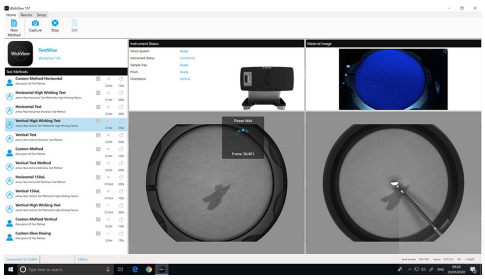
James Heal™
Extraordinary Testing Solutions

WickView

MOISTURE MANAGEMENT TESTER

WickView is a state-of-the-art instrument using advanced imaging to track and record moisture transfer through a garment, helping understand its effectiveness at moisture management and wicking behaviour.

MODEL NO: XXXX
STOCK CODE: XXX-XXX



KEY BENEFITS

VERTICAL & HORIZONTAL TESTING

WickView can be rotated to test specimens both vertically and horizontally, to better replicate how clothes are worn on the body, or how nonwovens are deployed in real life.

IMAGING SYSTEM THAT ANALYSES WICKING

High definition cameras are positioned on either side of the specimen to record the movement of moisture. Regardless of specimen colour or pattern, high definition video and accurate data of both sides of the specimen are recorded throughout the test.

INTUITIVE TESTWISE SOFTWARE

A new version of our user friendly software shows the wicking process in detail, including live capture video of the test, wet region boundary comparison and video playback.

ACCURATE WATER DELIVERY SYSTEM

A smart water delivery system ensures moisture is introduced to specimens in an accurate and controlled way.

EASY ANALYSIS OF RESULTS

Easy analysis includes the option to compare different specimens and load previous results. 9 metrics are measured, including maximum wetted area and wicking speed.

