



# Electromechanical Motion Control



# INTRODUCTION



- Electric Cylinders
- Belt Driven Positioners
- Screw Driven Positioners
- Linear Motor Stages
- Manual Slides
- Servo Motors & Drives
- Stepper Motors & Drives
- Motion Controllers
- VFD's



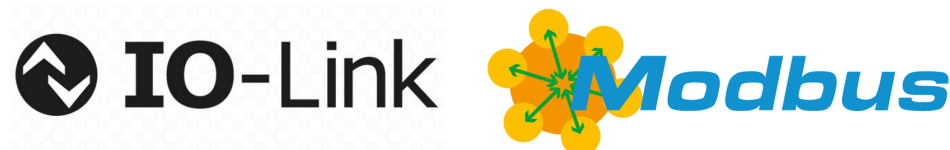
- Enter application details using the intuitive interface
- Size and select products that meet the demands of your application
- Get a quote, share your project, and download files easily



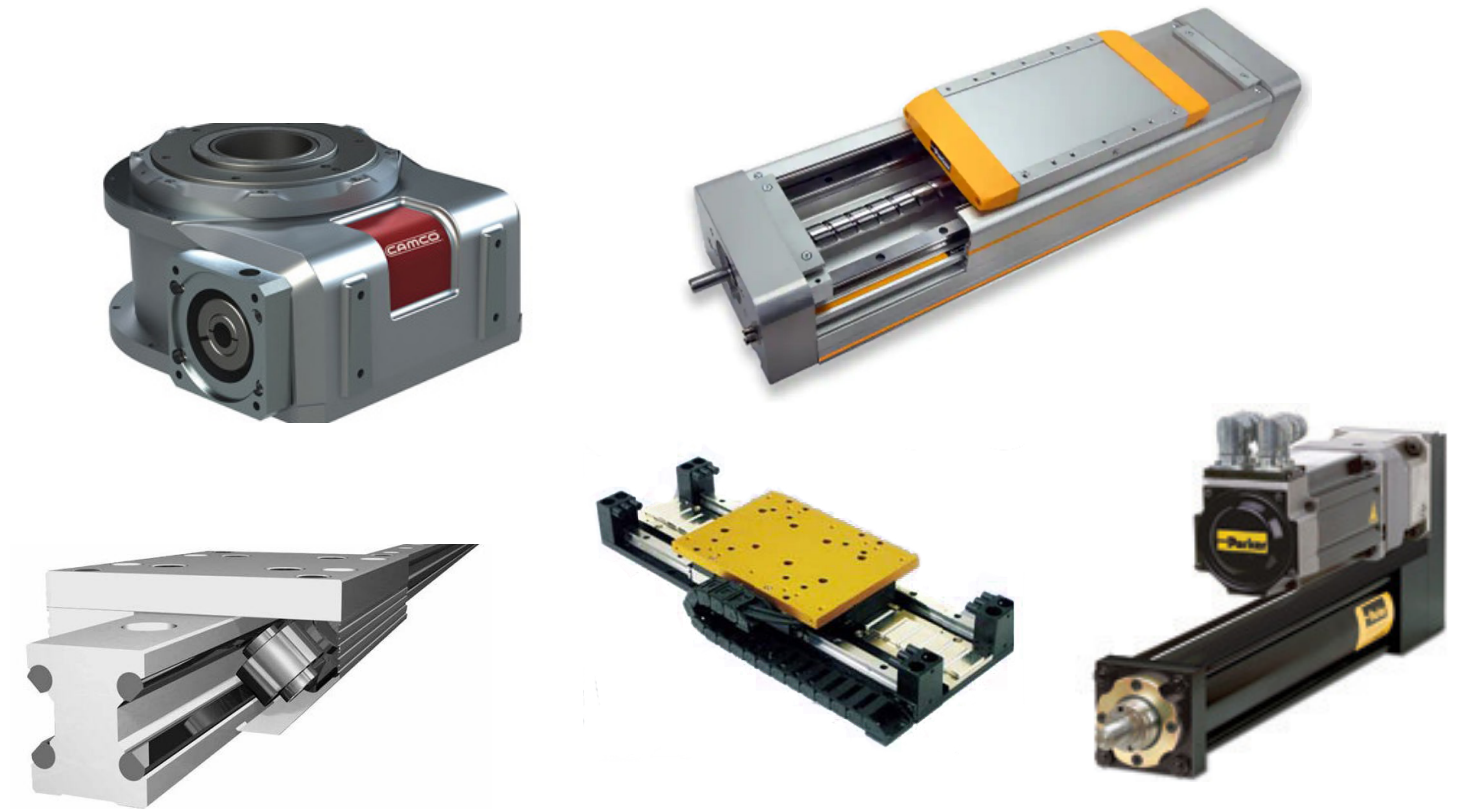
- Rotary Indexers
- Precision Link Conveyors
- Intelligent Conveyors
- Parts Handlers
- Overload Clutch



