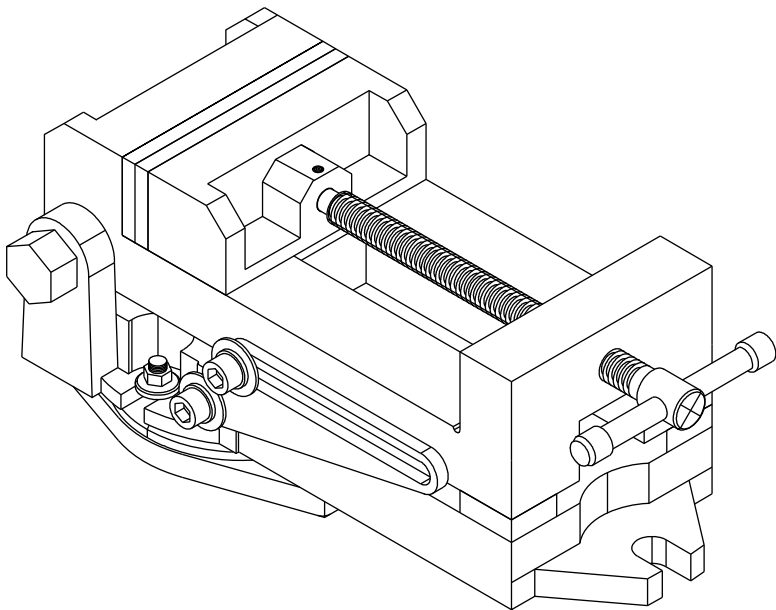


PALMGREN

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6" INDUSTRIAL ANGLE VISE



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

DESCRIPTION

Palmgren 6" Industrial Angle Vise permits accurate positioning at any angle from horizontal to vertical. Moving jaw and leadscrew are ground for smooth operation. An optional graduated swivel base allows vise to be rotated 360° and locked at any desired angle.

- Do not over tighten—vise can develop a large clamping force. Use only force which is needed.
- Do not pound or hammer on work-piece. This vise is designed to clamp the workpiece in a desired position for machining operations only.

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.

DIMENSIONS

Refer to Figure 1.

Stock No.	11602A	
Jaw Width	A	6"
Throat Depth	B	2"
Jaw Opening	C	7"
Overall Height without Swivel Base	H	6"
Overall Height with Swivel Base	H	7 ³ / ₈ "
Base Length	L	17 ³ / ₄ "
Base Width	W	7 ¹¹ / ₁₆ "

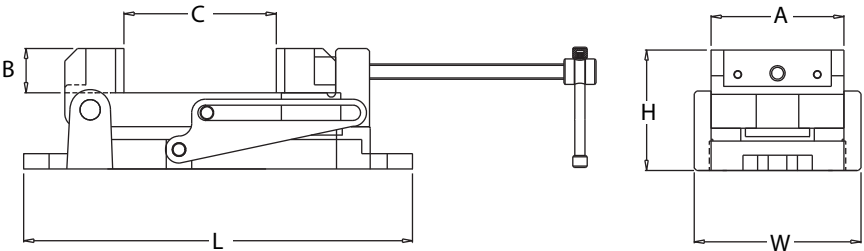


Figure 1 - Dimensions

OPERATION

Refer to Figure 2.

- Mount vise to work surface in desired location by securing both mounting flanges located on swivel base (Ref. No. 24).
- Rotate vise to desired position. A scale and indicator are provided for reference. Tighten hex nuts (Ref. No. 20) to secure base (Ref. No. 1) to swivel base (Ref. No. 24).
- Open jaws of vise and place workpiece between jaws in desired position. Secure workpiece between jaws by rotating leadscrew with handle. (Ref. No. 19). Be sure workpiece is held securely in vise before starting machining operation.

ANGLE ADJUSTMENT

- Loosen four bolts (Ref. No. 5).
- Loosen nut (Ref. No. 9).
- Use "0" mark on the body to set vise at desired degrees from horizontal.
- Tighten four bolts and nut 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 lubricated with medium weight machine oil.

