

INSPECTION[®] ARSENAL

DELIVER PERFECT PARTS FASTER



Quick-Swap Fixture Products
Quick-Fixture Design
Quick-Ship Orders

**WE ARE
ROBOTICS
READY**

PAGE 10



Proudly Made
in the USA by
Phillips Precision, Inc.

Inspection Arsenal® for CMM, 3D gage arm, optical comparator, and vision inspection.

Modular, magnetically interlocking, easy to implement, quick-swap fixture solution designed to help break workflow bottlenecks.

You are guaranteed to process more parts per shift with these lean, low-cost solutions.

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Universal Fixturing

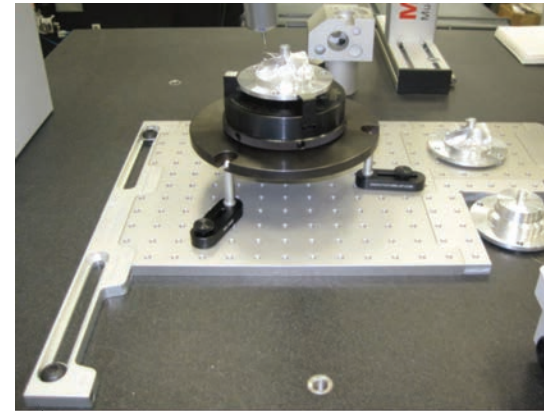
Fixture up with Inspection Arsenal® and Make Production Faster Than Ever Before!

From the spindle to inspection and back again, the ability to quickly and accurately inspect improves the entire production pipeline—and your profits!

Quality inspection no longer needs to be complex, costly and time consuming. **Inspection Arsenal® Loc-N-Load™** quick-swap, modular fixture plates and work holding help you deliver perfect parts to customers faster, easier and more affordable than ever.

Phillips Precision is your one source for quick-swap, modular inspection fixture products, fast and creative custom fixture designs, and quick shipping of orders. Inspection Arsenal® is the only universal fixturing system providing a complete arsenal of inspection tools for most inspection machines.

The lean design resolves the issues that affect profits. It reduces wait time, defective parts and overproduction. Inspectors will work more efficiently, with less excess motion. In fact, we guarantee that you will process more parts per shift— even with less skilled labor.



18" Bundled System

Inspection Arsenal® speeds and simplifies inspection using modular, magnetically interlocking quick-swap fixture solutions.

- Enjoy a rapid return on investment
- Inspect more parts per shift
- Create multiple quick-swap setups per CMM
- Move fixtures from one machine to another
- Increase the number of employees who inspect
- Adapt and reuse existing fixtures effortlessly
- Access granite surface easily
- Use CMM palletization features
- Work toward lights-out inspections
- Use as dedicated tooling - add it to your job box
- Ships immediately, as product is ready-made

Would you spend \$1,000 to save \$100,000?

Now that you know that the ability to deploy a Lean process is readily available, take into account the following.

- Shop labor hourly rate
- Metrology Lab hourly labor rate
- Value of rejected product \$ in-process
- Value of rejected product \$ in final inspection
- Value of rework \$ incurred throughout
- Annual warranty returns in \$ or % of revenue
- Penalty \$ for missed deadlines that could lead to a revoked contract \$
- Value of your reputation if impacted by unsatisfied customers
- Annual Cost of Quality \$ overall
- Make (design, material, labor, machine time, etc.) versus Buy (purchase) decisions for fixturing costs
- Value of standardized and modular fixturing equipment and processes that minimize personnel training.

We're here to help. Inquire about our fixture design services and customization of plates and rails.

Read what our customers have to say...

Kennebec saved \$40K on parts fixtured with Inspection Arsenal®.



"As part of its lean focus, Kennebec made this fixture system the standard, thereby reducing and training costs and allowing production personnel to inspect parts. In order of priority, CMM programmers have designed 10 dedicated Loc-N-Load™ fixtures for some of their most complex parts. **Bump roughly calculated a savings of nearly \$40,000 in 2014 for the first seven of the 10 parts converted to Loc-N-Load™ plates.**

We are saving several minutes of inspection time each on these 5,500 pieces, which require 100% inspection. At our shop rate, the plate is paid for in little more than an hour."

Trevy Bump
Quality Supervisor
Kennebec Technology

Methods Machine Tools saves money daily with lean approach to fixturing.

"We are constantly shuffling between CMM training classes, customer demos, and turnkey inspections.



The quick-swap features of Loc-N-Load™ and

Open-Sight™ fixture systems from Inspection Arsenal® make moving between these setups quite simple and efficient.

Reducing the time it takes to build and break down inspection setups and faster recalibration means more time can be spent teaching about equipment features and programming techniques."

Tom Oakes
Quality Applications Engineer
Zeiss

Culver Tool and Engineering saves time and money with Loc-N-Load™



"Loc-N-Load™ fixture plates are great. Our machines have a small table, so we keep a lot of fixtures mounted on these plates. They give us the capability to quickly swap fixtures and locate with accuracy so that we don't have to do another manual alignment. Use of Loc-N-Load™ plates saves us a lot of valuable CMM time."

Brandon Tanner
CMM Programmer
Culver Tool and Engineering

Deliver Perfect Parts **FASTER**

Quality inspection can be complex, time consuming and expensive.

Phillips Precision designs quick swap, modular fixturing that speeds up inspection and makes production faster than ever before!

PDQ, Inc. saved \$12K with one new fixture.



"The housing parts were previously measured in batches of two, with measurement taking approximately 40 minutes each. Using this new method, each part is measured in 11.25 minutes and the CMM can inspect eight parts in one setup. Using a conservative \$100 per hour quality control rate, this yields a savings of \$384 per batch. **Because this eight-part inspection job repeats 10 times per year, the annual savings for this three-part family is \$11,523.**"

Kurt Stephens
Quality Assurance Manager
PDQ, Inc.

Triangle Manufacturing saved \$125K on just one project.



"The initial product launch of the implant consists of 3,120 complex parts requiring 100% inspection. Previously, the time to inspect was nearly one hour per piece. The new, leaner process now takes just 35 minutes. **If a \$100 an hour rate is used, the savings in the inspection cycle time alone for this part equates to roughly \$40 per piece or a savings of approximately \$125,000.**

Much greater savings being realized, but not calculated, are the savings in setup time and the reduction of expensive spindle down-time on the shop floor. This one project, once approved, will require the inspection of thousands more pieces and is just one of the hundreds of parts manufactured by Triangle that will now become a great deal more profitable."

Ken Gredick
Engineering Manager
Triangle Manufacturing Company

"The Inspection Arsenal® product line eliminates many non-value added setup steps through their CMM and vision fixture plates and work holding. By 'fixturing-up' and simplifying the inspection task for repeatable and documented steps, a standard work opportunity has been created to speed inspection and increase the number of parts inspected, even with a less-skilled inspector. Implementation will reduce the downtime of expensive machines on the shop floor – higher machine utilization (e.g., running spindles, cutting chips) increases profits"

Dwight Delgado
LEAN Six Sigma Instructor and Practitioner, CQE

Loc-N-Load™ CMM Bundled Systems

Loc-N-Load™ aluminum fixture plates interlock magnetically to remain firmly secured, yet release quickly and easily for the next job. The system installs effortlessly on all CMMs.

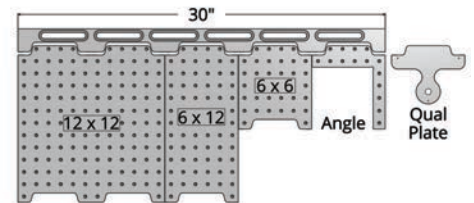
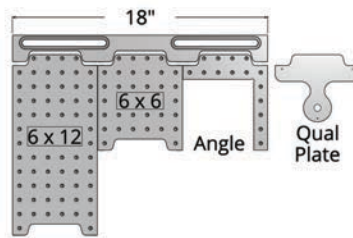
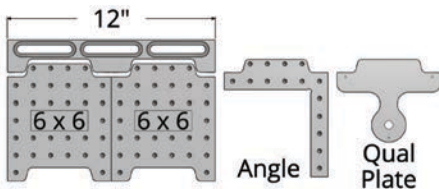
Select the docking rail and plate combination that best fits your machine. Choose from 3 standard and 3 metric sizes.

Selection is easy with preconfigured CMM bundled fixture systems.

Kits all contain selections of the **Inspection Arsenal®** trigger action, low-profile clamps, stops, and hold-downs to enable quick and easy set-ups.

Choose a work-holding kit for your bundled system: ■ Starter - 62 pcs. ■ Complete - 82 pcs. ■ The Works - 158 pcs.

See page 5 for additional plates, clamps and kit contents. Additional work-holding components are on pages 14-17.



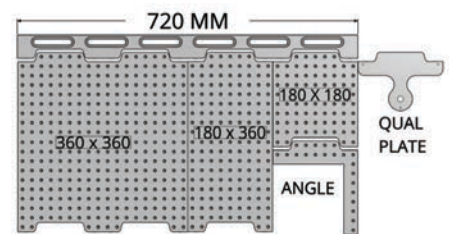
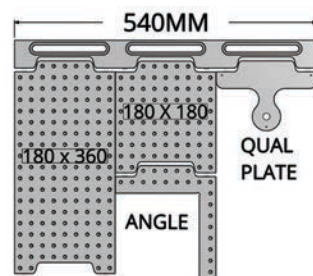
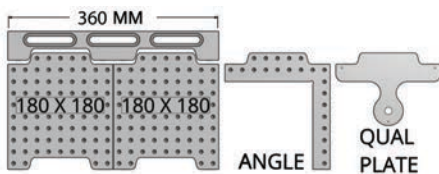
Inch:

12" Docking Rail Bundles	
Part #	Description
SYS05_DK12TR03	12" dock w/ Starter Kit
SYS05_DK12TR02	12" dock w/ Complete Kit
SYS05_DK12TR01	12" dock w/ The Works Kit

18" Docking Rail Bundles	
Part #	Description
SYS10_DK18TR03	18" dock w/ Starter Kit
SYS10_DK18TR02	18" dock w/ Complete Kit
SYS10_DK18TR01	18" dock w/ The Works Kit

30" Docking Rail Bundles	
Part #	Description
SYS20_DK30TR03	30" dock w/ Starter Kit
SYS20_DK30TR02	30" dock w/ Complete Kit
SYS20_DK30TR01	30" dock w/ The Works Kit

Plate dimensions: .5" thick, 1"x1" hole pattern, 1/4-20 thread



Metric:

360mm Docking Rail Bundles	
Part #	Description
SYSM1_DK360TR03	360 dock w/ Starter Kit
SYSM1_DK360TR02	360 dock w/ Complete Kit
SYSM1_DK360TR01	360 dock + Works Kit

540mm Docking Rail Bundles	
Part #	Description
SYSM2_DK540TR03	540 dock w/ Starter Kit
SYSM2_DK540TR02	540 dock w/ Complete Kit
SYSM2_DK540TR01	540 dock w/ Works Kit

720mm Docking Rail Bundles	
Part #	Description
SYSM3_DK720TR03	720 dock w/ Starter Kit
SYSM3_DK720TR02	720 dock w/ Complete Kit
SYSM3_DK720TR01	720 dock w/ Works Kit

Plate dimensions: 12.7 mm thick, 20 mm x 20 mm hole pattern, M6 thread

- Optical Comparator Bundled System
- Portable 3D Gage Arm Bundled System

Loc-N-Load™ Specialty Bundled Systems

Work-Holding Kit Contents – (Choice of one included with bundle)
See kit contents on page 14.

