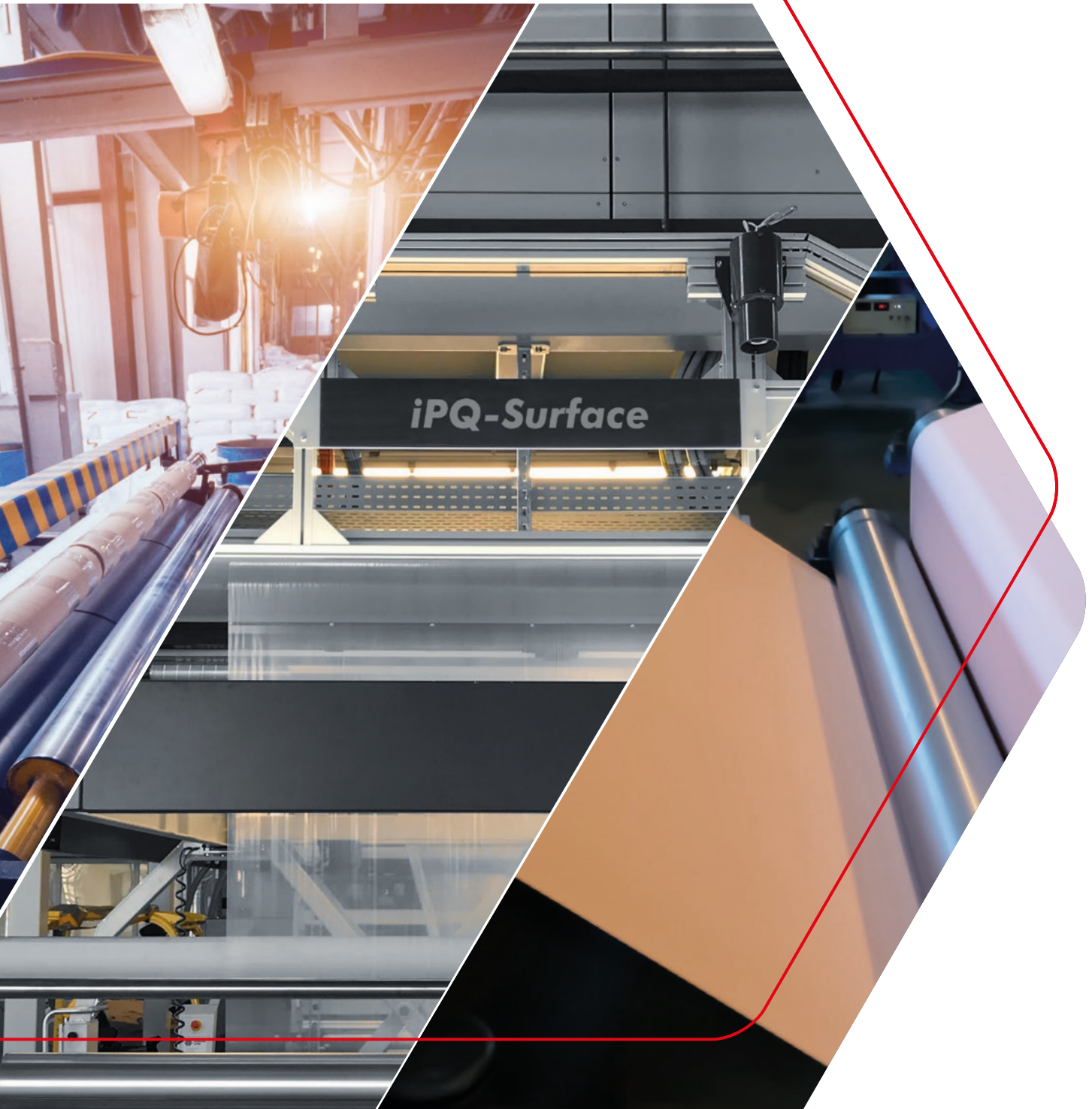


High-end surface inspection
to improve your process

BST iPQ-Surface: 100% Quality



BST iPQ-Surface

When the quality is 100%-right

BST iPQ-Surface perform providing high end solution through a platform of software and hardware duly developed for the industry processes. iPQ-Surface is an important support for proactive minimization of rejects and errors as well as more efficient processes.

