

NCB-3000 Series

METAL DETECTOR AND CHECK WEIGHER

COMBO+

NCB3000 Series (COMBO) is combination of a NMD530 Series metal detector head and a NWC490 Series check weigher in one frame for cost effective and space saving purpose, providing superior and reliable product inspection in a compact design. NCB3000 Series combination metal detector and check weigher is the most technically superior combination unit on the market. The compact and fully accredited system saves valuable line space eliminating the expense of a separate conveyor for the metal detector.

The checkweigher measures product weight quickly and precisely - rejecting "out of tolerance" products, while the metal detector consistently detects and rejects contaminated products.

The easy to use full touch screen interface controls both machines, makes product change fast and simple. A clear benefit of a combined system is the low cost of ownership and the cost saving compared to a separate checkweigher and metal detector.



Cost Effective and Space Saving

Metal Detector

- Cost Effective and Space Saving Unit
- Multi-Frequency Operation
- Full Color Touch Screen (7 inch TFT LCD)
- User-Friendly Operating System
- Phase-Tracking Function
- Digital Signal Processing (32-Bit Microprocessor)
- Auto Setting Function
- Powerful Durability
- Smart Self-Diagnosis
- Metal Detecting History Management

Check Weigher

- Full Color Touch Screen (10 inch TFT LCD)
- Providing 6 Different Types of Screens
- Auto Zero Tracking Function
- Self-Diagnosis Function
- Built-in Auto Data Double Back-Up Function
- Built-in Temperature Change and Noise Compensation Circuit
- Auto Speed Variation Function
- Auto Product Length Measuring Function
- Two Kinds Speeds Operating Function
- Auto Speed Control & Calibration Function
- Discretionary Weighing Range Setting Function
- Enhanced Data Totalizing and Data Backup Function
- Easy Data Analysis and Aggregation Function
- Weight Setting Value Storage (999 cases) and Recall Function
- USB Memory Saving and Software Update Function
- External Devices Control & Feedback Function
- Statistics and Printing Function (Optional)



Metal Detector

- High Performance for Metal Detection
 - > Closed Coil System for perfect detection
 - > High quality filter for more precise detection
 - > Auto absorption function for vibration, impact, noise and etc.,
 - > Dust Proof & Water Proof Standard (IP66) authentication
- Multi Frequency Operation
 - > Supporting multi frequency operation mode that can measure various types of products with the correct operating frequency for maximum contaminant sensitivity in seconds
- Phase Tracking Function
 - > Optimum detecting level is maintained by automatically coping with products of which phase is changed minutely, so detection is rather difficult such as frozen food.
- Full Color Touch Screen (7 inch TFT LCD)
 - > An intuitive and convenient full color touch screen, containing regional languages and user manual
- Digital Signal Processing Function
 - > The adoption of 32-bit microprocessor has added more precise operation and performance of the equipment. Software filter technology to remove ambient noise affecting performance of a metal detector has been applied.
- Exterior Design considering the convenience and aesthetics
 - > Modern and sensuous design in which both convenience and beauty are emphasized at the same time
- Password Setup Function
 - > Modern and sensuous design in which both convenience and beauty are emphasized at the same time

Application



Connectivity to External Devices

- Backing up inspection history and etc., by using a USB removable disk and reviewing the data on a PC.
- Monitoring real-time operating status for multiple metal detectors through the connective access to LAN.
- Interlocking the machine to various typed external devices through RS232C & 485 port.

Auto-Setting Function of the Inspection Items

- > Auto-setting the machine for a testing product with the most suitable values even for beginners

Setting Function of a Variety of Items for Convenient Operation

- > Up to 100 kinds of products are registered with each different setting value for convenient operation.

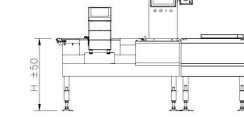
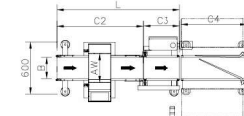
Manageable Metal Detecting History

- > Detection history by various classifications and periods (in a daily / weekly / monthly / period-specified way)
- > Data on detection history accessibility by LCD screen, USB disk and Printer (Optional).

