

# Checklist: SPECIFYING A PM PART

1. Part drawing.
2. Subassembly drawing to illustrate where and how the part is used within the total design.
3. What are the estimated annual quantity requirements and at what quantity level will the weekly or monthly release be?
4. Identify current successful materiel (if already established).
5. Identify any problem with the current design.
6. Identify the critical performance requirements, e.g., strength, wear resistance, corrosion, properties, impact resistance, weldability, pressure tightness, magnetic response, thermal conductivity, applicable to your part.
7. Identify critical tolerance issues.
8. Identify the need for special surface treatment, e.g., special test fixture or equipment (case/case), wear resistance, increased strength and lower density, etc.
9. Identify the need for special surface treatment, e.g., corrosion protection (oil dip, plating, paint, phosphating), shot peening, etc.
10. Identify any special test requirements, e.g., special test fixture or equipment, performance level of current design, static or dynamic, etc.
11. Gears have unique requirements that dictate the need for specific data such as the following:
  - a. Number of teeth
  - b. Diametral pitch
  - c. Pressure angle
  - d. Measurement over wires
  - e. Tooth thickness
  - f. Root and tip radius
  - g. Helix angle and hand
  - h. AGMA-quality class
  - i. Mating gear data and nominal center distance
  - j. Inspection requirements—runout; pitch; profile and lead tolerance; or tooth-to-tooth, total composite tolerance and testing radius.



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*For specifiers  
of PM parts*