

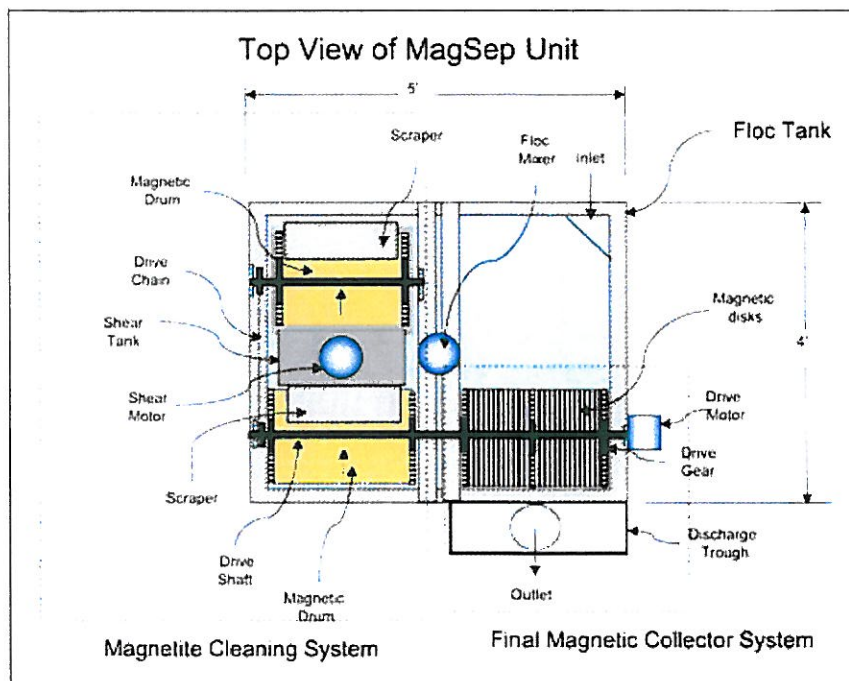
## ADVANCED WATER TREATMENT SOLUTIONS INNOVATIVE MAGSEP SEPARATOR

**Advanced Water Treatment Solutions** introduces the MagSep Separator, a new innovative liquid/solids separator that removes fine pollutant particles from water. The MagSep Separator uses magnetic forces supplied from permanent rare earth magnets to remove fine pollutant particles that have been attached to magnetite using a flocculating polymer.

### MagSep Overview

The MagSep Separator is designed to efficiently remove fine pollutant particles from water. The MagSep Separator can be added to an existing water treatment system to enhance performance or installed as a new system to meet tight discharge limits at the lowest cost.

The MagSep Separator is compact and usually meets the tightest space



limitations.

For example, a unit measuring just 4x4x5 feet can process as much as 200 gpm (0.3 mgd).

For larger applications, a 40x8 MagSep unit can process up to 5 mgd.

High solids loading rates can be easily handled. The MagSep Separator has ample flexibility to handle variations in solids loading and flow rate.

Water flows through the MagSep Separator by gravity. This simplifies process control and reduces energy costs.

The MagSep Separator can remove 90-97% of pollutant particles from water containing clay, silt, oil/grease, metal precipitates and municipal, animal and inorganic wastes.

Magnetite is mechanically cleaned and reused. It is not subject to fouling from organics and can be used over and over again without any special cleaning. Furthermore, there is no additional pressure drop through the system as the magnetite is soiled.

### Operating Principle

The MagSep Separator removes fine particles from water using magnetic seeding technology.

A small amount of magnetite, a magnetic iron oxide ore, is added to the water and attached to fine pollutant particles with a flocculating polymer.

Permanent rare earth magnets quickly remove these combined magnetic particles from the water.

Then the magnetite is cleaned by separating it from the pollutant particles with a shear mixer.

Cleaned magnetite is reused and the pollutant particles are disposed.

#### System Advantages

- Lowest capital/low operating costs
- Savings up to 50%
- Small footprint
- Gravity flow
- Simple and reliable
- Non-fouling
- Portable
- Modular

#### System Applications

- Stormwater
- Wastewater
- Drinking water

*"...a disruptive and differentiated technology."*

Major International Water Treatment Co.

*"By far the simplest, and most cost effective system I have seen."*

D. Philbrook  
President, STF Inc.

*"The MagSep Separator was our lowest cost option to meet metal discharge limits."*

L. Wilde  
Plant Manager, Metro Circuits

*"A silver bullet for the metal finishing industry to make water treatment affordable."*

M. Florczykowski  
Anoplate