





SECONDS MATTER



In the 1960's, Chick forged its way in contract machining by providing clients with specialized engineering solutions for parts with complex and tight tolerances. By the mid 1980's, it was obvious that the future of machining was in CNC. As industry leaders, Chick recognized early on that to truly unleash the full capability of these machines, there was a need for modernized workholding.

Through the talents of our engineering team, we created a versatile system that:







Is simple to use.



Enables unmanned operation.



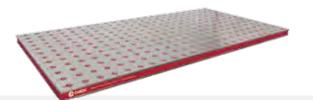
Chick has introduced a multitude of cutting-edge innovations to the industry including **QwikCHANGE®** machinable jaws, two-station squeeze clamping, and most recently the **OneLOK™** (which is designed for short runs of 1 to 20 parts).

We are pleased that you chose to consider Chick Workholding, and we look forward to sharing ideas to increase throughput, machine uptime, and labor efficiency.

Sincerely,

Paul Swann Paul Swann, President

724.772.1644



#### **Foundation**

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## Foundation

A Foundation will minimize spindle downtime. Whether you are using Chick OneLOKs, QwikLOKs, Indexer Subsystems or your own fixtures, mount and locate anywhere on the table and never have to indicate again. The accurate coordinates will document your setup making it fast and easy for the machinist - time and time again.



#### **Blaze Through Setups**

Nothing handles repeat fixture changes like the foundation, eliminating indicating and edge finding. The 50mm grid pattern is bushed and tapped, providing alphanumeric coordinates to accurately locate and quickly setup anywhere — again and again.



#### **Push the Envelope**

Get the most out of your machine's envelope by extending the usable surface area for fixture setups. Place fixtures, such as indexers, out of the spindle travel zone to avoid collision and free up valuable cutting space.



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#### **Clean Up with Ease**

The Foundation's precision-ground, cast-iron plate diverts chips.
Surface plugs provide a clean surface to simply blow shavings away. Clean up has never been faster. Fixture changes have never been easier.



#### **Tailored to Your Machine**

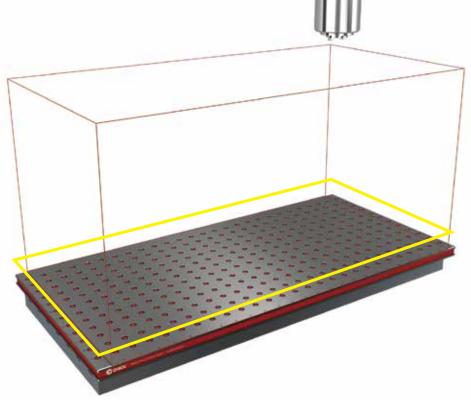
We've designed a Foundation specifically for your machine to ensure correct sizing, precise positioning, and the optimization of your work envelope. Each package includes mounting hardware for easy out-of-the-box installation.



# Foundation

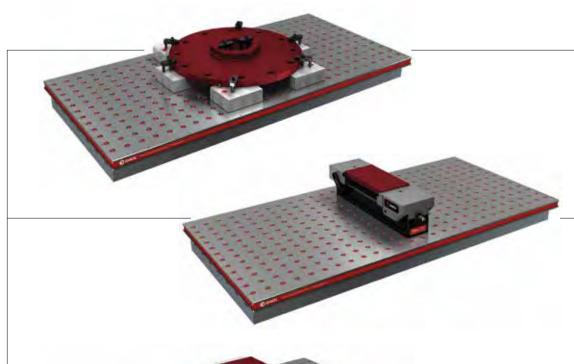
### **Maximize Versatility**

Be prepared for anything, whether it's large-plate work, one-off production, or batch production. All our products mount to the Foundation, making your vertical machine ready for any job that comes through your door. A Foundation allows you to know the X, Y, and Z fixture offsets before you even program the part. No matter how complicated. No matter how short notice.



Build fixtures anywhere on a strong Foundation

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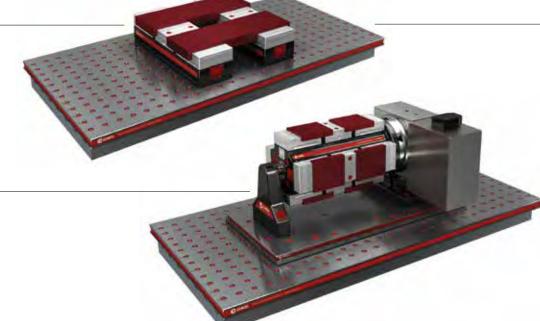


#### **Large Plate Fixtures**

Locate and mount large workpieces anywhere on the Foundation with repeatable accuracy. See page 9 for Foundation Blox and Accurate Locating Bolts.

