Competence creates Confidence.

Model no. 1777

TEMPERATURE CYCLING TESTING DEVICE

- EN 12293
- ISO 10508
- DVGW W 534
- DVGW W 542
- DVGW W 543

The temperature cycling testing device is used to test the resistance of connections in piping systems with rigid or flexible thermoplastic pipes to temperature cycling. This applies to piping systems intended for use in pressurised water applications with hot and cold water.

Convenient operation

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Standard features

- Convenient operation and clear visualisation via PC control
- Automatic tests with programmable cycle numbers and times, temperatures, etc.
- Clamping device with load cell and measurement technology for initial tensile stress
- Test specimen rack in diagonal arrangement for better accessibility
- Option to adjust the volume flow in the individual test strand
- Microprocessor-controlled, self-learning pressure control with automatic break detection
- Constant test temperature thanks to large storage tanks. High pressure accuracy and precise flow control
- Energy-efficient circulation and pressure pumps
- Cold and hot water storage tanks, each with their own circulation and pressure pumps
- Interface to IPT DataLogging®
- Simultaneous testing of different pipe systems
- Manual flow adjustment
  - Ball valve in the upper flow with temperature and pressure measurement
  - Manual control valve in the lower return with temperature and pressure measurement
- CE conformity

Test chamber

- Max. number of test lines 3
- 4-part, transparent sliding doors made of polycarbonate
- Safety switch for door locking during the heating cycle
- Sensors for breakage detection
- Warning light
- Integrated pulling device

Options

- Flow measurement and recording
- External cooling unit
- Force measuring cell 500 N, 2000 N, 5000 N for pulling device
- Multifunction measuring device for force measuring cell
- Diagonal test piece rack
- Fastening clamps for test piece rack
- Flow meter 6-80 l/min. ± (1.0 l/min + 4% of measured value)
- Data entry, evaluation and archiving of test data via IPT Datalogging software (PC)

Version **TEMPERATURE CYCLING TEST UNIT**		V1777-0001
Pressure range	bar	4 - 16
Temperature range cold cycle	°C	15 - 30
Temperature range hot cycle	°C	50 - 95
Temperature accuracy in specimen	°C	at 95 ± 1.5 at 20 ± 4
Control accuracy temperature controller	°C	± 0.2
Pressure measurement accuracy	%	0.25 of full scale of pressure sensor
Pressure accuracy in specimen		+0.2/-0.1 bar at 10 bar +0.3/-0.15 bar at 16 bar
Flow rate accuracy	%	± 5
Cycle time	min	3 ... 9.999
Max. number of cycles each test		99.999
Nominal capacity hot water tank	l	400
Nominal capacity cold water tank	l	400
Tank class		unpressurized
Pumps delivery rate at 10 bar	m^3/h	17
Pumps delivery rate at 16 bar	m^3/h	12
Max. total cross section at 16 bar/0.5 m/s	mm^2	2.000
Max. total cross section at 10 bar/0.5 m/s	mm^2	3.000
Compatible with IPT DataLogging®		from version 5.x
Permissible operating ambient temperature	°C	+5 to +25
Max. relative air humidity	%	70 non-condensing
Noise emission	dB (A)	< 80
Voltage data		230/400 V 50 Hz other voltages upon request

Version **TEMPERATURE CYCLING TEST UNIT**	V1777-0011
Test assembly lines	
Specimen connections size inflow / backflow	G 1“