



## QUALITY CONTROL FOR SILK-SCREEN PRINTING MACHINES

# SPECTRO / Glass

### PRINT INSPECTION ON GLASS

SPECTRO/Glass is designed to inspect the print on cylindrical and oval glass objects like bottles and drinking glasses. Thanks to Spectro it is possible to detect the main printing problems generated by silk-screen and digital printing processes.

### BENEFITS

SPECTRO guarantees a powerful combination of print quality and waste reduction. Objectivity and accuracy of the control improve your print quality and it ensures a production without printing defects.

On line integration allows waste reduction and printing process optimization. SPECTRO is able to prevent widespread failure and averts large quantities of waste.

The benefit results in cost reduction and improved process efficiency that drives up profits and company reputation.

### QUALITY IS EASY

SPECTRO can easily be installed into all printing machines. Our highly qualified engineers are able to design the best solution that fits any integration need.

Spectro is easy to use: the setup of a new job can be done and saved for future use in less than one minute.

No special knowledge is required.



### DIFFERENT CONFIGURATIONS FOR DIFFERENT NEEDS

Three standard configurations are available but it is possible to customize the system integration depending on customer application or special requirements.

Thousands of successfully installations make the SPECTRO system your ideal partner.

## TECHNICAL FEATURES

SPECTRO has a very intuitive operator interface with a fast setup and a really powerful defect detection software.

Standard features:

- LED LIGHTING SYSTEM for a diffuse and uniform illumination
- SPECIAL DESIGN FOR TRANSPARENT GLASS MATERIAL
- OPTION FOR THE SECOND CAMERA to inspect the bottle neck
- TOUCH SCREEN INTERFACE  
and multiple monitor option available
- EASY TO LEARN AND EASY TO USE GUI INTERFACE
- FAST AND AUTOMATIC SET UP  
new job can be started in a minute
- EASILY DEFINE DIFFERENT AREAS OF JOB  
with different tolerance levels
- POWERFUL SOFTWARE BUT EXTREMELY VERSATILE
- GREAT RELIABILITY IN THE DETECTION
- FULL REPORT AND AUTOMATIC STORING  
of all production process data
- DIFFERENT LOGIN LEVELS
- QUICK ZOOM FUNCTION
- OPERATING IN MS-WINDOWS OS



## TECHNICAL DATA

	SPECTRO G-250 (CNC)	SPECTRO G-250	SPECTRO G-350
Print	Silk-screen, digital	Silk-screen, digital	Silk-screen, digital
Products	Bottles, drinking glasses and oval bottles (with CNC movement)	Bottles and drinking glasses	Bottles and drinking glasses
Max field of view	250 mm	250 mm	350 mm
Diameter	40-120 mm	40-160 mm	40-160 mm
Camera Resolution	Colour 2048 pixel	Colour 4096 pixel	Colour 4096 pixel
Image Resolution	Up to 4096 pixel	Up to 4096 pixel	Up to 4096 pixel
Camera Speed	32 KHz	18 KHz	18 KHz
Resolution	0,07x0,07 mm	0,07x0,07 mm	0,09x0,09 mm
Max prod. speed	90 pcs/min	90 pcs/min	90 pcs/min
Typical defects	Lack or excess of print, blurs, smears, dirt, splashes, scratches, mis-position, colour mis-registration	Lack or excess of print, blurs, smears, dirt, splashes, scratches, mis-position, colour mis-registration	Lack or excess of print, blurs, smears, dirt, splashes, scratches, mis-position, colour mis-registration
Min defect size	Ø 0,30 mm	Ø 0,25 mm	Ø 0,35 mm

Technical data and system specifications refer to the state at the time of printing. We reserve the right to modify them in the interest of a continuous program of further development.



## QUALITY CONTROL FOR COSMETICS GLASS BOTTLES

# SPECTRO/Glass C

### PRINT INSPECTION ON GLASS

SPECTRO/Glass is equipped with a line-scan camera and it is designed to inspect the print on glass cylindrical and oval objects like perfume bottles or other cosmetic containers.

### BENEFITS

SPECTRO/G guarantees a powerful combination of print quality and waste reduction.

Objectivity and accuracy of the control improve your print quality and it ensures a production without printing defects.

On line integration allows waste reduction and printing process optimization. SPECTRO is able to prevent widespread failure and averts large quantities of waste. The benefit results in cost reduction and improved process efficiency that drives up profits and company reputation.

### QUALITY IS EASY

SPECTRO/G is easy to be integrated. It can be installed into any printing production line. Light and camera box can be designed to satisfy any integration needs. SPECTRO/G is easy to use: the setup of a new job can be done in less than one minute.



### DIFFERENT CONFIGURATIONS FOR DIFFERENT NEEDS

The resolution and the accuracy of the control depend on the camera model and on the camera field of view.

Three different standard configurations are available but it is possible to customize the camera integration depending on the customer needs.

## TECHNICAL FEATURES

SPECTRO/Glass has a very intuitive operator interface with a fast setup and a really powerful defect detection software.  
Standard features:

- LED LIGHTING SYSTEM
  - composed with four different illumination typologies
- SPECIAL DESIGN FOR TRANSPARENT GLASS MATERIAL
- TOUCH SCREEN INTERFACE
- EASY TO LEARN AND EASY TO USE GUI INTERFACE
- FAST AND AUTOMATIC SET UP
- EASILY DEFINE DIFFERENT AREAS OF JOB
  - with different tolerance levels
- SIMPLE SOFTWARE but extremely powerful and versatile
- GREAT RELIABILITY IN THE DETECTION
- FULL REPORT AND AUTOMATIC STORING
  - of all production process data
- DIFFERENT LOGIN LEVELS
- QUICK ZOOM FUNCTION
- OPERATING IN MS-WINDOWS OS



## TECHNICAL DATA

	SPECTRO G-100 (CNC)	SPECTRO G-150 (CNC)	SPECTRO G-150
Print	Silk-screen, digital	Silk-screen, digital	Silk-screen, digital
Products	Perfume bottles, jars, oval bottles (with CNC movement)	Perfume bottles, jars, oval bottles (with CNC movement)	Perfume bottles, jars, flat bottles (with linear movement)
Illumination	Diffuse, dark-field, direct light, back light	Diffuse, dark-field, direct light, back light	Diffuse, dark-field, direct light, back light
Max field of view	100 mm	150 mm	150 mm
Diameter	40-90 mm	40-90 mm	40-90 mm
Camera Resolution	Colour 1024 pixel	Colour 2048 pixel	Colour 2048 pixel
Camera Speed	39 KHz	32 KHz	32 KHz
Resolution	0,05x0,05 mm	0,07x0,07 mm	0,07x0,07 mm
Max prod. speed	90 pcs/min	90 pcs/min	90 pcs/min
Typical defects	Lack or excess of print, blurs, smears, dirt, splashes, scratches, mis-position, colour mis-registration	Lack or excess of print, blurs, smears, dirt, splashes, scratches, mis-position, colour mis-registration	Lack or excess of print, blurs, smears, dirt, splashes, scratches, mis-position, colour mis-registration
Min defect size	Ø 0,20 mm	Ø 0,25 mm	Ø 0,25 mm

Technical data and system specifications refer to the state at the time of printing. We reserve the right to modify them in the interest of a continuous program of further development.