

MOLD CLASSIFICATIONS

CLASSIFICATIONS OF INJECTION MOLDING TOOLS

SPI CLASS 101 MOLD

*CYCLES: One million or more

DESCRIPTION: Built for extremely high production. This is the highest priced mold and is made with only the highest quality materials.

- 1.) Detailed mold design required.
- 2.) Mold base to be a minimum hardness of 280 BHN.
- 3.) Molding surfaces (cavities and cores) must be hardened to a minimum 50 R/C range. All other details, such as slides, heel blocks, gibs, wedge blocks, etc. should also be of hardened tool steels.
- 4.) Ejection should be guided.
- 5.) Slides must have wear plates
- 6.) Temperature control provisions to be in cavities, cores, and slides cores whenever possible.
- 7.) Electroless nickel plating of all water channels is recommended. This greatly inhibits the chance of rust and makes it easy to clear sediment from plugged lines.
- 8.) Parting line locks are required on all models.

SPI CLASS 102 MOLD

*CYCLES: Under 500,000

DESCRIPTION: Medium to high production mold, good for abrasive materials and/or parts requiring close tolerances. This is a high quality, fairly high priced mold.

- 1.) Detailed mold design recommended.
- 2.) Mold base to be a minimum hardness of 280 BHN.
- 3.) Molding surfaces should be hardened to at least 48 R/C. All other functional details should be made and heat treated likewise.
- 4.) Temperature control provisions to be directly in the cavities, cores, and slide cores wherever possible.
- 5.) Parting line locks are recommended for all molds.
- 6.) The following items may or may not be required depending on the ultimate production quantities anticipated. It is recommended that those items desired be checked and made a firm requirement for quoting purposes:

- a. Guided Ejection
- b. Slide Wear Plates
- c. Plated Temperature Control Channel
- d. Plated Cavities

SPI CLASS 103 MOLD

*CYCLES: Under 250,000

DESCRIPTION: Medium production mold. This is a very popular mold for low to medium production needs. Most common price range.

- 1.) Detailed mold design recommended.
- 2.) Mold base must be minimum hardness of 165 BHN.
- 3.) Cavity and cores must be 280 BHN or higher.
- 4.) All other extras are optional.

SPI CLASS 104 MOLD

*CYCLES: Under 10,000

DESCRIPTION: Low production mold. Used for limited production preferably with non-abrasive materials. Low to moderate price range.

- 1.) Mold design recommended.
- 2.) Mold base can be of mold steel or aluminum.
- 3.) Cavities can be of aluminum, mild steel or any other agreed upon metal.
- 4.) All other extras are optional.

we will be responsible for normal maintenance.

Maintenance on tools running beyond their life cycle will be the responsibility of the customer.

*CYCLES ARE APPROXIMATE AND FOR COMPARISON PURPOSES ONLY

SPI CLASS 105 MOLD

*CYCLES: Under 500

DESCRIPTION: Prototype only. This mold will be constructed in the least expensive manner possible to produce a very limited quantity of prototype parts.