## Technical Specification

Maximum Carton Size	250 x 300 (W x L)
Minimum Carton Size	80 x 80 mm (W x L)
Paper Thickness	180 to 450 gsm
Speed Max.	250 m/min.
Camera Resolution 2K	0.13 mm
Total Power	11.2 KW (15 HP)
Overall Size (L x W x H)	4750 x 1250 x 1600 mm
Weight	1500 Kg (Approx.)

When you promise world class quality you cannot afford a single defect . . . .

Autoprint Checkmate 25
Carton Inspection Machine

INSPECT | DETECT | SEGREGATE
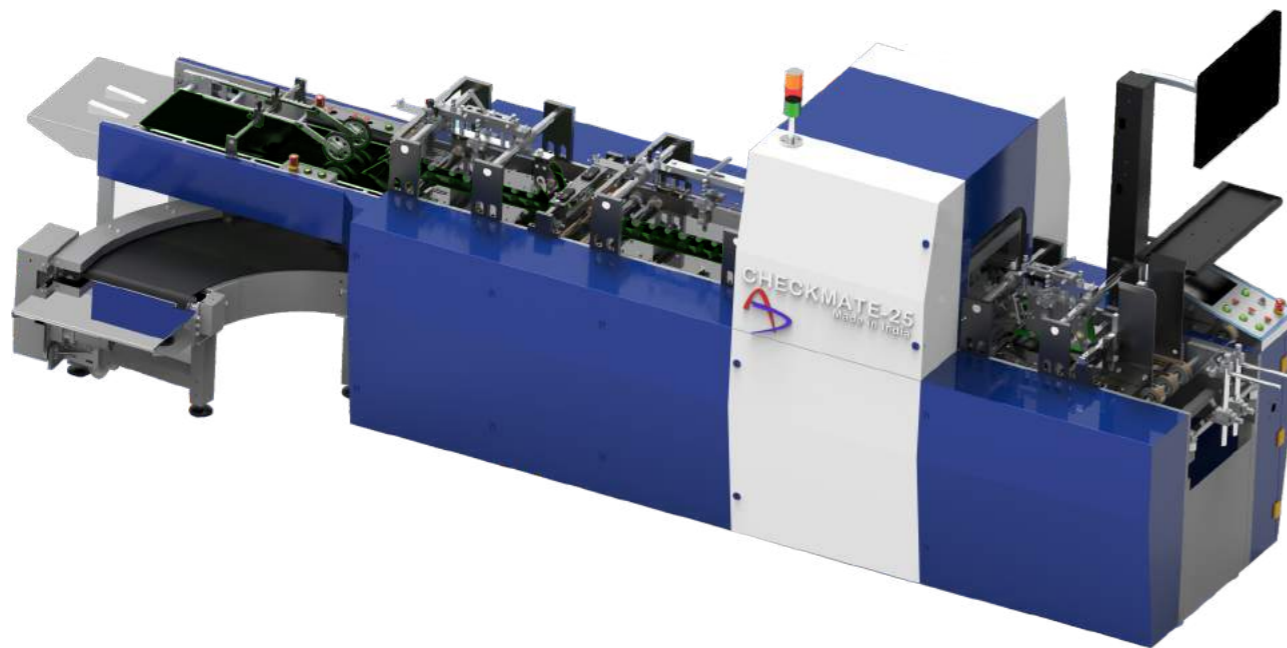
A Carton full of top-notch Features !

Bottom feeding system with vibrator for trouble free feeding

Air jets are provided for removing dust / fluff from cartons.

Ultrasonic double sheet detector to detect double sheets automatically and take them to reject bin

Vacuum belt with powerful suction under the camera for holding the carton firmly.

Camera 1 - 2K colour camera for inspecting of printing defects.

Camera 2 - 4K black & white to inspect surface defects (like foil stamping, coating, lamination defects).

Camera 3 - Bottom, 2K monochrome for checking presence of dead insects.

High speed fail proof pneumatic ejection system with air jets for segregating good and defective cartons separately.

Full tracking system is incorporated to track each and every carton to ensure the same carton is going to reject/accept delivery stacker

Delivery stacker with servo control for stream stacking.

Curved conveyor for collecting rejected cartons without the chance to mix-up.

Air jets are provided for cleaning camera lens periodically to maintain consistent image quality.

Ergonomically placed operator control with touch panel and PLC for easy setup of various parameters Monitor for viewing good and reject cartons on the run.

Machine with rugged frame design

All operator touch areas, are with corrosion free stainless steel and hard chrome plated parts.

Online UPS system with auto power shutdown for computer, light and camera to improve the reliability of the parts.

Camera unit is independent of the machine and hence completely vibration free for excellent image quality.

Individual LED lighting for each camera with angular mirror for precise image of metpet cartons.

High precision industrial encoder is used with stable mounting for getting excellent quality and accuracy of scanned images.

Modular design of guards for easy accessability.

Single wide bottom belt is provided for faster make ready Acoustic enclosures are provided in guards for reduced noise level.

Bottom camera is provided with dust exhaust system for preventing false rejection due to dust floating in the air.

Powerful main drive with timer belt for all drive shafts for eliminating slip and enhancing efficiency of the machine.

Machine is completely designed to run on sealed bearings and hence it is maintenance free.

Cooling system for computer and also for camera area.

Brush and high speed nozzles for eliminating dust.

Software

User friendly interface allows easy configuration of software.

Easy model turning during inspection.

Different tolerance level can be set in different regions to ensure only critical defects are rejected.

Reject image viewer for defect visualization.

Special scratch and cluster detection.

Archive all defective print images into the database.

Powerful software algorithm permits sensitive defect detection while maintaining high yield.

Region wise online defect statistical report generation for corrective actions.

Complete integration with the mechanicals of the machine (mistake proof inspection).

Fail proof carton tracking system so that a reject carton will never go to accept bin.

Automatic alignment of image with respect to key register points to adjust for small tilt.

Multiple levels of tolerance available for setting up the master image for inspection.

Powerful computer processor & software with high storage capacity to handle huge volume of images and data, backed by best in industry after sales support.

Trouble shooting by remote access through Team viewer for both machine and software.

Process wise statistical inspection reports with sorting provision of customer, date, job, month etc.,

Quick job changeover .

Images and defects can be learned if required on the run.

Up wise inspection is provided to improve the yield.

SAMPLES OF ERRORS
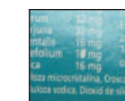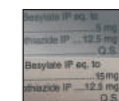
Print Inspection Camera
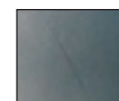
Colour Variation	Die Cutting	Scum	Registration
Text Defect	Mix-up of Cartons	Scratches	Bar Code
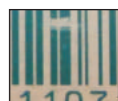
Foil and Embossing Camera

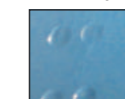| Hot Foil	Drip-off Coating	Aqueous Coating	UV Coating
Braille half-cut, Missing	Scratches/Wrinkle on Matte Lamination	Embossing	
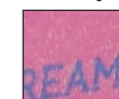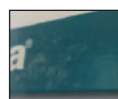
Bottom Camera

Dead Insects/ Stains	Printing Defects	Gross Colour Variation	Glue Missing from Window Film
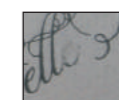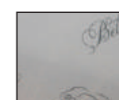
Autoprint Checkmate 25
A Carton Inspection Machine
for defect-free cartons