



KURT
WORKHOLDING

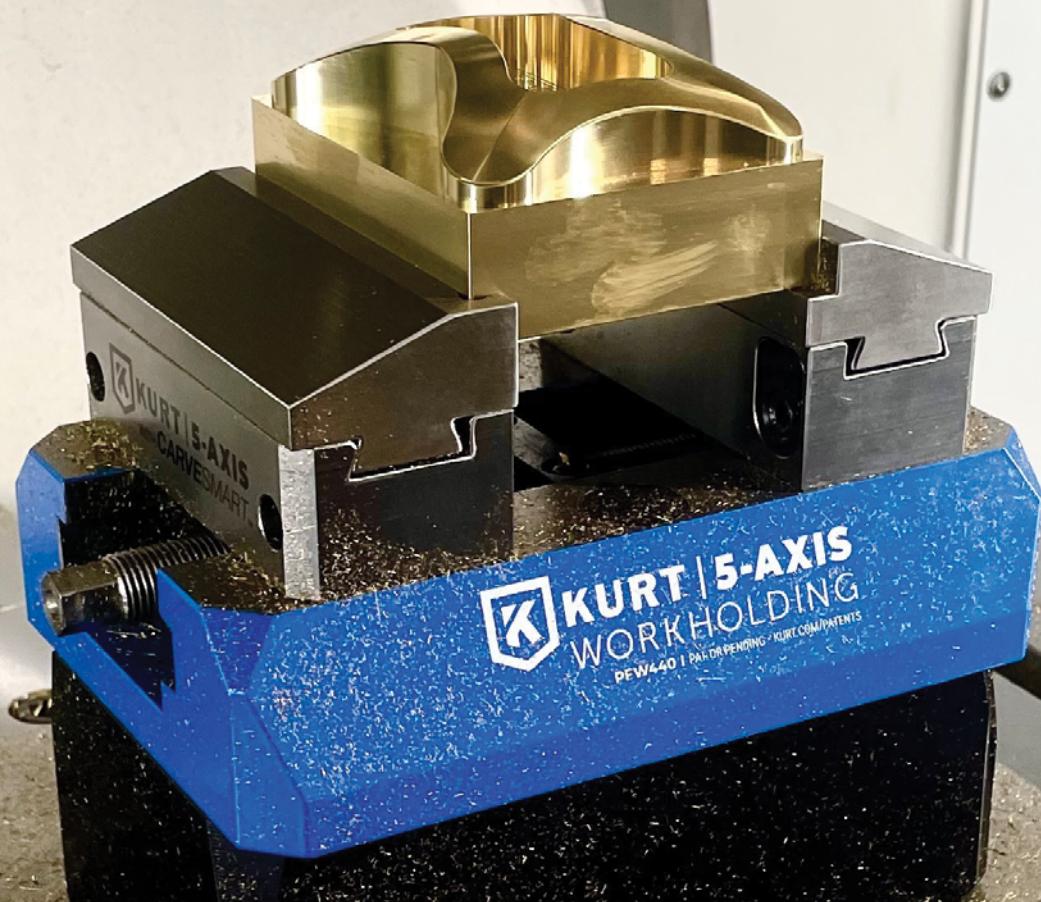
**INNOVATIVE STANDARD &
CUSTOM WORKHOLDING
SOLUTIONS FOR OVER
60 YEARS.**



KURT
WORKHOLDI

**WORKHOLDING
SOLUTIONS GUIDE**

Carvesmart master jaws for
Kurt PFW Compact Vises enable
more soft jaw options for multi-
axis machines.



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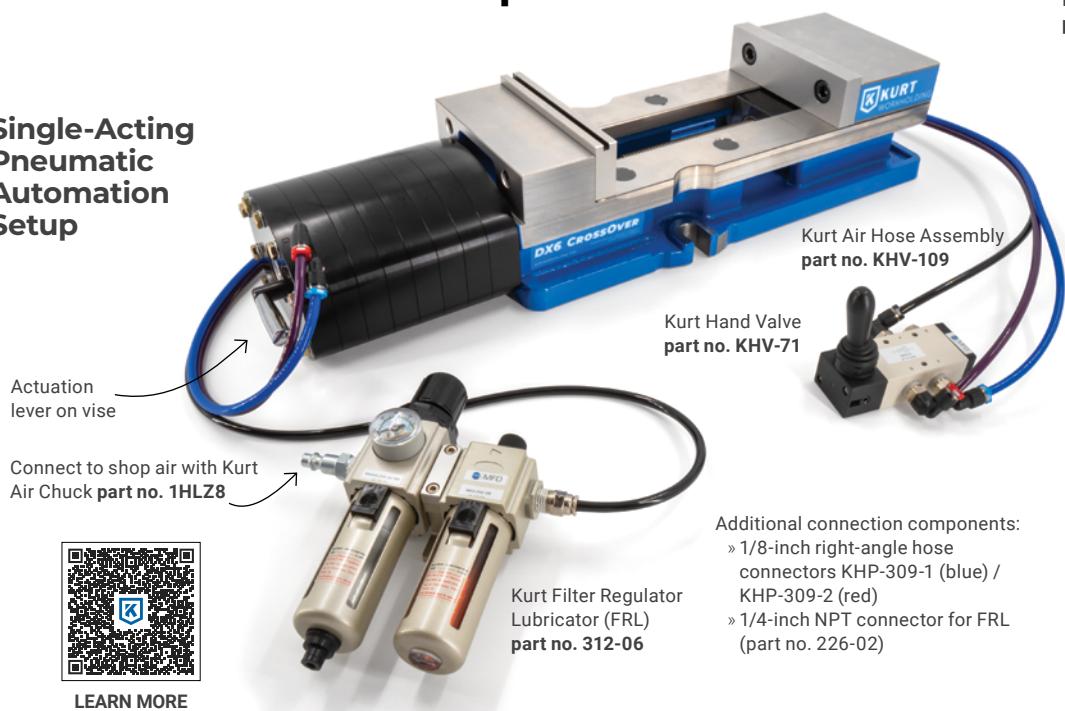
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At Kurt Workholding, our mission is to empower manufacturers with precision-engineered, American-made workholding solutions backed by our Ironclad Lifetime Warranty—delivering unwavering reliability, superior performance, and long-term value on every part, every setup, every time.

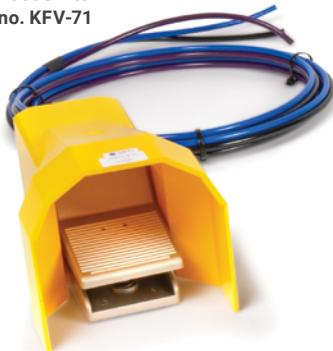
Kurt Pneumatic Vise Options

Single-Acting Pneumatic Automation Setup


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Whether you need a semi- or fully-automated workholding setup, Kurt has you covered. We've expanded our pneumatic vise lineup to 5-Axis applications with the new **PFA620** vise and we've brought the cost down on automation with the **DX6A** pneumatic vise. Kurt's pneumatic solutions are **affordable, expandable to multiple vises, flexible**, and most of all, **easy to set up**. All you need is **shop air**, a **FRL** and a **switch** to operate the vise outside of the machine. Our most popular vise models have air-actuated versions including the DX series, PF series, VersatileLock and XL Series. **Call our sales team today and we'll help you design your perfect system.**

Kurt Foot Switch
part no. KFV-71



SWITCHING OPTIONS

Kurt offers 3 switching options for our turnkey automation including a **hand valve (KHV-71)**, a **foot switch (KFV-71)** and the **toggle switch** that comes standard on the KHP3 air-over-oil hydraulic pump.

- » New 5-Axis vise option
- » Affordable turnkey automation
- » Easy to expand with multiple vises
- » Easy to integrate robotic control
- » Single or double acting

PNEUMATIC SINGLE STATION



Series	5-Axis Air	DX Series	VersatileLock Series	XL Series
Models	PFA620	DX6A(R)	3600A / 3610A / 3620A / 3630A	XL6A(R)
Vise Type / Stations	5-Axis / Single	CNC machine vise / Single	CNC machine vise / Single	Extra capacity CNC vise / Single
Required to Automate	Shop air / FRL / Air hose / Switch*			

*Additional manifolds and solenoids required for fully automated setup.

Kurt RV36 Robotic Gripper

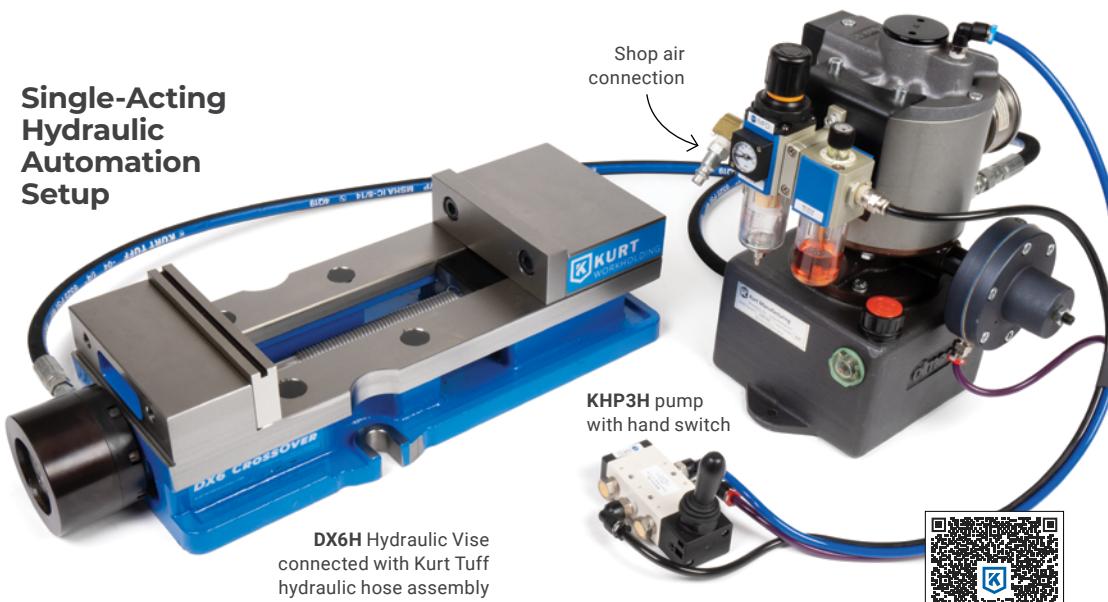
The **Kurt RV36 Robotic Gripper** is a two-finger parallel gripper designed to allow automated finger/end effector changes **without gripper body changes**. An amazingly adaptable gripper by itself, is made even better with automatic finger changes. Each finger has two pull studs for automated operator-free end effector changes. Increase robotic pick and place flexibility and minimize automation costs with faster changeovers.

The RV36 Robotic Gripper features quick-change, pull-stud mounted fingers for automated finger changes.



Kurt Hydraulic Vise Options

Single-Acting Hydraulic Automation Setup


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Kurt hydraulic automation is an affordable way to improve part holding accuracy and reliability. Our **lean hydraulic automation solutions** are flexible and allow automation systems to be set up to open and close vises with or without an operator present. Kurt hydraulic automation offers a high return on investment. **Getting started is a 3 step process: 1. Select a vise. 2. Select a semi- or fully-automated setup. 3. Add a KHP3 pump and the necessary plumbing needed for your automation setup.** Additional solenoids and a PLC, robot or machine tool controller are needed for fully automated setups. We can help you: **Call our sales team today!**

TYPES OF SETUPS

The Kurt **KHP3** air-over-oil hydraulic pump is designed to automate Kurt hydraulic vises. Pumps and vises can be configured in a **semi-automated workspace** where an operator controls actuation with a hand lever, foot switch or toggle.

A **fully automated setup** can be configured by using a machine tool controller, PLC or a robot with the addition of solenoids, switches and a manifold.

Kurt pumps can be set up as **single acting** to close with hydraulic pressure and open via spring or **double acting** to open and close with hydraulic pressure (recommend for fully automated setups).

- » KHP3 pump can run multiple vises
- » Wide range of vise options—double and single station
- » Single or double acting, semi- or fully-automatic options
- » Easy robotic integration

HYDRAULIC SINGLE STATION



Series	DX Series	VersatileLock Series	HD Series	XL Series
Models	DX4H(R) / DX6H(R) / DX8H(R)	3600H / 3610H / 3620H / 3630H / 3800H / 3810H	HDH690 / HDH691	XL6H(R) / XL8H(R)
Vise Type / Stations	5-Axis / Single	CNC machine vise / Single	CNC machine vise / Single	Extra capacity CNC vise / Single
Required to Automate	KHP3 Hydraulic Pump / FLR / Hoses / Switch*			

HYDRAULIC DOUBLE STATION



Series	TriLock Series	HDL DoubleLock
Models	TL6HCS with Carvesmart Jaws	HDHL(M)4 / HDHL(M)6 (+ jaw variations) / DLH800
Vise Type / Stations	CNC machine / Single & Double	CNC machine vise / Double
Required to Automate	KHP3 Hydraulic Pump / FLR / Hoses / Switch*	

*Additional manifolds and solenoids required for fully automated setup.

