

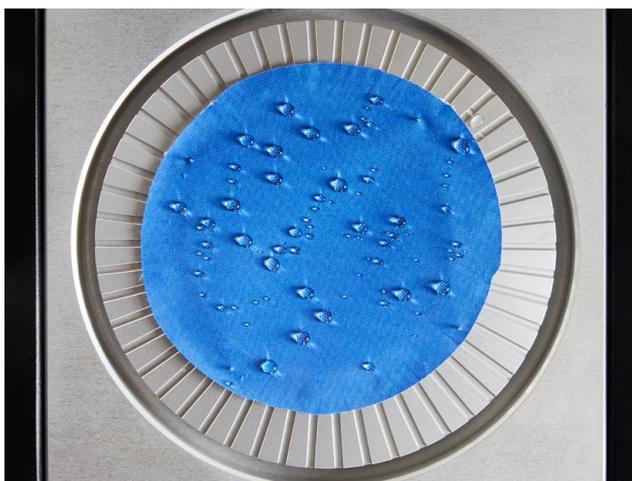
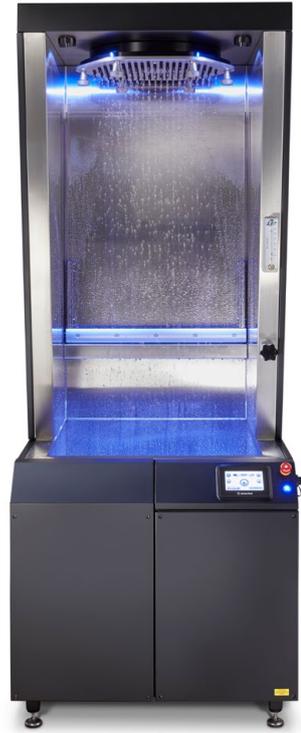
TruRain

WATER REPELLENCY TESTER

TruRain is 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 providing an accurate indication of fabric performance.

TruRain's water circulation unit reduces operating costs by 83% and water consumption by 99%, making TruRain a more sustainable Bundesmann Tester.

MODEL NO: 1930 | STOCK CODE: 905-301



KEY BENEFITS

A MORE SUSTAINABLE OPTION

By recirculating water, if you conduct 150 tests in a week, the TruRain's water consumption drops from 2100 litres to just 23. It is better for the environment and your business.

AUTOMATED SHOWER GUARD

The automated shower guard diverts water before and after each test, to keep the operator dry when inserting and removing specimens.

TESTWISE TOUCH

Our TestWise software is user friendly, automating the process of testing and alerting the user of when to grade the specimens based on the ISO standard.

EASY TO MAINTAIN

The nozzles are easy to clean and maintain. The nozzles can be primed, a process of forcing high pressure water through the system to ensure no blockages.

REMOVABLE CUPS

Cups can easily be removed using a twist motion, minimising the amount of space required for set up. All four cups can be removed individually or together on their carousel.

CENTRIFUGE

TruRain can be supplied with a centrifuge to complete the final assessment of the test.

MARKET SECTORS/ PRODUCT TYPES



OUTDOOR JACKETS



BACKPACKS



TENTS & AWNINGS



OVER TROUSERS

STANDARDS

ISO TEST METHODS

ISO 9865 - Determination of water repellency of fabrics by the Bundesmann rain-shower test



TRURAIN AT A GLANCE

300 evenly distributed precision nozzles produce individual rain drops simulating a rain shower.

The flow meter can be used to gauge the correct flow rate which should be around 20GPH.

An automatically actuated shower guard diverts the water flow before and after each test to keep the operator dry when inserting specimens.

If the water volume is out of tolerance the flow rate should be adjusted accordingly using the flow adjustment handle.

The individual touchscreen has easy to use controls, including jog rotation, lock screen, prime & activate water supply, activate shower guard functions and end test notification.

Emergency stop button for user safety

TruRain can be connected to a PC via USB port to record test results.

The recirculation unit helps laboratories reduce water consumption, reduce energy costs and increase productivity.

The adjustable feet mean the instrument can be positioned evenly on uneven laboratory floors and work benches.



An evolution in sustainable water repellency testing



The traditional 'Bundesmann' water repellency test is the industry-wide acceptable method of providing artificial rainfall to simulate the process of rain in the natural environment, to determine the water repellency of different fabrics. However, this test method is not sustainable: the running costs for testing are high and so are the environmental impacts associated with it – waste, water use and energy consumption.

Equipped with an innovative 'Water Recirculation System', TruRain is the only Bundesmann tester of its kind which reuses water during testing - resulting in significant cost savings and environmental benefits.

