



# Drum Separators

Ideal For High Volume Ferrous Metal Separation

TRAMP METAL

TG-10A

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## BENEFITS:

- Improve Product Purity
- Protect Processing Equipment from Ferrous Metal Damage

## INTRODUCTION:

IMI's Drum Separators provide ferrous metal removal from dry, bulk products in free-flowing processing systems.

Due to the nature of their design, Drum Separators are continuously self-cleaning units. These separators can be provided as a complete assembly with the housing and the drive package included or as the magnetic drum only.



## OPERATION:

Material to be processed enters the top of the housing and flows across the surface of the drum. As the drum shell rotates around the stationary magnetic field, all non-ferrous product which is unaffected by the magnet, falls free from the drum into the cleaned material flow.

Any ferrous tramp metal is captured by the magnetic field and is held on the drum's surface. As the drum rotates, the metal is carried past the diverter and released outside of the magnetic field.

## FEATURES:

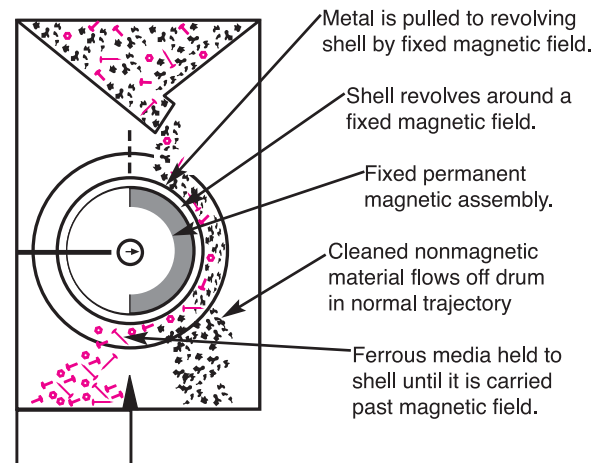
- Powerful Ceramic or Rare Earth Permanent Magnet Material
- Manually adjustable magnetic arc position
- Drum diameters from 12" to 24" available
- Drum Widths Available from 12" to 60"
- Inlet and Discharge Mounting Flanges
- Inlet transition to direct product flow
- Fixed diverter to separate cleaned product and collected tramp metal.
- Access Doors for Inspection and Drum Removal
- Sealed Bearings for Drum Support and Drive

## SPECIAL CONSIDERATIONS:

## SPECIFICATIONS:

- 52 MgOe Rare Earth or Ceramic 8 Magnetic Circuit
- Stainless Steel Drum Shell
- Three (3), 1/2" Wiper Strips
- Sealed Ball Bearings for Shell Rotation
- TG & P Mild Steel Shaft
- 240/480V AC Gearmotor
- Industrial Welded Housings:
  - Mild Steel for Ceramic Drums
  - Stainless Steel for Rare Earth Drums

Smooth, uniform and consistent presentation of the product to the drum's surface has a direct effect on the separators ability to efficiently separate tramp metal from the product flow. For the best separation results a vibratory feeder is often recommended to introduce a uniform product flow across the entire surface width of the drum



## Key Markets

Mid-stream magnets for dry, free flow powders to granular products; i.e. food, feed, grain, plastics, chemical

## Related Products

Large Tube Housings, Extractor/Split-Flow Magnets, Plate Magnets, Hump Magnets

All Photos And Drawings Represent The Products At The Time Of Publication (02/19)

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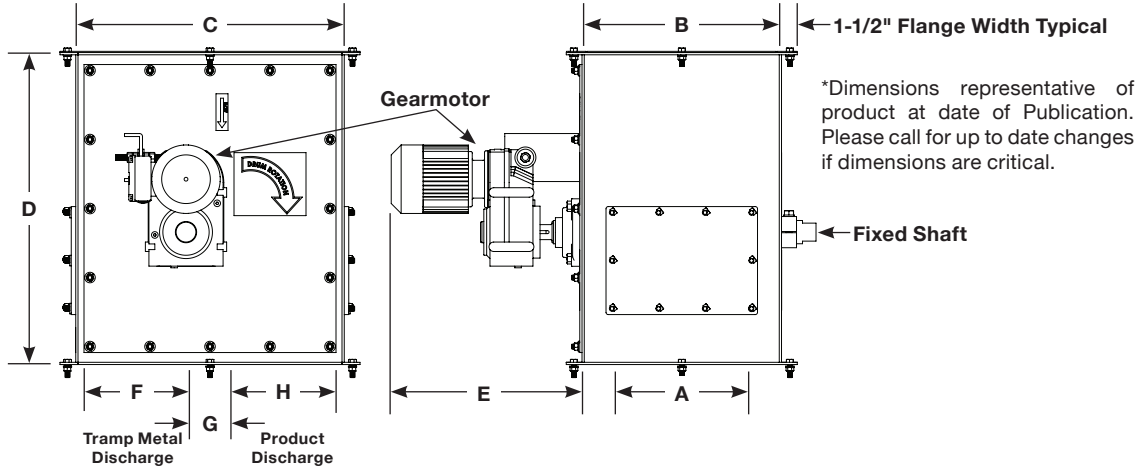
## Standard Models and Specifications

