

Pneumatic Consolidation

ConMatic Pneumatic Consolidation Machine

ASTM: D2435, D4546; AASHTO: T216, BS:1377:5

Compact and easy-to-use, the HM-5432.3F pneumatic consolidation load frame is used to estimate the rate and amount of settlement anticipated for a proposed structure. The unit applies loads instantly without impact for stress-controlled consolidation testing; and, maintains the load regardless of sample compression. Its small footprint saves valuable lab counter space while maintaining its versatility by supporting fixed ring, floating ring, or permeability cells.

Features Include:

- Highly-sensitive accuracy in lower load ranges
- Integral digital readout simplifies checking applied load and setup of predetermined load
- Adjustable upper cross beam
- Instantaneous loading without impact
- Flexible load choice
- Not sensitive to shock
- Choice of English or Metric models

The HM-5432's digital readout displays applied loads with the help of precision pressure regulators and pressure transducers with a linearity of $\pm 0.1\%$. The 1" (25.4mm) thick aluminum platforms have centering pads and accept any consolidation ring up to 4.0" (100.0mm) in diameter. Stainless steel vertical rods support the cross-head and dial gauge. One HM-001076- Pressure Ball is included with the unit. Air supply tubing (25') to hook up the compressed air line is also included. The unit features a durable enamel, powder-coated steel cabinet which protects the internal components.

Specifications:	
Sample size	up to 4" (100mm)
Maximum load	2250lbf (10kN)
Clearance, vertical	8.25" (210mm)
Clearance, horizontal	7.75" (197mm)
Maximum piston travel	0.5" (12.7mm)
Dimensions (L x W x H)	12" x 12" x 30" (305 x 305 x 762mm)
ConMatic System Requirements	
AC Supply	110/220 VAC 50/60 Hz 5 Amp
Air Supply	Clean and dry (air filter, water trap), minimum: 100psi (700kps) continuous air supply 4.2CFM (0.12m ³ /min)*

* Larger compressor may be required if used with additional equipment or larger-sized labs.



HM-5432.3F

The HM-5432 can be used with a standard mechanical dial gauge setup or, for data acquisition applications, it can be teamed with digital indicators or strain transducers (LSCT) and coupled to one of the Humboldt's data loggers. For additional data acquisition capabilities add Humboldt's NEXT HM-5100SW Consolidation-specific module and a computer for enhanced data acquisition and report capabilities. **The HM-5432.3F only includes the basic unit, order gauges and cells separately.**

ConMatic TSF, 120/220V 50/60Hz HM-5432.3F

ConMatic kgf/cm², 120/220V 50/60Hz HM-5432M.3F



Shipping wt. 48 lbs (21.7kg)

Typical HM-5432.3F Consolidation Setup:

Description	Part #
ConMatic 32 TSF	HM-5432.3F
ConMatic 32 Kg/cm ²	HM-5432M.3F
Required Components, Order Separately	
Fixed ring consolidation cell	HM-1220.XX*
Dial gauge, 0.5" X .0001" CC	H-4471CC
Dial gauge, 12 X 0.002mm CC	H-4465.12CC

* XX Requires a sample size designation, see page 4.13 for choices