

POLISHING DRUM MAGNET MODEL PDM

The SGM Polishing Drum Magnet (PDM) is a high-performance electromagnetic drum separator, **specifically designed to reduce copper content in ferrous shred by efficiently extracting electrical rotors with copper windings, commonly referred to as "meatballs."** This patented technology allows scrap processors to significantly reduce the need for manual sorting, enhancing operational efficiency and improving the purity of recovered ferrous material.

An evolution of the Mega Drum Magnet, the SGM PDM features a custom anodized aluminum strip winding that enables precise direct current control. This advanced configuration allows for highly accurate separation of copper-laden rotors from the ferrous flow, making the PDM particularly effective in applications requiring stringent quality standards.

HOW IT WORKS

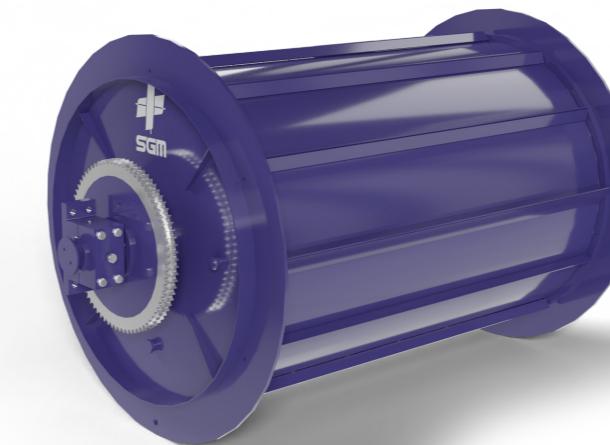
As the mixed ferrous scrap enters the system, the PDM separates the material into two distinct flows. The short drop flow concentrates meatballs and a small amount of ferrous, while

the positive flow retains the majority of the clean ferrous material with minimal copper contamination. This separation process typically reduces copper content in ferrous shred from around 0.3% to below 0.2%, significantly enhancing downstream processing and product value.

Engineered for durability and precision, the PDM incorporates layer windings that generate a stronger magneto-motive force, improving metal separation. The unit is constructed with a single machined billet shaft, eliminating welded joints, for maximum structural integrity. Additionally, it includes an outer replaceable shell for extended wear resistance and allows for precise alignment of magnetic polarities to ensure optimal performance in demanding environments.

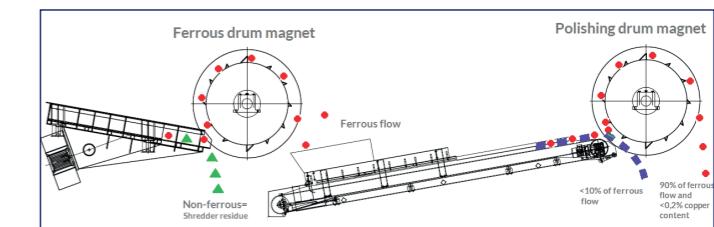
To adapt to specific plant layouts and processing needs, the PDM can be equipped with a conveyor belt feeding system, ensuring uniform material distribution, and an electronic control panel that allows fine-tuned management of current for consistent and efficient magnetic separation.

The SGM PDM represents a cutting-edge solution for scrap yards aiming to maximize metal purity and minimize copper contamination, while reducing reliance on manual sorting operations.



TYPICAL APPLICATIONS

Automotive Shredder Residue (ASR)



MODEL mm - ft	MAGNET WEIGHT	MAGNET POWER	WORKING DISTANCE	LENGTH	DIAMETER
PDM 120/120 47/47	5,300 Kg 11,684 lbs	4 kW	200-300 mm 8"-10"	1200 mm 47"	1200 mm 47"
PDM 130/150 51/59	7,900 Kg 17,416 lbs	11.5 kW	250-300 mm 10"-12"	1500 mm 59"	1300 mm 51"
PDM 130/180 51/70	9,000 Kg 19,841 lbs	13 kW	250-300 mm 10"-12"	1800 mm 70"	1300 mm 51"
PDM 130/210 51/82	10,500 Kg 23,148 lbs	14.5 kW	250-300 mm 10"-12"	2100 mm 82"	1300 mm 51"
PDM 150/180 59/70	12,000 Kg 26,455 lbs	11.5 kW	300-350 mm 12"-14"	1800 mm 70"	1500 mm 59"
PDM 150/210 59/82	15,000 Kg 33,069 lbs	16 kW	300-350 mm 12"-14"	2100 mm 82"	1500 mm 59"
PDM 150/250 59/98	17,000 Kg 37,478 lbs	16 kW	300-350 mm 12"-14"	2500 mm 98"	1500 mm 59"
PDM 180/210 70/82	16,200 Kg 35,714 lbs	16 kW	350-400 mm 14"-16"	2100 mm 82"	1800 mm 70"
PDM 180/250 70/98	19,850 Kg 43,761 lbs	19 kW	350-400 mm 14"-16"	2500 mm 98"	1800 mm 70"
PDM 180/280 1/82	20,300 Kg 44,753 lbs	20 kW	350-400 mm 14"-16"	2800 mm 110"	1800 mm 70"