Fittings Basics

**Flanges**  A protruding rim, edge, rib, or collar, as on a wheel or a pipe shaft, used to strengthen an object, hold it in place, or attach it to another object.

- Bonney Tank Flanges
- Stamped Tank Flanges
- Thread-O-Let
- Raised Face Slip-on Flange
- Raised Face Weld Neck Flange - raised face on one side, weld neck on other
- Blind Flange
- Plate Flange - cut from plate
- Class D Flange - no features, same as plate flange
- Threaded Flange - threaded on inside

**Gaskets**  A mechanical seal which fills the space between two or more mating surfaces, generally to prevent leakage from or into the joined objects while under compression.

- 150# Full Face Fiber Gasket
- 150# Spiral Wound Gasket

**Valves**  A valve is a device that regulates, directs or controls the flow of a fluid (gases, liquids, fluidized solids, or slurries) by opening, closing, or partially obstructing various passageways.

- Brass Ball Valve - simple in-line valve, has ball with hole inside
- Brass Gate Valve - has a blade shape inside to regulate flow
- Wafer Butterfly Valve - has round plate inside to regulate flow
- Lug Butterfly Valve - has lug pattern on outside
- Gear Operator - standard on 6" and bigger

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brass ball valve  brass gate valve  wafer butterfly valve  lug butterfly valve  gear operator shown on lug valve
Fittings Basics

Elbows, Tees, Reducers

As a general rule, black fittings are weld ends, galv fittings are threaded

- Long Raduis Elbow 90*
  - can be ordered in short radius or sweep (bigger radius)
- Long Raduis Elbow 45*
- Tee
  - can be all same size or a reducing tee
- Concentric Reducer
  - symmetrical
- Eccentric Reducer
  - offset
- Bell Reducer
  - same as concentric but would imply there are threads

Unions and Couplers

- Hammer Union
  - tightened by hammering protusion on ring
- Threaded Hex Union
  - tightened with hex nut
- Coupling
  - usually threaded
- Half Coupling
  - same as coupling but not as long
- Grooved Coupling
  - commonly referred to as Victaulic (brand name)

Misc

- Cap
  - black is weldable, galv is threaded
- Square Head Plug
  - threaded plug with square head
- Hex Plug
  - threaded plug with hex head