



Magnetic Drawer-In-Housings

Magnetic Separators - Manual Clean, EZ-Clean and Self-Cleaning

TRAMP METAL

TG-03B

All models available with Ceramic or Rare Earth tube assemblies
Rare Earth models feature IMI's exclusive UHI-50™ Rare Earth circuit

Application Introduction:

- Designed for ferrous metal separation in dry processing systems
- Magnetic separation is achieved with magnetic tubes assembled in a drawer
- Tubes are aligned on alternating centers for multiple row drawer configurations forcing the product flow in a zig-zag pattern while contacting the magnetic tubes
- The cascade effect ensures maximum tramp metal separation by causing product to have repeated and intimate contact with magnetic tubes
- As ferrous metal enters the magnetic field, it is captured by the tubes and separated from the product flow
- The tubes must be cleaned regularly to prevent build-up and wash-off of the collected ferrous metal



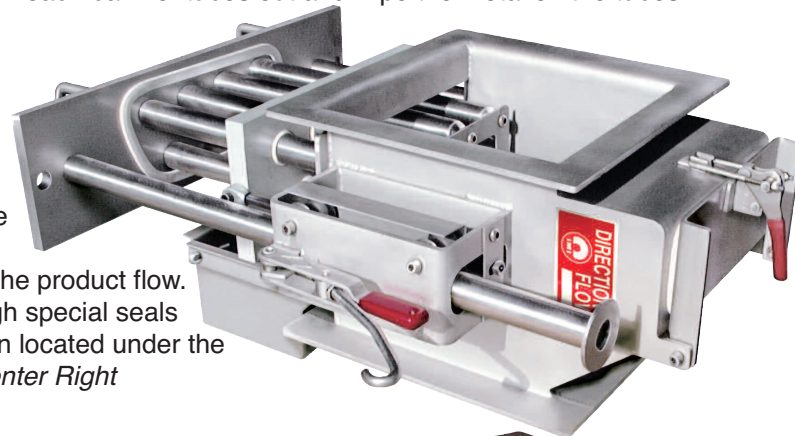
Manual Clean Drawer-In-Housings:

- An economical solution for applications with low levels of tramp metal contamination
- Flanged housing with two or more banks of magnetic grate tube assemblies on alternating centers
- To clean the tubes you simply open the door, pull each bank of tubes out and wipe the metal off the tubes with a shop rag or gloved hand

Pictured: Top Right

EZ-Clean Drawer-In-Housings:

The EZ-Clean design speeds up and simplifies the cleaning process, making frequent cleaning requirements user-friendly. To clean the tubes, the operator pulls two handles on the front of the housing which slides the magnetic drawer out of the product flow. As the drawer is pulled out, the tubes pass through special seals which wipe off accumulated metal into a catch pan located under the wiper seal plate for proper disposal. *Pictured: Center Right*



Self-Cleaning Drawer-In-Housings:

IMI's Self-Cleaning Housings are ideal for remote magnet installation locations, applications requiring frequent cleaning and fully automated processing systems. The cleaning of the magnet is solenoid activated and can be controlled from a remote location with the flip of a switch. The cleaning cycle is completed in a matter of seconds. The air-actuated stripper seal assembly discharges collected tramp metal into a catch pan as the drawer opens. *Pictured: Bottom Right*



Key Markets

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

Related Products

Magnetic Tubes & Grates, Large Tube Housings, The Ox, Clean-Flows, Pipe Magnets

All Photos And Drawings Represent The Products At The Time Of Publication (10/06)

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Magnetic Drawer-In-Housings

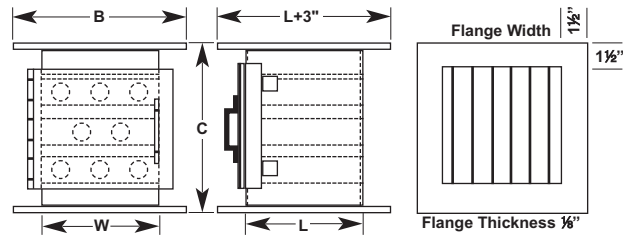
Manual Clean Drawer-In-Housings

Manual Clean (MC) Features & Specifications:

- All welded 304 stainless steel housing
- Ceramic or Rare Earth grate magnet assemblies
- Standard inlet/outlet lengths from 6" to 16" in 2" increments
- Standard inlet/outlet widths from 6" to 16" in 2" increments
- Leak resistant Neoprene gasket on door
- DE-STA-CO door latch for positive seal
- Available in 2 or 3 row magnet configurations
- Magnetic tubes are located on 2" centers within each row
- Rows are offset with the tubes on alternating centers of 2" from row to row

Manual Clean Options:

