

# ***Mold Design Checklist***

The following is a good checklist for reviewing Mold Drawings

## **Preliminary Drawing Checklist Items:**

- General layout
- "A" side plan
- "B" side plan
- Front Section
- Side Section
- Title block is completely filled out on all drawings
- Abbreviated BOM with ordering information for the Mold Base and primary Steels
- Cavity Location
- Parting line locations (Acceptable to customer)
- Ejector Pin Layout (Acceptable to customer)
- Waterline Layout
- Balanced Runner layout
- Gate type and size specified
- Side Action types & locations are shown
- Concept of Tool operation
- "O" & "R" Dimensions noted
- Note "Top of mold" & "Operator Side"
- Will the tool fit in the correct press size?
- Knock out Locations
- Support pillar layout

\* Typically, approval of the Preliminary designs is approval of our design concept. Customer approval means that we can proceed with the Final Designs, that we can order the necessary materials, and that we can begin rough machining of material. Sometimes, especially on "rush" jobs, customers approve finish machining based on the preliminary design.

## **Final Drawing Checklist Items:**

- All Preliminary Mold Drawings Requirements completed
- Full Bill of Materials, Base Information, stamping notes, ejector information, special notes
- Detailed views of every non-standard component.
- Enough views, sections, iso views exist to adequately show part detail
- All details are labeled with the detail number, name, material type, number required, hardness, and surface finish.
- Check all water lines for interference, including clearance for jiffy-plugs
- Check Guide Pin length and clearance
- Spring loads calculated & checked
- Drawings appear to be adequately dimensioned
- Critical Dimensions are noted
- All "fit" areas are specified for each insert, side action, and core.
- All draft is specified for cavity area, core pins, ribs, etc.
- Check all side action angles and travel
- Check for bad steel conditions (sharp edges, thin sections, too little shutoff, too little angle)
- A & B Plan assembly views have been compared

- All details from the assembly and plan views have been compared to the detail sheets.
- All surface finishes are specified
- Drawings are checked to the "Mold Info Sheet".

\* Typically, by approving the Final designs the customer certifies that the drawings are dimensionally accurate, that critical areas have been noted, and that we can proceed with final machining, fit, and finishing.