Measuring an O-Ring is quite simple when you have the right tools at your disposal. All that is required is a clean, level surface; an o-ring; and a measuring device such as a caliper or other measuring tools such as cones, gauges, and size charts.

**Directions to Measure an O-Ring**

To measure an O-Ring, following the directions below:

1. Place your o-ring on a flat surface clean of debris.
2. Determine the inside diameter (ID) and outside diameter (OD) of the o-ring. The o-ring dimensions chart below illustrates where on the o-ring each dimension is measured.
3. Measuring the width, or cross-section (CS), can be tricky and is measured by lightly pressing the caliper ends onto O-ring as shown in section A-A.

For more information on O-ring sizes click to see the [JIS B 2401 Standard O-Ring Size Tables](#).

Dimensionally specifying an o-ring can typically be done with just two dimensions, the inner diameter (ID) and the cross-section (CS). Occasionally, an O-ring may be specified with an outer diameter (OD) and cross-section or an inner diameter and outer diameter. If two of the three dimensions are known, the third can be calculated using the formulas shown below.

**O-Ring Dimensions**
O-Ring Dimension Calculations

\[ \text{OD} = \text{ID} + (2 \times \text{CS}) \]
\[ \text{ID} = \text{OD} - (2 \times \text{CS}) \]
\[ \text{CS} = \frac{\text{OD} - \text{ID}}{2} \]

The original article can be found on Dichtomatik’s website. Gallagher Fluid Seals is a distributor of Dichtomatik, a brand of Freudenberg.

For more information about measuring o-rings or determining the best o-ring to use, please contact Gallagher’s engineering department.