MEASURING A 45° CHAMFER OR RADIUS

A standard 150mm/6” digital caliper is required and the depth rod used. All sizes are given in mm but conversion is easy with a digital caliper – simply convert from mm to inches or, divide the final result by 25.4.

The photos give an indication of size. The “device” is doubled to allow for easy centering on diameters.

**For chamfers and radii up to 3 mm/1/8”**

Normally a chamfer is written as i.e. 0.3x45°

To find length F on a 45° chamfer, multiply by 1.4142 (√2)

E.g. 0.3 x 45°
0.3 x 1.1412 = 0.42

Measurement of chamfer length (F) on a 45° chamfer:

1. Zero caliper in closed position.
2. Measure distance to chamfer with the caliper depth rod.
3. Subtract 10 mm from the measurement result.
4. \( L = 2 \times \text{new measurement result} \)

E.g. Measurement result is 10,17.
10,17 – 10 = 0,17
2x 0,17 = 0,34
Chamfer flat length is 0,34 mm

To find the chamfer length (as shown on the drawing), divide the measurement result by 1.4142
E.g. 0.34 / 1.4142 = 0.24

**Measurement of R on a radius:**

1. Zero caliper in closed position.
2. Measure distance to radius with the caliper depth rod.
3. Subtract 10 mm from the measurement result.
4. \( R = \frac{2,4143 \times \text{new measurement result}}{} \)

E.g. Measurement result is 10,22
10,22 – 10 = 0,22
2,413 x 0,22 = 0,53
Radius is 0,53 mm

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