Textiles / TX-05

# AI fabric inspection

Detecting fabric defects with cameras and AI and passing the data through to cutting: global practice.

## Defects must be found before cutting.

Garment manufacturers worldwide are replacing manual fabric inspection with line-scan camera and AI systems. The defect map is passed through to the cutting stage. Fabric production in Uzbekistan is growing rapidly.

Conceptual architecture. No operating results are shown.

| | |
|---|---|
| 01 Inspection | Camera · AI · Defect category |
| 02 Roll | Lot · Storage location · Grade |
| 03 Cutting | Map · Fabric-saving nesting · Cut parts |
| 04 Report | Supplier · Claim · Statistics |

## At a glance

94.2 mn m² — Cotton fabric output, January–September 2026 (2025: 72.5 mn m²). [1]

20+ — Defect categories detected by EagleAi, according to OSHIMA. [2]

90%+ — AI detection rate according to the vendor (manual: 60–70%). [2]

November 2026

01 Evidence and context

## Who it is for

| | |
|---|---|
| Head of Quality | Defect statistics. |
| Cutting room | Fabric utilisation. |
| Procurement | Supplier claims. |
| CEO | Returns. |

## Facts and global practice

### National Statistics Committee

Cotton fabric output in January–September 2026 was 94.2 mn m², compared with 72.5 mn m² last year. [1]

### OSHIMA press release

OSHIMA EagleAi detects, maps and classifies more than 20 defect categories in woven, knitted and elastic fabrics. [2]

### OSHIMA press release

Defect data is sent to a cloud platform and projected onto the fabric before cutting; the system integrates with MES and ERP. [2]

### Briefglance (on OSHIMA)

Data cited by Briefglance: AI detection above 90% versus 60–70% for manual inspection; inspection 6 times faster. [2]

The detection rate is a vendor claim. Model testing is required for each fabric type.

02 Where the losses occur

## Sample inspection

Only part of each roll is inspected.

## No defect map

Defect locations do not reach cutting.

## Supplier

Defective roll statistics are not collected for supplier claims.

## Shade variation

Shade variation between lots is detected late.

## How the loss is calculated

| | |
|---|---|
| Cut parts | defective cut parts per month × cost per part |
| Returns | returned orders per month × order value |
| Claims | value of defective rolls not returned to the supplier per month |
| Inspection | inspection hours per month × number of inspectors × hourly rate |

Illustrative calculations; establish the baseline, units and rates during the site assessment. Avoid counting the same loss twice.

03 Solution architecture

# Defect data travels with the roll

AI inspection equipment is supplied by a partner. MEENTAKA links defect data to the roll, warehouse and cutting.

**01 Inspection**

Camera · AI · Defect category

**02 Roll**

Lot · Storage location · Grade

**03 Cutting**

Map · Fabric-saving nesting · Cut parts

**04 Report**

Supplier · Claim · Statistics

## Modules

| | | |
|---|---|---|
| Roll warehouse (WMS) | Lot and location | Commercially available |
| Linking defect data | From partner equipment | In development |
| Supplier rating | For claims | Engineering capability |
| AI inspection equipment | Partner | In development |

Each module has a readiness status. Third-party results are not a forecast for your site.

04 Implementation and measurement

## 01 Quality audit

Inspection process.

Output: defect statistics.

## 02 Pilot with partner

One fabric type.

Output: detection rate.

## 03 Integration

Warehouse and cutting.

Output: full chain.

## 04 Subscription

Monthly report.

Output: trend.

## What is measured

| | | |
|---|---|---|
| Defective rolls | Share | System |
| Defects at cutting | Cut parts | Control |
| Claims | Amount | Procurement |
| Inspection time | Per roll | System |

## What is needed to start

- Head of Quality
- List of fabric types
- List of suppliers
- Warehouse layout

05 Readiness checklist and next step

| | |
|---|---|
| 01 Is every roll fully inspected? | Yes / No / Unknown |
| 02 Are defect locations recorded? | Yes / No / Unknown |
| 03 Does defect data reach cutting? | Yes / No / Unknown |
| 04 Are suppliers rated on defects? | Yes / No / Unknown |
| 05 Is the stage at which shade variation is detected known? | Yes / No / Unknown |
| 06 Is roll grade recorded in the system? | Yes / No / Unknown |
| 07 Are claim statistics kept? | Yes / No / Unknown |
| 08 Is the number of inspectors sufficient? | Yes / No / Unknown |
| 09 Are the causes of returned orders analysed? | Yes / No / Unknown |
| 10 Is there a designated responsible person? | Yes / No / Unknown |

## What we do not promise

• Exact timeline and price without an audit

• Guarantee of meeting buyer requirements

• Certification

• Unmeasured results or savings

• Detection rate of the AI equipment

## Quality audit

We review fabric inspection and roll records and show where defects are slipping through.

• Defect statistics

• Partner pilot plan

• Implementation fee and monthly subscription

Scope, price and schedule are agreed after reviewing the site and its data.

06 Sources and scope

[1] National Statistics Committee: industrial production press release, January–September 2026. stat.uz, 30.10.2026.

stat.uz

[2] OSHIMA press release: EagleAi fabric inspection (Texprocess 2026). taiwannews.com.tw, 30.04.2026; briefglance.com.

taiwannews.com.tw

briefglance.com

Prepared from the cited sources. Vendor statements and reported sector figures are attributed, not independently verified here. No performance, certification or regulatory outcome is guaranteed. Check the current official rules before making decisions.

The Endurance Industrial Technologies LLC · MT-TX-05-EN · 11.2026