



KRONE & ASSOCIATES
Your Electronic Solution Source

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WHY

ELNA MANUFACTURING SERVICES



 **THE ANSWER IS HERE.**

ELNA
MAGNETICS
Manufacturing & Distribution



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What is Gapping?



Ferrite gapping in most cases is the removal of core material from the magnetic path or replacing an area of ferrite with air – an “air gap”. Typically this is done by removing material from the center post of mated core sets, such as a Pot Core, E core, RM core etc. There are several types of gaps. The type of gap required is determined by a number of variables.

What is Custom Manufacturing?

Custom Manufacturing is the sector of the ferrite machining industry that fulfills customer requirements that standard products do not. This includes creation of a part from block material or modification of an existing core.

This could also include specialized engineering services for assembly, gluing, epoxy or Parylene coating.



Surface grind of an oversized U core set on a vertical spindle CNC grinder

Why Gapping?

Initial permeability of an ungapped core may vary by +/-25%. Gapping minimizes this variation. Many applications require a high degree of stability. Gapping is an effective method of accomplishing this. In fact, for certain applications A_L values for gapped cores may be machined as accurately as +/- 1%. In transformer and choke applications gapping provides the ability to decrease the effect of a DC bias current.

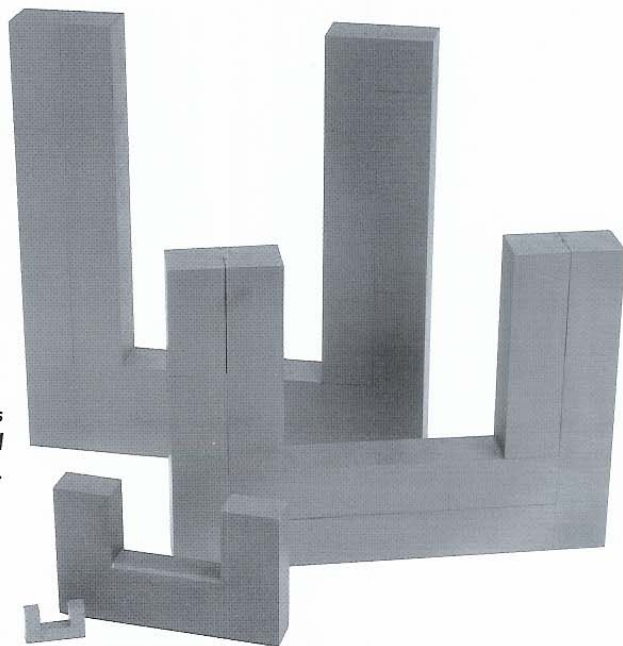


Automated gapping on Elna's CNC Robo-Gappers

Why Custom Manufacturing?

- Prototyping to prove new engineering designs.
- Job specific modification of existing designs.
- Configurations are too large to press.
- To save on the cost of tooling a non-standard pressed part.
- Urgency. When there is no time to spare waiting for press tooling design or long factory lead times.

Custom oversized U cores compared to 25mm and 104mm pressed U cores.





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Why Elna Manufacturing?

ELNA maintains a fully staffed and equipped in-house manufacturing facility which provides a complete range of manufacturing capabilities for soft ferrites and other materials. Short lead times are available for both prototyping and large production runs.

State-of-the-art machining capabilities

At Elna we continue to update and upgrade our machining capabilities. We feel the most up to date and accurate machinery is key in accommodating the tight tolerances required in new technologies. Dimensions for most custom machining processes can be held to +/- .0005" when required.

Other capabilities

Polishing/Lapping,
Tumbling/Burnishing,
Assembly, Epoxy Bonding,
Parylene Coating and
Epoxy Coating.



Slicing and slotting are performed on horizontal spindle CNC machines.



Custom milling, grinding and drilling are performed utilizing vertical spindle CNC machining centers.

Inventory

Elna Magnetics, being an authorized distributor for Ferroxcube, Fair-Rite Products and MMG Neosid is able to maintain a large inventory of mated cores and toroids in various sizes and materials. This large inventory, in many cases, will substantially reduce lead times.

Lead Times

The combination of a large on-hand inventory, state-of-the-art machinery and an experienced team of machinists allow Elna Magnetics to offer some of the shortest lead times in the industry. It is our goal at Elna to maintain gapping lead times at one week or less.

Price

Being price competitive is always a priority when quoting. We believe a top quality product at a competitive price is essential to success in today's marketplace. Our engineers strive to design the most efficient processes.

Applications & Design Engineers

State-of-the-art machinery cannot realize its true potential without outstanding technical support. Our engineers are continually working to develop and improve processes to optimize output, enhance quality and reduce cost. With on-site applications and manufacturing engineers, Elna Magnetics offers the unique ability to assist in the design of new products or improve an existing product.

Product Testing

Gapped cores are electrically tested to manufacturers' specifications for the type core and material unless otherwise specified. This includes frequency, voltage and recommended mating pressure where applicable. Custom designs are tested to specific customer requirements. Elna utilizes standard test bobbins along with customer supplied and job specific bobbins and circuits.

