// BST eltromat India Your Strong Partner for Quality Assurance in Web Processing

TOGETHER WE ACHIEVE MORE

- More Innovations
- More Capacities
- More Achievements
- New Products
- Quick Services
- Global Network



// BST eltromat India



BST eltromat India is an Indo-German joint venture company specializing in automation control. Our products are used successfully around the world in printing, packaging, converting, paper & corrugation, woven & non-woven, tyre and steel industries.

Incorporated in 1993 with the head office in Mumbai, manufacturing unit in Vallabh Vidyanagar, Gujarat and a sales / service set-up pan India. We also serve International markets such as, North & Central Africa, Middle East, Sri-Lanka, Nepal and Bangladesh. We have the sole purpose of providing top class solutions for all our clients.

Our portfolio consists of entire solutions for web processing industries (To know more, click on the following products):

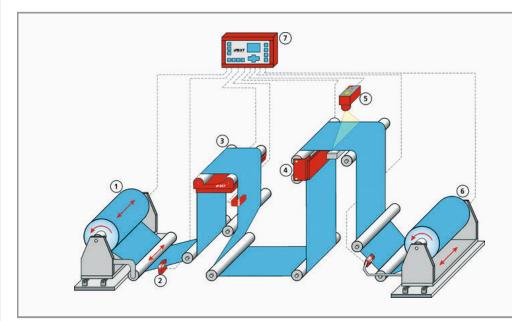




// Web Guiding

The Highest Precision for your Web Guiding

BST eltromat systems control the web guiding in different production processes, e. g. the paper, foil and rubber industry. Web guiding systems ensure that the processed material strictly remains in its intended position. BST eltromat web-guiding systems can be used for a wide range of substances and effectively minimize spoilage and down-times.



- 1. Controlled unwinding
- 2. Infrared or ultrasonic sensor
- 3. Rotating frame guide
- 4. Swivel roll guide
- 5. CCD camera
- 6. Controlled rewinding
- 7. BST Controller









CONTROLLERS

To ensure that material being processed is exactly at its intended position. A user-friendly system and its compact design allows the direct attachment to the guiding device or the machine.

GUIDING DEVICES

Corrects the position of the web precisely and without delay, to ensure a smooth process. Our guiding devices comes in various sizes & types for almost all webwidths and areas of application.

SENSORS

The current position of the edge / line of the web serves as the starting point and it is recorded as the current position by one or more sensors and transmitted to the controller for smooth process.

ACTUATORS

Useful when very fast reactions to changes in the web position are necessary. Plug & play design of actuators allows for quick and inexpensive assembly.

// Tension Control We never lose Control

We offer wide range of solutions to control your Web Tension. In association with Renova Srl., our customers can choose the best solution as per their requirements. Entire range of Renova Srl. products & systems are manufactured in Italy and marketed & represented in India exclusively by BST eltromat India Pvt. Ltd.











TURBOREX BRAKE

It is a patented and only brake with a multi-disc system & double fan ventilation. Interchangeable with existing brakes and comes with up to 42,000 working hrs. under extreme conditions and maintenance free for 5 years

CONTROLLERS

For convenient configurations of Brakes, Load Cells, Dancer Roller & Diameter sensor. They are enabled with an industrial protocol. Enabled with IIOT & Industry 4.0 compliant. Enabled Bluetooth support via. Mobile Application

ROLL PUSHER

Compact, heavy-duty, fast and with low / no maintenance. The Moviroll roll pushers are ideal for handling corrugated, paper, tissue and cable-rolls in simple and safe manner. Pneumatic & Battery operated options available.

LOAD CELLS

Ideal for web (paper, plastic film, tissue, etc.). Available in different models as per application requirements. Compact design, available with loads starting from 25 - 600 kgs. & Shaft dia. from 15 mm - 25 mm

// Web Video Inspection Quality Control for your Printing Process

BST eltromat Web Monitoring systems examine your print easily, quickly and efficiently, even at the highest web speeds. Web inspection systems work with matrix cameras, strobe a certain area of the running web and display the resulting image on the monitor.

Your benefit: less expenditure of time and money, higher production quotas and flawless results at all times.

// PowerScope 5000

High-performance video technology for flawless print results

- High image resolution
- Suitable for all kind of web applications
- Compact design
- High-performance LED strobe
- · Modular system design
- · Powerful Functions: Touch Panel, Auto Scan, Position Memory, Image Rotation, Split Screen





// Super HandyScan 4100

Super Technology for Precise Print Monitoring

- Sharp contrasts and natural color reproduction
- Intelligent system concept
- Modular construction & Remote maintenance
- **Superior Functions**: SuperHandy Scan 4100 is equipped with enhanced functions of the PowerScope5000. Additionally, you get unique & superior functions like, high resolution digital 1-chip camera, pincushion compensation, quick zoom, a combination of auto constant scan (ACS) & programmable positions, 180° Image Rotation, virtual repeat, colour monitoring, smart register, electronic loupe, USB image export, 90° Camera Rotation, etc.

