Combustion calculation options

- "Calculate T" determines the outlet gas temperature Tc, from the value set for λ. If the fuel is included in THERMOPTIM, the mass flow rate of the process « fuel » is adjusted in order that the relationship between the volume flow rates of oxidizer and fuel is equal to the air factor.

The mass flow rate of the combustion process is set equal to the sum of fuel and oxidizer flow rates, which means that the combustion process behaves, at the hydraulic level, as a flow rate mixer.

- "Calculate lambda" determines λ (≥1), from the value of Tgo set. Flow rate calculation rules are analogous to those of the preceding button. If the enthalpy released by the stoichiometric combustion does not reach the desired temperature, a message warns you.

- "Set the fuel flow-rate" determines λ and Tc from the characteristics of fuel, which must be a gas, and oxidizer. The mass flow of the process being evaluated (combustion), becomes equal to the sum of the flow-rates of fuel and oxidizer. If the fuel is the type CH_a, nothing is done

When combustion is calculated, the value of combustion efficiency η_{LHV} is determined.