Kurt Hydraulic Cluster Towers

Kurt offers a variety of standard and off-the-shelf customized hydraulic tower options. Our custom engineered workholding team can help you design anything from a single tower system to a complex multi-tower FMS line with automated pallet changing like the ones we use for our vise manufacturing lines.

HDL CarvLock Long Hydraulic Towers can be configured with multiple jaw options from carvable aluminum, cast iron jaws or even hardened steel jaws.

Kurt HDL CarvLock Long Hydraulic Towers are an off-the-shelf customized model that can be equipped with a wide range of base sizes.

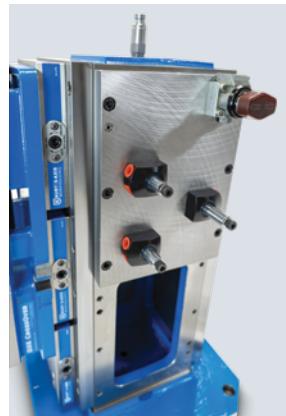
About Custom Options

- » Off-the-shelf custom options feature modifications to stock products.
- » Full custom options can also integrate stock products like caged tombstones and fixture plates.

(right) HDL CarvLock Long Cluster Tower. Can be integrated into a variety of automation setups.



LEARN MORE



(above) Custom hydraulic workholding can also be fitted to Kurt's Caged Tombstones as demonstrated on this fixture plate.

Speak to the custom workholding sales team to configure your ideal setup.

Kurt KHP3 Hydraulic Pump the affordable, flexible hydraulic choice



Kurt's **KHP3 Hydraulic pump** is powered by normal shop air versus an electric motor. The pump uses 40-100 psi input pressure and sustains up to 3,400 psi of constant pressure into the hydraulic vises.

The KHP3 pump uses an internal load-limiting valve for protection against overload, a common problem with other hydraulic pumps. The special load-limiting valve allows the piston mechanism to cycle automatically when the systems ask for hydraulic flow at low pressures. This performance-on-demand feature keeps the pump pressurized and ready to give hydraulic flow whenever it is needed.

MORE DETAILS

- » Air exhaust muffler for noise suppression
- » Compact foot-print of the pump is 6" x 8"
- » Each pump kit comes with all the necessary fittings, oil and choice of foot switch or hand switch.
- » Weight:
KHP3 = 21 lb
KHP3H = 26 lb
KHP3F = 31 lb
KHP3T = 25 lb
- » Useable Oil Volume is 75 Cu. In.



KHP3H Complete Pump and Hand Kit Shown



KHP3F Complete Pump and Foot Kit Shown

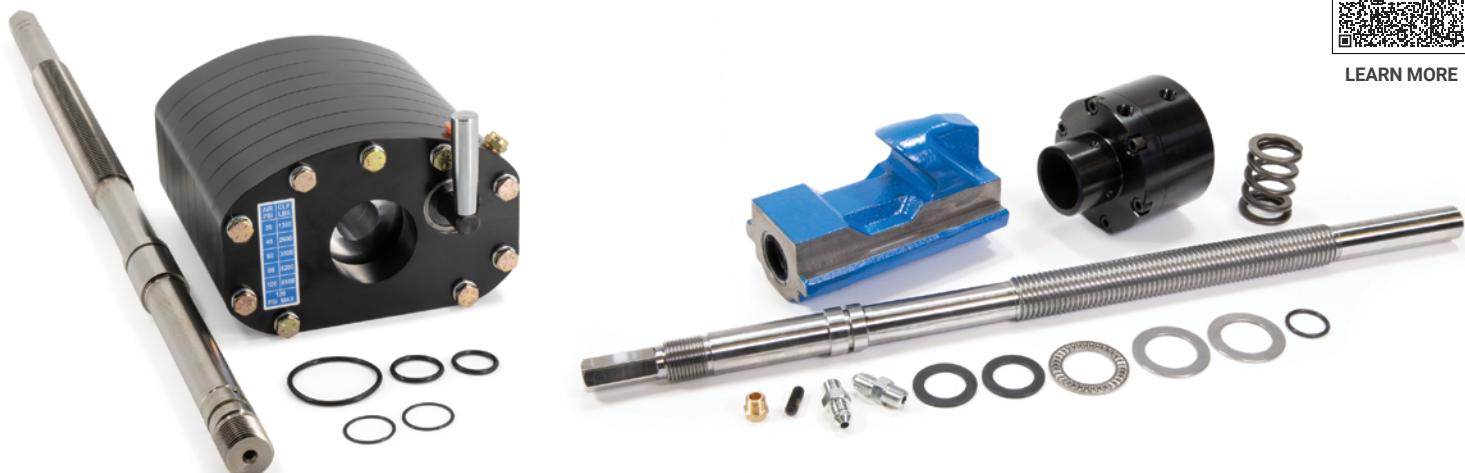


KHP3T Toggle Pump Shown

Kurt DX6 Automation Conversion Kits



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DX6 Vise conversion kits offer vise owners a range of options to upgrade their DX6. From manual-to-reverse conversion kits to manual-to-pneumatic or hydraulic upgrades.

The popular **DX6 Manual-to-Hydraulic Kit (DX6-HKIT)** includes a nut and screw assembly along with a hydraulic drive. This is also available as a **Manual-to-Hydraulic Reverse Kit (DX6-HRKIT)**.

Pneumatic upgrades are also available for the DX6 vise. The **DX6 Manual-to-Pneumatic Kit (DX6-AKIT)** includes a new screw and a pneumatic drive. Kurt DX6 conversion kits expand the capabilities of your vise for years of service.

- » Updates DX6 vises to automated models without the expense of a new vise.
- » Hydraulic and Pneumatic kits available.
- » Hydraulic reverse kit available

Additional Pump Components needed for a fully-automated setup



Ask Kurt's Custom Sales Team for expert advice configuring your automation setup.

The Kurt automation pump system is custom configurable to match customer applications. It features fully integrated design for plug & play operation. Just add the appropriate connectors that fit your specific CNC controller or other I/O device. Kurt's custom workholding sales team can help you configure your system.

Valve Blocks

- » D03 Valve Mounting Pattern (top)
- » Pressure and Return ports on 3 sides
- » Actuated ports on remaining side
- » Mounting hardware included

KHM4-303-SA
4 Valve
Manifold Block



KHM2-303-SA
2 Valve
Manifold Block



KHM-53-SA
Cover



Solenoids

- » Poppet-type, "leak free," up to 350 bar (5100 PSI), 24V DC
- » D03 Valve Mounting Pattern, mounting hardware included
- » Wire connector not included (See KHS-391)



**KHS-379 Solenoid
Double Acting**



**KHS-381 Solenoid
Normally Open**



**KHS-380 Solenoid
Normally Closed**

Pressure Switch and Wire Connectors

**KHM-391 Wire
Connectors**



- » M12 connector, 15' cord
- » Use with KHM-386 Pressure switch

**KHS-391 Wire
Connectors**



- » ISO connector, 15' cord, lighted
- » 24V DC, 50/60 HZ
- » Use with KHS-379, -380, and -381

**KHM-386
Pressure Switch**



- » SAE 4 Male Port
- » Pressure Adjustment Range: 250-5500 PSI
- » Electrical Rating: -10 amp @ 125/250 VAC-10 amp @ 12/24 VDC
- » Wire connector not included – (See KHM-391)

Kurt TriLock Vises

with Carvesmart Jaws

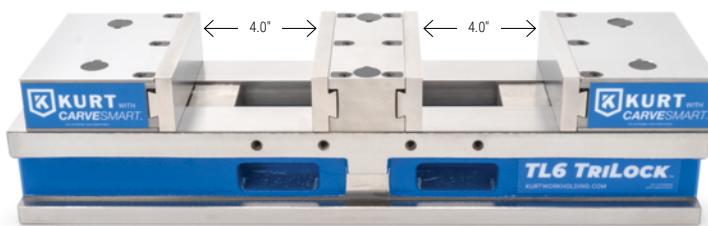
The Kurt TriLock Vise lineup has steadily grown to meet the needs of a wide range of application. **Vise options now include 4-inch and 6-inch widths, standard and short body lengths, and a 6-inch hydraulically actuated model.** Through-body, direct mounting options for standard T-slot spacing means multiple vises can fit on small to large machines with minimal spacing between vises. See the reference table below.

Each TriLock with Carvesmart model comes with the patented **Carvesmart Dovetailed Jaw System** integrated in the movable and stationary jaws. This innovation eliminates cap screws, accommodates a huge array of pre-cut jaw plate options, allows 10-second jaw changes and brings jaw changeover accuracy to within .001 of an inch.

- » 3-in-1 vise design saves time and money
- » TriLock vises can be torn down for cleaning in minutes
- » Choose the CARVESMART jaws you need including: hard jaws, soft jaws, edge-gripping jaws and more
- » CARVESMART jaws come in multiple sizes and can be ordered in bulk lengths
- » Existing Kurt bolt-on jaws can still be used by reversing the movable jaws and using cap screws

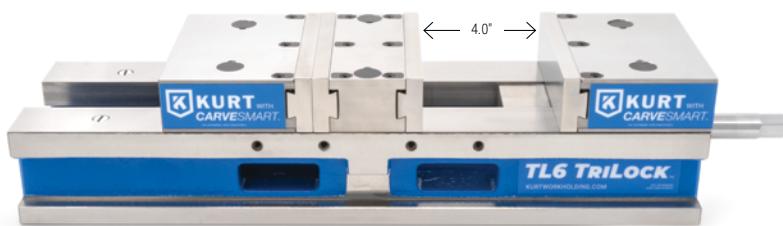


Standard Double Station

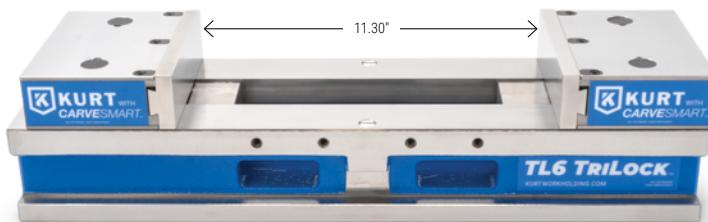


(shown with optional .5" hard jaws)

Small Single Station



Large Single Station



3-IN-1 DESIGN

The TriLock design does the work of three vises in a single vise model and converts quickly between a **double-station vise** with as much as 4-inches of part capacity on each side, a **single-station vise** large enough for a 4-inch part or a **large single-station vise** that can hold parts as large as 11 inches wide.

TRILOCK VISES WITH CARVESMART DOVETAIL JAWS

4-Inch TriLock Vises



6-Inch TriLock Vises



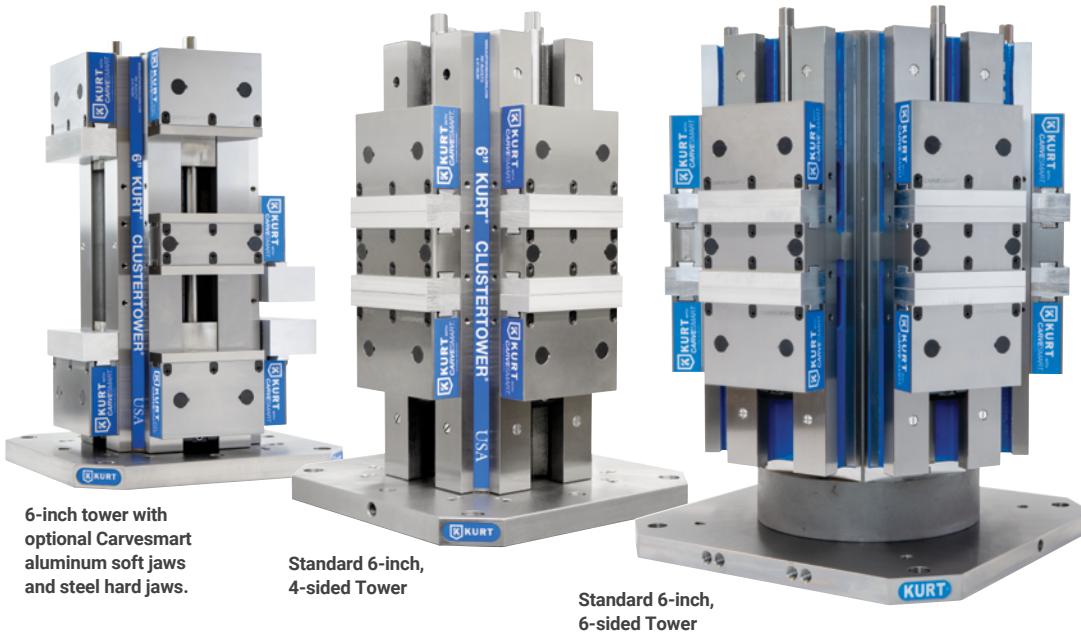
Part Number	TL4CS	TL4SCS	TL6CS	TL6SCS	TL6HCS
Vise Type	Manual	Manual Short	Manual	Manual Short	Hydraulic
Size	4" x 17.75" x 4.063"	4" x 15.19" x 4.063"	6" x 22.58" x 4.183"	6" x 18.96" x 4.063"	6" x 22.58" x 4.063"
Weight	45 lb	41.25 lb	95 lb	90 lb	98 lb
Bed Height	2.375"	2.375"	3.125"	3.125"	3.125"
Jaw Width	4"	4"	6"	6"	6"
Jaw Opening: Double / Single / Large Single*	2.8" / 2.8" / 8.8"	1.875" / 1.875" / 7.0"	4.0" / 4.0" / 11.0"	2.82" / 2.82" / 8.88"	4.0" / 4.0" / 11.0"
Mounting Options	Bolts & locates on 100 mm & 125 mm T-slot patterns			Bolts & locates on 80 mm T-slot patterns	

*As measured with stock 1/2 inch jaw plates installed. All TriLock Vises and Cluster Towers with Carvesmart Jaws ship with 1/2-inch aluminum soft jaws preinstalled.

