Eagle™ Pack 240 PRO

X-ray Inspection System

The Pack 240 PRO is a compact a high performance x-ray system designed for inspecting small packaged product in the food, nutraceutical, pharmaceutical, and other CPG industries where throughput and precise inspection performance is critical.

The Pack 240 PRO is ideal for inspecting small to mid-sized packaged product in cartons, pouches, cups, trays, and tubes where inspection performance is critical and line space is at a premium. It's high throughput design with inspection speeds of up to 114 MPM (375 FPM) combined with it's multilane inspection capability makes the Pack 240 PRO perfect for integration into flow wrap, blister pack, and other high production lines.

Eagle's <u>SimulTask™ PRO</u> operating system is easy to use combining powerful image processing routines with simple touch screen operation to deliver maximum inspection results for hard to detect

contaminants. Additional inspection modes such as mass measurement, component count, void detection, fill level and missing component detection helps to ensure the product meets quality specifications thereby maximizing the return on investment.

Eagle Repository™ is supplied as a standard which provides a simple way of storing, viewing and transferring production information such as statistics, event logs, manually saved images and reject images to other devices for storage.





Eagle™ Pack 240 PRO

X-ray Inspection System

Compact Powerful Inspection System

The Pack 240 PRO has a generous inspection envelope while keeping the overall machine footprint to a minimum. The system's flexible configuration enables:

- Beam geometry that handles most single serving and many other packaged product geometries.
- Flexible reject offerings with one or two integrated reject assemblies in single or multilane configurations or can be supplied with remote mounted rejects to minimize machine footprint.
- Use of standard components and options to create a tailored solution eliminating the need for long lead-time and costly customization.

SimulTask™ PRO Optimized for Inspection

Eagle's SimulTask™ PRO image processing and control system is supplied as standard with the Pack 240 PRO. Years of user driven development has optimized the system for:

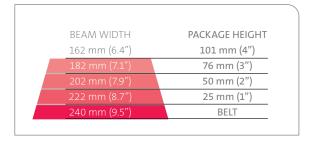
- Contaminant detection including bone, metal, glass, stone, high density plastics and rubber.
- Performing multiple inspection tasks simultaneously to provide the greatest return on your inspection investment.
- Mass inspection delivering checkweighing functionality and filler feedback to eliminate costly product giveaway and underweight packages.
- Advanced multilane operation to inspect different or same package types per lane to maximize system use.
- Local workforce integration with 28 different user interface languages for your business.

Safety is Everyone's Job

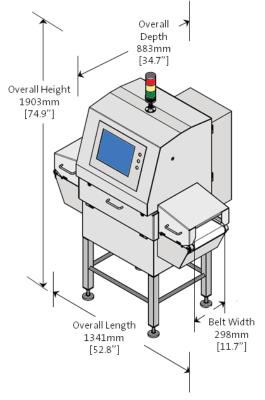
Machine safety is critical. At Eagle, safe mechanical and electrical designs are built into all machines.

- Electrical safety circuits meet Category 3 (EN954) and Performance Level "d" (PLd, EN13849) criteria.
- A complete Hazard Based Risk Assessment is available for the Pack 240 PRO to integrate into a user's risk management and safety program.

Beam Geometry Diagram



Pack 240 PRO Dimensions





SimulTask ™ PRO easy to use touchscreen operation.

Saving Product Delivers Profits

Eagle pioneered the use of x-ray for measuring the mass of inline food products providing checkweighing functionality to prevent costly product giveaway.

- Multi-zone, with or without EU tolerances, and Zonal measurement for multiple content items are available.
- Statistics including count and reject by zone, mean value correction and giveaway calculations are actively tracked to further optimize processes.

SimulTask™ PRO Zonal inspection ensures all components are placed correctly, contaminant free, with the exact amount delivered.

Meet Stringent Due Diligence Requirements

Many manufacturers and retailers continue to expand requirements with additional safeguards to ensure that the utmost due diligence is performed. The Eagle Pack 240 PRO is available with two pre-configured packages each of which strengthens the inspection process.

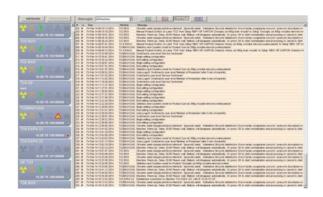
- Supermarket Package is fully guarded through the reject path with:
 - Integrated reject and reject bin with door interlock which requires password authorization for access
 - Reject verify with test functionality
 - Reject bin full with manual validation paddle
 - Signaling lamp and audible alarms
 - Consecutive reject monitoring and controlled machine restart
- Reject Monitoring Package provides a basic level of sensors and machine monitoring to furnish an effective reject monitoring program. The package includes reject verify, reject bin full, and reject counter check sensors plus consecutive reject monitoring.

Integral Part of a Robust Inspection Program

The Eagle Pack 240 PRO helps to document your inspection program while keeping systems up and running at required performance levels.

