



# One Stop Advanced Technology Solutions

- Vises • 5 Axis Vises • Workholding Systems • ToolBlox
- Custom Workholding Systems • Fixtures
- Zero-Point Workholding • Custom Gaging Systems
- Precision Measuring Instruments • Accessories

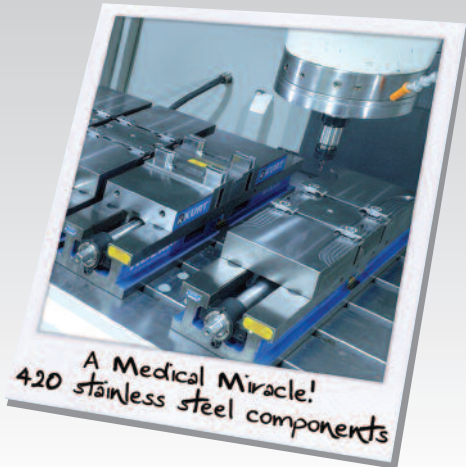


**KURT** LIFETIME WARRANTY  
**K** **IRONCLAD**  
MADE IN U.S.A.

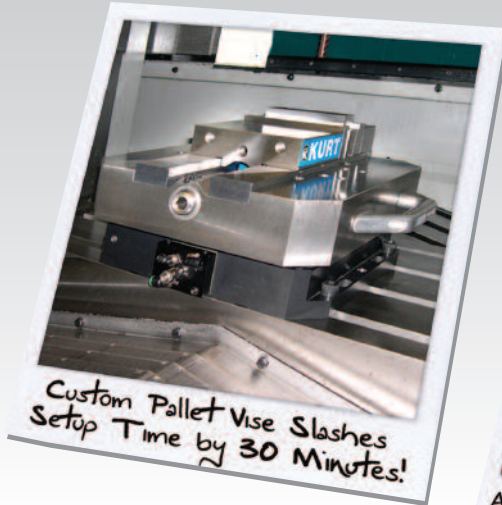




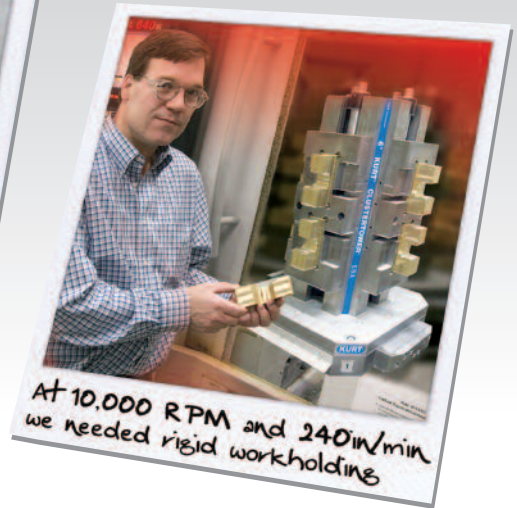
# KURT WORKHOLDING CHIP CUTTING SUCCESS STORIES



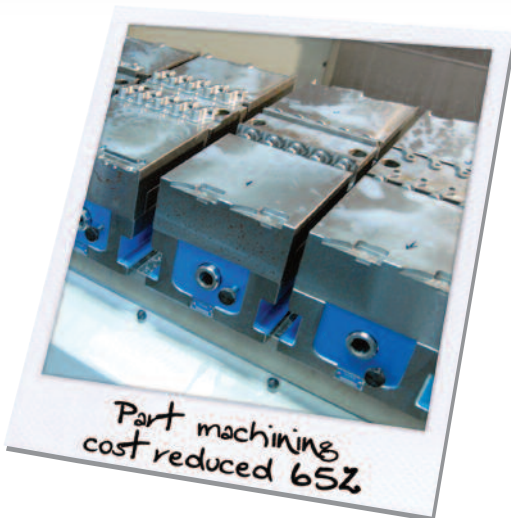
A Medical Miracle!  
420 stainless steel components



Custom Pallet Vise Slashes  
Setup Time by 30 Minutes!



At 10,000 RPM and 240in/min  
we needed rigid workholding



Part machining  
cost reduced 65%



Part loading reduced  
from minutes to seconds

**Like no other in the industry.** Kurt workholding products come with a "Life Time Iron Clad Warranty". This is your assurance that you are buying the best workholding products in the world.

**Strength and rigidity.** Most of our workholding components are manufactured from 80,000-PSI ductile iron. This provides strength and rigidity to hold all parts, large and small, while they absorb and dampen machine vibration.

**Over Four decades of Know-how.** Our custom engineers are here to assist you in finding the answers to your problems... don't hesitate to call.

Read full user reports at  
[www.kurtworkholding.com/user\\_reports](http://www.kurtworkholding.com/user_reports)

## NEW PRODUCTS

- 5-Axis Vise . . . . . request catalog
- VB DockLock . . . . . request catalog
- Custom Gaging Systems . . . . .
- . . . . . go to [www.kurtelectronics.com](http://www.kurtelectronics.com)
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- HDL Towers . . . . . p 12-13
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- 5C Angle Boss . . . . . p 64
- Spanner Wrench . . . . . p 64

## MORE WEBSITE FEATURES

- New 3-D CAD Files Being added monthly
- Workholding Tip of the Month
- Sign up for Free E-Newsletter
- User Reports. See for yourself how Kurt is solving application problems and helping companies become more competitive

## KURT LIFETIME IRON CLAD WARRANTY



All Kurt Manufacturing Company Industrial Workholding products and parts, with the exceptions noted below, are warranted against defects in material and workmanship for the life of the product or part. See complete warranty online.

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 **NEW 5 Axis Vise**  
**Request Catalog** 1-877-226-7823  
[www.kurtworkholding.com/5axis/](http://www.kurtworkholding.com/5axis/)

 **NEW VB DockLock**  
**Request Catalog** 1-877-226-7823  
[www.kurtworkholding.com/docklock/](http://www.kurtworkholding.com/docklock/)

 **Electronic Gaging Systems**  
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[www.kurteletronics.com/](http://www.kurteletronics.com/)

 **DigiDirect™ and SPC Software**  
**Request Catalog** 1-800-343-9884  
[www.kurteletronics.com/](http://www.kurteletronics.com/)

 **Metal Chip Compactor**  
**Request Catalog** 1-800-328-2565  
[www.kurtchip.com/](http://www.kurtchip.com/)





# KURT HD AND HDL VISES

PATENT PENDING

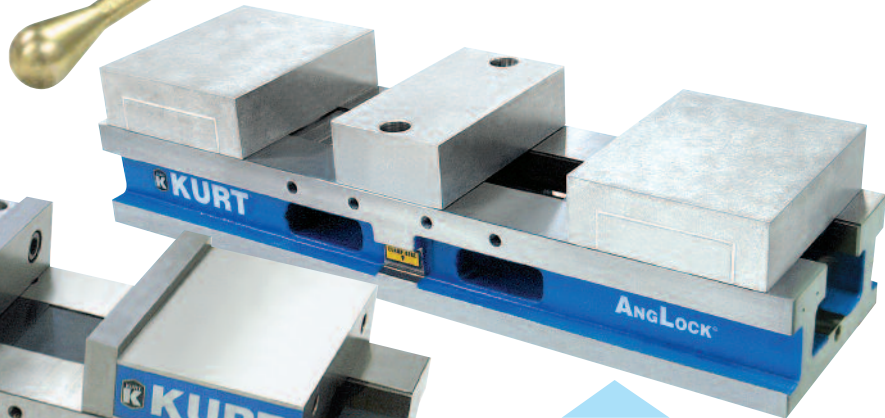
**NEW**



**HDM6 Manual**  
(shown with optional machinable aluminum jaws)



**HDHM6 Hydraulic**  
(shown with optional machinable aluminum jaws)



**HDHLM4 Hydraulic**  
**HDHLM6 Hydraulic**  
(shown with optional machinable aluminum jaws)



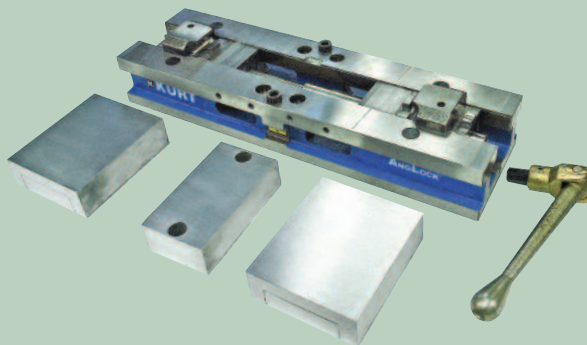
**HDL M4 Manual**  
**HDL M6 Manual**  
(shown with optional hard jaws)

*Jaws for HD and HDL Vises are sold separately and available with the following options.*

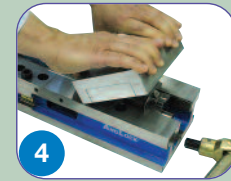
- Hard Jaws
- Machinable Aluminum Jaws
- Machinable Ductile Iron Jaws
- Aluminum Fixture Plate

## FASTER SETUPS FOR VISES & TOWERS

HD and HDL vises and towers have new quick change jaw feature and fewer components for faster changeovers.

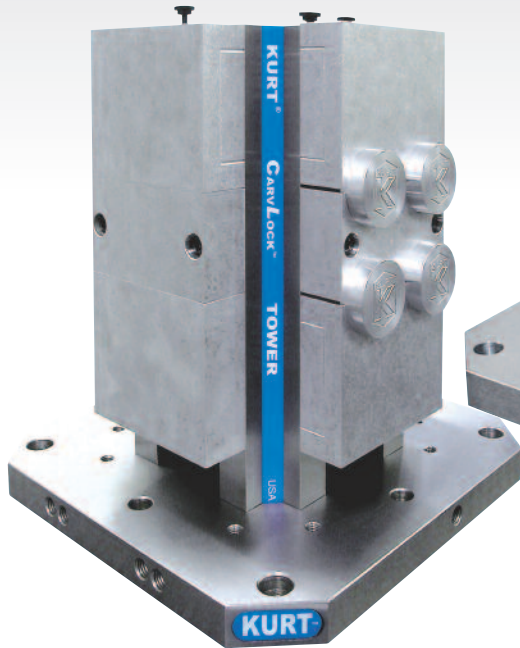


With a half turn of a hex key, the stationary jaw lifts off the vise or tower body. The jaw resets and self-aligns quickly without special tools. Spring pre-load design insures fast, easy loading of parts.

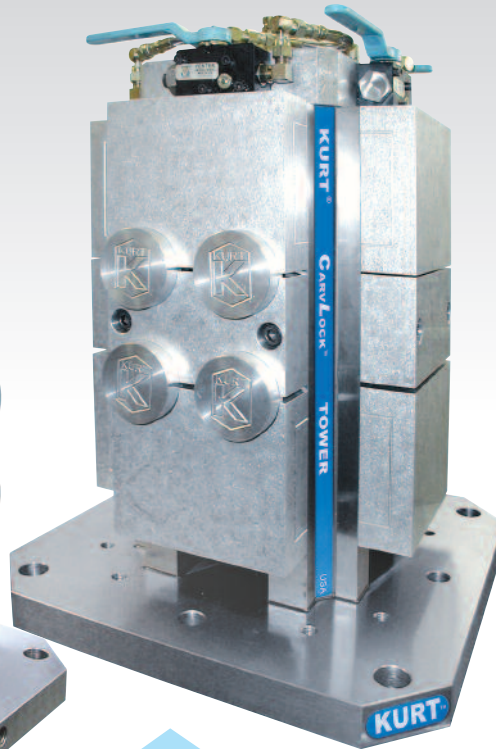




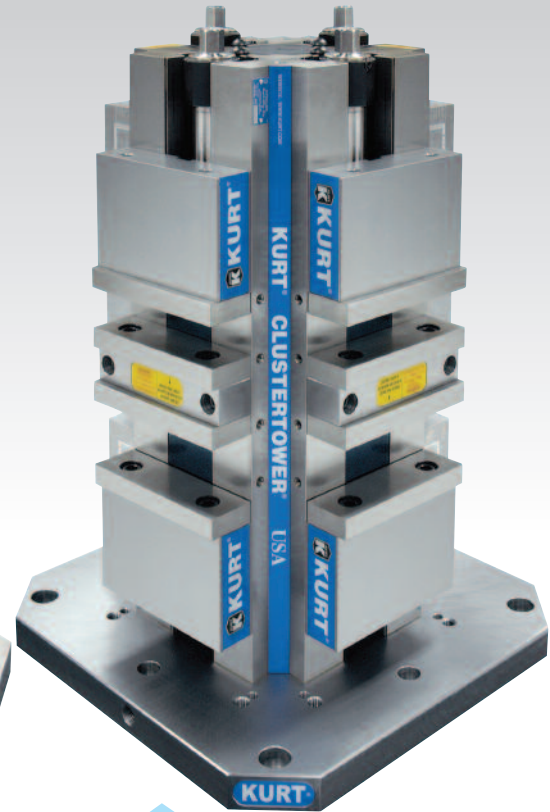
**NEW**



**CTHDM64 Manual**  
(shown with optional machinable aluminum jaws)



**CTHDHM64 Hydraulic**  
(shown with optional machinable aluminum jaws)



**CTHDLM444 Manual**  
**CTHDLM644 Manual**  
(shown with optional machinable aluminum jaws on left and optional hard jaws on right)

*Jaws for HD and HDL Towers are sold separately and available with the following options.*

- Hard Jaws • Machinable Aluminum Jaws
- Machinable Ductile Iron Jaws
- Aluminum Fixture Plate

## MORE OPTIONS



### **Back-to-back mounting option**

HD vises mount easily back-to-back, providing a new way to achieve a multiple clamping station tower. Contact factory for details.

Estimated shipping weight:  
88.9Kgs/196Lbs



### **Fixture Plate (HD6ALP620-239)**

Ultra high density loads of small parts can be accommodated in a single setup by mounting various off-the-shelf clamping modules to this fixture plate.

To utilize this system's components, the movable and stationary vise jaws are removed and the fixture plate is positioned and then clamped by normal actuation of the vise.

### **The HD product INDEX:**

**HDL Vises Pages 6-9**

**HD Vises Pages 10-11**

**HDL Towers Pages 12-15**

**HD Towers Pages 16-17**



# HDL AngLock® VISES (4 INCH)

**4 Inch Models:**  
**HDLM4 Manual**  
**HDHLM4 Hydraulic – PATENTED**

**NEW**

The HDL Anglock® Vises are high density long vises with two clamping stations. They provide repeatable clamping to 0.0002" and combine high density with heavy duty features. Designed on a rugged 80,000 PSI ductile iron body with steel components, both models provide strength, rigidity and long term accuracy while absorbing machining vibration.

**Features:**

- Two clamping stations – repeatable clamping to 0.0002".
- Full 3" opening in each station with standard hard jaw system.
- Jaws are indexable 180 degrees.
- Manual and hydraulic models available.
- Fast easy conversion between manual and hydraulic models. Part # HDHLM4-3-SA-KIT.
- Maximizes the number of parts in the work envelope.
- Adjustable pre-load feature allows you to minimize pre-load range thus reducing the turns of the handle to open or close the vise (manual version).
- 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).
- Lifetime Iron Clad Warranty.



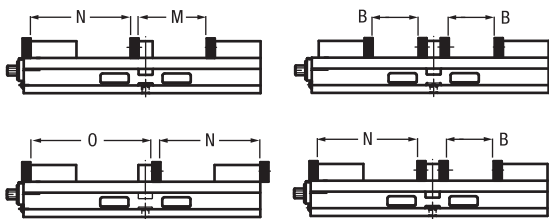
(shown with optional machinable aluminum jaws)

**Jaws for HDL Vises are sold separately and available with the following options.**

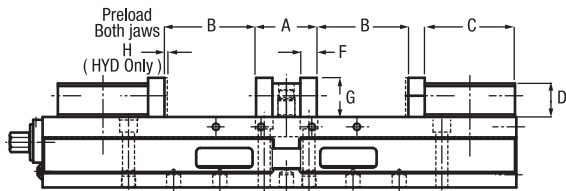
- Hard Jaws
- Machinable Aluminum Jaws
- Machinable Ductile Iron Jaws
- Aluminum Fixture Plate

Dimensional Data High Density 4" Full Open Vise HDL Manual & Hydraulic								
	OPTIONAL HARD JAWS HDLM4J-JAWKIT Shipping Weight 4.53kgs/10lbs				Convertible OPTION HARD AND CARVABLE JAWS			
	HDLM4J		HDHLM4J		HDLM4J		HDHLM4J	
	MM	Inch	MM	Inch	MM	Inch	MM	Inch
A	59.538	2.344	59.538	2.344	211.938	8.344	211.938	8.344
B	76.200	3.000	76.200	3.000	59.538	2.344	59.538	2.344
C	73.812	2.906	73.812	2.906	225.831	8.891	225.831	8.891
D	28.321	1.115	28.321	1.115	299.644	11.797	299.644	11.797
E	101.600	4.000	101.600	4.000	239.725	9.438	239.725	9.438
F	13.894	0.547	13.894	0.547	87.325	3.438	87.325	3.438
G	31.369	1.235	31.369	1.235	73.431	2.891	73.431	2.891
H	-	-	3.175	0.125	147.244	5.797	147.244	5.797
J	63.500	2.500	63.500	2.500	205.968	8.109	205.968	8.109
K	17.450	0.687	17.450	0.687	55.880	2.200	55.880	2.200
L	M10 x 1.50	M10 x 1.50	M10 x 1.50	M10 x 1.50	409.168	16.109	409.168	16.109
M	121.844	4.797	121.844	4.797	259.080	10.200	259.080	10.200
N	163.906	6.453	163.906	6.453	20.625	Hard Jaws Only 0.812	20.625	Hard Jaws Only 0.812
O	209.550	8.250	209.550	8.250	18.262	0.719	18.262	0.719
P	-	-	-	-	15.240	Hard & Soft Jaws 0.600	15.240	Hard & Soft Jaws 0.600

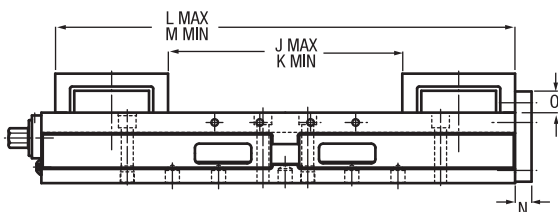
**HARDENED JAW POSITIONS (MANUAL VISE SHOWN)**



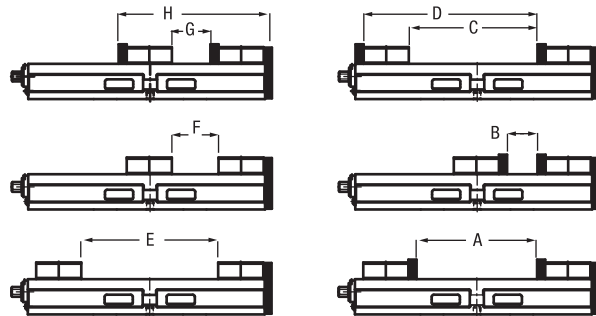
**OPTIONAL HARD JAWS (MANUAL VISE SHOWN)**



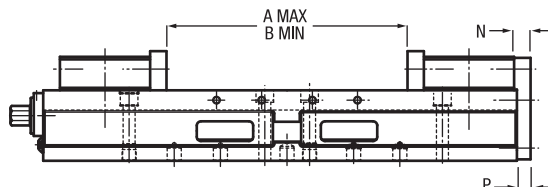
**CONVERTIBLE OPTIONAL FOR CARVABLE JAWS (MANUAL VISE SHOWN)**



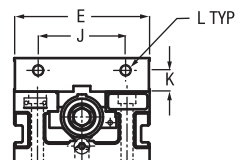
**OPTIONAL CONVERTIBLE KIT (HDLM4-CONVKIT) - JAW POSITIONS**



**CONVERTIBLE OPTIONAL FOR HARD JAWS HDLM4J-CONVKIT (MANUAL VISE SHOWN)**



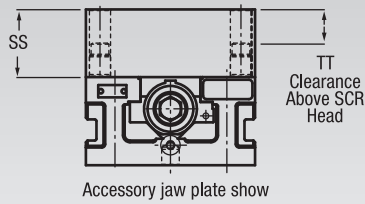
**FRONT VIEW**





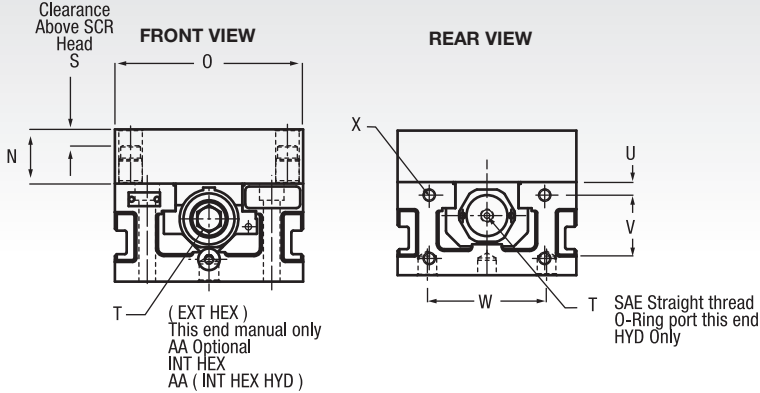
# HDL ANGLock® VISES (4 INCH)

**ACCESSORY JAWKIT WITH OPTIONAL 1.9 HEIGHT JAW**

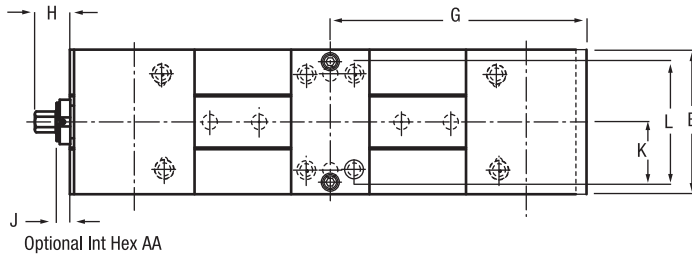


CLAMPING FORCE LBS.			
Torque-Ft. Lbs.	HDLM4	Hydraulic PSI	HDHLM4
10	1,040	1,000	775
20	2,125	1,500	1,450
30	3,140	2,000	1,900
40	4,040	2,500	2,550
50	4,980	3,000	3,100
60	5,870	3,500	3,700
		4,000	4,200
		4,500	4,800

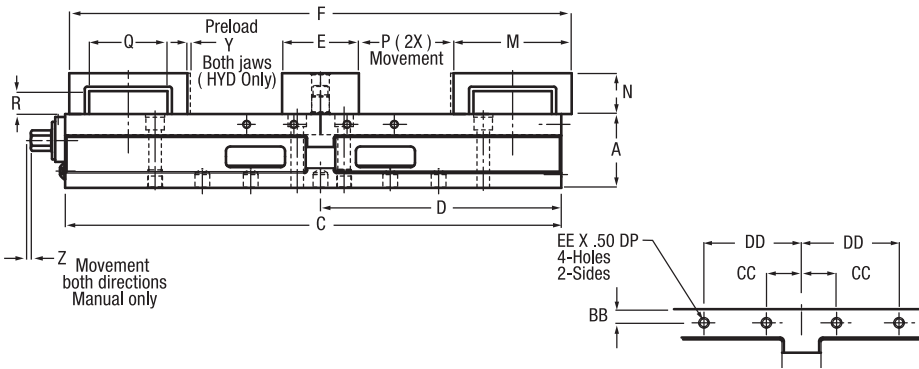
Dimensional Data				
High Density 4" Full OpenVise HDL Manual & Hydraulic				
	HDLM4		HDHLM4	
	MM	Inch	MM	Inch
A	60.325	2.375	60.325	2.375
B	101.600	4.000	101.600	4.000
C	415.925	16.375	415.925	16.375
D	200.025	7.875	200.025	7.875
E	63.500	2.500	63.500	2.500
F	418.287	16.468	418.287	16.468
G	209.144	8.234	209.144	8.234
H	33.680	1.326	-	-
J	9.855	0.388	-	-
K	41.275	1.625	41.275	1.625
L	82.550	3.250	82.550	3.250
M	101.600	4.000	101.600	4.000
N	35.560	1.400	35.560	1.400
O	101.600	4.000	101.600	4.000
P	75.794	2.984	75.794	2.984
Q	65.075	2.562	65.075	2.562
R	20.625	0.812	20.625	0.812
S	7.722	0.304	7.722	0.304
T	14.275 EXT HEX	0.562 EXT HEX	7/16 - 20 UNF O-RING PORT	7/16 - 20 UNF O-RING PORT
U	9.525	0.375	9.525	0.375
V	42.875	1.688	42.875	1.688
W	63.500	2.500	63.500	2.500
X	M8 x 1.25	M8 x 1.25	M8 x 1.25	M8 x 1.25
Y	-	-	3.175	0.125
Z	3.048	0.120	-	-
AA	11.099 INT HEX	0.437 INT HEX	11.900 INT HEX	0.437 INT HEX
BB	9.525	0.375	9.525	0.375
CC	34.325	1.375	34.325	1.375
DD	65.100	2.563	65.100	2.563
EE	M8 x 1.25	M8 x 1.25	M8 x 1.25	M8 x 1.25
FF	19.050	0.750	19.050	0.750
GG	20.000	0.787	20.000	0.787
HH	100.000	3.937	100.000	3.937
JJ	133.350	5.250	133.350	5.250
KK	133.350	5.250	133.350	5.250
LL	100.000	3.937	100.000	3.937
MM	38.100	1.500	38.100	1.500
NN	40.000	1.575	40.000	1.575
OO	M8 SHCS	M8 SHCS	M8 SHCS	M8 SHCS
PP	5/16 SHCS	5/16 SHCS	5/16 SHCS	5/16 SHCS
QQ	15.875	0.625	15.875	0.625
RR	16.000	0.6299	16.000	0.6299
SS	48.260	1.900	48.260	1.900
TT	20.422	0.804	20.422	0.804
	34 lbs/15.42 kgs		33 lbs/14.96 kgs	
Estimated Shipping Weight of Vise Body Only				



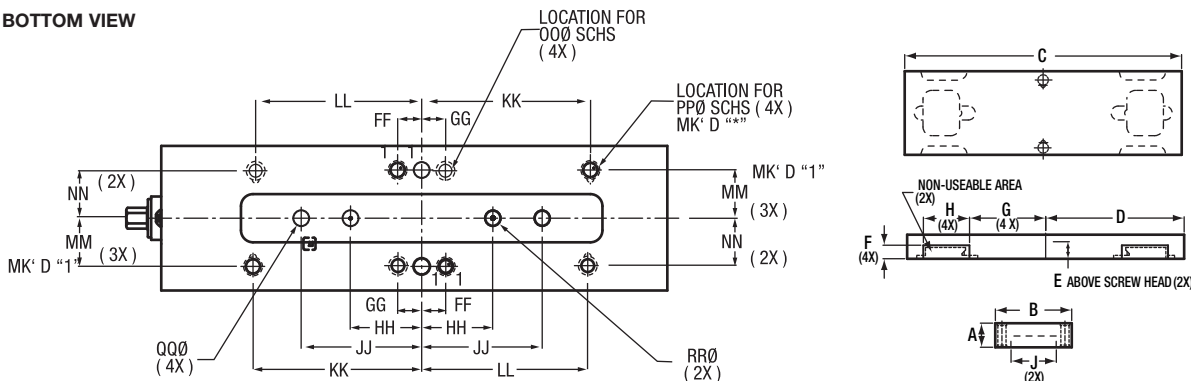
**TOP VIEW**



**SIDE VIEW**



**BOTTOM VIEW**



Aluminum Fixture Plate Accessory for HDLM Vise & CTHDLM Tower 4"		
HDLM4ALP419		
	MM	Inch
A	48.26	1.900
B	101.60	4.00
C	393.70	15.500
D	196.85	7.750
E	40.54	1.596
F	-	-
G	-	-
H	20.57	0.810
J	65.07	2.562
K	100.84	3.970
L	65.02	2.560



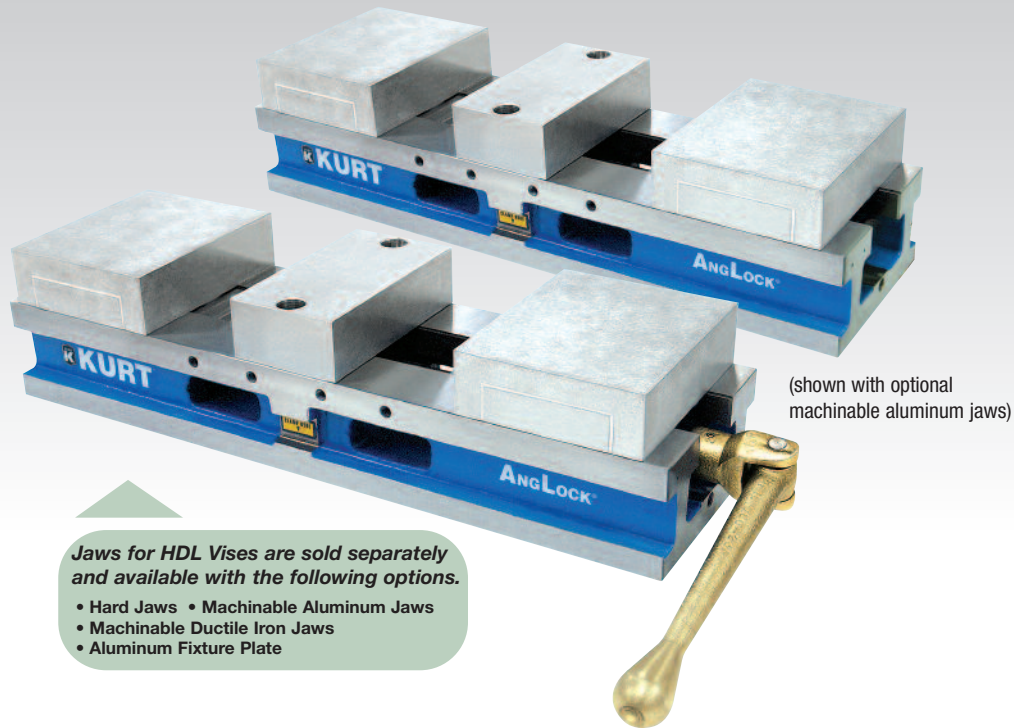
# HDL ANGLock® VISES (6 INCH)

**Model:**  
**HDLM6 Manual**  
**HDHLM6 Hydraulic – PATENTED**

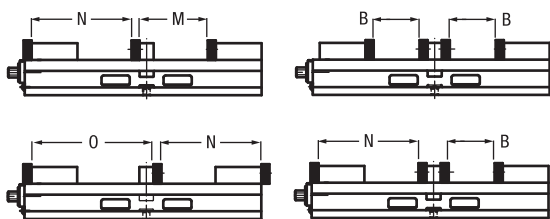
The HDL Anglock® Vises are high density long vises with two clamping stations. They provide repeatable clamping to 0.0002" and combine high density with heavy duty features. Designed on a rugged 80,000 PSI ductile iron body with steel components, both models provide strength, rigidity and long term accuracy while absorbing machining vibration.

**Features:**

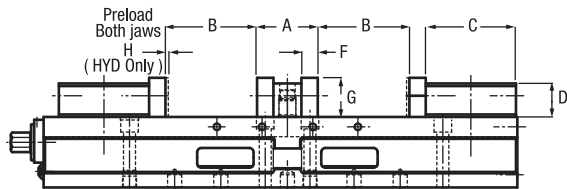
- Two clamping stations – repeatable clamping to 0.0002".
- Full 4" opening in each station with standard hard jaw system.
- Jaws are indexable 180 degrees.
- Manual and hydraulic models available.
- Fast easy conversion between manual and hydraulic models. Part # HDHLM6-3-SA-KIT.
- Maximizes the number of parts in the work envelope.
- Adjustable pre-load feature allows you to minimize pre-load range thus reducing the turns of the handle to open or close the vise (manual version).
- 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).
- Lifetime Iron Clad Warranty.



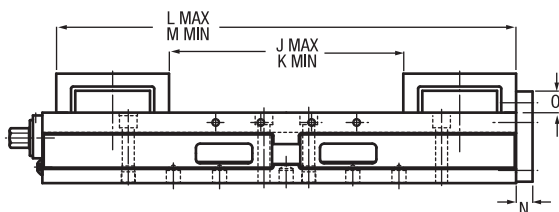
**HARDENED JAW POSITIONS (MANUAL VISE SHOWN)**



**OPTIONAL HARD JAWS (MANUAL VISE SHOWN)**

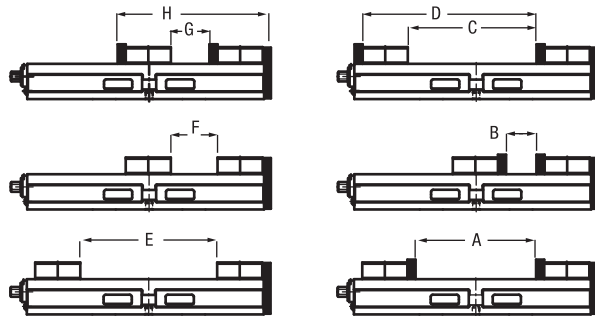


**CONVERTIBLE OPTIONAL FOR CARVABLE JAWS (MANUAL VISE SHOWN)**

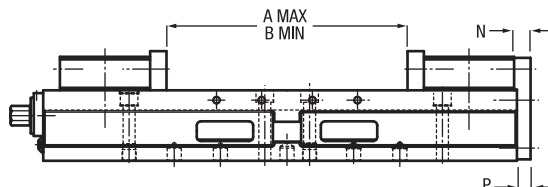


	Dimensional Data High Density 6" Full Open Vise HDL Manual & Hydraulic							
	OPTIONAL HARD JAWS HDLM6J-JAWKIT Shipping Weight 11.79kgs/26lbs				Convertible OPTION HARD AND CARVABLE JAWS			
	HDLM6J		HDHLM6J		HDLM6J		HDHLM6J	
	MM	Inch	MM	Inch	MM	Inch	MM	Inch
A	68.326	2.690	68.326	2.690	271.526	10.690	271.526	10.690
B	101.600	4.000	101.600	4.000	68.326	2.690	68.326	2.690
C	101.600	4.000	101.600	4.000	289.941	11.415	289.941	11.415
D	37.719	1.485	37.719	1.485	391.541	15.415	391.541	15.415
E	152.400	6.000	152.400	6.000	308.356	12.140	308.356	12.140
F	18.415	0.725	18.415	0.725	105.156	4.140	105.156	4.140
G	44.069	1.735	44.069	1.735	86.741	3.415	86.741	3.415
H	-	-	3.175	0.125	188.341	7.415	188.341	7.415
J	98.425	3.875	98.425	3.875	274.574	10.810	274.574	10.810
K	23.876	0.940	23.876	0.940	77.775	3.062	77.775	3.062
L	M12 x 1.75	M12 x 1.75	M12 x 1.75	M12 x 1.75	528.574	20.810	528.574	20.810
M	151.511	5.965	151.511	5.965	331.775	13.062	331.775	13.062
N	221.615	8.725	221.615	8.725	18.542	0.730	18.542	0.730
O	271.526	10.690	271.526	10.690	23.825	0.938	23.825	0.938
P	-	-	-	-	15.367	0.605	15.367	0.605

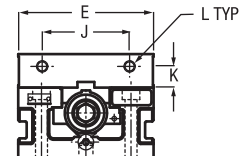
**OPTIONAL CONVERTIBLE KIT (HDL6-CONVKIT) - JAW POSITIONS**



**CONVERTIBLE OPTIONAL FOR HARD JAWS HDLM6J-CONVKIT (MANUAL VISE SHOWN)**



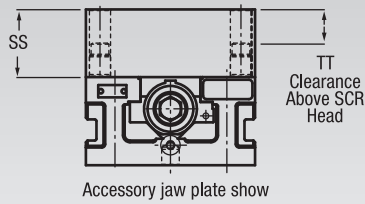
**FRONT VIEW**





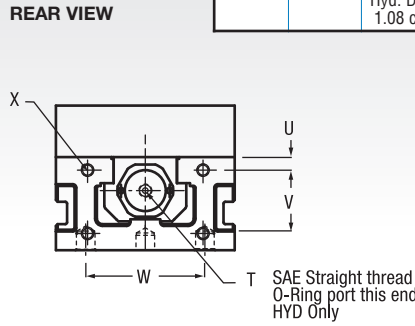
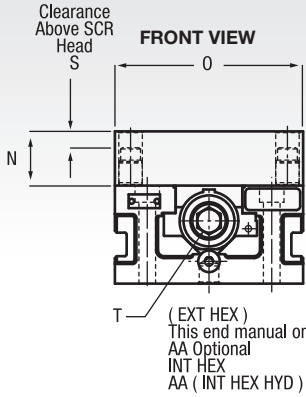
# HDL ANGLock® VISES (6 INCH)

**ACCESSORY JAWKIT WITH OPTIONAL 2.5 HEIGHT JAW**

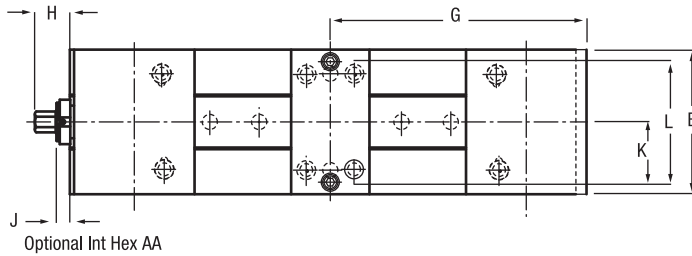


CLAMPING FORCE LBS.			
Torque-Ft. Lbs.	HDLM6	Hydraulic PSI	HDHLM6
10	1,540	500	875
20	2,520	1000	1,600
30	3,350	1500	2,330
40	4,310	2000	3,130
50	5,750	2500	3,950
60	6,860	3000	4,750
70	7,460	3500	5,475
		4000	6,350
		4500	7,100
		Hyd. Displacement 1.08 cubic inches	

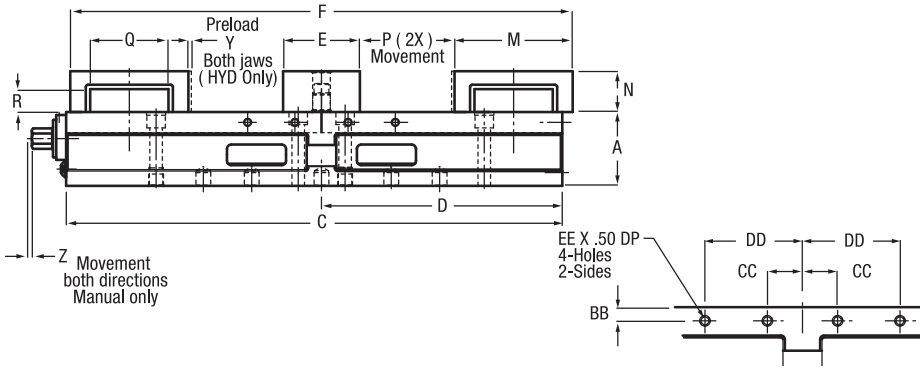
Dimensional Data				
	High Density 6" Full OpenVise HDL Manual & Hydraulic			
	HDLM6		HDHLM6	
	MM	Inch	MM	Inch
A	79.375	3.125	79.375	3.125
B	152.400	6.000	152.400	6.000
C	533.400	21.000	533.400	21.000
D	258.877	10.192	258.877	10.192
E	82.550	3.250	82.550	3.250
F	539.750	21.250	539.750	21.250
G	269.875	10.625	269.875	10.625
H	36.830	1.450	-	-
J	21.844	0.860	-	-
K	63.500	2.500	63.500	2.500
L	127.000	5.000	127.000	5.000
M	127.000	5.000	127.000	5.000
N	43.891	1.728	43.891	1.728
O	152.400	6.000	152.400	6.000
P	101.600	4.000	101.600	4.000
Q	84.125	3.312	84.125	3.312
R	24.613	0.969	24.613	0.969
S	13.259	0.522	13.259	0.522
T	19.050 EXT HEX	0.750 EXT HEX	7/16-20 UNF O-RING PORT	7/16-20 UNF O-RING PORT
U	11.125	0.438	11.125	0.438
V	53.975	2.125	53.975	2.125
W	98.425	3.875	98.425	3.875
X	M10 x 1.5	M10 x 1.5	M10 x 1.5	M10 x 1.5
Y	-	-	3.175	0.125
Z	3.962	0.156	-	-
AA	15.875 INT HEX	0.625 INT HEX	15.875 INT HEX	0.625 INT HEX
BB	11.125	0.438	11.125	0.438
CC	28.575	1.125	28.575	1.125
DD	79.375	3.125	79.375	3.125
EE	M8 x 1.25	M8 x 1.25	M8 x 1.25	M8 x 1.25
FF	25.400	1.000	25.400	1.000
GG	25.000	0.984	25.000	0.984
HH	75.000	2.9528	75.000	2.9528
JJ	127.000	5.000	127.000	5.000
KK	177.800	7.000	177.800	7.000
LL	175.000	6.890	175.000	6.890
MM	50.800	2.000	50.800	2.000
NN	50.000	1.969	50.000	1.969
OO	M12 SHCS	M12 SHCS	M12 SHCS	M12 SHCS
PP	1/2 SCHS	1/2 SCHS	1/2 SCHS	1/2 SCHS
QQ	15.875	0.625	15.875	0.625
RR	16.000	0.6299	16.000	0.6299
SS	60.960	2.400	60.960	2.400
TT	30.328	1.194	30.328	1.194
	32.21 kgs/71 lbs		31.75 kgs/70 lbs	
	Estimated Shipping Weight of Vise Body Only			



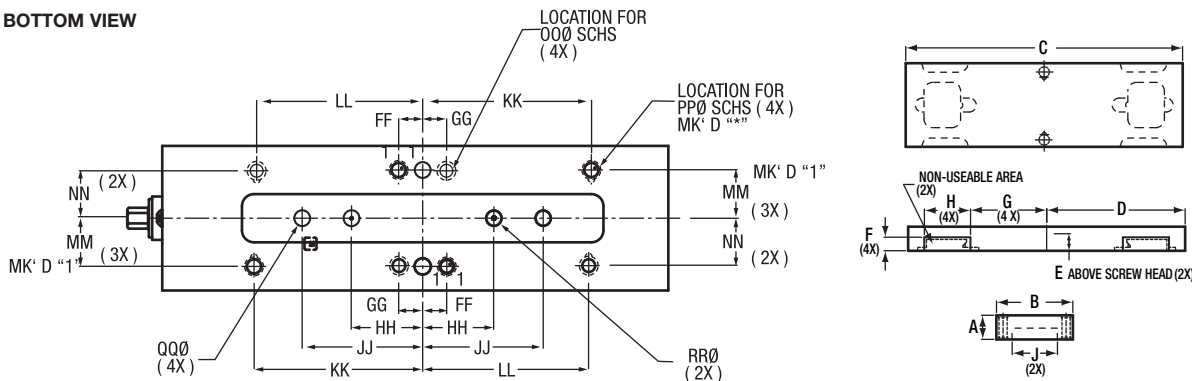
**TOP VIEW**



**SIDE VIEW**



**BOTTOM VIEW**



Aluminum Fixture Plate Accessory for HDLM Vise & CTHDLM Tower 6"		
HDL6ALP619		
	MM	Inch
A	48.260	1.900
B	152.400	6.000
C	508.000	20.000
D	254.000	10.000
E	30.988	1.220
F	24.613	0.969
G	138.938	5.470
H	84.125	3.312
J	82.550	3.250



# HD CARVLOCK<sup>®</sup> VISES

**Model:**  
**HDM6 Manual**  
**HDHM6 Hydraulic**

The HD CarvLock Vises are High-Density, Heavy-Duty systems, which are either manually or hydraulically actuated. They feature two clamping stations with machinable jaws. The overall vise is very compact, making possible maximum density workholding across the full range of today's machining centers. The HD Vise is equipped with quick change Anglock jaws in either aluminum or cast iron, depending on application requirements.



