



# Knitguard

## Real-Time Defect Detection in Knitted Fabrics

Technology developed by

***opdi-tex***

for OEM Partnerships

## **Proven Industrial Design**

- Developed together with Mayer & Cie with simple integration in industrial standards
- Works with circular knitting machines from all brands, also in retro-fit applications

## **Real Time Defect Detection with AI**

- Identifies defects at the knitting point, before they continue through production
- Works with single-jersey and double-jersey, jacquard in development

## **Smart Hardware Design**

- Compact infrared camera unit – no interference with machine workflow
- Designed for the harsh environment of textile manufacturing, dustproof and easy to clean

## **Automated Machine Control**

- Works without delay – ensures immediate reaction to faults
- Stops the machine instantly for severe or repeated defects
- Logs every defect for quality reporting, root cause analysis, and process optimization



# Knitguard Technology – Features & Benefits

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Detects even defects not visible to the human eye.

Inspection right at the knitting point.

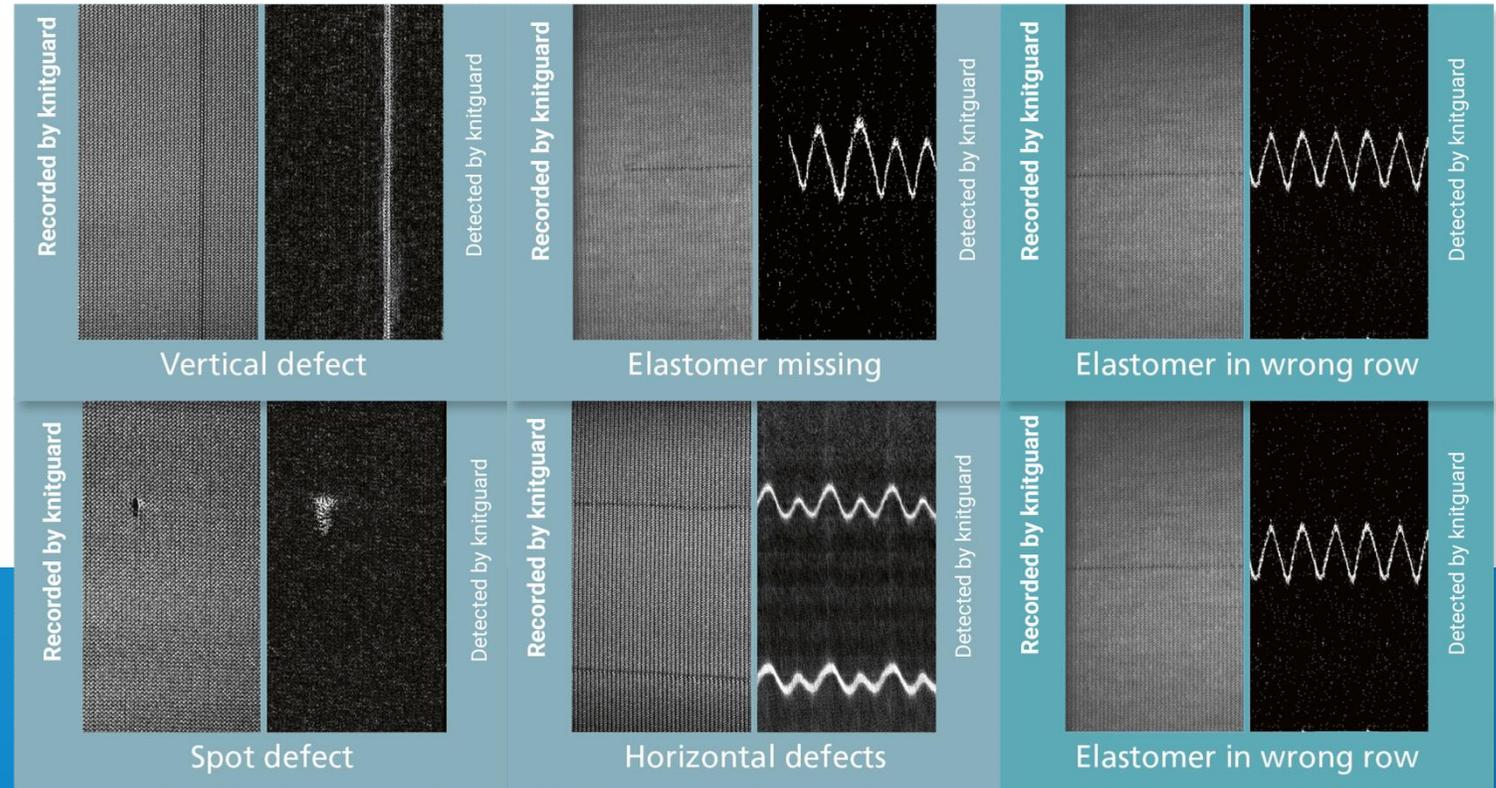
Machine stops immediately after detection of a defect.

