

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

Dayton® 4, 6 and 8" Quick Grip/Release Vises

Description

Dayton 4, 6 and 8" Quick Grip/Release Vises are made of sturdy cast iron and steel construction. Vise has sliding jaw with cam-action locking handle for quick set-ups. Vise features four mounting slots in base.

General Safety Information

1. Understand and obey all safety instructions supplied with drill press, mill, or other machines on which vise is used.
2. Bolt or clamp vise to work surface in at least two mounting locations using mounting flanges provided on base.
3. Be sure workpiece is clamped securely between jaws before starting machining operation.
4. Do not over tighten—vise can develop a large clamping force. Use only force which is needed.
5. Do not pound or hammer on workpiece. This vise is designed to clamp the workpiece in a desired position for machining operations only.

Operation

Refer to Figure 1.

Quick grip/release vise provides a quick, secure clamp on workpiece. This is advantageous when work requires multiple repositionings or when many workpieces require the same operation.

Operator must be careful to properly position vise and workpiece to use clamping action correctly. An effective method of clamping workpiece is important to the accuracy and safety of any cutting operation.

CLAMPING

1. Release lead bar (Ref. No. 5) by moving handle (Ref. No. 10) to UP position.
2. Position moving jaw (Ref. No. 15) by pushing or pulling the knob at the end of lead bar.
3. Flat jaws have been machined with a lip on bottom edge.
4. Position workpiece by locating moving jaw so work is shouldered on lips of jaw plates.
5. Clamp workpiece by pushing moving jaw against it and pivoting handle down.
6. Handle should only be pulled enough to clamp workpiece. Avoid over-clamping workpiece.
7. Test grip of vise by hand.

8. Over clamping will lead to deformation of work or slip of lock between lead bar and locking bracket.

9. Repeated slipping of lock will cause wear and can damage action of quick grip/release mechanism.

ADJUSTING QUICK GRIP/RELEASE MECHANISM

The lead bar movement can be adjusted to slide freely or to tighten the grip. To adjust:

1. Release lead bar using handle (Ref. No. 10).
2. Loosen hex nut (Ref. No. 8) and turn adjusting screw (Ref. No. 7) clockwise just until lead bar slides freely. Turn adjusting screw counter-clockwise to tighten grip.
3. Tighten hex nut and secure position of adjusting screw.

Maintenance

Particles of metal or wood can damage machined surfaces, causing difficult or inaccurate operation.

1. Keep machined surfaces and all moving parts clean and free of dirt, chips and foreign materials.
2. Keep machined surfaces lubricated with medium weight machine oil.

ENGLISH

ESPAÑOL

For Replacement Parts, call 1-800-323-0620

24 hours a day – 365 days a year

Please provide following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

Address parts correspondence to:

Grainger Parts
P.O. Box 3074
1657 Shermer Road
Northbrook, IL 60065-3074 U.S.A.

