



Precision Workholding Technology

DYNOGRIP™ DYNOLOCK™ DYNOMOUNT™
QUICK CHANGE, ZERO POINT 52/96 SYSTEM



Headquartered in Anoka, Minnesota, in a 300,000 sq. ft. (28,000m²) state-of-the-art facility.

SEVEN DECADES OF EXCELLENCE

Founded in 1962, Mate is a world-class manufacturer of superior solutions for the metal cutting and metal forming industries. We manufacture workholding systems, CNC punch press tooling, and offer a complete line of press brake tooling and laser consumables. Mate products and services are available worldwide, fully supported by more than 80 dealers in every industrialized country.

PERSONAL, RESPECTFUL RELATIONSHIPS

Mate does business with people, not companies. Our connection to you is personal. Mate's team of manufacturing and metalworking professionals knows what you go through. We know what it's like to compete for that next job, manage deadlines or even need a rescue. With Mate you have a partner that respects your knowledge and is dedicated to helping you succeed.

YOUR GO-TO SOURCE

Serving our customers is at the core of who we are. In your plant or on the phone, we're up for whatever metalworking challenges you face. Your Mate representatives are experts who know from experience what happens on the shop floor and provide our legendary in-field support. They speak your language, fully capable of helping you improve processes and solve problems. Mate customer service is ready to assist with fast quotes, guiding your order on to our top-notch machinists and shipping pros.

GET INSPIRED!

With our vast knowledge and broad product range we inspire innovative thinking. Our customer's projects can be seen around the world: from unique building façades thought to be impossible to make, to a new way to add strength to thin material. The possibilities are endless, so think big, bold and beyond.

WE'VE GOT YOU COVERED

Dedicated to quality in every aspect of our business, Mate offers an extensive standard product line that can be delivered with same day or next day service. All Mate products are backed with our industry leading 100% customer satisfaction guarantee.



MATE'S MISSION AND PROMISE TO YOU:

Mate's mission is to personally **Respect, Support** and **Inspire** metalworking professionals around the world with high-quality products and services for factory productivity.

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Welcome to Mate Workholding

Increase your factory productivity with the next generation 52/96 zero point workholding system from Mate Precision Technologies: Mate DynoGrip™ Vises, Mate DynoLock™ Bases and Mate DynoMount™ Mounts and Accessories.

Mate understands your challenges. We have decades of machining experience producing precision, high quality steel products for customers around the world. Using this knowledge, Mate designed and developed the ultimate workholding system. Mate Workholding is truly made for machinists by machinists.

The Mate 52/96 zero point workholding system maximizes holding power in a compact, quick change modular design that reduces setup time and process variability. It is ideal for 3-, 4- and 5-axis machining centers. Going beyond machining, it can be used in a variety of applications such as inspection, CMM, cleaning, washing, assembly and additive manufacturing.

A zero point system, Mate 52/96 workholding is compatible with similar systems, including 52mm and 96mm four post pull stud configurations from Lang, Jergens, 5th Axis, Gerardi and others. The vises also accept a single pull stud configuration for compatibility with Schunk, Big Daishowa and others. By using the appropriate adapter, Mate 52/96 zero point vises are easily modified to work with systems from SMW, Erowa, System 3R and others.

With an eye to factory automation, the Mate 52/96 zero point workholding system includes QuickSpecs™, a unique product identification system that provides real-time access to product information and potential integration into your business systems. Additionally, the product supports common robotic interfaces and palletizing systems.

Made in the USA. Made for people who respect well-made, quality products. Made for machinists by machinists.



SELF-CENTERING VISE SYSTEM

DYNOGRIP SELF-CENTERING VISES

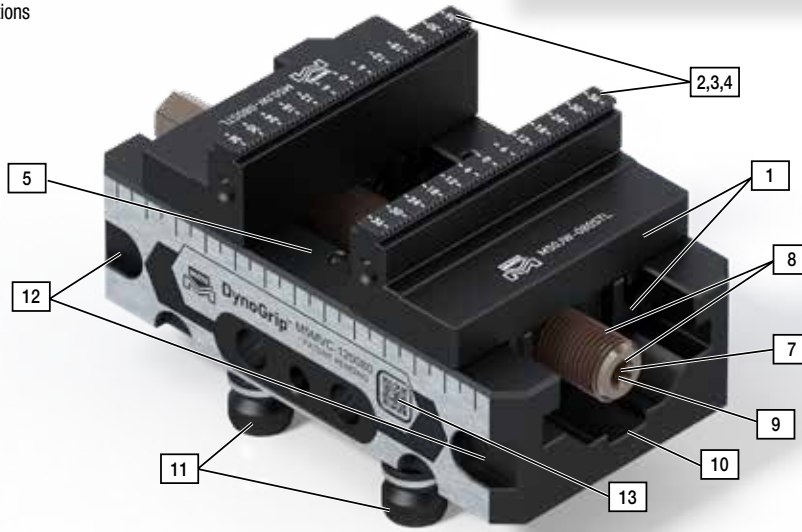
Not just any compact quick change vise system, Mate DynoGrip self-centering vises are engineered to shorten setup time and reduce process variability. A closer look at the following product highlights shows just how much thought went into designing and building the DynoGrip vise system.

Product highlights:

- Maximum holding power in a compact form with minimal part lift
- Best-in-class accuracy of vise clamping on center to $\pm 0.015\text{mm}$ ($\pm 0.0006''$)
- Best-in-class repeatability of vise return to center of 0.010mm ($0.0004''$)
- Quick change jaws, reversible and interchangeable, no tools required
- Jaws made from highly-alloyed, tool steel (core hardness 45-50 HRC, surface hardness up to 65HRC)
- Black Diamond™ surface treatment on vise body, pushers and jaws for maximum life
- Zero Point quality engagement with 52mm and 96mm four post pull stud pattern
- Compatible with other mounting systems or mount directly to the machine bed
- Available in 14 size variations
- Patented design
- Made in USA

Best-In-Class		
Accuracy:	$\pm 0.015\text{mm}$	$\pm 0.0006''$
Repeatability:	0.010mm	$0.0004''$

Torque and Force				
	52 with 60mm Jaw	52 with 80mm Jaw	96 with 80mm Jaw	96 with 125mm Jaw
Max Torque	60Nm	60Nm	130Nm	130Nm
Max Force	19kN	23kN	31kN	34kN
Max Torque	44 ft-lbs	44 ft-lbs	95 ft-lbs	95 ft-lbs
Max Force	4300 lbf	5200 lbf	7000 lbf	7650 lbf



1. Anti-Lift Design - the pusher and jaw exert downward force on the piece part
2. Quick change jaws, hardened, interchangeable and reversible, no tools required to attach or remove
3. Three-In-One multi-grip jaw design for maximum flexibility-parallel, 45° dovetail, and precision serrated tooth standard with every jaw
4. Serrated tooth geometry for superior bite and downward force, with a built-in dovetail design for the most demanding applications
5. Designed to accept an optional center jaw to hold two piece parts at one time
6. Optional machinable jaw adapter with integrated quick change feature and steel or aluminum jaw blanks (not shown)
7. Best in class precision lead screw manufactured from premium tool steel and controlled heat treatment, tempering and proprietary TiCN coating
8. Synchronized timed threads on both the lead screw and pushers - repeatable precision centering, interchangeable replacement components
9. Lead screw and center support assembly are easily micro adjustable, fine calibration
10. Angled channels and side ports for better swarf and coolant flow
11. Pull studs highly wear resistant with optimized geometry to ensure better location repeatability and lock down force when used with DynoLock bases
12. Toe Clamp engagement option for direct mount to machine table
13. Mate's QuickSpecs™ QR code tag that is smartphone enabled and 3D graphic supported, with links to full product specs and CAD files
14. Compatible with competitor bases. Requires applicable pull studs and hardware
15. Compatible with Schunk Vero-S and other ZPS connection systems. Requires applicable pull studs and hardware
16. Black Diamond™ surface treatment on vise body, pushers and jaws for maximum life
17. Jaws are end stop ready

<https://www.mate.com/patents/>





BASE SYSTEM

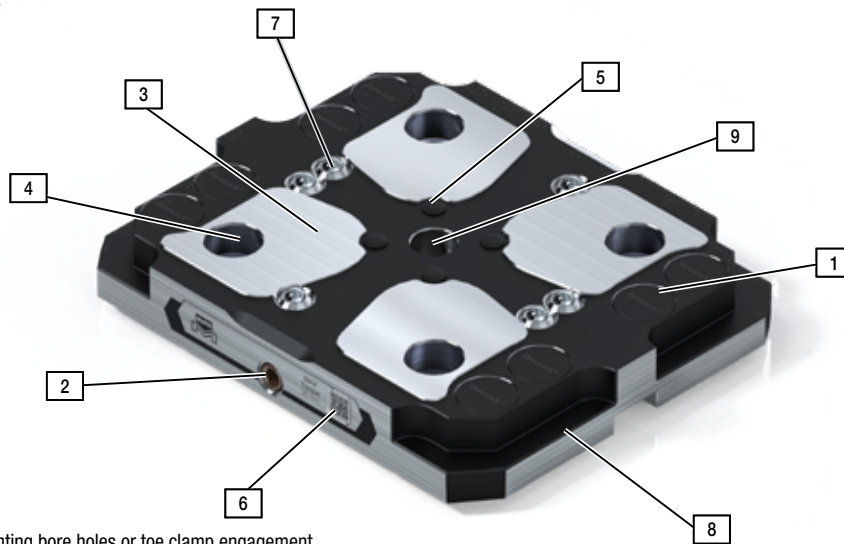
Mate's DynoLock quick change base system is the foundation of your workholding and the key to superior productivity. DynoLock bases mount to the machine bed, tombstone, pyramid, riser or dual right angle. Offering best-in-class accuracy and repeatability, DynoLock maintains a superior holding force with the top tool. Whether you change the same vise repeatedly or exchange it for a different one, DynoLock has what it takes to securely hold your vise. Mate DynoLock bases reduce your machine setup times and keeps you in the cut.

Product highlights:

- Best-in-class accuracy - engaging top tool on center to $\pm 0.013\text{mm}$ ($\pm 0.0005''$)
- Best-in-class repeatability - engagement of top tool to same location 0.005mm ($0.0002''$)
- Best in-class holding force - secure hold of top tool. Force required to separate top tool 0.013mm ($0.0005''$) from 52 base is greater than 22kN (5000lb) and 26kN (6000lb) in 96 base
- Lowest input torque to output force
- Black Diamond™ surface treatment on vise body, pushers and jaws for maximum life
- Pull studs are firmly secured and held by a collar which has superior holding functionality
- Zero Point quality engagement as all four pull studs are drawn to the base center for superior accuracy
- Available in 15 size variations
- Patented design
- Made in USA

Best-In-Class		
Accuracy:	$\pm 0.013\text{mm}$	$\pm 0.0005''$
Repeatability:	0.005mm	$0.0002''$

Torque and Force		
	52	96
Max Torque	20Nm	20Nm
Max Holding Force	22kN	26kN
Max Torque	175 in-lbs	175 in-lbs
Max Holding Force	5000 lbf	6000 lbf



1. Table mount options: mounting bore holes or toe clamp engagement
2. Manually actuated using standard 6mm hex
3. Raised contact pads ensures better flatness and improved machining debris removal
4. Collar style pull stud engagement design - centering distribution for superior holding force and repeatability
5. Poka-Yoke alignment feature
6. Mate's QuickSpecs™ QR code tag that is smartphone enabled and 3D graphic supported, with links to full product specs and CAD files
7. Lifters (ball plungers) help to lift the vise off of the contact surfaces of the base making vise removal easier
8. Toe Clamp engagement option for direct mounting to the machine table
9. Precision center probe hole for acquiring location indicator readings
10. Compatible with competitor vises if Mate pull studs are attached
11. Optional bottom centering plates and alignment keys for direct mount to machine tables or trunnions

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TOMBSTONES

DynoMount three- and four-sided tombstones are designed for use with Mate DynoLock 52 Series and 96 Series bases. Using a chambered design for weight reduction, Mate DynoMount tombstones include a hoist ring lift connection for easy load and unload. Features Mate's QuickSpecs™ QR code tag that is smartphone enabled and 3D graphic supported, with links to full product specs and CAD files. Compatible with some competitor bases when used with applicable bushings and hardware. Available as a tombstone only or assembled with DynoLock bases.

52 Series - 3 Sided, 4 Sided**96 Series - 4 Sided**

DUAL RIGHT ANGLES

DynoMount dual right angle mounts are for applications set perpendicular to the table. Designed for use with Mate DynoLock 52 Series and 96 Series bases, dual right angle mounts can be setup and used on one or both sides. Features Mate's QuickSpecs™ QR code tag that is smartphone enabled and 3D graphic supported, with links to full product specs and CAD files. Designed to be pull stud mounted to a compatible base, the dual right angle is also direct-to-table mount ready. Compatible with some competitor bases when used with applicable bushings and hardware. Available as a dual right angle only or assembled with DynoLock bases.

52 Series - 2 Sided**96 Series - 2 Sided**



PYRAMIDS

DynoMount three-sided pyramids are designed for use with Mate DynoLock 52 Series and 96 Series bases. Using a chambered design for weight reduction, pyramids also include a hoist ring lift connection for easy load and unload. Features Mate's QuickSpecs™ QR code tag that is smartphone enabled and 3D graphic supported, with links to full product specs and CAD files. Designed to be pull stud mounted to a compatible base, pyramids are also direct-to-table mount ready. Compatible with some competitor bases when used with applicable bushings and hardware. Available as a pyramid only or assembled with DynoLock bases.

52 Series - 3 Sided



96 Series - 3 Sided



RISERS

Risers are designed for use with Mate DynoLock 52 Series and 96 Series bases. Available with a total 60mm (2.36") or 100mm (3.94") additional height. Features Mate's QuickSpecs™ QR code tag that is smartphone enabled and 3D graphic supported, with links to full product specs and CAD files. Mate risers use a pull stud mounting to a compatible base. Compatible with some competitor bases when used with applicable bushings and hardware. Available as a riser only or assembled with DynoLock bases.

52 Series - 60mm, 100mm



96 Series - 60mm, 100mm





DynoGrip Vises - 52 Series



52 Vise Assembly 95 60	
See Page 9	M5MVC-095060
Jaw Width	60mm
Max Opening	95mm
Torque (Nm)	60Nm



52 Vise Assembly 120 60	
See Page 10	M5MVC-120060
Jaw Width	60mm
Max Opening	120mm
Torque (Nm)	60Nm



52 Vise Assembly 95 80	
See Page 11	M5MVC-095080
Jaw Width	80mm
Max Opening	95mm
Torque (Nm)	60Nm



52 Vise Assembly 120 80	
See Page 12	M5MVC-120080
Jaw Width	80mm
Max Opening	120mm
Torque (Nm)	60Nm



52 Vise Assembly w/o Pull Studs 120 80	
See Page 13	M5MVE-120080-01
Jaw Width	80mm
Max Opening	120mm
Torque (Nm)	60Nm



52 Vise Assembly 160 80	
See Page 14	M5MVC-160080
Jaw Width	80mm
Max Opening	160mm
Torque (Nm)	60Nm



52 Vise Assembly 200 80	
See Page 15	M5MVC-200080
Jaw Width	80mm
Max Opening	200mm
Torque (Nm)	60Nm

DynoGrip Vises - 96 Series



96 Vise Assembly 155 80	
See Page 16	M9MVC-155080
Jaw Width	80mm
Max Opening	155mm
Torque (Nm)	130Nm



96 Vise Assembly 205 80	
See Page 17	M9MVC-205080
Jaw Width	80mm
Max Opening	205mm
Torque (Nm)	130Nm



96 Vise Assembly 155 125	
See Page 18	M9MVC-155125
Jaw Width	125mm
Max Opening	155mm
Torque (Nm)	130Nm



96 Vise Assembly 205 125	
See Page 19	M9MVC-205125
Jaw Width	125mm
Max Opening	205mm
Torque (Nm)	130Nm



96 Vise Assembly 255 125	
See Page 20	M9MVC-255125
Jaw Width	125mm
Max Opening	255mm
Torque (Nm)	130Nm



96 Vise Assembly 305 125	
See Page 21	M9MVC-305125
Jaw Width	125mm
Max Opening	305mm
Torque (Nm)	130Nm



96 Vise Assembly 355 125	
See Page 22	M9MVC-355125
Jaw Width	125mm
Max Opening	355mm
Torque (Nm)	130Nm

[Dimensions in mm(in)]. Images are proportionate but not to scale.





M5MVC-095060

	Information	Metric	Imperial
Jaw Width		60mm	2.36"
Jaw Grip to Grip Maximum Opening		95mm	3.74"
Jaw Face to Face Maximum Opening		91mm	3.58"
Maximum Torque	See Page 24	60Nm	44 ft-lbs
Maximum Clamping Force	See Page 24	19kN	4300 lbf
Double Part Capable (requires Center Jaw)	See Page 63		
Machinable Jaw Compatible	See Page 64		
Lead Screw Diameter		16mm	0.63"
Lead Screw Hex Size External		12mm	
Lead Screw Hex Size Internal		6mm	
Vise Overall Length		117mm	4.61"
Vise Overall Width		80mm	3.15"
Vise Overall Height		65mm	2.56"
Vise Overall Weight		2.6kg	5.8lbs
Vise Rotational Clearance	See Page 76	146mm	5.75"

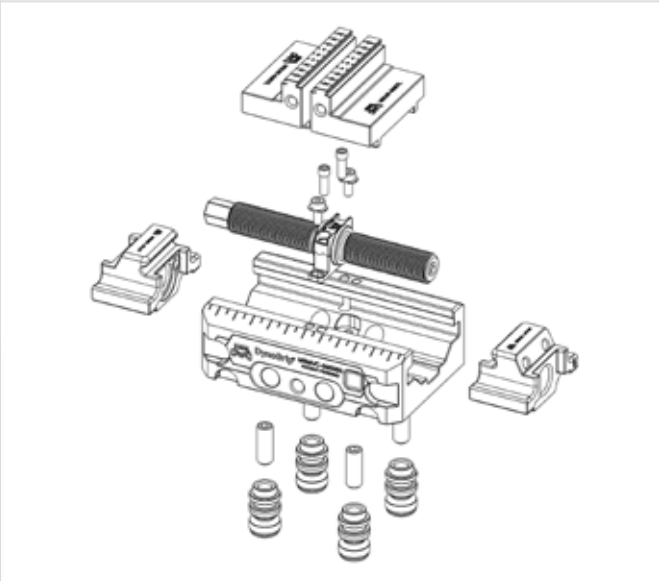
Accessories		Page
Standard Jaw (Pair)	M50JP-060STL	63
Pull Stud (Set of 4)	M5MAC-PS	74
Jaw Pusher (Kit of L and R)	M5MAC-JP	74
Lead Screw Assembly	M5MLS-095	74
Hardened Center Jaw	M50JC-060STL	63
Machinable Steel Jaw	M50JW-060ST2	64
Machinable Aluminum Jaw	M50JW-060AL2	64
Machinable Hard Jaw	M50JW-060HS2	68
Machinable Hard Center Jaw	M50JC-060HS2	68
Speed Wrench	M5MAC-SW12	74
40mm Indexing Pin	M00AC-PN-01	77
40mm Pin A Kit	M00AC-PN-02	77
Torque Wrench Kit	M5MAC-VT	78
Calibration Pin Kit	M5MAC-CP	74

Assembly - M5MVC-095060



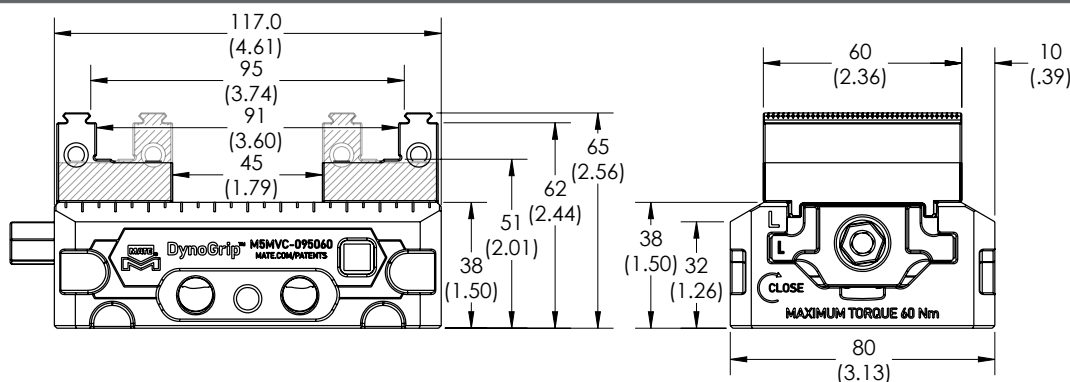
Exploded View

SEE PAGE 23 FOR BOM DETAILS



Compatible Base Assemblies		Page
52 Base Assembly 116 Round	M5MBR-116-01	28
52 Base Assembly 116 Round	M5MBR-116-02	29
52 Base Assembly 157 Round	M5MBR-157-01	30
52 Base Assembly 157 Round	M5MBR-157-02	31
52 Base Assembly 104 Square	M5MBS-104-01	32
52 Base Assembly 116 150 Rectangle	M5MBX-116150-02	33
Adapter	M9MBA-126150	43

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M5MVC-120060

	Information	Metric	Imperial
Jaw Width		60mm	2.36"
Jaw Grip to Grip Maximum Opening		120mm	4.72"
Jaw Face to Face Maximum Opening		116mm	4.57"
Maximum Torque	See Page 24	60Nm	44 ft-lbs
Maximum Clamping Force	See Page 24	19kN	4300 lbf
Double Part Capable (requires Center Jaw)	See Page 63		
Machinable Jaw Compatible	See Page 64		
Lead Screw Diameter		16mm	0.63"
Lead Screw Hex Size External		12mm	
Lead Screw Hex Size Internal		6mm	
Vise Overall Length		142mm	5.59"
Vise Overall Width		80mm	3.15"
Vise Overall Height		65mm	2.56"
Vise Overall Weight		3.0kg	6.7lbs
Vise Rotational Clearance	See Page 76	168mm	6.61"

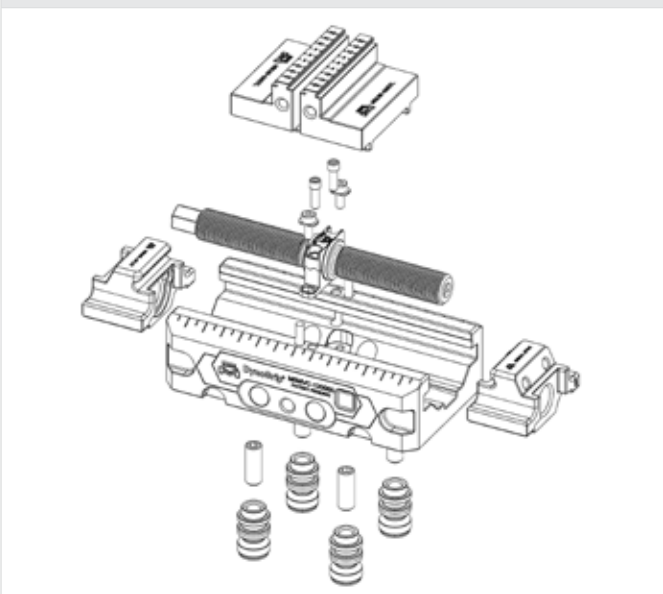
Accessories		Page
Standard Jaw (Pair)	M50JP-060STL	63
Pull Stud (Set of 4)	M5MAC-PS	74
Jaw Pusher (Kit of L and R)	M5MAC-JP	74
Lead Screw Assembly	M5MLS-120	74
Hardened Center Jaw	M50JC-060STL	63
Machinable Steel Jaw	M50JW-060ST2	64
Machinable Aluminum Jaw	M50JW-060AL2	64
Machinable Hard Jaw	M50JW-060HS2	68
Machinable Hard Center Jaw	M50JC-060HS2	68
Speed Wrench	M5MAC-SW12	74
40mm Indexing Pin	M00AC-PN-01	77
40mm Pin A Kit	M00AC-PN-02	77
Torque Wrench Kit	M5MAC-VT	78
Calibration Pin Kit	M5MAC-CP	74

Assembly - M5MVC-120060



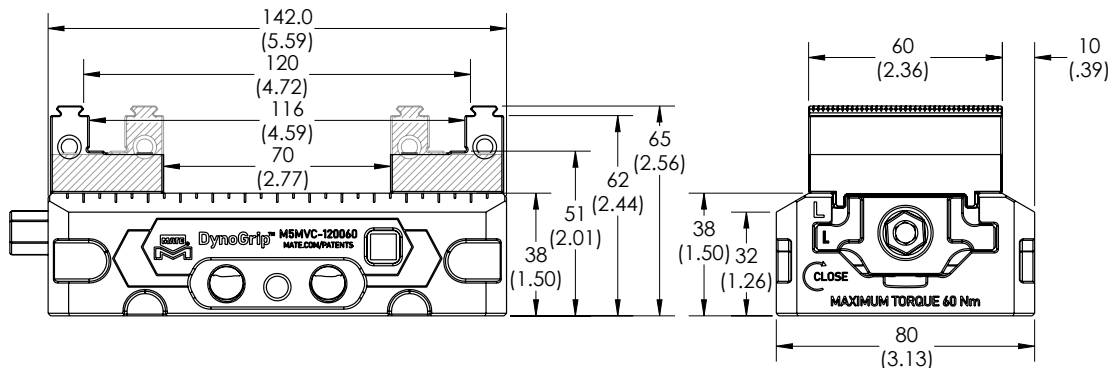
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Compatible Base Assemblies			Page
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52 Base Assembly 116 Round	M5MBR-116-02		29
52 Base Assembly 157 Round	M5MBR-157-01		30
52 Base Assembly 157 Round	M5MBR-157-02		31
52 Base Assembly 104 Square	M5MBS-104-01		32
52 Base Assembly 116 150 Rectangle	M5MBX-116150-02		33
Adapter	M9MBA-126150		43

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M5MVC-095080

	Information	Metric	Imperial
Jaw Width		80mm	3.15"
Jaw Grip to Grip Maximum Opening		95mm	3.74"
Jaw Face to Face Maximum Opening		91mm	3.58"
Maximum Torque	See Page 24	60Nm	44 ft-lbs
Maximum Clamping Force	See Page 24	23kN	5200 lbf
Double Part Capable (requires Center Jaw)	See Page 63		
Machinable Jaw Compatible	See Page 65		
Lead Screw Diameter		16mm	0.63"
Lead Screw Hex Size External		12mm	
Lead Screw Hex Size Internal		6mm	
Vise Overall Length		117mm	4.61"
Vise Overall Width		80mm	3.15"
Vise Overall Height		65mm	2.56"
Vise Overall Weight		2.9kg	6.3lbs
Vise Rotational Clearance	See Page 76	146mm	5.75"

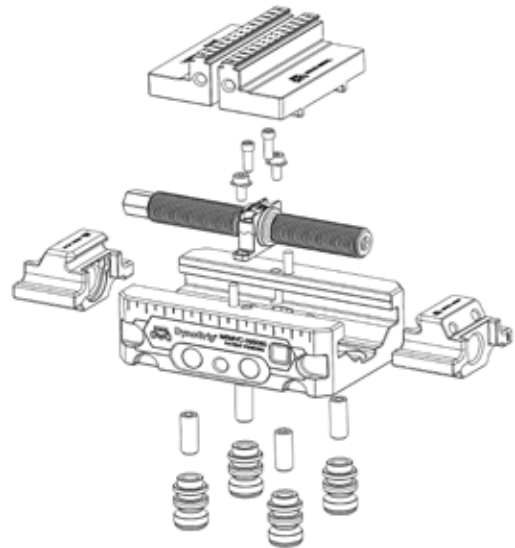
Accessories		Page
Standard Jaw (Pair)	M50JP-080STL	63
Pull Stud (Set of 4)	M5MAC-PS	74
Jaw Pusher (Kit of L and R)	M5MAC-JP	74
Lead Screw Assembly	M5MLS-095	74
Hardened Center Jaw	M50JC-080STL	63
Machinable Steel Jaw	M50JW-080ST2	65
Machinable Aluminum Jaw	M50JW-080AL2	65
Machinable Hard Jaw	M50JW-080HS2	69
Machinable Hard Center Jaw	M50JC-080HS2	69
Speed Wrench	M5MAC-SW12	74
40mm Indexing Pin	M00AC-PN-01	77
40mm Pin A Kit	M00AC-PN-02	77
Torque Wrench Kit	M5MAC-VT	78
Calibration Pin Kit	M5MAC-CP	74

Assembly - M5MVC-095080



Exploded View

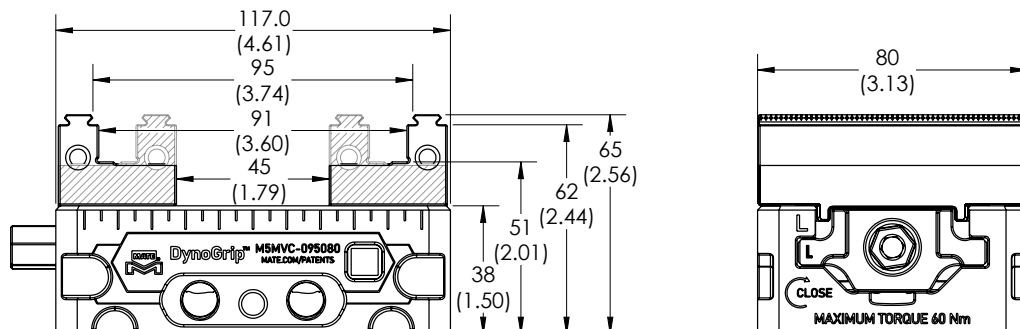
SEE PAGE 23 FOR BOM DETAILS



Compatible Base Assemblies

Compatible Base Assemblies		Page
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52 Base Assembly 116 Round	M5MBR-116-02	29
52 Base Assembly 157 Round	M5MBR-157-01	30
52 Base Assembly 157 Round	M5MBR-157-02	31
52 Base Assembly 104 Square	M5MBS-104-01	32
52 Base Assembly 116 150 Rectangle	M5MBX-116150-02	33
Adapter	M9MBA-126150	43

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M5MVC-120080

	Information	Metric	Imperial
Jaw Width		80mm	3.15"
Jaw Grip to Grip Maximum Opening		120mm	4.72"
Jaw Face to Face Maximum Opening		116mm	4.57"
Maximum Torque	See Page 24	60Nm	44 ft-lbs
Maximum Clamping Force	See Page 24	23kN	5200 lbf
Double Part Capable (requires Center Jaw)	See Page 63		
Machinable Jaw Compatible	See Page 65		
Lead Screw Diameter		16mm	0.63"
Lead Screw Hex Size External		12mm	
Lead Screw Hex Size Internal		6mm	
Vise Overall Length		142mm	5.59"
Vise Overall Width		80mm	3.15"
Vise Overall Height		65mm	2.56"
Vise Overall Weight		3.3kg	7.2lbs
Vise Rotational Clearance	See Page 76	168mm	6.61"

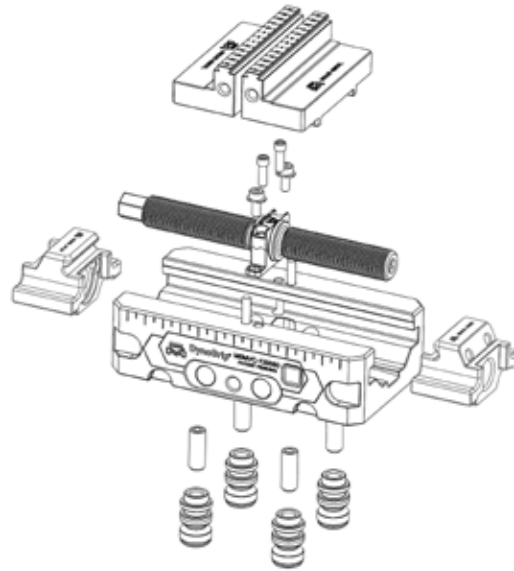
Accessories		Page
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Pull Stud (Set of 4)	M5MAC-PS	74
Jaw Pusher (Kit of L and R)	M5MAC-JP	74
Lead Screw Assembly	M5MLS-120	74
Hardened Center Jaw	M50JC-080STL	63
Machinable Steel Jaw	M50JW-080ST2	65
Machinable Aluminum Jaw	M50JW-080AL2	65
Machinable Hard Jaw	M50JW-080HS2	69
Machinable Hard Center Jaw	M50JC-080HS2	69
Speed Wrench	M5MAC-SW12	74
40mm Indexing Pin	M00AC-PN-01	77
40mm Pin A Kit	M00AC-PN-02	77
Torque Wrench Kit	M5MAC-VT	78
Calibration Pin Kit	M5MAC-CP	74

Assembly - M5MVC-120080



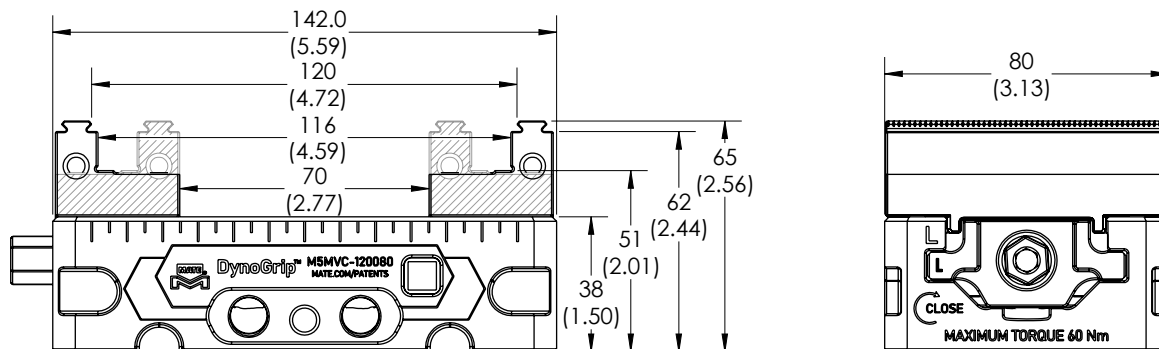
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52 Base Assembly 116 Round	M5MBR-116-01	28
52 Base Assembly 116 Round	M5MBR-116-02	29
52 Base Assembly 157 Round	M5MBR-157-01	30
52 Base Assembly 157 Round	M5MBR-157-02	31
52 Base Assembly 104 Square	M5MBS-104-01	32
52 Base Assembly 116 150 Rectangle	M5MBX-116150-02	33
Adapter	M9MBA-126150	43

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.



M5MVE-120080-01

	Information	Metric	Imperial
Jaw Width		80mm	3.15"
Jaw Grip to Grip Maximum Opening		120mm	4.72"
Jaw Face to Face Maximum Opening		116mm	4.57"
Maximum Torque	See Page 24	60Nm	44 ft-lbs
Maximum Clamping Force	See Page 24	23kN	5200 lbf
Double Part Capable (requires Center Jaw)	See Page 63		
Machinable Jaw Compatible	See Page 65		
Lead Screw Diameter		16mm	0.63"
Lead Screw Hex Size External		12mm	
Lead Screw Hex Size Internal		6mm	
Vise Overall Length		142mm	5.59"
Vise Overall Width		120mm	4.72"
Vise Overall Height		65mm	2.56"
Vise Overall Weight		4.3kg	9.5lbs
Vise Rotational Clearance	See Page 76	180mm	7.09"

Accessories		Page
Standard Jaw (Pair)	M50JP-080STL	63
Pull Stud (Set of 4)	M5MAC-PS	74
Jaw Pusher (Kit of L and R)	M5MAC-JP	74
Lead Screw Assembly	M5MLS-120	74
Hardened Center Jaw	M50JC-080STL	63
Machinable Steel Jaw	M50JW-080ST2	65
Machinable Aluminum Jaw	M50JW-080AL2	65
Machinable Hard Jaw	M50JW-080HS2	69
Machinable Hard Center Jaw	M50JC-080HS2	69
Speed Wrench	M5MAC-SW12	74
Torque Wrench Kit	M5MAC-VT	78
Calibration Pin Kit	M5MAC-CP	74

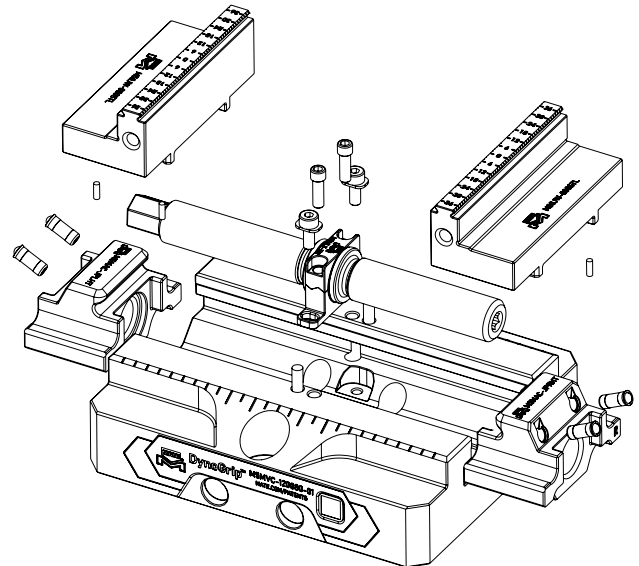
Assembly - M5MVE-120080-01*



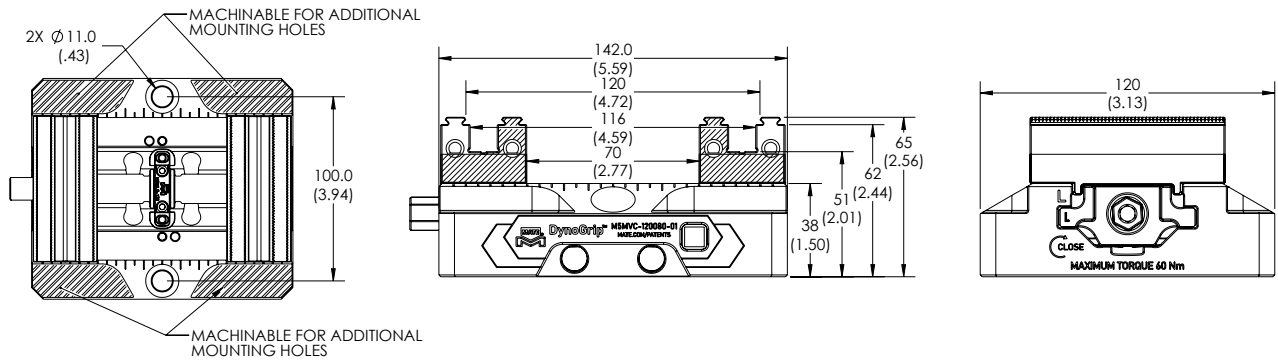
*Direct Mount Vise, does not include pull studs

Exploded View

SEE PAGE 23 FOR BOM DETAILS



Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.



