

## HDT / VICAT<sup>Plus</sup> Thermoplastic Testing System

The Davenport HDT/VICAT<sup>Plus</sup> is designed to determine the temperature of deflection of thermoplastic samples in accordance with national and international standards.

The unit consists of a temperature controlled oil bath, with up to six testing stations, each of which may be configured for either HDT or VICAT test methods.

The weight loading mechanism and test fixture mountings are designed as a single unit which is lowered and raised in to the oil bath by electric motor under software control. The design of this assembly includes extensive safety features. The bath is closed off in the lower and upper positions, the oil surface only being exposed when the assembly is in motion. In addition, a nitrogen safety blanket is fitted as standard.

Individual deflection sensors for each station are mounted above the weight system with accuracy of measurement better than 0.01 mm (0.0004 in). In addition, six individual temperature sensors are fitted in the tank adjacent to the stations. This eliminates moving wires on the testing assembly and allows the sensors to be used to control the temperature of the bath.

An integral control console featuring large backlit display and membrane key pad is provided as an option to PC control enabling independent test programming, and display of each station status during test. The system is robust enough to be used in an industrial environment, as well as a laboratory. The unit functions as an independent unit, or can be PC controlled using NEXYGEN<sup>™</sup> software for HDT and VICAT tests, Lloyd Instruments' advanced test and results analysis package.

### Features

- Simple set up, operation and maintenance
- Six working stations
- Full PC integration and control using NEXYGEN data analysis software
- Six individual temperature and deflection sensors
- Integral interface allows test programming and indicates results on a large backlit LCD
- Performs tests to national and international standards
- Suitable for industrial and laboratory environments
- Nitrogen safety blanket supplied as standard

### Specifications

Temperature Measurement:	6 K-type thermocouples
Temperature Range:	20° to 300°C
Station Lift:	Fully automatic
Weight Lift:	Fully automatic for all stations
International Standards:	<b>Vicat:</b> EN ISO 306, ASTM D1525-98 <b>1/10 Vicat:</b> BS 2782 Part 1: Method 120C 1990 <b>HDT:</b> EN ISO 75-1 and 75-2, ASTM D648-98C
Safety Standards:	Minimum test weight 250 g. BS EN 61010-0 1993 (Safety requirements for electrical equipment for measurement control and laboratory use), 89/392/EEC safety directives <b>EMC:</b> BS EN 50081: 1992, BS EN 50082-1 1997
Stations:	Supplied complete with interface to bath and tips for HDT and Vicat tests (maximum 6 per unit)
Temperature Ramp Rate:	User selectable via software; 50°C/hour and 120°C/hour
Deflection/Penetration:	Digital indicators - linearity better than 0.1% FSD
System Resolution:	32 bit
Weights:	Optional - user selectable
Heating:	Immersed heating element. Fully automatic
Cooling:	Fully automatic
Volume:	15 litres tank capacity with level indicator
Medium:	Silicone oil (not supplied)
Net Weight :	70 kg (154 lb) including 2.16 kg (4.8 lb) test weight



### Specification Sheet

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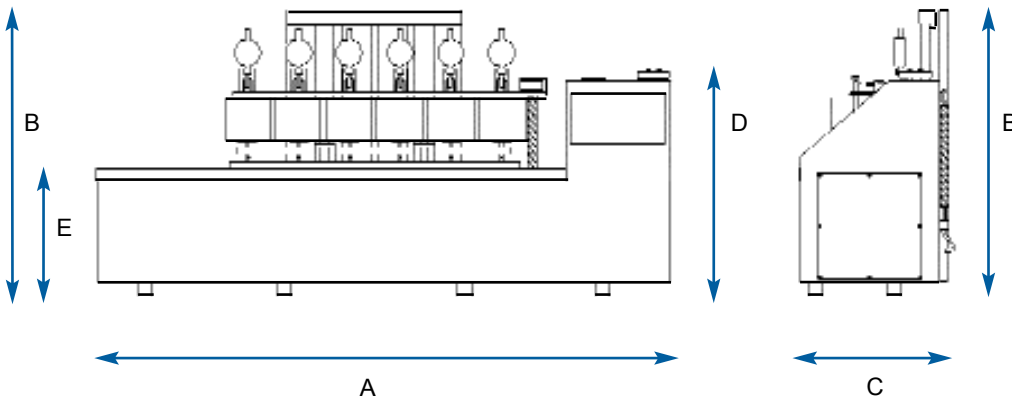
## Standard Accessories supplied with HDT/VICATPlus

Item	Part No	Item	Part No
<b>Test Weights</b>			
5050 g (11.1 lb)	WGT/0231/00	32 g (0.07 lb)	WGT/0238/00
2048 g (4.5 lb)	WGT/0232/00	16 g (0.035 lb)	WGT/0239/00
1024 g (2.3 lb)	WGT/0233/00	8 g (0.018 lb)	WGT/0240/00
512 g (1.1 lb)	WGT/0234/00	4 g (0.009 lb)	WGT/0241/00
256 g (0.56 lb)	WGT/0235/00	2 g (0.0045 lb)	WGT/0250/00
128 g (0.28 lb)	WGT/0236/00	1 g (0.00225 lb)	WGT/0249/00
64 g (0.14 lb)	WGT/0237/00	Set of 6 HDT tips (interchangeable with 6 VICAT tips)	

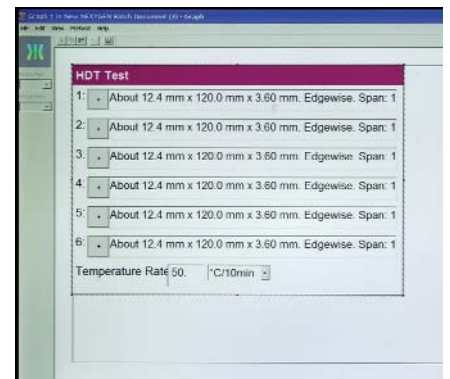
## Optional Accessories

Item	Part No
NEXYGEN™ Data Analysis Software Package	40/0734

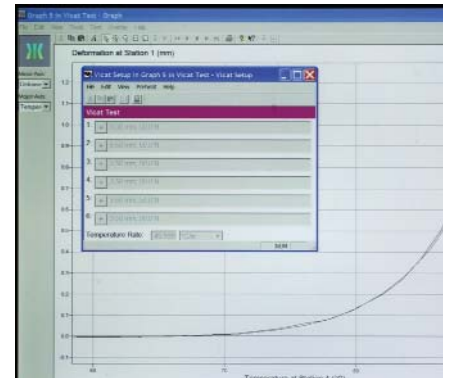
## Product Dimensions



	mm	in
A	1242	48.9
B	588	23.1
C	321	12.6
D	435	17.1
E	244	9.6



HDT Test Set Up



Vicat Test

## Ordering Information

Model	Part No	Description
HDT/VICATPlus	01/3070	115V HDT/VICAT Fully Automatic Thermoplastic Testing System
HDT/VICATPlus	01/3000	220V HDT/VICAT Fully Automatic Thermoplastic Testing System

**AMETEK**  
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