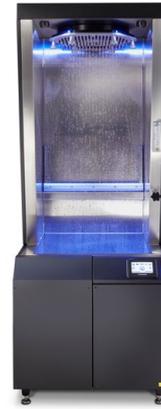


These benefits include:

- **Significant cost savings:** An 8-hour working day use of the TruRain recirculation system sees an 83% total cost savings in energy consumption and total running costs
- **Less waste:** 99% less water is used during testing alone – weekly test water usage consisting of 150 tests drops from 2100 to just 23 litres!
- **Increased throughput and productivity:** Easy to use and less 'cumbersome' than a traditional Bundesmann, tests can be run continuously for 8 hours/day, 5 days/week
- **Accurate, safe and reliable:** Through the use of an effective Water Safety Plan, health and safety can be maintained with no impact on the efficacy and reliability of test results.

AUTOMATED SHOWER GUARD

TruRain is fitted with an automated shower guard which is designed to divert water flow before and after each test has been conducted. This helps to keep the instrument operator dry when either inserting a new testing specimen or removing one which has already been tested.



TESTWISE TOUCH

The instrument is operated using our extremely user friendly TestWise software. This includes a range of functionalities including automating the process of testing and alerting the user of when to grade the various specimens based on the specified ISO standards.



REMOVABLE CUPS

Each of the four individual cups can be removed via a twisting motion, minimising the amount of space required for setting up a new test. All four cups can also be removed simultaneously by taking out the carousel.



EASY TO MAINTAIN

ProDry is fitted with 300 evenly distributed nozzles which produce the rain drops used during the testing procedure. The nozzles can be primed via a process of forcing high pressure water through the system to ensure that none of the nozzles become blocked which could impact test results.



CONTROLLED WATER SUPPLY

The water supply can be easily controlled and switched both on and off via a single button. The water pressure regulator, fitted to the instrument, guarantees complete consistency wherever in the world the testing is taking place ensuring that results are reliable and validated.



CENTRIFUGE

TruRain can be supplied with a centrifuge which can be used to complete the final stage assessment of the testing.



STANDARD COMPLIANCE

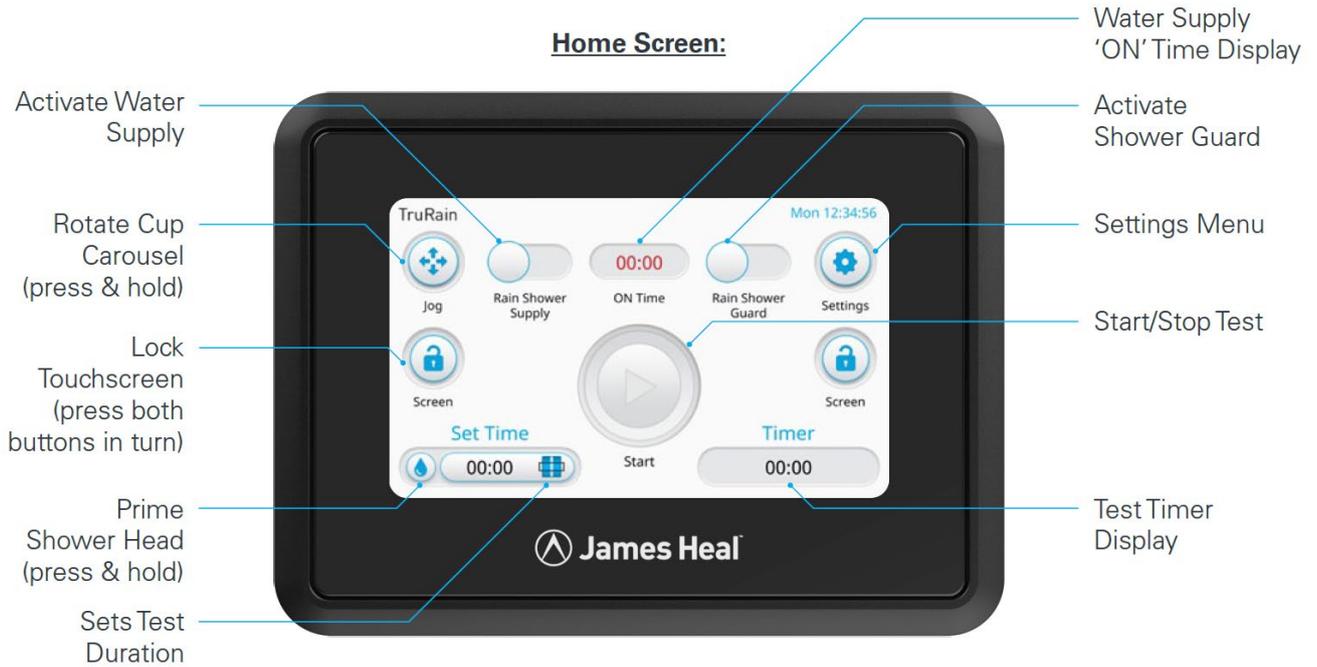
TruRain can accurately test to ISO 9865 – Determination of water repellency of fabrics by the Bundesmann rain-shower test. The TestWise touch operating system can be set to alert the user should the test begin deviate from the test standard.



