**Commercial Practices**

### Casting Production Specifications

To be used in consultation with your caster (Use in combination with Checklist C-8-2)*

**Checklist for Die, SSM and Squeeze Casting Production Part Purchasing**

This Production Checklist provides a convenient method for assuring important factors involved in purchasing cast parts are evaluated and clearly communicated between the purchaser and the caster. It should be used as a supplement to the essential dimensional and alloy specifications detailed on part prints submitted for quotation, since the listed factors directly affect the basis on which the casting quotation is made. The checklist may be reproduced for this purpose. Your caster will clarify any item requiring further explanation.

This checklist provides a numbering system in which the lowest numbered description for each requirement can be met at the lowest production cost, as follows:

<table>
<thead>
<tr>
<th>No.</th>
<th>Cost Effect</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Most economical basis for production</td>
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<tr>
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<tr>
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</tr>
<tr>
<td>4</td>
<td>Special Requirements which may increase cost</td>
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**Part #**

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**Casting Cleanliness**

- □ 1 Some residue and chips not objectionable
- □ 2 Shop run — blown reasonably free of chips but not degreased
- □ 3 Clean, dry and free of chips
- □ 4 Special requirements ___________________

**Cast Surface Finish**

- □ 1 Mechanical quality — finish is not significant
- □ 2 Painting quality — streaks and chill areas coverable with paint
- □ 3 Highest quality — for electroplating, decorative finishing, O-ring seats

**Metal Extension (Flash) Removal Parting Line External Profile**

- □ 1 No die trimming — break off gates and overflows
- □ 2 Die trimmed to ____________ of die casting surface (See NADCA Guideline G-6-5)
- □ 3 Hand filed or polished — flush with die casting’s surface
- □ 4 Customer defined requirements (such as thermal, tumble or vibratory deburring, or shot or grit blasting)

**Metal Extension (Flash) Removal Cored Holes**

- □ 1 Flash not removed
- □ 2 Flash trimmed ___________________ of die casting surface
- □ 3 Flash to be machined or otherwise completely removed

**Ejector Pins**

- □ 1 Not removed (See NADCA Guidelines G-6-4)
- □ 2 Crushed or flattened (See NADCA Guidelines G-6-4)
- □ 3 Removed from specific locations ___________________

**Pressure Tightness**

- □ 1 No requirement
- □ 2 Pressure-tight to agreed-upon psi (kPa). Testing medium: ___________________
- □ 3 Other arrangements to be agreed upon

**Flatness**

- □ 1 No requirement
- □ 2 To NADCA “Standard” specification tolerances (S-4A-8)
- □ 3 Critical requirement — to NADCA “Precision” specification tolerances (P-4A-8)
- □ 4 Customer defined requirements

**Dimensions**

- □ 1 Normal: per NADCA “Standard” specification tolerances
- □ 2 Semi-critical: “Precision” tolerances on specified dimensions, others “Standard”
- □ 3 Critical: Special tolerances to be agreed upon

**Customer’s Receiving Inspection**

- □ 1 No unusual inspection requirements — no Statistical Quality Control
- □ 2 Statistical quality control: Acceptable at Cpk 1.33 or higher (or AQL over _______)
- □ 3 Statistical quality control: Acceptable at Cpk 2.0 or higher (or AQL over _______)

**Packaging**

- □ 1 Not critical — bulk packed
- □ 2 Layer packed, with separators, or weight restriction
- □ 3 Packed in cell-type separators or individually wrapped
- □ 4 Customer defined requirements ___________________

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*The specification provisions and procedures listed in Section 7, "Quality Assurance," should also be addressed.

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Casting Surface Finishing Specifications

To be used in consultation with your caster (Use in combination with Checklist C-8-1)*

Checklist for Finished Die, SSM and Squeeze Casting Part Purchasing

This Finishing Checklist provides a convenient method for assuring that important factors involved in the surface finishing of cast parts are evaluated and clearly communicated between the purchaser and the caster.

It should be used as a supplement to the essential dimensional and alloy specifications detailed on part prints submitted for quotation, since the listed factors directly affect the basis on which the casting quotation is made. The checklist may be reproduced for this purpose. Your caster will clarify any item requiring explanation.

This checklist provides a numbering system in which the lowest numbered description for each requirement can be met at the lowest production cost, as follows:

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Part # ____________________________

K Casting Insert

- 1 No insert used in cast part
- 2 Inserts required, to be supplied by customer at 10% overage
- 3 Inserts required, to be supplied by caster

L Parting Lines

- 1 Polishing not required
- 2 Polish only where marked on drawing
- 3 Polish all parting lines (except as noted)

M Surface Preparation

- 1 No buffing required
- 2 Mechanical (burnishing, tumbling, etc.) Specify: ________________________________
- 3 Buff as indicated on drawing

N Plating, Anodizing or Other Special Finish

- 1 Protective Only — Specify: _____________________________________________
- 2 Decorative Paint — Specify: _____________________________________________
- 3 Severe Exposure Protection — Specify: ______________________________________

O Painting

- 1 Heavy Paint, Protective Only — Specify: ________________________________
- 2 Decorative Paint — Specify: _____________________________________________
- 3 Application requires base coat or special treatment: ____________________________
  Specify: ______________________________________________________________

P Environmental

- 1 Normal interior use only
- 2 Exposure to weather — Specify: ___________________________________________
- 3 Exposure to unusual chemistry — Specify: _________________________________

Q As-Cast Surface See NADCA Guidelines G-6-6

- 1 Utility Grade — surface imperfections acceptable, nondecorative coatings
- 2 Functional Grade — slight, removable surface imperfections, heavier coatings
- 3 Commercial Grade — removable imperfections
- 4 Consumer Grade — no objectionable imperfections, as agreed upon, when viewed under normal lighting conditions at ______________ feet viewing distance
- 5 Superior Grade — specified average surface finish value of ______________ microinches, per print

R Special Requirements

For special flash removal requirements, see Checklist C-8-1, items C & E
For special packaging/weight restrictions, see Checklist C-8-1, item J

* The specification provisions and procedures listed in Section 7, “Quality Assurance,” should also be addressed.

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