

# KURT® LIFETIME WARRANTY IRON CLAD™

## On All Kurt® AngLock® Workholding Products

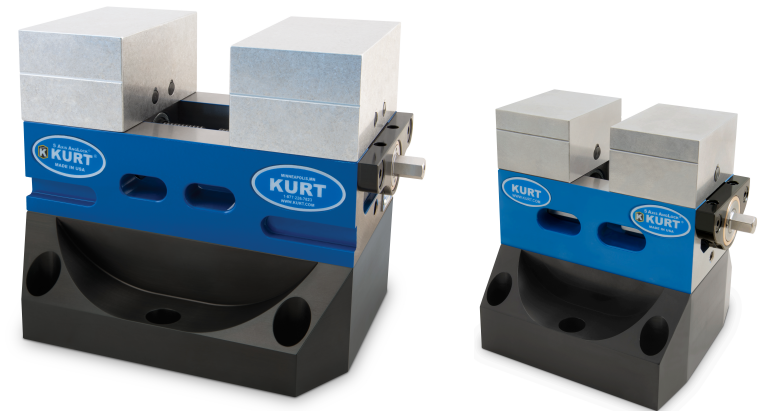
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## SCMX250 SCMX425

### Operating Instructions Manual



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## Vise Data

(Use this to fill out information about your vise for quick reference)

**Purchase Date:** \_\_\_\_\_

**Purchase Order:** \_\_\_\_\_

**Purchased From:** \_\_\_\_\_

**Delivery Date:** \_\_\_\_\_

**Serial No.:** \_\_\_\_\_

### NOTE:

Make sure to register your warranty online at [www.kurtworkholding.com](http://www.kurtworkholding.com) to receive the full benefits of the Kurt Manufacturing Lifetime Ironclad™ Warranty.



# Thank you!

If you have any feedback or questions,

Please contact us at:  
**[workholding@kurt.com](mailto:workholding@kurt.com)**

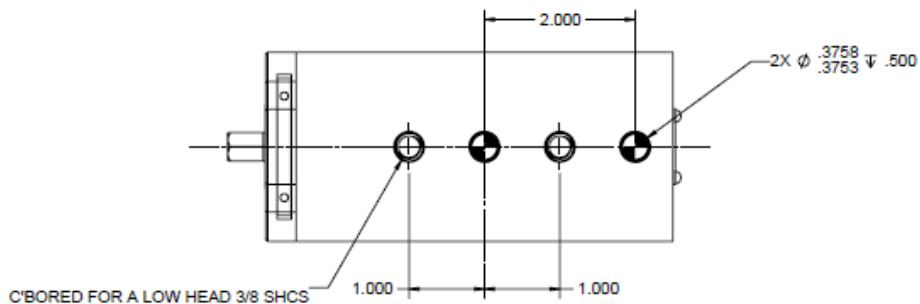
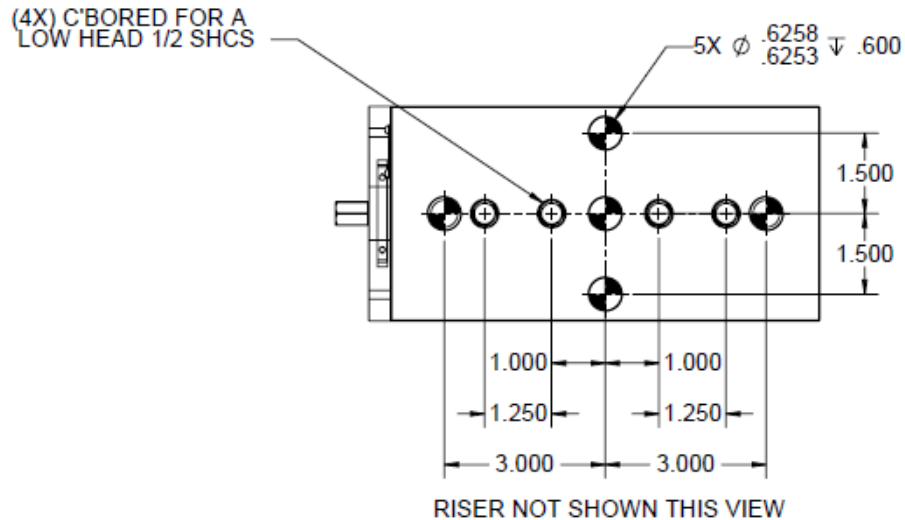
or