M5MVC-160080

	Information	Metric	Imperial
Jaw Width		80mm	3.15"
Jaw Grip to Grip Maximum Opening		160mm	6.30"
Jaw Face to Face Maximum Opening		156mm	6.14"
Maximum Torque	See Page 24	60Nm	44 ft-lbs
Maximum Clamping Force	See Page 24	23kN	5200 lbf
Double Part Capable (requires Center Jaw)	See Page 63		
Machinable Jaw Compatible	See Page 65		
Lead Screw Diameter		16mm	0.63"
Lead Screw Hex Size External		12mm	
Lead Screw Hex Size Internal		6mm	
Vise Overall Length		182mm	7.17"
Vise Overall Width		80mm	3.15"
Vise Overall Height		65mm	2.56"
Vise Overall Weight		3.9kg	8.6lbs
Vise Rotational Clearance	See Page 76	208mm	8.19"

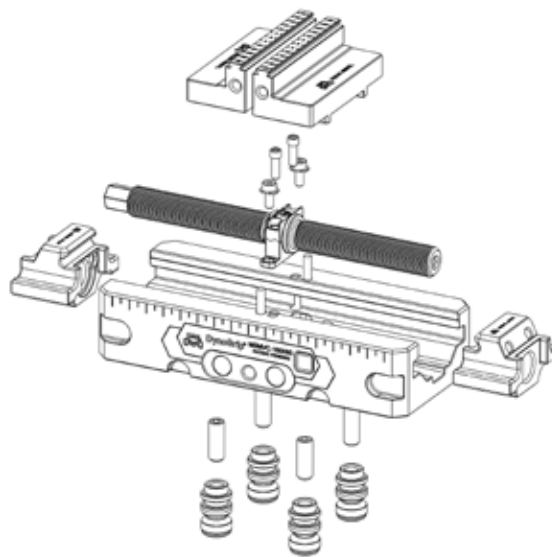
Accessories		Page
Standard Jaw (Pair)	M50JP-080STL	63
Pull Stud (Set of 4)	M5MAC-PS	74
Jaw Pusher (Kit of L and R)	M5MAC-JP	74
Lead Screw Assembly	M5MLS-160	74
Hardened Center Jaw	M50JC-080STL	63
Machinable Steel Jaw	M50JW-080ST2	65
Machinable Aluminum Jaw	M50JW-080AL2	65
Machinable Hard Jaw	M50JW-080HS2	69
Machinable Hard Center Jaw	M50JC-080HS2	69
Speed Wrench	M5MAC-SW12	74
40mm Indexing Pin	M00AC-PN-01	77
40mm Pin A Kit	M00AC-PN-02	77
Torque Wrench Kit	M5MAC-VT	78
Calibration Pin Kit	M5MAC-CP	74

Assembly - M5MVC-160080



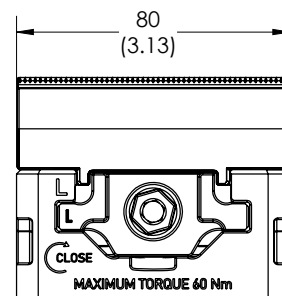
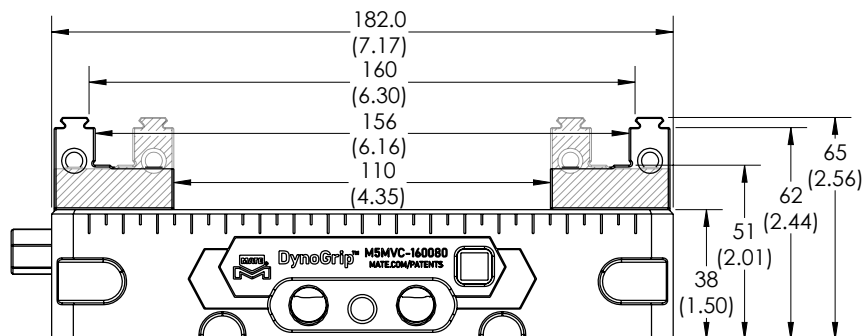
Exploded View

SEE PAGE 23 FOR BOM DETAILS



Compatible Base Assemblies		Page
52 Base Assembly 116 Round	M5MBR-116-01	28
52 Base Assembly 116 Round	M5MBR-116-02	29
52 Base Assembly 157 Round	M5MBR-157-01	30
52 Base Assembly 157 Round	M5MBR-157-02	31
52 Base Assembly 104 Square	M5MBS-104-01	32
52 Base Assembly 116 150 Rectangle	M5MBX-116150-02	33
Adapter	M9MBA-126150	43

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.



M5MVC-200080

	Information	Metric	Imperial
Jaw Width		80mm	3.15"
Jaw Grip to Grip Maximum Opening		200mm	7.87"
Jaw Face to Face Maximum Opening		196mm	7.72"
Maximum Torque	See Page 24	60Nm	44 ft-lbs
Maximum Clamping Force	See Page 24	23kN	5200 lbf
Double Part Capable (requires Center Jaw)	See Page 63		
Machinable Jaw Compatible	See Page 65		
Lead Screw Diameter		16mm	0.63"
Lead Screw Hex Size External		12mm	
Lead Screw Hex Size Internal		6mm	
Vise Overall Length		222mm	8.74"
Vise Overall Width		80mm	3.15"
Vise Overall Height		65mm	2.56"
Vise Overall Weight		4.5kg	10.0lbs
Vise Rotational Clearance	See Page 76	251mm	9.88"

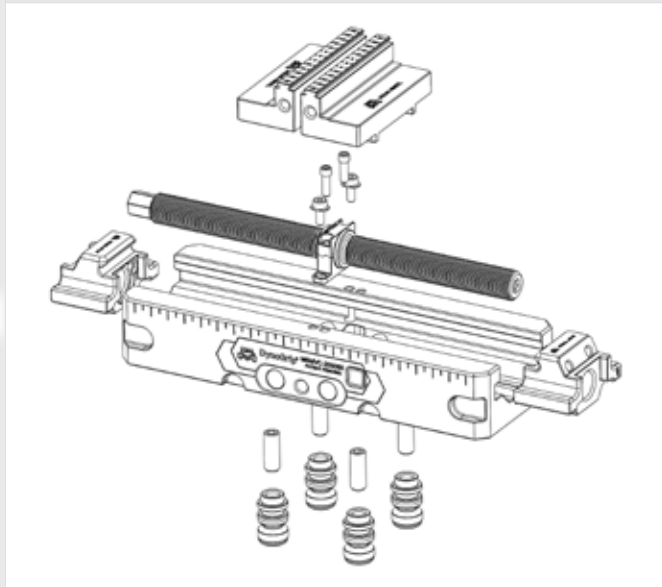
Accessories		Page
Standard Jaw (Pair)	M50JP-080STL	63
Pull Stud (Set of 4)	M5MAC-PS	74
Jaw Pusher (Kit of L and R)	M5MAC-JP	74
Lead Screw Assembly	M5MLS-200	74
Hardened Center Jaw	M50JC-080STL	63
Machinable Steel Jaw	M50JW-080ST2	65
Machinable Aluminum Jaw	M50JW-080AL2	65
Machinable Hard Jaw	M50JW-080HS2	69
Machinable Hard Center Jaw	M50JC-080HS2	69
Speed Wrench	M5MAC-SW12	74
40mm Indexing Pin	M00AC-PN-01	77
40mm Pin A Kit	M00AC-PN-02	77
Torque Wrench Kit	M5MAC-VT	78
Calibration Pin Kit	M5MAC-CP	74

Assembly - M5MVC-200080



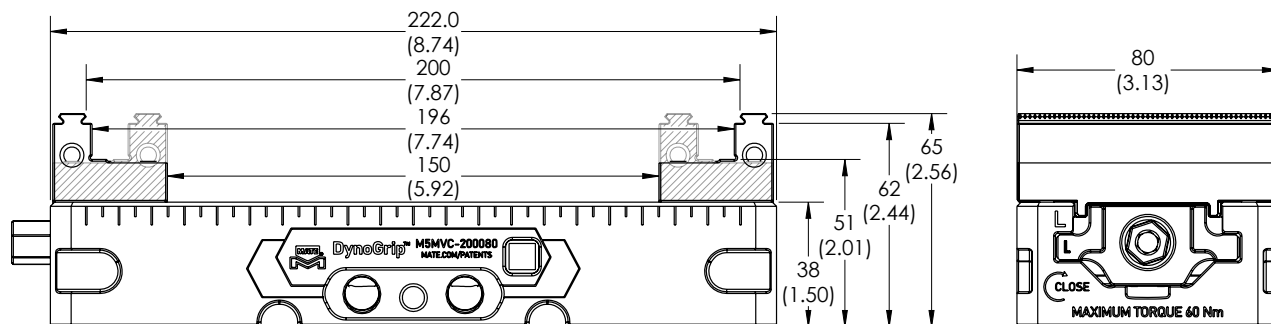
Exploded View

SEE PAGE 23 FOR BOM DETAILS



Compatible Base Assemblies		Page
52 Base Assembly 116 Round	M5MBR-116-01	28
52 Base Assembly 116 Round	M5MBR-116-02	29
52 Base Assembly 157 Round	M5MBR-157-01	30
52 Base Assembly 157 Round	M5MBR-157-02	31
52 Base Assembly 104 Square	M5MBS-104-01	32
52 Base Assembly 116 150 Rectangle	M5MBX-116150-02	33
Adapter	M9MBA-126150	43

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M9MVC-155080

	Information	Metric	Imperial
Jaw Width		80mm	3.15"
Jaw Grip to Grip Maximum Opening		155mm	6.10"
Jaw Face to Face Maximum Opening		149mm	5.87"
Maximum Torque	See Page 24	130Nm	95 ft-lbs
Maximum Clamping Force	See Page 24	31kN	7000 lbf
Double Part Capable (requires Center Jaw)	See Page 63		
Machinable Jaw Compatible	See Page 66		
Lead Screw Diameter		22mm	0.87"
Lead Screw Hex Size External		16mm	
Lead Screw Hex Size Internal		6mm	
Vise Overall Length		181mm	7.13"
Vise Overall Width		125mm	4.92"
Vise Overall Height		89mm	3.50"
Vise Overall Weight		8.5kg	18.8lbs
Vise Rotational Clearance	See Page 76	214mm	8.43"

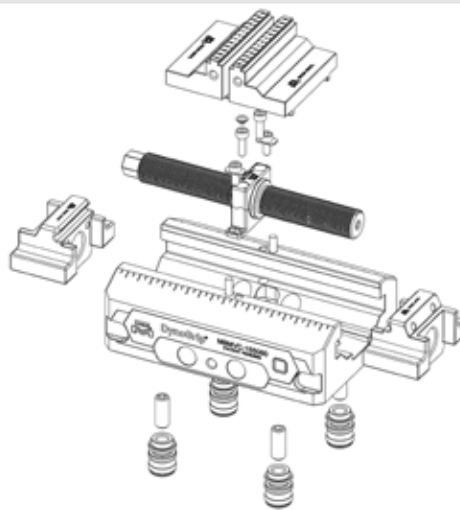
Accessories		Page
Standard Jaw (Pair)	M90JP-080STL	63
Pull Stud (Set of 4)	M9MAC-PS	74
Jaw Pusher (Kit of L and R)	M9MAC-JP	74
Lead Screw Assembly	M9MLS-155	74
Hardened Center Jaw	M90JC-080STL	63
Machinable Steel Jaw	M90JW-080ST2	66
Machinable Aluminum Jaw	M90JW-080AL2	66
Machinable Hard Jaw	M90JW-080HS2	70
Machinable Hard Center Jaw	M90JC-080HS2	70
Speed Wrench	M9MAC-SW16	74
40mm Indexing Pin	M00AC-PN-01	77
40mm Pin A Kit	M00AC-PN-02	77
Torque Wrench Kit	M9MAC-VT	78
Calibration Pin Kit	M9MAC-CP	74

Assembly - M9MVC-155080



Exploded View

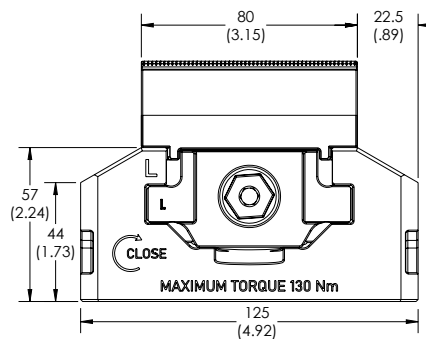
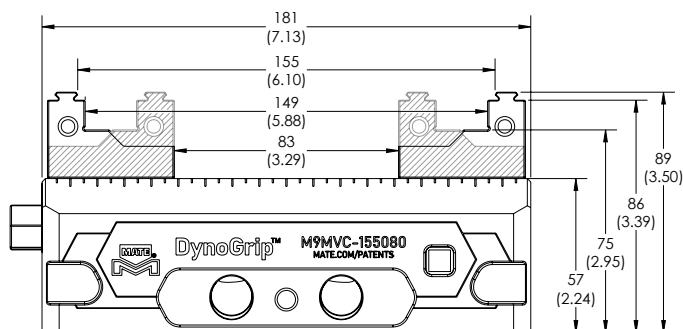
SEE PAGE 23 FOR BOM DETAILS



Compatible Base Assemblies

Compatible Base Assemblies		Page
96 Base Assembly 176 Round	M9MBR-176-01	34
96 Base Assembly 246 Round	M9MBR-246-01	35
96 Base Assembly 246 Round	M9MBR-246-02	36
96 Base Assembly 246 Round	M9MBR-246-03	37
96 Base Assembly 192 Square	M9MBS-192-01	38
96 Base Assembly 192 Square	M9MBS-192-02	39
96 Base Assembly 156 192 Rectangle	M9MBX-156192-02	40
96 Base Assembly 246 192 Rectangle	M9MBX-192246-01	41
96 Base Assembly 246 192 Rectangle	M9MBX-192246-02	42

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M9MVC-205080

	Information	Metric	Imperial
Jaw Width		80mm	3.15"
Jaw Grip to Grip Maximum Opening		205mm	8.07"
Jaw Face to Face Maximum Opening		199mm	7.83"
Maximum Torque	See Page 24	130Nm	95 ft-lbs
Maximum Clamping Force	See Page 24	31kN	7000 lbf
Double Part Capable (requires Center Jaw)	See Page 63		
Machinable Jaw Compatible	See Page 66		
Lead Screw Diameter		22mm	0.87"
Lead Screw Hex Size External		16mm	
Lead Screw Hex Size Internal		6mm	
Vise Overall Length		231mm	9.09"
Vise Overall Width		125mm	4.92"
Vise Overall Height		89mm	3.50"
Vise Overall Weight		10.4kg	22.8lbs
Vise Rotational Clearance	See Page 76	259mm	10.20"

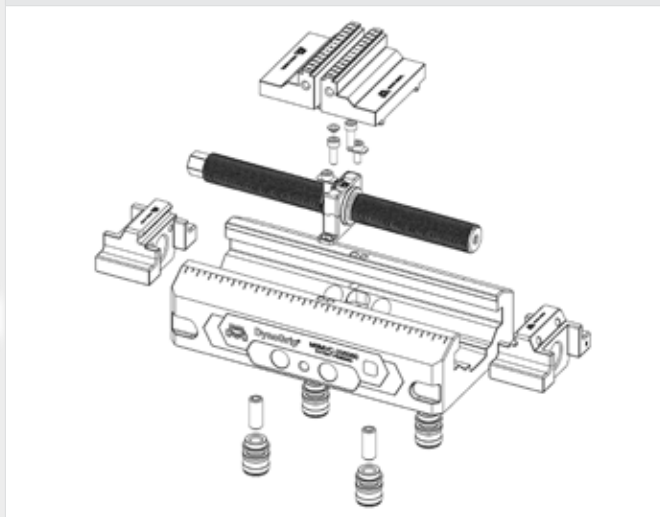
Accessories		Page
Standard Jaw (Pair)	M90JP-080STL	63
Pull Stud (Set of 4)	M9MAC-PS	74
Jaw Pusher (Kit of L and R)	M9MAC-JP	74
Lead Screw Assembly	M9MLS-205	74
Hardened Center Jaw	M90JC-080STL	63
Machinable Steel Jaw	M90JW-080ST2	66
Machinable Aluminum Jaw	M90JW-080AL2	66
Machinable Hard Jaw	M90JW-080HS2	70
Machinable Hard Center Jaw	M90JC-080HS2	70
Speed Wrench	M9MAC-SW16	74
40mm Indexing Pin	M00AC-PN-01	77
40mm Pin A Kit	M00AC-PN-02	77
Torque Wrench Kit	M9MAC-VT	78
Calibration Pin Kit	M9MAC-CP	74

Assembly - M9MVC-205080



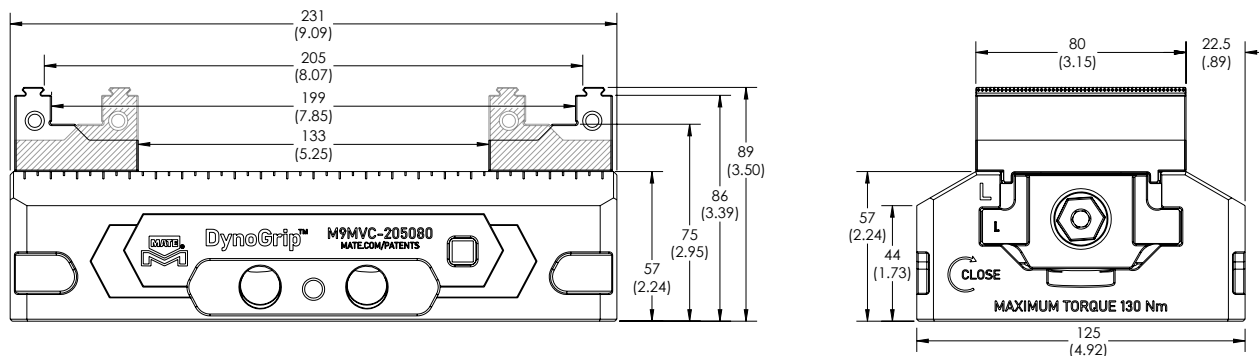
Exploded View

SEE PAGE 23 FOR BOM DETAILS



Compatible Base Assemblies			Page
96 Base Assembly 176 Round	M9MBR-176-01		34
96 Base Assembly 246 Round	M9MBR-246-01		35
96 Base Assembly 246 Round	M9MBR-246-02		36
96 Base Assembly 246 Round	M9MBR-246-03		37
96 Base Assembly 192 Square	M9MBS-192-01		38
96 Base Assembly 192 Square	M9MBS-192-02		39
96 Base Assembly 156 192 Rectangle	M9MBX-156192-02		40
96 Base Assembly 246 192 Rectangle	M9MBX-192246-01		41
96 Base Assembly 246 192 Rectangle	M9MBX-192246-02		42

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M9MVC-155125

	Information	Metric	Imperial
Jaw Width		125mm	4.92"
Jaw Grip to Grip Maximum Opening		155mm	6.10"
Jaw Face to Face Maximum Opening		149mm	5.87"
Maximum Torque	See Page 24	130Nm	95 ft-lbs
Maximum Clamping Force	See Page 24	34kN	7650 lbf
Double Part Capable (requires Center Jaw)	See Page 63		
Machinable Jaw Compatible	See Page 67		
Lead Screw Diameter		22mm	0.87"
Lead Screw Hex Size External		16mm	
Lead Screw Hex Size Internal		6mm	
Vise Overall Length		181mm	7.13"
Vise Overall Width		125mm	4.92"
Vise Overall Height		89mm	3.50"
Vise Overall Weight		9.5kg	21.0lbs
Vise Rotational Clearance	See Page 76	214mm	8.43"

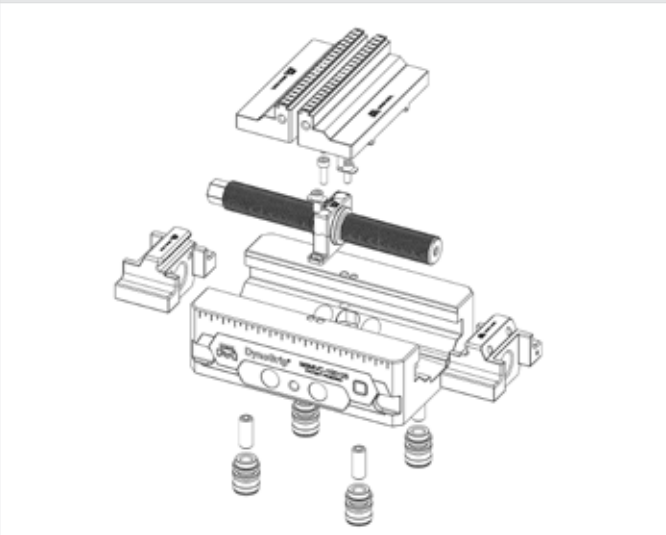
Accessories		Page
Standard Jaw (Pair)	M90JP-125STL	63
Pull Stud (Set of 4)	M9MAC-PS	74
Jaw Pusher (Kit of L and R)	M9MAC-JP	74
Lead Screw Assembly	M9MLS-155	74
Hardened Center Jaw	M90JC-125STL	63
Machinable Steel Jaw	M90JW-125ST2	67
Machinable Aluminum Jaw	M90JW-125AL2	67
Machinable Hard Jaw	M90JW-125HS2	71
Machinable Hard Center Jaw	M90JC-125HS2	71
Speed Wrench	M9MAC-SW16	74
40mm Indexing Pin	M00AC-PN-01	77
40mm Pin A Kit	M00AC-PN-02	77
Torque Wrench Kit	M9MAC-VT	78
Calibration Pin Kit	M9MAC-CP	74

Assembly - M9MVC-155125



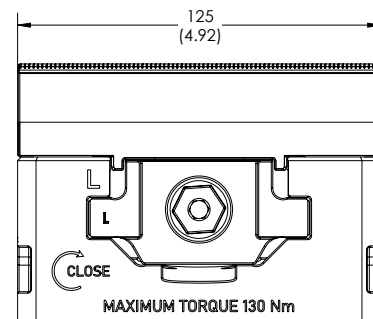
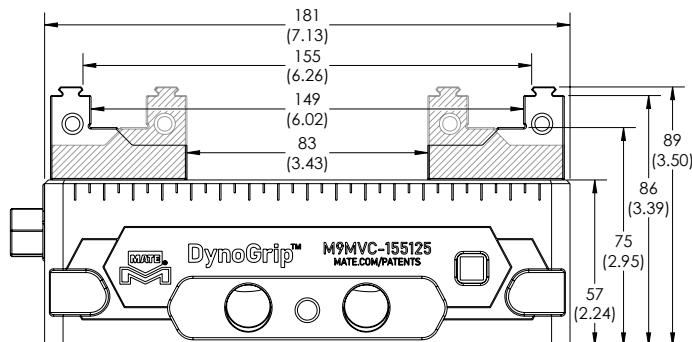
Exploded View

SEE PAGE 23 FOR BOM DETAILS



Compatible Base Assemblies			Page
96 Base Assembly 176 Round	M9MBR-176-01		34
96 Base Assembly 246 Round	M9MBR-246-01		35
96 Base Assembly 246 Round	M9MBR-246-02		36
96 Base Assembly 246 Round	M9MBR-246-03		37
96 Base Assembly 192 Square	M9MBS-192-01		38
96 Base Assembly 192 Square	M9MBS-192-02		39
96 Base Assembly 156 192 Rectangle	M9MBX-156192-02		40
96 Base Assembly 246 192 Rectangle	M9MBX-192246-01		41
96 Base Assembly 246 192 Rectangle	M9MBX-192246-02		42

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M9MVC-205125

	Information	Metric	Imperial
Jaw Width		125mm	4.92"
Jaw Grip to Grip Maximum Opening		205mm	8.07"
Jaw Face to Face Maximum Opening		199mm	7.83"
Maximum Torque	See Page 24	130Nm	95 ft-lbs
Maximum Clamping Force	See Page 24	34kN	7650 lbf
Double Part Capable (requires Center Jaw)	See Page 63		
Machinable Jaw Compatible	See Page 67		
Lead Screw Diameter		22mm	0.87"
Lead Screw Hex Size External		16mm	
Lead Screw Hex Size Internal		6mm	
Vise Overall Length		231mm	9.09"
Vise Overall Width		125mm	4.92"
Vise Overall Height		89mm	3.50"
Vise Overall Weight		11.5kg	25.3lbs
Vise Rotational Clearance	See Page 76	259mm	10.20"

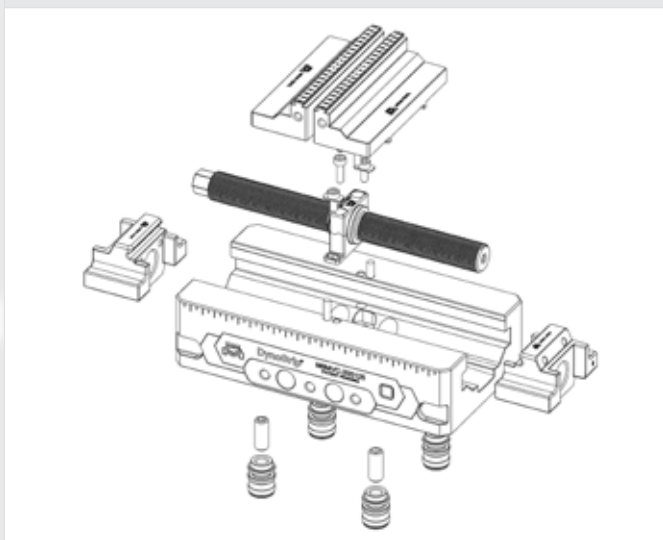
Accessories		Page
Standard Jaw (Pair)	M90JP-125STL	63
Pull Stud (Set of 4)	M9MAC-PS	74
Jaw Pusher (Kit of L and R)	M9MAC-JP	74
Lead Screw Assembly	M9MLS-205	74
Hardened Center Jaw	M90JC-125STL	63
Machinable Steel Jaw	M90JW-125ST2	67
Machinable Aluminum Jaw	M90JW-125AL2	67
Machinable Hard Jaw	M90JW-125HS2	71
Machinable Hard Center Jaw	M90JC-125HS2	71
Speed Wrench	M9MAC-SW16	74
40mm Indexing Pin	M00AC-PN-01	77
40mm Pin A Kit	M00AC-PN-02	77
Torque Wrench Kit	M9MAC-VT	78
Calibration Pin Kit	M9MAC-CP	74

Assembly - M9MVC-205125



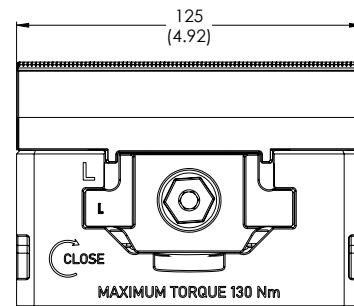
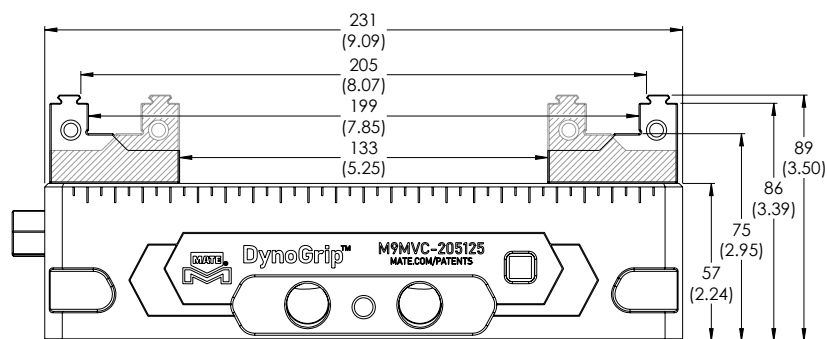
Exploded View

SEE PAGE 23 FOR BOM DETAILS



Compatible Base Assemblies			Page
96 Base Assembly 176 Round	M9MBR-176-01		34
96 Base Assembly 246 Round	M9MBR-246-01		35
96 Base Assembly 246 Round	M9MBR-246-02		36
96 Base Assembly 246 Round	M9MBR-246-03		37
96 Base Assembly 192 Square	M9MBS-192-01		38
96 Base Assembly 192 Square	M9MBS-192-02		39
96 Base Assembly 156 192 Rectangle	M9MBX-156192-02		40
96 Base Assembly 246 192 Rectangle	M9MBX-192246-01		41
96 Base Assembly 246 192 Rectangle	M9MBX-192246-02		42

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.



M9MVC-255125

	Information	Metric	Imperial
Jaw Width		125mm	4.92"
Jaw Grip to Grip Maximum Opening		255mm	10.04"
Jaw Face to Face Maximum Opening		249mm	9.80"
Maximum Torque	See Page 24	130Nm	95 ft-lbs
Maximum Clamping Force	See Page 24	34kN	7650 lbf
Double Part Capable (requires Center Jaw)	See Page 63		
Machinable Jaw Compatible	See Page 67		
Lead Screw Diameter		22mm	0.87"
Lead Screw Hex Size External		16mm	
Lead Screw Hex Size Internal		6mm	
Vise Overall Length		281mm	11.06"
Vise Overall Width		125mm	4.92"
Vise Overall Height		89mm	3.50"
Vise Overall Weight		13.5kg	29.6lbs
Vise Rotational Clearance	See Page 76	307mm	12.09"

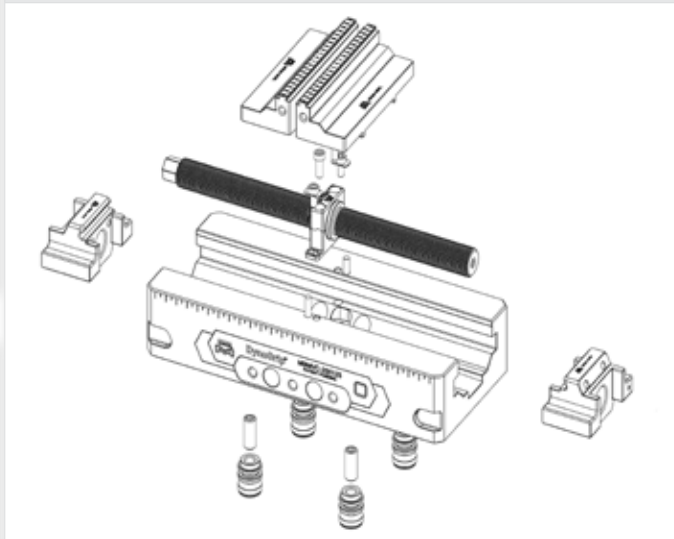
Accessories		Page
Standard Jaw (Pair)	M90JP-125STL	63
Pull Stud (Set of 4)	M9MAC-PS	74
Jaw Pusher (Kit of L and R)	M9MAC-JP	74
Lead Screw Assembly	M9MLS-255	74
Hardened Center Jaw	M90JC-125STL	63
Machinable Steel Jaw	M90JW-125ST2	67
Machinable Aluminum Jaw	M90JW-125AL2	67
Machinable Hard Jaw	M90JW-125HS2	71
Machinable Hard Center Jaw	M90JC-125HS2	71
Speed Wrench	M9MAC-SW16	74
40mm Indexing Pin	M00AC-PN-01	77
40mm Pin A Kit	M00AC-PN-02	77
40mm Pin B Kit	M00AC-PN-03	77
Torque Wrench Kit	M9MAC-VT	78

Assembly - M9MVC-255125



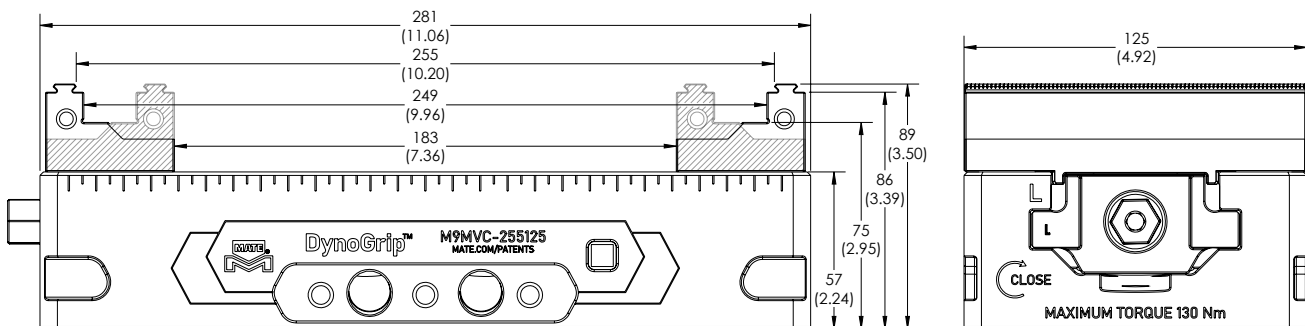
Exploded View

SEE PAGE 23 FOR BOM DETAILS



Compatible Base Assemblies		Page
96 Base Assembly 176 Round	M9MBR-176-01	34
96 Base Assembly 246 Round	M9MBR-246-01	35
96 Base Assembly 246 Round	M9MBR-246-02	36
96 Base Assembly 246 Round	M9MBR-246-03	37
96 Base Assembly 192 Square	M9MBS-192-01	38
96 Base Assembly 192 Square	M9MBS-192-02	39
96 Base Assembly 156 192 Rectangle	M9MBX-156192-02	40
96 Base Assembly 246 192 Rectangle	M9MBX-192246-01	41
96 Base Assembly 246 192 Rectangle	M9MBX-192246-02	42

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M9MVC-305125

	Information	Metric	Imperial
Jaw Width		125mm	4.92"
Jaw Grip to Grip Maximum Opening		305mm	12.01"
Jaw Face to Face Maximum Opening		299mm	11.77"
Maximum Torque	See Page 24	130Nm	95 ft-lbs
Maximum Clamping Force	See Page 24	34kN	7650 lbf
Double Part Capable (requires Center Jaw)	See Page 63		
Machinable Jaw Compatible	See Page 67		
Lead Screw Diameter		22mm	0.87"
Lead Screw Hex Size External		16mm	
Lead Screw Hex Size Internal		6mm	
Vise Overall Length		331mm	13.03"
Vise Overall Width		125mm	4.92"
Vise Overall Height		89mm	3.50"
Vise Overall Weight		15.4kg	33.9lbs
Vise Rotational Clearance	See Page 76	357mm	14.06"

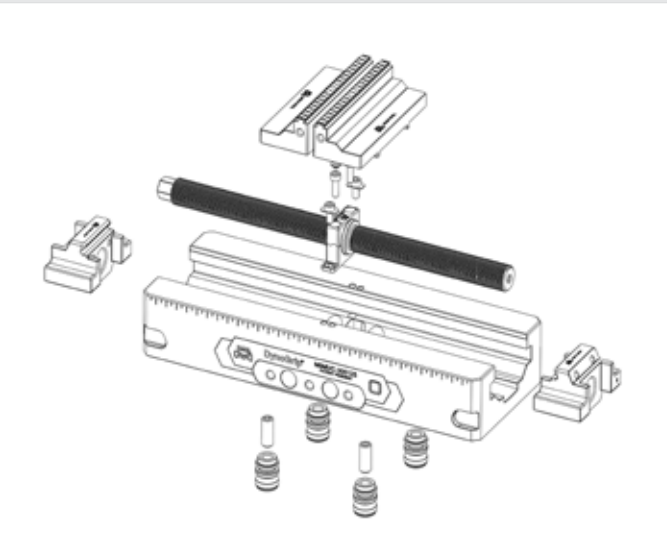
Accessories		Page
Standard Jaw (Pair)	M90JP-125STL	63
Pull Stud (Set of 4)	M9MAC-PS	74
Jaw Pusher (Kit of L and R)	M9MAC-JP	74
Lead Screw Assembly	M9MLS-305	74
Hardened Center Jaw	M90JC-125STL	63
Machinable Steel Jaw	M90JW-125ST2	67
Machinable Aluminum Jaw	M90JW-125AL2	67
Machinable Hard Jaw	M90JW-125HS2	71
Machinable Hard Center Jaw	M90JC-125HS2	71
Speed Wrench	M9MAC-SW16	74
40mm Indexing Pin	M00AC-PN-01	77
40mm Pin A Kit	M00AC-PN-02	77
40mm Pin B Kit	M00AC-PN-03	77
Torque Wrench Kit	M9MAC-VT	78

Assembly - M9MVC-305125



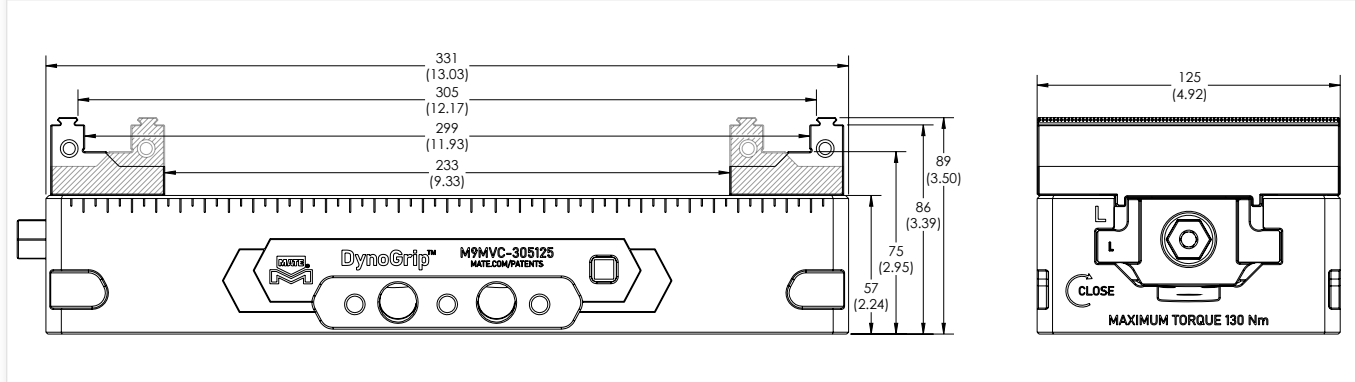
Exploded View

SEE PAGE 23 FOR BOM DETAILS



Compatible Base Assemblies		Page
96 Base Assembly 176 Round	M9MBR-176-01	34
96 Base Assembly 246 Round	M9MBR-246-01	35
96 Base Assembly 246 Round	M9MBR-246-02	36
96 Base Assembly 246 Round	M9MBR-246-03	37
96 Base Assembly 192 Square	M9MBS-192-01	38
96 Base Assembly 192 Square	M9MBS-192-02	39
96 Base Assembly 156 192 Rectangle	M9MBX-156192-02	40
96 Base Assembly 246 192 Rectangle	M9MBX-192246-01	41
96 Base Assembly 246 192 Rectangle	M9MBX-192246-02	42

