



ZERO GRAVITY FILTERS

MAGNETIC SEPARATION TECHNOLOGY

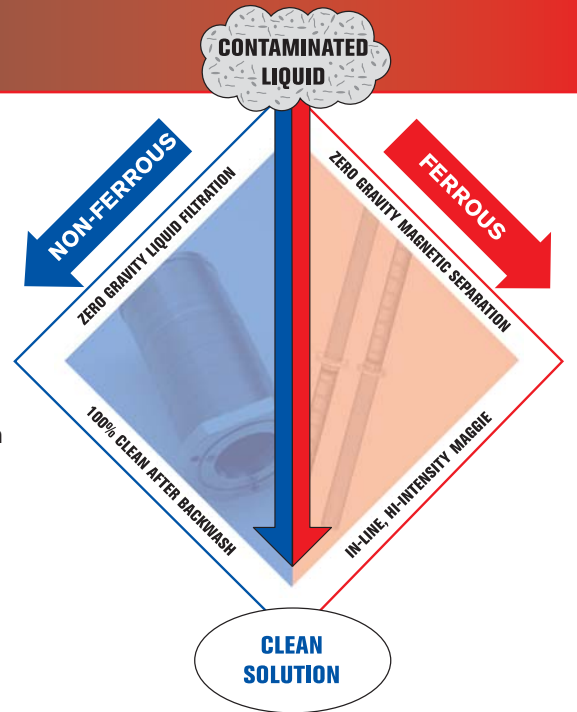
FITTED IN-LINE • FULLY AUTOMATIC • HIGH INTENSITY MAGNETS • NO MEDIA • PATENTED • POWERFUL

MAGGIE AND DRY MAG

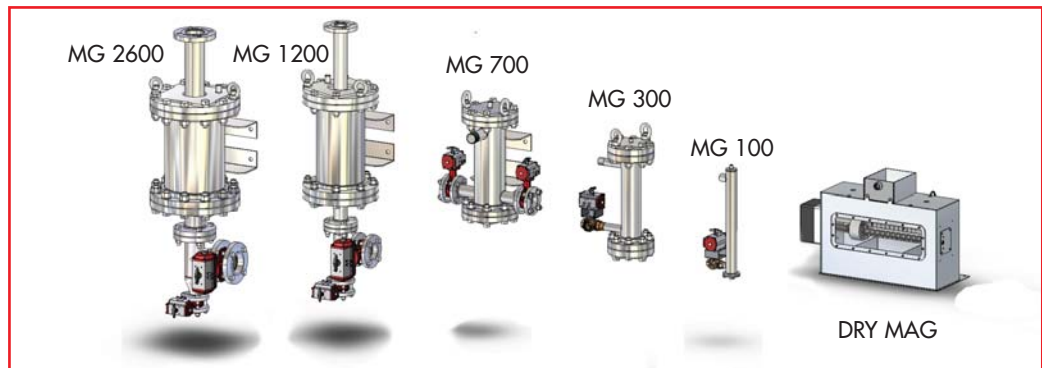
Zero Gravity Filters, Inc. brings innovative, patented technology to magnetic separation/filtration processes with the Maggie. The Maggie is the industries **only** high intensity magnetic separator with **in-line**, automatic purging capabilities.

Zero Gravity Filters advances traditional (conventional) magnetic separation from a gravity-fed, low intensity magnet to an in-line, fully automatic system utilizing powerful rare earth magnets. These magnets, coupled with Maggie's unique flow characteristics, remove particles down to 3-5 micron. Maggie has no user serviceable parts, no mechanical moving parts, and no regular maintenance.