#### **OneLOK**

Blaze through setups with the OneLOK — perfect for vertical machines running batches of 1-20 parts. See pages 10-15 for more information.



#### **QwikLOK**

QwikLOK systems are ideal for vertical machining centers running single-side or opposing-side jobs in batches from 20 to thousands of workpieces. They're available in 50mm, 100mm, and 150mm widths. See pages 16-23 for more information.

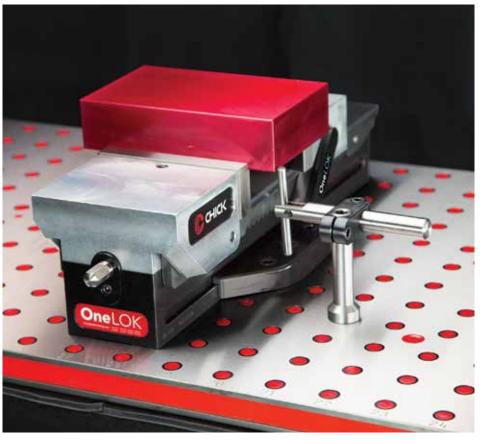
#### **Indexer Subsystem**

Indexable workholding is ideal for workpieces with critical tolerances for perpendicularity and concentricity. Learn more on pages 24-29.

# WorkStop With a Foundation

Brace yourself for a workstop solution that finally lets you make unlimited adjustments on the fly. Chick's WorkStop is versatile, with full 360-degree rotation and lateral calibrating. It's also rugged — built to handle accurate, repeatable locating, time and time again.

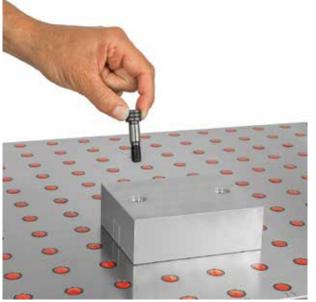




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# Foundation Large Plate Fixtures





#### **Foundation Blox**

These high-strength aluminum blocks provide a blank canvas to design your own comprehensive jig-fixture interface. The two 50mm-spaced holes let you place the block anywhere on the foundation. Get repeatable location by mounting with accurate locating bolts.

050-0001

#### **Accurate Bolts**

Get precise repeatability with our M12 groundshoulder bolts. Use to locate Foundation Blox or any other modular fixturing component.





#### **Setup Quicker**

Our BoltFast™ jaw system shaves valuable time off of jaw changes. One simple screw turn provides fast precise repeatability. Stop wrestling with buried screws, stop recutting jaws, and start saving time.



#### **Operate Easier**

We designed the OneLOK with the machinist in mind. At nearly half the weight of 1950 style vises and with an ergonomic handgrip, the OneLOK can be handled with ease.



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#### **Work Cleaner**

OneLOK's sealed design eliminates "chip traps" for cleaner operation and less aggravation. This means no more messy part changes or lost small workpieces.



#### **Clamp Faster**

The QwikSlide movable jaw slides with ease for rapid setup and part changes. Boost operator speed and gain efficiency.



# **One**LOK<sup>™</sup> System Information





ORDER NUMBERS		<u>50L1540</u>	<u>50L1550</u>	
Dimensions mm (inch)				
(Boss)	▲ Length	400 (15.75)	500 (19.69)	
A	<b>B</b> Width*	164 (	(6.46)	
30 (1.18)	<b>C</b> Height*	134 (5.28)		
Maximum Holding Capacity mm (inch)				
<b>D</b> Mach	inable Jaws	180 (7.08)	280 (11.02)	
E Hard.	laws	158 (6.22)	258 (10.16)	
F Step J	aws	163 (6.42)	263 (10.35)	
Additional Information on Jaws and Accessories		Pages 13-15		
Clamping Force @ Maximum Torque		26.5 kN @ 54 N●m 6000 lbs @ 40 ft●lbs		
System Weight		19.1 kg (42 lbs)	22.3 kg (49 lbs)	

<sup>\*</sup>All dimensions and systems include a standard BoltFast™ machinable jaw set.

