

WARRANTY

Palmgren warrants their products to be free of deficiency in material or workmanship. The duration of this warranty is expressly limited to one year parts and labor unless otherwise noted beginning from the date of delivery to the original user. The following Palmgren products carry the following warranties on parts with a 1 year warranty on labor:

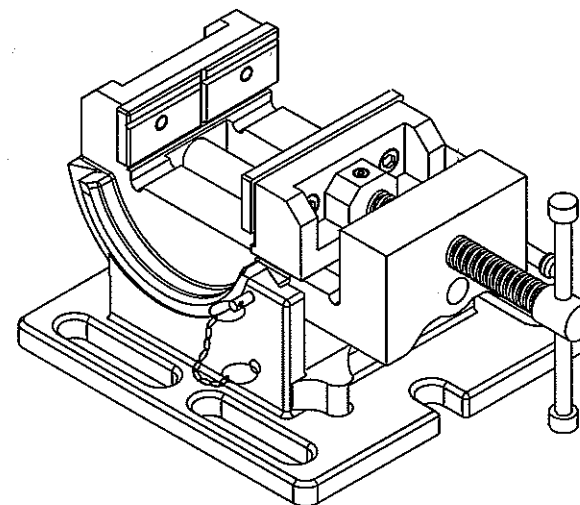
- USA Machine vises – Lifetime
- Imported Machine vises – 2 years
- Bench vises – 2 years
- Positioning tables – 2 years
- Bench grinders & buffers – 3 years
- Tapping machines – 2 years
- Drilling machines – 2 years
- Finishing machines – 2 years
- Band saws – 2 years
- Work stands – 2 years

The obligation of Palmgren is limited solely to the repair or replacement, at our option, at its factory or authorized repair agent of any part that should prove deficient. The warranty does not cover expendable and/or wear parts (i.e. v-belts, coated abrasives), damage to tools arising from alteration, abuse or use other than their intended purpose, packing and freight. Purchaser must lubricate and maintain the product under normal operating conditions at all times. Proper use and care instructions are provided in the operator's manual. Failure to follow these instructions will void the warranty.

This warranty is the purchaser's exclusive remedy against Palmgren for any deficiency in its products. Under no circumstances is Palmgren liable for any direct, indirect, incidental, special or consequential damages including lost profits in any way related to the use or inability to use our products. This warranty gives you specific legal rights which may vary from state to state.

SERVICE & REPAIR

1. If a Palmgren product requires a repair or warranty service **DO NOT** return the product to the place of purchase.
2. All warranty related work must be evaluated and approved by Palmgren.
3. Prior to returning any item the user must obtain factory approval and a valid RGA number.
4. For instructions and RGA number call toll free (800) 621-6145.

PALMGREN**PALMGREN****3" & 4"****CRADLE STYLE ANGLE VISE**

Read carefully and follow all safety rules and operating instructions before first use of this product.

DESCRIPTION

Palmgren 3" and 4" Cradle Style Angle Vises permit accurate positioning at any angle from horizontal to vertical. Moving jaw and leadscrew are ground for smooth operation.

SAFETY RULES

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

DIMENSIONS

Refer to Figure 1.

Stock No.		11250A	11351A
Jaw Width	A	3"	4"
Troat Depth	B	1 ¹ / ₈ "	1 ¹ / ₂ "
Jaw Opening	C	3"	4"
Overall Height	H	4"	4 ¹ / ₂ "
Base Length	L	6 ⁹ / ₁₆ "	7 ³ / ₁₆ "
Base Width	W	6 ⁹ / ₁₆ "	7 ⁹ / ₁₆ "

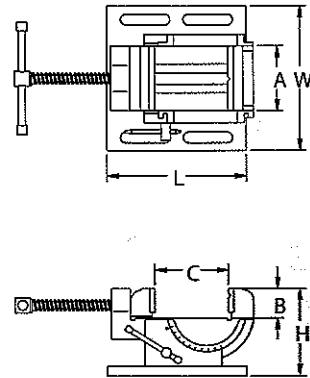


Figure 1 - Dimensions

OPERATION

Refer to Figure 2.