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M9MVC-355125

	Information	Metric	Imperial
Jaw Width		125mm	4.92"
Jaw Grip to Grip Maximum Opening		355mm	13.98"
Jaw Face to Face Maximum Opening		349mm	13.74"
Maximum Torque	See Page 24	130Nm	95 ft-lbs
Maximum Clamping Force	See Page 24	34kN	7650 lbf
Double Part Capable (requires Center Jaw)	See Page 63		
Machinable Jaw Compatible	See Page 67		
Lead Screw Diameter		22mm	0.87"
Lead Screw Hex Size External		16mm	
Lead Screw Hex Size Internal		6mm	
Vise Overall Length		381mm	15.00"
Vise Overall Width		125mm	4.92"
Vise Overall Height		89mm	3.50"
Vise Overall Weight		17.4kg	38.2lbs
Vise Rotational Clearance	See Page 76	407mm	16.02"

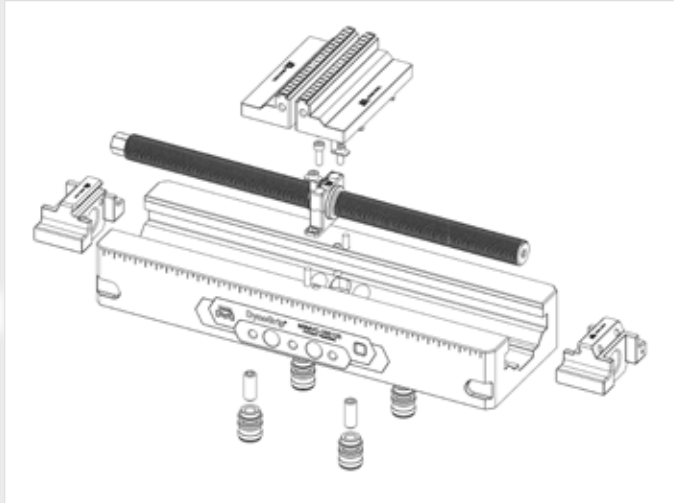
Accessories		Page
Standard Jaw (Pair)	M90JP-125STL	63
Pull Stud (Set of 4)	M9MAC-PS	74
Jaw Pusher (Kit of L and R)	M9MAC-JP	74
Lead Screw Assembly	M9MLS-355	74
Hardened Center Jaw	M90JC-125STL	63
Machinable Steel Jaw	M90JW-125ST2	67
Machinable Aluminum Jaw	M90JW-125AL2	67
Machinable Hard Jaw	M90JW-125HS2	71
Machinable Hard Center Jaw	M90JC-125HS2	71
Speed Wrench	M9MAC-SW16	74
40mm Indexing Pin	M00AC-PN-01	77
40mm Pin A Kit	M00AC-PN-02	77
40mm Pin B Kit	M00AC-PN-03	77
Torque Wrench Kit	M9MAC-VT	78
Calibration Pin Kit	M9MAC-CP	74

Assembly - M9MVC-355125



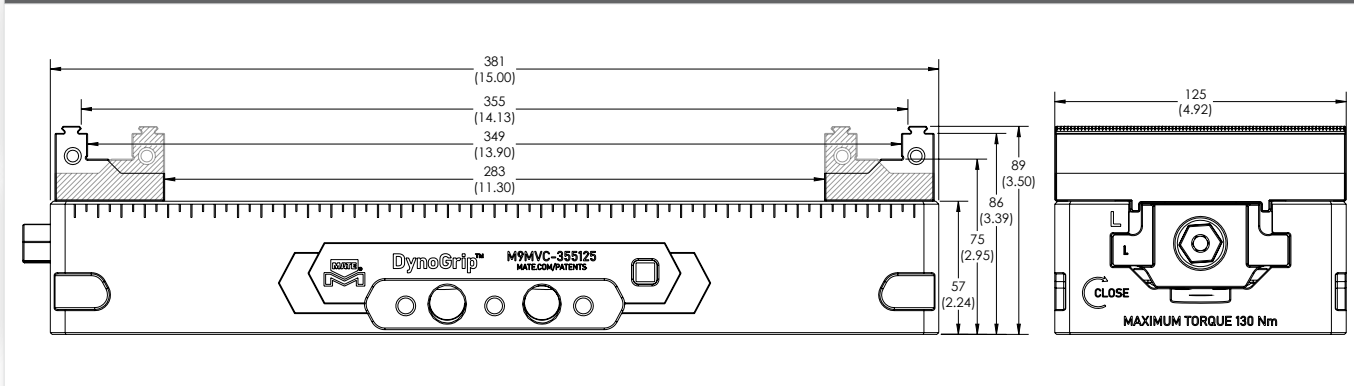
Exploded View

SEE PAGE 23 FOR BOM DETAILS



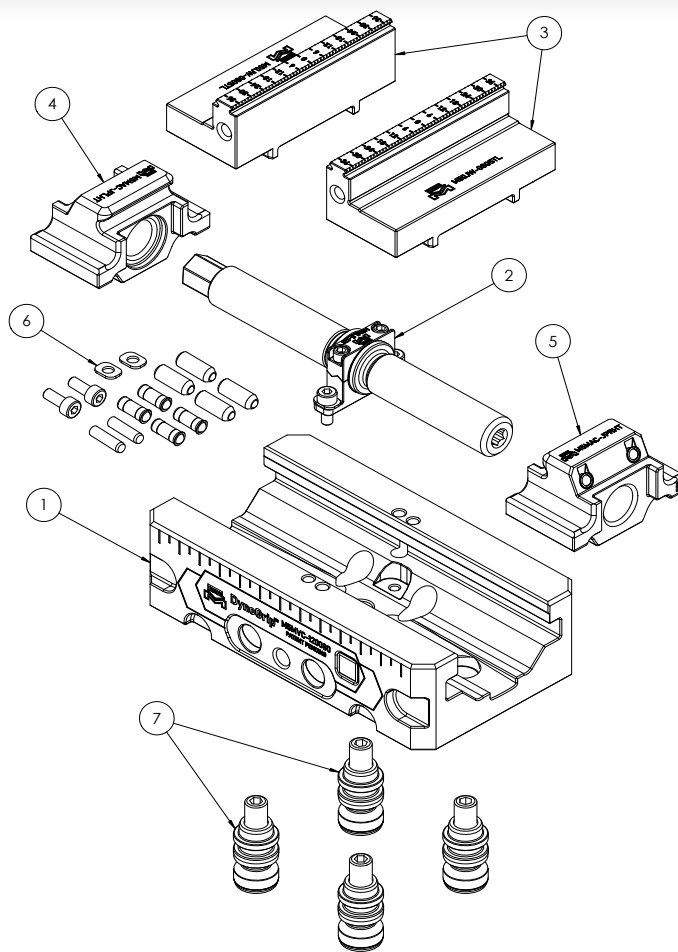
Compatible Base Assemblies			Page
96 Base Assembly 176 Round	M9MBR-176-01		34
96 Base Assembly 246 Round	M9MBR-246-01		35
96 Base Assembly 246 Round	M9MBR-246-02		36
96 Base Assembly 246 Round	M9MBR-246-03		37
96 Base Assembly 192 Square	M9MBS-192-01		38
96 Base Assembly 192 Square	M9MBS-192-02		39
96 Base Assembly 156 192 Rectangle	M9MBX-156192-02		40
96 Base Assembly 246 192 Rectangle	M9MBX-192246-01		41
96 Base Assembly 246 192 Rectangle	M9MBX-192246-02		42

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.



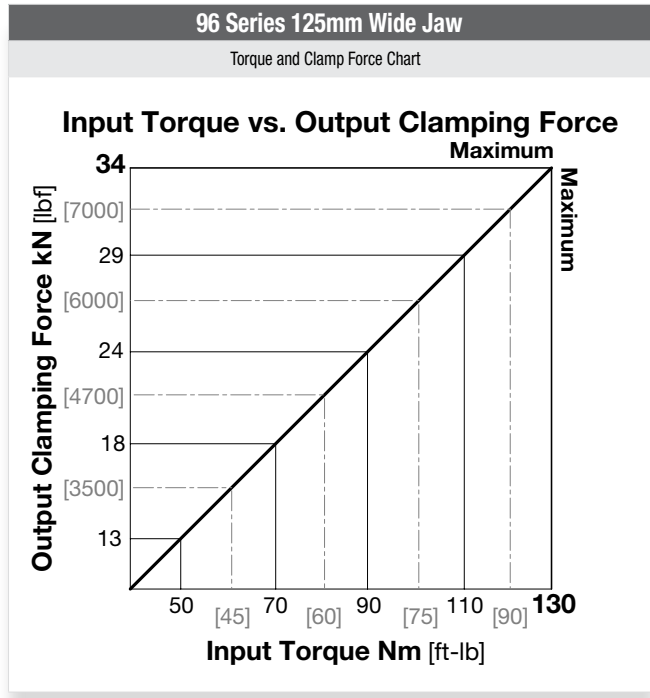
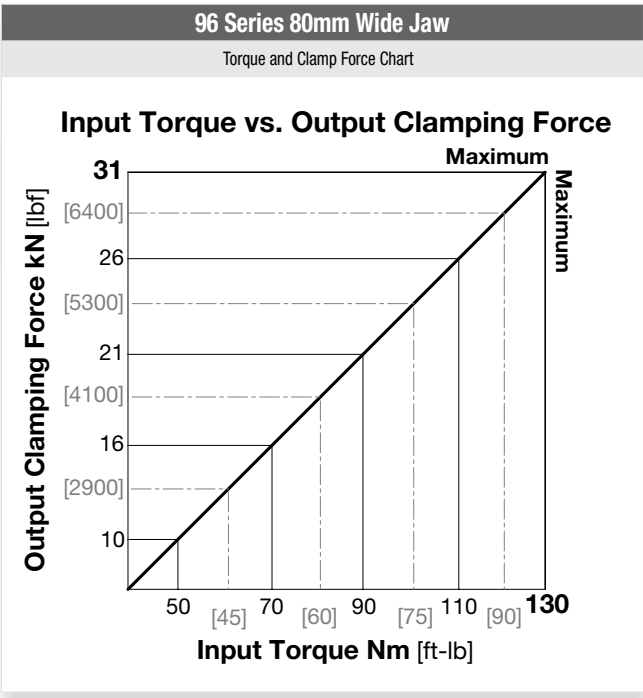
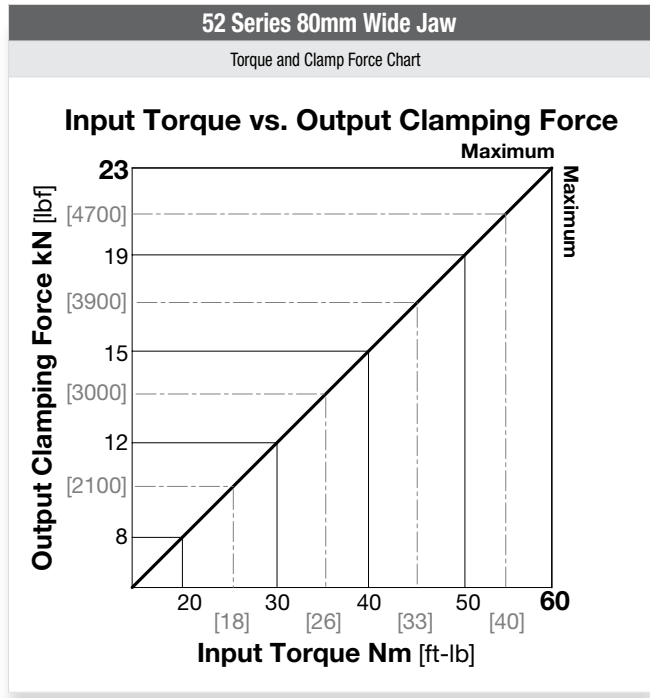
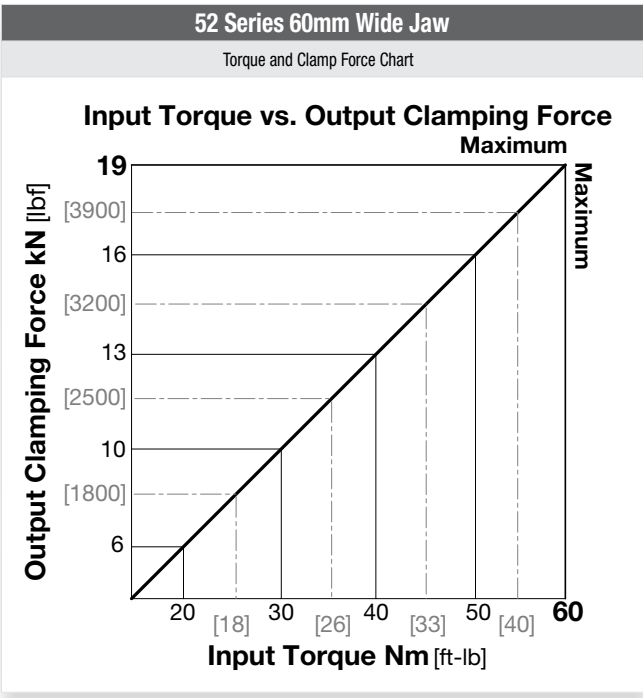


52 SERIES MODEL # (C, N, E & F):			M5MV_-095060	M5MV_-120060	M5MV_-095080	M5MV_-120080	M5MV_-120080-01	M5MV_-160080	M5MV_-200080
Balloon Item #	Description	QTY	Replacement Part Number						
1	Self Centering Vise Body	1	M5MVB-095060	M5MVB-120060	M5MVB-095080	M5MVB-120080	M5MVB-120080-01	M5MVB-160080	M5MVB-200080
2	Vise Lead Screw Assembly	1	M5MLS-095	M5MLS-120	M5MLS-095	M5MLS-120	M5MLS-120	M5MLS-160	M5MLS-200
3	Hardened Vise Jaws (C & E)	2	M50JW-060STL	M50JW-060STL	M50JW-080STL	M50JW-080STL	M50JW-080STL	M50JW-080STL	M50JW-080STL
4	Vise Jaw Pusher w/ Left Hand Thread	1	M5MAC-JPLHT	M5MAC-JPLHT	M5MAC-JPLHT	M5MAC-JPLHT	M5MAC-JPLHT	M5MAC-JPLHT	M5MAC-JPLHT
5	Vise Jaw Pusher w/ Right Hand Thread	1	M5MAC-JPRHT	M5MAC-JPRHT	M5MAC-JPRHT	M5MAC-JPRHT	M5MAC-JPRHT	M5MAC-JPRHT	M5MAC-JPRHT
6	Self Centering Vise Assembly Service Kit	1	M5MAC-VS	M5MAC-VS	M5MAC-VS	M5MAC-VS	M5MAC-VS	M5MAC-VS	M5MAC-VS
7	Pull Stud Kit (qty 4) (C & N)	1	M5MAC-PS	M5MAC-PS	M5MAC-PS	M5MAC-PS	NA	M5MAC-PS	M5MAC-PS

96 SERIES MODEL # (C, N, E & F):			M9MV_-155080	M9MV_-205080	M9MV_-155125	M9MV_-205125	M9MV_-255125	M9MV_-305125	M9MV_-355125
Balloon Item #	Description	QTY	Replacement Part Number						
1	Self Centering Vise Body	1	M9MVB-155080	M9MVB-205080	M9MVB-155125	M9MVB-205125	M9MVB-255125	M9MVB-305125	M9MVB-355125
2	Vise Lead Screw Assembly	1	M9MLS-155	M9MLS-205	M9MLS-155	M9MLS-205	M9MLS-255	M9MLS-305	M9MLS-355
3	Hardened Vise Jaws (C & E)	2	M90JW-080STL	M90JW-080STL	M90JW-125STL	M90JW-125STL	M90JW-125STL	M90JW-125STL	M90JW-125STL
4	Vise Jaw Pusher w/ Left Hand Thread	1	M9MAC-JPLHT	M9MAC-JPLHT	M9MAC-JPLHT	M9MAC-JPLHT	M9MAC-JPLHT	M9MAC-JPLHT	M9MAC-JPLHT
5	Vise Jaw Pusher w/ Right Hand Thread	1	M9MAC-JPRHT	M9MAC-JPRHT	M9MAC-JPRHT	M9MAC-JPRHT	M9MAC-JPRHT	M9MAC-JPRHT	M9MAC-JPRHT
6	Self Centering Vise Assembly Service Kit	1	M9MAC-VS	M9MAC-VS	M9MAC-VS	M9MAC-VS	M9MAC-VS	M9MAC-VS	M9MAC-VS
7	Pull Stud Kit (qty 4) (C & N)	1	M9MAC-PS	M9MAC-PS	M9MAC-PS	M9MAC-PS	M9MAC-PS	M9MAC-PS	M9MAC-PS

[Dimensions in mm(in)]. Images are proportionate but not to scale.





[Dimensions in mm(in)]. Images are proportionate but not to scale.



Table of Configurations for Wise Assemblies

Each variation is useful for specific user needs.

Variation VC is the most common configuration. **Vise Complete.** All standard components are included.

Variation VE is intended for use without (wo) pull studs. Vises are secured to the machine table using toe clamps.

Variation VF is intended for use without (wo) pull studs and choose to use the Mate machinable jaw options.

Variation VN is intended for applications using Mate machinable jaws.

Variation VB is the body only. Intended as a replaceable component.



Vise Options Defined		What is included?				
Variation	Description	Body	Standard Jaw (Pair)	Jaw Pusher (Kit of L and R)	Lead Screw Assembly	Pull Stud (Set of 4)
VC	Vise Assembly Complete	Included	Included	Included	Included	Included
VE	Vise Assembly wo Pull Studs	Included	Included	Included	Included	
VF	Vise Assembly wo Jaws wo Pull Studs	Included		Included	Included	
VN	Vise Assembly wo Jaws	Included		Included	Included	Included
VB	Vise Body Only	Included				

Page	52 Series / Size	Part Number	Variation
9	52 095 060 with Chamfer	M5MVC-095060	VC
	52 095 060 with Chamfer	M5MVE-095060	VE
	52 095 060 with Chamfer	M5MVF-095060	VF
	52 095 060 with Chamfer	M5MVN-095060	VN
	52 095 060 with Chamfer	M5MVB-095060	VB
10	52 120 060 with Chamfer	M5MVC-120060	VC
	52 120 060 with Chamfer	M5MVE-120060	VE
	52 120 060 with Chamfer	M5MVF-120060	VF
	52 120 060 with Chamfer	M5MVN-120060	VN
	52 120 060 with Chamfer	M5MVB-120060	VB
11	52 095 080	M5MVC-095080	VC
	52 095 080	M5MVE-095080	VE
	52 095 080	M5MVF-095080	VF
	52 095 080	M5MVN-095080	VN
	52 095 080	M5MVB-095080	VB
12	52 120 080	M5MVC-120080	VC
	52 120 080	M5MVE-120080	VE
	52 120 080	M5MVF-120080	VF
	52 120 080	M5MVN-120080	VN
	52 120 080	M5MVB-120080	VB
13	52 120 080	M5MVE-120080-01	VE
	52 120 080	M5MVF-120080-01	VF
	52 120 080	M5MVB-120080-01	VB
14	52 160 080	M5MVC-160080	VC
	52 160 080	M5MVE-160080	VE
	52 160 080	M5MVF-160080	VF
	52 160 080	M5MVN-160080	VN
	52 160 080	M5MVB-160080	VB
15	52 200 080	M5MVC-200080	VC
	52 200 080	M5MVE-200080	VE
	52 200 080	M5MVF-200080	VF
	52 200 080	M5MVN-200080	VN
	52 200 080	M5MVB-200080	VB

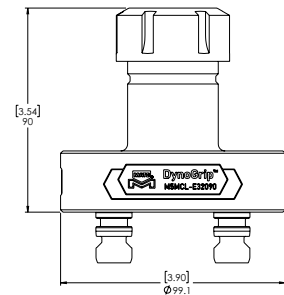
Page	96 Series / Size	Part Number	Variation
16	96 155 080 with Chamfer	M9MVC-155080	VC
	96 155 080 with Chamfer	M9MVE-155080	VE
	96 155 080 with Chamfer	M9MVF-155080	VF
	96 155 080 with Chamfer	M9MVN-155080	VN
	96 155 080 with Chamfer	M9MVB-155080	VB
17	96 205 080 with Chamfer	M9MVC-205080	VC
	96 205 080 with Chamfer	M9MVE-205080	VE
	96 205 080 with Chamfer	M9MVF-205080	VF
	96 205 080 with Chamfer	M9MVN-205080	VN
	96 205 080 with Chamfer	M9MVB-205080	VB
18	96 155 125	M9MVC-155125	VC
	96 155 125	M9MVE-155125	VE
	96 155 125	M9MVF-155125	VF
	96 155 125	M9MVN-155125	VN
	96 155 125	M9MVB-155125	VB
19	96 205 125	M9MVC-205125	VC
	96 205 125	M9MVE-205125	VE
	96 205 125	M9MVF-205125	VF
	96 205 125	M9MVN-205125	VN
	96 205 125	M9MVB-205125	VB
20	96 255 125	M9MVC-255125	VC
	96 255 125	M9MVE-255125	VE
	96 255 125	M9MVF-255125	VF
	96 255 125	M9MVN-255125	VN
	96 255 125	M9MVB-255125	VB
21	96 305 125	M9MVC-305125	VC
	96 305 125	M9MVE-305125	VE
	96 305 125	M9MVF-305125	VF
	96 305 125	M9MVN-305125	VN
	96 305 125	M9MVB-305125	VB
22	96 355 125	M9MVC-355125	VC
	96 355 125	M9MVE-355125	VE
	96 355 125	M9MVF-355125	VF
	96 355 125	M9MVN-355125	VN
	96 355 125	M9MVB-355125	VB

Mate DynoGrip ER Collet Chucks provide an easy and reliable solution for holding round parts during milling operations. They utilize industry-standard ER32 and ER40 collets to accommodate diameters from 2mm (0.08 in) to 32mm (1.26 in). For superior rigidity and longevity, Mate ER Collet Chucks use the same high-quality tool steels as the rest of our workholding line.

Product highlights:

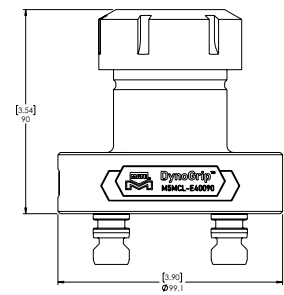
- High quality tool steel construction
- Compact size
- Zero Point quality engagement with 52mm four post pull stud pattern
- Made in USA

M5MCL-E32090			
	Information	Metric	Imperial
Collet Size	ER-32*		
Collet Gripping Range		2 - 20 mm	0.08- 0.79 in
Height		90mm	3.54"
Weight		2.0kg	4.4lbs
Material	A2 Tool Steel		



*ER collet not included

M5MCL-E40090			
	Information	Metric	Imperial
Collet Size	ER-40*		
Collet Gripping Range		3 - 32 mm	0.12 - 1.26 in
Height		90mm	3.54"
Weight		2.1kg	4.7lbs
Material	A2 Tool Steel		



*ER collet not included



Lock Nut	
Part Number	Use With
MATE02965	M5MCL-E32090
MATE02968	M5MCL-E40090



Wrench	
Part Number	Use With
MATE02966	M5MCL-E32090
MATE02969	M5MCL-E40090



Stop Screw	
Part Number	Use With
SSS00018	M5MCL-E32090 and M5MCL-E40090

[Dimensions in mm(in)]. Images are proportionate but not to scale.



DynoLock Bases – 52 Series



52 Base Assembly 116	
See Page 28	M5MBR-116-01
Body Height	27mm
Weight	1.7 kgs
Torque (Nm)	20Nm



52 Base Assembly 116	
See Page 29	M5MBR-116-02
Body Height	27mm
Weight	1.7 kgs
Torque (Nm)	20Nm



52 Base Assembly 157	
See Page 30	M5MBR-157-01
Body Height	27mm
Weight	3.4 kgs
Torque (Nm)	20Nm



52 Base Assembly 157	
See Page 31	M5MBR-157-02
Body Height	27mm
Weight	3.4 kgs
Torque (Nm)	20Nm



52 Base Assembly 104	
See Page 32	M5MBS-104-01
Body Height	27mm
Weight	1.7 kgs
Torque (Nm)	20Nm



52 Base Assembly 116 150	
See Page 33	M5MBX-116150-02
Body Height	27mm
Weight	2.8 kgs
Torque (Nm)	20Nm

Adapter



Adapter	
See Page 43	M9MBA-126150
Body Height	27mm
Weight	3.4 kgs
Torque (Nm)	20Nm

DynoLock Bases – 96 Series



96 Base Assembly 176	
See Page 34	M9MBR-176-01
Body Height	27mm
Weight	4.1 kgs
Torque (Nm)	20Nm



96 Base Assembly 246	
See Page 35	M9MBR-246-01
Body Height	27mm
Weight	9.0 kgs
Torque (Nm)	20Nm



96 Base Assembly 246	
See Page 36	M9MBR-246-02
Body Height	27mm
Weight	9.0 kgs
Torque (Nm)	20Nm



96 Base Assembly 246	
See Page 37	M9MBR-246-03
Body Height	27mm
Weight	9.0 kgs
Torque (Nm)	20Nm



96 Base Assembly 192	
See Page 38	M9MBS-192-01
Body Height	27mm
Weight	6.7 kgs
Torque (Nm)	20Nm



96 Base Assembly 192	
See Page 39	M9MBS-192-02
Body Height	27mm
Weight	6.7 kgs
Torque (Nm)	20Nm



96 Base Assembly 156 192	
See Page 40	M9MBX-156192-02
Body Height	27mm
Weight	4.8 kgs
Torque (Nm)	20Nm



96 Base Assembly 246 192	
See Page 41	M9MBX-192246-01
Body Height	27mm
Weight	8.8 kgs
Torque (Nm)	20Nm



96 Base Assembly 246 192	
See Page 42	M9MBX-192246-02
Body Height	27mm
Weight	8.8 kgs
Torque (Nm)	20Nm

[Dimensions in mm(in)]. Images are proportionate but not to scale.





M5MBR-116-01

	Information	Metric	Imperial
Pull Stud Type	Mate 52		
Maximum Torque		20Nm	175 in-lbs
Mounting Bores Quantity	2		
Mounting Bores Spacing		96mm	3.78"
Mounting Bores - Inside Diameter		12mm	0.47"
Lead Screw Hex Size		6mm	
Base Overall Diameter		116mm	4.57"
Base Overall Height		27mm	1.06"
Base Overall Weight		1.7kg	3.8lbs
Use with Pyramid	Yes	See Page 55	
Centering Bottom Cover	Multiple Options	See Below	
Use with Competitor	Requires Pull Stud Kit	M5MAC-PS	
Tapped Hole (4) for Poka-Yoke	Screw Not Included	M5x6mm SHCS	

Accessories			Page
Mounting Bore Hole Cap, Plastic, Set of 4	52	M5MAC-BC	75
Pull Stud Plug, Steel, Set of 4 and MagGrabber	52	M5MAC-BPMET	75
52 DynoLock Base Service Kit	52	M5MAC-BS	75
Hex Wrench Adapter Socket	Use with M5MAC-BS	MATE02777	75
MagGrabber	See Page 75	MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts	See Page 76	M00AC-BU	76
Pull Stud, Set of 4	52	M5MAC-PS	74
Centering Bottom Cover with 30mm Spud	52	M5MAC-CBC30	75
Centering Bottom Cover with 32mm Spud	52	M5MAC-CBC32	75
Centering Bottom Cover with 50mm Spud	52	M5MAC-CBC50	75
Table T-Slot Key 14mm	See Page 76	M00AC-TSK-01	76
Table T-Slot Key 18mm	See Page 76	M00AC-TSK-02	76
Centering Gage	52	M5MAC-CG	76
Poka-Yoke Screw - Not Included		M5x6 SHCS	
Base Torque Wrench Kit		M0MAC-BT	78
T-nut Kit, M10 Bolts		M00AC-TNUT	77
Rounded T-nut Kit, M10 Bolts		M00AC-RDTNUT	77

Assembly - M5MBR-116-01



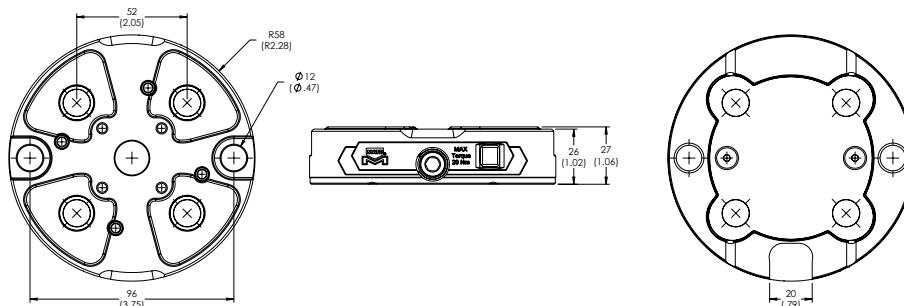
Exploded View

SEE PAGE 44 FOR BOM DETAILS



Compatible DynoGrip and DynoMount Assemblies			Page
52 Vise Assembly 95 60	52	M5MVC-095060	9
52 Vise Assembly 120 60	52	M5MVC-120060	10
52 Vise Assembly 95 80	52	M5MVC-095080	11
52 Vise Assembly 120 80	52	M5MVC-120080	12
52 Vise Assembly 160 80	52	M5MVC-160080	14
52 Vise Assembly 200 80	52	M5MVC-200080	15
52 ER-32 Collet Tool	52	M5MCL-E32090	26
52 ER-40 Collet Tool	52	M5MCL-E40090	26
52 Pyramid w 52 Bases	52	M50P3-090-01	54
52 Pyramid w 52 Bases	52	M50P3-108-01	55

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.



DYNOLOCK BASES



M5MBR-116-02

	Information	Metric	Imperial
Pull Stud Type	Mate 52		
Maximum Torque		20Nm	175 in-lbs
Mounting Bores Quantity	2		
Mounting Bores Spacing		95mm	3.75"
Mounting Bores - Inside Diameter		13mm	0.53"
Lead Screw Hex Size		6mm	
Base Overall Diameter		116mm	4.57"
Base Overall Height		27mm	1.06"
Base Overall Weight		1.7kg	3.8lbs
Centering Bottom Cover	Multiple Options	See Below	
Use with Competitor	Requires Pull Stud Kit	M5MAC-PS	
Tapped Hole (4) for Poka-Yoke	Screw Not Included	M5x6mm SHCS	

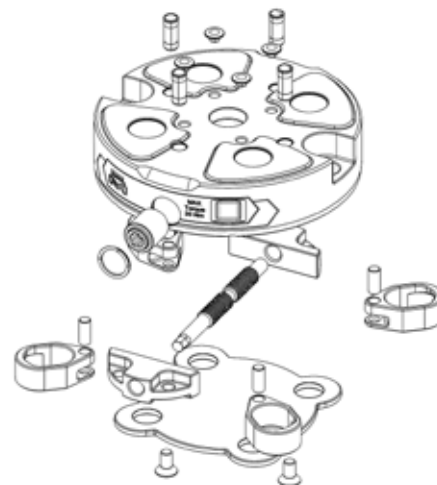
Accessories			Page
Mounting Bore Hole Cap, Plastic, Set of 4	52	M5MAC-BC	75
Pull Stud Plug, Steel, Set of 4 and MagGrabber	52	M5MAC-BPMET	75
52 DynoLock Base Service Kit	52	M5MAC-BS	75
Hex Wrench Adapter Socket	Use with M5MAC-BS	MATE02777	75
MagGrabber	See Page 75	MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts	See Page 76	M00AC-BU	76
Pull Stud, Set of 4	52	M5MAC-PS	74
Centering Bottom Cover with 30mm Spud	52	M5MAC-CBC30	75
Centering Bottom Cover with 32mm Spud	52	M5MAC-CBC32	75
Centering Bottom Cover with 50mm Spud	52	M5MAC-CBC50	75
Table T-Slot Key 14mm	See Page 76	M00AC-TSK-01	76
Table T-Slot Key 18mm	See Page 76	M00AC-TSK-02	76
Centering Gage	52	M5MAC-CG	76
Poka-Yoke Screw - Not Included		M5x6 SHCS	
Base Torque Wrench Kit		M0MAC-BT	78
T-nut Kit, M12 Bolts		M00AC-TNUT-01	77
T-nut Kit, 1/2-13 Bolts		M00AC-TNUT-03	77
Rounded T-nut Kit, M12 Bolts		M00AC-RDTNUT-01	77

Assembly - M5MBR-116-02



Exploded View

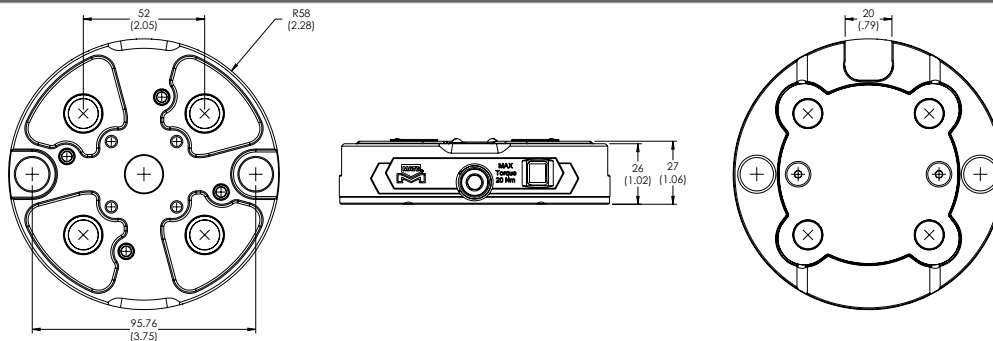
SEE PAGE 44 FOR BOM DETAILS



Compatible DynoGrip and DynoMount Assemblies

			Page
52 Vise Assembly 95 60	52	M5MVC-095060	9
52 Vise Assembly 120 60	52	M5MVC-120060	10
52 Vise Assembly 95 80	52	M5MVC-095080	11
52 Vise Assembly 120 80	52	M5MVC-120080	12
52 Vise Assembly 160 80	52	M5MVC-160080	14
52 Vise Assembly 200 80	52	M5MVC-200080	15
52 ER-32 Collet Tool	52	M5MCL-E32090	26
52 ER-40 Collet Tool	52	M5MCL-E40090	26

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M5MBR-157-01

	Information	Metric	Imperial
Pull Stud Type	Mate 52		
Maximum Torque		20Nm	175 in-lbs
Mounting Bores Quantity	6		
Mounting Bores Spacing		100mm	3.94"
Mounting Bores - Spacing Additional		96mm	3.78"
Mounting Bores - Inside Diameter		12mm	0.47"
Lead Screw Hex Size		6mm	
Base Overall Diameter		157mm	6.18"
Base Overall Height		27mm	1.06"
Base Overall Weight		3.4kg	7.5lbs
Centering Bottom Cover	Multiple Options	See Below	
Use with Competitor	Requires Pull Stud Kit	M5MAC-PS	
Tapped Hole (4) for Poka-Yoke	Screw Not Included	M5x6mm SHCS	

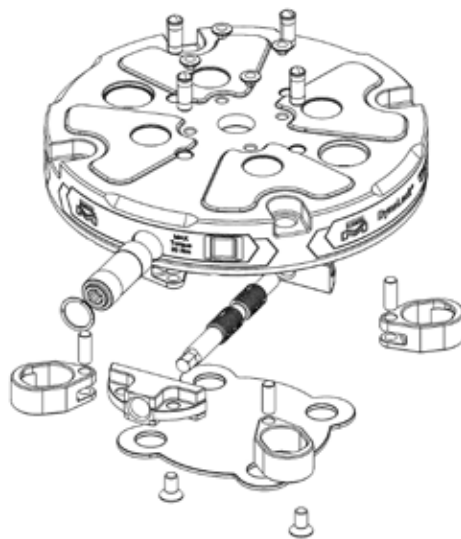
Accessories			Page
Mounting Bore Hole Cap, Plastic, Set of 4	52	M5MAC-BC	75
Pull Stud Plug, Steel, Set of 4 and MagGrabber	52	M5MAC-BPMET	75
52 DynoLock Base Service Kit	52	M5MAC-BS	75
Hex Wrench Adapter Socket	Use with M5MAC-BS	MATE02778	75
MagGrabber	See Page 75	MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts	See Page 76	M00AC-BU	76
Pull Stud, Set of 4	52	M5MAC-PS	74
Centering Bottom Cover with 30mm Spud	52	M5MAC-CBC30	75
Centering Bottom Cover with 32mm Spud	52	M5MAC-CBC32	75
Centering Bottom Cover with 50mm Spud	52	M5MAC-CBC50	75
Table T-Slot Key 14mm	See Page 76	M00AC-TSK-01	76
Table T-Slot Key 18mm	See Page 76	M00AC-TSK-02	76
Centering Gage	52	M5MAC-CG	76
Poka-Yoke Screw - Not Included		M5x6 SHCS	
Base Torque Wrench Kit		M0MAC-BT	78
T-nut Kit, M10 Bolts		M00AC-TNUT	77
Rounded T-nut Kit, M10 Bolts		M00AC-RDTNUT	77

Assembly - M5MBR-157-01



Exploded View

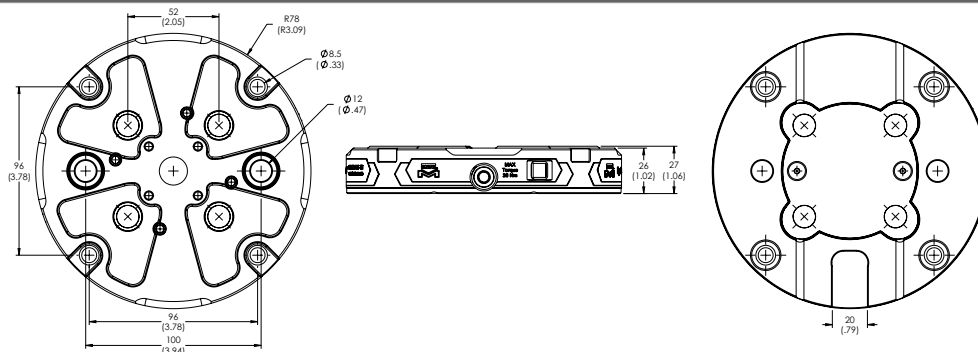
SEE PAGE 44 FOR BOM DETAILS



Compatible DynoGrip and DynoMount Assemblies

		Page
52 Vise Assembly 95 60	52	M5MVC-095060 9
52 Vise Assembly 120 60	52	M5MVC-120060 10
52 Vise Assembly 95 80	52	M5MVC-095080 11
52 Vise Assembly 120 80	52	M5MVC-120080 12
52 Vise Assembly 160 80	52	M5MVC-160080 14
52 Vise Assembly 200 80	52	M5MVC-200080 15
52 ER-32 Collet Tool	52	M5MCL-E32090 26
52 ER-40 Collet Tool	52	M5MCL-E40090 26