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# One LOK BoltFast Jaws

#### Machinable Jaw Set





Material: High Strength Aluminum

Order Number Set includes 2 jaws	Width	Depth	Height	
5BFSJ-150-50	152 (5.98)	36 (1.42)	48.5 (1.91)	

Clamp workpieces securely and with precise repeatability, reducing setup time to seconds. Standard machinable jaws are included. Additional accessories include hard, step, and adapter jaws.

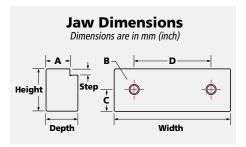
Hard Jaw Set





Material: Hard Steel

Order Number Set includes 2 jaws	Width	Depth	Height
5BFHJ-150	152 (5.98)	21 (.83)	50 (1.97)



Step Jaw Set





Material: Hard Steel

Order Number Set includes 2 jaws	Width	Depth	Height	Α	Step
5BFST-150-06	152 (5.98)	21 (.83)	50 (1.97)	18.5 (.73)	6 (.24)

#### Basic Vise Adapter Jaw Set





<u>50L1540</u> - 158 (6.22) <u>50L1550</u> - 258 (10.16)



Material: Hard Steel

Order Number	Width	Depth	Height		Hole Dimensions	
Set includes 2 jaws	widii	Deptil	пеідііі	В	C	D
5BFAJ	152 (5.98)	21 (.83)	50 (1.97)	Ø14 (.55)	23.8 (.94)	98.43 (3.875)

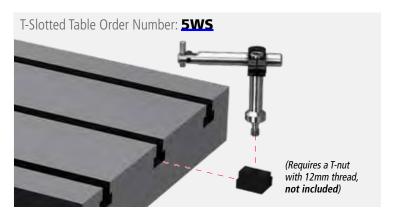
# OneLOK WorkStop

Brace yourself for a workstop solution that finally lets you make unlimited adjustments on the fly. Chick's WorkStop is versatile, with full 360-degree rotation and lateral calibrating. It's also rugged — built to handle accurate, repeatable locating, time and time again. Put stopping power where you need it. (Mounts to OneLOK, Foundation, and T-slotted tables.)









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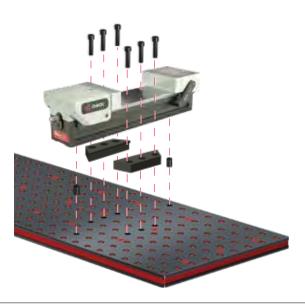
# **One** LOK<sup>™</sup> **Mounting Accessories**

#### **Mount to a Chick Foundation**

Our advanced locating system ensures pinpoint-accurate mounting. Whether you're orienting your system in the X or the Y axis, simply place the OneLOK onto the Chick Foundation, and use the round and diamond pin interface to ensure precise locating accuracy and repeatability. Then, add Foundation Mounting Kit to secure the OneLOK.





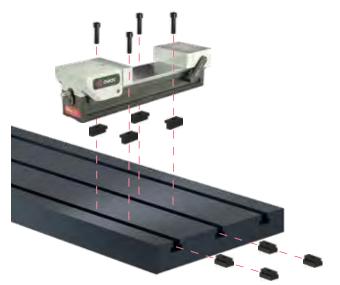


#### Mount to a T-Slotted Table

Alternatively, the OneLOK can be mounted to a T-slotted table with T-slot Toe Clamps.



Toe Clamps (four per set) mount a OneLOK to a T-slotted VMC table. Toe Clamps can be used with either a ½-13 or M12 socket head cap screw. (T-nuts and cap screws not included).



### **Qwik**LOK Divide and Conquer

QwikLOK is an innovative workholding solution crafted for today's competitive market. Built with Chick's revolutionary machinable QwikCHANGE fixtures to handle just-in-time requests with repeatability, versatility, and speed for batch manufacturing. Saves time, money, and aggravation.





#### **Setup Quicker**

QwikLOK makes a deep cut into setup times. Change jaws, or the complete system, without having to reestablish work offsets. The built-in locating features will welcome fixtures home, time and time again.



#### **Double Down**

The QwikLOK's pioneering design holds two parts in the same footprint a basic vise holds one. This cuts part change and tool change times in half. Shaved-off seconds quickly add up to huge productivity gains.



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#### **Walk Away Longer**

Doubling the number of parts under the spindle provides twice the "money making" cut time. Fewer machine stops mean operators get longer periods of time to walk away and perform other important tasks.

