situated on the lower right corner of the panel panel for mode selection (e.g., Manual/Auto configuration or maintenance lockout overrides).

### Deployment & Operational Advantages

- **Ergonomic Console Incline:** Reduces operator fatigue during prolonged monitoring sessions.
- **Industrial Environment Protection:** The heavy-duty structural frame prevents ingress from contaminants.
- **Modular Service Access:** Full-front opening door and side pass-throughs facilitate expedited wiring, clean cable management, and routine hardware upgrades.

## 4. Physical & Environmental Specifications

<b>Enclosure Material</b>	Heavy-gauge cold-rolled steel sheet metal structure.
<b>Finish / Coating</b>	Industrial anti-corrosion powder coating (Dual-tone High-Visibility Blue and Industrial Cream/Grey).
<b>Form Factor</b>	Free-standing upright pedestal control console cabinet.
<b>Mobility &amp; Anchoring</b>	Flanged structural base plate engineered for high-stability stationary floor anchoring. Built-in side handles for positioning alignment.

Technical Document Ref: PC-CONSOLE-CP-01 // Industrial Automation Infrastructure Catalog