

Web Inspection For Reaching New Heights



POWERScope
digital ■■■■ 4000

BST
International

POWERScope

digital **4000**

Being competitive in today's global markets requires powerful tools that help optimize press speeds, minimize waste and down time, and enhance print quality. The digital **POWERScope 4000** is such a tool.

This sophisticated yet affordable digital video web inspection system is designed mainly for use with label machines or other narrow web applications, but also for applications on wider webs.

The latest expansion to the very successful BST **POWERScope** family is based on a digital concept which guarantees interference-free data transfer.



POWERScope 4000 features an extremely simple operation, uses an compact digital progressive scan camera for high resolution images and includes a number of features that put it in a class by itself.

POWERScope 4000 is available with optional motorized camera movement (**POWERScope 4000mot** model) as a variation to the standard version with manual camera traverse adjustment.

With **POWERScope 4000** BST International has once again created a system combining a perfect mix of high performance technical characteristics with easy user operability which helps you to improve your press productivity.

Characteristics of **POWERScope 4000**

- **Innovative Operation Concept**

POWERScope 4000 is operated via removable keyboard which can be rotated for optimum positioning on the camera unit as well as on the controller.

A 19" touch screen is also available (optional) which is a combination of viewing and operation monitor.

All these utilisation options enhance user operability and give the user the maximum flexibility to adapt the system to the individual requirements.

- **Digital Progressive Scan Camera**

POWERScope 4000 uses an extremely compact digital progressive scan camera which takes up very little space but produces clear, high resolution images. The highly sophisticated CCD sensor guarantees dynamic, excellent colour reproduction.

- **Suitable For Wide Webs**

Although designed mainly for use with label machines or other narrow web applications, **POWERScope 4000** can also be used for applications on wider webs due to a specially designed traverse.

- **Continous Optical Zoom**

POWERScope 4000 features a 12x continuous optical zoom and an optional "Super Zoom" with an 18x optical magnification. This continuous zoom function is infinitely variable in contrast to fixed incremental zoom settings and fine-tuned adjustments are possible. Additionally the system has an optical zoom instead of only using a digital zoom like many other systems on the market.

- **Motor-driven Iris And Focus Adjustment**

POWERScope 4000 works with motor-driven iris adjustment. The result is maximum dynamics of the image reproduction. The motor-driven focus adjustment feature offers maximum flexibility to mount the camera unit where ever it's needed on your machine. In addition, it can be used to compensate the unwanted moire effect.

- **System Versions**

BST offers two different system versions: **POWERScope 4000** with manual camera positioning on the traverse and **POWERScope 4000mot** for motorized camera positioning.

POWERful Equipment For POWERful Results

Standard Features

- **Dynamic Image Update**

This unique feature automatically adjusts the strobe frequency when certain functions are used, resulting in image navigation and functionality that is more natural, seamless and intuitive for the operator.

- **Quick Zoom**

Using the Quick Zoom function, frequently used zoom values can be called up at the push of a button. This saves time, job by job, day by day. The zoom values to be saved are freely programmable.

- **Edge Enhancement**

The Edge Enhancement function digitally optimizes the picture sharpness of the live image. This provides a clear display of the contrasting edges on the monitor and an improvement of the image quality.

- **Auto Scan**

Automatic scanning of the repeat in machine direction (*POWERScope 4000*) and also across the web (*POWERScope 4000mot*) greatly simplifies inspection of the whole print repeat area.

- **Position Memory**

With this function, an image position (including all settings for field of view, focus and position in web running direction) can be stored and easily called up with the touch of a button.

- **Image Rotation**

The system can be adapted to individual application requirements with the 90° and electronic 180° image rotation.

- **Split Screen**

With the *POWERScope 4000* function Split Screen the saved position image (reference image) and the actual image on press can be displayed and compared at a glance. The stored Split Screen position can easily be called up at the touch of a button, incl. all settings for field of view, focus and position in web running direction.

- **Compatible With Other Systems**

POWERScope 4000 is mechanically fully compatible with the *BST POWERScope 3000* and *EUROScope* systems. If you had one of these systems in use before, there is no need to modify the press frame.

