

WINE BOTTLE SCREW CAP SEAL INSPECTION



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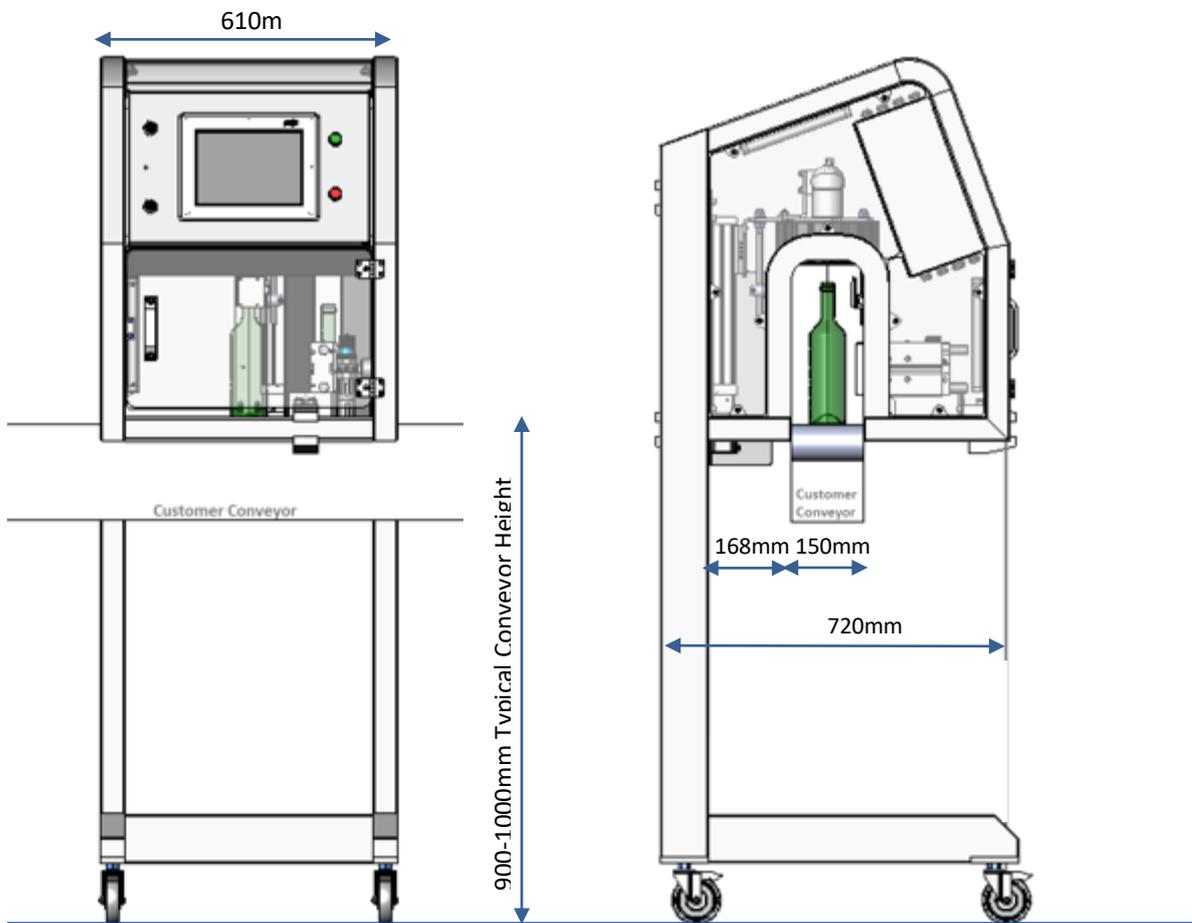
WHY CHECK THE SEAL SURFACE?

Screw caps rely on a smooth wad seal surface to preserve the integrity of the seal. Faults in bottle manufacture, transport and handling can lead to product failures. Examples of faults in the Seal surface are Chips, Cracks and air bubbles in the glass.

