Near Net Shapes (NNS) production techniques provide a part/blank very close to the final form/size, near shape or “near net” geometry of a finished component. NNS’s reduce or even eliminating the need for surface finishing like machining or grinding and deliver bottom line benefits that can save more than two-thirds of the production costs.

**Near Net Shapes Deliver:**

- Material savings and virtually no wasted scrap
- Easier finishing of parts that are smaller, larger/massive, and complex shaped
- Option of custom colors, additives, materials blends, and/or other enhancements that may not be readily available in solid stock shape form
- Reduced fabrication & labor (machining time)
- Overall increased production efficiency
- Reduced Part Weight

**NNS Processing Capabilities:**

- Injection Molding
- Custom Casting
- Direct Formed
- 3D Printing Technologies
Guidelines To Identify Near Net Shape Opportunities:

- **Yield:** Does the part you are machining have poor yielding?
- **Geometry:** Does the part have irregular geometry, such as surface contours that will require excessive machining time?
- **Finished Part Weight to Starting Stock Weight Ratio:** Does the process of machining remove greater than 30% of the material?
- **Materials:** Recommended materials include PA / PEEK / PPS
- **Cost:** Will machining time and excess material waste be reduced?
- **Environment:** Less material at the beginning = less waste with the finished part
- **Ideal Components:** Large components with symmetry (sheaves, pads, pulleys)
- **Recommended Part Thickness:** 3/8” and greater
- **Recommended Size:** From 3” cube to 7” diameter
- **Tolerances:** On average 1/32”

Still need stock shapes, but want custom sizes? Need “Thinner” Sheet or “Smaller/Larger OD Rod/Tube? Ask about our custom stock shape program and start saving on material yield!

Contact: Have a part that might be a good candidate for a near net shape? Simply email or call us for more assistance. Our technical sales representatives will take a look and help with your options.