

# MAGNETIZED METAL DETECTOR

## REACH TO THE NEXT GENERATION METAL INSPECTION GOES TO ADVANCED STAGE



**NIKKA DENSOK NT series is a new type of metal detector that Adopts a completely different detection principles from conventional detectors.**

**This method enables detection of small stainless steel wires, cutting debris, burrs, galled pieces, etc. that have been difficult with conventional metal detectors and X-ray Inspector, even in sizes smaller than the test pieces.**

### Zero malfunction

It is not affected by the moisture, salt content or temperature of the product.

### Ultrasensitive detection

We use SUS WIRE as our standard, but even smaller sizes can be detected in some cases.

### Simple Operation

Easy to use anywhere without complicated initial settings or the need for sensitivity switching for each product.

### Suitable for aluminum package

Aluminum deposition, aluminum foil, aluminum canning, etc. can also be inspected with high sensitivity without being affected. (Refer to page 16 for compatible models.)

### Smallest Running Cost

There is no consumable parts like X-ray Inspector, so the running cost is very low as same as conventional metal detector.



SUS wire

Actual size  
└ 4mm



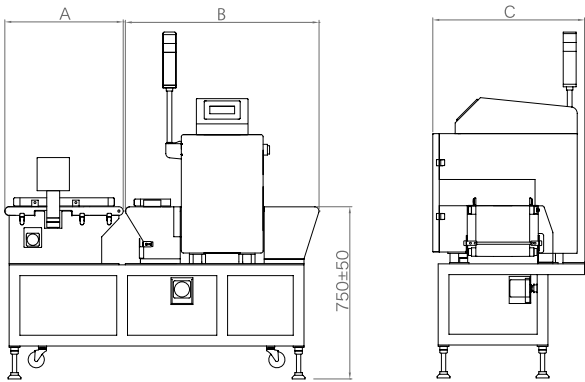
PP Band containing iron components

Actual size  
└ 1.5mm



Belt conveyor system / Standard & High grade

NT3R-K4B



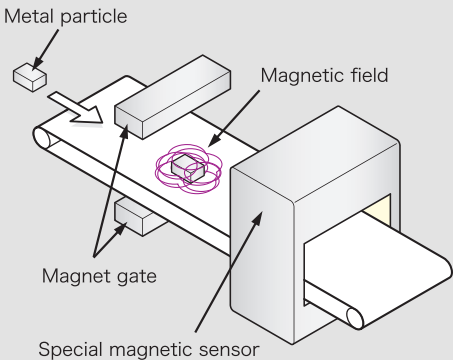
	Standard grade			High grade		
Model	NT2R-J6B	NT2R-K4B	NT2R-L2B	NT3R-J6B	NT3R-K4B	NT3R-L2B
Belt width	150mm	250mm	350mm	150mm	250mm	350mm
Effective height	40mm / 60mm * Option for other size			60mm / 120mm * Option for other size		
Sensitivity on the belt	Fe 0.4 mm dia. / SUS wire 0.2 dia. X 2 mm					
Speed	5 to 60 m /min.					
Length	1110mm		1410mm	1460mm		1760mm
Size /mm	A	400	500	550		700
	B	700	900	900		1050
	C	610	845	650	700	845
Loading weight	Max. 2 kg * Please ask us for over 2 kg					
Power supply	AC 100 to 240 V / 200 to 380V ± 10% (50/60Hz)					

Characteristics comparison for NT2R and NT3R



	NT 2 R	NT 3 R
Metalized package	●●●●●	●●●●●
Aluminum foil	●●●●●	●●●●●○
Aluminum can	●●●●●	●●●●●○
Sensitivity on belt	●●●●●○	●●●●●
Sensitivity at 30 mm from belt	●●●○●○	●●●●●

Detection Principle



Magnetic metals mixed in are magnetized by the magnet gate on the inlet side, and the magnetic field emitted metals magnetized by the special magnetic sensor is detected. Although SUS is a non-magnetic material, it is magnetized when cutting, bending, or other forces are applied when it is machined or missing, and it becomes magnetized by passing it through the magnet gate. On the other hand, since aluminum is not magnetized, even if aluminum is used for packaging, it is possible to detect only magnetic metals that are mixed without any effect.