- Gantry Design & Build
- Frame Design & Build
- Safety Enclosure Design & Build
- Control Panel Design & Build
- PLC, Drive & Motion Controller Programming



# MECHANICS



## Electric Cylinders



Rod Type  
Rodless  
High Force

High Speed  
Legacy

## Screw Driven Positioners



Precision  
Industrial  
Economy

Miniature  
Vertical

## Linear Motor Stages



Compact  
Miniature  
Ironcore

Ironless  
High Force  
Smooth Motion

## Belt Driven Positioners



Industrial  
Economy  
Miniature  
Vertical

Long Stroke  
High Rigidity  
High Speed

## Rotary Positioners



Direct Drive  
High Capacity  
High Precision  
Pneumatic

Manual  
Indexers  
Conveyors

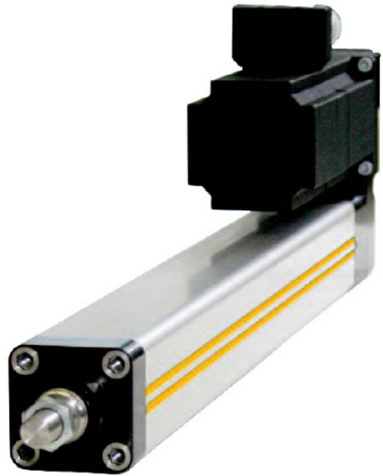
## Manual Slides & Stages



Rail Systems  
Slides

Stages  
Rotary Positioners

# ELECTRIC CYLINDERS



## Rod Type Electric Cylinder Parker - ETH Series

- Oversized ballscrews and thrust bearings
- Duty cycle: 100%
- 5 profile sizes (ISO 32, 50, 80, 100 and 125)
- Up to 25,600 lbf



## Rod Type Electric Cylinder Parker - XFC Extreme Force Series

- High Force up to 40,000 lbf
- High speed capabilities of up to 40 in/sec
- Roller screw driven
- Heavy wall steel tubing cylinder body for hydraulic replacement



## Commercial Rod Style Actuator Nook - CC Series

- Durable construction and Dependable performance
- Long-life operation and High repeatability
- Ideally suited for OEM applications

# POSITIONERS & STAGES



## Belt/Screw Driven Actuator Parker - OSPE Series

- Standard travel up to 5 meters
- Internal slider bearing guide standard
- Externally attached bearing options for higher loads and moments



## Belt/Screw Driven Positioner Parker - HMR Series

- Reinforced profile for self-supporting assembly
- Integrated, adjustable position switch for end positions and homing
- Optional cover for protection class IP54



## Linear Motor Positioners Parker - mSR100 Series

- High dynamic motion
- Optical incremental 0.01 micron resolution with integrated home and limit sensing
- 25mm to 500mm stroke

# INDEXERS



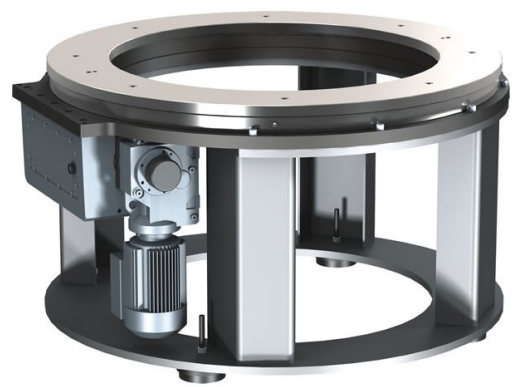
## RDM Series Roller Dial Index Drives

- Low Profile
- Large center thru hole
- Large output mounting surface supported by 4-point contact bearing offering superior thrust and moment capacity
- Complete, motorized drive packages and option overload clutch



## GTB Series Servo Positioner / Rotary Index Table

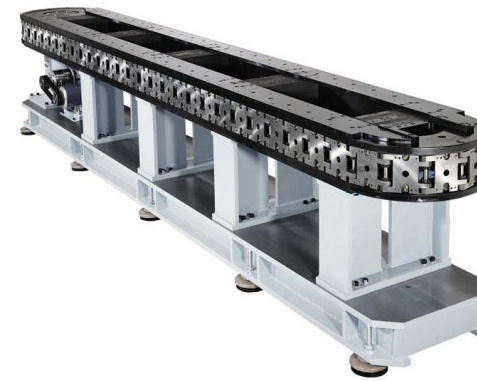
- Compact
- Servo Motor Drive
- High Load Ratio
- Lubricated for life
- Horizontal or vertical mounting
- Large thru-hole diameter for space constrained machine applications



## RNG Series Ring Index Drives

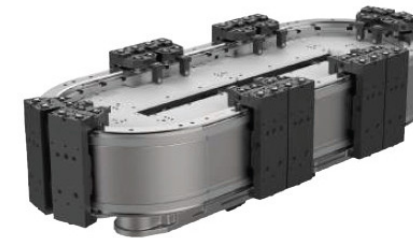
- Large center through-hole to accommodate auxiliary equipment
- Dial Ring can be removed for machining to mounting your tooling and fixtures
- 60 station capability, ideal for multiple part automatic assembly machines
- Available in four sizes: .75 to 2.0 meter diameters

