VisioChrom
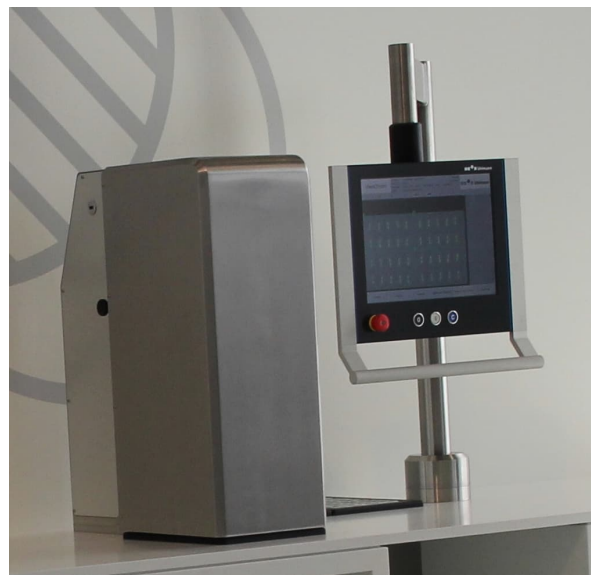## Compact, flexible and productive colour vision system.

VisioChrom is a flexible and efficient colour quality inspection system for pharmaceutical quality inspection. With experience from machine producers with more than 2000 installations in the pharmaceutical industry and with analysis and implementation of many requirements from customers VisioChrom proves to be a qualified and solid vision system.

VisioChrom characteristics:
- Options for intermittent and continuous production.
- Unrestricted formats.
- Fill and breakage inspection of tablets, dragées, capsules, galantine products in various shapes, ampoules, colour code rings, syringes and labels in different foils:
  - transparent, opal, dyed
  - aluminium foils
- Reliable operation through many methods of measurement.
- Comprehensive collection of statistics for each blister.
- Mountable on almost all blister machines.
- Simple display of symbols on monitor for measurement results,
      green = ok, red = error.

Pharmaceutical security.
- Possible to validate.
- Protection of set-up and inspection data with individual username and passwords.
- Detection of serial errors.
- Possible to enter production and product data.
- Statistics for the pharmaceutical filling protocol.
- Continuously running system check routines and unbreakable output signals.
- Quality guarantee through complete inspection.
- Detection of empty blisters for separate rejection.
- SCADA integration possibility.

System components.
A typical VisioChrom system consists of the following items:
- Vision computer.
- CCD or CMOS camera.
- TFT monitor w. touch screen
- Light for overhead light.
- Mechanical components.

VisioChrom is easy to integrate.
VisioChrom is a vision system, which can easily be adapted to different configurations.
- It can work as an independent inspection system.
- It can be integrated with different shift registers:
  - MSR
  - Integrated shift registers
  - Or own internal shift register (option).
- It can be integrated with existing control systems e.g. TouchControl.
- It can interface with a host-computer system.

VisioChrom is fast.
- VisioChrom can inspect more than 50.000 products/minute
- Machine speed up to 400 strokes/minute. Even faster in case of smaller formats.

VisioChrom 2DG (HW:8.85)

VisioChrom is user friendly.

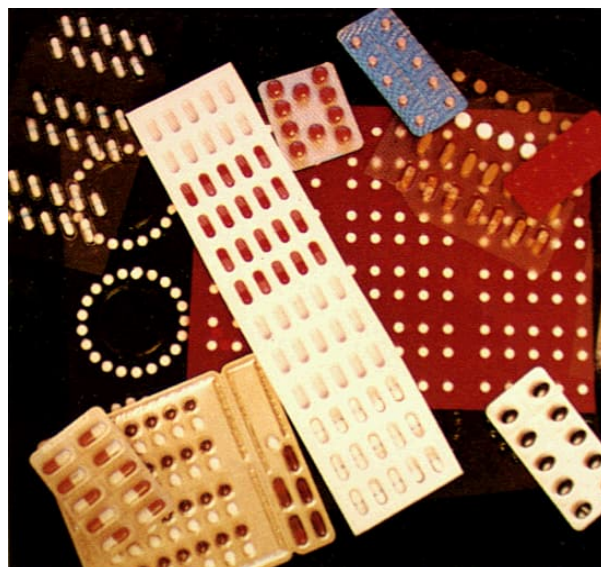All adjustments are easily made and without problems by using trackball and monitor with simple and clear menus.

♦ Simple functions for saving/retrieving set-ups.
♦ Easy functions for handling foreign languages. Danish, English and German are standard languages; further languages are recorded from memory card or host.

VisioChrom is comprehensive.

♦ Illumination measurement for inspection of variations in illumination.
♦ Measurering of reference points for compensation of inaccuracies in product feed.
♦ Measuring windows for inspection of special product qualities.
♦ Tool box with filter functions.
♦ Measuring methods:
  - Many colours per blister.
  - Handling of multicoloured products
  - Colour measurement via HSI
  - Calculation of size on the basis of grey tones.
  - Definition of position in x and y direction.
  - Definition of circumference.
  - Definition of dimension.
  - Check for extra products outside the blister pockets
♦ Automatic tolerance recommendations for all parametres - e.g. limit recommendations.
♦ Real-time clock including date.
♦ Diagnostic functions:
  - RGB line-level display of image contents.
  - Histogram display.
  - Display of all inspection results.
  - Display of inspection speed.
  - Run-time display of reject reason.

Advantages.

♦ 100% product inspection.
♦ Rise in product quality and productivity.
♦ Production statistics.
♦ Reduction in product handling and sorting,thus reducing wage costs.
♦ Minimal operator training time.

Technical data.

• VisioChrom 2DG uses up to 2 high-resolution shuttered CMOS Dual GigE cameras.

• Image resolution from 1936 x 1032 pixels to more than 3216 x 2208 (7 mega) pixels.

• Up to 1000 products per inspection.

• Up to 21 blisters per machine feed.

• Fully 21 CFR Part 11 compliant. Including user management and audit trail.

• Interactive VGA or DVI touch-screen interface.

• 8 inputs
  - Trigger inputs.
  - External signals.

• 24 outputs
  - Result outputs for OK-blisters.
  - DataValid synchronization signals.
  - Signal for empty blisters.

• Ethernet data channel
  - Backup/Restore.
  - Format selection.

• Operating system: Windows 11 IoT Enterprise LTSC 2024
  40GB+20GB disk 16GB RAM.

• Solid State disk for OS and application data.

• Intel i7 Six core processor, generation 8 or 9.