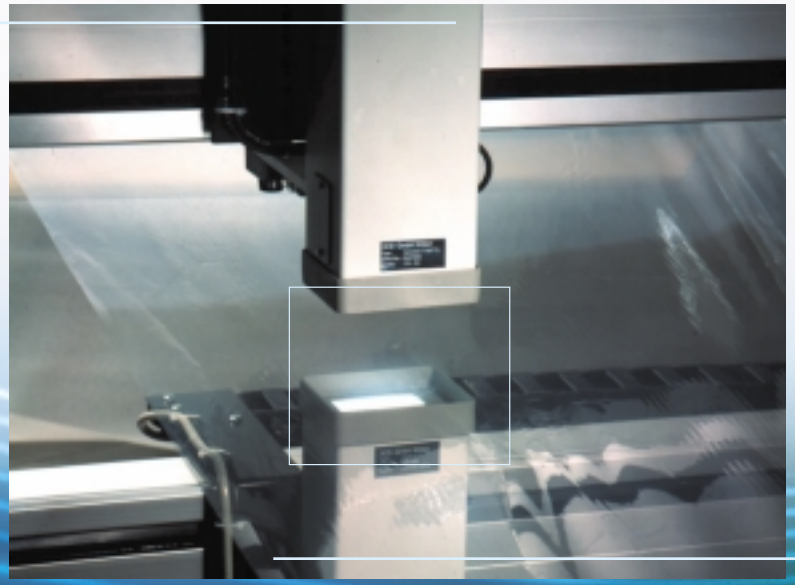
OCS - Optical Control Systems GmbH

As one of the world's leading manufacturers of optical quality control systems, OCS supplies customised and complete solutions in the fields of digital image processing, optical measurement and automation. Our systems ensure maximum product quality control. With the aid of precision cameras in conjunction with high performance online image processing, even the smallest defects in polymer products are detected, located and analysed in detail. The applications for OCS systems range from laboratory use to complete integration into the production process.

Leading manufacturers in the petrochemicals and polymer industries benefit from these features. In Europe and the USA, Canada, South America and Asia: everywhere in the world, our system solutions are successfully in service. With a highly expert and innovative team of development and production engineers, OCS supplies top level technology and know-how worldwide – always at the leading edge with our systematic research and development work. Our manufacturing processes, delivery, installation and user training are also state of the art. Service to our clients is our paramount aim: in no time we will repair damaged systems worldwide – guaranteed.

Film Quality Testing System FT-5



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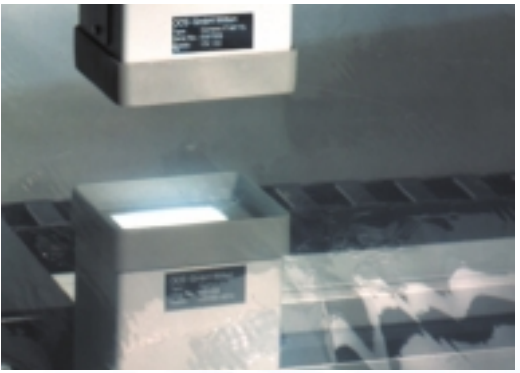


Application

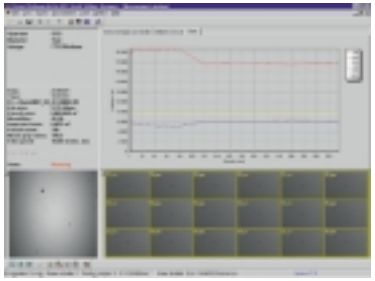
The Film Quality Testing System FT-5 from OCS was designed for reliable, automated quality control of transparent materials such as polymer films, glass etc. The system detects impurities, holes and other inhomogeneities, e.g. it distinguishes between gels and black specks, in 10 adjustable class sizes. The lowest recognition is at a standard resolution of 20 µm.

Components

FT-5 consists of a high-speed matrix camera and a stroboscope lighting unit, which are protected by aluminium housings. They are connected to a high-performance image-processing computer, which is in a 19"-4HE housing. The system can easily be integrated into production processes for production lines with high-speed strips (up to 300m/min) without the resolution being influenced and for materials of several metres in width. Furthermore, the FT-5 is highly suitable for laboratory use, research and development (R&D) in the plastics industry.

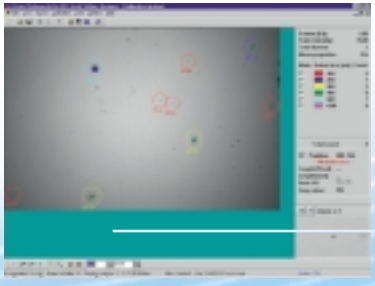
Mode of Operation

The material is inspected by the use of transmitted light. The matrix camera and the stroboscope lighting unit are installed opposite one another. At short intervals, shots of the moving film are taken by the camera, which are then processed by the computer.



Features

Very important features of this system are the shape factor and the gel or contamination distribution. The irregularities are subdivided into certain class sizes. The images of potential defects can be defined in advance, so that once these defects occur, they will be recognised, registered and saved for further analysis.



Software

The system's Windows software is menu-driven and user-friendly. After each measurement a test protocol can be printed out while all data is being stored simultaneously, including the time, date and length of the inspected material. This allows later evaluation of all data.