SMARTVISION
IN LINE QUALITY

NEW

Fast, Automatic, Industrial, Innovative, Powerful

Universal_Tester
SunGlasses & SkiGoggles Tester for Automatic Check
of Refractive Powers, Transmittance Uniformity & Polar Axis

About Universal_Tester

Refractive Powers, Transmittance Uniformity & Polar Axis Tester

"Universal_Tester allows Automatic Check of Refractive Powers, Transmittance Uniformity & Polar Axis for SunGlasses & SkiGoggles according to International Standards"

Automatic & Multi-Purpose

Innovative SunGlasses & SkiGoggles Tester for **Automatic Check of Refractive Powers, Transmittance Uniformity & Polar Axis in according to enabled International Standards**.

Universal_Tester offers Great Adaptability to use thanks to **Different System Management Modes** that perform only the tests are needed:
• **Universal_Tester Mode** (Full check)
• **Smart_Tester Mode** (Uniformity & Polar Axis check)
• **Smart_OptiBench Mode** (Optical Powers check)

Fast & Easy

SunGlasses or SkiGoggles are placed in a tool that simulates a **Headform according to ISO 18526-4** (Type 1-M Standard, 1-S & 2-M Optional) and **Universal_Tester controls the whole test area** in short time, avoiding operator's interpretation and influence.

While watching the **real-time video streaming** coming from the internal camera, the operator can control the alignment and visually check the **gradient pattern orientation**. It is possible to examine relative differences in position and inclination between the filters.

Industrial & Productive

Universal_Tester is Rugged, designed for hard industrial environment and heavy duty cycle use, and perfect for production quality inspection close to the line control or at incoming review. Its **user-friendly design** and the **intuitive software interface** makes it extremely easy-to-use even for unskilled workers.

Accurate & Smart

Universal_Tester provides **accurate and repeatable measurements** and shows an **immediate feedback on the test**, thanks to a simple « Pass / Fail » semaphore output, in addition to over all the complete results with values on the screen view. The **results can be also print or export** in excel and pdf files.

Optional All-in-One PC

• Powerful All-in-One PC, 24" Full HD
• Monitor resolution 1920x1080 pixels
• Height adjustable & tilt swivel rotate position
• Genuine Windows 11 PRO 64-bit
• Pre-installed TeamViewer app Support

Dedicated Software

• Easy-to-Use with an intuitive GUI
• Camera live view for precise positioning
• Customizable setting parameters
• Full automatic data report
• Remotely managing Software Options
• Upgradability for future Standards
• Hardware License Key

Universal_Tester

Hardware Features

Self-Contained Sliding Door for
External Light Protection

○●● Multi-Color Active Logo
●●

Easy-Access Measuring Chamber
Three Sides Open

Designed for Industrial Production

SMARTVISION

Multi-Purpose Instrument

Reading Button & Emergency Stop

Black Opaque Painted Aluminum

Interchangeable Tools Support

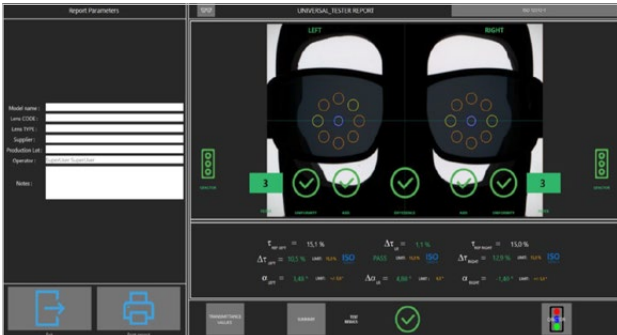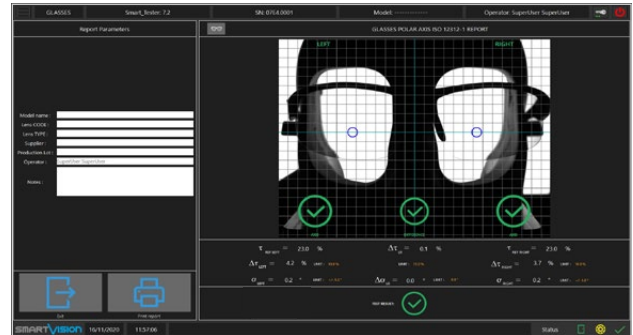## Dedicated Smart Tools

Smart_HeadForm

Polar_Reference_Tool

Universal_Tester
Software Features

Uniformity Check: immediate display of the test result «Pass/Fail» with graphs and uniformity values
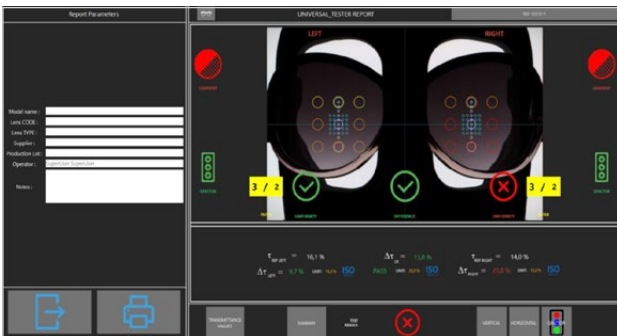