# CONVEYORS



## Precision Link Conveyors

- High speed station-to-station parts transfer
- Precision positioning of parts for assembly or manufacturing processes
- Optional Bases, Line Shafts and Tooling Mounting Plates
- Available in Link pitch of 6, 9, and 12 inches



## iQue Modular Conveyor with iTRAK

- Faster changeover with on-the-fly programming
- Increased line speed and flexibility
- Reduced machine footprint
- Increased production rates – 50% or more
- Reduced periodic maintenance

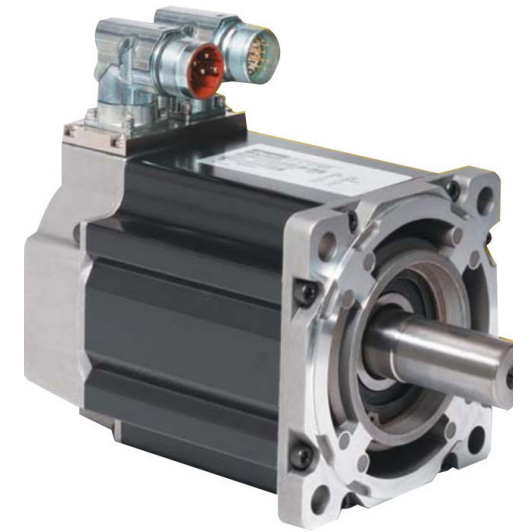
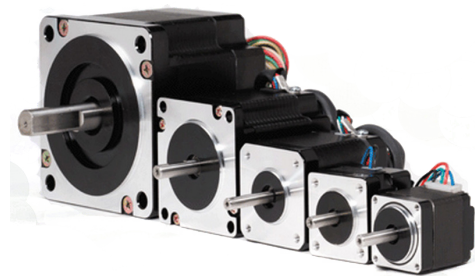
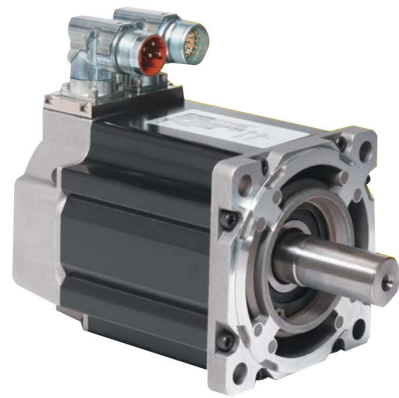


## Modular Table Top Precision Link Conveyors

- Modular frame in fixed increments for quick assembly and delivery
- High-speed, high-load parts transfer
- Open frame design for pass-through of belting, cables and other components

# MOTORS & GEARHEADS

# SERVO MOTORS



## Servo Motors



Rotary  
Linear  
DC Brush  
Direct Drive  
High Speed

Frameless Kit  
ATEX  
Custom  
Specialty  
Gearmotors

## Stepper Motors



NEMA Motors  
Gearheads

Motor/Controller

## Electric Motors



AC Motors  
DC Motors

## Precision Gearheads



Inline  
Right Angle  
Multi-Drive  
High Precision

NEMA  
Food Grade  
Stainless Steel  
Pulley Drive

## Specialty Motors



Frameless Kit  
Motors  
Stainless Steel

Motors  
Electric Vehicle  
Motors

## Motor Accessories



Cabling  
Mounts  
Couplings

Ground Straps  
EMC Suppressors

## Servo Motor Parker - P Series

- Low-profile cable connections
- IP67 rated (body and connectors)
- BiSS-C absolute feedback, up to 524288ppr

## Servo Motors Parker - MPP Series

- 12 to 1295 in-lbs continuous torque
- 0.69 to 20HP (0.5 to 21kW)
- Right Angle "Rotateable" connections
- 2000 line incremental, Resolver, Single/

## Direct Drive Rotary Motors Parker - P Series Direct Drive

- Up To 15,000 N (3,372 Lbf) Normal Load
- Up To 480 NM (354 Ft-Lb) Rated Torque
- Up To 500 RPM Rated Speed
- Outstanding mechanical accuracy

# SPECIALTY MOTORS



## K Series Frameless Motor Kits

- Pre-installed integral commutation board with Hall effects is prealigned for easy assembly
- Direct drive motors provide higher dynamic stiffness by eliminating the compliance of shaft attachments
- Kit motors save space in applications because the couplings, motor mounting brackets and extra bearings you would find in coupled drive construction are eliminated



## GVM Series Global Vehicle Motor/Generator

- For electric and hybrid electric powertrain motors, and electro-hydraulic actuation
- Patent-pending advanced cooling system that has minimal impact on the size and weight of the motor
- Tested to the demanding heavy duty vehicle grade standards of SAE J1455 for both on and off-road vehicles



