# **Machine Vision**

### Tailored to Your Process

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## At a Glance



Camera- and laser-based inspection systems are indispensable in today's production processes. They ensure high quality standards and process documentation.

With VMT's expertise in industrial vision and laser scanning technology, you can be sure you are choosing a dependable partner.

#### Highlights

- Worldwide sales, after-sales, and service
- Professional engineering and project management
- Manufacturing, installation, and implementation from a single source
- In-house software development
- Easy-to-configure application software
- Modern and user-friendly visualization tools
- Virtual commissioning capabilities
- Technology packages for robots and control systems
- Combined camera and laser scanner solutions
- Expertise in 2D and 3D applications
- Process knowledge in almost all industrial sectors
- Implementation of complete solutions
- Support for updates and modernization
- Reliable consulting and feasibility studies

#### These Days, Commissioning is Virtual

With in-house software tools, VMT vision experts can use CAD data to virtually plan and test complete test cells, concepts, and camera configurations. Test programs can also be created or copied offline for enhancements to existing systems, and inspection tasks can be tested and immediately activated at the start of production.

The entire project can be pre-planned precisely and effectively with the help of virtual commissioning. Predictive planning during production, system setup, and subsequent updates is a major advantage for our customers.



# **Industrial Vision Technologies**

#### **2D Inspection**



VMT's 2D inspection systems take on tasks that involve any combination of component and module checks, plain text and code reading, type detection, and geometry inspection.

Solution-oriented cameras and laser sensor technologies—or a combination of both—are used. Our experts create a concept, design the system hardware, and integrate it into your plant or machine. Everything comes from a single source and is optimized for your process.

#### **3D Inspection**



3D sensors open up new possibilities for inspection and quality assurance by providing spatially coded object information.

The possibilities offered by 3D inspection systems, such as CAD-based target-actual comparisons, even for large objects and components with varying surface qualities, are enhanced by the use of a wide variety of 3D sensor systems. Easy integration into the VMT inspection system allows fast, convenient, and task-oriented solutions. Additional features such as statistics, process documentation with test images, visualization tools, password levels, and language switching can be implemented in the VMT standard system.

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**VMT** Application Software

At the heart of every VMT system solution is our industrial vision software. It makes no difference whether the image data comes from cameras or 3D sensors.

Online logs and statistics provide users with relevant process data. Test results and images can be archived in a variety of formats based on an identification number.

Intuitive operation and a straightforward layout make it possible to implement even complex tasks in all common languages. Trained users—or our specialists and service teams—can expand the systems with almost any number of additional sensors, models, and components.

# **Application Examples**

### **3D Inspection**



### **Checking for Variances and Ensuring Completeness**



### **Automated Testing Cells**





# Partners and pioneers in automation. Worldwide

VMT Vision Machine Technic Bildverarbeitungssysteme GmbH is your leading automation partner for machine vision turnkey solutions worldwide. VMT® develops and supplies customized machine vision, robot vision, and laser sensor systems for all industrial sectors using our self-developed state-of-the-art hardware and software products. As a professional consultant, VMT® provides objective solutions tailored to individual applications. Our technical services cover the complete life cycle of your machine vision solution, including planning, commissioning, installation, and system integration as well as training, maintenance, and upgrade services. With more than 25 years of experience in industrial machine vision applications, you can be confident that VMT® will provide proven solutions for your operation that nobody else can match.



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