

LAUDA CONDITIONING SYSTEM

System for precise conditioning of test specimens
from -40 to $150\text{ }^{\circ}\text{C}$

APPLICATION EXAMPLES

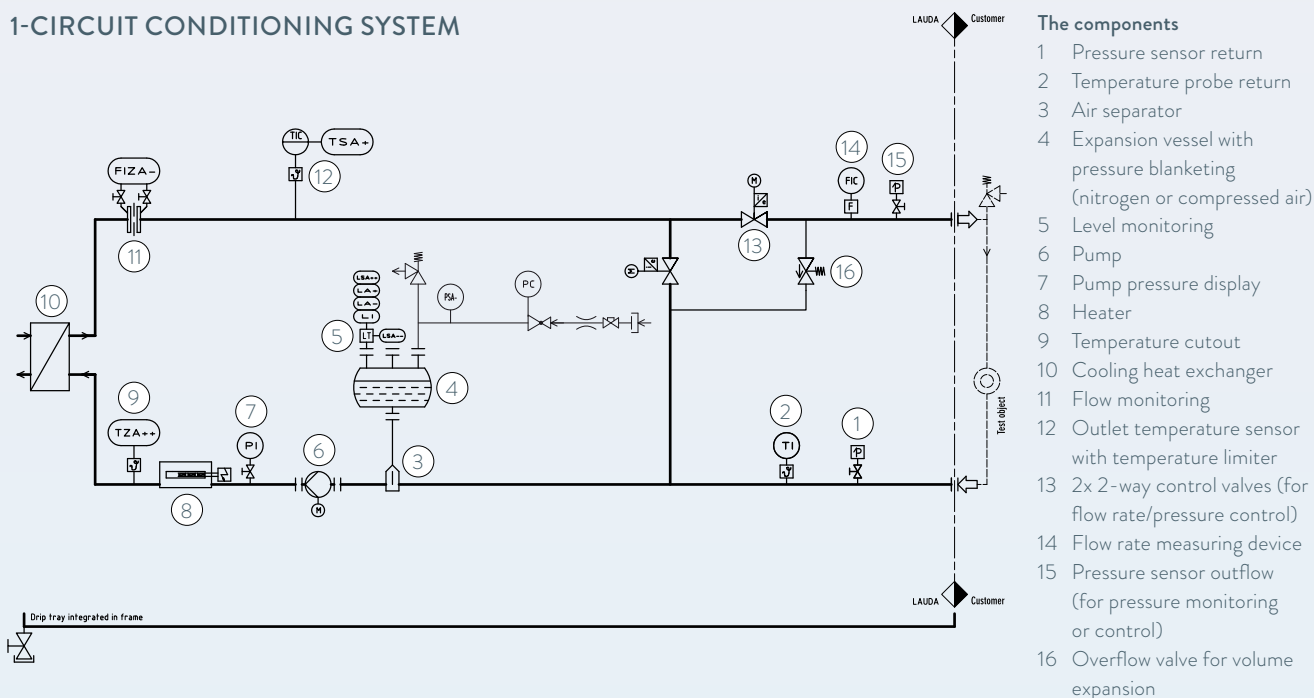
Conditioning of:

- Batteries
- HV accumulators
- Water pumps
- Fuel cells
- Heating elements
- Heat exchangers
- Gearboxes
- Driving rods/bars
- Electric motors
- Combustion engines
- Electronic components
- Test bench constructions
- Stress and life cycle tests
- Final production checks

LAUDA offers heating and cooling systems for the automotive industry in the temperature range from -40 to $150\text{ }^{\circ}\text{C}$. Customer-specific water/glycol mixtures, as well as gearbox oils are used as heat carrier. LAUDA offers optional additional functions for flow rate control, such as automatic filling and draining of the test specimens.

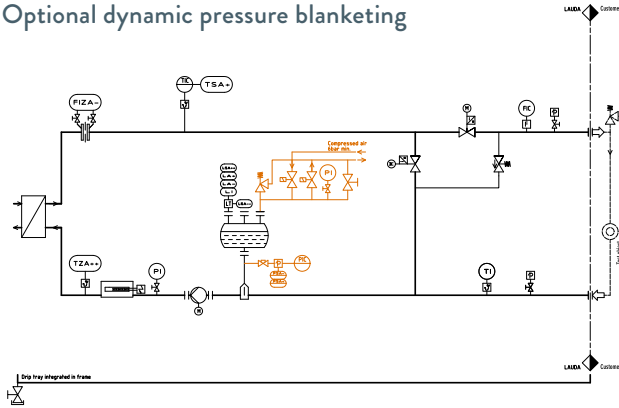
With a comprehensive product portfolio and more than 60 years of development competence, LAUDA guarantees customer-specific advice with the right choice of equipment and the development of individual temperature control solutions.