**877-226-7823**



## Installation & Assembly Guide

Both of the SCMX vises can be mounted thru the inside of the vise and located from the bottom using dowels. They are designed with c'bored holes for low head cap screw as well as dowel holes for precise locating.



### 3 to 6 months

1. Open vise to maximum opening.
2. Loosen and remove the movable jaw. See pg. 10
3. Remove the 3 SHCS from the screw support and remove the nut & screw assembly.
4. Remove the screw support from the screw by loosening the front collar from the screw.
5. Remove the thrust bearing assembly consisting of (4) thrust washers and (2) thrust bearing from each side of the screw support.
6. Clean and inspect the thrust washers and thrust bearing.
7. Apply water resistant grease to the thrust washer (i.e. marine grade grease)
8. Install thrust bearing assemblies on the screw in the reverse manner.
9. Install the screw support and collar assemblies in the reverse manner by spinning on the screw.

NOTE: When re-installing your collars & bearings be careful to get them in their proper position. The collar should only be finger tight or less. The vise should have a smooth operation. If not check to make sure that the washers & bearing have been installed correctly.

10. Install the three SHCS back in the screw support and make tight.

11. Your vise is now ready to use.



## Maintenance Schedule

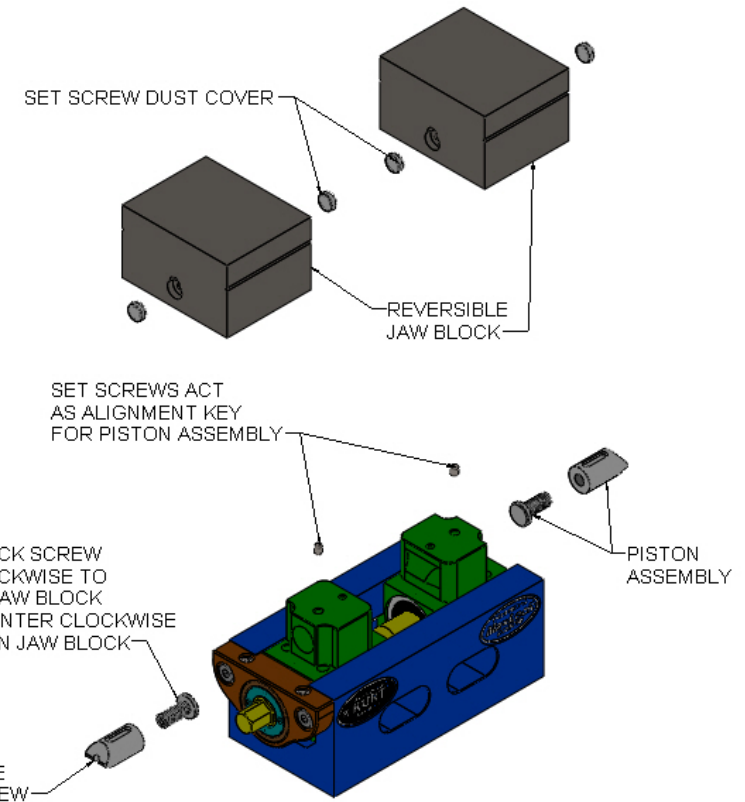
It is very important to perform regularly maintenance on your Kurt vise to assure proper operation. Improper maintenance will result in poor vise performance and may void your warranty.

### Daily/ Weekly

1. Remove chips from surface of vise.
2. Visually inspect body and seals for chips, damage, and cleanliness.
3. Visually inspect for chip entrapments and remove when necessary.
4. Air-dry and apply rust inhibiting oil to the machined surface of the vise.