ACCURACY AND REPEATABILITY

This is the definitive standardised Bundesmann tester which has been designed to simultaneously reduce testing inconsistencies while improving the accuracy and repeatability of testing results.

TRURAIN TOUCHSCREEN



Quick and easy to set a test

Clear, easy to use controls make setting up any test quick to do. Any user can pick up the process quickly as the screen is instinctive and intuitive, minimising training time.

End of test visibility

The display shows the Test End time and progress bar, which allows the user to leave the instrument to work on other tasks and return on completion, a more efficient use of their time.



User Warnings

Before performing testing, the water supply must remain on for at least 15 minutes. The 'ON Time' counter shown on the touchscreen interface will be displayed in red until this time has elapsed. A message will warn the user if they try to initiate a test in this 15 minute period to remind them they are deviating from the standard.

TruRain Languages

The TruRain Touchscreen can be set to a range of different languages. Changing the language is easy, simply access the settings menu on the top bar of the screen, and toggle through to select the required language



THE TEST PROCESS

1. Turn on the Rain Shower Guard to prevent water from landing on the cups.
2. Turn on the rain water supply.
3. Follow the Priming Procedure to ensure all the nozzles are dripping consistently after 15-minutes.
4. Set the correct flow rate by following the Flow Rate Calibration Procedure.
5. A 140mm diameter test specimen must be prepared and conditioned in accordance with the standard.
6. The test specimen must be weighed prior to testing, to an accuracy of 0.01g (dry mass m).
7. Ensure the cups are all empty of any water and that each cup drainage valve is closed. The jog button can be pressed to improve access to the cups. These can also be inserted and removed from the instrument individually by using a twisting motion to release them from the bayonet connection. All four cups can also be removed by lifting the cup carousel. An optional accessory stand can be utilised to make this process easier.
8. Identify the face of the specimen to be tested and place uppermost over the cups without any particular pre-tension, smoothing manually.
9. Place the clamp ring on top of the specimen and secure in place with spring clamps.
10. Repeat for up to four specimen and ensure that the carousel and cups are returned to the instrument.
11. Set the timer for 10 minutes.
12. Press the start button, the rain shower guard will automatically move into its vertical position exposing the cups to the rain shower.
13. The lights will flash in accordance with any alarms that have been set (1 minutes and 5 minutes by default) to remind the user to assess the water repellency by visual comparison of the wet specimens with the reference photographs in 9865 according to five grades.
14. When the test has finished the Rain Shower Guard will automatically return.
15. Assess the water repellency by visual comparison of the wet specimens at the end of the shower test with the reference photographs according to five grades.
16. Centrifuge the specimen for 15 seconds, immediately afterwards, weigh the specimen to an accuracy of 0.01g and record the wet mass.
17. Measure the volume of water that has passed through the specimen and collected in the cups.
18. Calculate water absorption and complete the test report.



TRURAIN INSTRUMENT & ACCESSORIES

| Stock No: | Name: |
|-------------|---|
| 905-301 | 1930 TruRain Water Repellency Tester 85-264VAC 50/60Hz Compliant to ISO 9865 |
| 201-010 | ISO Certificate of Calibration for TruRain - 1930 |
| 794-350 | Centrifuge Compliant to ISO 9865, this is part of the standard however some customers may not use this, and others may already have one. |
| 510-662 | TruRain Recirculation System This item allows customers to recycle their water |
| 1930-SPARES | 2-Years Spares for TruRain Comprising: 110-384 RCBO 6A 2P 30mA Type B 122-513 Diode Standard 1N4002 100V D041 130-853 Fuse 2A T 20x5mm 144-851 HH304 Audio Amplifier Interface 152-554 RELAY, PCB, SAFETY, 8A, 24V 152-560 RELAY MODULE, DPCO, 24VDC 160-474 EAO E-STOP WITH 1.5M LEAD 160-506 Pushbutton Mains Illuminated 195-348 480V Metal Oxide Radial Varistor 327-202 Water filter element 374-343 Nozzle Sleeve Flanged 374-345 Nozzle Insert Deep Grooves 383-419 HTD Belt 800-8M-20 |

YOU MAY ALSO WANT...