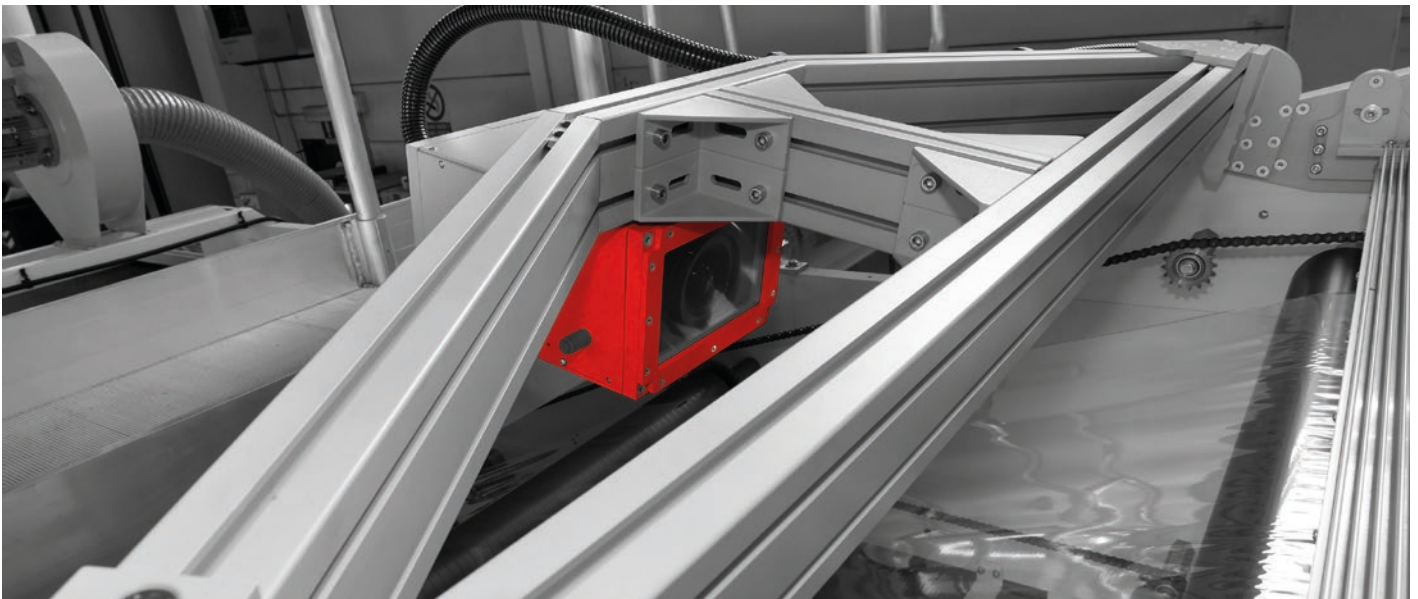
Surface inspection in extrusion, coating, lamination and many other machines works properly only if the camera, illumination and detection and classification algorithm are perfectly defined for the application. That requires not only precise knowledge of your requirements, but above all technical expertise which is a key benefit of our solution.

In addition, a system must be able to interact and be ready open towards your company network and the automation of the machine.

Always the right solution

After more than 30 years of experience in the development of surface inspection solutions we know exactly what is important to shape an application.

The BST iPQ-Surface solutions are the optimal choice for your applications. Benefit now from our expertise and choose the solution that combines efficiency with future-proofing and fits perfectly to your application.



100% tailored for your requirement

System	iPQ-Surface
Process	Extrusion (blown and cast), coating, laminating, rewinding, slitting, etc.
Material	Plastic films, metallized plastic, paper, alu, etc.
Inspection task	Defect detection, live monitoring and alarming, classification through AI
Fault type	Insects, gels, dirt, peels, wrinkles, inclusions, burns, holes, streaks, oil stains and many more

Learns along with you: 100% AI support

By understanding the user and the system as partners, you can teach the BST iPQ-Surface with defect classes. These are then automatically assigned to improve the AI capabilities.

More time for value-adding activities

- » Shorter makeready times and reduced downtimes thanks to intuitive and fast setup
- » Fast recipe selection by optionally scanning of barcodes or by ERP communication
- » Automatic or manual recipe setup for different orders or products

Documented quality

- » Roll- and order-related defect report

More sustainable production

- » Less rejects due to exact defect localization over the entire web width
- » Support of multiple webs and lanes
- » Automatic web edge tracking

Time saving over the entire workflow

- » Accurate classification during inspection for less effort in the rejection of defects
- » Precise detection of repeat defects

No defect remains undetected

- » Configurable warning or alarm messages depending on defect class, defect density and distribution
- » Statistical data evaluation and visualization in real time

Guaranteed availability

- » Less downtime due to failure
- » Predictive maintenance e.g.: Measurement of contamination and aging of components

Learning system

- » Trainable classifier based on advanced artificial intelligence
- » Toolbox for measurement tasks: Web width, defect area and geometric sizes

Eliminate quality deviations, before they occur

- » Digital outputs for controlling alarm signals, marking systems or control of error-dependent subsequent processes (e.g.: Discharge of faulty material)
- » Intelligent interaction with other BST solutions such as SMARTData

User-trained AI

User-trained AI means the partnership between the user and the BST system. Defect classes are trained by the user and can continuously improved for better reliability of the classification.



