

# Impact of the colour depth on the detection accuracy

Special focus on remaining stain such as yeast residues.

## Investigated bottle types, all bottles from France:

1. Wine bottle, 75 cL, white
2. 75cl Vidrala light brown
3. 75cl Veralia Ebène
4. Wine bottle, 75 cL, extremely dark-brown bottle from our archive

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## Assessment:

- All tests have been carried out at miho, Germany
- All stain defects have been mimicked by attaching standard stickers to the bottle sidewall from the inside. This way, defects can be classified in a reproducible manner. Stickers are available in different sizes as opaque (miho order number DAVBO.305) or semi-transparent (miho order number DAVBO.308).

## Results:

Within a certain range of colour depth, there is nearly NO impact from the colour depth to the detection accuracy. All sample bottles investigated 2022 are within this range of "good" colours. Even the sample bottle no. 4 (very dark) does not suffer from limits in detection accuracy

There is no impact by the type of the color: Blue, brown, green

Given values are best case values. With our experience over decades, we recommend to take a realistic bottle pool quality into account where detection parameters set to high accuracy will result in a larger number of rejected bottles.

## Conditions:

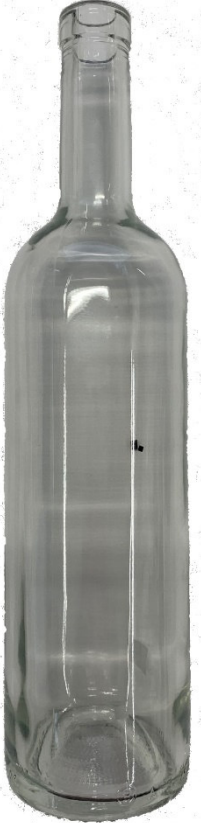
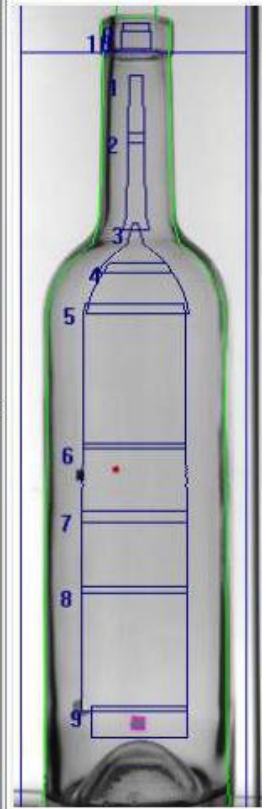
All applicable conditions given in the miho David 2 standard performance list are valid.

A miho Multicon infeed control is part of the setup. The miho Multicon measures the colour depth individually so the EBI adapts the inspection parameters for each bottle (Special software package miho OPaL / shutter correction).



Residual yeast stains  
after washing

Inspection performance miho David 2


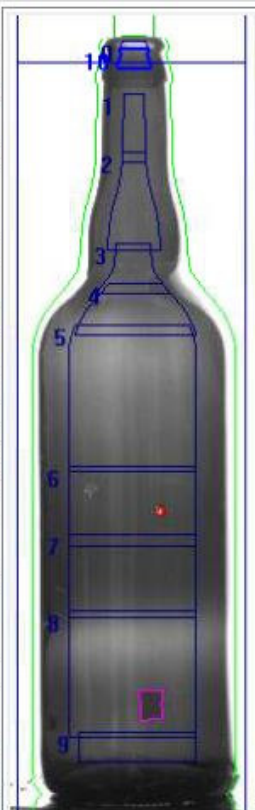
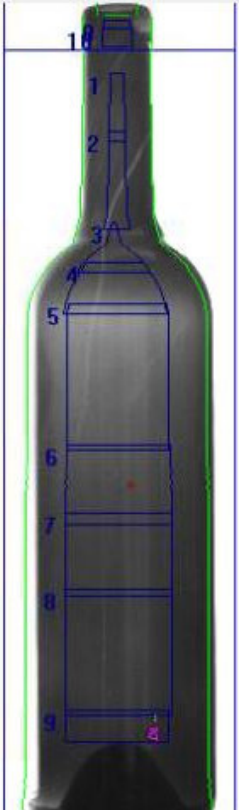
No.	Bottle name	Detection Rate	Picture bottle / full body	Picture inspection device	Detection accuracy
1	Wine bottle, 75 cL, white  SAMPLE BOTTLE FROM MIHO	<b>EBI in DSW-configuration,</b>  <b>8 images per bottle captured</b>  the defect faces at least one camera directly.  Yeast stain mimicked by an <b>opaque sticker, 2x2 mm</b> Yeast stain mimicked by a <b>semi-transparent sticker, 5x5 mm</b>		 <p>defects face the camera</p>	Minimum 99,9%*          *limitation or restrictions see Standard performance list miho DAVID2