// iPQ View

Digital Web Viewing for your Quality Assurance

- High decision certainty thanks to excellent image quality
- Shorter reaction times reduce waste
- Intuitive operation thanks to gesture control
- · Subsequent expandability makes your investments future-proof
- Increased customer satisfaction
- Ideal for substrates like, Paper, plastic sheet, aluminium (transparent, translucent, opaque, reflective)



// EagleEye 100% Web Viewing using Line Scan Camera

Indigenously developed & latest 100% Inspection Camera- EagleEye This 100% Web Viewing System will enable your press operator to get a complete overview of the web repeat at all times. EagleEye overcomes the limitations of the conventional web viewing systems and allows the operator to view the entire web-repeat on a 55" UltraHD monitor.





Salient Features:

- 8000 pixel High Resolution Line Scan camera
- Modular design system can be upgraded any time
- Max web width of 2800 mm using multiple cameras
- High speed image capturing
- Ideal for presses with speed upto 600 mtrs./min.
- Tri-linear RGB true colour line sensor
- Resolution of 150 dpi
- Remote maintenance for easy and immediate diagnosis

EagleEye system is loaded with functions like:

- Magnification
- Panning the image
- Horizontal & vertical flip
- Drawing regions to view the exact areas in images
- Saving templates side by side of a live image.
- Allows the user to inspect the entire web more appropriately.



55" Ultra HD monitor for full web view

// TubeScan Digital & TubeScan EagleView NEW 4K Camera for 100% Defect Detection

100% print inspection has never been as simple and cost-efficient as offered by the **TubeScan** product series. From simple 100% web-monitoring, detection of missing labels and matrix residues to high resolution 100% print inspection within a workflow - now you are able to realize all your needs with one modular system.



TubeScan digital strobe

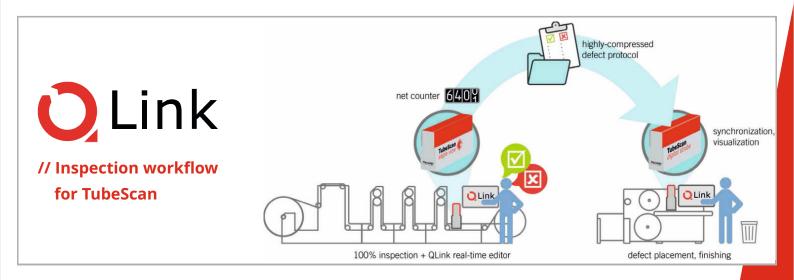
- Equipped with an **all NEW 4K resolution Camera** for a finer and a higher level of inspection
- 100% web monitoring during make-ready and production
- Automatic repeat synchronization across the speed range
- No health risk, less tiring compared to conventional monitoring using strobe lights
- Fast and easy job setup, very reliable and stable operation
- Suitable for narrow and medium-wide applications:

180mm - 850mm web width

Cost-efficient and compact system



- Cost-efficient combination of 100% print inspection and detail viewing, patented and unique worldwide
- Detail viewing of critical areas like registration marks,
 2D bar-codes, picture areas, etc. down to dot level
- Motorized Camera for detail viewing and can be easily navigated with respect to the displayed print repeat
- Switchable UV illumination
- Can be combined with all options of TubeScan digital



// Register Control The Highest Register Precision for first-class Print Quality

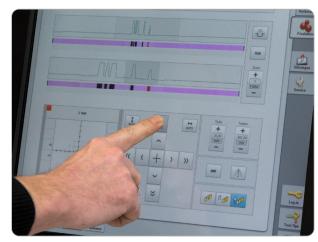
Through the implementation of intelligent control algorithms, BST eltromat color and cut-off register controls are suitable for all challenges of modern register control. With advanced measurement technology, BST eltromat systems quickly and reliably counter malfunctions in register behavior.



Register controls for all web printing processes: The modularly constructed systems are integrated into new machines easily and with little effort. In addition, we offer retrofits for existing systems that efficiently increase the productivity of your machines. In short, we can implement every register control in every machine.

