

# Permanent Magnet Head Roller

## At A Glance



Protection: Primary



Feed Type: Conveyor



Material Type: NdFeb



Cleaning Type: Automatic

Installed at the discharge end of flat or troughed belt conveyors, permanent magnetic head rollers are designed to remove tramp iron that cannot be removed by either a plate or overband magnet because of the conveyed product depth.

For the best possible protection against tramp metals use permanent magnetic head rollers in conjunction with plate or overband magnets.

Permanent magnetic head rollers are available in two magnetic materials: standard strength, which uses ceramic magnetic material; and high strength, which uses high intensity Rare Earth magnetic material. The latter is the most popular due to its high contamination removal efficiency.



## Benefits

- No running costs
- Allows difficult products to be screened
- High volume capacity
- Designed for 24 / 7 operation
- Removes large to medium sized contamination

## Performance

Magnetic Performance	3,000 Gauss
Performance reading	On roller surface*
Magnetic field depth	200 Series = 75mm*, 300 Series = 100mm* 400 Series = 125mm*
Temperature	-40°C / +80°C

## Suitability

Suitable Products	All conveyable products, wood chip, biomass, recyclables, aggregates, coal etc
Suitable Location	Conveyor head roller

## Materials

Magnetic Material	Rare Earth Neodymium Iron Boron - (NdFeb)
Cover	304 grade stainless steel
End Cheeks	Painted mild steel
Shaft	Mild steel

## Cleaning

The unit is continuously self cleaning. Contamination enters the roller's magnetic field where it is attracted and held firmly on the belt. When it reaches the underside it passes out of the magnetic field and is discharged separately from the conveyed product, which continues on its normal trajectory.

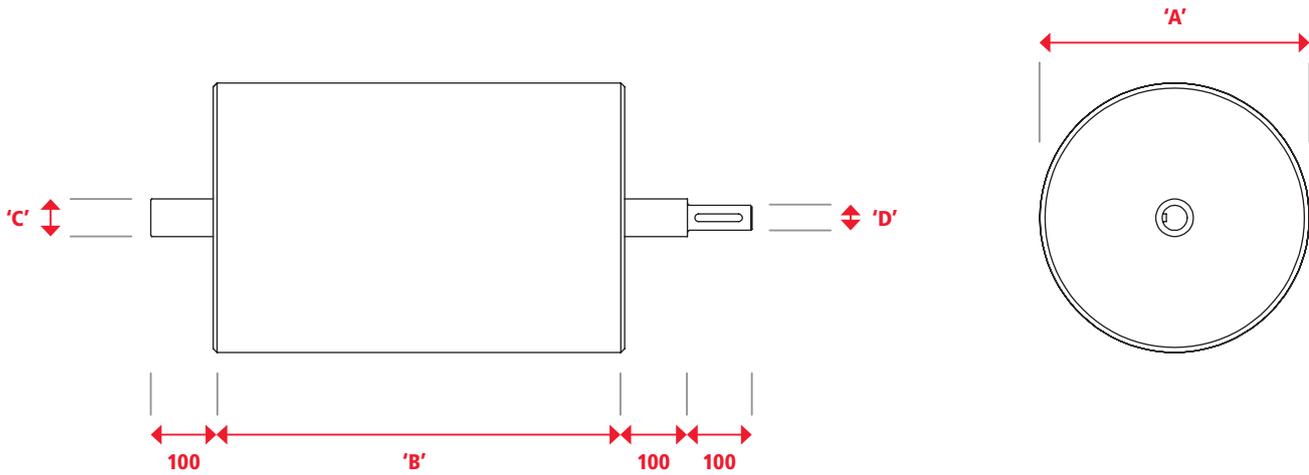
## Options

- Ceramic magnetic material
- Rubber lagged diamond cut cover
- Crowned detail
- Protective paint coating

\*Mild steel test piece  $\varnothing$ 5mm x 25mm long

\*Excluding rubber lagged units

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Part Number (200 Series)	Diameter A (mm)	B (mm)	Dia. C (mm)	D (mm)	Weight (kg)
HRN2140	215	400	40	30	70
HRN2150	215	500	40	30	80
HRN2160	215	600	40	30	95
HRN2170	215	700	40	30	110
HRN2180	215	800	40	30	130
HRN2190	215	900	40	30	145
HRN21100	215	1000	40	30	160

Part Number (300 Series)	Diameter A (mm)	B (mm)	Dia. C (mm)	D (mm)	Weight (kg)
HRN3140	315	400	50	40	110
HRN3150	315	500	50	40	130
HRN3160	315	600	50	40	150
HRN3170	315	700	50	40	170
HRN3180	315	800	50	40	190
HRN3190	315	900	50	40	210
HRN31100	315	1000	50	40	230

Part Number (400 Series)	Diameter A (mm)	B (mm)	Dia. C (mm)	D (mm)	Weight (kg)
HRN4040	400	400	60	50	220
HRN4050	400	500	60	50	260
HRN4060	400	600	60	50	300
HRN4070	400	700	60	50	340
HRN4080	400	800	60	50	380
HRN4090	400	900	60	50	420
HRN40100	400	1000	60	50	460

For non-standard sizes, please contact [sales@eclipsemagnetics.com](mailto:sales@eclipsemagnetics.com)