MARKET SECTORS/ PRODUCT TYPES

BASE LAYER GARMENTS

RUNNING WEAR

OUTDOOR WEAR

GYM WEAR

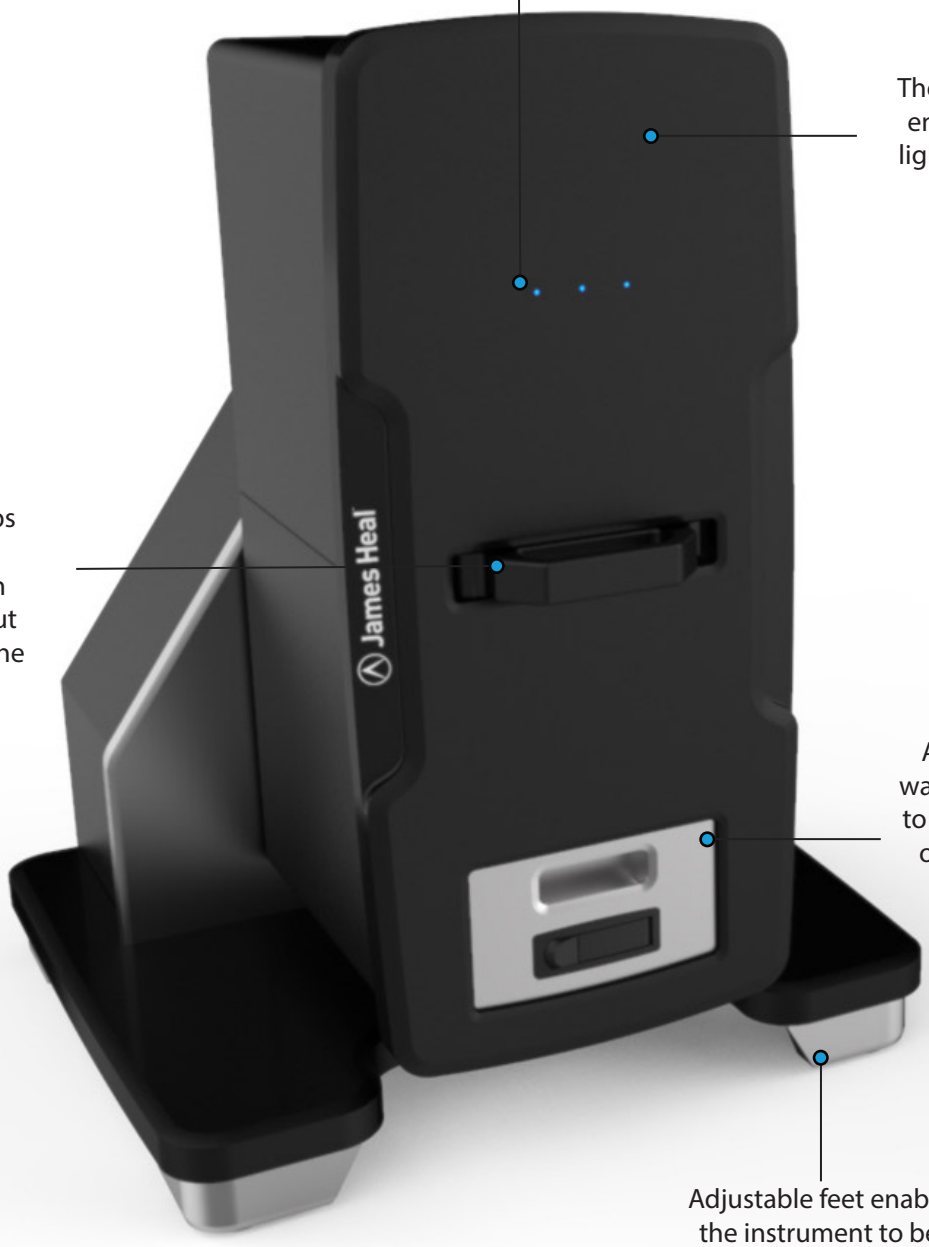
STANDARDS

WickView is a new technology designed to improve how wicking is measured, a standard is being developed for this.

PATENT

WickView is protected by an international patent (Patent Pending - PCT/GB2019/051640). No other moisture management tester on the market offers the insight and accuracy of this instrument.

WICKVIEW AT A GLANCE

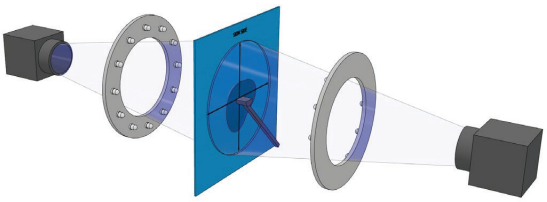


VERTICAL & HORIZONTAL TESTING

A key feature of WickView is its ability to perform both vertical and horizontal wicking testing. Being able to rotate the instrument allows testing to occur in different orientations, providing a new level of understanding into wicking behaviour.

Whether for example that fabric is used in elite sportswear (predominantly vertical), or nonwovens or linens deployed on a hospital bed (predominantly horizontal). This is a huge advantage over current market solutions and offers unrivalled insight into performance.

ADVANCED IMAGING SYSTEM

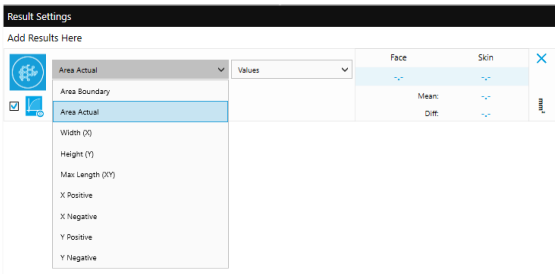


Cutting edge high definition cameras are positioned on either side of the material specimen to record the movement of the moisture. These cameras give full visibility of the test, and use Ultraviolet and Infrared light to give a perfect view of the test process, regardless of specimen colour or pattern.