## MPW Series Stainless Steel Servo Motors

- Sealed to IP69K for 1200 psi washdown requirements
- Potted stator design for improved thermal efficiency
- 35 to 227 in-lbs continuous torque (230 and 460VAC supply)
- Options include high resolution encoders, resolvers, and 24 V brake
- A-B Connectors Available

# GEARHEADS & SENSORS



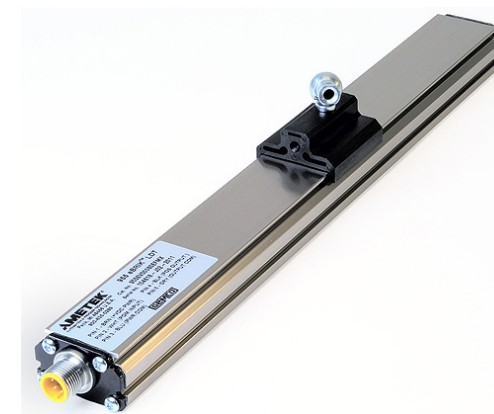
## Gearheads

- Nominal output torques from 27 to 430 Nm
- Backlash from less than 3 arcminutes
- Quiet operation...Less than 66db
- High Input Speeds...Up to 6,000 RPM
- Up to 97% efficiency at rated torque
- IP65 Servo Helical Planetary



## Encoders

- Monitor positions, rotation angles or speeds
- Efficiency line with IP64, increment and absolute working down to -20C
- Industrial line with protection up to IP-69K
- Premium line, fully contactless measurement with permanently sealed housing
- Solid or hollow shafts




## Linear Position Sensors

- 6 different models
- Analog (Voltage & Current)
- Digital Outputs (Start/Stop, PWM & Control Pulse)
- Quadrature
- Sensor Length up to 180"


# DRIVES & CONTROLLERS



## Variable Frequency Drives

- |                                                                                     |                                                                         |                                      |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------|
|  | AC Drives<br>DC Drives<br>General Purpose<br>Single Phase<br>High Power | Modular<br>OEM<br>IP66<br>Networking |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------|

## Motor Starters & Switchgear

- |                                                                                     |                                                              |                                                                                                |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------------------------|
|  | Motor Protection<br>Soft Starts<br>IEC<br>NEMA<br>Contactors | Motor Starters<br>Manual Starters<br>Circuit Protection<br>EMC Suppressors<br>Definite Purpose |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------------------------|


## Machine Controls

- |                                                                                     |                                                        |                                     |
|-------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------------------------|
|  | PLC's<br>HMI/PLC's<br>Industrial PC's<br>Smart Modules | Remote Monitor<br>Remote I/O<br>OEM |
|-------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------------------------|


## Motion Control

- |                                                                                     |                                                  |                          |
|-------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------|
|  | Servo Drives<br>Controllers<br>Drive/Controllers | Touchscreens<br>Software |
|-------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------|

## Stepper Drives

- |                                                                                     |                                                              |                                               |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------|
|  | Drives<br>Drives/Controllers<br>Motor/Drives<br>Pulse Driven | Networked<br>High Power<br>Open Frame/<br>OEM |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------|

## Power Management & Measurement

- |                                                                                     |                          |                               |
|-------------------------------------------------------------------------------------|--------------------------|-------------------------------|
|  | Motor Control<br>Centers | Monitoring<br>Data Collection |
|-------------------------------------------------------------------------------------|--------------------------|-------------------------------|

# SERVO & STEPPER DRIVES



## Servo Drive Parker - IPA Series

- EthernetIP communication
- 400W & 1500W
- Expandable I/O
- Electronic gearing and camming



## Servo Drive Parker - P Series

- EtherCAT or 'Pulse' (Step/Dir or Input Selection) drive versions
- Safe Torque Off (EtherCAT models)
- 120/240VAC single & three-phase power input



## Closed Loop Stepper Parker - eCL Series

- EtherCAT and Step/Direction drive options
- Available in two form factors (4A) & (2A)
- Closed loop performance without tuning

# AC/DC DRIVES



## Variable Frequency Drive Parker - AC10 Series

- Economical
- Volts per Hertz or Sensorless Vector Mode
- 230V - 1 Phase to 3 Hp & 3 Phase to 20Hp
- 460V - 3 Phase to 250 Hp
- IP66 Housing



## Variable Frequency Drive Parker - AC30 Series

- Modular Construction
- 1 to 600 Hp, 380 to 480 VAC 3-phase
- For Open and Closed Loop Applications
- Safe-Torque-Off (STO) for safety-critical applications



## Digital DC Drive Parker - 590+ Series

- up to 1200HP
- Extremely simple set-up and programming
- Extremely Compact
- Motor Thermistor Input