(shown with optional machinable aluminum jaws)

**Jaws for HD Vises are sold separately and available with the following options.**

- Machinable Aluminum Jaws
- Machinable Ductile Iron Jaws
- Aluminum Fixture Plate

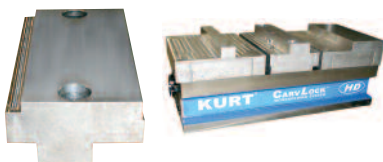
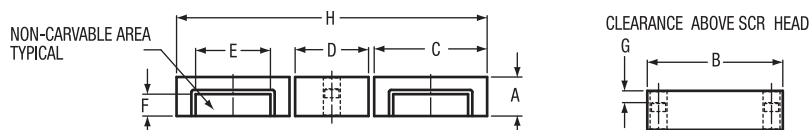
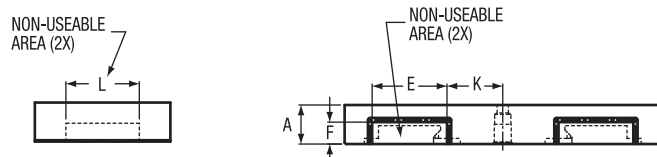
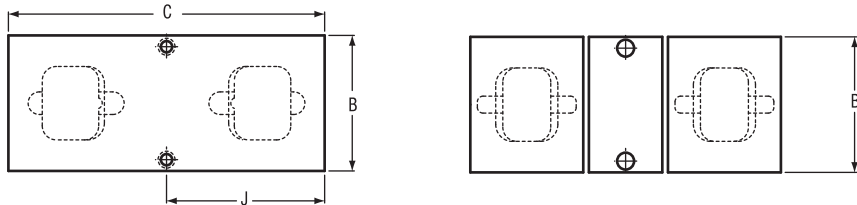
**Features:**

- Compact size - overall length of just 13.750" and overall width of only 6".
- Clamping power/accuracy - produces up to 7,800 lbs of clamping force with repeatable clamping to 0.0002".
- Durability - 80,000 PSI ductile iron vise body for rugged strength, rigidity and long-term accuracy while absorbing machining vibration.
- Enclosed vise body keeps out chips and contaminants - makes cleanup fast and easy.
- Fast, easy conversion from manual to hydraulic. Easy to switch between both styles. Part # HDHM6-3-SA-KIT.
- Jaws are indexable 180 degrees.
- Lifetime Iron Clad Warranty.

The HDM6 Manual and HDHM6 Hydraulic vise bodies have optional jaw systems which include a set of 7075 T-6 aluminum jaw blocks or a set of ductile iron jaw blocks (1.73" standard thickness, 2.40" optional thickness) or fixture plate. Screw and nut assemblies are reversible with the vise body. One jaw kit will handle two different parts.

Jaw Kit Dimensional Data for High Density 6" HD & HDL Vises								
	HD6AL Jaw Kit		HD6AL2.5 Jaw Kit		HD6C Jaw Kit		HD6ALP620-239 Fixture Plate	
	MM	Inch	MM	Inch	MM	Inch	MM	Inch
A	43.891	1.728	60.960	2.400	43.891	1.728	50.290	1.980
B	152.400	6.000	152.400	6.000	152.400	6.000	152.400	6.000
C	127.000	5.000	127.000	5.000	127.000	5.000	355.600	14.000
D	82.550	3.250	82.550	3.250	82.550	3.250	-	-
E	84.120	3.312	84.120	3.312	84.120	3.312	84.120	3.312
F	24.160	0.951	24.160	0.951	24.160	0.951	24.610	0.969
G	13.260	0.522	30.330	1.190	13.260	0.522	-	-
H	349.250	13.750	349.250	13.750	349.250	13.750	-	-
J	-	-	-	-	-	-	177.800	7.000
K	-	-	-	-	-	-	62.710	2.469
L	-	-	-	-	-	-	82.550	3.250
Est Ship Wt.Kgs/Lbs.	5.4	12	8.6	19	17.7	39	6.4	14

**Note: For threaded style stationary jaws, add an "M" after the "D" to the part number above.**



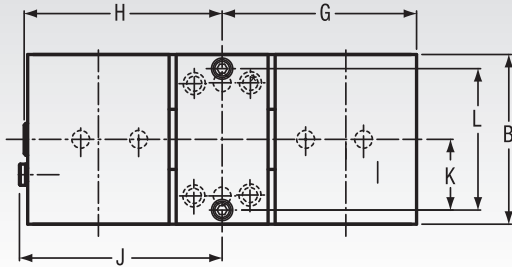
Photographs above show machined jaws on two sides. Photographs courtesy of Precise Products Corp.



# HD CARVLOCK® VISES

Clamping Force LBS.			
Torque-Ft. Lbs.	HDM6	Hydraulic PSI	HDHM6
10	883	500	875
20	1,684	1000	1,600
30	2,503	1500	2,330
40	3,187	2000	3,130
50	3,963	2500	3,950
60	4,837	3000	4,750
70	5,556	3500	5,475
		4000	6,350
		4500	7,100
		5000	7,800
		Hyd. Displacement 1.08 cubic inches	

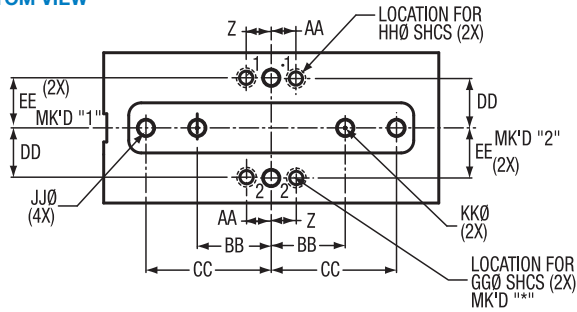
TOP VIEW



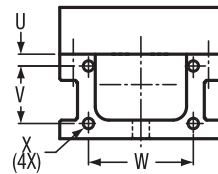
Dimensional Data High Density 6" HD Vise Manual & Hydraulic				
	HDM6		HDHM6	
	MM	Inch	MM	Inch
A	79.375	3.125	79.375	3.125
B	152.400	6.000	152.400	6.000
C	339.725	13.375	339.725	13.375
D	169.875	6.688	169.875	6.688
E	82.550	3.250	82.550	3.250
F	349.250	13.750	349.250	13.750
G	174.625	6.875	174.625	6.875
H	177.800	7.000	174.630	6.875
J	182.040	7.167	-	-
K	63.500	2.500	63.500	2.500
L	127.000	5.000	127.000	5.000
M	127.000	5.000	127.000	5.000
N	43.891	1.728	43.891	1.728
O	152.400	6.000	152.400	6.000
P	6.350	0.250	6.350	0.250
Q	84.120	3.312	84.120	3.312
R	24.610	0.969	24.610	0.969
S	13.260	0.522	13.260	0.522
T	15.875 INT. HEX	0.625 INT. HEX	7/16-20 UNF O-RING PORT	7/16-20 UNF O-RING PORT
U	11.125	0.438	11.125	0.438
V	53.975	2.125	53.975	2.125
W	98.425	3.875	98.425	3.875
X	M10 x 1.5	M10 x 1.5	M10 x 1.5	M10 x 1.5
Z	25.400	1.000	25.400	1.000
AA	25.000	0.984	25.000	0.984
BB	75.000	2.953	75.000	2.953
CC	127.000	5.000	127.000	5.000
DD	50.000	1.969	50.000	1.969
EE	50.800	2.000	50.800	2.000
GG	1/2	1/2	1/2	1/2
HH	M12	M12	M12	M12
JJ	15.875	0.625	15.875	0.625
KK	16.000	0.630	16.000	0.630
LL	77.770	3.062	82.550	3.250
MM	90.470	3.562	95.250	3.750
NN	23.830	0.938	23.830	0.938
OO	18.540	0.730	18.540	0.730
PP	30.630	1.206	30.630	1.206
QQ	331.770	13.062	336.550	13.250
RR	344.470	13.562	349.250	13.750
SS	60.960	2.400	60.960	2.400
TT	30.330	1.190	30.330	1.190
UU	-	-	3.180	0.125
VV	-	-	9.530	0.375

Estimated Shipping Weight of Vise Body Only 21.8 Kgs (48 lbs)

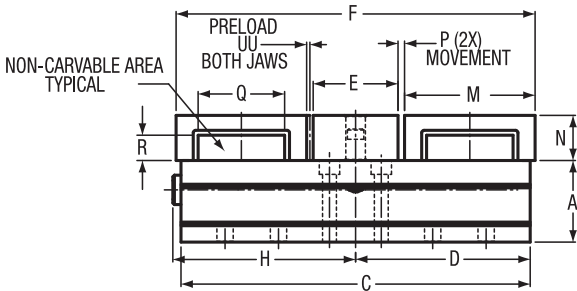
BOTTOM VIEW



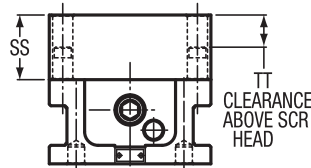
REAR VIEW



SIDE VIEW



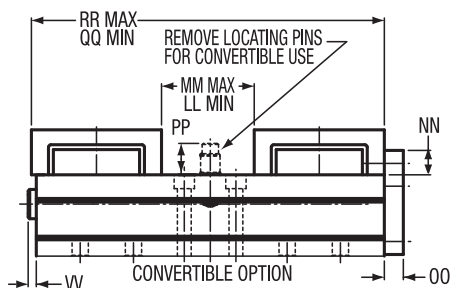
FRONT VIEW



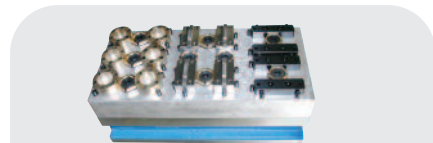
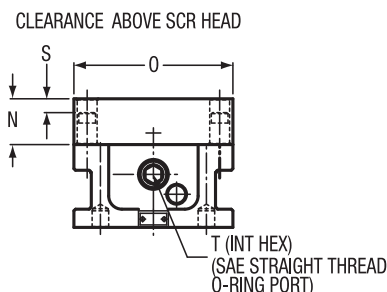
ACCESSORY JAW PLATE SHOWN WITH OPTIONAL 2.5 HEIGHT JAW

Convertible Kits for Optional Machinable Jaws - Part Number HDM6-CONVKIT

SIDE VIEW



FRONT VIEW



HD6ALP620-239 FIXTURE PLATE

Ultra high density loads of small parts can be accommodated in a single setup by mounting various off-the-shelf clamping modules to this fixture plate.

To utilize this system's components, the movable and stationary vise jaws are removed and the fixture plate is positioned and then clamped by normal actuation of the vise.



# HDL CARVLOCK® TOWERS (4 INCH)

**Models:**  
CTHDLM443  
CTHDLM444  
CTHDLM445

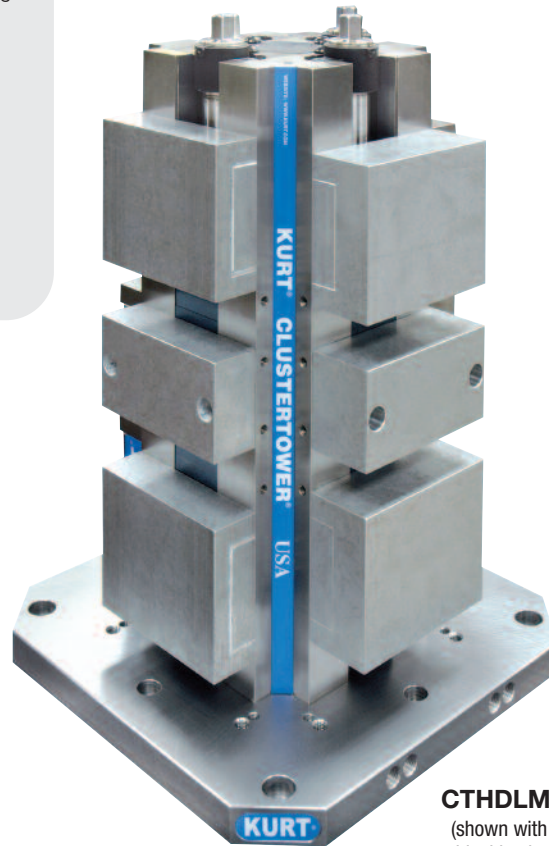
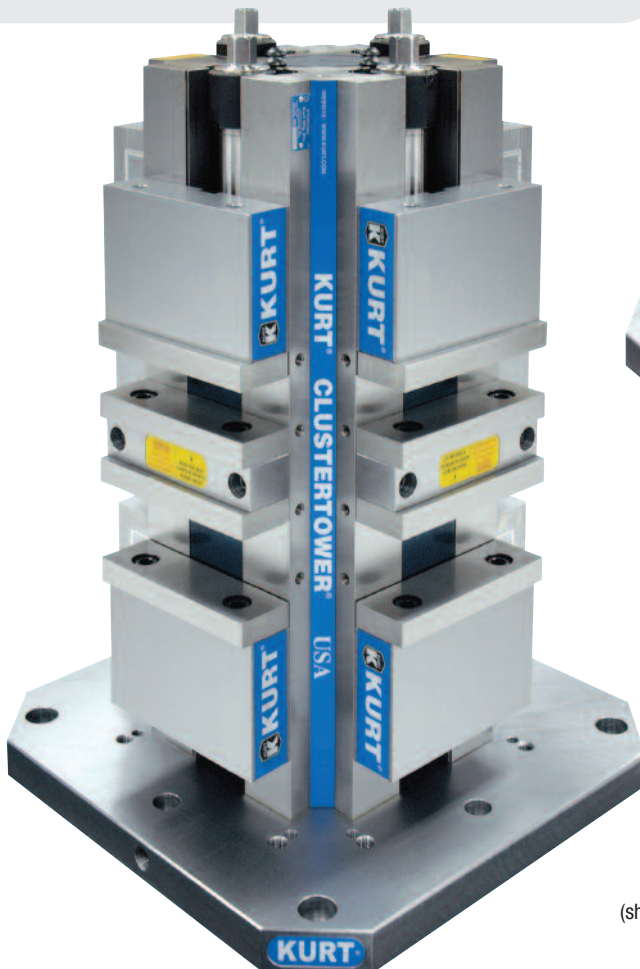
**NEW**

This manually operated, eight station HDL Cluster Tower system features a ductile iron integral vise tower. 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.

**Features:**

- High density vise tower system. Hold multiple parts in eight clamping stations. Increase part volume.
- Repeatable clamping to 0.0002". Each station delivers up to 5,870 lbs. of clamping force at 60 ft lbs of torque.
- Self-adjusting holding block of either front or back jaw for clamping the same or dissimilar sized parts. To further enhance fast operation, an adjustable pre-load feature reduces handle turns for opening and closing clamping stations.
- Ductile iron column insures strength, rigidity and long term accuracy.
- Jaw options available to fit your application. Select from Hard jaws, Machinable aluminum jaws, Machinable ductile Iron jaws.
- Jaws are indexable 180 degrees.
- Base sizes available include: 300mm, 400mm, 500mm.
- Elevated column makes clearing chips and contaminants fast and easy.
- Lifetime Iron Clad Warranty.

CLAMPING FORCE LBS.			
Torque-Ft. Lbs.	HDLM4	Hydraulic PSI	HDHLM4
10	1,040	1,000	775
20	2,125	1,500	1,450
30	3,140	2,000	1,900
40	4,040	2,500	2,550
50	4,980	3,000	3,100
60	5,870	3,500	3,700
		4,000	4,200
		4,500	4,800



**CTHDLM444AL**  
(shown with optional machinable aluminum jaws)

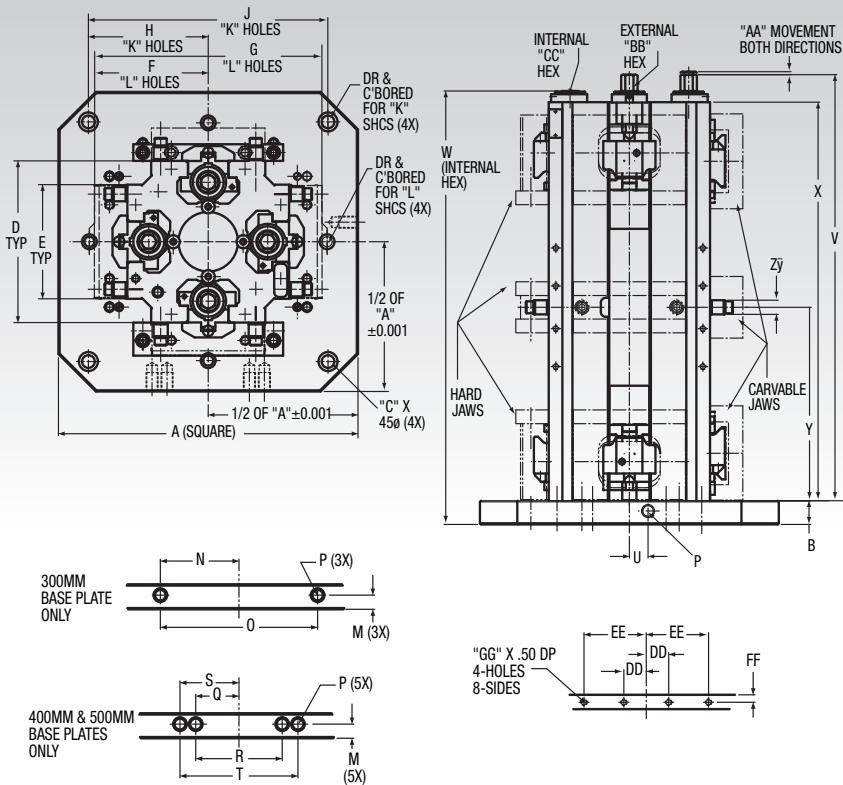
**CTHDLM444J**  
(shown with optional hard jaws)

*Jaws for HDL Towers are sold separately and available with the following options.*

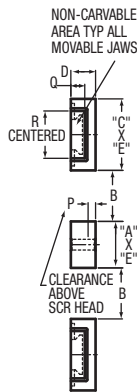
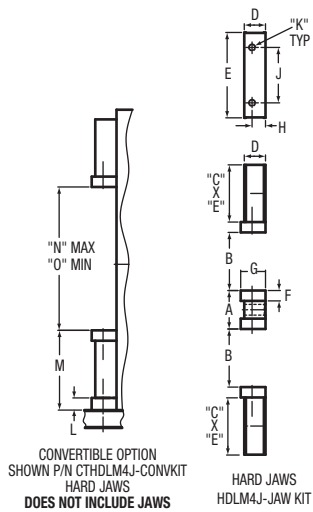
- Hard Jaws
- Machinable Aluminum Jaws
- Machinable Ductile Iron Jaws
- Aluminum Fixture Plate



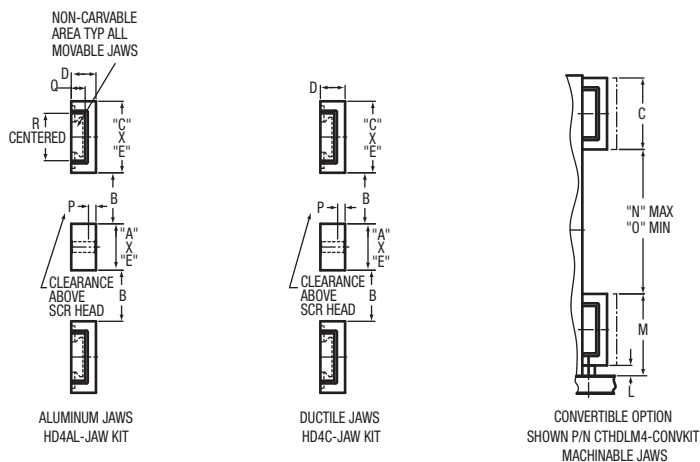
# HDL CARVLOCK® TOWERS (4 INCH)



Dimensional Data HDL Long Cluster Tower						
	CTHDL443		CTHDL444		CTHDL445	
	MM	Inch	MM	Inch	MM	Inch
A	300.000	11.811	400.000	15.748	500.000	19.685
B	25.400	1.000	31.750	1.250	31.750	1.250
C	20.000	0.790	50.000	1.970	60.000	2.360
D	158.750	6.250	158.750	6.250	158.750	6.250
E	101.600	4.000	101.600	4.000	101.600	4.000
F	-	-	158.750	6.250	203.200	8.000
G	-	-	317.500	12.500	406.400	16.000
H	127.000	5.000	160.000	6.299	200.000	7.874
J	254.000	10.000	320.000	12.598	400.000	15.748
K	M12 SHCS	1/2 SHCS	M16 SHCS	5/8 SHCS	M16 SHCS	5/8 SHCS
L	-	-	M12 SHCS	1/2 SHCS	M12 SHCS	1/2 SHCS
M	15.000	0.590	18.000	0.709	18.000	0.709
N	40.000	1.575	-	-	-	-
O	80.000	3.150	-	-	-	-
P	M12 x 1.75	-	M16 x 2.0	-	M16 x 2.0	-
Q	-	-	55.000	2.165	55.000	2.165
R	-	-	110.000	4.330	110.000	4.330
S	-	-	75.000	2.953	75.000	2.953
T	-	-	150.000	5.906	150.000	5.906
U	0.000	0.000	25.000	0.984	25.000	0.984
V	449.600	17.701	449.600	17.701	449.600	17.701
W	451.180	17.763	457.530	18.013	457.530	18.013
X	415.920	16.375	415.920	16.375	415.920	16.375
Y	200.030	7.875	200.030	7.875	200.030	7.875
Z	15.000	0.590	15.000	0.590	15.000	0.590
AA	3.050	0.120	3.050	0.120	3.050	0.120
BB	EXT HEX	EXT HEX	EXT HEX	EXT HEX	EXT HEX	EXT HEX
CC	INT HEX	INT HEX	INT HEX	INT HEX	INT HEX	INT HEX
DD	34.920	1.375	34.920	1.375	34.920	1.375
EE	65.100	2.563	65.100	2.563	65.100	2.563
FF	9.530	0.375	9.530	0.375	9.530	0.375
GG	M8 x 1.25	-	M8 x 1.25	-	M8 x 1.25	-



Jaw Accessories						
	HARD JAWS		ALUMINUM JAWS			
	HDL44J-Jaw Kit		HDL44AL-Jaw Kit	HDL44AL1.9-Jaw Kit		
	MM	Inch	MM	Inch	MM	Inch
A	59.538	2.344	63.500	2.500	63.500	2.500
B	76.200	3.000	66.675	2.625	66.675	2.625
C	73.812	2.906	101.600	4.000	101.600	4.000
D	28.321	1.115	35.560	1.400	48.260	1.900
E	101.600	4.000	101.600	4.000	101.600	4.000
F	13.894	0.547	-	-	-	-
G	31.369	1.235	-	-	-	-
H	17.450	0.687	-	-	-	-
J	63.500	2.500	-	-	-	-
K	M10 x 1.50	-	-	-	-	-
L	-	-	-	-	-	-
M	-	-	-	-	-	-
N	-	-	-	-	-	-
O	-	-	-	-	-	-
P	-	-	7.722	0.304	20.422	0.804
Q	-	-	20.625	0.812	20.625	0.812
R	-	-	65.075	2.562	65.075	2.562



Jaw Accessories Convertible Option						
	DUCTILE JAWS		HARD JAWS		CARVABLE JAWS	
	HDM4C-Jaw Kit		CTM4300-239		CTHDL443-338	
	MM	Inch	MM	Inch	MM	Inch
A	63.500	2.500	-	-	-	-
B	66.675	2.625	-	-	-	-
C	101.600	4.000	-	-	-	-
D	35.560	1.400	-	-	-	-
E	101.600	4.000	-	-	-	-
F	-	-	-	-	-	-
G	-	-	-	-	-	-
H	-	-	-	-	-	-
J	-	-	-	-	-	-
K	-	-	-	-	-	-
L	-	-	13.894	0.547	13.874	0.547
M	-	-	101.600	4.000	115.494	4.547
N	-	-	196.850	7.750	169.060	6.656
O	-	-	57.150	2.250	57.150	2.250
P	7.722	0.304	-	-	-	-
Q	20.625	0.812	-	-	-	-
R	65.075	2.562	-	-	-	-



# HDL CARVLOCK® TOWERS (6 INCH)

**Models:**

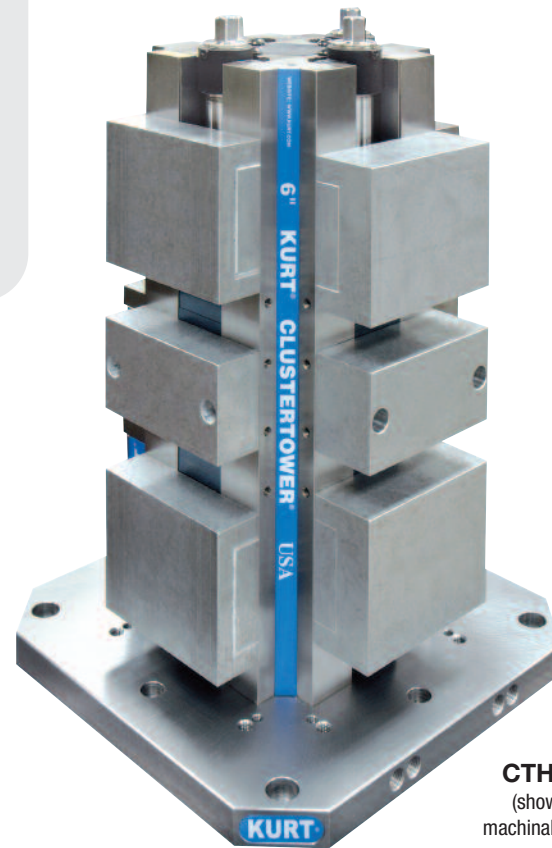
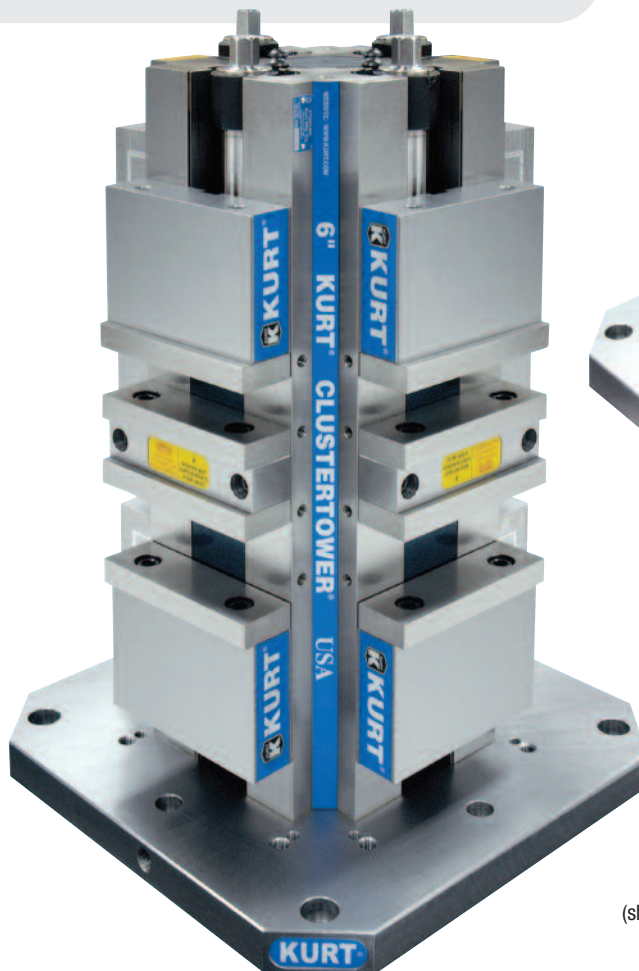
- CTHDLM644**
- CTHDLM645**
- CTHDLM646**

This manually operated, eight station HDL Cluster Tower system features a ductile iron integral vise tower. 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.

**Features:**

- High density vise tower system. Hold multiple parts in eight clamping stations. Increase part volume.
- Repeatable clamping to 0.0002". Each station delivers up to 7,460 lbs. of clamping force at 70 ft lbs of torque.
- Self-adjusting holding block of either front or back jaw for clamping the same or dissimilar sized parts. To further enhance fast operation, an adjustable pre-load feature reduces handle turns for opening and closing clamping stations.
- Ductile iron column insures strength, rigidity and long term accuracy.
- Jaw options available to fit your application. Select from Hard jaws, Machinable aluminum jaws, Machinable ductile Iron jaws and Aluminum fixture plate.
- Jaws are indexable 180 degrees.
- Base sizes available include: 400mm, 500mm, 630mm.
- Elevated column makes clearing chips and contaminants fast and easy.
- Lifetime Iron Clad Warranty.

CLAMPING FORCE LBS.			
Torque-Ft. Lbs.	HDLM6	Hydraulic PSI	HDHLM6
10	1,540	500	875
20	2,520	1000	1,600
30	3,350	1500	2,330
40	4,310	2000	3,130
50	5,750	2500	3,950
60	6,860	3000	4,750
70	7,460	3500	5,475
		4000	6,350
		4500	7,100
		Hyd. Displacement 1.08 cubic inches	



**CTHDLM644AL**  
(shown with optional machinable aluminum jaws)

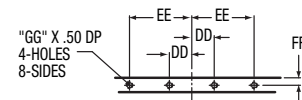
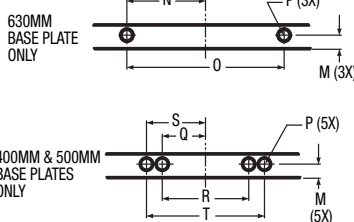
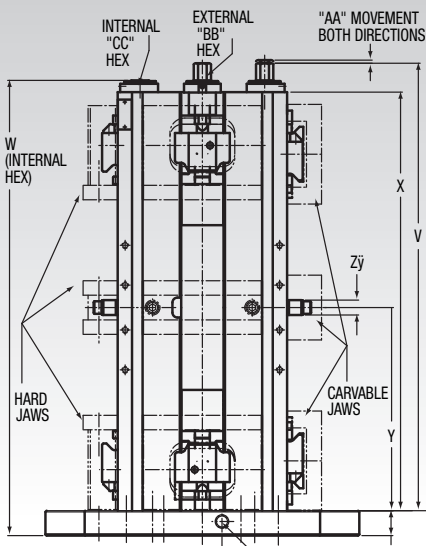
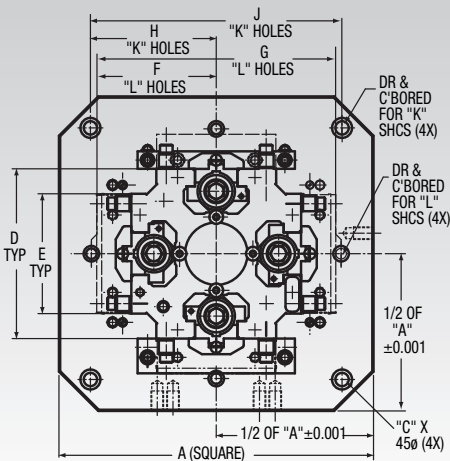
*Jaws for HDL Towers are sold separately and available with the following options.*

- Hard Jaws • Machinable Aluminum Jaws
- Machinable Ductile Iron Jaws
- Aluminum Fixture Plate

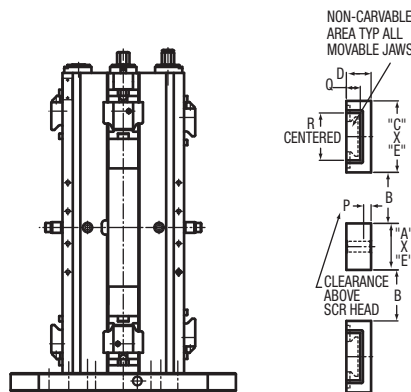
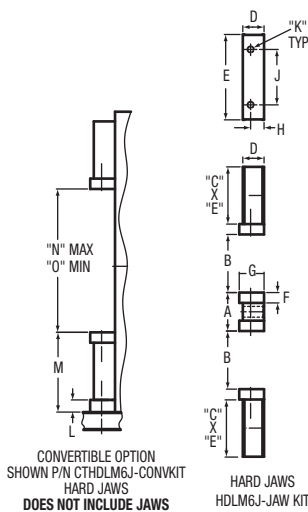
**CTHDLM644J**  
(shown with optional hard jaws)



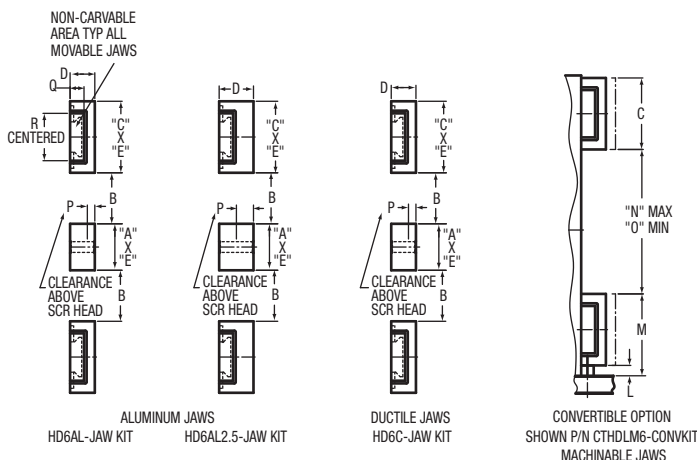
# HDL CARVLOCK® TOWERS (6 INCH)



Dimensional Data HDL Long Cluster Tower						
	CTHDLM644		CTHDLM645		CTHDLM646	
	MM	Inch	MM	Inch	MM	Inch
A	400.000	15.748	500.000	19.685	630.000	24.803
B	31.750	1.250	31.750	1.250	38.100	1.500
C	50.000	1.970	60.000	2.360	70.000	2.760
D	215.900	8.500	215.900	8.500	215.900	8.500
E	152.400	6.000	152.400	6.000	152.400	6.000
F	158.750	6.250	203.200	8.000	254.000	10.000
G	317.500	12.500	406.400	16.000	508.000	20.000
H	160.000	6.299	200.000	7.874	250.000	9.842
J	320.000	12.598	400.000	15.748	500.000	19.685
K	M16 SHCS	5/8 SHCS	M16 SHCS	5/8 SHCS	M16 SHCS	5/8 SHCS
L	M12 SHCS	1/2 SHCS	M12 SHCS	1/2 SHCS	M12 SHCS	1/2 SHCS
M	18.000	0.709	18.000	0.709	18.000	0.709
N	-	-	-	-	100.000	3.937
O	-	-	-	-	200.000	7.874
P	M16 x 2.0	-	M16 x 2.0	-	M16 x 2.0	-
Q	55.000	2.165	55.000	2.165	-	-
R	110.000	4.330	110.000	4.330	-	-
S	75.000	2.953	75.000	2.953	-	-
T	150.000	5.906	150.000	5.906	-	-
U	25.000	0.984	25.000	0.984	25.000	0.984
V	570.230	22.450	570.230	22.450	570.230	22.450
W	548.380	21.590	548.380	21.590	548.380	21.590
X	533.400	21.000	533.400	21.000	533.400	21.000
Y	258.880	10.192	258.880	10.192	258.880	10.192
Z	19.050	0.750	19.050	0.750	19.050	0.750
AA	3.960	0.156	3.960	0.156	3.960	0.156
BB	19.050	0.750	19.050	0.750	19.050	0.750
CC	15.875	0.625	15.875	0.625	15.875	0.625
DD	28.580	1.125	28.580	1.125	28.580	1.125
EE	79.380	3.125	79.380	3.125	79.380	3.125
FF	9.530	0.375	9.530	0.375	9.530	0.375
GG	M8 x 1.25	-	M8 x 1.25	-	M8 x 1.25	-



Jaw Accessories						
	HARD JAWS		ALUMINUM JAWS			
	MM	Inch	MM	Inch	MM	Inch
A	68.326	2.690	82.550	3.250	82.550	3.250
B	103.170	4.062	90.630	3.568	90.630	3.568
C	101.600	4.000	127.000	5.000	127.000	5.000
D	37.719	1.485	43.890	1.728	60.960	2.400
E	151.610	5.968	152.400	6.000	152.400	6.000
F	18.415	0.725	-	-	-	-
G	44.069	1.735	-	-	-	-
H	23.876	0.940	-	-	-	-
J	98.425	3.875	-	-	-	-
K	M12 x 1.75	-	-	-	-	-
L	-	-	-	-	-	-
M	-	-	-	-	-	-
N	-	-	-	-	-	-
O	-	-	-	-	-	-
P	-	-	13.260	0.522	30.330	1.194
Q	-	-	24.610	0.969	24.610	0.969
R	-	-	84.120	3.312	84.120	3.312



Jaw Accessories Convertible Option						
	DUCTILE JAWS		HARD JAWS		CARVABLE JAWS	
	MM	Inch	MM	Inch	MM	Inch
A	82.550	3.250	-	-	-	-
B	90.630	3.568	-	-	-	-
C	127.000	5.000	-	-	-	-
D	43.891	1.728	-	-	-	-
E	152.400	6.000	-	-	-	-
F	-	-	-	-	-	-
G	-	-	-	-	-	-
H	-	-	-	-	-	-
J	-	-	-	-	-	-
K	-	-	-	-	-	-
L	-	-	21.590	0.850	18.415	0.725
M	-	-	141.605	5.575	145.415	5.725
N	-	-	254.640	10.025	256.540	10.100
O	-	-	68.326	2.690	79.760	3.140
P	13.260	0.522	-	-	-	-
Q	24.610	0.969	-	-	-	-
R	84.120	3.312	-	-	-	-



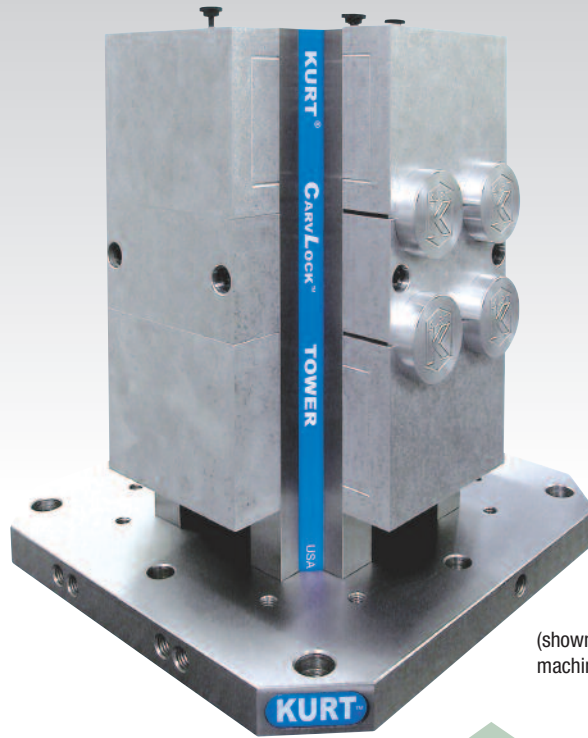
# HD CARVLOCK® TOWERS

**Model:**  
**CTHDM64**

This manually operated, eight station HD Cluster Tower system features a cast iron integral vise tower. Ideal for horizontal machining centers or vertical machining centers with indexable tables. This workholding system achieves workpiece immobility while damping cutter induced vibration.

