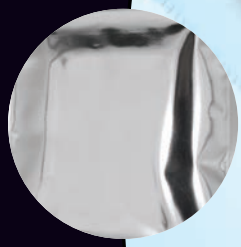
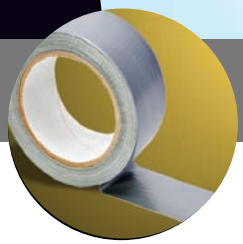
HANATEK
INSTRUMENTS





www.hanatekinstruments.com

HANATEK FT3

PRECISION THICKNESS GAUGE

- Accurate and repeatable thickness measurements
- Compliant to multiple standards
- Choice of configuration

Hanatek products are exclusively manufactured and distributed by RHOPOINT INSTRUMENTS

FT3 Precision Thickness Gauge

PRECISELY MEASURES THE THICKNESS OF A VARIETY OF MATERIALS

The Hanatek FT3 Precision Thickness Gauge quickly and precisely measures the thickness of a variety of materials.

Accurate & repeatable thickness measurements can improve product quality whilst controlling the costs associated with raw material usage.

The accuracy of thickness measurement is determined by several key operating factors, the Hanatek Precision Thickness Gauge works within the following measurement parameters –

PRECISELY MEASURES THE THICKNESS OF A VARIETY OF MATERIALS

Test Parameters • Momentum and profile of measurement head • Measurement pressure • Measurement dwell time	Physical test parameters can be factory configured according to International Standards or customer requirements. Measurement speed and dwell time are controlled by user defined parameters.
Instrument • Accuracy, linearity, calibration • Flatness/parallelism of measurement area	The instrument is linearised throughout its measurement range using a multi point calibration. Flatness of measurement head/anvil <0.1µm Typical parallelism <1µm
Operator • Incorrect recording and analysis of results • Sample handling and measurement technique	The Hanatek instrument provides full statistical analysis of data. The optional printer allows a time/date stamped results label to be attached to a job sheet or retained samples. User defined routines or the optional foot switch mean hands free operation for easy sample manipulation.
External Effects • Temperature	Temperature stability circuitry ensures the instrument electronics reach optimum conditions before testing.

DEFINED PARAMETERS

Up Time: This parameter allows the user to manipulate samples between measurements. **1-10 sec**

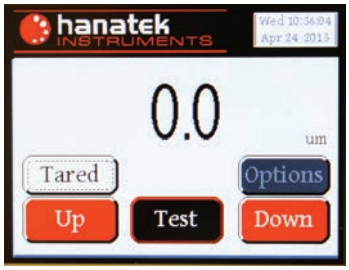
Speed of Measurement: The speed of the measurement head is especially important when measuring deformable materials. **1-5mm/sec**

Dwell/Down Time: The dwell time determines the settling time of the measuring head on compressible materials. **1-15 sec**

The instrument is operated via an integral touch screen and features different measurement modes.

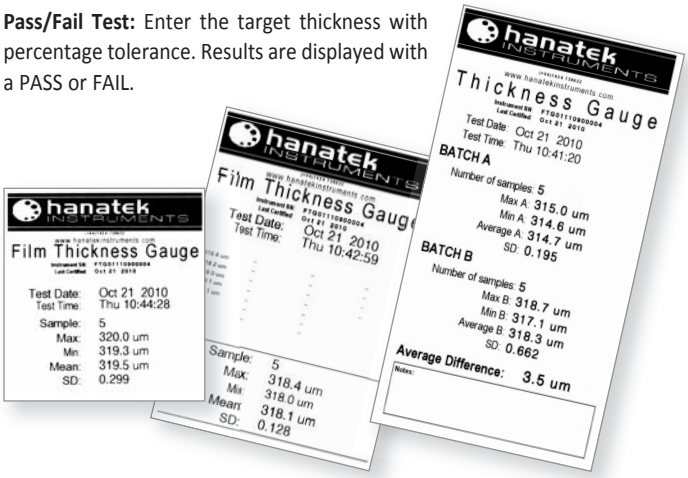
Standard Test: Full statistical analysis of up to 500 readings.

Batch Test: Calculates the thickness difference between two measurement sets, used to assess the thickness of coatings, adhesives or sample batches.



Standard Tare Test: Automatically tares the instrument before each test using user defined conditions.

Pass/Fail Test: Enter the target thickness with percentage tolerance. Results are displayed with a PASS or FAIL.



DATA TRANSFER

Measurements made using the FT3 thickness gauge can be exported to Microsoft Excel* via interface software.

