

**HDT&VICAT Testing Machine
ZWK1302 Series**



Fig1 ZWK1302 (3,4,6 routes)

Introduction

ZWK1302 Series HDT&VICAT Testing Machine(Fig1) is mainly used for deformation temperature and Vicat test for horniness pipes and tubes materials. ZWK1302 is the latest generation of SANS' digitally controlled Automatic Deflection Temperature and Vicat test equipment, capable of testing up to six different specimens simultaneously, with an automated testing sequence that proceeds according to defined control and configuration parameters of user.

Principle

Apply constant force (by weights) to specimen dip in heated oil, to determine temperature (by thermocouple) at specified deformation (by micrometer)



Fig2. Configuration View

Features

ZWK1302 system includes one oil bath; maximally up to six test stations, maximally up to six deformation transducers, and one temperature transducer.

The system is linked to SANS' professional test software so that the PC can configure the controller (Fig3), collect the test data, generate a test report, and save the results.

All test stations are motorized raised from the bath by the touch of a button on the control cabinet (Fig2), allowing easy placement of the test specimens. Once the specimens are loaded into the respective test positions, all six stations are lowered collectively into the oil bath by motor and the test can start.

Once the software is started, the test is completely automatic and is performed according to the user-defined program. Upon test completion, the ZWK1302 automatically cools the bath to the starting temperature in preparation for subsequent tests. Using regular mains water, the temperature of the silicon oil can be reduced from a maximum of 300°C to 20°C.

Comply with ISO2507, ISO75, ISO306, ASTM D648, ASTM D1525...



Fig.3 Controller

Fig.4 Loading nose and needle



Needle for VICAT



Loading nose for VICAT

Special features

- Perform HDT and VICAT in the same station
Only change loading nose for HDT test, and needle for VICAT test. (Fig.4)

Software

PowerTest_W is designed especially for deformation temperature and Vicat test for horniness pipes and tubes materials. With a more friendly and easy operation interface, this software has a more perfect test resume function when a sudden shutdown is met. And it has a powerful monitor function on test curve and the test curve can be real-time zoomed in. There is also a more powerful function of report creation, and which made multi-route output into a single report possible.

