Optical Control Systems



Tape Line (TCA®)

The OCS Tape Line Type TCA® is used for testing transparent polymer films (tape). It consists of the OCS Measuring Extruder (ME) and the OCS Modular Film Analyser with Calender (MFA-Calender). Our calendaring system has been specially developed for the wire and cable industry. It presses and cools the extruded polymer film (tape) from both sides, thus ensuring a smooth and consistent surface thickness for optical anlysis.

The Tape Quality Analyser (TQA100) contains a high-resolution camera system that detects contaminants, gels, black specks, fibres and metal particles. The detected errors are marked by the LASER Marking System (LM100) or the Label Printer (LP100). The polymer film is then cut into strips using the OCS Film Cutter and Sorter (OFC100) and sorted into appropriate containers. Additional physical, chemical and optical test systems can be integrated on customer request.

Testable Raw Materials

- Pellets/transparent polymer films (tape), powder and flakes

Module I + II (included)

- Measuring Extruder (ME20/ME25/ME30) with fix lip die of 50–75 mm
- Modular Film Analyser with Calender (MFA-Calender)
- Tape Quality Analyser (TQA100)

Features

- Measuring Extruder (ME) comes with flexible height adjustment (infusion position)

Sales Team



T +49 2302 95622-0
F +49 2302 95622-33
info@ocsgmbh.com
www.ocsgmbh.com

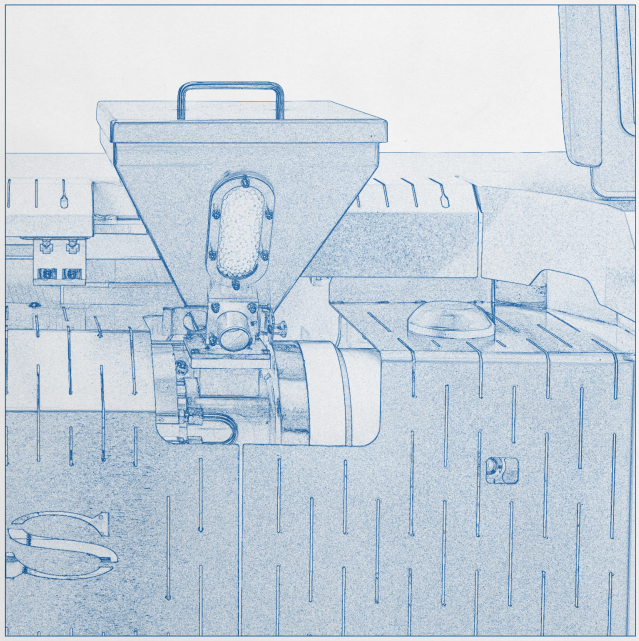
Address

OCS Optical Control Systems GmbH
Wullener Feld 24
58454 Witten
Germany

- Maintenance and cleaning positions of the Measuring Extruder (ME) can be approached via electric motor
- Modular architecture of the Modular Film Analyser (MFA) to facilitate customisation of additional measuring devices
- Operation via touch panel with data trend as well as optical and acoustic alarm functions
- All system parameters are monitored and saved in the touch panel control system
- Several options for data communication available

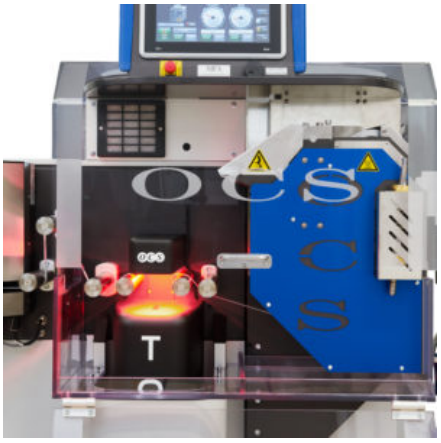
Technical Details

Fix lip die	50–75 mm
Communication protocol	MODBUS (RTU, TCP/IP), PROFIBUS, PROFINET, OPC (Server/Client), CSV file, customer-specific



More Product Pictures





Similar Products



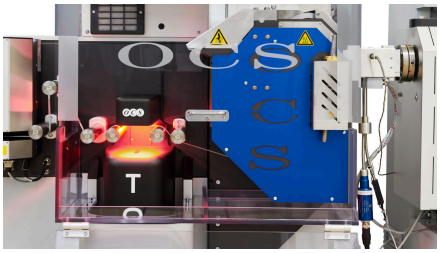
Measuring Extruder (ME20/ME25/ME30/ME40/ME45)

The OCS Measuring Extruder (ME) is used for the production of polymer films for laboratory and small series production. The extruder is equipped with a flat film die and, if necessary, a downstream OCS Modular Film Analyser to enable further quality measurements. The system is controlled via a touch panel to set up device parameters and recipes. In addition, the optional Remote Control Function allows the Measuring Extruder (ME) to be displayed and controlled from various locations. Another feature is the automatic turning system, which allows easy cleaning of the extruder barrel, die and screw. The extruder then automatically returns ... [read more on our Website]



Modular Film Analyser (MFA)