Kurt TriLock Towers with Carvesmart Jaws



LEARN MORE



6-inch tower with optional Carvesmart aluminum soft jaws and steel hard jaws.

Standard 6-inch, 4-sided Tower

Standard 6-inch, 6-sided Tower

The new **Kurt TriLock 4-inch** and **6-inch Towers with Carvesmart** have a revolutionary design that transforms a Kurt 4-sided tower into a multi-configuration workholding work horse. Each of the four TriLock vise jaw sets can be reconfigured into three different vise sizes in minutes and can be completely disassembled for cleaning or setup in under 3 minutes. Patented Carvesmart jaws mount using a dovetail system that locates precisely with every jaw change and hold parts as solid as any bolt-on jaw. Carvesmart movable and stationary jaws fitted with aluminum soft jaws are preinstalled in each vise.

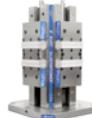
5 PART HOLDING SETUPS

You can put the part in the right spot with the TriLock Tower. The unique design lets you quickly reconfigured as a **double-station, bottom small single station, top small single station, bottom large single station** and a **top large single station**.

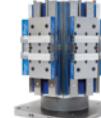
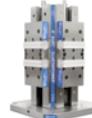
KEY BENEFITS

- » Save money and setups with 3-in-1 vise design
- » 5 unique part-holding configurations with the TriLock Tower design
- » TriLock vises can be torn down for cleaning in just minutes by removing several caps and screws
- » Choose the Carvesmart jaws you need—hard jaws, soft jaws, edge-gripping jaws and more
- » Carvesmart jaws come in multiple sizes and can be ordered in bulk lengths
- » Carvesmart jaws can be changed in seconds with just a hex wrench
- » Flexible jaw station configuration allows for maximum part density or several machining ops held in the same tower
- » Includes deep-socket vise handle and 2 hex wrenches

4-Inch TriLock Towers



6-Inch TriLock Towers



TRILOCK TOWERS WITH CARVESMART DOVETAIL JAWS

Part Number	CTTL43CS / CTTL44CS / CTTL45CS	CTTL64CS / CTTL65CS / CTTL66CS	TB6A500-TL6
Tower Height	18.875"	22.5"	22.5"
Base Sizes	300 mm / 400 mm / 500 mm	400 mm / 500 mm / 630 mm	500 mm
Weight	call for specific model weights and dimensions		
Jaw Width	4"	6"	6"
Jaw Opening: Double / Single / Large Single*	2.8" / 2.8" / 8.8"	4.0" / 4.0" / 11.0"	4.0" / 4.0" / 11.0"
Mounting Options	call for machine-specific mounting options		

*As measured with stock 1/2 inch jaw plates installed. All TriLock Vises and Cluster Towers with Carvesmart Jaws ship with 1/2-inch aluminum soft jaws preinstalled.

The Carvesmart Advantage

The Original Quick-Change Dovetail Vise Jaw System



LEARN MORE

Product Options: Multiple TriLock Vise and Tower options
PLUS Master Jaw Sets.

No More Cap Screws: Carvesmart jaws replace time-consuming cap screws.

Better Clearance: Narrower dovetailed jaws can hold more parts with less material without dodging cap screws.

Jaw Changes Are Fast: Carvesmart jaws can be changed in 10 seconds.

Machinable Options: Carvesmart aluminum jaws and 1018 steel jaws are machinable and can save shops a lot of money in machine downtime.

Multiple Jaw Profiles: Extruded aluminum jaw stock is available in 5 profiles, pre-cut lengths and bulk sizes as long as 94 inches for custom-length jaws. 1018 steel jaws and jaw stock are available in 2 profiles, multiple pre-cut lengths and bulk sizing.



Steel Jaws

1018 cold rolled steel jaws are available in two profiles and several pre-cut lengths with SMARTstops including: 4", 6", and 8" sizes. Also available in 31" lengths to cut to any size.

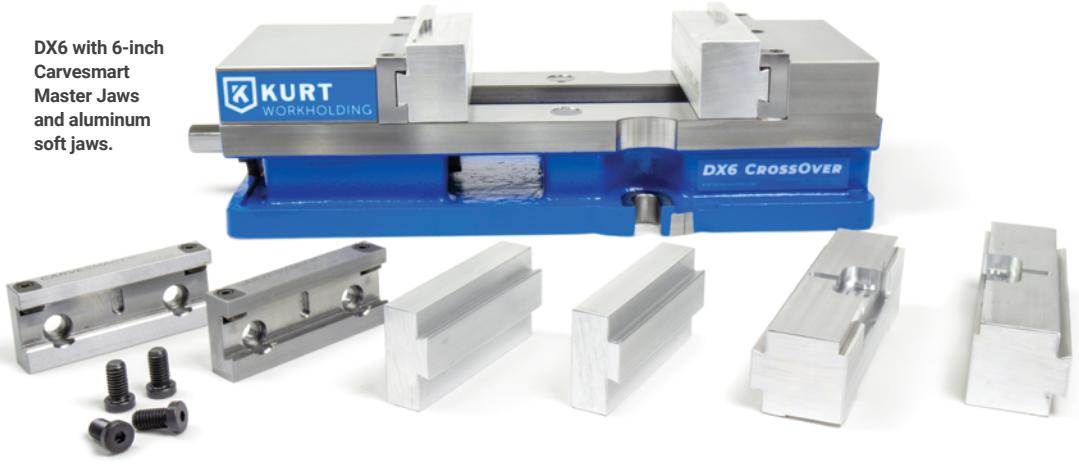
Aluminum Jaws

6061 extruded aluminum jaws are available in five profiles and several pre-cut lengths with SMARTstops including: 4", 6", and 8" sizes and 31" and 94" lengths for custom sizing.

MASTER JAW SETS

Now, anyone with a Kurt vise or another brand that takes jaws with cap screws, can **bolt on a set of Carvesmart Master Jaws** and experience the revolution—no more cap screws, a huge array of pre-cut jaw plate options, 10-second jaw changes, and changeover accuracy to within .0003 of an inch.

DX6 with 6-inch Carvesmart Master Jaws and aluminum soft jaws.



CARVESMART MASTER JAW SETS



Part Number	40000	10000	10005	20000	50000
Description	Master Jaw Set: two jaws ground with SMARTstop, & 3/8-16 LHCS & wrench	Master Jaw Set: two jaws ground with SMARTstop, & 1/2-13 LHCS & wrench	6" Master Jaw for 5" Vises: two jaws with SMARTstop & 7/16-14 LHCS & wrench	Master Jaw Set: two jaws ground with SMARTstop & 1/2-13 LHCS & wrench	Master Jaw Set: two jaws ground with SMARTstop, & 5/8-11 LHCS & wrench
Jaw Width	4" (all 4-inch Kurt vises)	6" (all 6-inch Kurt vises)	6" (fits 5-inch vise jaws)	6" (all 6-inch Kurt vises)	8" (all 8-inch Kurt vises)
Material	Steel	Steel	Steel	Aluminum	Steel

Carvesmart Jaws with SMARTstops

Precut jaw plates with maximum repeatability

SMARTstopped Products are available in **machinable steel** and **aluminum versions, hardened steel options, and dovetailed tooling options**—in multiple sizes—featuring preinstalled SMARTSTOP™ pins for the CARVESMART internal vertical slot locating system.

- » SMARTstop™ is an accurate, internal, vertical slot and pin system
- » Jaws relocate ± 0.0003 " in the same ground steel master jaw after one use
- » 1/4" x 3/8" dowel pins available for CARVESMART bulk aluminum extrusions or steel jaw stock
- » SMARTstop™ allows vises to be mounted jaw to jaw

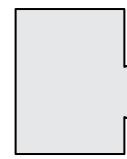
Machinable jaw Profiles



2" x 3"



1" x 2.25"



1.5" x 2"



0.75" x 2"



1" x 2"

Steel Jaw Profiles

Aluminum Jaw Profiles

1" x 1.71"
(FLIPPABLE)

ITEM	PART NO.	BOX QTY	DESCRIPTION
HARDENED STEEL	33004	One Pair	2 pcs Hard Jaw 60-62Rc A2 Ground Flat and Parallel Within 0.0005" - 1/2" x 1.75" x 4"
	33006	One Pair	2 pcs Hard Jaw 60-62Rc A2 Ground Flat and Parallel Within 0.0005" - 1/2" x 1.75" x 6"
HARDENED STEEL	32006	One Pair	2 pcs 6" Flippable Hard Jaw to a Knife Edge Jaw 60/62rc Ground within 0.0005" - 1/2" x 1.71" x 6"
MACHINABLE HARDENED STEEL	52004	One Pair	2 pcs 4" 50rc Machinable Tool Steel Hard Jaw Flippable SMARTstopped 1/2" x 1.71" x 4"
	52006	One Pair	2 pcs 6" 50rc Machinable Tool Steel Hard Jaw Flippable SMARTstopped 1/2" x 1.71" x 6"
	54106	One Pair	2 pcs 6" 50rc Machinable Tool Steel Hard Jaw Flippable SMARTstopped 1" x 1.71" x 6"
EDGE-GRIPPING JAWS	55006	One Pair	2 pcs 6" Flippable TalonGrip to VersaGrip 1018 Dovetailed SMARTstopped 1" x 1.71" x 6" (MiteeBite Clamps not included)

ITEM	PART NO.	BOX QTY	DESCRIPTION
EDGE-GRIPPING JAWS	60006	One Pair	2 pcs 6" Talon Top 1018 Dovetailed SMARTstopped 3/4" x 2" x 6" (Talon Grip Clamps not included)
	60008	One Pair	2 pcs 8" Talon Top 1018 Dovetailed SMARTstopped 3/4" x 2" x 8" (Talon Grip Clamps not included)
Talon Top Jaw Sets			
MACHINABLE STEEL	31031	One	1 pc Mild Steel Jaw Stock Cut to Any Length 3/4" x 2" x 31"
	31104	Two	2 pcs Soft Jaw 1018 Steel SMARTstopped 3/4" x 2" x 4"
	31106	Two	2 pcs Soft Jaw 1018 Steel SMARTstopped 3/4" x 2" x 6"
	31108	Two	2 pcs Soft Jaw 1018 Steel SMARTstopped 3/4" x 2" x 8"
3/4" x 2" 1018 Cold Rolled Steel Machinable Jaw Stock			
MACHINABLE STEEL	36031	One	1 pc Mild Steel Jaw Stock Cut to Any Length 1" x 2" x 31"
	36104	Two	2 pcs Soft Jaw 1018 Steel SMARTstopped 1" x 2" x 4"
	36106	Two	2 pcs Soft Jaw 1018 Steel SMARTstopped 1" x 2" x 6"
	36108	Two	2 pcs Soft Jaw 1018 Steel SMARTstopped 1" x 2" x 8"
	34106	Two	2 pcs Soft Jaw 1018 Steel Flippable SMARTstopped 1" x 1.71" x 6"
	37106	Two	2 pcs Soft Jaw 1018 Steel SMARTstopped 1" x 2.25" x 6"
1" x 2" 1018 Cold Rolled Steel Machinable Jaw Stock			
MACHINABLE ALUMINUM	21094	One	1 pc Cut to Any Length Aluminum Extrusion 3/4" x 2" x 94"
	21031	One	1 pc Cut to Any Length Aluminum Extrusion 3/4" x 2" x 31"
	21104	Two	2 pcs Soft Jaw Aluminum SMARTstopped 3/4" x 2" x 4"
	21106	Two	2 pcs Soft Jaw Aluminum SMARTstopped 3/4" x 2" x 6"
	21108	Two	2 pcs Soft Jaw Aluminum SMARTstopped 3/4" x 2" x 8"
3/4" x 2" 6061 Extruded Aluminum Jaw Stock			
MACHINABLE ALUMINUM	24094	One	1 pc Cut to Any Length Aluminum Extrusion Flippable 1" x 1.71" x 94"
	24031	One	1 pc Cut to Any Length Aluminum Extrusion Flippable 1" x 1.71" x 31"
	24104	Two	2 pcs Soft Jaw Aluminum Flippable SMARTstopped 1" x 1.71" x 4"
	24106	Two	2 pcs Soft Jaw Aluminum Flippable SMARTstopped 1" x 1.71" x 6"
	24108	Two	2 pcs Soft Jaw Aluminum Flippable SMARTstopped 1" x 1.71" x 8"
1" x 1.71" Flippable 6061 Extruded Aluminum Jaw Stock			

