HSTXG Pipe Pressure Burst Testing Machine

Picture Just for Reference

Application

The HSTXG Series hydrostatic blasting tester is suitable for the determination of the hydraulic instantaneous blasting of various plastic pipes for fluid transportation and the determination of the rupture resistance time of thermoplastic pipes under long-term constant pressure. It is a necessary testing instrument for scientific research institutes, quality inspection departments and pipe manufacturers.

The hydrostatic testing machine adopts the central cluster control of embedded PC (hereinafter referred to as PC). Each channel is a module,

Each module is equipped with a microcomputer, which is used to receive the embedded PC control instructions and realize the control. At the same time, the control information is continuously fed back to the PC through the serial bus, and the PC completes the collection and storage functions of the test data. It has the functions of pipe rupture identification, real-time

monitoring, incoming call data recovery, printing, storing test results, and sample preprocessing settings.

Standard

Standard No.	Standard Name
GB/T6111-2018	Thermoplastics piping systems for the conveyance of fluids—Determination of the resistance to internal pressure
GB/T15560-95	STANDARD test method for short-time hydraulic failure and resistance to constant internal pressure of the plastics pipes for the transport of fluids
IS01167-2006	Thermoplastics pipes, fittings and assemblies for the conveyance of fluids --Determination of the resistance to internal pressure -- Part 1: General method
IS01167-2006	Thermoplastics pipes, fittings and assemblies for the conveyance of fluids --Determination of the resistance to internal pressure -- Part 1: General method
ASTM D1598-2004	Pipe, Plastic, Under Constant Internal Pressure, Time-to-Failure of (No S/S Document)
ASTM D1599	Standard Test Method for Resistance to Short-Time Hydraulic Pressure of Plastic Pipe, Tubing, and Fittings1

Technical parameter

HSTXG-10T Pipe Pressure Burst Testing Machine	
Test pipe diameter range	D16~1000
Number of test routes	3 way(other optional)
Control method	PC control
Data preservation	Each channel has a power-off data protection function, which can be restored after power-on

Time	Timing	0~9999 hours 59 minutes 59 seconds
	Timing accuracy	±0.1%
	Time resolution	1s
	Minimum setting unit	min
Pressure	Pressure control range	0.4~10MPa can be set arbitrarily; other pressure units can be set such as: MPa, PSI or bar
	Pressure Control Accuracy	-1%~ +2%, can also be set arbitrarily
	Pressure display resolution	0.001MPa
	Measuring range	4%~100%FS
	Indication allowable error limit	Within 1% of the indicated value

Working principle

Input the parameters such as ring stress, wall thickness and average outer diameter of the pipe on the PC, and automatically calculate the test pressure. The data is transmitted to the lower computer (MCU embedded system) through the RS232 serial port, and the lower computer automatically conducts constant pressure on the pipe. High pressure pump A high-pressure liquid pressure source is generated, and through the pressure control system, the high-pressure hose is transported to the sample in the medium incubator, and the long-term hydrostatic test or blasting test of the pipe is carried out. The test results of this equipment can fully reflect the level of product quality of the enterprise.

Instrument Features

1.Main engine features (pressure center control system)

1) System main interface: Multi-layer integrated display mode, each channel can display pressure, time, temperature curve

2) Integrated modular design:The maximum pressure of the main circuit is 12Mpa, and the maximum pressure of the branch circuit is 10Mpa. The number of test stations can be combined

freely. The host can install up to 30 standard control modules. Each control module can be connected to an independent station. One host can control 10 stations independently without interfering with each other. The number of modules can be increased and decreased freely inside, which is convenient for upgrade and maintenance.

Each module can collect and control the opening and closing of a total of 2 solenoid valves in 1 station, and can collect the pressure value of 1 station. It adopts a highly reliable control chip, which resists strong electromagnetic interference and ensures foolproof control.

3) Diversified design features:It can be used for long-term hydrostatic test of pipeline and blasting test of pipe (both blasting and pressure test can be carried out for each route), and can also be used for thermal stability test of thermoplastic pipe under hydrostatic state.

Each channel has multi-stage accumulating pressure control, which has fast response speed and ensures stable pressure control; it can prolong the service life of the solenoid valve.

4) High precision and high stability:In order to ensure the long-term stability of the instrument, the technical core and key components of the machine are globally sourced, and the origin comes from famous companies and brands in the United States, Germany, Japan and the United Kingdom to ensure the high precision and high stability of the instrument.

5) Wide pressure control range:The pressure control range of each station is arbitrarily set from 0.4-10MPa.

6) Guarantee of high reliability:All electrical, mechanical and software parts are equipped with safety precautions. Such as anti-leakage, anti-short circuit, anti-static, anti-interference, anti-leakage, anti-power failure, anti-misoperation and so on.

7) Integrated modular assembly: each channel is equipped with a micro-control unit and a solenoid valve control unit, which do not interfere with each other, and the test rupture of one channel does not affect the normal test of other channels.

8) Interface in Chinese and English and user-friendly design: The main control interface has the function of real-time display of the main circuit computer pressure and real-time display of the shunt pressure peak value. In the main test interface, you can choose to display the timing pressure, set pressure, remaining time, setting pressure of each station. Set time, delay test time,

medium box temperature and remarks and many other information are clear at a glance, and you can see the content of concern at a glance without entering the single-channel interface.

9) The product is divided into three parts: pressure host, water tank, fixture. Each part of the specifications and models are selected by the user, and special customizations can also be undertaken.

2. Pressure source system:

1) The main pressure source is integrated, and one pressure source can be connected to multiple hosts

2) High main pressure and large flow

3) Wide pressure range, storage pressure can be adjusted arbitrarily

4) The automatic water replenishment module can be added to ensure that the pump body is not damaged due to water interruption

5) Low noise, safe and stable

6) The instrument comes with leakage protection and water shortage protection functions