

MAGNETIC TECHNOLOGY

POLISHING DRUM MAGNET

Model PDM

TECHNICAL SPECIFICATIONS

The SGM Polishing Drum Magnet (PDM) is a SGM Mega Drum Magnet provided with a special winding made of anodized aluminum strip suitable to accommodate a fixed direct current setting control thus allowing for maximum accuracy in the segregation of the electrical rotors.

Maximum robustness is guaranteed since all mechanical parts are abundantly sized and designed for locking into each other through maximum contact sections. Main shaft is made of a single machined billet (no welding). PDM is provided with a counterweight for easy orientation of the polarities and a double manganese steel shell where the outer shell can be easily replaced in case of wear.

PRODUCT HIGHLIGHTS

- Layer windings lead to more magneto-motive force resulting in stronger magnetic flux.

- Heavier steel structure, thus greater magnetic core sections, resulting in a deeper magnetic flux.
- Supplied with two 115mm - 4 1/2" paddles and 8 to 10 - 65 mm - 2 1/2" knock-off bars.
- Control panel for managing constant current to drum magnet.

OPTIONAL FEATURES

- Material feeding to PDM by conveyor belt.
- Electronic control panel designed to operate the PDM at a set level of current.
- Drum sprocket and drive assembly can be supplied upon request.

MODEL mm - ft	MAGNET WEIGHT	MAGNET POWER	WORKING DISTANCE	MOTOR CAPACITY REQUIRED	SPEED RPM	NO. KNOCK OFF BARS H = 64 mm 2 1/2"	NO. OF PADDLES H = 115 mm 4 1/2"	LENGTH	DIAMETER	EXTER. DISC DIAM.
PDM 120/120 47/47	5,300 Kg 11,684 lbs	4 kW	200-300 mm 8"-10"	10 HP	22	6	2	1200 mm 47"	1200 mm 47"	1700 mm 68"
PDM 130/150 51/59	7,900 Kg 17,416 lbs	11.5 kW	250-300 mm 10"-12"	10 HP	22	10	2	1500 mm 59"	1300 mm 51"	1700 mm 68"
PDM 130/180 51/70	9,000 Kg 19,841 lbs	13 kW	250-300 mm 10"-12"	10 HP	22	10	2	1800 mm 70"	1300 mm 51"	1700 mm 68"
PDM 130/210 51/82	10,500 Kg 23,148 lbs	14.5 kW	250-300 mm 10"-12"	15 HP	22	10	2	2100 mm 82"	1300 mm 51"	1700 mm 68"
PDM 150/180 59/70	12,000 Kg 26,455 lbs	11.5 kW	300-350 mm 12"-14"	15 HP	18	10	2	1800 mm 70"	1500 mm 59"	2000 mm 78"
PDM 150/210 59/82	15,000 Kg 33,069 lbs	16 kW	300-350 mm 12"-14"	20 HP	18	10	2	2100 mm 82"	1500 mm 59"	2000 mm 78"
PDM 150/250 59/98	17,000 Kg 37,478 lbs	16 kW	300-350 mm 12"-14"	20 HP	18	10	2	2500 mm 98"	1500 mm 59"	2000 mm 78"
PDM 180/210 70/82	16,200 Kg 35,714 lbs	16 kW	350-400 mm 14"-16"	25 HP	16	10	2	2100 mm 82"	1800 mm 70"	2250 mm 88"
PDM 180/250 70/98	19,850 Kg 43,761 lbs	19 kW	350-400 mm 14"-16"	25 HP	16	10	2	2500 mm 98"	1800 mm 70"	2250 mm 88"
PDM 180/280 1/82	20,300 Kg 44,753 lbs	20 kW	350-400 mm 14"-16"	30 HP	16	10	2	2800 mm 110"	1800 mm 70"	2250 mm 88"

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TYPICAL APPLICATIONS



The SGM proprietary Polishing Drum Magnet (PDM) is designed to offer customers the possibility to significantly reduce the quantity of pickers typically used to decrease copper content in the ferrous shred coming off an automobile shredder, which is characterized by the presence of electrical rotors with copper windings (the so-called “meat balls”) ending up with the ferrous as a result of their ferrous armature.

Polishing Drum Magnets (PDM) perform a split of the ferrous flow into two flows, a short drop flow where the meat balls are concentrated along with a minor part of the ferrous and, a positive flow made of most of the ferrous and meat balls reduced to a minimum.

Starting from a typical copper content in the Ferrous shred of around 0.3%, the PDM reduces this copper content in the main flow to below 0.2% with a mass balance split between short drop flow and the positive one of 10%/90%.