**Features:**

- Most compact, high density vise tower system in the industry.
- Hold multiple parts in eight clamping stations. Increase part volume.
- Small footprint which reduces spindle travel, part to part, maximizing throughput without compromising holding accuracy.
- Ductile iron column insures strength, rigidity and long term accuracy.
- Jaw options available to fit your application. Select from Machinable aluminum jaws, Machinable ductile Iron jaws and Aluminum fixture plate.
- Jaws are indexable 180 degrees.
- Base sizes available include: 300mm, 400mm, 500mm, 630mm.
- Elevated column makes clearing chips and contaminants fast and easy.
- Can be converted to hydraulic actuation.
- Lifetime Iron Clad Warranty.



(shown with optional machinable aluminum jaws)

**Jaws for HD Towers are sold separately and available with the following options.**

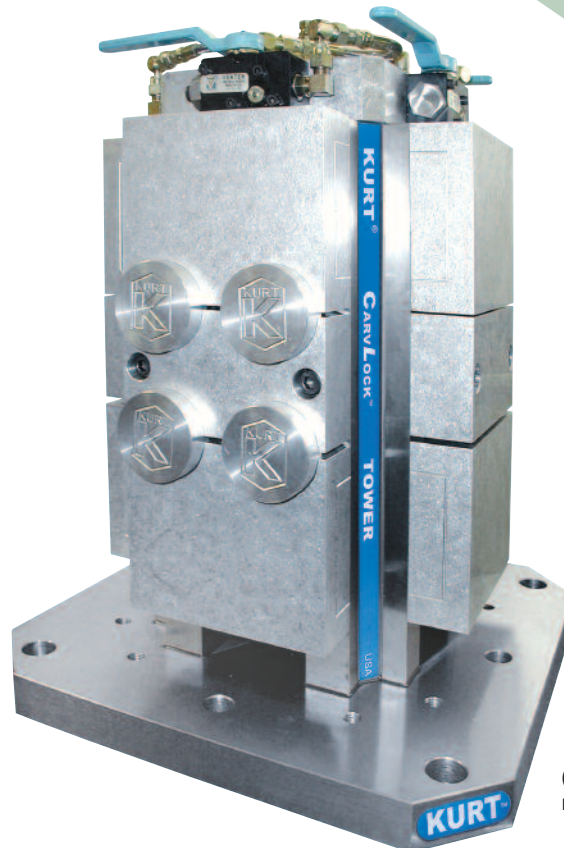
- Machinable Aluminum Jaws
- Machinable Ductile Iron Jaws
- Aluminum Fixture Plate

**Model:**  
**CTHDHM64**

Identical in capacity and features as the manual HD CarvLock Tower system, this system is actuated hydraulically. Hydraulic piston is an integral part of the vise nut within the vise and tower body to conserve valuable space on the machine table. This hydraulic version also shares all of the jaw options and other accessories which are available in the manual version. This hydraulic system has the added advantage of converting easily in minutes to manual operation by swapping out internal components. Hydraulic pump and hose not included.

**Features:**

- Up to 7,100 pounds of clamping force.
- Jaw options available to fit your application. Select from Machinable aluminum jaws, Machinable ductile Iron jaws and Aluminum fixture plate.
- Jaws are indexable 180 degrees.
- Elevated column makes clearing chips and contaminants fast and easy.
- Base sizes available include: 300mm, 400mm, 500mm, 630mm.
- Lifetime Iron Clad Warranty.



(shown with optional machinable aluminum jaws)

(See Page 18 for model CTHDHM64 Specifications)

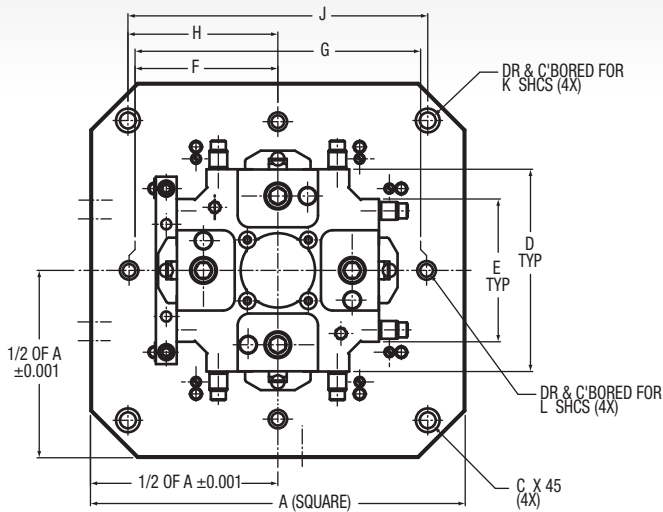


# HD CARVLOCK® TOWERS

**CTHDM64 Specifications**  
(See Page 18 for model CTHDHM64 Specifications)

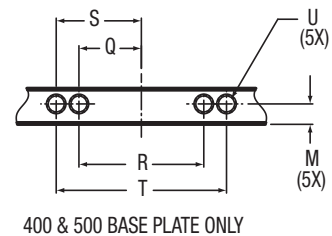
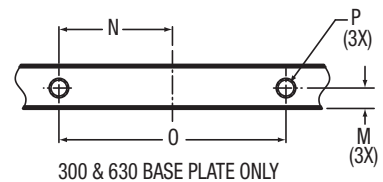
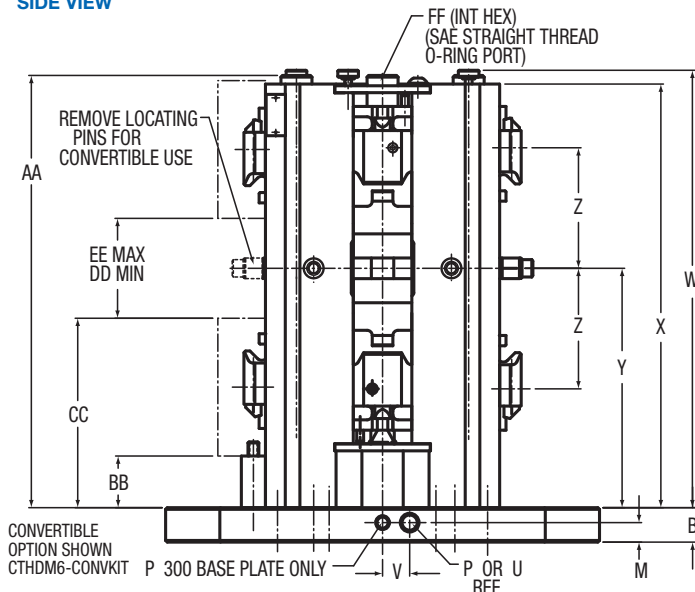
CLAMPING FORCE LBS.	
Torque-Ft. Lbs.	HDM6
10	883
20	1,684
30	2,503
40	3,187
50	3,963
60	4,837
70	5,556

**TOP VIEW**



	HD MANUAL TOWER DIMENSIONS							
	CTHDM643		CTHDM644		CTHDM645		CTHDM646	
	MM	Inch	MM	Inch	MM	Inch	MM	Inch
A	300.000	11.811	400.000	15.748	500.000	19.685	630.000	24.803
B	25.400	1.000	31.750	1.250	31.750	1.250	38.100	1.500
C	20.000	0.787	50.000	1.969	60.000	2.362	70.100	2.760
D	215.900	8.500	215.900	8.500	215.900	8.500	215.900	8.500
E	152.400	6.000	152.400	6.000	152.400	6.000	152.400	6.000
F	-	-	158.750	6.250	203.200	8.000	254.000	10.000
G	-	-	317.500	12.500	406.400	16.000	508.000	20.000
H	127.000	5.000	160.000	6.299	200.000	7.874	250.000	9.843
J	254.000	10.000	320.000	12.598	400.000	15.748	500.000	19.685
K	M12	M12	M16	M16	M16	M16	M16	M16
L	-	-	M12	M12	M12	M12	M12	M12
M	15.000	0.591	18.000	0.709	18.000	0.709	18.000	0.709
N	40.000	1.575	-	-	-	-	100.000	3.937
O	80.000	3.150	-	-	-	-	200.000	7.874
P	M12 x 1.75	M12 x 1.75	-	-	-	-	M16 x 2.0	M16 x 2.0
Q	-	-	55.000	2.165	55.000	2.165	-	-
R	-	-	110.000	4.331	110.000	4.331	-	-
S	-	-	75.000	2.953	75.000	2.953	-	-
T	-	-	150.000	5.906	150.000	5.906	-	-
U	-	-	M16 x 2.0	M16 x 2.0	M16 x 2.0	M16 x 2.0	-	-
V	-	-	25.000	0.984	25.000	0.984	25.000	0.984
W	403.230	15.875	403.230	15.875	403.230	15.875	403.230	15.875
X	390.520	15.375	390.520	15.375	390.520	15.375	390.520	15.375
Y	220.680	8.688	220.680	8.688	220.680	8.688	220.680	8.688
Z	111.130	4.375	111.130	4.375	111.130	4.375	111.130	4.375
AA	398.480	15.688	398.480	15.688	398.480	15.688	398.480	15.688
BB	47.625	1.875	47.625	1.875	47.625	1.875	47.625	1.875
CC	174.625	6.875	174.625	6.875	174.625	6.875	174.625	6.875
DD	82.550	3.250	82.550	3.250	82.550	3.250	82.550	3.250
EE	92.080	3.625	92.080	3.625	92.080	3.625	92.080	3.625
FF	15.875 INT. HEX	0.625 INT. HEX	15.875 INT. HEX	0.625 INT. HEX	15.875 INT. HEX	0.625 INT. HEX	15.875 INT. HEX	0.625 INT. HEX
Approx. Ship weight Kgs/Lbs with jaw sets	139.7	308	161.0	355	183.7	405	239.5	528

**SIDE VIEW**





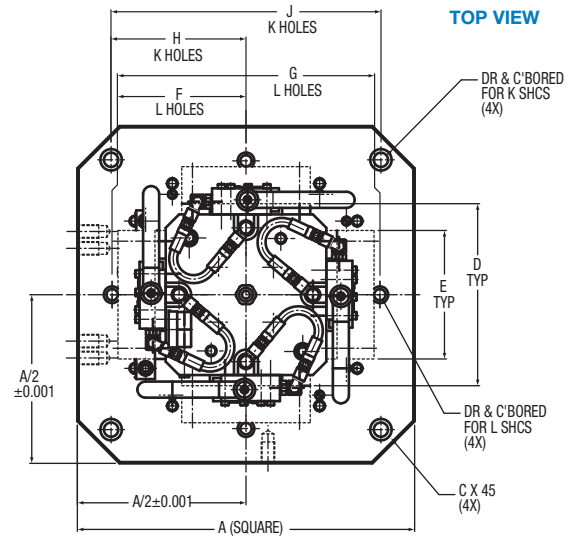
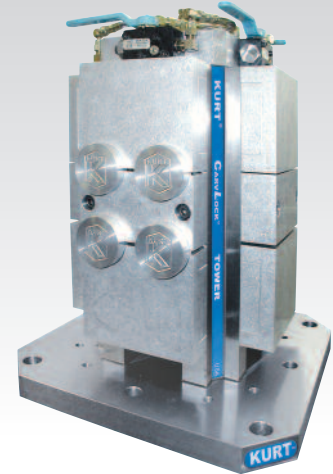
HYDRAULIC

# HD CARVLOCK® TOWERS

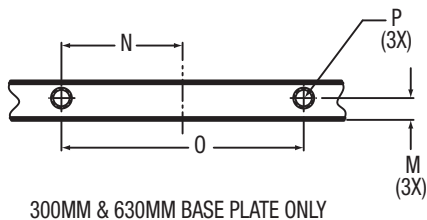
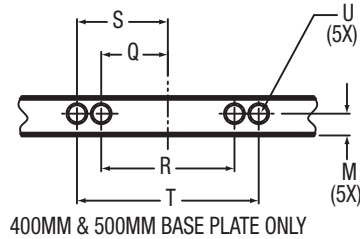
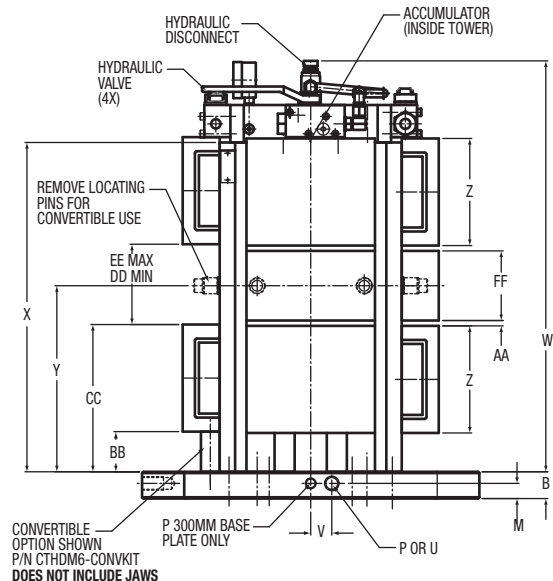
## CTHDM64 Specifications

HD HYDRAULIC TOWER DIMENSIONS								
	CTHDM643		CTHDM644		CTHDM645		CTHDM646	
	MM	Inch	MM	Inch	MM	Inch	MM	Inch
A	300.000	11.811	400.000	15.748	500.000	19.685	630.000	24.803
B	25.400	1.000	31.750	1.250	31.750	1.250	38.100	1.500
C	20.000	0.787	50.000	1.969	60.000	2.362	70.100	2.760
D	215.900	8.500	215.900	8.500	215.900	8.500	215.900	8.500
E	152.400	6.000	152.400	6.000	152.400	6.000	152.400	6.000
F	-	-	158.750	6.250	203.200	8.000	254.000	10.000
G	-	-	317.500	12.500	406.400	16.000	508.000	20.000
H	127.000	5.000	160.000	6.299	200.000	7.874	250.000	9.843
J	254.000	10.000	320.000	12.598	400.000	15.748	500.000	19.685
K	M12	M12	M16	M16	M16	M16	M16	M16
L	-	-	M12	M12	M12	M12	M12	M12
M	15.000	0.591	18.000	0.709	18.000	0.709	18.000	0.709
N	40.000	1.575	-	-	-	-	100.000	3.937
O	80.000	3.150	-	-	-	-	200.000	7.874
P	M12 x 1.75	M12 x 1.75	-	-	-	-	M16 x 2.0	M16 x 2.0
Q	-	-	55.000	2.165	55.000	2.165	-	-
R	-	-	110.000	4.331	110.000	4.331	-	-
S	-	-	75.000	2.953	75.000	2.953	-	-
T	-	-	150.000	5.906	150.000	5.906	-	-
U	-	-	M16 x 2.0	M16 x 2.0	M16 x 2.0	M16 x 2.0	-	-
V	-	-	25.000	0.984	25.000	0.984	25.000	0.984
W	487.170	19.180	487.170	19.180	487.170	19.180	487.170	19.180
X	390.520	15.375	390.520	15.375	390.520	15.375	390.520	15.375
Y	220.680	8.688	220.680	8.688	220.680	8.688	220.680	8.688
Z	127.000	5.000	127.000	5.000	127.000	5.000	127.000	5.000
AA	6.350	0.250	6.350	0.250	6.350	0.250	6.350	0.250
BB	47.625	1.875	47.625	1.875	47.625	1.875	47.625	1.875
CC	174.625	6.875	174.625	6.875	174.625	6.875	174.625	6.875
DD	82.550	3.250	82.550	3.250	82.550	3.250	82.550	3.250
EE	95.250	3.750	95.250	3.750	95.250	3.750	95.250	3.750
FF	82.550	3.250	82.550	3.250	82.550	3.250	82.550	3.250
Approx. Ship weight Kgs/Lbs with jaw sets	148.8	328	170.1	375	192.8	425	248.6	548

CLAMPING FORCE LBS.	
Hydraulic PSI	HDHM6
500	875
1000	1600
1500	2330
2000	3130
2500	3950
3000	4750
3500	5475
4000	6350
4500	7100
5000	7800
Hyd. Displacement cu. in.	1.08



### SIDE VIEW





# HD/HDL VISE

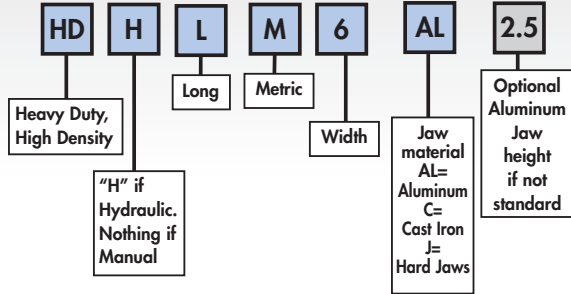
HDLM6J (Manual 6" vise with hard jaws.)  
HDLHM6AL2.5 (Hydraulic vise with optional height aluminum jaws.)



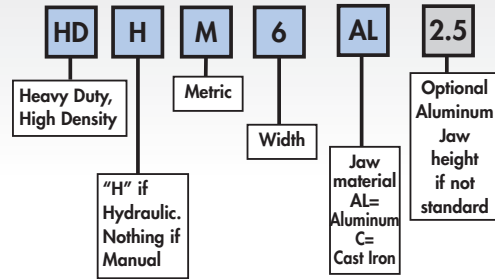
HDM6AL (Manual 6" vise with standard aluminum jaws.)  
HDDHM6AL2.5 (Hydraulic vise with optional height aluminum jaws.)



### HDL Double Station Vise Examples:



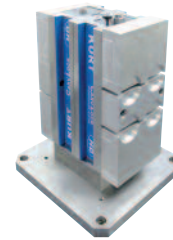
### HD Double Station Vise Examples:



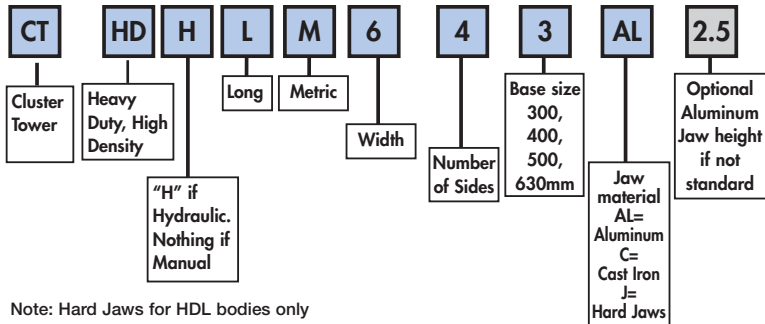
CTHDM643AL (Manual 6" tower with 4 sides, 300mm base with standard height aluminum jaws.)  
CTHDDHM645AL2.5 (Hydraulic 6" tower with 4 sides, 500mm base with optional height aluminum jaws.)



THDM63AL (Manual 6" back-to-back vise, 300mm base with standard height aluminum jaws.)  
THDDHM66AL2.5 (Hydraulic 6" back-to-back vise, 630mm base with optional height aluminum jaws.)

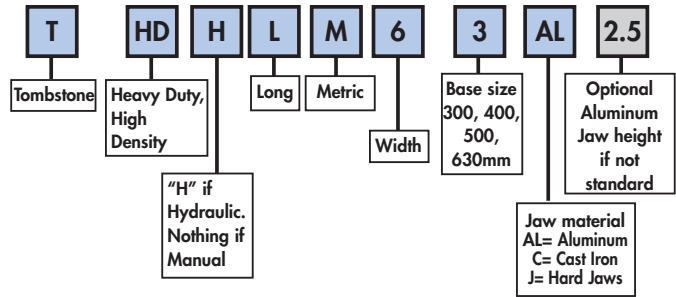


### HD and HDL ClusterTower Examples:



Note: Hard Jaws for HDL bodies only

### HD Back-To-Back Vises Examples:



**Back-to-back mounting option.**  
HD vises mount easily back-to-back, providing a new way to achieve a multiple clamping station tower. Contact factory for details. Estimated shipping weight: 88.9Kgs/196Lbs

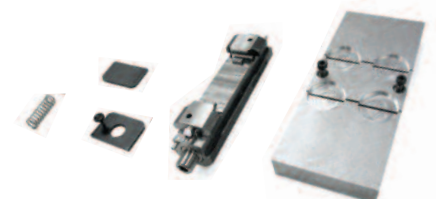


### Fixture Plate (HD6ALP620-239) For HD Short Body

Ultra high density loads of small parts can be accommodated in a single setup by mounting various off-the-shelf clamping modules to this fixture plate.

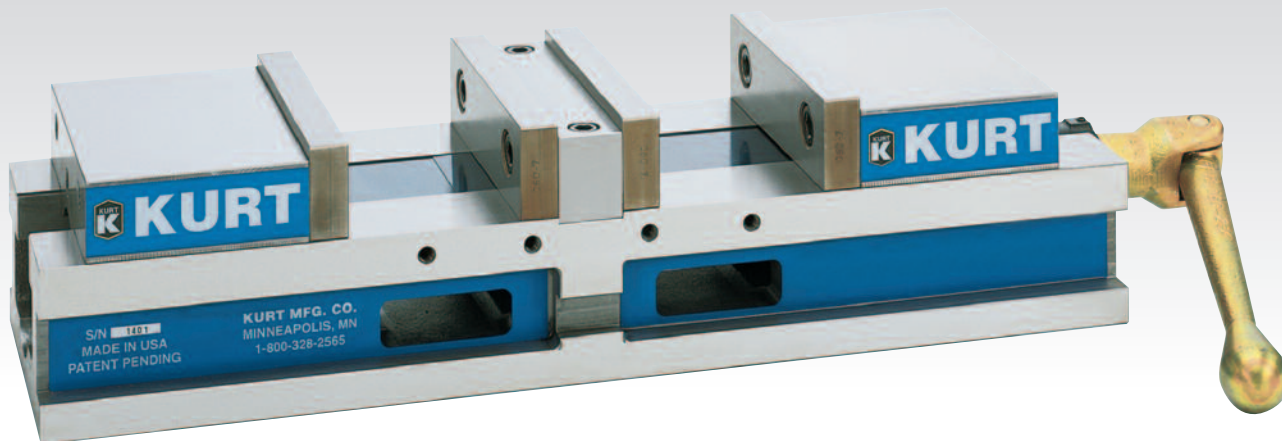
To utilize this system's components, the movable and stationary vise jaws are removed and the fixture plate is positioned and then clamped by normal actuation of the vise.

**HD Vise design utilizes fewer working components. Faster changeovers. Fewer problems.**





Models:  
DL430®  
DL800

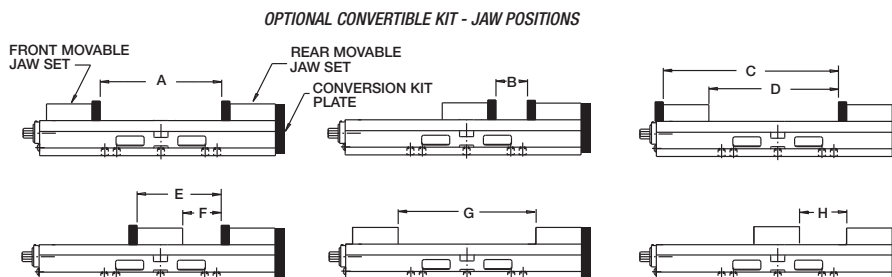


OPTIONAL CONVERTIBLE KIT - JAW OPENING POSITIONS									
	A	B	C	D	E	F	G	H	Ship Wt. Lbs
DLC430 - KIT	8.094	2.094	11.370	8.640	5.731	2.641	9.188	3.188	2
DLC800 - KIT	16.000	12.000	23.000	17.000	19.000	13.000	18.000	14.000	20

The DL430 and DL800 DoubleLock vises offer cost saving productivity by maximizing the number of parts in the work envelope.

#### Features:

- Large Capacity
  - DL430 4" wide x 3" opening each station.
  - DL800 8" wide x 6" opening each station.
- Productivity – multiple part workholding for better spindle utilization, reduced tool change time, and reduced machine travel from part to part.
- Accuracy – repeatable clamping to 0.0002".
- Durability – 80,000-PSI ductile iron body and steel components provide strength, rigidity and long term accuracy while absorbing machining vibration.
- Self-adjusting holding block over the entire clamping range.
- Metric version available.
- Optional internal hex screw available.
- Pre-load is adjustable from 0.010" to 0.150".
- New holding back features the ability to clamp dissimilar sized parts and provides preloading ability in the front or back jaw.



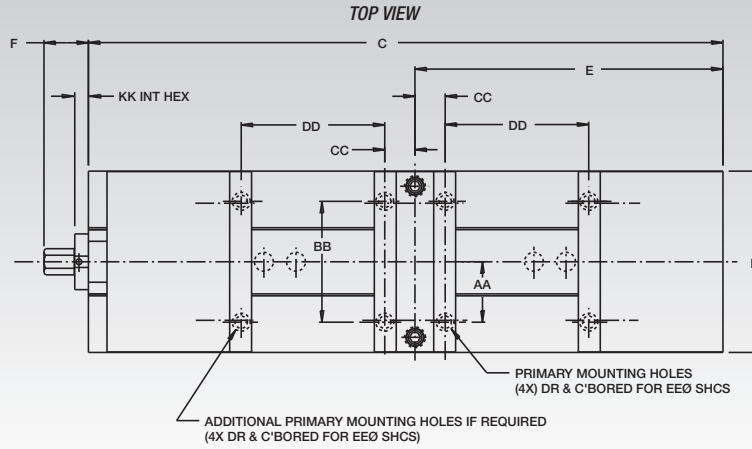
Shown with optional convertible kit.

Use your DoubleLock vise to it's full capacity with the DoubleLock convertible kit. The kit is available for the DL430 and DL800 vises.

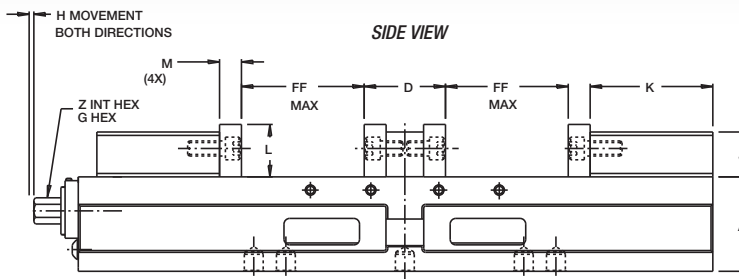
#### Repair Kits

MODEL	REPAIR KIT	
DL430	*DL430-KIT	For All Serial Numbers
DL640	*DL640-KIT1	Vise Serial # 1000-3734
DL640	*DL640-KIT2	Vise Serial # 3735-4999
DL640	*DL640-KIT3	Vise Serial # 5001

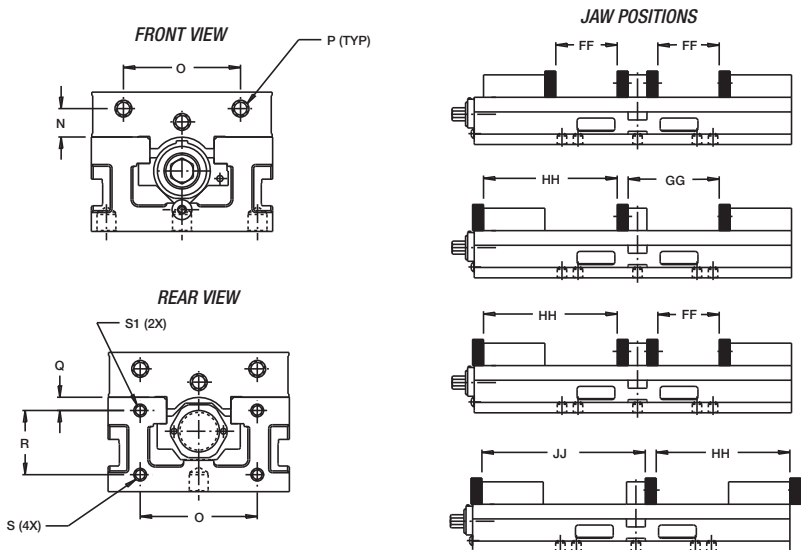
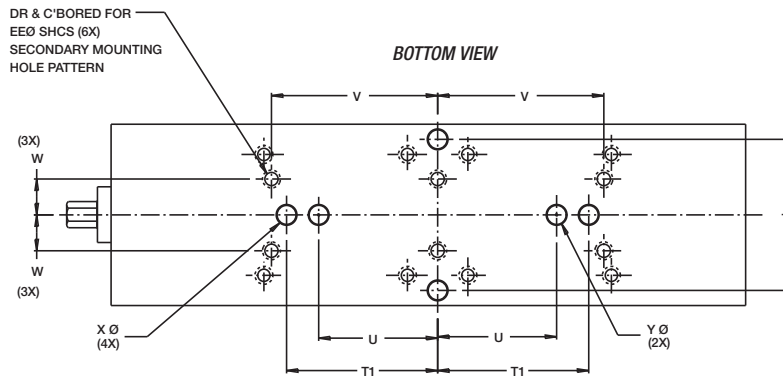
\*= Same as Metric Vise



VISE CLAMPING FORCE-LBS		
Manual torque Ft. -lbs.	DL430	DL800
10	1046	-
20	1980	2023
30	2832	-
40	3740	3578
50	4523	-
60	-	5136
70	-	-
80	-	6883
100	-	8997



DIMENSIONAL DATA		
	DL430	DL800
A	2.375	3.750
B	4.000	8.060
C	16.125	30.000
D	2.094	4.000
E	7.750	15.000
F	1.340	4.250
G	5/8	7/8
H	0.120	0.190
J	1.115	1.965
K	3.090	6.000
L	1.235	2.200
M	0.547	1.075
N	0.687	1.220
O	2.500	4.750
P	3/8-16	5/8-11
Q	0.375	0.750
R	1.688	2.375
S	5/16-18	1/2-13
S1	-	5/8-11
T	3.000	7.000
T1	5.000	7.000
U	3.937	-
V	3.750	8.000
W	0.813	3.625
X	0.625	0.750
Y	0.6299	-
Z	7/16	-
AA	1.500	2.500
BB	3.000	5.000
CC	0.781	1.000
DD	3.625	7.500
EE	5/16	1/2
FF	3.000	6.000
GG	4.547	8.925
HH	6.637	13.075
JJ	8.184	16.000
KK	0.400	-
Ship wt	45	250



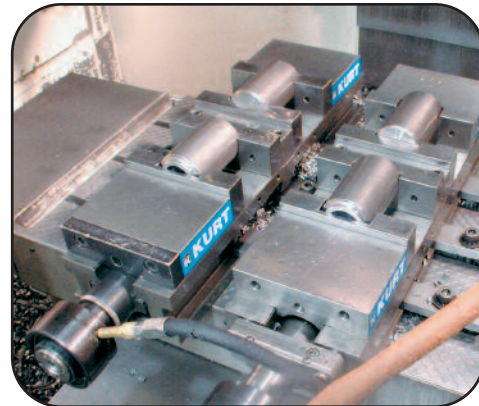
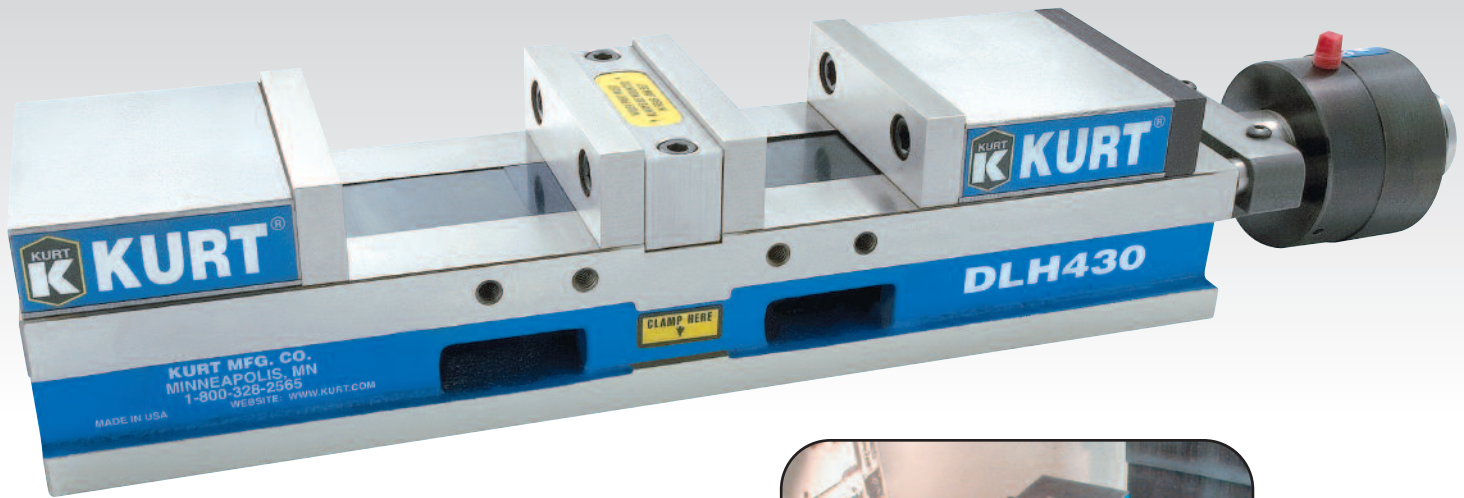




HYDRAULIC

# DOUBLELOCK® VISES

Models:  
DLH430  
DLH800

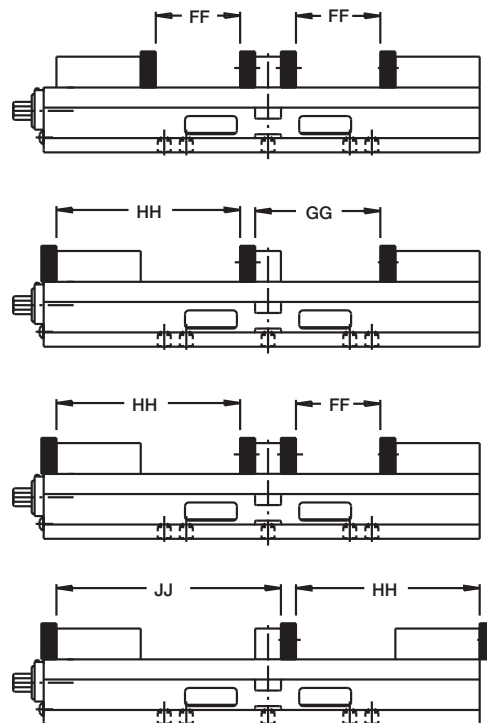


The DLH430 and DLH800 hydraulic DoubleLock vises from Kurt offer two clamping stations with a part capacity of 3" x 4" (DLH430) and 6" x 8" (DLH800). The hydraulic DoubleLock vise provides repeatable clamping (0.002") for high accuracy machining and handles a higher horsepower cut than the manual version. The compact design features a wide range of clamping forces up to 12,600 lbs. 1/4" stroke - 1/8" per side.

