

MicroProfiler MP 900

Cable, wire & tube
Roughness measurement system



Real-time optical surface roughness measurement directly on production line

Continuous automatic operation on-line

Patented non-contact LCI measurement method

Direct roughness measurement based on high-resolution 3D surface profiling

Provides nanoscale laboratory accuracy at production speeds

Calculates standard Roughness Average (Ra) parameter, others by request

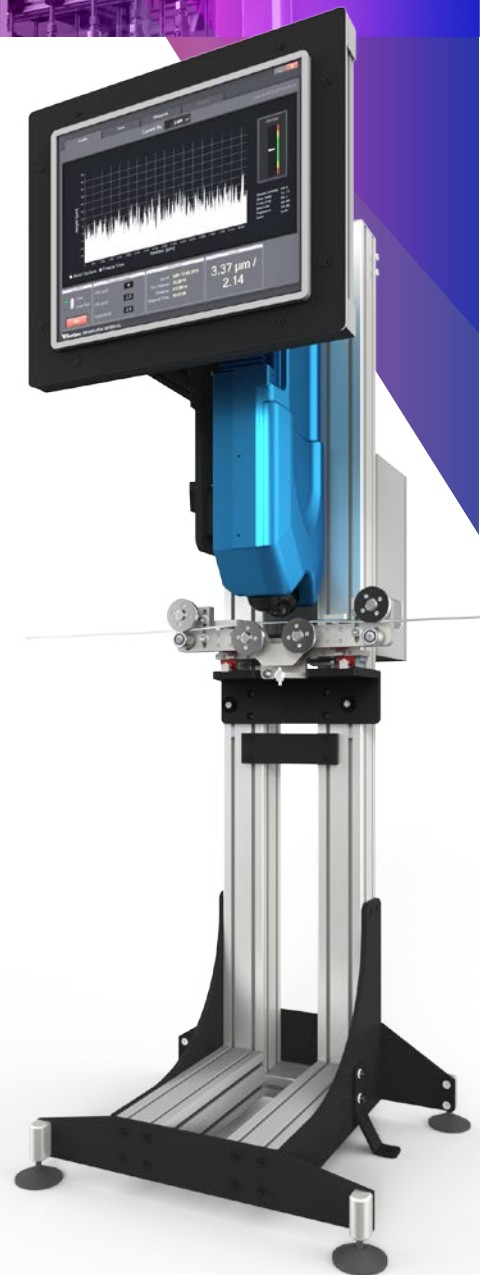
Advanced reporting capabilities with integrated database

Automatic visual and audible operator alarms

Works on wide range of diameters, materials and colors

Benefits

- Maximizes line speed with minimum melt fracture/sharkskin
- Enables instant detection of process changes and abnormal variation
- Helps keeping roughness within specified limits
- Efficient tool in process optimization for different products and materials
- Speeds up process setup and stabilization after startups and changeovers
- Improved product quality and Look & Feel, reduced claims, waste and rejects
- Reduces time and labor needed for manual product sampling and QC checks
- Reliable results without manual measurement/recording errors
- Easy product quality certification by spool or by length down to 11 mm (0.4")
- Enables remote access and production/shift report generation via LAN



FAST

EASY TO USE

PRECISE

ONLINE

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Operation

The MP 900 is installed on a cable/wire/tube extrusion line. It uses FocalSpec's new, highly accurate Line Confocal Imaging (LCI) technology to scan the moving surface at the rate of 250 measurements per second. The roughness value, surface profile, roughness trend (with Ra, Std, Cpk charts) and histogram are displayed and updated in real time as the production continues. In case the measured roughness value exceeds user-programmed min or max limits, the operator is alerted by visual and/or audible alarms. All measuring results are stored in the integrated database by the length down to 11 mm (0.4"). The data is remotely accessible via LAN, and can be exported to any spreadsheet software. This enables easy generation of quality certificates by spool, and production/shift reports for manufacturer's internal use.

Performance features

- Robust, shock and vibration resistant, maintenance free
- No calibration needed for different materials or colors
- Easy installation on existing production lines
- Small footprint



Specifications

Minimum cable/wire/tube diameter	1 mm (0.04")
Maximum cable/wire/tube diameter	Unlimited
Cable/wire/tube color	Any (opaque, semitransparent or transparent)
Surface material	PE, PVC, PP, PU, PTFE, ETFE, FEP, PFA, SBR, EPDM, metal, etc.
Maximum line speed	150 m/min (500 ft/min)
Measurements	Ra, others by request
Ra measurement range	0.2 to 10 µm (8 to 400 µin)
Ra measurement precision	Better than 0.03 µm (1.2 µin)
Measurement speed	250 measurements/second
Working distance to surface	16 mm (0.63")
Connection to local area network	Ethernet

Specifications subject to change without notice.

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