"Boiler"

T\_adiabatic=1277

m\_gas\_permole= 284,1 "kg gas/kmol bio" "mass of flue gas for each mole of biomass"

pm\_gas=29,04 "kg/kmol" "molar mass flue gas"

pm\_bio= 24,19 " molar mass biomass"

cp\_fluegas=Cp(Air\_ha;T=T\_adiabatic;P=po#)

mol\_dot\_bio= m\_dot\_bio/ pm\_bio "molar flow of biomass"

m\_dot\_gas=m\_gas\_permole\*mol\_dot\_bio "mass flow flue gas"

Q\_dot\_boiler=m\_dot\_check\_gas\*cp\_fluegas\*(T\_adiabatic-25) "quick check for reasonable m\_dot\_gas\_value"

"CALCULATE TEMP AT THE OUTLET"

Q\_dot\_boiler=m\_dot\_check\_gas\*cp\_fluegas\*(T\_adiabatic-T\_exit\_gas)