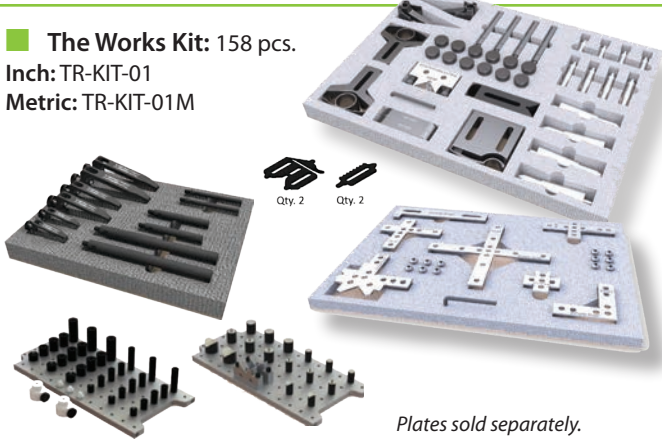
■ Starter Kit: 62 pcs.
Inch: TR-KIT-03
Metric: TR-KIT-03M



■ Complete Kit:
82 pcs.
Inch: TR-KIT-02
Metric: TR-KIT-02M



■ The Works Kit: 158 pcs.
Inch: TR-KIT-01
Metric: TR-KIT-01M



Plates sold separately.


Plate dimensions: Inch: .5" thick, 1"x1" hole pattern, 1/4-20 thread Metric: 12.7 mm thick, 20 mm x 20 mm hole pattern, M6 thread

Optical Comparator Bundled System

The Optical Comparator bundle includes **Loc-N-Load™** fixture plates and rails PLUS 62-pc. clamp kit and a dock that's made to fit optical comparators. Speed up inspections and alternate setups between two 6" x 12" or 180 mm x 360 mm plates. Add fixture plates or mounting hardware as needed.

This smaller fixture system is perfect for your optical comparators' inspection applications. Loc-N-Load™ fixture rails, plates, and work-holding clamps create affordable, repeatable, and durable fixtures that reduce setup time and process more parts per shift. Plates can be dedicated and kept with the job box for fast, repeatable setups.

Optical Comparator w/Starter Kit	
Inch: dimensions in inch	
SYS60_OC6TR03	6 x 3 docking rail, two 6 x 12 fixture plates, plus 62-pc. Starter work-holding kit and mounting hardware
OC-DOCK-06	6" optical comparator docking rail
Metric: dimensions in mm	
SYS60M_OC180TR03	180 x 75 docking rail, two 180 x 360 fixture plates, plus 62-pc. Starter work-holding kit and mounting hardware
OC-DOCK-M180	180 mm optical comparator dock



Starter Kit included.

(mounting hardware included)

Optical Comparator Fixture System

Portable 3D Gage Arm Bundled System

Further enhance the value of your portable 3D Gage Arm/CMMs with the lean, quick-swap **Loc-N-Load™** fixture system. Install the gage onto the Loc-N-Load™ base and start inspecting. Interlocking fixture plates quickly secure and release with the use of magnets, creating highly repeatable setups.

Get started with a preconfigured bundle and add plates as work requires.

You'll save money on shop floor inspection when you use Loc-N-Load™ quick-swap fixturing.

3D Gage Arm Options w/Complete Kit	
Inch: dimensions in inch	
SYS60_DK24TR02	24 x 12 dock, two 6 x 6 plates, two 6 x 12 plates, one 12 x 18 plate; angle plate; 82-pc. Complete work-holding kit
GA-MAG-0909	Steel Mount for Gage Arm magnetic base, 9 x 9 x .27
LNL-DOCK-2412	24 x 12 Gage Arm Docking Plate
Metric: dimensions in mm	
SYS60M_DK540TR02	540 dock, 180 x 180, 180 x 360; 360 x 360 plates; angle plate, 82-pc. Complete work-holding kit M6 threads
LNL-DOCK-M540300	540 x 300 Gage Arm Docking Plate



Complete Kit included.

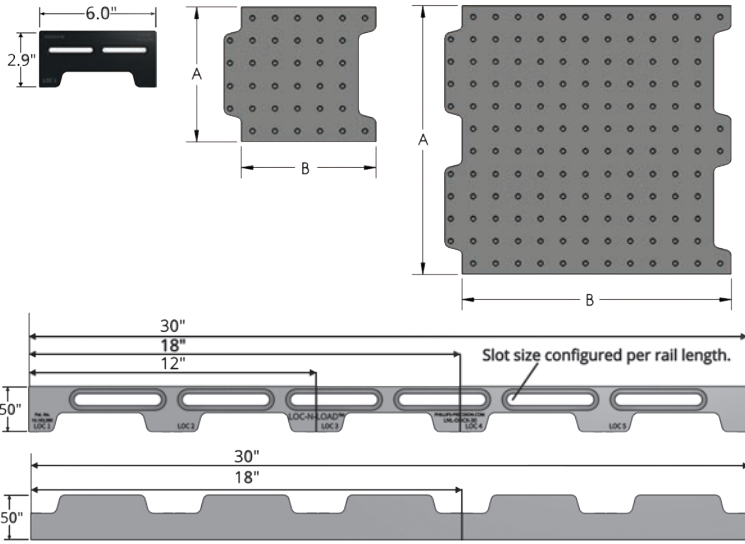
3D Gage Arm Fixture System

Loc-N-Load™ Fixture Plates and Docking Rails

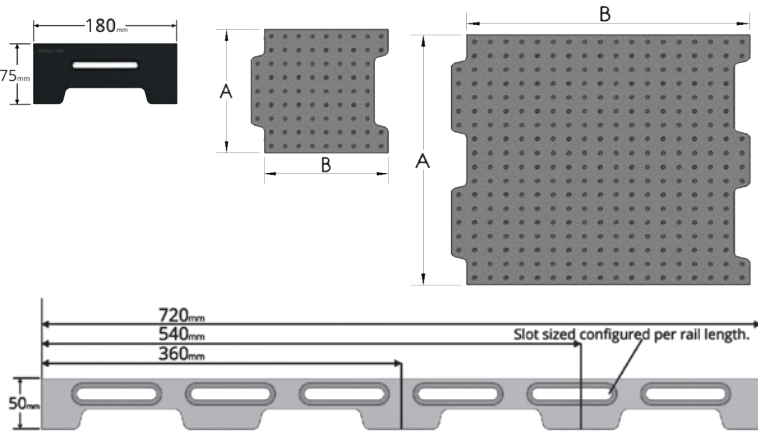
- Individual Docking Rails and Fixture Plates
- Accessory and Specialty Plates

Loc-N-Load™ fixture plates and docking rails can be ordered individually.

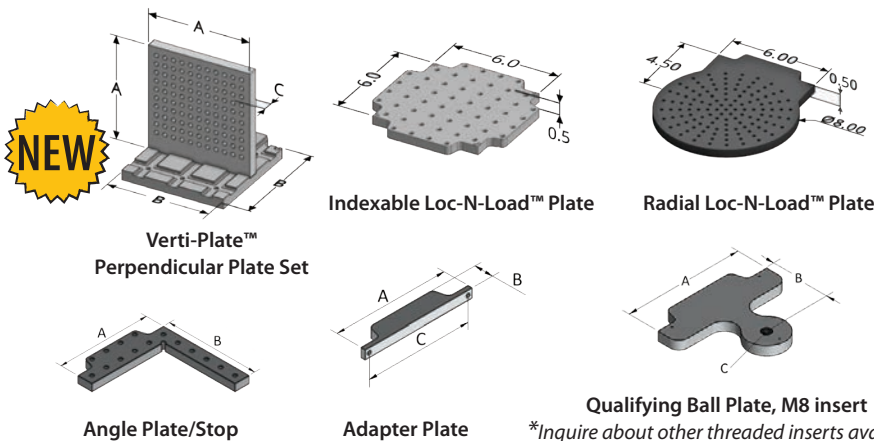
Inch Plates: 0.5" thick, 1/4-20 thread, 1" x 1" hole spacing



Metric Plates: 12.7 mm thick, M6 thread, 20 mm x 20 mm hole spacing



Accessory and Specialty Plates



Docking Rails and Fixture Plates			
Inch: dimensions in inch			
Part #	Description	A	B
Docking Rails and End Caps		Inch	Inch
OC-DOCK-06	Docking rail 6"	6	3
LNL-DOCK-12	Docking rail 12"	12	2
LNL-DOCK-18	Docking rail 18"	18	2
LNL-DOCK-30	Docking rail 30"	30	2
LNL-ENDCAP-18	End cap 18"	18	2
LNL-ENDCAP-30	End cap 30"	30	2

Fixture Plates			
LNL-PLT-0606	Fixture plate 6 x 6	6	6
LNL-PLT-0612	Fixture plate 6 x 12	6	12
LNL-PLT-0618	Fixture plate 6 x 18	6	18
LNL-PLT-1206	Fixture plate 12 x 6	12	6
LNL-PLT-1212	Fixture plate 12 x 12	12	12
LNL-PLT-1218	Fixture plate 12 x 18	12	18
LNL-PLT-1818	Fixture plate 18 x 18	18	18
LNL-PLT-1824	Fixture plate 18 x 24	18	24

