



SMARTSCAN

Aircraft wheels inspection

Meets the requirement ISO 15548-1

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.



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 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).

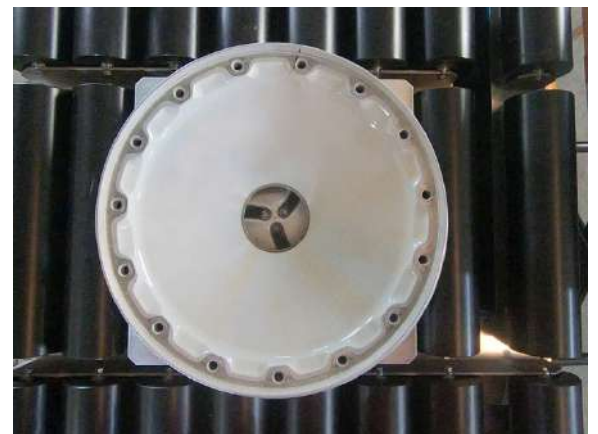
Parameters of the testing object

Outer diameters of the tested wheels:

- minimum - 7.5 in. (190 mm)
- maximum - 26.5 in. (670 mm)

Diameters of the centered holes of the tested wheels:

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



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	SmartScan-FA
System type	Semi-automated	Automated
Overall dimensions	31 x 39 x 49 (in.)* 790 mm × 990 mm × 1250 mm*	31 x 39 x 49 (in.)* 790 mm × 990 mm × 1250 mm*
Weight	No more than 771 lbs (350 kg)	No more than 771 lbs (350 kg)
ECP type	Pencil probe type with a cylindrical head. Frequency — 200 kHz ECP diameter — 15/64" (6 mm)	Pencil probe type with a cylindrical head. Frequency — 200 kHz ECP diameter — 15/64" (6 mm)
Max wheel diameter	26.5 in. (670 mm)	26.5 in. (670 mm)
Max System load	330 lbs (150 kg)	330 lbs (150 kg)
Inspection helix	Adjustable from .004 to .08 in. (from 0.1 to 2 mm)	Adjustable from .004 to .08 in. (from 0.1 to 2 mm)
Inspection area	Adaptive tracking of the wheel profile surface	Adaptive tracking of the wheel profile surface
ECP vertical movement	17 in. (430 mm)	17 in. (430 mm)
Rotation speed	10-120 rpm	10-120 rpm
Inspection speed	up to 33 fps (10 m/s)	up to 75 fps (23 m/s)
Alarms	Visual and acoustic	Visual and acoustic
Power supply	110-240 V, 50/60 Hz	110-240 V, 50/60 Hz
Data recording and storage	Yes (Eddycon C memory)	Yes (PC hard drive, database)
Manual inspection	Yes (set of ECPs for manual inspection)	Yes (set of ECPs for manual inspection)
Remote "Pause" button	Yes	Yes
Wheel position	Flange up/Flange down	Flange up/Flange down
Automatic reference block calibration	+	+
Automatic stop on defect	-	+
Turntable	rubber/plastic coated rolls	rubber/plastic coated rolls
Control panel	built-in	built-in
Operation modes	Block, Manual (with automatic reference block calibration), Automated	Block, Manual (with automatic reference block calibration), Stop on defect, Automated
Ports	3 – USB ports, HDMI or Display port, Ethernet port	3 – USB ports, HDMI or Display port, Ethernet port
PC computer set	Wireless keyboard and mouse, monitor, system unit, special purpose software	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)	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.