Magnetics Frequently Asked Questions

1. **Chatter (jagged edge):** is acceptable as long as the depth is less than 0.020”

2. **Concentricity:** Cannot accurately measure on a finished assembly. TIR of the cylinder is verified during the ID grinding process.

3. **Defusion Color in the CO-Fire:** The color is caused by the diffusion of elements contained within the magnetic garnet material into the dielectric ring during the co-firing process. The diffusing elements are iron in G-113 and iron and vanadium in TTVG based materials. The amounts of atoms diffusing are extremely small. Optical properties are extremely sensitive to the presence of very small impurity amounts, particularly of transition metals (which iron and vanadium both are). Therefore, despite the appearance of the coloration in the dielectric, the magnetic and dielectric properties of the co-fired assembly are not affected.

4. **Dust:** Color of dust depending on the material. Parts can create this type of dust when they rub together. No effect to form fit or function of the part.

5. **MCU:** Minimum Clean Up

6. **Silver Tarnish:** occurs naturally, over a period of time the silver will start to change color. Listed below are a few methods that can be used to removed tarnish
   a. **Eraser:** Using an eraser to rub the tarnish away.
   b. **Kiln:** Part can be sent thru a tunnel kiln at max of 400ºC for minimum 10 min.

7. **Standard cleaning methods** should be used. During ultrasonic cleaning avoid using high power due to potential component damage.
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8. **Saw Marks:** Are acceptable as long as they meet the surface finish specification.

9. **Standard Tolerance:**
   a. **Surface Finish:** 40 Ra
   b. **Flatness:** 0.001”
   c. **Thickness:** 0.002”
   d. **OD:** 0.001”
   e. **ID:** 0.002”
   f. **Tip:** 0.001”
   g. **Altitude:** 0.002”

10. **Silver Thickness:** Range – check TM

11. **Standard Pullback specification:**
   a. **For TM Rods:** 0.004” max
   b. **For All others:** 0.015” max

12. **TIR:** TIR is measured at ID grinding in cylinder form. TIR of the cylinder is verified during the ID grinding process.

13. **True Position:** TTI does not measure True Position. See TIR

14. **Water Marks:** – this has no effect to form fit or function of the part. This occurs while the parts are drying while following the cleaning process.