

## Elbit Vision Systems Ltd. (EVS)

EVS is a leading global supplier of vision empowered process monitoring systems. For over two decades, our cutting-edge computerized surface inspection technology has brought to our customers a significant increase in productivity and efficiency, by enhancing yield and reducing operational costs.

With hundreds of operative installations in Europe, North America, South America, Asia, the Pacific and Africa - EVS maintains an all encompassing global customer support team. Over the past 20 years, EVS has accumulated vast experience in collaborating with multi-national partners, enabling its customers to effectively apply "cross-continent" automatic inspection procedures & standards.

# SVA™

## Shade Variation Analyzer



Your **Quality**  
Our **Vision**

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SVA, a new generation in shade monitoring technology developed by EVS, is a compact yet powerful tool that monitors shade variations in almost any process where color is critical. SVA offers much more than a moving spectrophotometer; it provides a real time shade variation data in an accessible and user friendly manner never offered before.

Inspected fabric shade standards, can be provided from different sources. The system quality analysis tools continue to be utilized by the user following the inspection, as it also includes automatic cut planning and sorting options designed to maximize profits from the dyed fabric rolls. The system's qualities and features are gathered into a modern and compact frame for easy integration with any production line and can be viewed and operated from any local area networked PC.

Feature	Details
Fabric Width	Up to 220
Fabric Speed	Up to 150 meters/minute
Number of measurements	3 width measurements: left, center and right
Spectrophotometer accuracy	0.1 $\Delta E$
Light source standards	Light source standards Up to 10 different light sources: A,B,C,D5, D65,D75,TL84,F2,F2CWF,F12U30
Alarm	Visual alarm activated on predefined threshold deviations
Main modes of operation	Remote Inspection: real-time monitoring of inspected roll using a remote computer Queue: An inspection roll's buffer work plan
Installation	Horizontal Installation
External Interface	<ul style="list-style-type: none"> <li>Length meter signal and serial communication connections to EVS IQ-TEX system</li> <li>Seam detector-automatic detection of roll's end to end – Optional</li> </ul>
Environmental conditions	Operating temperature range: 1 to 50° C (34 to 122° F), with internal cooling.
Electrical power requirements	Main power supply: Single phase 220/120VAC, 60/50 Hz Power consumption: Maximum 3KVA
Compressed air	Compressed air 6 Atm., oil free and dust free dry air. Volume: 0.5 cubical meters per hour

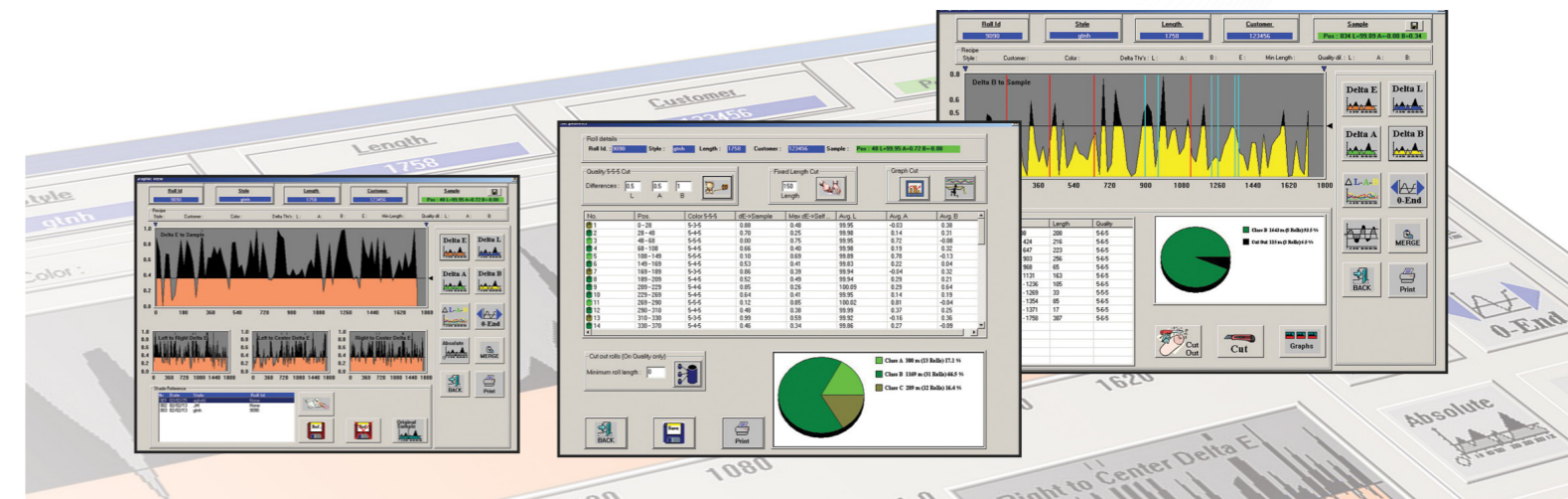
- Improved first choice yield
- Enhanced process control
- Consistent shade of end product by batch-to-batch and batch-to-sample comparison
- Major reduction of lab sampling - reduced operational burden
- Immediate identification of faults originating at the dyeing-finishing process
- Optional automatic feedback to the dyeing control computer
- Reduced customer claims
- Shade sorting by correct utilization of the results
- Accurate data for optimized roll cutting
- Shade variation analysis using absolute scientific values

## Data analyzing

- A flexible report generator supplying a wide range of quality reports
- Separate or combined graph displays of CIE - L\*a\*b or CMC shade measurement and  $\Delta E_{lab}$  calculation
- Numerous shade readings of every selected point on the roll
- Beginning to end and side to side displays
- Zoom-in on any selected piece of the fabric
- Relative and absolute scientific values according to standards
- Convenient threshold adjustment

## Real time feedback

- Real-time graph display ( $\Delta E$ ,  $\Delta L$ ,  $\Delta A$ ,  $\Delta E/CMC$ , etc.)
- Pre-defined thresholds for each graph
- External alarm - activated upon identification of deviations, exceeding the threshold
- Real-time monitoring display at any networked remote PC
- Seam detector for automatic recognition of a new roll (Optional)
- Output to a marking device (Optional)



## SVA technical features

The SVA is based on a moving spectrophotometer for side to side and beginning to end shade measurements.

- Spectrophotometer accuracy of 0.1  $\Delta E$
- Standard CIE - L\*a\*b\* shade measurement
- L\*a\*b\* or CMC  $\Delta E$  calculation
- Choice of 10 light source standards
- Built-in 555 color matching software
- Digital shade standard library
- Cut-planning tools

## Roll cutting

The system offers several cut-planning options, which can be displayed on the monitor prior to the roll cutting, to ensure a uniformed color lot.

In order to eliminate off-shade pieces from the fabric, the system offers planning of "cutouts" according to predefined quality classes. The fabric shades are sorted using the 5-5-5 color matching method.

## Selection of shade standards

- Fabric swatch - allows the loading of an actual shade standard swatch into the system, using the sample drawer.
- Selected point on a monitored fabric roll.
- Previously inspected roll stored in the roll's digital shade standard library.