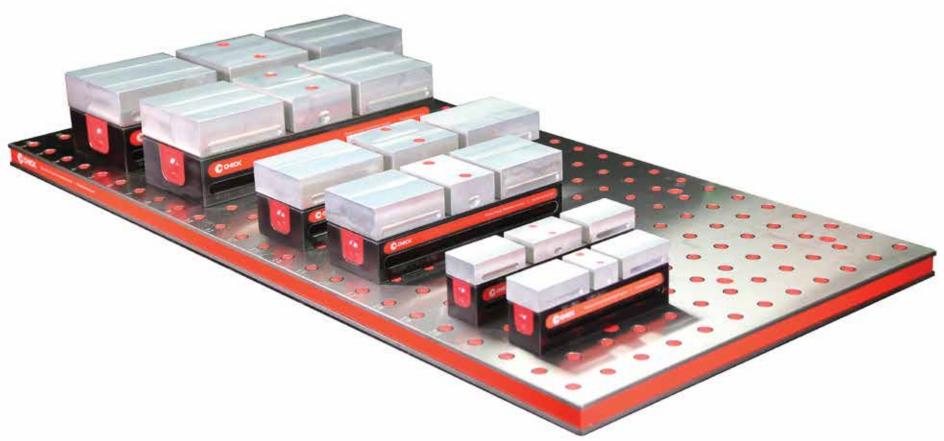


#### **Grasp the Possibilities**

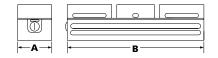
Maximize the versatility of your shop with the boundless fixturing options the QwikLOK provides. Be ready for any job that comes through your door. No matter how complicated. No matter how short notice.



## **Qwik**LOK System Information



For additional system and fixture information, refer to the corresponding product number and download the Product Information Packet from ChickWorkholding.com or contact Support Sales at 724.772.1644.



A =	B =	System Size	Product Number
50mm (2")	200mm (8")	0520	<u>081-1200</u>
30111111 (2 )	250mm (10")	0525	081-1205
100mm (4")	300mm (12")	1030	<u>5QL1030-AL</u>
10011111 (4 )	400mm (16")	1040	5QL1040-AL
150mm (6")	400mm (16")	1540	<u>5QL1540-AL</u>
13011111 (0 )	500mm (20")	1550	5QL1550-AL

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## **Qwik**LOK System Information

		0520	0525	1030	1040	1540	1550
ORDER NUMBERS		<u>081-1200</u>	<u>081-1205</u>	5QL1030-AL	5QL1040-AL	5QL1540-AL	5QL1550-AL
Dimensions mm (inch)							
	<b>A</b> Length	200 (7.87)	250 (9.84)	300 (11.81)	400 (15.75)	400 (15.75)	500 (19.69)
A	B Width*	50 (	1.97)	100	(3.94)	150 (	(5.91)
	<b>C</b> Height*	75 (2	2.95)	95 (	3.74)	120 (	(4.72)
Maximum Holding Capa	city mm (inch)						
→ D →   → D →	<b>D</b> Dual Station Clamping 2 parts	85 (3.35)	110 (4.33)	130 (5.12)	180 (7.09)	175 (6.89)	225 (8.86)
<b>← E →</b>	<b>E</b> Single Station Clamping 1 part	185 (7.28)	235 (9.25)	280 (11.02)	380 (14.96)	380 (14.96)	480 (18.90)
Additional Information & Fixtures Go to ChickWorkholding.com to download the corresponding Product Information Packet.							
Clamping Force @ Maximum Torque		11.2kN @ 19N●m 2,520 lbs @ 14 ft●lbs		22.0kN @ 70N●m 5,000 lbs @ 52 ft●lbs		40.0kN @ 160N●m 9,000 lbs @ 118 ft●lbs	
System Weight		2 kg (5 lbs)	3 kg (6 lbs)	9 kg (19 lbs)	11 kg (24 lbs)	21 kg (47 lbs)	26 kg (57 lbs)

<sup>\*</sup>All dimensions and systems include a standard QwikCHANGE™ machinable jaw set.

### **Qwik**LOK Fixture Options

QwikLOK offers boundless fixturing options. In addition to the included standard dual station machinable jaws, choose single station jaws; faceplates in standard, high, wide, or oversized; or QwikStak or Jaw Carrier sets.

All have locating features with repeatability of better than 20 microns (0.0008 inch), reducing



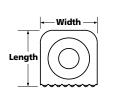
#### **GRIPPERS**

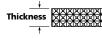
Chick Grippers are ideal for heavy machining applications in which wear is a major concern. The hardened steel surface provides an interface that eliminates wearing caused by rough or hard metals. The Chick Grippers also increase the holding power of your fixture, since the serrated surface "bites" into the part, for more aggressive workpiece clamping.

setup from hours to minutes.