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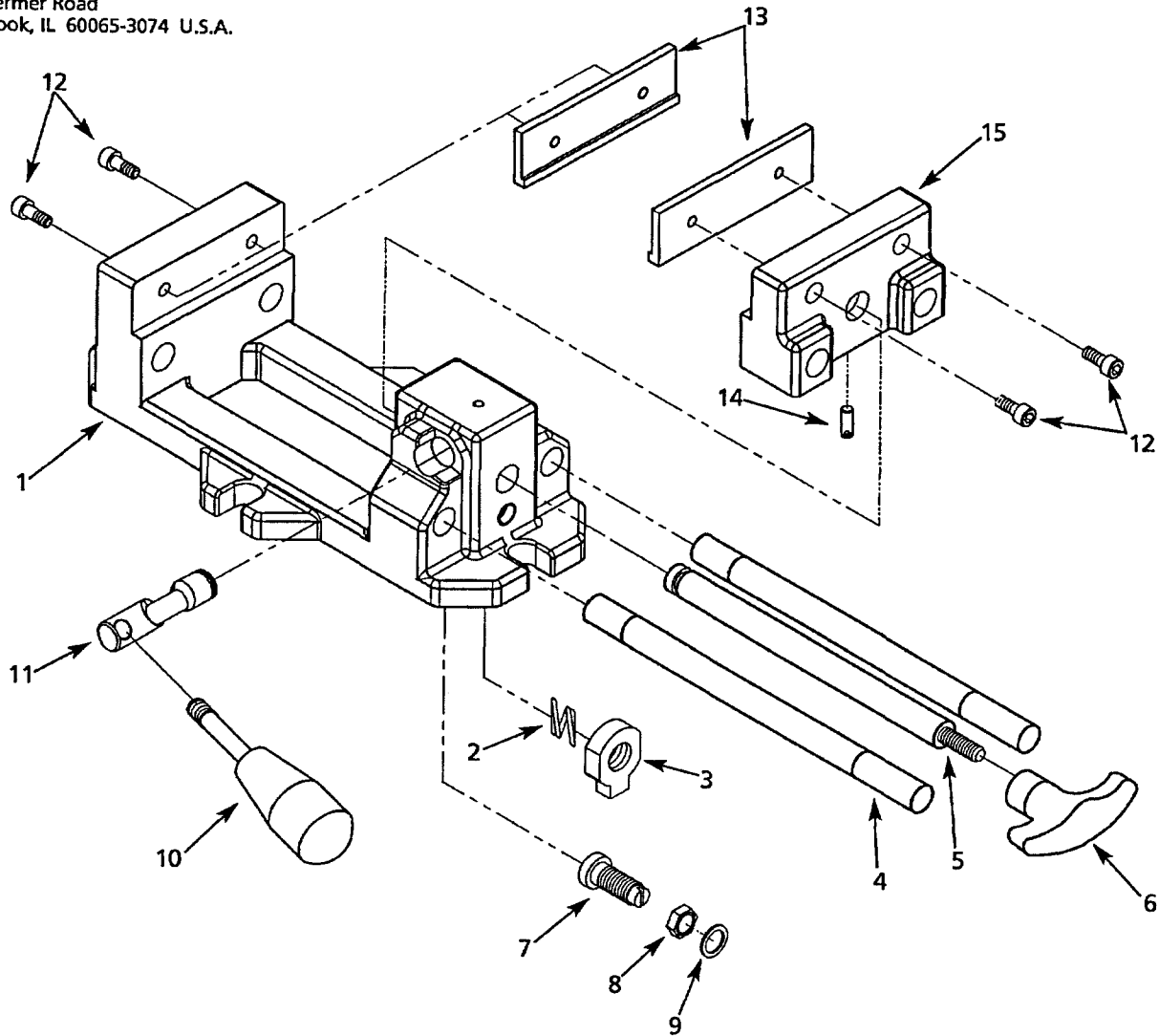


Figure 1 – Replacement Parts Illustration for 4, 6 and 8" Quick Grip/Release Vises

Replacement Parts List for 4, 6 and 8" Quick Grip/Release Vises

Reference Number	Description	Part Number for Models:			Quantity
		4TK05A	6Z845C	4YG29A	
1	Base	16437.00	16434.00	10270.00	1
2	Spring	16353.00	10271.00	10271.00	1
3	Locking bracket	07642.00	09712.00	10272.00	1
4	Guide bar	07643.00	09713.00	10273.00	2
5	Lead bar	07644.00	09714.00	10274.00	1
6	Knob	07087.00	10275.00	10275.00	1
7	Adjusting screw	07088.00	07088.00	07088.00	1
8	Hex nut	03537.00	03537.00	03537.00	1
9	12mm Lock washer	*	*	*	1
10	Handle with knob	07089.00	07089.00	10278.00	1
11	Cam	07738.00	09715.00	10279.00	1
12	8-1.25 x 14mm Socket head bolt	*	*	-	4
12	8-1.25 x 25mm Socket head bolt	-	-	*	4
13	Jaw plate	15113.00	16436.00	10089.00	1
14	6-1.0 x 12mm Dog point set screw	09458.00	09458.00	09458.00	1
15	Moving jaw	15112.01	16435.01	10088.01	1

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(*) Standard Hardware item, available locally.



Dayton® 4, 6 and 8" Quick Grip/Release Vises

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LIMITED WARRANTY

DAYTON ONE-YEAR LIMITED WARRANTY. Dayton® 4, 6 and 8" Quick Grip/Release Vises, Models covered in this manual, are warranted by Dayton Electric Mfg. Co. (Dayton) to the original user against defects in workmanship or materials under normal use for one year after date of purchase. Any part which is determined to be defective in material or workmanship and returned to an authorized service location, as Dayton designates, shipping costs prepaid, will be, as the exclusive remedy, repaired or replaced at Dayton's option. For limited warranty claim procedures, see PROMPT DISPOSITION below. This limited warranty gives purchasers specific legal rights which vary from jurisdiction to jurisdiction.

