

OBSOLESCENCE / RETROFIT

# Replacements and retrofit solutions for legacy operator panels

## MANUFACTURING DATA SHEET

Technical overview of reverse engineering capabilities, mechanical reconstruction, and technology upgrades for the restoration and lifecycle extension of discontinued HMI systems.

### MECHANICAL REVERSE ENGINEERING

Translation of physical legacy parts into precise CNC programming and manufacturing drawings to recreate exact footprints and mounting patterns when original plans are unavailable.

### HMI TECHNOLOGY MODERNIZATION

Replacement of failing legacy components with modern mechanical keys or updated membranes while maintaining the original industrial look, fit, and function.

### LEGACY INTERFACE RESTORATION

Precise reconstruction of graphic overlays and industrial screen printing to restore original aesthetics, legends, and readability of discontinued operator interfaces.

### OPERATIONAL LIFECYCLE EXTENSION

High-precision manufacturing of discontinued HMI units ensuring 100% mechanical compatibility and restoration of operational continuity without system disruption.

## TECHNICAL SPECIFICATIONS OVERVIEW

|                             |  |
|-----------------------------|--|
| <b>Base Materials</b>       | High-durability polyesters, Aluminum 6082-T6, Stainless Steel 316L, and modernized acrylics.           |
| <b>Machining Process</b>    | Reverse engineering, multi-axis CNC milling, and precision mechanical assembly.                        |
| <b>Technical Finishes</b>   | Legacy-matched color palettes, technical screen printing, and chemical-resistant surface treatments.   |
| <b>Integrated Fasteners</b> | Retrofit-compatible studs, custom mounting patterns, and high-bond structural adhesives.               |
| <b>Compliance</b>           | Build-to-print execution supporting mechanical parity with original OEM specifications and IP ratings. |

**Operational Note:** Our workflow is optimized for 100% mechanical parity and the extension of system lifecycles through high-precision construction defined in reconstructed technical documentation.

**Certification Disclaimer:** Vermenton manufactures replacement hardware strictly according to provided samples or reconstructed CAD/BOM. While we ensure mechanical and functional parity, final system recertification remains the responsibility of the product owner and the corresponding notified body process.