WickView

This state-of-the-art instrument assesses the wicking ability of different fabrics. It uses an advanced imaging system to track and record the transfer of moisture through a garment, in both horizontal and vertical orientations.

This replicates the build-up of sweat during a sporting activity where skin is likely to perspire, helping organisations to understand if the fabrics they are using are quick-drying.



AquAbrasion

The AquAbrasion instrument is an accurate and repeatable way of conducting wet abrasion testing. This is a crucial step when looking to establish the durability of outdoor wear.

It uses a controlled pump system to dose fabric specimens which helps to keep fabric or material wet for the duration of the test.



ProDry

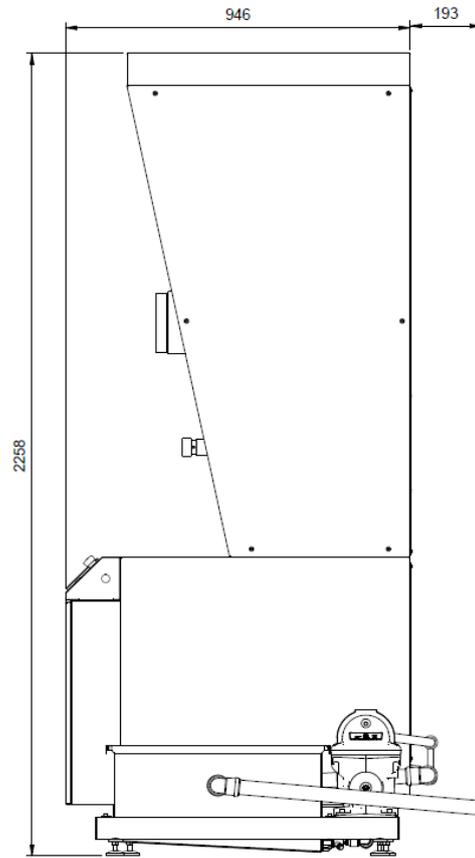
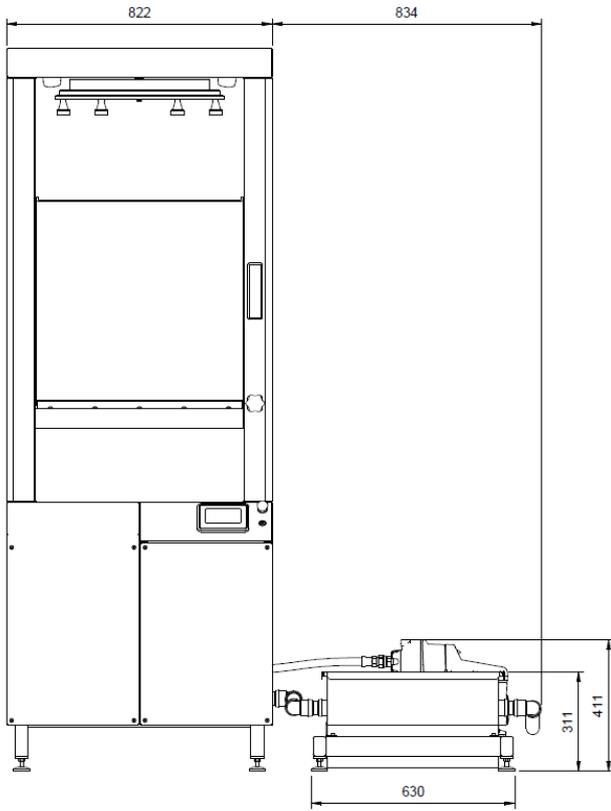
It is important that garments worn next to the skin during sporting activities are able to dry quickly. ProDry has been specially designed to assess a fabrics ability to do this.

The instrument provides unparalleled insight into evaporation, and how different garments will dry after becoming damp through rain or sweat.



DIMENSIONS & WEIGHT

| Instrument Dimensions | Height (mm) | Width (mm) | Depth (mm) | Weight (kg) |
|-----------------------|-------------|------------|------------|-------------|
| TruRain | 2260 | 830 | 1000 | 270 |



| Item: | Comment: |
|-------------------------|---|
| Electricity | 110 to 230 V \pm 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 | Floor Standing |
| Water Supply | Cold Water Feed: 3/4 inch BSP |
| Drainage | The drainage for the TruRain can be either from the mains or the James Heal Re-Circulation unit. Cold Water Feed: 3/4 inch BSP |
| Air Extraction | Not required |
| Conditioning | It is recommended the instrument is located within a conditioned atmosphere |