

**Elongation**

The increase in the gage length, during tensile testing, that is measured after fracture of the test, expressed as a percent of original gage length.

**Fiber Stress**

Local stress through a small area on a section where stress is not uniform.

**Filler Metal**

The metal that is used in filling the seam when welding. Brighton can supply weld procedures for customer review before fabrication begins.

**Flanging Machine**

A machine that forms the knuckle radius and straight flange. Brighton has machines that can flange material up to 1-1/2" thick.

**Half-Pipe**

A type of heat transfer surface. Brighton can supply half-pipe for heads and shells.

**Heat Treatment**

Heating metal heads to suitable temperatures, holding the part at the temperature for a specific length of time and cooling at a rate to obtain desired mechanical properties and microstructure. Heating for the sole purpose of hot forming is excluded from this definition. However, heating to achieve both forming and heat treatment can be simultaneous under some conditions.

**Impact Test**

A test to measure the absorbed energy in breaking a test specimen by a single hammer strike as in Charpy Impact testing.

**Inside depth of dish**

Measurement from the inside center of the head to the tangent line.

**Jacket heads**

Heads that are on the outer shell of a double wall vessel.

**Jacketed Head**

Heads that are covered with some type of jacketed material such as half-pipe or dimple jacket.

**Knuckle Radius (KR)**

Also known as corner radius. It is the formed radius of the head which transitions the dish portion to the straight flange. This process is done on the flanging machine.

**Material Test Reports (MTR's)**

Certified documents supplied by producing mills that show actual chemical composition and physical properties. Brighton supplies MTR's with shipment.

**Minimum Thickness**

The minimum thickness a head can be after forming.