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M5MBR-157-02

	Information	Metric	Imperial
Pull Stud Type	Mate 52		
Maximum Torque		20Nm	175 in-lbs
Mounting Bores Quantity	4		
Mounting Bores Spacing		106mm	4.16"
Mounting Bores - Spacing Additional		61mm	2.40"
Mounting Bores - Inside Diameter		13mm	0.51"
Lead Screw Hex Size		6mm	
Base Overall Diameter		157mm	6.18"
Base Overall Height		27mm	1.06"
Base Overall Weight		3.4kg	7.5lbs
Centering Bottom Cover	Multiple Options	See Below	
Use with Competitor	Requires Pull Stud Kit	M5MAC-PS	
Tapped Hole (4) for Poka-Yoke	Screw Not Included	M5x6mm SHCS	

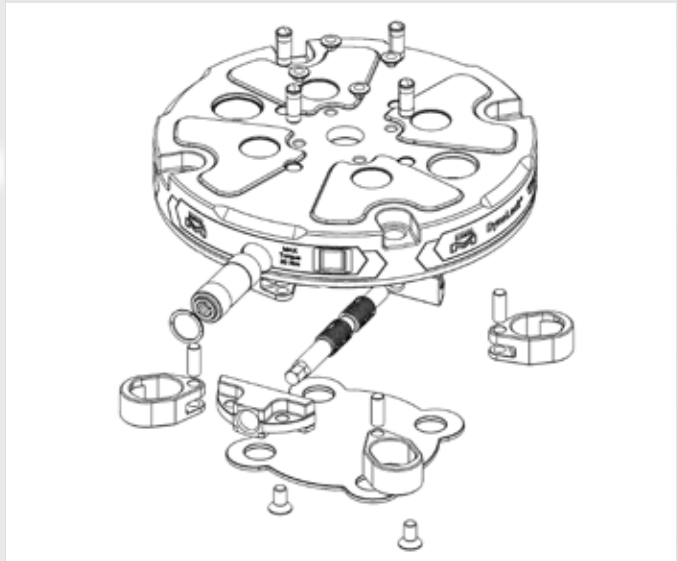
Accessories			Page
Mounting Bore Hole Cap, Plastic, Set of 4	52	M5MAC-BC	75
Pull Stud Plug, Steel, Set of 4 and MagGrabber	52	M5MAC-BPMET	75
52 DynoLock Base Service Kit	52	M5MAC-BS	75
Hex Wrench Adapter Socket	Use with M5MAC-BS	MATE02778	75
MagGrabber	See Page 75	MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts	See Page 76	M00AC-BU	76
Pull Stud, Set of 4	52	M5MAC-PS	74
Centering Bottom Cover with 30mm Spud	52	M5MAC-CBC30	75
Centering Bottom Cover with 32mm Spud	52	M5MAC-CBC32	75
Centering Bottom Cover with 50mm Spud	52	M5MAC-CBC50	75
Table T-Slot Key 14mm	See Page 76	M00AC-TSK-01	76
Table T-Slot Key 18mm	See Page 76	M00AC-TSK-02	76
Centering Gage	52	M5MAC-CG	76
Poka-Yoke Screw - Not Included		M5x6 SHCS	
Base Torque Wrench Kit		M0MAC-BT	78
T-nut Kit, M12 Bolts		M00AC-TNUT-01	77
T-nut Kit, 1/2-13 Bolts		M00AC-TNUT-03	77
Rounded T-nut Kit, M12 Bolts		M00AC-RDTNUT-01	77

Assembly - M5MBR-157-02



Exploded View

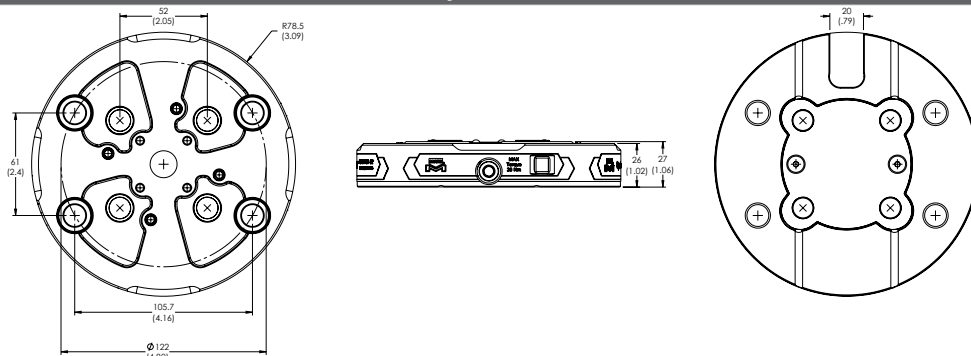
SEE PAGE 44 FOR BOM DETAILS



Compatible DynoGrip and DynoMount Assemblies

Compatible DynoGrip and DynoMount Assemblies			Page
52 Vise Assembly 95 60	52	M5MVC-095060	9
52 Vise Assembly 120 60	52	M5MVC-120060	10
52 Vise Assembly 95 80	52	M5MVC-095080	11
52 Vise Assembly 120 80	52	M5MVC-120080	12
52 Vise Assembly 160 80	52	M5MVC-160080	14
52 Vise Assembly 200 80	52	M5MVC-200080	15
52 ER-32 Collet Tool	52	M5MCL-E32090	26
52 ER-40 Collet Tool	52	M5MCL-E40090	26

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M5MBS-104-01

	Information	Metric	Imperial
Pull Stud Type	Mate 52		
Maximum Torque		20Nm	175 in-lbs
Mounting Bores Quantity	4		
Mounting Bores Spacing		82mm	3.23"
Mounting Bores - Inside Diameter		12mm	0.47"
Lead Screw Hex Size		6mm	
Base Overall Length		104mm	4.09"
Base Overall Width		104mm	4.09"
Base Overall Height		27mm	1.06"
Base Overall Weight		1.7kg	3.8lbs
Use with Tombstone	Yes	See Page 48	
Use with Dual Right Angle	Yes	See Page 52	
Centering Bottom Cover	Multiple Options	See Below	
Use with Competitor	Requires Pull Stud Kit	M5MAC-PS	
Tapped Hole (4) for Poka-Yoke	Screw Not Included	M5x6mm SHCS	

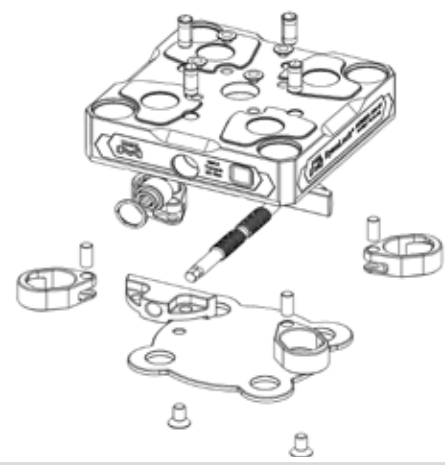
Accessories			Page
Mounting Bore Hole Cap, Plastic, Set of 4	52	M5MAC-BC	75
Pull Stud Plug, Steel, Set of 4 and MagGrabber	52	M5MAC-BPMET	75
52 DynoLock Base Service Kit	52	M5MAC-BS	75
Hex Wrench Adapter Socket	Use with M5MAC-BS	MATE02776	75
MagGrabber	See Page 75	MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts	See Page 76	M00AC-BU	76
Pull Stud, Set of 4	52	M5MAC-PS	74
Centering Bottom Cover with 30mm Spud	52	M5MAC-CBC30	75
Centering Bottom Cover with 32mm Spud	52	M5MAC-CBC32	75
Centering Bottom Cover with 50mm Spud	52	M5MAC-CBC50	75
Table T-Slot Key 14mm	See Page 76	M00AC-TSK-01	76
Table T-Slot Key 18mm	See Page 76	M00AC-TSK-02	76
Centering Gage	52	M5MAC-CG	76
Poka-Yoke Screw - Not Included		M5x6 SHCS	
Base Torque Wrench Kit		M0MAC-BT	78
T-nut Kit, M10 Bolts		M00AC-TNUT	77
T-nut Kit, 3/8-16 Bolts		M00AC-TNUT-02	77
Rounded T-nut Kit, M10 Bolts		M00AC-RDTNUT	77

Assembly - M5MBS-104-01



Exploded View

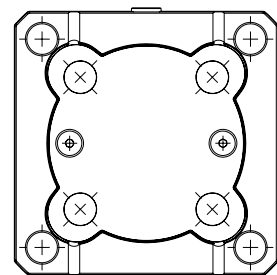
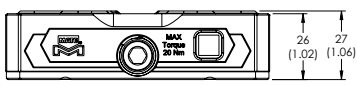
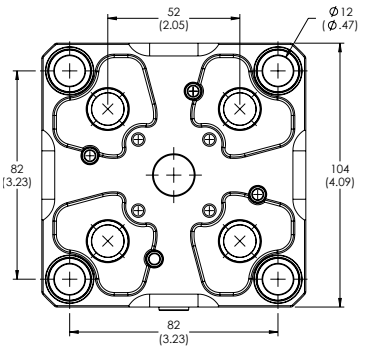
SEE PAGE 44 FOR BOM DETAILS



Compatible DynoGrip and DynoMount Assemblies

Compatible DynoGrip and DynoMount Assemblies			Page
52 Vise Assembly 95 60	52	M5MVC-095060	9
52 Vise Assembly 120 60	52	M5MVC-120060	10
52 Vise Assembly 95 80	52	M5MVC-095080	11
52 Vise Assembly 120 80	52	M5MVC-120080	12
52 Vise Assembly 160 80	52	M5MVC-160080	14
52 Vise Assembly 200 80	52	M5MVC-200080	15
52 ER-32 Collet Tool	52	M5MCL-E32090	26
52 ER-40 Collet Tool	52	M5MCL-E40090	26
52 Tombstone 3-Sided w 52 Bases	52	M50T3-260-01	48
52 Tombstone 4-Sided w 52 Bases	52	M50T4-260-01	49
96 Tombstone 4-Sided w 52 Bases	96	M90T4-500-01	50
96 Tombstone 4-Sided w 52 Bases	96	M90T4-668-01	51
52 Dual Right Angle w 52 Bases	52	M50B2-162-01	52
96 Dual Right Angle w 52 Bases	96	M90B2-247-01	53

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M5MBX-116150-02

	Information	Metric	Imperial
Pull Stud Type	Mate 52		
Maximum Torque		20Nm	175 in-lbs
Mounting Bores Quantity	4		
Mounting Bores Spacing		100mm	3.94"
Mounting Bores - Spacing Additional		50mm	1.97"
Mounting Bores - Inside Diameter		12mm	0.47"
Lead Screw Hex Size		6mm	
Base Overall Length		116mm	4.57"
Base Overall Width		150mm	5.91"
Base Overall Height		27mm	1.06"
Base Overall Weight		2.8kg	6.2lbs
Use with Riser	Yes	See Page 57	
Centering Bottom Cover	Multiple Options	See Below	
Use with Competitor	Requires Pull Stud Kit	M5MAC-PS	
Tapped Hole (4) for Poka-Yoke	Screw Not Included	M5x6mm SHCS	

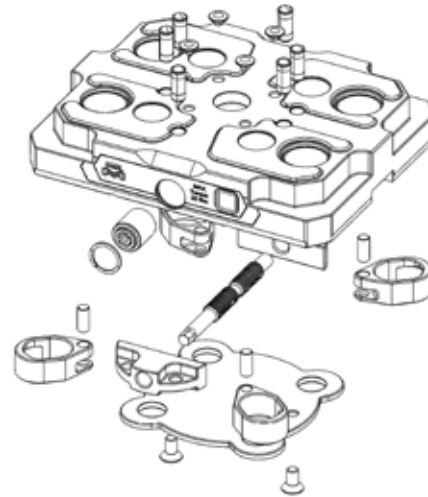
Accessories			Page
Mounting Bore Hole Cap, Plastic, Set of 4	52	M5MAC-BC	75
Pull Stud Plug, Steel, Set of 4 and MagGrabber	52	M5MAC-BPMET	75
52 DynoLock Base Service Kit	52	M5MAC-BS	75
Hex Wrench Adapter Socket	Use with M5MAC-BS	MATE02777	75
MagGrabber	See Page 75	MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts	See Page 76	M00AC-BU	76
Pull Stud, Set of 4	52	M5MAC-PS	74
Centering Bottom Cover with 30mm Spud	52	M5MAC-CBC30	75
Centering Bottom Cover with 32mm Spud	52	M5MAC-CBC32	75
Centering Bottom Cover with 50mm Spud	52	M5MAC-CBC50	75
Table T-Slot Key 14mm	See Page 76	M00AC-TSK-01	76
Table T-Slot Key 18mm	See Page 76	M00AC-TSK-02	76
Centering Gage	52	M5MAC-CG	76
Poka-Yoke Screw - Not Included		M5x6 SHCS	
Base Torque Wrench Kit		M0MAC-BT	78
T-nut Kit, M10 Bolts		M00AC-TNUT	77
Rounded T-nut Kit, M10 Bolts		M00AC-RDTNUT	77

Assembly - M5MBX-116150-02



Exploded View

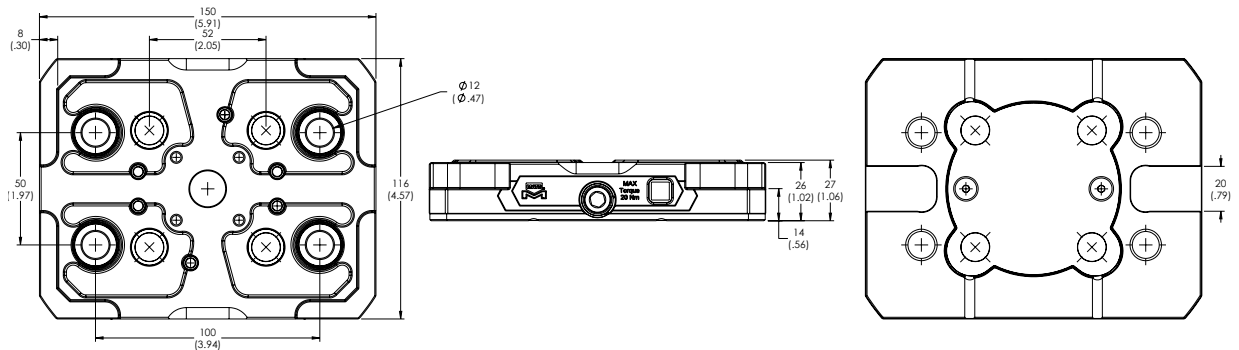
SEE PAGE 44 FOR BOM DETAILS



Compatible DynoGrip and DynoMount Assemblies

			Page
52 Vise Assembly 95 60	52	M5MVC-095060	9
52 Vise Assembly 120 60	52	M5MVC-120060	10
52 Vise Assembly 95 80	52	M5MVC-095080	11
52 Vise Assembly 120 80	52	M5MVC-120080	12
52 Vise Assembly 160 80	52	M5MVC-160080	14
52 Vise Assembly 200 80	52	M5MVC-200080	15
52 ER-32 Collet Tool	52	M5MCL-E32090	26
52 ER-40 Collet Tool	52	M5MCL-E40090	26
52 Riser 33mm w 52 Base	52	M50RX-033-01	57
52 Riser 73mm w 52 Base	52	M50RX-073-01	58

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M9MBR-176-01

	Information	Metric	Imperial
Pull Stud Type	Mate 96		
Maximum Torque		20Nm	175 in-lbs
Mounting Bores Quantity	6		
Mounting Bores Spacing		150mm	5.91"
Mounting Bores - Spacing Additional		126mm	4.96"
Mounting Bores - Spacing Additional		60mm	2.36"
Mounting Bores - Inside Diameter		12mm	0.47"
Lead Screw Hex Size		6mm	
Base Overall Diameter		176mm	6.93"
Base Overall Height		27mm	1.06"
Base Overall Weight		4.1kg	9.0lbs
Use with Pyramid	Yes	See Page 56	
Centering Bottom Cover	Multiple Options	See Below	
Use with Competitor	Requires Pull Stud Kit	M9MAC-PS	
Tapped Hole (4) for Poka-Yoke	Screw Not Included	M5x6mm SHCS	

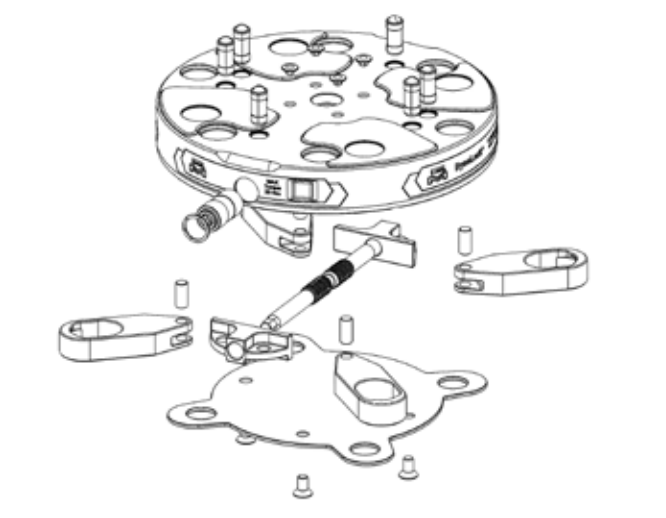
Accessories			Page
Mounting Bore Hole Cap, Plastic, Set of 4	96	M9MAC-BC	75
Pull Stud Plug, Steel, Set of 4 and MagGrabber	96	M9MAC-BPMET	75
96 DynoLock Base Service Kit	96	M9MAC-BS	75
Hex Wrench Adapter Socket	Use with M9MAC-BS	MATE02780	75
MagGrabber	See Page 75	MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts	See Page 76	M00AC-BU	76
Pull Stud, Set of 4	96	M9MAC-PS	74
Centering Bottom Cover with 30mm Spud	96	M9MAC-CBC30	75
Centering Bottom Cover with 32mm Spud	96	M9MAC-CBC32	75
Centering Bottom Cover with 50mm Spud	96	M9MAC-CBC50	75
Table T-Slot Key 14mm	See Page 76	M00AC-TSK-01	76
Table T-Slot Key 18mm	See Page 76	M00AC-TSK-02	76
Centering Gage	96	M9MAC-CG	76
Poka-Yoke Screw - Not Included		M5x6 SHCS	
Base Torque Wrench Kit		M0MAC-BT	78
T-nut Kit, M10 Bolts		M00AC-TNUT	77
Rounded T-nut Kit, M10 Bolts		M00AC-RDTNUT	77

Assembly - M9MBR-176-01



Exploded View

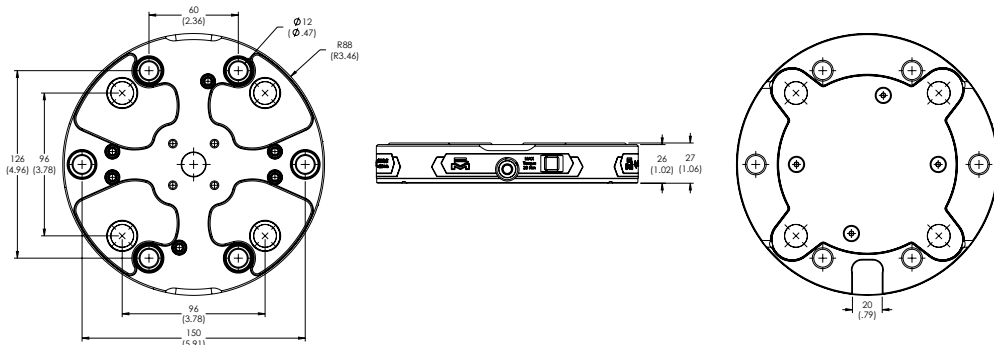
SEE PAGE 44 FOR BOM DETAILS



Compatible DynoGrip and DynoMount Assemblies

			Page
96 Vise Assembly 155 80	96	M9MVC-155080	16
96 Vise Assembly 205 80	96	M9MVC-205080	17
96 Vise Assembly 155 125	96	M9MVC-155125	18
96 Vise Assembly 205 125	96	M9MVC-205125	19
96 Vise Assembly 255 125	96	M9MVC-255125	20
96 Vise Assembly 305 125	96	M9MVC-305125	21
96 Vise Assembly 355 125	96	M9MVC-355125	22
96 Pyramid w 96 Bases	96	M90P3-150-01	56

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M9MBR-246-01

	Information	Metric	Imperial
Pull Stud Type	Mate 96		
Maximum Torque		20Nm	175 in-lbs
Mounting Bores Quantity	4		
Mounting Bores Spacing		170mm	6.69"
Mounting Bores - Spacing Additional		126mm	4.96"
Mounting Bores - Inside Diameter		12mm	0.47"
Lead Screw Hex Size		6mm	
Base Overall Diameter		246mm	9.69"
Base Overall Height		27mm	1.06"
Base Overall Weight		9.0kg	19.7lbs
Centering Bottom Cover	Multiple Options	See Below	
Use with Competitor	Requires Pull Stud Kit	M9MAC-PS	
Tapped Hole (4) for Poka-Yoke	Screw Not Included	M5x6mm SHCS	

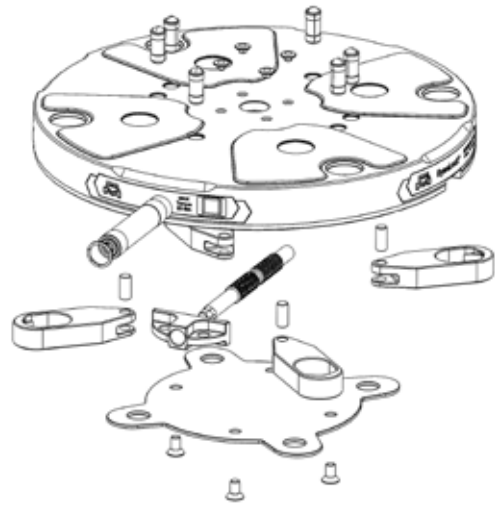
Accessories			Page
Mounting Bore Hole Cap, Plastic, Set of 4	96	M9MAC-BC	75
Pull Stud Plug, Steel, Set of 4 and MagGrabber	96	M9MAC-BPMET	75
96 DynoLock Base Service Kit	96	M9MAC-BS	75
Hex Wrench Adapter Socket	Use with M9MAC-BS	MATE02783	75
MagGrabber	See Page 75	MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts	See Page 76	M00AC-BU	76
Pull Stud, Set of 4	96	M9MAC-PS	74
Centering Bottom Cover with 30mm Spud	96	M9MAC-CBC30	75
Centering Bottom Cover with 32mm Spud	96	M9MAC-CBC32	75
Centering Bottom Cover with 50mm Spud	96	M9MAC-CBC50	75
Table T-Slot Key 14mm	See Page 76	M00AC-TSK-01	76
Table T-Slot Key 18mm	See Page 76	M00AC-TSK-02	76
Centering Gage	96	M9MAC-CG	76
Poka-Yoke Screw - Not Included		M5x6 SHCS	
Base Torque Wrench Kit		M0MAC-BT	78
T-nut Kit, M10 Bolts		M00AC-TNUT	77
Rounded T-nut Kit, M10 Bolts		M00AC-RDTNUT	77

Assembly - M9MBR-246-01



Exploded View

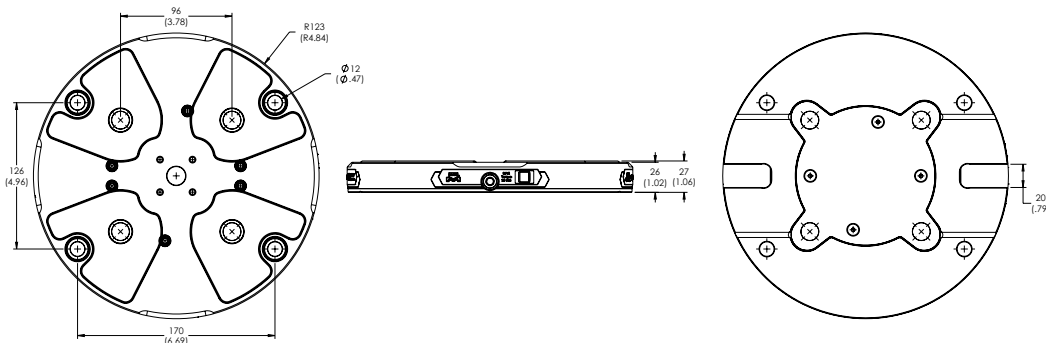
SEE PAGE 44 FOR BOM DETAILS



Compatible DynoGrip and DynoMount Assemblies

Compatible DynoGrip and DynoMount Assemblies			Page
96 Vise Assembly 155 80	96	M9MVC-155080	16
96 Vise Assembly 205 80	96	M9MVC-205080	17
96 Vise Assembly 155 125	96	M9MVC-155125	18
96 Vise Assembly 205 125	96	M9MVC-205125	19
96 Vise Assembly 255 125	96	M9MVC-255125	20
96 Vise Assembly 305 125	96	M9MVC-305125	21
96 Vise Assembly 355 125	96	M9MVC-355125	22

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M9MBR-246-02

	Information	Metric	Imperial
Pull Stud Type	Mate 96		
Maximum Torque		20Nm	175 in-lbs
Mounting Bores Quantity	4		
Mounting Bores Spacing		156mm	6.14"
Mounting Bores - Inside Diameter		12mm	0.47"
Lead Screw Hex Size		6mm	
Base Overall Diameter		246mm	9.69"
Base Overall Height		27mm	1.06"
Base Overall Weight		9.0kg	19.7lbs
Centering Bottom Cover	Multiple Options	See Below	
Use with Competitor	Requires Pull Stud Kit	M9MAC-PS	
Tapped Hole (4) for Poka-Yoke	Screw Not Included	M5x6mm SHCS	

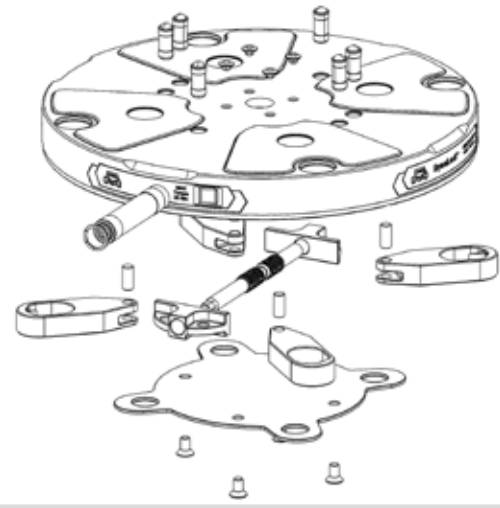
Accessories			Page
Mounting Bore Hole Cap, Plastic, Set of 4	96	M9MAC-BC	75
Pull Stud Plug, Steel, Set of 4 and MagGrabber	96	M9MAC-BPMET	75
96 DynoLock Base Service Kit	96	M9MAC-BS	75
Hex Wrench Adapter Socket	Use with M9MAC-BS	MATE02783	75
MagGrabber	See Page 75	MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts	See Page 76	M00AC-BU	76
Pull Stud, Set of 4	96	M9MAC-PS	74
Centering Bottom Cover with 30mm Spud	96	M9MAC-CBC30	75
Centering Bottom Cover with 32mm Spud	96	M9MAC-CBC32	75
Centering Bottom Cover with 50mm Spud	96	M9MAC-CBC50	75
Base Orientation Key 14mm with bolt for M9MBR-246-02	See Page 36	M00AC-BKK-01	36
Base Orientation Key 18mm with bolt for M9MBR-246-02	See Page 36	M00AC-BKK-02	36
Centering Gage	96	M9MAC-CG	76
Poka-Yoke Screw - Not Included		M5x6 SHCS	
Base Torque Wrench Kit		M0MAC-BT	78
T-nut Kit, M10 Bolts		M00AC-TNUT	77
Rounded T-nut Kit, M10 Bolts		M00AC-RDTNUT	77

Assembly - M9MBR-246-02



Exploded View

SEE PAGE 44 FOR BOM DETAILS



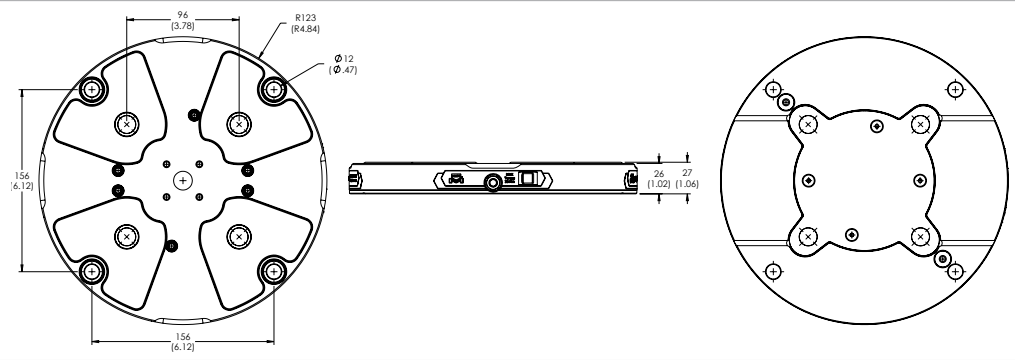
Base Orientation Key 14mm M00AC-BKK-01 Base Orientation Key 18mm M00AC-BKK-02

Attach using M5X1X14 DIN 912-12.9 Socket Head Cap Screw

Compatible DynoGrip and DynoMount Assemblies

Assembly	96	Page
96 Vise Assembly 155 80	M9MVC-155080	16
96 Vise Assembly 205 80	M9MVC-205080	17
96 Vise Assembly 155 125	M9MVC-155125	18
96 Vise Assembly 205 125	M9MVC-205125	19
96 Vise Assembly 255 125	M9MVC-255125	20
96 Vise Assembly 305 125	M9MVC-305125	21
96 Vise Assembly 355 125	M9MVC-355125	22

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M9MBR-246-03

	Information	Metric	Imperial
Pull Stud Type	Mate 96		
Maximum Torque		20Nm	175 in-lbs
Mounting Bores Quantity	6		
Mounting Bores Spacing		182mm	7.16"
Mounting Bores - Spacing Additional		105mm	4.13"
Mounting Bores - Inside Diameter		11mm	0.43"
Lead Screw Hex Size		6mm	
Base Overall Diameter		246mm	9.69"
Base Overall Height		27mm	1.06"
Base Overall Weight		9.0kg	19.7lbs
Centering Bottom Cover	Multiple Options	See Below	
Use with Competitor	Requires Pull Stud Kit	M9MAC-PS	
Tapped Hole (4) for Poka-Yoke	Screw Not Included	M5x6mm SHCS	
Compatible with*	HAAS	240, 310 and 450 Rotaries	

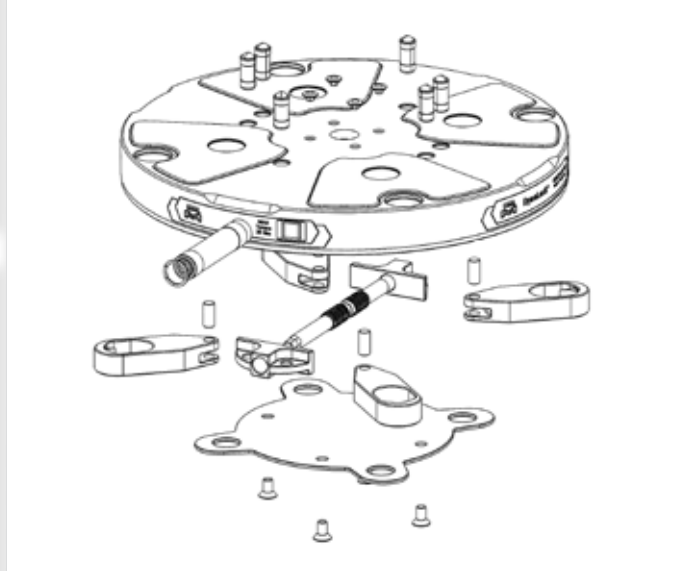
Accessories			Page
Mounting Bore Hole Cap, Plastic, Set of 4	96	M9MAC-BC	75
Pull Stud Plug, Steel, Set of 4 and MagGrabber	96	M9MAC-BPMET	75
96 DynoLock Base Service Kit	96	M9MAC-BS	75
Hex Wrench Adapter Socket	Use with M9MAC-BS	MATE02783	75
MagGrabber	See Page 75	MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts	See Page 76	M00AC-BU	76
Pull Stud, Set of 4	96	M9MAC-PS	74
Centering Bottom Cover with 30mm Spud	96	M9MAC-CBC30	75
Centering Bottom Cover with 32mm Spud	96	M9MAC-CBC32	75
Centering Bottom Cover with 50mm Spud	96	M9MAC-CBC50	75
Centering Gage	96	M9MAC-CG	76
Poka-Yoke Screw - Not Included		M5x6 SHCS	
Base Torque Wrench Kit		M0MAC-BT	78
T-nut Kit, M10 Bolts		M00AC-TNUT	77
T-nut Kit, 3/8-16 Bolts		M00AC-TNUT-02	77
Rounded T-nut Kit, M10 Bolts		M00AC-RDTNUT	77

Assembly - M9MBR-246-03



Exploded View

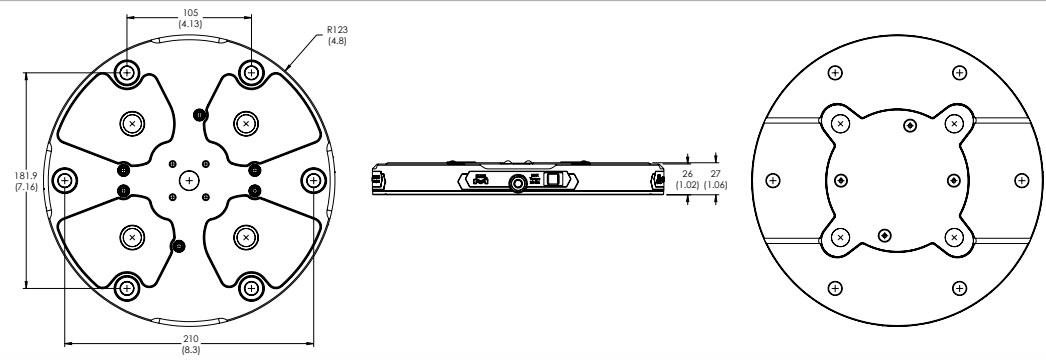
SEE PAGE 44 FOR BOM DETAILS



Compatible DynoGrip and DynoMount Assemblies

Compatible DynoGrip and DynoMount Assemblies		Page
96 Vise Assembly 155 80	96	M9MVC-155080 16
96 Vise Assembly 205 80	96	M9MVC-205080 17
96 Vise Assembly 155 125	96	M9MVC-155125 18
96 Vise Assembly 205 125	96	M9MVC-205125 19
96 Vise Assembly 255 125	96	M9MVC-255125 20
96 Vise Assembly 305 125	96	M9MVC-305125 21
96 Vise Assembly 355 125	96	M9MVC-355125 22

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M9MBS-192-01

	Information	Metric	Imperial
Pull Stud Type	Mate 96		
Maximum Torque		20Nm	175 in-lbs
Mounting Bores Quantity	4		
Mounting Bores Spacing		150mm	5.91"
Mounting Bores - Spacing Additional		120mm	4.72"
Mounting Bores - Inside Diameter		12mm	0.47"
Lead Screw Hex Size		6mm	
Base Overall Length		192mm	7.56"
Base Overall Width		192mm	7.56"
Base Overall Height		27mm	1.06"
Base Overall Weight		6.7kg	14.8lbs
Use with Tombstone	Yes	See Page 51	
Use with Dual Right Angle	Yes	See Page 53	
Centering Bottom Cover	Multiple Options	See Below	
Use with Competitor	Requires Pull Stud Kit	M9MAC-PS	
Tapped Hole (4) for Poka-Yoke	Screw Not Included	M5x6mm SHCS	

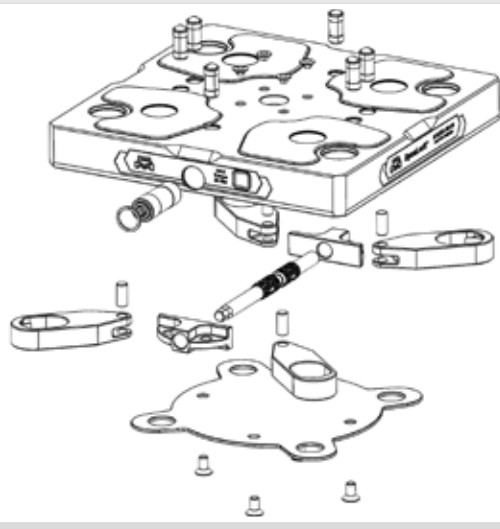
Accessories			Page
Mounting Bore Hole Cap, Plastic, Set of 4	96	M9MAC-BC	75
Pull Stud Plug, Steel, Set of 4 and MagGrabber	96	M9MAC-BPMET	75
96 DynoLock Base Service Kit	96	M9MAC-BS	75
Hex Wrench Adapter Socket	Use with M9MAC-BS	MATE02781	75
MagGrabber	See Page 75	MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts	See Page 76	M00AC-BU	76
Pull Stud, Set of 4	96	M9MAC-PS	74
Centering Bottom Cover with 30mm Spud	96	M9MAC-CBC30	75
Centering Bottom Cover with 32mm Spud	96	M9MAC-CBC32	75
Centering Bottom Cover with 50mm Spud	96	M9MAC-CBC50	75
Centering Gage	96	M9MAC-CG	76
Poka-Yoke Screw - Not Included		M5x6 SHCS	
Base Torque Wrench Kit		MOMAC-BT	78
T-nut Kit, M10 Bolts		M00AC-TNUT	77
Rounded T-nut Kit, M10 Bolts		M00AC-RDTNUT	77