1-CIRCUIT CONDITIONING SYSTEM



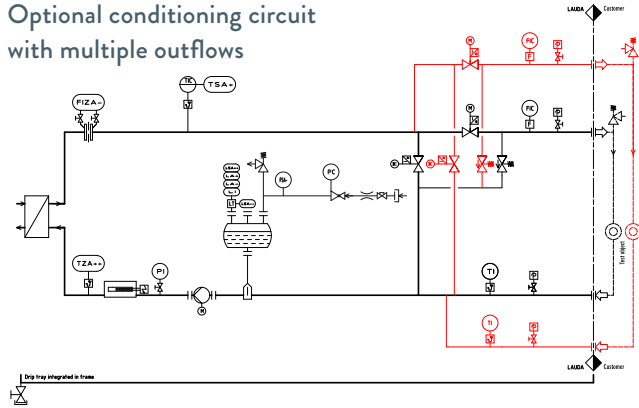
OVERVIEW OF OPTIONAL FUNCTIONS

Optional dynamic pressure blanketing



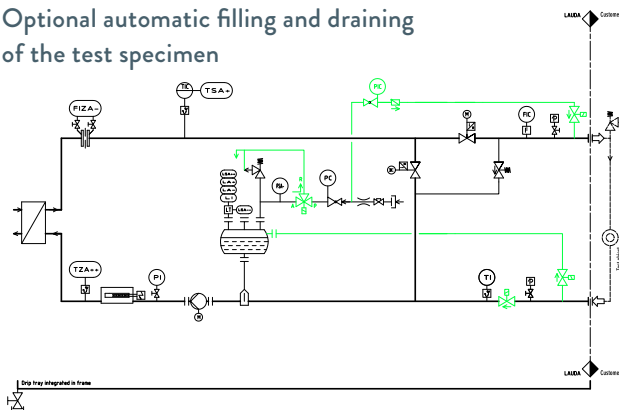
The blanketing pressure of the temperature of the medium can be adjusted here. Setting of the blanketing pressure is done on the touch panel. If temperatures are below 100 °C, pressure blanketing can be completely dispensed with. In the temperature range 100 °C to 150 °C, the blanketing pressure can increase dynamically depending on the temperature.

Optional conditioning circuit with multiple outflows



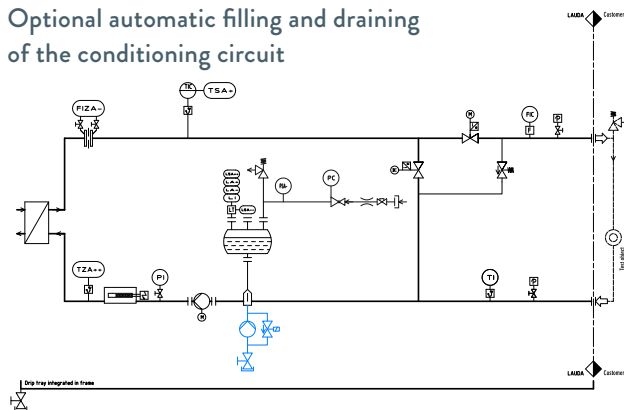
Inlet and outlet are separated accordingly for connection of as many test specimens as you wish. Therefore all test specimens can be tested at the same temperature profile. Thus the flow rate can be individually set for each test specimen.

Optional automatic filling and draining of the test specimen



Draining takes place via compressed air or nitrogen. The test specimen medium is pressed back into the expansion vessel. The circulation pump is used for the filling. In normal operation the expansion vessel is not flowed through, the separation of the air takes place via the generously proportioned air separator.

Optional automatic filling and draining of the conditioning circuit



For frequent complete changes of the water/glycol LAUDA offers an automatic draining and refilling of the entire water/glycol circuit. Drainage valves and a separate pump are simply controlled on the operating panel.

Advantages of a LAUDA conditioning system

- Larger temperature range due to anti-freeze protection (-40 °C) and pressure blanketing (+150 °C)
- High automation through PLC control
- Full integration of the conditioning system in the customer's control system
- Intuitive visualization of the user interface
- High control accuracy for temperature and flow rate
- Automatic filling and draining of the test specimens
- Use of customer-specific glycols and gearbox oil (on request)
- System can be extended for as many test circuits as you wish
- Creation of comprehensive temperature control concepts through combination of refrigeration technology and conditioning circuits
- Individual sizes and connection positions possible
- All systems meet current standards and guidelines