The hardware: 100% proven & thought ahead

Machines and systems are becoming increasingly more compact - and an end to this development is not in sight. The smallest possible installation space is therefore crucial for the integration of the inspection solution into the machine.

Here we set standards and enable smooth processes with individually adaptable solutions. As a member of the BST iPQ family, the iPQ-Surface combines state-of-the-art camera technology with innovative multiplex illumination and reveals even the smallest defects in a compact installation space.

Thus defects appear in the truest sense of the word "in a different light". This makes the necessary intelligent classification of the conspicuous possible.

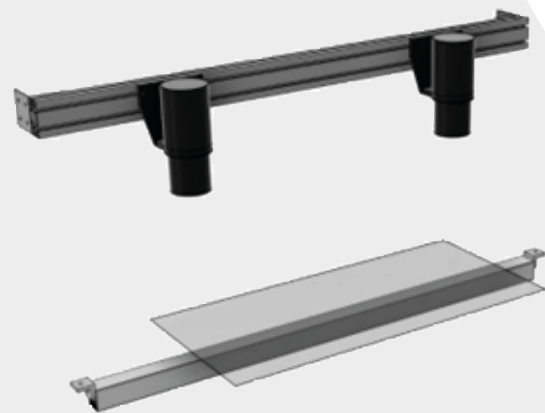
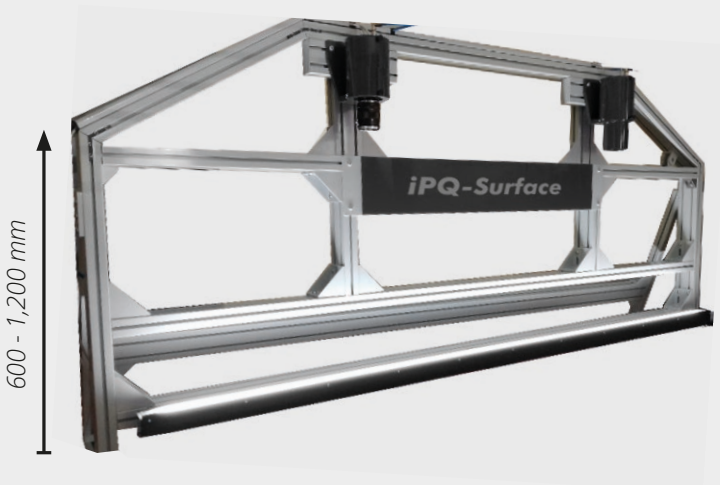
High-speed image capturing

- » 16k cameras with state of the art transmission to meet high resolution for the highest production speeds
- » Multiple cameras cascaded to unlimited web width

Customized lighting

- » Modular concept
- » RGB, IR, UV, polarized
- » Backlight, bright-field, dark-field, dome
- » Multiplex illumination for up to four different illuminations with one camera line

Customizable footprint and mechanical integration



Solution with traverses or complete frame. Both tailored and available for your production line

The software: 100% reliable & intuitive

With numerous live views and a flexible architecture, our software solutions are perfect for use in connected Industry 4.0 environments. Powerful algorithms allow reactions in real time, even at the highest web speeds. And the latest AI-based classifier separate the important from the less relevant defects and are the basis for meaningful protocols and live action for process optimization.

Because we know that that it is not enough to just show: Digital documentation of quality and individually customizable statistical evaluations for rolls and orders are equally important. In addition, the transfer of quality data to subsequent processes is also required.

