PLANOWAVE 6000

Thickness measurement in sheet extrusion
– non-contact, innovative, precise –
**PLANOWAVE 6000**

Innovative millimeter wave measuring system for quality assurance in sheet extrusion lines

**Precise online thickness measurement of plastic sheets**

The PLANOWAVE 6000 is a non-contact measuring system that is used for a non-destructive thickness measurement during the extrusion of plastic sheets. The system is designed for sheets made of technical plastics such as POM and high-performance plastics like PEEK. The PLANOWAVE 6000 is also predestined for the measurement of transparent and advertising plastics like PMMA and PVC-FOAM as well as for glass. Innovative millimeter wave technology offers a precise thickness measurement with a clean, non-radioactive radiation, independent from material and temperature of the sheet. A calibration on the material is not needed.

The PLANOWAVE 6000 can both be integrated at the hot and cold position directly into the production line. The measurement of the sheet is accomplished by using millimeter waves, according to the FMCW* runtime method. A linear moveable transceiver continuously sends and receives frequency modulated millimeter waves. From the runtime difference, the thickness of the sheet is precisely determined.

The visualization of measuring values is processed in real time. The processor system ECOCONTROL 6000 offers a numerical display of the measuring values at any number of measuring points over the width of the sheet with a graphical visualization as well as extensive trend and statistical data.**

The PLANOWAVE 6000 contributes to repeatable processes, high quality and productivity during sheet extrusion.

**Typical features**

- Non-contact measurement of the sheet thickness with innovative millimeter wave technology
- Easy operation without presetting the product parameters
- Measurements independent from material and temperature
- Free from radioactive radiation
- Precise measuring values immediately after starting the line, correlated with the adjusting screws of the extrusion line
- Reliable without any calibration
- Assurance of sheet quality
- Repeatable processes and highest productivity

**Technical Data PLANOWAVE 6000**

**Measuring Principle**

Non-contact on the basis of FMCW* millimeter wave technology

**Application**

Sheet extrusion, thickness measurement of sheets

**Material**

Any kinds of sheets from technical plastics (e.g. PE, PP, ABS, PET, POM, PA etc.), high-performance plastics (PEEK, PVDF etc.), transparent and advertising plastics (PMMA, PC, SAN, PVC-FOAM etc.) as well as glass and glass fiber reinforced sheets

**Measuring Range**

Sheets from 0.5 mm

**Sheet Width**

The width of the PLANOWAVE 6000 is individually adjusted to the width of the line: up to 5,500 mm as standard, larger line widths on request

**Interfaces**

USB
Optional: industrial fieldbus (e.g. Profinet IO, EtherNet/IP, Profibus-DP, CANopen, DeviceNet), LAN, OPC DA/UA, analog output

**Power Supply**

100 - 240 V AC ± 10 %, 50/60 Hz

**Measuring Frequency**

80 to 300 GHz, max. 10mW

**Measuring Rate**

370 Hz

Technical data is subject to change

* Frequency Modulated Continuous Waves
** A correlation with the adjusting screws of the sheet extrusion line is also possible.