### NCB-3000 Series METAL DETECTOR AND CHECK WEIGHER

### **Application**







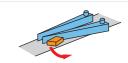






### **Auto Rejectors Available as option**

The most common type of rejector is the Flip Bar. NG products are pushed aside by the rejector gates (arms). It is ideal for products in boxes and thick bags.











NG products are pushed off the line sidways by the action of a gate attached to an air cylinder. It is suitable for rejecting products in packages and thick bags. \*Pusher on Belt: For relatively light weighted (Max 0.6 kg) products \*Pusehr on Roller: For relatively heavy weighted (Max 30.0 kg) products contained in a box









### Drop Belt Type

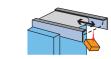
The rejection conveyor drops down to drop the NG product.





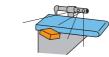


The belt on the rejecter is expanded/contracted during the rejection to let the rejected products fall.It is ideal for unpackaged animal products and sticky bulk products





NG products are blown sideways off of the line by a powerful air jet. It is ideal for small, lightweight packaged products at high speed.

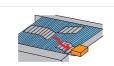






### Slide Carrype Type

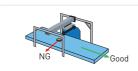
NG products are sorted horizontally without any shock due to rejection. Since the rejection process doesn't cause any damage, it is ideal for fragile products and open-topped containers (Cans &





### Roadless Type

It is ideal for long shaped products.



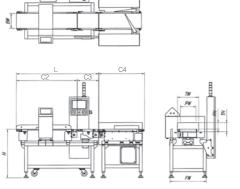


Rejected products fall when the chute is reversed. It is ideal for rejecting relatively light bulk products.

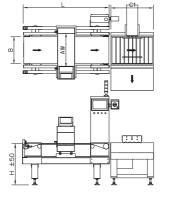




### NCB3000 For 20 ~ 60kg



NCB3000 For 300 ~ 1200gram





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## METAL DETECTOR AND CHECK WEIGHER

# NCB-30



NCB-3000 Series (COMBO) is combination of a NMD530 Seires metal detector head and a NWC-3000 Series check weigher in one frame for cost effective and space saving purpose, providing superior and reliable product inspection in a compact design.

NCB-3000 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 consitently 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 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
- Full Color Touch Screen (10 inch TFT LCD)
- Providing 6 Different Types of Screens
- Auto Zero Tracking Function

Self-Diagnosis Function

500 450

- Built-in Auto Date
  Back-Up Function **Built-in Auto Data Double**
- Bulit-in Temperature Grange Noise Compensation Circuit **Bulit-in Temperature Change and**
- >>> 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)















# NCB-3000 Series COMBO+ METAL DETECTOR AND CHECK WEIGHER

### **Control Unit**

> An user-friendly contol 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.

> Menu Tree Screen







> Weight Calibration Screen



> Weight Judgement Timing Screen

ard Value 110,00g



> Dynamic Calibration Screen



> Self-Diagnosis Screen



> Basic Screen



> Graph Screen



> Simple Screen



> Metal Detector Screen



### Specification

| Model                        |   | NCB3000-  | -20##-300   | NCB3000-25##-600  |   |  |
|------------------------------|---|---|---|---|---|--|
| Width                        | Belt (BW)   | 100 120   |   | 150 180   |   |  |
| (mm)                         | Metal Detector Tunnel Width (TW)  | 200   |   | 250   |   |  |
| <b>Length</b><br>(mm)        | Metal Detector Conveyor (C2)  | 260/32  | 20/380  | 260/320/380/440   |   |  |
|                              | Weighing Conveyor (C3)  | 260/32  | 20/380  | 260/320/380/440   |   |  |
|                              | In-Feed & Weighing Conveyor (L)   | C2 + C3   | + 4mm   | C2 + C3 + 4mm   |   |  |
|                              | Rejecting Conveyor<br>-Flip Bar (NCB3000-30-600) (C4)<br>-Pusher on Roller (NCB3000-2000~6000) (C1) | 440/50  | 00/560  | 500/560/620   |   |  |
|                              | Min. Conveyor Height (mm)   | 600 ±50, 100  | 600 ±50, 100  | 600 ±50, 100  | 600 ±50, 100  |  |
| Weighing Capacity (gram)     |   | 30  | 00  | 600   |   |  |
| Weighing Range (gram)        |   | 3 ~ 300   |   | 6 ~ 600   |   |  |
| Optimum Accuracy (gram)      |   | ± 0   | .15   | ± 0.3   |   |  |
| Scale interval (gram)        |   | 0.0   | 05  | 0.1   |   |  |
| Max. Weighing Speed / Min.   |   | 250   | ) ea  | 220 ea  |   |  |
| Belt Speed / Min.            |   | 10 ~ 84 m   | 10 ~ 84 m   | 10 ~ 74 m   | 10 ~ 74 m   |  |
| Zero Adjustment              |   | During Operation : Contir   | nuous Automatic Dynamic Co  | empensation • During Standby : Manual Compensation  |   |  |
| Product<br>Dimension<br>(mm) | Width   | 30 ~ 100 mm   |   | 30 ~ 150 mm   |   |  |
|                              | Length  | 30 ~ 200 mm   |   | 30 ~ 260 mm   |   |  |
|                              | Height  | 10 ~ 10   | 00 mm   | 10 ~ 150 mm   |   |  |
| Rejectors Available          |   | Flip Bar<br>Slide Carrier<br>Air Blast<br>Pusher on Belt<br>Drop Belt | Flip Bar<br>Slide Carrier<br>Air Blast<br>Pusher on Belt<br>Drop Belt | Flip Bar<br>Slide Carrier<br>Air Blast<br>Pusher on Belt<br>Pusher on Roller<br>Drop Belt | Flip Bar<br>Slide Carrier<br>Air Blast<br>Pusher on Belt<br>Pusher on Roller<br>Drop Belt |  |

