

Vacmagic® VM100



VM100 Base Unit (45375) in Vise



VM100 Base Unit (45375) with VM300 Vacuum Pallet (45150)

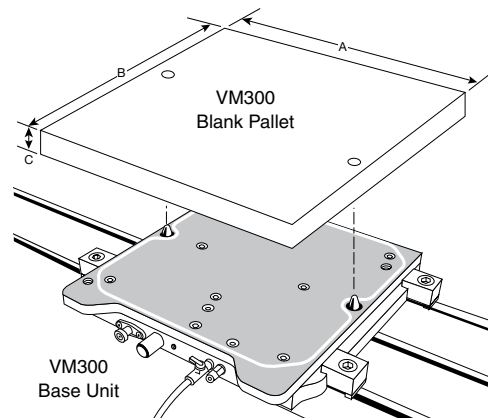
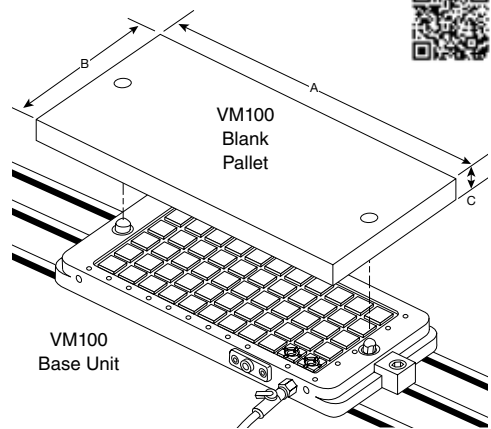


VM100 Base Unit (45375) on a Magnetic Chuck



VM100 Base Unit (45375) with a Production Pallet (VM100 Blank Pallet - 45325)

- ▶ Make your own vacuum fixtures - we can help with the design and produce the fixture for your custom application
- ▶ Will accept both blank pallets, the standard 45130 and the larger 45135, as well as the standard vacuum pallet, increasing your vacuum platform to over 14"x12" (360mmx315mm).
- ▶ Remove 12mm pins when grinding/machining thin material, use set screws to locate and aid in holding force



Part Number	Description	A - Length Inch (Metric)	B - Width Inch (Metric)	C - Height Inch (Metric)
VM100				
45325	Blank Pallet	12.5 (318mm)	5.875 (150mm)	1.0 (25mm)
45375	Base Unit with all hardware	12.375 (315mm)	5.5 (140mm)	1.0 (25mm)
45300	VM100 Kit Includes: base unit, 2 blank pallets			
VM300				
45130	Blank Pallet	14.3 (360mm)	12.4 (315mm)	.75 (19mm)
45135	1" thick Blank Pallet	14.93 (379mm)	14.93 (379mm)	1.0 (25mm)
45150	VM300 Vacuum Pallet	14.3 (360mm)	12.4 (315mm)	.625 (16mm)
45160	VM300 Large Vacuum Pallet	33.625 (859mm)	14.5 (368mm)	.625 (16mm)
45175	Base Unit (Receiver) Includes: all hardware	12.75 (323mm)	13.0 (330mm)	1.375 (35mm)
45101	VM300 Kit Includes: base unit, 2 blank pallets, 1 vacuum pallet			

GASKET MATERIAL (for VM300 & VM100) See our website, MiteeBite.com, for installation tips

	Part No.	Description	(Inch) Diameter [†]
Black - Excellent for long cycles and aggressive coolants.	BLACK 45111	by the foot	.170*
	45115	by the foot	.070
	451181	by the foot	.125
	45119	by the foot	.188
White - Excellent for small parts, water based coolants or running dry.	WHITE 45114	by the foot	.170*
	45116	by the foot	.070
	45117	by the foot	.125

*Replacement size for base units and vacuum pallets. Other sizes listed for custom made pallets.

[†]Tolerance on all gasket diameter is +/- 10%.

