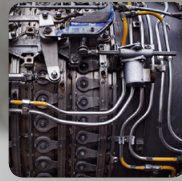


FUEL SYSTEM LIBRARY



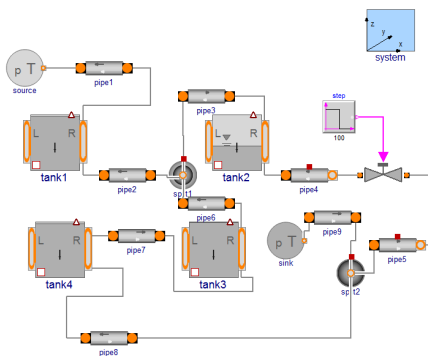
- Fuel System Library is tailored for aircraft fuel systems design with real-time capable models including gravity and geometry effects as well as mixing with air.

Fuel System Library is a Modelica model library targeting the design and verification of fuel systems on civil and military aircraft. It is designed to analyze and verify the system behavior during various dynamic operating modes and flight conditions. Aircraft are characterized by large variations in acceleration, direction and magnitude. The Fuel System Library provides simulation results accounting for these effects on fuel-air

mixtures and includes full support of bidirectional flow.

Fuel System Library is a suitable tool for system and component development and enables an assessment of system performance and transient characteristics. It has been developed internally at Modelon since a number of years together with a European airframer, and is now publicly available.

The models have been designed to be efficient and numerically robust and can therefore handle large-scale complex systems. Component models include ejectors, pumps, tanks, valves, and pipes.



KEY FEATURES

- Flexible composition of user-defined system architectures for efficient model management
- Geometric models with arbitrary gravity and acceleration for accurate predictions throughout the entire flight envelope
- Real-time capable high performance models enabling Hardware-In-the-Loop (HIL) applications
- Full support for bidirectional flow for coverage of all operating conditions
- Efficient representation of air-fuel mixture properties enabling robust and fast simulation of large systems
- Configurable model fidelity, such as switching on or off the thermal effects, for faster simulation and right complexity

Modelon