

# PRODUCT PROTECTION FOR THE

# PHARMACEUTICAL & HEALTHCARE INDUSTRIES



**MET30+**  
**UNIVERSAL**



- Digital electronics provide optimum detection and removal of ferrous, non ferrous and stainless steel metal contamination
- Unrivalled product and brand protection
- Operable in a CFR 21 Part 11 compliant environment
- Stable to extreme vibration, such as that of a deduster
- WIP/Dust tight reject option enables use with the most potent formulations
- Design & Construction compliant with 21 CFR Parts 210 and 211
- Validation Documentation including IQ, OQ, & PQ and certification documents



# LOCK

INSPECTIONS SYSTEMS

YOUR PARTNER IN PRODUCT PROTECTION

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Quality and integrity are fundamental requirements for products from the pharmaceutical, healthcare and nutritional industries. Whether for ethical pharmaceutical formulations, generics or OTC solid dosage products, effective product protection is imperative throughout manufacture and packaging. Lock Inspection Systems has raised the benchmark for detection and removal of metal contamination once again with the launch of the digital MET 30+ *Universal*, its all new range of metal detectors for the Pharmaceutical and Healthcare industries. Lock's leading-edge digital technology delivers key benefits at key stages in the process:

- **Inspection and removal of metal contamination from incoming raw materials and formulations prior to tableting and encapsulation**
- **Inspection of up to 30,000 tablets or capsules per minute before packing, at the highest levels of sensitivity**
- **A mobile and highly adjustable frame permits the metal detector to be installed in any conceivable configuration including super high and low-line options**
- **Data management systems to collect and store product quality records**
- **Full installation, operation and validation manuals**
- **Minimal of product wastage**
- **Easy to use auto-setup has the metal detector ready for use in seconds**
- **New Digital technology achieves the highest levels of sensitivity – 30% greater than previous metal detectors irrespective of product signal**
- **Reject system can be removed, dismantled and cleaned without tools**

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## Materials Screening

The quality of finished product can only be guaranteed if incoming and in-process materials are effectively screened to remove all unwanted metallic particles.

**Vertical Fall metal detectors:** are recommended to inspect incoming raw materials in free-falling powder or granular form and to inspect formulations prior to tableting or encapsulation

*Early inspection using the vertical fall digital metal detector protects the quality of materials for processing*

## Tablet or Capsule Manufacture

High-speed tablet presses and encapsulating machines represent a critical control point for product inspection. Contamination from broken sieves or damaged press tooling should be detected at this stage.

**Tailor-made solutions:** Lock's pharmaceutical metal detectors are all purpose-designed for ease of installation and equipped with castors for moving in and out of position.

Generally placed before or after the de-duster for tablets and after other inspection equipment for capsules, the detector delivers final product

## OPTIONS

### “BatchChek” metal detector for all your security criteria

A user-friendly industrial PC panel, integrated into Lock's pharmaceutical unit, with windows-based software allows pharmaceutical companies to fully comply with 21 CFR Part 11 environment. The software implements all security access controls, electronic records and signatures as required by the FDA.

This system can be operated remotely and a number of systems networked together. Diagnostics, set-up and interrogation routines are performed via the PC with reports being transmitted instantly.

## Data Management Systems

Lock Inspection Systems has developed a total QA management system which collects and monitors Lock's metal detection equipment data to provide up-to-date records. This provides a valuable central record for all product and validation data for quality staff to comply with ISO 9000 systems.



**High throughput – superior sensitivity:** Lock's systems can be specified to accommodate full production volume flow-rates while delivering high levels of sensitivity to all metals. The detectors are compact and designed for easy installation in material-handling systems. Each has an integral automatic rejector which will operate in the event of contamination being detected.

**Cost savings:** early detection of contamination affords significant cost savings since lower value materials rather than finished products are rejected.

**Simple operation:** all Lock's systems are designed for ease of use, rapid calibration and rigorous cleaning

**Machinery protection:** early removal of contaminants will protect downstream machinery from damage.

**Validation:** a complete validation specification. (also available on CD-ROM) final product protection before packaging.

protection before packaging.

**Highly sensitive:** the units will detect minute flakes and particles of all metals – particularly stainless steels.

**Leading-edge digital technology:**

Lock pioneered metal detection systems for tablet and capsule manufacture and the new digital MET 30+ *Universal* reasserts their leadership in this sector.

**Cleanliness:** Lock's detectors are finished in mirror-polish stainless steel 304 certified to IP 65 – are designed to facilitate easy wash-down. All parts in contact with product are fabricated with stainless steel 316



**Efficiency:** operation is high-speed and matches all leading presses. The integral reject device rejects minimal product when unwanted metal is detected

**Fail-safe:** product integrity is protected if power or controls fluctuate. A 'test-prompt' software feature ensures adherence to quality systems.

**Wash in place:** to meet the stringent requirements of wash-in-place, Lock have designed a wash-in-place unit. The key feature is a water tight and dust tight product chute and reject system, which integrates with tablet presses and de-dusters from the leading manufacturers.

*Lock pharmaceutical metal detector*



*Lock's pharmaceutical system with a industrial PC panel*

**Touch-Screen Display**

Lock's touchscreen interface can be incorporated into either the MET 30+ vertical fall or tablet and capsule system. The touchscreen interface acts as a user friendly panel for viewing metal detector data on-screen rather than via a PC or laptop. This display features Lock's ADC unique graphic technology software, which provides operation and maintenance staff with a powerful on-screen diagnostic tool.



*A touchscreen display showing ADC software*

**Reject System**

A metal detector is as good as its reject system is the often quoted mantra. Lock has redesigned and enhanced its reject for the new digital MET 30+ *Universal* and it incorporates a number of new features:

- Construction is entirely of stainless steel 316
- The entire reject system and rotenoid can be removed from the metal detector without the need for tools.
- The reject can be dismantled into its component parts and then immersed in water or subjected to any form of cleaning according to requirements before reassembly
- For use with highly potent formulations, a wash-in-place reject is available featuring a watertight, dust-tight product chute that integrates with tablet presses or dedusters from all leading manufacturers
- The reject flap on Lock's reject unit has an internal cushion to prevent any metal/metal contact with the chute that could cause metal contamination
- Reject confirmation as standard

## Leaders in metal detection and checkweighing technology

With over half a century's experience of delivering custom-designed, automated quality assurance solutions, Lock Inspection Systems is setting new standards in metal detection and checkweighing technology.

Lock's technical team builds on a database of past experiences compiled from around the world to design tailored solutions to its customers' individual requirements. Devoting sustained investment to new product development, the company continues to pioneer innovative equipment that sets ever higher benchmarks in product protection.

Backed by an extensive international network, our technical and customer services in Europe and the USA provide unparalleled after-sales care and consultancy. Lock has secured a leading position in product protection for the food, pharmaceutical and textile industries, and is proud to be allied with many of the world's foremost manufacturers.

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