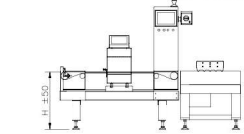
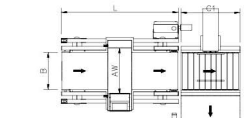
Easy Software Upgrade

- > Easy software upgradability by USB and touch screen whenever the latest version is available

NCB3000-30, 30S, 60, 60S, 120, 120S, 300 & 600



NCB3000-2000, 3000, 4000 & 6000



NCB-3000 Series COMBO⁺ METAL DETECTOR AND CHECK WEIGHER

Check Weigher

Full Color TFT LCD Touch Screen (10 inch TFT LCD)



> An intuitive and convenient full color touch screen, containing regional languages and user manual

Digital Signal Processing Sensor (32 Byte Microprocessor)

> Greater accuracy at high speeds can be obtained using 32 byte microprocessor which allows filter characteristics to be set automatically.

Dynamic Calibration

> Dynamic calibration displays correct weight if there is discrepancy between the ready status and operational weight displays.

Auto/Manual Zero Adjust

> Zero adjustment can be performed by the operator before start-up or product changeover. Also, Automatic Zero adjustment is programmed to occur at regular intervals during production

Built-in Temperature Change and Noise Compensation Circuit

3 Kinds of User Level Passwords

> 3 Kinds of User Levels (Operator, Quality Manager & Engineer Menu) can be set depending on possible operational functions.

3 Kinds of Operating Screens

> 3 Kinds of Operating Screens (Basic, Graph & Simple Screens) are provided depending on user taste.

No More Paper Manual Book

> On-the-go user manual on the screen guides the operator through necessary set-up and operational procedure on each stage.

Selectable Conveyor Belt Type

> Either plastic chain belt or urethane belt can be selected for application

Easy Production Record Statistic Function

Internal Memory and USB Disk Backup / Recovery

Display & IOB Board Firmware Update

Application



Specification

| Model | | NCB3000-20##-30 | NCB3000-20##-30S | NCB3000-25##-60 | NCB3000-25##-60S |
|--|--|--|--|---|---|
| Width (mm) | Belt (B) | 100 | 120 | 150 | 180 |
| | Metal Detector Tunnel Width (AW) | 200 | | 250 | |
| Length (mm) | In-Feed Conveyor (C2) | 260/320/380 | | 260/320/380/440 | |
| | Weighing Conveyor (C3) | 260/320/380 | | 260/320/380/440 | |
| | In-Feed & Weighing Conveyor (L) | C2 + C3 + 4mm | | C2 + C3 + 4mm | |
| | Rejecting Conveyor - Flip Bar (NCB3000-30-600) (C4) - Pusher on Roller (NCB3000-2000-600) (C1) | 440/500/560 | | 500/560/620 | |
| Min. Conveyor Height (mm) | | 600 ± 50, 100 | 600 ± 50, 100 | 600 ± 50, 100 | 600 ± 50, 100 |
| Weighing Capacity (gram) | | 300 | | 600 | |
| Weighing Range (gram) | | 3 ~ 300 | | 6 ~ 600 | |
| Optimum Accuracy (gram) | | ± 0.15 | | ± 0.3 | |
| Scale Interval (gram) | | 0.05 | | 0.1 | |
| Max. Weighing Speed / Min. Belt Speed / Min. Zero Adjustment | | 250 ea 10 ~ 84 m | 10 ~ 84 m | 220 ea 10 ~ 74 m | 10 ~ 74 m |
| Product Dimension (mm) | | Width: 30 ~ 100 mm Length: 30 ~ 200 mm Height: 10 ~ 100 mm | Width: 30 ~ 150 mm Length: 30 ~ 260 mm Height: 10 ~ 150 mm | Width: 30 ~ 300 mm Length: 30 ~ 450 mm Height: 10 ~ 300 mm | Width: 30 ~ 360 mm Length: 30 ~ 550 mm Height: 10 ~ 360 mm |
| Rejectors Available | | Flip Bar Side Carrier Air Blast Pusher on Belt Drop Belt | Flip Bar Side Carrier Air Blast Pusher on Belt Drop Belt | Flip Bar Slide Carrier Air Blast Pusher on Belt Pusher on Roller Drop Belt | Flip Bar Slide Carrier Air Blast Pusher on Belt Pusher on Roller Drop Belt |

Control Unit

> An user-friendly control unit with a 10 inch 16.7 Color TFT LCD Full Touch Screen helps view weighing result and status of the machine comfortably. Intuitive / simple icons guide the operator through necessary set-up and operational procedures.



