CHI•VISION®

Linen Quality Control & Inspection System

CHICAGO®

The CHI•VISION home screen shows real-time images of each piece as it's scanned.

The Laundry Industry's Most Advanced Automatic Linen Inspection and Quality Control Scanning System.

CHI•VISION® automatically detects and recognizes stains, tears and holes to assure production and delivery of high quality bed and table linen. It can also classify, sort and count flatwork based on size, color, patterning and/or logos. All parameters are touch screen customizable by color, size and linen area to meet any progressive laundry operator's needs. **CHI•VISION** has been specially developed for the high-volume laundry industry that insists on consistent quality control tailored to their specific needs and criteria. The system can handle large amounts of flatwork at high running speeds and has additional features to better manage both workflow and rejects.

CHI•VISION Features:

- Compatible with Chicago Skyline CT folder/crossfolder series (Consult factory for older Chicago or other brand folders)

- Rugged construction with excellent stability

- User friendly, full color 19" touch screen control panel

- Adjustable sorting/rejection parameters for every type of linen

- High resolution imaging – detects imperfections as small as 3/64 in² (1mm²)

- Detection of piping and logos on finer linen

- Topography recognition distinguishes acceptable creases from stains

- Suitable for both large pieces (table linen and sheets) and small pieces (napkins, pillowcases and other items)

- Speeds up to 200 feet per minute with full resolution

- Available to work with folders of different widths

- Available in range of single lane up to 6 lane models (optional)

- Convenient live remote access from anywhere with an internet connection

- Special version available for roller towels

CHI•VISION can sort based on holes, tears, stains, flaws, colors, piping, logos, sizes and shapes. Sorting rules are user defined to specify what should be rejected for each specific type of detected condition. The rule can define an action (for example to reject when a specific minimum size hole is detected), activate a counter or perform a signalling action. Because of this, **CHI•VISION** makes it possible to not only sort based on simple reject criteria, but also on multiple levels of quality according to customer's individual requests. It can also count and sort based on various properties of the linen itself.

CHI•VISION divides large linen pieces into separate inspection zones. This makes it possible to use different assessment criteria, for example, for the side edges of a bed sheet which will be tucked under a mattress as opposed to the criteria for those areas which will be visible to the customer or guest.

Thanks to the automatic camera calibration and time triggered cleaning system, scanner performance will remain at its optimum level under all circumstances.

Closed housing keeps dust out of the electronics, protects the sensitive parts of the system against ambient influences and maintains the overall integrity of the entire unit.

With optional third party software, **CHI•VISION** can be accessed from anywhere with an internet connection. This live view into the system allows for real-time monitoring, troubleshooting and system updates from an office computer, tablet or smartphone.

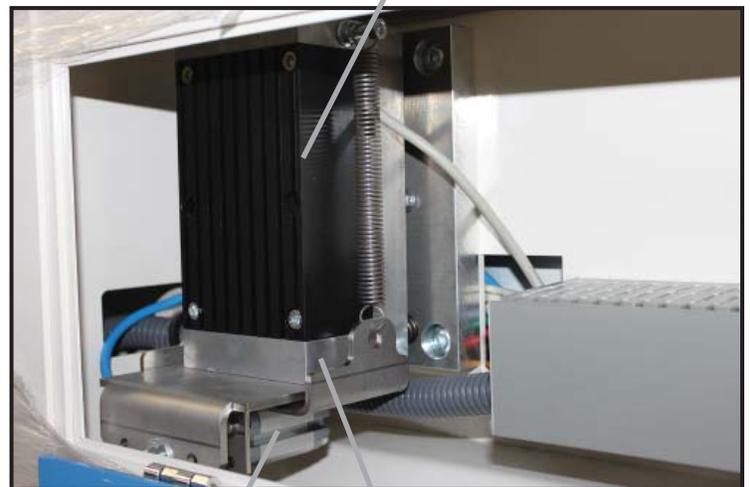**Articulated Monitor Swing Arm**

19" Touch Screen Control Monitor

USB Port and On/Off Switch

Secure Key Lock

Ventilation Fan

Rugged Camera Enclosure

Mounting Block Keeps Camera Properly Recessed

Automated Cleaning System

Automatic Calibration and Cleaning

Automatic calibration maintains scanner performance at its optimum under all working conditions. Automatic cleaning system keeps camera lenses free from dust to keep scanned image quality as high as possible. This system also allows **CHI•VISION** to have very low maintenance requirements.

