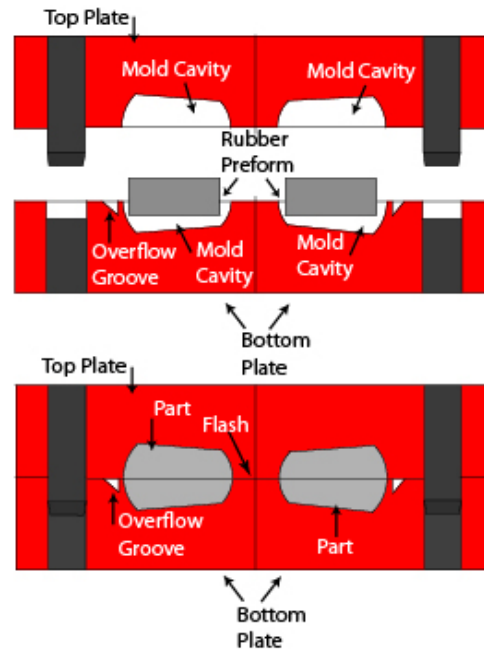


Custom Moldings

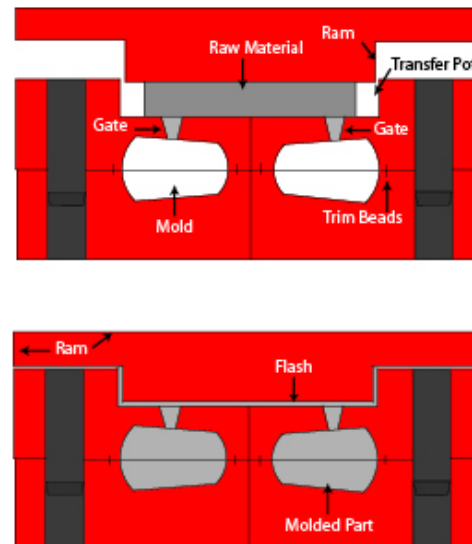
COMPRESSION MOLDING

- Least complex of thermal set molding processes
- Wide variety of size, shape and complexity of parts available
- Preform is placed directly in cavity
 - Rubber is compressed, under heat, between top and bottom plates
 - Compound flows to fill cavities, spilling into overflow grooves
 - When cure cycle is complete, plates open, and formed parts are removed
- Typically, deflashing or trimming is required as a secondary operation
- Typically requires the least expensive tooling.
- Typically works best for all-rubber parts (no inserts)



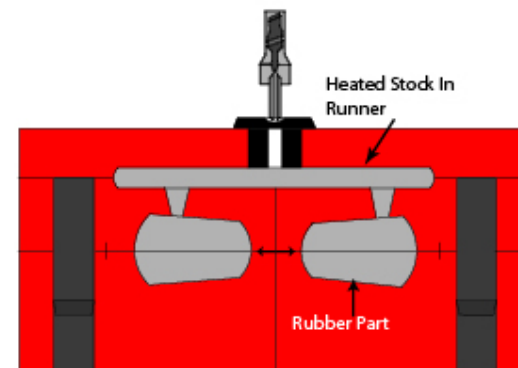
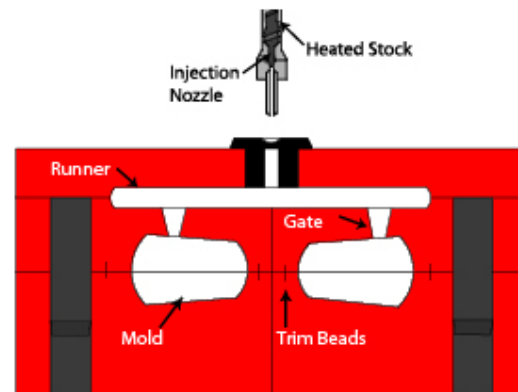
TRANSFER MOLDING

- Most versatile molding method
- Uncured rubber is placed in transfer pot
 - Under heat, ram pushes fluid rubber into cavities
 - Under continued heat and pressure, rubber vulcanizes to cavity shape
 - When cure cycle is complete, parts are removed; "transfer pad" must also be removed
- Secondary operations may be required; flashless/trimless available
- Tooling costs vary based on design complexity
- Designed for complex part geometry
- Allows for over-molding of inserts



INJECTION MOLDING

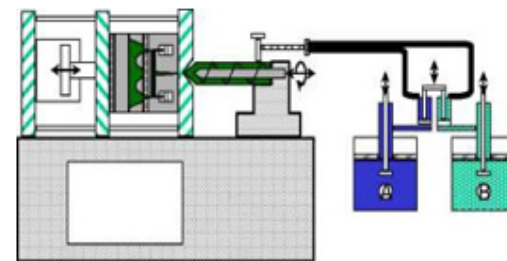
- Most automated process
- Uncured rubber is injected into cavities via a runner system and gates into closed mold
 - Under continued heat and pressure, rubber vulcanizes to cavity shape
 - When cure cycle is complete, parts are removed; runner system must also be removed
- Secondary operations may be required; flashless/trimless available
- Tooling costs typically higher than for other processes
- Designed for high volume/ high speed
- Allows for over-molding of inserts



LIQUID INJECTION MOLDING (LIM)

Mold

- Temperature: 170-220°C
- Cold runner systems
- Hardened Steel
- Exact finishing 1/1000 mm
- Dearing Profiles



Injection Molding Machine

- Standard injection molding machine
- Special LSR screw and barrel
- Spring loaded non-return-valve
- Cooled barrel to 23°C

Pump / Mixer

- Hydraulic or pneumatic
- Pressure 180-220 bar
- Trough static mixer
- Color additive