HOW IT WORKS

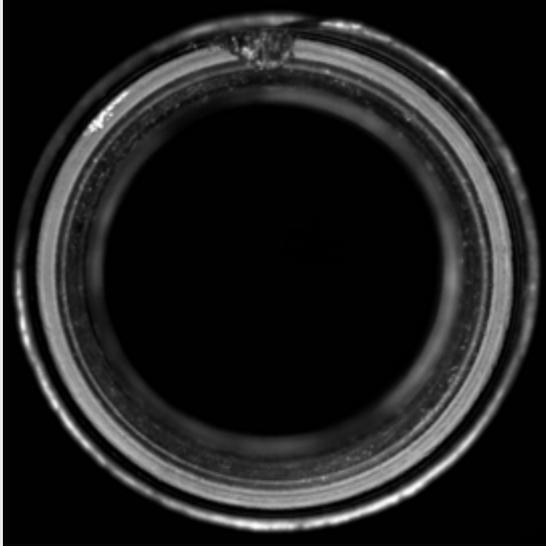
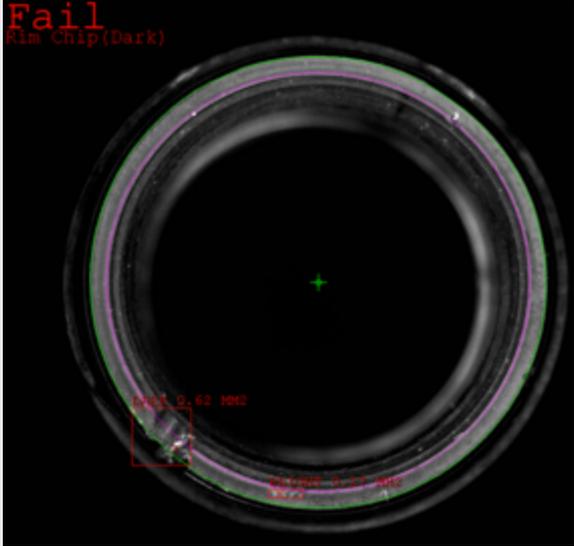
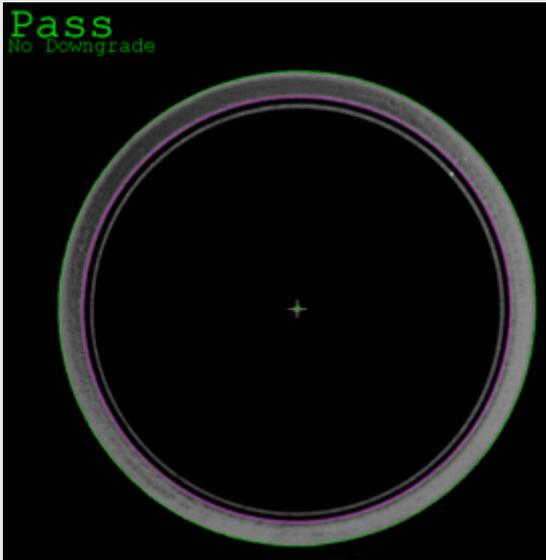
The bottle passes through the Vision inspection machine, and a LED ring-light illuminates the seal surface. A Camsensor™ camera then inspects the seal surface for defects. If any defects are found, then the bottle can be rejected, either inside the machine, downstream or a Line stop can be initiated.

DIMENSIONS



APPLICATION IMAGES

This shows actual image captures from the Inspection system

INSPECTION CAPTURES	
Fail: Chip on top of bottle 	Fail: Dark chips on seal surface 
Pass: No chips on Bottle 	Fail: Surface chips on rim 



SPECIFICATION

The following specifications are based on the assessment of your specific requirements:

MEASUREMENT PERFORMANCE	
INSPECTION –BOTTLE RIM	SPECIFIED PERFORMANCE
Resolution	0.05mm per pixel
Chip & Locating chips and cracks on bottle rim surface.	±0.025mm ² , depending on colour and depth of the defect Defect is to be on Bottle rim seal
Crack detection	±0.025mm ² , depending on colour and depth of the defect Defect is to be on Bottle rim seal

