In co-operation with our customers, we design made-to-measure machine vision solutions for factory automation. On request we supply turn-key systems including the mechanical components.

In the planning and production of the systems, a highly qualified team of more than 100 employees including about 70 engineers sets new standards with regard to function and quality.

Since the company was founded in 1984, VITRONIC has installed over 1000 machine vision systems, which prove their reliability every day.

VITRONIC has been certified according to ISO 9001 since 1994.

Dr.-Ing. Norbert Stein
President and Owner

References

ABB AG (CH)
Adam Opel AG
B. Braun Melsungen AG
Braun GmbH
BMW AG
DaimlerChrysler AG
Dynamit Nobel GmbH
Fergat S.P.A. (I)
FAG
Hayes-Lemmerz GmbH
Kern-Liebers GmbH & Co.
Mannesmann Rexroth AG
Otto Versand GmbH & Co.
Recticel (I)
Robert Bosch GmbH
Samsung Corning Co. Ltd. (ROK)
Schott Glaswerke
Sortimat Technology GmbH & Co.
UPS
Vallourec + Mannesmann Tubes GmbH
Vanderlande Industries B.V. (NL)
VW AG
and many others
Factory automation

2D and 3D robot vision: Reliability and compatibility with maximum cycle rates

VIRO reliably recognizes the type and location of the workpiece in two and three dimensions.

VIRO provides process-synchronous handling, for example for type verification and grip point determination, even at high cycle rates, and interfaces to robots from all well-known manufacturers. It is robust and reliable in daily use.
VIRO-3D works with high precision at unprecedented measuring rates and with a large degree of freedom from interference in in-line applications in industrial production processes.

VIRO-3D optimizes robot-based processing, making it an obvious choice in the following cases:

- 3D position correction in the handling process
- Robot guidance in welding, bonding and deburring

VIRO-3D ensures maximum processing rates via parallel processing using several cameras with frame rates of 50 to 2000 Hz per camera.
Quality inspection

Systematic zero-defect strategy via 100% in-line visual inspection

VINSPEC offers custom solutions for demanding testing tasks in the following areas:

- Surface inspection
- Assembly inspection
- Installation and assembly inspection
- Contour and geometry inspection
- 3D surface measurement
- Dimensional accuracy inspection
- Print inspection
- Color and texture inspection

VINSPEC is the ideal tool for ensuring optimum manufacturing quality via automatic 100% visual inspection even at high cycle rates. Quality improvement and cost reduction are thus no longer competing goals.
Application-specific system solutions guarantee highly reliable recognition, long-term stability and operating convenience.

The modular machine vision system VINSPEC can be flexibly integrated into existing production and inspection systems and is easy to adapt to changes or extensions to the inspection tasks.
Identification
Intelligent logistics and material flow solutions

VIPAC – the complete system for parcel handling logistics:
multi-sided identification, address reading, 3D volume measurement and weighing of parcels

VIBAR reads, omnidirectionally and reliably, bar codes and 2D codes on paper, metal, glass, plastic etc. Intelligent code reconstruction methods guarantee reliable results, even under the following conditions:

- High speeds
- Poor code quality
- Low code height
- Poor contrast
- Varying reading distances

VIBAR offers long-term stability and is completely free of wear and tear.

VITRONIC's VIBAR and VICODE systems are of the highest possible performance class for optical character recognition (OCR/ICR), bar codes and 2D codes in the material flow.
Code and address reading on letters, large-format letters, parcels and special formats

Identification of returns in the mail order business

The system reads labels in the material flow, omnidirectionally and from all perspectives (recognition of 1 to 6 sides).

No matter whether it is inkjet or flexible rubber stamp printing, laser labeling, embossing or stamping, onto labels or directly onto the workpiece, VICODE stands for reliable and safe identification of all typefaces and type sizes under industrial conditions.
Traffic telematics/vehicle guidance

Forward-looking machine vision for vehicles

VITRONIC sees great potential in the market for machine vision systems for vehicles. Whether it's modern car park management, fully automatic hydrogen refueling or driver assistance systems for use in moving traffic – we’re right in there designing part of the future.

First public hydrogen refueling station at Munich airport

Identification of license plates of parked cars
Development of predictive machine vision systems for more comfort and safety in car traffic

VITRONIC developments have proved their reliability in numerous industrial applications. The constant improvement of existing techniques and the development of new and innovative products for the international automation technology market have further strengthened the position of VITRONIC in Germany, the U.S. and many other countries.

Besides its own developments, VITRONIC carries out research and development work for well-known companies.