

# VIJAYANTA

**VIJAI ELECTRONICS**  
28/147, CIVIL LINES  
ROORKEE - 247667



## LABORATORY ELECTROMAGNETS

Since 1965, we are manufacturing Electromagnets for research and education. Our dedication to the series of Electromagnets has enabled us to develop Electromagnets with different capacities and sizes, in addition to magnetic field measuring instruments for analyzing magnetic fields and laboratory magnetic systems.

These are available in five different models. Each magnet is precisely machined, and well finished made from soft iron blocks, specially selected for this purpose.

### APPLICATIONS :

- Magnetic hysteresis studies
- Magnetic susceptibility measurement
- Hall effect studies
- Magneto optics experiments
- N.M.R. (Nuclear Magnetic Resonance ) studies
- Quantum mechanics analysis
- Biological Studies

### FEATURES :

- Yoke construction for high inherent homogeneity over a wide field range
- High efficiency copper wound coils for high magnetic field per K.W. inputs .
- Air gap in continuously variable
- Low residuals
- Two way knobbed wheel screw system , for varying air gap
- Superior homogeneity .
- Tapered and flat pole caps are supplied with the magnet . To change poles, simply unscrew the cap and replace it with another cap as desired .

### **1. ELECTROMAGNET, MODEL – EMH – 100.**

#### SPECIFICATIONS:

##### **Field :**

**15 KGauss  $\pm$  5%** with flat faced poles at an air – gap of 10 mm, Air – gap is continuously adjustable upto 100mm , with two way knobbed wheel screw adjusting system but with Tapered poles it produces field upto **24 K, Gauss  $\pm$  5%**.

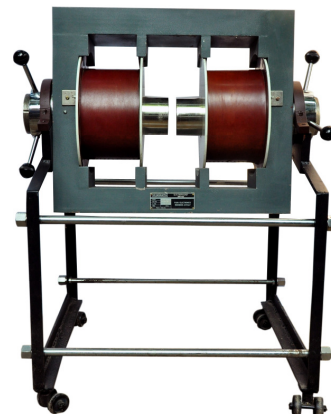
**Poles Pieces : 100 mm.** in diameter.

**Energizing Coils :**

Two , each coil is wound on non – magnetic former and has a resistance of 14, ohms approximately.

**Yoke material : Soft Iron blocks.**

**Power requirement : 0 – 6, Amps.**



## 2. ELECTROMAGNET, MODEL – EMU – 75.

### SPECIFICATIONS:

#### **Field:**

**12.5 K Gauss  $\pm$  5%** with Flat faced poles at an Air-Gap of 10, mm. The air-gap is continuously variable upto 75, mm with “Two way knobbed wheel screw adjusting system” but with Tapered Poles it produces field upto **20K, Gauss  $\pm$  5%**.

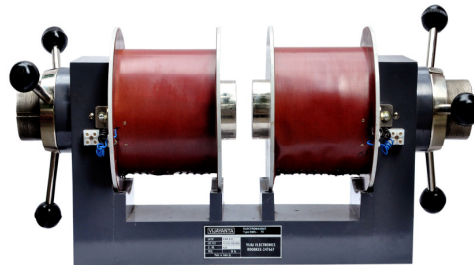
**Poles : 75 mm.,** in diameter .

#### **Energizing Coils:**

Two, each coil is wound on non – magnetic former and has a resistance of 11, ohms approximately.

**Yoke material : Soft Iron.**

**Power Requirement : 0 – 5, Amps.**



## 3. ELECTROMAGNET,

MODEL – EMH – 75. (Vertical Mounting)

### SPECIFICATIONS :

#### **Field**

**:12.5 K Gauss,  $\pm$  5%** with Flat faced poles at an Air-Gap of 10, mm. Air gap is adjustable from **0- 95mm**, with “Two way knobbed wheel screw adjusting system” but with Tapered poles it produces **20 K gauss  $\pm$  5%** at 10mm air gap

**Poles : 75mm.,** in diameter,

#### **Energizing Coils :**

Two each coil is wound on non – magnetic former and has a resistance of 11, ohms /coil (app.).

**Yoke material:** Made out of soft iron blocks.

**Power Requirement : 0 – 5, Amps.**



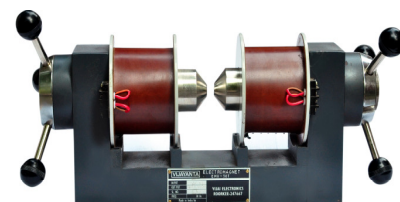
## 4. ELECTROMAGNET, MODEL – EMU – 50.

### SPECIFICATIONS :

#### **Field :**

**7.5 K Gauss  $\pm$  5%** with Flat faced poles at 10 mm Air-Gap between poles . The air-gap is adjustable by the help of “Two way knobbed wheel screw adjusting system” but with Tapered poles it produces field upto **10 K Gauss  $\pm$  5%**.

**Poles : 50mm.,** in diameter



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## 5. ELECTROMAGNET, MODEL – EMU – 35.

### SPECIFICATIONS :

#### **Field :**

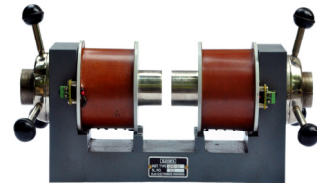
**5.5 K Gauss  $\pm$  5%** , with Flat faced poles at 10 mm air gap .

The air-gap is adjustable upto 0-40mm , with “Two way knobbed wheel screw adjusting system”

**Poles : 35, mm.** flat faced poles

**Yoke :** made out of soft iron blocks

**Power Requirement :** 0 – 3, Amps.



### Note:

**Poles :** Flat & Tapered pole caps are supplied with every magnet . To change the pole simply unscrew the cap and replace it with another cap as desired.