



# Weather Meters



Products and materials that surround us in our everyday lives are fated to deteriorate and meet their end by being exposed to many different forms of weather environments such as light, rain, wind, and a variety of different temperature and humidity conditions.

Various researches are conducted in order to accurately predict the deterioration of these materials.

As a professional manufacturer of weather meters and weather meter lamps, Suga Test Instruments continues to grow as a global enterprise by assimilating its knowledge and experiences it has cultivated over the years and by responding to the needs of customers.

Representing Japan with determination since its foundation, Suga will continue to be the enterprise that serves the society through our "Suga-only" products.

*Only* SUGA  
*Only* SUGA

**Achieving supremacy as the expert maker of weather meters.**

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Please inquire us additionally about transportation, installation and other supplementary works. Also there are locations where some of our products cannot be exported. For more details, please contact our international sales department. [i\\_sales@sugatest.co.jp](mailto:i_sales@sugatest.co.jp)

## 2. Super Accelerated Weather Meters

Metal halide arc



### MV3000 3kW Metalizing Vertical Weather Meter

#### The answer to the demand for super-acceleration

This is the world's first super-accelerated weather meter model with a vertical metal halide lamp as its light source (patented in both Japan and the U.S.). Its design where specimens rotate around a vertically placed lamp allows for more specimens to be placed than models where specimens must be fixed in a single location. This allows for improved distribution of irradiance, temperature and humidity.

Light source	Vertical-lightning metalizing lamp M3.0 (3 kW indirect water-cooled type)
Test types	Light only, light & spray on front face (rain), dark only, dark & spray on back face (dew)
Irradiance	530 W/m <sup>2</sup> at 300 to 400 nm (filter requirement example: quartz inner filter and #255 outer filter)
	830 W/m <sup>2</sup> at 295 to 450 nm (option)
Temperature and humidity range	Light test : 63 to 85 ± 1 °C of Black panel temperature (BPT) , 50 ± 5 %rh (at 63 °C of BPT)
	Dark test : 30 to 50 ± 1 °C of chamber temperature (CT), 95 ± 5 %rh (at 38 °C of CT)
Number of specimens	Maximum 15 pieces (150 × 70 × 1 mm) at rack diameter of φ400 mm
External dimension of the instrument	Approx. width 105 cm, depth 139 cm, and height 204 cm [weight: approx. 570 kg]

Hydrogen peroxide solution



### SX-H<sub>2</sub>O<sub>2</sub> Ultra High Accelerated Weather Meter

#### A new axis of weathering using a Hydrogen Peroxide Solution Spray Feeding Device

Weather-resistance of paint can be evaluated with acceleration factor of approximately 100 times or higher compared to outdoor exposure. Pure water and hydrogen peroxide solution will be mixed in the supply tank automatically to offer the same density safely and constantly.

Built-in function of Spray feeding device	Automatic adjustment function
External demension of test instruments	*Weather meter Approx. width 105 cm, depth 115 cm, height 204 cm [weight: approx. 400 kg]
	Spray feeding device Approx. width 805 cm, depth 1050 cm, height 1375 cm [weight: approx. 260 kg]

\*Please refer the main function of this product on p.8 "SX75"

\*The test instrument is manufactured and distributed by Suga Test Instruments Co., Ltd. under an agreement with Toyota Central R&D Labs., Inc.

Spectral aging



### SPX Spectral Radiation Tester

#### Determining the fastness wavelength of a specimen via spectral radiation

Divides the xenon light (similar to sunlight) into high resolution spectrums, and radiates strong ultraviolet and visible light. It is used for determining the fastness wavelength of paints, plastics, textiles, medical products and fluids.

Light source	Xenon short-arc lamp (300W air-cooled type)
Spectroscopy	Reflection grating
Wavelength	Switchable between 220 to 520 nm and 400 to 700 nm
Area of irradiation	Approx. width 160 mm, height 17mm
Optical resolution	Approx. 2 nm/mm (per 1 mm slit width)
Slit	1 to 10 mm continuously variable
Energy monitor	Monitors the lamp's life by observing its 300 nm light energy
Safety devices (terminating the operation)	Cumulative irradiance limit met, irradiation time limit met
External dimension of the instrument	Approx. width 77 cm, depth 67 cm, height 65 cm [weight: approx.100 kg]



Point 1

Environmentally friendly air conditioners with no factor of ozonosphere destruction.

Point 2

Combination of TM heating/vaporizing systems and inverter cooling system\* that allow temperature and humidity control with minimal amount of energy and water. \*excluding certain models

Point 3

Accelerated weather meters equipped with a touch panel controller also include paperless recorder. No inks or papers necessary.





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