	Length	Width	Thickness	Product Number
Gripper #3	9mm (.35")	9mm (.35")	3mm (.12")	Plain <u>005-2531</u>
dripper #3	311111 (.55 )	Jillii (.55 )	511111 (.12 )	Serrated <u>005-2532</u>
Gripper #4	12mm (.47")	12mm (.47")	4.6mm (.18")	Plain <u>005-2541</u>
dripper #4	21 #4   1211111 (.47 )   1211111 (.47 )   4.011111 (.10 )	4.011111 (.10 )	Serrated <u>005-2542</u>	
	I			1.
Cuinnau #F	15mm (.59")	15mm (.59")	5mm (.20")	Plain <u>005-2551</u>
Gripper #5	13111111(.59 )	13111111(.59 )	3HIII (.20 )	Serrated <u>005-2552</u>
				Ta
Gripper #6	19mm (.75")	19mm (.75")	6mm (.24")	Plain <u>005-2561</u>
Gripper #6	Gripper #6   19mm (.75 )   19mm (.75 )	1911111 (.75 )	OIIIIII (.24 )	Serrated <u>005-2562</u>

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#### Dual Station Machinable Jaw Set

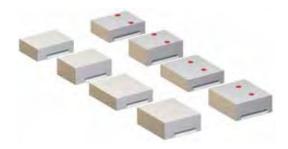
Holds two or four workpieces





#### Single Station Machinable Jaw Set

Holds one or two long workpieces





### Machinable Faceplate

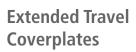
Fully customizable on the fly to hold small or odd-shaped workpieces with delicate precision







QwikStak is a modular subplate to mount 50mm QwikLOKs in many configurations quickly and with accurate repeatable location. (Available for 5QL1550 only.)





Broadens the QwikLOK's travel to hold a family of workpieces of various lengths with the same jaw set. (Available for 5QL1040 and 5QL1550 only.)

#### Jaw Carriers



Jaw Carriers enable QwikLOK to hold vise fixture jaws so you can move your existing soft jaws over to the QwikLOK. (Available for 5QL1040 and 5QL1550 only.)

### **Qwik**LOK Mounting Accessories

#### Mount to a T-Slotted Table

Toe Clamps and Locating Keys offer more options for mounting QwikLOKs to T-slotted tables.



#### Locating

Locating Keys (two keys per set) use a ball-lock mechanism to fasten onto the underside of all QwikLOK bases.

MKE625 (5/8 inch)

**MKE14x18** (14mm x 18mm)

**MKE16** (16mm)



#### Mounting

Toe Clamps (four per set) mount a QwikLOK to a T-slotted VMC table. Toe Clamps can be used with either a ½-13 or M12 socket head cap screw. (T-nuts and cap screws not included).

005-0254



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#### **Mount to a Chick Foundation**

Take your productivity to the next level by eliminating the time needed to indicate. When you mount your QwikLOK to a Chick Foundation, our exclusive Round and Diamond locating pin sets consistently ensure precise accuracy and repeatability of better than 20 microns (.0008"). All QwikLOK, Foundation workholding packages include Locating and mounting hardware necessary to mount the QwikLOK to a Foundation.



#### Locating

Round and Diamond locating pins (1 of each) use a ball-lock mechanism to fasten onto the underside of all QwikLOK bases or to a foundation.





#### Mounting

Mounting hardware is included with all QwikLOK Systems.



# Indexer Subsystem



#### **Dial Down Part Changes**

Hold two workpieces per side then Index them. See your part change time per part drop to one-sixth that of a basic vise.