Assembly - M9MBS-192-01



Exploded View

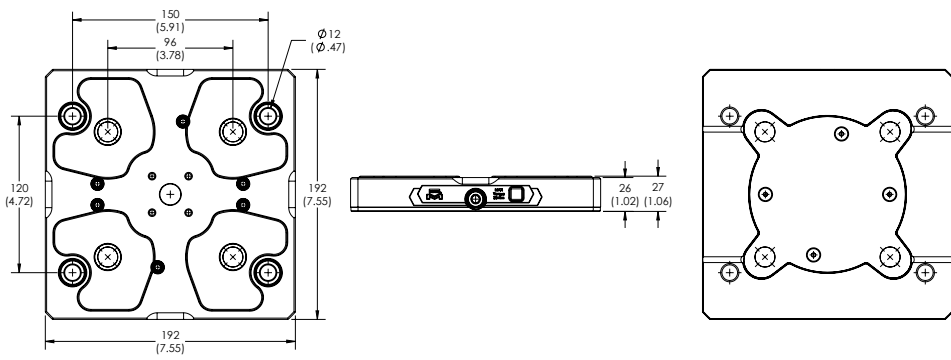
SEE PAGE 44 FOR BOM DETAILS



Compatible DynoGrip and DynoMount Assemblies

		Page	
96 Vise Assembly 155 80	96	M9MVC-155080	16
96 Vise Assembly 205 80	96	M9MVC-205080	17
96 Vise Assembly 155 125	96	M9MVC-155125	18
96 Vise Assembly 205 125	96	M9MVC-205125	19
96 Vise Assembly 255 125	96	M9MVC-255125	20
96 Vise Assembly 305 125	96	M9MVC-305125	21
96 Vise Assembly 355 125	96	M9MVC-355125	22
96 Tombstone 4-Sided w 96 Bases	96	M90T4-500-02	50
96 Tombstone 4-Sided w 96 Bases	96	M90T4-668-02	51
96 Dual Right Angle w 96 Bases	96	M90B2-247-02	53

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M9MBS-192-02

	Information	Metric	Imperial
Pull Stud Type	Mate 96		
Maximum Torque		20Nm	175 in-lbs
Mounting Bores Quantity	4		
Mounting Bores Spacing		150mm	5.91"
Mounting Bores - Spacing Additional		126mm	4.96"
Mounting Bores - Inside Diameter		12mm	0.47"
Lead Screw Hex Size		6mm	
Base Overall Length		192mm	7.56"
Base Overall Width		192mm	7.56"
Base Overall Height		27mm	1.06"
Base Overall Weight		6.7kg	14.7lbs
Centering Bottom Cover	Multiple Options	See Below	
Use with Competitor	Requires Pull Stud Kit	M9MAC-PS	
Tapped Hole (4) for Poka-Yoke	Screw Not Included	M5x6mm SHCS	

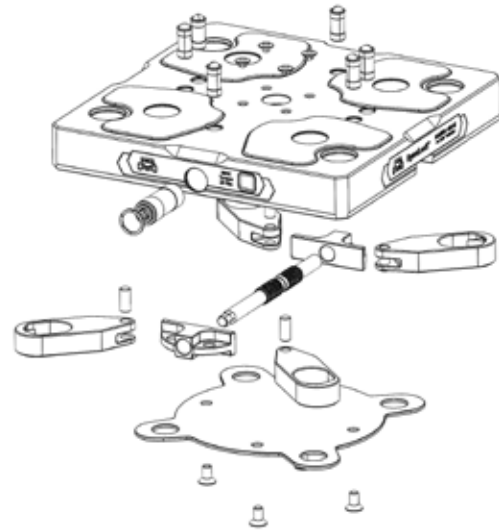
Accessories			Page
Mounting Bore Hole Cap, Plastic, Set of 4	96	M9MAC-BC	75
Pull Stud Plug, Steel, Set of 4 and MagGrabber	96	M9MAC-BPMET	75
96 DynoLock Base Service Kit	96	M9MAC-BS	75
Hex Wrench Adapter Socket	Use with M9MAC-BS	MATE02781	75
MagGrabber	See Page 75	MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts	See Page 76	M00AC-BU	76
Pull Stud, Set of 4	96	M9MAC-PS	74
Centering Bottom Cover with 30mm Spud	96	M9MAC-CBC30	75
Centering Bottom Cover with 32mm Spud	96	M9MAC-CBC32	75
Centering Bottom Cover with 50mm Spud	96	M9MAC-CBC50	75
Table T-Slot Key 14mm	See Page 76	M00AC-TSK-01	76
Table T-Slot Key 18mm	See Page 76	M00AC-TSK-02	76
Centering Gage	96	M9MAC-CG	76
Poka-Yoke Screw - Not Included		M5x6 SHCS	
Base Torque Wrench Kit		MOMAC-BT	78
T-nut Kit, M10 Bolts		M00AC-TNUT	77
Rounded T-nut Kit, M10 Bolts		M00AC-RDTNUT	77

Assembly - M9MBS-192-02



Exploded View

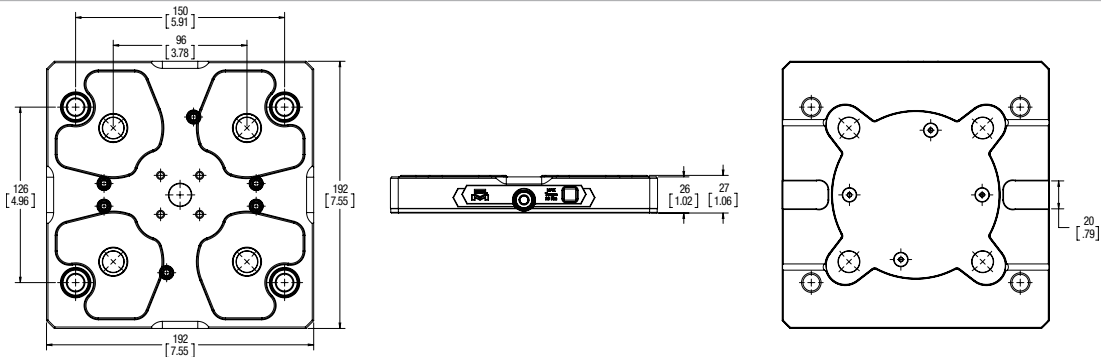
SEE PAGE 44 FOR BOM DETAILS



Compatible DynoGrip and DynoMount Assemblies

Compatible DynoGrip and DynoMount Assemblies			Page
96 Vise Assembly 155 80	96	M9MVC-155080	16
96 Vise Assembly 205 80	96	M9MVC-205080	17
96 Vise Assembly 155 125	96	M9MVC-155125	18
96 Vise Assembly 205 125	96	M9MVC-205125	19
96 Vise Assembly 255 125	96	M9MVC-255125	20
96 Vise Assembly 305 125	96	M9MVC-305125	21
96 Vise Assembly 355 125	96	M9MVC-355125	22

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.



M9MBX-156192-02

	Information	Metric	Imperial
Pull Stud Type	Mate 96		
Maximum Torque		20Nm	175 in-lbs
Mounting Bores Quantity	8		
Mounting Bores Spacing		100mm	3.94"
Mounting Bores - Spacing Additional		50mm	1.97"
Mounting Bores - Inside Diameter		12mm	0.47"
Lead Screw Hex Size		6mm	
Base Overall Length		156mm	6.14"
Base Overall Width		192mm	7.56"
Base Overall Height		27mm	1.06"
Base Overall Weight		4.8kg	10.6lbs
Use with Riser	Yes	See Page 59	
Centering Bottom Cover	Multiple Options	See Below	
Use with Competitor	Requires Pull Stud Kit	M9MAC-PS	
Tapped Hole (4) for Poka-Yoke	Screw Not Included	M5x6mm SHCS	

Accessories			Page
Mounting Bore Hole Cap, Plastic, Set of 4	96	M9MAC-BC	75
Pull Stud Plug, Steel, Set of 4 and MagGrabber	96	M9MAC-BPMET	75
96 DynoLock Base Service Kit	96	M9MAC-BS	75
Hex Wrench Adapter Socket	Use with M9MAC-BS	MATE02777	75
MagGrabber	See Page 75	MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts	See Page 76	M00AC-BU	76
Pull Stud, Set of 4	96	M9MAC-PS	74
Centering Bottom Cover with 30mm Spud	96	M9MAC-CBC30	75
Centering Bottom Cover with 32mm Spud	96	M9MAC-CBC32	75
Centering Bottom Cover with 50mm Spud	96	M9MAC-CBC50	75
Table T-Slot Key 14mm	See Page 76	M00AC-TSK-01	76
Table T-Slot Key 18mm	See Page 76	M00AC-TSK-02	76
Centering Gage	96	M9MAC-CG	76
Poka-Yoke Screw - Not Included		M5x6 SHCS	
Base Torque Wrench Kit		M0MAC-BT	78
T-nut Kit, M10 Bolts		M00AC-TNUT	77
Rounded T-nut Kit, M10 Bolts		M00AC-RDTNUT	77

Assembly - M9MBX-156192-02



Exploded View

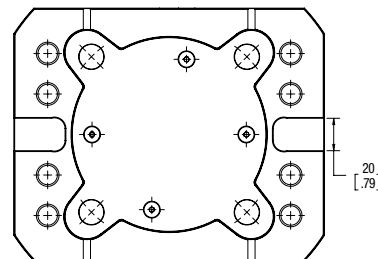
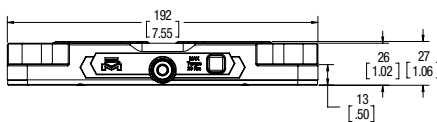
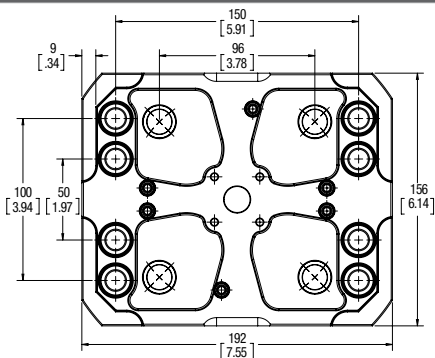
SEE PAGE 44 FOR BOM DETAILS



Compatible DynoGrip and DynoMount Assemblies

			Page
96 Vise Assembly 155 80	96	M9MVC-155080	16
96 Vise Assembly 205 80	96	M9MVC-205080	17
96 Vise Assembly 155 125	96	M9MVC-155125	18
96 Vise Assembly 205 125	96	M9MVC-205125	19
96 Vise Assembly 255 125	96	M9MVC-255125	20
96 Vise Assembly 305 125	96	M9MVC-305125	21
96 Vise Assembly 355 125	96	M9MVC-355125	22
96 Riser 33mm w 96 Base	96	M90RX-033-01	59
96 Riser 73mm w 96 Base	96	M90RX-073-01	60

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M9MBX-192246-01

	Information	Metric	Imperial
Pull Stud Type	Mate 96		
Maximum Torque		20Nm	175 in-lbs
Mounting Bores Quantity	4		
Mounting Bores Spacing		200mm	7.87"
Mounting Bores - Spacing Additional		150mm	5.91"
Mounting Bores - Inside Diameter		12mm	0.47"
Lead Screw Hex Size		6mm	
Base Overall Length		246mm	9.69"
Base Overall Width		192mm	7.56"
Base Overall Height		27mm	1.06"
Base Overall Weight		8.8kg	19.4lbs
Centering Bottom Cover	Multiple Options	See Below	
Use with Competitor	Requires Pull Stud Kit	M9MAC-PS	
Tapped Hole (4) for Poka-Yoke	Screw Not Included	M5x6mm SHCS	

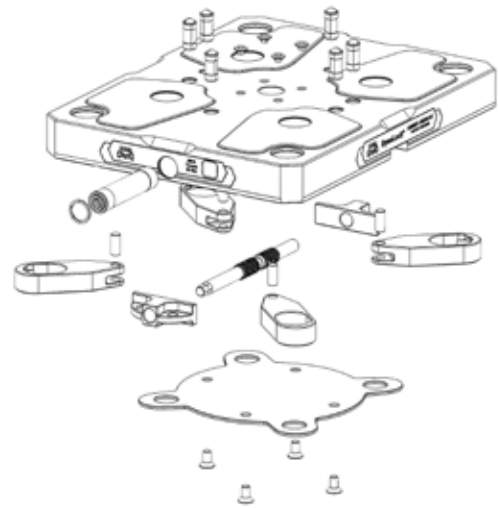
Accessories			Page
Mounting Bore Hole Cap, Plastic, Set of 4	96	M9MAC-BC	75
Pull Stud Plug, Steel, Set of 4 and MagGrabber	96	M9MAC-BPMET	75
96 DynoLock Base Service Kit	96	M9MAC-BS	75
Hex Wrench Adapter Socket	Use with M9MAC-BS	MATE02783	75
MagGrabber	See Page 75	MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts	See Page 76	M00AC-BU	76
Pull Stud, Set of 4	96	M9MAC-PS	74
Centering Bottom Cover with 30mm Spud	96	M9MAC-CBC30	75
Centering Bottom Cover with 32mm Spud	96	M9MAC-CBC32	75
Centering Bottom Cover with 50mm Spud	96	M9MAC-CBC50	75
Table T-Slot Key 14mm	See Page 76	M00AC-TSK-01	76
Table T-Slot Key 18mm	See Page 76	M00AC-TSK-02	76
Centering Gage	96	M9MAC-CG	76
Poka-Yoke Screw - Not Included		M5x6 SHCS	
Base Torque Wrench Kit		MOMAC-BT	78
T-nut Kit, M10 Bolts		M00AC-TNUT	77
Rounded T-nut Kit, M10 Bolts		M00AC-RDTNUT	77

Assembly - M9MBX-192246-01



Exploded View

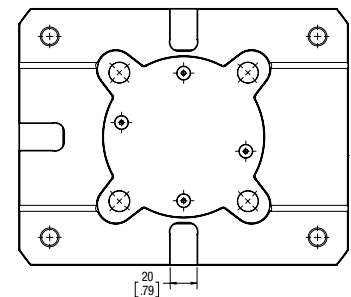
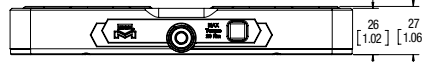
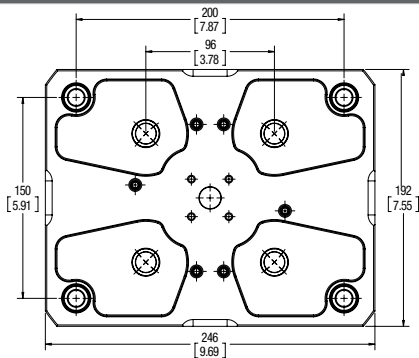
SEE PAGE 44 FOR BOM DETAILS



Compatible DynoGrip and DynoMount Assemblies

			Page
96 Vise Assembly 155 80	96	M9MVC-155080	16
96 Vise Assembly 205 80	96	M9MVC-205080	17
96 Vise Assembly 155 125	96	M9MVC-155125	18
96 Vise Assembly 205 125	96	M9MVC-205125	19
96 Vise Assembly 255 125	96	M9MVC-255125	20
96 Vise Assembly 305 125	96	M9MVC-305125	21
96 Vise Assembly 355 125	96	M9MVC-355125	22

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.



M9MBX-192246-02

	Information	Metric	Imperial
Pull Stud Type	Mate 96		
Maximum Torque		20Nm	175 in-lbs
Mounting Bores Quantity	4		
Mounting Bores Spacing		220mm	8.66"
Mounting Bores - Spacing Additional		126mm	4.96"
Mounting Bores - Inside Diameter		12mm	0.47"
Lead Screw Hex Size		6mm	
Base Overall Length		246mm	9.69"
Base Overall Width		192mm	7.56"
Base Overall Height		27mm	1.06"
Base Overall Weight		8.8kg	19.4lbs
Centering Bottom Cover	Multiple Options	See Below	
Use with Competitor	Requires Pull Stud Kit	M9MAC-PS	
Tapped Hole (4) for Poka-Yoke	Screw Not Included	M5x6mm SHCS	

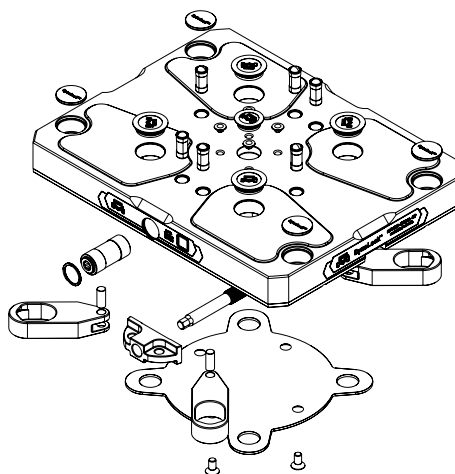
Accessories			Page
Mounting Bore Hole Cap, Plastic, Set of 4	96	M9MAC-BC	75
Pull Stud Plug, Steel, Set of 4 and MagGrabber	96	M9MAC-BPMET	75
96 DynoLock Base Service Kit	96	M9MAC-BS	75
Hex Wrench Adapter Socket	Use with M9MAC-BS	MATE02781	75
MagGrabber	See Page 75	MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts	See Page 76	M00AC-BU	76
Pull Stud, Set of 4	96	M9MAC-PS	74
Centering Bottom Cover with 30mm Spud	96	M9MAC-CBC30	75
Centering Bottom Cover with 32mm Spud	96	M9MAC-CBC32	75
Centering Bottom Cover with 50mm Spud	96	M9MAC-CBC50	75
Table T-Slot Key 14mm	See Page 76	M00AC-TSK-01	76
Table T-Slot Key 18mm	See Page 76	M00AC-TSK-02	76
Centering Gage	96	M9MAC-CG	76
Poka-Yoke Screw - Not Included		M5x6 SHCS	
Base Torque Wrench Kit		M0MAC-BT	78
T-nut Kit, M10 Bolts		M00AC-TNUT	77
Rounded T-nut Kit, M10 Bolts		M00AC-RDTNUT	77

Assembly - M9MBX-192246-02



Exploded View

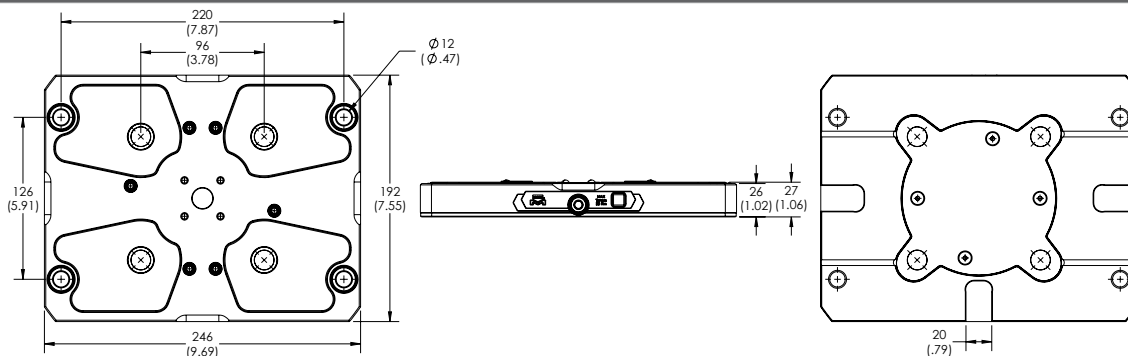
SEE PAGE 44 FOR BOM DETAILS



Compatible DynoGrip and DynoMount Assemblies

Compatible DynoGrip and DynoMount Assemblies			Page
96 Vise Assembly 155 80	96	M9MVC-155080	16
96 Vise Assembly 205 80	96	M9MVC-205080	17
96 Vise Assembly 155 125	96	M9MVC-155125	18
96 Vise Assembly 205 125	96	M9MVC-205125	19
96 Vise Assembly 255 125	96	M9MVC-255125	20
96 Vise Assembly 305 125	96	M9MVC-305125	21
96 Vise Assembly 355 125	96	M9MVC-355125	22

Key Dimensions



[Dimensions in mm(in)]. Images are proportionate but not to scale.





M9MBA-126150

	Information	Metric	Imperial
Part Number	M9MBA-126150		
Series	DynoLock		
Product	Adapter		
Product Version	96		
Product Shape	Adapter		
Pull Stud Type	Mate 96		
Maximum Torque		20Nm	175 in-lbs
Mounting Bores Quantity	4		
Mounting Bores Spacing		96mm	3.78"
Lead Screw Hex Size		6mm	
Base Overall Length		126mm	4.96"
Base Overall Width		150mm	5.91"
Base Overall Height		27mm	1.06"
Base Overall Weight		3.4kg	7.5lbs
Centering Bottom Cover	Multiple Options	See Below	
Use with Competitor	Requires Pull Stud Kit	M9MAC-PS	
Tapped Hole (4) for Poka-Yoke	Screw Not Included	M5x6mm SHCS	

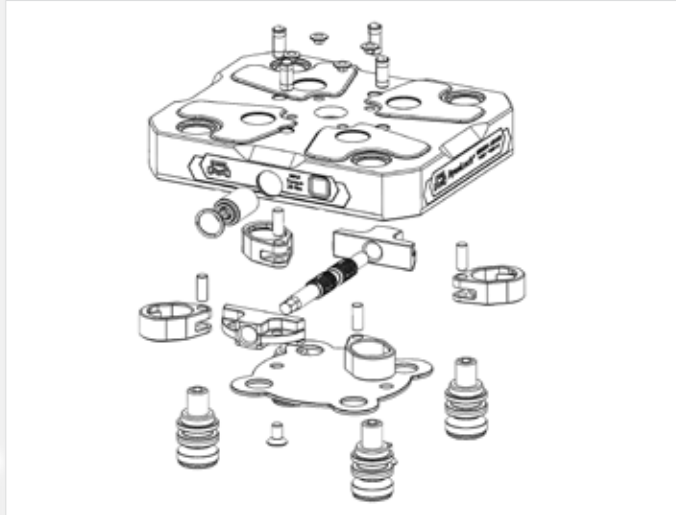
Accessories			Page
Mounting Bore Hole Cap, Plastic, Set of 4	96	M9MAC-BC	75
Pull Stud Plug, Steel, Set of 4 and MagGrabber	52	M5MAC-BPMET	75
52 DynoLock Base Service Kit	52	M5MAC-BS	75
Hex Wrench Adapter Socket	Use with M5MAC-BS	MATE02786	75
MagGrabber	See Page 75	MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts	See Page 76	M00AC-BU	76
Pull Stud, Set of 4	96	M9MAC-PS	74
Poka-Yoke Screw - Not Included		M5x6 SHCS	
Base Torque Wrench Kit		M0MAC-BT	78

Assembly - M9MBX-156192-02



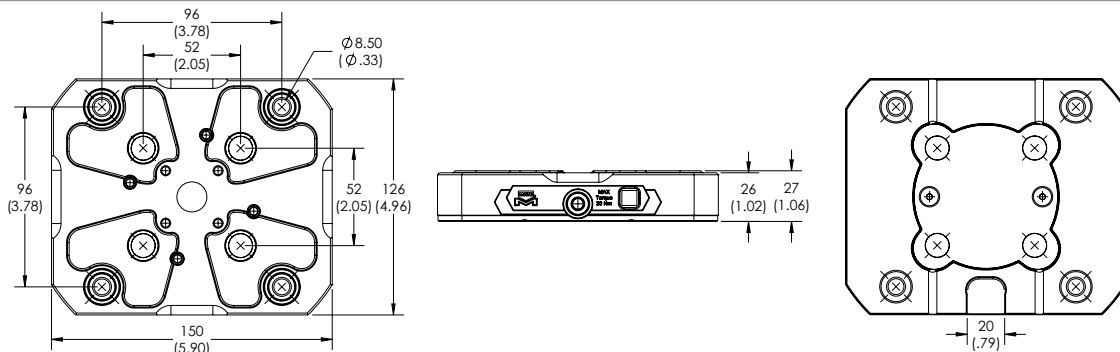
Exploded View

SEE PAGE 44 FOR BOM DETAILS



Compatible DynoGrip and DynoMount Assemblies			Page
52 Vise Assembly 95 60	52	M5MVC-095060	9
52 Vise Assembly 120 60	52	M5MVC-120060	10
52 Vise Assembly 95 80	52	M5MVC-095080	11
52 Vise Assembly 120 80	52	M5MVC-120080	12
52 Vise Assembly 160 80	52	M5MVC-160080	14
52 Vise Assembly 200 80	52	M5MVC-200080	15
52 ER-32 Collet Tool	52	M5MCL-E32090	26
52 ER-40 Collet Tool	52	M5MCL-E40090	26

Key Dimensions

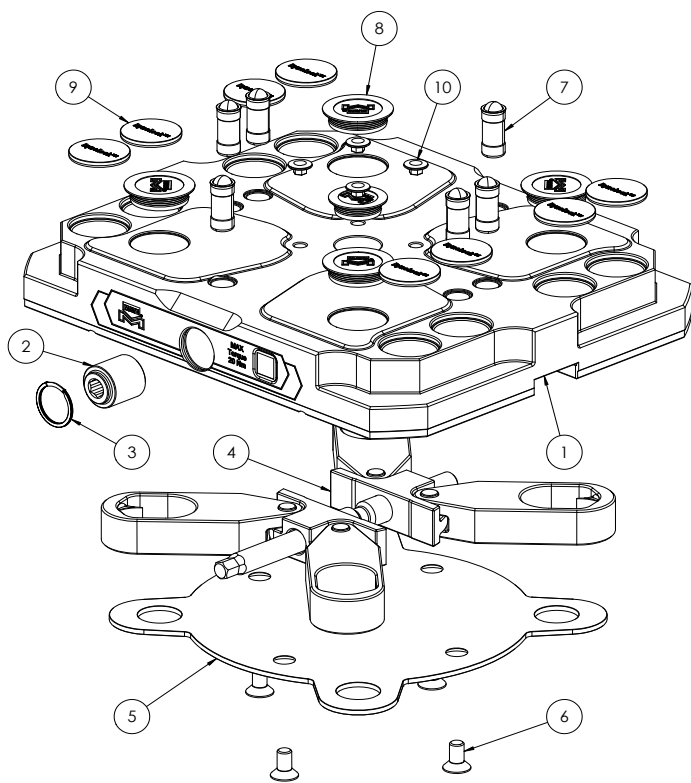


[Dimensions in mm(in)]. Images are proportionate but not to scale.





DYNOLOCK™ BASES BOM CHART



52 SERIES MODEL #:			M5MBR-116-01	M5MBR-116-02	M5MBR-157-01	M5MBR-157-02	M5MBS-104-01	M5MBX-116150-02
Balloon Item #	Description	QTY	Replacement Part Number					
1	Base Body	1	MATE02764	MATE02914	MATE02766	MATE02916	MATE02759	MATE02762
2	Hex Wrench Adapter Socket	1	MATE02777	MATE02777	MATE02778	MATE02778	MATE02776	MATE02777
3	Adapter Socket Retaining Ring	1	RRI00019	RRI00019	RRI00019	RRI00019	RRI00019	RRI00019
4	Base Service Kit	1	M5MAC-BS	M5MAC-BS	M5MAC-BS	M5MAC-BS	M5MAC-BS	M5MAC-BS
5	Bottom Cover	1	MATE02784	MATE02784	MATE02784	MATE02784	MATE02784	MATE02784
6	Bottom Cover Screw	2	FHC00009	FHC00009	FHC00009	FHC00009	FHC00009	FHC00009
7	Ball Plunger	Varies	BPL00009	BPL00009	BPL00009	BPL00009	BPL00009	BPL00009
8	Pull Stud & Center Bore Plug Kit (qty 5)	1	M5MAC-BBP	M5MAC-BBP	M5MAC-BBP	M5MAC-BBP	M5MAC-BBP	M5MAC-BBP
9	Mounting Bore Cap Kit (qty 4)	Varies	NA	NA	M9MAC-BC	M9MAC-BC	M5MAC-BC	M9MAC-BC
10	Poka-Yoke Cap	4	PLG00003	PLG00003	PLG00003	PLG00003	PLG00003	PLG00003

96 SERIES MODEL #:			M9MBA-126150	M9MBR-176-01	M9MBR-246-01	M9MBR-246-02	M9MBR-246-03	M9MBS-192-01	M9MBS-192-02	M9MBX-156192-02	M9MBX-192246-01	M9MBX-192246-02
Balloon Item #	Description	QTY	Replacement Part Number									
1	Base Body	1	MATE02802	MATE02796	MATE02799	MATE02800	MATE02918	MATE02789	MATE02790	MATE02792	MATE02794	MATE02974
2	Hex Wrench Adapter Socket	1	MATE02786	MATE02780	MATE02783	MATE02783	MATE02783	MATE02781	MATE02781	MATE02777	MATE02783	MATE02781
3	Adapter Socket Retaining Ring	1	RRI00019	RRI00019	RRI00019	RRI00019	RRI00019	RRI00019	RRI00019	RRI00019	RRI00019	RRI00019
4	Base Service Kit	1	M5MAC-BS	M9MAC-BS	M9MAC-BS	M9MAC-BS	M9MAC-BS	M9MAC-BS	M9MAC-BS	M9MAC-BS	M9MAC-BS	M9MAC-BS
5	Bottom Cover	1	MATE02784	MATE02785	MATE02785	MATE02785	MATE02785	MATE02785	MATE02785	MATE02785	MATE02785	MATE02785
6	Bottom Cover Screw	4	FHC00009	FHC00009	FHC00009	FHC00009	FHC00009	FHC00009	FHC00009	FHC00009	FHC00009	FHC00009
7	Ball Plunger	Varies	BPL00009	BPL00008	BPL00008	BPL00008	BPL00008	BPL00008	BPL00008	BPL00008	BPL00008	BPL00008
8	Pull Stud & Center Bore Plug Kit (qty 5)	1	M5MAC-BBP	M9MAC-BBP	M9MAC-BBP	M9MAC-BBP	M9MAC-BBP	M9MAC-BBP	M9MAC-BBP	M9MAC-BBP	M9MAC-BBP	M9MAC-BBP
9	Mounting Bore Cap Kit (qty 4)	Varies	M5MAC-BC	M5MAC-BC	M9MAC-BC	M9MAC-BC	M9MAC-BC	M9MAC-BC	M9MAC-BC	M9MAC-BC	M9MAC-BC	M9MAC-BC
10	Poka-Yoke Cap	4	PLG00003	PLG00003	PLG00003	PLG00003	PLG00003	PLG00003	PLG00003	PLG00003	PLG00003	PLG00003
11 (not shown)	Pull Stud Kit (qty 4)	Varies	M9MAC-PS	NA	NA	NA	NA	NA	NA	NA	NA	NA

[Dimensions in mm(in)]. Images are proportionate but not to scale.







52 Tombstones



52 Tombstone Only 3-Sided	
See Page 48	M50T3-260
Body Height	260mm
Weight	37.0 kgs



52 Tombstone 3-Sided w 52 Bases	
See Page 48	M50T3-260-01
Body Height	260mm
Weight	47.5 kgs



52 Tombstone Only 4-Sided	
See Page 49	M50T4-260
Body Height	260mm
Weight	28.5 kgs



52 Tombstone 4-Sided w 52 Bases	
See Page 49	M50T4-260-01
Body Height	260mm
Weight	42.5 kgs

52 Pyramids



52 Pyramid Only 3-Sided	
See Page 54	M50P3-090
Body Height	90mm
Weight	8.3 kgs



52 Pyramid w 52 Bases	
See Page 54	M50P3-090-01
Body Height	90mm
Weight	13.6 kgs



52 Pyramid Only 3-Sided	
See Page 55	M50P3-108
Body Height	108mm
Weight	7.0 kgs



52 Pyramid w 52 Bases	
See Page 55	M50P3-108-01
Body Height	108mm
Weight	12.2 kgs

52 Dual Right Angles



52 Dual Right Angle Only	
See Page 52	M50B2-162
Body Height	162mm
Weight	7.3 kgs



52 Dual Right Angle w 52 Bases	
See Page 52	M50B2-162-01
Body Height	162mm
Weight	10.7 kgs

52 Risers



52 Riser 33mm Only	
See Page 57	M50RX-033
Height	33mm
Weight	4.5 kgs



52 Riser 33mm w 52 Base	
See Page 57	M50RX-033-01
Height	60mm
Weight	7.3 kgs



52 Riser 73mm Only	
See Page 58	M50RX-073
Height	73mm
Weight	9.9 kgs



52 Riser 73mm w 52 Base	
See Page 58	M50RX-073-01
Height	100mm
Weight	12.6 kgs

[Dimensions in mm(in)]. Images are proportionate but not to scale.



96 Tombstones

96 Tombstone Only 4-Sided		96 Tombstone 4-Sided w 52 Bases		96 Tombstone 4-Sided w 96 Bases		96 Tombstone Only 4-Sided		96 Tombstone 4-Sided w 52 Bases		96 Tombstone 4-Sided w 96 Bases	
See Page 50	M90T4-500	See Page 50	M90T4-500-01	See Page 50	M90T4-500-02	See Page 51	M90T4-668	See Page 51	M90T4-668-01	See Page 51	M90T4-668-02
Body Height	500mm	Body Height	500mm	Body Height	500mm	Body Height	668mm	Body Height	668mm	Body Height	668mm
Weight	155.0 kgs	Weight	185.1 kgs	Weight	210.5 kgs	Weight	194.7 kgs	Weight	229.4 kgs	Weight	275.1 kgs

96 Pyramids

96 Pyramid Only		96 Pyramid w 96 Bases	
See Page 56	M90P3-150	See Page 56	M90P3-150-01
Body Height	150mm	Body Height	150mm
Weight	28.9 kgs	Weight	41.1 kgs

96 Dual Right Angles

96 Dual Right Angle Only		96 Dual Right Angle w 52 Bases		96 Dual Right Angle w 96 Bases	
See Page 53	M90B2-247	See Page 53	M90B2-247-01	See Page 53	M90B2-247-02
Body Height	254mm	Body Height	254mm	Body Height	254mm
Weight	29.0 kgs	Weight	32.5 kgs	Weight	42.4 kgs

96 Risers

96 Riser 33mm Only		96 Riser 33mm w 96 Base		96 Riser 73mm Only		96 Riser 73mm w 96 Base	
See Page 59	M90RX-033	See Page 59	M90RX-033-01	See Page 60	M90RX-073	See Page 60	M90RX-073-01
Height	33mm	Height	60mm	Height	73mm	Height	100mm
Weight	7.6 kgs	Weight	12.7 kgs	Weight	17.0 kgs	Weight	22.1 kgs

[Dimensions in mm(in)]. Images are proportionate but not to scale.



Scan code to launch product page



DYNOMOUNT™ TOMBSTONES 52 SERIES - 3 SIDED

M50T3-260

	Information	Ref Part Number	Metric	Imperial
Part Number		M50T3-260		
Family	DynoMount			
Product	Tombstone Only 3-Sided			
Product Version	52			
Product Type	Tombstone 3-Side, Square Base			
Overall Length			193mm	7.60"
Overall Width			193mm	7.60"
Overall Height			260mm	10.25"
Overall Weight			37.0kg	81.5lbs
Bolts for attaching DynoLock Base	Not Included See Accessories			
Precision Bushing (Required)	Not Included See Accessories			
Pull Studs Included, 4	20mm			
Mounting to Machine Table				
Mounting Bores - Quantity	8			
Mount to Table Option			100mm	3.94"
Custom Mounting Variations	Requires Technical Review			
Assembled Configuration				
Description	52 Tombstone 3-Sided w 52 Bases	Ref Part Number	M50T3-260-01	Quantity
				1
DynoLock Bases Included and Installed	Yes	M5MBS-104-01		6

Accessories		Ref Part Number	Page
Compatible DynoMount Base	52	M5MBS-104-01	32
Base Mounting Bore Hole Cap, Set of 4	52	M5MAC-BC	75
Base Pull Stud Plug, Set of 4 and Removal Magnet	52	M5MAC-BPMET	75
MagGrabber		MATE02803	75
Mount Hardware Kit, 24 Bushings and 24 Bolts		M00AC-BU-01	76

Compatible DynoGrip Assemblies*		Ref Part Number	Page
52 Vise Assembly 95 60	52	M5MVC-095060	9
52 Vise Assembly 120 60	52	M5MVC-120060	10
52 Vise Assembly 95 80	52	M5MVC-095080	11
52 Vise Assembly 120 80	52	M5MVC-120080	12
52 Vise Assembly 160 80	52	M5MVC-160080	14
52 Vise Assembly 200 80	52	M5MVC-200080	15
52 ER-32 Collet Tool	52	M5MCL-E32090	26
52 ER-40 Collet Tool	52	M5MCL-E40090	26
52 Pull Stud, Set of 4	52	M5MAC-PS	74

*Fully-populated mounts are configured with identical vises in identical orientations. Alternative configurations are possible. See Page 61 for examples.

Mount Base - M50T3-260



Mount Assembly - M50T3-260-01



Exploded View



QuickSpecs™ (QR Code Content)

Part Number:	M50T3-260
Serial Number:	Sample1234
Date Assembled:	yyyy/mm/dd
Product Type:	52 Tombstone 3-Side, Square Base
Overall Height:	260mm
Overall Weight:	37.0kg
Full Specs Link:	Click Here
CAD File Link:	Click Here
Instructions Link:	Click Here
Download Catalog:	Click Here
	Made in USA

[Dimensions in mm(in)]. Images are proportionate but not to scale.





