ACA RoQ™

Roll Quality Analyzer

ACA RoQ measures roll hardness profiles, which are used to troubleshoot and optimize roll manufacturing, converting and finishing processes.

ACA RoQ has features such as embedded touch screen, Wi-Fi and built-in barcode reader. Its unique technology provides very accurate measurement including flexible data transfer and storage.

Overview

Reeling is a cumulative process where product layers are set on top of each other. There can be thousands of layers in a roll. Defects, like CD profile variation, are magnified in the roll. Good control of profiles is extremely important for successful reeling and optimal roll build up. Hardness measurement is very sensitive profile measurement. Microscopic differences in CD profile are add up to big variations seen in hardness profile measured from the roll surface.

ACA RoQ is a modern and user-friendly roll hardness profile measurement device. The measurement is fast, automatic and operator independent. Just scan the roll in a couple of seconds!

Key Benefits of Hardness Measurement

- Better CD profile control (especially caliper).
- Improved runnability, less winding related problems.
- Better incoming rolls quality at converting site.
- Higher overall production efficiency in the whole value chain especially in label manufacturing. (base materials → converting → printing → end use).
- Significant cost savings and quality improvement potential.

Applications and users

- Papermakers
  - Containerboard
  - Specialty papers
  - Graphical papers
- Converting industry
  - Labels
  - Flexible packaging
  - Medical packaging
  - Printing houses
- Plastic film manufacturers
  - PE/PP/PVC/PET films
  - Biaxially orientated films (BOPE, BOPP, BOPA)
  - Technical films
  - Special films
  - Battery separator films

Measurement procedure

(https://www.youtube.com/watch?v=XZK5HNqei_M)

1. Turn device on and press button DECELERATION MEASUREMENT.
2. Scan the barcode.
3. Place the device against the roll.
4. Wait till blue arrow appears.
5. Move the device forward.
6. Keep moving forward with constant speed. Arrow should remain green.
7. Press SAVE ROLL after scan.
8. High resolution graph is calculated.

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Technical data and specifications of ACA RoQ

Delivery package	ACA RoQ Roll Hardness Profiler measurement device. Charger and USB cable. Hand strap. USB memory with manuals and documentation. Measurement spoons used under hammer, 2 pcs. Torx key (locking the mechanism during transportation and used to change the spoon). Traveler case. Verification sample (option)
Measurement	
Measurement principle	Deceleration (g) measurement with constant collision energy
Measurement frequency	Adaptive, max. 50 Hz
Measurement range	5 – 130 g
Hardware	
Display	4.3” touch screen
Wireless connectivity	WLAN
Wired connection type	USB
Batteries	Li-ion 5100 mAh
Barcode reader	Built-in camera. Reads also QR codes.
Dimensions	180 x 80 x 122 mm
Weight	1.4 kg
Software	
Device SW	Proprietary operating system with scripting capabilities for customer personalization, WiFi REST interface
PC SW	RollScore.exe for automatic data transfer
Cloud SW	RollScore cloud for data evaluation
Delivery package dimensions (l,h,w)	360 x 310 x 150 mm
Delivery package weight	5 kg

Traveler case

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