All defects recorded in error log.

Very low installation effort.

Compatible with circular knitting machines from all brands

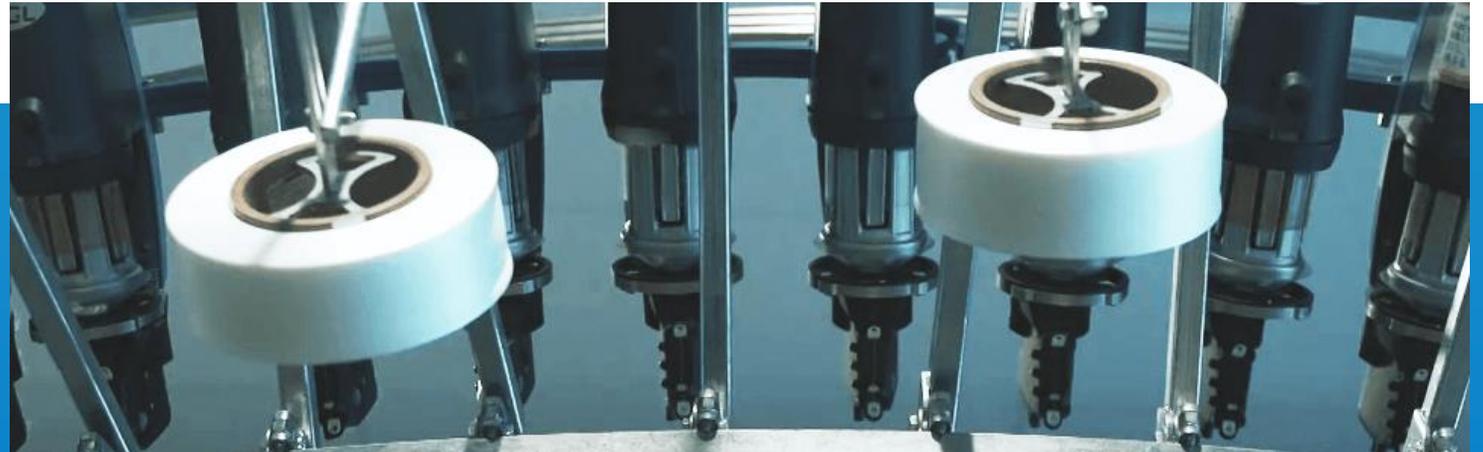
No contact with knitted fabric required



# The Knitguard Advantages Summarized

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- Detects even **small, hard-to-see defects** immediately
- Reduces waste, raw material usage, and energy consumption
- Lowers CO<sub>2</sub> footprint and rework costs
- Easy to install, stand-alone operation, **no mandatory cloud connection**
- Proven in real production environments in Europe and India
- Supports sustainability and resource efficiency



## Knitguard Amortizes in 12-15 Months

Conservative estimate based on N=5 test customers over a two-year period.

### Return on Investment Drivers

Rapid ROI by addressing two distinct defect types

Dashboard with KPIs and savings

- Interactive ROI calculator on homepage
- Engage customers to improve KPIs



**Needle breaks**  
Lycra faults (plating errors)  
streaking/barriness (Ringel)



**Yarn integrity issues**  
(incorrect twist or thickness)



**Real-time detection**  
eliminates cumulative scrap  
rapid cost elimination  
measurable ROI

\* Conservative estimate based on N=5 test customers over a two-year period. Single Jersey, 24/7, Diameter 38", Rapportlänge 10cm

# Next-level Quality Control Starts Here

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***opdi-tex***

***opdi-tex*** GmbH

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- Industrial imaging systems for 25 years, started with on-loom inspection
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- **14 patents** in machine vision
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