

This checklist is for use in consultation with your die caster prior to estimating production costs.

### Casting Production Specifications

To be used in consultation with your caster

### Checklist for Die 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:

#### No. Cost Effect

- 1 Most economical basis for production
- 2 Involves additional work which may affect cost
- 3 Additional work which may increase cost
- 4 Special Requirements which may increase cost

<b>A</b>	Casting Cleanliness	D 1	Some residue and chips not objectionable
		D 2	Shop run – blown reasonable free of chips but not degreased
		D 3	Clean, dry and free of chips
		D 4	Special requirements
<b>B</b>	Cast Surface Finish	D 1	Mechanical quality – finish is not significant
		D 2	Painting quality – streaks and chill areas coverable with paint
		D 3	Highest quality – for electroplating, decorative finishing, O-ring seats
<b>C</b>	Metal Extension (Flash) Removal Parting Line External Profile	D 1	No die trimming – break off gates and overflows
		D 2	Die trimmed to within 0.0150" (0.38 mm) of die casting surface (See NADCA Guideline G-6-5)
		D 3	Hand filed or polished – flush with die casting's surface
		D 4	Customer defined requirements
<b>D</b>	Metal Extension (Flash) Removal Cored Holes	D 1	Flash not removed
		D 2	Flash trimmed to within 0.010" (0.25 mm) of die casting surface
		D 3	Flash to be machined
<b>E</b>	Metal Extension (Flash) Removal Ejector Pins	D 1	Not removed (See NADCA Guidelines G-6-4)
		D 2	Crushed or flattened (See NADCA Guidelines G-6-4)
		D 3	Removed from specific locations
<b>F</b>	Pressure Tightness	D 1	No requirement
		D 2	Pressure-tight to agreed-upon psi (kPa). Testing medium: _____
		D 3	Other arrangements to be agreed upon
<b>G</b>	Flatness	D 1	No requirement
		D 2	To NADCA "Standard" specification tolerances (S-4A-8)
		D 3	Critical requirement – to NADCA "Precision" specification tolerances (P-4A-8)
		D 4	Customer defined requirements
<b>H</b>	Dimensions	D 1	Normal: per NADCA "Standard" specification tolerances
		D 2	Semi-critical: "Precision" tolerances on specified dimensions, others "Standard"
		D 3	Critical: Special tolerances to be agreed upon
<b>I</b>	Customer's Receiving Inspection	D 1	No unusual inspection requirements – no Statistical Quality Control
		D 2	Statistical quality control: Acceptable at Cpk 1.33 or higher (or AQL over _____)
		D 3	Statistical quality control: Acceptable at Cpk 2.0 or higher (or AQL over _____)
<b>J</b>	Packaging	D 1	Not critical – bulk packed
		D 2	Layer packed, with separators, or weight restriction
		D 3	Packed in cell-type separators or individually wrapped
		D 4	Customer defined requirements

## Casting Surface Finishing Specifications

To be used in consultation with your caster

This checklist is for use in consultation with your die caster prior to estimating production costs.

### Checklist for Finished Die 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.

#### No. Cost Effect

- 1 Most economical basis for production
- 2 Involves additional work which may affect cost
- 3-4 Additional work which may increase cost
- 5 Most difficult surface to cast on a production basis

<b>K</b>	Casting Insert	D 1	No insert used in cast part
		D 2	Inserts required, to be supplied by customer at 10% overage
		D 3	Inserts required, to be supplied by caster
<b>L</b>	Parting Lines	D 1	Polishing not required
		D 2	Polish only where marked on drawing
		D 3	Polish all parting lines (except as noted)
<b>M</b>	Surface Preparation	D 1	No buffing required
		D 2	Mechanical (burnishing, tumbling, etc.)
		D 3	Buff as indicated on drawing
<b>N</b>	Plating, Anodizing or Other Special Finish	D 1	Protective Only — Specify: _____
		D 2	Decorative Paint — Specify: _____
		D 3	Severe Exposure Protection — Specify: _____
<b>O</b>	Painting	D 1	Heavy Paint, Protective Only — Specify: _____
		D 2	Decorative Paint — Specify: _____
		D 3	Application requires base coat or special treatment: _____ Specify: _____
<b>P</b>	Environmental	D 1	Normal interior use only
		D 2	Exposure to weather — Specify: _____
		D 3	Exposure of unusual chemistry — Specify: _____
<b>Q</b>	As-Cast Surface See NADCA Guidelines G-6-6	D 1	Utility Grade — surface imperfections acceptable, nondecorative coatings
		D 2	Functional Grade — slight, removable surface imperfections, heavier coatings
		D 3	Commercial Grade — removable imperfections
		D 4	Consumer Grade — no objectionable imperfections, as agreed upon, when viewed under normal lighting conditions at _____ feet viewing distance
		D 5	Superior Grade — specified average surface finish value of _____ micro-inches, per print
<b>R</b>	Special Requirements	For special flash removal requirements, see <i>Checklist C-8-1</i> , items <i>C &amp; E</i>	
		For special packaging/weight restrictions, see <i>Checklist C-8-1</i> , item <i>J</i>	