
Unit 700 – Equipment Summary

Compressors**C-701**

W = 7028 kW

72% adiabatic efficiency

Heat Exchangers**E-701**

Q = 30,207.4 MJ/h

E-702

Q = 17032.4 MJ/h

E-703

Q = 55,007.6 MJ/h

E-704

Q = 9586.06 MJ/h

Reactor**R-701**

Fluidized bed reactor (modeled as PFR)

Diameter = 8 m

Length = 3 m

Bed voidage = 0.5

Particle density = 1600 kg/m³

Towers**T-701**

Carbon Steel

30 trays

R = 1.2

Total condenser (Q = 17,003 MJ/h)

Kettle reboiler (Q = 8373.6 MJ/h)

T-702

Carbon Steel

18 trays

R = 0.1

Total condenser (Q = 2102 MJ/h)

Kettle reboiler (Q = 3220 MJ/h)

T-703

Carbon Steel

27 trays

R = 0.26

Total condenser (Q = 1613 MJ/h)

Kettle reboiler (Q = 1609 MJ/h)

Vessels**S-701**

Vertical

 $L/D = 3$