TESTWISE FOR WICKVIEW

WickView is fully supported with a new version of James Heal's intuitive TestWise software and shows the wicking process in detail, including a live video capture of the test, wet region boundary comparison and video playback of how the moisture spreads.

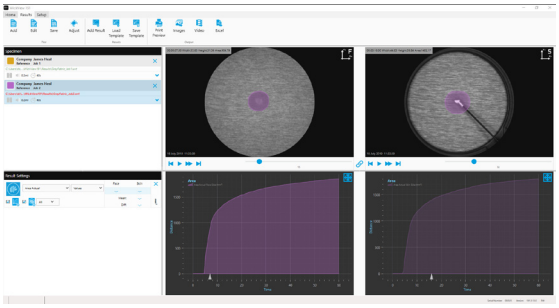
RANGE OF METRICS



There are 9 different testing metrics that can be calculated by TestWise for WickView, which can be used in combination for results analysis. The metrics are:

- Area Boundary
- Area Actual
- Width
- Height
- Max Length
- X Positive
- X Negative
- Y Positive
- Y Negative

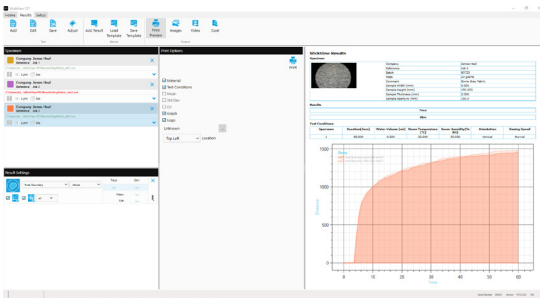
EASY AND ACCURATE ANALYSIS OF RESULTS



Analysis of results is easy with Testwise for WickView. Previous tests can be reloaded in to the software and viewed again. Several previous sample files can be compared on screen both visually and in reported results.

The way WickView calculates and records results is a truer representation of real life, in comparison to existing methods of testing. By examining the direction, shape, speed and actual wet area of fabric, WickView is accurately measuring how sweat is drawn away from a wearer's body.

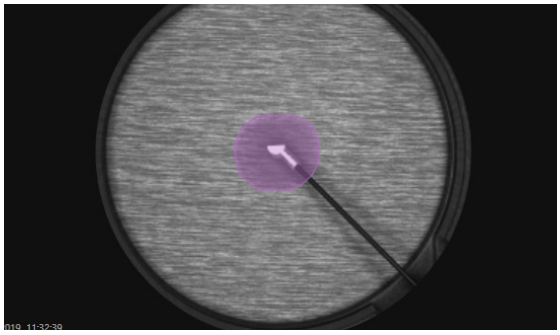
CUSTOMISABLE REPORTING



Test reports are highly configurable, with the ability to add company logos, an image of the test specimen, and choose which metrics to report on, including reference to mean calculations and standard deviation.

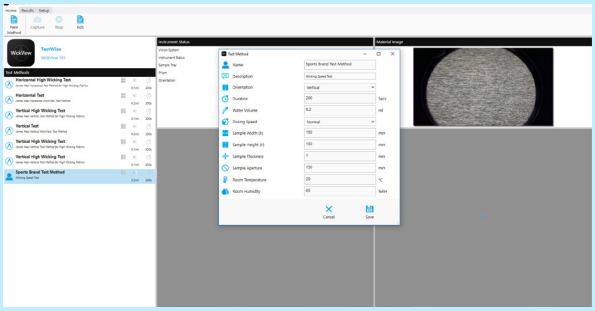
Test results can be output in the form of a pdf or excel file, and video files can also be downloaded.

WATER DELIVERY SYSTEM



WickView's water delivery system introduces moisture to specimens in an accurate, controlled way, regardless of whether the specimen is in horizontal or vertical position. The water delivery system replicates sweat – wicking isn't forced but instead the fabric draws liquid from water delivery system, as a garment would draw sweat from skin.