# MOTION CONTROLLERS



## 4-Axis Controller Parker - ACR7000 Stepper Series

- 24-48VDC input power
- Ethernet communications supports PC and I/O communications
- Closed Loop Control, Interpolated Motion
- Stepper 4A per axis
- Libraries for C++, C#, VB.net, etc



## Motion Controller Parker - ACR7000 Servo Series

- Up to 8 axes of servo control
- Incremental and BiSS C
- Interpolation of 8 axes in any combination
- EtherNet/IP compatibility
- Libraries for C++, C#, VB.net, etc

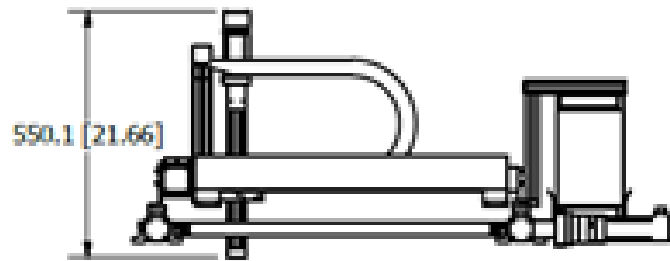
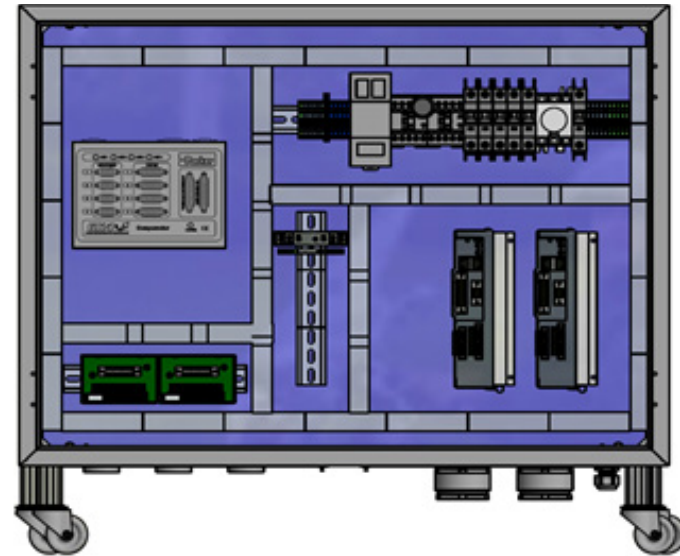
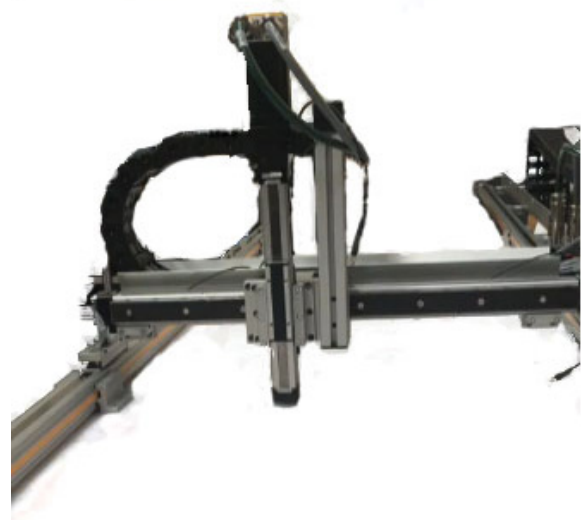


## Motion Controller Parker - ACR9000 Series

- Up to 8 axes of servo or stepper control
- Interpolation of 8 axes in any combination
- EtherNet/IP compatibility
- Libraries for C++, C#, VB.net, etc