Intuitive, Easy, Flexible – The *POWERScope 4000* Operation Concept

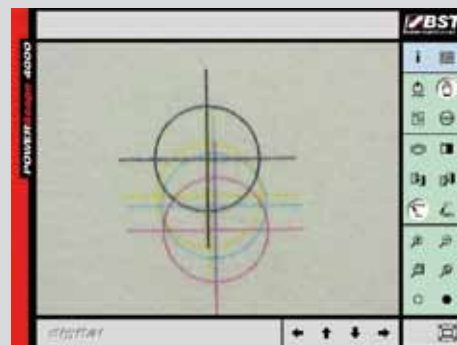
POWERScope 4000 is operated via a keyboard which is very easy to use. It offers adaptability to production conditions since it can be rotated for optimum positioning on the camera unit as well as on the controller. It is also removable, thus giving a great deal of flexibility when space at the machine is limited.

It is also possible to operate *POWERScope 4000* via an intuitive 19" touch screen (optional hardware). In this case, the touch screen is also the viewing monitor. Moreover, the system offers the option to connect a second viewing monitor.

All these utilisation options enhance user operability and give the user the maximum flexibility to adapt the system to the individual requirements.



Rotating options of the *POWERScope 4000* keyboard (positioned on camera unit or controller)



The intuitive *POWERScope 4000* touch screen user interface

System Overview

Options

• Back Strobe

This hardware option is an additional strobe to visually check the front-to-back print register of translucent and many other substrates by illuminating the web from the opposite side.

• Touch Screen

Operate *POWERScope 4000* via an intuitive 19" touch screen instead of using the keyboard. This touch screen is also the viewing monitor.

• Super Zoom

With the Super Zoom option, you get an extra 18x optical magnification to the standard 12x continuous optical zoom.

• Second Monitor

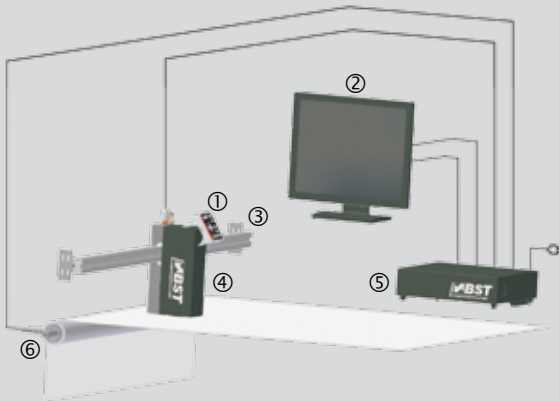
In order to monitor print quality from other locations press side, a second monitor can be added to the system.

• Second Keyboard

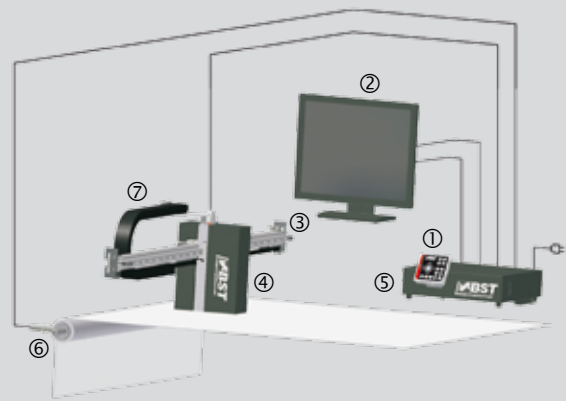
A second commander can be added to the *POWERScope 4000*. This means, with the standard keyboard and the optional touch screen you can operate your system with up to three control units.

System Structure

POWERScope 4000



POWERScope 4000mot



① Keyboard (optional when using touch screen) ② TFT monitor (or optional touch screen) ③ Traverse
④ Camera unit (motorized in *POWERScope 4000 mot* version) ⑤ Controller ⑥ Synchronisation ⑦ Cable Track (option)

Technical Data

Camera

Type: 1-chip digital progressive scan
Field of view: min. 8.3 mm x 6.25 mm (0.33" x 0.25")
max. 100 mm x 75 mm (4" x 3")
Lens: 12:1
18:1 (optional)

Power Supply

100–240V ~ 50-60 Hz
350 VA

Web Width

POWERScope 4000: max. 700 mm
POWERScope 4000mot: max. 2500 mm

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