

Eddy-current testing with robots

Complete system for the crack testing on machined steel work pieces

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The ever rising requirements for the mechanical machining from our customers regarding quality assurance and logging demands reproducible measurements appropriate to their accuracy.

CIMOTEC offers here a **complete system in most compact construction** for **crack detection** of machined surfaces, such as axle leg, by means of **contact-free eddy-current measuring technique**.

The system is so constructed that a manual loading is similarly possible as an automated one. Thus, an appropriate facility for the on-site situation is created to set the system with **greatest possible rationalization effect**.

This system is also deliverable with two rotating units, by which a seamless, more **efficient throughput** is effectuated.

The **transportable** system can be shifted in **most easy manner** within the production to the place where it is used. By **little space-requirement** the system can also be subsequently integrated into **existing, automated devices**.

By **intelligent details**, the disturbance factors for measurement are eliminated as far as possible, by which an **interruption-free throughput** is guaranteed. This **reduces additional production time** for intermediate storage and new input and testing

Highest reliability, highest servicing-friendliness and thus also the **highest plant availability and operating efficiency** are present on the top rung in all solutions and products of CIMOTEC.



The **stable base plate** grants **mobility** to the system and the warp-resistant rotational units ensures a **secure measurement result**.

With the measuring probes guided by robots, the system has the **flexibility** in longitudinal and transverse direction to definitely recognize the microstructure racks along the work piece axis.

The **precise measurement electronics** delivers an **exact logging**, from which all necessary data can be stored as data, or in printed form if desired.

The manual loading is absolutely secured by the supervised, pneumatic roller shutters. Without mechanical and electrical rebuilding, the system can be upgraded to **automatic loading** (such as by a handling robot).

The system can be adjusted to clock speeds within limits. The variant with two rotating units allows the **Optimum in flow rate**, as a **continuous work is guaranteed** here by secured alternative operation.

An automatic, adjustable measurement of work piece under test with controlled errors is integrated in course for secured checking of the measuring probe.

Optional is a marking unit for work pieces, which can be negatively tested, similarly obtainable as lifting reliefs for manual loading. CIMOTEC of course offers an automatic loading with robots and/or integration into an existing processing line.

Reduction of your production costs, increase of your production rate are our milestones to collective success. Talk to us ... we tell you if and how your production can also profit from our know-how.

Application Examples



Eddy-current testing system with a robot and two rotating units for alternate operation. The system is manually loaded and is prepared for the automatic loading. The functions for manual loading are easy to operate over switching consoles, which are assembled on both sides

Eddy-current testing system with a robot and two rotating units for alternate operation. The system is automatically loaded by a separate robot. The additional robot also loads and unloads the pre-switched processing center. After testing, the handling robot places the part depending on the result. This system can be switched to manual operation. The switch-over occurs in the switching console, over which the system – functions are also triggered.



Rearview of an eddy-current testing system with a robot and two rotating units for alternate operation. The rotating units are mounted reverse to the robot to simplify copying of robot programs. The functions in manual loading are easy to operate over switching consoles, which are mounted on both sides. All eddy-current testing systems are convertible to automatic operation.



This is only a small excerpt from the voluminous pallets on implemented solutions. We also find the appropriate solution for your automation challenge, contact us!

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