

# CONTROL PANEL SOLUTIONS

# **OUR VALUE PROPOSITION**

Controlled Motion Solutions/Motion & Flow Control Products is a team of engineers, technicians, and salespeople that work together to support the production and implementation of your control panels.

Comoso/MFCP specializes in bringing innovative solutions into the controls that operate your manufacturing processes. We do this by establishing a collaborative relationship, sharing expert advice, and offering unique designs to deliver a one-of-a-kind control panel platform based on the customer's requirements. This is not a "one size fits all" solution; we work with you to find what works best for your business.

We consider the whole system need, not just your product needs. Our team can design & install anything from OEM controls to custom-engineered control solutions to fit your unique needs. We provide high-quality service that is on time and within budget. With Comoso/MFCP, quality doesn't come with a price; it comes as a standard.

We make sure to use the best industry practices and standards for all of our work. UL-508A is the industry's most widely recognized electrical industrial control panel standard. UL-508A helps to ensure the safe and reliable operation of all types of electric and electronic equipment. Comoso/MFCP is certified UL-508A.

The control panel is a crucial part of any project, and it's even more critical when you want to create something innovative. We're always looking for new ways to help our clients meet their specific needs while staying on the cutting edge of technology--let us know what your requirements are to assist you better. We listen and understand. The technical sales voice is our specialty, and it's why so many OEMs trust us when designing control panels--because they are more complicated than they look!

If you're a manufacturer looking for a knowledgeable, collaborative partner in the production of your control panels, Comoso/MFCP is here to help. We specialize in bringing advanced solutions and front-line control panel technology to control hydraulics, pneumatics, or electromechanical products. We offer OEM scale or one-of-a-kind control panel solutions to improve efficiency and maximize profitability for your business from start-up companies with limited resources or established manufacturers seeking new technology or competitive edge.

Contact us for quality, competitively priced products and solutions from industry experts.

# **CONTROL PANEL EXAMPLES**









# **MOTOR & PUMP PANELS**







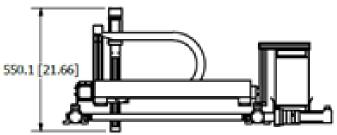
### **MOTOR AND PUMP PANELS**

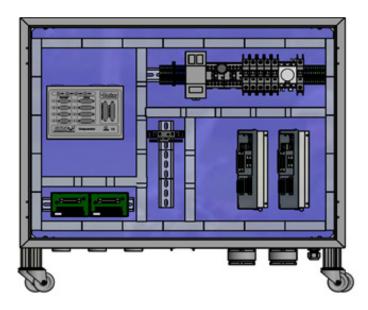
- Hydraulic power units control panels
- Water Pump
- Farming/irrigation pump panels
- AC/DC drives and related controls
- · Softstart pump panels
- DOL pumps



# **MECHATRONIC SYSTEMS**







# CUSTOM MECANICAL AND MOTION CONTROL SYSTEMS

- Positioning Systems
- Gantries
- Press Systems
- Motion Control Panels
- Customer Systems
- · Factory Authorized Training
- Motion Controller and Drive Programming