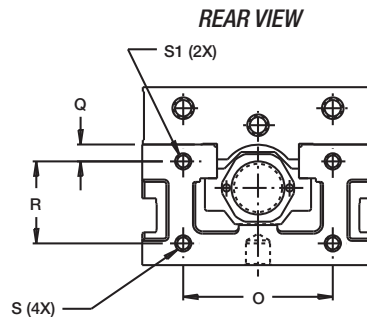
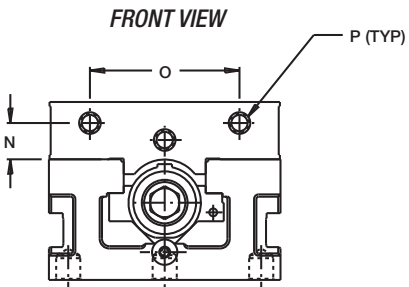
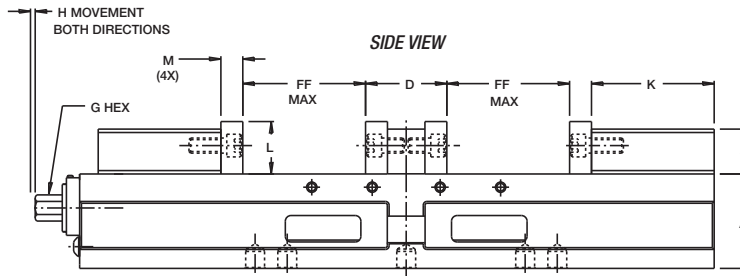
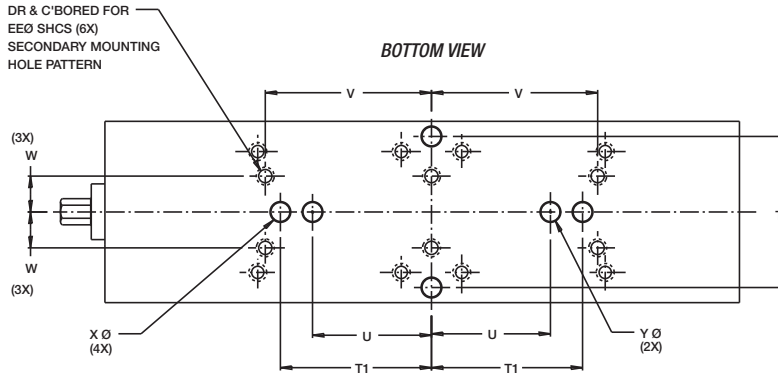
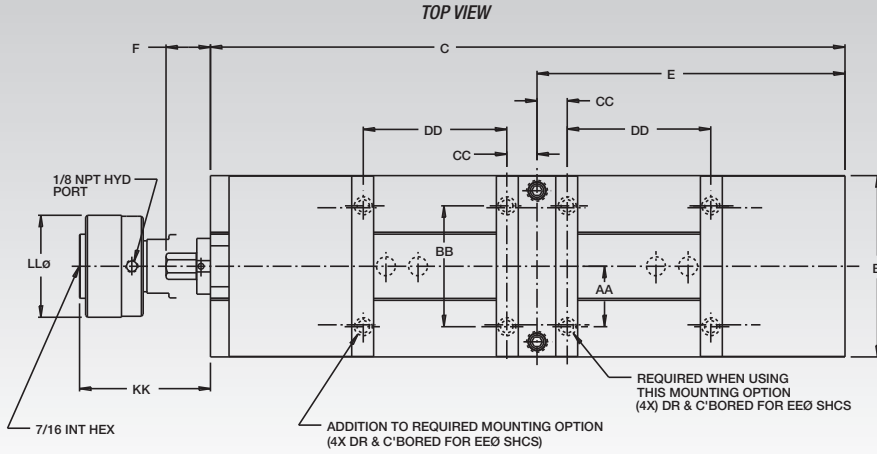
- Productivity – multiple part workholding for better spindle utilization, reduced tool change time, and reduced machine travel from part to part.
- Durability – 80,000-PSI ductile iron body and steel components provide strength, rigidity and long term accuracy while absorbing machining vibration.

Intensifier, APD50-112, available in either hand (APD50-112-Hand) or foot (APD50-112-Foot) option. Purchase separately for the DLH430. Each vise must have it's own intensifier. Consult factory for the DLH800 model.

### JAW POSITIONS



# DOUBLELOCK® VISES



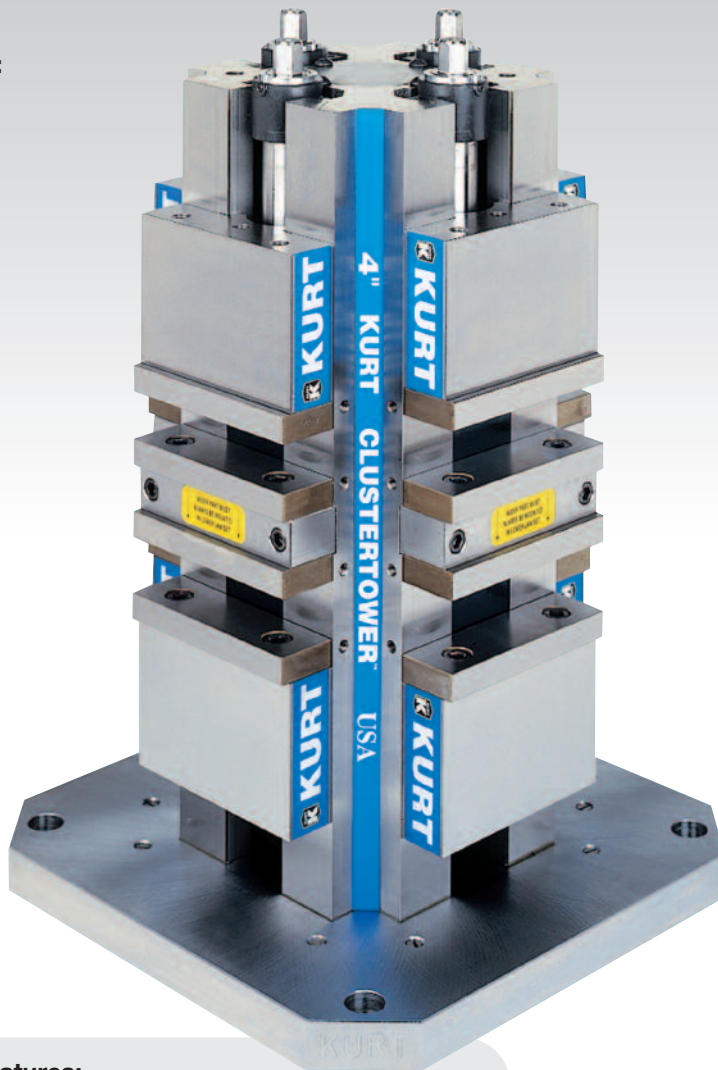
VISE CLAMPING FORCE-LBS.		
Hydraulic PSI Max.	DLH430	DLH800
400	1310	1575
800	2600	3150
1200	3900	4725
1600	5200	6300
2000	6550	7875
2400	7850	9450

DIMENSIONAL DATA		
	DLH430	DLH800
A	2.375	3.750
B	4.000	8.060
C	15.812	30.000
D	2.094	4.000
E	7.750	15.000
F	-	-
G	-	-
H	0.160	0.190
J	1.115	1.965
K	3.090	6.000
L	1.235	2.200
M	0.547	1.075
N	0.687	1.220
O	2.500	4.750
P	3/8-16	5/8-11
Q	0.375	0.750
R	1.688	2.375
S	5/16-18	1/2-13
S1	-	5/8-11
T	3.000	7.000
T1	5.000	7.000
U	3.397	-
V	3.750	8.000
W	0.813	3.625
X	0.625	0.750
Y	0.6299	-
AA	1.500	2.500
BB	3.000	5.000
CC	0.781	1.000
DD	3.625	7.500
EE	5/16	1/2
FF	3.000	6.000
GG	4.547	8.925
HH	6.637	13.075
JJ	8.184	16.000
KK	5.150	6.240
LL	2.938	3.375
Ship wt	50	360
Hyd Displacement cu. in.	1.47	2.36



# CLUSTERTOWER®

Models:  
CT4300  
CT4400  
CT4500



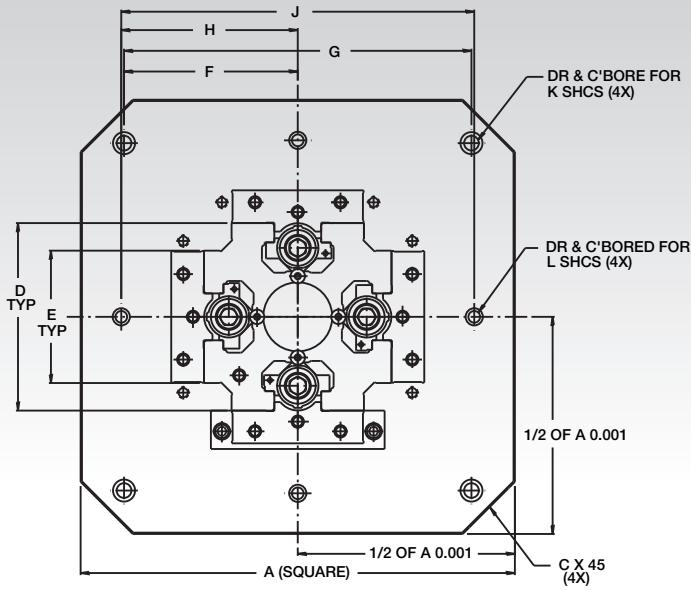
## Features:

- Cast iron integral vise tower - highly rigid to achieve workpiece immobility and to dampen cutter induced vibration.
- Repeatable clamping to 0.0002".
- Clutch design - automatically returns to correct position - no timing problems EVER!
- Holding block - now "internalized" resulting in 10% overall height reduction. Optional internal hex further shortens overall height.
- Pre-load adjustment is standard.
- Chip guard system - center clamping area is fully covered 100% of the time.
- Famous AngLock® design - minimizes movable jaw lift.
- 3" X 4" maximum part capacity in eight clamping stations (4" Tower).
- Opens to 7.55" in single station 4" conversion model.  
(CT430-Kit) - (2 lbs.) 1 Kit/Face Required.
- Three standard base sizes.  
Custom bases also available.
- Optional internal hex available.

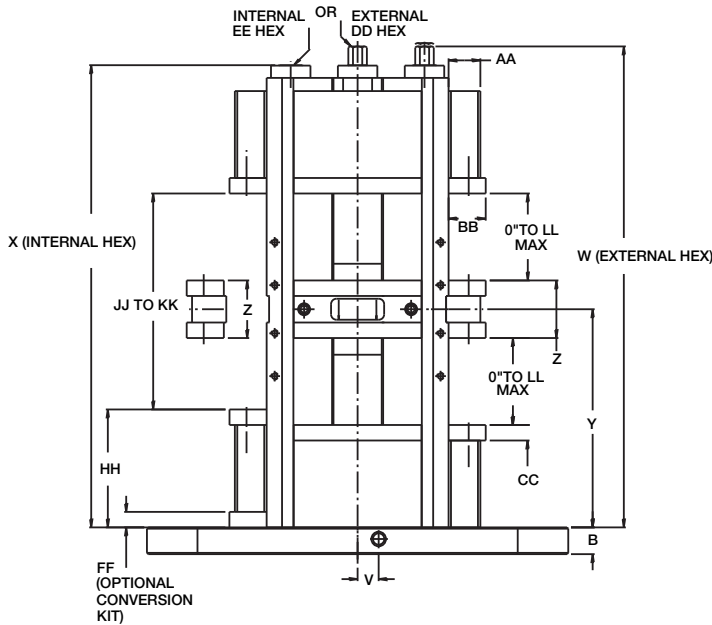


# CLUSTERTOWER®

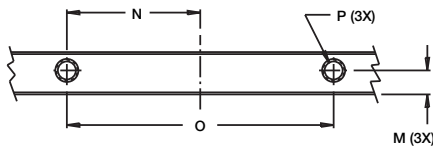
TOP VIEW



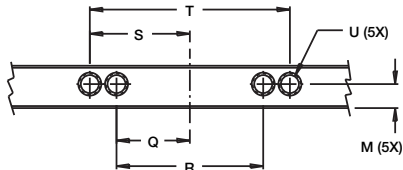
SIDE VIEW



300 BASE PLATE ONLY



400 & 500 BASE PLATE ONLY



WISE CLAMPING FORCE-LBS.

Torque-Ft. Lbs	CT4300	CT4400	CT4500
10	1046	1046	1046
20	1980	1980	1980
30	2832	2832	2932
40	3740	3740	3740
50	4523	4523	4523

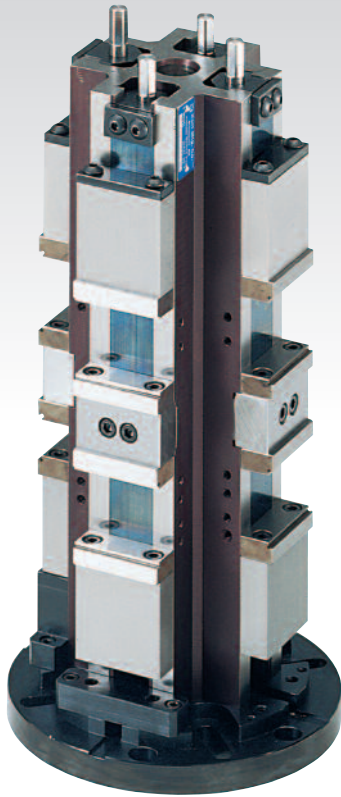
DIMENSIONAL DATA

	CT4300	CT4400	CT4500
A	300MM	400MM	500MM
B	1.000	1.250	1.250
C	0.790	1.970	2.360
D	6.250	6.250	6.250
E	4.000	4.000	4.000
F	5.000	6.299	7.871
G	10.000	12.598	15.748
H	-	6.250	8.000
J	-	12.500	16.000
K	1/2	5/8	5/8
L	-	1/2	1/2
M	0.590	0.708	0.708
N	1.575	-	-
O	3.150	-	-
P	1/2-13	-	-
Q	-	2.165	2.165
R	-	4.330	4.330
S	-	2.953	2.953
T	-	5.906	5.906
U	-	5/8-11	5/8-11
V	-	0.984	0.984
W	17.468 0.120 Movement	17.468 0.120 Movement	17.468 0.120 Movement
X	16.531	16.531	16.531
Y	7.750	7.750	7.750
Z	2.094	2.094	2.094
AA	1.115	1.115	1.115
BB	1.235	1.235	1.235
CC	0.547	0.547	0.547
DD	9/16	9/16	9/16
EE	7/16	7/16	7/16
FF	0.547	0.547	0.547
HH	4.184	4.184	4.184
JJ	2.090	2.090	2.090
KK	7.550	7.550	7.550
LL	3.000	3.000	3.000
Est Ship Wt. Lbs.	350	395	515



# CLUSTERTOWER®

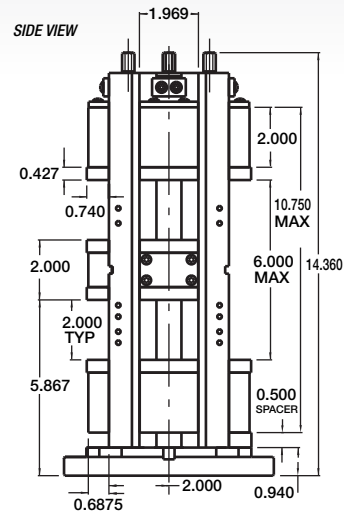
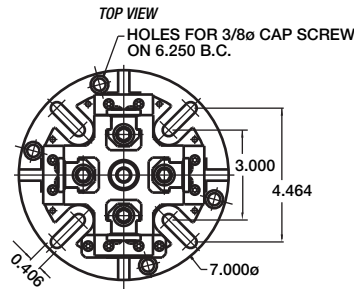
Model:  
CT2DC4B



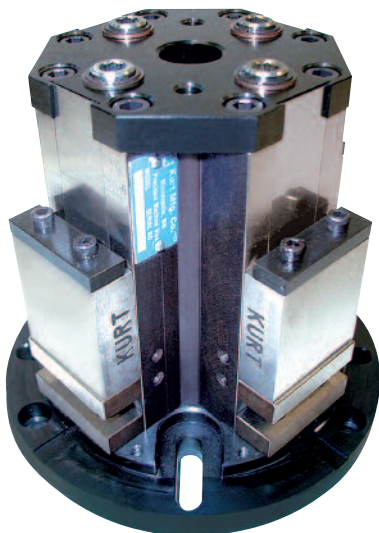
**Features:**

- Made from ductile iron and steel, a stiffness of 2.5 times aluminum is achieved. Vibration damping of ductile iron is 20 times higher than aluminum. Includes hardened bed and jaws.
- Four double vises with 50mm (1.968") wide jaw and 50mm (2") opening.
- Pilot (0.8768") in both ends. Four and six bolt mounting hole pattern fits all indexers. Has 60° center in outboard end.
- Convertible to single station large opening vise. Conversion kit included.
- Options include machinable jaws, tail support, workstops.
- Chip guards included.
- 45 lbs.

CT2DC4B CLUSTER TOWER DOUBLE MANUAL VISE CLAMPING FORCE	
Torque- Ft. Lbs.	lbs.
9	1000
14	1500
19	2000
25	3000
Maximum Force	3000



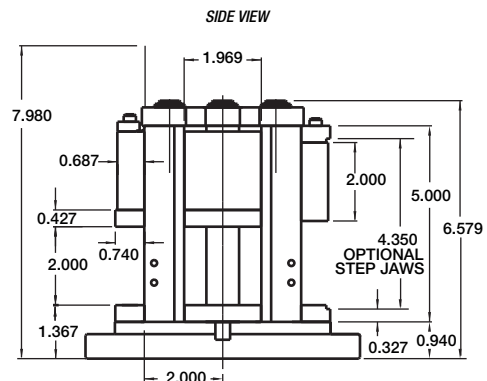
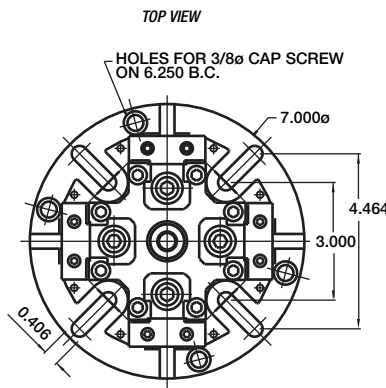
Model:  
CT2SH4A



**Features:**

- Made from ductile iron and steel, a stiffness of 2.5 times aluminum is achieved. Vibration damping of ductile iron is 20 times higher than aluminum. Includes hardened bed and jaws.
- Four single vises with 50mm (1.968") jaws and 50mm (2") opening.
- Pilot (0.8768") in both ends. Four and six bolt mounting hole pattern fits all indexers. Has 60° center in outboard end.
- Options include machinable jaws, tail support, workstops.
- Does not require tail support.
- Chip guards included.
- Internal hex screw standard.
- 25 lbs.

CT2SH4A CLUSTER TOWER SINGLE MANUAL VISE CLAMPING FORCE	
Torque- Ft. Lbs.	lbs.
10	1000
15	1500
20	2000
25	3000
Maximum Force	3000



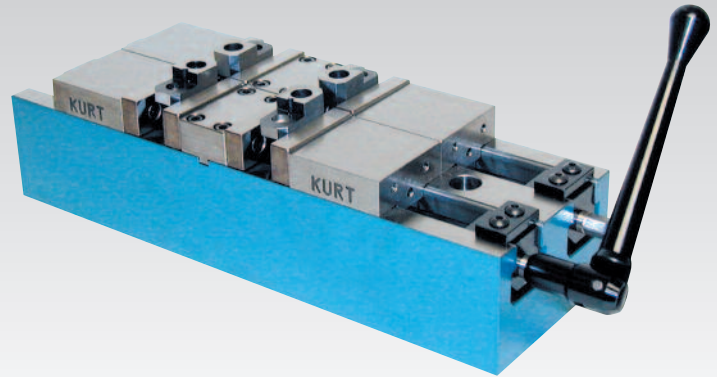
# CLUSTERLOCK

**Model:**  
CL2D2-2A

ClusterLock is a precision double vise, configured from 1 to 10 units in a common base. By using the famous AngLock principle assures that the movable jaw will not lift.

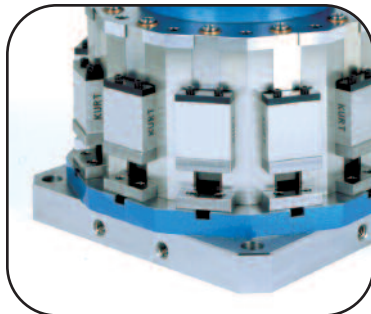
**Features:**

- 80,000-PSI ductile iron construction.
- Hardened bed ways and hardened steel jaw plates.
- Standard spacing is 1.968" (50mm). Consult the factory for other spacing.
- Vise bed surface is ground parallel to within 0.001".
- Ideal for small VMC's with pallet changers.
- Suitable for tombstone mounting on HMC's.
- Can be converted to single opening (6" maximum) with the optional convertible kit.

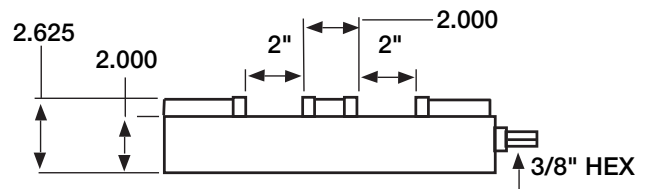


Part #	Ship Wt. Lbs.
CL2D1-2A	12
CL2D2-2A	24
CL2D4-2A	48
CL2D6-2A	72
CL2D8-2A	96
CL2D10-2A	120

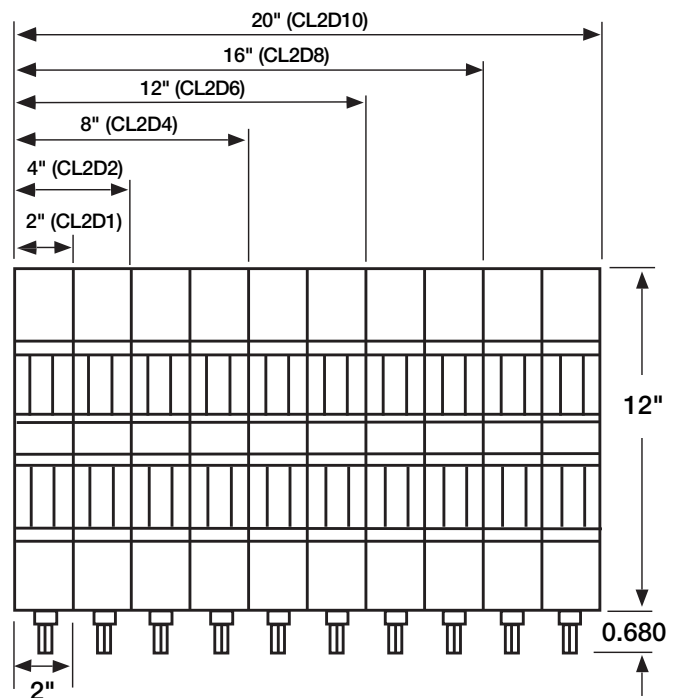
CLUSTERLOCK MANUAL VISE CLAMPING FORCE	
Torque- Ft. Lbs.	lbs.
9	1000
14	1500
19	2000
25	3000



**SIDE VIEW**



**TOP VIEW**



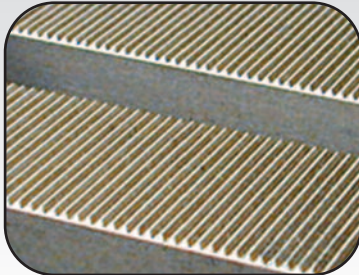




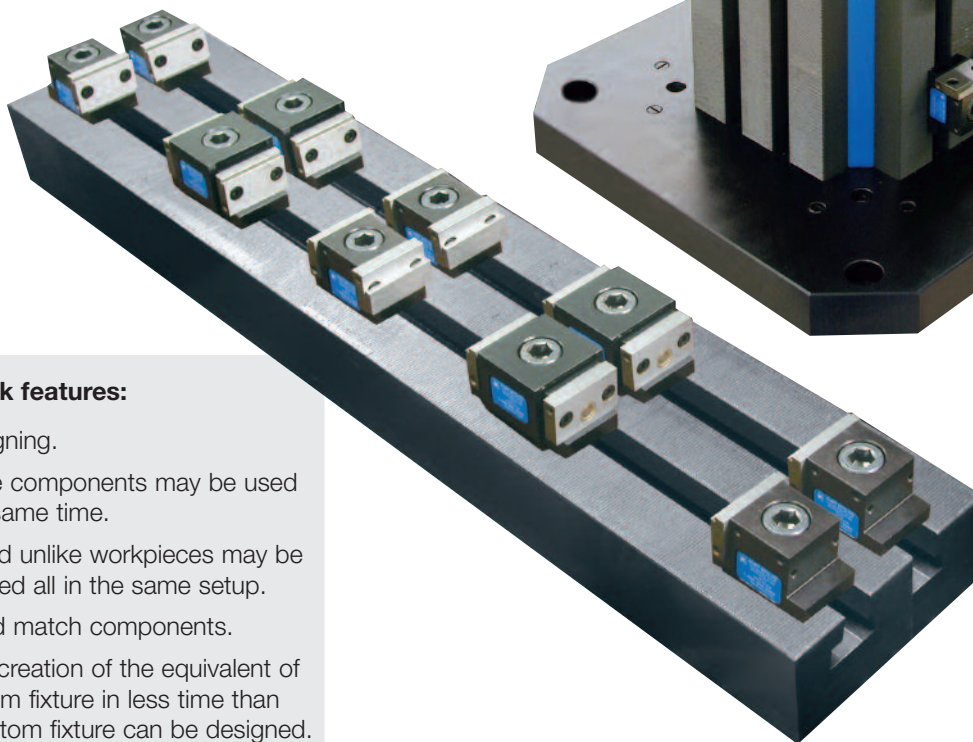
# SERALOCK® & WEDGELOCK

The SeraLock Towers, SeraLock Pallets, WedgeLock Module system and MoveLock Modular System (see page 42), are the latest innovation for achieving high density, highly repeatable part clamping.

SeraLock Towers and SeraLock Pallets are designed with interlocking "V" shaped serrated surfaces for precise and repeatable alignment of WedgeLock and MoveLock clamping modules.



SeraLock Towers are available in four sided, two sided and single sided towers with a base that will mount to your HMC or an indexer for VMC applications. SeraLock pallets are available in sizes that will accommodate most vertical machining centers. A custom, high density workholding system can be configured quickly when our WedgeLock modular system of single and double sided clamping jaws are used with the SeraLock Tower or SeraLock Pallet.



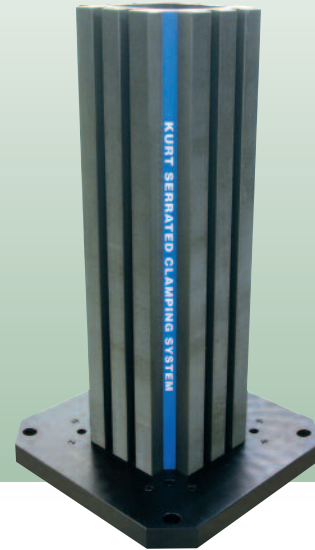
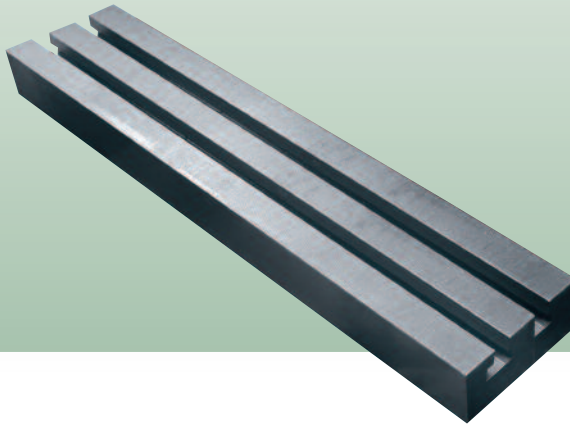
## SeraLock features:

- Self-aligning.
- Multiple components may be used at the same time.
- Like and unlike workpieces may be machined all in the same setup.
- Mix and match components.
- Allows creation of the equivalent of a custom fixture in less time than the custom fixture can be designed.
- Modular components can be used over and over again.
- Very economical.

# SERALOCK® & WEDGELOCK

1

**Start with a Pallet or a Tower**



2

**Add combinations of WedgeLock components** (See page 40 for MoveLock Options)



**Single clamp**

Contains stationary jaw on one side and movable jaw on back side. Provides 5,000 lbs. clamping force at 70 ft. lbs. torque.



**Double clamp**

Contains two movable jaws. Used with stationary block to become a high density workholding solution. Clamp two parts with one screw. Provides 5,000 lbs. clamping force at 70 ft. lbs. torque.



**Stationary block**

Used with single or double clamp.



**Stationary block (double)**

Use when double clamps are used side by side.

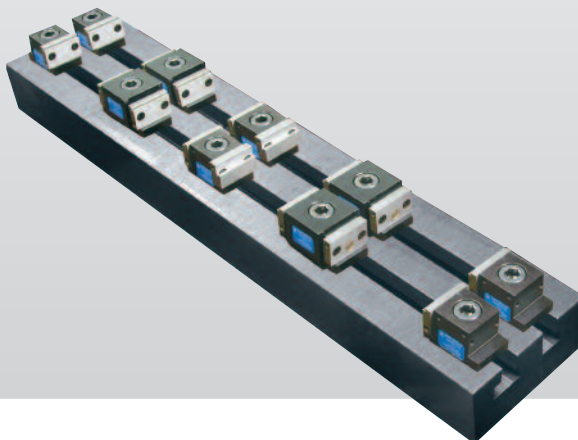


**Dividing Jaw**

Use in between movable and stationary jaw when milling several identical parts. Jaw floats to accommodate slight part difference. Allows several parts to be clamped with one movable jaw.

3

**Final Workholding Solution**



**See Pages 30 and 31 for Seralock® and Wedgelock Options**  
**See Page 43 for MoveLock Options**

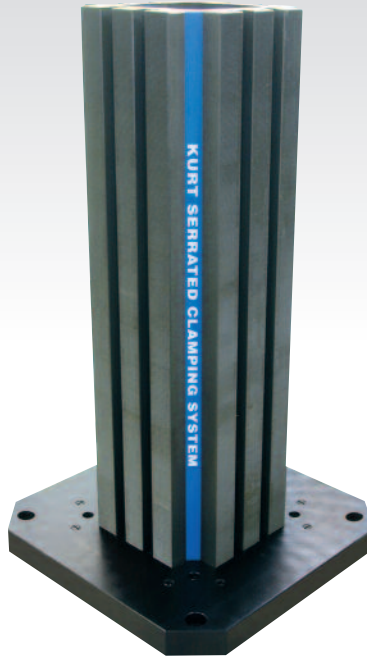
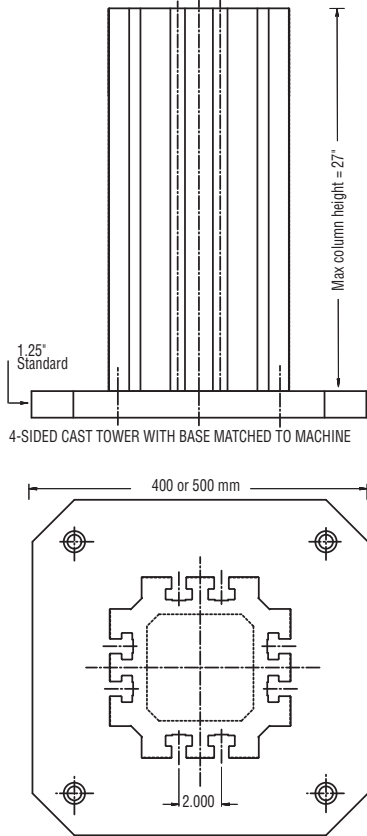




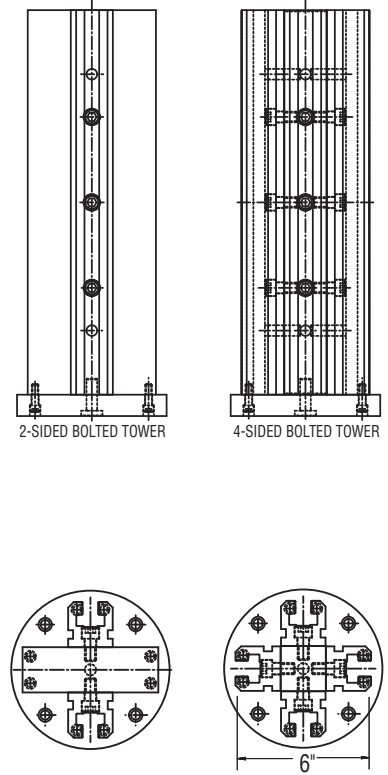
# SERALOCK® & WEDGELOCK

## Seralock Tower Options

### Tower & Base Options

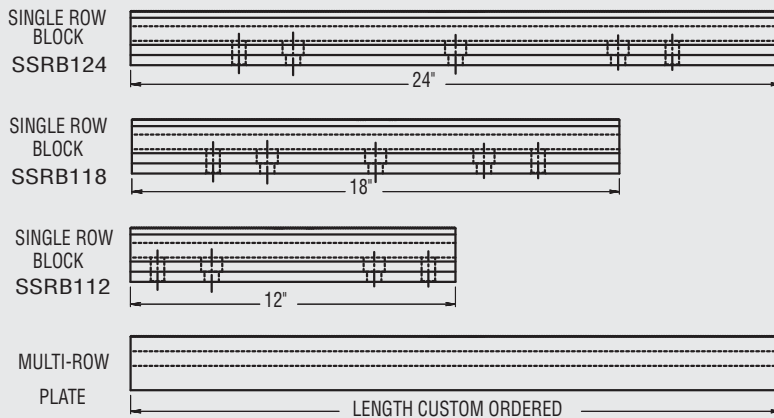


### Tower & Base Options

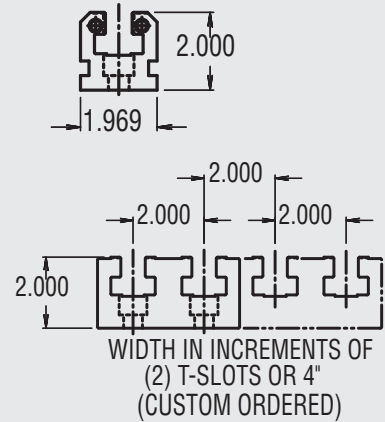


## Seralock Pallet Options

### Pallet length options



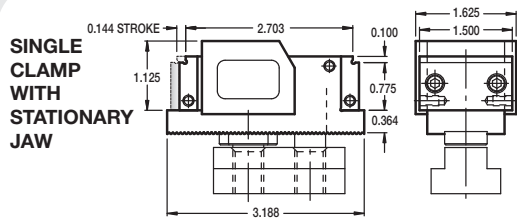
### Pallet T-slot options



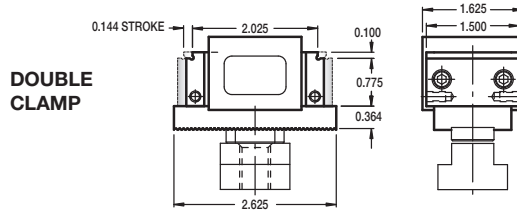


# SERALOCK® & WEDGELOCK

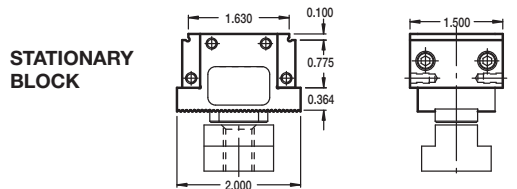
## WedgeLock Clamping Options



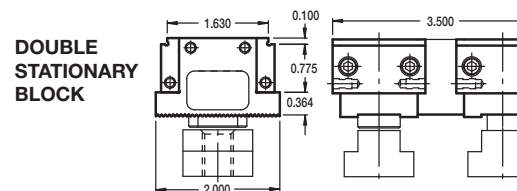
**SWSC1**



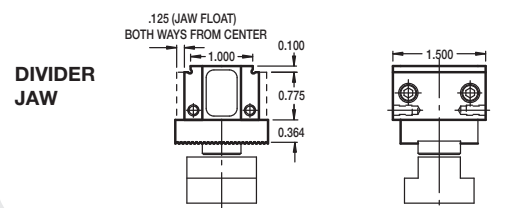
**SWDC1**



**SWSB1**



**SWDSB1**

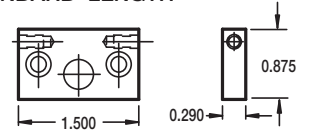


**SWDJ1**

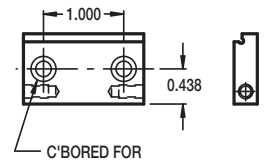


### JAW PLATES STANDARD LENGTH

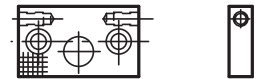
**FLAT JAW PLATE W/MAGNET SW1-7-SAMAG**



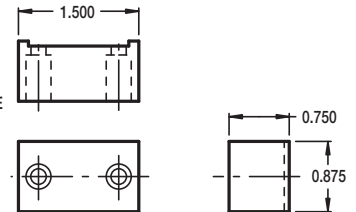
**STEPPED/REVERSIBLE JAW PLATE SW1-32**



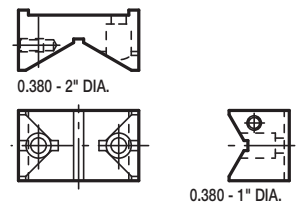
**SERRATED JAW PLATE W/MAGNET SW1-47-SAMAG**



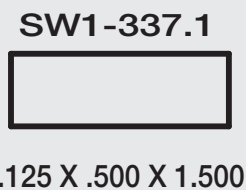
**CARVABLE/REVERSIBLE ALUMINUM JAW PLATE SW1-317**



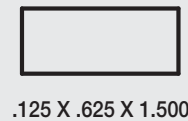
**"V" JAW PLATE SW1-237**



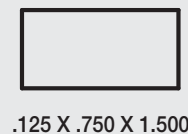
### PARALLELS STANDARD LENGTH



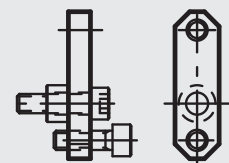
**SW1-337.2**



**SW1-337.3**



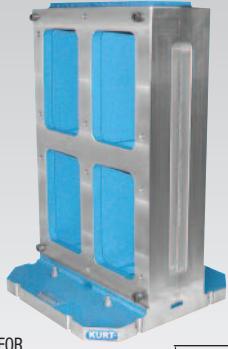
### WORKSTOPS



**REVERSIBLE WORKSTOP SW1 RWS**

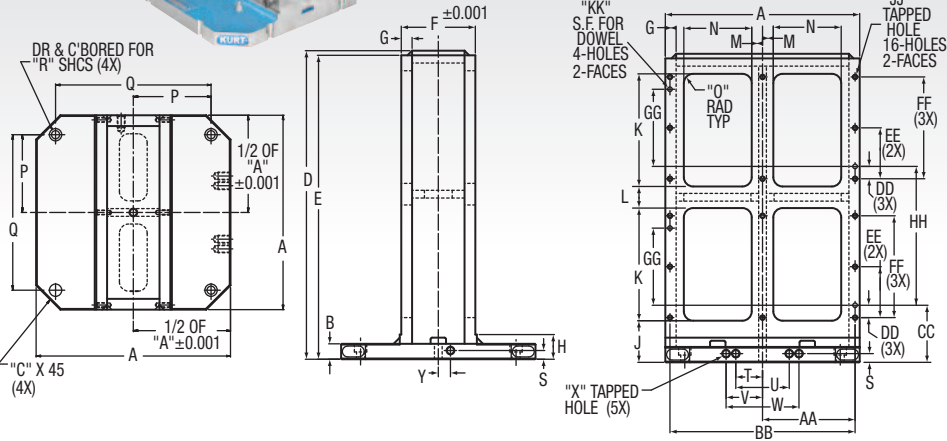


# MODULAR TOOLBLOX™



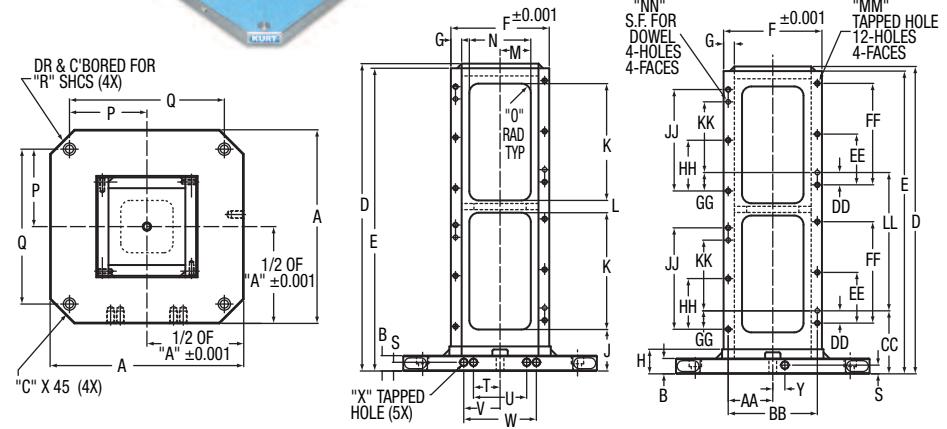
## 2 Face Modular ToolBlox™

Here's a new lighter weight building block module to add high density and versatility to most model horizontal machining centers. It is over 30% lighter than comparable size tombstones with aluminum sub-plates. Provides a lower cost alternative to dedicated fixtures. Features bolt holes and dowel pattern on each face for fast installation and removal of sub-plates and other workholding components. Built out of Steel.