# MECHATRONIC SYSTEMS



## CUSTOM MECHANICAL AND MOTION CONTROL SYSTEMS

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



# UL PANEL SHOP

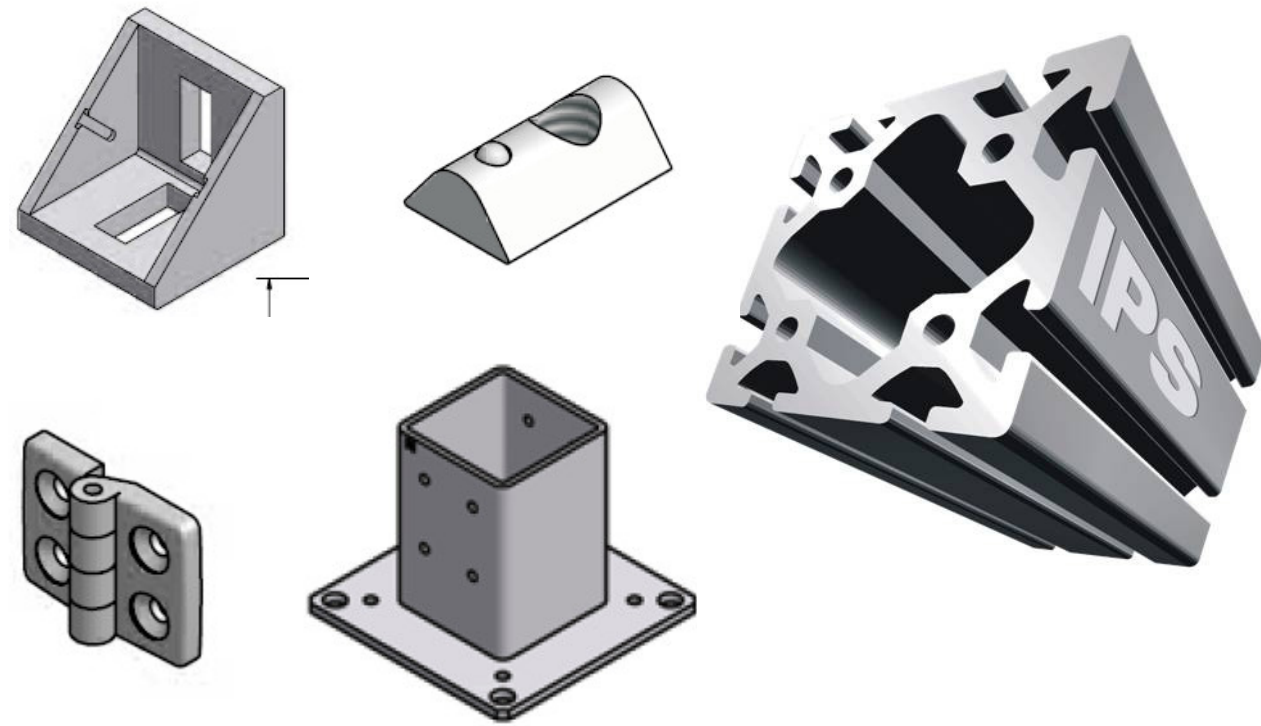


## EXAMPLES OF CONTROL PANELS WE CAN BUILD:

- Machine controls
- PLC control panels
- Closed loop motion controllers
- AC/DC drives and related controls
- Operator consoles
- HMI panels
- Hydraulic power unit control panels
- Farming/irrigation pump panels
- Softstart pump panels



# T-SLOT FRAMING



## T-Slot Components

- Extrusions
- Fasteners
- Brackets
- Panels
- Doors
- Handles
- Hinges
- Casters
- Floor Mounts
- Linear Motion
- LED Lighting