ITEM	PART NO.	BOX QTY	DESCRIPTION
1" x 2-1/4" 6061 Extruded Aluminum Jaw Stock	22094	One	1 pc Cut to Any Length Aluminum Extrusion 1" x 2-1/4" x 94"
	22031	One	1 pc Cut to Any Length Aluminum Extrusion 1" x 2-1/4" x 31"
	22104	Two	2 pcs Soft Jaw Aluminum SMARTstopped 1" x 2-1/4" x 4"
	22106	Two	2 pcs Soft Jaw Aluminum SMARTstopped 1" x 2-1/4" x 6"
	22108	Two	2 pcs Soft Jaw Aluminum SMARTstopped 1" x 2-1/4" x 8"
1-1/2" x 2" 6061 Extruded Aluminum Jaw Stock	25094	One	1 pc Cut to Any Length Aluminum Extrusion 1-1/2" x 2" x 94"
	25031	One	1 pc Cut to Any Length Aluminum Extrusion 1-1/2" x 2" x 31"
	25104	Two	2 pcs Soft Jaw Aluminum SMARTstopped 1-1/2" x 2" x 4"
	25106	Two	2 pcs Soft Jaw Aluminum SMARTstopped 1-1/2" x 2" x 6"
	25108	Two	2 pcs Soft Jaw Aluminum SMARTstopped 1-1/2" x 2" x 8"
2" x 3" 6061 Extruded Aluminum Jaw Stock	23094	One	1 pc Cut to Any Length Aluminum Extrusion 2" x 3" x 94"
	23031	One	1 pc Cut to Any Length Aluminum Extrusion 2" x 3" x 31"
	23106	Two	2 pcs Soft Jaw Aluminum SMARTstopped 2" x 3" x 6"
	23108	Two	2 pcs Soft Jaw Aluminum SMARTstopped 2" x 3" x 8"

Carvesmart Upgrade Kits

Have an HD690 or HDL6? Want Carvesmart Jaws?

[LEARN MORE](#)


HDL(M)6TL-KIT

Convert HDL(M)6 nut and screw assembly to the TriLock nut and screw assembly, eliminates the HDL clutch and adds partial TriLock vise functionality, including quick clean. Enables rapid changes between double- and small single-station vise configurations. Carvesmart jaw plates not included.



HDL6CS-JAWKIT

Designed to convert a current HDL(M)6 vise into a vise with Carvesmart jaws. Snap new movable jaws into place like the old HDL jaws. Add stationary jaw using provided adapter. Includes one Carvesmart stationary jaw and two Carvesmart movable jaws. Carvesmart jaw plates are not included.



HDL(M)6TL-CONVKIT

The new HDL6 CarveSmart Upgrade Kit replaces an HDL6 vise's internals and jaws with a TL6-3-SA screw and nut assembly and CarveSmart quick-change dovetailed jaws. Shops with inventories of jaw plates with cap screws can still use them by rotating the CarveSmart movable jaws 180 degrees.



HD90CS(T)-JAWKIT

Converts a Kurt HD690 to Carvesmart quick-change jaws. Jaw kits come with or without a talon top (T). Includes stationary and movable jaws. Just bolt on the stationary and snap on the movable. Movable jaw is reversible to accommodate standard Kurt jaws using cap screws.

Kurt 5-Axis Manual 4-Inch Vises



LEARN MORE



Available in 3 lengths, **Kurt PF Series 5-Axis Vises** and **PFW Series 5-Axis Vises**

5-Axis Vises are engineered for high-efficiency machining and robotic integration. 52 mm or 96 mm base pull-stud spacing patterns mount on Kurt zero-point receiver bases for fast setups, vise swaps, and robotic pick and place.

← **Tool-free quick-change jaws** snap on and off in seconds and come in three profiles. Maximum jaw openings range from 2.625" to 6.625". Kurt's patented AngLock® design drives jaws down and forward for maximum grip with minimal clamp force.

User-friendly features include quick centerline adjustment and easy lash adjustment without removing the vise from the machine. Kurt PF and PFW 5-Axis Vises are compatible with other receiver base brands using the proper pull studs.

KEY FEATURES

- » Quick-change, snap-on/off jaws
- » 96 mm or 52 mm pull-stud spacing for zero-point pallet systems
- » End effector ready for automation
- » Carvable, Dovetail and Serrated
- » Anglock design minimizes jaw lift
- » High clamping force
- » Easy center-line adjustment
- » Quick lash adjustment

52 mm Pattern Vises



96 mm Pattern Vises



PF & PFW SERIES MANUAL 5-Axis VISE MODELS

Part Number	PF420	PF440	PF460	PFW420	PFW440	PFW460
Size	4" x 5.875" x 2.92"	4" x 7.875" x 2.92"	4" x 9.875" x 2.92"	4.92" x 5.875" x 2.92"	4.92" x 7.875" x 2.92"	4.92" x 9.875" x 2.92"
Weight	9.85 lb	12.19 lb	14.88 lb	11.16 lb	13.91 lb	17 lb
Bed Height	1.672"	1.672"	1.672"	1.672"	1.672"	1.672"
Jaw Width	4"	4"	4"	4"	4"	4"
Max Jaw Opening	2.625"	4.625"	6.625"	2.625"	4.625"	6.625"
Pull Stud Spacing	52 mm	52 mm	52 mm	96 mm	96 mm	96 mm
Compatible Zero-Point Bases	52-A125			APW420 / 96-A178 / 96-A178R100		

Quick Change Manual Receiver Bases (52 mm / 96 mm spacing)



PFW420 5-Axis
Vise on a 96-A178
Receiver Base
(96 mm)

LEARN MORE



A Kurt Caged Tombstone loaded with 3 PFW vises and 96 mm bases and a DX6 mounted with pull studs to a quick-change base.

Kurt Manual Quick Change Receiver Bases are available in two 96 mm pull stud pattern sizes (**96-A178**, **96-A178R100**) for use with Kurt PFW 5-Axis vise models and one 52 mm (**52-A125**) pull stud pattern option for Kurt PF 5-axis vises. An asset for small shops or scalable for large enterprise applications, Kurt's new 5-axis modular vise and pallet system allows minimal initial investment and easy expansion with more Kurt vises and pallets as needed.

With quick-change receiver bases, it's easy to load up tombstones or machine tables with multiple vises. Kurt DX6 models will also be available with 96 mm pull stud patterns for quick on/off mounting on towers or tables.

MANUAL BASES

- » 96 mm & 52 mm options
- » Fast hex-wrench vise mounting
- » Obstruction-free machining on five sides of a workpiece
- » Reduce setup times and costs
- » Designed to work with Kurt 5-Axis vises and other brands with the proper pull studs
- » Can be mounted for vertical and horizontal machining applications

52 mm Pattern Base



96 mm Pattern Bases



MANUAL QUICK CHANGE RECEIVER BASES

Part Number	52-A125	96-A178	96-A178R100	3-position receiver base
Size	4.92" x 4.92" x 1.25"	7" x 6.22" x 1.25"	7" x 6.22" x 1.25"	14" x 6.25" x 1.25"
Weight	6.70 lb	13.23 lb	13 lb	25.33 lb
Pull Stud Spacing	52 mm	96 mm	96 mm	96 mm
Mounting System	Manual	Manual	Manual	Manual
Compatible Vises	PF 5-Axis	PFW 5-Axis	PFW 5-Axis	PFW 5-Axis
Compatible with non-Kurt?	Yes	Yes	Yes	Yes
Compatible machines	3-axis, 4-axis, 5-axis, multiaxis			

Kurt 5-Axis Pneumatic Receiver Base

Kurt APW420 Pneumatic Riser Bases

are designed for vises that use a 96 mm pull stud mounting pattern. Connects to shop air with minimal setup to allow rapid vise changes. With a few extra components, the base can be integrated in robotic pick and place vise swaps.

PNEUMATIC BASE

- » 96 mm pull stud mounting
- » Remote pallet actuation with a Kurt FLR and a hand or foot switch (sold separately)
- » Connects to shop air source
- » Fast, pneumatic actuation
- » Designed to work with Kurt 5-Axis vises and other brands with the proper pull studs



Kurt Air Receiver base holding a PFW 5-Axis vise.



LEARN MORE

Kurt 5-Axis Pneumatic Vise

Unlike any other air vise, the **Kurt PFA620** allows manual full-stroke adjustment on parts of varying sizes combined with air opening and closing for reliable part holding. Versatile and user friendly, just clamp a large or small part using the handle to set the jaws and then clamp and unclamp the part with the .25" pneumatic stroke.

PNEUMATIC VISE

- » Quick-change, snap-on/off jaws
- » 96 mm or 52 mm pull-stud spacing for zero-point pallet systems
- » Machinable, Dovetail and Serrated
- » Anglock design minimizes jaw lift
- » Automation-ready for easy robotic load and unload
- » High clamping force



PFA620 5-AXIS AIR VISE



4-Inch Pneumatic Vise



Pneumatic 96 mm Pattern Base



APW420 5-AXIS PNEUMATIC BASE & PFA620 PNEUMATIC BASE

Part Number	PFA620	APW420
Size	6" x 9" x 4.75"	4.92" x 6" x 2.285"
Weight	34.46 lb	14.13 lb
Bed Height	3.5"	3" Rise
Jaw Width	4"	Receiver base / pneumatic hold & release
Max Jaw Opening / Machined	2.43" / 6.93" (machinable jaws)	N/A
Mounting	Bolt down or custom plate	Through-pallet bolt down

PF840 8-Inch 5-Axis Vise

The industry's largest 5-Axis Vise! The **Kurt PF840** has 8-inch jaws and a **maximum jaw opening of 8 inches**. It's a great option for large multi-axis machining centers or mounted on a pallet as part of a FMS line—like we use them at Kurt. Patented AngLock® design minimizes jaw lift and deflection. Machinable jaws come standard for precise part conformity with optimal clamping force.

VISE FEATURES

- » 8-inch-wide machinable jaws
- » Our largest 5-Axis vise
- » Can work with large pallet systems and FMS lines
- » Holds large parts with the maximum part-clearance needed for done-in-one operation
- » AngLock® design minimizes jaw lift
- » Easy center-line & quick lash adjustments

The 8-inch PF840 vise is our largest self-centering vise (shown with 4-inch PF vises).



[LEARN MORE](#)



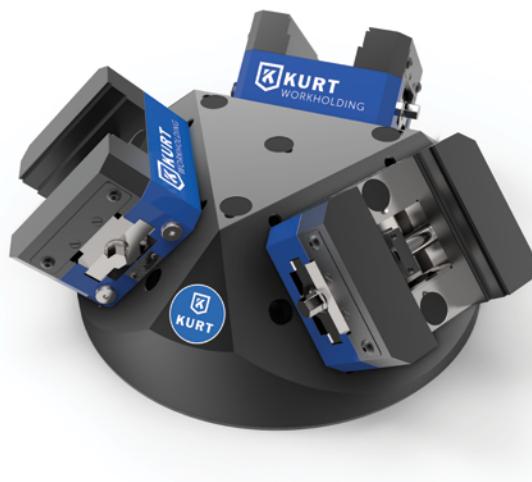
Kurt 45° Pyramid

The **45-degree Pyramid** (PRM-356) is designed to hold 3 vises and provide maximum access to all machined surfaces and enhance spindle and cutting tool clearances. The Kurt Pyramid can accommodate multiple Kurt vise models: PFW series, PF series, SCMX series, and DT series vises.

Constructed of 7075 anodized aluminum, with a 12" diameter base, the Pyramid will fit a wide range of 5-axis CNC machines. Predrilled holes makes it easy to mount to most machine tables, pallets or sub plates.

