

## In-line Inspection for Blown Film: Quality and Process Control for Higher Yields



Dr. Schenk, leading supplier of high precision inspection systems, offers a groundbreaking technology that helps blown film manufacturers and converters to combine the detection of defects with material monitoring.

EasyInspect identifies miniscule defects that can occur during the manufacturing process. EasyMeasure monitors the homogeneity of the final product's properties. The combination of EasyInspect and EasyMeasure fully ensures product quality and optimizes the blown film manufacturing process with a single system.

### Benefits of automated optical inspection and monitoring of blown film material

The innovative optical inspection solutions EasyInspect and EasyMeasure allow comprehensive quality control (ISO 9001) that matches the steep requirements of product liability. At the same time they not only help to reduce the life-cycle costs caused by poor quality products but also minimize material waste during the production (ISO 14001).

For the first time, EasyMeasure enables the classification of the product quality's functional level within defect free material.

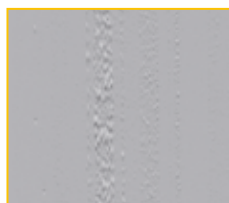
#### Blown film applications:

- Base material for converted products
- Agricultural film
- Bags
- Packaging film, food wrapping
- Laminating film
- Barrier film

#### Blown film defects:

- Gels/fisheyes
- Air bubbles
- Die-lines
- Weld-lines
- MD scratches
- Carbon speck (die pickoff)
- Insects
- Tears
- Melt fractures
- Wrinkles (MD and diagonal)

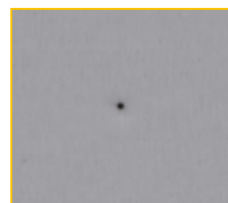
Die-line



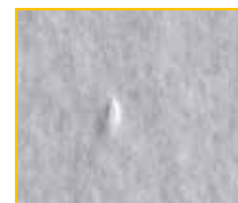
Wrinkle



Particle



Bubble



## Ensure product quality and optimize blown film manufacturing!

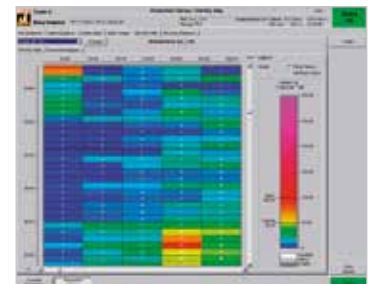
EasyInspect applied to blown film identifies defects and irregularities that can occur in the base material production process. The system's innovative optical set-up and its image processing and visualization software have been adapted to the specific requirements of blown film. Proven to be highly reliable, EasyInspect convinces with:

- Advanced camera and illumination technology for highest contrast, sensitivity and optimized resolution
- Reliable and accurate classification of defects
- High defect sensitivity with bright-field and dark-field channels
- Easy integration into production lines
- Standard components for an optimal price/performance ratio
- User-friendly interfaces according to SEMI standards
- Data storage function for quality evaluation and process optimization



EasyInspect combined with EasyMeasure enables full control over the manufacturing process and the end product. Together they support you significantly in

- establishing consistent quality standards by rejecting material with irregularities from the further production process,
- improving yield by quickly identifying the source of a defect and eliminating the problem immediately and
- gaining in-depth knowledge of the production process by quality documentation, history and statistics reports.

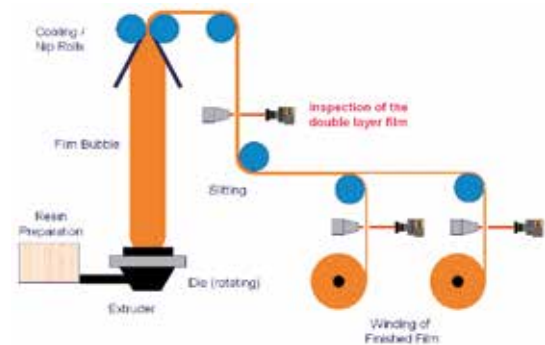


## EasyMeasure

### Monitoring for 100% control in the production of blown film

**Clarity/Haze Monitoring:** enables to monitor non-homogenous mixture of granulate with master batch.

**Gloss/Reflectance:** This add-on option controls surface distortions (applesauce, orange peel, shark caused by bad resin, die lip issues or melt fracture among other reasons).



#### About Dr. Schenk

Dr. Schenk GmbH offers inspection and measurement solutions for automated quality assurance and production process control - a key success factor in the making and converting of many materials, e.g. plastics, textile materials, nonwovens, paper, metal, or glass, for a multitude of markets like display glass, automotive, packaging, medical, renewable energy, and many more. From modular standard units to highly customized systems – Dr. Schenk's solutions have your material in focus!

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