



Needle Detectors for Garment and Textile Specification Sheet

Broken-needle detection for finished garments, fabric and sealed cartons.

Models in this sheet: Needle Detection Conveyor System with 6010 mm Tunnel, KND-6040 Large Tunnel Conveyor Needle Detector for Cartons, Double Headed Conveyor Needle Detector for Garment and Fabric, Twin Sensor Broken Needle Detector with Conveyor Belt

Figures in this document are those published by the factory for each model. Where a value is shown as TBC it is not published, and we confirm it with the factory before order rather than estimate it. Specifications are subject to change without notice.

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1. Needle Detection Conveyor System with 6010 mm Tunnel

This needle detection conveyor runs a 6010 mm tunnel, which is what lets it take long or bulky goods that a standard aperture turns away. Sensitivity levels are adjustable per product, and the data output function pushes inspection results into a production management system rather than leaving them on the machine.

Key benefits

- 6010 mm tunnel accommodates a wide range of product dimensions
- Adjustable sensitivity tuned to the material being inspected
- Data output function feeds results to a production management system
- Touch screen interface with a short operator learning curve
- Conveyor construction built for continuous product flow

Specification

Tunnel Size	6010 mm
Interface	Touch screen
Data Output	Real-time output for production management integration
Sensitivity	Customisable levels
Voltage	110 to 220 V
Belt Speed	TBC - confirm against your line speed

2. KND-6040 Large Tunnel Conveyor Needle Detector for Cartons

The KND-6040 inspects sealed carton boxes rather than individual garments, which removes the step where a carton has to be opened and repacked to be checked. A wide detection area covers the whole box, sensitivity is adjustable to the product, and the conveyor keeps cartons moving through the check rather than stopping the line.

Key benefits

- Wide detection area covers the whole carton in one pass
- Cartons are checked sealed, with no opening and repacking
- Adjustable sensitivity levels for different packed products
- Conveyor integration keeps boxes moving through the check
- Detects small metallic contaminants including broken needles

Specification

Application	Large carton box inspection
Transport	Conveyor system
Sensitivity	Adjustable levels
Detection Aperture	TBC - confirm against your carton dimensions
Belt Speed	TBC - confirm at quotation
Power Supply	TBC - confirm for your site voltage

3. Double Headed Conveyor Needle Detector for Garment and Fabric

This needle detector uses two heads and four poles, with front and rear sensors whose angles can each be adjusted to improve accuracy. New coil units homogenise the sensor aperture, which reduces material effect and improves passage of product that would otherwise trigger false rejects. Setup time is cut because the system checks all sensors automatically rather than coil by coil.

Key benefits

- Two heads and four poles for high-precision detection
- Front and rear sensors with individually adjustable angles
- Homogenised sensor aperture reduces material effect and improves passage
- Automatic sensor self-check, no coil-by-coil pre-checking
- Patent-pending Environment Check Mode for the surrounding conditions

Specification

Detection System	Two heads, four poles
Sensors	Front and rear, each with adjustable angle
Sensitivity Setting	2 sensitivity types at 100 steps, or sizing method at 6 steps
Display	7-inch colour LCD with touch panel
Peripherals	RFID reader, barcode reader and others connectable
Optional Sorter	HS-601 automatic sorter
Records	History downloadable
Belt Width and Speed	TBC - customised to customer requirement

4. Twin Sensor Broken Needle Detector with Conveyor Belt

This needle detector uses twin sensor heads set at different angles, which is how it resolves a needle lying in an orientation a single head would miss. A conveyor reverse function returns flagged product for re-checking without handling it, and a sensitivity monitor shows the detail behind a result rather than only a pass or fail.

Key benefits

- Twin sensor heads placed at different angles for precise detection
- Conveyor reverse function returns flagged product without manual handling
- Sensitivity monitor showing detailed detection results
- Blue back LCD panel for improved visibility, with optional touch screen
- Product counter and alarm counter as standard

Specification

Detection Method	Magnetic induction with digital processing
Sensor Configuration	Twin heads at different angles
Display	Blue back LCD panel, optional touch screen
Counters	Product counter and alarm counter, standard
Conveyor	Reverse function fitted
Power Supply	AC 220 V, 50/60 Hz
Rated Output	140 W
Weight	280 kg
Detection Width	600 mm net width, non-standard sizes to order
Printer	Optional data printer