// ARC_18 Short set-up times, maximum productivity

- The register mark sensor developed as a 1-pixel camera analyses the color spectrum of the light reflected from the web, and automatically detects all types of register marks
- Faster printing preparation
- Minimized waste
- Optimum print quality
- · More customer satisfaction
- Increased degree of automation
- Optimized process sequences
- Increased productivity, Lower costs



User interface with live image of the register marks

// Register Control The Highest Register Precision for first-class Print Quality

// SINCON STAR

Print Marks - Precisely Identified

- One-pixel color camera ensures the recognition of even low-contrast marks
- Designed for almost all applications requiring an individual control station with a longitudinal and side control channel, including the following:
 - Introduction of a pre-printed web
 - Control of front to back side in CI flexo printing machines
 - Control of an adjustment to the printing process in CI flexo printing machines
 - Control of a tool in printing machines
- · Intelligent register mark sensor
- · Live image of the register marks
- Easy operation



// Selectra CRS 10K EyeTouch Modular, Simple, Effective Register Control

CRS10K EYETOUCH is the latest generation Register control developed by Selectra. Modular and simple structure, it carries out longitudinal and transversal control of print register. LED Fibre optic scanning heads with automatic gain adjustment amplifier are used to read the print marks.





Technical Features:

- Speed 600 m/min
- Sensitivity 0.01 mm
- Max correctable error +/- 10 mm
- Pre-setting error threshold +/- 0,05/3 mm
- Minimum working speed programmable
- Mark recognition automatic
- PID parameters of motor control programmable
- Monitor LCD e touch screen
- Pre-setting Optional

// Selectra Selevisco 9000

Viscosity control for inks, glues, varnishes

BST eltromat India in association with **Selectra S.R.L.** are presenting world-class Viscosity Control systems for inks, glues, varnishes, that Allow fluids viscosity measurement throughout a vibrating sensorial system emerged into the fluid object of the verification.

SELEVISCO9000



SELEVISCO 9000 has been specifically engineered for controlling Flexographic and Rotogravure inks and offers the following features:

- Extremely high precision
- Minimum maintenance
- Can be integrated with a system of automatic washing cycles
- Adaptable to multiple solutions
- Both in-line & off-line solutions are based on the patented principle of the vibrating reed
- Built-in temperature sensor
- Wide range of application, Rotogravure, Flexo inks, varnishes coating, adhesives, lacquers, chemicals

Technical Information:

- Measuring accuracy: 0.1 second (Ford-4)
- Measuring range: 9 140 second (Ford 4)
- Explosion proof system with ATEX Eexi degree of protection
- Communication protocol: RS485 Modbus
- Max number of elements: 16 (Version Touch Screen)
- · Alarm signal: visual, audible and relay output

// iPQ Center The Strong All-rounder for Quality Assurance



BST eltromat knows the exact demands of the industry and for precise printer results and an efficient printing process. With the **Increasing Productivity and Quality Center** (**iPQ-Center**, for short), BST eltromat offers a modular product-line for the central control of numerous quality assurance functions.

BST eltromat integrates **Web Monitoring**, **100% Print Inspection**, **Spectral measurement**, **Workflow system** and further functions into a single system. You choose the quality monitoring modules individually, putting them together according to your project's requirements.

Integrated Functions, Intuitive Operation

- **Uniform Operating Concept:** Makes the switch between various operations unnecessary, since all iPQ-Center modules and functions are integrated into a uniform surface.
- Ease of Operation: Optimally supports the machine operators during long print jobs and particularly during short ones thanks to quick set-up times.
- Process Sequences: Perfect Flow: The iPQ-Workflow software perfectly links various iPQ-Center modules with each other.
- **Modular Construction According to Your Needs:** Cameras, image analysis functions, defect detection, additional illumination, spectral measurement, and further components can be integrated as required.



// iPQ Check 100% Print Inspection for your quality assurance

- Uninterrupted quality control and reliable error detection
- Fast correction of errors, increased productivity thanks to automated inspection
- Targeted error prevention by analysis of production logs
- Reduced waste and complaints, increased customer satisfaction
- Production of a higher quality product at a lower cost
- Ideal for substrates like, Paper, plastic sheet (PE, BOPP, OPP, LDPE and more; transparent, translucent, opaque, reflective), aluminium

// iPQ Center Your Strong All-rounder for Quality Assurance



// iPQ View Digital web viewing for your quality assurance

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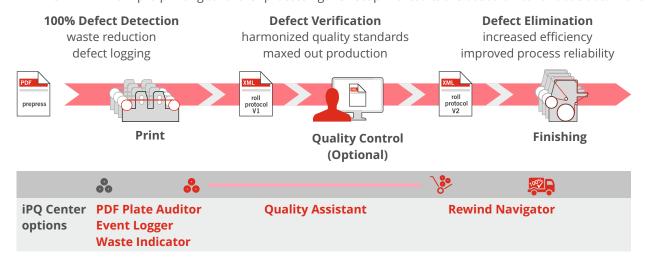
// iPQ Spectral Precise color measurement during the Printing process

- Objective and reliable results
- Developed in collaboration with X-Rite
- Offers highest data compatibility with their hand-held devices
- Permanently records color data during the job
- Objectively evaluates the color data and will trigger warnings and alarms if the preset tolerances are exceeded



