# Babender® Film Quality Analyzer



... where quality is measured.

The Brabender Film Quality Analyzer FQA optically inspects the quality of blown or flat films on a laboratory or production scale.

Each type of inhomogeneity has its own transparency characteristics. A black speck shows another transparency value than a gel or fisheye. These differences in transparency are used to define typical grey levels for each type of inhomogeneity. The camera system recognizes the difference between the grey value level of the undisturbed film and that of inhomogeneities. The evaluation software defines the type of a fault on the basis of its grey value, measures its height and width, calculates the area and a circle diameter corresponding to this area, and allocates it to the corresponding size class.

## Combined film production and quality analysis

The FQA can easily be mounted e.g. on a Brabender Univex flat film takeoff unit as a downstream equipment of an extrusion line to obtain a complete laboratory-scale film production line incl. fully automatic in-line optical film quality analysis.



# Highlights

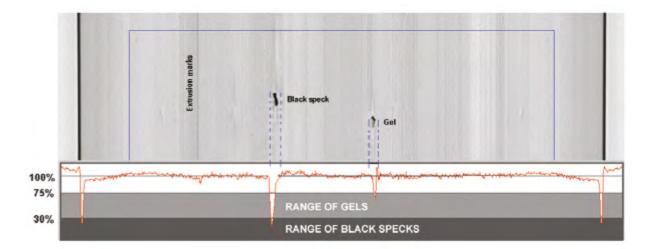
- and impurities
- evaluation of film purity
- particles

# Software

- Identification of impurities
- · Classification of the detected impurities in up to 9 size classes
- Histograms
- Trend curves

# **Technical Data**

- Camera: 4096 pixel CCD line camera
- Sensor dimensions: 41 mm x 10 µm
- Pixel dimensions: 10 µm x 10 µm
- Pixel frequency: 80 MHz
- Line frequency: approx. 20 kHz
- Resolution: approx. 20  $\mu$  (optional 10  $\mu$ ) (depending on take-off speed)
- Width of measuring window: approx. 80 mm
- Light source: White LED Light
- Operating temperature: 10°C to 35°C
- Housing dimensions: 145 x 145 x 255 mm
- Mains connection: 230 V / 110 V AC, 30 VA





- Automated optical line analysis of extruded films
- High-resolution camera for detection of inhomogeneities
- Optical and both qualitative and quantitative statistical
- Sizing and classification of agglomerates and pigment

- The camera system uses its own software. It offers versatile features and numerous statistical evaluations:
- · Recording of inhomogeneity positions
- Density of impurities (e.g. gel spots/m2)

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