



SENTRY[™] MI SERIES Magnetic Trap

Protect plant instrumentation and sampling systems from entrained magnetic contaminants



MAGNETIC TRAP

Features

- Plug free design – Unlike conventional filters and strainers that plug and restrict flow, Sentry's magnetic trap isolates magnetic particulate from the sample stream to minimize the opportunity for plugging.
- Maintains sample integrity by only trapping magnetite contamination and allowing sample to flow around the trapped contaminate not through it.
- Pressure ratings up to 5000 PSIG at 175°F.
- All magnetic trap wetted components SA279-T316/316L stainless steel.
- Single-stroke actuator and purge-in-place requires no tools or disassembly and prevents the introduction of O₂ into the sample stream.
- Available as a stand-alone trap or as a complete assembly with all necessary components and hydrotested for simple field retrofit or new panel installation.
- Designed for installation after primary cooling.

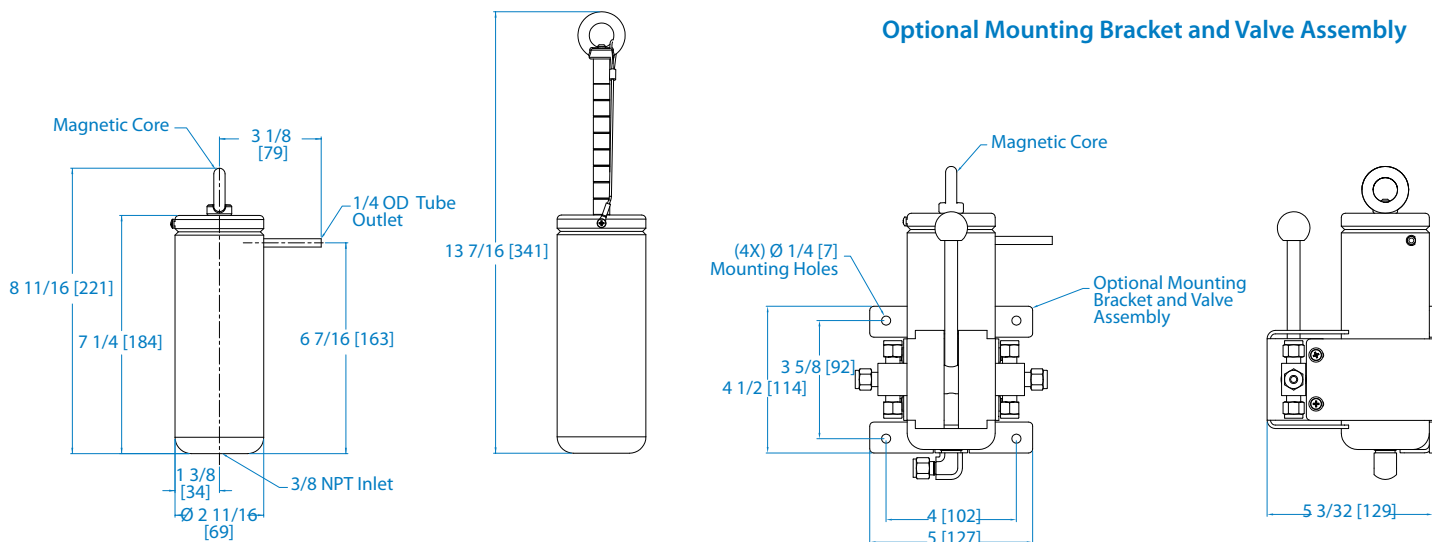
Application

Particulates have always posed a challenge for sample conditioning and analysis systems. However, as traditional base load plants shift to cyclic operation, entrained oxide particulates present an even greater challenge to maintaining sample availability and reliable results demanded by cycle chemistry programs.

Crud bursts caused by chemical and mechanical upsets in power plants carry particulates downstream, causing restrictions and other damage to the plant's critical instrumentation and sampling systems. The Sentry Magnetic Trap helps isolate magnetite particulates to protect both sample conditioning and analytics from critical down time and costly repairs.

Description

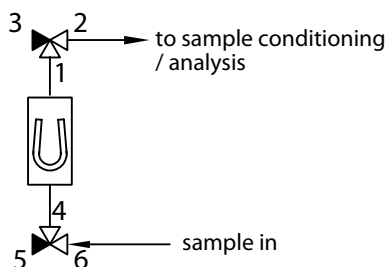
The Sentry Magnetic Trap uses high strength neodymium magnets that are inserted into the core of the trap to attract and capture magnetite. Conventional filters trap all particulate and choke off sample flow as the filtering media becomes plugged with contaminants. The Sentry Magnetic Trap captures only entrained oxide particulate and lets the remaining particulate pass, protecting the conditioning equipment while maintaining sample integrity. Sentry's trap is designed specifically for the extreme conditions of power plants; in tests, its 5000 psig pressure vessel and large 12.5 in² magnetic surface area captured in excess of 80% of magnetite particulate when operated within EPRI guidelines. The Sentry trap is purged in place, requires no tools or disassembly, and incorporates a unique cyclonic cleaning action to scrub internal surfaces clean.



Mag Trap Operation Instructions and P&ID

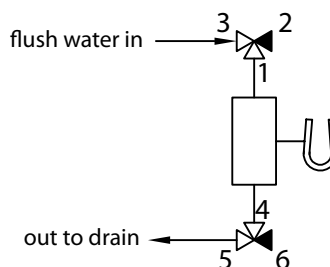
RUN

Operating Instruction
Magnetic Trap/Run Mode:
Valve handle to be in up position
Magnetic core inserted into trap



FLUSH

Operating Instruction
Magnetic Trap/Flush Mode:
Lift magnetic core out of trap
Valve handle to be in down position



SPECIFICATIONS

Model	Description	Rating	Flow Rate	Part No.
MT-5	High Pressure Trap with mounting bracket	5000 psig @ 175°F (345 bar @ 79°C)	1200 cc/min max.	7-04950A
MT-5V	High Pressure Trap with valve assembly	5000 psig @ 175°F (345 bar @ 79°C)	1200 cc/min max.	7-04950B

WARNING

It is solely the responsibility of the end-user, through its own analysis and testing, to select products and materials suitable for their specific application requirements, ensure they are properly installed, safely applied, properly maintained, and limit their use to their intended purpose. Improper selection, installation, or use may result in personal injury or property damage.



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QUALITY MANAGEMENT SYSTEM
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