OPERATIONAL CONDITIONS	
TYPE	SPECIFIED PERFORMANCE
Speed	Up 36,000 bottles per hour
Product range	Typically, 750ml wine bottle, all colours. Height Variation. 250mm to 350mm

SYSTEM LIMITATION	
<ul style="list-style-type: none"> The distance between the product and camera must be constant, in that production run The bottles must be singulated, with a 10mm clear gap between all bottles. This allows easy rejecting The bottle must be presented parallel to the top camera. Camera inspection areas measured must be free from any liquid and dust. Customer is responsible to build reject lane and diverter Bottles with grooves or deformities within the inspection areas will be rejected. 	



SYSTEM COMPONENTS

Camsensor components come with a 12 months return to base warranty for parts and labour.

Extended warranty is available with the “Total Support and Service Package”.

CAMSENSOR SMART CAMERA

DESCRIPTION

Camsensor is a smart camera. All image capturing and subsequent image processing is carried out within the Camsensor itself. No separate data processing PC is required making for a more reliable and robust solution.

Camsensor has its own expandable IO. Result data and images are transferred seamlessly via high speed Ethernet.

Camsensor is a solid stainless steel housing that is vibration, water and dust proof. Camsensor has IP67 rating



LIGHTING HARDWARE

DESCRIPTION

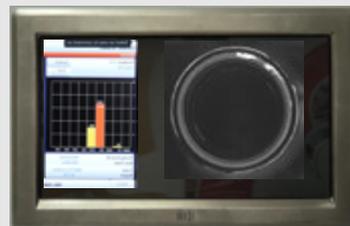
The lighting uses a high intensity LED Diffuse Dome. It has RGB Light capability, which allows for different light colour sources if required



CAMCONSOLE

DESCRIPTION

The Touchscreen is a 15" HD LCD stainless touch screen operator interface located on the frame. It is utilised for production setup requirements and real-time viewing of scanning results and statistical information, and past defect images. The touchscreen uses infrared matrix technology. It's the only technology that does not rely on an overlay on the screen. So there is nothing to wear out!



MACHINE FRAME

The adjustable stand provides the flexibility to adjust the system to a range of products and conveyors.

The touchscreen is mounted at the front for easy product selection and setup.

The frame is made from Stainless steel

Frame can be fitted over existing bottle conveyor.

The system is mounted on wheels for easy movement and servicing. Braces are provided to bolt onto your conveyor



All Controls will be mounted in the stainless cabinet The system will be fully wired ready to install.

A 240V single phase 10A supply must be supplied by you to the machine.



OPTION: AUTO HEIGHT ADJUST

The Auto Height adjust will automatically set the height of the camera to bottle that is selected on the Touchscreen.

If different bottle heights are run on your system then this option is required.

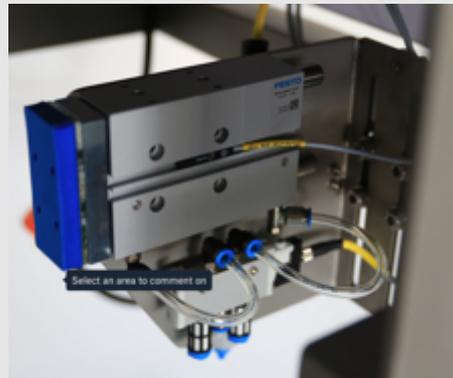
Allows bottles between 250 and 350mm in height



OPTION: REJECT CYLINDER

The optional Rejecter is mounted inside the machine. It will reject the bottle onto the chute and the bottle will fall into a reject bin.

This means a reject lane is not required on the conveyor.



REMOTE SUPPORT

Remote support is built in directly to the Camsensor Hub! You can connect your plant Ethernet/Internet connection direct to the hub, or install our optional 4G USB wireless Modem for remote support.

