

# ***Ergonomic Material Handling Systems Make Your Workplace Safer and More Efficient***



# MANIPULATOR SYSTEMS

Unidex partners with manufacturers throughout industry to develop unique solutions to positioning problems. The result is a series of manipulator systems engineered to

enhance worker safety, perform special tasks and increase productivity. Unidex will work with you to customize a system to suit your specific application.

## AO Series Manipulator

Compact and easy to operate manipulator for effortless lifting and unobstructed reach.

### Standard Features

- Air/oil hydraulic lift system
- 60" lift stroke
- Load capacities to 200 lbs.
- 96" articulating arm
- 270° arm rotation
- Blocking valve protects operator in case of air loss
- Vertical movement controlled by easy-to-use thumb switch
- Non-electric operation is ideal for C1D1 areas

### Options

- Variety of lift strokes and load capacities
- Various arm lengths and designs
- Customized end effectors
- Mobile and overhead mounted units
- Stainless steel or other materials



*Shown with optional rotating end effector.*

**2-Year  
Warranty**



*Shown with customized end effector.  
(Entire unit shown on front cover.)*

## ECL Series Manipulator

Lift system with fine height adjustment capability. Ideal for close tolerance positioning applications.

### Standard Features

- 54" lift stroke
- Load capacities to 250 lbs.
- 96" articulating arm
- 270° arm rotation
- Electric chain/sprocket driven lifting and lowering
- Aut-O-Loc™ braking system protects operator in case of air loss
- Lever-action controls for three-speed vertical height adjustment
- Adjustable upper and lower limits

### Options

- Variety of lift strokes and load capacities
- Various arm lengths and designs
- Customized end effectors
- Lever arm or pendant controls
- Mobile and overhead mounted units
- Stainless steel or other materials

## UM Series Overhead Mounted System

Electric powered overhead system covers the ground and handles the work of several machines. Designed as a more stable alternative to dangling hoists.

### Standard Features

- 60" lift stroke
- Load capacities to 300 lbs.
- 360° arm rotation
- Pendant controls
- Two-speed lifting and lowering
- Unique design offers reach-in flexibility for machine loading and stabilizing off-balance loads

### Options

- Power drive X & Y movement
- Variety of manual, mechanical and powered end effectors
- Handle, pendant or arm-mounted controls
- Explosion-proof area model



*Shown handling plastic film roll.*

# ARTICULATING ARMS AND END EFFECTORS

Unidex can custom design manual, mechanical and powered end effectors to meet your exact positioning requirements. With unique linkage design, these grippers allow for smooth, continuous movement throughout the work area. All Unidex articulating arms and end effectors fea-

ture rugged welded tubular steel construction and an attractive and durable powder coat finish. In addition, each arm is free of vertical supports, permitting the arm to maintain the load attitude for reach-in and reach-under applications.



*Pail clamp with manual dumping.*



*Square pail pick up.*



*Powered OD clamp for roll pick.*



*Manual clamping on OD and rotate.*



*Powered fingers for securing part.*



*Manual core upender.*



*Bladder core gripper.*



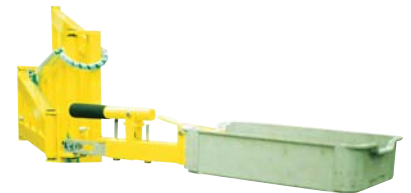
*Offset mechanical bolt plate with rotation.*



*Three-piece bridge style arm with shaft support.*



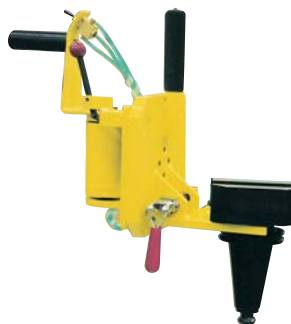
*Mechanical block lift.*



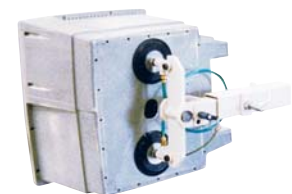
*Manual tray gripper.*



*Manual tray pick up and dump.*



*Tool holder for pick and place.*



*Vacuum grip and rotation.*

## AHW POWR-LIFT ADJUSTABLE HEIGHT WORK BENCH

Instant adjustment of working heights up to 4-in./sec. lifting speed.

