

FUNDAMENTAL EXPERIMENTS FOR TRAINING IN DOMESTIC HEATING TECHNOLOGY

BASICS

- thermal expansion
- temperature measurement
- pressure loss in pipes, fittings and valves

HL 101
Thermal ExpansionHL 104 Temperature
MeasurementHL 102
Pipe FrictionHL 113 Losses in Valves
and FittingsHL 103
Fitting LossHL 111
Fluid Friction

COMPONENTS AND FUNCTION OF DOMESTIC HEATING SYSTEMS

- three-way or four-way mixing valve
- circulating pump, series and parallel operation
- heat exchanger (radiator), hydronic balancing
- safety devices for hot water systems
- expansion vessel
- complete heating systems

The laboratory should provide a hot/cold water supply and drainage – for hot water supply e.g. HL 351 can be used as well



HL 351 Domestic Heating Boiler



HL 105



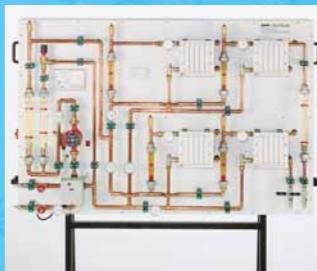
HL 112



HL 106



HL 305

HL 105
Three-Way Mixing ValveHL 107
Circulating PumpsHL 108
Domestic Heating CircuitHL 110
Expansion VesselHL 106
Four-Way Mixing ValveHL 112
RadiatorsHL 305 Hydronic Balancing
of RadiatorsHL 109
Safety Devices

Together with the boiler HL 351 you can build complete heating systems including a heat source.

Training of technicians for building services:

- theory (fundamentals)
- hands-on practice
 - ▶ installation
 - ▶ maintenance