### OPTIONS:

- Custom Diameters and Widths
- Stainless Steel Drum Shaft
- Adjustable Inlet Opening
- Special Magnetic Circuits for Reach Out or Holding
- Stainless Steel Housings for Ceramic Drums
- Special Inlet for Vibratory Feeder Interface

- Up to 60" diameter available without housing
- Multiple Drum Assemblies
- Fine Particle Discharge
- Custom Inlet and Discharge Transitions
- Special Voltage Motors and Drive Packages
- Abrasion Resistant Facing
- Zero Speed Switch
- Adjustable discharge diverter

### DRUM SEPARATOR DIMENSIONS:



**Note:** All dimensions are stated in inches. Add "C" for Ceramic or "R" for Rare Earth magnet material. Example: MDS1212R for a Rare Earth Drum Separator

12" DIAMETER DRUM (1-1/2" Standard Inlet Opening) 45 RPM										
Model	A	B	C	D	E	F	G	H	Weight	HP
MDS1212	12	16 1/4	22	26	15	8 1/2	3	10 1/2	280	1/2
MDS1224	24	28 1/4	22	26	15	8 1/2	3	10 1/2	560	1/2
MDS1236	36	40 1/4	22	26	15	8 1/2	3	10 1/2	660	1/2

15" DIAMETER DRUM (2" Standard Inlet Opening) 40 RPM										
Model	A	B	C	D	E	F	G	H	Weight	HP
MDS1512	12	16 1/4	25	30	15	10	3	12	350	1/2
MDS1524	24	28 1/4	25	30	15	10	3	12	700	1/2
MDS1536	36	40 1/4	25	30	18	10	3	12	825	1

18" DIAMETER DRUM (2-1/2" Standard Inlet Opening) 35 RPM										
Model	A	B	C	D	E	F	G	H	Weight	HP
MDS1812	12	16 1/4	28	36	15	11 1/2	3	13 1/2	435	1/2
MDS1824	24	28 1/4	28	36	18	11 1/2	3	13 1/2	750	1
MDS1836	36	40 1/4	28	36	18	11 1/2	3	13 1/2	970	1

24" DIAMETER DRUM (3" Standard Inlet Opening) 30 RPM										
Model	A	B	C	D	E	F	G	H	Weight	HP
MDS2418	18	25	38	48	18	13 1/2	5	19 1/2	1265	1
MDS2424	24	31	38	48	18	13 1/2	5	19 1/2	1375	1
MDS2436	36	43	38	48	20	13 1/2	5	19 1/2	1800	1 1/2

**Note:** for applications with flow rates listed in the **GREY** boxes call the factory.

12" DIAMETER DRUM									
Burden	1/16"	1/8"	1/4"	1/2"	1"	1-1/2"	2"	2-1/2"	3"
Face Width	Ft <sup>3</sup> /Hr.						Ft <sup>3</sup> /Hr.		
12"	44	88	177	353	707	1,060	1,414	1,767	2,121
24"	88	177	353	707	1,414	2,121	2,827	3,534	4,241
36"	133	265	530	1,060	2,121	3,181	4,241	5,301	6,362

15" DIAMETER DRUM									
Burden	1/16"	1/8"	1/4"	1/2"	1"	1-1/2"	2"	2-1/2"	3"
Face Width	Ft <sup>3</sup> /Hr.						Ft <sup>3</sup> /Hr.		
12"	49	98	196	393	785	1,178	1,571	1,964	2,356
24"	98	196	393	785	1,571	2,356	3,142	3,927	4,713
36"	147	295	589	1,178	2,356	3,534	4,713	5,891	7,069

18" DIAMETER DRUM									
Burden	1/16"	1/8"	1/4"	1/2"	1"	1-1/2"	2"	2-1/2"	3"
Face Width	Ft <sup>3</sup> /Hr.						Ft <sup>3</sup> /Hr.		
12"	52	103	206	412	825	1,237	1,649	2,062	2,474
24"	103	206	412	825	1,649	2,474	3,299	4,123	4,948
36"	155	309	619	1,237	2,474	3,711	4,948	6,185	7,422

24" DIAMETER DRUM									
Burden	1/16"	1/8"	1/4"	1/2"	1"	1-1/2"	2"	2-1/2"	3"
Face Width	Ft <sup>3</sup> /Hr.						Ft <sup>3</sup> /Hr.		
24"	118	236	471	943	1,885	2,828	3,770	4,713	5,655
36"	177	353	707	1,414	2,828	4,241	5,655	7,069	8,483
48"	236	471	943	1,885	3,770	5,655	7,540	9,425	11,310