### Standard Features

- Air/oil hydraulic system
- 18" lift stroke
- Load capacities to 500 lbs.
- Full range of height increments within the stroke distance
- Functions smoothly with uneven weight distribution
- Blocking valve protects operator in case of air loss
- 30" x 60" butcher block work surface

### Options

- Variety of work surfaces and styles, including solid maple (shown), stainless steel and aluminum ESD
- Various heights and lift strokes
- Foot pedal hydraulic and electric hydraulic models
- Stainless steel construction
- Cabinets, shelves, drawers, fixtures/workholding



*Shown with several options and custom features.*

## AHWP SERIES ADJUSTABLE HEIGHT WORK PLATFORM

*Shown with custom deck size.*



Adjustable height work platform functions smoothly regardless of even or uneven weight distribution. Ideal for servicing large, immovable machinery, working off a conveyor line, or where ladders or cages are not practical or too risky.

### Standard Features

- Air/oil hydraulic system
- 36" x 48" deck
- Lift strokes of 12", 18" and 24" depending on model
- Load capacities to 300 lbs.
- Rail-mounted height adjustment control
- Blocking valve protects operator in case of air loss

### Options

- Variety of heights, lifts strokes and capacities
- Custom deck sizes, cages and surfaces
- Stainless steel construction

## TANKS-A-LOT GAS CYLINDER LIFT AND POSITIONER

Fast, easy and stable way to lift and transport heavy gas cylinders. Designed to pick and place cylinders into a portable welder while reducing muscle strain and risk of back injury.

### Standard Features

- Foot-operated oil hydraulic system
- Lift capacities to 250 lbs.
- Accommodates cylinders up to 13" in diameter
- Adjustable down speed control
- Two 5" locking swivel casters (rear)
- Two 3" fixed casters (front)
- 14" lift stroke
- Handles acetylene, industrial, medical, propane, butane and natural gas cylinders, refrigerant recovery and compressed air
- Available in two footprints - standard and extra-narrow
- Available in multi-cylinder wagon for transport and storage



*Extra-narrow Tanks-A-Lot model.*

## PH SERIES MOBILE HYDRAULIC WORKSTATION



*Shown with indexed rotating table.*

Lift, rotate and transfer loads quickly and safely with this universal mobile workstation. The foot pedal is positioned low for safe, easy operation.

### Standard Features

- Dependable foot pedal hydraulic system
- 24" x 24" table
- 14" lift stroke to 42" height
- 250 and 500 lb. load capacity
- Adjustable downspeed control
- Single post lifting column eliminates pinchpoint hazards common to scissors lift configurations
- Four 5" locking swivel casters
- Saves space by eliminating conveyor and workbench systems

### Options

- Indexed rotating table
- Tilt table
- Variety of table sizes and lift strokes
- Ball or conveyor transfers
- Custom fixtures
- Frame modifications
- Stainless steel construction
- "Fixture" table tops
- PVC or anti-static UHMW top
- ESD package including casters or rubber wheels
- Various grounding options

## PHL SERIES MANUAL LIFT AND TRANSPORTER

Versatile enough to transfer loads high or low in hundreds of applications. Cantilevered design for easy, unobstructed accessibility to racks, machinery, and other immovable fixtures.