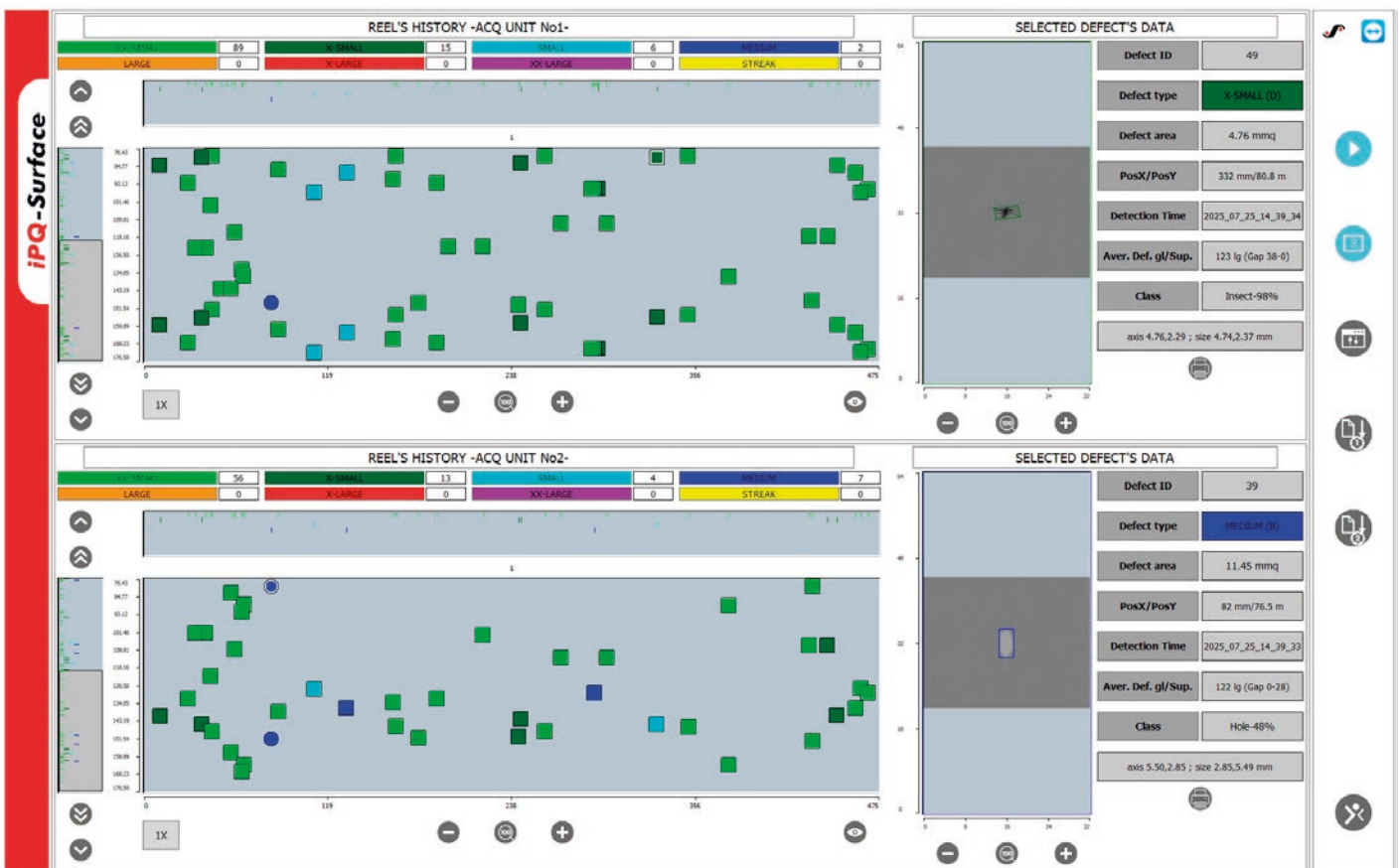
This is an important building block for the sustainable improvement of quality and productivity.

Intuitive operation

- » Semi-automatic setup for new materials
- » Easy configuration of error classification

Customizable interfaces

- » Defect map and detail display for each defect
- » Display of statistic of the defects



Thanks to the user interface of the BST iPQ-Surface, you always have an overview of all defect detection results at all times

