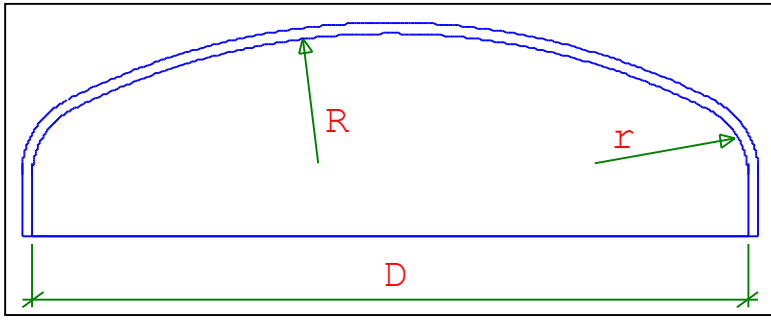




Pipe Diameter $D_i := 2800 \text{ mm}$

Cap Inner Radius $R := D_i$

Cap Side Radius $r := \frac{R}{10}$

Test Pressure $P := 12 \text{ bar}$

Weld Factor $z := 0.85$

Yield Strength $f_a := 235 \text{ MPa}$

Safety Factor $S_f := 1.5$

Corrosion Allowance $c := 0 \text{ mm}$

Tolerance $\delta := 0.4 \text{ mm}$

f.b Stress $f_b := \frac{f_a}{S_f} = 156.6667 \text{ MPa}$

Maximum Allowed Stress $f := f_b = 156.6667 \text{ MPa}$

β (From Iteration) $\beta = 0.9001$

Minimum Wall Thickness $e_f = 18.739 \text{ mm}$