

QualiLine-G

In-line glass tube inspection systems

QualiLine-G is a dedicated system for real-time measurement of a variety of parameters during glass tube production. Real time feedback allows adjustment of the furnace and tube production system.

Key features:

- Novel optical non-contact measurement
- Real-time feedback to adjust production parameters
- Rapid sampling speed
- Fully integrated into production line
- Six Sigma quality control



Glass tube inspection

QualiLine-G is a computer-controlled system used for the inspection of glass tubing during its manufacturing and is of particular interest to light source manufacturers. Using a novel, laser-based optical inspection system, QualiLine-G enables glass tube thickness and other parameters to be controlled according to Six Sigma guidelines. The glass tube passes through the measurement point at a maximum speed of 3 m/sec, where measurements are taken simultaneously by 3 inspection heads arranged around the tube. QualiLine-G can be used on any transparent tubing.

Benefits

With a sampling speed of 25 measurements/second, QualiLine-G produces real-time measurements that can be fed back to the production system to ensure a completely stable production environment. The use of QualiLine-G results in a significant reduction in waste and lowers costs.

Measured parameters

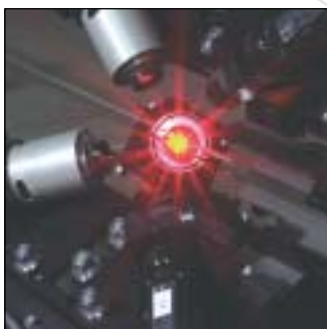
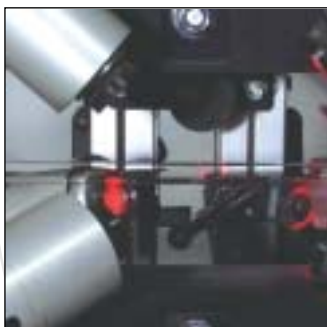
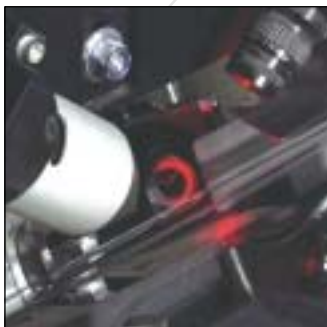
- Wall thickness
- Diameter
- Circularity
- Siding*
- Surface quality

* siding is the difference between the measured centres of the inner and outer walls of the tube



QualiLine-G

In-line glass tube inspection systems



SPECIFICATION

Default diameter range	6 – 20 mm
Minimum diameter	3 mm
Maximum diameter	Dependent on layout
Wall thickness	0.5-1.5 mm
Resolution	±1.6 micron
Accuracy	±5 micron
Reproducibility	±0.5 micron
Sampling rate	25 measurements/sec
Maximum throughput	3 m/sec

Data handling

Collected data is processed by an industrial PC. MODBUS protocol is used for communication between the furnace & tube production system. A comprehensive data display shows the instantaneous value of each parameter. Wall-thickness and siding* data from each measuring head can be displayed. Data can be stored and be used for product certification.

* siding is the difference between the measured centres of the inner and outer walls of the tube

Falcon-Vision ZRt.

Dugonics u. 11.
H-1043 Budapest
Tel: +36 1 272 1195
+36 1 370 0010 ext. 479
Fax: +36 1 370 0005
E-mail: office@falcon-vision.com