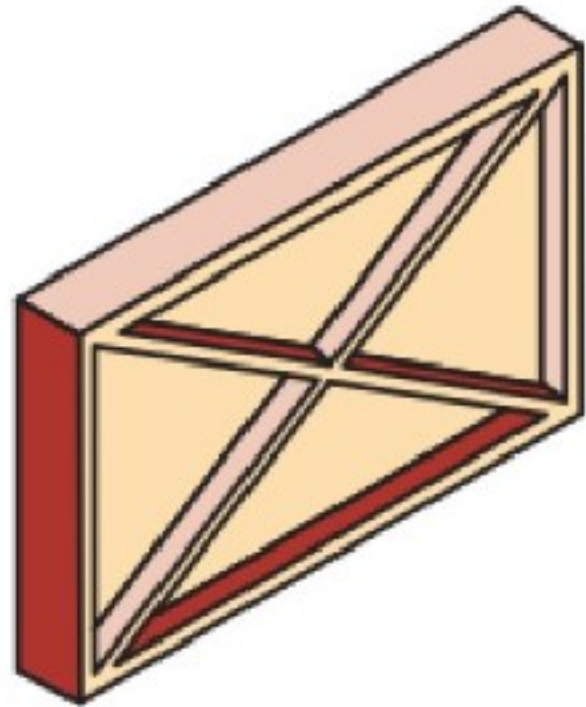
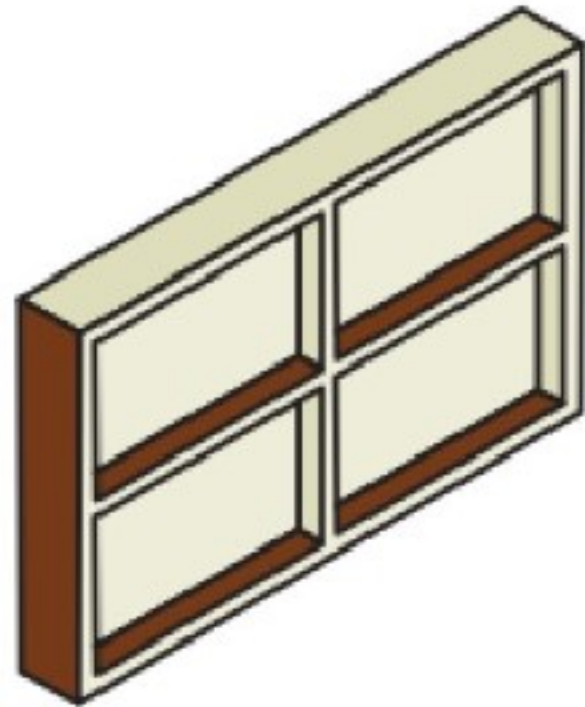


Poor



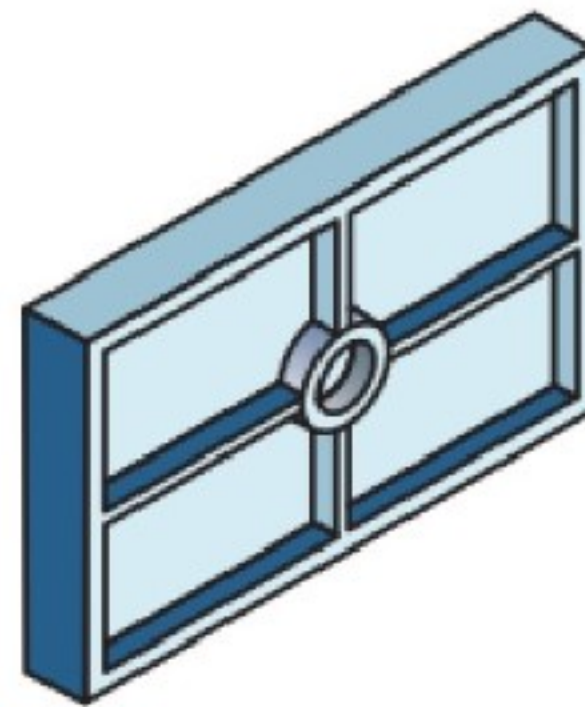
(a)

Poor



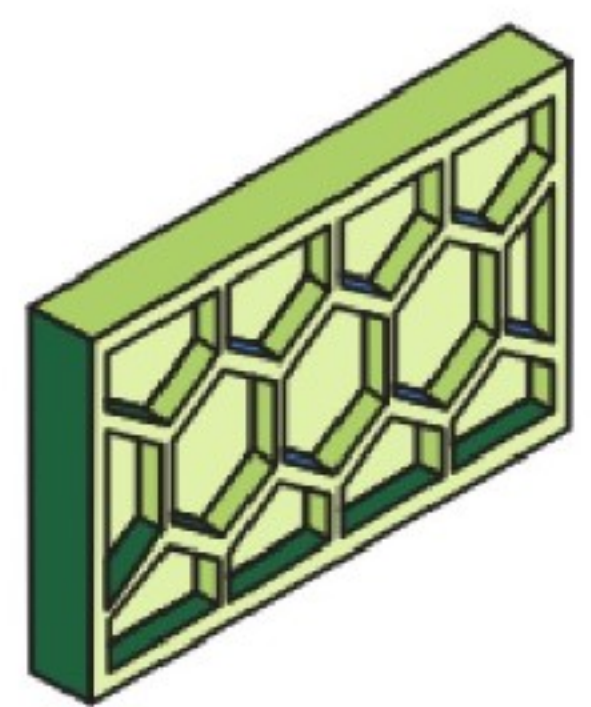
(b)

Good



(c)

Best

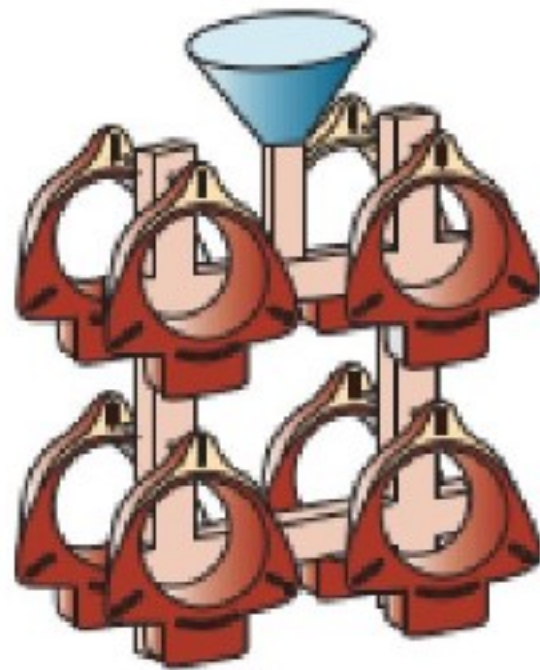


(d)

