



## Laboratory Electromagnets Advanced Features

- **RUGGED NICKEL-PLATED, MODULAR, H-FRAME CONSTRUCTION - best overall combined:**
  - Rigidity      • Appearance      • Field Strength      • Uniformity      • Configuration Flexibility
- DUAL PRECISION LEADSCREW POLE ADJUSTMENTS for rapid, easy setups.
- POSITIVE POLE POSITION CLAMPING for stable, repeatable measurements.
- NON - ROTATING POLES, with a variety of pole caps available.
- FAST, POSITIVE, EASY INTRACOIL SPACING ADJUSTMENT.
- MOLDED, EPOXY CAST COILS.
- ALL COPPER CONDUCTORS, COOLING
- VERY HIGH POWER RATINGS · HIGHEST POWER DENSITY
- PERFORMS LIKE A MUCH LARGER conventional magnet, but smaller, lighter, less costly!
- OPTIMIZED COIL DESIGN - for each Magnet size and Magnet Controller power class.
- MODULAR CONSTRUCTION PERMITS EASY, INEXPENSIVE MODIFICATION & CUSTOMIZING.
- FULL RANGE OF OPTIONS AVAILABLE -horizontal, vertical, special configurations.
- ADVANCED BIPOLAR MAGNET CONTROLLERS AVAILABLE--see separate brochure.
- FULL ONE-YEAR WARRANTY

### Typical Applications

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• VIBRATING SAMPLE MAGNETOMETERS</li> <li>• PERMANENT MAGNET CALIBRATION</li> <li>• TRANSVERSE PRESSING MAGNETIZER</li> <li>• NUCLEAR MAGNETIC RESONANCE</li> <li>• MAGNETIC HYSTERESISGRAPHS</li> </ul> | <ul style="list-style-type: none"> <li>• ALTERNATING FORCE MAGNETOMETERS</li> <li>• PRECISION MAGNETIZING</li> <li>• HALL EFFECT STUDIES</li> <li>• ELECTRON PARAMAGNETIC RESONANCE</li> <li>• MAGNETIC SUSCEPTIBILITY SYSTEMS</li> </ul> |
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### 2" HIGH-PERFORMANCE LABORATORY MAGNET

**Model:** 2H2-45

**Basic Pole Diameter:** 2".

**Gap Adjustment:** 0 to 3", at 20 turns/inch.

**Pole shoe adapter mount:** 3 each, # 4-40 x 3/8" tapped holes, @ 120°, on 1.750" Dia. Bolt Circle.

**Intracoil spacing adjustment:** 0 to 3". Intracoil spacing

adjustment: 0 to 3". Asymmetrical Intra-Coil and Gap Spacing possible.