### Standard Features

- Dependable foot pedal hydraulic system
- 48" lift stroke from 0" lowered to 48" raised height
- Load capacities to 250 lbs.
- Adjustable downspeed control
- Four 5" locking swivel casters

### Options

- Variety of heights, lift strokes and load capacities
- Custom fixtures and workholders
- Stainless steel construction



*Shown with custom forks.*

## TL SERIES PALLET LIFT



*Shown with three-way pallet access platform.*

Variable-height capability speeds product transfer from conveyor to assembly lines. Can be used as a stationary bolt-down or free-standing lift. Custom fixtures and workholding devices enable use as a positioner for welding, fabrication or assembly.

### Standard Features

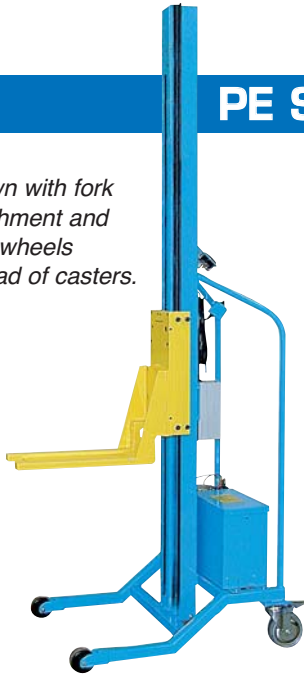
- 36" lift stroke
- Load capacities to 2,000 lbs.
- Accommodates 40" x 48" pallets
  - Electric hydraulic lift system
  - Plugs into standard 110 VAC outlet
  - Palm buttons for operator safety
- Full safety interlocks

### Options

- Casters for easy mobility
- Forklift slots for mobility
- Three-way pallet access
- Variety of lifting pan sizes
- Increase lift stroke
- Pallet tilting capability
- Turntable for pallet rotation
- Pendant control
- Photo-electric safety shutdown
- Custom fixtures and workholders
- Stainless steel construction

## PE SERIES LIGHT DUTY WORKSTATION

*Shown with fork attachment and front wheels instead of casters.*



Compact and agile workstation designed for light-duty lifting chores.

### Standard Features

- 48" lift stroke
- 8" lowered height
- Load capacities to 200 lbs.
- 12-volt heavy-duty battery and on-board battery charger
- Electric hydraulic lift control
- Rail mounted thumbswitch control
- Four 5" locking swivel casters
- Bolt plate to accept tables, forks and other custom fixtures
- Ergonomic-designed handles
- Rugged welded steel construction and durable powder coat finish

### Options

- Variety of lift stroke lengths
- Custom table sizes
- Ball transfer, conveyor or tilt tables
- Custom fixtures, workholders and load engagement devices
- Enclosed battery box
- Stainless steel construction

## PE SERIES MOBILE ELECTRIC WORKSTATION

Mobile workstation designed for frequent lifting of heavy loads.

### Standard Features

- 48" lift stroke
- Load capacities to 500 lbs.
- 12-volt heavy-duty battery and on-board battery charger
- Electric hydraulic lift system
- Remote pendant control mounts to the handrail
- Four 5" locking swivel casters
- Bolt plate to accept tables, forks and other specialized fixtures
- Ergonomic-designed handles
- Rugged welded steel construction and durable powder coat finish

### Options

- Frame modifications
- Load capacities to 1,000 lbs.
- Variety of lift strokes
- Custom table sizes
- Faster or slower lifting speeds
- Powered movement
- Ball transfer, conveyor or tilt tables
- Custom fixtures, workholders and load engagement devices
- Enclosed battery box
- Stainless steel construction



*Shown with special forks for engine block handling.*

## TPE SERIES TELESCOPING MOBILE ELECTRIC WORKSTATION



Ergonomically designed to handle rolled products and materials. Permits high lifts where access to the work area is obstructed by low overhead structures.

