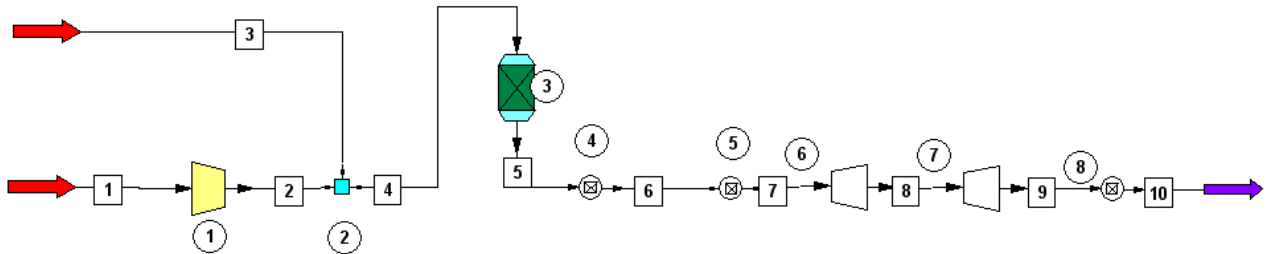


Power Generation

Gas Turbine Simulation



DESCRIPTION:

A typical gas turbine consists of an axial compressor, fuel combustion chamber and an expander which drives the compressor and any external load or loads. For modeling purposes only, the work to drive the compressor and external loads are considered separately. The design or rating of a turbine system depends on how the controls are configured. CHEMCAD 5 can define the theoretical work requirements and fuel for a defined load or frame size.

This example defines the air and fuel requirements for a turbine, which drives an electrical generator under combustion conditions, as defined by excess air requirement.

The flowsheet is a close representation of a SOLAR Saturn turbine operating at conditions typical of a co-generation installation.