

## CODEMAT

In companies that manufacture and package multiple products on a large scale, there are always higher possibilities for packaging mix-ups. These mistakes might seem trivial but can later be embarrassing when seen clearly. Moreover, in case of packaging medicines, an error can prove to be fatal. Most pharma companies today, insist on facilities which have online checks for such errors.

Codemat will help you avoid such blunders as it guarantees 100% accuracy in packaging and also meets the quality assurance compliance required by pharmaceutical companies. Codemat is an extremely handy, easy and reliable solution to meet the inspection requirements. It helps you to avoid issues like mix-ups and other quality issues like missing colours, registration errors etc.

Codemat is installed on the 'folder gluer' (carton pasting machine). The carton pasting machine as we know is the final step in the carton production process, and so it is the most ideal stage to install the inspection system so as there is absolutely no room for error or mix-ups in the final product. Along with Codemat we provide a complementary software called 'Simply pharma' with which you can produce the desired codes.

With codemat, you can connect your machine to the computer network and get online information about the machine activities. By doing so, you can get upto date information as well as keep track of S.O.P. verification and the machine activities.

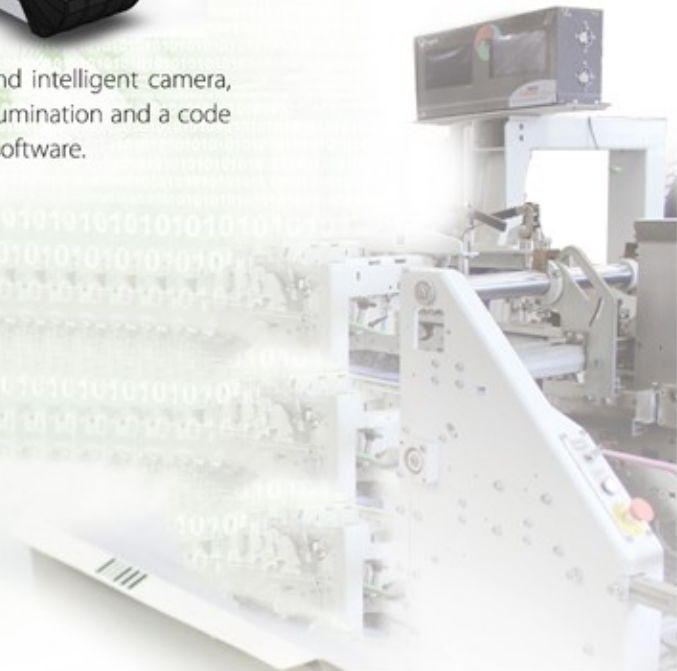


### Codemat Top

Codemat a state of the art technology product is developed by Propix Technologies Pvt. Ltd. & Precision Cutting Systems Pvt. Ltd. in technological collaboration with 'TopSensio' Germany, using topCam 6500.

TopCam 6500 is an extremely

powerful, sensitive and intelligent camera, which has built in illumination and a code reading comparison software.



	Max speed carton/hr.	Max linear speed
CODEMAT	1,25,000	350 meters/min



In Pharma Packaging, you blink an eye and mix-ups happen in abundance.

Dual Camera Print Verification System is online never blinking eye inspection system installed on your folding machine to avoid mix ups/ Blank documents.

It is an online inspection system equipped with smart cameras; the system can verify pharmacode, barcode, data matrix code as well as print presence on both sides of document. The system is developed in technical collaboration with Topsyenso GmbH, Germany

### System Specification:

#### Embedded System:

It is an embedded system which works without any PC or Operating system. stability and reliability of performance is much higher.

#### 1) Display & User Interface:

System has an enhanced 15.6" Touch Screen which displays the image online along with the essential graphic user interface.

Touch is provided for the user to key in the commands.

#### 2) Camera:

Make: Topsyenso GmbH.

Model: Topcam 6500.

Resolution: VGA.

Illumination: Built in LED.

Type: The cameras used in this system are called "Smart Camera". These are capable to read, scan, compare value of Pharmacode, 1D Barcode, 2D Barcode, verify presence of print and generate appropriate output.

#### 3) Output:

i. Machine Stop: It instantly stops the machine on detection of a defective leaflet.

ii. Ejection: The defective piece is ejected when it reaches eject station.

#### 4) Sensors:

i. Object Sensor (reflective Type):

This sensor works on the Emitting & receiving basis. It response when an object passes through it. It is highly sensitive for better performance.

ii. Incremental Encoder :

An encoder is mechanically installed on this machine, which makes image capturing easy, without disturbing the setting of camera or sensor, if any in rare cases.



### Unique Features:-

There are some never ever seen features in the system:

#### 1. Line Clearance (SOP):

Several important checks are questioned by the system for line clearance. Some of the important checks are mentioned below: -

- Did you clear the previous job leaflets from the machine?
- Did you clear the wastage from the flooring?
- Did you check the entire room?
- Did you perform the line clearance?

