

Introduction

HTM series type A hydrostatic and burst testing machine features compact structure design and simple to use. It is specifically used for time-to-failure test of plastic pipe under constant internal pressure, and for test of resistance to short-time hydraulic pressure of plastic pipe, tubing, and fittings.

Max pressure: 10Mpa, 16Mpa, 20Mpa, 30Mpa

Standards

GB/T 6111, GB/T 15560, GB/T 18997.1, GB/T 18997.2, ISO1167, EN921, ASTM F1335, ASTM D1598

New feature

- Leakage judge
- Rupture identification
- Overpressure protection
- No-water protection
- Automatic test saving when power off
- Continuous test after power recovery
- Test curve explore
- Calibration function

Reliability & Durability

- Advance OMRON PLC specially designed for industrial use offers closed loop control of working pressure and pressure compensation with high reliability and stability, allowing 10000 hours continuous test without failure
- Learnt from Denmark technology, accumulator is used for general pressure output, reducing frequent start of motor and pump ,prolonging services life and improving pressure control accuracy
- Imported components ensure high reliability and precision, such as pressure transducer, electromagnetic valve, accumulator, electromagnetic valve, and electric pump



Accumulator imported from Germany for pressure compensation reduces working time of motor and pressurizing system, improves pressurizing system life and ensures pressure accuracy

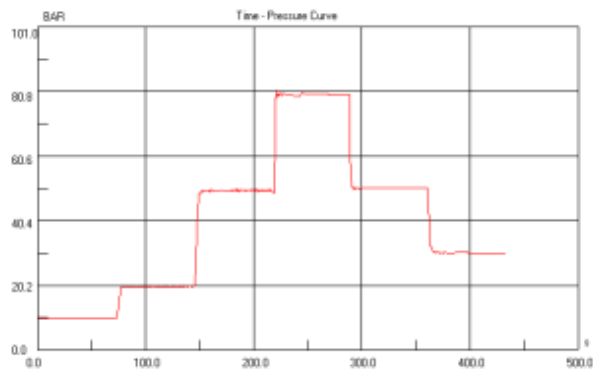
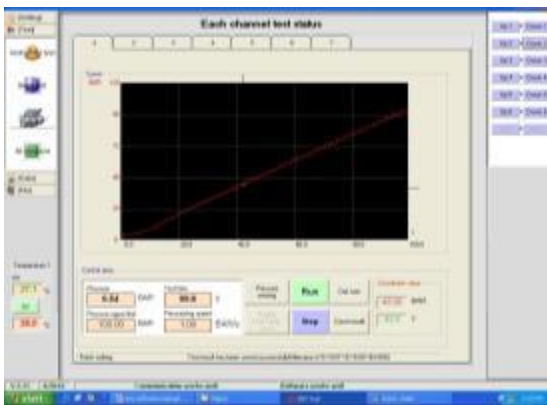
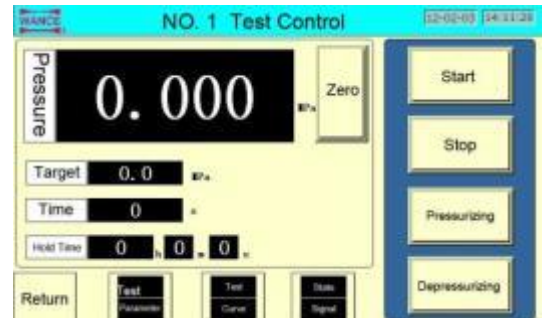
Imported electric pump ensures high stability and reliability, and improves accuracy of pressurizing speed and control

- Water filter provides high precision filtering with big flow rate and stainless mesh
- Stainless SS316 piping system features high reliability and durability.



Usability

- Wide view full color touch screen is simple for operation without PC
- Professional test software is powerful and simple to use. Real-time display of pressure-time graphics of each stations; real-time display data, and print test report; test data and report complies with OFFICE and test report is programmable according to user's requirements



- Automatically sample and analyze test data, generate test curve, save test data, and build test report.
- Modular design: user authorization management, test process setup, test curve analysis, test data review and calibration.
- Real-time display of time-pressure curve and time-temperature curve.
- Powerful test parameter setup allows hydrostatic test, burst test and graduation pressuring test.
- Continuous test function: under conditions of sudden power off or no water supply, the test can be continued with saved database after recovery.
- Curve explore: zoom in or out to view the curve, also compare multiple curves in one window.
- Report can be export to Excel, both test data and test curve.
- Additional function can be added: LAN connection and report template design

Flexibility

- 1~64 test stations are available to accommodate multiple tests separately without interference on each other
- Continuous test after power reset saves time for test
- 6 types of standard size water tank are selectable for various sizes of test specimens. Specimen can either be horizontally positioned, or vertically. Water tank can be customized for non-standard shape or size of specimen. Water tank is made of stainless steel with perfect heat preservation; auto water compensating ensures