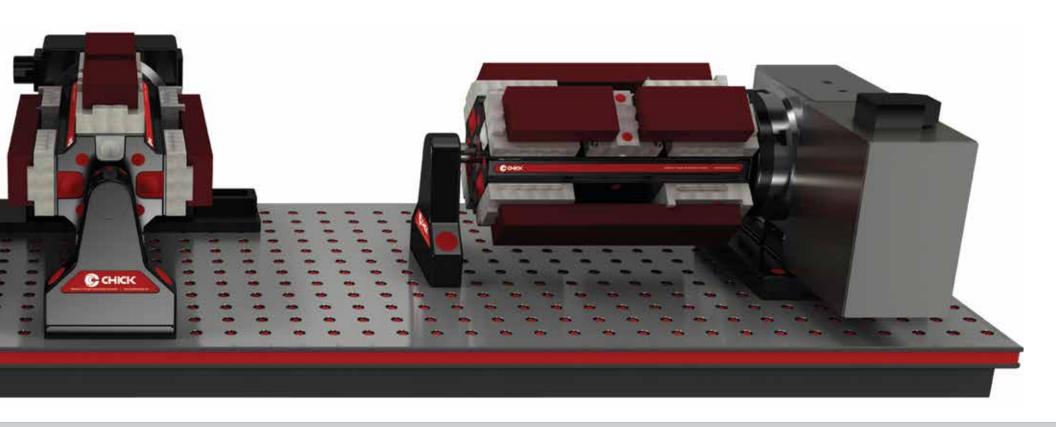


#### **Tool Change Less**

One tool change takes about six to eight seconds. Working on multiple parts and having access to three sides of each of them means tools are used longer and changed less often.



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#### **Gain Precision**

Achieve critical tolerances for perpendicularity and concentricity by holding perfectly aligned workpieces in machined jaws and indexing them to cut three sides of each workpiece.



#### **Walk Away Longer**

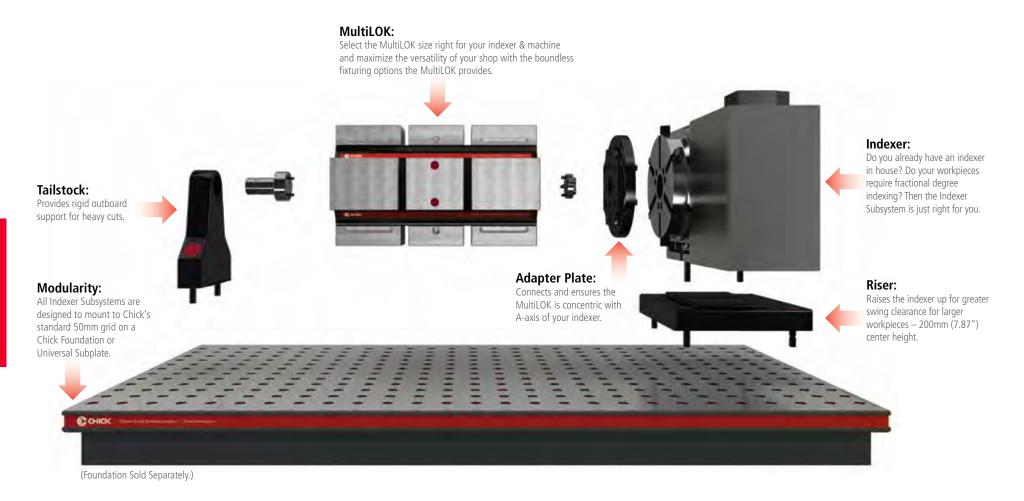
Multiply the number of parts under the spindle and increase your walkaway time. Fewer machine stops mean operators get longer periods of time to work on other things.



# Indexer Subsystem

### With your own indexer

We've designed indexable workholding packages specifically for your indexer to achieve critical tolerances for perpendicularity and concentricity on a Vertical Machining Center.



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# **System Information**

		0520	0525	1040	1040	1550
			3			
REFERENCE NUMBERS		ISS-082-4202	ISS-082-4201	5IS1040-41	5IS1040-61	5IS1550-41
Dimensions mm (inch)						
A	<b>A</b> Length*	505 (19.88)	355 (13.98)	505 (′	9.88)	605 (23.82)
В	<b>B</b> Height*	305 (	12.01)	320 (12.60)		450 (17.20)
С	<b>C</b> Clearance*	95 (3.74)		80 (3.16)	50 (1.98)	150 (5.91)
Maximum Holding Capacity mm (inch)						
	Dual Station Clamping 2 parts	85 (3.35)	110 (4.33)	180 (	7.09)	225 (8.86)
F E →   E	Single Station Clamping 1 part	185 (7.28)	235 (9.25)	380 (	14.96)	480 (18.90)
More Information and Fixtures		Go to Chick	Workholding.com to dow	nload the corresponding	MultiLOK Product Inform	nation Packet.
Clamping Force @ Maximum Torque		11.2kN @ 19N∙m 2,520 lbs @ 14 ft∙lbs		22.0kN @ 70N∙m 5,000 lbs @ 52 ft∙lbs		40.0kN @ 160N●m 9,000 lbs @ 118 ft●lbs
Workholding System Inertia*		0.12 kg.m2 2.85 lb.sq.ft	0.07 kg.m2 1.66 lb.sq.ft	0.29 kg.m2 6.88 lb.sq.ft	0.78 kg.m2 18.51 lb.sq.ft	1.06 kg.m2 25.15 lb.sq.ft

<sup>\*</sup>All dimensions and systems include standard QwikCHANGE™ machinable jaw sets.