Exclusive White and UV Light Source

CHI•VISION uses both white and UV light as light sources for scanning contrast. White light is used for color information and basic stain and hole detection. UV light is used for more advanced stain detection. Due to specially developed electronics and software, both techniques can be combined at the same time. **CHI•VISION** is the only camera inspection system in the laundry industry that has this unique capability, making it the most advanced and versatile system available.

Color Processing

CHI•VISION employs advanced color processing using a unique "color space" optimized for analyzing linen. With capabilities to provide usable data beyond the conventionally available CMYK or RGB models, the artificial intelligence (A.I.) scan can treat different colored stains in customized ways for purposes of rejecting and counting.

Color Intensity

CHI•VISION's dynamic color processing allows customization according to color intensity to help distinguish between stains and logos. An area with a faded color will more likely be classified as a stain than an area with a bright color, which will more likely be classified as a logo, and therefore will not cause faulty rejects.

Zoom In On Linen Flaws

Touch screen also allows users to zoom in on holes or stains to further examine and understand the nature of the flaw in the rejected piece in order to determine its origin and improve the quality of linen produced.

Dynamic Thresholds

Dynamic thresholds ensure that flatwork of different colors and/or brightness will be scanned in a consistent manner.

Zones

CHI•VISION can also divide sheets into zones. This can, for example, be used for bed sheets, so the area of the bed sheet which will be underneath the mattress will be analyzed using less strict criteria than the criteria used for the part of the sheet visible to the guest. Zone customization is simple too, through the user friendly touch screen dashboard.

Size / Shape

Rejection of linen can be configured based on shape and/or size. Linen which is determined to be the likely cause of a jam in the folding machine can be recognized and rejected before it reaches a point where it could cause the jam.

Advanced Object Recognition

CHI•VISION's exclusive A.I. Scan uses advanced algorithms to classify objects on linen. This prevents linen from being rejected incorrectly.