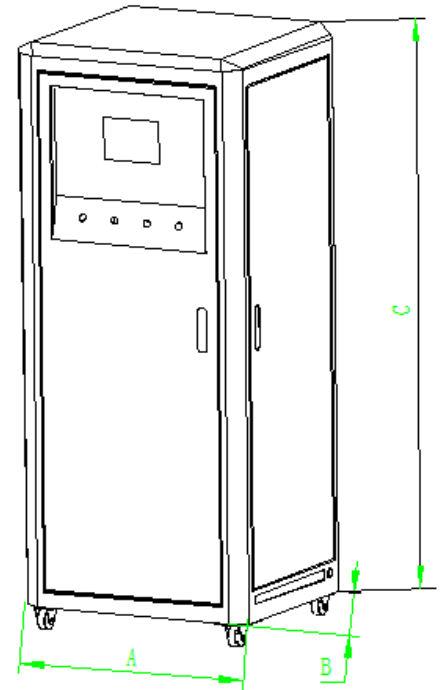
test reliability

- Optional low temperature cooling system permits non-ambient test with temperature ranging 20°C~95°C
- The end closures use German technology. Various types are available to satisfy different requirements. It's simple to prepare samples with perfect sealing



Parameters

Model	HTM107	HTM167	HTM207	HTM307
Type	Type A			
Max pressure	10MPa	16MPa	20MPa	30MPa
Specimen diameter	Φ16~Φ630			
Test stations	1~20			
Pressure accuracy	≤1%			
Constant pressure accuracy	-1%~+2%			
Constant pressure range	5%~100%(10MPa, 16MPa),10%~100%(20MPa, 30MPa)			
Timing range	0~10000h			
Timing accuracy	≤±0.1%			
Power requirements	3-phase, AC 380V, 50Hz			
Control cabinet dimension (A x B x C)	700mm×600mm×1700mm (1~6 stations) 1050mm×900mm×1700mm (7~20 stations)			
Control cabinet weight	120kg (1~6 stations) 260kg (7~20 stations)			



Standard accessories:

Name	Description	Quantity
Test stations	Made to order	N
Main machine		1
PLC control	OMRON (Japan)	N/4
Touch screen	PanelMaster HMI (Taiwan)	1
Pressure transducer	MEAS (USA)	N
Pressure meter		1
Electrical plunger pump	Interpump (Italy)	1
Electromagnetic valve	Parker (USA)	N x 2
High pressure pipeline	stainless steel	N
Accumulator	HYDAC (Germany)	N+1
Quick coupling	DIXON (USA)	N+M (M is the quantity of water tank)
Water filter		1
Test software	English version	1

Optional water tank (including heating system temperature up to 95°C)

Type	A	B	C	D	E	F
Dimension (L x W x H)	1200×800 ×800	1800×800 ×800	2100×1200 ×1200	1200×800 ×1200	1200×1000 ×1600	1200×1200 0 ×1900
Specimen diameter (mm)	≤Φ110	≤Φ400	≤Φ630	≤Φ110	≤Φ250	≤Φ400
Specimen direction	Horizontal			Vertical		
Temperature range	Ambient~95°C 15~95°C (optional cooling system)					
Temperature accuracy	≤±1°C (water tank)					
Temperature uniformity	≤±1°C (water tank)					
Test stations	One station can be divided to 1~5 branch, to connect 1~5 samples. Standard is one station and one branch					
High pressure hose	Quantity: test station number N+1 Length: A, B, D: 1 meter, C, E, F: 1.5 meter					
Quick coupling	Station number N+1					
Input connector	M14×1.5-6g (Φ5×1.8 O-ring face seal)					
Power supply	3-phase 5-line, AC380V±10%, 50Hz					
Heating power	12kW	12kW	24kW	12kW	12kW	12kW
Weight	220 kg	310 kg	380 kg	260 kg	380 kg	450 kg

- Both inside and outside are made of stainless steel 304
- Optional heating system permits tests under temperature from ambient to 95°C
- Equipped with circulation pump to ensure good temperature uniformity.
- Automatic detection of water level and automatic water compensation
- Quick couplings are stainless steel with pressure up to 34.5Mpa
- Teflon hoses are durable with temperature range -73~+232°C



Water tank (type A, B, C)



Water tank (type D, E, F)

Optional cooling system (equip for water tank)

Type	A	B	C
Cooling capacity	3600W	5200W	7200W
Power supply	Single-phase, AC220V±10%, 50Hz		
Power consumption	1.5kW	2.2 kW	2.75kW
Weight	63.5kG	66kG	72kG
Outside dimension (L x W x H)	728×420×670mm	728×420×670mm	748×440×725mm