Docking Rails and Fixture Plates			
Metric: dimensions in mm			
		mm	mm
OC-DOCK-M180	Docking rail 180	180	75
LNL-DOCK-M360	Docking rail 360	360	50
LNL-DOCK-M540	Docking rail 540	540	50
LNL-DOCK-M720	Docking rail 720	720	50
LNL-M180180	Fixture plate 180 x 180	180	180
LNL-M180360	Fixture plate 180 x 360	180	360
LNL-M360360	Fixture plate 360 x 360	360	360
LNL-M360540	Fixture plate 360 x 540	360	540

Accessory Plates				
Inch: dimensions in inch				
Part #	Description	A	B	C
LNL-ADPT-06	Adapter plate	6	1	5.5
LNL-ANGL-0603	Angle plate/stop	6	6	
LNL-QUAL-PLT*	Qualifying ball plate	6	3	M8 x 1.25
LNL-0606-4X	Indexable plate	6	6	
LNL-RND-0608	Radial plate	8	10	
LNL-PLT-0606-PERP	Verti-Plate™ Set	6	6	6

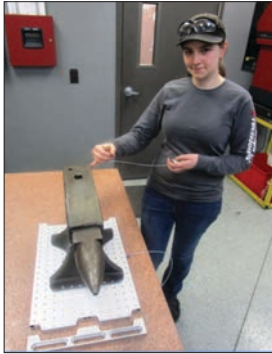
Metric: dimensions in mm				
LNL-ADPT-M6	Adapter plate	180	30	146.05
LNL-ANGL-M6	Angle plate/stop	180	180	
LNL-QUAL-PLT-M	Qualifying ball plate	180	80	M8 x 1.25
LNL-M180180-PERP	Verti-Plate™ Set	180	180	180

* Inquire about Metric for LNL-0606-4X, LNL-RND-0608

Air-Glide™ Option for Loc-N-Load™ Plates

Loc-N-Load™ Air-Glide™ feature lets your CMM and fixture plates do the heavy lifting!

With a press of a button and one pinky finger, inspectors can easily glide the weight of an anvil across the granite!



The Air-Glide™ feature can be added to larger Loc-N-Load™ plates. (see Page 6 for size chart). The system comes ready for use with all hardware and accessories. Docking rails can be ordered separately (see Page 6 for selection).

See page 6 to add plates and accessories.



Even move an anvil with your pinky.

Send requests for Air-Glide™ quotes to:

Quotes@phillips-precision.com or call 508-869-0373 to speak to an engineer.

"The Air-Glide™ you made for us works wonderful. We are extremely happy with this product and I would recommend it all day long. My biggest problem is keeping my boss away from playing with it!" Elmet Technology is measuring a tungsten heavy alloy part 1.50" thick by 7" wide by 18" long weighing up to 120-lbs each. The part is loaded and unloaded with a lift table cart outfitted with a conveyor."

Frank Begert
CMM Programmer/Metrology Leader
Elmet Technology



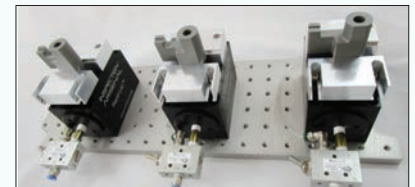
Rapid-Loc™ Pneumatic Vise for CMM

The **Rapid-Loc™** pneumatic vise for CMM inspection is designed to take advantage of the air at your CMM. Soft jaws for the Rapid-Loc™ vise can be customized to hold almost any part. Regulated air pressure can produce just enough clamping force to hold delicate parts or as much as 150 lbs. if needed.

Mount Rapid-Loc™ vises on **Loc-N-Load™** quick-swap fixture plates for fast, accurate, and highly repeatable setups that help break inspection bottlenecks. Rapid-Loc™ can also be mounted on existing CMM grid plates.

Rapid-Loc™ Air Vise System	
Part#	Description
RL-VISE-SYS02	2.5" Rapid Loc™ Vise System - assembled: Soft jaws, valve and fittings included.
RL-REGULATOR	Air Regulator with mounting bracket**
Consumable Accessories, Regulator and Additional Fittings (purchase for multi-vise setups) Work with BOTH Inch and Metric Vise	
RL-SJAW-02	Aluminum soft jaws (set of 2)
RL-MV-PACK	Multi-vise connector pack: Elbows, tees and 6' tubing
RL-PORT-PLUGS	Multi-vise connector pack: 1/8" tube to 1/8" NPT 4 port w/3 plugs
Metric: Rapid-Loc™ with Adapter Plate for Metric	
RL-VISE-SYS02-M	2.5" Rapid Loc™ Vise System - assembled: Soft jaws, valve, fittings and adapter included.

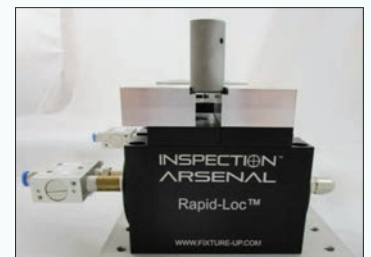
Right: 2.5" Rapid-Loc™ multi-vise assemblies mounted on Loc-N-Load™ plate. Configure with air regulator,** tubing and additional fittings.



Fixture plates and rails sold separately.



Air Regulator with mounting bracket (sold separately)



Assembled 2.5" Rapid-Loc™ Vise System.

** Customer must have a quick connector to attach to the CMM's air hose.

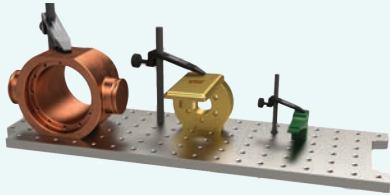
Specialty Clamps and Vises

Sturdy Lever Clamps

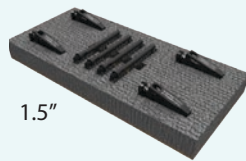
3 SIZES! 1.5", 2.5" and 3.5" length
When extra force is required, clamps can be angled and secured.



See Trigger-Point™ version on page 16.



(D)



1.5"



(E)



2.5"



(F)



3.5"

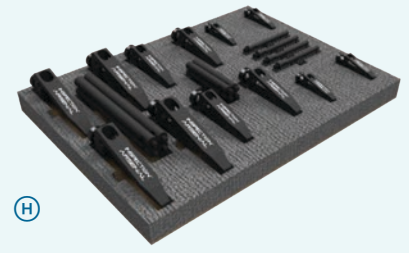
Sturdy Lever Clamps Inch: 1/4-20 thread	
Part #	Description
LC-1.50	(A) Lever Clamp, 1.5" clamp w/ 3" shaft
LC-2.50	(B) Lever Clamp, 2.5" clamp w/ 3" shaft
LC-3.50	(C) Lever Clamp, 3.5" clamp w/ 6" shaft
LC-SET-4-1.50	(D) Set of 4 - 1.50" Clamps w/3" shafts
LC-SET-4-2.50	(E) Set of 4 - 2.50" Clamps w/3" shafts
LC-SET-4-3.50	(F) Set of 4 - 3.50" Clamps w/6" shafts
LC-SET-6	(G) 2 Sets of 3 Sizes: 1.50", 2.50" and 3.50" w/shafts
LC-SET-12	(H) 4 Sets of 3 Sizes: 1.50", 2.50" and 3.50" w/shafts

Sturdy Lever Clamps Metric: M6 thread	
Part #	Description
LC-1.50-M	(A) Lever Clamp, 1.5" clamp with 3" shaft
LC-2.50-M	(B) Lever Clamp, 2.5" clamp with 3" shaft
LC-3.50-M	(C) Lever Clamp, 3.5" clamp with 6" shaft
LC-SET-4-1.50M	(D) Set of 4 - 1.50" Clamps w/3" shafts
LC-SET-4-2.50M	(E) Set of 4 - 2.50" Clamps w/3" shafts
LC-SET-4-3.50M	(F) Set of 4 - 3.50" Clamps w/6" shafts
LC-SET-6-M	(G) 2 Sets of 3 Sizes: 1.50", 2.50" and 3.50"
LC-SET-12-M	(H) 4 Sets of 3 Sizes: 1.50", 2.50" and 3.50"



(G)

2 sets of 3 Sizes:
1.50", 2.50" and 3.50"

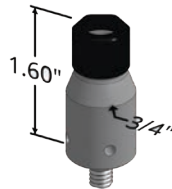


(H)

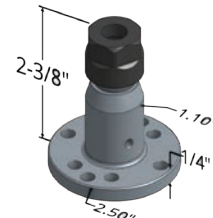
4 sets of 3 Sizes:
1.50", 2.50" and 3.50"

Collet Chucks

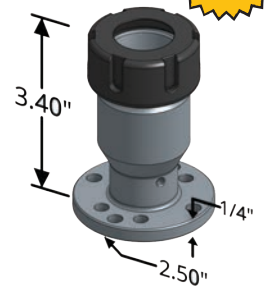
Hold small diameter parts and create a multi-part fixture.



CC-ER11/CC-ER11-M
opening from
.012" to .312"



CC-ER16/CC-ER16-M
with flanged bottom,
opening from
.012" to .416"



CC-ER32/CC-ER32-M
with flanged bottom,
opening from
.039" to .875"

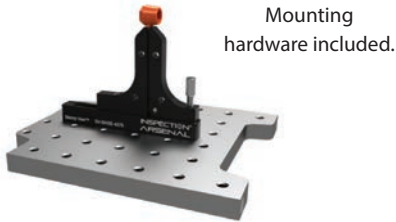
1/4-20 and M6 mounting hardware included

Collets not included.

The only difference in metric version is the M6 mounting hardware.

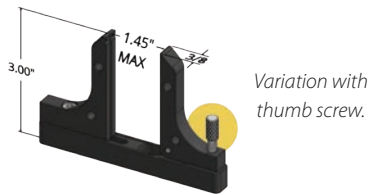
Specialty Clamps and Vises

Skinny-Vise™ Available in 2 Styles: Thumb Screw and Spring Loaded



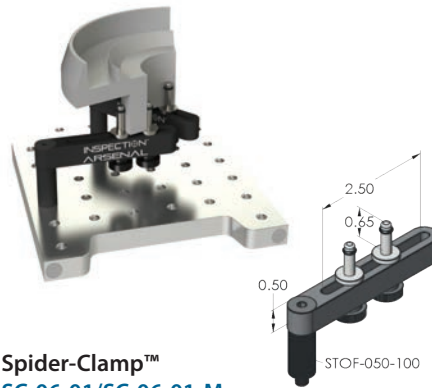
Skinny-Vise™ with thumb screw SV-4375/ SV-4375M

Static jaw is adjustable up to 1.25" while locking jaw easily engages with a gentle twist of thumb screw.



