



## "HDT-VICAT" TESTER VHDT-30 model

Laboratory testing equipment for the determination of the VICAT softening point and the HDT flexing temperature in thermoplastic materials

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**TECHLABSYSTEMS**

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Advanced testing equipment for the determination of the **VICAT** softening point and **HDT** Flex temperature in samples of thermoplastic materials. This testing equipment is very effective in Quality Control and Research and Development work.

### APPLICABLE STANDARDS

ASTM D 648 - ASTM D 1525 - ISO 75-2 - ISO 306 - DIN 53460 - DIN 53461 - UNI EN ISO 75-2, UNI EN ISO 306

### GENERAL INFORMATION

The VHDT-30 tester is specifically designed to be used in the Quality Control Department for the determination of the VICAT softening point and the HDT flex temperature in plastic materials.

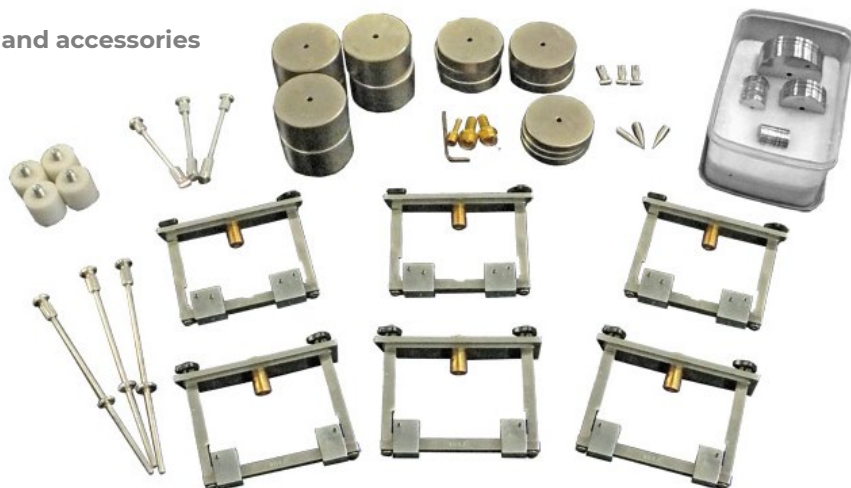
### PRINCIPLE OF THE TEST

The **VICAT** softening point is the temperature at which a 1mm 2-section flat needle penetrates a sample at a depth of 1mm

**HDT** is the flexural temperature under load, expressed as the temperature at which the sample reaches a certain arrow.

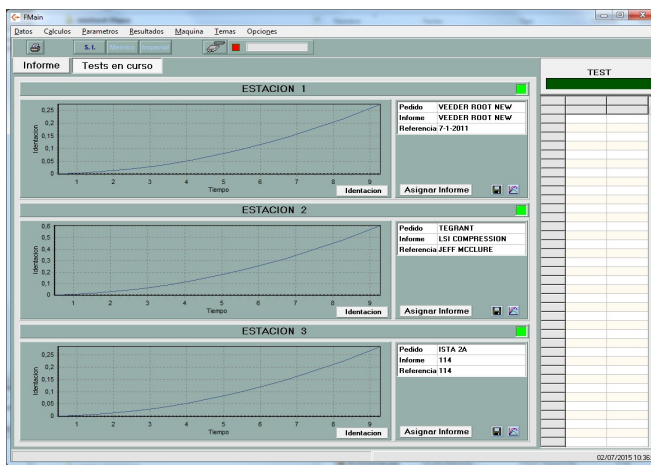
- **Robust construction**
- Interior of the bathroom in stainless steel. The interior volume design is studied in a way that ensures a perfect thermal change, both heating and cooling.
- Temperature control by PID and Pt-100 sensor
- Working temperature: from room to +250 °C
- Resolution: +/- 0.1 °C
- Accuracy: +/- 0.2 °C
- Heating rate: 120°C / Hour and 50°C / hour (configurable)
- Equipped with 3 Pt100 temperature probes (one for each test station)
- Test stations equipped with linear displacement sensors, with a range of 10 mm and resolution of  $\pm 0.01$  mm
- Set of 16 weights for each test station included: 2 of 5 g, 2 of 10 g, 2 of 15 g, 1 of 25 g, 1 of 50 g, 1 of 100 g, 2 of 200 g, 1 500g, 1 750g, 1 845g and 2 2000g (16 weights per station x 3 = 48 weights total)

Testing tools and accessories



## VICAT / HDT Testing Software for thermoplastic materials

- Quickness in the execution of tests and in obtaining results
- Without human error
- Traceability according to ISO 9000
- The software records minimum, maximum and median value and standard deviation
- Storage capacity up to 100 tests per report
- SAVE functions. PRINT AND COPY TO CLIPBOARD - Reports in PDF format



The Testing Software allows testing and determining the VICAT softening point and HDT Flex temperature on samples of thermoplastic materials.

In the VICAT test, weights of 1 or 5 kg can be selected. In the case of the HDT test, since the calculation of the load is required, it must be selected between 455 kPa or 1820 kPa.

A package with Basic Statistics is included, to be able to carry out data management, choice of language, generation of reports, library for changing test units, different levels of Password, introduction of minimum, maximum and optimal values to manage data with Statistics, Bar charts, GAUSS Bells, Comparison of Tolerances ..., export data to Word - Excel ..., PDF generation ...





### OPTIONAL: "CHILLER" Refrigeration Recirculator

- Temperature range between -10°C and + 30°C
- Equipped with Centrifugal Pump
- Cooling power at + 20°C: 520 W
- Temperature Stability:  $\pm 0.1$  °C
- Tank volume: 2.65 liters
- Maximum Flow: 6.8 liters / minute
- Maximum Pressure: 0.3 Bar
- Dimensions: 50.8 x 25.4 x 43.2 cm

• Includes hoses and connection fittings

VICAT-HDT TESTER VHDT-30 model							
Model	Application	Temperature range °C	Temperature resolution °C	Number of test stations	Dimensions W x D x H / mm	Net weight kg	Power Kw
VHDT-30	VICAT-HDT	+250	0,1	3	780x540x540	102	2,5

**POWER SUPPLY:** 110V / 60Hz or 220V / 50Hz single phase

**TRANSPORT PACKAGING DIMENSIONS (1):** 1100 x 810 x 800 mm (W x D x H)

**TRANSPORT PACKAGING DIMENSIONS (2):** 500 x 400 x 400 mm (W x D x H)

**TRANSPORT PACKAGING DIMENSIONS (3):** 700 x 450 x 500 mm (W x D x H)

**TOTAL GROSS WEIGHT:** 223 Kg (3 wooden packages with phytosanitary treatment)

### STANDARD SUPPLY CONTENT:

- \* VICAT-HDT Testing Equipment VHDT-30 + Mini PC + VICAT-HDT Software
- \* Management Module with Basic Statistics Pack:
  - Bar Charts - Gaussian Bells and Reference Comparison
- \* Mini PC - Windows O.S.
- \* Kit of 16 Weights for each test station (total 48)
- \* 3 LVDT sensors linear displacement measurement (one for each station)
- \* 3 PT100 temperature probes