

1. The squares are mainly used to measure the perpendicularity and flatness of workpieces, assist in measurement, and draw vertical lines. The main products are as shown in the table below.

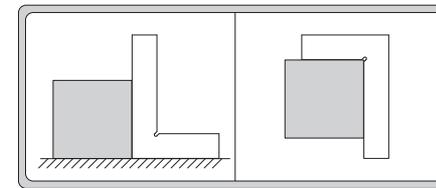


2. Product Introduction

- Cylinder square: it has a cylindrical measuring surface and multiple working angles. It is used to measure the perpendicularity of the internal and external angles of workpieces, and also serves as a reference to verify the external angle accuracy of right-angle squares, its cylindrical structure allows it to be easily inserted into the inner holes or grooves of workpieces for measurement.
- 90° beveled dege square: both the internal and external measuring surfaces are of the knife-edge type, making them most suitable to measure the perpendicularity of flat workpieces.
- 90° flat dege square: it is composed of two arms perpendicular to each other, with a simple and lightweight structure, and is suitable for right-angle measurement of small workpieces and components.
- 90° flat edge square with wide base: it features a base wider than the measuring face, providing excellent stability and ease of placement. This design allows it to be firmly braced against materials for accurate measurements, making it commonly used on production sites.
- Granite square: it features extremely high precision stability, wear resistance, and corrosion resistance. It can be used for high-precision measurement of the flatness and perpendicularity of workpieces, and also serves as a reference tool for calibrating other measuring instruments.

3. Select the appropriate square size based on the size and accuracy of the inspected workpiece
 - Select a square of the appropriate accuracy grade based on the working accuracy: use Grade 00 for inspecting precision measuring tools, Grade 1 for precision components, and Grade 2 for general components.
 - For different measuring surfaces, use a beveled edge or cylinder square for flat measuring surfaces, and a wide-base or flat dege square for circular or arc measuring surfaces.
 - Selection of inspection platform: squares are used on platforms, with the platform's accuracy higher than the square's. Use Grade 00 platform for Grade 00/0 squares; Grade 0 platform for Grade 1 squares; Grade 1 platform for Grade 2 squares.
4. Before use, clean the square and workpiece surfaces with a clean soft cloth to ensure no oil, dust or burrs. For squares with temperature requirements (e.g., granite squares), place them at the specified ambient temperature to achieve temperature equilibrium.
5. Measurement:
 - When measuring the internal and external angles of a workpiece, place the square and the workpiece on the platform, and slowly push the square so that its measuring surface comes into close contact with the surface of the workpiece. Keep it stable and observe the gap between the measuring surface and the measured surface. For small gaps, determine the gap size and whether light passes through based on the color of the light; for large gaps, use a feeler gauge for measurement.
 - For scribing, first secure the square. Then, using the square's measuring surface as a reference, draw the required straight lines along the measuring surface with a scribe.

Perpendicularity measurement



6. Caution:

- After use, wipe the square clean with a clean soft cloth. For long-term non-use, apply anti-rust oil and store it in a dry, vibration-free tool box.
- To ensure the measuring accuracy of the square, it is recommended to send it to a professional metrology institution for calibration regularly (the maximum verification cycle is generally no more than 1 year) to guarantee the reliability of measurement data. If any abnormality in the angle square's measurement results is detected within the calibration validity period, it should also be calibrated promptly.