### Monthly

1. Open the vise to the maximum opening.
2. Remove the moveable jaws using the procedure on page 10.
3. Turn the movable jaw over and clean the inside cavity.
4. Remove any chips, clean and apply a light coat of machine oil to the machined surface of the following item
  - a. Nut and Screw assembly (clean exposed threads on the screw)
  - b. Bed of vise (top of “rails”)
  - c. Inside of the vise between the center ways.
5. Your vise is now ready for use. Open and close your vise to check for proper operation. Center the part to be clamped in the vise and close. Your parts should be centered from side to side to insure proper clamping. (See Fig.1 below)



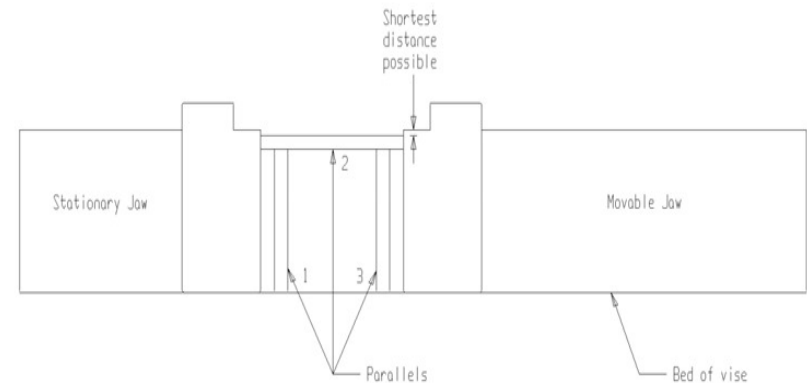
## SCMX250 Parts List

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	SCMX250-1	BODY	1
2	SCMX250-3F-CP	FRONT NUT (LEFT HAND THREAD)	1
3	SCMX250-3R-CP	REAR NUT (RIGHT HAND THREAD)	1
4	SCMX250-5A-CP	SCREW	1
5	SCMX250-11-CP	CUSTOM SCREW	2
6	SCMX250-16-CP	PAD BRAKE	1
7	SCMX250-102	MODEL/SERIAL NUMBER TAG	1
8	SCMX250-29-CP	CRUSH WASHER	2
9	SCMX250-111	KURT LOGO STICKER	2
10	SCMX250-128	O-RING #009	4
11	SCMX250-129	O-RING #015	1
12	SCMX250-142-CP	PLUNGER	2
13	SCMX250-191-CP	PROTECTIVE PLUG	4
14	SCMX250-224A	SCREW SUPPORT	1
15	SCMX250-271-CP	THRUST WASHER	1
16	SCMX250-291-CP	SPANNER NUT	1
17	SCMX250-311	STRAIGHT WIRE SPRING	2
18	SCMX250-313	WEBSITE STICKER	1
19	SCMX250-314	MAXLOCK STICKER	1
20	SCMX250-348	JAW BLOCK, REVERSIBLE, CARVABLE	2
21	SCMX250-355	.1875 STEEL BALL	4
22	SCMX250-359-CP	BEARING CARRIER	1
23	HP420-126-CP	SUPPORT FOOT	4
24	MX350-211	INTERNAL BRUSH SEAL	4
25	00-1166	SHCS 6-32 X .75 LG	2
26	00-3288	LHSHCS 1/4-20 X .625 LG	2
27	00-3355	LHSHCS 3/8-16 X 1.0 LG	2
28	01-0059	CUP PT. SET SCREW 10-32 X .125 LG	2
29	01-1039	SHSS 6-32 X .1875 LG	2
30	01-1451	SHSS 8-32 X .25 LG, FLAT PT.	4
31	04-0070	DOWEL PIN, .375 X 1.00 LG	2
32	07-0230	U-TYPE DRIVE SCREW #2 X 1/4 L	2
33	360AU-97	O-RING #007	4
34	SCMX250-217	RETAINING RING	1
35	SCMX250-356	SCMX250 RISER	1

## Machining the carvable Jaws

To machine the jaws for the SCMX250 and SCMX425 use this simple standard procedure to do so.