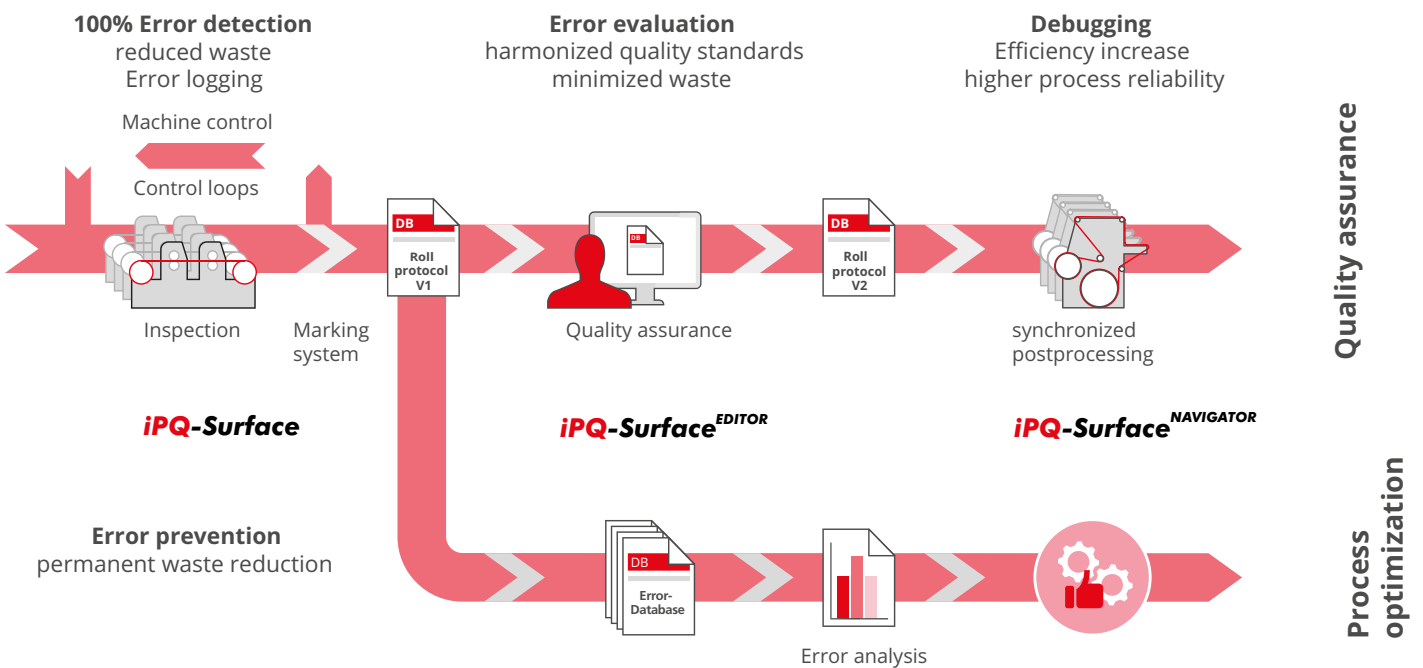
100% efficient & error-free

Quality assurance processes with BST

In the development of our products and solutions, we always have your complete process in mind. Our goal is clear: We want to optimize your processes. With surface inspection with iPQ-Surface from BST, you can be sure that only flawless material

will be delivered to the customer. The use of our offline tools enables you to view the material quality. In post-processing and subsequent processes the inspection results can be used to eliminate defects.

For permanent waste reduction and process optimization inspection results can be analyzed and evaluated over the long term in combination with BST SMARTData which is the key partner to follow the complete production duty.



“What’s special about an iPQ-Surface system from BST?”

A surface inspection system doesn’t just look - it analyzes, interprets and makes support for process decisions, becoming a key ally in ensuring quality and efficiency across industrial processes. BST iPQ-Surface is the perfect fit if you’re looking for that!”

Leandro Giovannoni, Product manager surface inspection

BST Service

100% competent & personal

Each **BST iPQ-Surface** installation is a custom-fit combination of standardized modules and application-specific elements. This means the system will fit perfectly into your machine, both from a functional and design point of view and thus best meets your requirements.

And of course, our outstanding service doesn't come to an end following installation. In an ideal world, it is only the first milestone in our partnership. We build on this as equals,

with mutual respect and appreciation. This also means that we are there for you promptly when you need us. After all, we want you to become (even) better with BST. Our promise also reflects this: **perfecting your performance**

Application expertise from BST

- » In-depth process understanding
- » Over 30 years of experience in inspection technology
- » Passionate about innovative technology

BST: global presence, local roots

- » Experts available at all times in over 80 countries
- » Responsive and experienced service technicians
- » Solution-oriented support

Outstanding and fair services

- » You have the choice: Service at cost or comfortable service packages based on your requirements.
- » We test your material on our systems in the BST test center.

BST - 100% the right decision



Deliver optimal quality

More satisfied customers, more successful projects and more sales



Avoid rejects or eliminate them in a targeted manner

Resource-saving production, less effort and a contribution to climate protection



Collect quantifiable quality data

Long-term process optimization, improved transparency and more control



Recognize defects in time and eliminate them sustainably

Increased productivity, more efficient processes and better goods



Costly inspection in the laboratory is superfluous

Noticeably reduced production costs, leaner processes and more time for value-adding activities



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