

Non-contact capacitive gauge profile measurement system ScenEx PF

Function description

The Octagon measuring system ScenEx PF has been designed for the measurement of the thickness profile on blown film lines.

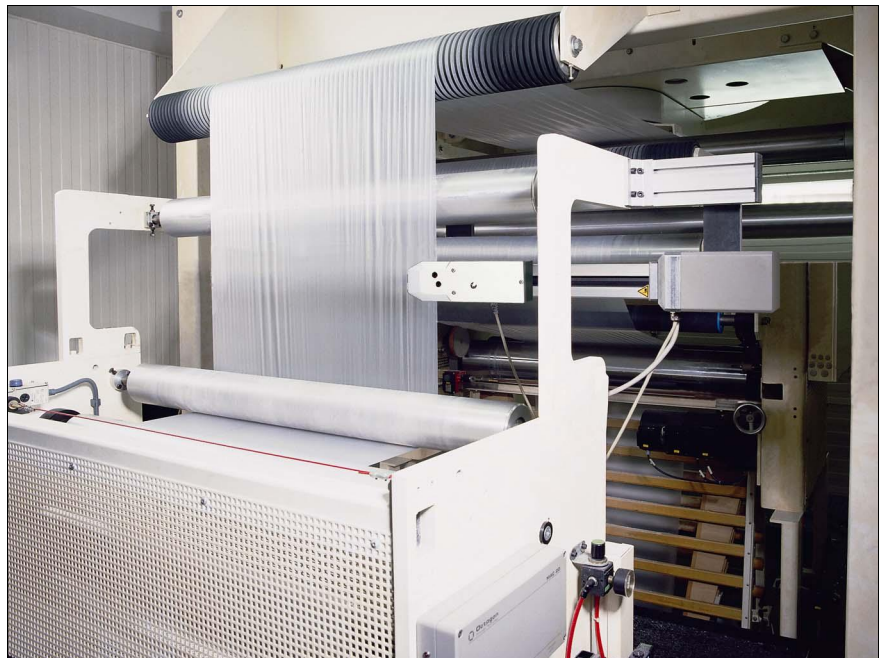
The capacitive PMS-F sensor measures the gauge profile on the edge of lay-flat film. Its resolution of 0,1 μm allows even minimal deviations of the thickness to be recorded.

The sensor is connected to a PC where the software PMS-Win is installed for evaluation, display and memorisation of the measurements.

The PMS-Win software allows to administrate up to 10 extrusion lines and therefore offers a most economic concept for on-line quality control.

Installation of the PMS-F sensor at the edge of lay-flat film

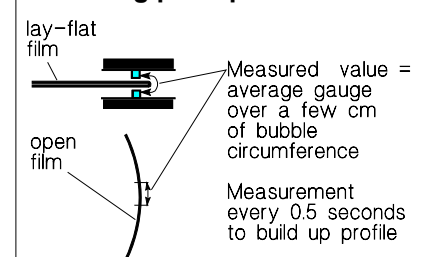
Due to rotation of the extruder, an oscillating haul-off or rotating die, each point of the circular film profile passes the PMS-F sensor allowing the bubble to be measured around its entire circumference and a complete profile to be registered.



Profile measurement on the edge of lay-flat film with special features

- Film measurement without contact
- No build-up of heat on sensor
- No scratching of film
- No down-time due to contamination or wear of sensor
- Radiation-free capacitive measurement principle
- High resolution due to small measured area

Measuring principle



Quality

- Minimises tolerance ranges
- Permanent display of thickness profile
- Ensures constant film quality
- Better fulfilment of customer's requirements
- Efficient aid for centring the die

Advantages

- Reduced waste
- Savings in raw materials
- No customer complaints
- User-friendly and low on maintenance