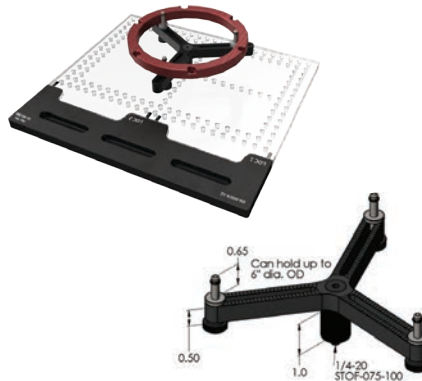
Skinny-Vise™ with compression spring SV-4375-SPR/ SV-4375M-SPR

Choose vise with compression springs (10, 15 and 25 lbs) to ensure consistency of force between inspectors. Jaws are customizable.



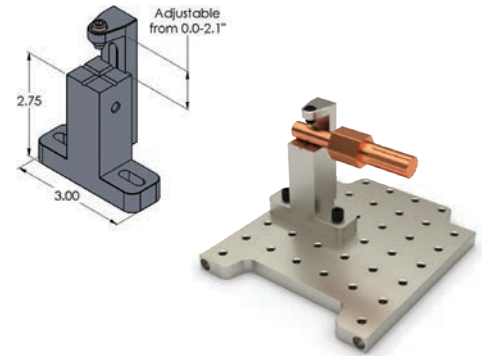
Spider-Clamp™ SC-06-01/SC-06-01-M

1 legged, 3" length
Hold parts of infinite size and shape.



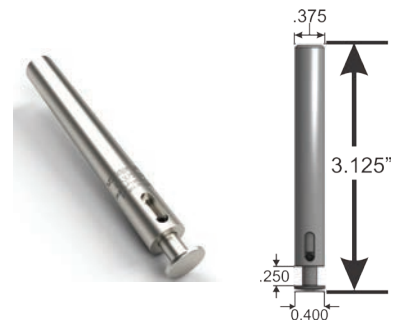
Spider-Clamp™ SC-06-03/SC-06-03-M

3 legged for holding round parts from 1.18" to 6" in diameter
Hold delicate round parts without distortion for Vision and CMM.



Adjustable Riser-Grip™ RG-2.75/ RG-2.75-M

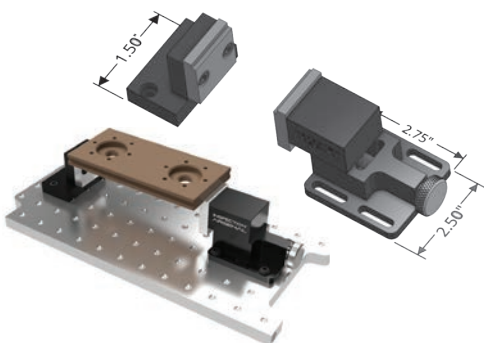
Full-Access clamp, adjustable. Secure parts from .0 to 2.1" in thickness.



M5 Edge Finder™ EF-375-400-00/EF-375-400-00M

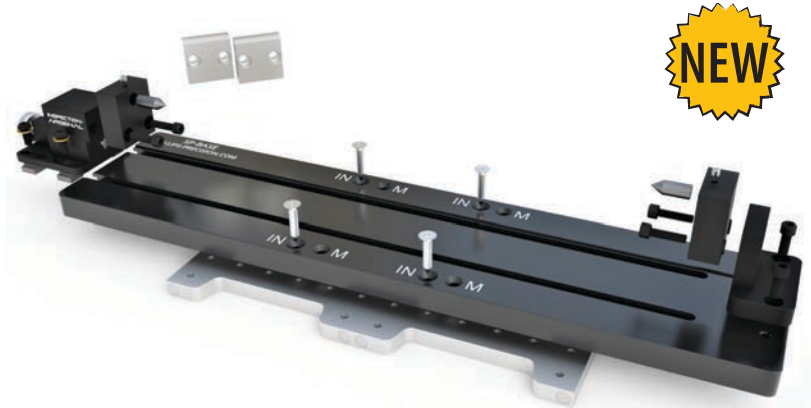
Safely and easily edge find in your CNCs with the door open and spindle off!

Spanner-Vise™ and Spanner-Vise™ System with Base and Centers



Spanner-Vise™ SP-UISE-2.5/ SP-UISE-2.5M

2 pc. vise can infinitely adjust to accommodate work piece and lock down securely. **Metric version includes adapter plate.**



Spanner-Vise™ System with Base and Centers SYS-SP-UISE-2.50, SYS-SP-UISE-2.50-M

Includes 2.5" vise, .75" thick slider base (adjustable up to 16"), step jaws, center jaws, and mounting hardware.

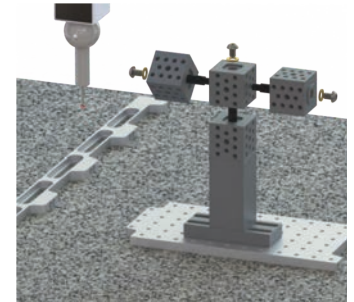
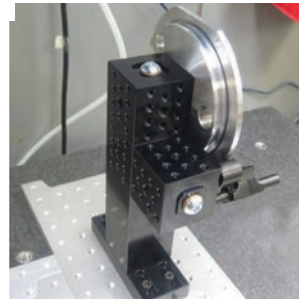
Modular Tower System

Modular Tower System for CMM Inspections

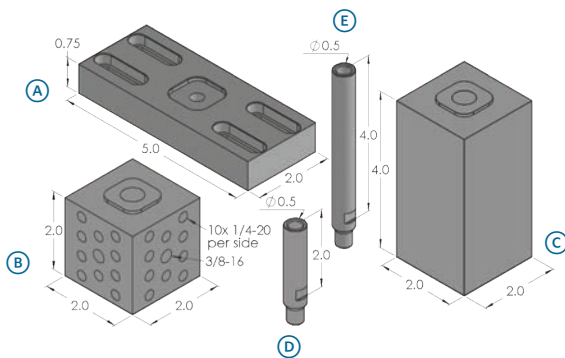
Our modular fixture tower expands the CMM work area, enabling inspectors to work more efficiently – and more effectively.

The first in our line of towers is a 2" interlocking system that can be built both vertically and horizontally. Cubes added horizontally can be turned to any angle and locked securely.

- Building-block design lets you determine the height you want.
- Staggered hole pattern adds flexibility for work holding.
- Adds even more versatility to **Inspection Arsenal®** work-holding and **Lock-N-Load™** fixture plates.
- Build vertically and horizontally – it's secure at any angle.
- Works with all existing 1/4-20 or M6 fixture plates.
- Use more available space of the CMM work envelope.
- Won't interfere with the probe's travel.



Modular tower built vertically and horizontally.



Modular Tower System: 11 pc. Assembled system includes: Base, Cubes, Spacer and Posts (items also available individually)				
Inch		Metric		
MT2-SYS-01		MT2-SYS-01-M		Qty.
MT-BASE-2.0	(A) Mounting base with 1/4-20 slots	MT-BASE-2.0-M	Mounting base with M6 slots	1
MT-CUBE-2.0	(B) 2 x 2 cube, 1/4-20	MT-CUBE-2.0-M	2 x 2 cube, M6	4
MT-SPACER-4.0	(C) 4 x 2 blank spacer block, 1/4-20	MT-SPACER-4.0	4 x 2 blank spacer block, 1/4-20	1
MT-POST-2	(D) .5 x 2 steel post, 1/4-20	MT-POST-2	.5 x 2 steel post, 1/4-20	4
MT-POST-4	(E) .5 x 4 steel post, 1/4-20	MT-POST-4	.5 x 4 steel post, 1/4-20	1

For metric option, cubes and mounting base are the only parts different. Cubes have M6 threaded holes and mounting base works with 20 mm metric plate hole pattern – all other parts in the system remain the same.

Inspectors are no longer limited to a few towers of fixed sizes. Maximize the work area of your CMM without interfering with the probe's travel.

Robotics Integration

By design, **Loc-N-Load™** quick-swap fixture plate system provides a perfect platform for robotic applications.

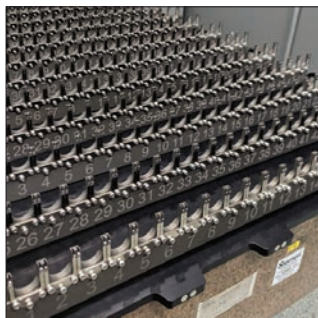
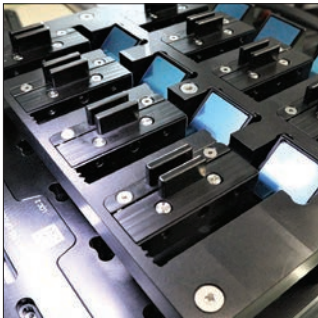
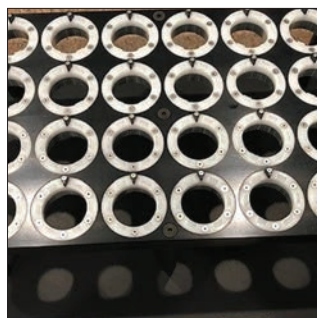
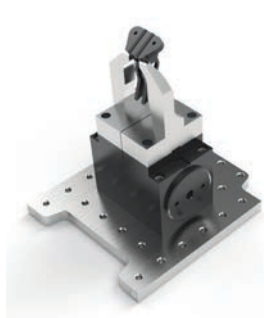
The secure docking rail offers a repeatable location for parts fixtured on individual plates. Grippers are designed for any robot which highlights the universal nature of Inspection Arsenal®.



Utilize **Loc-N-Load™** quick-swap plates as the platform so you can inspect and deliver parts faster than ever before!

Phillips Precision can create the perfect turn-key solution combining standard products with expert custom fixture design services.

Fixture Design Services and Custom Plate Orders



Phillips Precision Designs Custom Fixtures

While **Inspection Arsenal**® components are designed to be as versatile as possible right off the shelf, you can submit CAD models for more complex setups. Our engineers and designers can develop your perfect custom fixture.