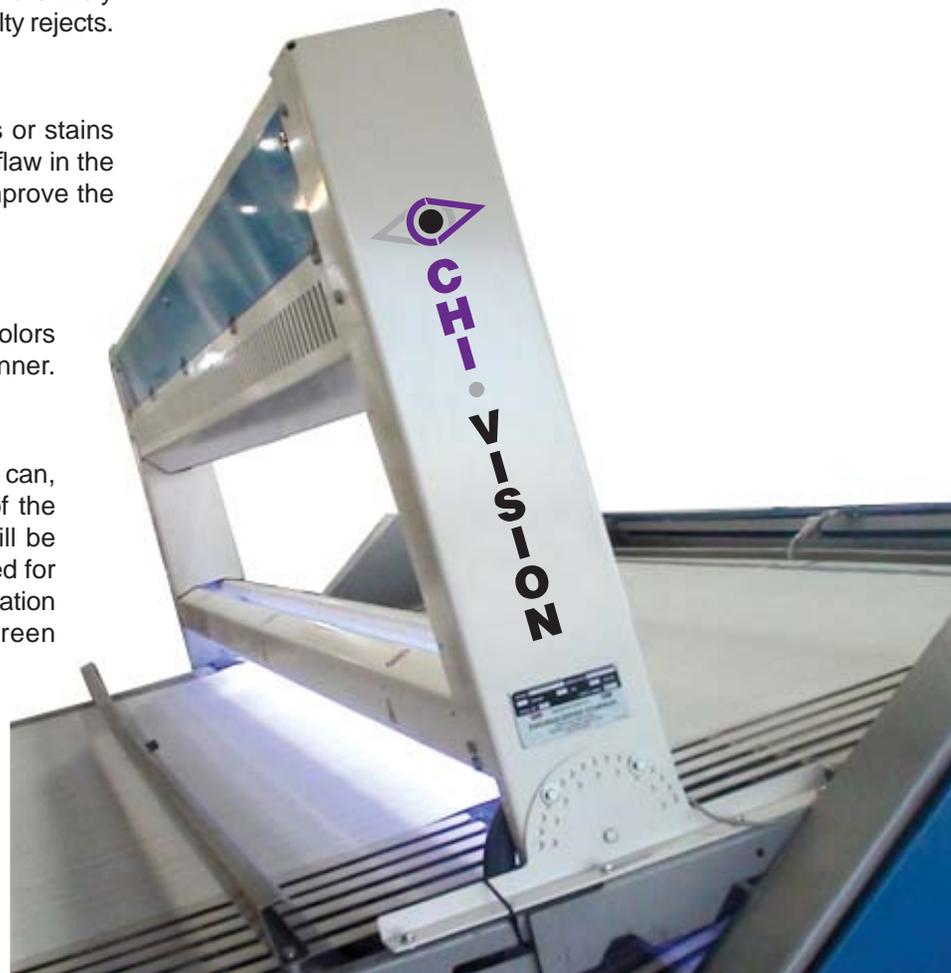## Automatic Lane Coupling (Available 2013)

CHI•VISION can be equipped with an optional automatic lane coupling option. The scanner then automatically couples lanes depending on piece size and where the center of the piece is, without the need for the folding machine controller to provide that information. This is especially useful for small piece or combined large/small piece ironing lines.
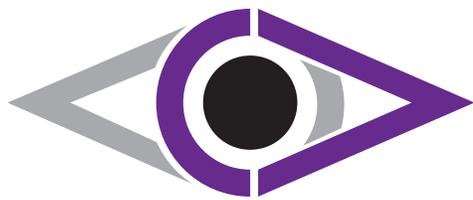
Speed

CHI•VISION can process linen at up to 200 feet per minute, and up to 6 lanes (optional) in parallel without loss of scanning quality or resolution. (Consult factory for details)
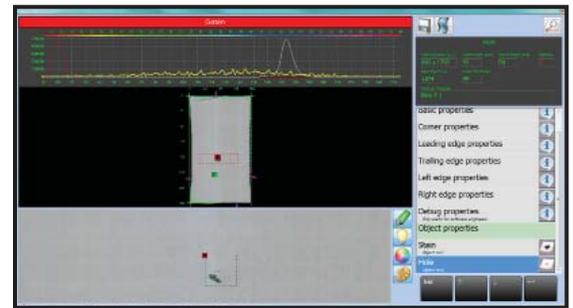
Counting