Inspection performance miho David 2


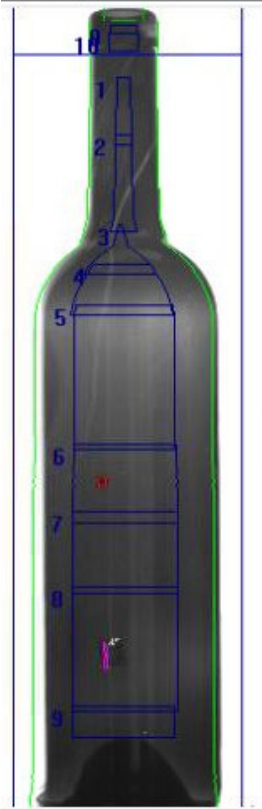
<p>2</p>	<p>Wine bottle, 75 cL, white  SAMPLE BOTTLE FROM MIHO</p>	<p><b>EBI in SSW-configuration</b>  <b>4 images per bottle captured</b>  In an unfortunate orientation of the bottle, the defect may face the opposite camera only.  Yeast stain mimicked by an <b>opaque sticker, 4x4 mm</b> Yeast stain mimicked by a <b>semi-transparent sticker, 10x10 mm</b></p>		 <p>defects at the opposite side</p>	<p>Minimum 99,0%</p> <p><small>*limitation or restrictions see Standard performance list miho DAVID2</small></p>
<p>3</p>	<p>75cl Vidrala light brown</p>	<p><b>EBI in DSW-configuration,</b>  <b>8 images per bottle captured</b>  the defect faces at least one camera directly.  Yeast stain mimicked by an <b>opaque sticker, 2x2 mm</b> Yeast stain mimicked by a <b>semi-transparent sticker, 5x5 mm</b></p>		 <p>defects face the camera</p>	<p>Minimum 99,9%</p> <p><small>*limitation or restrictions see Standard performance list miho DAVID2</small></p>

Inspection performance miho David 2

4	75cl Vidrala light brown	<p><b>EBI in SSW-configuration</b></p> <p><b>4 images per bottle captured</b></p> <p>In an unfortunate orientation of the bottle, the defect may face the opposite camera only.</p> <p>Yeast stain mimicked by an <b>opaque sticker, 4x4 mm</b></p> <p>Yeast stain mimicked by a <b>semi-transparent sticker, 10x10 mm</b></p>		 <p>defects at the opposite side</p>	<p>Minimum 99,0%</p> <p><small>*limitation or restrictions see Standard performance list miho DAVID2</small></p>
5	75cl Veralia Ebène	<p><b>EBI in DSW-configuration,</b></p> <p><b>8 images per bottle captured</b></p> <p>the defect faces at least one camera directly.</p> <p>Yeast stain mimicked by an <b>opaque sticker, 2x2 mm</b></p> <p>Yeast stain mimicked by a <b>semi-transparent sticker, 5x5 mm</b></p>		 <p>defects face the camera</p>	<p>Minimum 99,9%</p> <p><small>*limitation or restrictions see Standard performance list miho DAVID2</small></p>

<p>6</p>	<p>75cl Veralia Ebène</p>	<p><b>EBI in SSW-configuration</b></p> <p><b>4 images per bottle captured</b></p> <p>In an unfortunate orientation of the bottle, the defect may face the opposite camera only.</p> <p>Yeast stain mimicked by an <b>opaque sticker, 4x4 mm</b></p> <p>Yeast stain mimicked by a <b>semi-transparent sticker, 10x10 mm</b></p>		 <p>defects at the opposite side</p>	<p>Minimum 99,0%</p> <p><small>*limitation or restrictions see Standard performance list miho DAVID2</small></p>
<p>7</p>	<p>75cl Wine bottle, dark brown</p> <p>SAMPLE BOTTLE FROM MIHO</p>	<p><b>EBI in DSW-configuration,</b></p> <p><b>8 images per bottle captured</b></p> <p>the defect faces at least one camera directly.</p> <p>Yeast stain mimicked by an <b>opaque sticker, 2x2 mm</b></p> <p>Yeast stain mimicked by a <b>semi-transparent sticker, 5x5 mm</b></p>		 <p>defects face the camera</p>	<p>Minimum 99,9%</p> <p><small>*limitation or restrictions see Standard performance list miho DAVID2</small></p>

Inspection performance miho David 2

8	<p>75cl Wine bottle, dark brown</p> <p>SAMPLE BOTTLE FROM MIHO</p>	<p><b>EBI in SSW-configuratio</b></p> <p><b>4 images per bottle captured</b></p> <p>In an unfortunate orientation of the bottle, the defect may face the opposite camera only.</p> <p>Yeast stain mimicked by an <b>opaque sticker, 4x4 mm</b></p> <p>Yeast stain mimicked by a <b>semi-transparent sticker, 10x10 mm</b></p>		 <p>defects at the opposite side</p>	<p>Minimum 99,0%</p> <p>*limitation or restrictions see Standard performance list miho DAVID2</p>
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