We start with standard product – an automatic savings to you – and modify as needed or design fully customized complex solutions when necessary.

- 1-up or multi-part fixtures for CMM and vision systems
- Custom pneumatic fixtures or custom jaws for Rapid-Loc™ vises
- Special marking, barcoding or part numbers added as identifiers
- 3D printing of part fixtures available

Contact us to talk about your custom design needs.

Phillips Precision, Inc. does not perform gage R&R studies on fixtures it designs for customers. This is the sole responsibility of the customer, unless specifically requested by customer and quoted as part of the initial work.

Fixture Design Services Policy

To create the most efficient service to you, we ask that you:

- complete the request form at www.inspectionarsenal.com
- accompany form with prints and electronic files

We will call you to review the details of the project. Fixture designs will be developed around Inspection Arsenal® products whenever possible. When standard product does not provide the solution, custom clamps and work-holding will be designed.

- A **design concept deposit** is required prior to the start of the project. This will be determined at the time the form and files have been received. If the project is awarded, this up-front fee will be deducted from the final invoice.
- **Project scope** must be detailed in writing and Phillips Precision will ask for approvals throughout the design process.
- A **not-to-exceed project cost** can be determined to initiate the project purchase order.
- Custom fixture projects are **non-refundable**.
- **Alterations after final approval** will be billed out at the current Phillips Precision rate.
- Phillips Precision, Inc. reserves the right to use images and graphical representations of fixture designs in promotional material.

We look forward to helping you

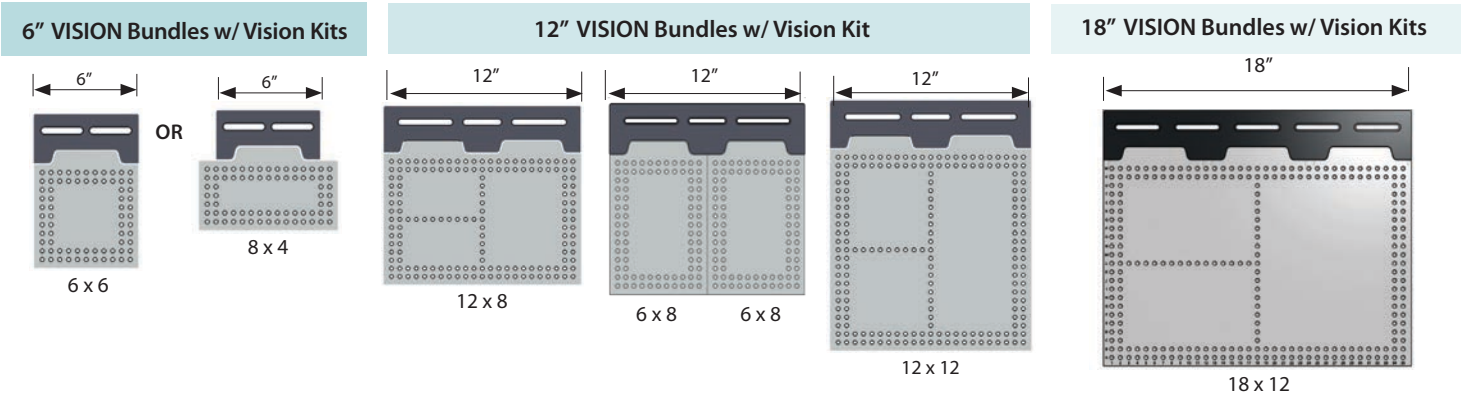
**Deliver Perfect Parts
FASTER**

Open-Sight™ for Vision Bundled Systems

Open-Sight™ is especially designed for vision systems and it offers the same profit-enhancing benefits. Docking rails fit the stage of any optical machine. Black anodized aluminum docking rails and scratch-resistant polycarbonate plates are .5" thick with 1/4-20 holes and .5" hole spacing.

Metric plates are 12.7 mm thick, with 10 mm or 20 mm spacing and M6 threaded holes.

2 Work-holding kit options, see page 13.



Selection is easy with preconfigured bundled systems. Bundles include docking rail, plate(s), and work-holding kit designed for vision set ups.

6" Bundles w/ Vision Kits	
Part #	Description
SYS01_DK06VIS01	6" rail w/6" X 6" plate
SYS01_DK06VIS02	6" rail w/6" X 6" plate
SYS04_DK06VIS01	6" rail w/8" X 4" plate
SYS04_DK06VIS02	6" rail w/8" X 4" plate

12" Bundles w/ Vision Kits	
Part #	Description
SYS02_DK12VIS01	12" rail w/12" X 8" plate
SYS02_DK12VIS02	12" rail w/12" X 8" plate
SYS03_DK12VIS01	12" rail w/2-6" X 8" plates
SYS03_DK12VIS02	12" rail w/2-6" X 8" plates
SYS06_DK12VIS01	12" rail w/12" X 12" plate
SYS06_DK12VIS02	12" rail w/12" X 12" plate

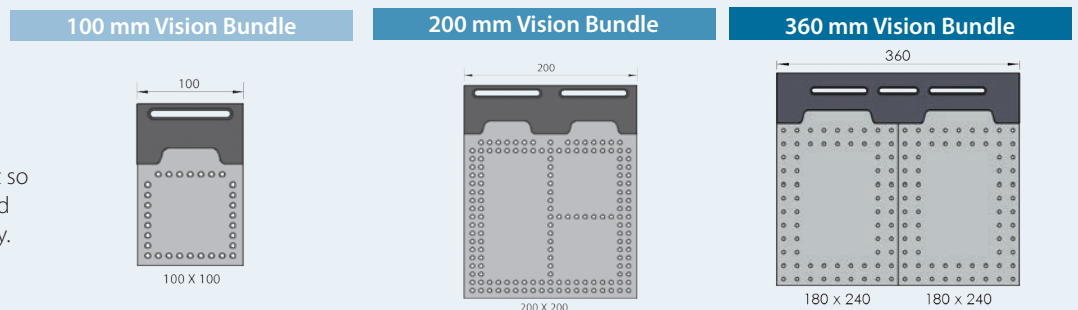
18" Bundles + Vision Kits	
Part #	Description
SYS07_DK18VIS01	18" rail w/18" X 12" plate
SYS07_DK18VIS02	18" rail w/18" X 12" plate

VIS-KIT-01 comes complete with steel, scalloped spring clamps, hole adjusters, low profile rails and hold down clamps. An acrylic riser platform helps to hold parts out over the viewing surface. (inch and metric options)

VIS-KIT-02 comes with a full-access **Riser-Grip™**, magnetic v-blocks, clear scalloped corner stops, a variety of stand-offs and 2 style hold downs. (inch and metric options)

Metric Open-Sight™ Vision Bundle Options Include choice of kits.

Our **Open-Sight™** system is transparent so inspectors can see their work clearly, and inspect with greater speed and accuracy.



100 mm Vision Bundle	
Part #	Description
SYSM4_DK100V01	100 mm dock and plate + VIS-KIT-01M
SYSM4_DK100V02	100 mm dock and plate + VIS-KIT-02M

200 mm Vision Bundle	
Part #	Description
SYSM4_DK200V01	200 mm dock and plate + VIS-KIT-01M
SYSM4_DK200V02	200 mm dock and plate + VIS-KIT-02M

360 mm Vision Bundle	
Part #	Description
SYSM4_DK360V01	360 mm dock and plate + VIS-KIT-01M
SYSM4_DK360V02	360 mm dock and plate + VIS-KIT-02M

Metric dimensions: *10 mm spacing is on all plates - EXCEPT OS-M180240 has 20 mm hole spacing.

Open-Sight™ Vision Plates, Rails and Accessories

Vision Work Holding Kit Options

Basic VISION Work-Holding Kit-01



VIS-KIT-01: Inch

VIS-KIT-01M: Metric

Vision Kit-01	Inch	Metric
Hole adjuster		2
Adjustable platform	1	
Sliding-Stop™	2	
Spring-Loc™	2	
Simple-Stop™ #01-OS, #06, #07	3	
Trigger-Finger™	2	
Trigger-Point™	2	
Steel shaft/stand-off	4	
Hex key, assorted screws	16	
TOTAL		34

Enhanced VISION Work-Holding Kit-02



VIS-KIT-02: Inch

VIS-KIT-02M: Metric

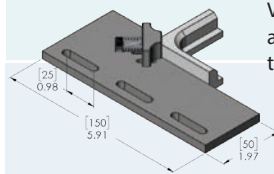
Vision Kit-02 w/Riser-Grip™

Inch	Metric	Qty.
Trigger-Finger™	Trigger-Finger™	2
Trigger-Point™	Trigger-Point™	2
Steel shaft/stand-off	Steel shaft/stand-off	4
Stand-off 1/2" x 1"	Stand-off 12.7 x 25	4
Stand-off 1/2" x 2"	Stand-off 12.7 x 50	4
Stand-off 1/2" x 4"	Stand-off 12.7 x 100	4
V-Block 90° angle	V-Block 90° angle	2
Riser-Grip™ adjustable	Riser-Grip™ adjustable	1
Clr. Corner Stop, pc*	Clr. Corner Stop, pc*	2
MISC screws, etc.	MISC screws, etc.	9
TOTAL		34

* polycarbonate

Open-Sight™ offers the same lean fixture concept for vision systems with polycarbonate fixture plates, aluminum docking rails and accessories.

