

# PREFORM INSPECTION

## QP700

### VISION SYSTEM FOR PREFORM INSPECTION

#### QP700 VISION - TECHNOLOGY

##### Theory of Operation

The FT System QP700 Vision System is designed to inspect plastic preforms for defects prior to blow moulding.

The FT System QP700 is a modular inspection system.

The available modules include the neck finish inspection, the ring inspection, the bottom and inner walls inspection and the external walls inspection.

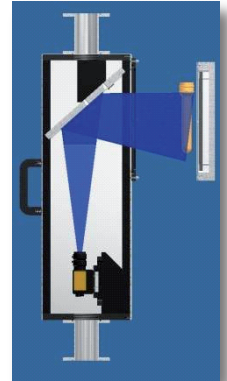
Each module, installed in a specific area of the blow moulder or in a carousel located upstream the blow moulder entrance.

The system combines a high speed camera with microprocessor and industrial optics with an analog illumination system to provide uniform lighting of all surfaces to be inspected.

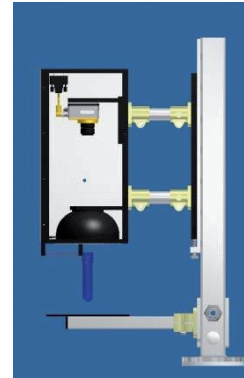
**The system is composed of several independent modules which can be positioned where it is easier to inspect the preform inside the blower machine**



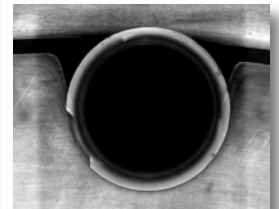
External Wall - Real Acquisition



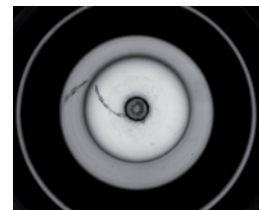
External Wall Inspection Module



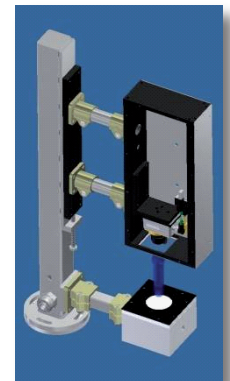
Neck Ring Inspection Module



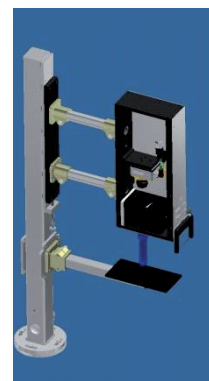
Neck Ring - Real Acquisition



Bottom - Real Acquisition



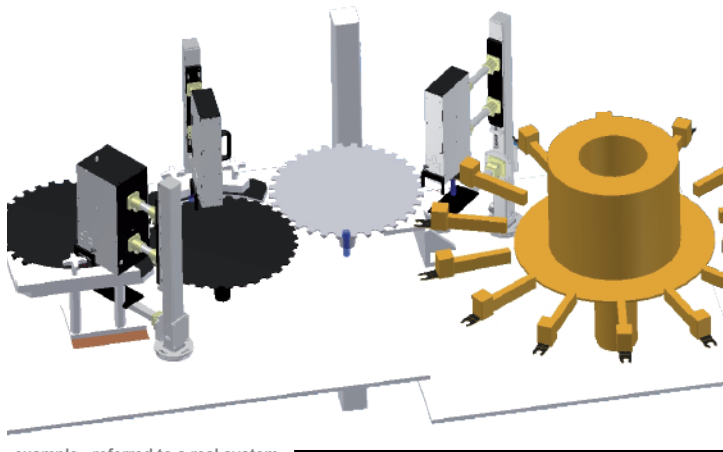
Injection Point - Bottom Inspection Module