- Mount vise to work surface in desired location by securing at least two mounting flanges located on base (Ref. No. 1)
- Open jaws of vise and place workpiece between jaws in desired position. Secure workpiece between jaws by rotating leadscrew with handle. (Ref. No. 5). Be sure workpiece is held securely in vise before starting machining operation.

ANGLE ADJUSTMENT

- Use scale (Ref. No. 4) to set vise at desired degrees from horizontal.
- Use positive stop pin (Ref. No. 13) when setting Angle Vise at 0°, 30°, 45°, 60°, or 90°.
- Tighten locking handle (Ref. No. 3) to lock angle position.

MAINTENANCE

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

- The vise is shipped with a protective coating. This coating should be removed before operation. Use penetrating oil to remove protective coating.
- Keep machined surfaces and all moving parts clean and free of dirt, chips and foreign materials.
- Keep machined surfaces and lead-screws lubricated with medium weight machine oil.

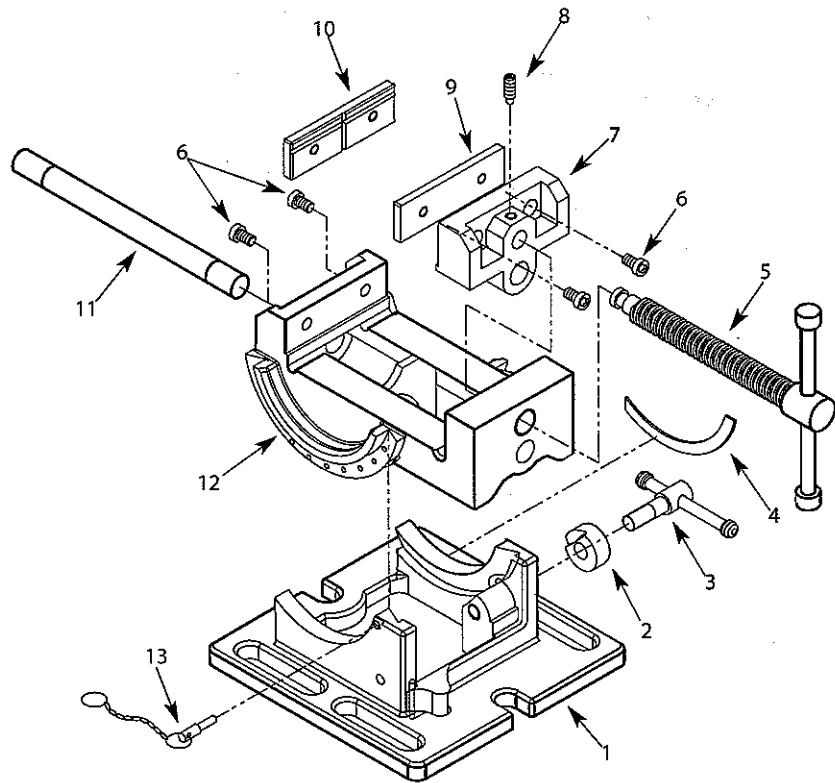


Figure 2 - Replacement Parts Illustration for 3" and 4" Cradle Style Angle Vises

**REPLACEMENT PARTS LIST FOR
CRADLE STYLE ANGLE VISES**

Ref. No.	Description	Part Number for:		Qty.
		3" 11250A	4" 11351A	
1	Base	28979.00	28986.00	1
2	Locking Collar	28987.00	28987.00	1
3	Locking Handle	28988.00	28988.00	1
4	Scale	28989.00	28989.00	1
5	Lead Screw with Handle	28980.00	28990.00	1
6	6-1.0 x 10mm Socket Head Bolt	*	*	4
7	Moving Jaw	28981.00	28991.00	1
8	6-1.0 x 12mm Dog Point Set Screw	09458.00	90458.00	1
9	Flat Jaw Plate	28982.00	28992.00	1
10	Grooved Jaw Plate	28983.00	28993.00	1
11	Slide Bar	28984.00	28994.00	1
12	Body	28985.00	28995.00	1
13	Pin Assembly	28996.00	28996.00	1
Δ	Operator's Manual	28978.00	28978.00	1

Δ Not shown.

