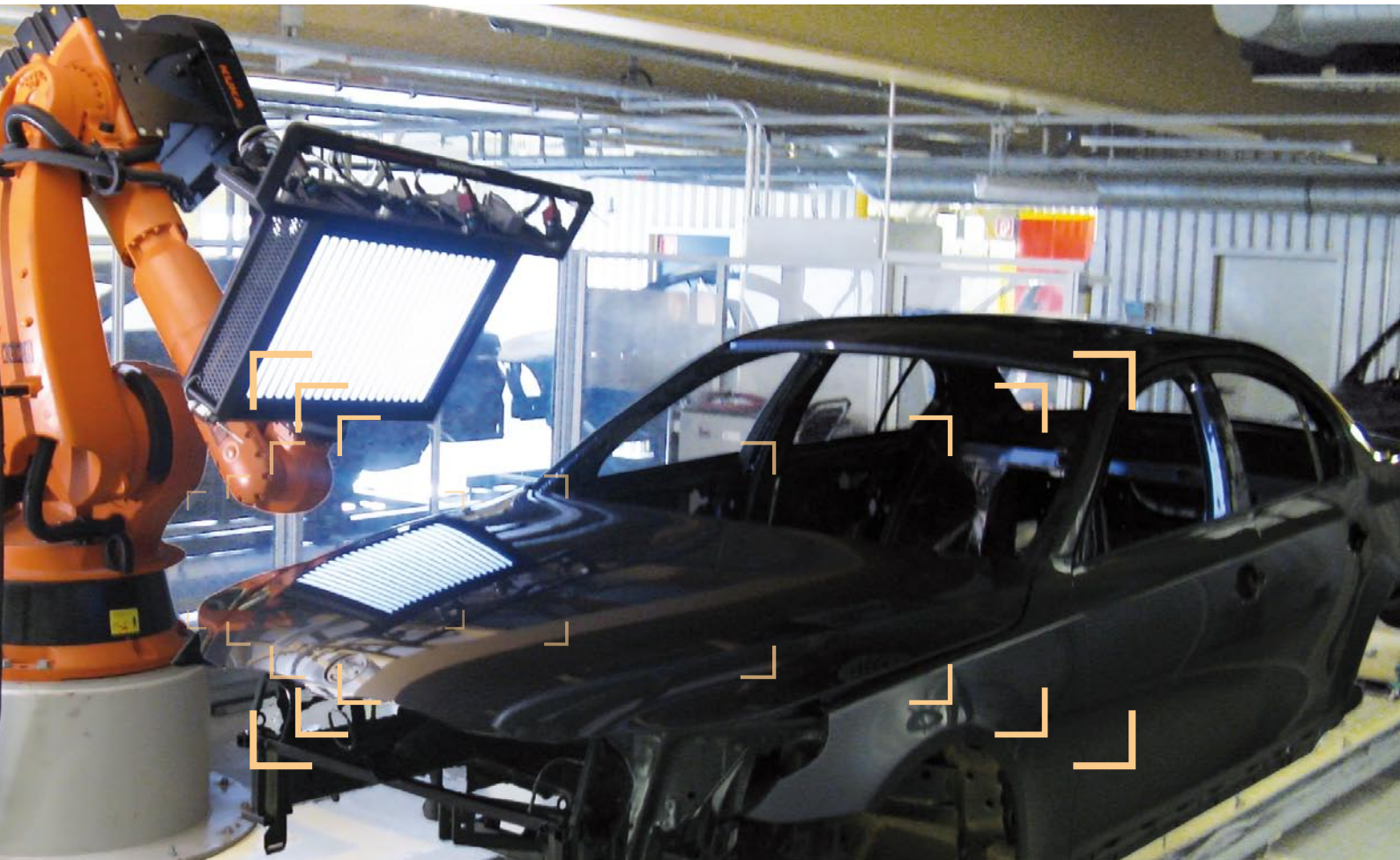
MICRO-EPSILON

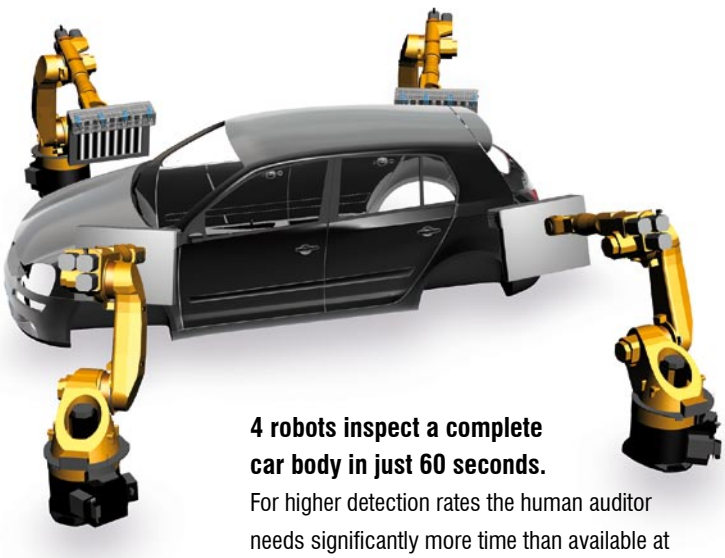
reflectCONTROL

The Innovation in Automated Paint Inspection



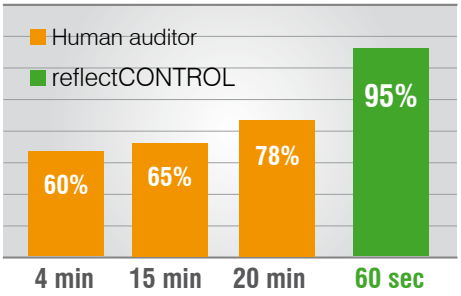
Key features:

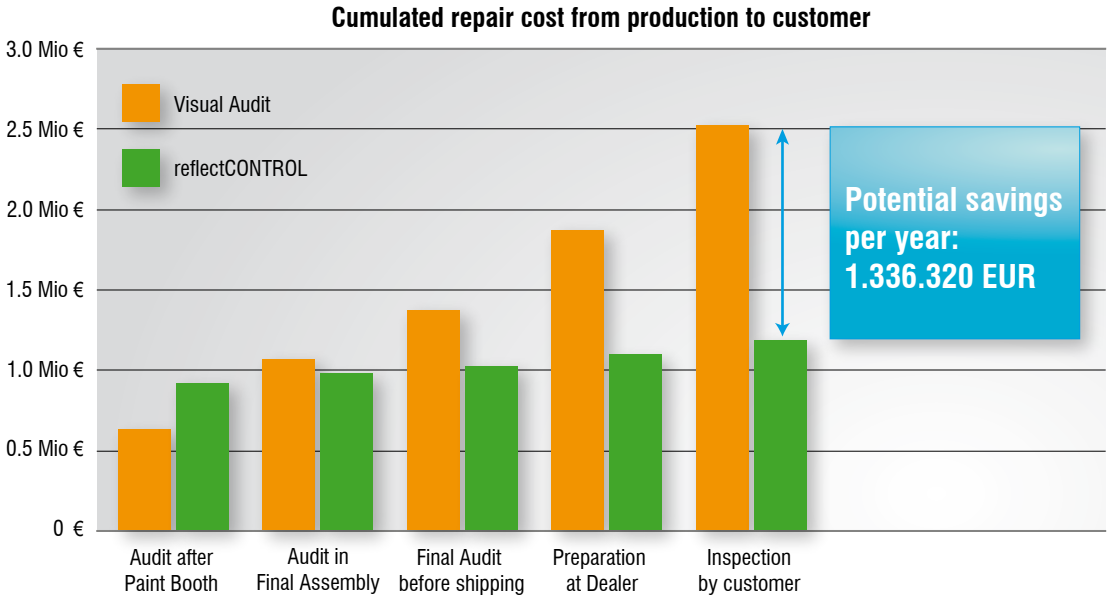
- Fast inspection in less than 1s for each robot position
- Detection rate >95% for all relevant defect types
- Consistent performance levels unaffected by personal taste and fatigue
- Marking unit as an option



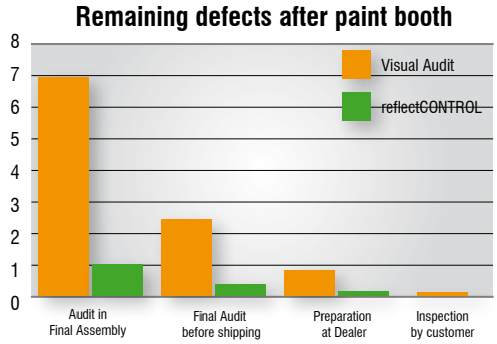
4 robots inspect a complete car body in just 60 seconds.
For higher detection rates the human auditor needs significantly more time than available at normal production rates.
RC robotic achieves highest detection rates within typical cycle times.

