



OKOndt GROUP



SMARTSCAN

Aircraft wheels inspection

Meets the requirement of ISO 15548-1

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SMARTSCAN Aircraft Wheel Inspection System is intended for testing of main and nose wheels of aircrafts of various world manufacturers such as Messier - Bugatti, Goodrich, Honeywell, Maggitt and others.



The System ensures the testing of the following wheel areas:

- cylindrical surface of the wheel (tubewell);
- radial transition from cylindrical surface to the flange (bead seat);
- zone of conjugation of the radial transition into the flange (flange).

Parameters of the testing object

Outer diameters of the tested wheels:

- minimum - 7.5 in. (190 mm)
- maximum - 35 in. (900 mm)

Diameters of the centered holes of the tested wheels:

- minimum - from 1.57 in. (40 mm)
- maximum - up to 8 in. (200 mm)

System Benefits:

A unique algorithm of ECP “sticking” to the inspected surface, i.e. tracking the wheel profile even in case of vertical and horizontal wheel shifts;

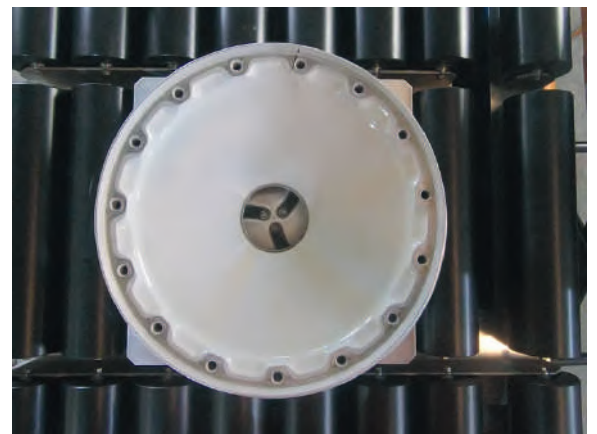
A remote “Pause” button allowing to stop testing and perform a manual confirmatory testing procedure;

Wheel inspection in the “flange up” and “flange down” positions;

Adapters for inspection of wheels without a hub with a driven nipple;

Reliable wheel centering for heavy weight wheels;

Lockups which stop excessive force used in bringing the ECP movement mechanism to prevent an operator’s injuries and mechanical damage of the ECP.



The System is produced in two versions:

Model SMARTSCAN enables semi-automated inspection of wheels with portable eddy current flaw detectors of different manufacturers. The SMARTSCAN kit includes Eddycon C flaw detector.

Model SMARTSCAN-FA enables fully automated cycle of inspection with stop on defect mode, storage of inspection results and database creation, as well as printouts of inspection reports, etc. Eddycon D flaw detector is delivered in the SMARTSCAN-FA kit.



To watch the video, please visit our webpage <https://www.okondt.com/smartscan>



SMARTSCAN System Specifications

Model	SmartScan - FA
System type	Automated
Overall dimensions	31 x 39 x 49 (in.)* 790 mm x 990 mm x 1250 mm*
Weight	No more than 771 lbs (350 kg)
ECP type	Pencil probe type with a cylindrical head. Frequency — 100 kHz, 200 kHz, 500 kHz, 1.5MHz ECP diameter – 15/64' (6 mm) Other standard ECP types – on request
Max wheel diameter	35 in. (900 mm)
Max System load	330 lbs (150 kg)
Inspection helix	Adjustable from .004 to .08 in. (from 0.1 to 2 mm)
Inspection area	Adaptive tracking of the wheel profile surface
ECP vertical movement	17 in. (430 mm)
Rotation speed	10-120 rpm
Inspection speed	up to 75 fps (23 m/s)
Alarms	Visual and acoustic
Power supply	110-240 V, 50/60 Hz
Data recording and storage	Yes (PC hard drive, database)
Manual inspection	Yes (set of ECPs for manual inspection)
Remote "Pause" button	Yes
Wheel position	Flange up/Flange down
Automatic reference block calibration	+
Automatic stop on defect	+
Turntable	rubber/plastic coated rolls
Control panel	built-in
Operation modes	Block, Manual (with automatic reference block calibration), Stop on defect, Automated
Ports	3 – USB ports, HDMI or Display port, Ethernet port
PC computer set	Wireless keyboard and mouse, monitor, system unit, special purpose software
Adapter set	For wheels without hubs (p/n C20626200 (SAFRAN), p/n 3-1674 (GOODRICH)

*Overall dimensions can be modified upon the customer's request

SMARTSCAN automated systems of eddy-current testing enhance output and inspection reliability while minimizing the influence of the human factor.