

# Circular Cement Expansion Mold



**Brand:** OFI Testing Equipment, Inc.

**Product Code:** 122-90-010

**Availability:** 4

**Lead Time:** 30

## Description

The Circular Cement Expansion Mold is designed to measure the expansion or shrinkage characteristics of well cement slurries. In a typical well cementing operation, a cement slurry is pumped into the annulus between the well casing and the bore hole. As the cement slurry hydrates, it undergoes a volume change which translates into bulk expansion or shrinkage. Knowing the amount of expansion or shrinkage allows users to design cement systems which can achieve optimal bonding with the borehole and well casing without sacrificing the integrity of the cement matrix.

The Circular Cement Expansion Mold's external ring has a vertical slit on one side to allow it to expand. Before testing begins, the width of the gap is measured with the included micrometer. The expansion mold is filled with a cement slurry and cured in a water bath or curing chamber. As the cement cures, the external ring will expand or contract with the cement slurry. At the end of the test, the gap is measured again to determine the expansion factor.

This device conforms to the guidelines in API Recommended Practice 10B-5 (ISO 10426-5:2004).

For the complete kit that includes the mold, micrometer, micrometer stand, and carrying case, see [#122-90](/products/cement-testing/product/2419-circular-cement-expansion-mold-kit).