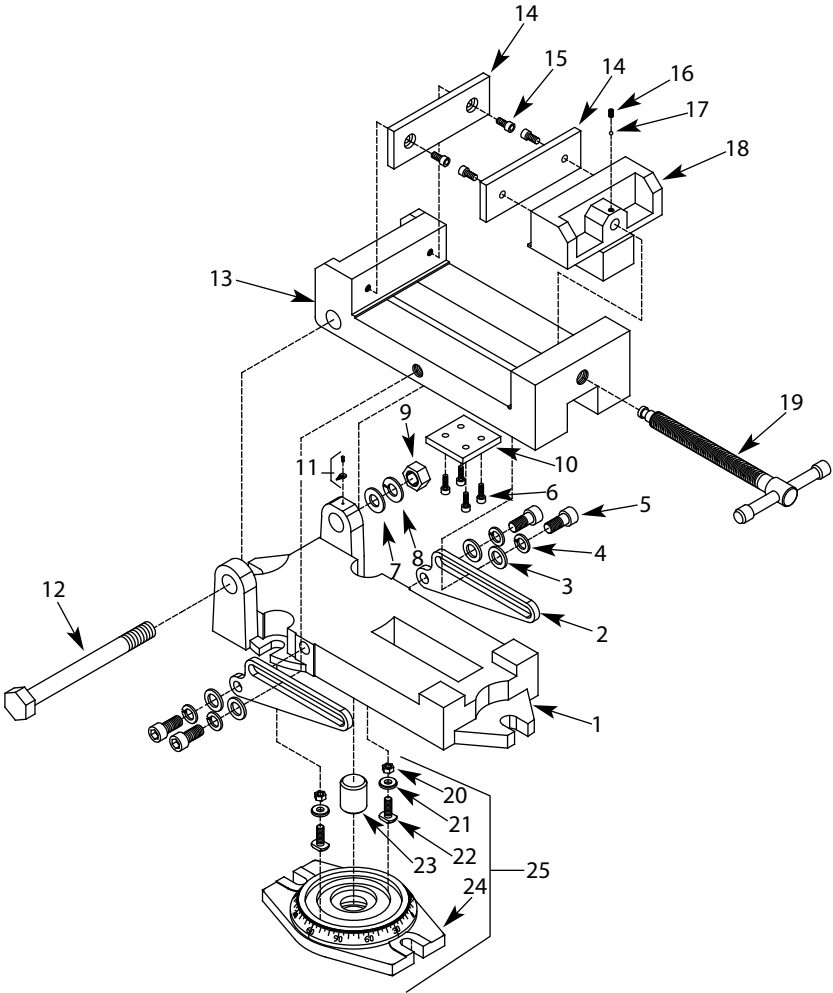


Figure 2 - Replacement Parts Illustration for 6" Industrial Angle Vise

REPLACEMENT PARTS LIST FOR INDUSTRIAL ANGLE VISE

Ref. No.	Description	Part Number	Qty.
1	Base	†	1
2	Side plate	31429.00	2
3	16mm Flat washer	*	4
4	16mm Lock washer	*	4
5	16-2.0 x 35mm Socket head bolt	*	4
6	8-1.25 x 16mm Socket head bolt	*	4
7	24mm Flat washer	*	1
8	24mm Lock washer	*	1
9	24-3.0mm Hex nut	*	1
10	Guide plate	31430.00	1
11	Pointer with rivet	31418.00	1
12	Pivot bolt	31431.00	1
13	Body	†	1
14	Flat jaw plate	31454.00	2
15	8-1.25 x 20mm Socket head bolt	*	4
16	8-1.25 x 10mm Set screw	*	1
17	6mm Steel ball	07339.00	1
18	Moving jaw	31433.00	1
19	Lead screw with handle	31434.00	1
20	16-2.0mm Hex nut	*	2
21	Spacer	31435.00	2
22	T-bolt	31436.00	2
23	Center pin	31425.00	1
24	Swivel base	31437.00	1
25	Swivel base assembly (Ref. Nos. 20-24)	31438.00	1
Δ	Operator's Manual	31483.00	1

Δ Not shown.

