

## **In-line Profile & Shape Measurement and Monitoring of Shaped Wire, Sector Cables and Similar with High-Tech PROFILEMASTER® Systems from ZUMBACH**

As a pioneer of on-line measurement committed to extensive research and development activities, Zumbach Electronics has continuously grown as one of the world-wide leading manufacturers of on-line measuring and control systems. Top priority at Zumbach Electronics remains to be customer relationships through local presence combined with proven high quality products, services, personal consulting and support.

ZUMBACH's PROFILEMASTER® systems are developed from a core set of proprietary mega pixel camera/laser modules and software technologies. The application of these technologies has been adapted to serve the specific measurement, monitoring and flaw detection needs of all profiles, shaped wire, cables, tubes made of plastic, rubber, metal, steel and other materials.

### **Customer Benefits**

- Provides 100% inspection
- Reduces start-up time
- Increases the accuracy of your end product
- Improves process control
- Reduces scrap
- Saves raw material and post processing costs
- Increases product quality, i.e. higher end customer satisfaction
- Integrates in a seamless way the PC-based system with your network

Depending on the PROFILEMASTER® model, 1 up to 8 laser/camera modules measure the cross section of the moving profile on-line and continuously. A powerful PC-based processor combines straight lines and radii extracted from the images of the single cameras to yield the momentary cross-section of the profile. All relevant dimensions such as width, height, angle and radius or other geometric quantities are computed to characterize the full cross-sectional picture. An operator-friendly graphic display of this data allows the product to be monitored during the production.

The nominal values for the profile can be directly imported from the CAD design files, which allows easy and problem free configuration of the device. Changes in speed and twist within normal limits have no influence on the measurement.

Special regard was taken to develop user friendly and flexible software for the PROFILEMASTER® system. The program has 3 working modes:

#### **• Operation**

For measurements during the production. All operational steps have been simplified as far as possible. The desired functions for the measurement of a particular product e.g. conditions for Start /End and records, are only entered once and stored in the memory together with the measured data.

#### **• Entering Product Data**

Enter the measurement requirement and define how the measured data should be processed. The flexible functions in the software program can be configured to allow products to be measured exactly as the customer requires.

#### **• Service and System Configuration**

The functions in the program can be selected according to the operator's requirements during the initial installation of the system. Moreover, the default values used for pre-processing can be changed to suit each product.

