

## Custom Molding Capabilities

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### COMPRESSION MOLDED CUSTOM PARTS

This process is typically used when an application calls for high quantities in production runs, medium shore in durometer or hardness, or if the material call-out is one that requires less common, but more expensive materials. An excess of your chosen material is placed into the cavity of the mold to guarantee total cavity fill. Heat and pressure are applied, which causes the rubber compound to flow and fill the cavity, with any overflow going through the overflow grooves. This overflow, or flash, can be a concern when the parts are of critical dimension, larger diameter or of a more expensive variety of a rubber compound. Compression molding reduces the amount of flash created in the molding process. Further reduction of this flash on your custom molded part is done in the deflashing process for any type of molding you may choose. Depending on your parts specifications, this deflashing is done either by tear trimming, tumbling, grinding or cryogenic deflashing.

### INJECTION MOLDED CUSTOM PARTS

This very automated process is commonly used for simple designs that have a high quantity required for production. The rubber compound is heated to such a degree that it can flow with ease through a number of runners into the mold, after being injected under pressure from its heating chamber. This process can be ideal, but for just the right compound and the right application.

### LIQUID INJECTION MOLDING (LIM)

Liquid injection molding is done very similar to standard injection molding. The mold is heated and closed before uncured rubber is injected into the mold. One difference is liquid injection materials come in pails or barrels and are two parts mixed together; one being the catalyst which uses platinum in the process, the other being liquid silicone. The curing time is much shorter than with a typical injection process. This will often lead to a lower cost with high volume requirements.

The raw materials are also received in sealed containers and are typically pumped directly from the barrels to the machine, significantly decreasing any contamination. It is a preferred form of molding in the medical industry as it is considered a closed molding system. Monroe Seals is able to provide product certified to a Class VI environment.

### TRANSFER MOLDED CUSTOM PARTS

This process is different than compression molding. Your material is placed in a pot below the top plate and above the gates, creating an even flow of material into the cavity. The rubber compound is then forced from the pot and into the gates. With your finished product, you will see what are known as gate marks, which indicate where gates come into play with the cavity.