Sheet Metal Forming
Involves methods in which sheet metal is cut into required dimensions and shape; and/or forming by stamping, drawing, or pressing to the final shape.
A special class of metal forming where the thickness of the piece of material is small compared to the other dimensions.
Cutting into shape involve shear forces.
Forming Processes involve tensile stresses.

The Major operations of sheet metal are:
1) Shearing,
2) Bending,
3) Drawing and
4) Squeezing.

Shearing
The mechanical cutting of materials without the information of chips or the use of burning or melting for straight cutting blades: shearing for curved blades: blanking, piercing, notching, trimming.

Classifications of Shearing Processes
- Slitting
- Piercing
- Blanking
- Notching
- Shaving
- Trimming
- Cutoff
- Dinking

Slitting
shearing process used to cut rolls of sheet metal into several rolls of narrower width used to cut a wide coil of metal into a number of narrower coils as the main coil is moved through the slitter.

Blanking
during which a metal workpiece is removed from the primary metal strip or sheet when it is punched.

Piercing

Notching
same as piercing
- edge of the strip or black forms part of the punch-out perimeter

Nibbling
    Produces a series of overlapping slits/notches

Shaving
- finishing operation in which a small amount of metal is sheared away from the edge of an already blanked part
- can be used to produce a smoother edge

**Trimming**

Cutoff

Punch and die operation used to separate a stamping or other product from a strip or stock

**Dinking**

Used to blank shapes from low-strength materials such as rubber, fiber and cloth

**Bending**

The plastic deformation of metals about a linear axis with little or no change in the surface area.

The purpose of bending is to form sheet metal along a straight line

**Springback**

The elastic recovery of the material after unloading of the tools

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