

BST eltromat France SARL

Impasse de la Noisette – CE 402
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Sarl au capital de € 207630
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IBAN : FR76 3000 4013 2600 0270 1563 733

BST ELTROMAT FRANCE
CE 402

Impasse de la Noisette
91374 VERRIERES LE BUISSON

FRANCE

Verrières, le 13/04/2023

Quotation no: AQ0019487 R4

Item	Quantity	Description	Price
I.	1	TubeScan Print Inspection System <u>for machine type:</u> Ligne d'impression for the following technical data : <u>max. web width:</u> 630 <u>max. printing width:</u> 630 <u>max. machine speed:</u> 100 The TubeScan is designed as an optical quality assurance system to be used in high quality printing. The intelligent combination of imaging technology and the strobe principle allows a simple and reliable quality check during printing or finishing. The system consists of a modular designed, highly integrated PC system and a digital camera unit. High-level camera technology and advanced operating elements are used together with the latest microelectronics. TubeScan is available in three variants: digital strobe, digital strobe+ and digital strobe++, which include the following functions:	
1	1	TubeScan Digital Strobe+ 660 Web Viewing and Automatic Inspection System for web width < 660 mm including: 1 TubeScan Image Capture System with digital camera, high power LED illumination, power supply 100V - 240V, 50/60Hz, binary defect output, shaft encoder with lay-on wheel and spring load assembly 1 TubeScan Digital Strobe+ software, menu guided, optimized for intuitive touch operation, up to 20 lanes with user adjustable width, individual defect counter per lane,	

- global repeat and defect counter,
generation of binary defect output upon finding a defect (150 mA, 0 V low, +24 V high),
detection of missing labels and major print defects (adjustable inspection sensitivity),
automatic repeat synchronization,
no additional print mark sensor required
1 Touch Monitor 15" for operator control
1 Full HD monitor for high-speed web viewing
1 Desktop PC with Intel i5 CPU or higher,
Windows 10 (64 bit operating system)
- 2 **1 Fine Inspection digital strobe++**
- Fine print control for small defect sizes
incl.
- Job Management
- Multi-Zone Processing
- Masking Function
- Auto Matrix Detection
- Selectable 'Averaging' Mode
- Fine-Text Algorithm
- Note:
This software feature requires the Digital Strobe+,
Eagle View+ camera or version XL.
- 3 **1 8K**
Option for higher resolution
- 4 **1 Roll guided backing bar**
for TubeScan Digital Strobe 660.
Adjustable backing bar
with acrylic contrast plate (black/white)
and 2 rollers 30 mm x 750 mm,
adjustable for inspection
of glossy materials.
Rollers al.-alloy $\varnothing = 30\text{mm}$, L = 750mm
(Roller wrapped with 3° max.)
- 5 **1 Cantilever Encoder Traverse**
- 6 **1 Dual Mounting Set Camera**
Camera traverse, dual mounting
with customized length between 1001 mm - 2000 mm.
Length: 1200 mm
- 7 **1 Dynamic Roll Map**
Stores all defects per lane.
Dynamic refresh during inspection.
Graphical display with zoom function
over entire roll.
- Note:
This software feature requires the feature
'Fine Inspection' being installed.
- 8 **1 Distance Monitoring**
Define sets of anchor points within a repeat and monitor the

longitudinal and lateral geometric distance per set.
Define single anchor points and monitor the distance between consecutive repeats.
Store all measurements in a standard CSV file (together with repeat number and actual machine speed) for quality reporting.
Show a x/y diagram of measurements in PDF report via optional Print Report Manager.
Create an alarm signal when desired tolerance values are exceeded.

Note:

This software feature requires the feature
"Fine Inspection" and "Print Report Manager" being installed.

- | | |
|----|---|
| 9 | <p>1 Alarmset incl. connection cable
External alarm device
with green 'Inspection on' indication
and LED-flashing red visual alert
actuated by relevant software option
when pre-set tolerance ranges of
parameter have been abandoned,
ABS enclosure (IP54),
diam. 70 mm x height 150 mm with magnetic
base and attached 2 m connecting signal cable.</p> |
| 10 | <p>1 Extension Cable Touch Monitor 5 m
Set of extension cables for Touchscreen
and HD-Viewing Monitor
Cable set including
- extension of touch monitor cables
- extension of HD-monitor cables
- power bar</p> |
| 11 | <p>1 UPS 230 V
Uninterrupted Power Supply
Protects the TubeScan against
unexpected power loss and by this
also against disordered shut-down.
In the case of unexpected power loss
the TubeScan will be automatically shut-down
in regular manner.
Additional integrated overvoltage protection
for the TubeScan electronic.
Power infeed 230 V AC</p> |
| 12 | <p>1 Backlight illumination
for TubeScan Digital Strobe 660 mm
for web width up to 660 mm,
switchable, for hole detection on opaque,
shadow elimination on transparent materials and contrast
enhancement for translucent multilayer applications (RFID, Labels).</p> |

Technical Information 'TS Digital Strobe+ 660':

Performance Improvement; 8K

- Standard Inspection width: 660 mm
- Max. theoretical physical inspection width
(upon request, after verification): 660 mm