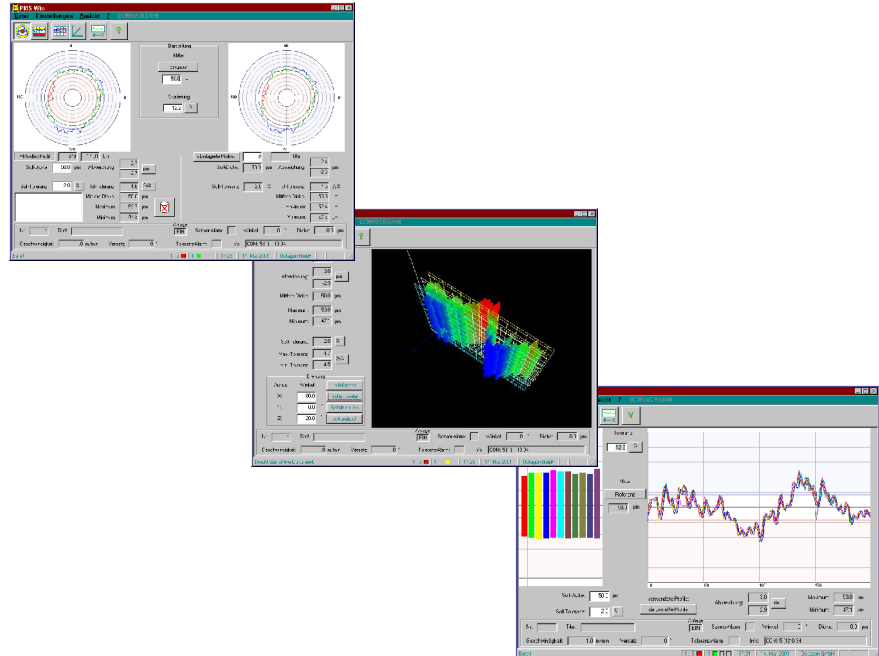
Automation

- Safer production process
- PC software to connect up to 10 extrusion lines
- Continuous recording and display of important process data
- Able to be extended with software for gauge profile analysis
- Alarm display

Measuring Systems by Octagon: Reliability in quality control for blown film extrusion

Display on the PC with software PMS-Win

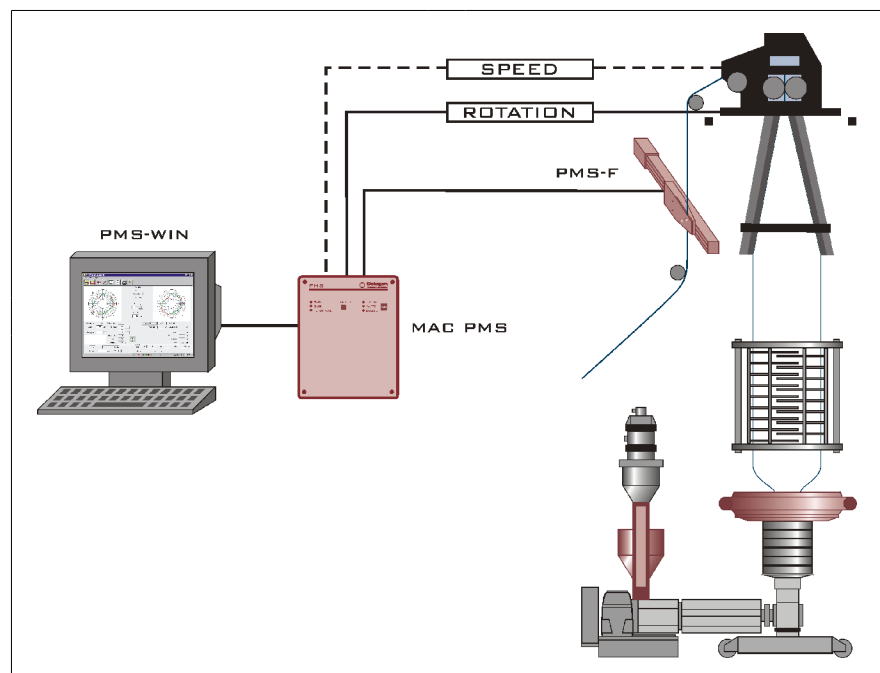
- Cartesian chart
- Polar chart
- 3-dimensional view of profiles
- Superimposed profiles
- Trend display



Display of measured values

- Actual thickness of the current measurement
- Minimum/maximum thickness
- Average thickness
- Tolerance in sigma 1, sigma 2 or sigma 3
- Deviation to target thickness

Installation in an extrusion line



Standard extent of delivery

- Measuring sensor PMS-F with automatic or manual positioning device
- Process controller MAC-PMS
- PC software PMS-Win
- O-point sensor

Other options:

- Web speed probe
- Sensor for counting teeth

Line specific features

- System suitable for rotating or oscillating lines

Technical features

- Measuring range 6 - 300 μm
- Resolution 0,1 μm

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