



# Profilix

Machine for the automatic in-line inspection of surface defects on rubber and plastic profiles



# ProfiliX

## Machine for the automatic in-line inspection of surface defects on rubber and plastic profiles

ProfiliX is an automatic inspection machine for the in-line visual surface control of various sizes of extruded profiles and pipes. The width and height of the field of vision is 40 mm. ProfiliX can control the entire surface area of the profile, thanks to the combined optical control with different adjustments for the optimal transit underneath the cameras. The machine is controlled by a PC managed by a Real-Time operating system that carries out both the processing of the images as well as the interaction with the production line and the operator by means of a simple, straight-forward window interface. The Real-Time operating system enables an excellent system stability alongside an extremely high level of precision control. The images are captured by digital industrial cameras and are transferred to the PC without suffering any loss or disturbance.

### Operational characteristics

After the images have been captured and processed, the machine detects any surface non-conformities and consequently, the presence of any aesthetic defects thanks to:

- A visual and acoustic alarm system;
- An interface signal linked to the production line operating system;
- A system that marks the surface of the defected item.

It is possible to view all the statistics as well as the number and type of defects encountered in real-time; moreover, it is possible to save production reports with graphics and statistical data and to integrate these into the management system for subsequent processing.

Machine downtime to change the profile to be inspected is kept to an absolute minimum thanks to:

- The saving of all configuration parameters;
- The automatic positioning of the optical sensors;
- Rapid machine cleaning.

### Illumination

Illumination is multiple crown flash led:

- Digital regulation of the bright intensity for inside and outside surfaces;
- Possibility of controlling piece reflection ;
- Good precision of dimensional and surface control;
- No decadence of the bright intensity.

### Dimensional sensor

The system can be integrated with an independent dimensional sensor for the in-line control of the profile dimensions.

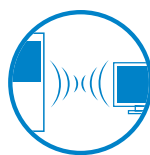
### Entire surface area control device

This system consists of 4 colour cameras with two levels of colour Led lighting arranged in such a way so as to cover the entire surface area of the extruded profile making it possible to detect any defects present.

The control programme allows the adjustment of the different Led crowns in order to optimise the illumination of the profile. Several independent control areas can be defined.



LINUX



REMOTE  
MANAGEMENT



ALARM  
MANAGEMENT



DATABASE  
INTEGRATION

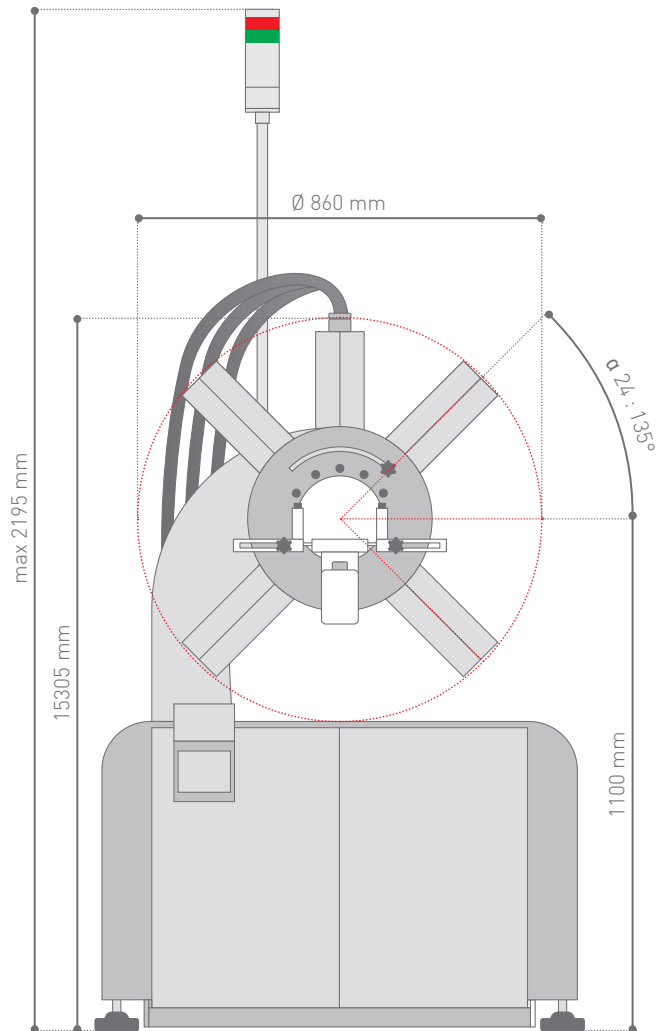
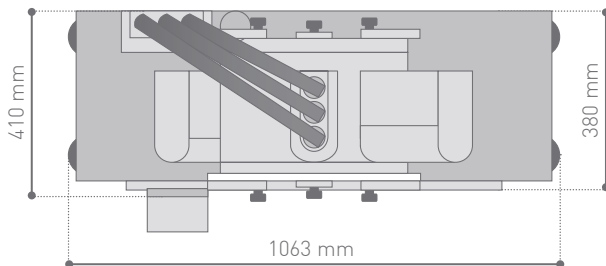


STATISTICS  
AND REPORTS

General characteristics	
Type of pieces	profiles
Material	rubber
Color	any color except transparent
Width of the field of view	40 mm
Height of the field of view	40 mm
Maximum speed of control	25 m/min

### Specifications

Pixel resolution	0.04 mm
Minimum size of defectable defects (hue difference at least 30 points in adjacency)	0.12x0.12 mm



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