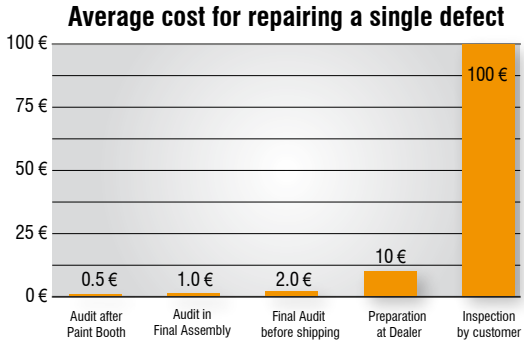
Detection rate over all relevant defects

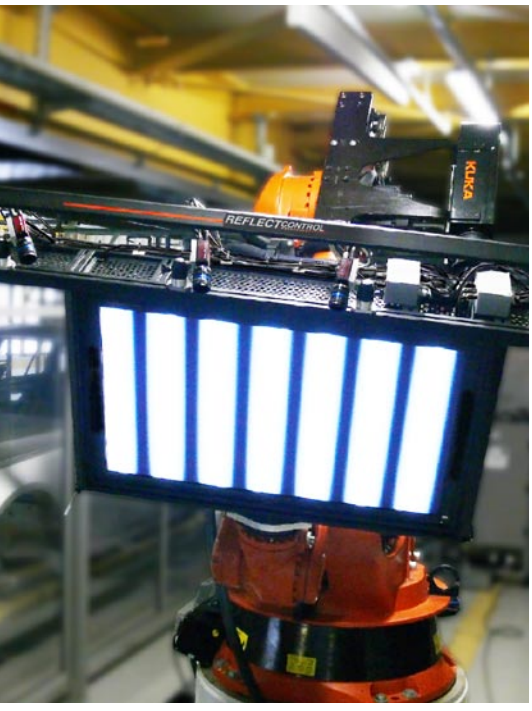


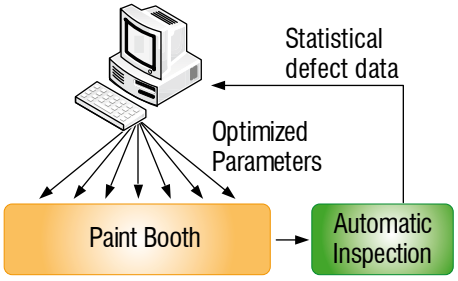


NOTE:
All figures and calculations are taken from a Micro-Epsilon survey based on 64000 cars per year, detection rate 65% (visual audit), detection rate 95% (reflectCONTROL). Feel free to ask for the complete survey.









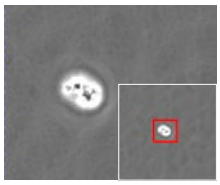
Reduced overall defect count through optimized process control
reflectCONTROL delivers reliable statistical data for long term optimization: This allows to detect and overcome process issues more quickly. Generally, this results in fewer defects and lower total cost for paint repair.

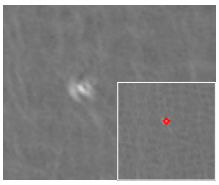
General benefits:

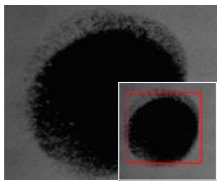
- Inspects 100% of all vehicles produced
- Allows workers to concentrate on fixing defects, not finding them
- Finds defects reliably directly after the paint booth when they are still easy to fix
- Effectively reduces cost of defects slipping through your Quality Control
- Reduced number of repair lines

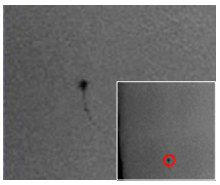
Defect Types

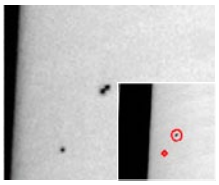
reflectCONTROL offers detection of all relevant defect types. Found defects are categorized and matched against customer specific standards.