* Standard hardware item available locally.

† Not available as replacement part.

TORNILLO DE BANCO DE ANGULO INDUSTRIAL

NO. DE EXISTENCIA
11602A – 152 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 industrial Palmgren de 152 mm permiten la colocación precisa en cualquier ángulo, de la horizontal a la vertical. La mordaza móvil y el tornillo de ajuste tienen superficies esmeriladas para brindarle un funcionamiento preciso y uniforme. La base giratoria graduada opcional permite girar el tornillo de banco 360° y ajustarlo al ángulo deseado.

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.
- Aperne 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	11602A	
Ancho de la Mordaza	A	152 mm
Profundidad de la Garganta	B	50 mm
Abertura de la Mordaza	C	178 mm
Altura Total sin la Base Giratoria	H	152 mm
Altura Total con la Base Giratoria	H	187 mm
Longitud de la Base	L	451 mm
Ancho de la Base	W	195 mm

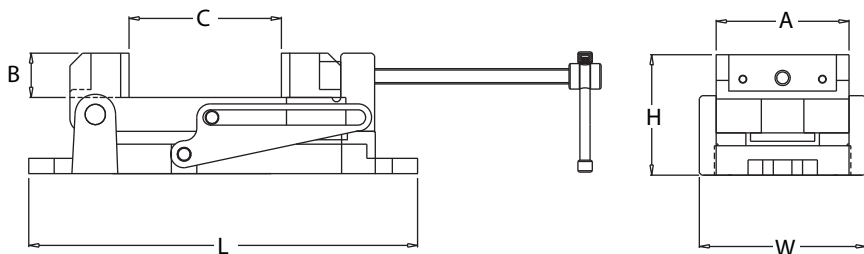


Figura 1 - Dimensiones

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 giratoria (Ref. No. 24).
- Gire el tornillo de banco a la posición deseada. Se proporcionan una balanza y un indicador como referencia. Apriete las tuercas hexagonales (Ref. No. 20) para asegurar la base (Ref. No. 1) a la base giratoria (Ref. No. 24) .
- 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. 19). Asegúrese que la pieza de trabajo esté sujeta firmemente en el tornillo de banco antes de empezar la operación de maquinado.

AJUSTE DEL ANGULO

- Afloje los cuatro pernos (Ref. No. 5).
- Afloje la tuerca (Ref. No. 9).
- Utilice la marca "0" en el cuerpo para ajustar el tornillo de banco a los grados deseados desde la horizontal.
- Apriete los cuatro pernos y la tuerca 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.

WARRANTY

Palmgren warrants their products to be free of defects in material or workmanship. This warranty does not cover defects due directly or indirectly to misuse, abuse, normal wear and tear, failure to properly maintain the product, heated, ground or otherwise altered, or used for a purpose other than that for which it was intended. The warranty does not cover expendable and/or wear parts (i.e. v-belts, coated screws, abrasives), damage to tools arising from alteration, abuse or use other than their intended purpose, packing and freight. The duration of this warranty is expressly limited to one year parts and labor, unless otherwise noted below beginning from the date of delivery to the original user. The Palmgren products carry the following warranties on parts with a 1 year warranty on labor:

- USA Machine vises – Lifetime
- IQ Machine vises – Lifetime
- Bench vises – Lifetime
- Positioning tables – Lifetime
- 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
- Arbor Presses – 2 years
- Metal Framing Equipment – 2 years
- Accessories – 1 year

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. Purchaser must lubricate and maintain the product under normal operating conditions at all times. Prior to operation become familiar with product and the included materials, i.e. warnings, cautions and manuals. **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.

The logo for Palmgren, featuring the word "PALMGREN" in a bold, black, sans-serif font. The letter "A" is stylized with a triangle pointing upwards inside it.