Technical News Bulletin

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ISIS – Wall Thickness Gauge

1. Introduction

The non-contact Wall Thickness Gauge uses one chromatic sensor to measure the wall thickness of a glass container. The Wall Thickness Gauge does not require any mechanical adjustment at job change. The measuring head is mounted on a horizontal linear positioning device which automatically moves the sensor to the correct distance from the glass surface. The measurement spot size has a diameter of only 10µm and can measure glass thickness up to 8 mm thick (flint container).

During the 360 degree rotation of the container the chromatic sensor continuously captures information to calculate the absolute glass thickness measurement.
2. Features

Once installed, configured, and calibrated the Wall Thickness Gauge does not require any mechanical adjustment. When creating a ‘Job’ the operator specifies the location the measurement should be performed: the distance from the top or base of the container to measure the wall thickness. For each location the wall thickness measurement is performed 360 degree around the container. The operator can specify up to 9 different locations. The 9 locations can be of different diameters.

The ISIS elevator positions the container to the different locations in front of the wall thickness sensor. The wall thickness sensor is mounted on a linear positioning slide which automatically moves the sensor to the correct distance from the glass surface for optimal measurement. During the container 360 degree rotation the wall thickness sensor continuously measures the glass thickness and sends this information to the data processing unit. From here the information is processed to calculate the minimum, maximum and average glass thickness value for the corresponding measurement location.

When creating the ‘Job’ the operator can specify minimum and maximum limit values for each measurement location.

3. Benefits

- Non-contact fully automated measurement of container glass thickness
- No mechanical adjustment at job change

4. Specification

- Measures glass thickness 360 degree around the container at up to 9 locations
- Different measurement locations can be different diameters
- Glass surface must be vertical
- Chromatic sensor spot size diameter of 10µm
- Measures glass thickness up to 10 mm (up to 8 mm for flint containers)

5. Installation

The Wall Thickness Gauge can be installed on any ISIS currently in the field. Installation is performed on site.

6. Availability

The Wall Thickness Gauge is available as an option on new ISIS or as an upgrade for any ISIS currently in the field.

The Wall Thickness Gauge part number is 14252P.