

**// SUPER technology for precise  
web viewing:  
SUPER HANDYScan 4000.**

*Be inspired. Move forward.*

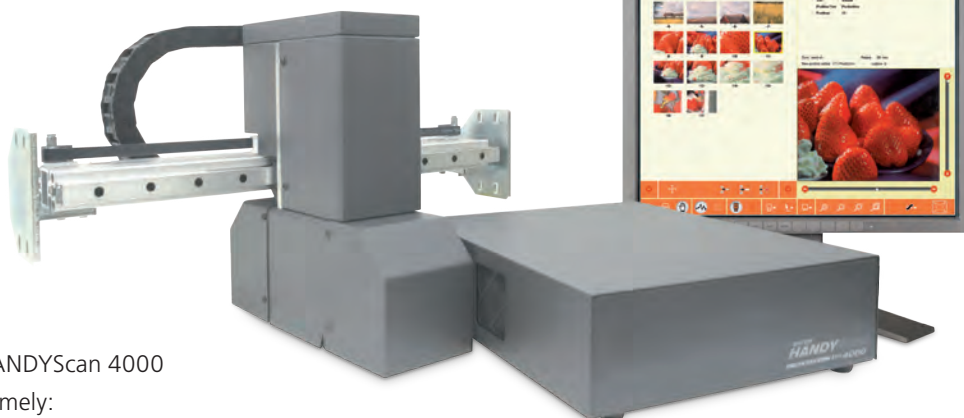
# // QUALITY: RELIABLY PROTECTED. PRODUCTIVITY: SUSTAINABLY INCREASED.

**Web viewing that sets standards: BST SUPER HANDY-Scan 4000 stands for quality control with the SUPER factor. The PC-based system with high-resolution digital camera impresses with:**

- State-of-the-art **technology**,
- Space-saving **single-monitor concept**,
- **High-resolution images**,
- Numerous **web viewing options** and
- Extensive **equipment**.

With the high-performance quality management concept of the SUPER HANDYScan 4000 System, you profit in multiple ways, namely:

- Less **time and money expenditure**,
- **Reduced waste**,
- Quick **system set-up**,
- **Increased productivity** due to automated print monitoring and
- **Increased customer satisfaction** due to high-quality printed products.



**1** Saved positions in the position gallery

## Impressive performance for first-class results

- **State-of-the-art technology**
  - 100 percent digital concept for precise data processing, high degree of system stability and more storage options
- **Outstanding image replication**
  - Digital camera for precise web viewing with fine image quality, sharp contrasts and natural colors
  - Available with 125 mm x 95 mm (5 x 4") and 225 mm x 169 mm (9 x 7") field of view
- **Multiple functions**
  - Comprehensive equipment, even in the standard product
  - Multiple functions such as split screen overviews, position memory with gallery function and numerous zoom options
- **Intelligent system concept**
  - Single-monitor solution: Image display and simple operation on one touch screen
  - Web viewing and central system operation, even when space is limited
- **Convenient operation**
  - Fast job set-up
  - Intuitive, multi-lingual user navigation
  - Clear menus
- **Individual configuration**
  - Modular design for flexible integration of hardware and software options, such as a second camera or repeat overview function

# // SUPER FUNCTIONS FOR PRINT QUALITY IN PERFECTION



## 1 Position Memory with Gallery Function

- Fast split-storage, convenient recall and easy management of **up to 16 camera positions** (including the settings for zoom, iris and strobe selection)
- Display in clearly laid-out **position gallery**

## 2 Multi Function Split Screen

- **Split-screen function** for effective web viewing
- Simultaneous display and direct comparison of **reference image (golden sample)** and **live image**
- Screen display can be **split horizontally and vertically**



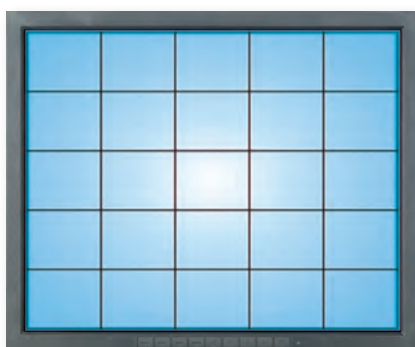
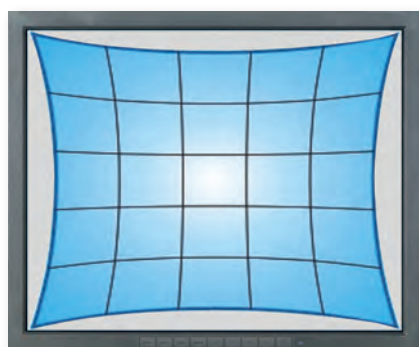
## 3 Pincushion Compensation