Lost Foam



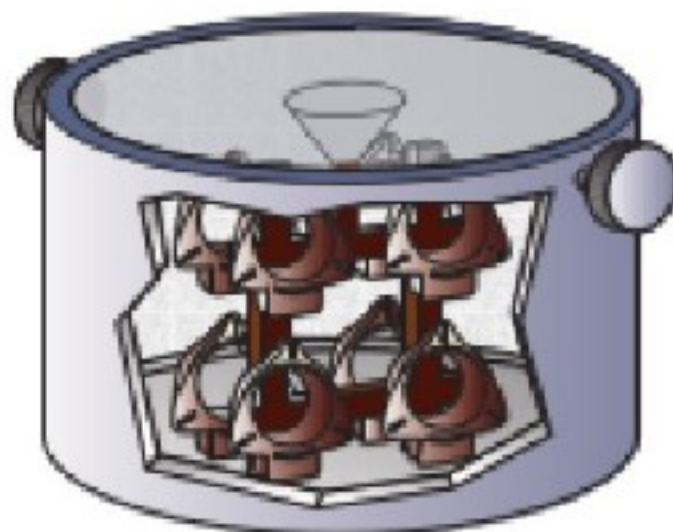
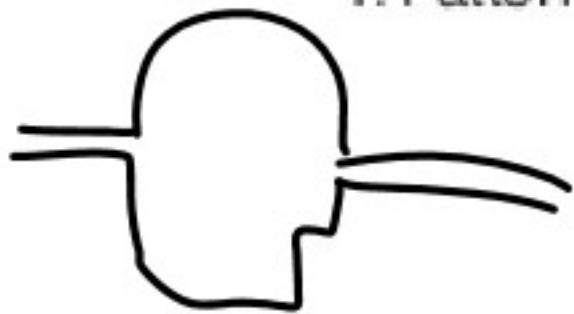
1. Pattern molding