# Indexer Subsystem

### **Fixture Options**

Indexable Workholding offers boundless fixturing options.

In addition to the included standard dual station

machinable jaws, choose single station jaws or faceplates in standard, high, wide, or oversized. All have locating features with repeatability of better than 20 microns (0.0008 inch), reducing setup from hours to minutes.



For additional system and fixture information, refer to the corresponding MultiLOK product number and download the Product Information Packet from ChickWorkholding.com or contact Support Sales at 724.772.1644.

A =	B =	System Size	Product Number
(-!!)	200mm (8")	0520	<u>082-4200</u>
50mm (2")	250mm (10")	0525	<u>082-4201</u>
100mm (4")	300mm (12")	1030	<u>5ML1030-41</u>
10011111 (1 )	400mm (16")	1040	5ML1040-41
150mm (6")	400mm (16")	1540	5ML1540-41
1 30111111 (0 )			

5ML1550-41

500mm (20")

724.772.1644



#### **Dual Station Machinable Jaw Set**

Holds two or four workpieces





#### **Single Station Machinable Jaw Set**

Holds one or two long workpieces





#### **Machinable Faceplate**

Fully customizable on the fly to hold small or odd-shaped workpieces with delicate precision



### **Strength in Numbers**

Get the most from your horizontal CNC machine with the unlimited fixture possibilities of the MultiLOK. Run single workpieces or max out the number of workpieces held and get reduced setup, cycle, and part change times. It's perfect for just-in-time requests. Switch from one dedicated fixture to another on the same pallet in seconds. One MultiLOK. One pallet. Infinite fixturing.



#### **Setup Quicker**

MultiLOK makes a deep cut into setup times. Change fixtures over with a simple turn of a handle. Stop getting bogged down with heavy, cumbersome pallet removal.



#### **Gain Precision**

Cut the machine's orthogonal axis right into the machinable jaws and carve in locating features for accurate workpiece placement again and again. And three-side access to each part provides more accurate workpieces with less repositioning.



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#### **Operate with Ease**

The MultiLOK's smooth, solid surface resists chips to make workpiece and fixture changes a snap. The staggered loading lets you position multiple workpieces, clamping one at a time for easy part changes.



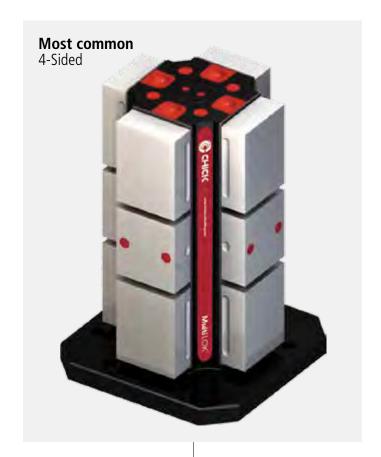
#### **Grasp the Possibilities**

Maximize the versatility of your shop with the boundless fixturing options the MultiLOK provides. Be ready for any job that comes through your door. No matter how complicated. No matter how short notice.



Available in 6 sizes, the four-sided MultiLOK takes full advantage of your HMC machine by providing accessibility to three-part sides.

The Specialty MultiLOKs (below) provide the versatility for higher density, larger complex parts, and small parts. Contact Chick to get the workpackage number specifically designed for your HMC machine.



#### **Right Angle Drive (RAM)**

50mm RAM Drive clips onto any 50mm MultiLOK changing the handle insertion angle by 90°, improving ergonomics in high-density configurations.





6 Sided 5ML1040-61 5ML1550-61





**Double Stacker** 082-4202 082-6202



Specialty MultiLOK Mount to MAM72









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### **System Information (4-Sided)**