LIMITATION OF LIABILITY. To the extent allowable under applicable law, Dayton's liability for consequential and incidental damages is expressly disclaimed. Dayton's liability in all events is limited to and shall not exceed the purchase price paid.

WARRANTY DISCLAIMER. Dayton has made a diligent effort to provide product information and illustrate the products in this literature accurately; however, such information and illustrations are for the sole purpose of identification, and do not express or imply a warranty that the products are MERCHANTABLE, or FIT FOR A PARTICULAR PURPOSE, or that the products will necessarily conform to the illustrations or descriptions. Except as provided below, no warranty or affirmation of fact, expressed or implied, other than as stated in the "LIMITED WARRANTY" above is made or authorized by Dayton.

PRODUCT SUITABILITY. Many jurisdictions have codes and regulations governing sales, construction, installation, and/or use of products for certain purposes, which may vary from those in neighboring areas. While Dayton attempts to assure that its products comply with such codes, it cannot guarantee compliance, and cannot be responsible for how the product is installed or used. Before purchase and use of a product, review the product applications, and all applicable national and local codes and regulations, and be sure that the product, installation, and use will comply with them.

Certain aspects of disclaimers are not applicable to consumer products; e.g., (a) some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you; (b) also, some jurisdictions do not allow a limitation on how long an implied warranty lasts, consequentially the above limitation may not apply to you; and (c) by law, during the period of this Limited Warranty, any implied warranties of implied merchantability or fitness for a particular purpose applicable to consumer products purchased by consumers, may not be excluded or otherwise disclaimed.

PROMPT DISPOSITION. Dayton will make a good faith effort for prompt correction or other adjustment with respect to any product which proves to be defective within limited warranty. For any product believed to be defective within limited warranty, first write or call dealer from whom the product was purchased. Dealer will give additional directions. If unable to resolve satisfactorily, write to Dayton at address below, giving dealer's name, address, date, and number of dealer's invoice, and describing the nature of the defect. Title and risk of loss pass to buyer on delivery to common carrier. If product was damaged in transit to you, file claim with carrier.

Manufactured for Dayton Electric Mfg. Co., 5959 W. Howard St., Niles, Illinois 60714 U.S.A.

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Dayton® 3, 6 and 8" Cross Vises

Description

Dayton 3, 6 and 8" Cross Vises travel on two separate axes, longitudinal and cross, to permit accurate positioning of workpiece. Body, saddle, base and jaws are made of high strength cast iron. Vise leadscrew, longitudinal and cross feed screws are precision ground carbon steel.

Specifications

Refer to Figure 2.

3" CROSS VISE - MODEL 4YG28A

A Longitudinal travel (left to right)	5"
B Cross travel (forward-rearward) .....	.5"
Value of one division	0.0039"
Cross travel per one revolution	0.1181"
Longitudinal travel per one revolution	0.1181"

6" AND 8" CROSS VISES MODEL 6Z848D AND 3W766C

A Longitudinal travel (left to right)	8"
B Cross travel (forward-rearward) .....	.8"
Value of one division	0.0039"
Cross travel per one revolution	0.1575"
Longitudinal travel per one revolution	0.1575"

Dimensions

Refer to Figure 1.

3" CROSS VISE - MODEL 4YG28A

A Jaw width .....	.3"
B Throat depth .....	.1½"
C Jaw opening .....	.3"
D Base width .....	.4½"
E Base length .....	.8¼"
F Overall height .....	.5⅝"

6" CROSS VISE - MODEL 6Z848D

A Jaw width .....	.6"
B Throat depth .....	.2"
C Jaw opening .....	.6"
D Base width .....	.7"
E Base length .....	.12"
F Overall height .....	.7¼"

8" CROSS VISE - MODEL 3W766C

A Jaw width .....	.8"
B Throat depth .....	.2"
C Jaw opening .....	.6"
D Base width .....	.7"
E Base length .....	.12"
F Overall height .....	.7¼"

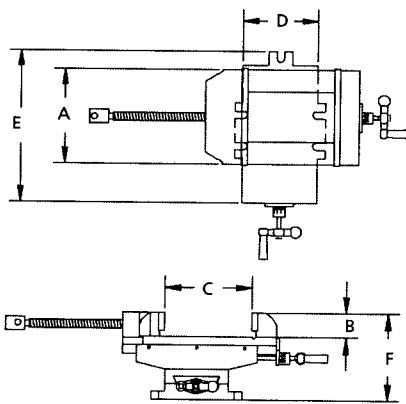


Figure 1 - Dimensions

WORKPIECE TRAVEL LIMITS

Refer to Figure 2.