The Simplest and Most Versatile Vacuum System on the Market

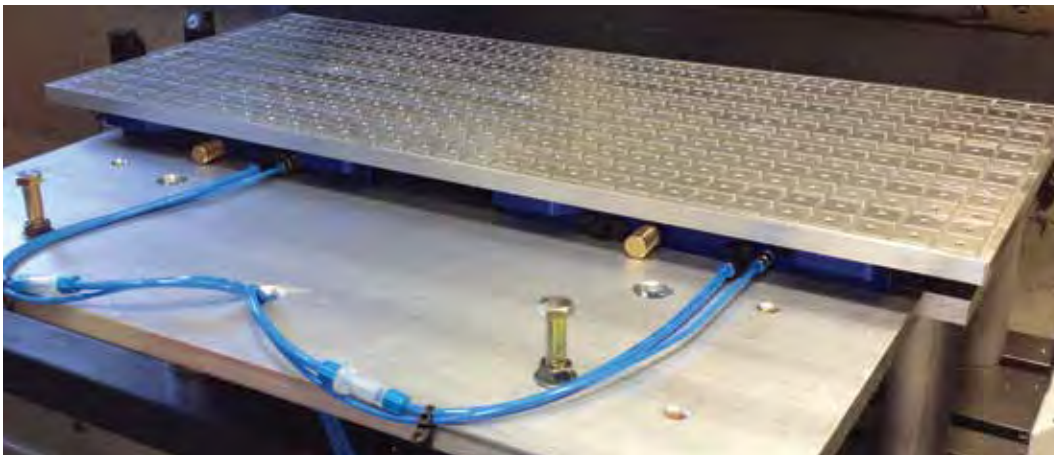
The VM100 was primarily designed for grinding non-ferrous material on a magnetic chuck. During the early stages of R & D it was discovered the VM100 could be much more. Clamp the VM100 in vise to reduce set-up time, use as a pallet changer or mount to a grid plate or T-slot table. The VM100 uses the same patented method as the VM300 to produce a vacuum strong enough for industrial applications but still operates on 70-100 PSI shop air! No need for vacuum pumps and coolant traps. We include everything necessary to get your VM100 running within minutes of opening the box.



The All-in-One Pallet Changer and Vacuum Chuck System

In a relatively short amount of time the VM300 has established itself as the vacuum system to which all others are measured. Capabilities include traditional vacuum applications using our standard grid plate and custom vacuum applications (ie: machining blank pallet to suit specific part geometry) and the ability to perform as a rock solid pallet changer. Contact us to schedule an in-house demonstration with one of our highly qualified Manufacturing Representatives.

*One Small Investment =
Huge Payoffs!*



Best Workholding Product at MACH Exhibition 2006

See page 49 for Replacement Parts

Two VM300 Base Units (45175) and large Vacuum Pallet (45160), bolts supporting oversize workpiece.

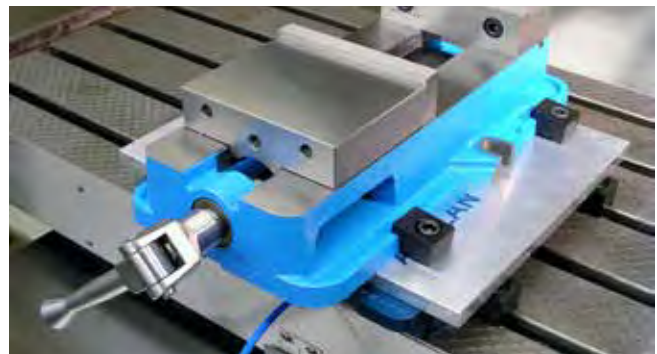


VM300 Base Unit (45175) with a Production Pallet (VM300 Blank Pallet - 45130)

- ▶ Simple design keeps cost low
- ▶ Productivity maximized - load pallets while machining
- ▶ Quick-change - swap pallets in 30 seconds or less with precise repeatability
- ▶ Easy to install and set-up
- ▶ Vacuum pallets with M6 threaded holes and textured finish to increase friction
- ▶ Reliable and easy to use - virtually maintenance free
- ▶ Flexible pallet design - limited only by your imagination!
- ▶ No pumps - uses standard shop air
- ▶ Purchase includes a pack of our original Fixture Clamps and Sliding Stops
- ▶ If additional vacuum chambers are needed, drill tap through with M8 thread and plug when not required.

