

Modular Tooling

FOR TRI-AXIS TRANSFER PRESSES



**ISO 9001
REGISTERED**
Quality Management
System Certified

TRIAXISTOOLING01

- *Optimized design is stronger, lighter, with greater versatility*
- *Superior construction and delivery*



PHD is a member of the
MAC Distributor Network



www.phdinc.com

Modular Tooling for Tri-Axis Transfer Presses

Features & Benefits

- Simpler, stronger, and more economical solution to what is on the market.
- All our components are one-piece construction.
- Maximized for weight vs. rigidity
- Precision fit, resulting in little to no movement when torquing
- All our components are completely interchangeable.
- We utilize multiple bolt patterns where possible to keep the interchangeability and ordering process as simple as possible.
- Anodized to provide a better visual to the operators as well as wear resistance.
- Customer satisfaction is at the top of our priority list. We want to make ever customer feel like our only customer.
- Designed based on customer feedback providing the best solution for your project.

FOR A QUOTE...

Refer to the Modular Tooling for Tri-Axis Transfer Presses Questionnaire at the provided link and complete with the required press and transfer information for a quote.



1-1/4" COMPONENT SERIES



Arm Clamps

Solid one piece construction
Precision bore fit so finger assembly doesn't move when tightening bolts
2 - 8 mm S.H.C.S. for ultimate grip force



Inline, 90 degree, and Rotational Double Hole Clamps

Highest strength for parallel, perpendicular or rotational automation.

Holes for airline routing
2 - 8 mm S.H.C.S. per end for ultimate clamp force



Gripper Mounts

5 mm, 6 mm and 8 mm bolt patterns
Covers common gripper or shovel bolt patterns
Under cut to accommodate S.H.C.S.
Dome feature for swivel ball mounting



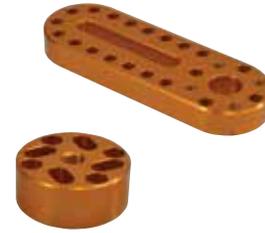
Ball Swivel Assembly

Allows gripper to rotate up to 80° and free spinning
Rest of assembly can stay square to grid while accomplishing any compound angle
Bolts directly between gripper and gripper mount



Collar Clamps

1-3/4" Bore, 8 mm S.H.C.S.
Used for securing receiver adapters to tooling
Flat top for finger identification
Holes for airline routing



Swing Bracket Assembly

Solves the problem of close to center adjustment
Bolts directly to our gripper mount
Multiple bolt patterns for many different styles of grippers or shovel assemblies



Male and Female Flange Mounts

Replaces a receiver adapter when mounting finger directly to transfer bar, extruded beam, or removable plates



1-1/4" Aluminum Tubing

1/4" wall for durability
Available in 6" - 24" in 6" increments
Custom lengths also available



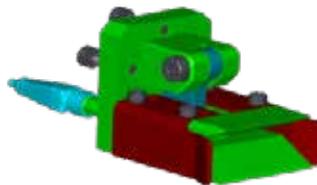
Gripper Adaptability

Our standard bolt patterns fit most common grippers
Any gripper or shovel can take advantage of our whole product range with the use of our adapter plates and mounts.



Rotator and Slide Mounts

Provide your specifications and we can design and create any required mounts



Shovels

Provide us with your station parts and we will be glad to manufacture custom shovels to meet your specifications, with or without sensing capabilities.

Components are either made from 6061 T-6 Aluminum anodized for wear and visibility, or steel and black oxide for corrosion resistance

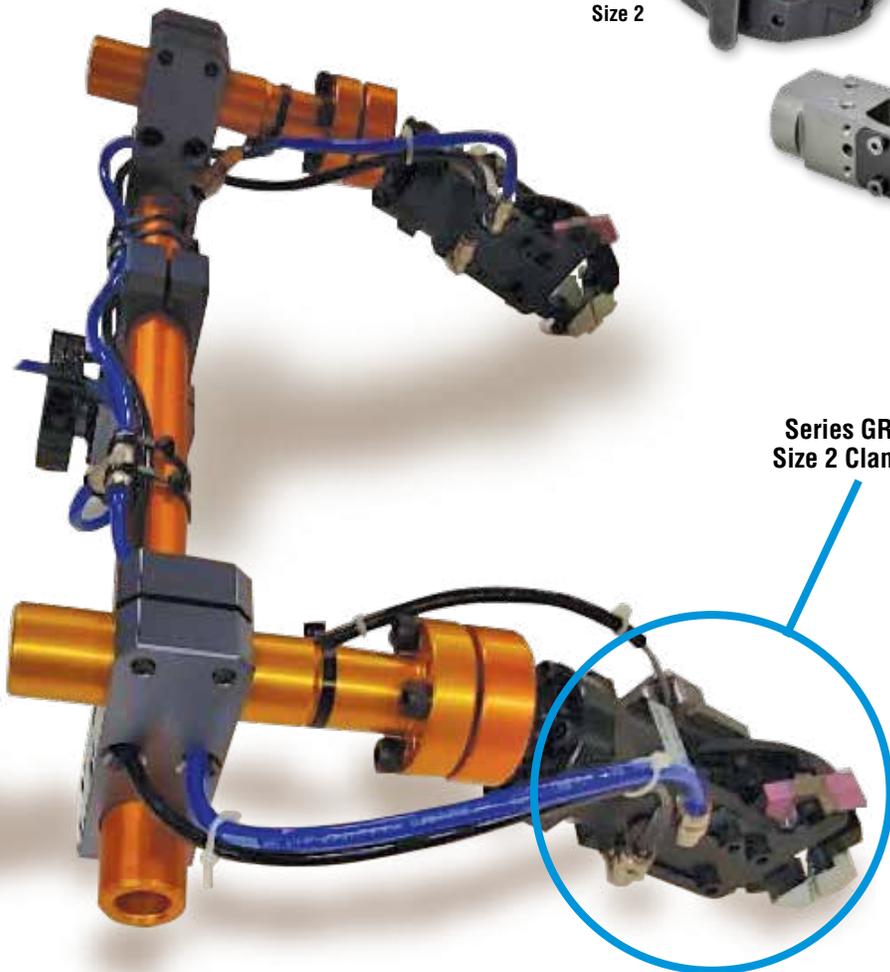
PHD SERIES GRM CLAMPS



Most versatile and modular clamp in the industry

The Series GRM Clamp continues to be the industry-leading pneumatic actuator of choice for material handling solutions worldwide. Its simple design and rugged construction have proven customer satisfaction and loyalty since 1998. Now available in 4 standard sizes (20, 25, 32, and 40 mm bores), up to 13 standard jaw styles, and countless options and accessories, make the Series GRM Clamp the most versatile and modular clamp in the world.

Each and every aspect of the Series GRM Clamp was influenced by you, our customer. We pride ourselves in providing a product that suits your specific application needs.



**Series GRM
Size 2 Clamps**

FOR A QUOTE...

Refer to the Modular Tooling for Tri-Axis Transfer Presses Questionnaire at the provided link and complete with the required press and transfer information for a quote. Please attach die designs and process, if available.