Figure 2 shows vise stationary jaw in centered position.

For model 4YG28A, the vise stationary jaw can be moved 2½" to the left and right, and 2½" forward and rearward from the position shown in Figure 2.

For models 6Z848D and 3W766C, the vise stationary jaw can be moved 4" to the left and right, and 4" forward and rearward from the position shown in Figure 2.

Refer to Figure 2 to mount cross vise base to machine table in desired location. Be sure to secure vise using at least two mounting flanges on base.

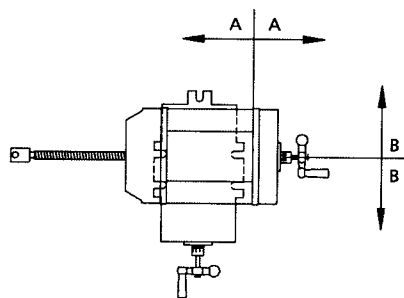


Figure 2 - Centered Position of Vise

General Safety Information

1. Understand and obey all safety instructions supplied with drill press, mill, or other machines on which vise is used.
2. Bolt or clamp vise to work surface in at least two mounting locations using mounting flanges provided on base.
3. Be sure workpiece is clamped securely between jaws before starting machining operation.
4. Do not over tighten—vise can develop a large clamping force. Use only force which is needed.
5. Do not pound or hammer on workpiece. This vise is designed to clamp the workpiece in a desired position for machining operations only.

ENGLISH

ESPAÑOL

Dayton® 3, 6 and 8" Cross Vises

Assembly

3" CROSS VISE - MODEL 4YG28A

1. Mount crank handles (Ref. No. 12) to longitudinal and cross feed screws (Ref. Nos. 8 and 9) using acorn nuts (Ref. No. 13).
2. This vise is shipped with a protective coating. This coating should be removed before operation. Remove protective coating with penetrating oil.

6" AND 8" CROSS VISES MODELS 6Z848D AND 3W766C

1. Thread movable jaw leadscrew (Ref. No. 14) through end of body (Ref. No. 16) and into hole in movable jaw (Ref. No. 18). Secure with dog point set screw (Ref. No. 19).
2. Mount crank handles (Ref. No. 12) to longitudinal and cross feed screws (Ref. Nos. 8 and 9) using acorn nuts (Ref. No. 13).
3. This vise is shipped with a protective coating. This coating should be removed before operation. Remove protective coating with penetrating oil.

Operation

Refer to Figure 3.

1. Mount vise to work surface in desired location by securing at least two mounting flanges located on base (Ref. No. 1).
2. Move saddle (Ref. No. 3) by rotating longitudinal crank handle (Ref. No. 12). Tighten center set screw (Ref. No. 6) to secure position.
3. Move vise body (Ref. No. 16) to desired position by rotating cross feed crank handle (Ref. No. 12). Tighten center set screw (Ref. No. 6) to secure position.
4. Open jaws of vise. Place workpiece between jaws in desired position. Rotate vise handle to secure workpiece between vise jaws. Be sure workpiece is secure in vise before starting machining operation.

Maintenance

Particles of metal or wood can damage machined surfaces, causing difficult or inaccurate operation.

1. Keep machined surfaces and all moving parts clean and free of dirt, chips and foreign materials.
2. Keep machined surfaces and lead-screws lubricated with medium weight machine oil.

GIB ADJUSTMENT

Refer to Figure 3.

Tighten saddle gibs (Ref. No. 4) by tightening the set screws (Ref. Nos. 6 and 23) at each end of the gibs.

Adjust the screws until a slight drag is felt when rotating the crank handles (Ref. No. 12). Tighten nuts (Ref. No. 5) to secure screws.

