Fabrication

Control Panels, Electronic Design and Assembly

The center of every automation system

Regardless of what type of automation you are using – at the center of every system is the control panel. AFI Systems will design a panel to fit the system's needs and will do so using all the latest component and programming technology – our technicians attend conferences and classes to ensure we stay up-to-date. We are perfectly comfortable designing and building a new panel system, designing a panel for the customer to build on their own, or re-building an existing panel which might have been damaged. And, we also will do non-panel related electronic system design and assembly.

We might choose to use an existing packaged OEM drive system, or custom design the drive functions using individual components. Other common control panel components typically include:

- Panels with power supply, PLC's, HMI's, terminal blocks, contactors, ethernet ports
- Operating controls such as encoders, potentiometers, relays and sensors, scanners, circuit breakers
- Safety sensors and switches
- Hand-held pendant options

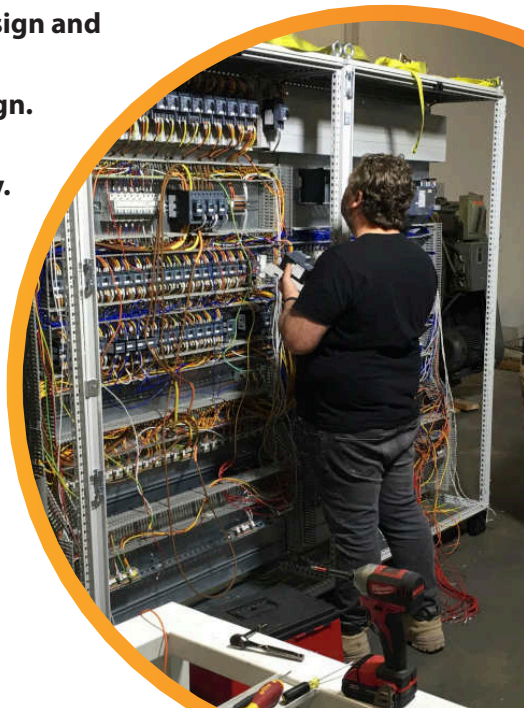
Other important factors when considering AFI Systems for your control panel needs:

- All designs follow UL 508 standards
- Detailed drawings and operating manuals for all system components
- Detailed quotations and timelines
- Complete installation, commissioning, and training

There are so many ways we can help improve your operations!

The need to improve production capability has never been greater whether it be from: competition, profits, delivery schedules, unreliable production personnel. We will use which ever technology is best suited to meet the customer's needs. We can help with:

- **Control panel design and construction.**
- **Custom PCB design.**
- **Custom cable harness assembly.**
- **Mechanical parts manufacturing.**
- **3d printing.**



Custom Fabrication / Parts

Whether we are design-building a new machine or upgrading / rebuilding an existing machine; AFI Systems can design and fabricate just about any part or structural component needed for the job. All custom parts or structural components are designed using SolidWorks and mostly fabricated in-house. Commonly used materials such as Flats, Bars, Sheets, and Aluminum Profile Framing are usually kept on hand.

Fabrication of parts and structural components to support your systems / machinery.

AFI Systems fabricating and machining capabilities include:

- Turning - O.D. and I.D.
- UN-threading and tapping
- Milling and drilling - Ends and Flats
- Grinding - Rotary or Flat
- Sheet metal pressing, cutting, and forming
- Welding - Rotary or Flat
- Cutting - Plasma, Flat or Rotary
- Hydraulic pressing

Precision Custom Fabrication

AFi Systems' in-house fabrication capabilities allow them to design and produce custom parts and structural components for new machines, upgrades, or repairs. Using SolidWorks for design and a range of advanced machining techniques, AFi delivers high-quality parts tailored to your specifications. Their fabrication services include:

- **Machining:** Turning (O.D. and I.D.), UN-threading, tapping, milling, drilling, and grinding (rotary or flat).
- **Sheet Metal Work:** Pressing, cutting, and forming for precise components.
- **Welding and Cutting:** Expertise in rotary and flat welding, as well as plasma, flat, and rotary cutting.
- **Hydraulic Pressing:** For forming and shaping robust parts.
- **Material Availability:** Commonly used materials like flats, bars, sheets, and aluminum profile framing are kept in stock for faster turnaround.

Whether you need a single custom part or a complete structural framework, AFi's in-house fabrication ensures precision and efficiency, supporting applications in robotics, material handling, and machinery upgrades.

Holistic Automation Solutions

AFi Systems goes beyond individual services to provide end-to-end automation solutions. Their expertise spans:

- **Robotics and Automated Systems:** Design and integration of electromechanical, hydraulic, or pneumatic systems to boost productivity.
- **Safety System Integration:** Ensuring compliance with industry standards through advanced safety sensors and switches.
- **Material Handling Systems:** Custom conveying or lifting solutions to streamline operations.
- **Machinery Upgrades:** Retrofitting existing equipment with modern drives, panels, or fabricated components to extend lifespan and improve performance.

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