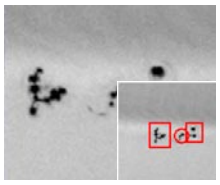

Inclusion

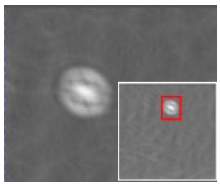

Inclusion in middle layer

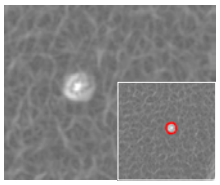

Polishing defect

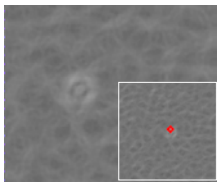

Hair

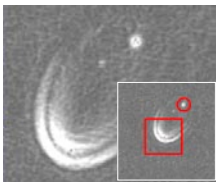

Lint

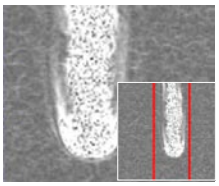

Dirt

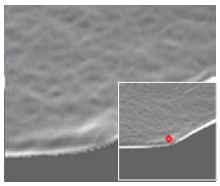

Polluted paint

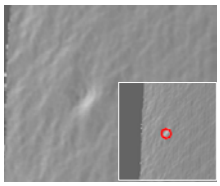

Crater

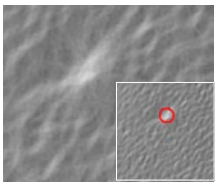

Shallow Crater

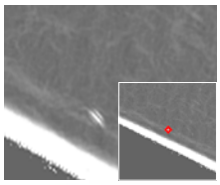

Droplet

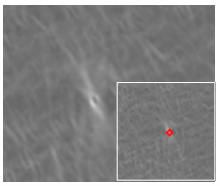

Runner

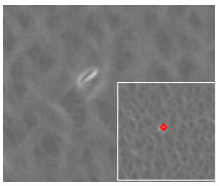

Fat Edge

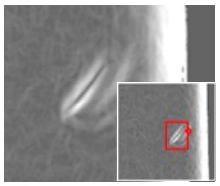

Bump


Shallow bump

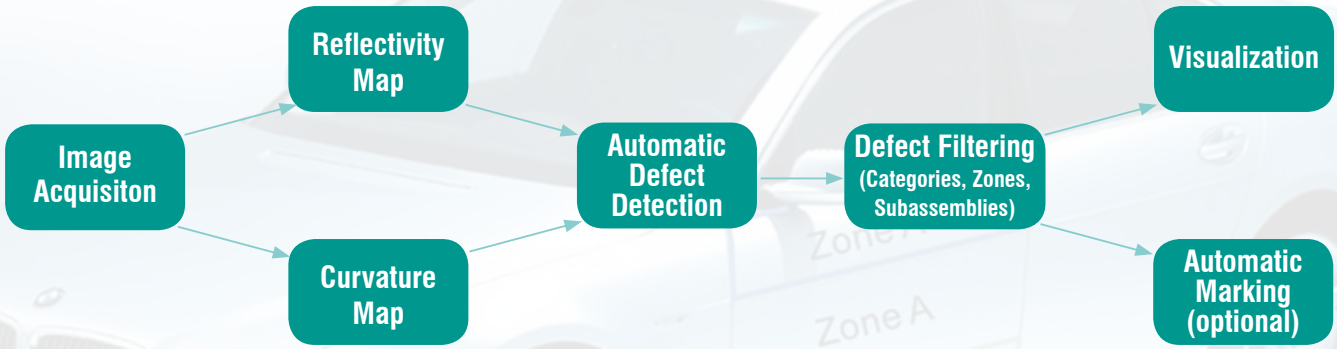

Planing mark


Dent


Large scratch


Contact

RC-Robotic: Flow



MICRO-EPSILON MESSTECHNIK GmbH & Co. KG
Königbacher Str. 15 · 94496 Ortenburg / Deutschland
Tel. +49 (0) 8542 / 168-0 · Fax +49 (0) 8542 / 168-90
info@micro-epsilon.de · **www.micro-epsilon.de**

Projektpartner

Bayerische Forschungsstiftung

FORWISS Universität Passau