Solutions for the Workholding Industry

Rugged design and long life for manufacturers of automotive and non-automotive motorized vehicles.

- Automotive
- All-Terrain Vehicles
- Snowmobiles
- Compact Excavators
- Construction Machinery
- Riding Lawn Mowers
- Fork Lifts
- Motorized Utility Carts
- Golf Carts

Assembly
Frame Welding
Frame Drilling
Frame Bending
Material Transfer
Robotics
Tube Welding
Jigs
Part Fixturing
Reduce downtime and increase production throughout the plant.

- Our robust designs provide longer life over other actuators.
- Clamps maintain repeatability over life providing superior performance and increased productivity by reducing downtime and scrap.
- Clamps are field repairable and with the benefits listed above provide the lowest cost of ownership.
- Superior delivery

PC swing arm, PLKD disappearing pin locating, and PEC power clamps are used to fixture and hold frame parts together in this high speed robotic welding application. These products are ideal for their various motions and speed in setting parts to prepare for the welding stage.

Series PA swing arm clamps are used to hold door panel components together for a robotic welding process.

Series PEC power clamps hold down parts while a robot welds smaller parts into place. PHD’s cam design allows more part variation without having to adjust for part variation.

PLKD pin locating clamps are ideal for applications where pins are required to locate the parts and securely hold. The locating pin of the PLKD retracts fully into the part support, allowing greater ease of part removal.
Series PEC power clamps hold tubular parts as Series SAH slides exert tension and support for this automated welding process.

Series PLKD side view

Series PA swing arm clamps are well suited for this fixtured tube holding application.

Series PA swing arm clamps are used to securely hold snowmobile tunnel parts for automated welding and riveting process.

When a part comes out of the injection mold, the operator places the part in a nest. Then the operator actuates the PA clamps to hold the part down during an automated trimming operation.

PB swing arm and PEC power clamps are used to fixture ATV frame components together for this robotic welding application.
Our clamps provide superior part holding and transferring for your assembly and welding environments.

**Power**

**Series PEC Clamps**

**Features & Benefits**

- Cam design provides widest range of high clamping force in its class. Ensures part retention if air pressure is lost.
- Available in four bore sizes for application flexibility.
- Multiple output shaft options for mounting arms on either or both sides. Provides unique alternative to typical clamp mounting configurations.
- Weld field immune switch option provides consistent position sensing.
- Enclosed design prevents particles and weld slag from entering.

**Swing Arm**

**Series PA, PB, & PC Clamps**

**Features & Benefits**

- Simple design, compact size, for low weight, long life, and high clamp force.
- Available in several bore sizes for application flexibility.
- Mounting patterns on multi surfaces provide flexibility in clamp mounting.
- Switch ready for easy interfacing to electronic controls and logic systems.
- Series PB and PC - for MRO drop-in replacement unit opportunity applications.
- Available in left and right rotations to fit a variety of applications.
- Series PB offers rod weld cover to protect cylinder rod and bearing areas form weld splatter during clamping.

**Pin Locating**

**Series PLK & PLKD Clamps**

**Features & Benefits**

- Completely enclosed finger/pin protects against weld slag and contamination.
- Mechanism is easily modified into special clamps that have different shapes and mounting. Can be made into drop-in replacements for many units in the field.
- Available in four standard pin sizes. Short pin length ideal for blind applications.
- 5 or 10 mm clamping strokes
- NAAMS mounting
- Weld field immune switch option provides open or closed sensing.
- Dual switch position sensing on PLKD provides control feedback for all four clamp conditions: pin full extend, finger in/out, clamped, pin full retract

See the Series PEC, PA, PB, PC, and PLK/PLKD catalogs for complete ordering, engineering, and option information.

www.phdinc.com/clamps

For more information on custom clamps and other applications, consult PHD, Inc.