Outputs

> 8 Ports Outputs (AC or Dry Contact)

Power Supply

> Single Phase (110 to 220V) & Three Phase (220 to 380V and etc.)
> Free Cycle (50/60Hz)
> Fuse (3A)

Operating Temperature

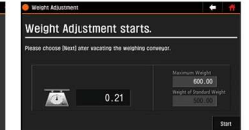
> 0°C to 50°C
(advised to use the machine under normal temperature)



> Menu Tree Screen



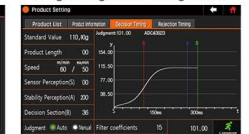
> Weight Calibration Screen



> Self-Diagnosis Screen



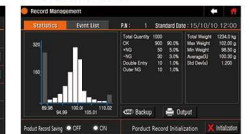
> Weight Judgement Timing Screen



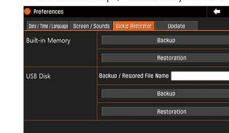
> Firmware Update Screen



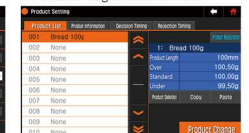
> Statistic Screen



> Data Backup / Recovery Screen



> Product Registration Screen



| NCB3000-35##-120 | NCB3000-35##-120S | NCB3000-40##-300 | NCB3000-45##-600 | NCB3000-50##-2000 | NCB3000-60##-3000 | NCB3000-70##-4000 | NCB3000-70##-6000 |
|--|-------------------|--|------------------|--|-------------------|--|-------------------|
| 220 | 250 | 300 | 360 | 380 | 480 | 580 | 680 |
| 350 | | 400 | 450 | 500 | 600 | 700 | 700 |
| 320/380/440 | | 450/550 | | 550/650 | | 650/750 | |
| 320/380/440 | | 380/440 | | 450/550 | | 550/650 | |
| C2 + C3 + 4mm | | C2 + C3 + 7mm | | 1300 | | 1300 | |
| 620/680 | | 750/850 | | 850 | | 914/1100 | |
| 600 ± 50, 100 | | 600 ± 50, 100 | | 600 ± 50, 100 | | 650 ± 50, 100 | |
| 1,200 | | 3,000 | | 6,000 | | 20,000 | |
| 12 ~ 1,200 | | 30 ~ 3,000 | | 60 ~ 6,000 | | 300 ~ 30,000 | |
| ± 0.4 | | ± 0.6 | | ± 1.5 | | ± 3.0 | |
| 0.2 | | 0.5 | | 1.0 | | 5.0 | |
| 180 ea | | 140 ea | | 100 ea | | 75 ea | |
| 10 ~ 74 m | | 10 ~ 69 m | | 10 ~ 53 m | | 10 ~ 54 m | |
| 30 ~ 220 mm | | 30 ~ 250 mm | | 30 ~ 300 mm | | 30 ~ 360 mm | |
| 30 ~ 320 mm | | 30 ~ 380 mm | | 30 ~ 450 mm | | 30 ~ 550 mm | |
| 10 ~ 220 mm | | 10 ~ 250 mm | | 10 ~ 300 mm | | 10 ~ 360 mm | |
| Flip Bar Air Blast Pusher on Belt Pusher on Roller Drop Belt | | Flip Bar Air Blast Pusher on Belt Pusher on Roller Drop Belt | | Flip Bar Air Blast Pusher on Belt Pusher on Roller Drop Belt | | Flip Bar Air Blast Pusher on Belt Pusher on Roller Drop Belt | |
| Pusher on Belt Pusher on Roller | | Pusher on Belt Pusher on Roller | | Pusher on Belt Pusher on Roller | | Pusher on Belt Pusher on Roller | |
| Pusher on Roller | | Pusher on Roller | | Pusher on Roller | | Pusher on Roller | |