- Food grade finish and construction
- Custom designed inlet and/or outlet transitions
- Tubes located on 3" centers for difficult flow products
- EZ-Clean grates to speed up the cleaning process
- Wear resistant coating for abrasive products
- Custom designed housings (round or rectangular)



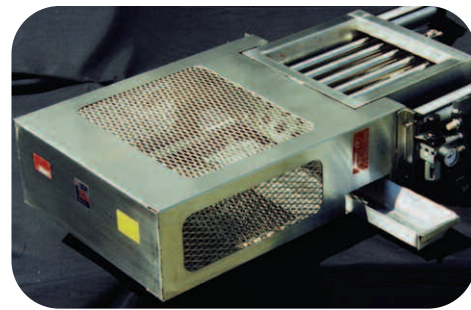
EZ-Clean & Self-Cleaning Drawer-In-Housings

EZ-Clean & Self-Cleaning Drawer-In-Housings are ideal for ferrous metal separation in a wide variety of dry processing applications. As ferrous metal passes through the magnetic field, it is held to the tubes and separated from the product. The metal must be cleaned from the tubes on a regular basis to prevent build-up and subsequent wash-off back into the product flow.

These designs features a seal plate with specially designed wiper seals to remove collected metal from the magnetic tubes. When the drawer is unclamped (EZ-Clean) or actuated (Self-Cleaning) gas shocks open the drawer and move the seal plate out over the collection pan. Once the seal plate has moved, the drawer is opened until it stops. This opening motion wipes collected metal from the tubes until it reaches a non-magnetic area located at the end of the tubes. The metal then falls off into the collection pan for proper disposal. The drawer must then be returned to the closed position before restarting the product flow.

EZ-Clean & Self-Cleaning Features & Specifications:

- Reduced height, designed for replacing manual clean housings
- 3/16", 304 stainless steel housing and flanges
- Ceramic 8 or UHI-50™ (50 MgOe) Rare Earth magnetic tubes
- 1" diameter tubes on 2" vertical and horizontal centers
- Neoprene gasket material for dust control
- Gas shocks or compression springs for seal plate positioning
- Air cylinders, regulator, pneumatic solenoid valve (SC Only)
- FDA white BUNA wiper seals
- Hinged rear access door
- Collection pan for metal
- Positive locking clamps for drawer (EZ Only)
- Expanded metal guards (SC Only)
- 80-100 psi minimum to operate (SC Only)

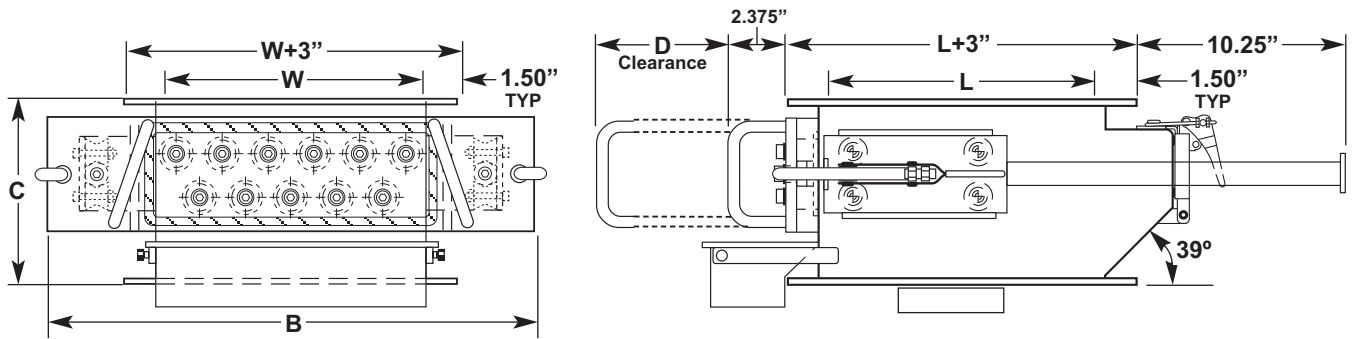


EZ-Clean & Self-Cleaning Options:

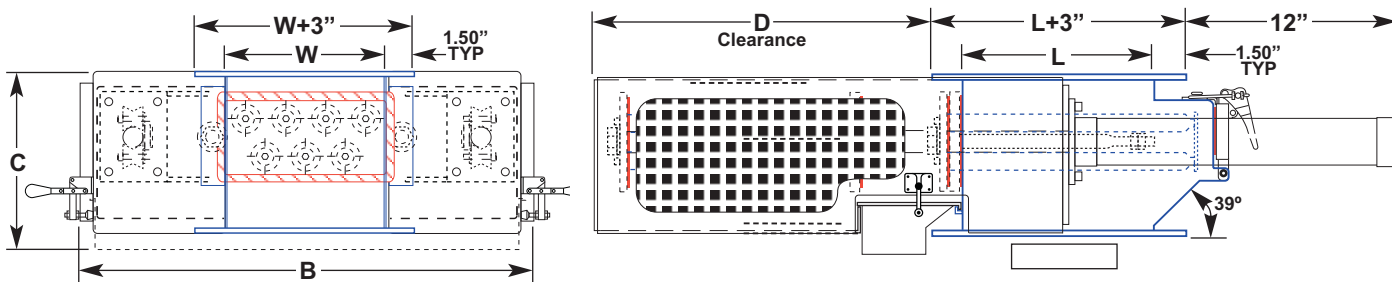
- Wear resistant tube treatment and special wiper seals for abrasive products (request OX™ literature for more information)
- Custom sizes and transitions available
- Food grade gasket material
- Finish and welding treatments available for food and sanitary grade applications
- Alternate tube spacing for special applications
- 316L stainless steel construction
- Custom housing designs for magnet in hopper or angled chute installations
- Individual cleaning drawers (adds to height)
- Nema 9 solenoids (SC Only)

Magnetic Drawer-In-Housings

EZ-CLEAN (EZ) DRAWER-IN-HOUSING DIMENSIONS:



SELF-CLEANING (SC) DRAWER-IN-HOUSING DIMENSIONS:



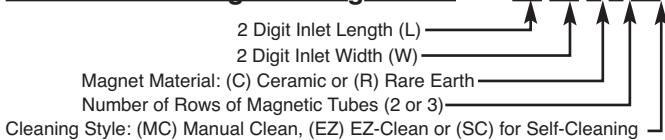
Drawer-In-Housing Dimensions & Weights

Standard Part No.	Inlet I.D. (L x W)	MC B	EZ B	SC B	MC C	EZ/SC C	EZ/SC D	MC Wt. Lbs.	EZ Wt. Lbs.	SC Wt. Lbs.
IMH0606_2	6 x 6	9	15	14.2	8	8	12	20	60	95
IMH0606_3	6 x 6	9	15	14.2	11	10	12	25	80	115
IMH0808_2	8 x 8	11	17	16.2	8	8	14	25	75	110
IMH0808_3	8 x 8	11	17	16.2	11	10	14	35	100	140
IMH1010_2	10 x 10	13	19	18.2	8	8	16	40	90	130
IMH1010_3	10 x 10	13	19	18.2	11	10	16	50	125	165
IMH1212_2	12 x 12	15	21	20.2	8	8	18	45	110	155
IMH1212_3	12 x 12	15	21	20.2	11	10	18	65	150	200
IMH1414_2	14 x 14	17	23	22.2	8	8	20	60	130	180
IMH1414_3	14 x 14	17	NA	NA	11	10	NA	85	NA	NA
IMH1616_2	16 x 16	19	25	24.2	8	8	22	75	150	205
IMH1616_3	16 x 16	19	NA	NA	11	10	NA	105	NA	NA
IMH1818_2	18 x 18	21	NA	26.2	8	8	24	90	NA	235
IMH2020_2	20 x 20	23	NA	28.2	8	8	26	110	NA	265
IMH2222_2	22 x 22	25	NA	30.2	8	8	28	130	NA	300
IMH2424_2	24 x 24	27	NA	32.2	8	8	30	150	NA	335

Drawer-In-Housing Capacities

Inlet (L x W)	Rows of Tubes	No. of Tubes	Capacity Ft ³ /Hr	40 lb/ft ³ Lbs/Hr	50 lb/ft ³ Lbs/Hr	60 lb/ft ³ Lbs/Hr	70 lb/ft ³ Lbs/Hr
6 x 6	2	5	450	18,000	22,500	27,000	31,500
6 x 6	3	8	338	13,520	16,900	20,280	23,660
8 x 8	2	7	800	32,000	40,000	48,000	56,000
8 x 8	3	11	600	24,000	30,000	36,000	42,000
10 x 10	2	9	1,250	50,000	62,500	75,000	87,500
10 x 10	3	14	938	37,520	46,900	56,280	65,660
12 x 12	2	11	1,800	72,000	90,000	108,000	126,000
12 x 12	3	17	1,350	54,000	67,500	81,000	94,500
14 x 14	2	13	2,450	98,000	122,500	147,000	171,500
14 x 14	3	20	1,838	73,520	91,900	110,280	128,660
16 x 16	2	15	3,200	128,000	160,000	192,000	224,000
16 x 16	3	23	2,400	96,000	120,000	144,000	168,000
18 x 18	2	17	4,050	162,000	202,500	243,000	283,500
18 x 18	3	26	3,038	121,520	151,900	182,280	212,660
20 x 20	2	19	5,000	200,000	250,000	300,000	350,000
20 x 20	3	29	3,750	150,000	187,500	225,000	262,500
22 x 22	2	21	6,050	242,000	302,500	363,000	423,500
22 x 22	3	32	4,538	181,520	226,900	272,000	317,660
24 x 24	2	23	7,200	288,000	360,000	432,000	504,000
24 x 24	3	35	5,400	216,000	270,000	324,000	378,000