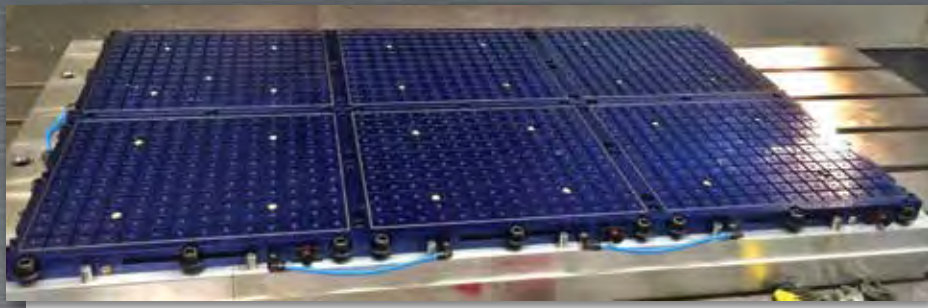


Custom application with graphite.



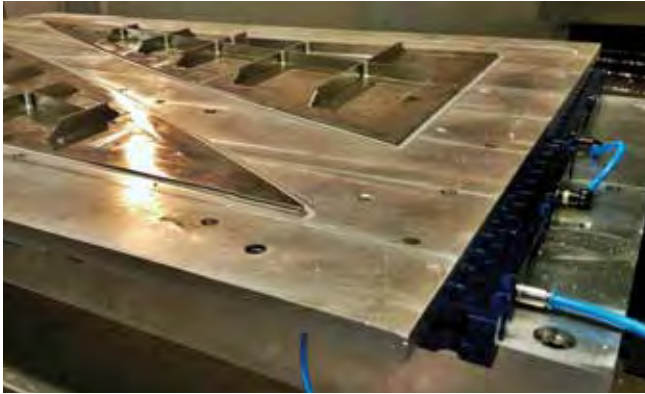
Never indicate your vise again!

Multi-Power Vac



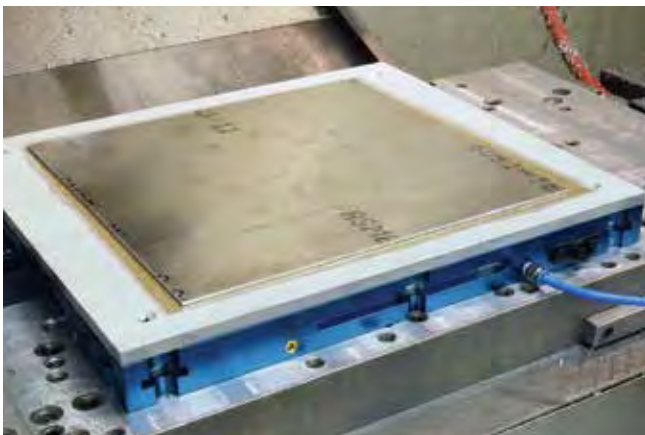
Designed to be easily linked together creating larger platforms

Mitee-Bite is proud to introduce possibly the most universal multi-functional vacuum system in today's market. This system has several unique features to meet your vacuum workholding needs.

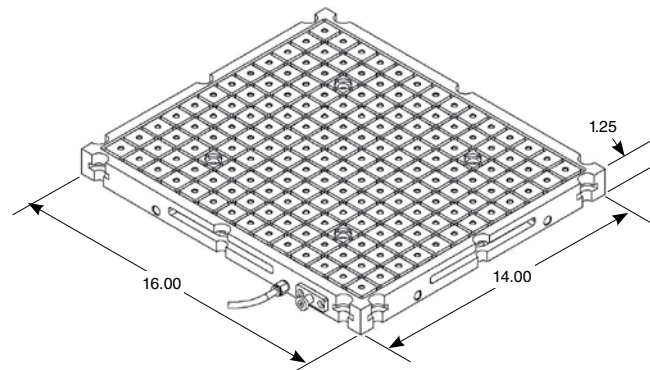
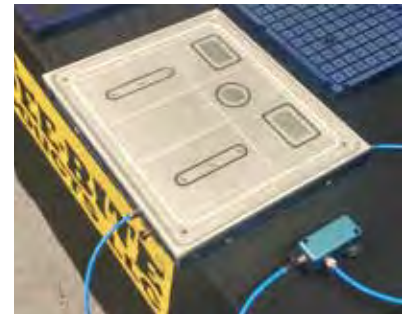


Multiple MPV's shown with large vacuum pallet.