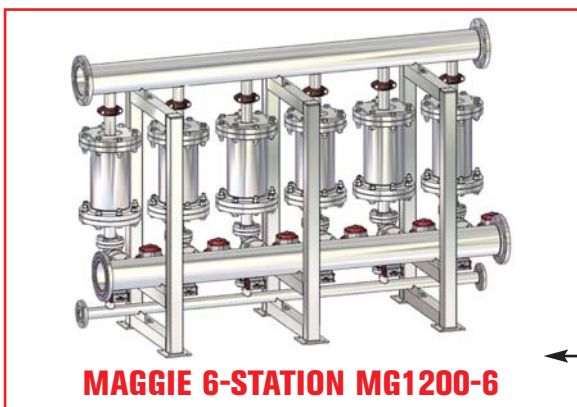
With Maggie added to Zero Gravity Filter's line-up, we can meet both your ferrous and non-ferrous challenges. There is no longer any need to rely on old filtration technology. Our Maggie systems' modular design allows flexibility to handle flow rates from 1 to unlimited gpm.



THE MAGGIE FAMILY INCLUDING DRY MAG



MODULAR AND FLEXIBLE



Individual Maggie units are available to handle flow rates from 1 to 250 gpm

MODEL	FLOW (up to)
MG100	12 gpm
MG300	35 gpm
MG700	75 gpm
MG1200	125 gpm
MG2600	250-unlimited

← Individual Maggie units can be manifolded together to meet the flow rate/loading characteristics of a customer's specific needs.

"A complete turnkey solution for the capture/removal of magnetic solids using no media"

ZERO GRAVITY FILTERS, INC.

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THE MAGGIE

Contaminated fluid enters Maggie from its top connection at system pressure (no additional pumps required). The dirty fluid comes in contact with the thin walled, stainless steel tubes that contain powerful rare earth magnets. The magnets, generating up to 10,000 gauss, are up to 15x more powerful than conventional ceramic type magnets.

By design, the flow velocity inside Maggie is reduced, maximizing the contact time the particles are in contact with the magnetic field. Also, Maggie's patented design forces the dirty fluid to follow a tortuous flow path within Maggie.

The combination of high-intensity magnets, low flow velocities, and a unique flow path will provide 80% better capture rates than conventional magnetic separators. Further, as a result of a process called 'heterocoagulation' or bedding, non-magnetic material is captured. The flow process is illustrated at right as 'separation' mode.

Once a sufficient quantity of debris is captured on the magnetic tube, an automatic purge is initiated. Using compressed air, the magnetic core is shuttled above the internal baffle plate. 100% of the captured solids are quickly released as the magnetic force has been removed. The purge only takes a couple of seconds, using a minimal amount of fluid to accomplish, and requiring no mechanical moving parts. During the entire purge process, the magnetic field is always in the flow path, see illustration at right, 'purge' mode.

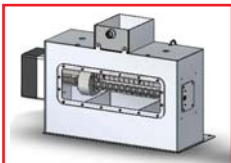


MAGNETIC CORE IN SEPARATION MODE



MAGNETIC CORE IN PURGE MODE

THE DRY MAG



In order to further process the purged waste material, the **Dry Mag** will provide a dry cake of solids and return the clean liquid back to your system giving you an environmentally friendly and major disposal cost savings. The **Dry Mag** uses the same magnet/pole combination used in Maggie to capture and release the dry cake waste to recovery.

APPLICATIONS AND BENEFITS

APPLICATIONS

- Grinding
- Honing
- Machining
- Engine washing
- Parts washing
- Steel mill wash lines
- Spray nozzle protection
- Coolant recovery

FERROUS SEPARATION COMPARISON

Undeclared in Head to Head Trials

	ZGF Maggie	Paper Bed	Magnetic Drums
Fitted in-line and fully automatic	YES	NO	NO
1 – 5 micron capture	YES	NO	NO
High intensity rare earth magnets	YES	N/A	NO
No moving parts to wear out	YES	NO	NO
Low maintenance – no serviceable parts	YES	NO	YES
No disposable media	YES	NO	YES
Highest capture efficiency	YES	NO	NO
Most efficient floor space utilization	YES	NO	NO
Modular design – expandability	YES	NO	NO
Environmentally friendly	YES	NO	YES

ECONOMICALLY AND ENVIRONMENTALLY FRIENDLY

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