

TYPES OF MOLDS AND THE MOLDING PROCESS

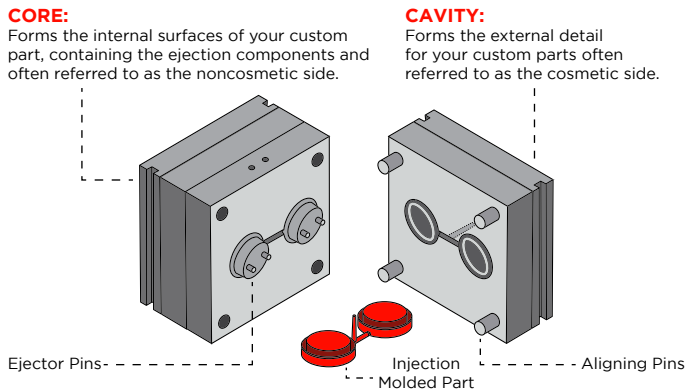
To get a better part design, it's essential to learn about the mold that will be creating it. The type of mold you decide on affects your various project costs and the time you'll take to get to market.

MOLD PARTS

Injection molds consist of two main components:

1. The mold cavity forms the major external features.

2. The mold core forms the main internal surfaces.



Here's how they work:

STEP 1 Plastic resin pellets are loaded into a hopper.

STEP 2 The pellets then travel into the barrel of the injection molding machine.

STEP 3 The pellets are melted into a molten material.

STEP 4 The molten plastic is pushed into the mold.

STEP 5 The mold opens and releases the part.

YOU NEED TO THINK ABOUT ...

... what type of mold to use. Ask these questions:

1. Do I need a shorter mold build time?
2. What's my initial production volume?
3. Do I want to be able to make modifications cost-effectively?
4. Do I want my prototypes made of the same material as the final part?
5. Do I need a mold that can go from prototype to production quickly?

Use this table to compare the types of molds available and what they can do for you:

Types of molds	Volume	Factors to consider
PROTOTYPE	Low	<ul style="list-style-type: none"> Typically made of aluminum. Shorter build time. Quick to modify.
BRIDGE	Medium	<ul style="list-style-type: none"> Typically made of aluminum. Bridges gap between prototype and production.
PRODUCTION	High	<ul style="list-style-type: none"> Typically made of steel Made to endure high-volume part production. Takes more time to build. Not easily modified.

THE MOLD CONFIRMATION PROCESS



Aluminum molds vs. steel molds: Learn the differences [here](#).