	0520	0525	1030	1040	1540	1550
ORDER NUMBERS	082-4200	082-4201	5ML1030-41	5ML1040-41	5ML1540-41	5ML1550-41
Dimensions mm (inch)						
A Height	200 (7.87)	250 (9.84)	300 (11.81)	400 (15.75)	400 (15.75)	500 (19.69)
A B Width*	210 (8.27)		240 (9.45)		300 (11.81)	
C Swing  Baseplate sold separately.  Diameter*	216 (8.49)		260 (10.24)		334 (13.15)	
Maximum Holding Capacity mm (inch)						
D Dual Station Clamping 2 parts	85 (3.35)	110 (4.33)	130 (5.12)	180 (7.09)	175 (6.89)	225 (8.86)
E Single Station Clamping 1 part	185 (7.28)	235 (9.25)	280 (11.02)	380 (14.96)	380 (14.96)	480 (18.90)
Additional Information & Fixtures		Go to ChickWorkhold	ding.com to download t	the corresponding Produ	uct Information Packet.	
Clamping Force @ Maximum Torque		@ 19N•m @ 14 ft•lbs	22.0kN @ 70N●m 5,000 lbs @ 52 ft●lbs		40.0kN @ 160N●m 9,000 lbs @ 118 ft●lbs	
System Weight	15 kg (33 lbs)	19 kg (42 lbs)	37 kg (81 lbs)	47 kg (103 lbs)	80 kg (177 lbs)	93 kg (206 lbs)

<sup>\*</sup>All dimensions and systems include standard QwikCHANGE™ machinable jaw sets.

### **Fixture Options**

MultiLOK offers boundless fixturing options. In addition to the included standard dual station machinable jaws, choose single station jaws; faceplates in standard, high, wide, or oversized; or QwikStak or Jaw Carrier sets. All have locating features with repeatability of better than 20 microns (0.0008 inch), reducing setup from hours to minutes.

#### **Hoist Ring**

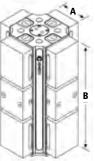
Maneuver the MultiLOK with convenience and confidence using our sturdy Hoist Ring. (Included with workholding

packages.)



For additional system and fixture information, refer to the corresponding product number and download the Product Information Packet from ChickWorkholding.com or contact Support Sales at 724.772.1644.





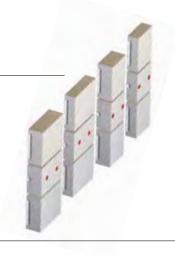
A =	B =	System Size	Product Number
50mm (2")	200mm (8")	0520	082-4200
3011111 (2 )	250mm (10")	0525	<u>082-4201</u>
100 (4")	300mm (12")	1030	5ML1030-41
100mm (4")	400mm (16")	1040	5ML1040-41
150mm (6")	400mm (16")	1540	5ML1540-41
130111111 (0 )	500mm (20")	1550	5ML1550-41

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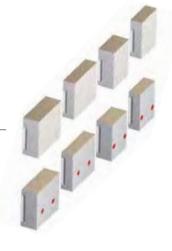
#### **Dual Station Machinable Jaw Set**

Holds two or four workpieces



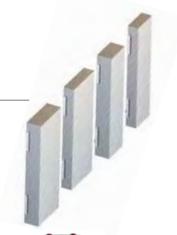
#### Single Station Machinable Jaw Set

Holds one or two long workpieces



#### **Machinable Faceplate**

Fully customizable on the fly to hold small or odd-shaped workpieces with delicate precision



#### **QwikStak**

QwikStak is a modular subplate to mount 50mm QwikLOK's quickly in many configurations and with accurate repeatable location. (Available for 1550 MultiLOK only.)



5QS1550-20-50

## **Extended Travel Coverplates**

Holding a family of parts? Extended Travel Coverplates enable MultiLOK to hold various part lengths with the same jaw set. (Available for 1040 and 1550 MultiLOK only.)



#### **Jaw Carriers**

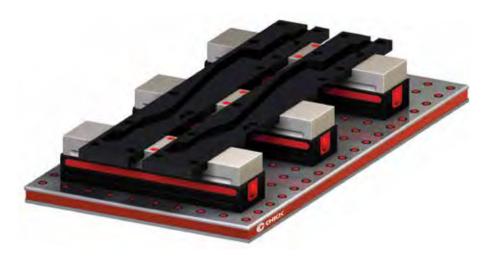
Already have soft jaws cut? Jaw Carriers enable the MultiLOK to hold vise fixture plates. (Available for 1040 and 1550 MultiLOK only.)













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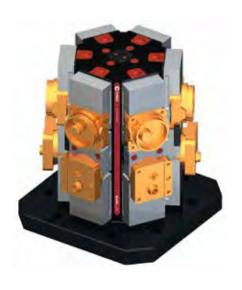








724.772.1644















Chick Workholding Solutions, Inc. 500 Keystone Drive Warrendale, PA 15086

Phone: 724.772.1644 Fax: 724.772.1633

Email: Sales@ChickWorkholding.com

**ChickWorkholding.com**