Polar Axis Check: immediate display of the test result «Pass/Fail» with graphs and polarization trend values

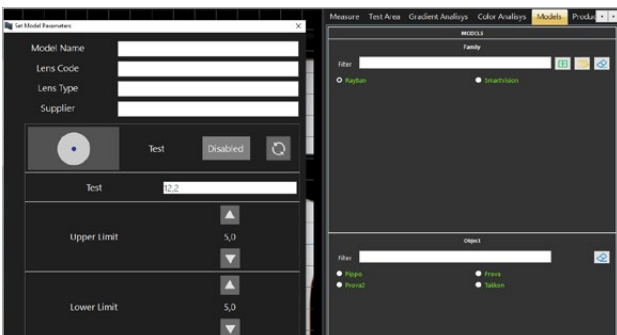**Refractive Power Check:** immediate display of the test result with the power values

Optical Quality Check (*Option*): Measurement the quality of the lens (Loss of Sharpness and Contrast)

Gradient Profile Check: System check gradient profile both along vertical axis and, optionally, the horizontal

Color Matching (*Option*): System check the colorimetric differences in terms of estimated ΔL, Δa, Δb and ΔE

Models Management: Database of different models including whole measurement setup

Sharing Data Results: PDF and Excel data report with complete information on tests performed

Universal_Tester
Features & Benefits

Main Features	Related Benefits
Unique instrument to Check: Refractive Powers, Transmittance Uniformity & Polar Axis	Greater adaptability with differents modality of use/configuration
	Test according to International Standards
	No user intervention in the test
Wide Measuring Chamber with Backlight LSM	Ergonomic, Fast, Easy accessibility and Accessories replacement
	Full block of External Light
	Improved testing performance
Grid Overlay Visualization	Perfect frame alignment
Live-View of Whole Spectacle	Accurate as-worn frame loading, avoiding T% measuring errors due to wrong position
	Enhanced visualization of Gradient lenses defects
Models Management	Automatic machine setup for any loaded model
	Allows unskilled user to properly use the instrument
Light Intensity Tool	Enhanced real-time visual inspection of the lenses, eases the defect evaluation
Full Automatic Data Report	Full automatic Production Batch in Excel file
	Full automatic Technical Data Sheet and printables reports
	Full traceability of the performed test
Advanced User Management	Security: each user is password protected
	4 access level: each user can only access the functions for which he is enabled
	Traceability: user's name is showed in each measurement performed report
Different Test Modes with two Sub Systems	Run only the needed tests
	Unique or Single Report with all data test

Smart_Tester Sub System Main Features	Related Benefits
Continuous Auto-calibration	No intervention of the user and no visible calibration
	No interruption of the measuring cycles
Filters Category Check Feature	Automatic transmittance tolerance evaluation
Simultaneous 20 Points Measurement	Fast simultaneous check without any movement of the target
	No need of lens marking and dismounting as per traditional method
Configurable Matrix and Reference Points Set-up	Allows testing any dimension and geometry frame
	No hardware setup is required
Line Measurement Tool (with angle)	Uniformity area compliance check with international standards requirements
Visual Feedback	Immediate feedback of non-conforming tested points
Thickness Compensation (Option)	Easy check of different lens shape
Gradient Profile Check (Option)	Allows objective Quality Control of the gradient shape
	Without model: check the profile gradient between left and right lens
	With model: check the profile gradient between reference model & left-right lens
Color Matching (Option)	Easy check of colorimetric differences
Signal Light Check (Option)	The system estimates the Qfactor Red, Green, Blue, Yellow
Square - Round Shape Measuring Pattern	Adaptable to a wide range of frame shapes
Absolute Transmittance Values	Displays absolute transmittance values in reference points
Mandatory Production Data	Capability to automatically collect mandatory production data for each test

Smart_OptiBench Sub System Main Features	Related Benefits
Test equivalent to Telescope Method	Save Space, more compact instrument than the Optical Bench
Automatic Measure of Refractive Powers for Afocal Sunlenses	Allow at unskilled users to property use the instrument
Quality of the Lens Check (Option)	Allow comparison of different materials and coatings to improve quality of lenses

Universal_Tester
Technical Specifications

Dimensions (mm)	1100x470 H.315 (emergency button included)
Weight (kg)	60 (excluding PC, tools and cables)
Power Supply	110-230 Vac | 50-60 Hz
Consumption	4 A
Communication Interface	USB 3
Case	Black Opaque painted Aluminum
Software Interface	Language: English
User Management	4 Different Levels: User, SuperUser, Maintainer, Administrator (with password login and editable rights)
Export Data Report	xlsx, xls, pdf
Production Batch	csv
Statistical Analysis	Ready to connect with SPC software
Optional PC Device	Powerful All-in-One PC, 24" Full HD, Monitor resolution 1920x1080, Windows 11 PRO 64-bit USB Drive with Backup Software (bootable system startup) Pre-installed TeamViewer app Support

Reach Excellence in Quality Control
with SmartVision's Technology

FAST   EASY   ACCURATE   INDUSTRIAL   COMPACT   PRODUCTIVE   MADE IN ITALY

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