

Enjoy the **21** experience!



CEIA THS 21 series

INDUSTRIAL METAL DETECTION SYSTEMS



- Superior Detection Capabilities
- Maximum Configurability
- Full compliance with HACCP and GMP criteria
- FDA Title 21CFR Part 11 Compliant
 - ✓ Data Security
 - ✓ Data Integrity
 - ✓ Data Traceability



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CEIA THS 21 SERIES INDUSTRIAL METAL DETECTION SYSTEMS

Best Metal Detection Solution for compliance with Reg. (EC) No. 852/2004 and FDA Title 21CFR110 requirements on manufacturing, packing or holding human food

Subpart E (Production and Process Control) of the FDA Code Title 21 CFR110 and Regulation (EC) No 852/2004 require that effective measures shall be taken to protect against the inclusion of metal in food. CEIA THS 21 Metal Detection Systems offer detection, construction quality and reliability characteristics that make them the most suitable and effective solution to automatic elimination of metal contaminants

FDA 21 Part 11 Compliant

The THS 21 Metal Detector Series is a high-sensitivity, high-precision measuring instrument. The data relating to each detection and ejection are stored in an events memory and certify production quality, the inspection itself and programming operations, as well as the periodic functional test phases using standard test samples.

FDA Code Title 21 Part 11 prescribes rigorous criteria for access to programming and computer data protection which have been fully adopted in the CEIA THS 21 Series firmware.

The requirements regarding Security, Integrity and Traceability are therefore satisfied.

New Global Auto-Learn System provides simultaneous maximum sensitivity to all metals starting from a single learning transit

The THS 21 Series employs an exclusive Autolearn system for food products which allows optimization of the detection sensitivity to all metals with the maximum speed and precision, equivalent to hundreds of conventional learning transits: results in levels of precision and efficiency never before obtained.



Continuous embedded Self-Calibration control for maximum repeatability and performance consistency over time and with environmental changes

By means of specific signals sent to the transmission and reception chain of the Metal Detector, **constant monitoring of the detection characteristics is carried out, with consequent constant compensation for any variations caused by environmental factors.** The result is system stability and constancy in detection performance and product effect neutralization.

Fully HACCP and GMP compliant, CEIA Metal Detectors are ISO 9001 certified and constructed of EC and FDA approved materials

Continuous Auto-Test function ensuring maximum Production Safety

Special electronic stimuli are sent to the transmission and reception chain of the THS 21 Metal Detector Series, causing variations in the detection signals which provide checks on detection characteristics. These variations are compared with the reference values stored in the factory at the time of the calibration test.

This produces an **automatic certified check of the system's sensitivity**; any deviations from permitted tolerances are followed by a signal and the recording of the anomaly.



Automatic measurement of the installation Quality and Environmental Compatibility

THS 21 Series introduces new tools for the installation and maintenance technicians which allow them to measure the environmental compatibility of the Metal Detector.

The measurements include general mechanical and electromagnetic environmental compatibility, specific electromagnetic compatibility and the automatic examination of the degree of metal interference from the conveyor belt. This latter function becomes even more important when the high level of sensitivity of the THS 21 Metal Detector Series is taken into consideration.

Modern, rugged and user friendly interface

- Industrial rate design
- Rapid data entry with extended keyboard
- Easy to read, high-contrast graphic display
- Rugged, antivandalic stainless steel keyboard

The THS 21 Metal Detector Series keeps the full compatibility with programming and parameter selection procedures already implemented in earlier versions of the THS. In addition, there is a **new organic graphic display with extremely high contrast (3000:1) and a viewing angle up to 180°, and an extended alphanumeric keypad for quick keystrokes.**

■ Quick Access Function

A new function, simply activated by pressing a dedicated key, **allows the most frequently-used functions to be directly recalled.** These functions are programmable by the operator, and maintain the access protection criteria according to FDA Title 21 Part 11 requirements.

■ Large Product Memory: 500 entries with easy alphabetical sorting and pattern matching

A capacious incorporated memory allows up to 500 products to be stored, each identifiable by a specific alphanumeric string. The products are automatically listed in alphabetical order, and **searches are facilitated by the progressive recognition of the characters selected on the keypad.**





THS 21
series

ENHANCED METAL DETECTORS FOR QUALITY CONTROL

THS/21 & THS/MS21

CEIA
THS 21
series

METAL DETECTOR WITH MULTI-SPECTRUM TECHNOLOGY

- Ultra high sensitivity to all magnetic and non-magnetic metals, including stainless steel
- Multi-spectrum technology for extreme compensation of the product effect
- Continuous Auto-Test function ensuring maximum Production Safety
- Continuous embedded Self-Calibration control
- High immunity to environmental interference
- AISI 316L stainless steel construction to IP66 and IP69K protection levels
- Control Power Box available according to UL 508A and CSA-C22.2 No. 14-05
- Automatic learning & tracking of product effect
- 500 product data memories, selectable by local programming or network software
- 5000 storable events
- High-definition graphic display
- Local programming: 16 keys, 3 with double function
- Quick Access key for fast programming of user parameters