- ▶ Can be powered with our Vacuum Generator (Shop Air) or Vacuum Pumps (page 45)
- ▶ 14"x 16" with textured surface creating additional holding force through friction
- ▶ 4 Vacuum ports allowing user to hold 1-4 small parts or 1 large part (ports can be plugged)
- ▶ Grid plate tapped with M6 threads allowing multiple workholding solutions
- ▶ 6 oversized steel washers machined below the bottom surface allows unit to be used for grinding operations on a magnetic chuck
- ▶ Multiple Vacuum Generators can be used on each pallet if additional CFM is desired
- ▶ Multiple pallets can operate from (1) vacuum generator
- ▶ Coolant Trap may be necessary when using external vacuum source (Trap sold separately)



Application using Mitee-Grip™ with sacrificial top plate



Part No.	Description
46000	1 Multi-Power Vac pallet with Vac Generator including all accessories
46100	Vac Generator with regulator/tubing/brass filter and push to connect fitting
46200	1 Multi-Power Vac pallet without Vac Generator including mounting hardware and tubing
46250	Sacrificial Top Plate with mounting screws
46050	Coolant Trap with hose and fittings

Rotary Vacuum Chuck



NEW

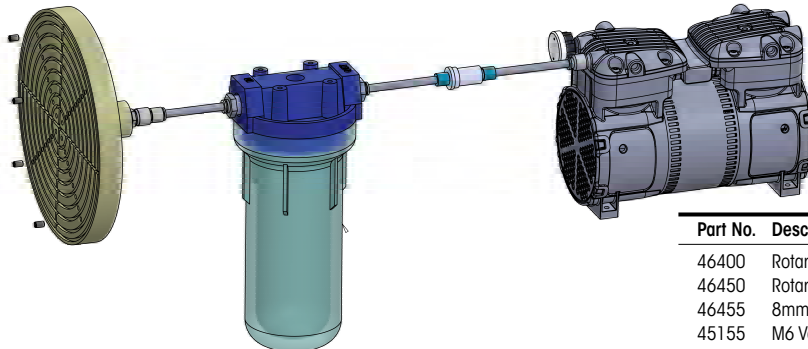


Yes, it's true! A vacuum system for your lathe or rotary table which provides an option for those applications that cannot be held by traditional methods. Although initially designed for thin materials and composites, we discovered we could machine more aggressively than anticipated with use of our newly designed vacuum grippers. These grippers will leave indentation on backside of workpiece, however increase the lateral load in some cases by more than 400%! Grippers can be raised/lowered/relocated as needed in the 32 M6 threaded holes on the face to include the ability to easily change the size of vacuum chamber by removing/reinstalling the gasket material from one of the 9 grooves. Always selecting the largest diameter possible for your application.



Manufactured from a solid billet ensures concentricity between the shaft and vacuum chambers, increased rigidity and the extra material needed if custom modification is required. For example: reducing the size of face plate or shaft diameter as well as machining mirror image of workpiece into faceplate for custom applications.

Rotary push to connect fitting designed for 1,100 RPM, however general machining practices and common sense must be considered when using this product. Recommended for light duty machining application - *please contact us with any questions*. Fittings are for 5/16 or 8mm tubing. If using on lathe, steel tubing is necessary with a coolant trap placed between vacuum pump and vacuum chuck. Flex tubing may be used on rotary table although steel tubing is always the preferred method.



Part No.	Description	Diameter	Thickness
46400	Rotary Vacuum Plate with M6 tapped holes	9.85"	1.0"
46450	Rotary Sacrificial Plate	9.85"	0.375"
46455	8mm Rotary fitting		
45155	M6 Vacuum Grippers (2/pk)		
45111	Vacuum Gasket (black) sold by foot	.170"	
46401	Rotary Vacuum Kit (includes Vacuum Plate, Rotary Fitting, 4 Vacuum Grippers, Tubing and Gasket)		

PATENT PENDING

See page 45 for Vacuum Pump information.

