



SENTRY MT-2 SERIES Magnetic Trap

Protect plant instrumentation and sampling systems from entrained magnetic contaminants



MAGNETIC TRAP

The Sentry® Magnetic Trap isolates magnetite particulates to protect both sample conditioning and analytical instrumentation from critical down time and costly repairs. The Magnetic Trap uses high strength neodymium magnets that are inserted into the core of the trap to attract and capture magnetite.

Description

Particulates have always posed a challenge for sample conditioning and analysis systems. However, as traditional baseload 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.

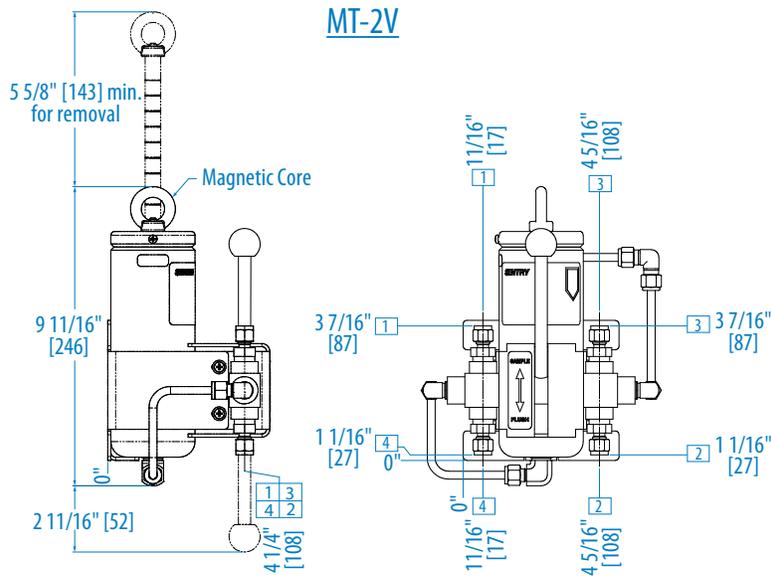
Conventional filters trap all particulate and choke off sample flow as the filtering media becomes plugged with contaminants. The Sentry Magnetic Trap captures only entrained oxide particulate and lets the remaining particulate pass, protecting the conditioning equipment while maintaining sample integrity.

The trap is designed specifically for the extreme conditions of power plants; in tests, its 5000 psig (344 bar) pressure vessel and large 12.5 in² (80 cm²) magnetic surface area captures over 20 g of magnetic particulate when operated within EPRI guidelines. The Magnetic Trap is purged in place, requires no tools or disassembly, and incorporates a unique cyclonic cleaning action to scrub internal surfaces clean.

Features

- Plug free design – unlike conventional filters and strainers that plug and restrict flow, the Sentry 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 contaminant, not through it.
- Pressure ratings for magnetic trap and valve assembly up to 2500 PSIG at 175°F (172 bar at 79°C).
- All magnetic trap wetted components are 316 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.

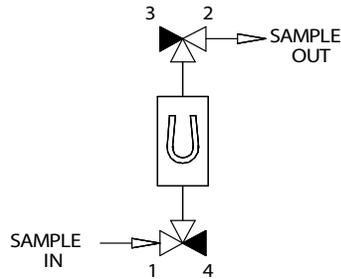
MAGNETIC TRAP TECHNICAL DATA



Magnetic Trap Operation Instructions and P&ID

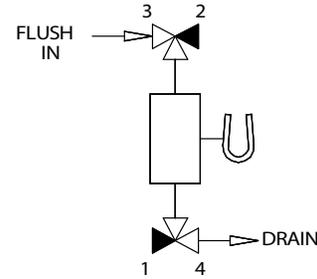
RUN

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



FLUSH

Operating Instruction
 Magnetic Trap/Flush Mode:
 Place valve handle in down position
 Lift magnetic core out of trap



SPECIFICATIONS

Model	Description	Rating	Flow Rate	Particle Size	Max Particle Loading	Part No.
MT-2V	Medium Pressure Trap with valve assembly	2500 psig @ 175°F (172 bar @ 79°C)	1200 cc/min max.	5 μm–1.4 mm	40 g	7-04950C

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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