

79 SINE VICES – SUPER PRECISION

ESP Mordaza de alta presión FR Étau sinus de précision DE Präzisions-Sinusspanner

Manufactured from selected tool steel, these solid Sine Vices are fully hardened (55-60 HRC) and tempered, mounted onto a precision hinged bottom plate. All the surfaces of the vice are precisely ground for extreme accuracy

These are very useful for manufacturing processes that require the highest standards of clamping accuracy at desired angles

A minute angle step of 0.2"/5 mm allows very small angles to be set with ease using standard gauge blocks

These are available in two models:

Screw Type
Screwless Type

Determining the height (h) of the Gauge Block to be used

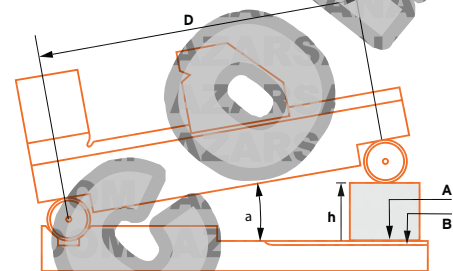
$$h = \sin \alpha \times D \text{ for surface A}$$

$$h = \sin \alpha \times D + 5 \text{ mm} / 0.2" \text{ for surface B}$$

eg: To determine height of gauge block for angle adjustment of 10°, given D = 150 mm:

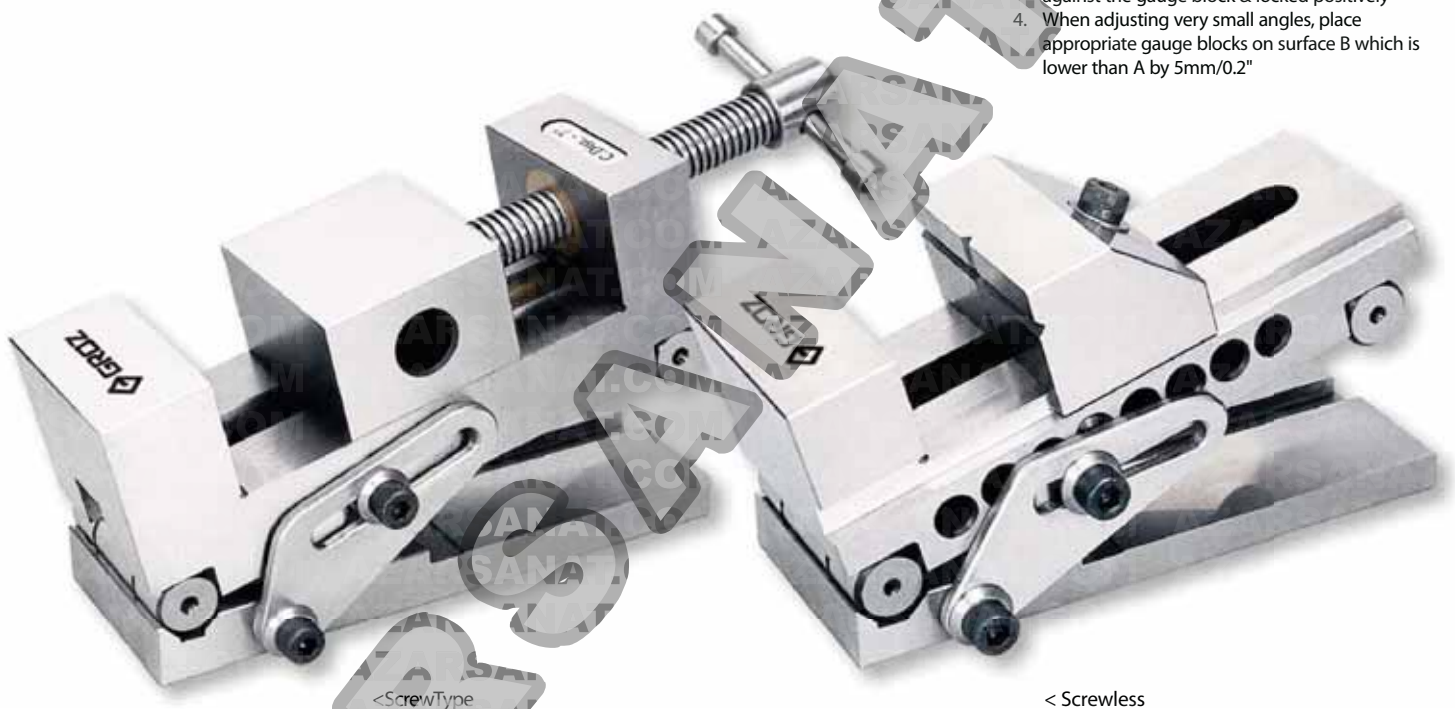
$$h = \sin 10^\circ \times 150 = 26.04 \text{ mm}$$

Thus for setting on angle of 10°, a gauge block of height 26.04 mm is required



Using Gauge Blocks:

1. Pivot the Sine Vice upwards.
2. Insert gauge block between surface A & the headed dowel
3. Turn back screw so that Sine Vice is pressed against the gauge block & locked positively
4. When adjusting very small angles, place appropriate gauge blocks on surface B which is lower than A by 5mm/0.2"



Ordering Information

| Cat. Nr. | Ordering Nr. | Type | Body Dimensions | Jaw Width | Jaw Opening | Jaw Depth | Minute angle step | Center to Center distance | Net Wt. each (Kg.) |
|----------|--------------|------------|-----------------------------|-----------|-------------|-----------|-------------------|---------------------------|--------------------|
| SNV/6 | 35215 | Screwless | 7.3/32" x 3.1/4" x 3.11/32" | 2-3/4" | 3-3/4" | 1-9/16" | 0.2" | 6" | 5.250 |
| SNV/150 | 35210 | Screwless | 180 x 82 x 85 mm | 70 mm | 95 mm | 40 mm | 5 mm | 150 mm | 5.250 |
| SNV/7 | 35216 | Screw type | 8" x 2.3/4" x 3.17/32" | 2-3/4" | 3" | 1-9/16" | 0.2" | 7" | 7.00 |
| SNV/175 | 35211 | Screw type | 200 x 70 x 90 mm | 70 mm | 75 mm | 40 mm | 5 mm | 175 mm | 7.00 |

| Accuracies | Guaranteed | | Actual Average | |
|--|------------|--------|----------------|--------|
| | Inch | Micron | Inch | Micron |
| Flatness of bearing surface | 0.00039" | 10 | 0.00019" | 5 |
| Parallelism of slide face & top face to bottom face | 0.00039" | 10 | 0.00019" | 5 |
| Squareness of sides & slide faces | 0.00047" | 12 | 0.00031" | 8 |
| Parallelism of sides & slide ways | 0.00031" | 8 | 0.00019" | 5 |
| Squareness of fixed jaw back to bottom surface & sides | 0.00047" | 12 | 0.00031" | 8 |
| Parallelism of fixed jaw & length faces | 0.00031" | 8 | 0.00019" | 5 |
| Parallelism of jaw faces | 0.00031" | 8 | 0.00019" | 5 |
| Sliding jaw square to bottom face when vice is clamped | 0.00047" | 12 | 0.00031" | 8 |
| Sliding jaw face parallel when vice is clamped | 0.00031" | 8 | 0.00019" | 5 |
| Center to Center distance | 0.00039" | 10 | 0.00019" | 5 |



Sine Vice being used to drill an angled hole on a machine wheel

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