All measured and calculated parameters are transferred along with the date / time stamp, instrument serial number and calibration date.

**sample excel sheets available on request*

Serial Number	FTG30811001F
Last Cal Date	Oct 01 2012
Test Date	Jan 24 2013
Test Day, Time	Thu 11:47:13
Reading 1	93.5
Reading 2	93.1
Reading 3	93.2
Reading 4	93.2
Reading 5	93.5
MAX	93.5 um
MIN	93.1 um
MEAN	93.3 um
SD	0.201

AVAILABLE CONFIGURATIONS

FT3: Standard Instrument

Fixed pressure, factory configured to meet a single test standard or specification of your choice.

FT3-V: Variable Instrument

Test pressure is varied by adding external weights to the instrument platform.

Factory configured measurement head size.

One external weight is included to achieve compliance to a second measurement standard or assess material compressibility.

Additional external weights can be applied to increase measurement pressure up to 4kg total.

FT3-U: Ultra High Precision Instrument

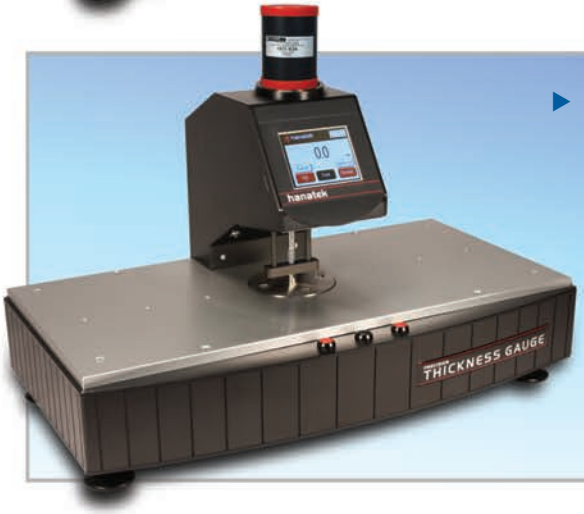
Fixed pressure configured to meet a single test standard or specification.

Enhanced resolution of 0.01µm for applications requiring ultra high precision.

Factory configured measurement mass between 50g and 500g available.

Measurement Head: 25.5mm radius domed.

Custom radius domed heads available on request.



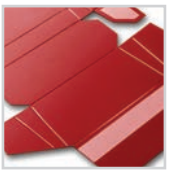
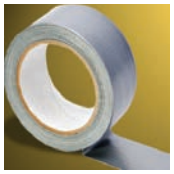
FT3-LAB: Laboratory Instrument*

Test pressure is varied by adding extra weights to the instrument platform or changing the size of the measurement head.

Two external weights and one additional measuring head included to achieve compliance to multiple standards or customer specifications.

*NB: This product is suitable for use by test and calibration laboratories as full re-calibration is required between measurement head changes.