- Innovative components minimize **pincushion and barrel effects** (unwanted cushion or barrel-type distortion of the displayed image)
- Long-lasting **effective improvement of the image validation**

## 4 Quick Zoom

- Time-saving and cost-reducing **recall of frequently used zoom values** at the push of a button

- 2 Split screen with horizontal and vertical screen splitting



- 3 Distorted image  
Image with distortion compensation



- 4 Quick Zoom, minimum zoom (left)  
Quick Zoom, maximum zoom (right)



# // 100% SUPER: INNOVATIVE FUNCTIONS FOR PRINT QUALITY IN PERFECTION

## 5 Auto Constant Scan (ACS)

- Automatic **scan function** to sample the repeat both in machine direction and across the web
- Simplified **monitoring** of the print repeat
- Time, cost and material **savings**
- Zoom-sensitive "**Scan 100%**" function with automatic step width adjustment for 100% coverage of the repeat
- **Step Scan** samples the repeat with adjustable step width in the X and Y directions

## 6 Programmable Positions

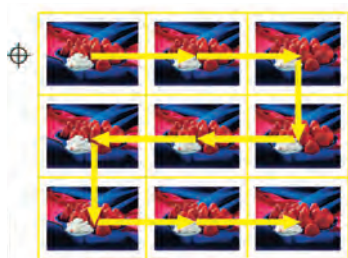
- Scan function for **automatic repeat monitoring** based on saved positions
- **Continuous scanning** of the saved positions and display with split screen, zoom and other settings

## 7 Combi Scan

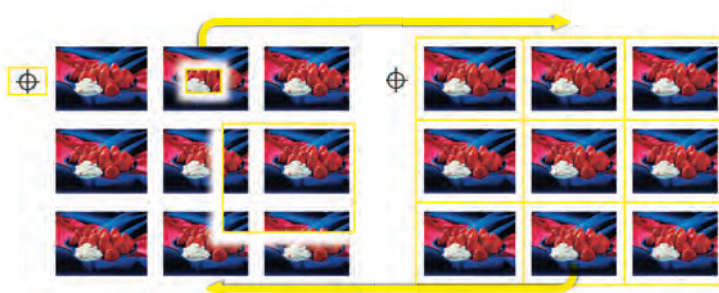
- **Combination of "Programmable Positions" and "ACS"** scan options in a continuous loop
- Quick and easy set-up of **individual inspection routines**
- **Efficient monitoring** of every job
- Inspection of all **relevant quality criteria** (monitoring of larger web sections, checking of critical print features and complete sampling of the entire repeat)

## 8 180° Image Rotation

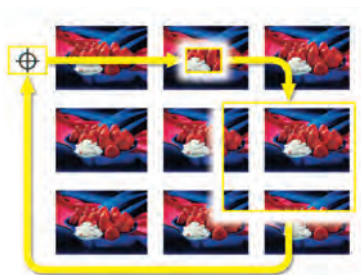
- **Electronic 180° rotation** of the image for simple image fitting to the web running direction



5 Mode of Operation: Auto Constant Scan



7 Mode of Operation: Combi Scan

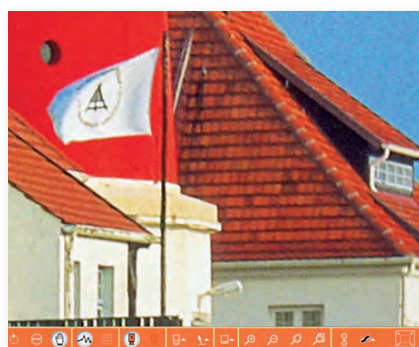


6 Mode of Operation: Programmable Positions



8 Function: 180° image rotation function

## // EXCELLENT EQUIPMENT. PERFECT RESULTS.



9

User interface and full size view

### 9 Single-Monitor Solution with Touch Screen User Interface

- **Graphic image display** and **simple operation** on **one touch screen**
- **Efficient web viewing**, even when space is restricted at the machine
- **Central control** of all functions
- Intuitive **Graphic User Interface (GUI)**