- Camera housing width: 760 mm
- Camera housing height: 290 mm
- max. Speed incl. 8K option: 120 m/min
- Resolution per square pixel: 0,83 mm
- Resolution in Pixel/mm²: 144
- Resolution increase towards standard (% Pixel/mm²): 620 %
- Number of Cameras 100 % View: 2
- DSH
Best case detectable defect size in homogenous areas
(depending on contrast, print and web stability): 0,166 mm
- DSH (surface) x*y: 0,028 mm²
- DSS
Best case detectable defect size in structured areas
(depending on contrast, print and web stability): 0,249 mm
- DSS (surface) x*y: 0,062 mm²[#CE#]

II. 1 POWERScope 5000
Web Viewing System

for machine type: Ligne d'impression

for the following technical data :

max. web width: 630 mm

max. printing width: 630 mm

max. machine speed: 100 m/min

- High resolution image sensor
 - intuitive system operation
 - electronic image rotation
 - Splitscreen for reference image comparison
 - Multi position memory
 - Camera unit positioning manually or optional
 - motorized Auto Constant Scan: permanent automatic
 - image capturing for enhanced monitoring of the print
 - PS5000 Commander connectable (external operating panel for system operation, to be mounted on the camera unit or at an external position at the machine)
 - prepared to be used with a multi touch monitor
- 13 1 Camera POWERScope 5000
High-quality camera unit for high resolution image capture and natural color reproduction.
Nominal field of view 100 mm x 75 mm / 11 mm x 8.3 mm,
maintenance-free integrated LED-flash with long durability.
Housing sizes ca.
H 198 mm x W 108 mm x D 284 mm
- 14 1 Camera cable POWERScope 5000 5 m
Transmission of image and control signals between camera unit and controller, power supply for the camera unit
Length: 5 m
- 15 1 Motorized camera traverse bar POWERScope 5000
Length: 801 mm - 850 mm
Dual sided mounting, with drag chain.
Camera traverse bar for precise motorized positioning of the camera lateral to the running web. Consisting of extruded aluminium profile with two mounting brackets, a robust toothed rail drive and a

- carriage on roller cassette to attach the camera unit.
For max. web width 650 mm
acc. to drwg. no. PSMO5-E-1166
- 16 1 Controller POWERScope 5000
High integrated and compact controller device
for image processing and system control functions
with standard top hat rail mounting.
Connectivity for:
- TFT multitouch monitor
- Commander
- Camera unit
- Synchronization signals
Incl. operation system and system software with
- intuitive operation and clearly arranged on-screen menus
- position memory
- electronic image rotation
Housing dimensions
H 61 mm x W 180 mm x D 130 mm
Power Supply: 24V=
acc. to drwg. no. PSMA-5-101-K
- 17 1 POWER-SUPPLY/CON/EUROPE
Controller mains supply cable, length: 1,8 m
Country plug: Europe
- 18 1 Controller Mounting POWERScope 5000
Space-saving mounting of the controller behind the viewing or
operating monitor.
acc. to drwg. no. PSMA5-B-141
- 19 1 24V-Power Supply POWERScope 5000
Power supply for the controller when a customers 24V= power
supply is not available.
- 20 1 Multi touch monitor desktop
22" with HDMI and USB connectors,
1,8 m power and USB cable
- 21 1 Adapter cable DVI/HDMI
Converter from HDMI to DVI
- 22 1 Standard signal cable extension 10 m
to be used with several synchronisation devices
and other signal connection,
length: 10 m
- 23 1 Backstrobe POWERScope 5000
to be installed opposite side of the web, strobing through the web to
have the register comparison back side print to front side print.
acc. to drwg. no. PSMA5-B-158
- 24 1 Cable Backstrobe POWERScope 5000
to connect control signals and
power supply of the back strobe
Length 5 m
- 25 1 Manually operated traverse for back strobe
POWERScope 5000

length: 801 mm - 850 mm
Dual side mounting
Made of aluminum profile
incl. a slider with high precision slide bearings
for mounting the back strobe
for max. web width: 630 mm

26 1 Quick-start manual

27 1 Mounting Instruction

Total price, ex works.....

€ 47 288,00

CONDITIONS COMMERCIALES

Conditions générales:

L'offre inclut l'installation et la mise en service.

Conditions de garantie:

18 mois après la date de facturation

Livraison:

DAP Incoterms 2020 excl. fret et emballage

Conditions de paiement:

PRIX :Net, unitaire, H.T., en €, matériel non emballé, départ
NYQUIST SYSTEMS (Allemagne).

PAIEMENT : Acompte de 40% à la commande, solde à 45 jours de
facturation. sur le compte BNP de BST eltromat France à Verrières
le Buisson (91)

Conditions de paiement sous réserve d'un accord favorable de notre
organisme d'assurance.

Délai d'expédition à compter de la confirmation des plans:

6-8 semaines

Please note:

Due to the worldwide critical situation with electronic parts the
mentioned delivery time is to be understood as "preliminary".
In case of order the delivery time needs to be determined accordingly.

Validité des offres:

2 mois après la date de l'offre.

Avec nos meilleures salutations
David TONDU