CHI•VISION has a large array of counting possibilities. The system counts based on size, color and markings on linen such as piping or logos. This provides a complete overview of the number of each type of item processed, the number of pieces rejected, and the reason(s) for any rejections. An electronic snapshot of the scan of every rejected piece can be stored and available for review. Selected images can be sent to the end customer for billing purposes or to demonstrate the quality of linen being sent to the laundry for processing, enabling the laundry to maximize revenue per piece processed for the customer.
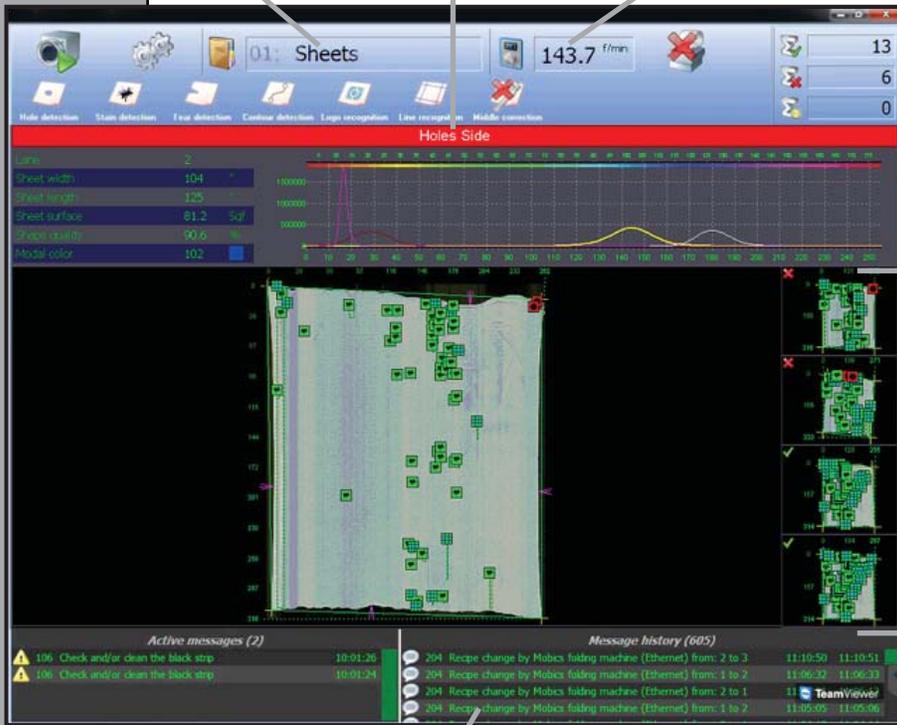
CHI·VISION

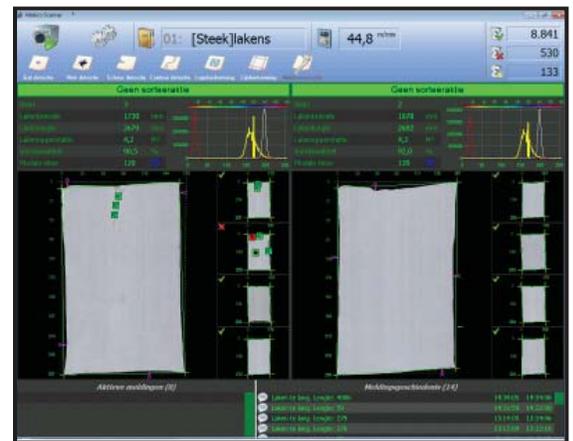**Sheet Detail Screen**

Active Program

Status Indicator

Machine Speed

Overview Screen: 1 Sheet

Message History

Images of Recently Processed Pieces

Parameter Setup Screen

Overview Screen: 2 Lane Processing (Option)

A Complete Range of Separating, Feeding, Ironing, Folding, and Sorting Options

Because Chicago specializes only in flatwork finishing equipment, it can offer the world's widest range of high production separating, feeding, ironing, folding and sorting equipment. Complete flatwork finishing systems range from automated multi-roll systems producing over 2000 pounds per hour, to compact ironers for small on-premise laundries.

Chicago's performance record is unmatched in thousands of installations in commercial, hospitality, health care, textile rental, institutional and on-premise laundries all over the world. An experienced Chicago professional will be pleased to make an objective equipment recommendation based on your production, space, utility and budget requirements. Contact your local Chicago distributor or the factory sales assistance office for a no-obligation analysis of your needs.

Chicago's Customer Service department offers full technical and service support by telephone and on our website. We also offer overnight service for quick parts availability. Visit our website, **www.chidry.com**, to learn more about our complete line of flatwork finishing systems, including video of Chicago® equipment in action.

CHICAGO®

** INTRODUCTORY BROCHURE—Some specifications may be subject to revision/correction **

Bulletin #7554