Foam Cement Stability Tube

U.S. Patent No. 10,203,318

Part No. #122-186-101

Instruction Manual

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Ver. 6.0

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**Introduction**

The Foam Cement Stability Tube is designed to cure foam cement samples at elevated temperatures while isolating the slurry from external pressure. The sealed mold prevents contamination from the pressure medium and maintains foam cement density by preventing the escape of air bubbles from the slurry. A brass tube insert creates a cylindrical cement plug which can then be subjected to sedimentation, permeability, and other additional tests. The cell body interior and tube insert are both tapered for easy removal. The assembly is rated for 400°F (204°C) and 3,000 psi (20.7 MPa) and can be used with standard cement slurries as well.

**Specifications**

- Maximum Pressure: 3,000 psi (20.7 MPa)
- Maximum Temperature: 400°F (204.4°C)
- Size: 10" Tall × 2.75" Diameter (25 × 7 cm)
- Weight: 13.5 lb (6.3 kg)

**Components**

- #122-186-001 Cell Body
- #122-186-002 Tube Insert, Brass, Set of Two Halves
- #122-186-003 Cell Cap
- #122-186-010 O-ring
- #122-186-501 Handle
Assembly

1. Add a thin coat of grease to the threads and o-ring groove. Place an o-ring in each o-ring groove on the ends of the cell body.

2. Press the two halves of the brass tube insert together.

   For foam cement slurries, prepare the mold in accordance with API RP 10B 4/ISO 10426-4. For conventional cement slurries, prepare the mold in accordance with API RP 10B 2 or other applicable standard.

3. Insert the inner tube, narrow end first, into the end of the cell body with the wide opening.

   The tube insert will only fit into the cell body one way.

4. Screw one of the cell caps onto end of the cell body with the wide opening. Tighten it hand tight.
5. Turn the cell over.

6. Pour the cement slurry (foamed or conventional) into the tube insert.

7. Screw the other cell cap onto the end of the cell body. Tighten it hand tight.

8. Place the assembled cell into a Curing Chamber, autoclave, or bath.
Disassembly

1. When the test is complete, remove the assembled cell from the Curing Chamber, autoclave, or bath.

2. Allow the Curing Chamber or bath to cool to at least 194°F (90°C) before removing the Tube. Free water may have developed that could boil at higher temperatures.

3. Carefully unscrew and remove both cell caps.

4. Stand the cell upright with the narrow end pointed up.

5. Carefully tap the inner tube with a soft mallet to remove it from the cell body.

6. Open the brass mold by prying apart the two halves.

7. Remove the cement sample from the tube insert.

8. Immediately prepare the sample for further testing according to API schedules or other defined test procedures.

9. Thoroughly clean and dry every component of the cell assembly.
**Warranty and Return Policy**

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- Neglect
- Adjustment by non-authorized sources
- Improper environment
- Excessive or inadequate heating or air conditioning or electrical power failures, surges, or other irregularities
- Equipment, products, or material not manufactured by OFITE
- Firmware or hardware that have been modified or altered by a third party
- Consumable parts (bearings, accessories, etc.)

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Any non-defective items returned to OFITE within ninety (90) days of invoice are subject to a 15% restocking fee. Items returned must be received by OFITE in original condition for it to be accepted. Reagents and special order items will not be accepted for return or refund.

OFITE employs experienced personnel to service and repair equipment manufactured by us, as well as other companies. To help expedite the repair process, please include a repair form with all equipment sent to OFITE for repair. Be sure to include your name, company name, phone number, email address, detailed description of work to be done, purchase order number, and a shipping address for returning the equipment. All repairs performed as “repair as needed” are subject to the ninety (90) day limited warranty. All “Certified Repairs” are subject to the twelve (12) month limited warranty.

Returns and potential warranty repairs require a Return Material Authorization (RMA) number. An RMA form is available from your sales or service representative.

Please ship all equipment (with the RMA number for returns or warranty repairs) to the following address:

OFI Testing Equipment, Inc.
Attn: Repair Department
11302 Steeplecrest Dr.
Houston, TX 77065
USA

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