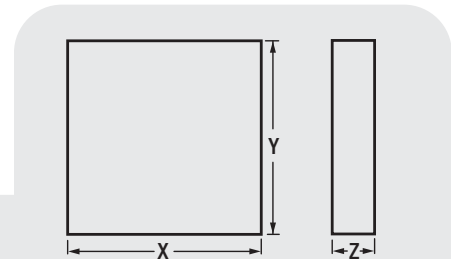


## 4 Face Modular ToolBlox™

This 4 sided tombstone is another lower cost option over dedicated fixtures. It is over 30% lighter than comparable size tombstones with aluminum sub-plates and is designed to reduce setup time. Provides versatility for mounting manual and hydraulic vises and most clamping devices. Standard and custom sub-plates are also available. Built out of Steel.



	2-SIDED TOMBSTONE CAGE DIMENSIONAL DATA		4-SIDED TOMBSTONE CAGE DIMENSIONAL DATA	
	TC2F40616	TC2F50820	TC4F40808	TC4F51010
A	400mm	500mm	400mm	500mm
B	1.250	1.250	1.250	1.250
C	1.970	2.360	1.970	2.360
D	25.000	28.000	25.000	28.000
E	24.625	27.625	24.625	27.625
F	6.000	8.000	8.000	10.000
G	0.875	0.875	0.875	0.875
H	2.000	2.000	2.000	2.000
J	3.375	3.375	3.375	3.375
K	9.125	10.500	9.500	10.625
L	1.750	2.000	1.000	1.750
M	0.875	1.000	2.500	3.375
N	5.500	7.125	5.000	6.750
O	0.750	0.750	0.750	0.750
P	6.299	7.874	6.299	7.874
Q	12.598	15.748	12.598	15.748
R	5/8	5/8	5/8	5/8
S	0.709	0.709	0.709	0.709
T	2.165	2.165	2.165	2.165
U	4.330	4.330	4.330	4.330
V	2.953	2.953	2.953	2.953
W	5.906	5.906	5.906	5.906
X	5/8-11NC x 1" DP	5/8-11NC x 1" DP	5/8-11NC x 1" DP	5/8-11NC x 1" DP
Y	0.984	0.984	0.984	0.984
AA	7.500	9.4375	3.625	4.625
BB	15.000	18.875	7.250	9.250
CC	4.625	4.625	5.125	5.125
DD	1.000	1.000	1.000	1.000
EE	4.125	4.625	4.125	4.625
FF	8.250	9.250	8.250	9.250
GG	6.250	7.250	1.500	1.500
HH	11.250	12.750	4.125	4.625
JJ	3/8-16NC x 0.88 DP	3/8-16NC x 0.88 DP	8.250	9.250
KK	0.375ø x 0.75 DP	0.375ø x 0.75 DP	5.750	6.750
LL	-	-	11.250	12.750
MM	-	-	3/8-16NC x 0.88 DP	3/8-16NC x 0.88 DP
NN	-	-	0.375ø x 0.75 DP	0.375ø x 0.75 DP
Wt. Lbs.	326	546	245	361
Wt. Kgs.	148	248	112	164



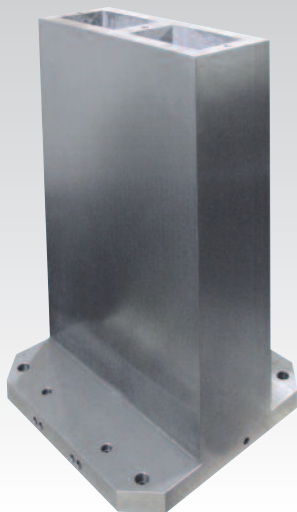
### Sub-Plates

- Kurt offers a variety of standard ToolBlox sub-plates for your application.
- Please specify A36 HRS or 6061 T6 Aluminum.
- You may specify optional hole patterns and/or keyways.
- All Kurt ToolBlox sub-plates are rotary ground to ±0.001" thick.
- All Kurt ToolBlox sub-plates are doweled and bolted to the Kurt Modular ToolBlox allowing the quickest change possible for dedicated fixtures.
- You can permanently mount Kurt vises to the ToolBlox sub-plates for fast, easy set-up changes on milling machines.

MODEL	TC2F40616	TC2F50820	TC4F0808	TC4F51010
X	15.700	19.600	8.000	10.000
Y	23.700	26.700	23.700	26.700
Z	0.940	0.940	0.940	0.094

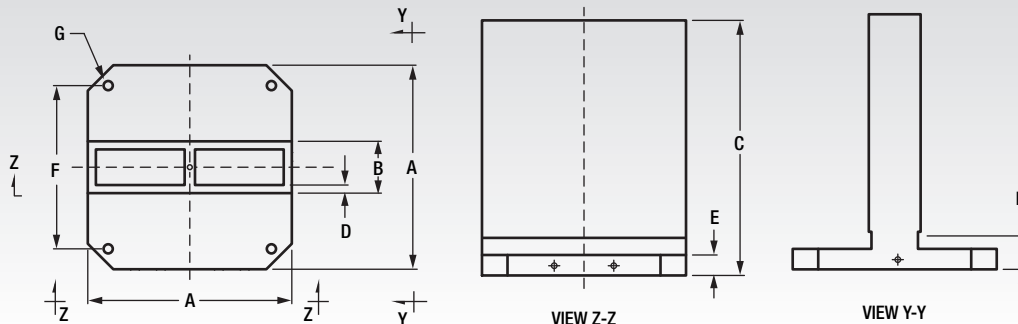
Note: Outside dimensions of A36 steel or 6061 T6 aluminum plates are cut dimensions.

# TOOLBLOX™



## 2 Face ToolBlox™

The Kurt 2 face ToolBlox is ideal for mounting vises. Sub-plates may be bolted and doweled on either side for quick, easy set-up. All vises or collet chucks may be mounted directly on Kurt ToolBlox faces. Made of Class-35 cast iron. Consult our factory for other sizes.

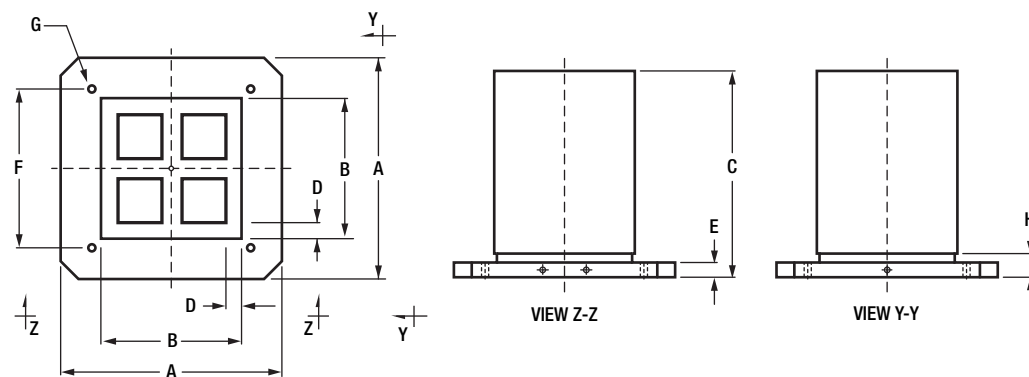


MODEL	A	B	C	D	E	F	G	H	Est. Wt Kgs/Lbs.	Surface Datum A Base Flatness	Face Perp. to Base	Edge Locator Perp	Face Dimension	Face Locator to Edge Parallelism
TB2C40616	400mm X 400mm	6	26	1.500	1.500	320mm	5/8" or M16	2.250	234.1 / 516	0.001	0.003	0.0015	6.000 ±0.002	0.001
TB2C50820	500mm X 500mm	8	34	1.500	1.750	400mm	5/8" or M16	2.500	411.9 / 908	0.001	0.003	0.0015	8.000 ±0.002	0.001
TB2C60825	630mm X 630mm	8	38	2.000	2.000	500mm	5/8" or M16	2.750	662.7 / 1461	0.001	0.003	0.0015	8.000 ±0.002	0.001



## 4 Face ToolBlox™

The Kurt 4 face ToolBlox is ideal for mounting vises of any size. Made of Class-35 cast iron. Consult our factory for other available sizes.



MODEL	A	B	C	D	E	F	G	H	Est. Wt Kgs/Lbs.	Surface Datum A Base Flatness	Face Perp. to Base	Edge Locator Perp	Face Dimension	Face Locator to Edge Parallelism
TB4C40606	400mm X 400mm	6	26	1.500	1.500	320mm	5/8" or M16	2.250	127.9 / 282	0.001	0.003	0.0015	6.000 ±0.002	0.002
TB4C40808	400mm X 400mm	8	26	1.500	1.500	320mm	5/8" or M16	2.250	162.8 / 359	0.001	0.003	0.0015	8.000 ±0.002	0.002
TB4C41010	400mm X 400mm	10	26	1.500	1.500	320mm	5/8" or M16	2.250	197.8 / 436	0.001	0.003	0.0015	10.000 ±0.002	0.002
TB4C50808	500mm X 500mm	8	34	1.500	1.750	400mm	5/8" or M16	2.500	236.8 / 522	0.001	0.003	0.0015	8.000 ±0.002	0.002
TB4C51010	500mm X 500mm	10	34	1.500	1.750	400mm	5/8" or M16	2.500	284.0 / 626	0.001	0.003	0.0015	10.000 ±0.002	0.002
TB4C51212	500mm X 500mm	12	34	1.500	1.750	400mm	5/8" or M16	2.500	333.0 / 734	0.001	0.003	0.0015	12.000 ±0.002	0.002
TB4C51414	500mm X 500mm	14	34	1.500	1.750	400mm	5/8" or M16	2.500	440.0 / 970	0.001	0.003	0.0015	14.000 ±0.002	0.002
TB4C61010	630mm X 630mm	10	38	1.500	2.000	500mm	5/8" or M16	2.750	368.3 / 812	0.001	0.003	0.0015	10.000 ±0.002	0.002
TB4C61818	630mm X 630mm	18	38	2.000	2.000	500mm	5/8" or M16	2.750	778.0 / 1715	0.001	0.003	0.0015	18.000 ±0.002	0.002

Sub-Plates (see page 32)





STANDARD (3600) AND SHORT (3620)

# VERSATILE LOCK<sup>®</sup> VISES

PATENTED

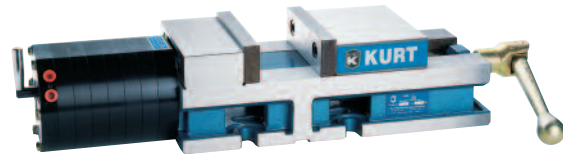
**Models:**  
**Manual**  
**Hydraulic**  
**Air**



**3600V**  
**3600VM - (Metric)**



**3600H - Standard Hydraulic**  
**3600HM - (Metric)**



**3600A - Standard Air**

The Versatile Lock vise is the industry's ultimate single station CNC vise. It 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 jaw stationary deflection by at least 80%. The one piece vise body and stationary jaw provide greater strength while reducing weight.

**Features:**

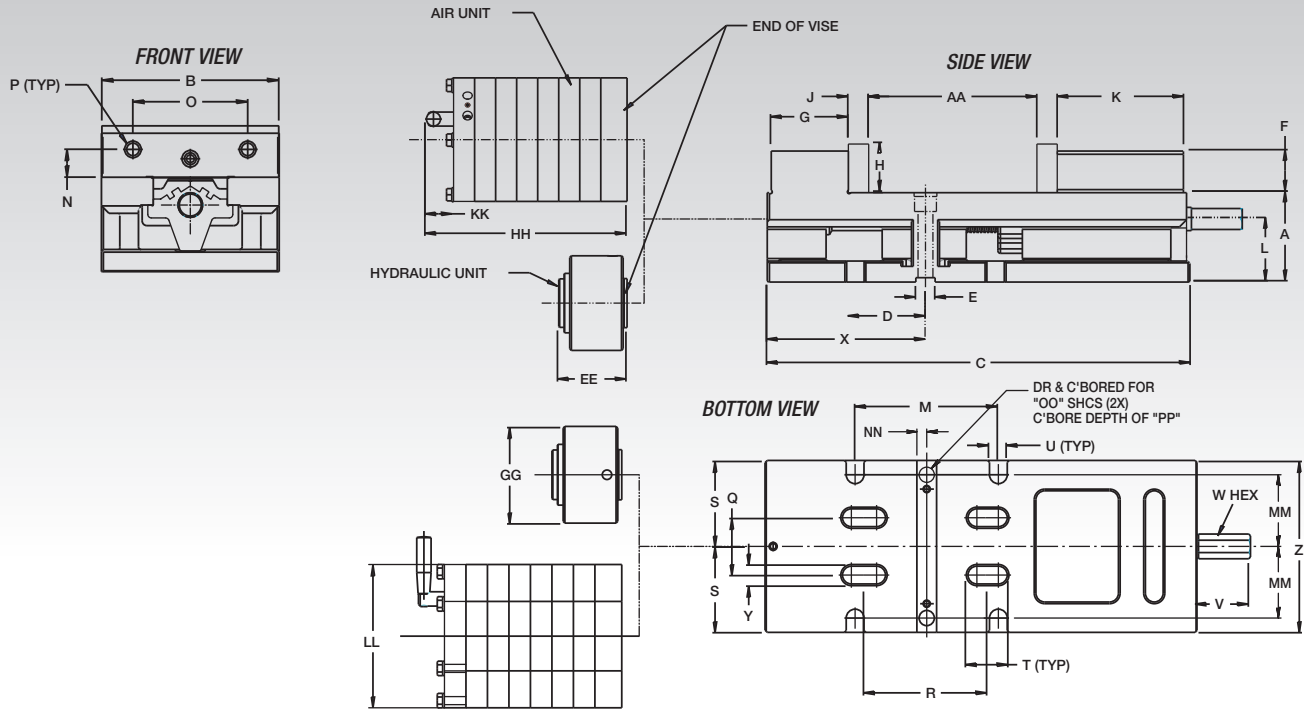
- Can be mounted upright or on either side.
- Matched stationary jaw to keyway including the body height  $\pm 0.001$ ".
- 0.0005" clamping repeatability.
- Footprint on the short version is 13". Ideal for the smallest machines.
- Hydraulic option is available as a complete package including the intensifier (specify foot or hand actuation). (See Page 64). Each vise must have it's own intensifier.
- All air and hydraulic units feature a 1/4" vise stroke.
- Air vise has a precise and repeatable "gentle touch" for delicate parts.
- Optional internal hex available for 3600V only. (3600V-INT).



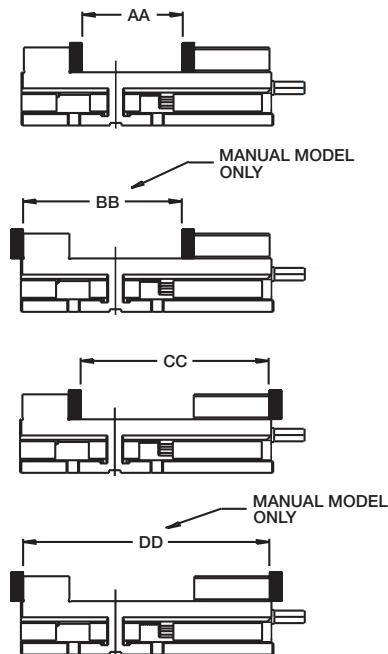
The 3600V shown mounted "back to back". Makes a fast, easy and economical vise tombstone. Bases can be tailored for most HMC's.

# VERSATILE LOCK<sup>®</sup> VISES

PATENTED



### JAW POSITIONS



VISE CLAMPING FORCE-LBS.		
Manual Torque Ft.-Lbs.	Manual	
	3600V	3620V
10	653	653
20	1743	1743
30	2234	2234
40	3015	3015
50	3833	3833
60	4438	4438
70	5528	5528
80	6356	6356

VISE CLAMPING FORCE-LBS.		
Hydraulic PSI	Hydraulic	
	3600H	3620H
400	1575	1575
800	3150	3150
1200	4725	4725
1600	6300	6300
2000	7875	7875
2400	9450	9450
2800	11025	11025
3200	12600	12600
Hydraulic Displacement cu. In.	1.18	1.18

VISE CLAMPING FORCE-LBS.		
Air PSI	Air	
	3600A	3620A
10	320	320
20	840	840
30	1280	1280
40	1780	1780
50	2200	2200
60	2720	2720
70	3240	3240
80	3800	3800
90	4380	4380
100	5000	5000

### Repair Kits

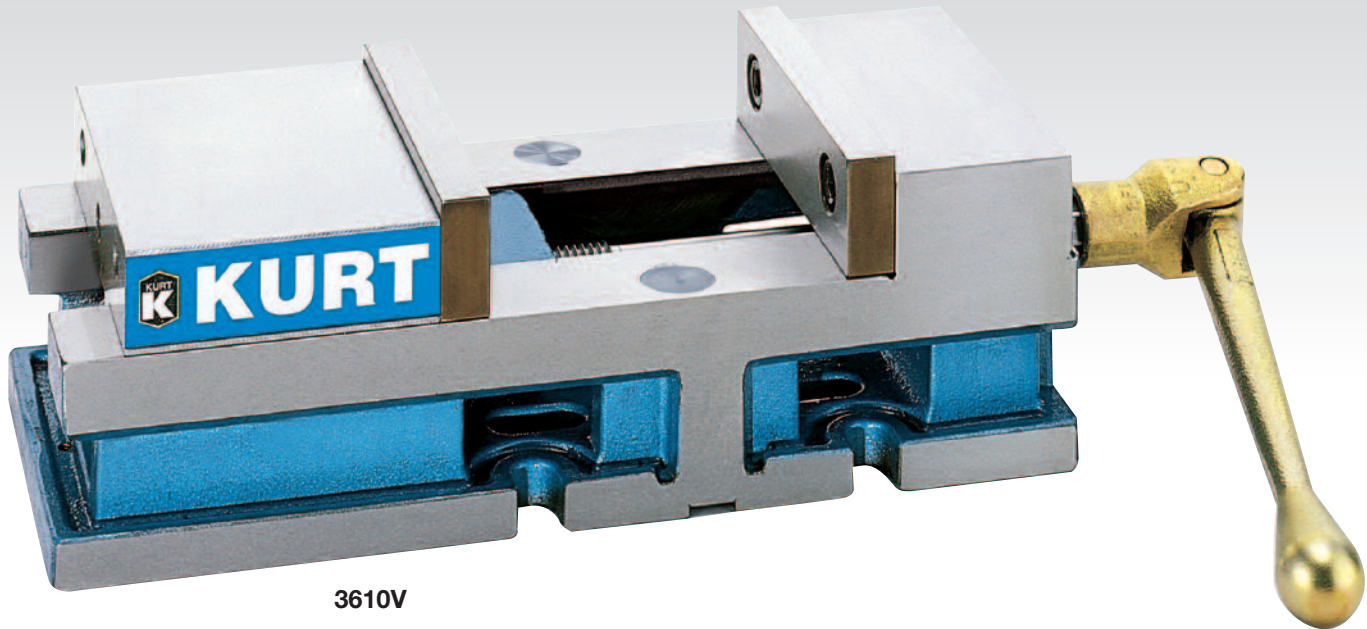
MODEL	REPAIR KIT
3600V	*3600V-KIT

\*= Same as Metric Vise

	DIMENSIONAL DATA							
	Manual			Hydraulic			Air	
	3600V	3600VM	3620V	3600H	3600HM	3620H	3600A	3620A
	Inch	MM	Inch	Inch	MM	Inch	Inch	Inch
A	3.187	80.949	3.187	3.187	80.949	3.187	3.187	3.187
B	6.000	152.400	6.000	6.000	152.400	6.000	6.000	6.000
C	15.060	382.524	12.940	15.060	382.524	12.940	15.060	12.940
D	2.750	69.850	2.750	2.750	69.850	2.750	2.750	2.750
E	0.688	17.475	0.688	0.688	17.475	0.688	0.688	0.688
F	1.485	37.719	1.485	1.485	37.719	1.485	1.485	1.485
G	2.750	69.850	2.750	2.750	69.850	2.750	2.750	2.750
H	1.735	44.069	1.735	1.735	44.069	1.735	1.735	1.735
J	0.725	18.415	0.725	0.725	18.415	0.725	0.725	0.725
K	4.500	114.300	4.500	4.500	114.300	4.500	4.500	4.500
L	2.250	57.150	2.250	2.250	57.150	2.250	2.250	2.250
M	5.000	127.000	5.000	5.000	127.000	5.000	5.000	5.000
N	0.937	23.800	0.937	0.937	23.800	0.937	0.937	0.937
O	3.875	98.425	3.875	3.875	98.425	3.875	3.875	3.875
P	1/2-13	M12 X 25	1/2-13	1/2-13	M12 X 25	1/2-13	1/2-13	1/2-13
Q	2.000	50.800	2.000	2.000	50.800	2.000	2.000	2.000
R	4.250	107.950	4.250	4.250	107.950	4.250	4.250	4.250
S	3.000	76.200	3.000	3.000	76.200	3.000	3.000	3.000
T	1.380	35.025	1.380	1.380	35.025	1.380	1.380	1.380
U	0.630	16.002	0.630	0.630	16.002	0.630	0.630	0.630
V	1.940	49.276	1.940	1.940	49.276	1.940	1.940	1.940
W	3/4	19.050	3/4	3/4	19.050	3/4	3/4	3/4
X	5.640	143.256	5.640	5.640	143.256	5.640	5.640	5.640
Y	0.630	16.002	0.630	0.630	16.002	0.630	0.630	0.630
Z	6.000	152.400	6.000	6.000	152.400	6.000	6.000	6.000
AA	6.000	152.400	4.000	6.000	152.400	4.000	6.000	4.000
BB	9.500	241.300	7.500	-	-	-	-	-
CC	11.250	285.750	9.250	11.250	285.750	9.250	11.250	9.250
DD	14.750	-	12.750	-	-	-	-	-
EE	-	-	-	2.410	61.214	2.410	-	-
GG	-	-	-	3.375	85.725	3.375	-	-
HH	-	-	-	-	-	-	7.220	7.220
KK	-	-	-	-	-	-	1.030	1.030
LL	-	-	-	-	-	-	5.000	5.000
MM	2.500	374.650	2.500	2.500	374.650	2.500	2.500	2.500
NN	0.344	63.500	0.344	0.344	63.500	0.344	0.344	0.344
OO	1/2	M12	1/2	1/2	M12	1/2	1/2	1/2
PP	0.671	17.043	0.671	0.671	17.043	0.671	0.671	0.671
Est Ship Wt. Lbs. (Kgs)	69	(32)	64	74	(34)	69	75	70



**Models:**  
**Manual**  
**Hydraulic**  
**Air**



**3610V**

Use the Versatile Lock in this configuration for the added benefit of easier part programming in “Y axis” positive direction. It also reduces the “reach-over” distance making part loading safer and easier for the operator.

**Features:**

- Can be mounted upright or on either side.
- Matched stationary jaw to the keyway including the body height  $\pm 0.001$ ".
- 0.0005" clamping repeatability.
- Footprint on the short version is 13". Ideal for the smallest machines.
- Hydraulic option is available as a complete package including the intensifier (specify foot or hand actuation). Each vise must have it's own intensifier.
- All air and hydraulic units feature a 1/4" vise stroke.
- Air vise has a precise and repeatable "gentle touch" for delicate parts.
- Some models available in metric.



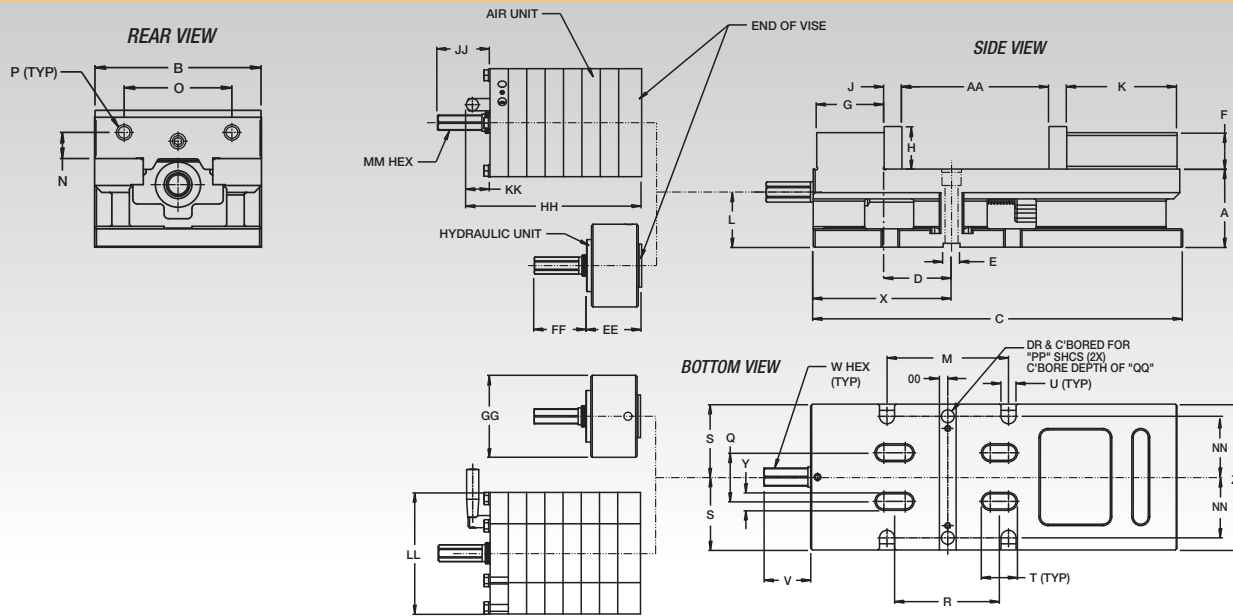
**Intensifier, p.64**

- APD50-112-Hand
- APD50-112-Foot



# VERSATILE LOCK<sup>®</sup> VISES

PATENTED



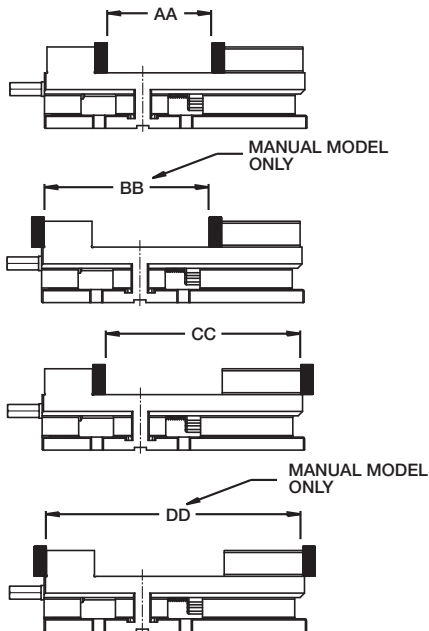
VISE CLAMPING FORCE-LBS.		
Manual torque Ft.-Lbs.	Manual	
	3610V	3630V
10	653	653
20	1743	1743
30	2234	2234
40	3015	3015
50	3833	3833
60	4438	4438
70	5528	5528
80	6356	6356

VISE CLAMPING FORCE-LBS.		
Hydraulic PSI	Hydraulic	
	3610H	3630H
400	1575	1575
800	3150	3150
1200	4725	4725
1600	6300	6300
2000	7875	7875
2400	9450	9450
2800	11025	11025
3200	12600	12600
Hydraulic Displacement cu. In	1.18	1.18

VISE CLAMPING FORCE-LBS.		
Air PSI	Air	
	3610A	3630A
10	320	320
20	840	840
30	1280	1280
40	1780	1780
50	2200	2200
60	2720	2720
70	3240	3240
80	3800	3800
90	4380	4380
100	5000	5000

	DIMENSIONAL DATA					
	Manual		Hydraulic		Air	
	3610V	3630V	3610H	3630H	3610A	3630A
A	3.187	3.187	3.187	3.187	3.187	3.187
B	6.000	6.000	6.000	6.000	6.000	6.000
C	15.060	12.940	15.060	12.940	15.060	12.940
D	2.750	2.750	2.750	2.750	2.750	2.750
E	0.688	0.688	0.688	0.688	0.688	0.688
F	1.485	1.485	1.485	1.485	1.485	1.485
G	2.750	2.750	2.750	2.750	2.750	2.750
H	1.735	1.735	1.735	1.735	1.735	1.735
J	0.725	0.725	0.725	0.725	0.725	0.725
K	4.500	4.500	4.500	4.500	4.500	4.500
L	2.250	2.250	2.250	2.250	2.250	2.250
M	5.000	5.000	5.000	5.000	5.000	5.000
N	0.937	0.937	0.937	0.937	0.937	0.937
O	3.875	3.875	3.875	3.875	3.875	3.875
P	1/2-13	1/2-13	1/2-13	1/2-13	1/2-13	1/2-13
Q	2.000	2.000	2.000	2.000	2.000	2.000
R	4.250	4.250	4.250	4.250	4.250	4.250
S	3.000	3.000	3.000	3.000	3.000	3.000
T	1.380	1.380	1.380	1.380	1.380	1.380
U	0.630	0.630	0.630	0.630	0.630	0.630
V	1.940	1.940	1.940	1.940	1.940	1.940
W	3/4	3/4	3/4	3/4	3/4	3/4
X	5.640	5.640	5.640	5.640	5.640	5.640
Y	0.630	0.630	0.630	0.630	0.630	0.630
Z	6.000	6.000	6.000	6.000	6.000	6.000
AA	6.000	4.000	6.000	4.000	6.000	4.000
BB	9.500	7.500	-	-	-	-
CC	11.250	9.250	11.250	9.250	11.250	9.250
DD	14.750	12.750	-	-	-	-
EE	-	-	2.410	2.410	-	-
FF	-	-	1.940	1.940	-	-
GG	-	-	3.375	3.375	-	-
HH	-	-	-	-	7.220	7.220
JJ	-	-	-	-	2.100	2.100
KK	-	-	-	-	1.030	1.030
LL	-	-	-	-	5.000	5.000
MM	-	-	-	-	5/8	5/8
NN	2.500	2.500	2.500	2.500	2.500	2.500
OO	0.344	0.344	0.344	0.344	0.344	0.344
PP	1/2	1/2	1/2	1/2	1/2	1/2
QQ	0.671	0.671	0.671	0.671	0.671	0.671
Ship Wt. Lbs.	68	64	73	68	74	69

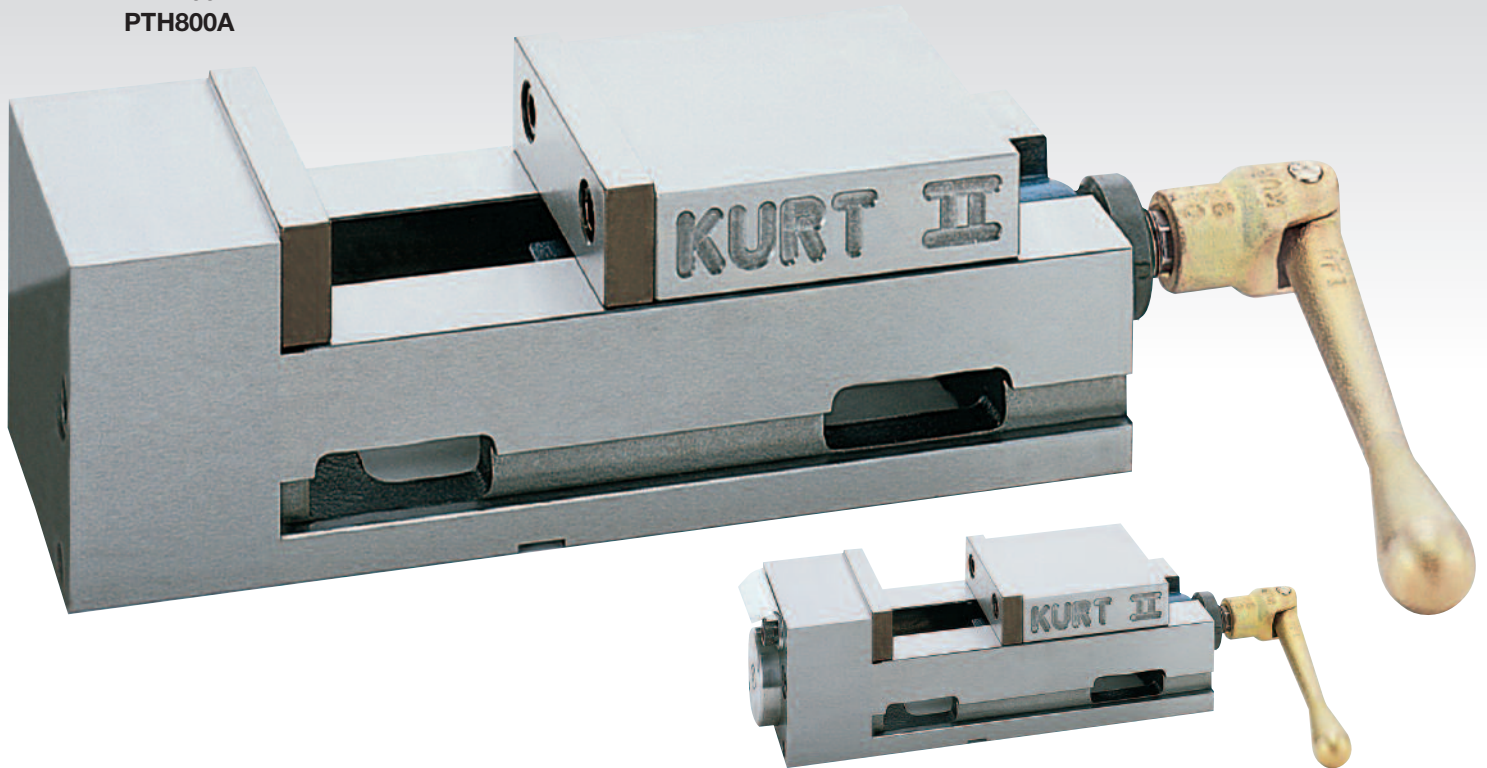
## JAW POSITIONS





# ANGLOCK® PT-SERIES VISES

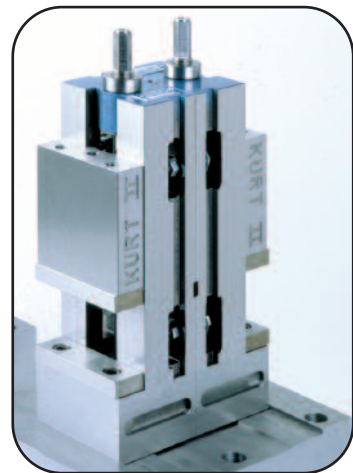
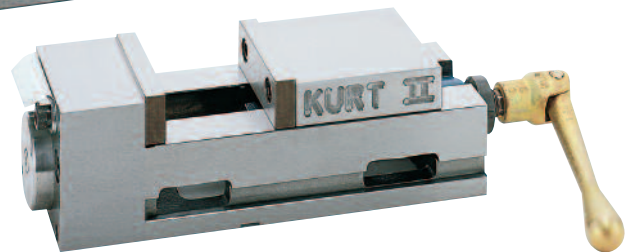
**Models:**  
PT400A  
PT800A  
PTH400A  
PTH800A



The AngLock PT-Series vises offer high 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% as the movable jaw is "pulled" into the stationary jaw and not pushed like standard screw type vises.

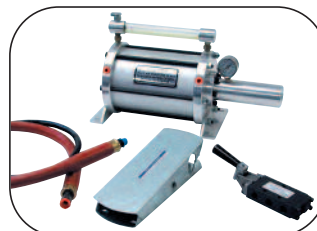
**Features:**

- "Pull-type" clamping means high precision and repeatability.
- Up to 20,000 lbs. precision clamping force.
- Can be mounted upright or on either side.
- CNC style allows compact spacing.
- Both sides ground square to within 0.001" with base and top.
- 80,000-PSI ductile iron body.
- Hydraulic option is available as a complete package including the intensifier (specify foot or hand actuation). Each vise must have it's own intensifier.
- Matching of bed height  $\pm 0.001$ " available at an additional cost.
- Matching of the keyway to the stationary jaw  $\pm 0.001$ " is available at an additional cost.