M50T4-260

	Information	Ref Part Number	Metric	Imperial
Part Number		M50T4-260		
Family	DynoMount			
Product	Tombstone Only 4-Sided			
Product Version	52			
Product Type	Tombstone 4-Side, Square Base			
Overall Length			193mm	7.60"
Overall Width			193mm	7.60"
Overall Height			260mm	10.25"
Overall Weight			28.5kg	62.8lbs
Bolts for attaching DynoLock Base	Not Included See Accessories			
Precision Bushing (Required)	Not Included See Accessories			
Pull Studs Included, 4	20mm			
Mounting to Machine Table				
Mounting Bores - Quantity	8			
Mount to Table Option			100mm	3.94"
Custom Mounting Variations	Requires Technical Review			
Assembled Configuration				
Description	52 Tombstone 4-Sided w 52 Bases	Ref Part Number	M50T4-260-01	Quantity
				1
DynoLock Bases Included and Installed	Yes	M5MBS-104-01		8

Accessories		Ref Part Number	Page
Compatible DynoMount Base	52	M5MBS-104-01	32
Base Mounting Bore Hole Cap, Set of 4	52	M5MAC-BC	75
Base Pull Stud Plug, Set of 4 and Removal Magnet	52	M5MAC-BPMET	75
MagGrabber		MATE02803	75
Mount Hardware Kit, 32 Bushings and 32 Bolts		M00AC-BU-02	76

Compatible DynoGrip Assemblies*		Ref Part Number	Page
52 Vise Assembly 95 60	52	M5MVC-095060	9
52 Vise Assembly 120 60	52	M5MVC-120060	10
52 Vise Assembly 95 80	52	M5MVC-095080	11
52 Vise Assembly 120 80	52	M5MVC-120080	12
52 Vise Assembly 160 80	52	M5MVC-160080**	14
52 Vise Assembly 200 80	52	M5MVC-200080**	15
52 ER-32 Collet Tool	52	M5MCL-E32090	26
52 ER-40 Collet Tool	52	M5MCL-E40090	26
52 Pull Stud, Set of 4	52	M5MAC-PS	74

*Fully-populated mounts are configured with identical vises in identical orientations. Alternative configurations are possible. See Page 61 for examples.
 **Vertical orientation only

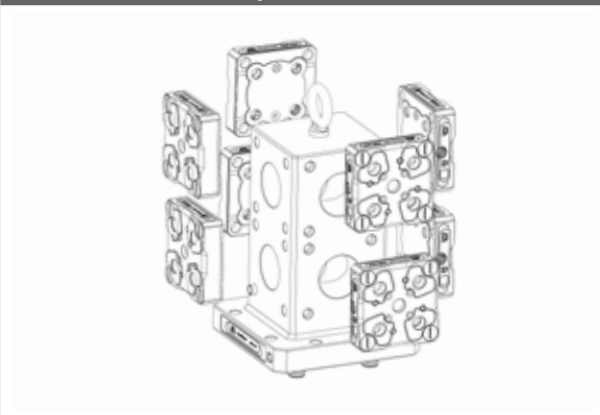
Mount Base - M50T4-260



Mount Assembly - M50T4-260-01



Exploded View



QuickSpecs™ (QR Code Content)

Part Number:	M50T4-260
Serial Number:	Sample1234
Date Assembled:	yyyy/mm/dd
Product Type:	52 Tombstone 4-Side, Square Base
Overall Height:	260mm
Overall Weight:	28.5kg
Full Specs Link:	Click Here
CAD File Link:	Click Here
Instructions Link:	Click Here
Download Catalog:	Click Here
Made in USA	

[Dimensions in mm(in)]. Images are proportionate but not to scale.



Scan code to launch product page



DYNOMOUNT™ TOMBSTONES 96 SERIES

M90T4-500

	Information	Ref Part Number	Metric	Imperial
Part Number		M90T4-500		
Family	DynoMount			
Product	Tombstone Only 4-Sided			
Product Version	96			
Product Type	Tombstone 4-Side, Square Base			
Overall Length			400mm	15.75"
Overall Width			400mm	15.75"
Overall Height			500mm	19.69"
Overall Weight			155.0kg	341.1lbs
Bolts for attaching DynoLock Base	Not Included See Accessories			
Precision Bushing (Required)	Not Included See Accessories			
Pull Studs Included, 4	na			

Mounting to Machine Table				
Mounting Bores - Quantity	8			
Mount to Table Option			160mm	6.30"
Mount to Table Option 2			320mm	12.60"
Custom Mounting Variations	Requires Technical Review			

	Description	Ref Part Number	Quantity
Assembled Configuration - with 52 Bases	96 Tombstone 4-Sided w 52 Bases	M90T4-500-01	1
DynoLock Bases Included and Installed	Yes	M5MBS-104-01	16
	Description	Ref Part Number	Quantity
Assembled Configuration - with 96 Bases	96 Tombstone 4-Sided w 96 Bases	M90T4-500-02	1
DynoLock Bases Included and Installed	Yes	M9MBS-192-01	8

Accessories		Ref Part Number	Page
Compatible DynoMount Base	52	M5MBS-104-01	32
Compatible DynoMount Base	96	M9MBS-192-01	38
Base Mounting Bore Hole Cap, Set of 4	96	M9MAC-BC	75
Base Pull Stud Plug, Set of 4 and Removal Magnet	96	M9MAC-BPMET	75
MagGrabber		MATE02803	75
Mount Hardware Kit, 32 Bushings and 32 Bolts		M00AC-BU-02	76
Mount Hardware Kit, 64 Bushings and 64 Bolts		M00AC-BU-05	76

Compatible DynoGrip Assemblies*		Ref Part Number	Page
52 Vise Assembly 95 60	52	M5MVC-095060	9
52 Vise Assembly 120 60	52	M5MVC-120060	10
52 Vise Assembly 95 80	52	M5MVC-095080	11
52 Vise Assembly 120 80	52	M5MVC-120080	12
52 Vise Assembly 160 80	52	M5MVC-160080	14
52 Vise Assembly 200 80	52	M5MVC-200080	15
52 ER-32 Collet Tool	52	M5MCL-E32090	26
52 ER-40 Collet Tool	52	M5MCL-E40090	26
52 Pull Stud, Set of 4	52	M5MAC-PS	74
96 Vise Assembly 155 80	96	M9MVC-155080	16
96 Vise Assembly 205 80	96	M9MVC-205080	17
96 Vise Assembly 155 125	96	M9MVC-155125	18
96 Vise Assembly 205 125	96	M9MVC-205125	19
96 Vise Assembly 255 125	96	M9MVC-255125**	20
96 Vise Assembly 305 125	96	M9MVC-305125**	21
96 Vise Assembly 355 125	96	M9MVC-355125**	22
96 Pull Stud, Set of 4	96	M9MAC-PS	74

*Fully-populated mounts are configured with identical vises in identical orientations. Alternative configurations are possible. See Page 61 for examples.
 **Vertical orientation only

Mount Base - M90T4-500



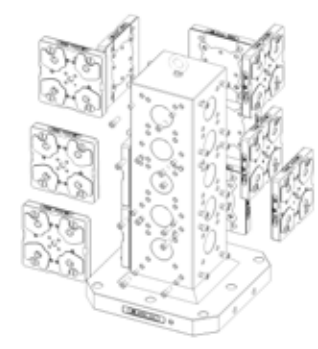
Mount Assembly

With 52 Bases - M90T4-500-01

With 96 Bases - M90T4-500-02



Exploded View



QuickSpecs™ (QR Code Content)

Part Number:	M90T4-500
Serial Number:	Sample1234
Date Assembled:	yyyy/mm/dd
Product Type:	96 Tombstone 4-Side, Square Base
Overall Height:	500mm
Overall Weight:	155.0kg
Full Specs Link:	Click Here
CAD File Link:	Click Here
Instructions Link:	Click Here
Download Catalog:	Click Here
	Made in USA

[Dimensions in mm(in)]. Images are proportionate but not to scale.





M90T4-668

	Information	Ref Part Number	Metric	Imperial
Part Number		M90T4-668		
Family	DynoMount			
Product	Tombstone Only 4-Sided			
Product Version	96			
Product Type	Tombstone 4-Side, Square Base			
Overall Length			400mm	15.75"
Overall Width			400mm	15.75"
Overall Height			668mm	26.30"
Overall Weight			194.7kg	428.3lbs
Bolts for attaching DynoLock Base	Not Included See Accessories			
Precision Bushing (Required)	Not Included See Accessories			
Pull Studs Included, 4	na			
Mounting to Machine Table				
Mounting Bores - Quantity	8			
Mount to Table Option			160mm	6.30"
Mount to Table Option 2			320mm	12.60"
Custom Mounting Variations	Requires Technical Review			
	Description	Ref Part Number	Quantity	
Assembled Configuration - with 52 Bases	96 Tombstone 4-Sided w 52 Bases	M90T4-668-01	1	
DynoLock Bases Included and Installed	Yes	M5MBS-104-01	20	
	Description	Ref Part Number	Quantity	
Assembled Configuration - with 96 Bases	96 Tombstone 4-Sided w 96 Bases	M90T4-668-02	1	
DynoLock Bases Included and Installed	Yes	M9MBS-192-01	12	

Accessories	Ref Part Number	Page
Compatible DynoMount Base	52 M5MBS-104-01	32
Compatible DynoMount Base	96 M9MBS-192-01	38
Base Mounting Bore Hole Cap, Set of 4	96 M9MAC-BC	75
Base Pull Stud Plug, Set of 4 and Removal Magnet	96 M9MAC-BPMET	75
MagGrabber	MATE02803	75
Mount Hardware Kit, 48 Bushings and 48 Bolts	M00AC-BU-03	76
Mount Hardware Kit, 80 Bushings and 80 Bolts	M00AC-BU-04	76

Compatible DynoGrip Assemblies*	Ref Part Number	Page
52 Vise Assembly 95 60	52 M5MVC-095060	9
52 Vise Assembly 120 60	52 M5MVC-120060	10
52 Vise Assembly 95 80	52 M5MVC-095080	11
52 Vise Assembly 120 80	52 M5MVC-120080	12
52 Vise Assembly 160 80	52 M5MVC-160080	14
52 Vise Assembly 200 80	52 M5MVC-200080	15
52 ER-32 Collet Tool	52 M5MCL-E32090	26
52 ER-40 Collet Tool	52 M5MCL-E40090	26
52 Pull Stud, Set of 4	52 M5MAC-PS	74
96 Vise Assembly 155 80	96 M9MVC-155080	16
96 Vise Assembly 205 80	96 M9MVC-205080	17
96 Vise Assembly 155 125	96 M9MVC-155125	18
96 Vise Assembly 205 125	96 M9MVC-205125	19
96 Vise Assembly 255 125	96 M9MVC-255125**	20
96 Vise Assembly 305 125	96 M9MVC-305125**	21
96 Vise Assembly 355 125	96 M9MVC-355125**	22
96 Pull Stud, Set of 4	96 M9MAC-PS	74

*Fully-populated mounts are configured with identical vises in identical orientations. Alternative configurations are possible. See Page 61 for examples.
 **Vertical orientation only

Mount Base - M90T4-668



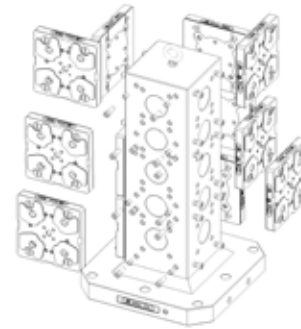
Mount Assembly

With 52 Bases - M90T4-668-01

With 96 Bases - M90T4-668-02



Exploded View



QuickSpecs™ (QR Code Content)

Part Number:	M90T4-668
Serial Number:	Sample1234
Date Assembled:	yyyy/mm/dd
Product Type:	96 Tombstone 4-Side, Square Base
Overall Height:	668mm
Overall Weight:	194.7kg
Full Specs Link:	Click Here
CAD File Link:	Click Here
Instructions Link:	Click Here
Download Catalog:	Click Here
	Made in USA



M50B2-162

	Information	Ref Part Number	Metric	Imperial
Part Number		M50B2-162		
Family	DynoMount			
Product	Dual Right Angle Only			
Product Version	52			
Product Type	Dual Right Angle			
Overall Length			104mm	4.10"
Overall Width			104mm	4.10"
Overall Height			162mm	6.38"
Overall Weight			7.3kg	16.0lbs
Bolts for attaching DynoLock Base	Included	0		
Precision Bushing (Required)	Included	M00AC-BU		
Pull Studs Included, 4	16mm			
Mounting to Machine Table				
Mounting Bores - Quantity	2			
Mount to Table Option			67mm	2.64"
Custom Mounting Variations	Requires Technical Review			
Assembled Configuration				
	Description	Ref Part Number	Quantity	
	52 Dual Right Angle w 52 Bases	M50B2-162-01	1	
	DynoLock Bases Included and Installed	Yes	M5MBS-104-01	2

Accessories		Ref Part Number	Page
Compatible DynoMount Base	52	M5MBS-104-01	32
Base Mounting Bore Hole Cap, Set of 4	52	M5MAC-BC	75
Base Pull Stud Plug, Set of 4 and Removal Magnet	52	M5MAC-BPMET	75
MagGrabber		MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts		M00AC-BU	76

Compatible DynoGrip Assemblies*		Ref Part Number	Page
52 Vise Assembly 95 60	52	M5MVC-095060	9
52 Vise Assembly 120 60	52	M5MVC-120060	10
52 Vise Assembly 95 80	52	M5MVC-095080	11
52 Vise Assembly 120 80	52	M5MVC-120080	12
52 Vise Assembly 160 80	52	M5MVC-160080	14
52 Vise Assembly 200 80	52	M5MVC-200080**	15
52 ER-32 Collet Tool	52	M5MCL-E32090	26
52 ER-40 Collet Tool	52	M5MCL-E40090	26
52 Pull Stud, Set of 4	52	M5MAC-PS	74

*Fully-populated mounts are configured with identical vises in identical orientations. Alternative configurations are possible. See Page 61 for examples.

**Horizontal orientation only

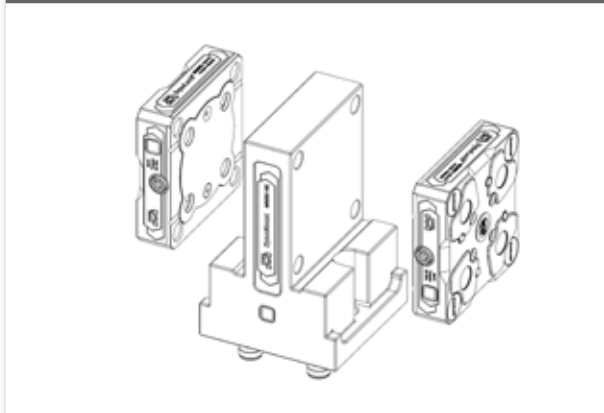
Mount Base - M50B2-162



Mount Assembly - M50B2-162-01



Exploded View



QuickSpecs™ (QR Code Content)

Part Number:	M50B2-162
Serial Number:	Sample1234
Date Assembled:	yyyy/mm/dd
Product Type:	52 Dual Right Angle
Overall Height:	162mm
Overall Weight:	7.3kg
Full Specs Link:	Click Here
CAD File Link:	Click Here
Instructions Link:	Click Here
Download Catalog:	Click Here
	Made in USA

[Dimensions in mm(in)]. Images are proportionate but not to scale.



M90B2-247

	Information	Ref Part Number	Metric	Imperial
Part Number		M90B2-247		
Family	DynoMount			
Product	Dual Right Angle Only			
Product Version	96			
Product Type	Dual Right Angle			
Overall Length			193mm	7.60"
Overall Width			140mm	5.50"
Overall Height			254mm	10.00"
Overall Weight			29.0kg	63.7lbs
Bolts for attaching DynoLock Base	Included	M10x1.5 X 30		
Precision Bushing (Required)	Included	M00AC-BU		
Pull Studs Included, 4	20mm			
Mounting to Machine Table				
Mounting Bores - Quantity	2			
Mount to Table Option			95mm	3.74"
Custom Mounting Variations	Requires Technical Review			
	Description	Ref Part Number	Quantity	
Assembled Configuration - with 52 Bases	96 Dual Right Angle w 52 Bases	M90B2-247-01	1	
DynoLock Bases Included and Installed	Yes	M5MBS-104-01	2	
	Description	Ref Part Number	Quantity	
Assembled Configuration - with 96 Bases	96 Dual Right Angle w 96 Bases	M90B2-247-02	1	
DynoLock Bases Included and Installed	Yes	M9MBS-192-01	2	

Accessories		Ref Part Number	Page
Compatible DynoMount 52 Base	52	M5MBS-104-01	32
Compatible DynoMount 96 Base	96	M9MBS-192-01	38
Mounting Bore Hole Cap, Plastic, Set of 4	96	M9MAC-BC	75
Pull Stud Plug, Steel, Set of 4 and MagGrabber	96	M9MAC-BPMET	75
MagGrabber		MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts		M00AC-BU	76
Pull Stud, Set of 4	96	M9MAC-PS	74

Compatible DynoGrip Assemblies*		Ref Part Number	Page
52 Vise Assembly 95 60	52	M5MVC-095060	9
52 Vise Assembly 120 60	52	M5MVC-120060	10
52 Vise Assembly 95 80	52	M5MVC-095080	11
52 Vise Assembly 120 80	52	M5MVC-120080	12
52 Vise Assembly 160 80	52	M5MVC-160080	14
52 Vise Assembly 200 80	52	M5MVC-200080	15
52 ER-32 Collet Tool	52	M5MCL-E32090	26
52 ER-40 Collet Tool	52	M5MCL-E40090	26
52 Pull Stud, Set of 4	52	M5MAC-PS	74
96 Vise Assembly 155 80	96	M9MVC-155080	16
96 Vise Assembly 205 80	96	M9MVC-205080	17
96 Vise Assembly 155 125	96	M9MVC-155125	18
96 Vise Assembly 205 125	96	M9MVC-205125	19
96 Vise Assembly 255 125	96	M9MVC-255125	20
96 Vise Assembly 305 125	96	M9MVC-305125**	21
96 Vise Assembly 355 125	96	M9MVC-355125**	22
96 Pull Stud, Set of 4	96	M9MAC-PS	74

*Fully-populated mounts are configured with identical vises in identical orientations. Alternative configurations are possible. See Page 61 for examples.

**Horizontal orientation only

Mount Base - M90B2-247



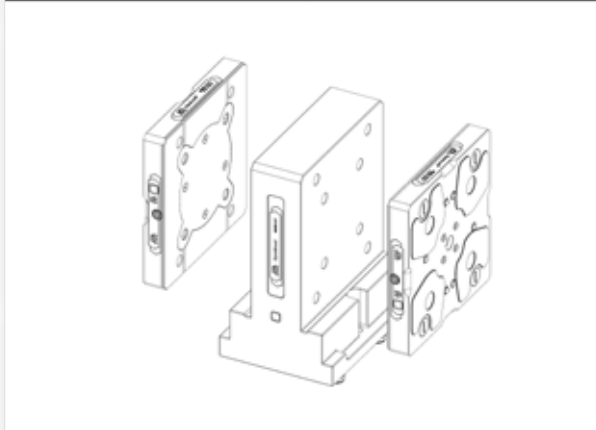
Mount Assembly

With 52 Bases - M90B2-247-01

With 96 Bases - M90B2-247-02



Exploded View



QuickSpecs™ (QR Code Content)

Part Number:	M90B2-247
Serial Number:	123456789
Date Assembled:	mm/dd/yyyy
Product Type:	Dual Right Angle Only 96
Overall Height:	254mm
Overall Weight:	29.0kg
Full Specs Link:	Click Here
CAD File Link:	Click Here
Instructions Link:	Click Here
Download Catalog:	Click Here
	Made in USA



M50P3-090

	Information	Ref Part Number	Metric	Imperial
Part Number		M50P3-090		
Family	DynoMount			
Product	Pyramid Only 3-Sided			
Product Version	52			
Product Type	Pyramid 3-Side, Round Base			
Overall Diameter			265mm	10.43"
Overall Height			90mm	3.54"
Overall Weight			8.3kg	18.3lbs
Angle	20 Degrees			
Bolts for attaching DynoLock Base	Included	M10x1.5 X 30		
Precision Bushing (Required)	Included	M00AC-BU		
Pull Studs Included, 4	20mm			

Mounting to Machine Table				
Mounting Bores - Quantity	10			
Mount to Table Option 1			70mm	2.76"
Mount to Table Option 2			97mm	3.83"
Mount to Table Option 3			47.9mm	1.89"
Custom Mounting Variations	Requires Technical Review			

	Description	Ref Part Number	Quantity	
Assembled Configuration	52 Pyramid w 52 Bases	M50P3-090-01	1	
DynoLock Bases Included and Installed	Yes	M5MBR-116-01	3	
Overall Weight			13.6kg	30.0lbs

Accessories		Ref Part Number	Page
Compatible DynoMount Base	52	M5MBR-116-01	28
Base Mounting Bore Hole Cap, Set of 4	52	M5MAC-BC	75
Base Pull Stud Plug, Set of 4 and Removal Magnet	52	M5MAC-BPMET	75
MagGrabber		MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts		M00AC-BU	76

Compatible DynoGrip Assemblies*		Ref Part Number	Page
52 Vise Assembly 95 60	52	M5MVC-095060	9
52 Vise Assembly 120 60	52	M5MVC-120060	10
52 Vise Assembly 95 80	52	M5MVC-095080	11
52 Vise Assembly 120 80	52	M5MVC-120080	12
52 Pull Stud, Set of 4	52	M5MAC-PS	74
52 ER-32 Collet Tool	52	M5MCL-E32090	26
52 ER-40 Collet Tool	52	M5MCL-E40090	26

*Fully-populated mounts are configured with identical vises in identical orientations. Alternative configurations are possible. See Page 61 for examples.

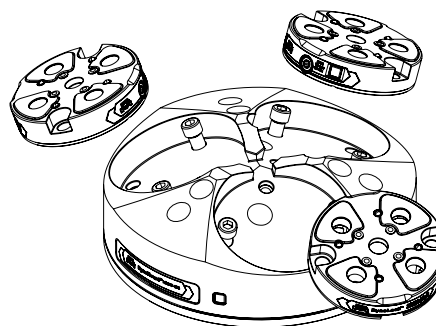
Mount Base - M50P3-090



Mount Assembly - M50P3-090-01



Exploded View



QuickSpecs™ (QR Code Content)

Part Number:	M50P3-090
Serial Number:	Sample1234
Date Assembled:	yyyy/mm/dd
Product Type:	52 Pyramid 3-Side, Round Base
Overall Height:	90mm
Overall Weight:	8.3kg
Full Specs Link:	Click Here
CAD File Link:	Click Here
Instructions Link:	Click Here
Download Catalog:	Click Here
	Made in USA

[Dimensions in mm(in)]. Images are proportionate but not to scale.





M50P3-108

	Information	Ref Part Number	Metric	Imperial
Part Number		M50P3-108		
Family	DynoMount			
Product	Pyramid Only 3-Sided			
Product Version	52			
Product Type	Pyramid 3-Side, Round Base			
Overall Diameter			246mm	9.70"
Overall Height			108mm	4.25"
Overall Weight			7.0kg	15.5lbs
Angle	40 Degrees			
Bolts for attaching DynoLock Base	Included	M10x1.5 X 30		
Precision Bushing (Required)	Included	M00AC-BU		
Pull Studs Included, 4	20mm			
Mounting to Machine Table				
Mounting Bores - Quantity	6			
Mount to Table Option 1			70mm	2.76"
Mount to Table Option 2			97mm	3.83"
Custom Mounting Variations	Requires Technical Review			
	Description	Ref Part Number	Quantity	
Assembled Configuration	52 Pyramid w 52 Bases	M50P3-108-01	1	
DynoLock Bases Included and Installed	Yes	M5MBR-116-01	3	
Overall Weight			12.2kg	26.9lbs

Accessories		Ref Part Number	Page
Compatible DynoMount Base	52	M5MBR-116-01	28
Base Mounting Bore Hole Cap, Set of 4	52	M5MAC-BC	75
Base Pull Stud Plug, Set of 4 and Removal Magnet	52	M5MAC-BPMET	75
MagGrabber		MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts		M00AC-BU	76

Compatible DynoGrip Assemblies*		Ref Part Number	Page
52 Vise Assembly 95 60	52	M5MVC-095060	9
52 Vise Assembly 120 60	52	M5MVC-120060	10
52 Vise Assembly 95 80	52	M5MVC-095080	11
52 Vise Assembly 120 80	52	M5MVC-120080	12
52 Pull Stud, Set of 4	52	M5MAC-PS	74
52 ER-32 Collet Tool	52	M5MCL-E32090	26
52 ER-40 Collet Tool	52	M5MCL-E40090	26

*Fully-populated mounts are configured with identical vises in identical orientations. Alternative configurations are possible. See Page 61 for examples.

[Dimensions in mm(in)]. Images are proportionate but not to scale.

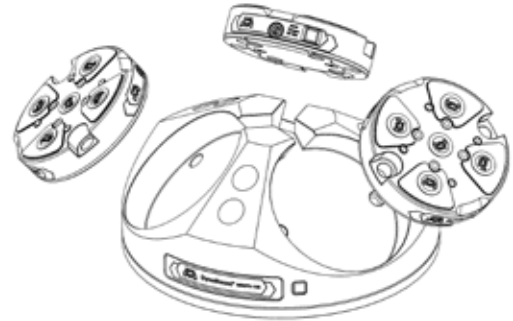
Mount Base - M50P3-108



Mount Assembly - M50P3-108-01



Exploded View



QuickSpecs™ (QR Code Content)

Part Number:	M50P3-108
Serial Number:	Sample1234
Date Assembled:	yyyy/mm/dd
Product Type:	52 Pyramid 3-Side, Round Base
Overall Height:	108mm
Overall Weight:	7.0kg
Full Specs Link:	Click Here
CAD File Link:	Click Here
Instructions Link:	Click Here
Download Catalog:	Click Here
	Made in USA

**M90P3-150**

	Information	Ref Part Number	Metric	Imperial
Part Number		M90P3-150		
Family	DynoMount			
Product	Pyramid Only 3-Sided			
Product Version	96			
Product Type	Pyramid 3-Side, Round Base			
Overall Diameter			400mm	15.75"
Overall Height			150mm	5.90"
Overall Weight			28.9kg	63.5lbs
Angle	40 Degrees			
Bolts for attaching DynoLock Base	Included	M10x1.5 X 30		
Precision Bushing (Required)	Included	M00AC-BU		
Pull Studs Included, 4	20mm			
Mounting to Machine Table				
Mounting Bores - Quantity	6			
Mount to Table Option 1			92mm	3.63"
Mount to Table Option 2			146mm	5.73"
Mount to Table Option 3			0mm	0.00"
Recommended Bolt (Not Included)				
Custom Mounting Variations	Requires Technical Review			
	Description	Ref Part Number	Quantity	
Assembled Configuration	Pyramid w 96 Bases	M90P3-150-01	1	
DynoLock Bases Included and Installed	Yes	M9MBR-176-01	3	
Overall Weight			41.1kg	90.5lbs

Accessories		Ref Part Number	Page
Compatible DynoMount Base	96	M9MBR-176-01	34
Base Mounting Bore Hole Cap, Set of 4	96	M9MAC-BC	75
Base Pull Stud Plug, Set of 4 and Removal Magnet	96	M9MAC-BPMET	75
MagGrabber		MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts		M00AC-BU	76

Compatible DynoGrip Assemblies*		Ref Part Number	Page
96 Vise Assembly 155 80	96	M9MVC-155080	16
96 Vise Assembly 205 80	96	M9MVC-205080	17
96 Vise Assembly 155 125	96	M9MVC-155125	18
96 Vise Assembly 205 125	96	M9MVC-205125	19
96 Vise Assembly 255 125	96	M9MVC-255125**	20
96 Vise Assembly 305 125	96	M9MVC-305125	21
96 Vise Assembly 355 125	96	M9MVC-355125	22
96 Pull Stud, Set of 4	96	M9MAC-PS	74

*Fully-populated mounts are configured with identical vises in identical orientations. Alternative configurations are possible. See Page 61 for examples.

**Horizontal orientation only

Mount Base - M90P3-150**Mount Assembly - M90P3-150-01****Exploded View****QuickSpecs™ (QR Code Content)**

Part Number:	M90P3-150
Serial Number:	Sample1234
Date Assembled:	yyyy/mm/dd
Product Type:	96 Pyramid 3-Side, Round Base
Overall Height:	150mm
Overall Weight:	28.9kg
Full Specs Link:	Click Here
CAD File Link:	Click Here
Instructions Link:	Click Here
Download Catalog:	Click Here
	Made in USA

[Dimensions in mm(in)]. Images are proportionate but not to scale.





M50RX-033

	Information	Ref Part Number	Metric	Imperial
Part Number		M50RX-033		
Family	DynoMount			
Product	Riser 33mm Only			
Product Version	52			
Product Type	Riser			
Overall Length			150mm	5.90"
Overall Width			116mm	4.57"
Overall Height			33mm	1.30"
Overall Weight			4.5kg	10.0lbs
Bolts for attaching DynoLock Base	Included	M10x1.5 X 30		
Precision Bushing (Required)	Included	M00AC-BU		
Pull Studs Included, 4	16mm			

M50RX-033-01

	Description	Ref Part Number	Quantity	
Assembled Configuration	52 Riser 33mm w 52 Base	M50RX-033-01	1	
DynoLock Bases Included and Installed	Yes	M5MBX-116150-02	1	
Assembled Overall Height	Height Riser + Base		60mm	2.36"

Accessories

		Ref Part Number	Page
Compatible DynoMount Base	52	M5MBX-116150-02	33
Base Mounting Bore Hole Cap, Set of 4	52	M5MAC-BC	75
Base Pull Stud Plug, Set of 4 and Removal Magnet	52	M5MAC-BPMET	75
MagGrabber		MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts		M00AC-BU	76

Compatible DynoGrip Assemblies		Ref Part Number	Page
52 Vise Assembly 95 60	52	M5MVC-095060	9
52 Vise Assembly 120 60	52	M5MVC-120060	10
52 Vise Assembly 95 80	52	M5MVC-095080	11
52 Vise Assembly 120 80	52	M5MVC-120080	12
52 Vise Assembly 160 80	52	M5MVC-160080	14
52 Vise Assembly 200 80	52	M5MVC-200080	15
52 ER-32 Collet Tool	52	M5MCL-E32090	26
52 ER-40 Collet Tool	52	M5MCL-E40090	26
52 Pull Stud, Set of 4	52	M5MAC-PS	74

Mount Base - M50RX-033



Mount Assembly - M50RX-033-01



Exploded View



Assembled Overall Height **60mm** **2.36"**

QuickSpecs™ (QR Code Content)

Part Number:	M50RX-033
Serial Number:	Sample1234
Date Assembled:	yyyy/mm/dd
Product Type:	52 Riser
Overall Height:	33mm
Overall Weight:	4.5kg
Assembled Overall Height:	60mm
Full Specs Link:	Click Here
CAD File Link:	Click Here
Instructions Link:	Click Here
Download Catalog:	Click Here
	Made in USA

[Dimensions in mm(in)]. Images are proportionate but not to scale.



M50RX-073

	Information	Ref Part Number	Metric	Imperial
Part Number		M50RX-073		
Family	DynoMount			
Product	Riser 73mm Only			
Product Version	52			
Product Type	Riser			
Overall Length			150mm	5.90"
Overall Width			116mm	4.57"
Overall Height			73mm	2.87"
Overall Weight			9.9kg	21.8lbs
Bolts for attaching DynoLock Base	Included	M10x1.5 X 30		
Precision Bushing (Required)	Included	M00AC-BU		
Pull Studs Included, 4	16mm			

M50RX-073-01

	Description	Ref Part Number	Quantity	
Assembled Configuration	52 Riser 73mm w 52 Base	M50RX-073-01	1	
DynoLock Bases Included and Installed	Yes	M5MBX-116150-02	1	
Assembled Overall Height	Height Riser + Base		100mm	3.94"

Accessories		Ref Part Number	Page
Compatible DynoMount Base	52	M5MBX-116150-02	33
Base Mounting Bore Hole Cap, Set of 4	52	M5MAC-BC	75
Base Pull Stud Plug, Set of 4 and Removal Magnet	52	M5MAC-BPMET	75
MagGrabber		MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts		M00AC-BU	76

Compatible DynoGrip Assemblies		Ref Part Number	Page
52 Vise Assembly 95 60	52	M5MVC-095060	9
52 Vise Assembly 120 60	52	M5MVC-120060	10
52 Vise Assembly 95 80	52	M5MVC-095080	11
52 Vise Assembly 120 80	52	M5MVC-120080	12
52 Vise Assembly 160 80	52	M5MVC-160080	14
52 Vise Assembly 200 80	52	M5MVC-200080	15
52 ER-32 Collet Tool	52	M5MCL-E32090	26
52 ER-40 Collet Tool	52	M5MCL-E40090	26
52 Pull Stud, Set of 4	52	M5MAC-PS	74

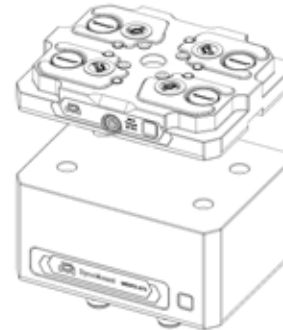
Mount Base - M50RX-073



Mount Assembly - M50RX-073-01



Exploded View



Assembled Overall Height **100mm** **3.94"**

QuickSpecs™ (QR Code Content)

Part Number:	M50RX-073
Serial Number:	Sample1234
Date Assembled:	yyyy/mm/dd
Product Type:	52 Riser
Overall Height:	73mm
Overall Weight:	9.9kg
Assembled Overall Height:	100mm
Full Specs Link:	Click Here
CAD File Link:	Click Here
Instructions Link:	Click Here
Download Catalog:	Click Here
	Made in USA

[Dimensions in mm(in)]. Images are proportionate but not to scale.





M90RX-033

	Information	Ref Part Number	Metric	Imperial
Part Number		M90RX-033		
Family	DynoMount			
Product	Riser 33mm Only			
Product Version	96			
Product Type	Riser			
Overall Length			192mm	7.56"
Overall Width			156mm	6.15"
Overall Height			33mm	1.30"
Overall Weight			7.6kg	16.8lbs
Bolts for attaching DynoLock Base	Included	M10x1.5 X 30		
Precision Bushing (Required)	Included	M00AC-BU		
Pull Studs Included, 4	20mm			
Assembled Overall Height	Height Riser + Base		60mm	2.36"
Mounting to Machine Table				
Mounting Bores - Quantity	4			
Mount to Table Option 1			100mm	3.94"
Mount to Table Option 2			150mm	5.90"
Custom Mounting Variations	Requires Technical Review			

M90RX-033-01

	Description	Ref Part Number	Quantity	
Assembled Configuration	Riser 33mm w 96 Base	M90RX-033-01	1	
DynoLock Bases Included and Installed	Yes	M9MBX-156192-02	1	
Assembled Overall Height	Height Riser + Base		60mm	2.36"

Accessories		Ref Part Number	Page
Compatible DynoMount Base	96	M9MBX-156192-02	40
Base Mounting Bore Hole Cap, Set of 4	96	M9MAC-BC	75
Base Pull Stud Plug, Set of 4 and Removal Magnet	96	M9MAC-BPMET	75
MagGrabber		MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts		M00AC-BU	76

Compatible DynoGrip Assemblies		Ref Part Number	Page
96 Vise Assembly 155 80	96	M9MVC-155080	16
96 Vise Assembly 205 80	96	M9MVC-205080	17
96 Vise Assembly 155 125	96	M9MVC-155125	18
96 Vise Assembly 205 125	96	M9MVC-205125	19
96 Vise Assembly 255 125	96	M9MVC-255125	20
96 Vise Assembly 305 125	96	M9MVC-305125	21
96 Vise Assembly 355 125	96	M9MVC-355125	22
96 Pull Stud, Set of 4	96	M9MAC-PS	74

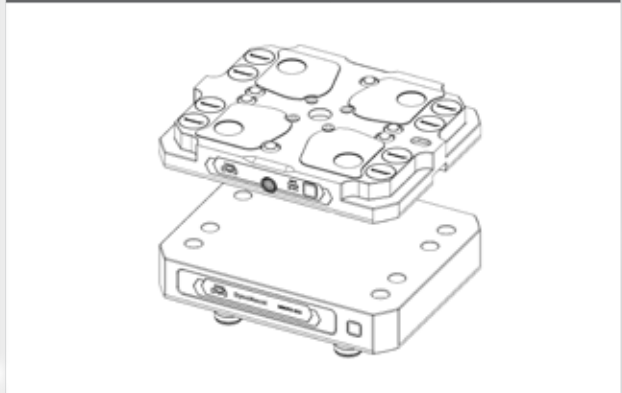
Mount Base - M90RX-033



Mount Assembly - M90RX-033-01



Exploded View



Assembled Overall Height **60mm** **2.36"**

QuickSpecs™ (QR Code Content)

Part Number:	M90RX-033
Serial Number:	Sample1234
Date Assembled:	yyyy/mm/dd
Product Type:	96 Riser
Overall Height:	33mm
Overall Weight:	7.6kg
Assembled Overall Height:	60mm
Full Specs Link:	Click Here
CAD File Link:	Click Here
Instructions Link:	Click Here
Download Catalog:	Click Here
	Made in USA

[Dimensions in mm(in)]. Images are proportionate but not to scale.



**M90RX-073**

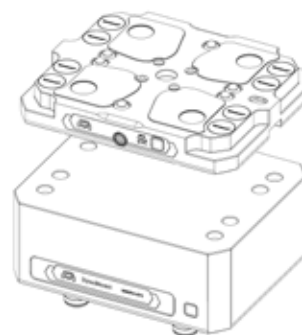
	Information	Ref Part Number	Metric	Imperial
Part Number		M90RX-073		
Family	DynoMount			
Product	Riser 73mm Only			
Product Version	96			
Product Type	Riser			
Overall Length			192mm	7.56"
Overall Width			156mm	6.15"
Overall Height			73mm	2.87"
Overall Weight			17.0kg	37.5lbs
Bolts for attaching DynoLock Base	Included	M10x1.5 X 30		
Precision Bushing (Required)	Included	M00AC-BU		
Pull Studs Included, 4	20mm			
Mount to Table Option 1			100mm	3.94"
Mount to Table Option 2			150mm	5.90"

M90RX-073-01

	Description	Ref Part Number	Quantity	
Assembled Configuration - with 96 Bases	Riser 73mm w 96 Base	M90RX-073-01	1	
DynoLock Bases Included and Installed	Yes	M9MBX-156192-02	1	
Assembled Overall Height	Height Riser + Base		100mm	3.94"

Accessories		Ref Part Number	Page
Compatible DynoMount Base	96	M9MBX-156192-02	40
Base Mounting Bore Hole Cap, Set of 4	96	M9MAC-BC	75
Base Pull Stud Plug, Set of 4 and Removal Magnet	96	M9MAC-BPMET	75
MagGrabber		MATE02803	75
Mount Hardware Kit, 4 Bushings and 4 Bolts		M00AC-BU	76

Compatible DynoGrip Assemblies		Ref Part Number	Page
96 Vise Assembly 155 80	96	M9MVC-155080	16
96 Vise Assembly 205 80	96	M9MVC-205080	17
96 Vise Assembly 155 125	96	M9MVC-155125	18
96 Vise Assembly 205 125	96	M9MVC-205125	19
96 Vise Assembly 255 125	96	M9MVC-255125	20
96 Vise Assembly 305 125	96	M9MVC-305125	21
96 Vise Assembly 355 125	96	M9MVC-355125	22
96 Pull Stud, Set of 4	96	M9MAC-PS	74

Mount Base - M90RX-073**Mount Assembly - M90RX-073-01****Exploded View****Assembled Overall Height 100mm 3.94"****QuickSpecs™ (QR Code Content)**

Part Number:	M90RX-073
Serial Number:	Sample1234
Date Assembled:	yyyy/mm/dd
Product Type:	96 Riser
Overall Height:	73mm
Overall Weight:	17.0kg
Assembled Overall Height:	100mm
Full Specs Link:	Click Here
CAD File Link:	Click Here
Instructions Link:	Click Here
Download Catalog:	Click Here
	Made in USA

[Dimensions in mm(in)]. Images are proportionate but not to scale.