2. Cluster assembly



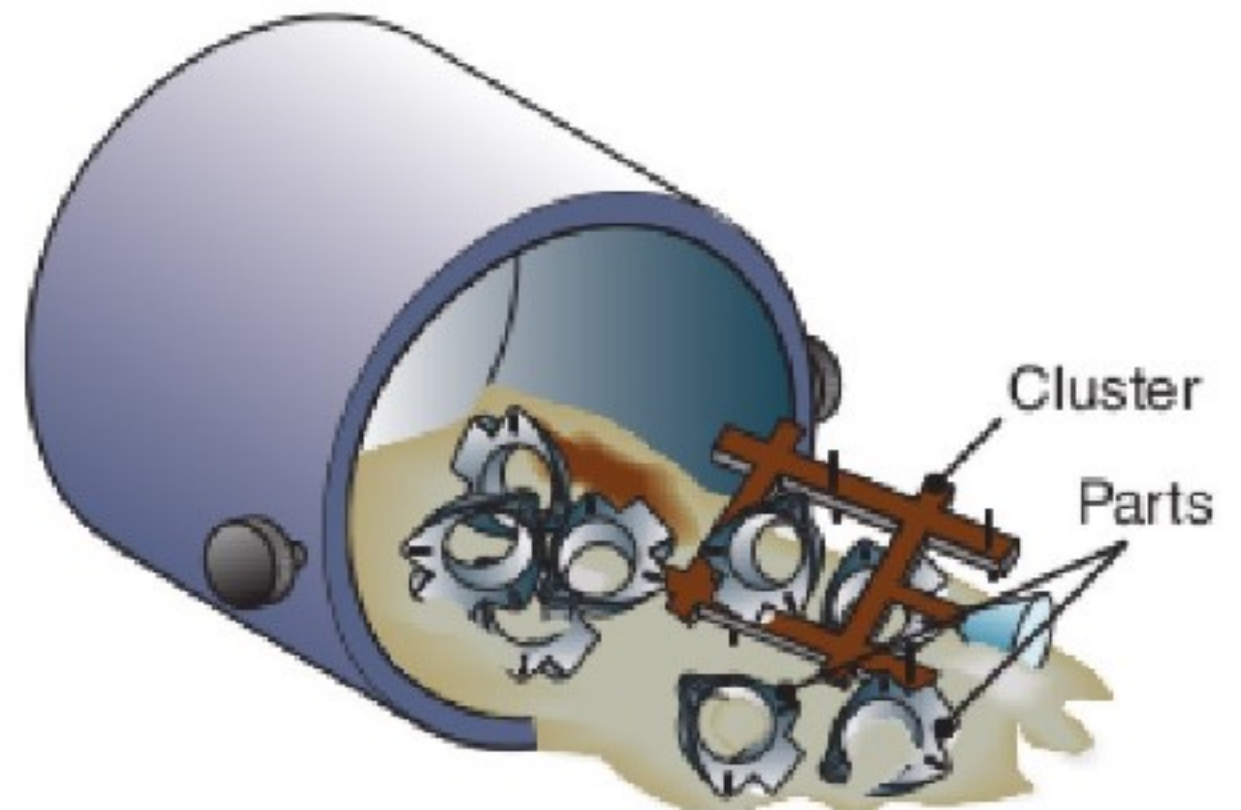
3. Coating



4. Compacted in sand



5. Casting



6. Shakeout

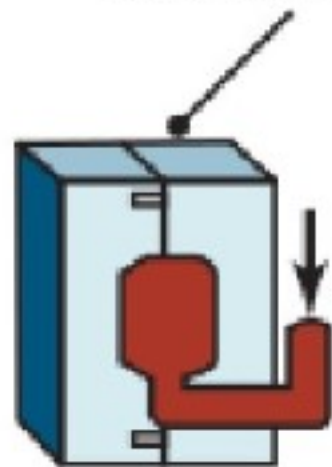
Investment

Casting

3D print

Lost Wax

Mold to make pattern



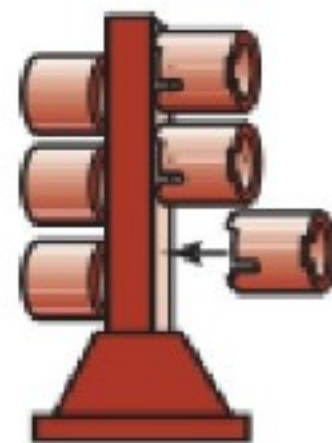
1. Injecting wax or plastic pattern



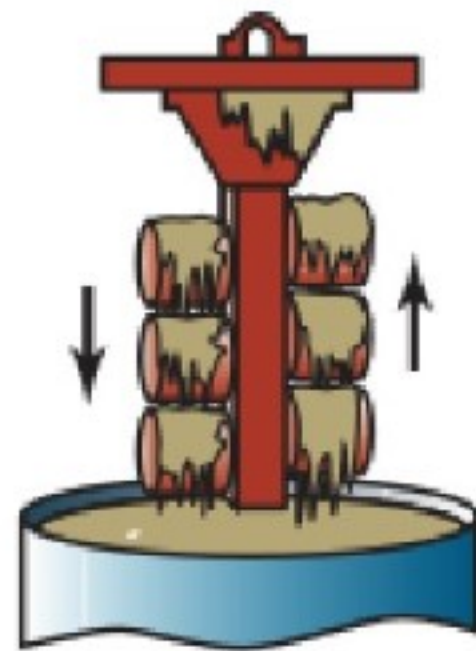
2. Ejecting pattern



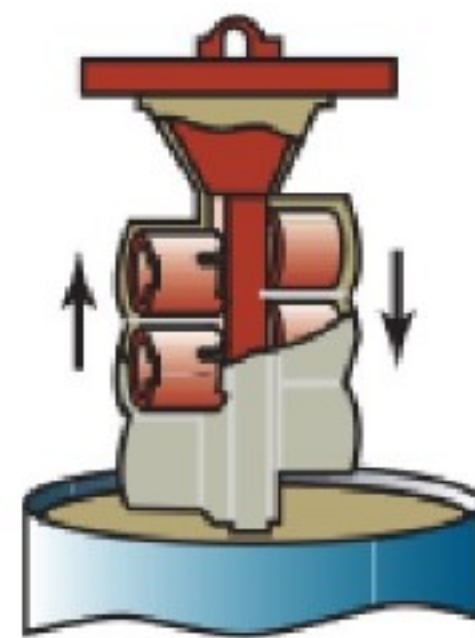
Wax pattern



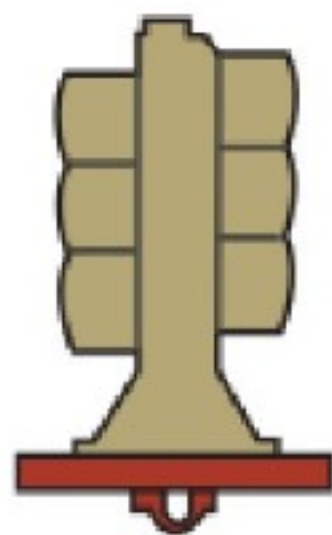
3. Pattern assembly (Tree)