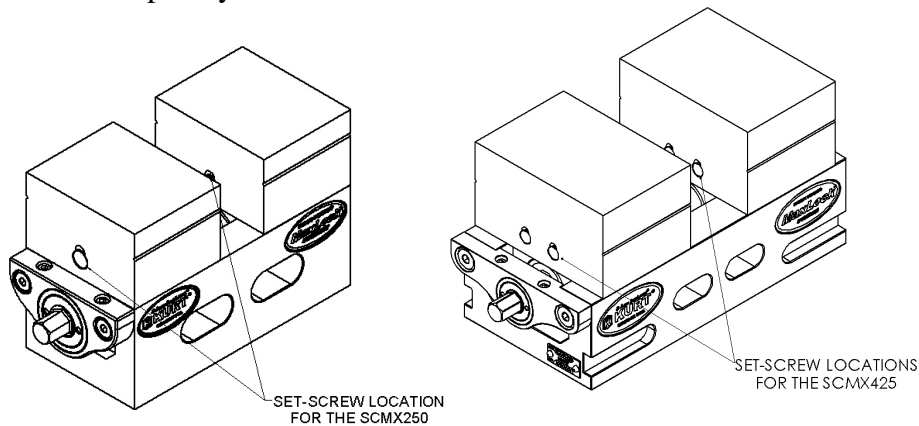
In order to get the best results when cutting the soft jaws, use parallels that are just below the cut surface. For better accuracy torque the vise to the same amount of torque you would be running production at when cutting your jaws.