KEY FEATURES

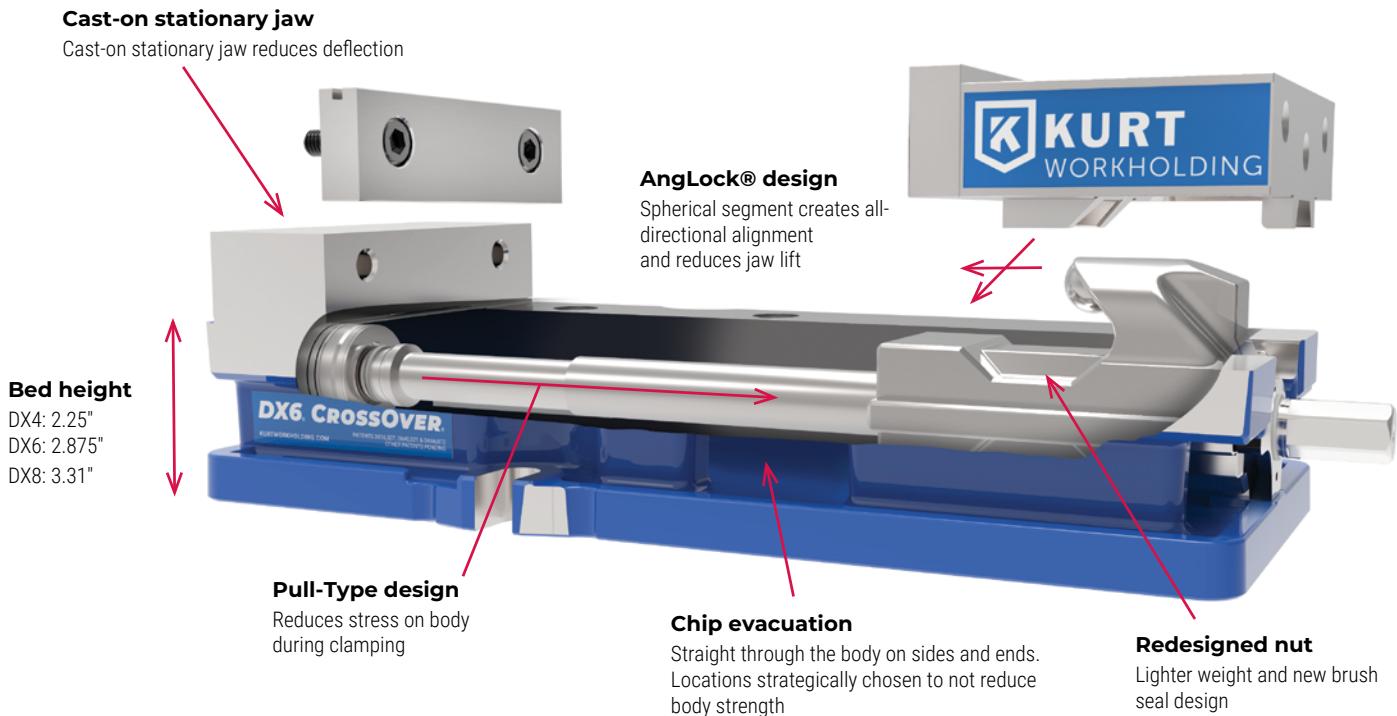
- » Enhanced spindle and cutting tool clearance
- » Fits multiple Kurt vise models
- » 7075 anodized aluminum
- » 12" diameter base
- » Fits range of CNC machines
- » Predrilled for easy mounting to most machine tables, pallets or wide variety of sub plates



PF840 8-INCH VISE / KURT PYRAMID



Part Number	PF840	PRM-356
Size	8" x 11.75" x 5.875"	12" Diameter x 4.5" H
Weight	84 lb	35 lb
Bed Height	3.375"	N/A
Jaw Width	8"	N/A
Max Jaw Opening / Machined	4" / 8" max when jaws are machined	N/A
Mounting Options	Bolt down	Bolt down

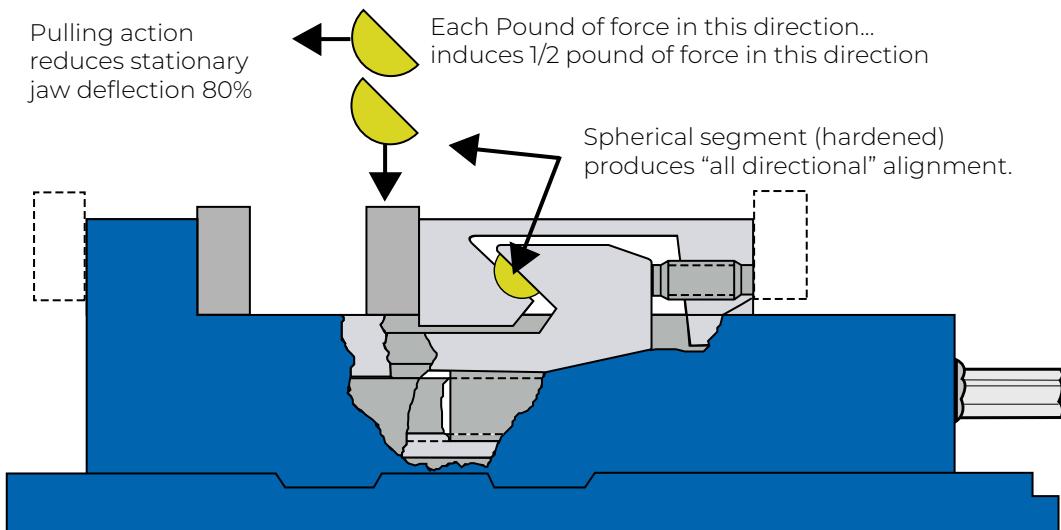


Kurt DX Vises: Setting the Industry Standard for CNC Machining Vises

Now in 4-inch 6-inch and 8-inch jaw sizes with manual, reverse, pneumatic and hydraulic options

FEATURES FOUND ON ALL DX SERIES VISES

- » AngLock design assures the movable jaw does not lift (right)
- » Standard bed height of $\pm 0.001"$
- » Hardened vise bed
- » Hardened jaw plates
- » Semi-hard steel screw
- » 80,000-PSI ductile iron body
- » Precision mounting with sine keys



Kurt DX4 Vises / Manual / Reverse / Hydraulic



LEARN MORE



DX4 Manual

The **DX4® CrossOver® Vise** is our smallest DX-Series vise with 4-inch jaws and state-of-the-art workholding features. The new, one-piece body design achieves high levels of precision and performance where flatness and parallelism are important. 4 versions of the DX4 are available including manual and reverse vises and hydraulic models for affordable turnkey automation. Kurt's automation solutions make it easy to add a level of productivity to your shop without breaking your budget.

The DX4 offers a full **6.5" inch jaw opening** in standard configuration and is compatible with our **Carvesmart Master Jaw Kits** for use with quick-change dovetailed jaw options. DX4 vise models include our Lifetime Ironclad Warranty.



Full 6.5" opening



Cast on stationary jaw: 30% less pushback deflection



Through body chip evacuation & integrated handle

KEY FEATURES

- » Easy turnkey automation options with DX4H Hydraulic Vises
- » Hardened vise bed/jaw plates
- » Large 6.5" opening
- » Groove Lock® jaw plate and workstop included
- » New brush seal nut design makes it easier to replace
- » Accepts sine keys for alignment (not included)
- » Chip evacuation straight through the body
- » Lifetime Iron Clad Warranty
- » 4-inch Carvesmart Master Jaw compatible

DX4 VISE MODELS



Part Number	DX4	DX4R	DX4H	DX4HR
Vise Type	Manual	Manual Reverse	Hydraulic	Hydraulic Reverse
Size	4.962" x 13.58" x 3.485"	4.962" x 13.48" x 3.485"	4.974" x 16.41" x 3.485"	4.974" x 16.41" x 3.485"
Weight	30 lb	30 lb	30 lb	30 lb
Bed Height	2.25"	2.25"	2.25"	2.25"
Jaw Width	4"	4"	4"	4"
Max Jaw Opening	6.5"	6.5"	6.5"	6.5"
Mounting Options	Bolts and locates on 40 mm, 50 mm and 2" grid patterns / Uses locating sine keys (not included)			

Kurt DX6 Vises / Manual / Reverse / Pneumatic / Hydraulic



LEARN MORE



CUSTOM OPTIONS

All Kurt Vises: Can be configured for **back to back mounting** by our Custom Team. It usually takes about a week. **Kurt 4", 6", and 8"** vises transform into compact towers for horizontal machining centers.

The **Kurt DX6 CrossOver vise** is the industry standard 6-inch CNC milling vise. Steadily upgraded since its inception, the vise features a one-piece body design for 30% less horizontal deflection. The DX6 is **available in 6 models**, including pneumatic, hydraulic, manual and reverse configurations. DX6 air and hydraulic vises are at the heart of Kurt's affordable turnkey automation setups. DX6 vises are also compatible with our **Carvesmart 6-inch Master Jaw Sets** for even faster part changeovers. Talk to our Custom Workholding team for a 96 mm pull stud pattern in the base.



Cast on stationary jaw: 30% less pushback deflection



Through body chip evacuation & integrated handle

DX6 VISE MODELS



Part Number	DX6	DX6R	DX6A	DX6AR	DX6H	DX6HR
Vise Type	Manual	Manual Reverse	Pneumatic	Pneumatic Reverse	Hydraulic	Hydraulic Reverse
Size	7.39" x 18.27" x 4.61"	7.39" x 18.33" x 4.61"	7.39" x 25.63" x 4.61"	7.39" x 25.63" x 4.61"	7.39" x 20.77" x 4.61"	7.39" x 20.83" x 4.61"
Weight	65 lb	65 lb	70 lb	70 lb	68 lb	68 lb
Bed Height	2.875"	2.875"	2.875"	2.875"	2.875"	2.875"
Jaw Width / Max Opening	6" / 9"	6" / 9"	6" / 9"	6" / 9"	6" / 9"	6" / 9"
Mounting Options	Bolts and locates on 40 mm, 50 mm and 2" grid patterns / Uses locating sine keys (not included)					

Kurt DX8 Vises / Manual / Reverse / Pneumatic / Hydraulic



LEARN MORE



DX8 Manual

The **Kurt DX8 CrossOver vise** is the largest vise in the DX Series. It is an evolution of the best features of our 8-inch machining vise with state-of-the-art features that set a new standard in precision flatness, parallelism and repeatability. The DX8 is available in 4 models, including a hydraulic vise that can **easily integrate in automation setups**.

The DX-Series features a one-piece body design with 30% less horizontal push-back deflection than previous 8-inch models. A lifting handle is integrated on the back of the stationary jaw for easy positioning. The entire DX vise lineup features the proprietary Kurt AngLock® design to create all-directional alignment, reduce jaw lift and improve performance. All DX vises use locating sine keys for easy, accurate mounting and feature Kurt's Lifetime Ironclad Warranty.



Full 10" opening



Cast on stationary jaw: 30% less pushback deflection



Through body chip evacuation & integrated handle

KEY FEATURES

- » Pull-type design
- » 8-inch Carvesmart Master Jaw compatible
- » Cast-on stationary jaw
- » Hardened vise bed/jaw plates
- » Semi-hard steel screw
- » 80,000 psi ductile iron body, nut and movable jaw
- » Large 10" opening
- » Accepts sine keys
- » Enhanced through-body chip evacuation
- » Lifetime Iron Clad Warranty
- » Hydraulic & reverse options
- » Easy turnkey automation options with DX8H Hydraulic Vises

DX8 VISE MODELS



Part Number	DX8	DX8R	DX8H	DX8HR
Vise Type	Manual	Manual Reverse	Hydraulic	Hydraulic Reverse
Size	8.97" x 23.8" x 5.51"	8.97" x 23.8" x 5.51"	8.97" x 27.42" x 5.51"	8.97" x 27.42" x 5.51"
Weight	160 lb	160 lb	165 lb	165 lb
Bed Height	3.31"	3.31"	3.31"	3.31"
Jaw Width / Max Opening	8" / 10.63"	8" / 10.63"	8" / 10.63"	8" / 10.63"
Mounting Options	Bolts and locates on 40 mm, 50 mm and 2" grid patterns / Uses locating sine keys (not included)			

4-Inch VersatileLock Vises / Manual / Reverse / Hydraulic



LEARN MORE

3400V VersatileLock
Manual Vise



MASTER JAW KITS

Carvesmart Master Jaw Kits: Bolt on in place of traditional jaw plates on **ANY Kurt 4", 6", or 8" vise**. Brings instant compatibility with a range of quick-changed dovetailed jaw options.

4-inch VersatileLock models are available in standard, reverse, manual, and hydraulic options. VersatileLock vises feature the patented Kurt AngLock design, "pull-type" jaw clamping to reduce stationary jaw deflection by at least 80%. The one-piece vise body and stationary jaw provide greater strength while reducing weight. Vises are machined on the top and both side allowing side or standard mounting.

VersatileLock hydraulic vises are easy to integrate in an automation setup. Vises can be set up as double- or single-acting with a **Kurt KHP3 hydraulic pump** and a few other accessories and connectors.

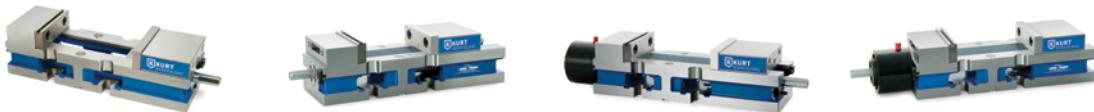
VersatileLock vises are available in reverse configuration for easier part programming in "Y axis" positive direction. Reverse models also reduces "reach-over" distance to make part loading safer and easier for the operator.

