# **Consolidation, Dead Weight**

Consolidation testing (ASTM D2435, D4546; AASHTO T216 and BS 1377 part 5 can be handled with either our manual loading machine, the HM-1100 or one of the pneumatic loading machines, the HM-2432 or HM-2470A.

#### Dead-Weight Consolidation Frame— HM-1100

Able to survive in even the harshest laboratory environments, the HM-1100 will provide you with reliable service day-in and day-out. The design features a rugged frame design manufactured from aluminum with stainless steel vertical rods, horizontal cross arms and beam support rods. The load arm incorporates 9:1, 10:1, and 11:1 beam ratios for greater flexibility and loading weight requirements. Using the 10:1 ratio on 2.5" (63 mm) diameter samples, the system is capable of producing load up to 48 tsf (4,597 kPa).

#### **Features include:**

- Triple beam ratios minimize loading weight requirements
- 48 tsf (5,148 kPa) maximum load capacity
- Aluminum and stainless steel construction for corrosion resistance and long life
- Wide range of consolidation cells available in fixed ring, floating ring, permeability and backpressure designs
- Loading weights available in both, tsf and kg versions
- Available with standard mechanical dial gauges, digital indicators or with strain transducers (LSCT) coupled to one of our data loggers

Specifications		
Load Capacity	48 tsf (4,597 kPa)	
Beam Ratios	9:1, 10:1 and 11:1	
Frame Construction	Heavy-duty aluminum frame with stainless steel vertical, horizontal and beam support rods	
Cell Platform	Anodized aluminum with locating pins for centering cells.	
Dimension (W x D x H)	7-3/4" x 32" x 19-1/2" (197 x 812 x 495 mm)	
Weight	47 lbs. (104kg)	
Shipping Weight	62 lbs (137kg))	

## Single-Station Consolidation Frame Stand— HM-1100.1 Triple-Station Consolidation Frame Stand— HM-1100.3

Simple, steel frame structure to hold HM-1100 Consolidation frames.

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HM-1100

### **Consolidation (Dead Weight) Typical Setups:**

Part #	Qty	Description
Dead Weight Consolidation		
HM-1100	1	Dead Weight Consol Frame-Front Load
HM-1120*	1	Weight Set, 16 TSF
HM-1220.XX	1	Fixed Ring Consolidation Cell
H-4471CC	1	Dial Gauge, 0.5" X .0001" CC
Dead Weight Consolidation w/ Analog Data Acquisition		
HM-1100	1	Dead Weight Consol Frame-Front Load
HM-1120*	1	Weight Set, 16 TSF
HM-1220.XX	1	Fixed Ring Consolidation Cell
HM-2310.04	1	Strain Transducer 0.4" (10mm)
HM-2310BR	1	Strain Transducer Bracket
HM-2325A.3F	1	MiniLogger 4 CH Analog Data Acquisition
HM-1100SW	1	HMTS Consolidation Reporting Software
Dead Weight Consolidation w/ Digital Data Acquisition		
HM-1100	1	Dead Weight Consol Frame-Front Load
HM-1120*	1	Weight Set, 16 TSF
HM-1220.XX	1	Fixed Ring Consolidation Cell
HM-4469.10	1	Digital Indicator 1" x .0001" (25 x 0.002 mm)
HM-4469C	1	Data Cable for Indicator
HM-2330D.3F	1	MiniLogger 4 CH Digital Data Acquisition
HM-1100SW	1	HMTS Consolidation Reporting Software

**Part Numbers** ending in .XX require a size code to be entered referring to the sample size to be tested.

**For Consolidation** samples, sizes are: .20 = 2.0"; .242 = 2.42"; .25 = 2.5"; .30 = 3.0"; .40 = 4.0"; .50 = 50mm; .70 = 70mm; .75 = 75mm, and .100 = 100mm.

\*For Metric applications, use HM-1122, Weight Set, 32kg.

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