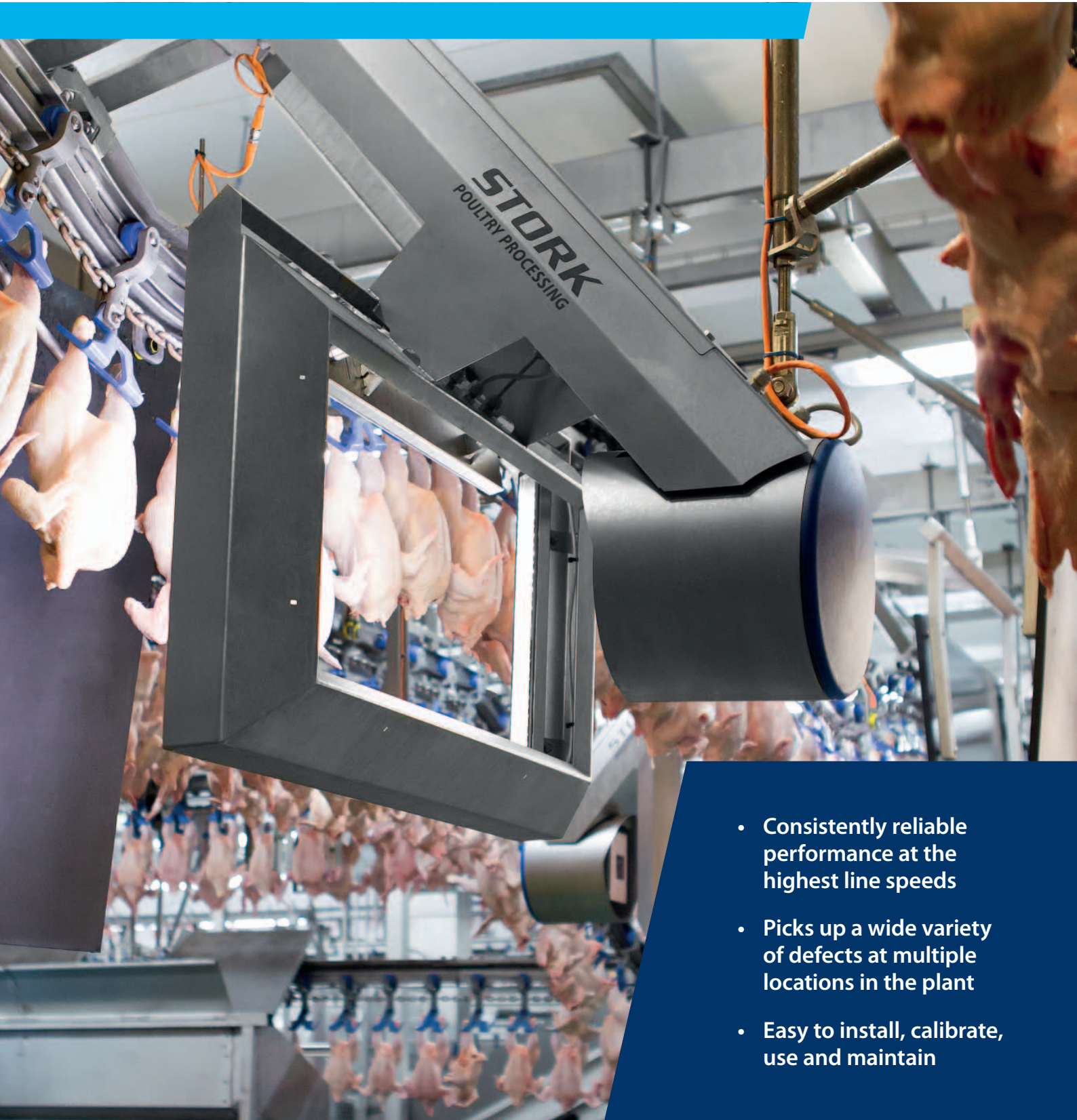


# Intelligent reporting, inspection & selection

Stork IRIS vision system



- Consistently reliable performance at the highest line speeds
- Picks up a wide variety of defects at multiple locations in the plant
- Easy to install, calibrate, use and maintain

# Capture product quality

**Downgrades occur even in the best run operations. Management's priority is to keep these to a minimum and to spot those that do occur so that they can be dealt with separately.**

Nothing, however, stands still. Line speeds are increasing. Customers are becoming ever more demanding and relentless pressure on margins demands that quality control is done ever more accurately. This is not just to ensure consistent top quality, but also to stop products being needlessly and wastefully downgraded.

To satisfy today's and tomorrow's tougher quality grading requirements, Marel Poultry offers Stork IRIS, a vision system, which uses the very latest image capture and data processing techniques giving exceptional performance at the very highest line speeds.



The defect analysis by IRIS



## What it does

IRIS can be installed at multiple locations in the processing plant to assess whole products and their anatomic parts.

It is used to identify downgrade whole products and parts in the killing and defeathering line, evisceration line and downgrade whole products and anatomic parts in the whole product distribution and ACM-NT automatic cut-up lines.

IRIS is fully integrated into the Marel PDS-NT/Innova plant-wide information and control system. Information received from IRIS will help determine how product is to be handled downstream.

## How it works

The system consists of a digital camera mounted behind platen in a water-tight cabinet, LED lighting and advanced recognition software.

IRIS uses shape, color and texture to detect defects and will reliably pick up broken wings, red and blue bruises, faecal stains and remaining feathers.

It will also pick up skin damage. Stork IRIS grades both water chilled products and air chilled products equally well.