### Standard Features

- 96" lift stroke
- Load capacities to 250 lbs.
- Electric hydraulic lift system
- Remote pendant control mounts to the handrail
- Four 5" locking swivel casters
- Bolt plate to accept tables, forks and other custom fixtures
- Ergonomic-designed handles
- Rugged welded steel construction and durable powder coat finish

### Options

- Frame modifications
- Load capacities to 1,000 lbs.
- Variety of lift strokes
- Faster or slower lifting speeds
- Powered movement
- Ball transfer, conveyor or tilt tables
- Custom fixtures, workholders and load engagement devices
- Enclosed battery box
- Stainless steel construction

*Shown with custom workholder to handle cloth rolls.*

## EH SERIES DUAL COLUMN WORKSTATION



Designed for lifting and manipulating heavier loads. Ideal for systems integration as well as the use of multiple units to create a complete production line.

### Standard Features

- Electric hydraulic lift system
- From 36" to 60" lift stroke
- Load capacities to 2,000 lbs.
- Two columns support linear rail and carriage system
- Rugged welded steel construction and durable powder coat finish

### Options

- Variety of lift strokes
- Custom fixtures
- Articulating arms
- Powered part rotation
- Cleanroom and stainless steel construction

*Shown with adjustable fork attachment.*

## EH SERIES POSITIONING WORKSTATION

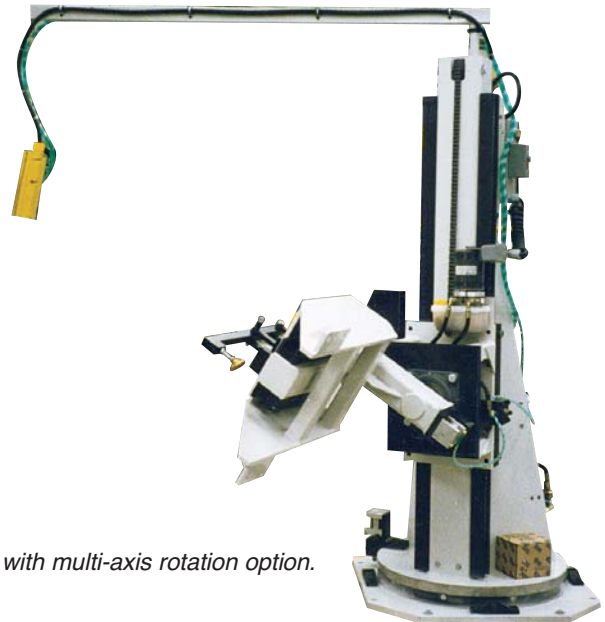
Powerful alternative to overhead handling systems.

### Standard Features

- Electric hydraulic lift system
- Up to 48" lift stroke
- Load capacities from 500 to 1,000 lbs.
- 360° powered column rotation
- Powered X, Y and Z axis rotation
- Pendant controlled height adjustment
- Vertical movement driven by a hydraulic lift system
- Linear rail and carriage system
- Rugged welded steel construction and durable powder coat finish

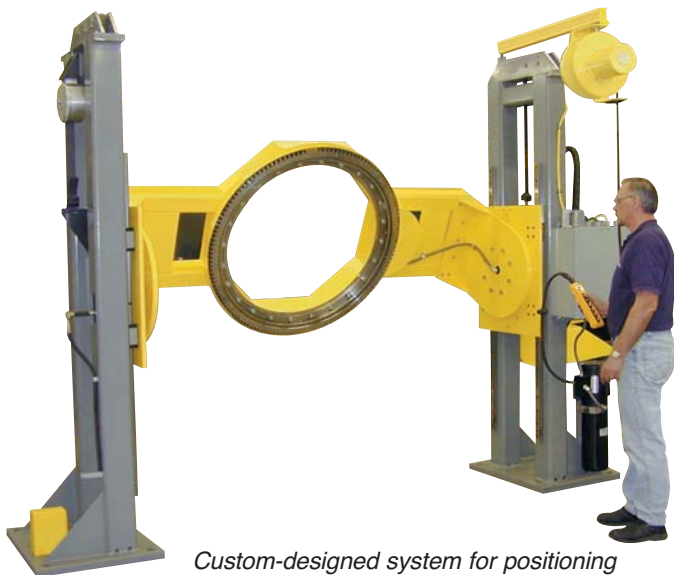
### Options

- Customized work holding fixtures
- Customized lift strokes
- Multi-axis rotation and linear movement
- Programmable movements