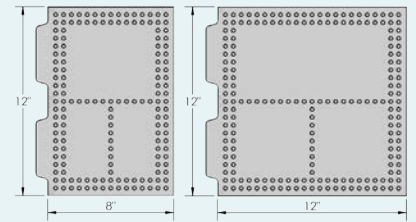
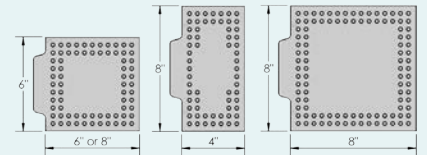
Inch: .5" thick, 1/4-20, .5" hole spacing	
dimensions in inch	
Part #	Description
OS-DOCK-06	Docking rail 6 x 3
OS-DOCK-12	Docking rail 12 x 3
OS-DOCK-18	Docking rail 18 x 3
OS-DOCK-24	Docking rail 24 x 3
OS-PLT-0606	Fixture Plate 6 x 6
OS-PLT-0606-B	Fixture Plate blank 6 x 6
OS-PLT-0608	Fixture Plate 6 x 8
OS-PLT-0804	Fixture Plate 8 x 4
OS-PLT-0808	Fixture Plate 8 x 8
OS-PLT-1208	Fixture Plate 12 x 8
OS-PLT-1208-B	Fixture Plate blank 12 x 8
OS-PLT-1212	Fixture Plate 12 x 12
OS-PLT-1812	Fixture Plate 18 x 12
VCB-150M	Vision Corner Block
LNL-ADPT-06	Adapter plate 6 x 1
WAOS-M4	4mm thread: 2 washers 2 screws



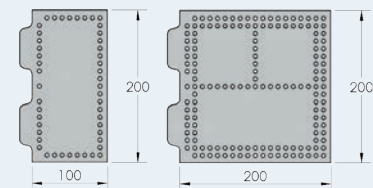
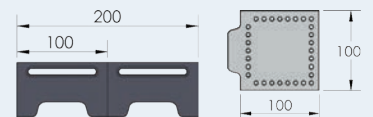
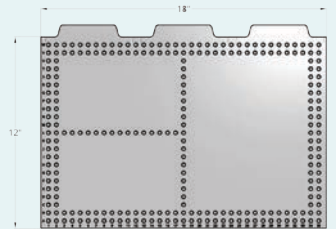
Vision Corner Block allows full exposure to part edge.

Metric: 12.7 mm thick, M6, 10mm hole spacing	
dimensions in mm	
Part #	Description
OS-DOCK-M100	Docking rail 100 x 60
OS-DOCK-M180	Docking rail 180 x 75
OS-DOCK-M200	Docking rail 200 x 60
OS-DOCK-M360	Docking rail 360 x 75
OS-DOCK-M540	Docking rail 540 x 75
OS-M100100	Fixture Plate 100 x 100
OS-M200100	Fixture Plate 200 x 100
OS-M200200	Fixture Plate 200 x 200
OS-M180240*	Fixture Plate 180 x 240, 20 mm
OS-M100100-B	Blank plate 100 x 100
OS-M200200-B	Blank plate 200 x 200
VCB-150M	Vision Corner Block 150 x 50
WAOS-M4	4mm thread: 2 washers 2 screws

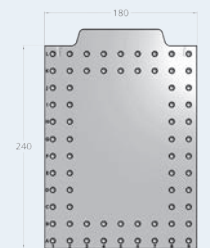
Metric dimensions: *10 mm spacing is on all plates - EXCEPT OS-M180240 has 20 mm hole spacing.



6", 12", 18", 24" rails
Slot size configured per length.



WAOS-M4 for 4 mm threaded stages



Inspection Arsenal® Work-Holding Kits

- Starter Kit
- Complete Kit
- The Works Kit

Inspection Arsenal® work-holding includes a variety of unique and versatile components designed to create fast, easy and repeatable setups. Components include quick-swap trigger-action, low-profile and non-marring clamps and hold downs; **Trigger-Finger™**, **Cross-Bow™**, **D-Block™** and **Trigger-Point™**. Heavy duty lever clamps provide additional force when necessary.

Stand-offs and risers include traditional and articulating styles and magnetic rest pads and risers. Round parts can be held with v-blocks or **Silver-Bullet™** stand-offs and hole adjusters provide infinite adjustability between holes.

Low-profile stops and rails include **Simple-Stop™**, **Sliding-Stop™**, and vision corner stops.

Components are sold in 2 kit combinations here; in sets (Page 15), and individually (Pages 16-17).

- 1/4-20 or M6 threads
- Plus 55 foam drawer inserts included with all kits



Starter Kit: 62 pcs.

Inch: TR-KIT-03

Metric: TR-KIT-03M

Complete Kit: 82 pcs.

Inch: TR-KIT-02

Metric: TR-KIT-02M

Starter Kit	Inch	Metric
Cross-Bow™ spring clamp		2
D-Block™ spring stop		2
V-Block, set of 2		2
Silver-Bullet™, 2 sets of 4: 1" and 3"		8
3" Steel shaft, stackable		2
Trigger-Finger™ hold downs		2
Hole adjuster		2
Simple-Stops™, 2 ea. #01, #07		4
Stand-offs, assorted sizes (Qty.=10)		10
Inch: (3) 0.5 x 0.75, (3) 0.75 x 0.75, (2) 0.5 x 2, (2) 0.75 x 2		
Metric: (3) 12.7 x 19, (3) 19 x 19, (2) 12.7 x 50 (2) 19 x 50		
Stand-Off cone - plastic		3
Lever Clamp w/shaft-set of 2		2
Hex keys, assorted screws, wrench		21

Complete Kit	Inch	Metric
Cross-Bow™ spring clamp		4
D-Block™ spring stop		4
Trigger-Block™ spring clamp		2
Silver-Bullet™, 3 sets of 4: 1", 2", 3"		12
V-Block, set of 2		2
3" Steel shaft, stackable		4
Trigger-Finger™ hold downs		2
Hole adjuster		2
Simple-Stop™, set of 7		7
Lever Clamps w/shafts, set of 6		6
Hex keys, assorted screws, wrench		31

The Works Kit	Inch	Metric
Clamps and Hold-downs		
Cross-Bow™ spring clamp		4
D-Block™ spring stop		4
Trigger-Block™ spring clamp		2
Trigger-Finger™ hold downs		2
3" Steel shafts, stackable		4
Spring-Loc™ low profile clamp		2
Lever Clamps w/shafts, set of 6		6
Risers and Stand-Offs		
Silver-Bullet™, 3 sets of 4: 1", 2", 3"		12
V-Block, set of 2		2
Stops and Rails		
Simple-Stop™ rails, set of 7		7
Hole adjuster		2
Sliding-Stop™ low profile stop		2
Hex keys, plus assorted screws		43
Stand-Off and Riser Sets		
Stand-Off and Rest Pad Set		37
Magnetic Riser Set		23

The Works Kit: 158 pcs.

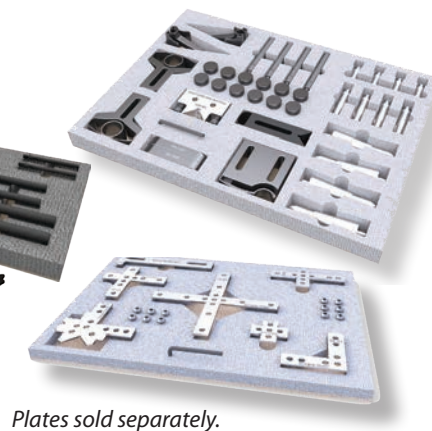
Inch: TR-KIT-01

Metric: TR-KIT-01M

The Works Kit combines components found in Inspection Arsenal® sets, including clamps, rails, stand-offs, and magnetic risers.

This kit contains everything you need to create multiple fixtures across several CMMs.

1/4-20 or M6 threads



Plates sold separately.

Magnetic Riser Set

Stand-Off and Rest Pad Set

Enhanced Stand-Off Set

Magnetic Riser Set

Magnetic clamping allows for unlimited probe access and MORE holding options for steel parts during CMM inspection. Combine with stand-offs and other work-holding kits for fixture building. (1/4-20 or M6 threads)



Inch: MAGN-SET-30

Metric: MAGN-SET-30M

Inch: 1/4-20, dimensions in inch		Qty.	Metric: M6, dimensions in mm		Qty.
MGN-STOF-500	Magnetic Rest Pad .5 dia. x 1 ht.	3	MGN-STOF-500-M	12.7 x 25.4 ht.	3
MGN-STOF-750	Magnetic Rest Pad .75 dia. x 1 ht.	3	MGN-STOF-750-M	19 x 25.4 ht.	3
MGN-PIN-500	Magnetic Pin Rest .5 dia. x 1 ht.	3	MGN-PIN-500-M	12.7 x 25.4 ht.	3
MGN-PIN-750	Magnetic Pin Rest .75 dia. x 1 ht.	3	MGN-PIN-750-M	19 x 25.4 ht.	3
MGN-VEE-500	Magnetic V stand-off .5 dia. x 1 ht.	2	MGN-VEE-500-M	12.7 x 25.4 ht.	2
MGN-VEE-1000	Magnetic V stand-off 1 dia. x 1 ht.	2	MGN-VEE-1000-M	25.4 x 25.4 ht.	2
VB-001	Magnetic V-Block Set 1 ht. (includes hex key and 4 bolts)	7	VB-001M	Magnetic V-Block Set 25.4 ht. (includes hex key and 4 bolts)	7
Total		23	Total		23

Plates sold separately - see page 6. • See page 18 for individual components.

Stand-Off & Rest Pad Set

High quality stand-offs and rest pads add flexibility to CMM fixture design. Made of plastic and steel with 1/4-20 threads for inch and M6 threads for metric. Combine with Starter, Complete and The Works kits.



Inch: STOF-SET-30

Metric: STOF-SET-30M

Inch: 1/4-20, dimensions in inch		Qty.	Metric: M6, dimensions in mm		Qty.
STOF-ADJ	Plastic Ht. Adjuster	2	STOF-ADJ-M	Plastic Ht. Adjuster	2
STOF-CONE	Plastic Cones	3	STOF-CONE-M	Plastic Cones	3
STOF-050-075	Stand-off .5 dia. x .75 ht.	3	STOF-050-M20	12.7 dia. x 19 ht.	3
STOF-050-100	Stand-off .5 dia. x 1 ht.	6	STOF-050-M25	12.7 dia. x 25.4 ht.	6
STOF-050-200	Stand-off .5 dia. x 2 ht.	3	STOF-050-M50	12.7 dia. x 50 ht.	3
	Thumb Screws 1/4-20 thread	2		Thumb Screws M6 thread	2
STPR-050-050	Pin rest .5 dia x .5 ht.	3	STPR-075-M12.5	12.7 dia. x 12.7 ht.	3
STPR-075-050	Pin rest .75 dia x .5 ht.	3	STPR-075-M12.5	19 dia. x 12.7 ht.	3
STOF-075-075	Stand-off .75 dia. x .75 ht.	3	STOF-075-M20_MAG	19 dia. x 19 ht.	3
STOF-075-100	Stand-off .75 dia. x 1" ht.	6	STOF-075-M25	19 dia. x 25.4 ht.	6
STOF-075-200	Stand-off .75 dia. x 2" ht.	3	STOF-075-M50	19 dia. x 50 ht.	3
Total		37	Total		37

Plates sold separately - see page 6. • Additional size stand-offs on page 17.
See page 18 for individual components.