MULTI-SPECTRUM TECHNOLOGY FOR EXTREME
COMPENSATION OF THE PRODUCT EFFECT

THS/G21 & THS/GMS21

METAL DETECTOR FOR FREE-FALLING PRODUCT APPLICATIONS



THE THS/G21 IS DESIGNED TO INSPECT POWDERS, LIQUIDS, GRANULES
AND OTHER LOOSE MATERIALS IN PIPES



THS/21E & THS/21E-3F

METAL DETECTOR WITH MULTI-FREQUENCY TECHNOLOGY

- High sensitivity to all magnetic and non-magnetic metals, including stainless steel
- Multi-frequency Technology for maximum sensitivity to Product Effect variations
- High immunity to environmental interference
- AISI 316L stainless steel construction to IP65 protection level
- Control Power Box available according to UL 508A and CSA-C22.2 No. 14-05
- Automatic learning & tracking of product effect
- 250 product data memories, selectable by local programming or network software
- 1000 storable events
- 4 X 20 character alphanumeric display
- Local programming: 4 keys, 3 with double function



MULTI-FREQUENCY TECHNOLOGY FOR MAXIMUM SENSITIVITY TO PRODUCT EFFECT VARIATIONS

THS/G21E

METAL DETECTOR FOR FREE-FALLING PRODUCT APPLICATIONS



CONTROL POWER BOX



METAL DETECTOR



DIGITAL ANALYSIS OF THE SIGNAL PROVIDED BY THE ANTENNA (DSP) ALLOWS EXTREMELY HIGH LEVELS OF SENSITIVITY, IMMUNITY TO INTERFERENCE AND OPERATIONAL STABILITY TO BE ACHIEVED

CEIA THS 21 SERIES INDUSTRIAL METAL DETECTION SYSTEMS

CONVEYOR INSPECTION SYSTEMS

CEIA THS 21 Conveyor Inspection Systems satisfy the most stringent requirements for functionality, compact construction, accuracy and reliability of response in dealing with accidental contamination in food products

CEIA THS/FBB

FLAT CONVEYOR BELT SYSTEM FOR THS 21 & THS/21E METAL DETECTORS

- Conveyor belt integrated with Metal Detector and ejection system
- Structure and components in AISI 304 stainless steel and food-compatible plastic parts (FDA, USDA compliant)
- Digitally-adjustable belt speed
- High immunity to environmental interference
- Air blast or pusher ram ejection system with belt stop
- Easy to clean and inspect
- High reliability motor driver with stainless steel protection cover and high pull capability

EASY TO CLEAN AND INSPECT:
THE CONVEYOR BELT CAN BE REMOVED
WITHOUT ANY TOOLS



STRUCTURE AND COMPONENTS IN
AISI 304 STAINLESS STEEL AND
FOOD-COMPATIBLE PLASTIC
PARTS (FDA, USDA COMPLIANT)



CEIA THS/MBB

MODULAR CONVEYOR BELT SYSTEM FOR THS 21 & THS/21E METAL DETECTORS

- Modular conveyor belt integrated with Metal Detector and ejection system
- Structure and components in AISI 304 stainless steel and food-compatible plastic parts (FDA, USDA compliant)
- Digitally-adjustable belt speed
- High immunity to environmental interference
- Air blast or pusher ram ejection system with belt stop
- High reliability motor driver with stainless steel protection cover and high pull capability



STANDARD BIN WITH
TRANSPARENT WINDOW AND
SECURITY LOCK

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CEIA reserves the right to make changes, at any moment and without notice, to the models (including programming), their accessories and options, to the prices and conditions of sale

INTEGRATED SYSTEMS WITH METAL DETECTOR AND EJECTION VALVE

THS/PL 21 series

FOR LIQUID AND VISCOUS PRODUCTS

- Standard pipe sizes available to suit all applications
- AISI 316L stainless steel construction to IP66 and IP69K protection levels (THS/PLMS21)
- Easy to clean and inspect
- Minimum installation space required
- Wide range of flanges available for connection to bagging and clipping machines

THS/PLV 21 series

INTEGRATED SYSTEM WITH EJECTION VALVE FOR LIQUID AND VISCOUS PRODUCTS

- Standard pipe sizes available to suit all applications
- AISI 316L stainless steel construction
- Easy to clean and inspect

THS/PLVM 21 series

INTEGRATED SYSTEM WITH EJECTION VALVE FOR MEAT

- Standard pipe sizes available to suit all applications
- AISI 316L stainless steel construction to IP66 and IP69K protection levels (THS/PLVM MS21)
- Rapid electrical and mechanical connection system for bagging and clipping machines
- Wide range of flanges available for connection to bagging and clipping machines

THS/FFV 21 & THS/FFV 21S series

INTEGRATED SYSTEM WITH EJECTION VALVE FOR GRANULAR AND POWDER PRODUCTS

- Standard pipe sizes available to suit all applications
- AISI 316L stainless steel construction
- Very compact size
- Fast and efficient: achieve fast ejection speeds and accuracy, with the minimum amount of rejected product
- Pipe in antistatic material, certified for contact with food products



THS/PL 21



THS/PLVM 21



THS/PLV 21



THS/FFV 21S



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