



Casting Purchase Checklist

This production checklist provides a convenient method for assuring important factors involved in the purchasing of die cast parts are evaluated and clearly communicated between the purchaser and Empire Die Casting Co., Inc.

This form intended to 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 our quotation will be made.

This checklist provide 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 and special requirements which increase cost

Surface Condition

- 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

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

Note: See NADCA Guideline G-6-6: Also check Item Q on Checklist C-8-2

Flash Removal - Parting Lines External Profile

- 1 No die trimming - break off gates and overflows
- 2 Die trimmed to within 0.010 in. (0.25mm) of die casting surface
- 3 Hand filed or polished - flush with die casting's surface

Flash Removal - Covered Holes

- 1 Flash not removed
- 2 Flash trimmed to within 0.010 in. (0.25mm) of die casting surface
- 3 Flash to be machined

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Flash Removal - Ejector Pins

- 1 Not removed (See NADCA Guideline G-6-5)
- 2 Crushed or flattened (See NADCA Guideline G-6-5)
- 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-4-5)
- 3 Critical requirement - to NADCA "Precision" specification tolerances (P-4-5)

Dimensions

- 1 Normal: per NADCA "Standard" specification tolerances
- 2 Semi-critical: "Precision" tolerances on specified dimensions, others "Standard"
- 3 Critical: Must hold all specified dimensions to "Precision" tolerances

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 _____)

Note: #2 and 3 above require details of inspection procedure, with major and minor defects agreed upon.

Packaging

- 1 Not critical - bulk packed
- 2 Layer packed, with separations, or weight restriction
- 3 Packed in cell-type separators or individually wrapped

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 Empire Die





Finishing Procedure Checklist

This checklist provides a convenient method of assuring that important factors involved in the surface finishing of die cast parts are evaluated and clearly communicated between the customer and Empire Die.

This list is intended to 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 our quotation will be made.

This checklist provide 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
- 3-4 Additional work plus special requirements which increase cost
- 5 Most difficult surface to die cast on a production basis

Parting Lines

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

Surface Preparation

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

Plating, Anodizing, or Other Special Finish

- 1 Protective Only - Specify: _____
- 2 Decorative - Specify: _____
- 3 Severe Exposure Protection - Specify: _____

Painting

- 1 Heavy Paint, Protective Only - Specify: _____
- 2 Decorative Paint - Specify: _____
- 3 Application requires base coat or special treatment - Specify: _____

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Finishing Procedure Checklist

Environmental Exposure

- 1 Normal interior use only
- 2 Exposure to weather - Specify: _____
- 3 Exposure to unusual chemistry - Specify: _____

As-Cast Surface - See NADCA Guideline G-6-6

- 1 Utility Grade - Surface imperfections acceptable, non-decorative 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 ___ ft. viewing distance.
- 5 Superior Grade - Specified average surface finish value of ___ microinches, per print.

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

