

SHAPED FIELD ELECTROMAGNETS



Motors & Transformers



Aerospace & Defense





Oil & Gas / Energy



Medical



Communication

Shaped Field Electromagnets, sometimes called solenoids, approach the ideal flexibility of optimum field production so desirable for klystron, TWT and other applications.

These electromagnets are made up of tape wound foil wafers, hollow core conductors or magnet wire, each designed to be independently energized. The resultant field may be uniform or have peaks or plateaus as desired. Wafers can be made interchangeable for a highly flexible design. Nominal ID or OD may be selected to meet the customer's requirements.

Special designs are available which utilize chilled oil or forced air to allow higher than normal current, generating up to 200% greater field intensity than an un-cooled design.



Certifications







Arnold's Ogallala Electronics Division has over six decades of experience providing new and replacement electromagnets at competitive pricing, with rapid turnaround and the same outstanding quality for which Arnold Magnetic Technologies is recognized in the industry.

Capabilities

- Inside Diameter: .500" to over 40"
- Length: a few inches to over 120"
- Weight: from a few pounds to over 8,000 pounds

Design Considerations

To assist in your electromagnet design, please supply the following information:

- Field Magnitude (Gauss)
- Transverse Field
- Physical I.D. and O.D.
- Length
- Power Limitation (Voltage, Current, Power)
- Cooling Methods (Air, Water, Oil)
- Overall Weight

Solenoid Repair

Arnold also performs repair and refurbishment on solenoids. Units are tested per the specifications which can include the following:

- Insulation test
 - Magnetic field
- Resistance
- Hydrostatic test on cooling system