The PTH800A shown mounted "back to back". Makes fast, easy and economical vise tombstone. Bases can be tailored for most HMC's.

**Accessories:**

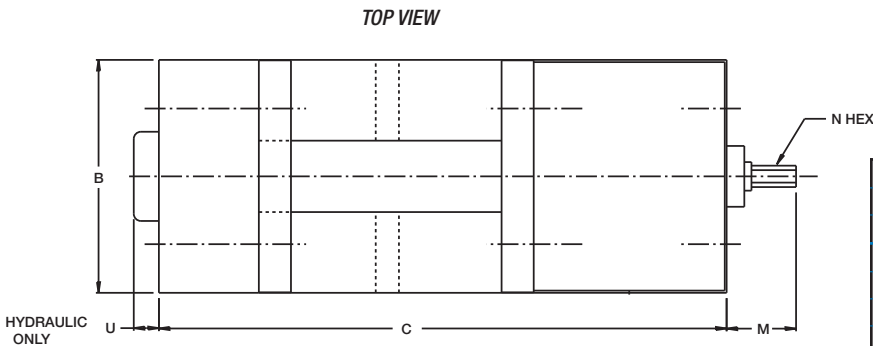
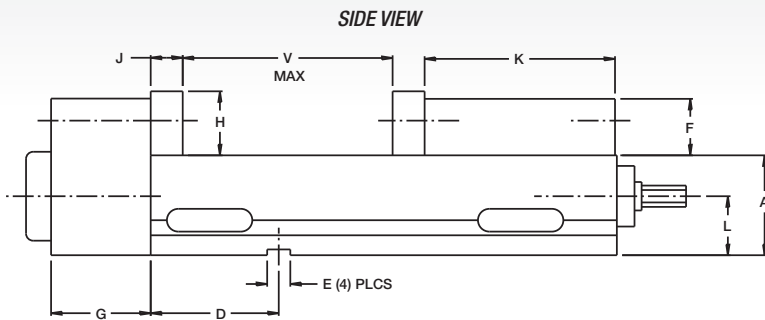
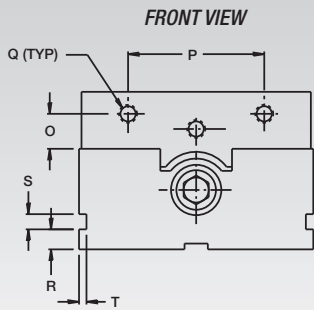


**APD50-112 Hand or Foot, for PTH400A vises, p.64**



**APD60-112 Hand or Foot, for PTH800A vises, p.64**

# ANGLock® PT-SERIES VISES

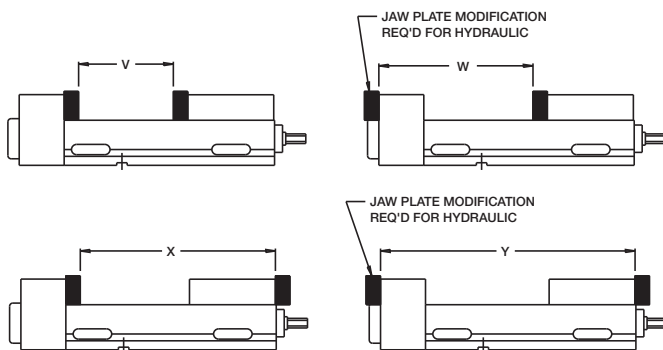


VISE CLAMPING FORCE-LBS.		
Hydraulic PSI	Hydraulic	
	PTH400A	PTH800A
1400	2380	-
1800	3100	-
2200	3820	-
2800	4880	-
2900	-	9100
3000	5240	-
3400	6100	-
3500	-	11560
4400	-	14620
5300	-	17560
6200	-	20120

VISE CLAMPING FORCE-LBS.		
Manual Torque Ft.-Lbs.	Manual	
	PT400A	PT800A
10	1453	-
20	2740	1637
30	4090	-
40	5257	3447
50	6297	-
60	-	3895
80	-	4764
100	-	6065
120	-	8023
140	-	8947
160	-	10337

	DIMENSIONAL DATA			
	Manual		Hydraulic	
	PT400A	PT800A	PTH400A	PTH800A
A	2.375	3.500	2.375	3.500
B	4.093	8.156	4.093	8.156
C	11.438	19.875	11.438	19.875
D	2.750	4.500	2.750	4.500
E	0.500	0.816	0.500	0.816
F	1.115	1.985	1.115	1.985
G	2.188	3.500	2.188	3.500
H	1.235	2.200	1.235	2.200
J	0.547	1.075	0.547	1.075
K	4.000	6.690	4.000	6.690
L	1.410	2.062	1.410	2.062
M	2.060	3.120	2.060	3.120
N	9/16	7/8	9/16	7/8
O	0.687	1.220	0.687	1.220
P	2.500	4.750	2.500	4.750
Q	3/8-16	5/8-11	3/8-16	5/8-11
R	0.500	0.700	0.500	0.700
S	0.530	0.530	0.530	0.530
T	0.250	0.250	0.250	0.250
U	-	-	0.750	0.875
V	4	7-3/8	4	7-3/8
W	6-3/4	12	6-3/4	12
X	8-9/16	15-3/16	8-9/16	15-3/16
Y	11-5/16	19-13/16	11-5/16	19-13/16
Ship Wt. Lbs.	32	159	46	180
Hydraulic Displacement cu. In.	-	-	0.55	0.98

**JAW PLATE POSITION AND OPENING-INCHES**







# CUSTOM ENGINEERED WORKHOLDING

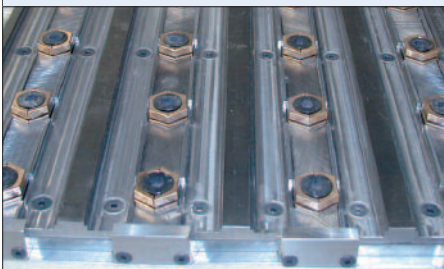
Kurt brings more than four decades of experience in providing solutions to CNC machine workholding problems and a deep understanding of how workholding integrates into today's productivity and quality driven manufacturing process.

At Kurt, we provide the complete spectrum of workholding solutions with the same dedication that has produced the most successful vises for over 40 years. Our custom engineered workholding engineers have built an industry leading reputation assisting automotive, aerospace and other metalworking intensive industries to improve quality and reduce cycle times.

## Lifetime Iron Clad Warranty



Application: Commercial Industry



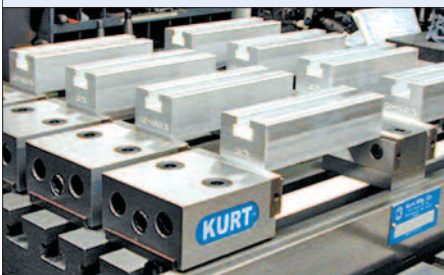
Solution: Quick change fixture maximizing part load.

Application: Hydraulic Industry



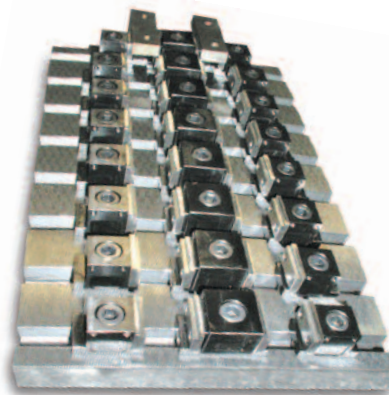
Solution: High density fixture clamping four parts per station.

Application: Automation Industry

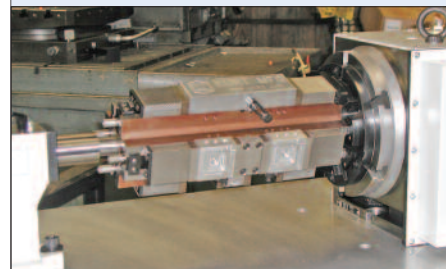


Solution: Four double station Seralock vises mounted on a sub-plate.

## VMC Applications



Application: Commercial Industry



Solution: Eight station indexing trunnion fixture for high speed machining.

Application: Defense Industry



Solution: Precision, fast, hydraulic clamping with a series of MoveLock vises.

Application: Job Shop Industry



Solution: Bushed and tapped sub-plate allows fast vise repositioning.

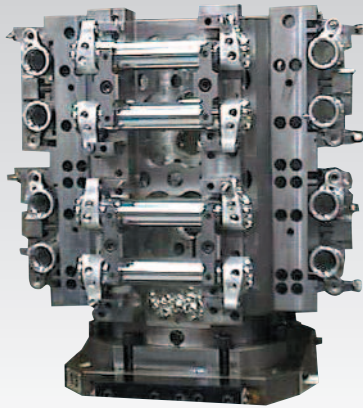
Application: Automotive Industry




Solution: Up to three-sided machining using an indexing trunnion fixture.



# CUSTOM ENGINEERED WORKHOLDING

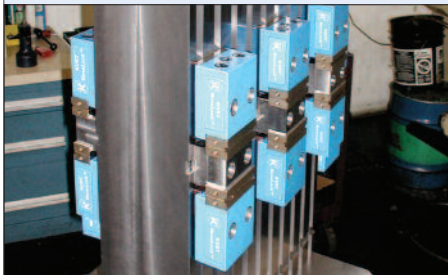


**Application: Aerospace Industry**



**Solution:** High density DoubleLock vise setup holds 18 parts for precision machining.

**Application: Aerospace Industry**




**Solution:** Two-sided tombstone with six MoveLock clamping stations handle wide range of part sizes.

## HMC Applications




**Application: Hydraulic Industry**




**Solution:** Fast, hydraulic clamping with precision repeatability.

**Application: Automotive Industry**



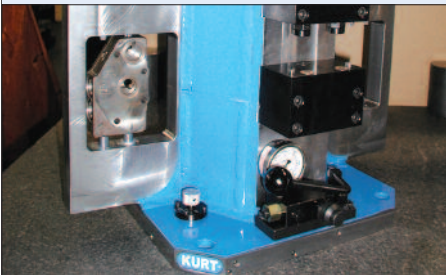
**Solution:** D100 movable and stationary jaws integrated onto a tower.

**Application: Hydraulic Industry**




**Solution:** Multiple towers with DoubleLock vises on palletized machining center for 24/7 production.

**Application: Hydraulic Industry**



**Solution:** Window hydraulic (AB Load) fixture allows matching on five sides.

**Application: Hydraulic Industry**



**Solution:** Kurt serrated Double Station vise towers on palletized machining centers for 24/7 production.



# MOVELOCK MODULAR SYSTEM

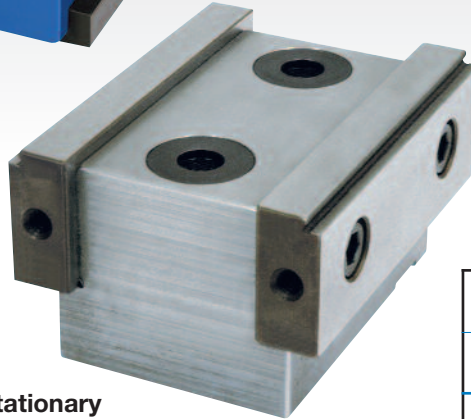
PATENTED



**Hydraulic Movable Jaw MLH35**



**Manual Movable Jaw ML35**



**Stationary Jaw MLS351**

MLH35 Hydraulic Pressure To Clamping Force Chart	
Hyd. Pressure (PSI)	Clamping Force (LBS)
400	200
800	500
1200	850
1600	1200
2000	1550
2400	1850
2800	2150
3200	2500

ML35 Torque/Clamping Force Chart	
Torque (FT LBS)	Clamping Force (LBS)
5	750
10	1550
15	2600
20	3550
25	4450
30	5400
35	6300
40	6900

This high precision two-piece vise is the first of its type to utilize the famous Kurt Anglock concept to prevent jaw lift during clamping. As power is applied to the piston, it is driven forward to locate on an internal segment. While the lateral force is clamping the part, downward pressure is being applied to the movable jaw, which minimizes or prevents part lift. For every pound of clamping force on the jaw, there is a half pound of force exerted down on the movable jaw.

**Features:**

- Movable and stationary jaws sold separately.
- Movable jaws are available in either manual or hydraulic actuation.
- May be used as a single or double station vise, and can be mounted side by side.
- Can be configured into high density fixturing. (See Seralock® pages 28-30)
- Features a 5/16" stroke.
- 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.
- Clamps large workpieces - jaw opening limited only by the work envelope.
- Light weight.
- Small footprint - 3.500" jaw width.

Special jaw plates and workstops are available. Contact the factory for pricing and availability.

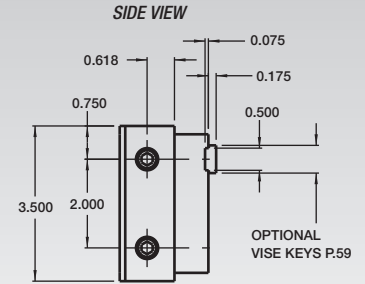
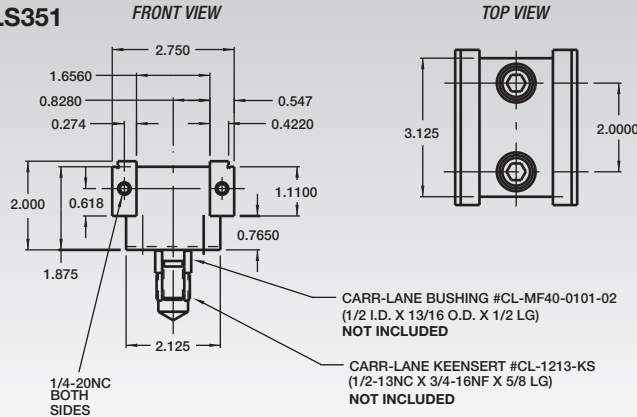
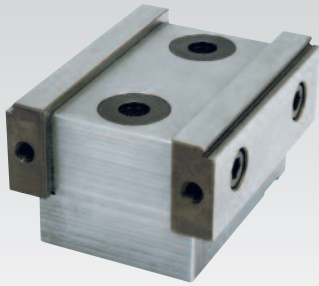




# MOVELOCK MODULAR SYSTEM

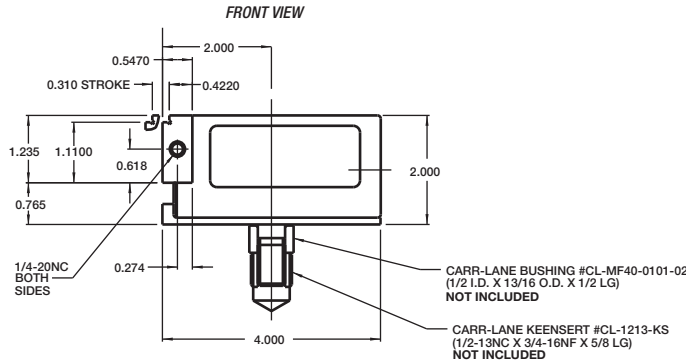
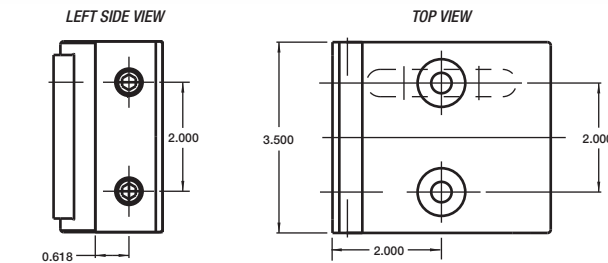
PATENTED

## Stationary Jaw MLS351 Serrated Stationary Jaw SMLS351



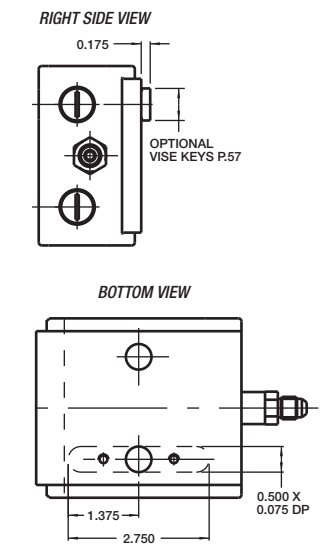
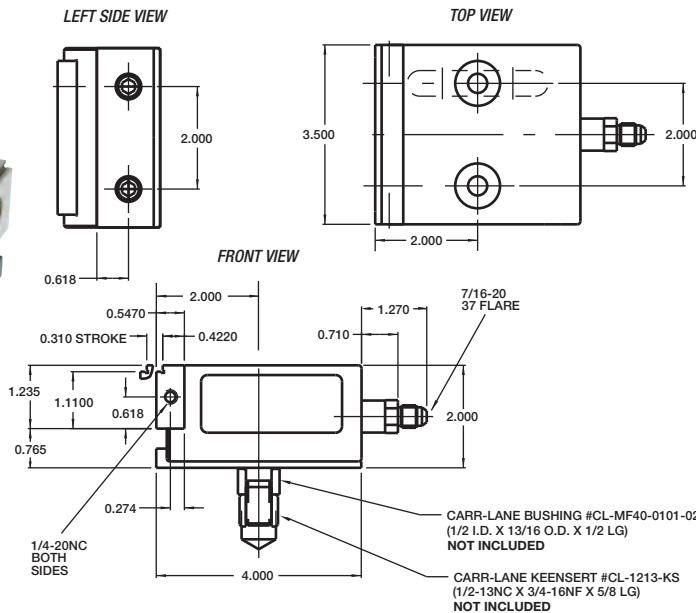
Shipping Weight - 4 lbs.

## Manual Movable Jaw ML35 Serrated Manual Movable Jaw SML35



Shipping Weight - 6 lbs.

## Hydraulic Movable Jaw MLH35 Serrated Hydraulic Movable Jaw SMLH35



0.31 cu in Hydraulic Displacement

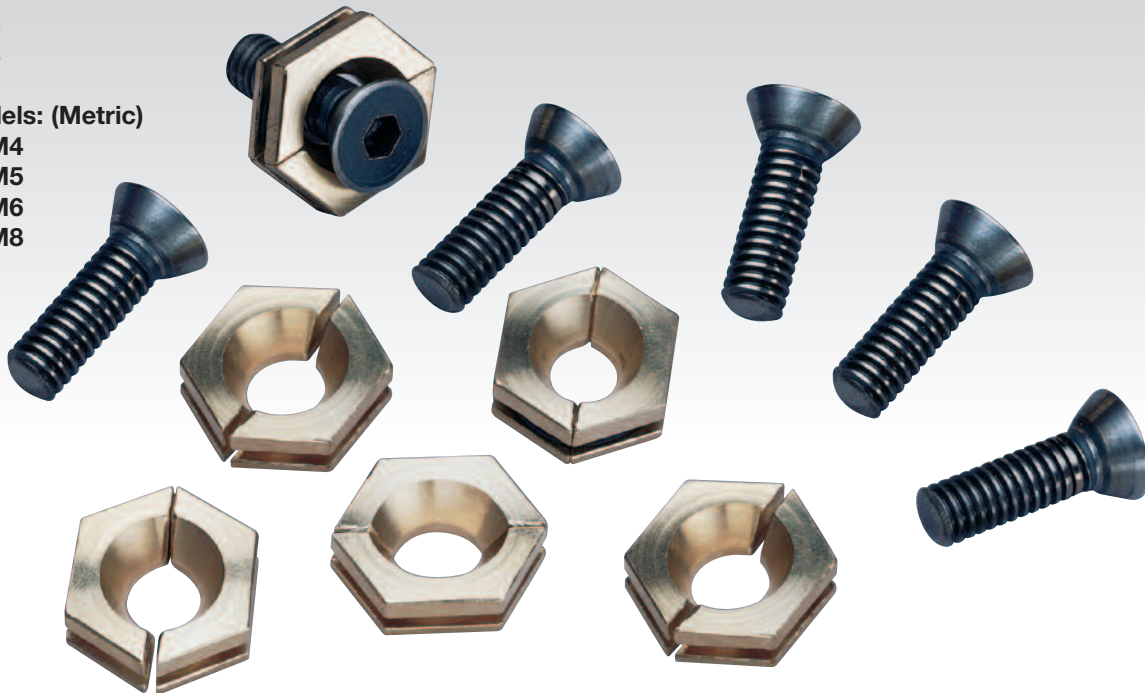
Shipping Weight - 6 lbs.

**Models: (Inch)**

- MT4
- MT5
- MT6
- MT8

**Models: (Metric)**

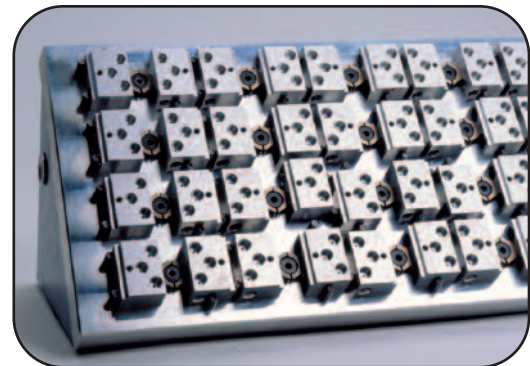
- MTM4
- MTM5
- MTM6
- MTM8

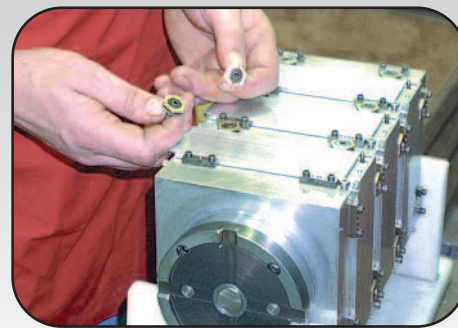
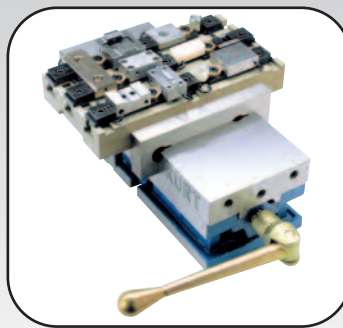
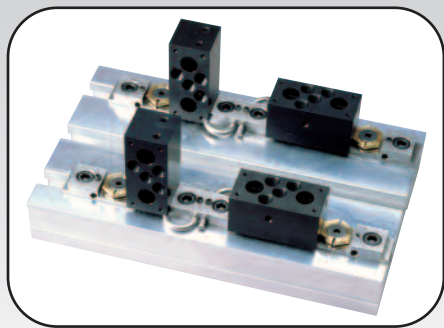


Unlike many competitive cam action models, this product employs the same AngLock concept as the world famous Kurt vises. When a quarter turn is applied to the screw, the split clamp jaw is forced both laterally and down, precisely clamping the part and preventing part lift at the same time. In-house tests showed zero lift when the MiniLock was used in several grinding operations.

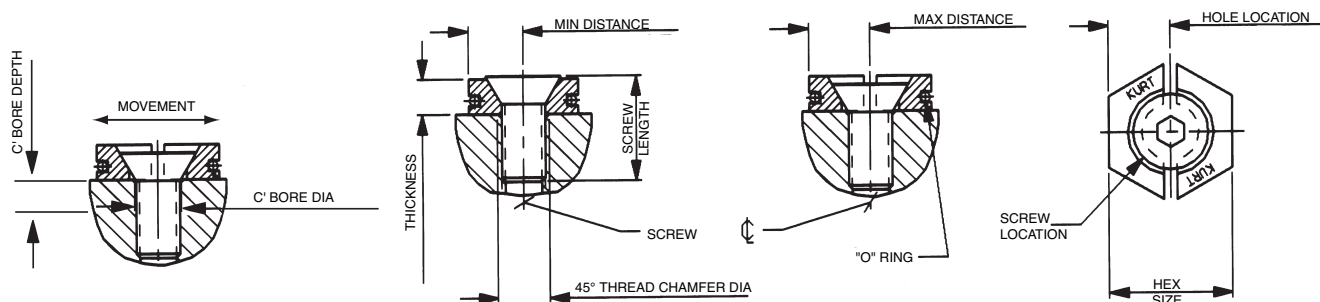
**Features:**

- By using stationary blocks or pins, two parts may be clamped by a single MiniLock.
- The versatile MiniLock can be used in single holding, double holding or multiples of both single and double holding applications.
- Ideal for dedicated fixturing as well as for palletizing small parts to be loaded into receivers on machine tables.
- Through the use of a variety of locating blocks, workstops and MiniLocks, several similar parts or a part “family” can be located on a single pallet.
- Clamping jaw made from rugged Ampco 18 aluminum bronze.
- Actuating screw is made from a special alloy steel.
- While one pallet of parts is being machined, the operator can be unloading and loading a second similarly configured pallet away from the machine tool.
- Steps may be machined into the clamp jaw for operations that require parts to be raised above the pallet or machine table.
- The low profile allows for machining of complete top surfaces of parts without having to re-clamp.
- Conveniently uses standard thread sizes and standard hex keys.
- One MiniLock package contains six MiniLocks.





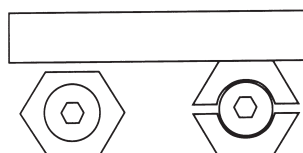
MINILOCK															
Model Number	Hex Size	Hex Thickness	Screw Size	Hex Wrench Size	Screw Length	Suggested Tapped Hole Loc. From Edge of Part	Min. Distance From Screw CL	Max Distance From Screw Cl	45° Thread Chamfer Dia.	Max part Size Differential Double Clamp	Optional C'Bored Tapped hole use for Larger part Tolerance Differential				
											C'Bore Dia. +.015-.005 (-.39-.13mm)	C'Bore Depth $\pm .020$ ( $\pm .50$ mm)	Max part Size Differential Double Clamp	Approx. Thread Engagement	Torque Ft. lb.
<b>INCH MODELS</b>															
MT4	0.688	0.188	1/4-20	0.156	0.625	0.324	0.308	0.350	0.300	0.010	0.281	0.156	0.250	11	987
MT5	0.875	0.250	5/16-18	0.188	0.750	0.412	0.384	0.442	0.368	0.010	0.344	0.203	0.283	18	1400
MT6	0.938	0.312	3/8-16	0.218	1.000	0.439	0.400	0.482	0.437	0.010	0.406	0.375	0.307	30	2200
MT8	1.125	0.375	1/2-13	0.312	1.250	0.528	0.492	0.584	0.500	0.010	0.531	0.468	0.384	83	2600
<b>METRIC MODELS</b>															
MTM4	17.476	4.776	M6 x 1	3.963	15.875	8.230	7.824	8.890	7.620	0.254	7.138	3.963	6.350	11	987
MTM5	22.250	6.350	M8 x 1.25	4.776	19.050	10.465	9.754	11.227	9.348	0.254	8.738	5.157	7.189	18	1400
MTM6	23.826	7.925	M10 x 1.5	5.538	25.400	11.151	10.160	12.243	11.100	0.254	10.313	9.525	7.798	30	2200
MTM8	28.575	9.525	M12 x 1.75	7.925	31.750	13.412	12.497	14.834	12.700	0.254	13.488	11.888	9.754	83	2600



**Option:**

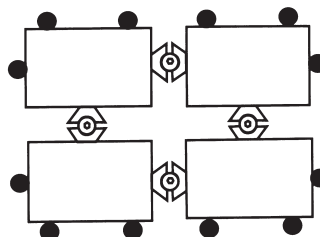
To allow a greater differential between workpieces, it is suggested you create a thread free zone to allow more sideways movement for the screw head.

Important Notice: Full thread is required when MiniLock is used clamping only on one side.

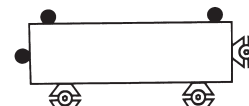


MiniLock before tightening clamp screw

MiniLock after tightening clamp screw



Clamp multiple parts with several MiniLocks and workstops.



Three MiniLocks used to clamp one larger part.



# SELF-CENTERING VISE

**Models:**  
SCD430  
SCD640

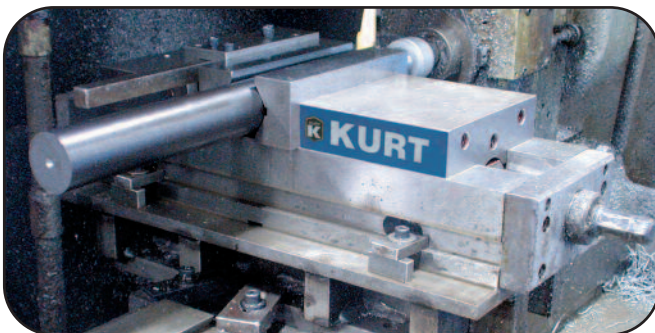
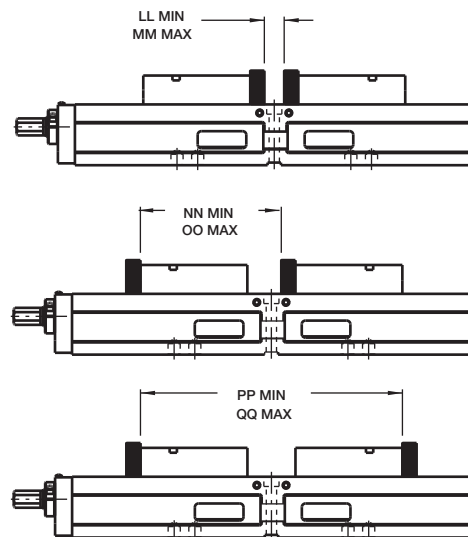


Kurt has two Self-Centering vises, a 4" jaw width (SCD430) and a 6" jaw width (SCD640). Jaw opening on the 4" model is 6.25" and 8" on the 6". Centering accuracy from minimum to maximum opening is 0.0006" with 0.0002" repeatability. Both movable jaws are Anglock design with zero lift. A unique feature is an adjustment that allows the centerline of the jaws to be set. This is especially important when mounting several vises on one machine and all centerlines must match.

**Features:**

- Lip seals on main screw.
- Chip guards.
- Hardened jaws.
- Hardened bed ways.
- 80,000-PSI ductile iron construction.

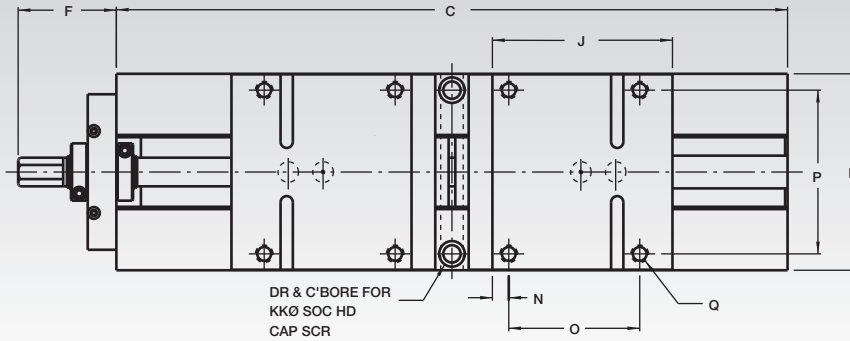
*JAW POSITION*



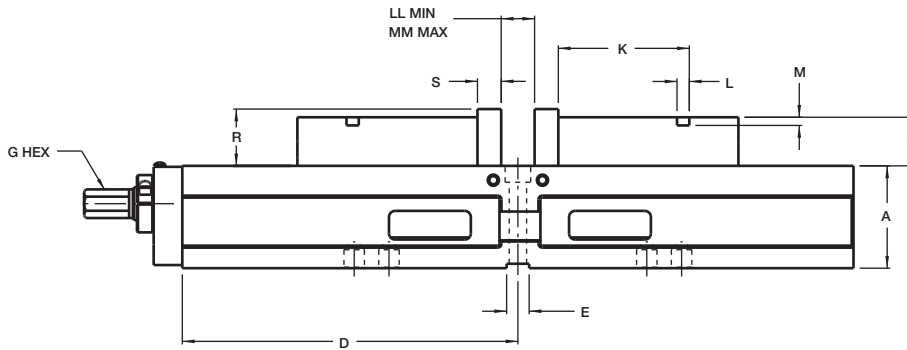


# SELF-CENTERING VISE

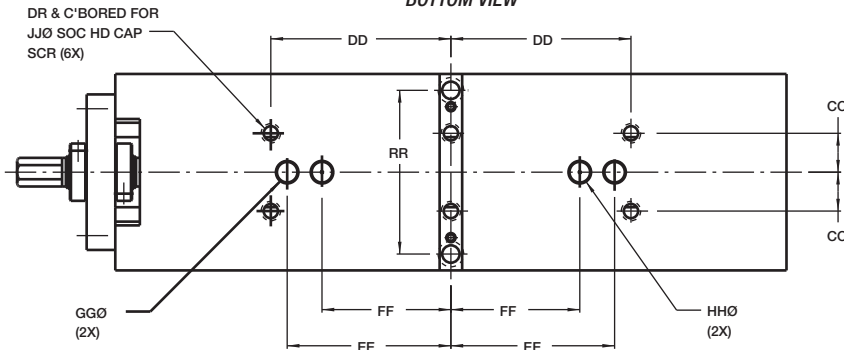
TOP VIEW



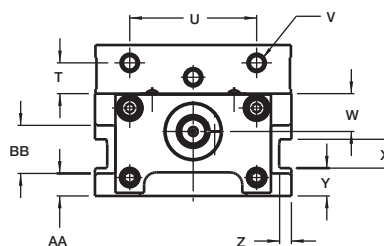
SIDE VIEW



BOTTOM VIEW



FRONT VIEW



WISE CLAMPING FORCE-LBS.

Torque-Ft. Lbs.	SCD430	SCD640
10	912	985
20	1757	1760
30	2410	2576
40	2935	3770
50	3549	4382
60	4902	5764

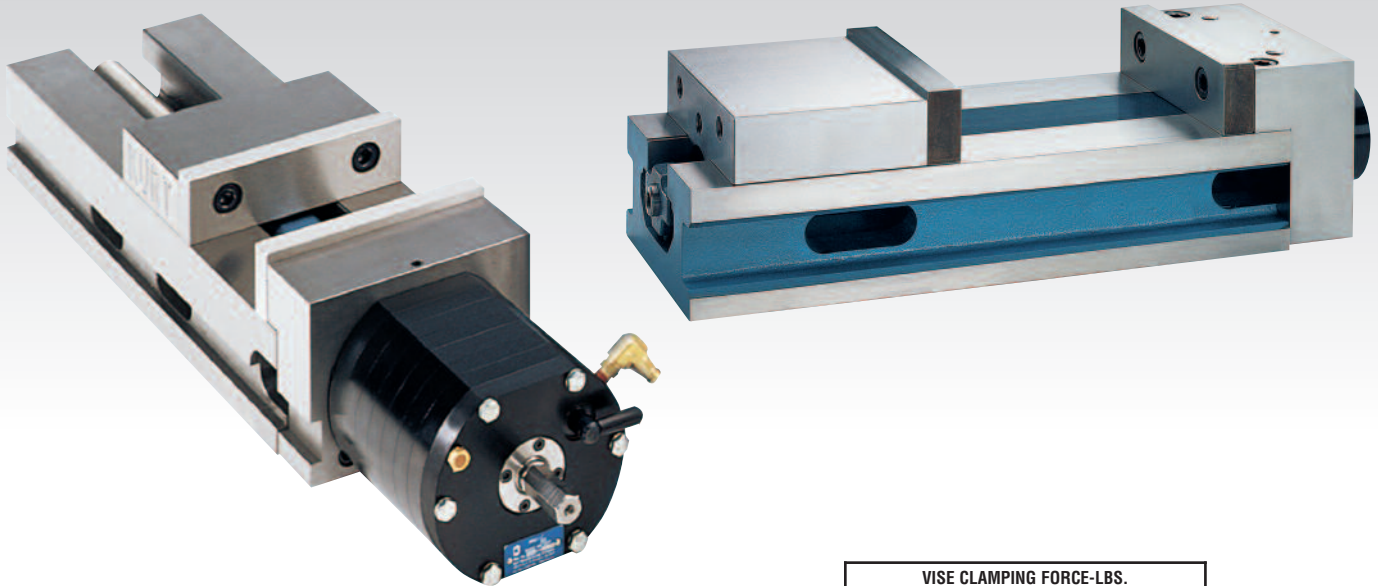
DIMENSIONAL DATA

	SCD430	SCD640
A	2.375	3.125
B	4.000	6.000
C	15.500	20.500
D	7.750	10.250
E	0.5005	0.6880
F	2.400	3.000
G	9/16	3/4
H	1.150	1.485
J	4.000	5.500
K	3.000	4.000
L	0.250	0.375
M	0.188	0.250
N	0.312	0.500
O	3.000	4.000
P	3.312	5.000
Q	5/16-18	1/2-13
R	1.235	1.735
S	0.547	0.725
T	0.687	0.940
U	2.500	3.875
V	3/8-16	1/2-13
W	0.871	1.156
X	0.690	0.880
Y	0.700	0.850
Z	0.250	0.360
AA	0.550	0.690
BB	1.000	1.470
CC	0.813	1.188
DD	3.750	5.500
EE	5.000	5.000
FF	3.370	3.937
GG	0.625	0.625
HH	0.630	0.630
JJ	5/16	3/8
KK	3/8	1/2
LL	1.000	1.000
MM	6.250	8.000
NN	5.540	7.240
OO	10.790	14.240
PP	10.090	13.470
QQ	15.340	20.470
RR	3.000	5.000
Ship Wt. Lbs.	40	100



# EXTRA CAPACITY 6" XL VISES

Model:  
640XL



Kurt XL vises are designed for precision clamping of very large parts for both tool and die and production CNC applications. With up to a 28.750" jaw opening, these vises lock precisely, even for high horsepower "hogging out" operations. All sides of Kurt XL vises are accurate to within 0.001" for precise, easy alignment in multiples. XL vises may be mounted and used as receivers for other workholding devices.

### Features:

- Up to 12,000 lbs. precision clamping force.
- AngLock design reduces jaw lift.
- 80,000-PSI ductile iron body.
- 6" and 8" jaw widths with jaw openings from 0"-21" with a maximum of 28.765" (in the outside jaw positions).
- "Pull-Type" clamping means high precision and repeatability.
- Great for high horsepower "hogging out" applications.
- Reverse model reduces "reach-over" distance making part loading safer and easier for the operator. Also part programming is easier in the "Y" axis positive direction.
- Manual, air and hydraulic models available.
- Air and hydraulic feature a 1/4" stroke.
- Air power option provides a precise and repeatable "gentle touch" for delicate parts.
- Intensifier available in either hand or foot option. Purchase separately. Each vise must have it's own intensifier. (See Page 64).
- Internal hex screw available.