- Eagle Remote Access enables product set-up, machine diagnostics and often remote correction by Eagle Technical Support to maximize machine uptime while maintaining a low cost of ownership.
- Eagle Repository™ allows convenient on-screen review of production statistics as well as rejected and saved images. Information can be easily transferred or saved for review and archiving.
- <u>TraceServer™</u> (optional) delivers enhanced x-ray monitoring, data transfer and storage via an external database for multiple Eagle machines.





Optional TraceServer™ package enables consolidation of valuable machine monitoring and inspection results for up to 32 Eagle x-ray systems into one centralized database.

Specifications

Model	Eagle™ Pack 240 PRO
Packaged Product	Packaged goods in cartons, pouches, cups, tubs, trays and other packaging up to 101 mm (4") tall, (see
	beam geometry for maximum product heights and widths)
Inspection Modes	Detection modes for contaminant, missing item, clip, void and premium, plus modes for mass/weight, shape/position, fill level and filler feedback
Mass/Weight Inspection Module	2, 3, 5 Zone operation; total weight, EU tolerance, selective area weight; moving average and automatic mean correction; total accepts and rejects by zone; mean, standard deviation, net giveaway, % giveaway
Remote Diagnostics	TeamViewer™ service tool supplied as standard for remote machine diagnostics and product set-up services
Conveyor	
Width & Length	Conveyor width: 298 mm (11.7"); Length without reject: 1341 mm (52.8") long, with 1 integrated reject: 1626 mm (64") long, with 2 integrated rejects: 1932 mm (76") long; infeed & outfeed roller diameter: 56 mm (2.2")
Line Heights	From 640 mm (25") to 1397 mm (55"); additional heights available on request
Speed Range	17 - 114 MPM (55 to 375 FPM)¹,² subject to package type & dimensions
Belt Specifications	White TPU food grade seamless belt operating range -30° to 80°C (-22° to 176°F); Compliant to EC 1935/2004 & Directive 2002/72/EC; FDA 21 CFR Parts 170-190
X-ray System	
X-ray Power	Hi-Ray 7: 70kV @ 1mA; EA100: 70kV @ 1.25mA; or EA420: 70kV @ 3mA x-ray generators
X-ray Type & Emissions	Single vertical beam; x-ray emissions <1 uS/hr; Compliant to 21 CFR 1020.40, 21 CFR 179.21, EURATOM EU nationalized standards
Detectors Resolution & Inspection Widths	0.4 mm, 0.4 mm PXT™ enhanced dual energy, 0.8 mm, or 1.2 mm pitch single energy detector. Maximum speeds: 0.4 mm standard - 21 MPM (69 FPM); 0.4 mm high performance - 30 MPM (100 FPM); 0.8 mm, - 63 MPM (207 FPM); 1.2 mm − 114 MPM (370 FPM)²
System	
Display & Operating System	15" TFT color touch screen, 250GB memory, Windows 10 Enterprise 32 Bit LTSB OS, Eagle SimulTask™ PRO Control & Image Processing Software
Safety	(2) E-Stops, LOTO Main Disconnect, Category 3 (EN954), PLd (EN13849) safety circuit with system visualization via machine user interface. A Hazard Based Risk Assessment compliant with ISO EN 12100:2010 is available
Communications	(2) USB 2.0 ports, (1) Ethernet 10/100/1000 mbps port, (1) RS232 serial port; (1) Ethernet-IP Fieldbus interface port (optional)
I/O	(4) Input signals, (4) reject output signals, (5) output signals; 5 PLC monitoring signals for: reject detect, system processing, system calibrating, fault condition, x-rays on
Ingress Protection	IP65 standard, IP66 optional; Type 304 stainless steel bead blasted enclosure
Operating Range	0°C to 40°C (32°F to 104°F) 25% to 90% relative humidity non-condensing
Power Requirements	230 VAC +10/-10% single phase 50/60 Hz, 16A fused
System Cooling	4000 BTU/hr air conditioner externally mounted to rear access panel
Compressed Air	Air not required for base system; optional reject systems may require 5.5 bar (80 psi), 3/8" (9.5 mm) line, dry & filtered air supply
Options	
Rejects	24VDC signal only; stop belt, air blast, push-off, lift-up, drop through; remote mounted push-off, air blast, & plow; other rejects available upon request
Product Handling & Re- ject Accessories	Product guides, empty box detection, reject bins, reject verify, reject counter check, bin full, supermarket & reject monitoring due diligence packages
Software & System Operations	Multilane inspection, dynamic product changeover, encoder operation, Ethernet-IP fieldbus interface, TraceServer™ network database software

¹ Maximum speed varies depending on the type of generator and detector used, the package type and dimensions to be inspected; contact Eagle for further details & assistance.

Eagle Product Inspection

1571 Northpointe Parkway, Lutz, FL 33558, USA +1-877-379-1670 (telephone) +1-813-543-2049 (fax)





³ Maximum speeds listed are based on use with the EA420 generator used at the highest power setting available for the listed detector, if a lower power (EA100 or Hi-Ray 7) generator is used and/or if the voltage (kV) or current (mA) are reduced on any generator used a corresponding reduction in speed will occur, contact Eagle for further details & assistance.