



# Requirement specification for machine vision

For best consulting we need following information of your project. Send the complete form with classified sample to us. If you have any question, don't hesitate to contact us.

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## 1 Company address

Company: \_\_\_\_\_ Address: \_\_\_\_\_  
 Name: \_\_\_\_\_ Surname: \_\_\_\_\_  
 Position: \_\_\_\_\_  
 ZIP-Code, Village: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 E-mail: \_\_\_\_\_

## 2 Task description & environment

Name of the Project: \_\_\_\_\_

Short description: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

### Installation place:

- On existing machine
- Manufacturing
- Separate new machine
- Laboratory

### System generally:

- Stand alone machine
- Single purpose system
- Quantity different products: \_\_\_\_\_
- 100%-Inspection
- Serial machine, quantity to be received per year: \_\_\_\_\_
- Multi purpose system
- Frequency of format changes: \_\_\_\_\_ per day
- Random inspection

### Camera environment:

- Influenceable
- Existing draft
- Predetermined

### Object background:

- Band conveyor
- Free selectable
- \_\_\_\_\_
- Pallet
- Metal background

Object background colour: \_\_\_\_\_

**Inspection:**

Please add some drawings about the objects

Object name	Inspection	Inspection position

**Maximal dimension in the inspection area:**

Length: \_\_\_\_\_ millimetre

Width: \_\_\_\_\_ millimetre

High: \_\_\_\_\_ millimetre

If possible, please add some drawings of the inspection area.

**Minimum tolerances:**

Measurement form	Description	Tolerances in millimetre
Straight		
Segment of a circle		
Circle		
Ellipse		
Others		

**Object material:** Plastic Metal Glass Gum \_\_\_\_\_**Object- (Surface) condition:** Beamless Shiny Fine Coarse Structured Coated Plane Transparent Translucence nontransparent \_\_\_\_\_**Object impurity:** Clean Oil drippy Oil film Dust Grinding Swarf Coolant/Cooling water Washing water \_\_\_\_\_**Movement condition of the objects in Inspection position:** Stock still , Stock still time \_\_\_\_\_seconds  to stir: speed of \_\_\_\_\_ meters per second



**Descriptions of the machine:**

Machine output: \_\_\_\_\_ pieces / minute  
 Motion Speed: \_\_\_\_\_ meters / second  
 Number of tracks: \_\_\_\_\_  
 Distance between the tracks: \_\_\_\_\_ millimetre  
 Max. inspection duration: \_\_\_\_\_ milliseconds

**Position of the Object during image acquisition:**

Object always in the same position       in windows of length x width: \_\_\_\_\_ x \_\_\_\_\_ millimetre

**Accuracy of the position:**

Horizontal in direction of rotation	+ millimetre	- millimetre
Horizontal across in direction of rotation	+ millimetre	- millimetre
Vertical in direction of rotation	+ millimetre	- millimetre
Ankle modification of the Inspection area	°	°
Ankle modification of the Inspection area concerning camera axis	°	°

**Object supply:**

- Separate on tracks positioned       Separate on tracks not positioned
- Overlapped positioned       Overlapped not positioned
- In workpiece holder       Bulk cargo

**3 Environmental conditions**

Temperature at inspection place: min/max: \_\_\_\_\_ °C

Humidity at inspection place: min/max: \_\_\_\_\_ %

Pollution existing       Low pollution existing       none  
 If yes, type of Pollution: \_\_\_\_\_

Vibration existing       Low vibration existing       none

- Power supply AC 230V /50 Hz       other \_\_\_\_\_
- Power supply DC 24V / >1A       other \_\_\_\_\_
- Voltage peak       none

**Ambient conditions:**

Dusty       Oily       hot       wet       \_\_\_\_\_

**Lighting Conditions at inspection area:**

- Daylight       Overhead light
- Direct solar radiation       Factory light



## 4 System requirement

### Interpretation computer:

- 19"Industry-PC
- Panel-PC
- \_\_\_\_\_
- Compact-PC
- Smart-Sensor (for series)

### Display data:

- OK / NOK
- Measured data to log in a data file
- Measured data to an external System
- Connection to BDE

### Communication channels:

The software can be remotely controlled, i.e. selections of test routines, start / stop of the inspection can be of your PLC.

Type of signal	Digi I/O	RS232	Ethernet	Others	Comment
Camera trigger					
Result (OK/NOK)					
Remote control					

### Other requirements:

Camera, Lighting: IP protection class \_\_\_\_\_

Computer or rather switchboard: IP protection class \_\_\_\_\_

- Standard Switchboard
- Computer in an existing Switchboard cubicle
- Stainless steel cubicle
- Distance between Switchboard cubicle and inspection area: \_\_\_\_\_meters

Conformity to Chapter 21 Part 11

Remote maintenance desired

## 5 Shipment

- Machine Vision components and software – including engineering
- Complete exerciser with section handling
- Camera mounting and lighting
- Protection against extraneous light
- Computer in a separate Switchboard cubicle
- \_\_\_\_\_

### Documentation

- Standard Documentation in German or English
- Customized, if yes requirements: \_\_\_\_\_



## 6 Further Information

### Project phase

- Preliminary clarification, producibility, price indication
- Project will be realized, offer

### Experience with machine vision inside the factory:

- Perennial experience
- Little experience
- non

Exerciser Location: \_\_\_\_\_

### Planned target dates:

Offer date: \_\_\_\_\_

Purchase date: \_\_\_\_\_

Initiation date: \_\_\_\_\_

Series production date: \_\_\_\_\_

### Cost of purchase:

Budget of: \_\_\_\_\_