#### GUI Characteristics:

- **Easy switching** between operator interface and full size view
- **Frequently used functions** can be called at the touch of a button
- **Time savings** thanks to intuitive operating icons
- **Instant response** to operator commands
- **Multi-language OSD** (on-screen display) menu

### 10 High-Resolution Camera Technology

- complete **digital basis concept**
- High-resolution, **digital 1-chip camera** with Ethernet interface
- **First-class parameters** of data transfer speed, image quality, realistic colors and accuracy to smallest details
- Outstanding **connection options**
- Numerous **strobe options** (such as UV or lacquer strobes) for optimal customisation to your specific production requirements

**Two fields of view** are available:

- 125 mm x 95 mm (5" x 4") with **10x zoom lens** for standard web inspection routines (standard)
- 225 mm x 169 mm (9" x 7") with **14x zoom lens** for inspection of three times more web area with each picture (option).



## // SIMPLY FLEXIBLE I: CUSTOMISED SOFTWARE OPTIONS

**Adapt SUPER HANDYScan 4000 effectively to your personal production requirements with our versatile software options.**

### Virtual Repeat

**Image details can be controlled and displayed easily:** Using the Virtual Repeat function, you can easily navigate the camera. With just the touch of a button – the BST eltromat system creates an overview of the complete repeat.



*The print repeat in Virtual Repeat display*

### Job Save

**Repeat jobs are quick and easy to set up:** The Job Save memories up to 100 jobs with all their settings, such as split-screen and zoom settings.

### Color Monitoring

**Reliably ensure color consistency:** The "Color Monitoring" software option continually and automatically compares the color values of the current printing process to user-defined positions with saved reference values. For perfect results and the maximum in customer satisfaction.

### Smart Register:

**Register presetting without marks:** Software for setting the register on CI flexo printing machines without register marks. Register setting is controlled by the print image captured by the camera.

### Electronic Loupe:

**Electronic „magnifying glass“** over the live image which can be used as a virtual loupe.

### USB Image Export

**Convenient image archiving:** Everyday production makes it necessary to save camera images for subsequent use. The optional USB storage function makes it easy to export these images via a USB flash drive.

### 90° Camera Rotation

**Adjustment of the camera position, for example when printing labels:** The SUPER HANDYScan 4000 can optionally be rotated by 90 degrees. The system's internal algorithms calculate all necessary settings and automatically adjust the system (not available in combination with the "Virtual Repeat" option).

## // SIMPLY FLEXIBLE II: CUSTOMISED SOFTWARE OPTIONS

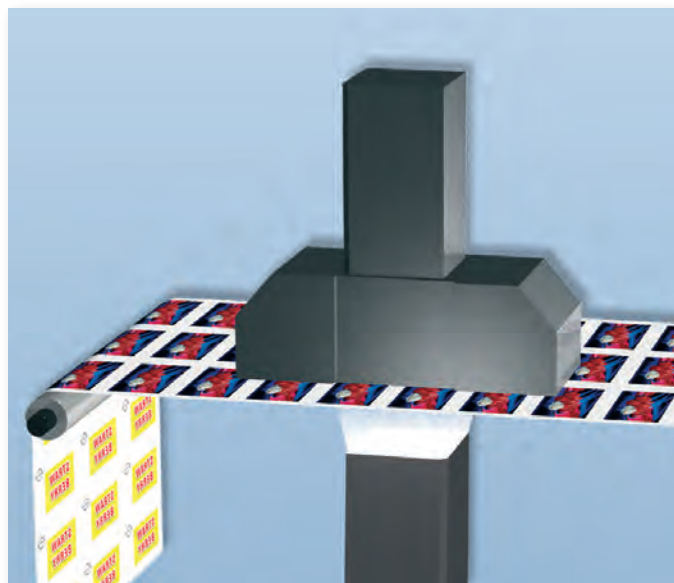
You can also flexibly design the SUPER HANDY Scan 4000's hardware to fit the demands of your production.

### Back Strobe

**Double-sided print at the same time:** This hardware option is an additional strobe to visually check the front-to-back print register of translucent materials. To do this, the web is illuminated by a strobe on the opposite side.