#### 2. Quality Assurance:

In process quality assurance checks is a unique feature in the system. This assures you the complete control of the process.

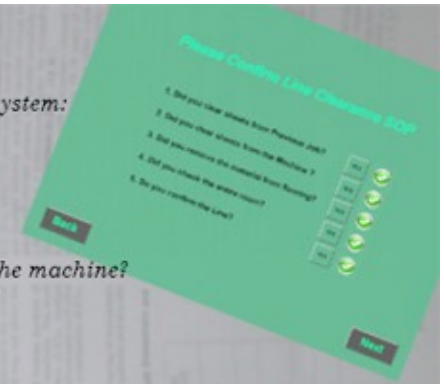
#### 3. Unique Login ID And Password:

Dual Verification Print Verification System is well protected against tempering by unauthorized person within the company. It has a software password protection and also a hardware key lock.

It is protected with different user level rights i.e. administrator, supervisor and operator.

#### 4. Report Generation:

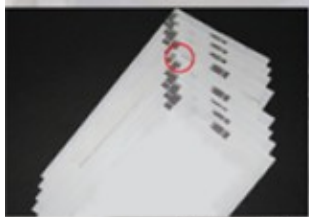
A report of all the events with respect to the real time is automatically generated by every job. This report can easily be printed for a hard copy .



## Leaf Check

The inserts (Leaflets) manufacturer handles multiple products at the same time. The pressure of meeting 'On Time' delivery schedule and handling multiple jobs leads to occurrence of silly mistakes from the production team. These mistakes lead to erroneous deliveries such as mix up of leaflets, wrong orientation of leaflets, up side down positioning of leaflets during folding. Such errors cause serious problems if such inserts are delivered to the pharma industry or in the worst case in the hands of the end user.

To eliminate these circumstances. Several solutions are tried. Pcspl have come forward with the easy and cost effective solutions for such issues.



Mixed up Leaflets



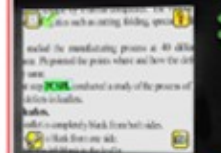
Blank leaflet



Wrong folded leaflet

## Verification on folding machine

### Barcode Matching



### Image Matching



### Verification on folding machine

A top bottom camera system installed on a folding machine. Both the camera's are set to read the pattern i.e to verify an image/ characters on the leaflet.

The image matching confirms the presence of printing (Blank check).

### Offline operations

This device can also be used for an offline verification of folded leaflets on conveyor or any other suitable fixture.

## Double sheet Detector

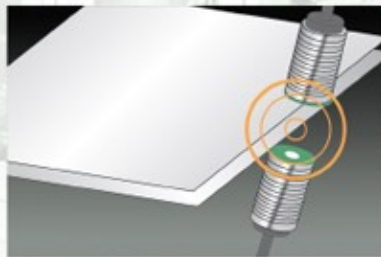
The inclusion of an appropriate insert/leaflet along with a medicine container is a mandatory regulation for most of the medicines. Absence of these or errors in the inserts or leaflets can invite severe problems to the pharmaceutical companies.

The most common error in these inserts is 'Blank Leaflet'. The leaflet may be blank from one side or both sides. The main cause of this error is Double Sheet.

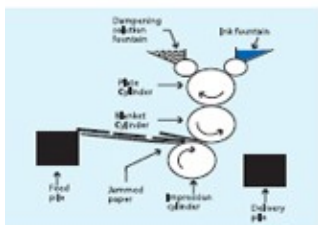
Leaflets are usually printed on thin sheets ranging from 40gsm to 60gsm. The conventional electromechanical device fails to judge the difference between one sheet and two sheets and due to this malfunction the machine can get jammed due to multiple sheets passing through it. This phenomenon can also damage the printing machine.



Conventional DSD



Supersonic DSD



Paper Jam

To take care of this problem we have a product. Supersonic Double Sheet Sensors, which work on the principle of 'sound'. These sensors are used in the offset machines manufactured currently in the most advance countries like Germany and Japan. Ultrasonic double-sheet detectors distinguish between single and double sheets of paper and prevent waste or machine damage.



A standard double sheet detector, with control unit suitable of the offset printing machine.

The supersonic sensor along with a timing sensor and interlocking sensor which do not allow the operator to start the machine without removing the double sheet .

### Main advantages :

- 100% dependable and does not allow any double sheet
- Contact less operation and so no settings required.
- Same settings work for all types and thicknesses of substrate, which saves a lot of the operator's time and work .
- Due to additional interlock the operator can not start the feeder without removing the double sheet.

### DSD + Blank

This equipment has an additional feature over the normal double sheet detector. i.e. it indicates the number of blank sheets that have passed through the printing unit. So, the blank sheets passed through due to

- Delayed operation of the impression mechanism
  - Intentionally run blank sheets without impression
  - Improper functions of front lay
- and such other reasons can be counted and removed from the delivery.

**Get Rid Of Blank Leaflets And Machine Jams!**