KEY FEATURES

- » Full 6" Opening
- » 4-inch Carvesmart Master Jaw compatible
- » Can be mounted upright or on either side
- » Matched stationary jaw to keyway including the body height $\pm 0.001"$
- » 0.0005" clamping repeatability
- » Footprint is less than 13"
- » All hydraulic units feature a 1/4" vise stroke
- » Groove Lock workstop included

Manual Vises	Hydraulic Vises
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4-INCH VERSATILELOCK VISES



Part Number	3400V	3410V	3400H	3410H
Vise Type	standard manual	standard manual reverse	standard hydraulic	standard hydraulic reverse
Size	4" x 13.59" x 3.61"	4" x 13.59" x 3.61"	4" x 16.21" x 3.61"	4" x 13.59" x 3.61"
Weight	28 lb	28 lb	31 lb	31 lb
Bed Height	2.375"	2.375"	2.375"	2.375"
Jaw Width / Max Opening	4" / 6"	4" / 6"	4" / 6"	4" / 6"
Mounting Options	Upright or side mountable / Bolts and locates on 40 mm, 50 mm and 2" grid patterns			

6-Inch VersatileLock Vises / Manual / Reverse / Pneumatic / Hydraulic



3600V VersatileLock
Manual Vise



LEARN MORE

The **6-inch VersatileLock** vise features the **most variations** of any Kurt vise including: manual, air, and hydraulic actuation options and reverse, short, and standard sizes. 6-inch wide VersatileLock vises offer ultra-precision, side and standard mounting and our patented AngLock® jaw design. "Pull-type" jaw clamping reduces stationary jaw deflection by at least 80%, while the one-piece vise body and stationary jaw provide greater strength and reduced weight.

VersatileLock vises are available in reverse configuration for the added benefit of easier part programming in "Y axis" positive direction. Reverse models also reduces "reach-over" distance to make part loading safer and easier for the operator.

Pneumatic or hydraulic VersatileLock vise automations are easy to configure and set up in a machine. Kurt offers turnkey solutions including pumps and plumbing necessary for shop setups. Pneumatic VersatileLock vises only require shop air and a filter/lubricator to create a single-acting setup. **Ask our automation experts at Kurt Custom Engineered workholding** for help setting up an automated system.

KEY FEATURES

- » Mount upright or on either side
- » 6-inch Carvesmart Master Jaw compatible
- » Matched stationary jaw to keyway including the body height ± 0.001 "
- » 0.0005" clamping repeatability
- » Short vise is only 13 inches long
- » Hydraulic & pneumatic models
- » Optional internal hex available for 3600V only. (3600V-INT)



6-INCH VERSATILELOCK VISES

Part Number	3600V / 3610V / 3600V-INT	3620V / 3630V	3600A / 3610A	3620A / 3630A	3600H / 3610H	3620H / 3630H
Vise Type	standard / reverse / internal hex	short / short reverse	standard air / standard air reverse	short air / short air reverse	standard hydraulic / hydraulic reverse	short hydraulic / short hydraulic reverse
Size	6" x 16.94" x 4.92"	6" x 14.88" x 4.92"	6" x 24.22" x 4.92"	6" x 22.1" x 4.92"	6" x 19.6" x 4.92"	6" x 17.29" x 4.92"
Weight	69 lb	64 lb	75 lb	70 lb	74 lb	69 lb
Bed Height	3.187"	3.187"	3.187"	3.187"	3.187"	3.187"
Jaw Width / Max Opening	6" / 6"	6" / 4"	6" / 6"	6" / 4"	6" / 6"	6" / 4"
Mounting Options	Upright or side mountable / Bolts and locates on 40 mm, 50 mm and 2" grid patterns					

8-Inch VersatileLock Vises / Manual / Reverse / Pneumatic / Hydraulic



LEARN MORE



3800V VersatileLock
Manual Vise

The **8-inch VersatileLock** vise offers ultra-precision function through these important design features: The original, time proven Kurt AngLock design prevents parts from lifting upward under heavy clamping loads. The "pull-type" jaw clamping reduces stationary jaw deflection by at least 80%. The one-piece vise body and stationary jaw provide greater strength while reducing weight. Vises are machined on the top and both side allowing side or standard mounting.

VersatileLock vises are available in reverse configuration for the added benefit of easier part programming in "Y axis" positive direction. Reverse models also reduces "reach-over" distance to make part loading safer and easier for the operator.

8-inch models are available in standard and reverse and manual and hydraulic. Adding a hydraulic VersatileLock vise to an automation setup is easy with Kurt's turnkey solutions. Vises can be set up as double- or single-acting with a Kurt KHP3 hydraulic pump and a few other accessories and connectors. **Ask our automation experts at Kurt Custom Engineered workholding** for help setting up an automated system.

KEY FEATURES

- » Full 10" opening
- » 8-inch Carvesmart Master Jaw compatible
- » Mount upright or on either side
- » Matched stationary jaw to keyway including the body height $\pm 0.001"$
- » 0.0005" clamping repeatability
- » Sine key compatible for easy locating on machine tables
- » All hydraulic units feature a 1/4" vise stroke
- » 6,550 lb maximum clamping force



8-INCH VERSATILELOCK VISES

Part Number	3800V	3810V	3800H	3810H
Vise Type	standard manual	standard manual reverse	standard hydraulic	standard hydraulic reverse
Size	8" x 24" x 5.95"	8" x 24" x 5.95"	8" x 26.98" x 5.95"	8" x 26.98" x 5.95"
Weight	148 lb	148 lb	155 lb	155 lb
Bed Height	3.75"	3.75"	3.75"	3.75"
Jaw Width / Max Opening	8" / 10.25"	8" / 10.25"	8" / 10.25"	8" / 10.25"
Mounting Options	Upright or side mountable / Bolts and locates on 40 mm, 50 mm and 2" grid patterns			

HD690/HD691 Vises / Manual / Reverse / Pneumatic / Hydraulic



NEW HD690CS with
Carvesmart Jaws



LEARN MORE

Kurt **HD690** vises are 6-inch pull-type vises with 9.0 inch openings. HD690 models feature a narrower body and slightly taller bed height than both the VersatileLock and DX models making them a good option for anyone looking for more access under a part and more vises on a table. Bed heights are matched within 0.0005" for side-by-side loading or multiple vises holding a single large part.

HD690 vises are available in a range of configurations including: manual and hydraulic actuation, metric and reverse options. The **NEW HD690CS with Carvesmart** comes with the added versatility of **Carvesmart quick-change dovetailed jaws** and a wide variety of pre-cut hard and soft jaws to choose from. Available with or without a Talon Top edge.

The **reversible movable jaw** can be set up with two different jaw plate options and snaps on and off without tools. The bolt-down stationary jaw attaches with 4 bolts to reduce stress and deflection in the body and hold parts flat.

HDH690 hydraulic models can be set up as **single acting** (with hydraulic clamping and spring return for unclamping) or as **double acting** (with hydraulic clamping and unclamping). Includes fittings for both configurations.

KEY FEATURES

- » HD690CS model features stock Carvesmart Jaws
- » 9" jaw opening
- » Wide, bolt-down stationary jaw for less deflection
- » Quick change movable jaw
- » Carvesmart with Talon Top model available
- » Narrower body for more vises in the same work envelope
- » Uses sine keys for alignment
- » Body height matched $\pm 0.0005"$
- » Ironclad Lifetime Warranty

Manual Vises with Carvesmart Jaws	Manual Vises	Hydraulic Vises
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6-INCH HD690/HD691 VISES



Part Number	HD690CS	HD690CST	HD690 / HDM690	HD691 / HDM691	HDH690	HDH691
Vise Type	standard manual	standard manual	standard / metric	metric manual	standard hydraulic	metric hydraulic
Size	7.34" x 18.32" x 4.86"	7.34" x 18.32" x 4.86"	7.34" x 18.32" x 4.86"	7.34" x 18.32" x 4.86"	7.34" x 20.82" x 4.86"	7.34" x 20.82" x 4.86"
Weight	75 lb	75 lb	75 lb	75 lb	80 lb	80 lb
Bed Height	3.125"	3.125"	3.125"	3.125"	3.125"	3.125"
Jaw Width / Max Opening	6 in / 9.06"	6 in / 9.06"	6 in / 9.06"	6 in / 9.06"	6 in / 9.06"	6 in / 9.06"
Mounting Options	Bolts and locates on 40 mm, 50 mm and 2" grid patterns					

XL6 & XL8 Extra Capacity Vises Manual / Reverse / Pneumatic / Hydraulic



LEARN MORE

KEY FEATURES

- » Full 10" opening
- » Carvesmart Master Jaw compatible
- » Mount upright or on either side
- » Matched stationary jaw to keyway including the body height $\pm 0.001"$
- » 0.0005" clamping repeatability
- » Sine key compatible for easy locating on machine tables
- » All hydraulic units feature a 1/4" vise stroke
- » Over 20,000 lb maximum clamping force (XL8)

Kurt XL vises are designed for clamping extremely large parts for both die and CNC applications. With maximum jaw openings 19.25" to 28.75", **XL6 & XL8** vises are ideal for high horsepower "hogging out" operations. All models are accurate to within 0.001" for precise, easy alignment in multiples.

XL vises can also be used as receivers for other workholding devices so it's easy to keep one on a machine at all times. Manual, pneumatic, hydraulic and reverse models are available. **Carvesmart Master Jaw compatible**.



D100 10-Inch Vise

The **Kurt D100** 10-inch vise is our largest and strongest general purpose vise. With a 9-3/4" jaw opening and up to **16,163 pounds of clamping force**, it has the capacity and strength to take on your highest horsepower milling cuts. The D100 AngLock® vise is designed for precision part clamping on basic machine tools and machining centers. It is ideal for running precision production parts where datums, flatness, and parallelism are requirements.



6-inch Extra Capacity Vises	8-inch Extra Capacity Vises	10-inch Vise
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KURT EXTRA CAPACITY VISE MODELS



Part Number	XL6 / XL6R	XL6A / XL6AR	XL6H / XL6HR	XL8 / XL8R	XL8H / XL8HR	D100
Vise Type	manual / reverse	pneumatic / pneumatic reverse	hydraulic / hydraulic reverse	metric manual	hydraulic / hydraulic reverse	manual
Size	6" x 23.9" x 4.86"	6" x 31.12" x 4.86"	6" x 26.4" x 4.86"	8" x 34.42" x 5.95"	8" x 36.92" x 5.95"	14.5" x 29.19" x 6.81"
Weight	100 lb	106 lb	105 lb	230 lb	235 lb	300 lb
Bed Height	3.125"	3.125"	3.125"	3.75"	3.75"	3.875"
Jaw Width / Max Opening	6" / 14.5"	6" / 14.5"	6" / 14.5"	8" / 21.5"	8" / 21.5"	10 in / 9.75"
Mounting Options	Bolts and locates on 40 mm, 50 mm and 2" grid patterns					Direct bolt down

Kurt KTR35 Tool Room / Sine Vise

[LEARN MORE](#)


Sold exclusively through the Kurt Workholding website, the KTR35 – Kurt Tool Room Vise is an extremely versatile vise designed to fit on the smallest of machine tables. The KTR35 vise is ground on all sides to allow multiple vises to be mounted side by side using through-the-body mounting or the optional toe clamp kit. This vise can also be used as a sine vise when using another vise as a receiver.



SideWinder SDW35

Sold exclusively through the Kurt Workholding website, the Kurt SDW35 SideWinder is designed to hold parts vertically while for doing 2nd op work. The vise mounts to the back of any Kurt industry standard 6" or 8" vise. The SideWinder includes a stabilization leg that mounts to the table on the movable end of the vise and a workstop to position the height of the part. Increase spindle time with you machine two parts on two vises in the same setup with the SideWinder. The sleek design won't interfere with the host vise. Kurt's patented AngLock design prevents jaw lift.



SCD640 Self-Centering Vise

The 6-inch Self-Centering SCD640 has an 8-inch maximum opening and centering accuracy of 0.0006" and 0.0002" repeatability. Both movable jaws are feature the AngLock design for zero lift. An adjustable centerline perfectly sets the jaws—this is especially important when mounting several vises on one machine where all centerlines must match. Kurt's custom engineered team often uses this model for custom servo-vise automations. Self-centering vises can be used for both horizontal and vertical machining.