Configurations on this page represent a few examples of the multitude of possible configurations of DynoGrip vises installed on DynoMount tombstones, pyramids, and dual-right angles. Different quantities, sizes, and orientations of DynoGrip vises can be configured to meet your specific application needs. Please contact your local representative or Mate customer service for assistance.

Configuration 1



Configuration 2



Configuration 3



Configuration 4



Configuration 5



Configuration 6



Configuration 7



Configuration 8



Configuration 9



Configuration 10



[Dimensions in mm(in)]. Images are proportionate but not to scale.



52 Series Jaw Overview and Options

DynoGrip Vise Part Number	M5MVC-095060	M5MVC-120060	M5MVC-095080	M5MVC-120080	M5MVC-160080	M5MVC-200080
Jaw Width	60mm	60mm	80mm	80mm	80mm	80mm
Standard Hard Jaw Quantity 2	M50JP-060STL	M50JP-060STL	M50JP-080STL	M50JP-080STL	M50JP-080STL	M50JP-080STL
Center Hard Jaw Quantity 1	M50JC-060STL	M50JC-060STL	M50JC-080STL	M50JC-080STL	M50JC-080STL	M50JC-080STL
Machinable Soft Jaw Aluminum Quantity 1 Requires Adapter	M50JW-060AL2	M50JW-060AL2	M50JW-080AL2	M50JW-080AL2	M50JW-080AL2	M50JW-080AL2
Machinable Soft Jaw Steel Quantity 1 Requires Adapter	M50JW-060ST2	M50JW-060ST2	M50JW-080ST2	M50JW-080ST2	M50JW-080ST2	M50JW-080ST2
Machinable Soft Jaw Adapter Hardware Included Quantity 1	M50JA-060	M50JA-060	M50JA-080	M50JA-080	M50JA-080	M50JA-080
Machinable Soft Jaw Center Adapter Hardware Included Quantity 1	not available	not available	M50JA-080-01	M50JA-080-01	M50JA-080-01	M50JA-080-01
Assembly of Adapter + Aluminum Jaw Quantity 2	M50JP-060AL2	M50JP-060AL2	M50JP-080AL2	M50JP-080AL2	M50JP-080AL2	M50JP-080AL2
Assembly of Adapter + Steel Jaw Quantity 2	M50JP-060ST2	M50JP-060ST2	M50JP-080ST2	M50JP-080ST2	M50JP-080ST2	M50JP-080ST2
Double Vise Set 1 Center Adapter + 2 Adapter with Aluminum Jaws	not available	not available	M50JK-080AL2	M50JK-080AL2	M50JK-080AL2	M50JK-080AL2
Double Vise Set 1 Center Adapter + 2 Adapter with Steel Jaws	not available	not available	M50JK-080ST2	M50JK-080ST2	M50JK-080ST2	M50JK-080ST2
Machinable Hard Jaw Quantity 1 No Adapter Required	M50JW-060HS2	M50JW-060HS2	M50JW-080HS2	M50JW-080HS2	M50JW-080HS2	M50JW-080HS2
Center Machinable Hard Jaw Quantity 1 No Adapter Required	M50JC-060HS2	M50JC-060HS2	M50JC-080HS2	M50JC-080HS2	M50JC-080HS2	M50JC-080HS2

96 Series Jaw Overview and Options

DynoGrip Vise Part Number	M9MVC-155080	M9MVC-205080	M9MVC-155125	M9MVC-205125	M9MVC-255125	M9MVC-305125	M9MVC-355125
Jaw Width	80mm	80mm	125mm	125mm	125mm	125mm	125mm
Standard Hard Jaw Quantity 2	M90JP-080STL	M90JP-080STL	M90JP-125STL	M90JP-125STL	M90JP-125STL	M90JP-125STL	M90JP-125STL
Center Hard Jaw Quantity 1	M90JC-080STL	M90JC-080STL	M90JC-125STL	M90JC-125STL	M90JC-125STL	M90JC-125STL	M90JC-125STL
Machinable Soft Jaw Aluminum Quantity 1 Requires Adapter	M90JW-080AL2	M90JW-080AL2	M90JW-125AL2	M90JW-125AL2	M90JW-125AL2	M90JW-125AL2	M90JW-125AL2
Machinable Soft Jaw Steel Quantity 1 Requires Adapter	M90JW-080ST2	M90JW-080ST2	M90JW-125ST2	M90JW-125ST2	M90JW-125ST2	M90JW-125ST2	M90JW-125ST2
Machinable Soft Jaw Adapter Hardware Included Quantity 1	M90JA-080	M90JA-080	M90JA-125	M90JA-125	M90JA-125	M90JA-125	M90JA-125
Machinable Soft Jaw Center Adapter Hardware Included Quantity 1	M90JA-080-01	M90JA-080-01	M90JA-125-01	M90JA-125-01	M90JA-125-01	M90JA-125-01	M90JA-125-01
Assembly of Adapter + Aluminum Jaw Quantity 2	M90JP-080AL2	M90JP-080AL2	M90JP-125AL2	M90JP-125AL2	M90JP-125AL2	M90JP-125AL2	M90JP-125AL2
Assembly of Adapter + Steel Jaw Quantity 2	M90JP-080ST2	M90JP-080ST2	M90JP-125ST2	M90JP-125ST2	M90JP-125ST2	M90JP-125ST2	M90JP-125ST2
Double Vise Set 1 Center Adapter + 2 Adapter with Aluminum Jaws	M90JK-080AL2	M90JK-080AL2	M90JK-125AL2	M90JK-125AL2	M90JK-125AL2	M90JK-125AL2	M90JK-125AL2
Double Vise Set 1 Center Adapter + 2 Adapter with Steel Jaws	M90JK-080ST2	M90JK-080ST2	M90JK-125ST2	M90JK-125ST2	M90JK-125ST2	M90JK-125ST2	M90JK-125ST2
Machinable Hard Jaw Quantity 1 No Adapter Required	M90JW-080HS2	M90JW-080HS2	M90JW-125HS2	M90JW-125HS2	M90JW-125HS2	M90JW-125HS2	M90JW-125HS2
Center Machinable Hard Jaw Quantity 1 No Adapter Required	M90JC-080HS2	M90JC-080HS2	M90JC-125HS2	M90JC-125HS2	M90JC-125HS2	M90JC-125HS2	M90JC-125HS2

[Dimensions in mm(in)]. Images are proportionate but not to scale.





Standard Hardened Jaws

52	M50JP-060STL	Jaw (Pair) Hardened Steel	Kit of two jaws for 52 60 series vises
52	M50JP-080STL	Jaw (Pair) Hardened Steel	Kit of two jaws for 52 80 series vises
96	M90JP-080STL	Jaw (Pair) Hardened Steel	Kit of two jaws for 96 80 series vises
96	M90JP-125STL	Jaw (Pair) Hardened Steel	Kit of two jaws for 96 125 series vises



Center Jaws

- Profile matches the standard jaw profile
- No adapter required
- Hardware included

Center Jaws - Hardened Steel (one piece)

Series	52	52	96	96
Jaw Width	60mm	80mm	80mm	125mm
Part Number	M50JC-060STL	M50JC-080STL	M90JC-080STL	M90JC-125STL
Quantity	1	1	1	1



[Dimensions in mm(in)]. Images are proportionate but not to scale.





52 Series 60mm Wide Machinable Soft Jaws

Part Number	Quantity	Jaw Material	Type	Information
M50JW-060AL2	1	Aluminum 6061	Machinable Blank	
M50JW-060ST2	1	Steel AISI 1018	Machinable Blank	
M50JP-060AL2	2	Aluminum 6061	Assembly	Assembly of Adapter and Machinable Blank
M50JP-060ST2	2	Steel AISI 1018	Assembly	Assembly of Adapter and Machinable Blank
M50JA-060	1		Adapter	Includes mounting hardware (four cap screws and two dowel pins)

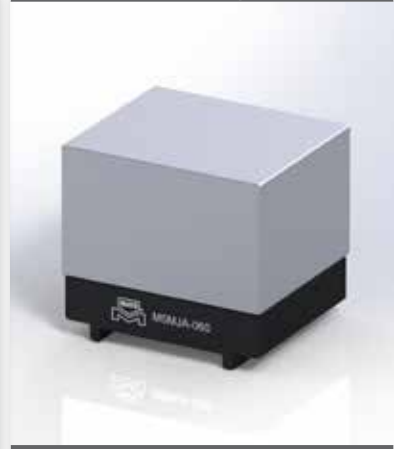
Soft Jaw Dimensions - Metric

Description	Height	Length	Width	Offset	Hole Depth	Size	Torque
Useable Area	23mm	51mm	60mm				
Total Blank	37mm	51mm	60mm				
One-Way Pin Hole Offset				1mm			
Dowel Pin					8mm	8mm X 16mm	
Socket Head Cap Screw					8mm	M6x1x14	
Screw Torque Aluminum						5mm Hex	9Nm
Screw Torque Steel						5mm Hex	17Nm

Soft Jaw Dimensions - Inch

Description	Height	Length	Width	Offset	Hole Depth	Size	Torque
Useable Area	0.91"	2.00"	2.36"				
Total Blank	1.47"	2.00"	2.36"				
One-Way Pin Hole Offset				0.04"			
Dowel Pin					0.33"	8mm X 16mm	
Socket Head Cap Screw					0.33"	M6x1x14	
Screw Torque Aluminum						5mm Hex	7 ft-lbs
Screw Torque Steel						5mm Hex	12 ft-lbs

Assembly



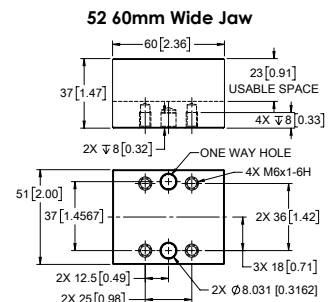
Adapter



Machinable Blank



One-Way



[Dimensions in mm(in)]. Images are proportionate but not to scale.



96 Series 80mm Wide Machinable Soft Jaws

Part Number	Quantity	Jaw Material	Type	Information
M90JW-080AL2	1	Aluminum 6061	Machinable Blank	
M90JW-080ST2	1	Steel AISI 1018	Machinable Blank	
M90JP-080AL2	2	Aluminum 6061	Assembly	Assembly of Adapter and Machinable Blank
M90JP-080ST2	2	Steel AISI 1018	Assembly	Assembly of Adapter and Machinable Blank
M90JA-080	1		Adapter	Includes mounting hardware (four cap screws and two dowel pins)

Soft Jaw Dimensions - Metric

Description	Height	Length	Width	Offset	Hole Depth	Size	Torque
Useable Area	35mm	57mm	80mm				
Total Blank	50mm	57mm	80mm				
One-Way Pin Hole Offset				2mm			
Dowel Pin					8mm	8mm X 16mm	
Socket Head Cap Screw					8mm	M8x1.25x12	
Screw Torque Aluminum						6mm Hex	28Nm
Screw Torque Steel						6mm Hex	40Nm

Soft Jaw Dimensions - Inch

Description	Height	Length	Width	Offset	Hole Depth	Size	Torque
Useable Area	1.38"	2.25"	3.15"				
Total Blank	1.97"	2.25"	3.15"				
One-Way Pin Hole Offset				0.07"			
Dowel Pin					0.33"	8mm X 16mm	
Socket Head Cap Screw					0.33"	M8x1.25x12	
Screw Torque Aluminum						6mm Hex	21 ft-lbs
Screw Torque Steel						6mm Hex	29 ft-lbs

Assembly



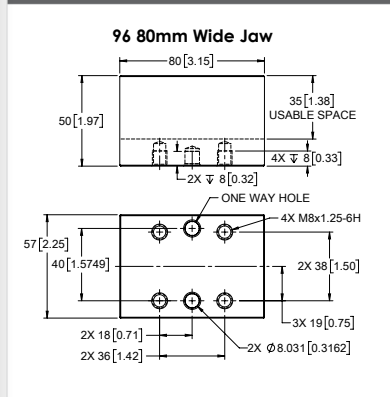
Adapter



Machinable Blank



One-Way



[Dimensions in mm(in)]. Images are proportionate but not to scale.



DYNOGRIP™ MACHINABLE HARD JAWS

DYNOGRIP MACHINABLE HARD JAWS

52 Series 60mm Wide Machinable Hard Jaws

Part Number	Quantity	Jaw Material	Type	Information
M50JW-060HS2	1	S7 Tool Steel	Machinable Hard Jaw	45-50 HRC
M50JC-060HS2	1	S7 Tool Steel	Machinable Hard Center Jaw	45-50 HRC

Machinable Hard Jaw Dimensions - Metric

Description	Height	Length	Width
Useable Area	15mm	35mm	60mm
Total Blank	27mm	35mm	60mm
Center Jaw Useable Area	15mm	23mm	60mm
Center Jaw Total Blank	27mm	23mm	60mm

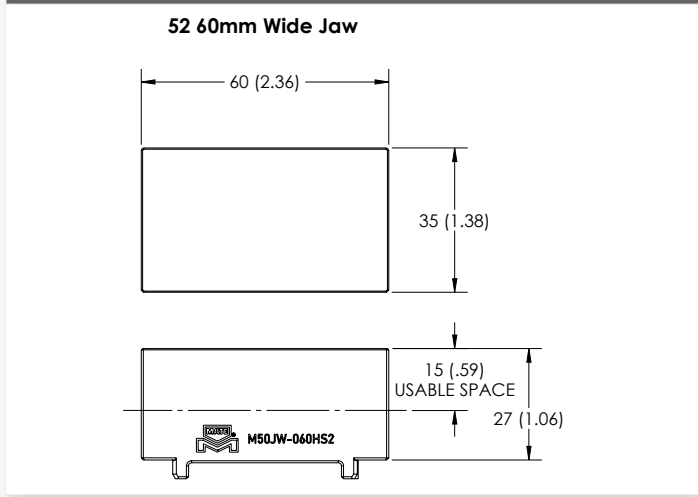
Machinable Hard Jaw Dimensions - Inch

Description	Height	Length	Width
Useable Area	0.59"	1.38"	2.36"
Total Blank	1.06"	1.38"	2.36"
Center Jaw Useable Area	0.59"	0.91"	2.36"
Center Jaw Total Blank	1.06"	0.91"	2.36"

Machinable Hard Jaw



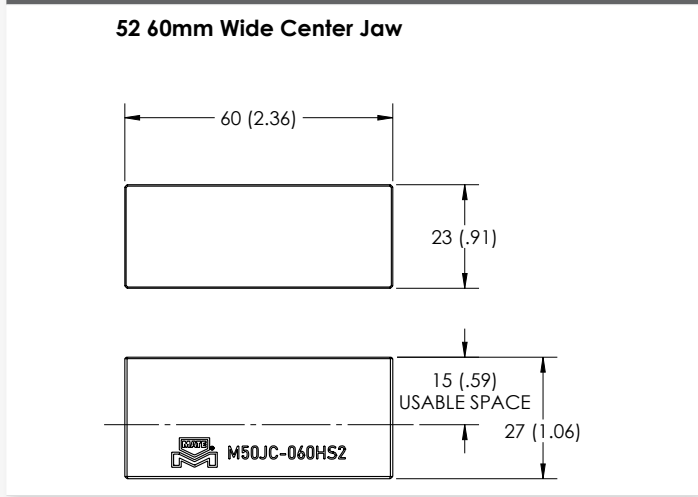
Machinable Hard Jaw Drawing



Machinable Hard Center Jaw



Machinable Hard Center Jaw



[Dimensions in mm(in)]. Images are proportionate but not to scale.





52 Series 80mm Wide Machinable Hard Jaws

Part Number	Quantity	Jaw Material	Type	Information
M50JW-080HS2	1	S7 Tool Steel	Machinable Hard Jaw	45-50 HRC
M50JC-080HS2	1	S7 Tool Steel	Machinable Hard Center Jaw	45-50 HRC

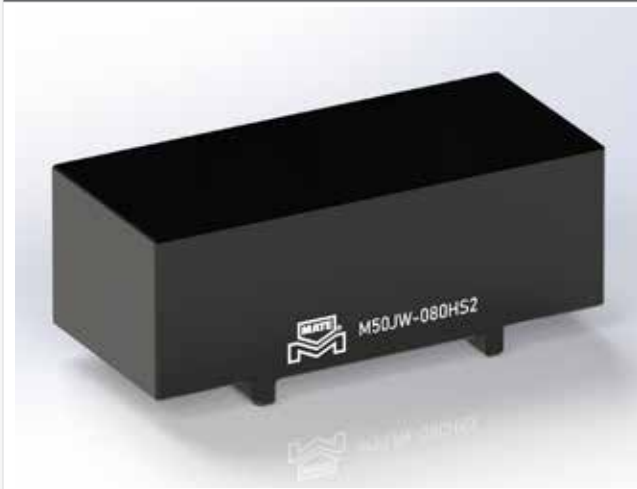
Machinable Hard Jaw Dimensions - Metric

Description	Height	Length	Width
Useable Area	15mm	35mm	80mm
Total Blank	27mm	35mm	80mm
Center Jaw Useable Area	15mm	23mm	80mm
Center Jaw Total Blank	27mm	23mm	80mm

Machinable Hard Jaw Dimensions - Inch

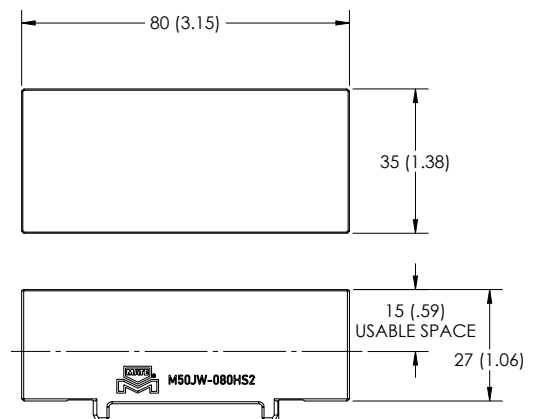
Description	Height	Length	Width
Useable Area	0.59"	1.38"	3.15"
Total Blank	1.06"	1.38"	3.15"
Center Jaw Useable Area	0.59"	0.91"	3.15"
Center Jaw Total Blank	1.06"	0.91"	3.15"

Machinable Hard Jaw



Machinable Hard Jaw Drawing

52 80mm Wide Jaw

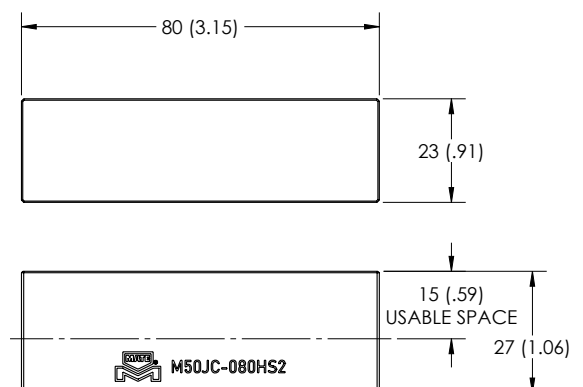


Machinable Hard Center Jaw



Machinable Hard Center Jaw

52 80mm Wide Center Jaw



[Dimensions in mm(in)]. Images are proportionate but not to scale.





96 Series 80mm Wide Machinable Hard Jaws

Part Number	Quantity	Jaw Material	Type	Information
M90JW-080HS2	1	S7 Tool Steel	Machinable Hard Jaw	45-50 HRC
M90JC-080HS2	1	S7 Tool Steel	Machinable Hard Center Jaw	45-50 HRC

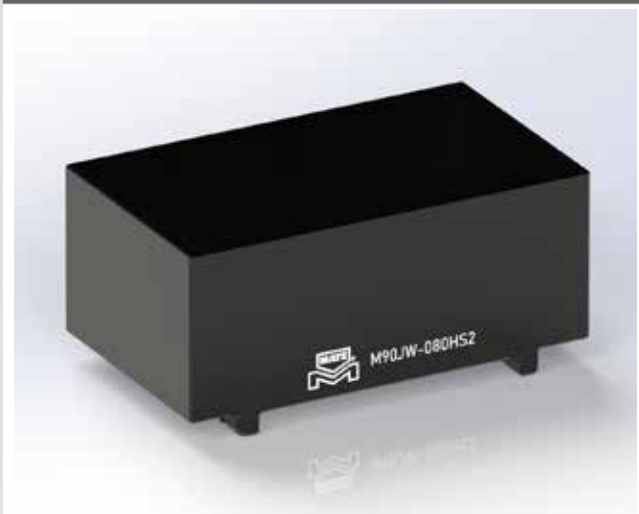
Machinable Hard Jaw Dimensions - Metric

Description	Height	Length	Width
Useable Area	20mm	47mm	80mm
Total Blank	32mm	47mm	80mm
Center Jaw Useable Area	20mm	25mm	80mm
Center Jaw Total Blank	32mm	25mm	80mm

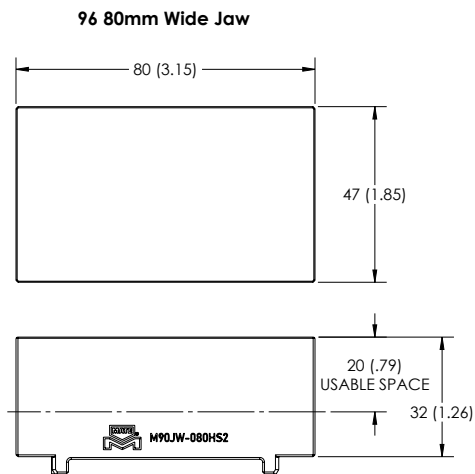
Machinable Hard Jaw Dimensions - Inch

Description	Height	Length	Width
Useable Area	0.79"	1.85"	3.15"
Total Blank	1.26"	1.85"	3.15"
Center Jaw Useable Area	0.79"	0.98"	3.15"
Center Jaw Total Blank	1.26"	0.98"	3.15"

Machinable Hard Jaw



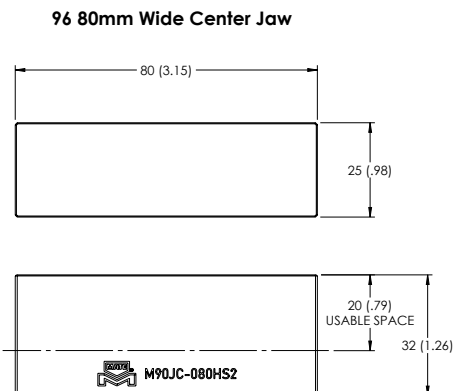
Machinable Hard Jaw Drawing



Machinable Hard Center Jaw



Machinable Hard Center Jaw



[Dimensions in mm(in)]. Images are proportionate but not to scale.



96 Series 125mm Wide Machinable Hard Jaws

Part Number	Quantity	Jaw Material	Type	Information
M90JW-125HS2	1	S7 Tool Steel	Machinable Hard Jaw	45-50 HRC
M90JC-125HS2	1	S7 Tool Steel	Machinable Hard Center Jaw	45-50 HRC

Machinable Hard Jaw Dimensions - Metric

Description	Height	Length	Width
Useable Area	20mm	47mm	125mm
Total Blank	32mm	47mm	125mm
Center Jaw Useable Area	20mm	25mm	125mm
Center Jaw Total Blank	32mm	25mm	125mm

Machinable Hard Jaw Dimensions - Inch

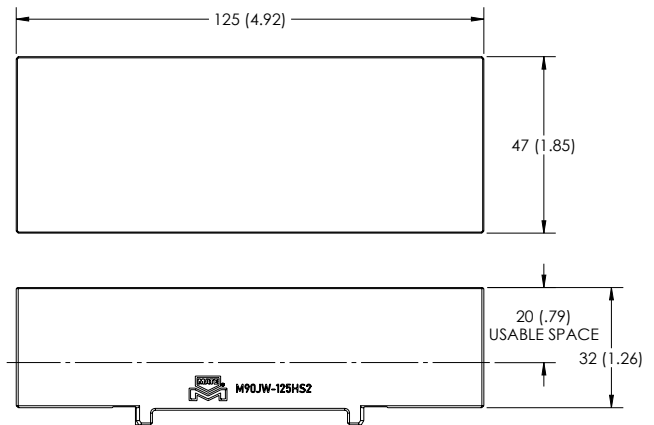
Description	Height	Length	Width
Useable Area	0.79"	1.85"	4.92"
Total Blank	1.26"	1.85"	4.92"
Center Jaw Useable Area	0.79"	0.98"	4.92"
Center Jaw Total Blank	1.26"	0.98"	4.92"

Machinable Hard Jaw



Machinable Hard Jaw Drawing

96 125mm Wide Jaw

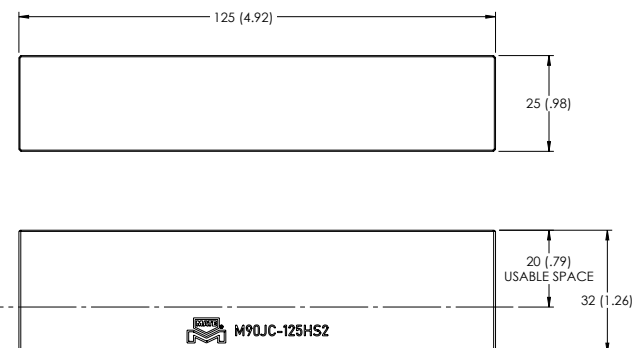


Machinable Hard Center Jaw



Machinable Hard Center Jaw

96 125mm Wide Center Jaw



[Dimensions in mm(in)]. Images are proportionate but not to scale.





CUSTOM JAW CONFIGURATIONS

The versatility of machinable hard jaws offers endless possibilities. Mate can configure various sizes, shapes, and orientations to create the perfect solution for your application needs. Please contact your local representative or Mate customer service for assistance.

10 Days or Less!

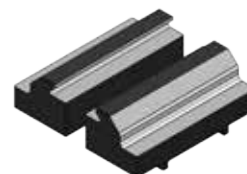
Most custom configurations of Mate's machinable hard jaws ship in ten days or less.



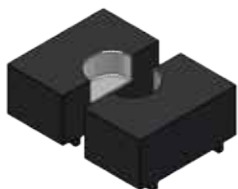
A01 - Dovetail - Custom Angle



A02 - Dovetail - With Locating Pin



A03 - Dovetail - Picatinny Rail



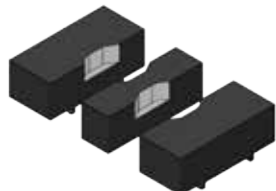
B01 - Profile - Round



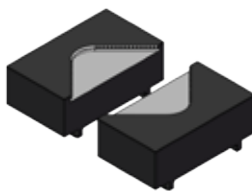
B02 - Profile - Oblong



B03 - Profile - Custom



B04 - Profile - Custom with Center Jaw



B05 - Profile - V-Shape with Teeth



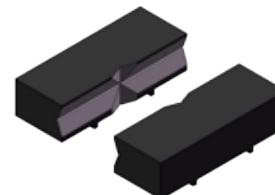
C01 - Inserts - Round



C02 - Inserts - Serrated



D01 - Face - Round



D02 - Face - Prism





Vises

Series	Part Number	Description	Where Used	
Speed Wrench				
52	M5MAC-SW12	Speed Wrench 12mm	DynoGrip Vise Lead Screw Hand Tool	
96	M9MAC-SW16	Speed Wrench 16mm	DynoGrip Vise Lead Screw Hand Tool	
Pull Stud Kit				
52	M5MAC-PS	Vise Pull Stud Kit, Steel, Set of 4, M8 Thread		
96	M9MAC-PS	Vise Pull Stud Kit, Steel, Set of 4, M10 Thread		
Calibration Pin Kit				
52	M5MAC-CP	52 Calibration Pin Kit	Kit of two calibration pins for 52 series vises	
52	M9MAC-CP	96 Calibration Pin Kit	Kit of two calibration pins for 96 series vises	
Vise Lead Screw Assemblies				
52	M5MLS-095	Lead Screw Assembly 9552	Includes Assembled Lead Screw and Center Support, and Mounting Hardware	
52	M5MLS-120	Lead Screw Assembly 12052	Includes Assembled Lead Screw and Center Support, and Mounting Hardware	
52	M5MLS-160	Lead Screw Assembly 16052	Includes Assembled Lead Screw and Center Support, and Mounting Hardware	
52	M5MLS-200	Lead Screw Assembly 20052	Includes Assembled Lead Screw and Center Support, and Mounting Hardware	
96	M9MLS-155	Lead Screw Assembly 15596	Includes Assembled Lead Screw and Center Support, and Mounting Hardware	
96	M9MLS-205	Lead Screw Assembly 20596	Includes Assembled Lead Screw and Center Support, and Mounting Hardware	
96	M9MLS-255	Lead Screw Assembly 25596	Includes Assembled Lead Screw and Center Support, and Mounting Hardware	
96	M9MLS-305	Lead Screw Assembly 30596	Includes Assembled Lead Screw and Center Support, and Mounting Hardware	
96	M9MLS-355	Lead Screw Assembly 35596	Includes Assembled Lead Screw and Center Support, and Mounting Hardware	
				
Vise Pushers				
52	M5MAC-JP	Jaw Pusher (Kit of L and R)	Kit of one left and one right pusher for 52 series vises	
96	M9MAC-JP	Jaw Pusher (Kit of L and R)	Kit of one left and one right pusher for 96 series vises	
				
Standard Hardened Jaws				
52	M50JP-060STL	Jaw (Pair) Hardened Steel	Kit of two jaws for 52 60 series vises	
52	M50JP-080STL	Jaw (Pair) Hardened Steel	Kit of two jaws for 52 80 series vises	
96	M90JP-080STL	Jaw (Pair) Hardened Steel	Kit of two jaws for 96 80 series vises	
96	M90JP-125STL	Jaw (Pair) Hardened Steel	Kit of two jaws for 96 125 series vises	
				



Bases

Series	Part Number	Description	Where Used		
Base Mounting Bore Cap Kit					
52	M5MAC-BC	Mounting Bore Hole Cap, Plastic, Set of 4	Protect bore hole from chip and fluid when bolt is installed		
96	M9MAC-BC	Mounting Bore Hole Cap, Plastic, Set of 4	Protect bore hole from chip and fluid when bolt is installed		
Base Mounting Bore Plug Kit					
52	M5MAC-BBP	16mm Bore Plug, Plastic, Set of 5	Protect bore and center holes from chip and fluid when bolts are not installed		
96	M9MAC-BBP	20mm Bore Plug, Plastic, Set of 5	Protect bore and center holes from chip and fluid when bolts are not installed		
Base Pull Stud Bore Plug Kit					
52	M5MAC-BPMET	Pull Stud Plug, Steel, Set of 4 and MagGrabber	Kit of steel bore plugs and MagGrabber		
96	M9MAC-BPMET	Pull Stud Plug, Steel, Set of 4 and MagGrabber	Kit of steel bore plugs and MagGrabber		
MagGrabber					
52 96	MATE02803	MagGrabber Magnetic Pull Stud Assist Tool	Used when removing steel bore plugs		
Base Bottom Covers					
52	MATE02784	52 Bottom Cover			
96	MATE02785	96 Bottom Cover			
Base Centering Bottom Covers with Spuds					
52	M5MAC-CBC30	Centering Bottom Cover with 30mm Spud	Replaces standard bottom cover		
52	M5MAC-CBC32	Centering Bottom Cover with 32mm Spud	Replaces standard bottom cover		
52	M5MAC-CBC50	Centering Bottom Cover with 50mm Spud	Replaces standard bottom cover		
96	M9MAC-CBC30	Centering Bottom Cover with 30mm Spud	Replaces standard bottom cover		
96	M9MAC-CBC32	Centering Bottom Cover with 32mm Spud	Replaces standard bottom cover		
96	M9MAC-CBC50	Centering Bottom Cover with 50mm Spud	Replaces standard bottom cover		
Base Service Kit and Hex Wrench Socket Adapter					
Refer to instructions found via Mate QuickSpecs for proper assembly			Metric	Inch	
52	M5MAC-BS	Kit of internal components not including hex wrench socket adapter			Service kit common to all variations within the series
52	MATE02777	Hex Wrench Socket Adapter	16.3mm	0.642"	Use with base M5MBR-116-01
52	MATE02777	Hex Wrench Socket Adapter	16.3mm	0.642"	Use with base M5MBR-116-02
52	MATE02778	Hex Wrench Socket Adapter	36.9mm	1.453"	Use with base M5MBR-157-01
52	MATE02778	Hex Wrench Socket Adapter	36.9mm	1.453"	Use with base M5MBR-157-02
52	MATE02776	Hex Wrench Socket Adapter	12.4mm	0.488"	Use with base M5MBS-104-01
52	MATE02777	Hex Wrench Socket Adapter	16.3mm	0.642"	Use with base M5MBX-116150-02
96	M9MAC-BS	Kit of internal components not including hex wrench socket adapter			Service kit common to all variations within the series
96	MATE02780	Hex Wrench Socket Adapter	26.7mm	1.053"	Use with base M9MBR-176-01
96	MATE02783	Hex Wrench Socket Adapter	61.8mm	2.433"	Use with base M9MBR-246-01
96	MATE02783	Hex Wrench Socket Adapter	61.8mm	2.433"	Use with base M9MBR-246-02
96	MATE02783	Hex Wrench Socket Adapter	61.8mm	2.433"	Use with base M9MBR-246-03
96	MATE02781	Hex Wrench Socket Adapter	34.7mm	1.365"	Use with base M9MBS-192-01
96	MATE02781	Hex Wrench Socket Adapter	34.7mm	1.365"	Use with base M9MBS-192-02
96	MATE02777	Hex Wrench Socket Adapter	16.3mm	0.642"	Use with base M9MBX-156192-02
96	MATE02783	Hex Wrench Socket Adapter	61.8mm	2.433"	Use with base M9MBX-192246-01
96	MATE02781	Hex Wrench Socket Adapter	34.7mm	1.365"	Use with base M9MBX-192246-02
96	MATE02786	Hex Wrench Socket Adapter	21.3mm	0.840"	Use with base M9MBA-126150





DynoMount Bushing Kits

52	96	M00AC-BU	Mount Hardware Kit, 4 Bushings and 4 Bolts	Use with all DynoMount products, M10x1.5 X 30 DIN 912-12.9 SHCS
52		M00AC-BU-01	Mount Hardware Kit, 24 Bushings and 24 Bolts	Kit for use with M50T3-260-01
52		M00AC-BU-02	Mount Hardware Kit, 32 Bushings and 32 Bolts	Kit for use with M50T4-260-01 and M90T4-500-02
96		M00AC-BU-03	Mount Hardware Kit, 48 Bushings and 48 Bolts	Kit for use with M90T4-668-02
96		M00AC-BU-04	Mount Hardware Kit, 80 Bushings and 80 Bolts	Kit for use with M90T4-668-01
96		M00AC-BU-05	Mount Hardware Kit, 64 Bushings and 64 Bolts	Kit for use with M90T4-500-01



Centering Gages

52		M5MAC-CG	Used with machine indicator or probe	Used to precisely setup bases on machine table
96		M9MAC-CG	Used with machine indicator or probe	Used to precisely setup bases on machine table



Table T-Slot Keys

52		M00AC-TSK-01	14mm Machine T-Slot Key (DIN6323)	Place in T-slot, loose fit. Engages the 20mm key slot on the bottom of the base
96		M00AC-TSK-02	18mm Machine T-Slot Key (DIN6323)	Place in T-slot, loose fit. Engages the 20mm key slot on the bottom of the base



INFORMATION ROTATIONAL CLEARANCE

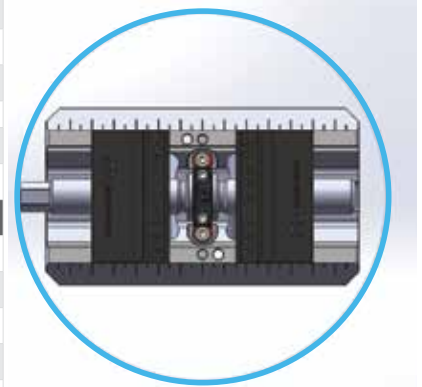
Vise Rotational Clearance

Rotational clearance can be described as the smallest diameter that has no interference with any part of the vise assembly

Rotational clearance is important when calculating a full 360° rotation of the vise assembly

The clearance is calculated using a maximum lead screw adjustment

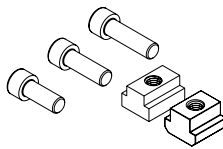
52 Series	Diameter Metric	Diameter Imperial	Interference Point
M5MVC-095060	146mm	5.75"	Lead Screw
M5MVC-095080	146mm	5.75"	Lead Screw
M5MVC-120060	168mm	6.61"	Lead Screw
M5MVC-120080	168mm	6.61"	Lead Screw
M5MVE-120080-01	180mm	7.09"	Corners
M5MVC-160080	208mm	8.19"	Lead Screw
M5MVC-200080	251mm	9.88"	Lead Screw
96 Series			
M9MVC-155080	214mm	8.43"	Corners
M9MVC-155125	214mm	8.43"	Corners
M9MVC-205080	259mm	10.20"	Lead Screw
M9MVC-205125	259mm	10.20"	Lead Screw
M9MVC-255125	307mm	12.09"	Lead Screw
M9MVC-305125	357mm	14.06"	Lead Screw
M9MVC-355125	407mm	16.02"	Lead Screw



[Dimensions in mm(in)]. Images are proportionate but not to scale.