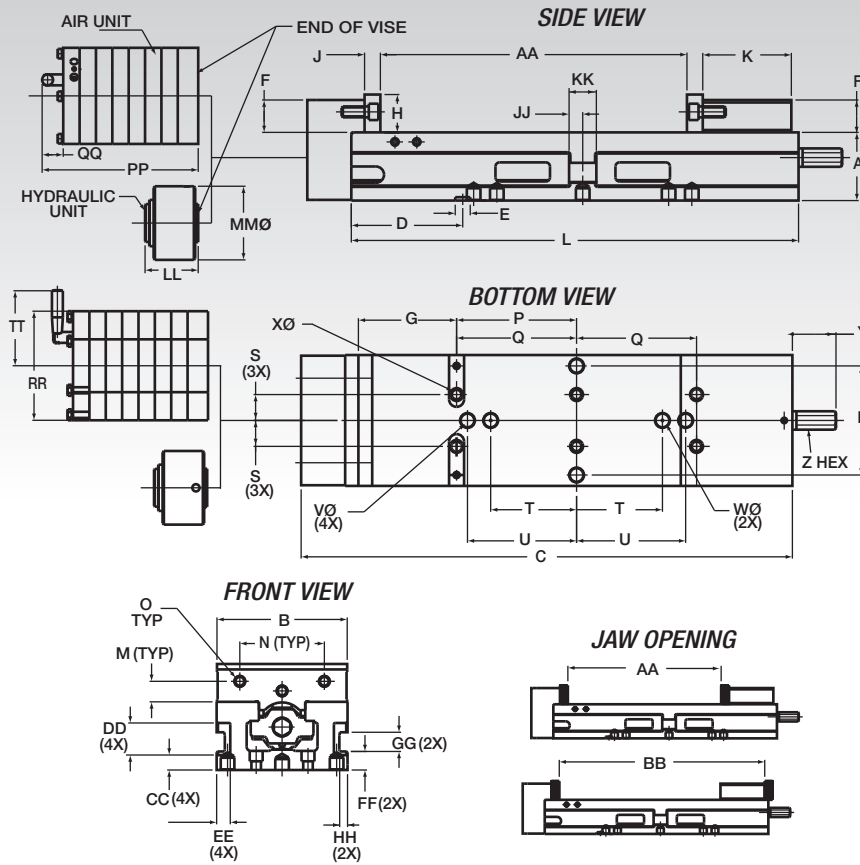
VISE CLAMPING FORCE-LBS.		
Manual Torque Ft.-Lbs.	Manual	
	640XLS	640XLR
10	989	989
20	1768	1768
30	2586	2586
40	3731	3731
50	4398	4398
60	5785	5785
70	6235	6235
80	6877	6877

VISE CLAMPING FORCE-LBS.		
Hydraulic PSI	Hydraulic	
	640XLHS	640XLHR
400	1575	1575
800	3150	3150
1200	4725	4725
1600	6300	6300
2000	7875	7875
2400	9450	9450
2800	11025	11025
3200	12600	12600

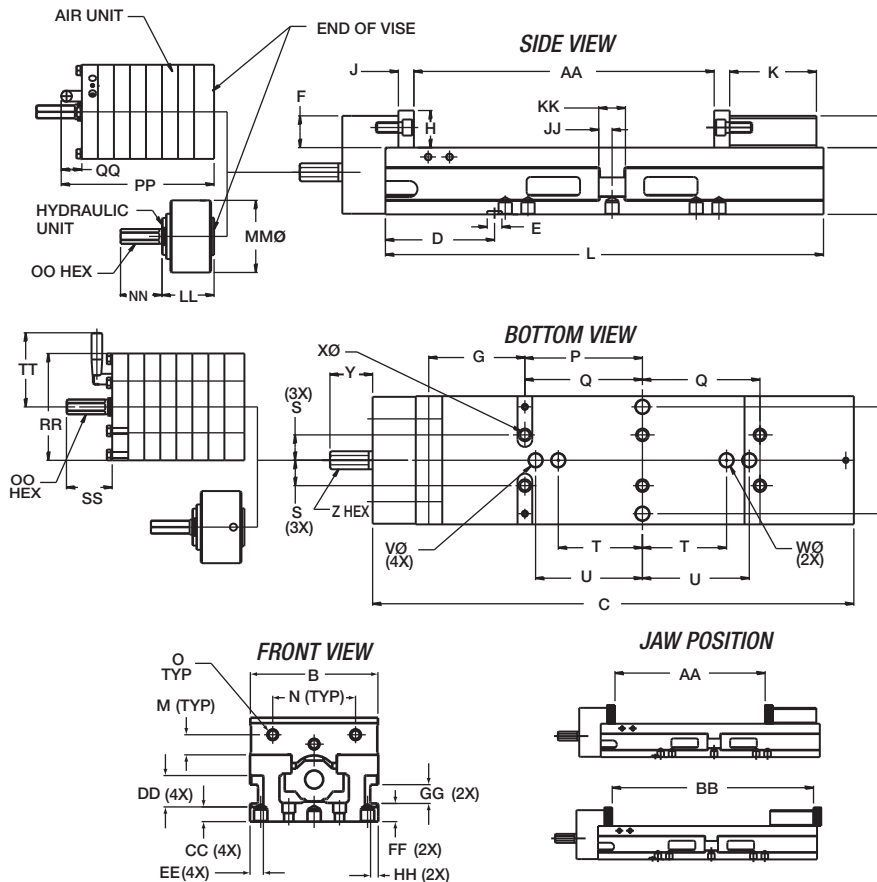
VISE CLAMPING FORCE-LBS.		
AIR PSI	Air	
	640XLAS	640XLAR
10	320	320
20	840	840
30	1280	1280
40	1780	1780
50	2200	2200
60	2720	2720
70	3240	3240
80	3800	3800
90	4380	4380
100	5000	5000

# EXTRA CAPACITY 6" XL VISES

## Standard (S)



## Reverse (R)



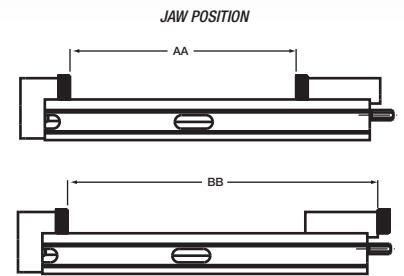
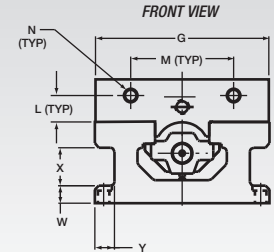
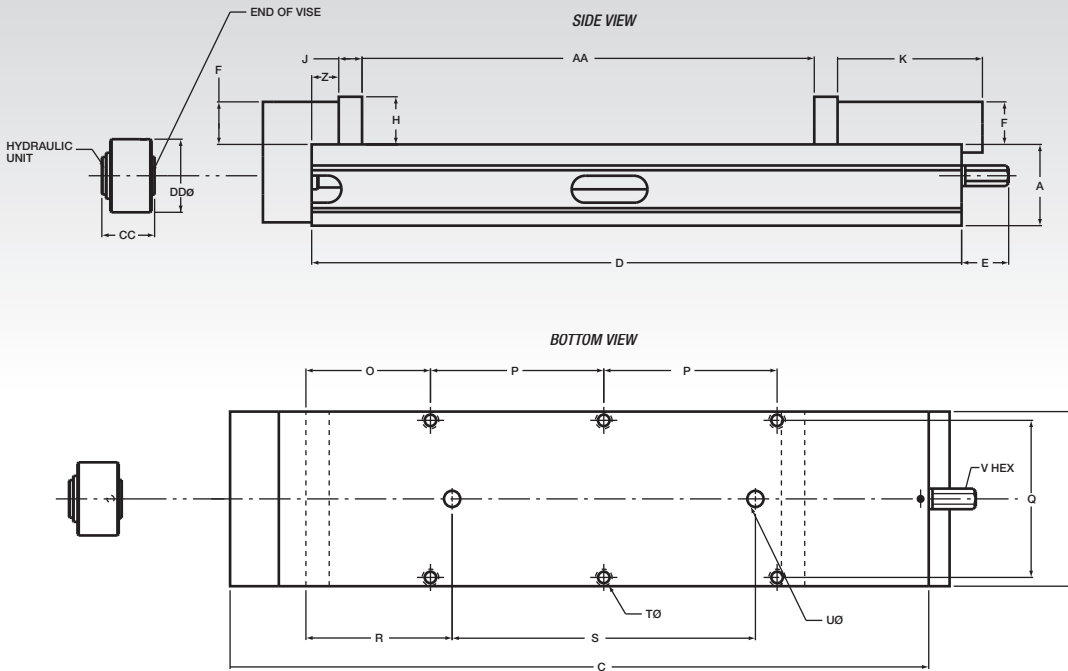
	DIMENSIONAL DATA					
	Manual		Hydraulic		Air	
	640XLS	640XLR	640XLHS	640XLHR	640XLAS	640XLAR
A	3.125	3.125	3.125	3.125	3.125	3.125
B	6.000	6.000	6.000	6.000	6.000	6.000
C	22.510	22.510	22.510	22.510	22.510	22.510
D	5.107	5.107	5.107	5.107	5.107	5.107
E	0.688	0.688	0.688	0.688	0.688	0.688
F	1.485	1.485	1.485	1.485	1.485	1.485
G	4.500	4.500	4.500	4.500	4.500	4.500
H	1.735	1.735	1.735	1.735	1.735	1.735
J	0.725	0.725	0.725	0.725	0.725	0.725
K	4.060	4.060	4.060	4.060	4.060	4.060
L	20.500	20.500	20.500	20.500	20.500	20.500
M	0.940	0.940	0.940	0.940	0.940	0.940
N	3.875	3.875	3.875	3.875	3.875	3.875
O	1/2-13	1/2-13	1/2-13	1/2-13	1/2-13	1/2-13
P	5.500	5.500	5.500	5.500	5.500	5.500
Q	5.500	5.500	5.500	5.500	5.500	5.500
R	5.000	5.000	5.000	5.000	5.000	5.000
S	1.188	1.188	1.188	1.188	1.188	1.188
T	3.937	3.937	3.937	3.937	3.937	3.937
U	5.000	5.000	5.000	5.000	5.000	5.000
V	0.625	0.625	0.625	0.625	0.625	0.625
W	0.6299	0.6299	0.6299	0.6299	0.6299	0.6299
X	3/8	3/8	3/8	3/8	3/8	3/8
Y	2.000	1.920	2.000	-	2.000	-
Z	3/4	3/4	3/4	-	3/4	-
AA	14.000	14.000	14.000	14.000	14.000	14.000
BB	18.780	18.780	18.780	18.780	18.780	18.780
CC	0.690	0.690	0.690	0.690	0.690	0.690
DD	1.470	1.470	1.470	1.470	1.470	1.470
EE	0.630	0.630	0.630	0.630	0.630	0.630
FF	0.850	0.850	0.850	0.850	0.850	0.850
GG	0.880	0.880	0.880	0.880	0.880	0.880
HH	0.360	0.360	0.360	0.360	0.360	0.360
JJ	0.630	0.630	0.630	0.630	0.630	0.630
KK	1.250	1.250	1.250	1.250	1.250	1.250
LL	-	-	2.250	2.250	-	-
MM	-	-	3.375	3.375	-	-
NN	-	-	-	5/8	-	-
OO	-	-	-	5/8	-	-
PP	-	-	-	-	7.220	7.220
QQ	-	-	-	-	1.030	1.030
RR	-	-	-	-	5.000	5.000
SS	-	-	-	-	-	2.140
TT	-	-	-	-	3.470	3.470
Ship Wt. Lbs.	100	100	105	105	106	106
Hydraulic Displacement cu. In.	-	-	1.18	1.18	-	-



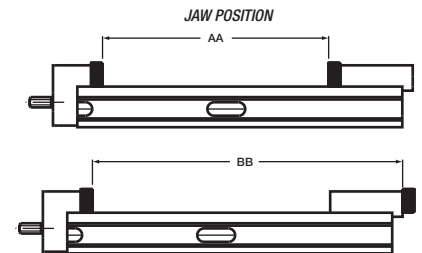
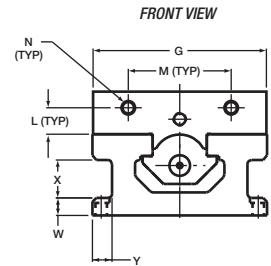
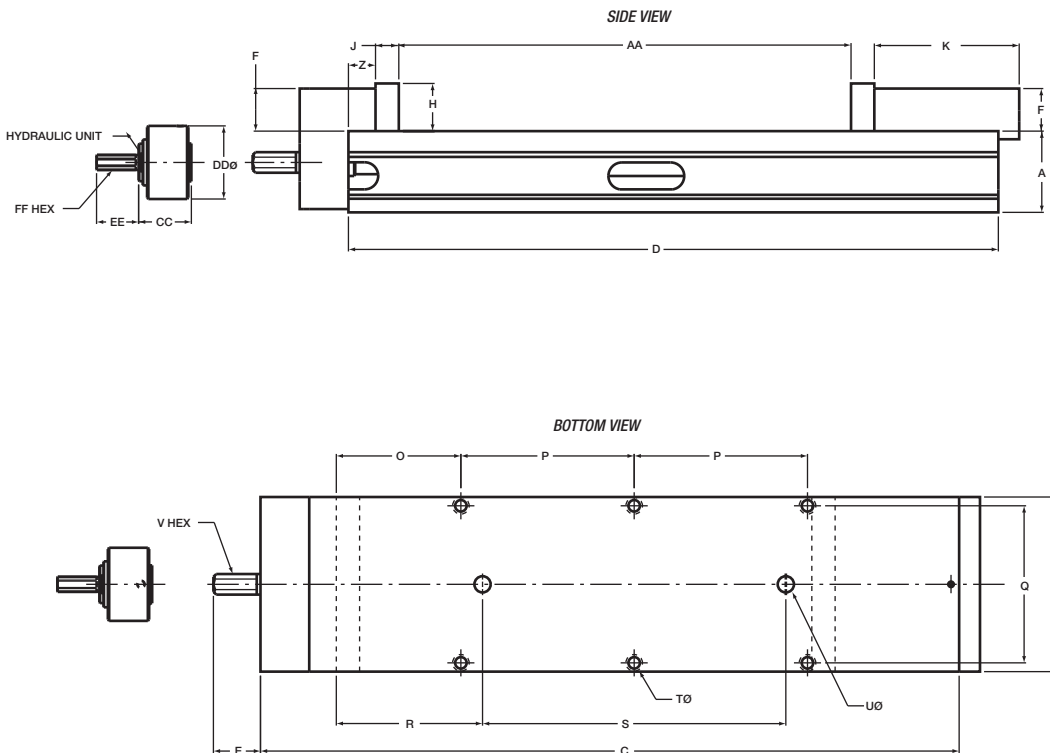
# EXTRA CAPACITY 8" XL VISES

Model:  
8XL

Standard (S)



Reverse (R)



Note: Keyway slots can be machined in.  
Call CEW for quotation 1-877-226-7828

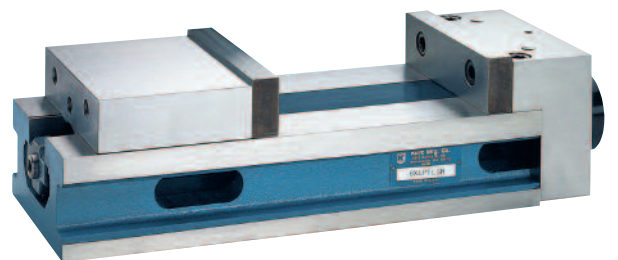


# EXTRA CAPACITY 8" XL VISES

VISE CLAMPING FORCE-LBS.		
Hydraulic PSI	Hydraulic	
	8XLPTLSHS	8XLPTLSHR
1400	5600	5600
1800	7490	7490
2200	8765	8765
2800	11250	11250
3000	12050	12050
3200	12780	12780

VISE CLAMPING FORCE-LBS.		
Manual Torque Ft.-Lbs.	Manual	
	8XLPTLSS	8XLPTLSR
20	2904	2904
40	5664	5664
60	7872	7872
80	10824	10824
100	13848	13848
120	16632	16632
140	19008	19008
160	20376	20376

	DIMENSIONAL DATA			
	Manual		Hydraulic	
	8XLPTLSS	8XLPTLSR	8XLPTLSHS	8XLPTLSHR
A	3.750	3.750	3.750	3.750
B	8.060	8.060	8.060	8.060
C	32.250	32.250	32.250	32.250
D	30.000	30.000	30.000	30.000
E	2.170	1.890	2.160	-
F	1.965	1.965	1.965	1.965
G	8.000	8.000	8.000	8.000
H	2.200	2.200	2.200	2.200
J	1.075	1.075	1.075	1.075
K	6.690	6.690	6.690	6.690
L	1.220	1.220	1.220	1.220
M	4.750	4.750	4.750	4.750
N	5/8-11	5/8-11	5/8-11	5/8-11
O	5.750	5.750	5.750	5.750
P	8.000	8.000	8.000	8.000
Q	7.250	7.250	7.250	7.250
R	6.750	6.750	6.750	6.750
S	14.000	14.000	14.000	14.000
T	1/2	1/2	1/2	1/2
U	0.750	0.750	0.750	0.750
V	7/8	3/4	7/8	-
W	0.810	0.810	0.810	0.810
X	1.750	1.750	1.750	1.750
Y	0.900	0.900	0.900	0.900
Z	1.250	1.250	1.250	1.250
AA	21.000	21.000	21.000	21.000
BB	28.765	28.765	28.765	28.765
CC	-	-	2.400	2.400
DD	-	-	3.375	3.375
EE	-	-	-	1.940
FF	-	-	-	5/8
Ship Wt. Lbs.	230	235	230	235
Hydraulic Displacement cu. In.	-	-	1.18	1.18





# ANGLOCK® D-SERIES VISES

## Models:

**D40 D675 DM675 D688® DM688 D810 D100**



The original Kurt Anglock D-Series vises are designed for precision part clamping on basic machine tools such as knee-type mills, grinders and machining centers. D-Series vises are ideal for use in running production parts where datums, flatness and parallelism is important. You can precision bore, tap, drill, grind and finish with high accuracy on most parts made of die cast aluminum, steel, and iron in your Kurt Anglock vises. No other brand can give you the time proven accuracy of the Kurt Anglock vises.

All Kurt vises have a friction reducing, needle bearing, thrust collar. The needle bearing increases jaw clamping pressure.

### Features of All D-Series Vises Include:

- AngLock design assures the movable jaw does not lift.
- Hardened vise bed.
- Hardened jaw plates.
- Semi-hard steel screw.
- 80,000-PSI ductile iron body.
- Matching of bed height  $\pm 0.001$ " available at an additional cost for the D40 and D100 vises.
- Matching of the keyway to the stationary jaw  $\pm 0.001$ " is available at additional cost.



### D40

The D40 vise is recommended for intermediate milling and grinding work. It is an ideal vise for use in matched multiples for holding long parts. With jaw plates in their outside positions, this 4" vise has a 10-5/16" capacity.



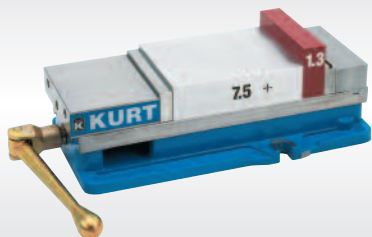
### D675

#### DM675 (Metric)

The D675 has a new vise body with four major improvements:

- Powder coat paint resists peeling.
- Machined rail allows precision alignment.
- A 7-1/2" (190.500mm) jaw opening.
- Stationary jaw features an integral key and larger fasteners that reduces deflection by 50%.

Bed height matched to size 2.875" (73.025mm)  $\pm 0.0005$ ". Patented "O" ring pull down feature is standard. Parts from the previous body style are interchangeable with this new one.



### D688®

#### DM688 (Metric)

- Large 8.8" (223.520mm) jaw opening.
- Outside rail edges of the body are machined.
- Vise nut does not extend beyond the end of the vise body.
- D688 has the same footprint as the D675 vise. Distance from keyway to stationary same as D675.
- Groove Lock jaw (D60-315) and workstop (WSRL46) standard.
- Patented "O" ring pull down feature standard.

- Approximately a 20% increase in clamping pressure over D675 vise.
- Distinctive patented design of the "Kurt Look".
- Patented AngLock design.
- Bed height matched to size 2.875" (73.025mm)  $\pm 0.0005$ ".
- Repeatability within 0.001".
- Sealed needle thrust bearing used at hex end of screw to reduce clamping friction.

# ANGLock® D-SERIES VISES

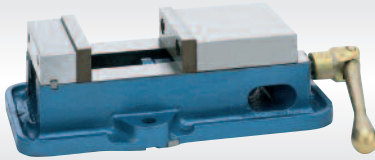


## D810 - New, Easier Operation

Kurt's new D810 features a new updated body style:

- Top down, four bolt design on the stationary jaw reduces vise deflection by 25 percent while allowing total disassembly of the vise without removing the body from the machine table. Special brush seals shield and protect vise screw threads from machined chips and residue.

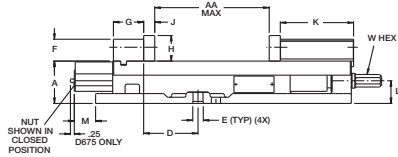
- The nut has been shortened so as not to protrude past the end of the vise body. New powder coat paint finish resists coolant-induced peeling for greater corrosion protection. The overall vise footprint is identical to earlier models so both can be used interchangeably and in tandem.
- With a jaw opening of 10" and clamping force up to 11,600 lbs., the D810 vise locks parts precisely including very large parts for aggressive "hogging out" operations.



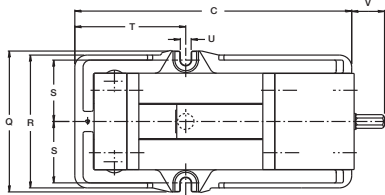
## D100

The D100 is the largest and strongest of our general purpose vises. With 9-3/4" of jaw opening, it has the capacity and strength to take on your highest horsepower milling cuts. It's the most precise and rugged 10" production vise in the world.

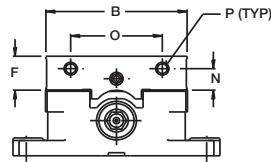
### SIDE VIEW



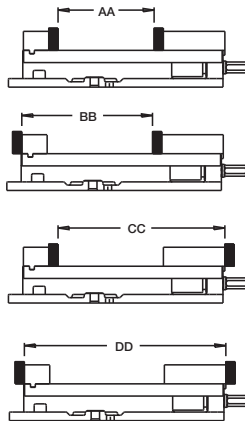
### TOP VIEW



### FRONT VIEW



### JAW PLATE POSITION



MANUAL VISE CLAMPING FORCE-LBS.					
Torque Ft.-Lbs.	D40	D675	D688	D810	D100
10	1653	989	1129	-	-
20	2923	1776	2242	1834	1698
30	4103	2848	3337	-	-
40	5241	3628	4148	3843	3300
50	6513	4365	5379	-	-
60	7807	5432	6310	4349	4686
70	-	6111	6977	-	-
80	-	6721	7968	5706	6623
100	-	-	-	7042	7842
120	-	-	-	8688	9970
140	-	-	-	10413	11429
160	-	-	-	11596	12792
180	-	-	-	-	14681
200	-	-	-	-	16163
220	-	-	-	-	18124
240	-	-	-	-	20563
260	-	-	-	-	22093
280	-	-	-	-	24077
300	-	-	-	-	26277

	DIMENSIONAL DATA						
	D40	D675	DM675	D688	DM688	D810	D100
	Inch	Inch	MM	Inch	MM	Inch	Inch
A	2.250	2.875	73.025	2.875	73.025	3.310	3.875
B	4.000	6.000	152.400	6.000	152.400	8.000	10.000
C	12.340	16.750	425.450	16.810	426.974	21.810	27.500
D	2.562	3.562	90.475	3.562	90.475	4.686	5.875
E	0.500	0.688	17.476	0.688	17.476	0.813	0.813
F	1.115	1.485	37.719	1.485	37.719	1.965	2.465
G	1.355	1.980	50.292	1.980	50.292	3.652	2.950
H	1.235	1.735	44.069	1.735	44.069	2.200	2.937
J	0.547	0.725	18.415	0.725	18.415	1.075	1.320
K	4.000	4.800	121.920	4.800	121.920	6.190	8.630
L	1.281	1.540	39.116	1.540	39.116	1.865	2.225
M	-	1.390	35.306	-	-	-	-
N	0.687	0.940	23.876	0.940	23.876	1.220	1.625
O	2.500	3.875	98.425	3.875	98.425	4.750	5.750
P	3/8-16	1/2-13	M12x25	1/2-13	M12x25	5/8-11	3/4-10
Q	6.380	8.750	222.250	8.750	222.250	11.500	14.500
R	5.750	8.250	209.550	8.250	209.550	11.000	13.250
S	2.625	3.813	96.851	3.813	96.851	4.940	6.188
T	4.860	6.710	170.434	5.667	143.942	8.500	10.590
U	0.531	0.656	16.663	0.656	16.663	0.880	0.940
V	0.700	2.000	50.800	1.930	49.022	2.375	1.690
W	9/16	0.750	19.050	0.750	19.050	0.875	1
AA	3-7/8	7.5	190.500	8.8	223.520	10	9-3/4
AA MIN	0	0	0	0	0	0	0
BB	5.750	10.500	266.700	11.500	292.100	14.730	14.000
BB MIN	1.400	3.000	76.200	2.700	68.580	4.730	3.500
CC	8.4375	13.125	333.375	14.320	363.728	17.260	19.750
CC MIN	4.100	5.800	147.320	5.600	142.240	7.260	9.200
DD	10.3125	15.875	403.225	17.030	432.562	21.990	24.750
DD MIN	5.900	8.500	215.900	6.800	172.720	11.990	13.500
Ship Wt.	32	78	36	78	36	158	300

### Repair Kits

MODEL	REPAIR KIT
D30	*D30-KIT
D40	*D40-KIT
D50	*D50-KIT
D60	D60-KIT
D675	*D675-KIT
D688	*D688-KIT
D80	D80-KIT
D810	*D810-KIT
D100	D100-KIT

\* = Same as Metric Vise



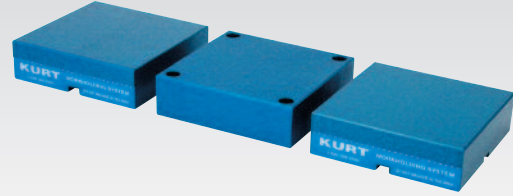
Select Your Choice of Jaw Kits for CarvLock® Vise and CarvLock® Towers

**DLU4ALU - Jaw Kit**

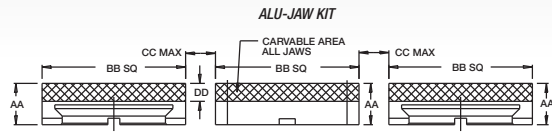
**DLU6ALU - Jaw Kit**

**Quick Change, Machinable Soft Jaws**

- 90° indexable soft jaws (6061 - T6 Aluminum) can be machined to fit the shape of your part for inexpensive dedicated fixturing.
- Movable jaw blocks are indexable and machinable on all four sides. Allows machining over bolt holes in stationary jaw.
- Stationary jaws are keyed to the vise base for repeatability within 0.001".



	AA	BB	CC	DD	MM	RR	SS	LBS
DLU4ALU- Jaw Kit	1.228	4.000	1.470	0.500	0.620	3.188	7.063	6
DLU4ALU1.70- Kit	1.700	4.000	1.470	0.972	0.620	3.188	7.063	8
DLU4ALU2.20- Kit	2.200	4.000	1.470	1.472	0.620	3.188	7.063	11
DLU6ALU- Jaw Kit	1.728	6.000	1.187	0.750	0.730	3.875	8.515	16
DLU6ALU2.50- Kit	2.500	6.000	1.187	1.500	0.730	3.875	8.500	25
DLU6ALU3.25- Kit	3.250	6.000	1.187	2.250	0.730	3.875	8.500	32

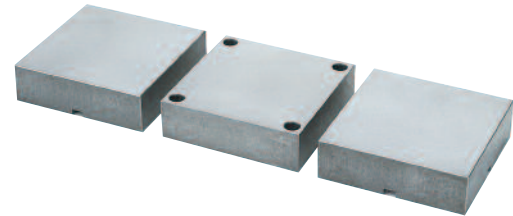


**DLU4C - Jaw Kit**

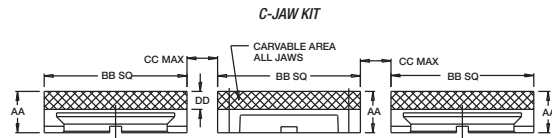
**DLU6C - Jaw Kit**

**Quick Change, Machinable Ductile Iron Jaws**

- Movable jaw blocks are indexable and machinable on all four sides. Allows machining over bolt holes in stationary jaw.
- Stationary jaws are keyed to the vise base for repeatability within 0.001".



	AA	BB	CC	DD	MM	PP	QQ	LBS
DLU4C- Jaw Kit	1.228	3.969	1.500	0.500	0.620	3.188	7.079	13
DLU4C1.70- Jaw Kit	1.700	3.969	1.500	0.972	0.620	3.188	7.079	19
DLU4C2.20- Jaw Kit	2.200	3.969	1.500	1.472	0.620	3.188	7.079	25
DLU6C- Jaw Kit	1.728	5.969	1.218	0.750	0.730	3.875	8.515	38
DLU6C2.50- Jaw Kit	2.500	5.969	1.218	1.500	0.730	3.875	8.515	59
DLU6C3.25- Jaw Kit	3.250	5.969	1.218	2.250	0.730	3.875	8.515	79



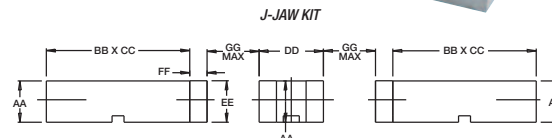
**DLU6J - Jaw Kit**

**Standard Jaws**

- Hardened steel jaw plates.
- Stationary and movable jaws 1.780" high. Extra height allows higher clamping with less jaw deflection.
- Stationary jaws are keyed to the vise base for repeatability within 0.001".



	AA	BB	CC	DD	EE	FF	GG	MM	NN	OO	LBS
DLU6J- Jaw Kit	1.728	6.000	5.969	2.690	1.735	0.725	2.125	0.730	2.690	6.940	37





## Select Your Choice Of Jaw Kits For DU68™ Fixture Vise

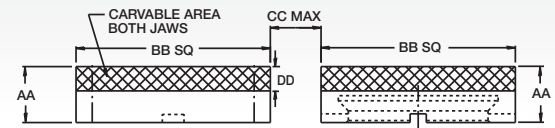
### DU68ALU - Jaw Kit

#### Quick Change, Machinable Soft Jaws

- 90° indexable soft jaws (6061 - T6 Aluminum) can be machined to fit the shape of your part for inexpensive dedicated fixturing.
- Movable jaw blocks are indexable and machinable on all four sides. Allows machining over bolt holes in stationary jaw.
- Stationary jaws are keyed to the vise base for repeatability within 0.001".



6" Jaw Kits	AA	BB	CC	DD	WT (lbs.)
DU68ALU- Jaw Kit	1.728	6.000	6.110	0.750	11
DU68ALU2.50- Kit	2.500	6.000	6.110	1.522	17
DU68ALU3.25- Kit	3.250	6.000	6.110	2.727	22



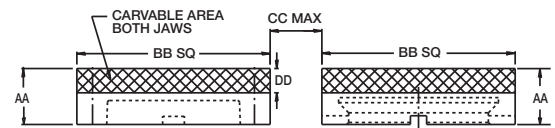
### DU68C - Jaw Kit

#### Quick Change, Machinable Ductile Iron Jaws

- Movable jaw blocks are indexable and machinable on all four sides. Allows machining over bolt holes in stationary jaw.
- Stationary jaws are keyed to the vise base for repeatability within 0.001".



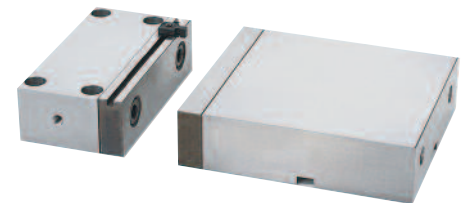
6" Jaw Kits	AA	BB	CC	DD	WT (lbs.)
DU68C- Jaw Kit	1.728	5.969	6.140	0.750	26
DU68C2.50- Jaw Kit	2.500	5.969	6.140	1.522	39
DU68C3.25- Jaw Kit	3.250	5.969	6.140	2.727	53



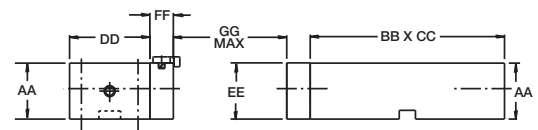
### DU68J - Jaw Kit

#### Standard Jaws

- Hardened steel jaw plates.
- Stationary and movable jaws 1.780" high. Extra height allows higher clamping with less jaw deflection.
- Stationary jaws are keyed to the vise base for repeatability within 0.001".



6" Jaw Kits	AA	BB	CC	DD	EE	FF	GG	WT (lbs.)
DU68J- Jaw Kit	1.728	6.000	5.969	2.480	1.735	0.725	8.045	24





# VISE ACCESSORIES

### Grid Plates

- TP101602 10" x 16"
- TP122002 12" x 20"
- TP162602 16" x 26"



**Grid Plates** (also known as locator plates, tooling plates) – customizable grid patterned locator system.

Purchase standard grid plates to self customize or purchase a plate customized to your machine tool table for hold down holes, locator pins, standard dowel pins, keyway holes or slots as required. Call for quote on custom plates.

A36 Steel plates are stress relieved and ground with a treated black oxide surface.

#### Features:

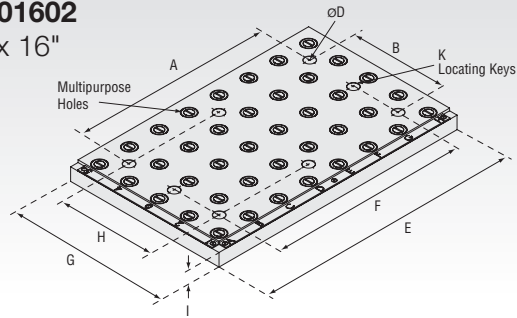
- Available in a variety of sizes (inch dimensions).
- Laser cut alpha/numeric indicator strips can be added/removed to adjust to needed size.
- Reduce set-up time.
- Multipurpose bushed and tapped holes held to true position 0.0008".
- Protection plugs included for every hole.
- Kurt HD and MoveLock vises can be mounted directly.

In-stock standard plates ship next day. Customized plates ship within 5 days or less after receipt of all specifications.

Each plate comes with one alpha and one numeric strip, multipurpose bushed and tapped holes, protection plugs, and four locator holes. Mounting brackets sold separately.

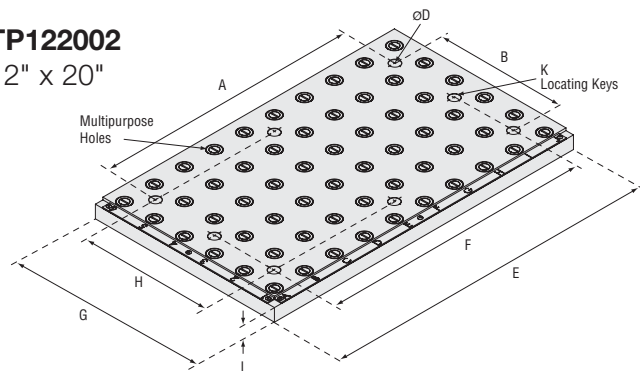
### TP101602

10" x 16"



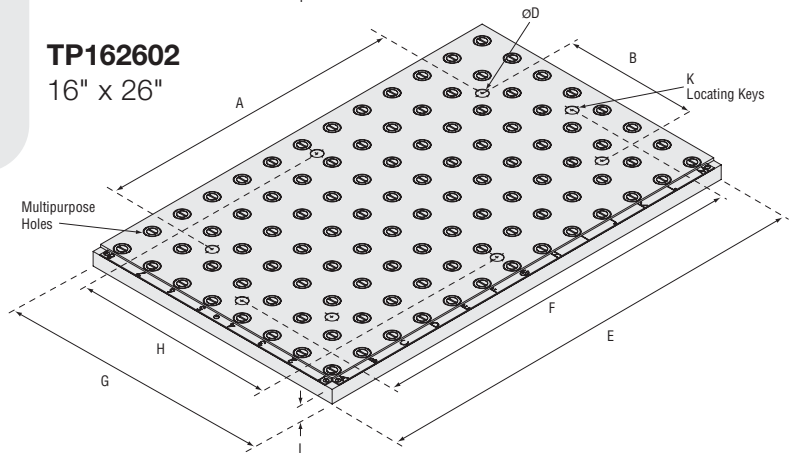
### TP122002

12" x 20"

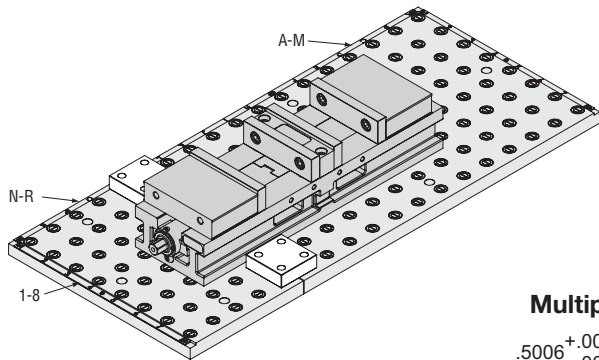


### TP162602

16" x 26"



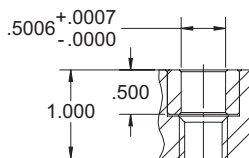
### Example of two plates combined with HD Vise mounted



Indicator strips are adjustable based on combination of plates. Example shown: Alpha A-M and N-R with 1-8 numeric.

**Call for special pricing on vise and grid plate packages. Plus, receive free mounting on all packages!**

#### Multipurpose Holes



SECTION A-A  
SCALE 1 : 1

Part #	A	B	D	E	F	G	H	I	K
TP101602	Note: A, B & D hold down holes to be added based on customer specifications (size and location).			15.938"	12.000"	9.938"	6.000"	1.000" ±0.001	Ø.6250" +0.0005" -0.0000 thru
TP122002				19.938"	16.000"	11.938"	8.000"	1.000" ±0.001	
TP162602				25.938"	22.000"	15.938"	12.000"	1.000" ±0.001	

# VISE ACCESSORIES

## InnerLock® Jaw Plates



InnerLock Individual Jaws	4" Vise		6" Vise		8" vise	
	Part #	Ship Wt.	Part #	Ship Wt.	Part #	Ship Wt.
SINGLE STEP	AJ400-32	1 Lb.	AJ600-32	2 Lbs.	AJ800-32	6 Lbs.
DOUBLE STEP	AJ400-236	1 Lb.	AJ600-236	2 Lbs.	AJ800-236	5 Lbs.
ALUMINUM	AJ400-234	1 Lb.	AJ600-234	1 Lb.	AJ800-234	2 Lbs.
SEMI-HARD STEEL (4150)	AJ400-235	1 Lb.	AJ600-235	3 Lbs.		
SERRATED	AJ400-47	1 Lb.	AJ600-47	2 Lbs.	AJ800-47	6 Lbs.
V JAW HARDENED & GROUND	AJ400-237	2 Lbs.	AJ600-237	5 Lbs.	AJ800-237	10 Lbs.
BOLTS-D (4) PIECES	00-3353	1 Lb.	00-3417	1 Lb.	00-3481	1 Lb.
BOLTS-PT (4) PCS.	00-3353	1 Lb.	00-3417	1 Lb.	00-3481	1 Lb.
BOLTS-DL (4) PCS. (STATIONARY)	00-3348	1 Lb.	00-3412	1 Lb.	-	-
BOLTS-DL (4) PCS. (MOVABLE)	00-3353	1 Lb.	00-3417	1 Lb.	-	-

Jaws for HDL Vises	Part #		Dimensions	
HDL SERIES VISE – MOVABLE (4)	AJ600-89	LHSCS	M12 x 1.75	30mm Lg
HDL SERIES VISE – STATIONARY (4)	AJ600-143	LHSCS	M12 x 1.75	16mm Lg

With the InnerLock jaw plates, it takes only 40 seconds to change. By minimizing down time, the unique reversible feature saves you money on the jaw plates. Each jaw plate can be mounted in two directions, giving you two jaw plates for the price of one. For instance, the plain jaw plate when in the inverted position has a step for holding small parts closer to the spindle. Our small through-hole design allows for greater gripping surface.