The OCS Modular Film Analyser (MFA) is used for the continuous cooling, stripping and winding of extruded polymer film. In combination with a variety of different measuring instruments, a wide range of applications for the analysis of different sample materials is covered. In addition to the Film Surface Analyser (FSA100V2/FSA200V2) for optical quality control of the polymer film, online spectroscopy, the measurement of haze and transmission as well as gloss and thickness can be integrated. This allows the combination of a tailor-made and yet economical solution. [vc_column width="1/2"] Features Modular architecture for customer-specific configuration with different measurement devices Homogeneous, yet ... [read more on our Website]



Tape Quality Analyser (TQA100)

The OCS Tape Quality Analyser (TQA100) is used for testing transparent materials (tape) in the wire and cable industry. The high-resolution camera system with a resolution of up to 5 µm and OCS-developed LED illumination with MCE technology (Multi Channel Evaluation) detects impurities such as black specks, fibres and metal particles. With the use of the MCE technology, the system can be adapted to customer-specific requirements and thus further optimise the quality of contamination detection. In the TQA100 software, the measurement results are analysed according to customer-specific presentation of results and defects are classified. All relevant measurement results are ... [read more on our Website]



Film Surface Analyser (FSA100V2/FSA200V2)

The OCS Film Surface Analyser (FSA100V2/FSA200V2) is a modular optoelectronic inspection system for polymer films. It can be used in the laboratory as well as in the running production process. The film is inspected by means of a high-resolution CMOS line camera and a user-specific, high-power LED. This combination enables optimal defect detection in transparent, opaque and coloured polymer films. In the FSA100 software, the measurement results are analysed according to user-specific requirements, defects are classified and the film quality is determined. The FSA100V2 can be combined with other OCS film inspection



Film Thickness Measurement (FTM)

The OCS Film Thickness Measurement (FTM) allows the continuous measurement of the thickness of polymer film (flat film, blown film or tape). For measurement, the film is guided between two precision rollers. One of the rollers is deflected according to the film thickness. This deflection is measured by a digital probe and evaluated by microcontroller-based electronics. The measured value is shown on a display and can be evaluated via analogue or digital interfaces. [vc_column width="1/2"] Measurable Materials Polymer films Features Continuous thickness measurement of the polymer film [vc_column width="1/2"] Optional Customer-specific data preparation and transfer Remote control



LASER Marking System (LM100)

The OCS LASER Marking System is designed and manufactured using state-of-the-art technology. The LM100 can be used to mark or label defects on polymer films (tape). The labelling and marking settings as well as the power of the laser can be configured with the operator software to the corresponding product requirements. The LASER Marking System consists of laser, control and suction unit. The laser unit essentially consists of a class 4 air-cooled laser, a two-part protective cover, a viewing window and a pneumatically swivelling film guide. The laser unit has two air filters so that neither dirt nor dust accumulates ... [read more on our Website]

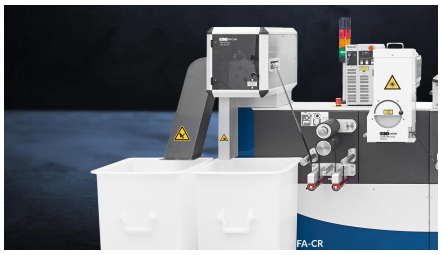
systems. This combination provides additional measurement results, ... [read more on our Website]

(via communication protocol ... [read more on our Website]



Label Printer (LP100)

The OCS Label Printer (LP100) ensures the highest quality standards with regard to the labelling of, and repair of defects on, polymer films. Simple operation enables reliable and fast printing. [vc_column width="1/2"] Labelable Materials Polymer films (tape) [vc_column width="1/2"] Features Reliable and fast printing Precise impression Easy operation Compact design Meets the highest quality standards Compatible with OCS Tape Line OCS Modular Film Analyser (MFA) ... [read more on our Website]



Film Cutter and Sorter (OFC100)

The OCS Film Cutter and Sorter (OFC100) performs two tasks in one system. First, it continuously shreds the polymer film into sections of consistant length (specified value) and ejects them. The ejected film cuttings are then collected in a collection container. The OFC100 automatically sorts out the marked and contaminated film sections with the help of the software. These marked sections are significantly longer for purposes of further analysis and are ejected separately via the sorting ejector into another collection container. Here, too, the length of the marked film sections can be defined. [vc_column width="1/2"] Cuttable and Sortable Materials Polymer ... [read more on our Website]



Pellet Transport System (PTS)

The OCS Pellet Transport System (PTS) is a control system that ensures the continuous and automatic transport of plastic granules (pellets) between production lines and measuring systems. The pellets from the production line are removed by pneumatic samplers. The samples are transported through special conveyor pipes, distributed and fed to the corresponding measuring system. This ensures a gentle transport of the pellets to avoid dust and streamers. Features Individual and fully automated transport system for supplying the measuring systems Enables timely readjustment in case of parameter variations (minimisation of scrap) Simple operation via touch panel with optical and acoustic ... [read more on our Website]



Tape Line (SSA®)

The OCS Tape Line type SSA® is used specifically to detect surface irregularities (pips) on non-transparent polymer films (tape) in the wire and cable industry. The SSA® Line consists of a Measuring Extruder (ME) and a Modular Film Analyser with a Chill Roll (MFA-CR). During the measurement of the surfaces, the extruded polymer film (tape) passes over a chill roll, which leads the tape to the Surface Quality Analyser (SQA). This high-resolution CMOS camera system uses a specially developed measuring roll to measure the height of the surface defects (so-called pips or agglomerates) with a resolution of 1 µm. ... [read more on our Website]

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