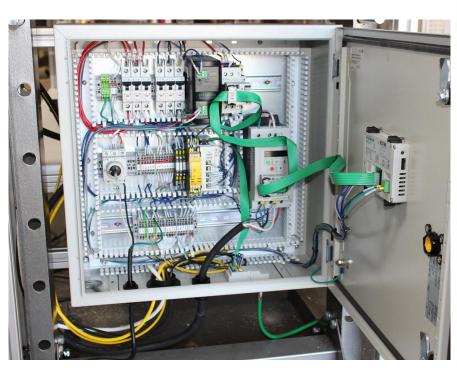


# **SAFETY CONTROL PANELS**



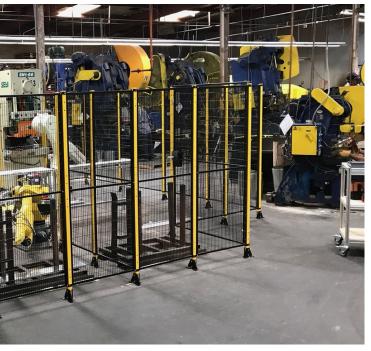


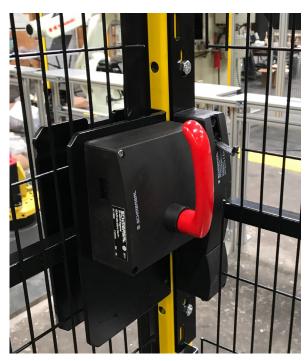


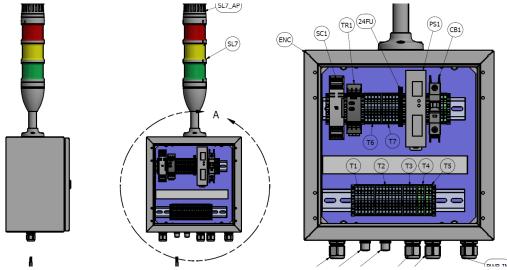




# **SAFETY CONTROL PANELS**





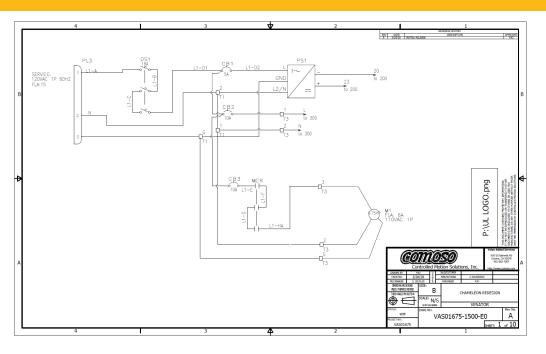


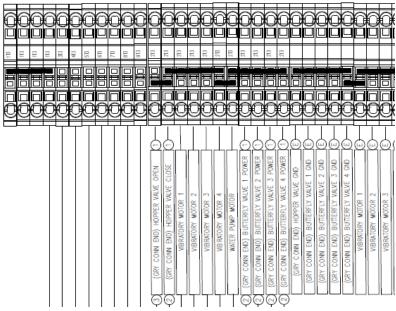
### **SAFETY CONTROLS**

- · Built to meet ISO 13849 CAT4
- Integration with
- Hard Guarding
- Pneumatic Controls
- Safety Interlocks
- · Light Curtains



# SCHEMATIC DEVELOPMENT





### **CAPABILITIES**

- · Fully documented schematics
- 3D layout of enclosure ensures all components fit with proper clearance
- · Detailed Terminal Block Diagrams to ease field wiring
- · Revision control to ensure proper build
- Full BOM development based on scope of work/technical requirements

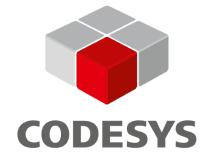
# PROGRAM DEVELOPMENT

```
CTU
         CU
                  0 - xC1Done
  xT1 Done -
   xReset - RESET
                    -wC1 Value
         PV
IoConfig_Globals_Mapping.xPan
xC1Done
  wC1 Value -
                   xReset
            LAMP FB 0
                                  LampFlasher(IN:= NOT LampFlasher.Q, PT:= T#2000MS);
             LAMP_FB
                   ENO
        EN
                  xLamp - MODBUS.FC MODBUS
  iStatus -
                                  CASE iLampStatus OF
                                       0: //Lamp is OFF
            AVERAGE
                                           xLamp := FALSE;
  iMyValues — iValues
                   — iMean
                                       1: //Lamp is ON
         iNum
                                          xLamp := TRUE;
                                       2: //Lamp Flashes,
                                           xLamp := LampFlasher.ET > T#1000MS;
                                  ELSE
                                       //Turn xLamp off with invalid status
                                       xLamp := FALSE;
                                  END CASE
```