Fig.5 Test Software for VICAT/HDT

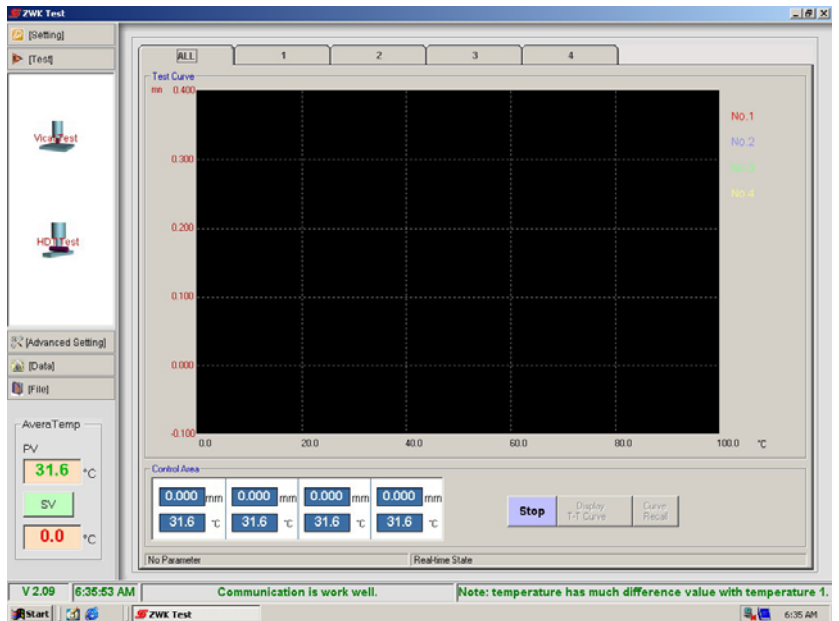


Fig.6 HDT parameter setup

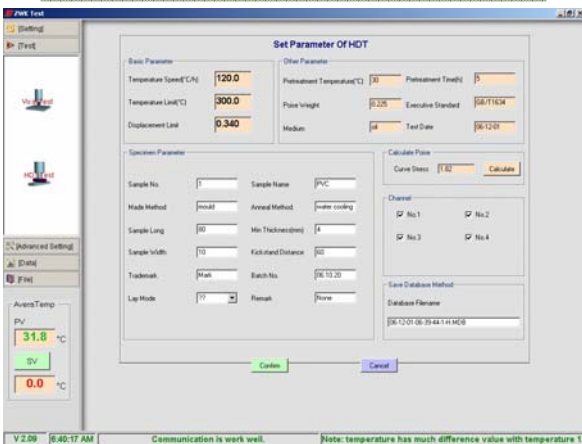


Fig.7 VICAT parameter setup



Fig.8 HDT test curve

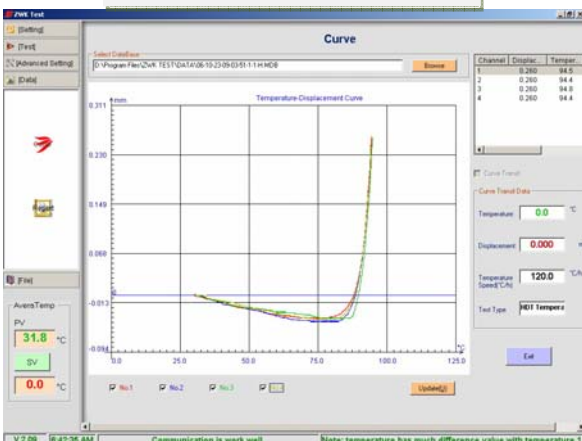
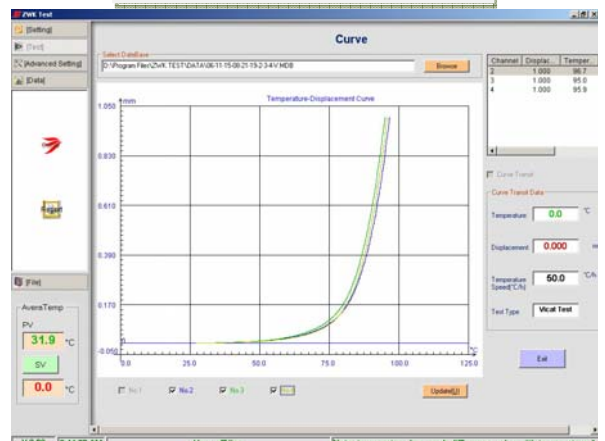


Fig.9 HDT test curve



Technical Specifications

Model		ZWK1302-1	ZWK1302-2	ZWK1302-3
Temperature range		Room temperature(20°C) ~ 300°C		
Temperature accuracy		±0.5°C		
Heating speed	Speed A	5±0.5°C/6min		
	Speed B	12±1°C/6min		
Temperature heating medium		Methyl Silicon oil or transformer oil		
Deformation measurement range		-0.5-2mm		
Deformation resolution		0.01mm		
Vicat Loading capacity:		GA=10N±0.2N, GB=50N±1N		
Deformation Temperature maximum Bending stress:		Method A: USE FIBRE STRESS 1.80Mpa		
		Method B: USE FIBRE STRESS 0.45Mpa		
		Method C: USE FIBRE STRESS 8.00Mpa		
Maximum Heat Power		4500W (three or four route)	5000W (six route)	
Power supply		AC380V±10% 50HZ 15A		
Cooling		Naturalness cooling or water cooling		
Test station		3	4	6
Test station bath		1	1	1
Micrometer		3	4	6
Temperature sensor		1	1	1

Accessories for ZWK1302-1 (3 Stations)

Description	Quantity
Main frame	1 set
Test station	3 pieces
Micrometer	3 pieces
Temperature sensor	1 piece
Loading nose for HDT	1 set
Needle for VICAT	1 set
Poise	1 set
LENOVE noted brand computer	1 set
CANON A4 color jet printer	1 set
ZWK PowerTest software	1 set