Part #	INNERLOCK JAW PLATE DIMENSIONS																						
	Aluminum			Semi Hard			Single				Double Step				Serrated			V-Jaw					
	W	L	H	W	L	H	W	L	H	STEP	W	L	H	ST 1	ST 2	W	L	H	W	L	H	SM 0	LG 0
AJ400	0.730	3.969	1.374	0.730	3.969	1.374	0.570	3.969	1.374	0.125	0.547	3.969	1.374	0.250	0.500	0.547	3.969	1.374	1.125	3.969	1.374	0.100	1.500
AJ600	0.9810	5.969	1.880	1.125	5.969	1.880	0.725	5.969	1.880	0.188	0.735	5.969	1.880	0.375	0.750	0.725	5.969	1.880	1.875	5.969	1.880	1.125	3.000
AJ800	1.230	7.969	2.440	-	-	-	1.075	7.969	2.440	0.250	1.075	7.969	2.440	0.500	1.000	1.075	7.969	2.440	2.375	7.969	2.440	0.150	4.500

InnerLock jaws require low silhouette SHCS.

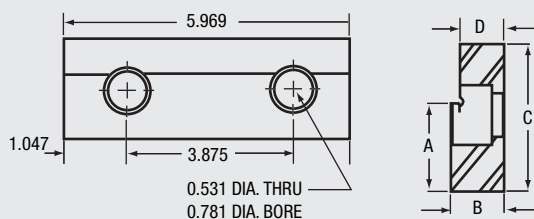
## Machinable Aluminum Jaw Plate For All Kurt 6" Vises



XJAB6A-318

- 6" Aluminum (6061-T6) soft jaw. Fits all Kurt 6" vises.
- Reversible top to bottom and front to back, (Counter bore both sides).
- Extra thickness for carving part shapes into jaw plate.
- 5.969" L x 1.500" W x 1.874" H.

## Standard Individual Jaw Plates



Part #	Dim "A"	Dim "B"	Dim "C"	Dim "D"	Description
60-32-1	1.693	0.725	1.880	0.610	STEPPED JAW
60-236-1	1.505	0.725	1.880	0.610	STEPPED JAW
60-236-2	1.130	0.725	1.880	0.610	STEPPED JAW
*60-234-1	NONE	0.980	1.880	0.980	ALUMINUM
*60-235-1	NONE	1.125	1.880	1.125	STEEL
LP60-32	1.469	0.725	1.635	0.610	STEPPED JAW
*60-47-1	NONE	0.725	1.735	0.725	SERRATED JAW

\*60-234-1 is a carve your own pocket jaw plate.  
 \*60-235-1 is a carve your own pocket jaw plate.  
 \*60-47-1 Serrations are aggressive and will mark parts.

Jaw Type	4" Vise		6" Vise	
	Part #	Wt.	Part #	Wt.
HARDENED	D40-7	1 Lb.	D60-7	2 Lbs.
SOFT	D40-7-SOFT	1 Lb.	D60-7-SOFT	2 Lbs.
STEPPED	See InnerLock		See InnerLock	
SERRATED	See InnerLock		See InnerLock	

Jaw Type	8" Vise		10" Vise	
	Part #	Wt.	Part #	Wt.
HARDENED	D80-7	5 Lbs.	D100-7	6 Lbs.
SOFT	D80-7-SOFT	5 Lbs.	D100-7-SOFT	6 Lbs.
STEPPED	See InnerLock		-	
SERRATED	See InnerLock		D100-47	6 Lbs.

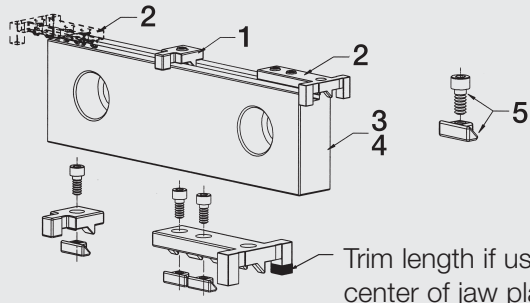
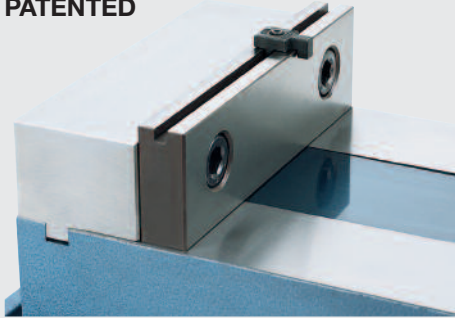




# VISE ACCESSORIES

## Groove Lock®

**PATENTED**



### Features:

- Simple, functional, integral workstop system.
- Workstop does not interfere with part or spindle.
- Single bolt design for tightening workstop.
- Multiple parts can be located on the same jaw plate.



**D60-315**



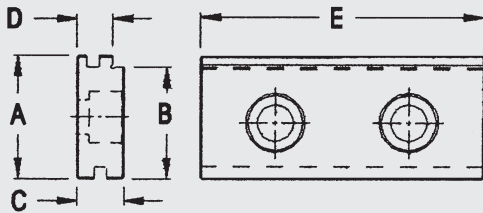
**WSRL46**



**WSRL46**

GROOVE LOCK WORKSTOP		
Item	Part #	Description
1	WSRL46	Workstop assembly, suitable to use with 2" thru 6" jaw plates
2	WSRL46	Extended length workstop assembly, suitable to use with 4" thru 6" jaw on outside. Can be used on right or left end of jaw. Note: To use in center of jaw length, locating ear must be shortened to clear the top of the stationary jaw area.
3	D60-315	6" GrooveLock jaw plate (Not reversible)
4	D40-315	4" GrooveLock jaw plate (Not reversible)
5	WSRL46-86-SA	Replacement clamp assembly

## Groove Lock® Reversible Style Step jaw plates



REVERSIBLE STYLE STEP JAW PLATES						
Vise Size	Part #	Dim "A"	Dim "B"	Dim "C"	Dim "D"	Dim "E"
4"	D40-316	1.374	1.250	0.672	0.547	3.969
6"	D60-316	1.880	1.700	0.735	0.547	5.969

## 6PJS Magnetic Jaw Plate and Parallel Set

This 6" magnetic jaw set from Kurt comes complete with two jaw plates with an embedded rare earth magnet for holding the parallels in place, leaving hands free to hold and clamp the workpiece. Genuine Kurt Groove Lock workstops are also included, all in it's own convenient plastic storage box. **PATENTED**



### This 11 Piece Set Includes:

- 2 ea. 3/16" x 1" x 6" ground steel parallels.
- 2 ea. 3/16" x 1-1/4" X 6" ground steel parallels.
- 2 ea. 3/16" x 1-1/2" x 6" ground steel parallels.
- 1 ea. D60-7-SAMAG hardened jaw plate with rare earth magnet.
- 1 ea. D60-315-SAMAG hardened Groove Lock jaw plate with rare earth magnet.
- 1 ea. WSRL46 Kurt Groove Lock workstop.
- 1 ea. WSRL46 Kurt Groove Lock extended workstop.
- 1 ea. WSRL46 Kurt Groove Lock workstop.
- 1 ea. WSRL46 Kurt Groove Lock extended workstop.
- 1 ea. plastic storage box.

### Features:

- Fits all Kurt 6" vises.
- Powerful rare earth magnets hold the parallels in place securely.
- Genuine Kurt Groove Lock workstops are included.
- Storage box helps keep you organized.
- Ground steel jaw plates and parallels.
- 8 lbs.

## 6" Magnetic Jaw Plates

Features powerful rare earth magnets for holding parallels securely in place, leaving hands free to hold and clamp the workpiece. Fast and accurate set-ups. **PATENTED**



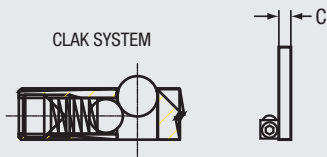
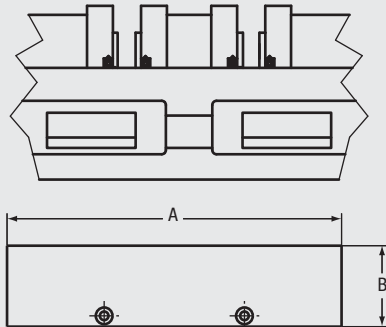
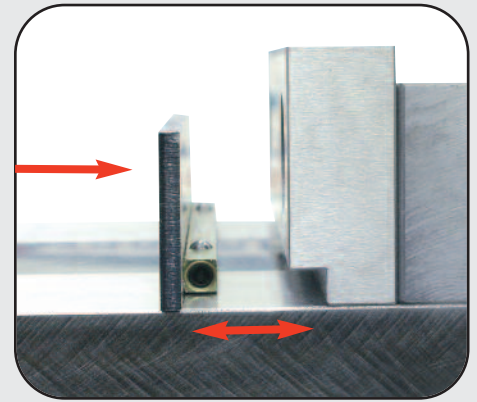
6" MAGNETIC JAW PLATES				
Part #	Description	Length	Width	Height
D60-7-SAMAG	6" Magnetic Jaw Plate	5.969	0.725	1.735
D60-315-SAMAG	6" Magnetic Jaw Plate Accepts Groove Lock Workstops	5.969	0.725	1.735

# WISE ACCESSORIES

## Clak Parallels

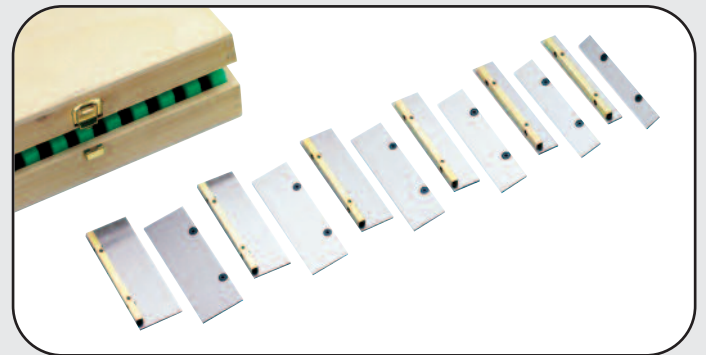
### Features:

- New patented system allows the quick change of parallels.
- Reduces downtime and set-up time.
- Eliminates clamps and locks thanks to the self locking system.
- Increases the accuracy of finished parts and reduces scrap.
- Convenient case for easy storage.
- Sets come complete with Jaw Plates, 6 Pair of Parallels and Storage Box.
- Kits come with 6 Pair of Parallels and Storage Box.
- All components hardened and precision ground.



Kurt Clak Ordering Information And Dimensional Data (inches)										
Part #	Description	A		B (+0 -0.0006)						C
4KCK	4" Parallel Kit w/Storage Box	4.165	0.393	0.472	0.590	0.787	0.984	1.102	0.157	
4KCS	4" Parallel Set w/Jaw Plates & Storage Box	4.165	0.393	0.472	0.590	0.787	0.984	1.102	0.157	
6KCK	6" Parallel Kit w/Storage Box	5.740	0.590	0.787	0.984	1.181	1.378	1.575	0.157	
6KCS	6" Parallel Set w/Jaw Plates & Storage Box	5.740	0.590	0.787	0.984	1.181	1.378	1.575	0.157	
D40-7-OML	4" Jaw Plate For Kurt Clak System	3.969	1.235	-	-	-	-	-	-	0.547 (±0.0005)
D60-7-OML	6" Jaw Plate For Kurt Clak System	5.969	1.735	-	-	-	-	-	-	0.725 (±0.0005)

Individual Clak Parallel Pairs	
Part #	Height
6KCP15	15 mm
6KCP20	20 mm
6KCP25	25 mm
6KCP30	30 mm
6KCP35	35 mm
6KCP40	40 mm



### Quick Change Feature Reduces Set-up time

## 6 and 9 Pair 8" Parallel Sets



8" Parallel Sets	
Part #	
8PS6	6 Pair Set
8PS9	9 Pair Set

### 8PS6 6 Pair Set Features:

- 1.000", 1.250", 1.500", 1.750", 2.000", 2.125" Heights.
- 0.250" ±0.002" Thickness.
- 0.0002" Parallelism.
- 1 ea. Plastic storage box.
- Weight 12 lbs.



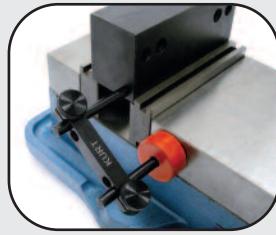
### 8PS9 9 Pair Set Features:

- 1.000", 1.250", 1.375", 1.500", 1.625", 1.750", 1.875", 2.000", 2.125" Heights
- 0.250" ±0.002" Thickness.
- 0.0002" Parallelism.
- 1 ea. Plastic storage box.
- Weight 17 lbs.



# VISE ACCESSORIES

## 2MWS Magnetic Workstop



### Features:

- Fast, accurate positioning of parts.
- Rare earth magnet attaches anywhere on the workholding setup without the need for connecting bolts or screws.
- Removes quickly to clear spindle travel when necessary.
- Body is 2 5/8" long with 2" adjustable stop pins on both ends of body.
- Ideal for single, multiple station vises and high density workholding setups.

## AngLock® Workstop



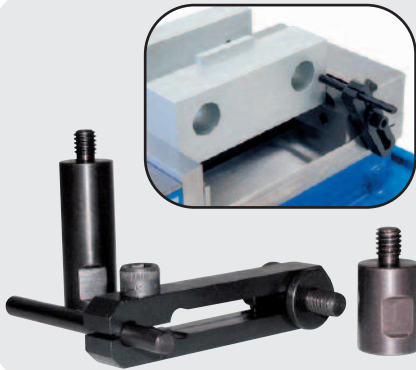
360PWS

Versatile, quick mounting workstops will work above jaws when gang mounting vises and space for a workstop does not exist. These Kurt workstops permit fast, accurate positioning on repetitive work. They team up with your AngLock precision vise for accurate parts production.



ANGLOCK VISE WORKSTOPS		
Part #	Vise Size	Weight
D30-45	4" Vise	1 Lb.
360PWS	6" Vise	2 Lbs.
D80WS	8" Vise	4 Lbs.

## 6AWS Workstop



New adjustable workstop can be used on all Kurt high-density vises. The body clamp has a 2" adjustment and features a 3" long stop pin for fast and easy set-ups. A long and short spacer is also available to fit almost any application.

### Features:

- Versatile.
- Economical.
- Fast, easy set-up.
- Black oxide finish.
- Fast accurate positioning of parts.

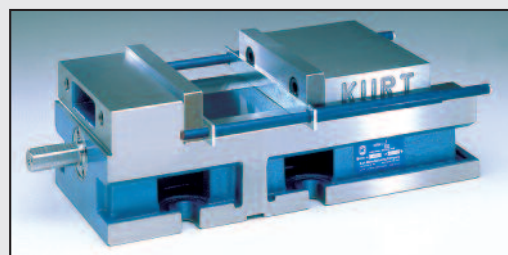
WORKSTOPS	
Standard Vise 5/16-18	HDL Vise m8 x 1.25
6AWS Workstop	6AWSM Workstop
6AWS-288 Short Spacer	6AWSM-288 Short Spacer
6AWS-289 Long Spacer	6AWSM-289 Long Spacer

## Parallel Keeper

Models:  
KPS-6000

KPS-8000

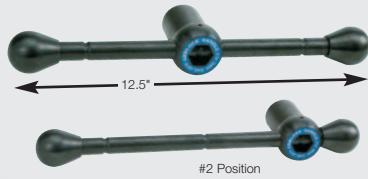
Place your parallels in the vise against the jaws. Take the Parallel Keeper, squeeze it together and place it inside the parallels. Release the Parallel Keeper, it will push against the parallels, holding them against the jaws of the vise. It's that simple! KPS-6000 model opens to 6". KPS-8000 model opens to 8". Your new revolutionary labor saver, your "machinists third hand," is at work, saving part change time. 1 lb. shipping weight.



Shown with 3610V

# VISE ACCESSORIES

## ArmLock® Handle AL6



ArmLock adjustable lever length handle is designed to allow spinning of the vise screw with the lever in the central position for fast jaw movement and light work clamping. Comfortable higher torque clamping is possible with the lever in the #2 position. By adding a hex extension, the handle can be used on 4" or 8" vises. The 3/4" hex portion of the AL6 has a set screw to prevent accidental removal. 2 lbs.

## Kurt Speed Handle



Speed Handles reduce clamping time. The Speed Handles fit 4" and 6" Kurt AngLock vises. The Speed Handles do not interfere with the milling machine giving you rapid part loading and unloading. You get Kurt quality in this custom steel design, no aluminum hex to strip. By adding a hex extension the handle can be used on 8" vises. **D40SH.** 3 lbs. **D60SH.** 4 lbs.

## Kurt Torque Handle TH6



KURT TORQUE HANDLE TH6				
Torque Vs. Position				
Position	1	2	3	4
Torque Ft. Lbs.	6	8	10	20

The Kurt Torque Handle provides repeatable clamping for small delicate parts. The Torque Handle gives you a precise feel while providing an audible "click". The small 10-3/4" overall length will not interfere with most table set-ups and the steel construction will give you the versatility and reliability demanded by today's modern machine shops. A set screw allows your Torque Handle to become an integral part of your vise and by adding a hex extension you can use it on 4" and 8" vises. 3.5 lbs.

## Replacement Vise Handles



Kurt 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 machined ergonomic ball on the end.

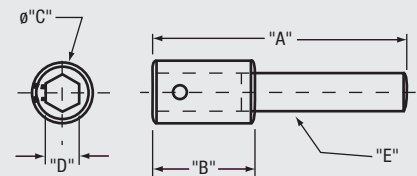
Part #	Hex	Length
D40I-10-SA	9/16	6 in.
D60I-10-SA	3/4	8-5/8 in.
D80-10A-SA	7/8	16-1/8 in.
D100-10A-SA	1	16-1/8 in.

## Vise Screw Hex Extensions



### Features:

- Vise screw hex extensions become useful when the vises are mounted on large machines where extending the hex will allow better access.
- Hex extensions will allow a 6" handle to be used on a 4" or 8" Kurt vise.



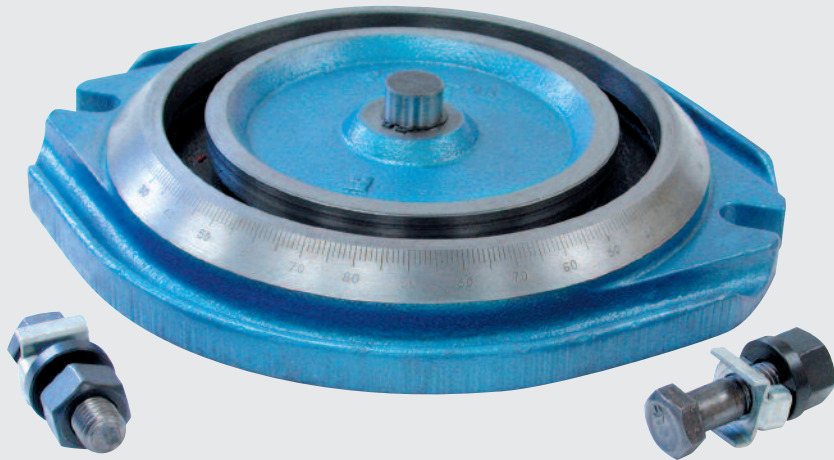
VISE SCREW HEX EXTENSION									
Vise Size	Handle Size	Part #	Dim "A"	Dim "B"	Dim "C"	Dim "D"	Dim "E"	Weight	
4"	6	HEX4A6	3.500	1.750	1.000	0.563	0.750	.5 lb.	
4"	4	HEX4	3.750	1.500	1.000	0.563	0.562	.5 lb.	
6"	6	HEX6	5.000	2.000	1.250	0.750	0.750	1 lb.	
8"	6	HEX8A6	4.500	2.500	1.375	0.875	0.750	1 lb.	



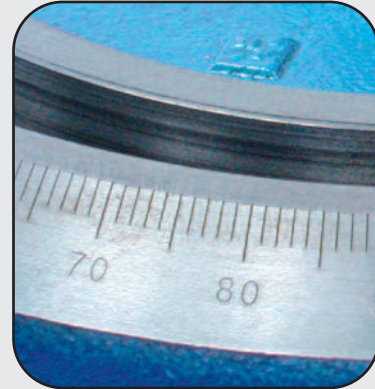


# VISE ACCESSORIES

## Swivel Base



Swivel base allows positioning in 1 degree increments.

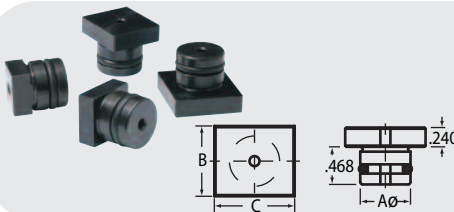


SWIVEL BASE		
Part #	Ship Wt.	Fits These Vise Models
D40-4-SA	16 lbs.	D40
D60-4-SA	26 lbs.	D60, D675, D688
D80-4-SA	80 lbs.	D80, D810



D688 vise shown mounted on D60-4-SA swivel base.

## Sine Keys (Non-Expandable O-Ring Style)



SINE KEYS - Non-Expandable O-Ring Style – English (Each)			
P/N	AØ	B	C
SKOA8.9	0.625	0.4995	0.5620
SKOA10.11	0.625	0.6245	0.6870
SKOA12.13	0.625	0.7495	0.8120
SKOA14.16	0.625	0.8745	0.9995

SINE KEYS - Non-Expandable O-Ring Style – Metric (Each)			
P/N	AØ	B	C
SKOAM14.16	0.625	14mm	16mm
SKOAM18.20	0.625	18mm	20mm
SKOAM20.22	0.625	20mm	22mm

## Vise Keys



Hardened vise keys are used to align your Kurt vise to your milling machine table. Step keys are used when the keyway in the vise is different than that of the machine T-slot. Standard keys are used when they are the same width.

HARDENED STANDARD KEYS (PAIR)		
Vise Model	Key Size	Part #
4" Vise	1/2 x 1/2	D30-50
6" Vise	11/16 x 11/16	D50-50
8" & 10" Vises	13/16 x 13/16	D80-50

HARDENED METRIC KEYS (PAIR)		
Vise Model	Key Size	Part #
4" Vise	1/2 x 18 mm	D30-33M18
6" Vise	11/16 x 16 mm	D50-33M16
6" Vise	11/16 x 18 mm	D50-33M18
8" Vises	13/16 x 16 mm	D80-33M16
8" & 10" Vises	13/16 x 18 mm	D80-33M18

HARDENED STEP KEYS (PAIR)		
Vise Model	Key Size	Part #
4" Vise	1/2 x 5/8	D30-33A
6" Vise	11/16 x 5/8	D50-33A
	11/16 x 13/16	D50-33B
	11/16 x 3/4	D50-33C
	11/16 x 9/16	D50-33D
	11/16 x 1/2	D50-33E
8" & 10" Vises	13/16 x 7/8	D80-33A
	13/16 x 11/16	D80-33B
	13/16 x 3/4	D80-33C
	13/16 x 5/8	D80-33D

# VISE ACCESSORIES

## Hydraulic Intensifier

This power source simply converts air pressure to useable hydraulic pressure. A compressed air source is needed along with a filter, regulator and lubricator unit (not included) to control clamping forces. Each vise must have it's own intensifier. Intensifier must be mounted same level or above the vise.

### APD50-112-Hand or APD50-112-Foot



APD50-112	
Air PSI	Hydraulic PSI
30	1200
40	1600
50	2000
60	2400
70	2800
80	3200
Do not exceed 80 PSI Air	

#### Features:

- Air oil pressure ratio 40:1.
- 2.400 cubic inches usable hydraulic oil.
- 1/4 NPT outlet fitting.
- Liquid fill hydraulic sight tube.
- For use with 4" and 6" and 8XL series vises.
- Hand or foot operated.

### APD60-112-Hand or APD60-112-Foot



APD60-112	
Air PSI	Hydraulic PSI
30	2900
40	3500
50	4400
60	5300
70	6200
Do not exceed 70 PSI Air	

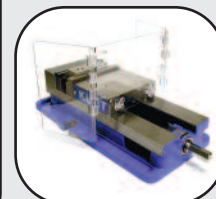
#### Features:

- Air oil pressure ratio 92:1.
- 2.072 cubic inches usable hydraulic oil.
- 1/4 NPT outlet fitting.
- Used with PTH800A vise only.
- Hand or foot operated.

## KKS Kurt® Koolant Shield

#### Features:

- Protects the operator from coolant splashes.
- Transparent so you can see the workpiece easily.
- Quick set-up and removal for workpiece access.
- Sides adjust from 0-230°.
- Made from tough/durable polycarbonate
  - Good abrasion resistance.
  - Good chemical resistance.
  - High rigidity.
  - High strength.
- Mount on either the movable or stationary jaw.
- Economical.
- Lightweight.
- Fits both 6" and 8" Kurt vises.
- Mounting screws are included.
- Mounting screws have a hex for fast and easy jaw plate bolt removal.
- "T" slot cleaner included.
- Shipping Weight 1 lb.



## KLA Kurt® Lube Disposable Grease Gun

#### Features:

- Goes with you everywhere!
- Fits standard grease fittings.
- Easy, one hand operation.
- KURT Lube grease gun comes preloaded with NLGI #2 grease, which is specifically formulated to prevent water wash out.

#### Includes:

- Universal nozzle and spring-loaded pump for application on: KURT Vises, Kurt Workholding Products, and most other equipment.

#### Specifications:

- Capacity: 2 oz./60 ccm.
- Pressure: 3,700 psi/250 bar.
- Volume per stroke: 0.018 oz./0.6 ccm.
- Lubricant: Marine NLGI Grade 2.





# VISE ACCESSORIES

## Kurt 5C Angle Boss

**NEW**

### Model No. K5CVMAB

Kurt 5C Angle Boss (Model No. K5CVMAB) for mounting in any Kurt 6 inch vise.

This manually clamped 5C fixture allows machining any custom angle desired or 24 precision indexes (+/-2 arc-min) using the mount's special index pin.

Setup is fast and easy. Once the machining position is determined, simply clamp the 5C fixture using the massive 1-1/4 inch thick ground steel jaws. The vise will now hold the 5C fixture for most machining operations. Parts can be clamped and unclamped using the 5C clamp screw. Collets may also be changed from the top of the fixture without disturbing the original setup.



The 5C Model No. K5CVMAB Angle Boss accepts a 3-1/4 inch 3 jaw chuck (sold separately). This is a high quality, dead length 5C holder designed to save many hours of expensive setup time, giving Kurt vise users yet another option for improving machining center productivity.

## Spanner Wrench

**NEW**

### Model No. DL430-307-SA - 4"

### Model No. DL640-307A-SA - 6"

#### Features:

- Adjust the preload on your Kurt DoubleLock vise simply and quickly
- All Aluminum
- Knurled end for better grip
- Two models available: 4" and 6"



## Automatic Drawbar



## Mechanical Drawbar

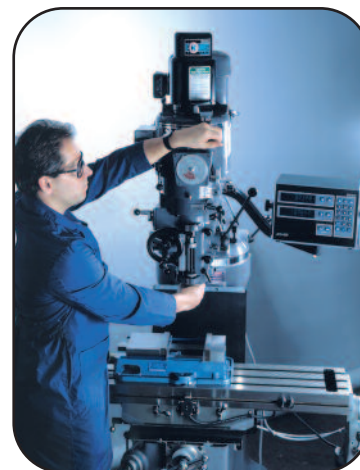


### Automatic and Mechanical PowerLock Drawbars

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. This eliminates waste. The whole process using the Kurt automatic or mechanical PowerLock Drawbar cuts the tool change time to one-fourth the time required to change tools manually with 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.

#### 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.
- Assures 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.



#### PowerLock Drawbar is 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 factory.

\*Note: All machines that have Erickson Quick Change Spindle, and are converted to a Power Drawbar 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.





# OUTSIDE MICROMETERS, DIAL CALIPERS, PRECISION MEASURING SETS PRECISION INSTRUMENTS

## Outside Micrometers

### Features:

- Hardened, precision ground spindle.
- Carbide tipped measuring face for long life.
- Spindle lock secures the spindle at the desired reading.
- Insulated Handle.
- Quick and easy zero adjustment on sleeve (includes wrench).
- Fitted plastic case included.
- Ratchet thimble assures consistent measuring at all times, vernier scale with microfine graduations in 0.0001".



### Model MC01 0-1"

#### Specifications:

- Range: 0-1".
- Graduation: 0.0001".



### Model MC12 1-2"

#### Specifications:

- Range: 1-2".
- Graduation: 0.0001".

#### Additional Features:

- Calibration standard included.



### Model MC23 2-3"

#### Specifications:

- Range: 2-3".
- Graduation: 0.0001".

#### Additional Features:

- Calibration standard included.



### Model MCD01 0-1"

#### Mechanical Digital Specifications:

- Range: 0-1".
- Graduation: 0.0001".

#### Additional Features:

- Mechanical counter to simplify reading measurements, displays increments of 0.001".



### Model EM01 0-1"

#### Electronic Micrometer Specifications:

- Range: 0-1".
- Resolution: 0.0001".

#### Additional Features:

- Double Function key (Function: Metric-Inch Conversion).

## Dial Calipers

### Features:

- Body and Main Beam are stainless steel with satin chrome finish, microfine engraved graduations.
- White face dial with distinctive, large numerals, easy to read graduations in black; Fully adjustable for zero or intermediate settings with thumb screw to lock the precise settings.
- Covered screw-on rack prevents dirt accumulation in rack gear teeth.
- Raised bearing surface prevents wear and defacement of graduations.
- Thumb Roller is knurled for one hand operation and rapid setting and easy adjustment.
- Measuring Faces are hardened, precision ground & microlapped for ultimate accuracy during measuring process.
- Case included.



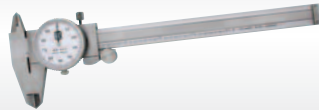
### Model EC6 6" Electronic Caliper

#### Specifications:

- Range: 0-6".
- Resolution: 0.0001".

#### Additional Features:

- Large and clear LCD readout.
- Inch-Metric conversion.
- Zero-setting at any position.



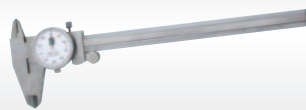
### Model DC6 6" Dial Caliper

#### Specifications:

- Range: 0-6", 0.100"/Rev.
- Graduation: 0.001".

#### Additional Features:

- 4-way measurements: outside, inside, depth, step.
- Depth of outside jaws: 1.57".



### Model DC8 8" Dial Caliper

#### Specifications:

- Range: 0-8", 0.100"/Rev.
- Graduation: 0.001".

#### Additional Features:

- 4-way measurements: outside, inside, depth, step.
- Depth of outside jaws is 1.89".



### Model DC12 12" Dial Caliper

#### Specifications:

- Range: 0-12", 0.100"/Rev.
- Graduation: 0.001".

#### Additional Features:

- 4-way measurements: outside, inside, depth, step.
- Depth of outside jaws: 2.44".

## Precision Measuring Sets



### Model KDMS1

#### 3 Piece Set Includes:

- Dial Caliper: 6"/0.001".
- Outside Micrometer: 0-1"/0.0001".
- Rule: 6"/4R.
- Plastic fitted case included.



### Model KMD1

#### Magnetic Base + Dial Indicator Set Includes:

- Magnetic Base with fine adjustment (MBF1).
- Dial Indicator 0-1"/0.001" (D1).
- Plastic fitted case included.

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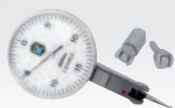


Kurt Engineered Systems  
Phone 800-343-9884  
[www.kurteletronics.com](http://www.kurteletronics.com)

# TEST & DIAL INDICATORS, MAGNETIC BASE & HEIGHT GAGES, PRECISION MEASURING SETS

## PRECISION INSTRUMENTS

### Test Indicators



**Model DT3**  
0.03" Test Indicator

**Specifications:**

- Range: 0.03".
- Graduation: 0.0005".
- Dial Reading: 0-15-0.

**Features:**

- Rotating Bezel and large diameter white dial face with distinctive, easy to read graduations sets to zero anywhere on the dial.
- Jeweled Bearings provide low friction, high wear resistance, and maximum sensitivity.
- Three dovetail mounts



**Model DT8**  
0.008" Test Indicator

**Specifications:**

- Range: 0.008".
- Graduation: 0.0001".
- Dial Reading: 0-40-0.

- for attaching to indicator holders and stands.
- Two dovetail mounting clamps with mounting stem diameter 5/32" and 3/8".
- Contact Point adjustable to 210° with auto-reverse, 0.078" dia. x 1/2" L.
- Fitted plastic case included.

### Dial Indicators



**Model D05**  
0.5" Dial Indicator

**Specifications:**

- Range: 0-0.5".
- Graduation: 0.001".
- Dial Reading: 0-100.

**Features:**

- AGD Group 2, meets AGD specifications.
- Dial rotates with white face for easy to read graduations in black for continuous readings and red for balanced readings.
- Contact Point is interchangeable hardened stainless steel with 4-48NF thread.
- Lug-back positioned through 90° increments with a 1/4" diameter hole for mounting to

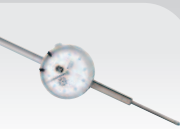


**Model D1**  
1" Dial Indicator

**Specifications:**

- Range: 0-1".
- Graduation: 0.001".
- Dial Reading: 0-100.

- indicator holders & stands.
- Stem is 3/8" diameter, hard chrome plated, precision ground and lapped, for mounting to holders.
- Bezel is easily adjusted thru 360°, with bezel clamp to lock the precise settings.
- Tolerance Pointers: adjustable, mounted on bezel.
- Fitted foam case included for storage.



**Model D2**  
2" Dial Indicator

**Specifications:**

- Range: 0-2".
- Graduation: 0.001".
- Accuracy: ±0.003".
- Dial Reading: 0-100.

### Electronic Dial Indicators



**Model ED05**  
0-0.5" Electronic Dial Indicator

**Specifications:**

- Resolution: 0.0005".

**Features:**

- Large LCD display with 12.5mm characters' height.
- Large "click" function buttons for easy operation.



**Model ED1**  
0-1" Electronic Dial Indicator

**Specifications:**

- Resolution: 0.0005".

- Power supplied with one SR44 battery whose capacity is 165mAh.
- Power on/off, zerosetting and Metric/Inch system conversion at any position with data output interference.

### Magnetic Base

**Model MBF1 Magnetic Base w/Fine Adjustment**

**Specifications:**

- Power: 130 lbs. pull.
- Base Dimensions: 2.5" L x 2" W x 2.19" H.
- Upright Post: 15/32" dia. x 7" L.
- Indicator Holding Rod: 25/64" dia. x 6" L.

**Features:**

- Accepts all AGD dial indicators.
- Easy tune fine adjustment.
- V-base for placing on round surfaces.
- Smooth and easy on/off switch.
- Chrome plated rods & column.
- Foam case included for storage.



### Height Gages

**Model HGD6 6" Height Gage w/Single Column**

**Specifications:**

- Range: 0-6".
- Graduations: 0.001".

**Features:**

- White dial face with distinctive, easy to read graduations in black, fully adjustable for zero or intermediate setting with thumb screw to lock the dial for precise settings.
- Column is hardened stainless steel with satin chrome finish for wear resistance, microfine engraved graduations.
- Scriber with carbide tipped and clamp included.
- Fine tuning adjustment and lock screw.
- Fitted wooden case included.



**Model HGDC12 12" Height Gage w/Digital Counter**

**Specifications:**

- Range: 0-12".
- Graduations: 0.001".

**Features:**

- Indicator & Counter: a large white dial indicator with 0.001" graduations and a dual-directional error-proof mechanical digital counter can be set to zero at any position. The counter has two displays with 0.1" increments, one counts up, the other counts down.
- Dual chrome plated beams.
- Bottom surface of the base is hardened, ground and lapped for maximum flatness.
- Scriber with carbide tipped with clamp.
- Large feed wheel moves slider and switches from coarse to fine adjustment.
- Fitted foam case included for storage.



### Micrometer Sets

**Model MC03**  
0-3" Outside Micrometer Set



**Includes:**

- 3 Piece Set.
- Fitted plastic case included.

**Specifications:**

- Range: 0-1", 1-2", 2-3".

**Features:**

- Hardened, precision ground spindle.
- Carbide tipped for a long life.
- 2 calibration standards.

- Spindle lock secures the spindle at the desired reading.
- Ratchet thimble with satin chrome assures consistent measuring at all times, vernier scale with microfine graduations in 0.0001".
- Quick and easy zero adjustment on sleeve (wrench included).

**Model MC06**  
0-6" Outside Micrometer Set



**Specifications:**

- 6 Piece Set.
- Range: 0-1", 1-2", 2-3", 3-4", 4-5", 5-6".

**Features:**

- Hardened, precision ground spindle.
- Carbide tipped for a long life.
- Spindle lock secures the spindle at the desired reading.
- 5 calibration standards.

- Quick and easy zero adjustment on sleeve (wrench included).
- Ratchet thimble with satin chrome assures consistent measuring at all times, vernier scale with microfine graduations in 0.0001".
- Fitted wooden case included.

**Model MCDP62**  
0-6" Depth Micrometer Set



**Includes:**

- 7 Piece Set.
- Fitted plastic case included.

**Specifications:**

- Range: 0-6".
- Graduation: 0.001".
- Accuracy: ±0.0002".

**Features:**

- 2-1/2" length; Hardened, precision ground and micro-lapped base.
- Quick and easy zero adjustment on sleeve (wrench included).

- Ratchet thimble with satin chrome assures consistent measuring at all times.
- Six high accuracy interchangeable rods with 1" increments in length are fitted to the spindle against a positive stop and locked. Flat measuring surfaces are hardened, ground and lapped with .176" in diameter.



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### **Kurt™ Manufacturing**

#### Industrial Products Division

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Minneapolis, MN 55433  
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Fax: (612) 623-3902  
Toll Free (US Only): 1 (877) 226-7823  
Toll Free Fax (US Only): 1 (877) 226-7828  
email address: [workholding@kurt.com](mailto:workholding@kurt.com)  
website address: [www.kurtworkholding.com](http://www.kurtworkholding.com)

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