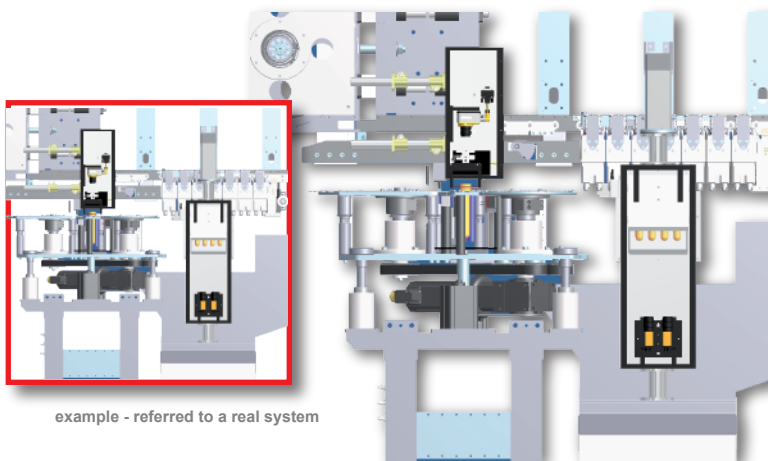
Bottle Finish Inspection Module



Bottle Finish - Real Acquisition



example - referred to a real system

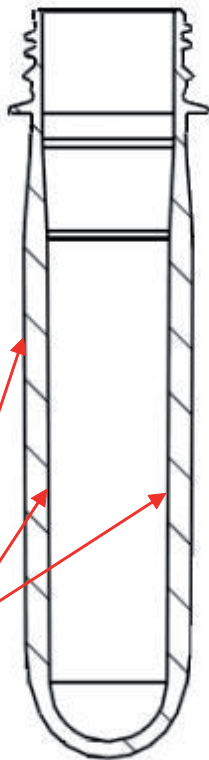
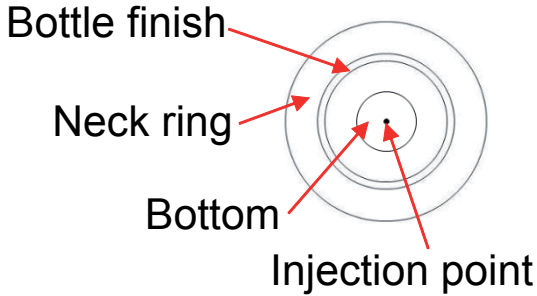
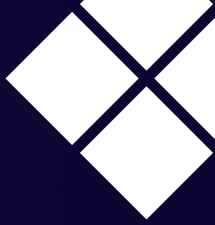


example - referred to a real system

# PREFORM INSPECTION

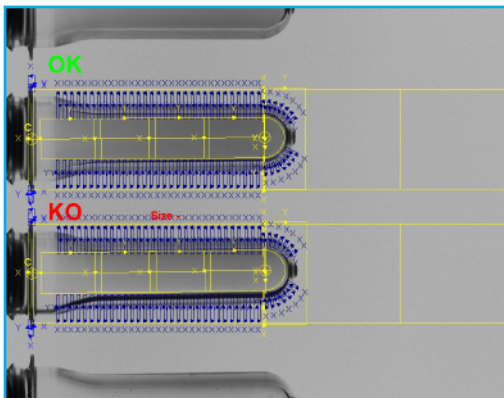
## QP700

VISION SYSTEM FOR PREFORM INSPECTION



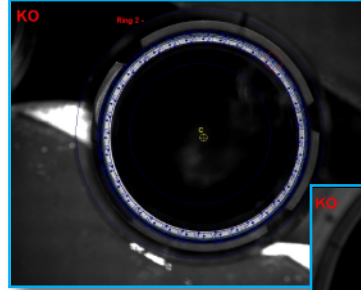
External wall

Internal wall

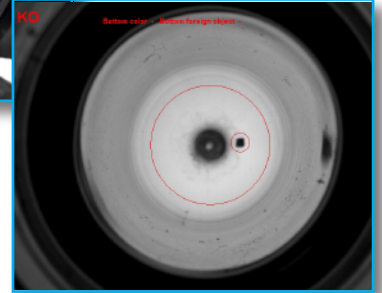


Analysis example

Analysis example



Analysis example



### INTERNAL WALL Inspection Module

- Pin holes
- Inclusions
- Bubbles
- Black spots
- Side wall deformations

### BOTTOM AND INTERNAL WALLS Inspection Module

- Pin holes
- Inclusions
- Bubbles
- Black spots
- Side wall deformations

### NECK RING Inspection Module

- Circumference defects
- Blemishes
- Burrs

### RING Inspection Module

- Contamination on the surface
- Flashes
- Dimensional defects including ovalization