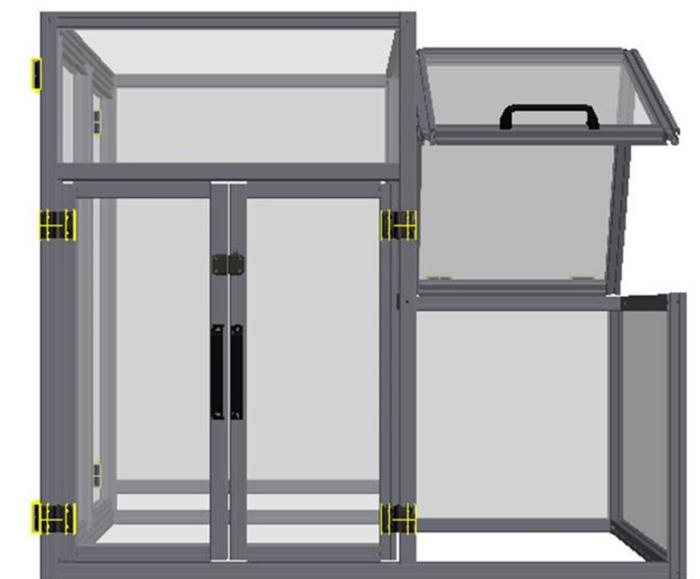
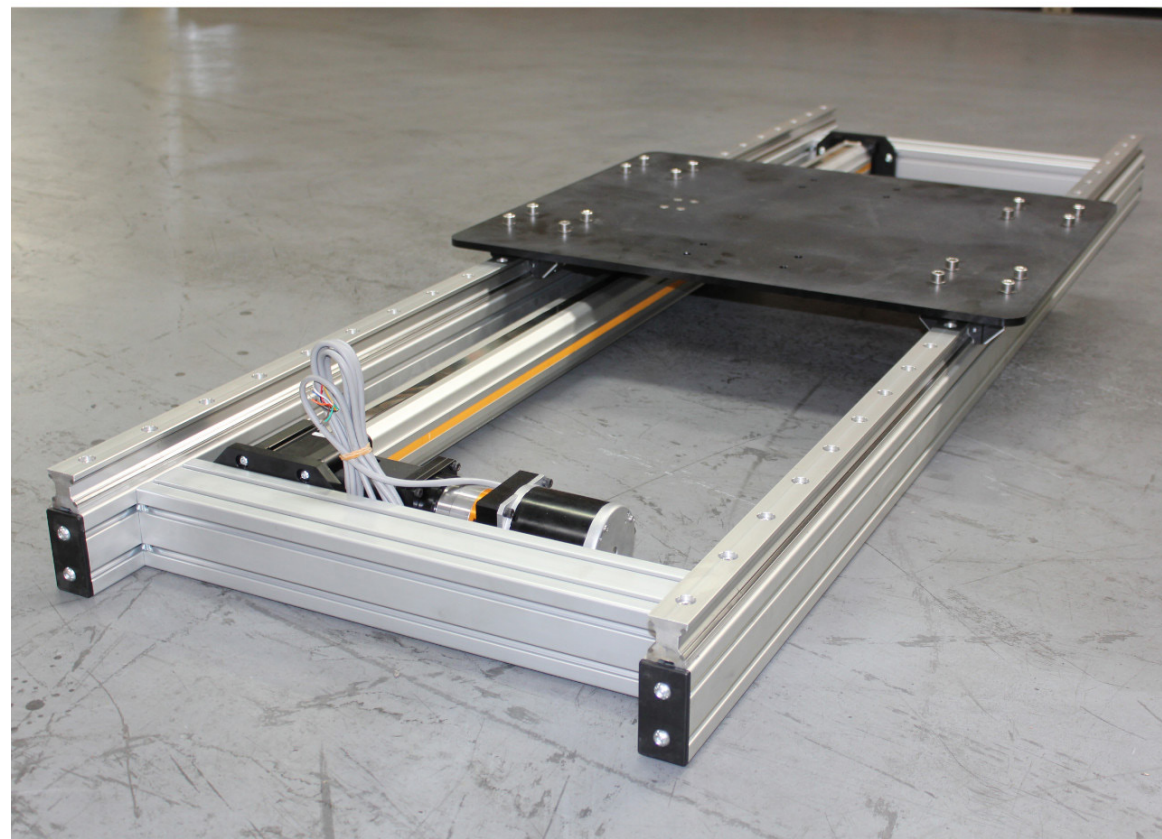
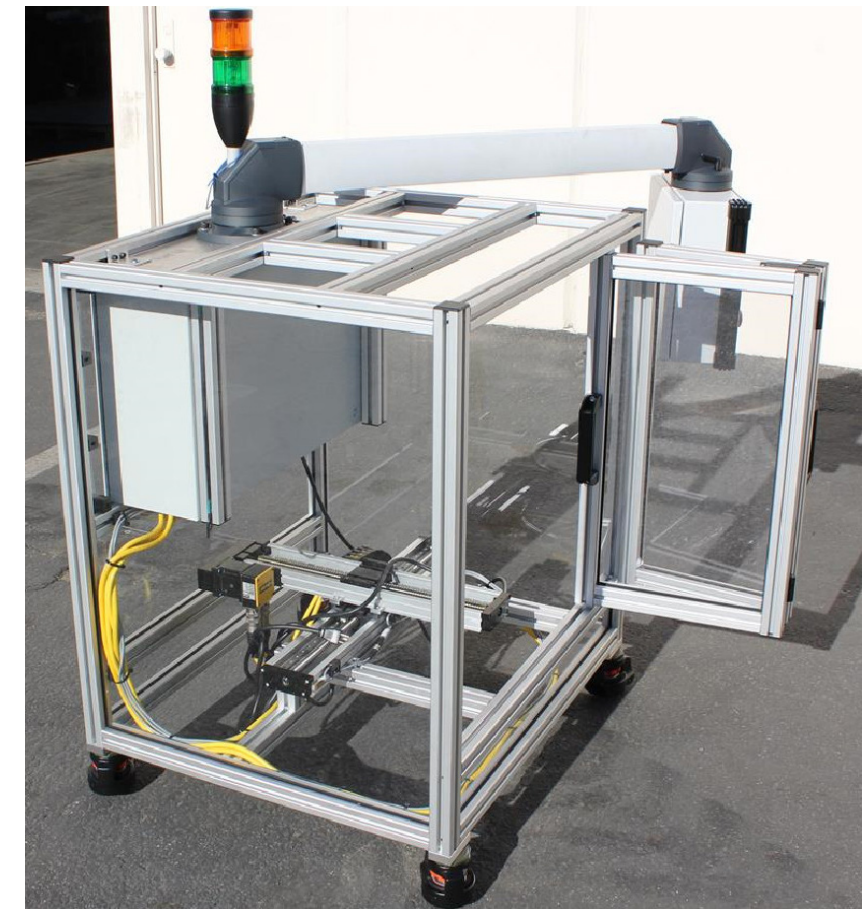
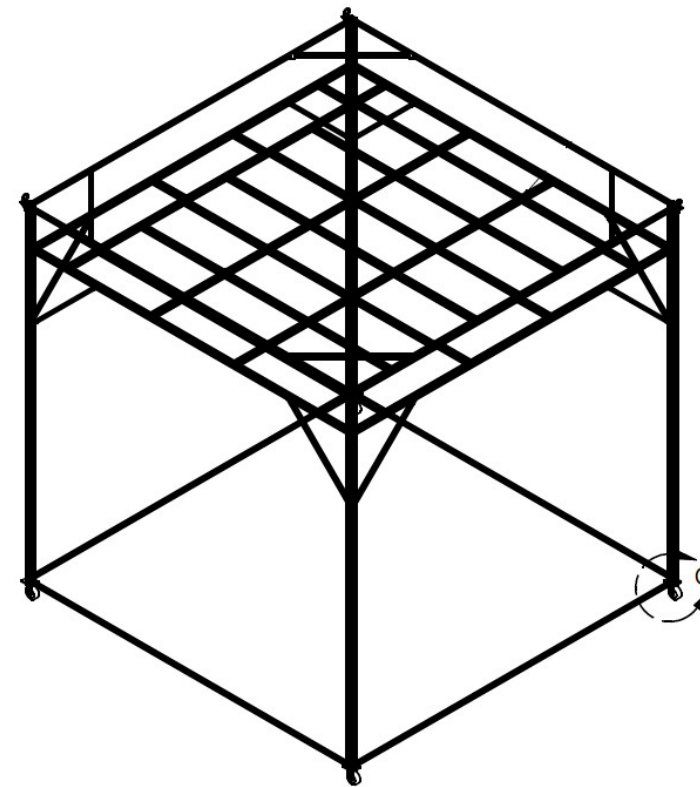
## T-Slot Solutions