### **Main Features**



### Digital Signal Processing (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 Levels

> 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 urethae belt can be selected for applicatioin



### **Easy Production Record Statistic Function**



### **Internal Memory and USB Disk Backup / Recovery**



### Display & IOB Board Firmware Update

### **Optional Features**



### **External printer**

> An external printer can be installed to the control unit. Preset parameter data and various performance data can be recorded and printed.



### **Metal Detector**

> A high-efficiency metal detector can be easily added to provide an extra measure of safety and quality assurance.



### **Communication Interfaces**

> Communication interfaces with a host computer or other external devices are available to help optimize your production line's performance.



### Feedback Control (RS232C / 485 **Ports & Dry Contact Signal)**

> Corrective control signals from the checkweigher to an upstream auger filler improve production efficiency.



### Wash Down for Conveyor

> Water Proof Motors and Stainless Steel Rollers are used for water proof.

| NCB3000-35##-1200  |  | NCB3000-40##-3000  | NCB3000-45##-6000   | NCB3000-50##-20000                 | NCB3000-60##-30000                 | NCB3000-70##-40000 | NCB3000-70##-60000 |
|--|--|--|---|------------------------------------|------------------------------------|--------------------|--------------------|
| 220  | 250  | 300  | 360   | 380                                | 480                                | 580                | 680                |
| 350  |  | 400  | 450   | 500                                | 600                                | 700                | 700                |
| 320/380/440  |  | 450/550  | 550/650   |                                    |                                    |                    |                    |
| 320/380/440  | 380/440  | 450/550  | 550/650   | 1300                               | 1300                               | 1300               | 1300               |
| C2 + C3 + 4mm  |  | C2 + C3 + 7mm  |   | 1300                               | 1300                               | 1300               | 1300               |
| 620/680  |  | 750/850  | 850   | 590/914                            | 914/1100                           | 1100/1300          | 1100/1300          |
| 600 ±50, 100   | 600 ±50, 100   | 600 ±50, 100   | 600 ±50, 100  | 650 ±50, 100                       | 650 ±50, 100                       | 650 ±50, 100       | 650 ±50, 100       |
| 1,1  | 1,200  |  | 6,000   | 20,000                             | 30,000                             | 40,000             | 60,000             |
| 12 ~ 1,200   |  | 30 ~ 3,000   | 60 ~ 6,000  | 200 ~ 20,000                       | 300 ~ 30,000                       | 400 ~ 40,000       | 600 ~ 60,000       |
| ± 0.4  | ± 0.6  | ± 1.5  | ± 3.0   | ± 10g                              |                                    | ± 20               | ± 40               |
| 0.2  |  | 0.5  | 1.0   | 5.0                                |                                    | 10                 | 20                 |
| 180 ea   | 140 ea   | 100 ea   | 75 ea   | 60 ea                              | 45 ea                              | 30 ea              | 20 ea              |
| 10 ~ 74 m  | 10 ~ 69 m  | 10 ~ 58 m  | 10 ~ 53 m   | 10 ~ 54 m                          | 10 ~ 52 m                          | 10 ~ 49 m          | 10 ~ 33 m          |
|  |  |  |   |                                    |                                    |                    |                    |
| 30 ~ 220 mm  | 30 ~ 250 mm  | 30 ~ 300 mm  | 30 ~ 360 mm   | 30 ~ 380 mm                        | 30 ~ 480 mm                        | 30 ~ 580           | 30 ~ 680           |
| 30 ~ 320 mm  | 30 ~ 380 mm  | 30 ~ 450 mm  | 30 ~ 550 mm   | 30 ~ 700 mm                        | 30 ~ 900 mm                        | 30 ~ 1100          | 30 ~ 1100          |
| 10 ~ 220 mm  | 10 ~ 250 mm  | 10 ~ 300 mm  | 10 ~ 360 mm   | 10 ~ 380 mm                        | 10 ~ 480 mm                        | 10 ~ 580           | 10 ~ 680           |
| Flip Bar<br>Air Blast<br>Pusher on Belt<br>Pusher on Roller<br>Drop Belt | Flip Bar<br>Air Blast<br>Pusher on Belt<br>Pusher on Roller<br>Drop Belt | Flip Bar<br>Air Blast<br>Pusher on Belt<br>Pusher on Roller<br>Drop Belt | Flip Bar<br>Pusher on Belt<br>Pusher on Roller<br>Drop Belt | Pusher on Belt<br>Pusher on Roller | Pusher on Belt<br>Pusher on Roller | Pusher on Roller   | Pusher on Roller   |