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UID: DE 811 122 306, HRB Nr. 30830
Amtsgericht/District Court: Bielefeld
Geschäftsführer/Managing Directors:
Dr. Rolf Merte, Ingo Koesfeld

Your ref., your message dated the	Our ref.	Editor	Extension	Fax	Date
	BSTDE\CabR	Cabeza	235		11/8/2022

Quotation no: AQ0015355

Apreciado Diego

Adjunto la propuesta de un sistema TS ++ para 530 con cámara basica de 4000 pixels, como se detalla a continuación:

Item	Quantity	Description	Price
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I. 1 **TubeScan**
Print Inspection System

for machine type: OMET

for the following technical data :
max. web width: 530 MM
max. machine speed: 150 M/MIN

Material:

- papier
- film
-
- opaque
- translucent
- transparent
- reflective

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+ 550**
Web Viewing and Automatic Inspection System
for web width < 550 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 4000**
Option for higher resolution by second 2k camera
(2x2000 pixels)

- 4 **1 Roll guided backing bar**
for TubeScan Digital Strobe 550.
Adjustable backing bar
with acryl contrast plate (black/white)
and 2 rollers 30 mm x 600 mm,
adjustable for inspection
of glossy materials.
Rollers al.-alloy $\varnothing = 30\text{mm}$, L = 600mm
(Roller wrapped with 3° max.)

- 5 **1 Dual Mounting Set Camera**

ETIPRESS S.A.

Quotation no: AQ0015355



Camera traverse, dual mounting
with customized length.
Length: 1000 mm

- 6 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.
- 7 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.
- 8 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
- 9 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

Technical Information 'Digital Strobe':

- Standard Inspection width: 550 mm
- Max. theoretical physical inspection width
(upon request, after verification): 570 mm
- Camera housing width: 610 mm
- Camera housing height: 290 mm
- max. Speed incl. 4000 option: 250 m/min
- Resolution per square pixel: 0,139 mm
- Resolution in Pixel/mm²: 52
- Resolution increase towards
standard (% Pixel/mm²): 300 %
- Number of Cameras 100 % View: 2
- DSH
Best case detectable defect size in homogenous areas



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Quotation no: AQ0015355

Be inspired. Move forward.

- (depending on contrast, print and web stability): 0,278 mm
- DSH (surface) x*y: 0,077 mm²
- DSS
- Best case detectable defect size in structured areas
- (depending on contrast, print and web stability): 0,417 mm
- DSS (surface) x*y: 0,174 mm²

10 1 **Fixed price commissioning and training including travel time and travel related expenses**

0.25 days for supervision - installation
 0.5 day(s) for set-up of system
 0.25 day(s) for optimization during production and production stand-by
 0.25 day(s) for training of operators and maintenance personnel in total a period of 1.5man-day(s) (max.10 hours each) at site in Bogota. Also included in the price are the costs for the single travel time to and from the site as well as the hotel and travel costs and daily expenses.
 Service calls will take place on weekdays (Monday - Saturday; except Sunday and bank holidays and / or night shift).
 In order to carry out the work required in the indicated time, it is necessary that the mechanical components of the system are mounted on the machine before the BST engineer arrives, the connection cables supplied have been fitted and that the machine is ready to print incl. the necessary material to print on.
 Any additional costs which have not been caused by BST (for example waiting times due to a machine unavailable for the BST activities) will be invoiced according to the actual costs incurred based on our current service rates.
 The supply of electrical and mechanical parts necessary for the installation and the installation itself are not included in the scope of supply and delivery for the commissioning.

11 1 **PACKAGING**

Total price,FCA with packaging included € 28.571,00

II. **General Conditions**

Nota:
 Las posible modificaciones mecánicas para integrar el equip descrito con esta oferta a la máquina así como las electronicas no forman parte de esta oferta

Acceptance of modification:
 We reserve the explicit right of modifications which serve for technical progress.

Warranty:
 12 months to be counted from the day of dispatch, expect parts subject to wear and tear

Delivery date:
 To be agreed upon / The indicated date of delivery is meant to be the day of departure from BST eltromat International GmbH.

Terms of payment:
 30% down payment on receipt of order,

ETIPRESS S.A.

Quotation no: AQ0015355



60% before delivery,
10% 30 days net after delivery
suitable to positive credit check.

Terms and conditions of sale and delivery:

This quotation is made in accordance with the BST eltromat International GmbH terms and conditions of sale and delivery. They are available on www.bst-international.com. The terms of payment are subject to a suitable credit reference.

Incoterms

FCA Bielefeld

We handle according to Incoterms 2010.
The costs for packing are included.
Transport cost is not included on the price and will be invoiced separately according to the charges arising.

Validity of quotation:

30 days after date of quotation
Our supply of goods and services is subject to our general terms of business. In particular, the retention of title applies in all its forms. You can obtain our general terms of business from us upon request or view them online at www.bst-international.com.

Reservation of property:

The equipment delivered remains the property of BST eltromat International GmbH until full payment has been received.

With hope that our offer meets your expectation we remain