- Guarding
- Enclosures
- Linear Motion
- Workstations
- Test Stands
- Machine Frames
- Lean Workstations
- Tables
- Carts
- Perimeter Guarding
- Safety Sensors

## T-Slot Services

- Design Service
- Installation
- Assembly
- Kitting

# FRAMING SOLUTIONS



# EXAMPLE

XX'-YY'-Z - Inherent Stiffness and Rigidity for moderate to heavy loads

As compared to 6-axis articulated arm robots a cartesian gantry can offer significant advantages:

- No restriction to arm length - Allows for larger work envelopes
- Overhead Mechanics - Frees up floorspace
- Stroke and Mass are independantly size - Freeing up floor space and lowering cost
- Better suited for multiple machines and conveyor lines
- Better handling of larger or akward payloads

## Typical Applications

- Palletizing
- Case Loading
- Heavy Part Transfer
- Machine Tending
- Material Handling
- Gasket & Adehsive Dispense

# CARTESIAN SYSTEMS



# PICK & PLACE



## HZR050 Belt Driven, Roller Wheel, Z-Axis

- Rugged construction for heavy duty applications
- Extended length carriage options for extended moment loading capacity
- Timing belt and pulley drive mechanism for fast, accurate positioning
- Designed for vertical axis applications such as Z-axis in pick and place



## Cambot Flexible Pick and Place Solutions

- Servo driven indexer supporting high moment capacity payloads
- Large output flange for mounting a custom end-effector solution
- Integrate DESTACO's versatile grippers, slides and vacuum products for pick and place actuation



## LCR Actuator with AC7000 Controller

- Compact actuator and 4-axis controller
- Faster time to market and reduced engineering costs with existing mounting plates and actuators
- Closed loop stepper control for economical accurate position
- Perfect for analyzers, lab automation and microtiter tray handling

# 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

# COMOSO

## CONTROLLED MOTION SOLUTIONS

### 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
- Pneumatics
- O-Rings & Seals
- Sensors & Switches
- Vacuum
- Valves
- Mobile Controls
- UL508a

### LOCATIONS

#### BURBANK/SUN VALLEY SUN VALLEY

9790 Glenoaks Blvd Suite 8  
Sun Valley, CA 91352  
818.238.9273 tel  
818.238.9283 fax

#### INLAND EMPIRE CORONA

950 El Sobrante Road  
Corona, CA 92879  
951.582.7007 tel  
951.735.2106 fax

#### CHULA VISTA

1121 Bay Blvd Suite C  
Chula Vista, CA 91911  
619.424.9901 tel  
619.424.9918 fax

#### ARIZONA TEMPE

403 W. Broadway Road  
Tempe, AZ 85282  
602.437.8799 tel  
602.437.8597 fax

#### LOS ANGELES SANTA FE SPRINGS

11947 Florence Ave Suite 5  
Santa Fe Springs, CA 90670  
562.921.0713 tel  
562.921.0793 fax

#### CENTRAL CALIFORNIA BAKERSFIELD

4000 E. Brundage Lane  
Bakersfield, CA 93307  
661.324.2260 tel  
661.324.9124 fax

#### NORTHERN CALIFORNIA OAKLAND

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Oakland, CA 94608  
510.654.8950 tel  
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Suite 400  
Las Vegas, NV 89118  
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702.260.8198 fax

#### ORANGE COUNTY SANTA ANA

*Corporate Office*  
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714.541.2266 fax

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Escondido, CA 92029  
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760.781.3550 fax

#### SACRAMENTO

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800.370.0447 fax



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