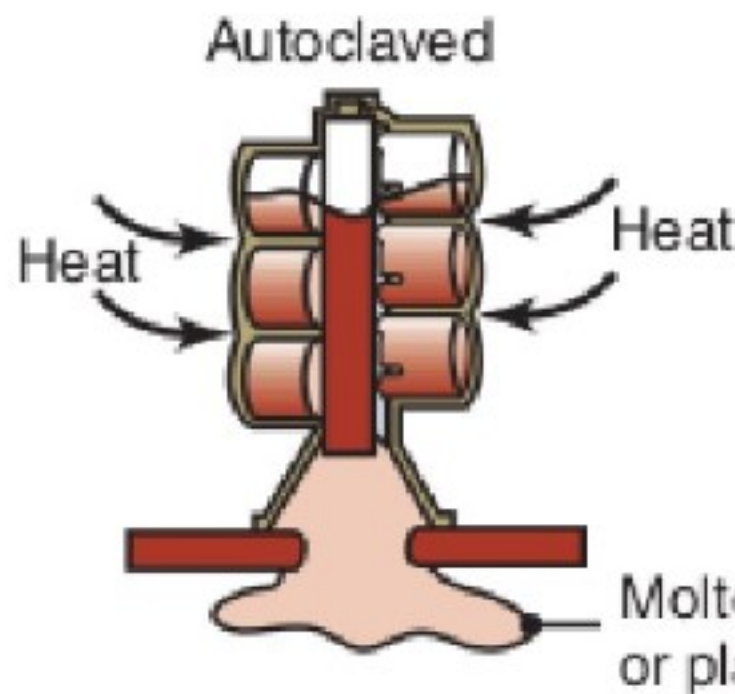
4. Slurry coating



5. Stucco coating

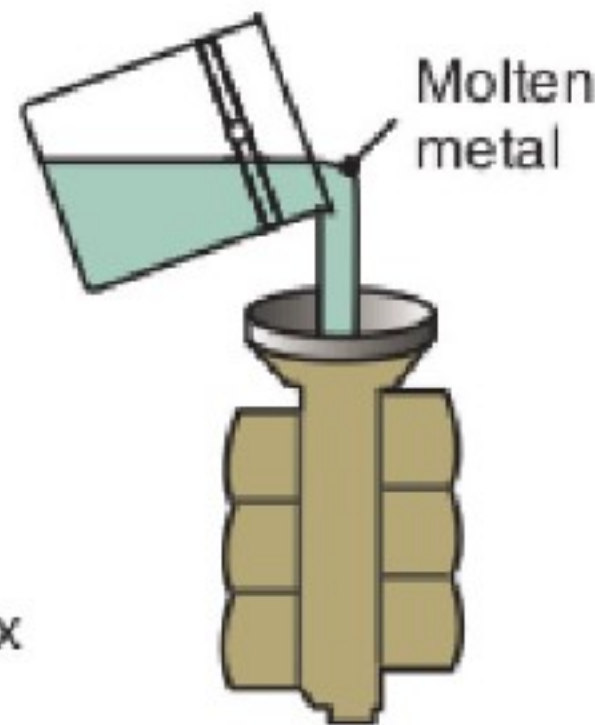


6. Completed mold



7. Pattern melt-out

Molten wax or plastic



8. Pouring



9. Shakeout



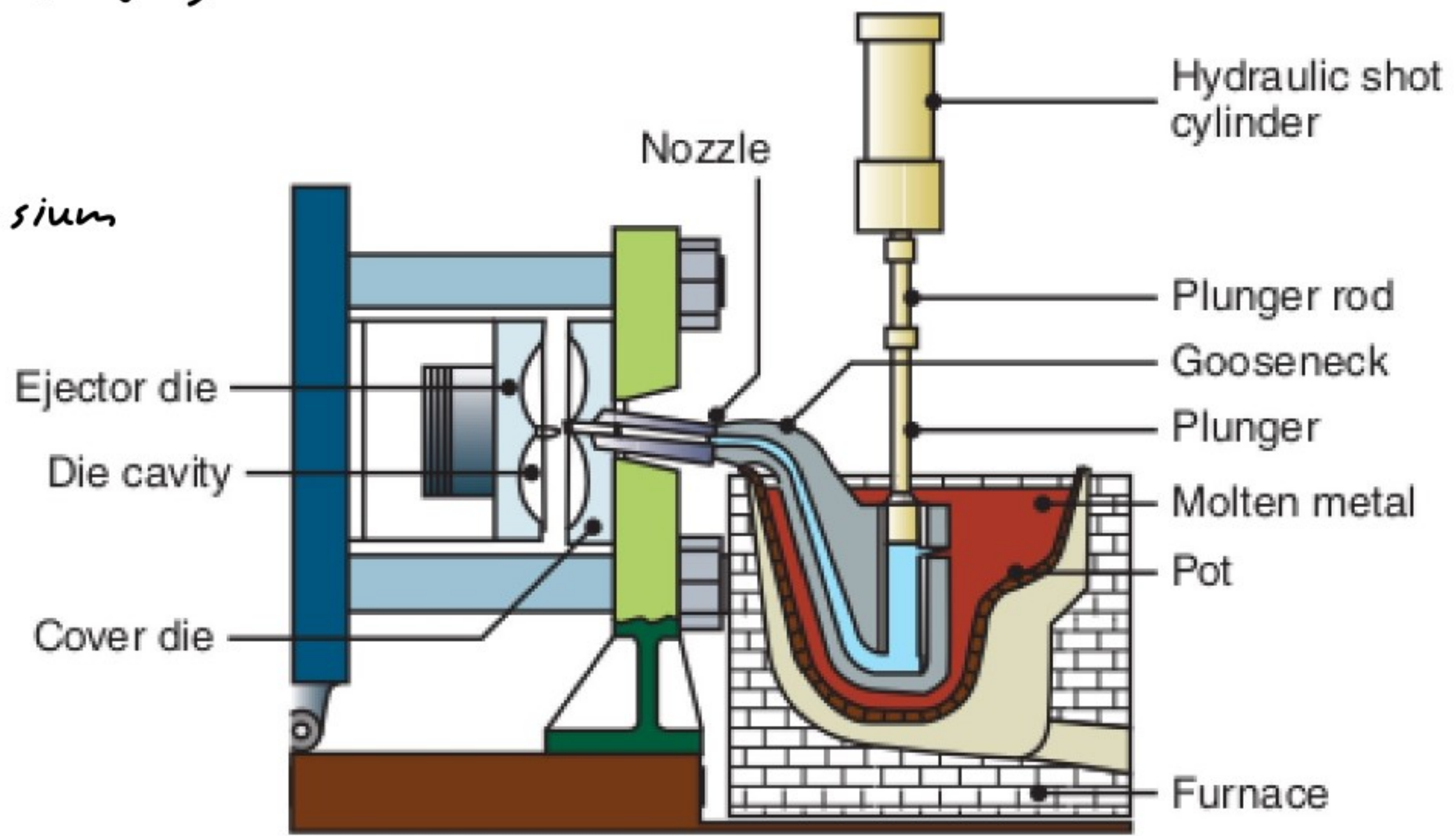
