Competence creates Confidence.

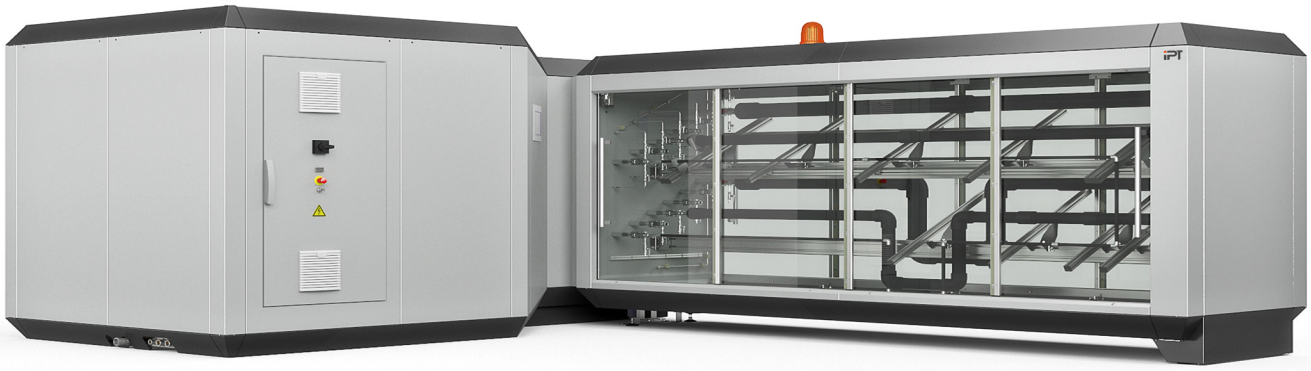
Model no. 1770

TEMPERATURE CYCLING TEST UNIT

ISO 19893
DVGW W 534
DVGW W 542
DVGW W 543

The temperature change tester allows you to determine the resistance of connections for pipe systems with rigid or flexible thermoplastic pipes to temperature induced stress. This applies to pipe systems intended for use in pressurised water applications with hot and cold water.

Quick cycles



Editioin 03/2026

Standard features

- Convenient operation and clear visualisation via touch control
- Automatic tests with programmable cycle numbers and times, temperatures, etc.
- Max. 6 test lines
- 4-part, transparent sliding doors made of polycarbonate (on both sides)
- Safety switch for door locking during the hot cycle
- Specimen rack in diagonal arrangement for improved accessibility
- Option to adjust the volume flow in individual test lines (optionally also regulated)
- Microprocessor-controlled, self-learning pressure regulation with automatic break detection
- Constant test temperature thanks to large storage capacity. High pressure accuracy and precise flow control
- Plate heat exchanger for connection to an external cooling water supply
- Tensioner with load cell and instruments to apply the initial tensile stress
- Energy-efficient circulation and pressure pumps
- Cold and hot water storage tanks, each with their own circulation and pressure pumps
- Simultaneous testing of different piping systems
- Warning light
- CE conformity

Options

- External cooling unit
- Data input, evaluation and documenting of testing data via IPTDataLogging software (PC)
- Flow measurement and recording
- Connection for external steam extraction
- Load cell 500 N, 2,000 N, 5,000 N, 10,000 N for tensile device
- Multifunction measuring device for force measuring cell
- Diagonal specimen rack
- Fastening clamps for specimen rack

Version TEMPERATURE CYCLING TEST UNIT

SUPPLY UNIT (1)		V1770-0001	V1770-0004
Pressure range	bar	4 - 16	4 - 10
Temperature range for cooling cycle	°C	20 - 30	
Temperature range hot cycle	°C	50 - 95	
Temperature accuracy in specimen	°C	at 95 ± 1.5 at 20 ± 4	
Regulating accuracy of temperature controller	°C	± 0.2	
Pressure easurement accuracy	%	0.25 of the final value of the pressure sensor	
Pressure accuracy in specimen	bar	+0.2/-0.1 at 10 bar +0.3/-0.15 at 15 bar	+0.2/-0.1 at 10 bar +0.3/-0.15 at 15 bar
Cycle time	min	3 - 9,999	
Maximum number of cycles per test		99,999	
Hot water tank capacity	l	700	
Cold water tank capacity	l	700	
Storage type		unpressurised	
Delivery quantity of the pumps at 10 bar	m^3/h	17	6
Delivery quantity of the pump at 16 bar	m^3/h	12	-
Max. total cross-section at 16 bar / 0.5 m/s	mm^2	6,400	-
Max. total crosssection at 10 bar / 0.5 m/s	mm^2	9,500	3,300
Permissible ambient temperature	°C	+5 to +25	
Max. relative humidity	%	70 Non-condensing	
Noise emission	dB(A)	< 70	
Power supply		230/400 V 50 Hz Special voltage	
CE conformity		√	

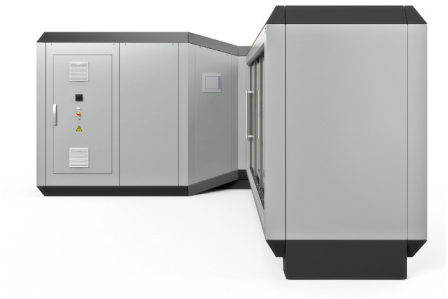
INTERMEDIATE FRAME (2)		V1770-0101	V1770-0100
Max. number of test lines		6	6
Delivery quantity of the pump at 16 bar	m^3/h	A	8

Version TEMPERATURE CYCLING TEST UNIT

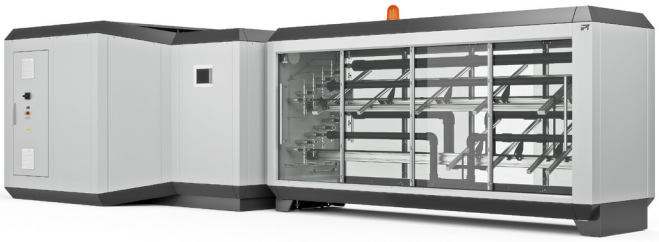
TEST LINES	V1770-0080	V1770-0081	V1770-0082	V1770-0085	V1770-0086	V1770-0087
Size of specimen connection flow / return	G1"	G1¼"	G1½"	G1"	G1¼"	G1½"
Flow control	√	√	√	√	√	√
Pressure regulation	-	-	-	√	√	√

FLOWMETER	V1770-0090	V1770-0091	V1770-0092
Measurement tolerance	± (1.0 l/min + 4 % of the measurement)	± (2.0 l/min + 4 % of the measurement)	± (0.50 l/min ± 0.2 % of the measurement)
Inner diameter specimen	10 – 55 mm	22 – 74 mm	10 – 110 mm

Installation variants TEMPERATURE CYCLING TEST UNIT



Installation variant A
(corner installation)



Installation variant B
(straight installation)