Recognition software processes the images received from the camera and allocates a quality grade to each portion of the product's seven anatomic parts.

This information is passed to the PDS-NT/Innova control system, which then determines the optimum destination of each whole product and portion. These destinations will be based on the programme set by production management and in use at the time.

For truly optimum grading, an IRIS system can consist of two cameras. One grades the front of the product; the other the back. The final destination of each product and its parts will therefore depend on a 360° assessment.

Information from IRIS is used to generate real-time reports on the quality profile of individual flocks from individual growers.

## Consistent high performance

Stork IRIS uses state-of-the-art technology. The system has been designed not just for today's high line speeds but also with future requirements and applications very much in mind. The use of a digital camera and LED lighting means much sharper images with less shadow. The use of ethernet cabling means that image quality is not lost, even over longer distances.

**Detects a wide variety of defects.**



Sharper images and the system's advanced recognition software allow IRIS to pick up and assess an impressively wide range of defects.

The system grades both water chilled products and air chilled products equally well and can also be used to grade high value "speciality" products such as corn fed, organic and free range, whose shape and color differs from that of standard broilers. The system's user Interface allows processors to enter quality assessment profiles for different customers, products and flocks, allowing managers to manage efficiently at all times and under all circumstances.

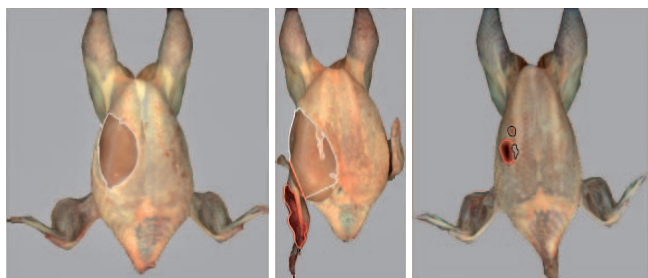
**Detects a wide variety of defects**

Installed in the killing and defeathering line, IRIS will detect damaged product, product with too much residual feather, undersized and badly bled product. If required, these can then be unloaded automatically at the end of the defeathering line. IRIS can also provide veterinary support broilers ones.

Installed in the whole bird distribution line or ACM-NT automatic cut-up line, IRIS will pick up residual feathers, skin damage, bruises, scratches and red tails on both the front and backside. The system is so precise that it can accurately detect the size of a bruise or length of a scratch, allowing production management to establish very precise standards for downgrading.

IRIS can now be installed in the evisceration line where it will perform exactly the same tasks as above. As product separation and wing presentation can be even better when the system is installed in the evisceration line, results are truly optimal.

When the Marel PDS-NT/Innova system is used to assess product through the chilling line, every bit of information on the quality of birds assessed can be used to distribute products in downstream whole bird and/or cut-up lines. An additional advantage is that production management has 2-3 hours advance warning of the quality profile of products in the system.



IRIS will also pick up different defects on a single part, one of which might cause the part to be downgraded; the other not. The ability to grade both the front and back of leg portions helps ensure that downgrades do not find their way into automatically assembled standard weight packs, thereby compromising the efficiency of this operation.

**Easy to install, calibrate, use and maintain**

The system has been designed for quick and easy installation, calibration and set-up. IRIS does not have to be "taught". Once installed, the system will grade consistently to the same standard. IRIS will work for very long periods without recalibration or maintenance.

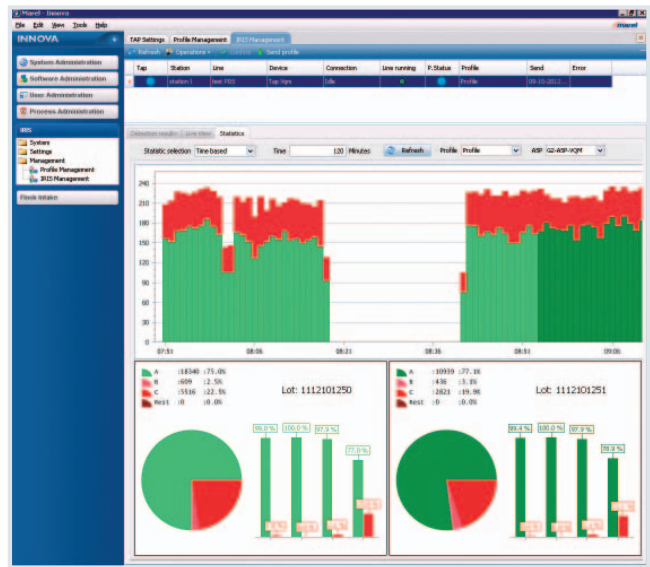
The use of long-life LED illumination is just one of the system's features which cuts cost of ownership. IRIS can be supported remotely from the Marel Poultry Help Desk.

**Technical data**

Capacity up to 13,500 bph (225 bpm)

Shackle pitch 6", 8" and 12"

Compatible with Stork killing, evisceration, whole product distribution and cut-up shackles





## Advantages at a glance...

- Consistent and ultra-reliable at the highest line speeds
- Can be installed at multiple locations in the plant
- Will grade both the front and back of the product
- Will reliably pick up a very wide range of defects
- Can accurately determine the size of a bruise or length of a scratch
- Allows plant management to set very precise standards for downgrading
- Suitable for both air and water chilled product
- Suitable for high value “speciality” products
- Easy to install, calibrate, set up and use
- Virtually maintenance free
- High intensity long-life LED lighting

**Marel is the leading global provider of advanced equipment and systems for the fish, meat and poultry industries.**

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