

Presentation on “AUTOWATCH” Video Monitoring Equipment.

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Purpose of System

- **Method to identify root cause of ongoing equipment issues in a manufacturing environment. The system is particularly useful on intermittent issues.**

Key Benefits

- **Improve engineering/maintenance support on issues especially on evening or night shift.**
- **Better quantitative data on equipment/process issues.**
- **Method to share information on equipment/process issues between facilities.**
- **Eliminate 'hear say' & opinion. Replace with factual record.**

Key Characteristics of System

- **Compact, Mobile & rugged.**
- **Self contained –when not in use all components locked away in cabinet**
- **10mt power cord with built in spring retract reel.**
- **Quick and easy to set-up.**
- **25, 50 and 100 frames per second options available.**
- **Standard Four cameras per system but up to Eight can be incorporated**
- **Cameras equipped with electronic zoom and auto-focus**
- **Miniscreen for Assistance with Camera setup**
- **Quick set-up and highly flexible camera mounting brackets.**
- **Wireless Camera Options**

Key Characteristics of System(continued)

- **16mt Camera cables.**
- **Manual and machine triggered alarms**
- **Simple but powerful search capabilities**
- **Variable playback speeds – can slow down a machine sequence of operation to better identify a problem's root cause.**
- **Zoom capability on playback – can zoom into area of interest for better detail**
- **Simultaneous playback of all four cameras in Quad mode**
- **Videos and still image be recorded in USB stick**
- **Still pictures can be recorded in JPG format.**
- **Capability to review video remotely via Wifi on a Laptop**

Typical Playback Screen Layout(4 Camera)



Camera and Mounting Clamp Assembly



Storage Drawer Layout



Cable Management



Cabinet Layout



Trolley Layout



Principal Potential uses of System

- Line Monitoring:** The system can be set up to monitor the operation of a production line. Whenever an intermittent problem occurs, the operator presses a labelled “pushbotton” on the side of the Monitoring System enclosure. Engineering/Maintenance can later review the recording of just before the pushbotton activation, and debug the cause/sequence of events resulting in the problem on the production line.
- Intermittent Machine issues:** The System has an alarm input for easy connection to the PLC of any production machine. The system will then flag the times of any machine faults. The video for the period just before the fault can easily be found and reviewed. To further assist debug of problems a camera can be focused on the panelview screen to review alarm messages.
- Equipment Commissioning/Validation:** New equipment can be monitored over an extended period of time to help identify bugs. The recordings of these bugs can then be reviewed with the supplier, providing very clear evidence of items that need to be rectified.
- Media Runs:** Provide a video archieve of cleanrooms and equipment for Media Runs in the Pharmaceutical sector.

Principal Advantages over Traditional High Speed Camera System

- Simplicity of Use:** The system is simpler to use than many high speed systems and therefore will be utilised by a great number of Engineers/Technicians
- Multiple Cameras:** Normally four but up to eight cameras can be incorporated into a system.
- Storage Times:** A traditional High Speed Camera normally stores a max of two minutes video. The Autowatch System typically stores up to 72hour or more on all Cameras.
- Flagging Issues:** Manual flagging of critical occurrences by equipment operators or directly from the machine's .
- Robustness:** System is robust and can be left unsupervised on the line for extended periods of time. Maintenance costs of system are very low.
- Remote Viewing:** System can be remotely viewed and clips backed.

Client List

Clients utilising the Autowatch system include

- Procter & Gamble
- Teva Pharmaceuticals x 2
- Oral B x 4
- Abbotts x 5
- Glaxo x 2
- Transitions Optical x 4
- OLM/Essilor
- Organon
- BD Healthcare x 3
- Yves Rocher
- Millipore
- Henkel Loctite
- Hollister
- Rottapharm
- Stiefel Laboratories
- Servier Pharma
- Diageo
- Cadburys
- Sanmina
- Helsinn Birex
- Baxter x 2
- Covidien x 2
- Honeywell
- KCI
- Merck
- Gilead Pharama x 3
- Genzyme x 2
- Boston Scientific
- C&D Foods
- GreenIsle
- Bausch & Lomb
- Mylan
- Cuisine De France
- GE Healthcare x 2
- Chanelle Pharma
- Molex
- Mergon
- Alcon

Procurement of System

- **Documentation and Training on system will be provided.**
- **Additional on-site training can be provided.**
- **System typically ready to ship in four weeks from PO.**
- **Additional information and/or quotation available from Mike Slattery (087) 2384200 or MikeSlattery@Envisage.ie.**
- **Onsite demo of system can be provided.**
- **Rental Options available.**
- **Engineering service available utilising Autowatch to generate reports with recommendations**