Enhanced Stand-Off Set

Enhance other work holding with articulating height adjusters and stand-offs that can be angled in any direction. This set adds flexibility to inspection setups. Plastic and steel with 1/4-20 or M6 threads. Combine with other kits for added versatility.





Inch: STOF-SET-30

Metric: STOF-SET-30M

Inch: 1/4-20, dimensions in inch		Qty.	Metric: M6, dimensions in mm		Qty.
STAJ-500	Adjustable stand-off .50 dia.	2	STAJ-500-M6	12.7 dia.	2
STAJ-750	Adjustable stand-off .75 dia.	2	STAJ-750-M6	19 dia.	2
STOF-KNCL-750	Adjustable knuckle .75 dia.	2	STOF-KNCL-750-M6	19 dia.	2
STOF-ADJ	Plastic Ht. Adjuster	2	STOF-ADJ-M	Plastic Ht. Adjuster	2
	Thumb Screws 1/4-20 thread	2		Thumb Screws M6 thread	2
STOF-CONE	Plastic Cones	2	STOF-CONE-M	Plastic Cones	2
STOF-050-100	Stand-off .5 dia. x 1 ht.	2	STOF-050-M25	12.7 dia. x 25.4 ht.	2
STOF-075-100	Stand-off .75 dia. x 1 ht.	2	STOF-075-M25	19 dia. x 25.4 ht.	2
Total		16	Total		16

Plates sold separately - see page 6. • See page 18 for individual components.

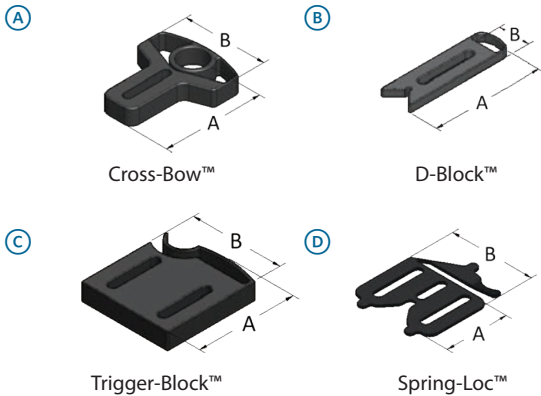
-  Spring Clamps
-  Hold Downs

Work-Holding Sets and Components for CMM and Vision

Inspection Arsenal® provides an arsenal of tools to fight inefficiency and waste. Set up quickly and cleanly with **Trigger-Block™**, **Cross-Bow™**

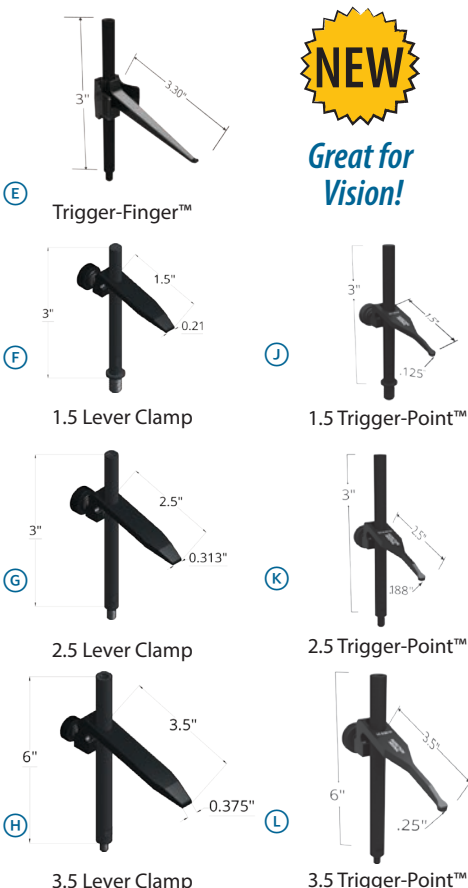
and **D-Block™** non-marring spring clamps, **Trigger-Finger™** hold-down, **Silver-Bullet™** stand-offs, and **Simple-Stop™** low-profile rails and stops.

Spring Clamps



Spring Clamps				
Inch: 1/4-20, dimensions in inch				
Part #	Description	A	B	Qty.
CRBW-30	(A) Cross-Bow™ spring clamp	3.03	2.54	8
D-BLK-30	(B) D-Block™ spring-stop	3.55	1.00	8
TRBL-30	(C) Trigger-Block™ spring clamp	2.76	2.57	6
SPR-LOC	(D) Spring-Loc™ low-profile clamp	1.88	2.50	2
Metric: M6, dimensions in mm				
CRBW-30M	(A) Cross-Bow™ spring clamp	77	65	8
D-BLK-30M	(B) D-Block™ spring-stop	90	25	8
TRBL-30M	(C) Trigger-Block™ spring clamp	70	65	6
SPR-LOC_M	(D) Spring-Loc™ low-profile clamp	47	64	2

Hold Downs - Trigger-Finger™, Trigger-Point™, Lever Clamps



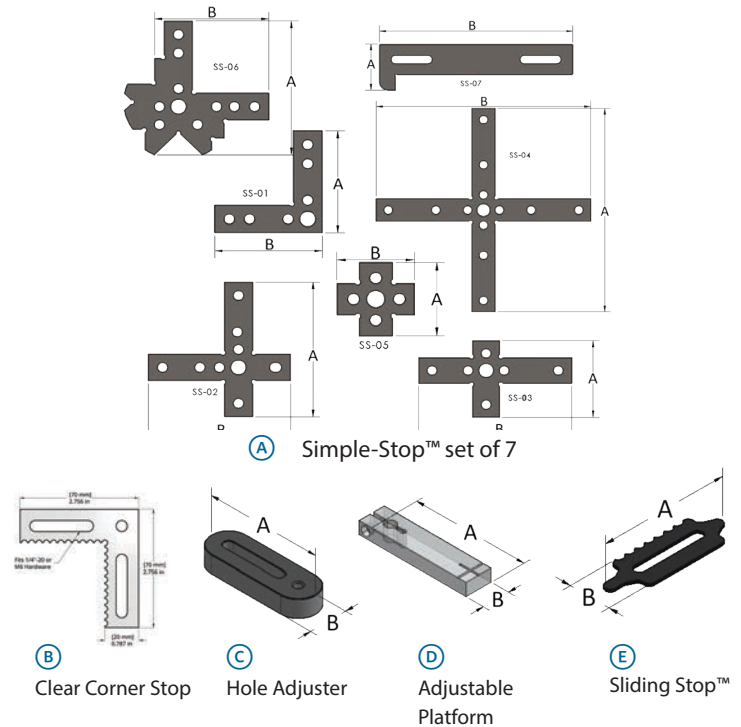
Trigger-Finger™ Hold-Downs		Inch: 1/4-20 thread	
Part #	Description	Qty.	
TRFN-20	(E) Trigger-Finger™ w/3" steel shaft	4	
TRFN-15	Trigger-Finger™ without shaft	4	
Trigger-Finger™ Hold-Downs		Metric: M6 thread	
TRFN-20M	Trigger-Finger™ w/ 76mm steel shaft	4	
TRFN-15M	Trigger-Finger™ without shaft	4	
Lever Clamps	Trigger-Point™	Inch: 1/4-20 thread	
Part #		Lever Clamps and Trigger-Point™ Description	
LC-1.50	LC-1.50-TP	(F)(J) 1.5" Hold-down w/ 3" shaft	1
LC-SET-4-1.50	LC-SET-4-1.50-TP	1.5" Hold-down SET of 4 w/ 3" shafts	4
LC-2.50	LC-2.50-TP	(G)(K) 2.5" Hold-down w/ 3" shaft	1
LC-SET-4-2.50	LC-SET-4-2.50-TP	2.5" Hold-down SET of 4 w/ 3" shafts	4
LC-3.50	LC-3.50-TP	(H)(L) 3.5" Hold-down w/ 6" shaft	1
LC-SET-4-3.50	LC-SET-4-3.50-TP	3.5" Hold-down SET of 4 w/ 6" shafts	4
LC-SET-6	LC-SET-6-TP	2 Sets of 3 Hold-downs, 1.5, 2.5, 3.5"	6
LC-SET-12	LC-SET-12-TP	(I) 4 Sets of 3 Hold-downs, 1.5, 2.5, 3.5"	12
Lever Clamps	Trigger-Point™	Metric: M6 thread	
LC-1.50-M	LC-1.50-TP-M	(F)(J) 1.5" Hold-down w/ 3" shaft, M6	1
LC-SET-4-1.50-M	LC-SET-4-1.50-TP-M	1.5" Hold-down SET of 4 w/ 3" shafts	4
LC-2.50-M	LC-2.50-TP-M	(G)(K) 2.5" Hold-down w/ 3" shaft, M6	1
LC-SET-4-2.50-M	LC-SET-4-2.50-TP-M	2.5" Hold-down SET of 4 w/ 3" shafts	4
LC-3.50-M	LC-3.50-TP-M	(H)(L) 3.5" Hold-down w/ 6" shaft	1
LC-SET-4-3.50-M	LC-SET-4-3.50-TP-M	3.5" Hold-down SET of 4 w/ 6" shafts	4
LC-SET-6-M	LC-SET-6-TP-M	2 Sets of 3 Hold-downs, 1.5, 2.5, 3.5"	6
LC-SET-12-M	LC-SET-12-TP-M	(I) 4 Sets of 3 Hold-downs, 1.5, 2.5, 3.5"	12



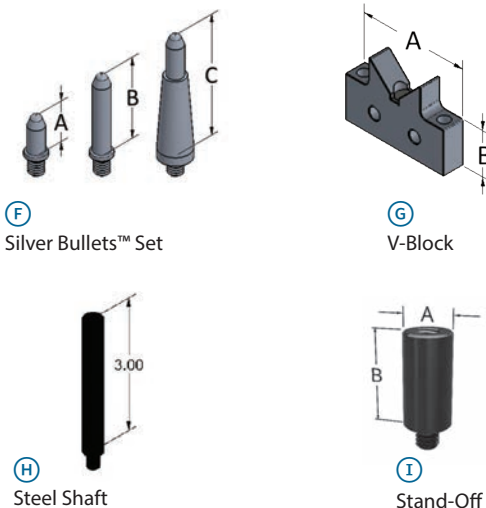
- Stops and Rails
- Risers and Stand-Offs