Casting



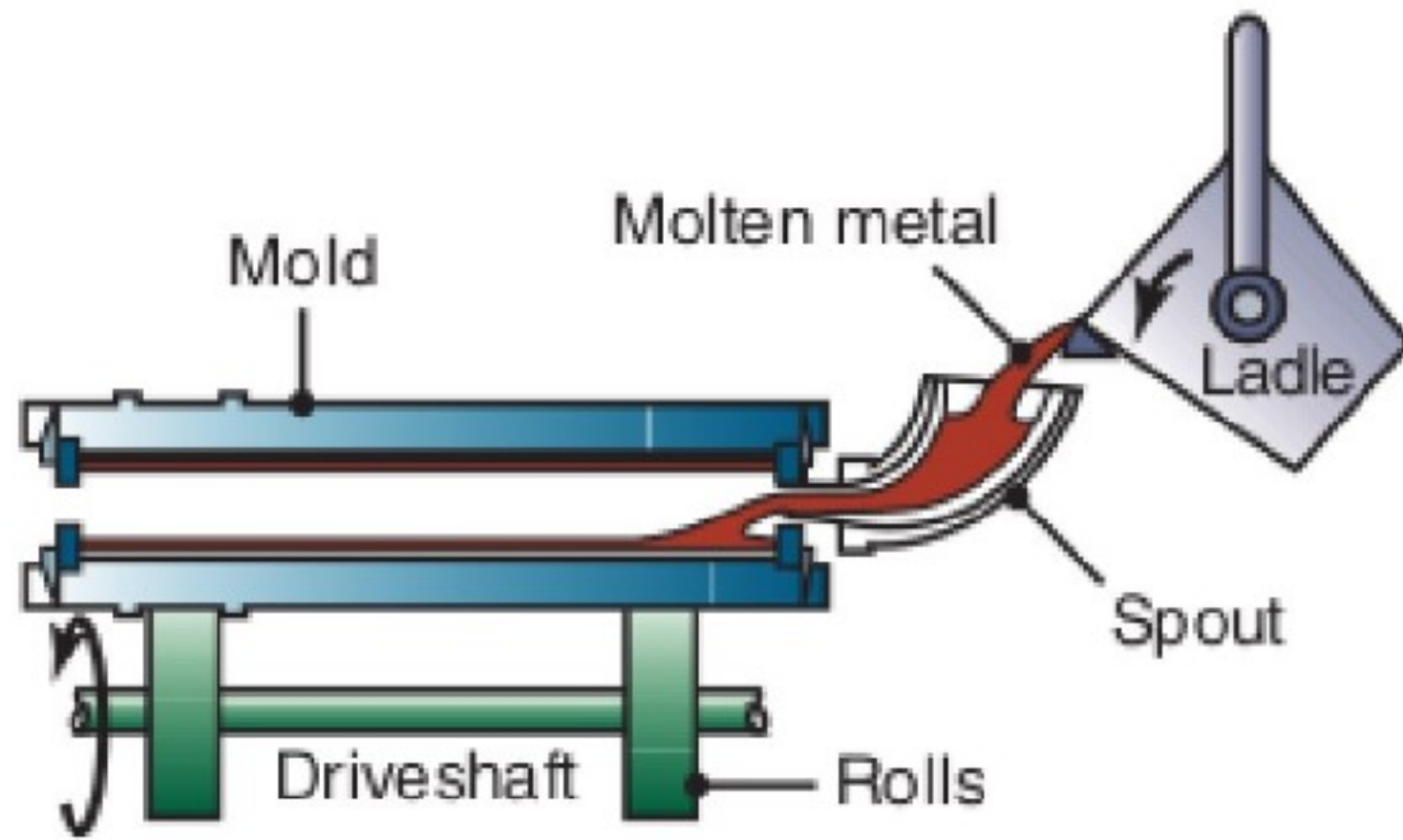
10. Pattern

Die Casting

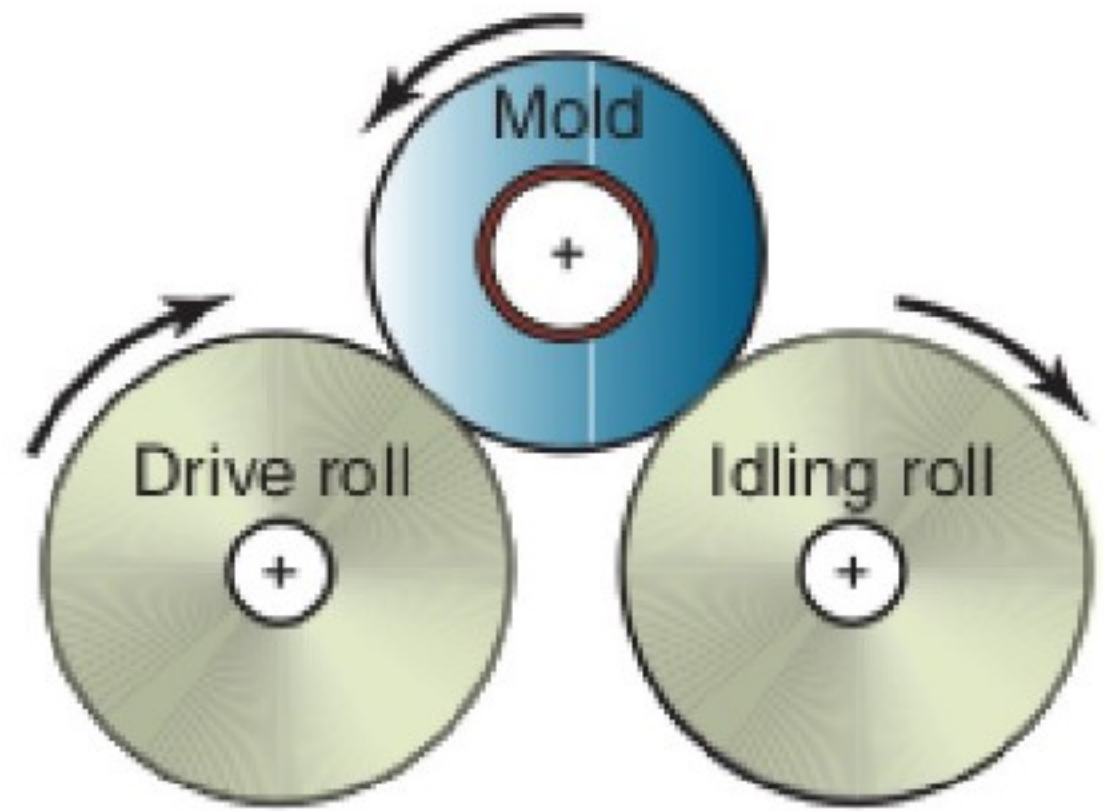
Zinc
Magnesium
Tin
Lead



Centrifugal Casting

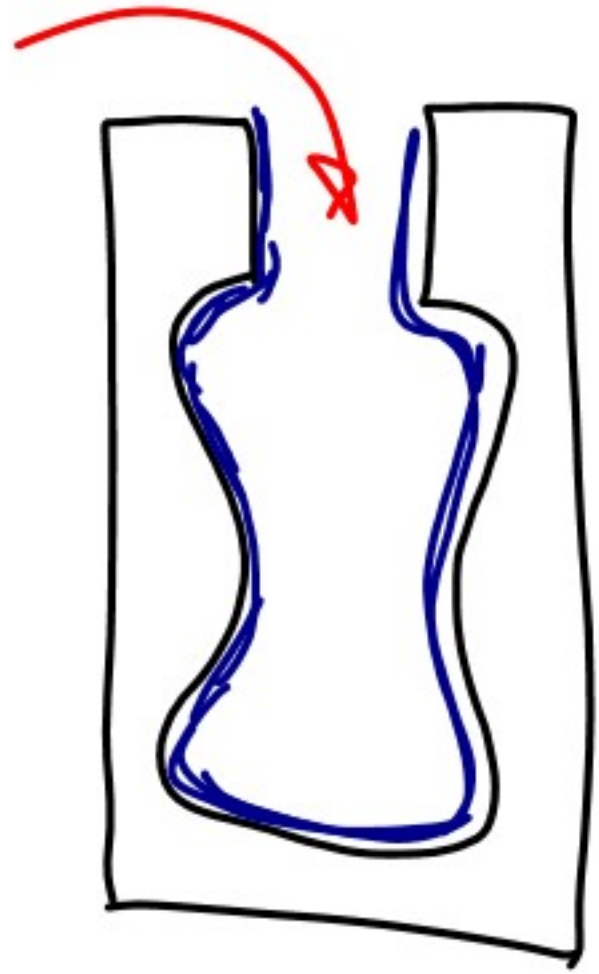


(a)

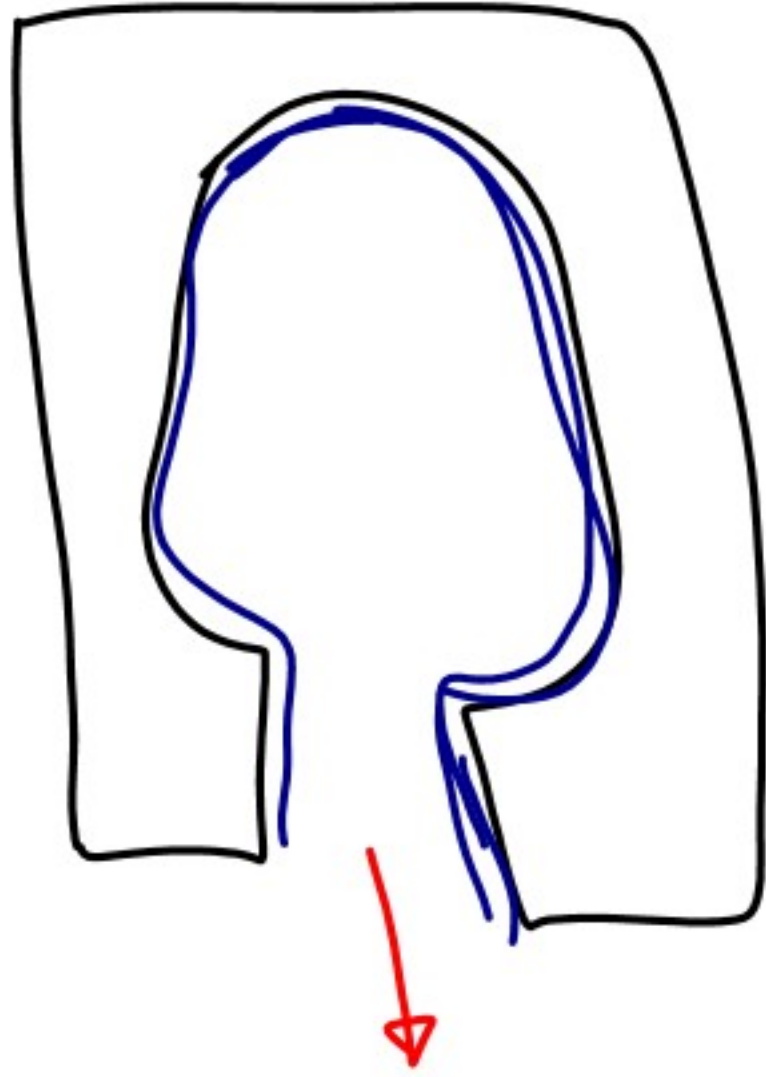


(b)