*Shown with multi-axis rotation option.*

## DUAL EH SERIES WORKSTATION



*Custom-designed system for positioning 4,000-lb. workload.*

Designed to provide the greatest durability, versatility, flexibility and safety for product assembly, build stations, welding, work positioning, repair areas and other production needs. The Dual EH can be designed and built to individual specifications furnished. We can provide on-site consulting services to adapt the Dual EH to your unique requirements.

### Standard Features

- Electric hydraulic lift system with synchronized movements between two lifting columns
- Up to 60" powered lift stroke
- Lift capacities to 6,000 lbs.
- X and Y axis rotation
- Six-function pendant control
- Several safety features provide drop protection and rotation restriction
- Rugged welded steel construction and durable powder coat finish

# CUSTOM DESIGNS THAT SET NEW STANDARDS

*"People come in different sizes, and it is difficult to design workplaces that accommodate all of them. UNIDEX handling systems and fixtures permit assemblers to optimize their work heights, reaches, wrist and arm angles, and their visual tasks while minimizing the amount of handling required to transfer parts.*

*"Working continuously is an ergonomic goal so workers can put their attention to the production of quality assemblies. UNIDEX systems assure operator comfort by permitting them to individualize assembly height, angle, reach, and visibility using easy-to-adjust controls. The fixtures are versatile, uncomplicated and easy to adapt to specific assembly needs."*

*Suzanne H. Rodgers, Ph.D.*

*Consultant in Ergonomics & Human Factors*

## Ergonomics

Every Unidex industrial workstation is designed to help make your workplace a safer and more efficient environment. Engineered with operator safety and comfort in mind, Unidex workstations enhance the flexibility and productivity for our customers in their manufacturing and material handling processes.

## In-House Capability

Unidex offers complete in-house engineering, manufacturing and finishing capability. Whether it's computer-aided design, machining, metal forming, welding or powder coating, we have the resources and experienced personnel to provide you with the highest quality, durable material handling equipment in the industry.

## Research and Development

At Unidex, we emphasize the development and application of new technology. Our experience and broad capabilities combine to provide a complete positioning resource, including design, prototyping, manufacturing, assembly and start-up.

## Standard Models

When it comes to field-proven performance and quick turnaround, our standard model workstations are ideal for a wide range of working environments. Constructed of case-hardened steel and chrome-plated tubes, standard Unidex workstations are designed to provide years of durable, dependable service, providing practical, cost-effective solutions to your positioning needs.

## Custom Engineered Solutions

Unique workplace problems demand innovative solutions. At Unidex, we have the extensive custom-design capability to engineer work positioning systems that meet your exact requirements. We will work closely with your project team to design a workstation that satisfies your special needs. Unidex also has custom powder coating capability to match your corporate color specifications.

## Typical Modifications

- Manual, mechanical and powered load engagement
- Multi-axis rotation and movement
- Mild steel, stainless, aluminum, laminated and ESD construction
- Cleanroom requirements
- Explosion-proof systems
- Special frame dimensions
- Increased load capacities
- Specialized product fixturing



**For more detailed features and specifications, request individual product bulletins.  
Call 1-800-724-1302 or visit our website at [www.unidex-inc.com](http://www.unidex-inc.com).**



2416 Main Street  
Warsaw, NY 14569  
Toll-Free: 1-800-724-1302  
Phone: 585-786-3170 • Fax: 585-786-3223  
[www.unidex-inc.com](http://www.unidex-inc.com) • E-mail: [sales@unidex-inc.com](mailto:sales@unidex-inc.com)

*All Unidex products are manufactured in the U.S.A. and feature a comprehensive one-year warranty.  
As part of our program of continuous improvement, product specifications are subject to change without notice.*