Models 4YG28A, 6Z848D and 3W766C

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LIMITED WARRANTY

DAYTON ONE-YEAR LIMITED WARRANTY. Dayton® 3, 6 and 8" Cross Vises, Models covered in this manual, are warranted by Dayton Electric Mfg. Co. (Dayton) to the original user against defects in workmanship or materials under normal use for one year after date of purchase. Any part which is determined to be defective in material or workmanship and returned to an authorized service location, as Dayton designates, shipping costs prepaid, will be, as the exclusive remedy, repaired or replaced at Dayton's option. For limited warranty claim procedures, see PROMPT DISPOSITION below. This limited warranty gives purchasers specific legal rights which vary from jurisdiction to jurisdiction.

LIMITATION OF LIABILITY. To the extent allowable under applicable law, Dayton's liability for consequential and incidental damages is expressly disclaimed. Dayton's liability in all events is limited to and shall not exceed the purchase price paid.

WARRANTY DISCLAIMER. Dayton has made a diligent effort to provide product information and illustrate the products in this literature accurately; however, such information and illustrations are for the sole purpose of identification, and do not express or imply a warranty that the products are MERCHANTABLE, or FIT FOR A PARTICULAR PURPOSE, or that the products will necessarily conform to the illustrations or descriptions. Except as provided below, no warranty or affirmation of fact, expressed or implied, other than as stated in the "LIMITED WARRANTY" above is made or authorized by Dayton.

PRODUCT SUITABILITY. Many jurisdictions have codes and regulations governing sales, construction, installation, and/or use of products for certain purposes, which may vary from those in neighboring areas. While Dayton attempts to assure that its products comply with such codes, it cannot guarantee compliance, and cannot be responsible for how the product is installed or used. Before purchase and use of a product, review the product applications, and all applicable national and local codes and regulations, and be sure that the product, installation, and use will comply with them.

Certain aspects of disclaimers are not applicable to consumer products; e.g., (a) some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you; (b) also, some jurisdictions do not allow a limitation on how long an implied warranty lasts, consequentially the above limitation may not apply to you; and (c) by law, during the period of this Limited Warranty, any implied warranties of implied merchantability or fitness for a particular purpose applicable to consumer products purchased by consumers, may not be excluded or otherwise disclaimed.

PROMPT DISPOSITION. Dayton will make a good faith effort for prompt correction or other adjustment with respect to any product which proves to be defective within limited warranty. For any product believed to be defective within limited warranty, first write or call dealer from whom the product was purchased. Dealer will give additional directions. If unable to resolve satisfactorily, write to Dayton at address below, giving dealer's name, address, date, and number of dealer's invoice, and describing the nature of the defect. Title and risk of loss pass to buyer on delivery to common carrier. If product was damaged in transit to you, file claim with carrier.

Manufactured for Dayton Electric Mfg. Co., 5959 W. Howard St., Niles, Illinois 60714 U.S.A.

Repair Parts List for 3, 6 and 8" Cross Vises

Reference Number	Description	Part Number for Models:			Quantity
		4YG28A	6Z848D	3W766C	
1	Base	9880.01	9900.01	9900.01	1
2	Nut	9881.00	9901.00	9901.00	1
3	Saddle	9882.01	9902.01	9902.01	1
4	Gib	9883.00	9903.00	9903.00	2
5	6-1.0mm Hex nut	*	*	*	6
6	6-1.0 x 16mm Set screw	*	-	-	4
6	6-1.0 x 20mm Set screw	-	*	*	4
7	1/8" Ball	9884.00	9884.00	9884.00	2
8	Longitudinal feed screw	9898.00	2658.00	2658.00	1
9	Cross feed screw	9886.00	9906.00	9906.00	1
10	Retaining plate	9887.00	9907.00	9907.00	1
11	6-1.0 x 16mm Socket head bolt	*	-	-	4
11	8-1.25 x 25mm Socket head bolt	-	*	*	4
12	Crank handle assembly	15068.00	15069.00	15069.00	2
13	6-1.0mm Acorn nut	15017.00	15017.00	15017.00	2
14	Leadscrew with handle	6861.00	6877.00	9742.00	1
15	Guide rod	6860.00	6876.00	9743.00	1
16	Body	15013.00	9913.00	9745.00	1
17	6-1.0 x 10mm Socket head bolt	*	-	-	4
17	8-1.25 x 14mm Socket head bolt	-	*	-	4
17	8-1.25 x 25mm Socket head bolt	-	-	*	4
18	Movable jaw	6862.01	6879.01	9747.01	1
19	6-1.0 x 12mm Dog point set screw	9458.00	9458.00	9458.00	1
20	Jaw plate	6863.00	6882.00	9748.00	1
21	Grooved jaw plate	6864.00	6883.00	9749.00	1
22	Retaining plate	9897.00	9918.00	9918.00	1
23	6-1.0 x 16mm Set screw	*	-	-	2
23	6-1.0 x 25mm Set screw	-	*	*	2
24	6mm Lock washer	*	-	-	4
24	8mm Lock washer	-	*	*	4
25	6mm Flat washer	-	*	*	2
Recommended Accessories					
Δ	3" Prismatic jaw	7094.00	-	-	1
Δ	6" Prismatic jaw	-	6884.00	-	1
Δ	8" Prismatic jaw	-	-	2659.00	1