Cooling system is used to cool down the temperature of water tank to 15°C

Water tank with cooling system



Optional end closures (end cap)

- Comply with ISO 1167, type A
- Aluminum type: $\Phi 16\sim\Phi 630$
- Stainless steel type: $\Phi 16\sim\Phi 250$
- No pull-rod outside seal is the recommend type in test standard.
- Smart design ensures perfect seal without leakage
- Specially made silicon rubber seal is one-body structure even for big size like $\Phi 630\text{mm}$, not only improving seal quality and mounting efficiency, but also satisfying long time, high pressure and high temperature tests.
- 316 air release valve can be fastened manually, simple to operate



Aluminum alloy



Stainless steel

Aluminum alloy no pull-rod end enclosure

No.	Sample diameter	O ring		Gasket			
		ISO 1167	Quantity	Diameter	Quantity	Diameter	Quantity
1	Φ16	Φ16×2.65	2	Φ10	1	Φ8	1
2	Φ18	Φ18×2.65	2	Φ10	1	Φ8	1
3	Φ20	Φ20×2.65	2	Φ10	1	Φ8	1
4	Φ25	Φ25×2.65	2	Φ10	1	Φ8	1
5	Φ32	Φ32×2.65	2	Φ10	1	Φ8	1
6	Φ40	Φ40×3.55	2	Φ10	1	Φ8	1
7	Φ50	Φ50×3.55	2	Φ10	1	Φ8	1
8	Φ63	Φ63×3.55	2	Φ10	1	Φ8	1
9	Φ75	Φ75×5.3	2	Φ10	1	Φ8	1
10	Φ90	Φ90×5.3	2	Φ10	1	Φ8	1
11	Φ110	Φ110×5.3	2	Φ10	1	Φ8	1
12	Φ125	Φ125×5.3	2	Φ10	1	Φ8	1
13	Φ140	Φ140×5.3	2	Φ10	1	Φ8	1
14	Φ160	Φ160×5.3	2	Φ10	1	Φ8	1
15	Φ180	Φ180×5.3	2	Φ10	1	Φ8	1
16	Φ200	Φ200×7	2	Φ10	1	Φ8	1
17	Φ225	Φ225×7	2	Φ10	1	Φ8	1
18	Φ250	Φ250×7	2	Φ10	1	Φ8	1
19	Φ280	Φ280×7	2	Φ10	2	Φ8	1
20	Φ315	Φ315×12	2	Φ10	2	Φ8	1
21	Φ355	Φ355×12	2	Φ10	2	Φ8	1
22	Φ400	Φ400×20	2	Φ10	2	Φ8	1
23	Φ450	Φ450×20	2	Φ10	2	Φ8	1
24	Φ500	Φ500×20	2	Φ10	2	Φ8	1
25	Φ560	Φ560×20	2	Φ10	2	Φ8	1
26	Φ630	Φ630×20	2	Φ10	2	Φ8	1

Remark:

- Quantity: means quantity for one pair of end enclosure
- Each pair of end enclosure is equipped with one sample connector, one air release valve and two spare O rings.

Stainless steel no pull-rod end enclosure

No.	Sample diameter	O ring		Gasket			
		ISO 1167	Quantity	Diameter	Quantity	Diameter	Quantity
1	Φ16	Φ16×2.65	2	Φ10	1	Φ8	1
2	Φ18	Φ18×2.65	2	Φ10	1	Φ8	1
3	Φ20	Φ20×2.65	2	Φ10	1	Φ8	1
4	Φ25	Φ25×2.65	2	Φ10	1	Φ8	1
5	Φ32	Φ32×2.65	2	Φ10	1	Φ8	1
6	Φ40	Φ40×3.55	2	Φ10	1	Φ8	1
7	Φ50	Φ50×3.55	2	Φ10	1	Φ8	1
8	Φ63	Φ63×3.55	2	Φ10	1	Φ8	1
9	Φ75	Φ75×5.3	2	Φ10	1	Φ8	1
10	Φ90	Φ90×5.3	2	Φ10	1	Φ8	1
11	Φ110	Φ110×5.3	2	Φ10	1	Φ8	1
12	Φ125	Φ125×5.3	2	Φ10	1	Φ8	1
13	Φ140	Φ140×5.3	2	Φ10	1	Φ8	1
14	Φ160	Φ160×10	2	Φ10	1	Φ8	1
15	Φ180	Φ180×7	2	Φ10	1	Φ8	1
16	Φ200	Φ200×8.6	2	Φ10	1	Φ8	1
17	Φ225	Φ225×8.6	2	Φ10	1	Φ8	1
18	Φ250	Φ250×8.6	2	Φ10	1	Φ8	1

Remark:

- Quantity: means quantity for one pair of end enclosure
- Each pair of end enclosure is equipped with one sample connector, one air release valve and two spare O rings.