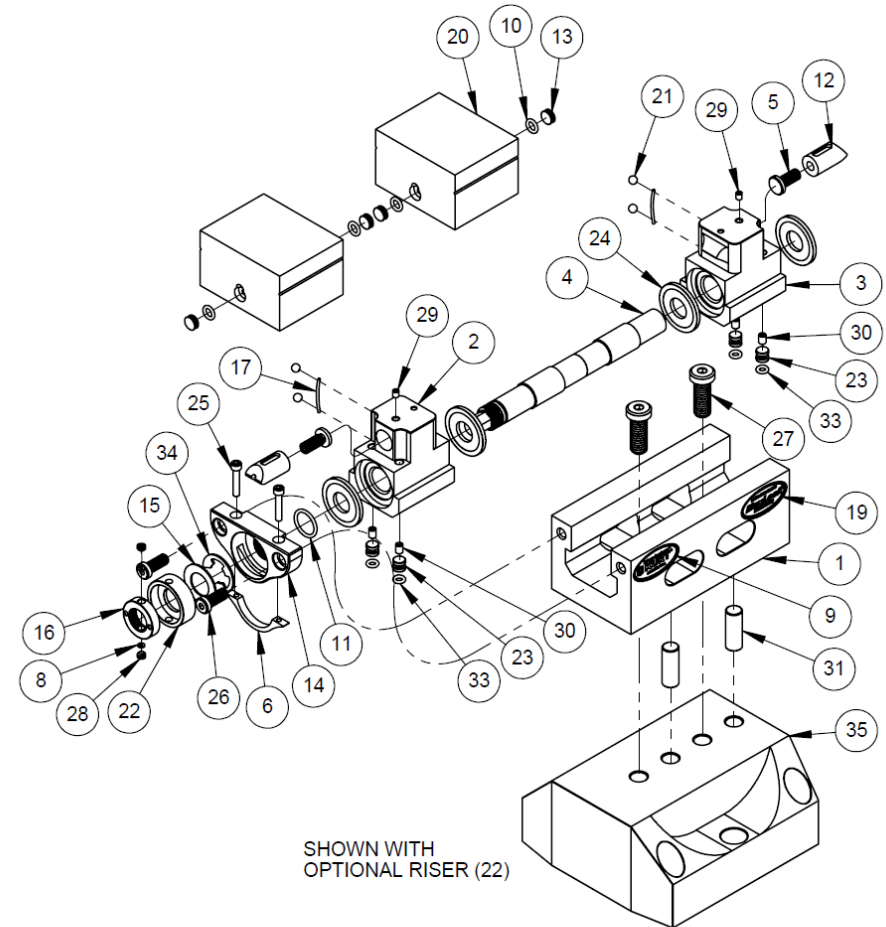
## Jaw Removal

The machinable jaws on the SCMx250 and SCMx425 are easily removed. The following steps will help you to remove them for replacement or reversing them.

1. Using an allen wrench remove the first set screw (dust cover) in the front of the jaw. Use a 5/64 and a 3/32 for the SCMx250 and a 3/32 and 1/8 for the SCMx425 vises. The SCMx250 has one in each jaw and the SCMx425 has two in each jaw.
2. The next step is to screw in the internal plungers. The SCMx250 Uses a 3/32 hex and the SCMx425 uses a 1/8 hex allen wrench. This will release the jaw from the nut and allow you to lift off the jaw from the vise. Clockwise to lock, counter-clockwise to unlock.
3. Once the jaws are off of the vise they can be reserved and re-installed on the vise if needed.
4. When re-installing the jaws on the vise nut be sure that the Plungers are pushed all the way in. If not the jaw will not rest completely down on the nut.



## SCMx250 Mechanical Drawing



7 18 32  
7, 18, & 32 NOT SHOWN

# SCMX425 Parts List

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	SCMX425-1	BODY	1
2	SCMX425-3F-CP	FRONT NUT (LEFT HAND THREADS)	1
3	SCMX425-3R-CP	REAR NUT (RIGHT HAND THREADS)	1
4	SCMX425-5A-CP	SCMX425 SCREW	1
5	SCMX425-11-CP	CUSTOM SCREW (5/16-24 X .875 LG)	4
6	SCMX250-16-CP	PAD BRAKE	1
7	SCMX250-29-CP	CRUSH WASHER	2
8	SCMX425-102	MODEL/SERIAL NUMBER TAG	1
9	SCMX425-111	KURT LOGO STICKER	2
10	SCMX250-128	O-RING #009	8
11	SDW35-96	O-RING #016	1
12	SCMX425-142-CP	PLUNGER	4
13	SCMX250-191-CP	PROTECTIVE PLUG	8
14	SCMX425-224A	SCREW SUPPORT	1
15	SCMX250-271-CP	THRUST WASHER	1
16	SCMX250-291-CP	SPANNER NUT	1
17	SCMX250-311	STRAIGHT WIRE SPRING	2
18	SCMX425-313	WEBSITE STICKER	1
19	SCMX425-314	MAXLOCK STICKER	1
20	SCMX425-348	JAW BLOCK, REVERSIBLE, CARVABLE	2
21	SCMX250-355	.1875 STEEL BALL	4
22	SCMX250-359-CP	BEARING CARRIER	1
23	HP420-126-CP	SUPPORT FOOT	4
24	PT400-211	BRUSH SEAL	4
25	360AU-97	O-RING #007	4
26	00-1166	SHCS 6-32 x .75 LG	2
27	00-3352	LHSHCS 3/8-16 X 3/4 LG	2
28	00-3419	LHSHCS 1/2-13 X 1 1/4 LONG	4
29	01-0059	10-32 X .125 LG CUP PT. SET SCREW	2
30	01-1440	SHSS 6-32 X .25 LG, FLAT PT.	4
31	01-3475	SHSS 1/4-20 X 1/4 LG, FLAT PT.	4
32	04-0107	5/8 X 1.0 DOWEL PIN	2
33	07-0230	U-TYPE DRIVE SCREW #2 X 1/4 L	2
34	SCMX425-217	EXTERNAL RETAINING RING	1
35	SCMX425-356	SCMX425 RISER	1

# SCMX425 Mechanical Drawing