(Δ) Not shown.

(*) Standard hardware item, available locally.



OPERATING INSTRUCTIONS & PARTS MANUAL

MACHINIST CLAMPING KIT

MODEL 6Z850A

ATTN: Barbara Weiss

FORM 553067
0800
0892/215/VP

READ CAREFULLY BEFORE ATTEMPTING TO ASSEMBLE, INSTALL, OPERATE OR MAINTAIN THE PRODUCT DESCRIBED. PROTECT YOURSELF AND OTHERS BY OBSERVING ALL SAFETY INFORMATION. FAILURE TO COMPLY WITH INSTRUCTIONS COULD RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE! RETAIN INSTRUCTIONS FOR FUTURE REFERENCE.

Description

The Dayton Machinist Clamping Kit is a set of durable components with versatile clamping capabilities. The clamping kit is useful when high cutting forces require high clamping forces. The U-clamps are quickly adapted for securing workpieces up to two inches in thickness. The U-clamps are useful where limited table space is available. The step blocks and the step clamps can be used to clamp a wider range of shapes and sizes. The many components provide for a variety of secure setups.

Specifications

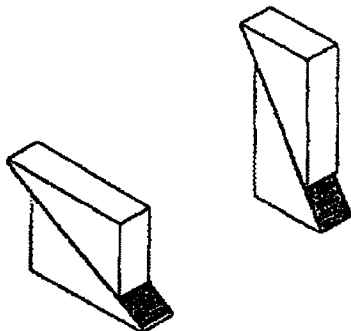


Figure 1 -- Step Blocks

Height	Horizontal Range	Vertical Range
1 1/8"	3/4 - 1"	1 1/8 - 1 1/2"
1 3/4"	1 1/8 - 1 5/8"	1 3/4 - 2 3/4"
3 7/8"	2 3/8 - 3 1/2"	3 7/8 - 6"

General Safety Information

1. Clamp on a flat area, the clamps are designed to apply the clamping force downward.
2. Keep the stud with the T-nut shouldered in the slot and perpendicular to the table.
3. Keep the step clamp level to the clamping surface.
4. Avoid complicated clamping configurations, in general a simple setup is more stable.
5. Clamp as low as possible on the workpiece.
6. Always clamp the workpiece in at least two spots.
7. Clamp evenly, apply equal clamping forces on opposite edges of a workpiece.

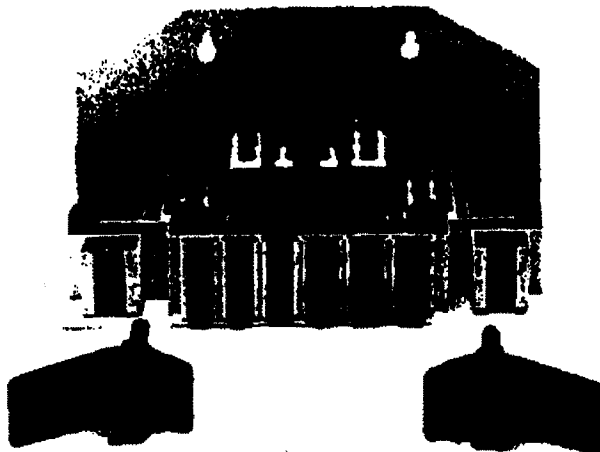


Figure 2

8. Make sure the step block does not overlap by less than half of the width.
9. Make sure the step block is properly interlocked.
10. Make sure the load above the step block is centered.

Operation

Refer to Figure 1.

Many combinations of clamp, clamping support, and clamping stud can be assembled to securely clamp a workpiece. The components of the Machinist Clamping Kit should allow the operator to create an uncomplicated clamping configuration for most workpieces. An effective method of clamping a workpiece is important for the accuracy and safety of the operation.