Drawer-In-Housing Ordering Guide: IMH



Example: IMH1008R2EZ = 10"x 8" Inlet, Rare Earth, 2 Row, EZ-Clean

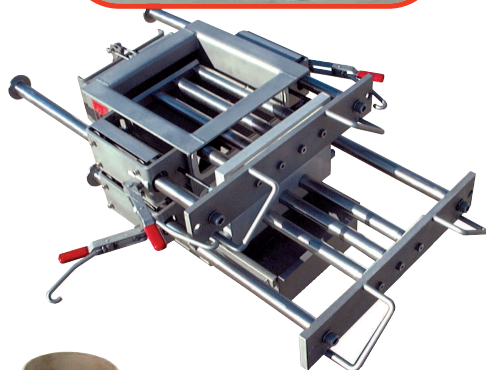
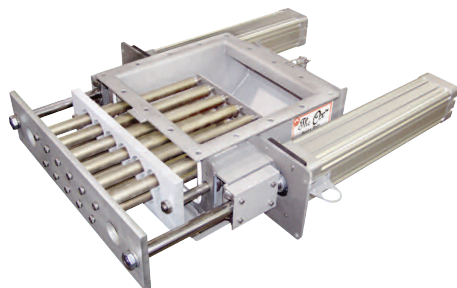
Notes:

- Standard sizes listed above have square inlet and outlets. Rectangular inlets and outlets are also standard with widths and lengths from 6" to 24" in two inch increments. When ordering a rectangular model always list the two digit length followed by the two digit width.
- Two Row Housings with inlets of 18" x 18" and larger are not available in standard EZ-Clean designs.
- Three Row Housings with inlets of 14" x 14" and larger are not available in standard EZ or Self-Cleaning designs.

Capacities listed above are based on dry, free-flowing products. If you need to calculate the capacity of a housing for a product with a bulk density not listed above, you can multiply or divide one of the given capacities to estimate your volume requirements.

Magnetic Drawer-In-Housings

Typical Drawer-In-Housing Modifications



Finishes and Protective Coatings

IMI offers a variety of product finishes for tramp metal separation products. The newest addition is the Ox™ finish which includes Hydex wiper seals for removing sticky product residue and Nedox coated tubes to protect against abrasive materials and to prevent build-up and galling. The standard finish for Drawer-In-Housings is Customary Grade. This finish features external seam welded construction with all welds free of slag, soot, spatter and burn marks. Customary grade housings are bead blasted inside and out for a clean flat finish. Food Grade and Sanitary Grade treatments are also available. For more information on IMI's finishes request our "Finishing Grades" flyer.

Multiple Drawer Units

Drawer-In-Housings can be constructed with multiple drawers of magnetic tubes to meet the specific needs of your application. Multiple drawers can be used to clean one bank of tubes at a time during production while still offering magnetic protection. EZ-Clean units are sometimes configured with multiple drawers to reduce the pulling force required to clean the tubes on larger models.

Custom Transitions and Flanges

Custom transitions and flanges are the two most common modifications specified for IMI's housings. Transitions allow for direct fit and easy installation into existing chutes and pipelines. IMI can provide inlet and outlet transitions for round to square, rectangular to square, angled chutes and more. Flanges are custom fabricated for customer specified mounting and coupling requirements.

Engineered Housings for Special Applications

At IMI we specialize in providing customer driven solutions. This has given IMI the opportunity to design and build a wide variety of custom housings and separators. Some of our unique solutions include angled wall Self-Cleaning Housings and custom fabricated hoppers with EZ-Clean Drawer-In-Housing assemblies built right into the base. No matter what your needs, we welcome the challenge of creating the solution that works best for you.

Sealed Cleaning Zones for On-The-Fly Operation

Sealed cleaning zones can be provided to allow for drawer operation during production. These sealed cleaning zones are also used to isolate hazardous materials from entering the air during the cleaning cycle.

Pictured on Left from Top to Bottom: Ox™ Finished Housing, Multi-Drawer Self-Cleaning Housing with Sealed Cleaning Zone and Custom Transitions, Two Drawer EZ-Clean Housing, Single Row Manual Clean Housing with Bolt-On Outlet, EZ-Clean Housing with Access Door for Removable Diverter, and Custom Transitions.