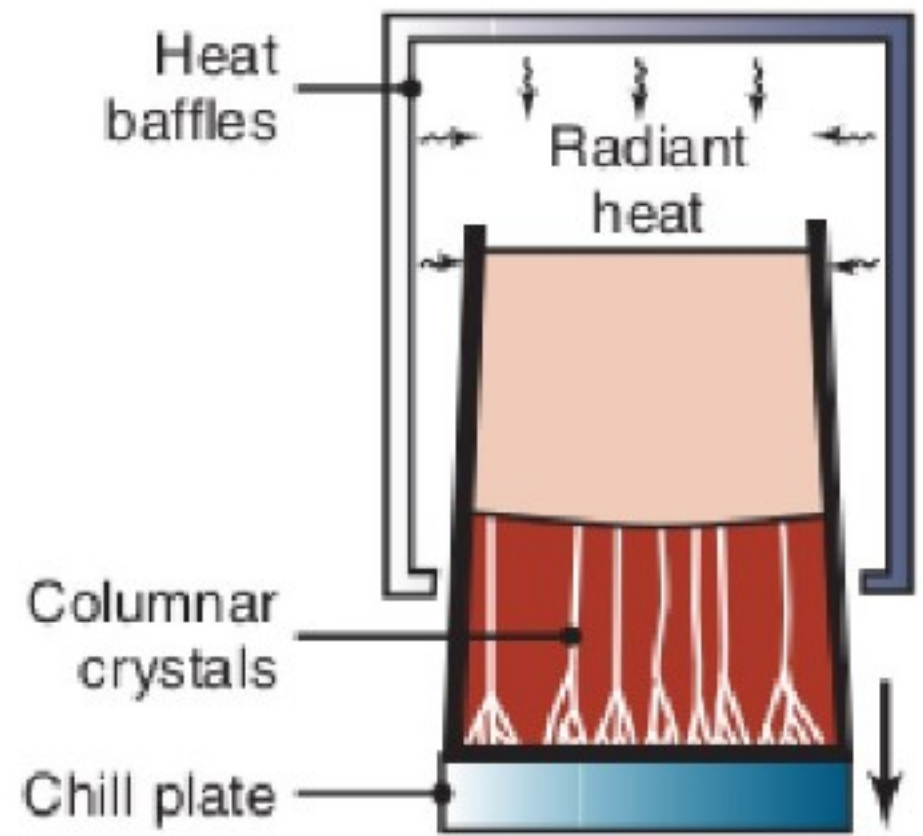
Slush Casting



wait

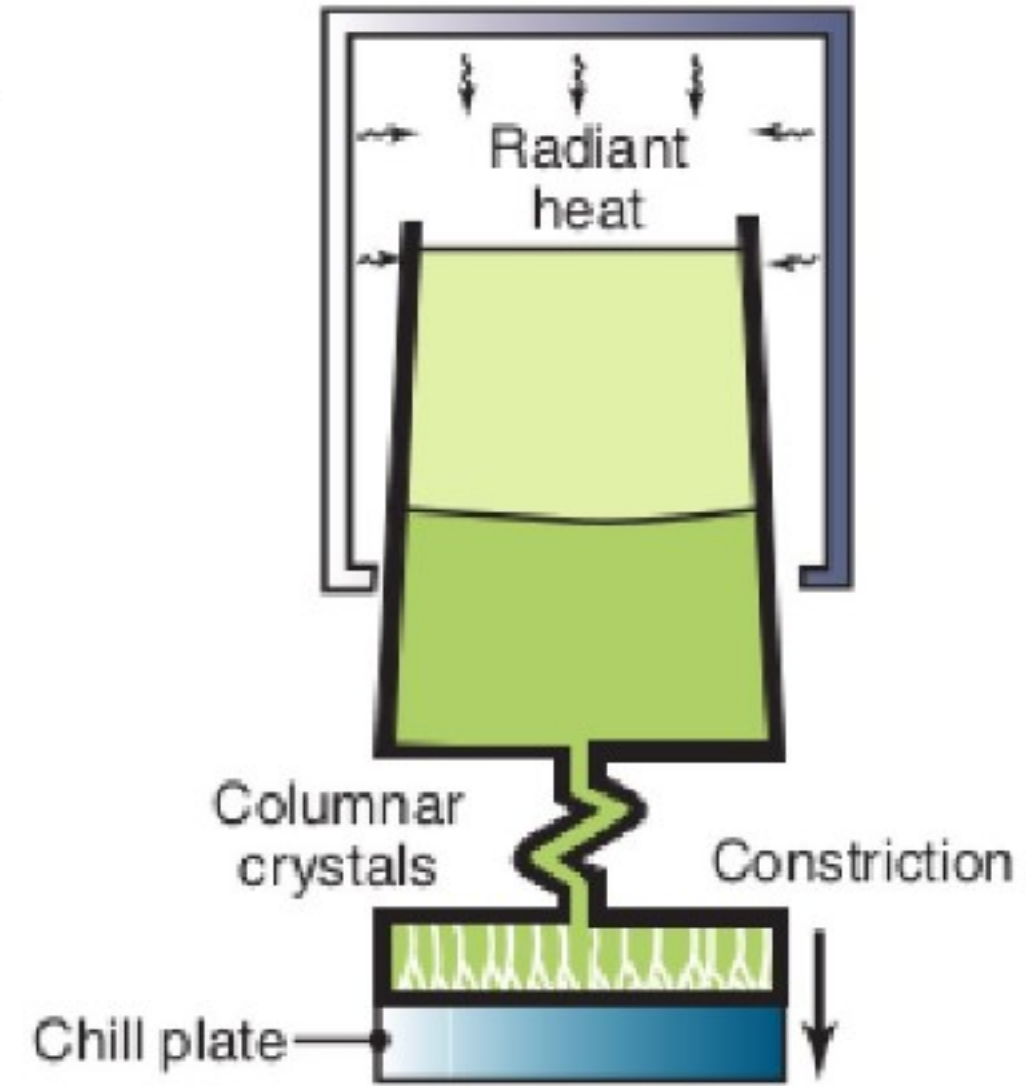


Parallel Crystals



(a)