**Basic Frame size:** 12 x 2.5 x 10".

**Frame Aperture:** 10 x 8".

**Overall Size:** (WxDxH) 25 x 9 x 10"

**Configuration:** tilted 45°, for easy access to magnet gap. Easily tilted upright.

**Weight:** 78 lbs.

**Total DC Resistance:** 4.0 ohms (cold, coils in series)

**Max. Continuous Power:** 17.5 Amps @ 85 VDC, 1.5kW.

**Max. Intermittent:** 20 Amps @ 100 VDC

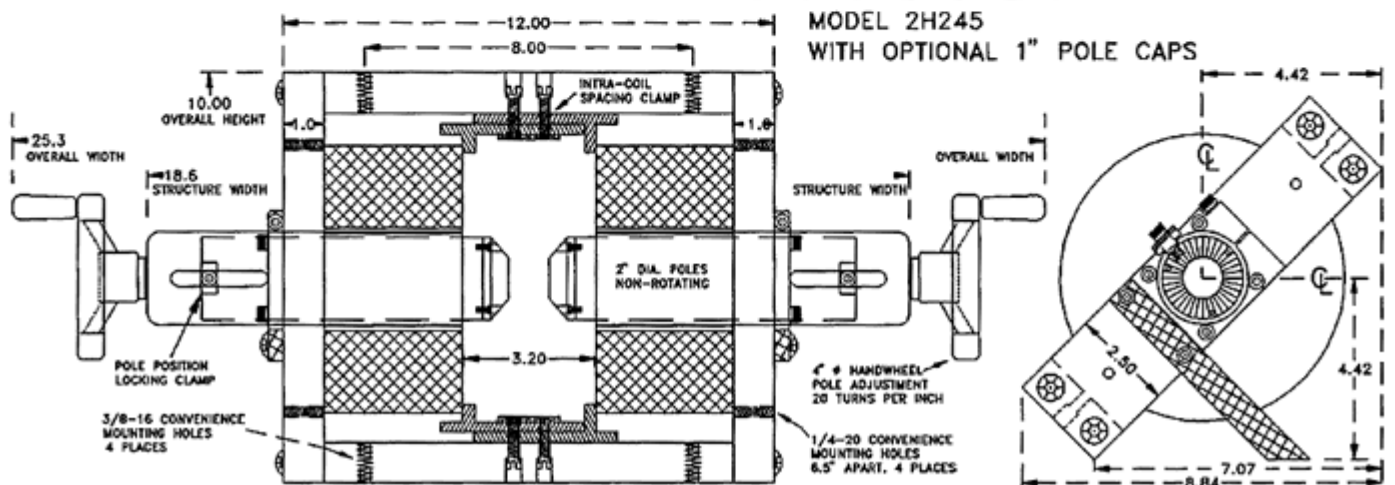
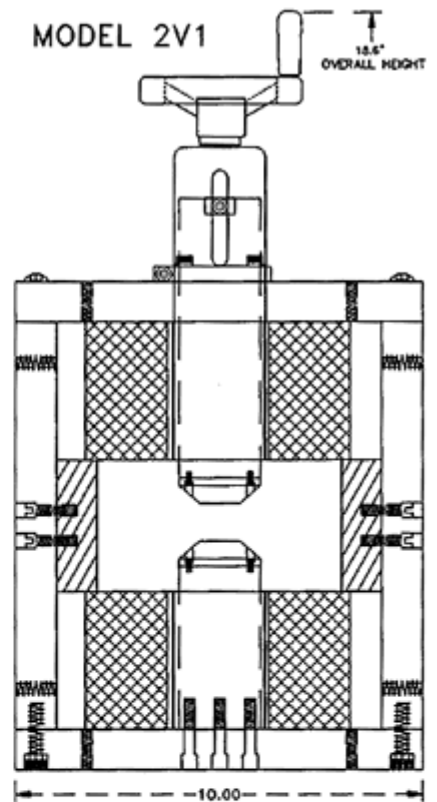
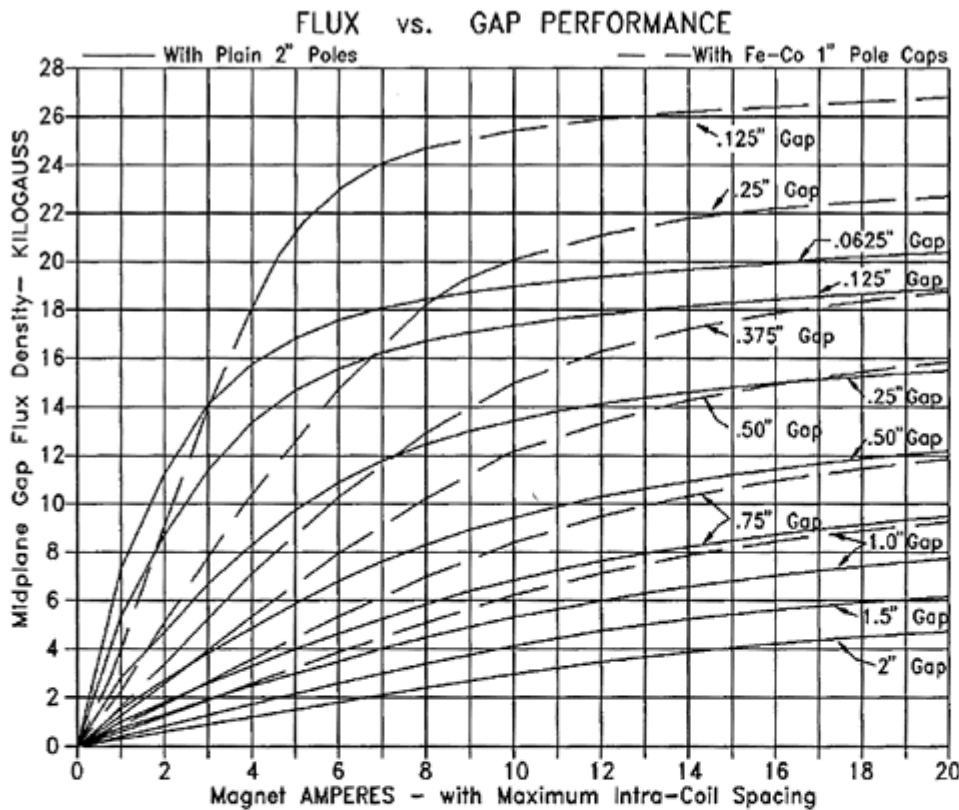
**Cooling:** Tap Water

**Flow Req'd:** .5 GPM @ 20 PSI

**Fittings:** 3/4" Standard fittings provided.

-- OPTIONS ---

- Flowmeter-type safety switch
- Model 2H1-45: One End Only adjustable
- Special Bored-Through Poles
- Special Pole Caps
- Coil over-temperature switches
- Model 2V1: Vertical Field arrangement
- Special Mounting Hardware



**4" HIGH-PERFORMANCE LABORATORY MAGNET**

**Model:** 4H2-45

**Basic Pole Diameter:** 4".

**Gap Adjustment:** 0 to 5", at 10 turns/inch.

**Pole shoe adapter mount:** 4 each,  
# 8-32 x 3/8" tapped holes, @ 90°,  
on 3.625" Dia. Bolt Circle.

**Configuration:** tilted 45°, for easy access to magnet gap. Easily tilted upright.

**Weight:** 490 lbs.

**Total DC Resistance:** 2.4 O (cold, coils in series)

**Max. Continuous Power:** 50 Amps @ 150 VDC,  
7.5 kW.

**Intracoil spacing adjustment:** 0 to 5".  
**Asymmetrical Intra-Coil and Gap Spacing possible.**  
**Basic Frame size:** 18 x 6 x 18".  
**Frame Aperture:** 14 x 14".  
**Overall Size:** (WxDxH) 38 x 13 x 18"

**Max. Intermittent:** 65 Amps @ 190 VDC  
**Cooling:** Tap Water.  
**Flow Req'd:** 2.0 GPM @ 30 PSI  
**Fittings:** 3/4" Standard fittings provided.

--- OPTIONS ---

- Flowmeter-type safety switch
- Model 4H1-45: One End Only adjustable
- Special Bored-Through Poles
- Special Mounting Hardware
- Coil over-temperature switches
- Model 4V1: Vertical Field arrangement
- Special Pole Caps