* Standard hardware item available locally.

TORNILLO DE BANCO DE ANGULO TIPO CUNA

NO. DE EXISTENCIA

11250A – 76 MM

11351A – 102 MM

Antes de utilizar este producto por primera vez, lea cuidadosamente todas las normas de seguridad y las instrucciones de operación y cumpla con las mismas.

DESCRIPCION

Los tornillos de banco de ángulo tipo cuna Palmgren de 76 mm y de 102 mm permiten sujetar una pieza de trabajo con precisión a cualquier ángulo, desde horizontal hasta vertical. La mordaza móvil y el tornillo de ajuste tienen superficies esmeriladas para brindarle un funcionamiento preciso y uniforme.

REGLAS DE SEGURIDAD

- Entienda y obedezca todas las instrucciones de seguridad que se proporcionan con la prensa taladradora, la fresadora o con otras máquinas en las cuales se usa el tornillo de banco.
- Aperse o agarre el tornillo de banco a la superficie de trabajo en dos lugares de montaje, por lo menos, usando las pestañas de montaje que se proporcionan en la base.
- Asegúrese que la pieza de trabajo esté firmemente agarrada entre las mordazas antes de empezar la operación de maquinado.
- No lo apriete demasiado — el tornillo de banco puede desarrollar una gran fuerza de agarre. Use solamente la fuerza que se necesita.
- No golpee ni martille la pieza de trabajo. Este tornillo de banco ha sido diseñado para agarrar la pieza de trabajo

en la posición que se desea solamente para las operaciones de maquinado.

DIMENSIONES

Refiérase a la Figura 1.

No. de Existencia		11250A	11351A
Ancho de la Mordaza	A	76 mm	102 mm
Profundidad de la Garganta	B	29 mm	38 mm
Abertura de la Mordaza	C	76 mm	102 mm
Altura Total	H	102 mm	114 mm
Longitud de la Base	L	167 mm	187 mm
Ancho de la Base	W	167 mm	192 mm

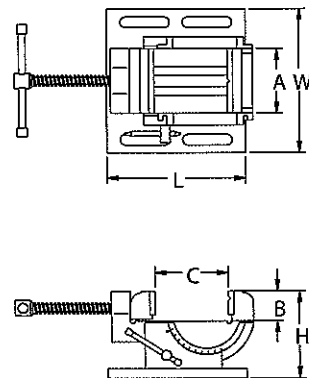


Figura 1 - Dimensiones

OPERACION

Refiérase a la Figura 2.

- Monte el tornillo de banco en una superficie de trabajo en el lugar que se desea, asegurando por lo menos dos de las pestañas de montaje ubicadas en la base (Ref. No. 1).
- Abra las mordazas del tornillo de banco y coloque la pieza de trabajo entre ellas, en la posición que se desea. Asegure la pieza de trabajo entre las mordazas haciendo rotar el tornillo de entrada con el mango (Ref. No. 5). Asegúrese que la pieza de trabajo esté sujeta firmemente en el tornillo de banco antes de empezar la operación de maquinado.

AJUSTE DEL ANGULO

- Use la escala (Ref. No. 4) para ajustar el tornillo de banco a los grados que se desea desde la horizontal.
- Use el pasador de tope positivo (Ref. No. 13) cuando ajuste el tornillo de banco de ángulo a 0°, 30°, 45°, 60° o 90°.
- Apriete la manija de ajuste (Ref. No. 3) para asegurar la posición del ángulo.

MANTENIMIENTO

Las partículas de metal o de madera pueden dañar las superficies maquinadas, haciendo que la operación sea difícil o incorrecta.

- El tornillo de banco se envía con un revestimiento protector. Este revestimiento se debe remover antes de la operación. Use un aceite penetrante para removerlo.
- Mantenga las superficies maquinadas y todas las partes móviles limpias y sin polvo, astillas y materias extrañas.
- Mantenga las superficies maquinadas y el tornillo de entrada lubricados con aceite para máquinas de peso mediano.