Single Crystal

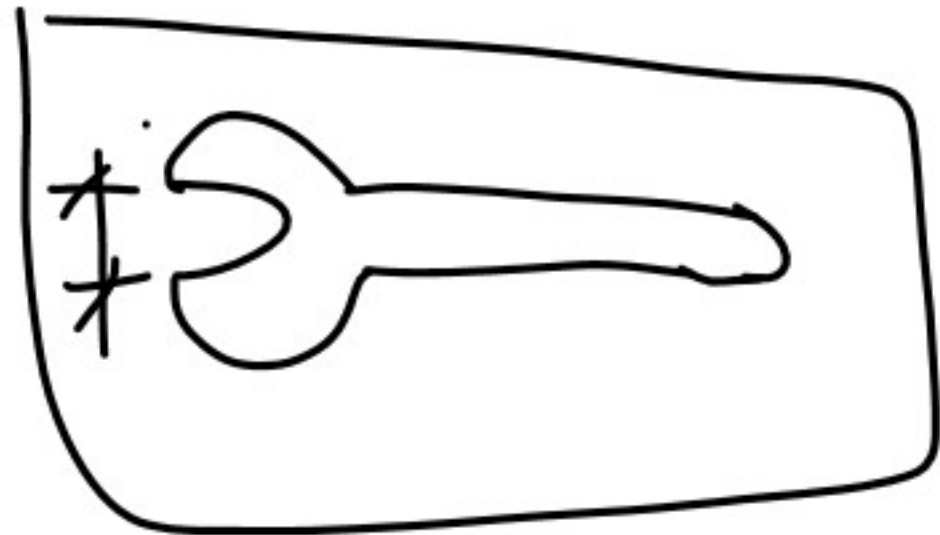
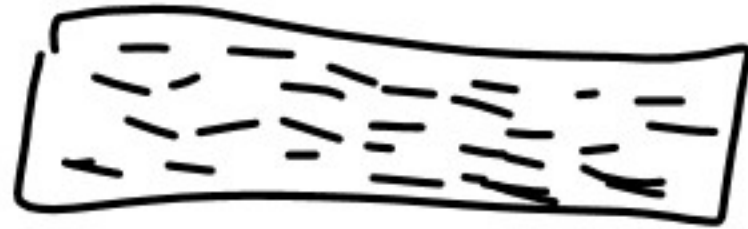


(b)

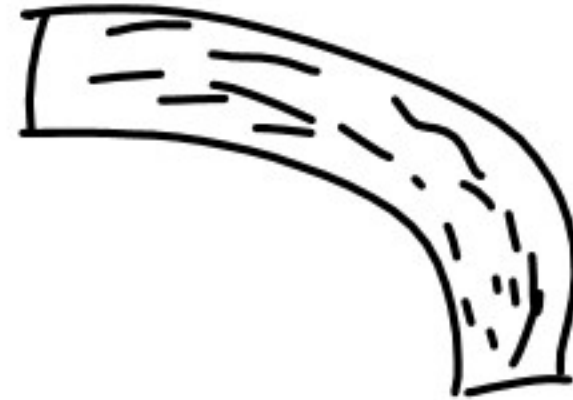


(c)

