



## Fair-Rite Machining Capabilities

Fair-Rite has state-of-the-art equipment to provide you with quick-turn prototypes for proof of concept prior to production tooling commitment. This allows our customers to quickly evaluate their design, experiment with different variations and determine the final product while maintaining their development schedule and budget.



In a world of continuous innovation, rapid prototyping is essential. Machining parts reduces lead-times from months to weeks and is significantly more cost-effective than fabricating tooling when designs are changing between prototype runs. The ability to machine parts on small-scale production is useful for those with evolving designs. Engineering assistance is available to guide you through the prototyping process to ensure the best performance in your application.

Being a ferrite manufacturer, Fair-Rite ensures the quality of our material before it reaches prototyping – meaning fewer defects and a superior end-result. With our extensive experience with ferrite manufacturing, we are able to help move from small to large scale production seamlessly. Our engineers will provide input to design for manufacturability, ensuring the most cost-effective processes are used while still maintaining design integrity.

Once the design is finalized, Fair-Rite will work with you to determine appropriate mechanical and electrical specifications to ensure meaningful testing for the customer's application.

For more information about our machining capabilities, please contact our Business Development Manager, Jerry Barbaro at [barbaroj@fair-rite.com](mailto:barbaroj@fair-rite.com) or (845) 895-2055 extension 603.

### Capabilities Include:

- CNC machining
- Gapping
- Drilling
- Slicing
- Milling
- Surface
- Grinding
- Profile Grinding
- ID (Inner Diameter) Grinding
- OD (Outer Diameter) Grinding
- Lapping
- Slotting
- Cutting



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| <b>31 Material</b> | A MnZn ferrite designed specifically for EMI suppression applications from as low as 1 MHz up to 500 MHz. This material does not have the dimensional resonance limitations associated with conventional MnZn ferrite materials.  |
| <b>43 Material</b> | This NiZn is our most popular ferrite for suppression of conducted EMI from 20 MHz to 250 MHz. This material is also used for inductive applications such as high frequency common-mode chokes.   |
| <b>44 Material</b> | A NiZn ferrite developed to combine a high suppression performance, from 30 MHz to 500 MHz, with a very high dc resistivity.  |
| <b>46 Material</b> | Our latest material development is a MgZn ferrite intended for suppression applications. This material does not use nickel in its composition, hence it avoids potential environmental issues as well as reduces the cost of the material component of suppression parts. The suppression performance of the 46 material is similar to our widely used 43 material.                         |
| <b>51 Material</b> | A NiZn ferrite developed for low loss inductive designs for frequencies up to 5.0 MHz.  |
| <b>52 Material</b> | A new high frequency NiZn ferrite material that combines a high saturation flux density and a high Curie temperature.   |
| <b>61 Material</b> | A high frequency NiZn ferrite developed for a range of inductive applications up to 25 MHz. This material is also used in EMI applications for suppression of noise frequencies above 200 MHz. Strong magnetic fields or excessive mechanical stresses may result in irreversible changes in permeability and losses.   |
| <b>67 Material</b> | A high frequency NiZn ferrite for the design of broadband transformers, antennas and HF, high Q inductor applications up to 50 MHz. Strong magnetic fields or excessive mechanical stresses may result in irreversible changes in permeability and losses.  |
| <b>68 Material</b> | Our highest frequency NiZn ferrite intended for broadband transformers, antennas and HF high Q inductor applications up to 100 MHz. This material is only supplied to customer-specific requirements and close consultation with our application staff is suggested. Strong magnetic fields or excessive mechanical stresses may result in irreversible changes in permeability and losses. |
| <b>73 Material</b> | A MnZn ferrite, supplied only in small cores, to suppress conducted EMI frequencies below 50 MHz.   |
| <b>75 Material</b> | A high permeability MnZn ferrite intended for a range of broadband and pulse transformer applications and common-mode inductor designs.   |
| <b>76 Material</b> | A MnZn ferrite with a 10K permeability and an acceptable Curie temperature for broadband and pulse transformer designs and common-mode choke applications.  |
| <b>77 Material</b> | A MnZn ferrite for use in a wide range of high and low flux density inductive designs for frequencies up to 100 kHz.  |
| <b>78 Material</b> | A MnZn ferrite specifically designed for power applications for frequencies up to 200 kHz.  |
| <b>79 Material</b> | A high frequency material for power applications up to 750 kHz. This MnZn power ferrite is available in customer specific core designs.   |
| <b>80 Material</b> | A MnZn ferrite tuned to operate in SiC and GaN switching power supplies with a stable temperature response for designs up to 5 MHz.   |
| <b>95 Material</b> | A low loss MnZn ferrite material for power applications up to 200 kHz with low temperature variation. New type 95 Material is a low loss power material, which features less power loss variation over temperature (25-120°C) at moderate flux densities for operation below 200 kHz.   |
| <b>97 Material</b> | A low loss MnZn ferrite material for power applications up to 400 kHz. New type 97 Material is a low loss/higher frequency power material. It features minimal power loss at 100°C at moderate flux densities for operation below 400 kHz. This material is available as special order for customer specific applications.  |
| <b>98 Material</b> | A low loss MnZn ferrite material for power applications up to 200 kHz. New type 98 Material is an improved version of Fair-Rite's 78 Material, this material supplies, lower power loss at 100°C at moderate flux densities for operation below 200 kHz.  |