Vacuum Pump

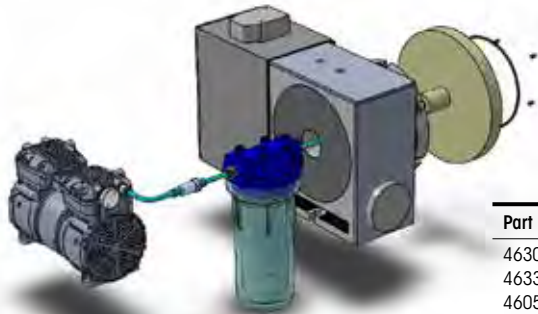


We now offer an Electric Vacuum Pump/Air Compressor option for use with all of our vacuum systems or your current system. This unit is compact, quiet and guaranteed to run continuously for 1 year!

The Pump produces a high evacuation rate of 5 cfm which is recommended for larger parts or difficult gasket sealing situations as the pump can compensate for gasket leakage much better. At dead head the vacuum pump develops approximately 12-13 psi of vacuum holding force. Mitee-Bite recommends using our Coolant Trap between fixture and pumps, so that any liquid that bypasses the gasket can be captured so not to affect vacuum performance.

The Pump is available operating on 115 volt or 230 volt and includes our coolant trap, air filter, non-skid feet & 10' power cord with on/off switch. The 230 volt cord will have flying leads* due to the wide variety of plugs.

*No plug on end of cord.



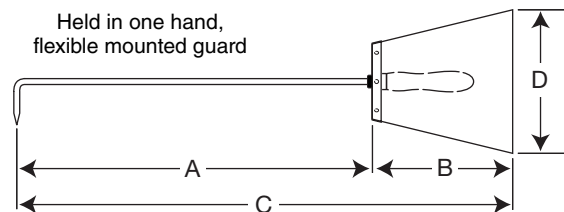
Part No.	Description
46300	Vacuum Pump/Air compressor wired 115 volt Coolant Trap, fittings, hoses & hardware included
46330	Vacuum Pump/Air compressor wired 230 volt Coolant Trap, fittings, hoses & hardware included
46050	Coolant Trap with hose and fittings

Chip Hooks

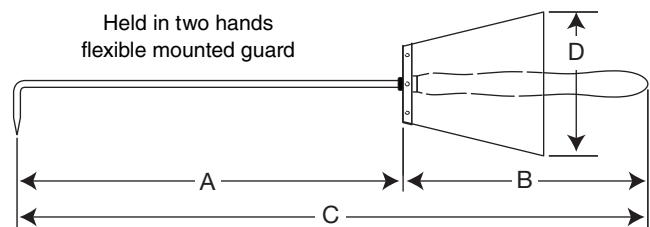


The chip hook is an essential safety tool for all shops. These galvanized steel hooks are fitted with a protective polyethylene hilt and wooden handles to ensure a firm grip. Available in several lengths and single or double handles.

SINGLE HANDLE HOOK WITH PROTECTING HILT



DOUBLE HANDLE HOOK WITH PROTECTING HILT



Part Number	Description	A (metric)	B (metric)	C (metric)	D (metric)
SINGLE HANDLE					
12060	Chip hook, single handle	15.75 (400)	7.0 (180)	22.5 (570)	7.0 (180)
12070	Chip hook, single handle	20.0 (500)	7.0 (180)	26.0 (670)	7.0 (180)
DOUBLE HANDLE					
12080	Chip hook, double handle	20.0 (500)	13.0 (320)	32.0 (820)	7.0 (180)
12090	Chip hook, double handle	31.5 (800)	13.0 (320)	44.0 (1120)	7.0 (180)
12100	Chip hook, double handle	39.0 (1000)	13.0 (320)	52.0 (1320)	7.0 (180)

SAFETY! A work related accident can happen very easily. Always use a chip hook to clear away annoying chips and empty the chip trays on your machines.