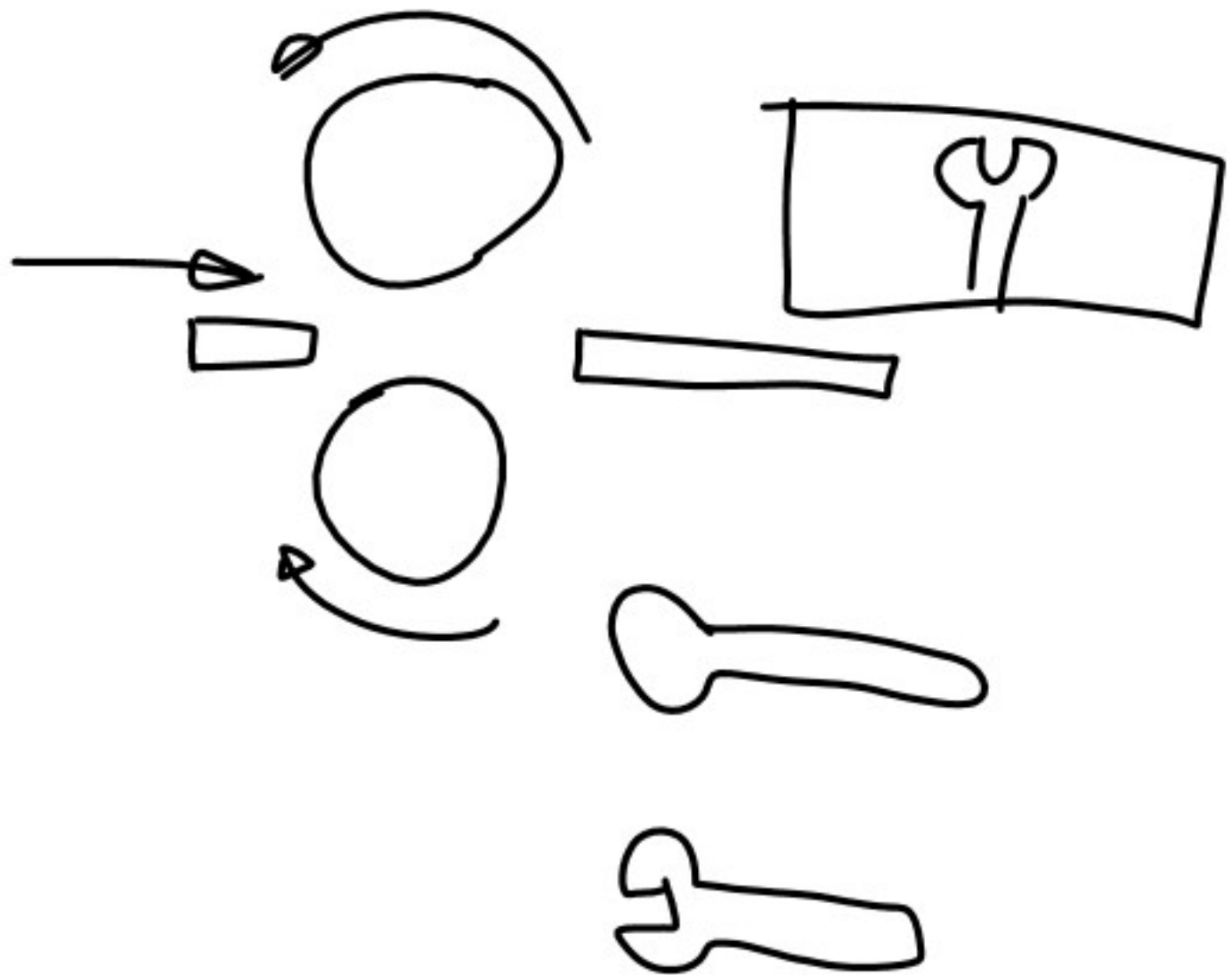
Forging



Steel
Aluminium



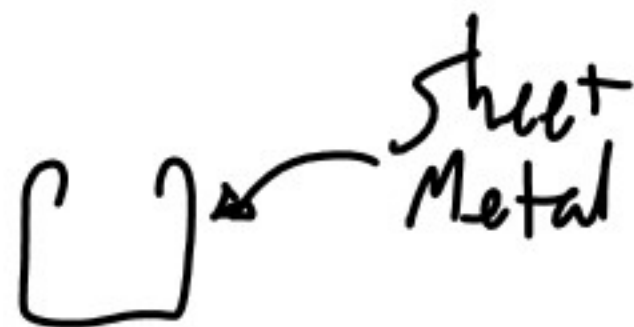
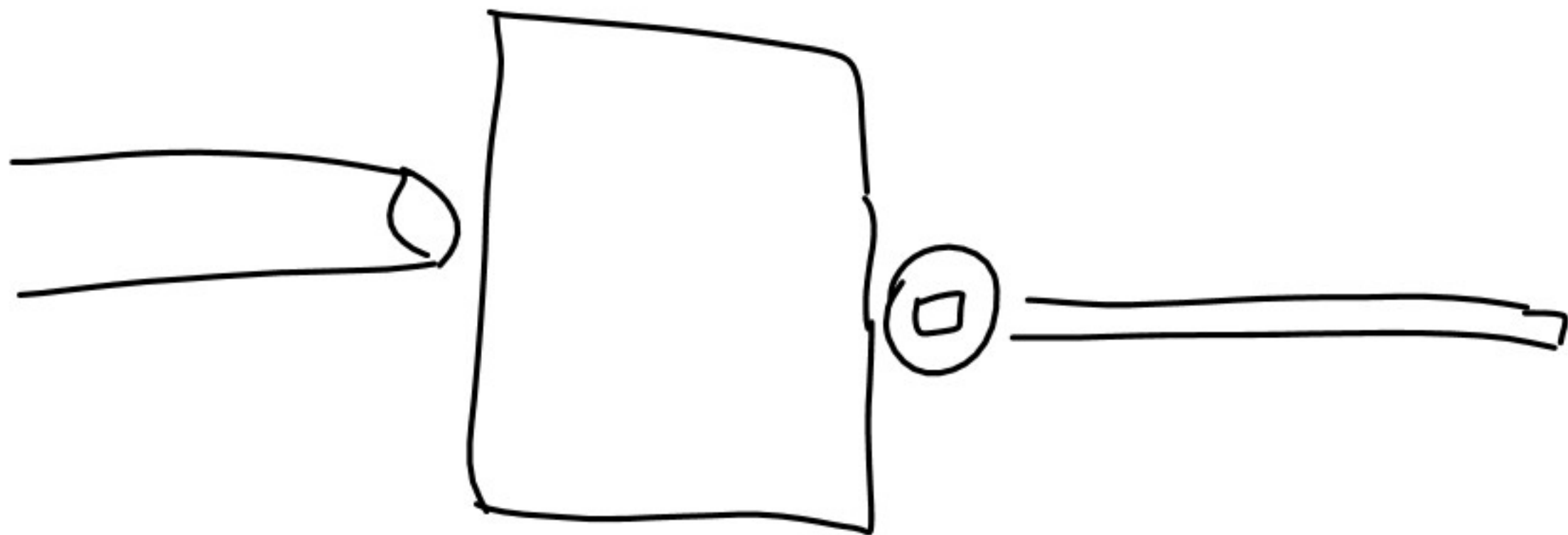
Roll Forming



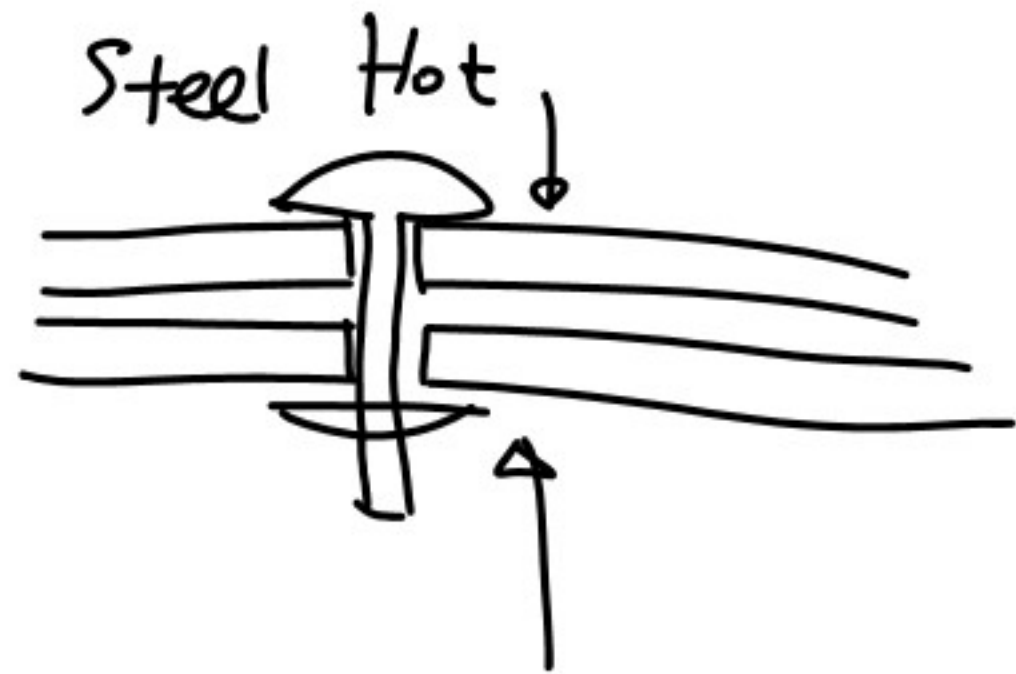
Extrusion

Aluminium

Bosch tubing
8020



Riveting



Aluminum
Cold

Aluminum
Pop Rivet