MOOAC-TNUT

Description	What's Included?				Quantity
	Thread Size	T-nut Width	Length		
T-nut	M10x1.5	14mm			4
T-nut	M10x1.5	16mm			4
Socket Head Cap Screw	M10x1.5		25mm		4
Socket Head Cap Screw	M10x1.5		30mm		4
Socket Head Cap Screw	M10x1.5		35mm		4



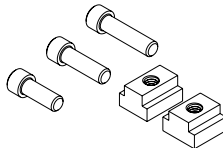
MOOAC-TNUT-01

Description	What's Included?				Quantity
	Thread Size	T-nut Width	Length		
T-nut	M12x1.75	14mm			4
T-nut	M12x1.75	16mm			4
Socket Head Cap Screw	M12x1.75		25mm		4
Socket Head Cap Screw	M12x1.75		30mm		4
Socket Head Cap Screw	M12x1.75		35mm		4



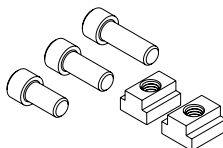
MOOAC-TNUT-02

Description	What's Included?				Quantity
	Thread Size	T-nut Width	Length		
T-nut	3/8"-16	9/16"			4
T-nut	3/8"-16	5/8"			4
Socket Head Cap Screw	3/8"-16		1"		4
Socket Head Cap Screw	3/8"-16		1.25"		4
Socket Head Cap Screw	3/8"-16		1.50"		4




MOOAC-TNUT-03

Description	What's Included?				Quantity
	Thread Size	T-nut Width	Length		
T-nut	1/2"-13	9/16"			4
T-nut	1/2"-13	5/8"			4
Socket Head Cap Screw	1/2"-13		1"		4
Socket Head Cap Screw	1/2"-13		1.25"		4
Socket Head Cap Screw	1/2"-13		1.50"		4




MOOAC-RDTNUT

Description	What's Included?			Quantity
	Thread Size	T-nut Width		
Rounded T-nut	M10x1.5	14mm		2
Rounded T-nut	M10x1.5	16mm		2




MOOAC-RDTNUT-01

Description	What's Included?			Quantity
	Thread Size	T-nut Width		
Rounded T-nut	M12x1.75	14mm		2
Rounded T-nut	M12x1.75	16mm		2



COMPATIBILITY CHART

DynoLock Base Part Number	Metric T-nut Kits		Imperial T-nut Kits		Metric Rounded T-nut Kits	
	MOOAC-TNUT	MOOAC-TNUT-01	MOOAC-TNUT-02	MOOAC-TNUT-03	MOOAC-RDTNUT	MOOAC-RDTNUT-01
M5MBR-116-01	X				X	
M5MBR-116-02		X		X		X
M5MBR-157-01	X				X	
M5MBR-157-02		X		X		X
M5MBS-104-01	X		X		X	
M5MBX-116150-02	X				X	
M9MBR-176-01	X				X	
M9MBR-246-01	X				X	
M9MBR-246-02	X				X	
M9MBR-246-03	X		X		X	
M9MBS-192-01	X				X	
M9MBS-192-02	X				X	
M9MBX-156192-02	X				X	
M9MBX-192246-01	X				X	



[Dimensions in mm(in)]. Images are proportionate but not to scale.

MOMAC-BT

	Information	Metric	Imperial
Use For	52/96 Base Operation		
Torque Range		4.0 - 22.0 Nm	30 - 200 in-lbs
Torque Adjustment Increments		0.12 Nm	1.0 in-lbs
Drive Size			3/8"
Torque Wrench Overall Length		258mm	10.15"
Torque Wrench Weight		0.4kg	0.9lbs

What's Included with MOMAC-BT?

Description	Part Number	Quantity
Torque Wrench	WRH00003	1
6mm Hex Bit	ALW00023	1

M5MAC-VT

	Information	Metric	Imperial
Use For	52 Vise Operation		
Torque Range		14.1 - 81.9 Nm	100 - 750 in-lbs
Torque Adjustment Increments		0.7 Nm	5 in-lbs
Drive Size			3/8"
Torque Wrench Overall Length		406mm	16.00"
Torque Wrench Weight		1.1kg	2.5lbs

What's Included with M5MAC-VT?

Description	Part Number	Quantity
Torque Wrench	WRH00004	1
12mm Speed Wrench	M5MAC-SW12	1

M9MAC-VT

	Information	Metric	Imperial
Use For	96 Vise Operation		
Torque Range		16.9 - 132.2 Nm	10 - 100 ft-lbs
Torque Adjustment Increments		0.7 Nm	0.5 ft-lbs
Drive Size			3/8"
Torque Wrench Overall Length		406mm	16.00"
Torque Wrench Weight		1.2kg	2.6lbs

What's Included with M9MAC-VT?

Description	Part Number	Quantity
Torque Wrench	WRH00005	1
16mm Speed Wrench	M9MAC-SW16	1

M00AC-VT

	Information	Metric	Imperial
Use For	Maintenance and Calibration		
Torque Range		4.0 - 22.0 Nm	30 - 200 in-lbs
Torque Adjustment Increments		0.12 Nm	1.0 in-lbs
Drive Size			3/8"
Torque Wrench Overall Length		258mm	10.15"
Torque Wrench Weight		0.4kg	0.9lbs

What's Included with M00AC-VT?

Description	Part Number	Quantity
Torque Wrench	WRH00003	1
3mm Hex Bit	ALW00024	1
4mm Hex Bit	ALW00025	1

[Dimensions in mm(in)]. Images are proportionate but not to scale.



DYNOGRIP™ SELF-CENTERING VISE LUBRICATION/MAINTENANCE SCHEDULE

DAILY: Clean vise and leadscrew of visible chips and debris.

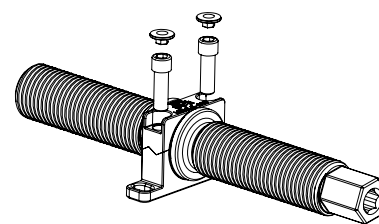
MONTHLY: Clean and grease regularly (once a month or every 500 cycles) for optimal performance and reduced wear.

- Mate Recommends MobileGrease XHP 322 grease which offers least wear and highest output force
- Apply a thin coat of grease on all sliding contact surfaces
 - Pushers: Grease the underside of the hook, the top and bottom of flanges and the very bottom
 - Vise Body: Both top surfaces, the upper opening sides where the jaw rails slide, the top and bottom of the rails where the pusher flanges slide in and the top pocket bottom surfaces on both sides of the ramps
 - Jaws: Outside portion of the rails, bottom sliding faces and inside the bottom pocket where the pusher hook engages
- Pull Studs: Inspect for signs of wear. If grooves are forming on one or more pull stud(s), replace to ensure precision location continuity.
 - Check for loosening pull studs. Hold unit up to a light — make sure there is no visible light under the stud. Re-tighten if needed.
- Grease leadscrew threads
 - Fill threads half way around diameter a thumb thickness wide on each side and then run threads of pushers over this area
 - To minimize chips and slivers clinging to the leadscrew, consider applying the grease in a location of known travel by the pushers based on the part length machined.

Note: Machine coolant has some inherent lubrication properties and is often used as a substitute for grease. Reduced output force and faster wear may occur when relying on machine coolant as compared to grease and its superior lubricating elements. If using water soluble coolant, maintain coolant concentration to the minimum recommendation from the manufacturer to inhibit corrosion and pitting.

6 MONTHS: Center Support: Clean and grease every 6 months.

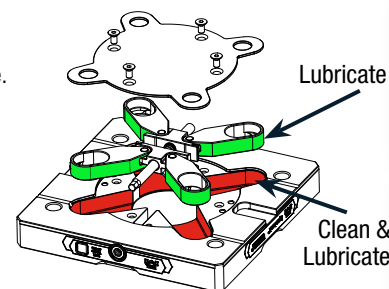
1. Remove jaws from vise and unscrew the pushers from leadscrew assembly
2. OPTIONAL: Remove leadscrew assembly from the vise (unscrew lower screws)
 - It is recommended to follow all steps to clean and grease the vise for best operation
3. 96 ONLY: Remove screw caps and screws at the top of the center support — save for reuse
4. Separate the center support into two pieces
5. Clean parts
6. Add enough new grease such that some squeezes out while reassembling the two center support pieces onto the leadscrew
7. Install screws and torque to 4.5 Nm (40 in-lb) for DynoGrip 52 and 10 Nm (90 in-lb) for DynoGrip 96
8. Snap screw caps back into place
9. Insert leadscrew assembly into center pocket of vise body orienting external hex to the “L” labeled side of vise body
10. Position the rectangular washers over slots of center support
11. Insert the screws through the washers, slots of center support and thread into vise body until snug, then back off a 1/4 turn to leave lead screw assembly loose
12. Insert flanges of pushers into vise body slots and symmetrically thread pushers onto leadscrew threads with desired hook orientation
13. Install jaws and follow precision vise calibration procedure (see page 6)



STORAGE: Clean all chips and debris from vise. Follow monthly and 6 month maintenance procedures. Coat entire vise with rust inhibitor.

DYNOLOCK™ BASES MAINTENANCE AND CLEANING

- Avoid unnecessary contact or immersion in water or water-based coolant
- **Note:** Machine coolant has some inherent lubrication properties and is often used as a substitute for grease. If using water soluble coolant, maintain coolant concentration to the minimum recommendation from the manufacturer to inhibit corrosion and pitting.
- Blow off top of base with air when vise or workpiece is changed
- Install plugs and caps when base is not in use
- When the base is in use, keep the caps in place on the unused holes unless they interfere with the vise.
- If base is to be stored long-term, spray or wipe with a rust inhibitor such as Acekote or Zerust
 - If the base is exposed to large amounts of machining, grinding particles or clamping operation becomes difficult, then refer to the Dynolock assembly instructions.
 - When base is reassembled:
 - Apply grease to any sliding or contact surfaces of the clamping mechanism
 - Use NLGI Grade 2 Li-based grease with MoS2 (MobilGrease XHP 322 Mine or similar)



DYNAMOUNT™ LUBRICATION/MAINTENANCE SCHEDULE

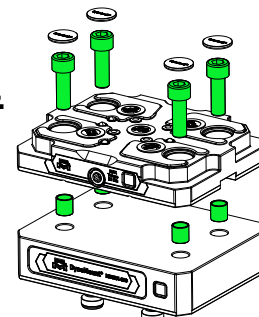
DAILY: Clean mount of visible chips and debris.

MONTHLY: Clean and re-grease surfaces and pull studs regularly for optimal performance and reduced wear.

- Mate Recommends MobileGrease XHP 322 grease which offers least wear and highest output force
- Apply a thin coat of grease on all sliding contact surfaces

Note: Machine coolant generally has some lubrication element and is often used as a substitute for grease. But note that faster wear may occur when compared to grease and its superior lubricating elements.

STORAGE: Clean all chips and debris from mount — Follow monthly maintenance procedure. Coat entire mount with rust inhibitor.



[Dimensions in mm(m)]. Images are proportionate but not to scale.



WISE SETUP OPTIONS

WISE SETUP OPTIONS

WISE BODY STANDARD

Jaws Facing In

Jaws Facing Out



WISE BODY WITH CHAMFER

Jaws Facing In

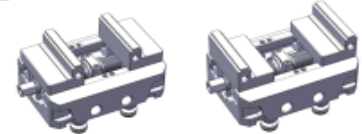
Jaws Facing Out



WISE FORCE DIRECTION OPTIONS

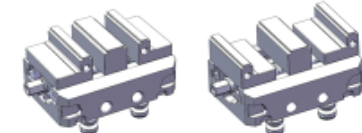
Factory setup

One pair of jaws
Force direction inward
Jaws are reversible



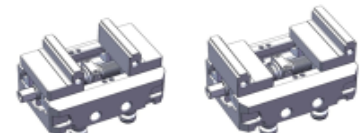
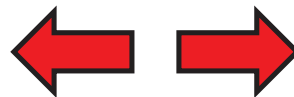
Dual piece-part setup

Center jaws installed
Force direction inward
Jaws are reversible



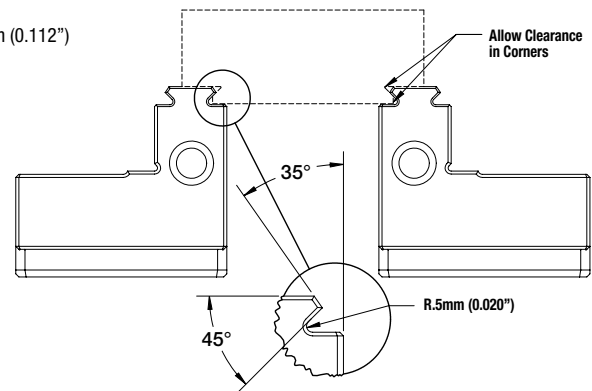
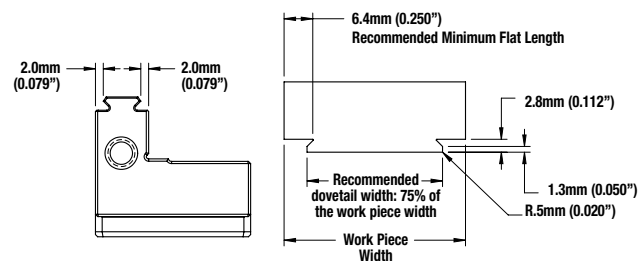
Reverse force setup

Pushers are reversed
Force direction outward
Jaws are reversible



DOVETAIL FEATURES AND OPTIONS

- 45° Precision Dovetail Geometry
- Recommended dovetail width: 75% of the work piece width
- Work piece body should have full contact with the top of the jaw (Minimum Flat Length)
- Maximum dovetail thickness, the extension from the work piece surface, should not exceed 2.8mm (0.112")
- Work piece should not be held solely by the 45° angled surfaces
- 0.5mm (0.020") internal radius provides clearance and maximum strength
- Top of tooth 35° angle provides clearance to the dovetail interior corner on the piece part





OVERVIEW

All standard Mate jaws can hold the work piece with any of the following jaw features

(1) Precision Teeth

- 7.7 teeth per centimeters (17 teeth per inch)
- Anti-lift tooth geometry including 35° degree top of tooth angle
- Uniform penetration into the work piece
- Maximum 2.0mm (.079") material penetration
- Accurate tooth engagement across all teeth
- Manufactured using EDM technology for complete uniformity

(2) Precision Parallel Flat Surfaces

- Low clamping, near the vise body, closest to the line of force
- High clamping on a smooth surface
- Smooth surfaces, ideal for delicate or cosmetically sensitive materials

(3) Precision Dovetail Geometry

- 45° standard dovetail geometry
- Significant internal radius for maximum strength and clearance
- Top of tooth 35° angle provides clearance to the work piece interior dovetail corner

Common Features on All Standard Jaws

- Fully reversible, no tools needed
- Anti-Lift geometry
- Mate "Black Diamond™" post heat treatment process, increases hardness
- Hardened tool steel to >65HRC
- End stop ready, standard M6 tapped hole on all jaws
- Available standard center jaw, easy to install, dimensionally equal with standard jaws

Securely holding multiple work pieces that are not identical to each other requires a vise design that accommodates the variance of the work pieces.

All standard Mate vises are designed to accommodate some amount of work piece size variance in a multiple work piece setup.

The setup procedure requires that the lead screw assembly be allowed to float and that the center jaw be securely attached.

DUAL WORK PIECE MODE

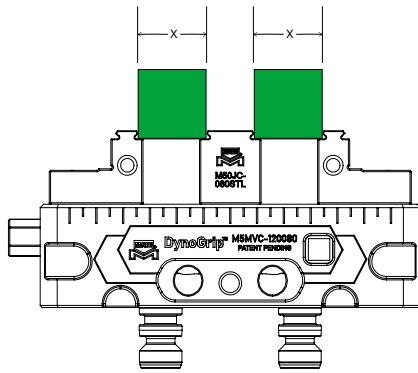
52 Vise Series

- Total work piece size variation maximum is 2.0mm (0.079")
- In dual work piece mode, loosen the lower center support screws by 1/4-1/2 turn and leave them loosened to accommodate work piece variance
- Exceeding the variation maximum may cause damage to the hardware or components

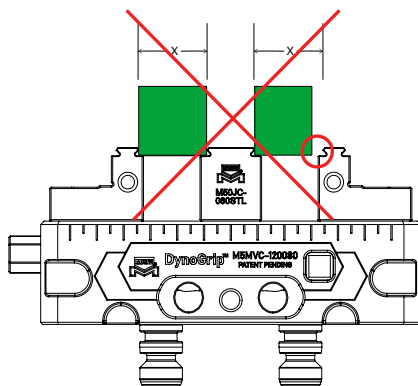
Example:

Work piece 1 is measured at "X". Work piece 2 must be <2.0mm larger or smaller than work piece 1

The total variation of both work pieces must be less than 2.0mm (0.079")



- The variation maximum has been exceeded when one of the work pieces is not securely clamped



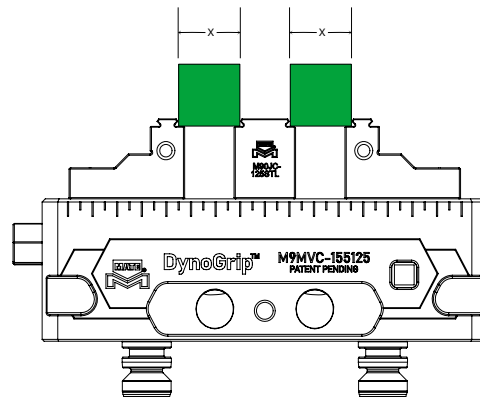
96 Vise Series

- Total work piece size variation maximum is 3.0mm (0.118")
- In dual work piece mode, loosen the lower center support screws by 1/4-1/2 turn and leave them loosened to accommodate work piece variance
- Exceeding the variation maximum may cause damage to the hardware or components

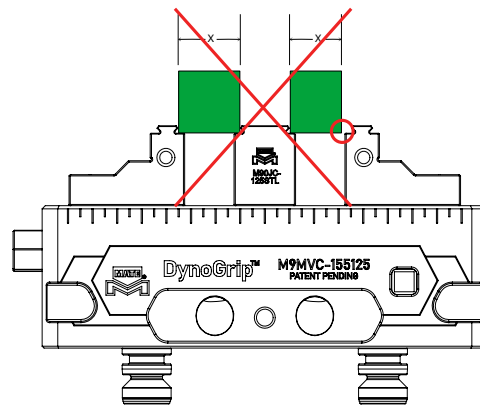
Example:

Work piece 1 is measured at "X". Work piece 2 must be <3.0mm larger or smaller than work piece 1

The total variation of both work pieces must be less than 3.0mm (0.118")



- The variation maximum has been exceeded when one of the work pieces is not securely clamped

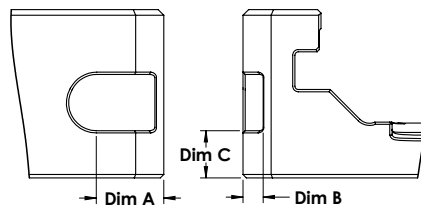




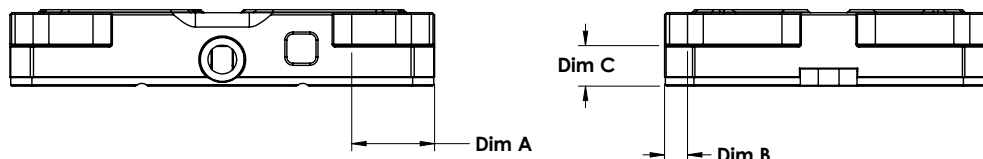
Clamping surface to enable direct mounting to a machine table using toe clamps.

Vise	Series	Vise Part Number	A Dimension Shelf Length Clamping Surface	B Dimension Shelf Depth Clamping Surface	C Dimension Vise Bottom to Clamp Shelf
Metric	52	M5MVC-095060	10.2mm	3.8mm	10.7mm
Metric	52	M5MVC-095080	10.2mm	3.8mm	10.7mm
Metric	52	M5MVC-120060	12.7mm	3.8mm	10.7mm
Metric	52	M5MVC-120080	12.7mm	3.8mm	10.7mm
Metric	52	M5MVC-160080	15.2mm	3.8mm	10.7mm
Metric	52	M5MVC-200080	15.2mm	3.8mm	10.7mm
Metric	96	M9MVC-155080	15.7mm	3.8mm	10.7mm
Metric	96	M9MVC-155125	16.3mm	3.8mm	10.7mm
Metric	96	M9MVC-205080	19.1mm	3.8mm	10.7mm
Metric	96	M9MVC-205125	19.1mm	3.8mm	10.7mm
Metric	96	M9MVC-255125	19.1mm	3.8mm	10.7mm
Metric	96	M9MVC-305125	19.1mm	3.8mm	10.7mm
Metric	96	M9MVC-355125	19.1mm	3.8mm	10.7mm

	Series	Vise Part Number	A Dimension	B Dimension	C Dimension
Imperial	52	M5MVC-095060	0.400"	0.150"	0.420"
Imperial	52	M5MVC-095080	0.400"	0.150"	0.420"
Imperial	52	M5MVC-120060	0.500"	0.150"	0.420"
Imperial	52	M5MVC-120080	0.500"	0.150"	0.420"
Imperial	52	M5MVC-160080	0.600"	0.150"	0.420"
Imperial	52	M5MVC-200080	0.600"	0.150"	0.420"
Imperial	96	M9MVC-155080	0.620"	0.150"	0.420"
Imperial	96	M9MVC-155125	0.640"	0.150"	0.420"
Imperial	96	M9MVC-205080	0.750"	0.150"	0.420"
Imperial	96	M9MVC-205125	0.750"	0.150"	0.420"
Imperial	96	M9MVC-255125	0.750"	0.150"	0.420"
Imperial	96	M9MVC-305125	0.750"	0.150"	0.420"
Imperial	96	M9MVC-355125	0.750"	0.150"	0.420"



Base	Series	Base Part Number	A Dimension Clamping Edge	B Dimension Clamping Edge	C Dimension Clamping Edge
Metric	52	M5MBX-116150-02	29.3mm	8.1mm	14.3mm
Metric	96	M9MBX-156192-02	27.8mm	9.1mm	12.7mm
Imperial	52	M5MBX-116150-02	1.153"	0.320"	0.563"
Imperial	96	M9MBX-156192-02	1.095"	0.360"	0.501"



[Dimensions in mm(in)]. Images are proportionate but not to scale.





Index Pin M00AC-PN-01 uses a press fit engagement with the vise body, no screws
Torque center screw to 87Nm (64 ft-lbs)

52 Series Vise 40mm Pin and Index Pin Compatibility Table

Vise Part Number	Use Index Pin	Use 40mm Type A Pin	Center Screw To Attach 40mm Pin	Center to Index Pin Center
M5MVC-095060	M00AC-PN-01	M00AC-PN-02	M10x1.5 X 35	50mm
M5MVC-095080	M00AC-PN-01	M00AC-PN-02	M10x1.5 X 35	50mm
M5MVC-120060	M00AC-PN-01	M00AC-PN-02	M10x1.5 X 35	50mm
M5MVC-120080	M00AC-PN-01	M00AC-PN-02	M10x1.5 X 35	50mm
M5MVC-160080	M00AC-PN-01	M00AC-PN-02	M10x1.5 X 35	66mm
M5MVC-200080	M00AC-PN-01	M00AC-PN-02	M10x1.5 X 35	66mm



96 Series Vise 40mm Pin and Index Pin Compatibility Table

Vise Part Number	Use Index Pin	Use 40mm Type A Pin	Center Screw To Attach 40mm Pin	Center to Index Pin Center
M9MVC-155080	M00AC-PN-01	M00AC-PN-02	M10x1.5 X 40	66mm
M9MVC-155125	M00AC-PN-01	M00AC-PN-02	M10x1.5 X 40	66mm
M9MVC-205080	M00AC-PN-01	M00AC-PN-02	M10x1.5 X 40	66mm
M9MVC-205125	M00AC-PN-01	M00AC-PN-02	M10x1.5 X 40	66mm
M9MVC-255125	M00AC-PN-01	M00AC-PN-02	M10x1.5 X 40	66mm
M9MVC-305125	M00AC-PN-01	M00AC-PN-02	M10x1.5 X 40	66mm
M9MVC-355125	M00AC-PN-01	M00AC-PN-02	M10x1.5 X 40	66mm



96 Series Vise Optional Configuration Type A and B Pins

Vise Part Number	Use Index Pin	Use 40mm Type A Pin	Center Screw To Attach 400mm Pin	Center to Index Pin Center	200mm Spacing	Use 40mm Type B Pin
M9MVC-255125	-	M00AC-PN-02	M10x1.5 X 40	-	200mm	M00AC-PN-03
M9MVC-305125	-	M00AC-PN-02	M10x1.5 X 40	-	200mm	M00AC-PN-03
M9MVC-355125	-	M00AC-PN-02	M10x1.5 X 40	-	200mm	M00AC-PN-03



Part Number	Description	What is Included	Image Example:
M00AC-PN-01	40mm Indexing Pin		
M00AC-PN-02	40mm Type A Pin Kit		
M00AC-PN-02	40mm Type A Pin Kit		
M00AC-PN-03	40mm Type B Pin Kit		

Custom Modifications Compatible With Additional 40mm Pin Systems Available Upon Request

DYNOGRIP WITH BIG DAISHOWA UNILOCK COMPATIBLE KEY SLOT	
DYNOGRIP WITH SMW AUTOBLOK APS 140-E COMPATIBLE KEY SLOT	

[Dimensions in mm(in)]. Images are proportionate but not to scale.



Base Mounting Bore Configurations																			
Bore Spacing:	50mm	60mm	61mm	82mm	95mm	96mm	100mm	105mm	106mm	120mm	126mm	150mm	156mm	170mm	182mm	200mm	210mm	220mm	
M5MBR-116-01						96mm													
M5MBR-116-02					95.25mm														
M5MBR-157-01						96mm	100mm												
M5MBR-157-02			61mm						105.7mm										
M5MBS-104-01				82mm															
M5MBX-116150-02	50mm						100mm												
M9MBR-176-01		60mm										126mm	150mm						
M9MBR-246-01											126mm			170mm					
M9MBR-246-02													156mm						
M9MBR-246-03								105mm							181.9mm		210mm		
M9MBS-192-01										120mm		150mm							
M9MBS-192-02											126mm	150mm							
M9MBX-156192-02	50mm						100mm					150mm							
M9MBX-192246-01												150mm				200mm			
M9MBX-192246-02											126mm								220mm
M9MBA-126150						96mm													

DynoLock Bases – 52 Series

See Page 28 M5MBR-116-01	See Page 29 M5MBR-116-02	See Page 30 M5MBR-157-01	See Page 31 M5MBR-157-02	See Page 32 M5MBS-104-01	See Page 33 M5MBX-116150-02

DynoLock Bases – 96 Series

See Page 34 M9MBR-176-01	See Page 35 M9MBR-246-01	See Page 36 M9MBR-246-02	See Page 37 M9MBR-246-03	See Page 38 M9MBS-192-01	See Page 39 M9MBS-192-02

See Page 40 M9MBX-156192-02	See Page 41 M9MBX-192246-01	See Page 42 M9MBX-192246-02	See Page 43 M9MBA-126150

[Dimensions in mm(in)]. Images are proportionate but not to scale.

Base Part Number	Bolt Circle Diameter									Bolt Circle Angle:			
	95mm	96mm	100mm	116mm	122mm	136mm	150mm	210mm	220mm	30°	45°	60°	180°
M5MBR-116-01		96mm											180°
M5MBR-116-02	95.25mm												180°
M5MBR-157-01			100mm			136mm					45°		180°
M5MBR-157-02					122mm					30°			
M5MBS-104-01				116mm							45°		
M5MBX-116150-02													
M9MBR-176-01							150mm						180°
M9MBR-246-01													
M9MBR-246-02									220mm		45°		
M9MBR-246-03								210mm				60°	
M9MBS-192-01													
M9MBS-192-02													
M9MBX-156192-02													
M9MBX-192246-01													
M9MBX-192246-02													
M9MBA-126150													

DynoLock Bases – 52 Series

See Page 28 M5MBR-116-01	See Page 29 M5MBR-116-02	See Page 30 M5MBR-157-01	See Page 31 M5MBR-157-02	See Page 32 M5MBS-104-01	See Page 33 M5MBX-116150-02

DynoLock Bases – 96 Series

See Page 34 M9MBR-176-01	See Page 35 M9MBR-246-01	See Page 36 M9MBR-246-02	See Page 37 M9MBR-246-03	See Page 38 M9MBS-192-01	See Page 39 M9MBS-192-02

See Page 40 M9MBX-156192-02	See Page 41 M9MBX-192246-01	See Page 42 M9MBX-192246-02	See Page 43 M9MBA-126150

[Dimensions in mm(m)]. Images are proportionate but not to scale.

FORCE AND TORQUE CONVERSIONS

CONVERSIONS

Force	
KiloNewtons	Pounds Force
kN	lbs-f
10	2250
11	2475
12	2700
13	2925
14	3150
15	3375
16	3600
17	3825
18	4050
19	4275
20	4500
21	4725
22	4950
23	5175
24	5400
25	5625
26	5850
27	6075
28	6300
29	6525
30	6750
31	6975
32	7200
33	7425
34	7650
35	7875
36	8100
37	8325
38	8550
39	8775
40	9000
41	9225
42	9450
43	9675
44	9900
45	10125
46	10350
47	10575
48	10800
49	11025
50	11250
51	11475
52	11700
53	11925
54	12150
55	12375
56	12600
57	12825
58	13050
59	13275
60	13500

Force	
Pounds Force	KiloNewtons
lbs-f	kN
1000	4.4
1100	4.9
1200	5.3
1300	5.8
1400	6.2
1500	6.7
1600	7.1
1700	7.6
1800	8.0
1900	8.4
2000	8.9
2100	9.3
2200	9.8
2300	10.2
2400	10.7
2500	11.1
2600	11.6
2700	12.0
2800	12.4
2900	12.9
3000	13.3
3100	13.8
3200	14.2
3300	14.7
3400	15.1
3500	15.6
3600	16.0
3700	16.4
3800	16.9
3900	17.3
4000	17.8
4100	18.2
4200	18.7
4300	19.1
4400	19.6
4500	20.0
4600	20.4
4700	20.9
4800	21.3
4900	21.8
5000	22.2
5100	22.7
5200	23.1
5300	23.6
5400	24.0
5500	24.4
5600	24.9
5700	25.3
5800	25.8
5900	26.2
6000	26.7

Torque		
Newton Meters	Foot Pounds	Inch Pounds
Nm	ft-lbs	in-lbs
1	0.7	9
2	1.5	18
3	2.2	27
4	3.0	35
5	3.7	44
6	4.4	53
7	5.2	62
8	5.9	71
9	6.6	80
10	7.4	89
11	8.1	97
12	8.9	106
13	9.6	115
14	10.3	124
15	11.1	133
16	11.8	142
17	12.5	151
18	13.3	159
19	14.0	168
20	14.8	177
21	15.5	186
22	16.2	195
23	17.0	204
24	17.7	213
25	18.5	221
30	22.1	266
35	25.8	310
40	29.5	354
45	33.2	399
50	36.9	443
55	40.6	487
60	44.3	531
65	48.0	576
70	51.7	620
75	55.4	664
80	59.0	708
85	62.7	753
90	66.4	797
95	70.1	841
100	73.8	886
105	77.5	930
110	81.2	974
115	84.9	1018
120	88.6	1063
125	92.3	1107
130	95.9	1151
135	99.6	1196
140	103.3	1240
145	107.0	1284
150	110.7	1328
155	114.4	1373

Torque		
Foot Pounds	Newton Meters	Inch Pounds
ft-lbs	Nm	in-lbs
1	1.4	12
2	2.7	24
3	4.1	36
4	5.4	48
5	6.8	60
6	8.1	72
7	9.5	84
8	10.8	96
9	12.2	108
10	13.6	120
11	14.9	132
12	16.3	144
13	17.6	156
14	19.0	168
15	20.3	180
16	21.7	192
17	23.1	204
18	24.4	216
19	25.8	228
20	27.1	240
21	28.5	252
22	29.8	264
23	31.2	276
24	32.5	288
25	33.9	300
30	40.7	360
35	47.5	420
40	54.2	480
45	61.0	540
50	67.8	600
55	74.6	660
60	81.4	720
65	88.1	780
70	94.9	840
75	101.7	900
80	108.5	960
85	115.3	1020
90	122.0	1080
95	128.8	1140
100	135.6	1200
105	142.4	1260
110	149.2	1320
115	155.9	1380
120	162.7	1440
125	169.5	1500
130	176.3	1560
135	183.1	1620
140	189.8	1680
145	196.6	1740
150	203.4	1800
155	210.2	1860



CONVERSION CHART

mm	inch
0.01mm	0.0004
0.02mm	0.0008
0.03mm	0.0012
0.04mm	0.0016
0.05mm	0.0020
0.06mm	0.0024
0.07mm	0.0028
0.08mm	0.0031
0.09mm	0.0035
0.10mm	0.0039
0.25mm	0.0098
0.50mm	0.0197
0.75mm	0.0295
1.00mm	0.0394
1.50mm	0.0591
2.00mm	0.0787
2.50mm	0.0984
3.00mm	0.1181
3.50mm	0.1378
4.00mm	0.1575
4.50mm	0.1772
5.00mm	0.1969
6.00mm	0.2362
7.00mm	0.2756
8.00mm	0.3150
9.00mm	0.3543
10.00mm	0.3937
11.00mm	0.4331
12.00mm	0.4724
13.00mm	0.5118
14.00mm	0.5512
15.00mm	0.5906
16.00mm	0.6299
17.00mm	0.6693
18.00mm	0.7087
19.00mm	0.7480
20.00mm	0.7874
21.00mm	0.8268
22.00mm	0.8661
23.00mm	0.9055
24.00mm	0.9449
25.00mm	0.9843
26.00mm	1.0236
27.00mm	1.0630
28.00mm	1.1024
29.00mm	1.1417
30.00mm	1.1811
31.00mm	1.2205
32.00mm	1.2598
33.00mm	1.2992
34.00mm	1.3386
35.00mm	1.3780
36.00mm	1.4173
37.00mm	1.4567
38.00mm	1.4961
39.00mm	1.5354
40.00mm	1.5748
50.00mm	1.9685
60.00mm	2.3622
65.00mm	2.5591
70.00mm	2.7559
75.00mm	2.9528
80.00mm	3.1496
90.00mm	3.5433
100.00mm	3.9370

inch	inch	mm
	0.0001	0.003mm
	0.0010	0.03mm
	0.0020	0.05mm
	0.0030	0.08mm
	0.0040	0.10mm
	0.0050	0.13mm
1/128	0.0078	0.20mm
	0.0100	0.25mm
	0.0120	0.30mm
	0.0150	0.38mm
1/64	0.0156	0.40mm
	0.0300	0.76mm
1/32	0.0313	0.79mm
3/64	0.0469	1.19mm
	0.0600	1.52mm
1/16	0.0625	1.59mm
5/64	0.0781	1.98mm
	0.0900	2.29mm
3/32	0.0938	2.38mm
7/64	0.1094	2.78mm
	0.1200	3.05mm
1/8	0.1250	3.18mm
9/64	0.1406	3.57mm
5/32	0.1563	3.97mm
3/16	0.1875	4.76mm
7/32	0.2188	5.56mm
1/4	0.2500	6.35mm
9/32	0.2813	7.14mm
5/16	0.3125	7.94mm
3/8	0.3750	9.53mm
7/16	0.4375	11.11mm
1/2	0.5000	12.70mm
9/16	0.5625	14.29mm
5/8	0.6250	15.88mm
3/4	0.7500	19.05mm
7/8	0.8750	22.23mm
1	1.0000	25.40mm
1 1/8	1.1250	28.58mm
1 1/4	1.2500	31.75mm
1 1/2	1.5000	38.10mm
1 3/4	1.7500	44.45mm
2	2.0000	50.80mm
2 1/4	2.2500	57.15mm
2 1/2	2.5000	63.50mm
2 3/4	2.7500	69.85mm
3	3.0000	76.20mm
3 1/2	3.5000	88.90mm
4	4.0000	101.60mm
4 1/2	4.5000	114.30mm
5	5.0000	127.00mm
5 1/2	5.5000	139.70mm
6	6.0000	152.40mm
12	12.0000	304.80mm

inch	mm
0.0001	0.003mm
0.0010	0.025mm
0.0100	0.254mm
0.1000	2.54mm
1.0000	25.40mm

mm	inch
0.01mm	0.0004
0.10mm	0.0039
1.00mm	0.0394

mm	inch	feet
1000mm	39.4	3.3
1050mm	41.3	3.4
1250mm	49.2	4.1
1500mm	59.1	4.9
2000mm	78.7	6.6
2050mm	80.7	6.7
2500mm	98.4	8.2
3000mm	118.1	9.8
3050mm	120.1	10.0
3500mm	137.8	11.5
4000mm	157.5	13.1
4050mm	159.4	13.3
4500mm	177.2	14.8
5000mm	196.9	16.4

feet	inch	mm
1 ft	12 inch	305mm
2 ft	24 inch	610mm
3 ft	36 inch	914mm
4 ft	48 inch	1219mm
5 ft	60 inch	1524mm
6 ft	72 inch	1829mm
7 ft	84 inch	2134mm
8 ft	96 inch	2438mm
9 ft	108 inch	2743mm
10 ft	120 inch	3048mm
11 ft	132 inch	3353mm
12 ft	144 inch	3658mm



	gauge size	aluminum & brass	mild steel	stainless steel
metal gauges	8GA	.129(3.28)	.164(4.17)	.172(4.37)
	9GA	.114(2.90)	.150(3.81)	.156(3.96)
	10GA	.102(2.59)	.135(3.43)	.141(3.58)
	11GA	.091(2.31)	.120(3.05)	.125(3.18)
	12GA	.081(2.06)	.105(2.67)	.109(2.77)
	13GA	.072(1.83)	.090(2.29)	.094(2.39)
	14GA	.064(1.63)	.075(1.91)	.078(1.98)
	16GA	.051(1.30)	.060(1.52)	.063(1.60)
	18GA	.040(1.02)	.048(1.22)	.050(1.27)
	20GA	.032(0.81)	.036(0.91)	.038(0.97)
	22GA	.025(0.64)	.030(0.76)	.031(0.79)
	24GA	.020(0.51)	.024(0.61)	.025(0.64)
	26GA	.016(0.41)	.018(0.46)	.019(0.48)
	28GA	.013(0.33)	.015(0.38)	.016(0.41)



Workholding That Works™

No Variability.
No Surprises.

Machinists hate surprises.

They want their machines up and running without production interruptions. That's why the metalheads at Mate developed Mate Workholding.

Designed to be the industry's most accurate and repeatable on the market. See the test results and read what other metalheads are saying.

Best In Class - Accuracy

DynoGrip™ Vises	±0.015mm	±0.0006"
DynoLock™ Bases	±0.013mm	±0.0005"

Best In Class - Repeatability

DynoGrip™ Vises	0.010mm	0.0004"
DynoLock™ Bases	0.005mm	0.0002"

"Damn you guys are the s*!**
I have the vise. Your stuff eats it all day and doesn't even look used."

-John Robinette,
United Machine

"I have run the same part on other vises however, when I switched to MATE I could **instantaneously hear and notice the difference.**"

-Daniel Strubel,
Siemens Industry, Inc.

"Mate workholding did a phenomenal job. It worked in perfect harmony with the rest of the setup, **providing a nice stable cut!**"

-Ruvim Mosijchuk,
Able MTS



MATE
M
**PRECISION
TECHNOLOGIES**

MADE FOR
METAL HEADS
MATE ZERO POINT WORKHOLDING SYSTEM



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