APPLICATIONS & STANDARDS

	Application	Standard	Description	Order Code
	Carton board	ISO 3034	Board Thickness	HAN-A8041-ISO3034
	Film	ASTM6988	Thickness of plastic film, standard pressure	HAN-A8041-ASTMD6988/STD
	Film	ASTM6988	Thickness of plastic film	HAN-A8041-ASTMD6988
	Film	ISO 4593 / BS2782-6 PART B	Plastic film thickness (Rhopoint recommended configuration)	HAN-A8041-ISO4593/BS2782-6
	Film (films <25 µm)	ASTM6988	Thickness of plastic film, low pressure (films <25 µm)	HAN-A8041-ASTMD6988/LOW
	Film	DIN 53370	Thickness of film	HAN-A8041-DIN53370
	Flexible Packaging	ASTM F2251	Flexible packaging thickness	HAN-A8041-ASTMF2251
	Flooring	EN428	Resilient floor coverings thickness - Composition Cork	HAN-A8041-EN428/11.3MM
	Flooring	EN428	Resilient floor coverings thickness - at least 1 non solid layer	HAN-A8041-EN428/25.3MM
	Flooring	EN428	Resilient floor coverings thickness - Rubber and other relief materials	HAN-A8041-EN428/50MM
	Flooring	EN428	Resilient floor coverings thickness - Solid throughout	HAN-A8041-EN428/8MM
	Paper, Carton Board	ISO534	Thickness of paper and board	HAN-A8041-ISO534
	Paper, Carton Board	TAPPI T411	Thickness of Paper and Board	HAN-A8041-TAPPIT411
	Paper, Carton Board	TAPPIT411+ISO534	Thickness of Paper and Board	HAN-A8041-TAPPIT411+ISO534
	Tape	ASTM 3652	Standard test method for thickness of pressure sensitive tapes	HAN-A8041-ASTM3652
	Tape	DIN EN 1942	Self-adhesive tape thickness	HAN-A8041-DINEN1942
	Textile	ASTM D1777 PART 1	Woven, knitted and textured fabrics thickness	HAN-A8041-ASTMD1777/1
	Textile	ASTM D1777 Part 1 & 5	Woven, knitted and textured fabrics thickness & Blankets, Pile fabrics, Napped fabrics thickness	HAN-A8041-ASTMD1777/1+5
	Textile	ASTM D1777 PART 2	Coated fabrics, Narrow fabrics, Webbings, Tapes, Ribbons, Braids	HAN-A8041-ASTMD1777/2
	Textile	ASTM D1777 PART 3	Films, Glass cloths, Glass tapes thickness	HAN-A8041-ASTMD1777/3
	Textile	ASTM D1777 PART 4	Glass fiber mat thickness	HAN-A8041-ASTMD1777/4
	Textile	ASTM D1777 PART 5	Blankets, Pile fabrics, Napped fabrics thickness	HAN-A8041-ASTMD1777/5
	Textile	ASTM D5199	Geosynthetics thickness (Geomembranes only)	HAN-A8041-ASTMD5199
	Textile	ISO 2589	Thickness of Leather	HAN-A8041-ISO2589
	Textile	ISO 5084	Thickness of Textile	HAN-A8041-ISO5084
	Textile	ISO 9073-2/EDANA	Nonwoven thickness	HAN-A8041-ISO9073/2
	Tissue	ISO 12625	Tissue Thickness	HAN-A8041-ISO12625

FT3 Precision Thickness Gauge

OPTIONS

Each standard of compliance specifies a different pressure which is calculated by the force applied to the sample through a measuring head of a given diameter.

FT3

Single standard of compliance. Fixed pressure measurements.

FT3-20

As per FT3 but with extended 19mm measuring range.

FT3-V

1+ standard(s) of compliance. Pressure varied by adding external weight to the measurement platen.

FT3-V20

As per FT3-V but with 19mm measuring range.

FT3V-LAB

Compliance to multiple standards. Pressure is varied by adding external weight to the platen and by changing the measuring head*.

FT3V20-LAB

As per FT3V-Lab but with 19mm measuring range.

FT3-U

ISO 4593 standard of compliance. Fixed pressure.

*suitable for use in R & D environments or by testing laboratories.

To request a quotation that is not listed on page 5, please choose the model of instrument desired and mail to: sales@hanatekinstruments.com, providing the standard(s) of compliance and the base size required (large or small).

OPTIONAL ACCESSORIES

- Results printer

Simple reporting of results which can be attached to retained samples

- Data transfer software
- Foot switch
- Additional weights

SPECIFICATIONS

Resolution:	0.1 µm (0.01 µm on FT3-U)
Repeatability:	Better than 0.4 µm*
Reproducibility:	Better than 0.8 µm*
Measurement Range:	0 – 4000† µm †0 – 19000 µm extended range instrument also available
Output:	RS232
Power:	110V/220V 50Hz/60Hz
Accessories:	All Hanatek FT3 gauges are supplied with a UKAS traceable calibration certificate and traceable 2000 µm and 500 µm checking gauges
Options:	Results printer, foot switch, additional weights
Weight:	10kg (max)
Dimensions:	(H) 285 x (W) 302 x (D) 285 mm
Packed weight:	15.7kg
Packed dimensions:	(H) 550 x (W) 620 x (D) 430 mm
Commodity code:	9024 8019

*Dependant on operating conditions and configuration of instrument

Standard Measurement Heads for FT3, FT3-V & FT3-U:
Ball: 3mm radius
Domed: 25.5mm radius
Flat: 6 / 6.35 / 8 / 10 / 11.3 / 16 / 25.3 / 28.7 / 35.7 / 50.5mm diameter**

***Non standard heads between 6 and 50mm diameter are available on request*

Test Masses:

FT3 Standard:	50g	– 2000g
FT3-V:	100g	– 4000g
FT3-U:	50g	– 500g
FT3V-LAB:	100g	– 4000g

Certificate no: FM 29741
ISO 9001:2015

LOCAL AGENT

HANATEK INSTRUMENTS

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