

# PULLEY MAGNET SEPARATOR MODEL PLP

The SGM PLP (Pulley Magnet Separator) is a powerful and versatile magnetic separator designed to **extract raw iron and fine ferrous particles from materials transported on a conveyor belt**.

Unlike overhead suspension magnets that attract ferrous material from a distance, the PLP head pulley operates in direct contact with the conveyor belt, ensuring consistent and efficient ferrous removal. This 360-degree magnetic coverage enables optimal separation, with non-magnetic material following its natural ballistic trajectory while ferrous particles are securely held and discharged into a dedicated collection area.

## HOW IT WORKS

Positioned at the discharge end of the conveyor belt, the PLP magnetic pulley plays a key role in the separation of ferrous metals. Its powerful magnetic field attracts ferrous material, holding it on the surface of the pulley until it is discharged into a dedicated collection hopper. Non-ferrous materials, unaffected by the magnetic field, continue along their natural trajectory and are directed into a separate container.



The system is highly versatile, as the PLP pulley can be easily integrated into a wide range of machinery to improve the efficiency of ferrous separation processes. Thanks to its robust construction and high-intensity magnetic field, the PLP ensures reliable and consistent performance, even in the most demanding operating conditions.

SGM Magnetix offers three specialized magnetic circuits, each optimized for different depth loads:

### High Gradient (HG)

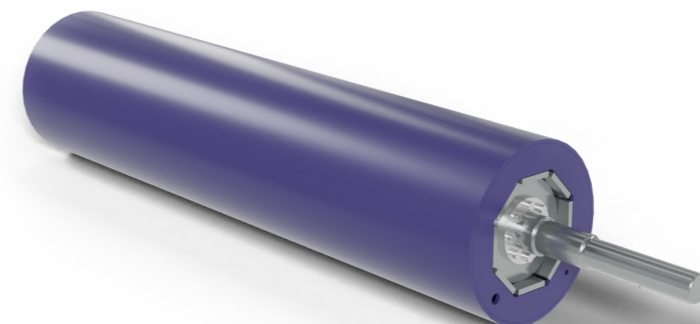
- Made with ferrite permanent magnet blocks.
- Ideal for materials with a load depth of up to 150 mm (6 inches).

### Very High Gradient (VHG)

- Patented combination of neodymium and ferrite permanent magnets.
- Provides strong magnetic attraction.
- Suitable for load depths up to 80 mm (3 inches).

### Ultra High Gradient (UHG)

- Constructed with pure neodymium permanent magnets.
- Supports load depths up to 40 mm (1.5 inches).
- Delivers exceptional separation strength for fine ferrous particles.



## TYPICAL APPLICATIONS

- Coal
- Automotive Shredder Residue (ASR)
- Ash from MSW incinerator (IBA)
- Electronic scrap (WEEE)
- Scrap
- Municipal solid waste
- Scrap glass
- Upgrade of aluminum scrap

| MODEL      | DIAMETER       | LENGTH          | SHAFT Ø           |
|------------|----------------|-----------------|-------------------|
| PLP 32/55  | 320 mm - 12.6" | 550 mm - 21.6"  | Ø 50 mm - Ø 2"    |
| PLP 32/65  | 320 mm - 12.6" | 650 mm - 25.6"  | Ø 50 mm - Ø 2"    |
| PLP 32/75  | 320 mm - 12.6" | 750 mm - 29.5"  | Ø 50 mm - Ø 2"    |
| PLP 32/85  | 320 mm - 12.6" | 850 mm - 33.4"  | Ø 50 mm - Ø 2"    |
| PLP 32/95  | 320 mm - 12.6" | 950 mm - 37.4"  | Ø 55 mm - Ø 2.16" |
| PLP 32/105 | 320 mm - 12.6" | 1050 mm - 41"   | Ø 55 mm - Ø 2.16" |
| PLP 32/110 | 320 mm - 12.6" | 1100 mm - 43"   | Ø 60 mm - Ø 2.36" |
| PLP 32/115 | 320 mm - 12.6" | 1150 mm - 45"   | Ø 60 mm - Ø 2.36" |
| PLP 32/120 | 320 mm - 12.6" | 1120 mm - 44"   | Ø 60 mm - Ø 2.36" |
| PLP 32/125 | 320 mm - 12.6" | 1125 mm - 44"   | Ø 60 mm - Ø 2.36" |
| PLP 32/140 | 320 mm - 12.6" | 1140 mm - 44.8" | Ø 60 mm - Ø 2.36" |
| PLP 32/155 | 320 mm - 12.6" | 1155 mm - 45.4" | Ø 60 mm - Ø 2.36" |
| PLP 32/165 | 320 mm - 12.6" | 1165 mm - 45.8" | Ø 60 mm - Ø 2.36" |
| PLP 40/55  | 406 mm - 16"   | 550 mm - 21.6"  | Ø 45 mm - Ø 1.77" |
| PLP 40/65  | 406 mm - 16"   | 650 mm - 25.6"  | Ø 45 mm - Ø 1.77" |
| PLP 40/75  | 406 mm - 16"   | 750 mm - 29.5"  | Ø 65 mm - Ø 2.55" |
| PLP 40/85  | 406 mm - 16"   | 850 mm - 33.4"  | Ø 65 mm - Ø 2.55" |
| PLP 40/95  | 406 mm - 16"   | 950 mm - 37.4"  | Ø 65 mm - Ø 2.55" |

| MODEL      | DIAMETER     | LENGTH          | SHAFT Ø          |
|------------|--------------|-----------------|------------------|
| PLP 40/105 | 406 mm - 16" | 1050 mm - 41.3" | Ø 70 mm - 2.75"  |
| PLP 40/115 | 406 mm - 16" | 1150 mm - 45.2" | Ø 70 mm - 2.75"  |
| PLP 40/125 | 406 mm - 16" | 1125 mm - 44.2" | Ø 70 mm - 2.75"  |
| PLP 40/135 | 406 mm - 16" | 1135 mm - 44.6" | Ø 70 mm - 2.75"  |
| PLP 40/145 | 406 mm - 16" | 1145 mm - 45"   | Ø 70 mm - 2.75"  |
| PLP 40/155 | 406 mm - 16" | 1155 mm - 45.4" | Ø 70 mm - 2.75"  |
| PLP 40/165 | 406 mm - 16" | 1165 mm - 45.8" | Ø 70 mm - 2.75"  |
| PLP 40/205 | 406 mm - 16" | 2050 mm - 80.7" | Ø 70 mm - 2.75"  |
| PLP 50/85  | 508 mm - 20" | 850 mm - 33.4"  | Ø 70 mm - 2.75"  |
| PLP 50/105 | 508 mm - 20" | 1050 mm - 45"   | Ø 90 mm - 3.54"  |
| PLP 50/115 | 508 mm - 20" | 1250 mm - 49"   | Ø 90 mm - 3.54"  |
| PLP 50/120 | 508 mm - 20" | 1120 mm - 44"   | Ø 100 mm - 3.93" |
| PLP 60/97  | 610 mm - 24" | 970 mm - 38"    | Ø 100 mm - 3.93" |
| PLP 60/128 | 610 mm - 24" | 1280 mm - 50"   | Ø 100 mm - 3.93" |
| PLP 60/130 | 610 mm - 24" | 1300 mm - 51"   | Ø 100 mm - 3.93" |
| PLP 60/157 | 610 mm - 24" | 1570 mm - 61.8" | Ø 100 mm - 3.93" |