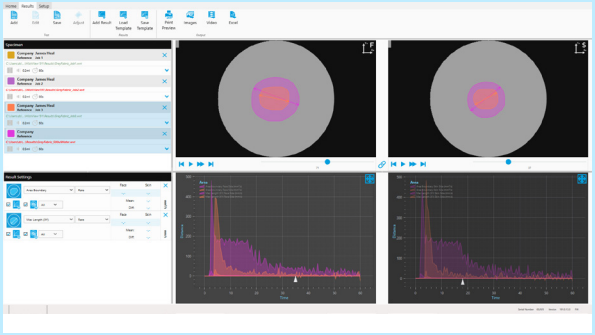
TESTWISE: KEY FEATURES



Creating a Test Method
The Test Method builder is where custom test methods can be constructed. Parameters can easily be set by the user, including duration of test, the amount of water used, sample thickness and environmental conditions. Recommend methods for horizontal and vertical wicking are pre-loaded.

Monitor Test Progress in Real Time
Once the test has begun, the user can monitor progress in real time. WickView's imaging system is designed to demonstrate the moisture management of the specimen, regardless of the colour or pattern of the material.

Observe Both Sides of Specimen
The user can observe the moisture wick on both sides of the material. On a fabric used for a garment, this would represent both the skin side, and the face side.



Analyse Results
Previous tests can be compared simultaneously, both in visual playback and reported results. For example, a lab manager could compare the performance of an existing fabric with a new one emerging from research and development. Performance between batches can also be tracked.

Unparalleled Insight
With this kind of insight at their finger tips, WickView and TestWise for Wickview represent a huge advantage to users. With better understanding of wicking behaviour, garment designers will be able to predict performance and optimise designs.

THE TEST PROCESS

1. Turn on WickView using the switch located at the back left of the instrument.
2. Ensure WickView is connected to a PC via USB cable.
   (PC with appropriate specification required - please see PC specification on page 8)
3. Open TestWise for WickView.
4. Fill the water reservoir with distilled/deionized water.
5. Rotate the apparatus to the desired orientation so that the specimen holder is either vertical or horizontal.
6. Insert the Priming Tray in the test chamber.
7. Follow the priming procedure on the PC application to ensure that any air is removed from the water delivery system.
8. Remove the Priming Tray and dispose of any excess water.
9. Prepare and condition a 150mm x 150mm square specimen.
10. Secure the specimen onto the Specimen Holder Tray, taking care with placement so that the warp/weft and the skin/ face sides are in the correct orientation.
11. Insert the Specimen Holder Tray into the test chamber.
12. Select the desired test method in TestWise for WickView PC application, (alternatively create new test method with custom parameters.)
13. Enter any outstanding test information, e.g. job reference, specimen thickness etc.
14. Press start to begin test.
15. TestWise for WickView will automatically determine the optimum light and exposure settings and begin capturing images (a live preview of the test is displayed; parameters cannot be altered during a test).
16. The software processes the captured images and displays the results. Use the toggle button to display different data on the graphs.
17. Repeat the test for multiple specimens or open previous results files for making comparisons. The prime cartridge must be inserted in between tests, however the full priming procedure (numbers 6-8) only needs to be completed once at the start of the day.
18. Export excel, pdf or video files to share results.

FAQS

Does WickView monitor humidity and temperature?

We recommend Wickview is used in a conditioned environment, for example standard laboratory conditions specified in ASTM D1776 - 21°C and 65% RH. The instrument does not need to monitor internal conditions if these recommended conditions are followed.

What is the maximum test time length?

The maximum test length is 300 secs, this allows the PC to store quality test data.

Does WickView measure drying? Could the water dose dry inside the instrument during a test?

The WickView is not designed to monitor drying. The internal heat generated from the cameras and lights is very low and will have minimal effect on the sample. There is no airflow in the instrument to aid or control evaporation. Tests should be carried out at standard laboratory conditions to produce repeatable results.