### **CAPABILITIES**

- Programming to IEC 61131-3 including Ladder and Structured Text
- HMI/Web Visualization Programming
- Fieldbus Expertise EthernetIP, Profinet, ModbusTCP, EtherCAT, CANOpen, DeviceNET, Profibus, OPC UA and more
- IIOT connectivity





# **OEM CONTROL SYSTEMS**









### **CAPABILITIES**

- Scale production without capital expense and additional labor
- · Build to print or developed by Comoso/MFCP
- · Factory Acceptance Testing
- Start-up & Commissioning Assistance
- Maintenance Recommendations

# **KEY PARTNERS**







# YASKAWA Parker





















**Cutler-Hammer** 





# **CAPABILITIES**

### **Products**

Actuators, Stages & Cylinders Automation Components Compressed Air Equipment Controls Drives & Motors Electrical Filtration
Gauges & Measurement
Hose, Tubing & Fittings
Hydraulics
Machine Safety
Mobile & Truck

Pneumatics
O-Rings & Seals
Sensors & Switches
Tools & Assembly
Vacuum
Valves

### **Services And Capabilities**

24 Hour Mobile Hose Service Seal Kitting Services Hose Kitting Services Cylinder Interchanges Hydraulic Component Repair Tube Bending and Fabrication Rental Units/Equipment Vendor Managed Inventory

### **Engineered Solutions**

Control Systems & Enclosures Standard Hydraulic Power Units Custom Hydraulic Power Units Custom Hydraulic Manifolds Pneumatic Systems & Assemblies Seal Engineering System Installation System Design Schematics
Custom Machine Guarding
Workstations & Workcells

### **Technologies**

Automation Compressed Air & Pneumatics Controls/Control Panel Electromechanical Filtration Hose, Tubing & Fittings Hydraulics Mobile Controls & Hydraulics Machine Safety Seals & Engineered Materials



# People, Products & Performance

With Controlled Motion Solutions, you will find more than a distributor; we are a solutions provider. Comoso provides solutions to virtually everything that moves or requires control. As your fluid power specialist, we provide motion and control technology systems and engineering services for a wide variety of commercial, mobile and industrial markets.

### **Our Product Expertise:**

- Actuators, Stages & Cylinders
- · Automation Components
- · Compressed Air Equipment
- · Controls
- Drives & Motors
- Electrical
- Filtration
- · Hose, Tubing & Fittings
- Hydraulics
- Machine Safety
- Mobile Controls
- Pneumatics
- · O-Rings & Seals
- Sensors & Switches

**WYOMING** 

**CASPER** 

- UL-508A
- · Vacuum
- Valves

### **LOCATIONS**

### **ALASKA**

FAIRBANKS ANCHORAGE

### **ARIZONA**

**TEMPE** 

### **CALIFORNIA**

BAKERSFIELD
CHULA VISTA
CORONA
ESCONDIDO
FREMONT
FRESNO
OAKLAND
SACRAMENTO
SAN LEANDRO
SANTA ANA
SANTA FE SPRINGS
SUN VALLEY
WEST SACRAMENTO

### **COLORADO**

AURORA
DENVER (BRYANT ST)
DENVER (46TH AV)
COLORADO SPRINGS
FORT COLLINS
GRAND JUNCTION
LOUISVILLE

### IDAHO

BOISE CALDWELL

### **MONTANA**

BILLINGS SIDNEY

### **NORTH DAKOTA**

WILLISTON

### **NEVADA**

LAS VEGAS SPARKS-RENO

### **OREGON**

HILLSBORO PORTLAND SALEM EUGENE BEND MEDFORD

### **UTAH**

SALT LAKE CITY SMITHFIELD ST. GEORGE

### **WASHINGTON**

SEATTLE KENT LONGVIEW VANCOUVER



ULPanelShop V1.1