

Metal-in-aluminum foil detector Patent Product

Flat-belt Type NIP- D (Standard)

Dectect iron and stainless pieces

In both aluminum foil package and non-aluminum package

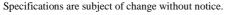
Equipped with mis-detect a little, highly accurate, magnetic sensor.

Possible to detect it even by the high temperature and the moisture adhesion.

The product of the aluminum wrapping and salinity is OK.

The operation easiness: All the condition settings of each commodity are unnecessary.

NIP- D	NIP- D	
1000 mm	1300 mm	
250 mm	450 mm	
40 ~ 100 mm		
Magnetic field type		
Width: 230mm Length:Free	Width:430mm Length:Free	
800 ±50 mm		
10 ~ 50 m/min.	10 ~ 30 m/min.	
5.7-inch touch panel LC.		
Start button, stop button		
Power on/off switch		
10 level LED display		
Red		
1 Kg/plane	10 Kg/plane	
AC100V single phase 50/60HZ		
80 kg	140 kg	
SUS304		
Motor Waterproofing,		



Metal detection system comparison table



Japanese patent No.3857271 United States Patent US6,958,603B2

Chinese patent Acquisition

South Korea patent No.0543992

European patent Claim for examination

US7,102,347B2

	TOK Detector	Conventional Metal Detector	X-ray Detector
Detection Method	Relative permeability	Electromagnetic wave or force lines	X-ray & image processing
Frequency in use	Audio range(50Hz ~ 20kHz)	Electromagnetic wave(33k-1Mhz)	Electromagnetic wave (10^16 ~ 10^18Hz)
Detection Capability			
Normal Package	Yes	Yes	Yes
Al evaporated Package	Yes	Yes, if no eddy current	Yes
Al foil package	Yes	No	Yes
(a)Fe (10mm from Sensor)	Fe □1.0mm		Depend upon shape and density
(b)SUS304 (Same as above)	SUS304 □1.0mm		
Salt Concentration	No influence	Strong influence	No influence
Temperature and humidity	OK -20 ~ 80 / Steam	Very complicated	Need to be adjusted for different shape & density
Conveyer Speed	Generally no need to adjust sensitivity	Need to adjust speed to avoid eddy current	Sensitivity adjustment is Necessary
Operationability			
Sensitivity adjustment	5 level	Need to be adjustment for different shape & density.	Need to be adjustment for different shape & density.
Warm-up time	7 Seconds	30 minutes	Very long time
Safety			
Influence of Electromagnetic wave & X-ray	No influence	Possible influence of electromagnetic wave	Possible influence of X-ray
Safety cover	Not necessary	Not necessary	Necessary
Economy			
Running cost	Very low	Low	Exchanges such as periodical maintenance and X-ray tubes

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