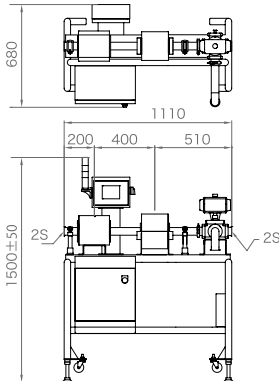
\* The size of SUS that can be detected varies depending on the degree of stress applied, such as cutting or bending, and the condition of magnetization.

Pipe type for liquid, jam and paste

NT3P-2S-BV



- Detecting Fe 0.5 mm dia. in all area
- No effect from air entrainment
- Can be installed to SUS316 pipe



Model	NT3P-2S-BV
Pipe size	under 2.0S
Sensitivity in all area	Fe 0.5 mm dia. / SUS wire 0.2 dia. X 2mm
Pumping speed	10 to 100 m/min.
Adaptive temperature	Product: 1- to 80 deg./ Environment: 0 to 40 deg.
Power supply / weight	AC 100 to 240V ± 10% (50/60/Hz)

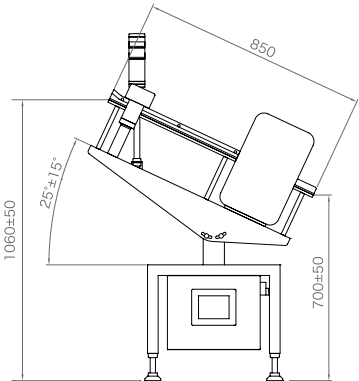
Point of View

Detachable sensor unit



Chute type for continuous sachet

NT2R-JS2



Model	NT2R-J2S
Effective width	120 mm
Sensitivity in all area	Fe 0.6 mm dia. / SUS wire 0.2 dia. X 2mm
Speed	10 to 100 m/min.
Power supply	AC 100 to 240V ± 10% (50/60/Hz)

Extensive lineup tailored to the inspected product and production line

Separate type for Metal Detector, Checkweigher and Pinhole Inspector



#### ■ Air Jet type

Model	Size	Belt width	Rejection capacity	Product weight	Rejection level	Weight
AJ150	310W × 500 L	150W	100 to 300 pcs/min.	2 ~ 300g	3	11kg
AJ200	310W × 500 L	200W	100 to 300 pcs/min.	2 ~ 300g	3	13kg

\* Operating pressure range: 0.2 to 0.6 Mpa



#### ■ Air Flapper type

Model	Size	Belt width	Rejection capacity	Product weight	Rejection level	Weight
AF150	540W × 500 L	150W	100 to 150 pcs/min.	5 ~ 1000g	3	37kg
AF200	540W × 600 L	200W	101 to 130 pcs/min.	5 ~ 2000g	3	42kg
AF250	540W × 700 L	250W	102 to 110 pcs/min.	5 ~ 2000g	3	48kg
AF300	540W × 800 L	300W	80 to 100 pcs/min.	5 ~ 2000g	3	60kg

\* Operating pressure range: 0.2 to 0.6 Mpa



#### ■ Belt Dumper type

Model	Size	Belt width	Rejection capacity	Product weight	Stroke	Rejection level	Weight
BD150	360W × 400 L	150W	50 to 80 pcs/min.	5 ~ 2000g	100mm	3	15kg
BD200	360W × 500 L	200W	50 to 80 pcs/min.	5 ~ 2000g	130mm	3	20kg
BD250	470W × 500 L	250W	50 to 80 pcs/min.	5 ~ 2000g	145mm	3	40kg
BD300	500W × 550 L	300W	50 to 80 pcs/min.	5g ~ 10kg	150mm	3	50kg

\* Operating pressure range: 0.2 to 0.6 Mpa



#### ■ Slide Plate type

Model	Size	Belt width	Rejection capacity	Product weight	Rejection level	Weight
CH200	850W × 1090 L	200W	340 pcs/min.	5 ~ 300g	3	110kg

\* Operating pressure range: 0.2 to 0.6 Mpa



#### ■ Air Pusher type

Model	Conveyor length	Belt width	Rejection level	Product weight
AP300	670L	300W	2	1 ~ 5kg
AP400	820L	400W	2	1 ~ 10kg
AP500	1045L	500W	2	1 ~ 20kg
AP600	1200L	600W	2	1 ~ 30kg

\* Operating pressure range: 0.2 to 0.6 Mpa