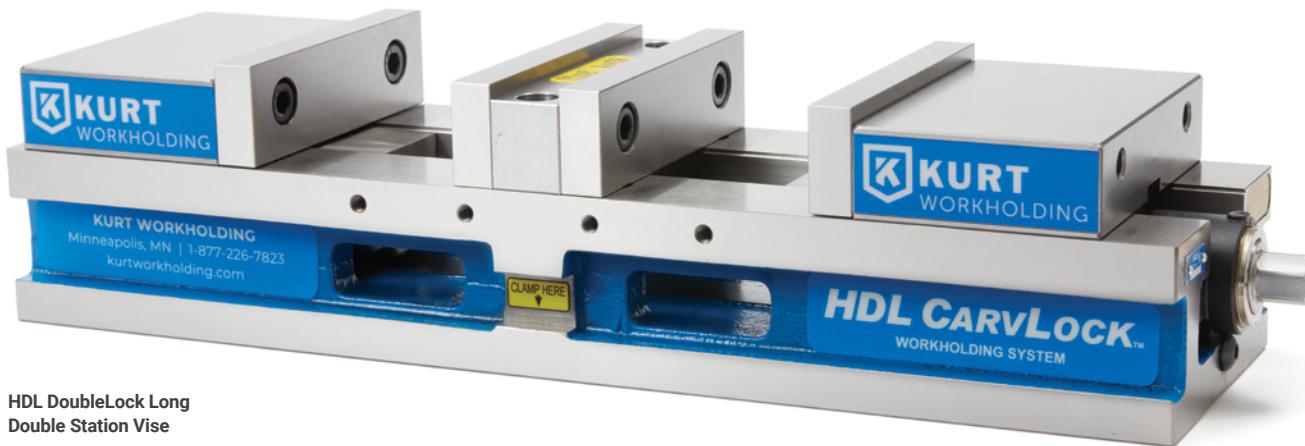


KURT SPECIALTY VISE MODELS



Part Number	KTR35	SDW35	SCD640
Vise Type	manual tool room / sine	vertical 2nd operations	manual self-centering
Size	3.5" x 10.49" x 3.24"	3.24" x 20.86" x 10.7"	6" x 23.5" x 4.86"
Weight	20 lb	45 lb	100 lb
Bed Height	2.0"	2.0"	3.125"
Jaw Width / Max Opening	3.5" /	3.5" /	6" / 8"
Mounting Options	Bolt directly or hold in larger vise	Mounts to back of Kurt 6" & 8" vises	40 mm, 50 mm and 2" grid patterns

HDL DoubleLock Long Vises / Manual / Hydraulic



HDL DoubleLock Long
Double Station Vise



LEARN MORE

Kurt HDL DoubleLock Vises are high density long vises with two clamping stations. Available in 4-, 6- and 8-inch jaw widths and manual, metric and hydraulic models.

DoubleLock vises are extremely accurate with clamping repeatability to 0.0002". Multiple part workholding combined with heavy-duty features will increase efficiency in any shop. Designed on a rugged 80,000 PSI ductile iron body with steel components, all models provide strength, rigidity and long term accuracy while absorbing machining vibration.

Hydraulic models are easy to automate using a Kurt KHP3 Hydraulic Pump and other Kurt automation accessories (see page 4).

KEY FEATURES

- » Quick change jaws / indexable 180°
- » Manual and hydraulic models available
- » Multiple jaw options including: hard jaws, and machinable soft jaws
- » Carvesmart Master Jaw compatible
- » Can be converted into single station with kit
- » Holding block features the ability to clamp same or dissimilar sized parts and provides pre-loading ability in the front or back jaw (manual version)
- » Maximizes the number of parts in the work envelope
- » Lifetime Iron Clad Warranty



CONVERSION KITS

Double Station to Single Station

Conversion Kits: Bolt-on kits convert a double station vise or tower to a large single station vise or tower. Available for 4" & 6" HDL vise models and 4" & 6" CTHDL cluster tower models.

HDL DOUBLELOCK LONG VISES



Part Number	HDL4 / HDLM4	HDL6 / HDLM6	DL800	HDHL4 / HDHLM4	HDHL6 / HDHLM6	DLH800
Vise Type	standard / metric manual	standard / metric manual	standard manual	standard / metric hydraulic	standard / metric hydraulic	standard hydraulic
Size	4" x 17.71" x 3.61"	6" x 22.45" x 4.86"	8" x 34.25" x 5.95"	4" x 17.71" x 3.61"	6" x 22.45" x 4.86"	8" x 36.49" x 5.95"
Weight	34 lb	71 lb	250 lb	34 lb	71 lb	360 lb
Bed Height	2.375"	3.125	3.75"	2.375"	3.125	3.75"
Jaw Width / Max Opening	4" / 2.984"	6" / 4"	8" / 6"	4" / 2.984"	6" / 4"	8" / 6"
Jaw Options	hard jaws / machinable aluminum jaws (two heights) / machinable ductile iron jaws / no jaws - see website					
Mounting Options	Bolts and locates on 40 mm, 50 mm and 2" grid patterns					

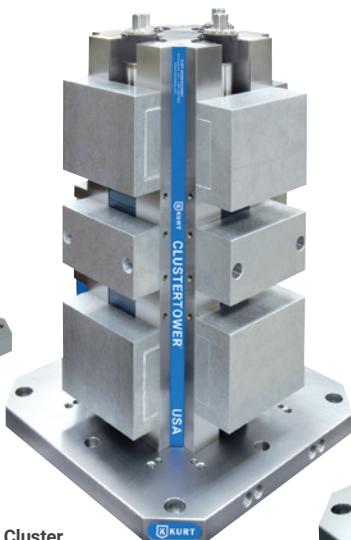
HDL Clustertowers / Manual / Hydraulic



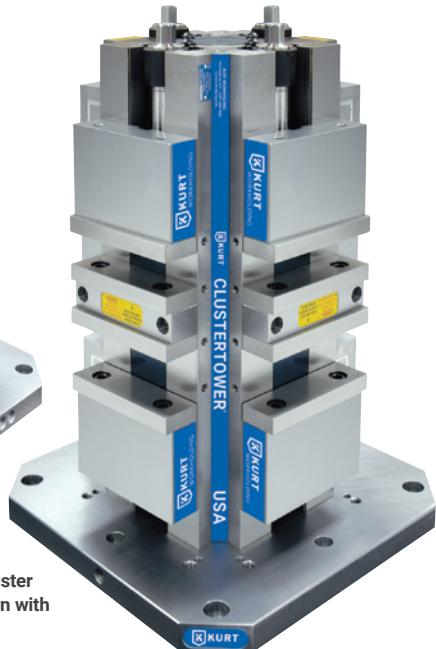
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CTHDL6 Cluster Tower shown with optional hydraulic clamping



CTHDL6 Cluster Tower shown with machinable soft jaws



CTHDL6 Cluster Tower shown with hard jaws



Manually or Hydraulically operated, eight station **HDL Cluster Towers** features a ductile iron integral vise tower and 4 sets of HDL style double-station jaws. Designed for use on mid-size and larger machining centers including horizontal and vertical machining centers with a fourth axis and indexable tables. This workholding system achieves workpiece immobility while damping cutter induced vibration.

Hydraulic models are easy to automate using a **Kurt KHP3 Hydraulic Pump** and other Kurt automation accessories (see page 4). Ask our team of custom engineered workholding professionals if you need help designing an automation setup.

- » Repeatable clamping to 0.0002"
- » 5,870 lb. clamping force at 60 ft lb. (4-inch models)
- » 7,460 lb. clamping force at 70 ft lb (6-inch models)
- » Ductile iron column ensures strength, rigidity and long term accuracy
- » Hard jaws, machinable aluminum jaws & ductile Iron jaws

MULTIPLE JAW OPTIONS

HD CarvLock and HDL DoubleLock vises and towers have multiple jaw options available including **steel hard jaws**, **fixture plates** to quickly convert towers to tombstones, and **machinable iron** and **aluminum soft jaws**. Aluminum jaws are available in several heights.

Simply find the tower or vise at kurtworkholding.com and select the jaw option that works best. If you can't find it, give us a call!

4-Inch HDL Long Towers



6-Inch HDL Long Towers



HDL DOUBLELOCK LONG CLUSTER TOWERS

Part Number	CTHDL43 / CTHDL44 / CTHDL45 CTHDLM43 / CTHDLM44 / CTHDLM45	CTHDL64 / CTHDL65 / CTHDL66 / CTHDHL Hydraulic CTHDLM64 / CTHDLM65 / CTHDLM66
Tower Height	18.875"	22.5"
Base Sizes	300 mm / 400 mm / 500 mm	400 mm / 500 mm / 630 mm
Weight	call for specific model weights and dimensions	call for specific model weights and dimensions
Vise Types	standard / metric / hydraulic	standard / metric / hydraulic
Jaw Width	4"	6"
Jaw Options	hard jaws / machinable aluminum jaws (two heights) / machinable ductile iron jaws / no jaws - see website	

Kurt Standard & Caged Tombstones

ToolBlox / Modular ToolBlox


[LEARN MORE](#)

Kurt 2-Face and 4-Face ToolBlox Solid

Tombstones are ideal for mounting vises and subplates. Subplates can be bolted and dowelled for quick, easy setups or changeovers. All vises or collet chucks may be mounted directly on the tombstone faces. Kurt Solid tombstones are made of Class-35 cast iron and precision machined to 0.001" for flatness and 0.003" for face perpendicular to base. 12 sizes are available with bases ranging from 400 mm to 630 mm.



**2-Face
ToolBlox**



**4-Face
ToolBlox**

**2-Face
Modular
ToolBlox**



**4-Face
Modular
ToolBlox**



PRO TIP

Stock models not working?
Kurt's Custom Team can build
a tombstone perfect for your
unique application. Call today!



A 4-face caged tombstone with new Kurt quick-change receiver bases. A DX6 or PFW 5-axis vises are easily mounted on the same tombstone.

Kurt Workholding's **2-Face** and **4-Face Caged Tombstones** are an excellent solution for high-density, versatile workholding on horizontal CNC machining centers. Our caged tombstones are over 30% lighter than most comparably sized tombstones with aluminum sub-plates, and are uniquely designed to reduce setup time. Kurt quick-change receiver bases can be mounted on subplates for easy vise swaps.

Caged tombstones are a lower-cost alternative to dedicated fixtures. The bolt holes and dowel pattern on each face enable the fast and easy installation/removal of subplates, quick-change workholding and other workholding components, such as manual or hydraulic vises and swing clamp setups.

2-Face Caged Tombstones

4-Face Caged Tombstones

2-Face ToolBlox

4-Face ToolBlox

**KURT TOMBSTONES
STANDARD / CAGED**



Part Number	TC2C40616 / TC2C50820	TC4C40808 / TC4C51010	Multiple #'s (3 sizes)	Multiple #'s (9 sizes)
Tower Height	25" / 28"	25" / 28"	26" / 34" / 38"	26" to 38"
Base Sizes	400 mm / 500 mm	400 mm / 500 mm	400 mm / 500 mm / 630 mm	400 mm / 500 mm / 630 mm
Face Width	400 mm / 500 mm	6" / 8"	400 mm / 500 mm / 630 mm	6" to 18"
Weight	325 lb / 545 lb	245 lb / 361 lb	call or check website for specific tombstone weights	
Material	Class 30 grey iron			

MoveLock Modular System / Manual / Hydraulic

The MoveLock Modular System is a two-piece, high-precision vise that features modular jaws that bolt to a 2" x 2" grid system, T-slot sub-bases with a 2" pitch, standard sub-plates and machine tables or a Kurt SeraLock system.

Designed to hold a range of part sizes and work in high-density setups, the MoveLock is the first vise of its type to integrate Kurt's AngLock design to prevent jaw lift during clamping.

The MoveLock System can be operated manually or automated using the hydraulic movable jaw. MoveLock systems can be set up in single or double station configurations and can be mounted side by side on high density fixturing. (Below)


[LEARN MORE](#)


- » Movable and stationary jaws sold separately.
- » Manual or hydraulic actuation.
- » Light weight with 3.5" jaw width.
- » Features a 5/16" stroke.
- » Clamps large workpieces - jaw opening limited only by the work envelope.
- » Mounts on a 2" x 2" grid system, T-slot sub-bases with a 2" pitch, standard sub-plates and machine tables and SeraLock system.
- » Special jaw plates and workstops are available. Contact the factory for pricing and availability.



MiniLock Modular System

The MiniLock Modular System is a cam-action modular clamping system with integrated AngLock design. A quarter turn of the screw, splits the clamp jaw—applying force both laterally and down—precisely clamping the part and preventing part lift at the same time.

- » Sold in packs of six
- » Clamp two parts using stationary blocks or pins
- » Single, double, or combined holding setups
- » Suitable for dedicated fixtures and palletizing small parts for machine-table receivers

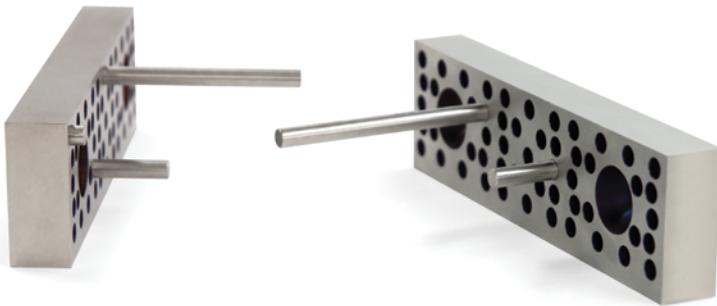


- » Locating blocks, workstops, and MiniLocks allow multiple similar parts or part families on a pallet
- » Jaw: Ampco 18 aluminum bronze
- » Screw: Alloy steel, English only
- » Can machine steps to raise parts above the pallet or table
- » Low profile—machine top surfaces without re-clamping



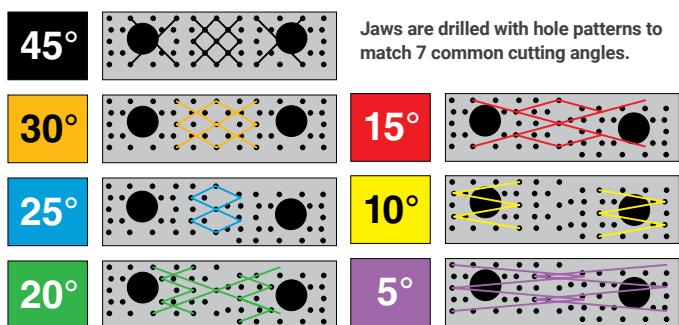
MOVELOCK & MINILOCK MODULAR WORKHOLDING SYSTEMS

Part Number	MLS351	ML35	MLH35	MT4 / MT5 / MT6 / MT8 MTM4 / MTM5 / MTM6 / MTM8
Clamping Type	Stationary Manual	Manual Movable	Hydraulic Movable	Manual
Jaw Width	3.5 in	3.5 in	3.5 in	n/a
Mounting Options	Mounts on a 2" x 2" grid system, T-slot sub-bases with a 2" pitch, standard sub-plates and machine tables and SeraLock system.			
	Mount on fixture plates with multiple configurations. See website.			