T-NUT

1. For a proper clamping configuration the T-nut should be shouldered within the T-nut slot or open slot of the work table.
2. The T-nut must be connected to the thread stud.
3. The T-nut has thread stops, be sure to screw the stud into the T-nut until the thread stops.
4. When using a T-nut slotted table, the studs should be connected before inserting the stud with the T-nut into the table.
5. When using an open slotted table, the studs cannot be connected until after the stud with the T-nut is inserted through the slot.

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MODEL 6ZB50A

Replacement Parts List

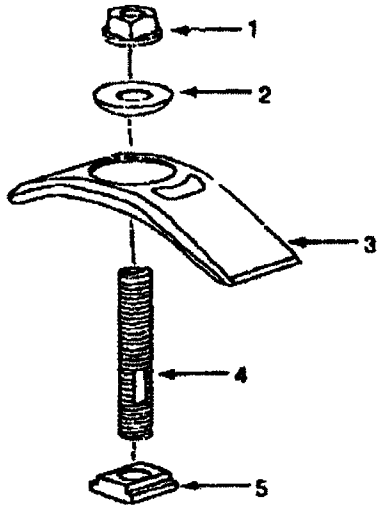


Figure 4 – Replacement Parts illustration for U-Clamp

**ORDER REPLACEMENT PARTS BY CALLING TOLL FREE
1-800-323-9639**

Please provide following information:

- Model Number
- Serial Number (if any)
- Part Description and Number as shown in Parts List.

Address parts correspondence to:

Parts Company of America
1637 Shamer Road
Northbrook, IL 60062-6367

REF. NO.	DESCRIPTION	PART NO.	QTY.
1	Flange nut	1731.00	2
2	Ball joint	1726.00	2
3	U-clamp	1727.00	2
4	5" Threaded stud	1729.00	2
5	T-nut	1730.00	2

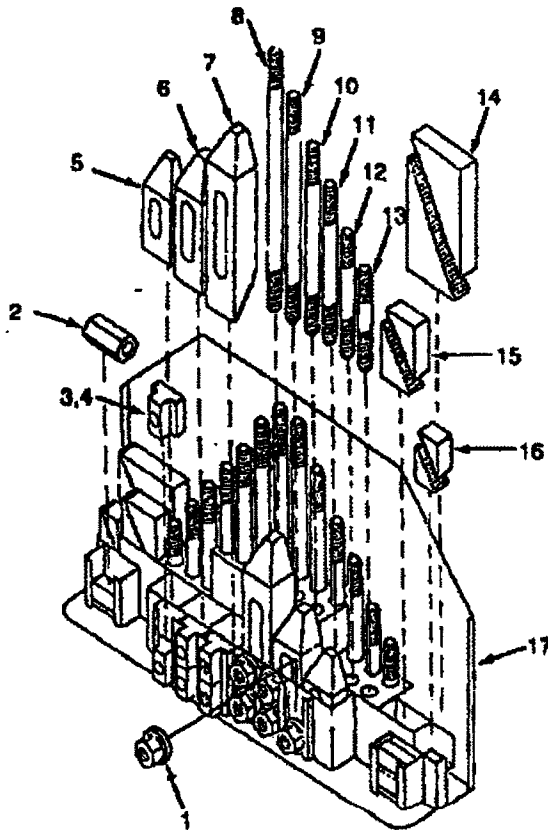


Figure 5 – Clamping Ranges

REF. NO.	DESCRIPTION	PART NO.	QTY.
1	Flange nut	1731.00	6
2	Connecting nut	3501.00	4
3	9/16" T-nut	1730.00	4
4	5/8" T-nut	6874.00	4
5	2 1/2" Step clamp	3502.00	2
6	4" Step clamp	3503.00	2
7	6" Step clamp	3504.00	2
8	8" Threaded stud	3505.00	2
9	7" Threaded stud	3506.00	4
10	6" Threaded stud	3507.00	4
11	5" Threaded stud	1729.00	4
12	4" Threaded stud	3508.00	4
13	3" Threaded stud	3509.00	4
14	3 7/8" Half step block	3510.00	4
15	1 3/4" Half step block	3511.00	4
16	1 1/8" Half step block	3512.00	4
17	Storage rack	3513.00	1