### Additional Strobe Units

**For even more possible uses:** Different applications require different special lighting. Additional strobe options expand the possible uses of your SUPERHANDYScan 4000, e. g. UV strobes for viewing UV fluorescent materials or reflective strobes to view lacquer or coatings.

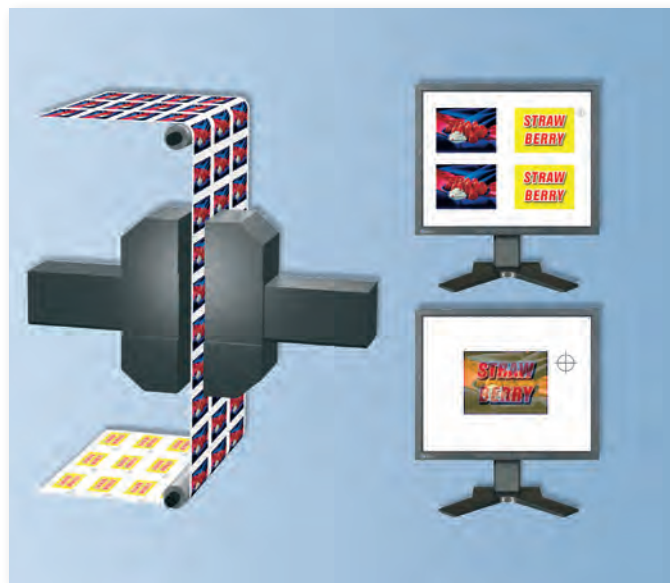


*The optional back strobe to check the precise front-to-back register accuracy on many different substrates*

### Two-Camera System

**Extensive checks:** With an optional second camera, the SUPER HANDYScan 4000 becomes an even more effective tool for inspecting front, back and front-to-back print in a variety of ways. Both camera images can be displayed on the screen in an alternating or simultaneous way (split screen mode).

With front-to-back inspection, camera 1 records an image, while the opposite camera 2 simultaneously illuminates. Even with heavy paper substrates, remarkably clear images of both sides of the web are displayed on the monitor.



*Display options of the dual camera systems*

### Additional Monitors

**For even more productive work procedures:** At many printing presses, the operating personnel have to move frequently between work areas during the course of the day. The system expansion to include an additional monitor minimises these reasons to alternate.

You can choose between a second touch screen with full operating functions and a monitor with image display function.

# // SUPER HANDYSCAN 4000

## AT A GLANCE

### Technical Data

<b>Camera</b>	<ul style="list-style-type: none"><li>• Type: 1 Chip digital</li><li>• Resolution: 1,280 x 1,024</li><li>• Field of view: 125 mm x 95 mm (5" x 4")</li><li>• Optional: 225 mm x 169 mm (9" x 7")</li><li>• Lens: 10:1 (for field of view 125 mm x 95 mm) 14:1 (for field of view 225 mm x 169 mm)</li></ul>
<b>Power supply</b>	100 V to 240 V, 50/60 Hz, 400 VA
<b>Ambient temperature</b>	min. 0 °C (32 °F) max. 40 °C (104 °F) Humidity: 20% to 80%, non-condensing Monitor: see separate technical details
<b>Storage temperature</b>	-10 °C to +55 °C (14 °F to 131 °F) Monitor: see separate technical details
<b>Web width</b>	max. 2,500 mm
<b>Standard features</b>	<ul style="list-style-type: none"><li>• Position memory for 16 positions and gallery function</li><li>• Scan function (based on positions, complete repeat and combined)</li><li>• Multi-function split screen</li><li>• Electronic 180° image rotation</li><li>• Pincushion compensation (avoidance of pincushion or barrel distortion)</li><li>• 180° image rotation for matching to the web running direction</li><li>• Quick Zoom function with storage options</li></ul>
<b>System options Hardware</b>	<ul style="list-style-type: none"><li>• Second camera</li><li>• Second monitor (touch screen with full operating functionality or for web monitoring)</li><li>• Back strobe</li><li>• UV strobe, lacquer strobe</li><li>• 90° camera rotation (for use in label production)</li></ul>
<b>System options Software</b>	<ul style="list-style-type: none"><li>• Virtual Repeat (display of the complete repeat with navigation options)</li><li>• Color Monitoring (software for color comparison)</li><li>• USB image export</li></ul>

Local contact person

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