Stops and Rails Inch: 1/4-20, dimensions in inch				
Part #	Description	A	B	Qty.
SIST-RS-100	(A) Simple-Stop™ brushed stainless steel. Set of 7, SS-01, SS-02, SS-03, SS-04, SS-05, SS-06, SS-07			7
SS-01-OS	Simple-Stop™ w/serrated edge	2.75	2.75	1
SS-02	Simple-Stop™	3.75	3.75	1
SS-03	Simple-Stop™	2.25	4.25	1
SS-04	Simple-Stop™	6.75	6.75	1
SS-05	Simple-Stop™	1.75	1.75	1
SS-06	Simple-Stop™	3.75	3	1
SS-07	Simple-Stop™	1.5	6	1
SS-01-PC	(B) Clear Corner Stop, polycarbonate	2.756	.787	1
HA-1420	(C) Hole adjuster	3	1	2
ADJ-PLT-10	(D) Adjustable platform for TRFN, TRPT	4.25	1	1
SLI-STOP	(E) Sliding Stop™ low-profile stop	3	1	2
Stops and Rails Metric: M6, dimensions in mm				
SIST-RS-100M	Simple-Stop™ brushed stainless steel. Set of 7, SS-01M, SS-02M, SS-03M, SS-04M, SS-05M, SS-06M, SS-07M			7
SS-01OSM	Simple-Stop™ w/serrated edge	70	70	1
SS-02M	Simple-Stop™	95	95	1
SS-03M	Simple-Stop™	60	60	1
SS-04M	Simple-Stop™	180	180	1
SS-05M	Simple-Stop™	52	52	1
SS-06M	Simple-Stop™	94	94	1
SS-07M	Simple-Stop™	30	150	1
SS-01-PC	Clear Corner Stop, polycarbonate	70	20	1
HA-M6	Hole adjuster	76	25	2
ADJ-PLT-10M	Adjustable platform for TRFN, TRPT	108	25	1
SLI-STOP_M	Sliding Stop™ low-profile stop	76	25	2

Stops and Rails



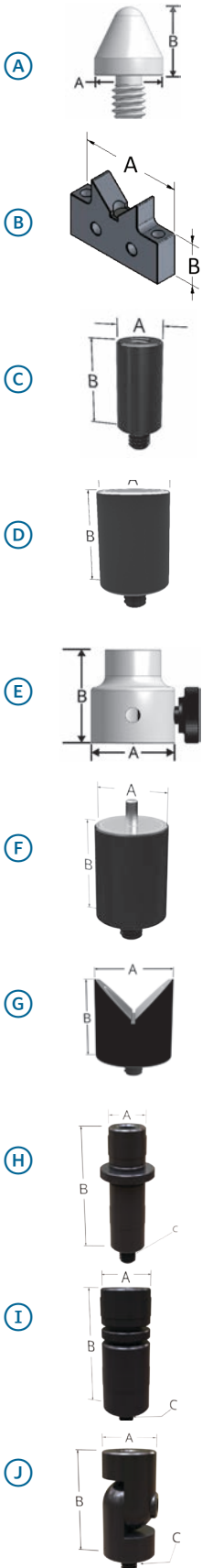
Risers and Stand-Offs



Risers and Stand-Offs Inch: 1/4-20, dimensions in inch					
Part #	Description	A	B	C	Qty.
SIBU-SO-100	(F) Silver-Bullet™ module, set of 12	1	2	3	12
SIBU-SO-1	Silver-Bullet™ stand-off set	1			4
SIBU-SO-2	Silver-Bullet™ stand-off set		2		4
SIBU-SO-3	Silver-Bullet™ stand-off set			3	4
VB-001	(G) V-Block 90° included angle	2.45	1		2
TRFN-SHAFT-10	(H) 3" steel shaft, sold individually	3			1
TRFN-SHAFT-20	3" steel shaft, set of 4	3			4
STOF-050-400	(I) Steel Stand-off	4	.5	1/4 -20	1
STOF-050-600	Steel Stand-off	6	.5	1/4 -20	1
STOF-075-400	Steel Stand-off	4	.75	1/4 -20	1
STOF-075-600	Steel Stand-off	6	.75	1/4 -20	1
Risers and Stand-Offs Metric: M6, dimensions in mm					
SIBU-SO-100_M	Silver-Bullet™ module, set of 12	25	50	75	12
SIBU-SO-25MM	Silver-Bullet™ stand-off	25			4
SIBU-SO-50MM	Silver-Bullet™ stand-off		50		4
SIBU-SO-75MM	Silver-Bullet™ stand-off			75	4
VB-001M	V-Block 90° included angle	62	25		2
TRFN-SHAFT-10M	Steel shaft, sold individually	76			1
TRFN-SHAFT-20M	Steel shaft, set of 4	76			4
STOF-050-M100	Steel Stand-off	100	12.7	M6 x 1.0	1
STOF-050-M150	Steel Stand-off	150	12.7	M6 x 1.0	1
STOF-075-M100	Steel Stand-off	100	19	M6 x 1.0	1
STOF-075-M150	Steel Stand-off	150	19	M6 x 1.0	1

NEW Work-Holding Individual Components

A variety of risers, stand-offs, rest pads, and articulating adjustable standoffs are available to create most any set-up.
(expanded from sets on page 15)



Magnetic Risers and Pin Rests							
Inch: 1/4-20, dimensions in inch					Metric: M6, dimensions in mm		
Description	Qty.	Part #	A	B	Part #	A	B
D Magnetic Rest Pad	1	MGN-STOF-500	.5	1	MGN-STOF-500-M	12.7	25.4
D Magnetic Rest Pad	1	MGN-STOF-750	.75	1	MGN-STOF-750-M	19	25.4
F Magnetic Pin Rest	1	MGN-PIN-500	.5	1	MGN-PIN-500-M	12.7	25.4
F Magnetic Pin Rest	1	MGN-PIN-750	.75	1	MGN-PIN-750-M	19	25.4
G Magnetic V stand-off	1	MGN-VEE-500	.5	1	MGN-VEE-500-M	12.7	25.4
G Magnetic V stand-off	1	MGN-VEE-1000	1.0	1	MGN-VEE-1000-M	25.4	25.4
B Magnetic V-Block Set	2	VB-001	2.45	1	VB-001-M	62	25.4

Stand-Offs and Rest Pads							
Inch: 1/4-20, dimensions in inch					Metric: M6, dimensions in mm		
Description	Qty.	Part #	A	B	Part #	A	B
E Plastic Height Adjuster	1	STOF-ADJ	1.13	1.25	STOF-ADJ-M	28.7	31.8
A Plastic Cones	1	STOF-CONE	.5	.5	STOF-CONE	12.7	19
C Stand-off	1	STOF-050-075	.5	.5	STOF-050-M20	12.7	19
C Stand-off	1	STOF-050-100	.5	1.00	STOF-050-M25	12.7	25.4
C Stand-off	1	STOF-050-200	.5	2.00	STOF-050-M50	12.7	50
F Pin rest	1	STPR-050-050	.5	.5	STPR-050-M12.5	12.7	12.7
F Pin rest	2	STPR-075-050	.5	.5	STPR-075-M12.5	19	12.7
C Stand-off	1	STOF-075-075	.5	.5	STOF-075-M20	19	19
C Stand-off	1	STOF-075-100	.5	1.00	STOF-075-M25	19	25.4
C Stand-off	1	STOF-075-200	.5	2.00	STOF-075-M50	19	50

Articulating and Adjustable Stand-Offs							
Inch: 1/4-20, dimensions in inch					Metric: M6, dimensions in mm		
Description	Qty.	Part #	A	B	Part #	A	B
H Adjustable stand-off	1	STAJ-500	.5	1	STAJ-500-M6	12.7	25.4
I Adjustable stand-off	1	STAJ-750	.75	1	STAJ-750-M6	19	25.4
J Adjustable knuckle	1	STOF-KNCL-750	.75	1	STOF-KNCL-750-M6	19	25.4
E Plastic Height Adjuster	1	STOF-ADJ	1.13	1.25	STOF-ADJ-M	28.7	31.8
A Plastic Cones	1	STOF-CONE	.5	.75	STOF-CONE-M	12.7	19
C Stand-off	1	STOF-050-100	.5	1	STOF-050-M25	12.7	25.4
C Stand-off	1	STOF-075-100	.75	1	STOF-075-M25	19	25.4

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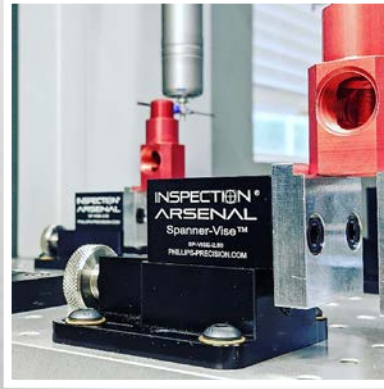
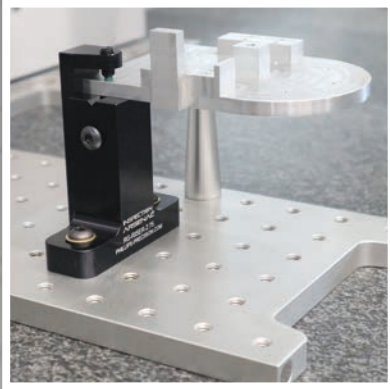
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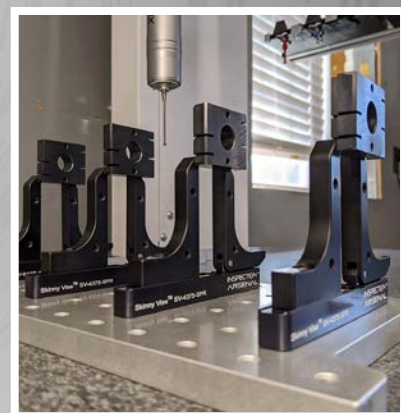
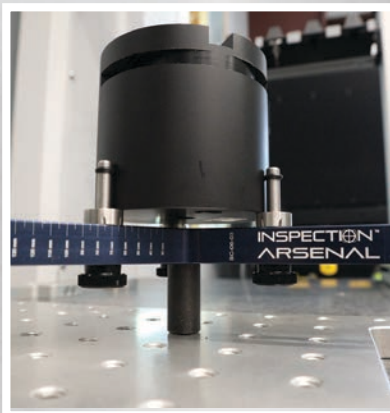
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