Can alternative liquids be used on WickView?

WickView is designed for testing using distilled or deionised water, and the priming function cleans the pipes for this liquid. Using other liquids, such as blood or saline solution, is not advised for various reasons, including the diameter of the feed pipe, the difficulty of cleaning after use, staining to the sample and possible corrosion to aluminium parts.

What is the required specimen size?

A 150mm by 150mm specimen is required for this test.

Can WickView measure through layers of a specimen?

It is possible to look at either side of the specimen, but not inbetween.

Is it possible to change the orientation of the fabric to look at warp and weft?

This is possible by manually turning the specimen in the casette, then comparing the results for warp and weft.

Is there a standard for testing on WickView?

WickView is a new method of measuring the travel of moisture, and for that reason there is currently no standard for this instrument. We are working with partners to develop an international test method, and also have recommended methods pre-loaded in the software. WickView is suitable for both research and development work and quality control.

Can WickView test stretchy specimens, such as leggings?

We are currently developing a stretch device for WickView for stretchy specimens. This will be available for purchase in the near future.

WICKVIEW INSTRUMENT & ACCESSORIES

Stock No:	Name:
905-100	1931 ProDry Drying Rate 201 Tester 85-264VAC 50/60Hz Compliant to AATCC 201 Comprising: ProDry Instrument ProDry Pyrex/Glass Water Reservoir ProDry 50mm Setting Gauge ProDry 10mm Setting Gauge ProDry Strip Magnet ProDry Frame Magnet Mains Lead Straight (US, EURO, UK)
201-011	ISO Certificate of Calibration for ProDry - 1931
1931-SPARES	2-Years Spares Kit ProDry Comprising: 130-853 Fuse 2A T 20x5mm 394-300 ProDry Filter 573-024 Connector Tube 716-827 Pyrex Centrifuge Tube 122 x 29 mm

TO UPDATE

YOU MAY ALSO WANT...

TruRain

TruRain is the definitive Bundesmann tester, an artificial rain shower testing instrument for determining the water repellency of textiles. It is designed with precision in mind, to reduce inconsistency and improve the accuracy and repeatability of results.

AquAbrasion

The AquAbrasion is a Wet Abrasion Tester based on the traditional Martindale instrument. It uses a controlled pump system to dose fabric specimens with liquid which keeps the specimen wet for the duration of the test. Deionised water can be used to replicate rain, or a perspiration solution can be used to replicate sweat.

ProDry

Quick-drying is an important attribute of textiles worn next to the skin, during sporting activities where the skin is likely to perspire. ProDry replicates the conditions to verify the quick-drying fabrics are performing effectively.

DIMENSIONS & WEIGHT

Instrument Dimensions	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
WickView	420	870	430	40

TO UPDATE

PC SPECIFICATION

Please take note of the minimum PC requirements to run TestWise for WickView software:

- Windows 10 64-bit with .NET framework 4.5.2
- 1 USB 3.0 port minimum
- Core i5 Intel processor minimum, 4th generation or higher
- 8Gb RAM minimum
- 128Gb SSD Hard disk minimum
- Dedicated graphics adapter with unshared display memory (eg NVidia, AMD, Intel)
- Full HD resolution (1920 x 1080) screen or higher

INSTALLATION

Item:	Comment:
Electricity	110 to 230 V ± 10%, 50/60 HZ, 60 W (mains electricity must be free from spikes and surges exceeding 10% of normal voltage) (Universal Voltage & Frequency)
Air	Not required
Bench or Floor Standing	WickView is designed to be placed on a bench
Water Supply	Water is manually filled in the easily accessible water reservoir at the front of the instrument. Distilled or deionised water is required.
Drainage	Not required
Air Extraction	Not required
Conditioning	It is recommended that this instrument is located in a conditioned atmosphere.