// iPQ Workflow Workflow management software to manage quality throughout the process

QUALITY MANAGEMENT From pre-printing to further processing: Perfect print results are based on continuous data management



// Wintriss- Web Ranger **100% Surface Inspection**



Wintriss- Web Ranger is a powerful classification system that quickly and accurately sorts the defects into user-defined categories to aid in production quality control and process improvement for the materials produced in continuous webs. All defect data can also be viewed in real-time and stored in a comprehensive database for the subsequent review, analysis, reporting and archiving. The system's highly modular design allows the system to detect any size of defects based on web width and speed. Wintriss is marketed and represented exclusively in India by BST eltromat India Pvt. Ltd. Our core competency is the in-depth understanding of optics & image processing.





Salient Features:

- High res. camera, detect defects upto 10 microns
- Multiple illumination options as per material
- · Accurate grading of rolls
- Real time defect detection and Precise defect classification
- Refine and improve process
- Improvement in quality, reduction in wastage
- Highly modular design & flexible system architecture
- 24 X 7 technical support via. internet & telephone

List of some defects detected by Wintriss:





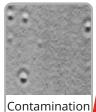












List of some applications / substrates inspected by Wintriss:















Non-woven

// AlphaMix Two components adhesive mixing & dispensing system



BST eltromat India is perfecting your process by presenting ALPHAMIX "The State of the Art" two component adhesive mixing & dispensing system with various first of its kind features for Solvent-less Lamination machines.

The system comes in two variants:

- Stand-alone Version: Works independent of solvent-less machine and comes with a dedicated
- · HMI display.
- Integrated Version: Works and communicates with the lamination machine. Both AlphaMix and
- the lamination machine can be controlled from a single HMI. Provided the machine automation
- is designed and implemented by **BST eltromat Automation**.



Actual Coating GSM calculated & displayed



Precise temperature & weight control



Cloud based system with remote access & reporting



Display of all critical information on one HMI



Roll / Job wise reporting



Innovative cleaning system



Salient Features:

- Set the ratio of NCO & OH separately
- The HMI constantly display the actual ratio
- The actual coating GSM is also calculated and displayed
- Roll wise reports can be printed & emailed to designated email Ids
- Up to 10 Job reports can be saved and printed
- Unique software ensures precise temperature control of the two components
- Pressure transmitter at the delivery point of each pump detects blockage if any, trips the Solvent-Less machine at the endpoint to ensure Zero De-lamination
- If there is a failure of the Gum Sensor of the machine, "AlphaMix" has the ability to detect and trip the machine, thus ensuring no De-lamination happen
- Wi-Fi connectivity for remote service and assistance
- Optional Auto Cleaning of NCO & OH tank and pumps

// BST eltromat Automation For efficient production processes

BST eltromat India provides you customised automation solutions for any kind of application. Our quality system integration ensures that all your automation requirements are taken care. When using BST eltromat as an automation partner, you can rely on first-class technical competence as well as long-term practical expertise with a wide variety of applications and fields of use.



Being the general contractor, BST eltromat implements a one stop solutions for fully integrated automation of the highest technical and professional level. That includes, PLC, Drive, SCADA, DCS, Engineering Software, Switch Gears, Panel Building, Vision Inspection Systems, Installation & Commissioning.

// Customized Automation Solutions

BST eltromat offers a comprehensive service portfolio from drive technology to safety technology to cover a wide field of use.

BST eltromat offers automation solutions for:

- Control concepts/HMI
- Visualization systems
- Controls
- Drive technology
- Positioning technology
- Safety technology
- Interfaces
- Web tension control
- Process optimization
- Quality control systems
- and further individual system components.

Services provided:

- Planning, design and counselling
- Development and implementation of
- all system components
- (including control concept)
- · Commissioning, function testing,
- safety testing, and optimization

// Long-term success with great service

We have included new and innovative products into our portfolio. In doing this, we constantly remain focussed on keeping you, our customer at the centre of everything we do. We are committed to offering you better solutions for your application.

Our team of specialist engineers shall provide you quick and prompt online-support in case of emergencies. No matter where in the world you use our technologies: we support you reliably with our comprehensive service. As a competent and reliable partner responsible for quality assurance, we can take all services off your hands ...

- From planning, conceptualization, and consulting
- To the development, adaptation and production of all system components
- To the start-up procedure, function and safety tests, and training

For your benefit, we always adapt our systems exactly to the requirements of your production.

Combine solutions from our various product areas:

- Web Guiding
- 100% Inspection
- Register Control
- Viscosity Control
- Web Video Inspection
- Color Measurement
- Surface Inspection
- Color Management
- · Mixing & dispensing system
- Process Automation