3-In-One System Jaw Plates

The 3-In-One System is designed for quick setups on common angle cuts. Preset patterns in jaws for 7 popular angles, including: 5°, 10°, 15°, 20°, 25°, 30°, and 45°. Jaw plates are available in 6-inch (**KSJ6**) and 8-inch (**KSJ8**) widths.

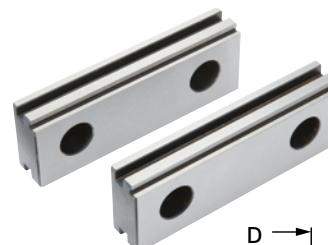


LEARN MORE

Magnetic Jaw Plates

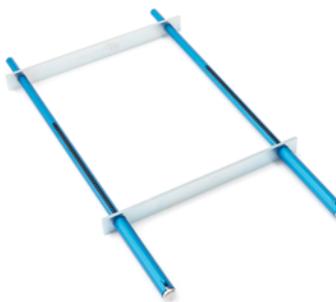
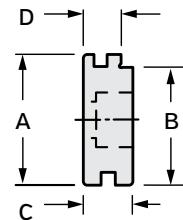
Powerful rare earth magnets hold parallels securely in place—leaving hands free to hold and clamp workpieces—facilitating fast and accurate set-ups.

(**D60-315-SAMAG** & **D60-7-SAMAG**)



GrooveLock Reversible Stepped Jaw Plate

Jaw plates feature a GrooveLock top with step cut into the face of the jaw. Flip jaw to hide stepped profile. Plates are available for 4-inch and 6-inch Kurt vises. (**D40-316** & **D60-316**)



Kurt 6-inch & 8-inch Parallel Keepers

Kurt offers a 6-inch (**KPS-6000**) and 8-inch (**KPS-8000**) Parallel Keepers to hold parallels hands-free and securely against the vise jaws.

8" Parallel Sets available in 6-Piece & 9-Piece Sets

Kurt parallels are available in 6- or 9-pair sets. Parallel sets are hardened RC 52-58 steel ground to a parallelism within 0.0002 in. (**8PS6** & **8PS9**)

6PJS Magnetic Jaw Plate and Parallel Set

Includes two 6-inch jaw plates with rare earth magnets embedded to hold ground steel parallels. Kurt GrooveLock Workshops included.



Fixture Keys

Kurt fixture keys are sized according to vise keyway slot and machine table T-slot. Kurt offers a range of standard fixture keys to match any Kurt vise to any machine table.



Sine Keys

Many new Kurt Vise models use sine keys for machine table location, including: T-slot tables, 2" x 2", 40 mm x 40 mm and 50 mm x 50 mm grid plates. Kurt offers a range of sine keys to fit most machine applications.

Workstops



2MWS Magnetic Workstop

Ideal for single- and multiple-station vises and high density workholding setups. Rare earth magnet attaches solidly to the side of the vise for fast, accurate part positioning.



6AWS Workstop

For use on all Kurt high-density vises and vises with a 5/16-18 tapped hole in the base or side of the jaw. Has a 2" adjustment and features a 3" stop pin for fast and easy set ups.



360PWS Workstop

Works above jaws when closely gang mounting vises leaving no space for a workstop. Bolts to cap screw holes on the backs of jaws. Available in 6" and 8" models.

WSRL46
(Standard)



LEARN MORE



WSRLE46
(Extended)

GrooveLock Workstop

GrooveLock Workstops mount to GrooveLock jaws. WSRL46 comes standard on DX4 and DX6 models. Also available in an extended model for use on 4" and 6" GrooveLock Jaws.



Handles & Swivel Bases



Speed Handle

The Speed Handle (**D60SH**) with a 3/4 internal hex fits Kurt 6-inch vises. Experience rapid part loading/unloading with plenty of machine clearance. Steel construction.



Torque Handle

Torque Handle (**TH6**) provides repeatable clamping with 4 torque positions. 3/4" internal hex. Precise feel with an audible "click". Torque settings for 6, 8, 10 and 20 ft. lb.



Vise Handles

Original equipment handles are solid cast iron for strength and durability and are plated for rust protection. The handle portion is one-piece with a cast ergonomic ball on the end.



Swivel Base

Kurt Swivel Bases provide precise 360° vise positioning in 1° increments. Four sizes are available to fit different Kurt vises. Quickly attach vises to the swivel base with two T-bolts.

Replacement Part, Repair Kits & Tools

Kurt carries a full range of replacement parts for newer and older vise models along with repair kits that include seals, bearings, o-rings and other wearable parts needed for a vise overhaul.

Explore our selection of vise manuals, replacement parts, tools and accessories at kurtworkholding.com. Scan the QR code on the right side of the page to find a local Authorized Service Center.

Find your local workholding service center by scanning the QR Code at right



Spanner Wrench



Vise Repair Kits



Nut & Screw Assemblies



Vise Nuts



Vise Jaws



Vise Hex Extension

Power Drawbars



Automatic Drawbar

[LEARN MORE](#)


Available for most manual & CNC mills with standard R-8 collets or 30 or 40 taper tool holders. Automate your present "Knee-Type" milling machines by installing a Kurt PowerLock Drawbar. PowerLock Drawbars reduce tool change time and allow more cutting time in the cycle.

Using a Kurt PowerLock Drawbar cuts tool changing time to one-fourth the time required for manual tool changes using wrenches. An added benefit is consistent torque on the drawbar rod. When you multiply the time savings for every tool change on all of your mills, it can really add up.

PowerLock Drawbars are available for these popular mills:

Acer	Lagun
Acramill	Mighty
Alliant	Millport
Bridgeport	Royal
Chevalier	Seiki
Clausing/Kondia	Sharp
Comet	Shizouka
DoAll	South Bend
Ex-Cell-O	Southwestern
Hurco	Supermax
Jet	Tri-Onics
Kent	Webb
Kondia	Willis

For manufacturers not listed, contact Kurt.

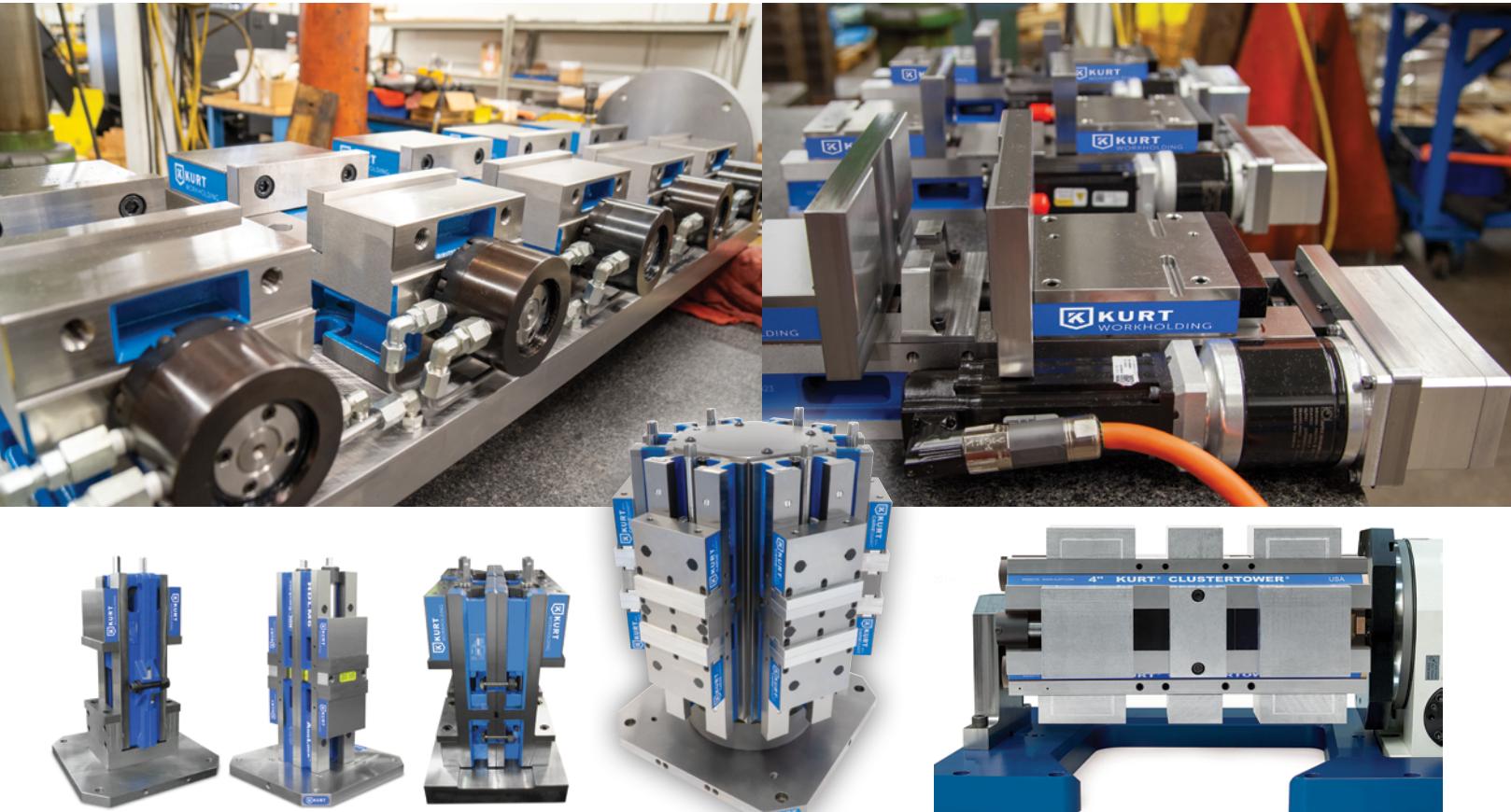
Note: Machines with Erickson Quick Change Spindles converted to Kurt Power Drawbars will have sharp threads and drive keys exposed near the spindle nose. We recommend the installation of a 194-00-SA Erickson Spindle Nose Guard.

KEY FEATURES

- » Easy installation - operator can install with no special tools (instructions provided)
- » Reduces operator fatigue - improves productivity and safety
- » Eliminates drawbar tapping to free tool in collet - reduces operator abuse
- » Convenient control - eliminates operator stretching to reach the drawbar
- » Ensures uniform collet tightening - prevents under tightening and tool slip or over tightening and drawbar breakage
- » Operates on shop air supply - filter/lubricator, regulator and gauge included with most units. Provides clean oiled air to ensure long life
- » Safety interlock on automatic models prevents accidental engagement
- » Used with present tooling - operates R-8, #30 & #40 taper tool holders. Additional special tool holders not needed
- » Machine your own Drawbar Kits. Available for R-8 collets, #30 or #40 taper tool holders

Your Expert Partners for Custom Engineered Fixtures, Vises, Towers, Workholding Automation Solutions

Manual /
Hydraulic /
Pneumatic /
Servo /



All Kurt vises can be customized to a back-to-back setup on a tower base.

Custom Large capacity towers and tombstones.

Custom rotary table designs are one of our many custom-workholding specialties.

When you want the best workholding solution for your specific needs, let Kurt Custom-Engineered Workholding (CEW) build it for you. For over 50 years, Kurt has been the industry leader in custom, high-performing horizontal, vertical, or multi-axis CNC machine fixture solutions. Designed to easily integrate into new or existing automated cells and machining centers, dream it and we can build it.

KURT QUALITY

- » Kurt Tuff hose, pumps and hydraulic systems used on all hydraulic integrations
- » Only top-quality components are used for CEW projects

ADDITIONAL CAPABILITIES

- » Can create full custom solutions from ideas to products or modify and integrate existing Kurt products into a hybrid workholding solution
- » Capacity for large projects and reduced lead times
- » New Mazak HCN6800-NEO dedicated to CEW jobs
- » Precision CNC machining—holding tight tolerances

SOLUTIONS

- » Servo workholding
- » Multiple-station setups
- » Hydraulic workholding
- » High-density workholding
- » Pneumatic workholding
- » Trunnions
- » Rotary tables
- » Towers
- » Back-to-back vise mounts
- » Horizontal and Vertical

- » Full end-to-end engineering support
- » Decades of expertise in custom workholding
- » Manufacturing industry-standard products
- » Robotics integration



kurtworkholding.com



KURT MANUFACTURING
IS 100% EMPLOYEE OWNED

Kurt Workholding

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