

Deposition Monitor PDM-1

Diagnostic Capabilities

Many types of fouling can occur within the scope of electrical power generation, chemical processing and similar industries. The majority of fouling conditions which can be analyzed with the Deposition Monitor are classified as:

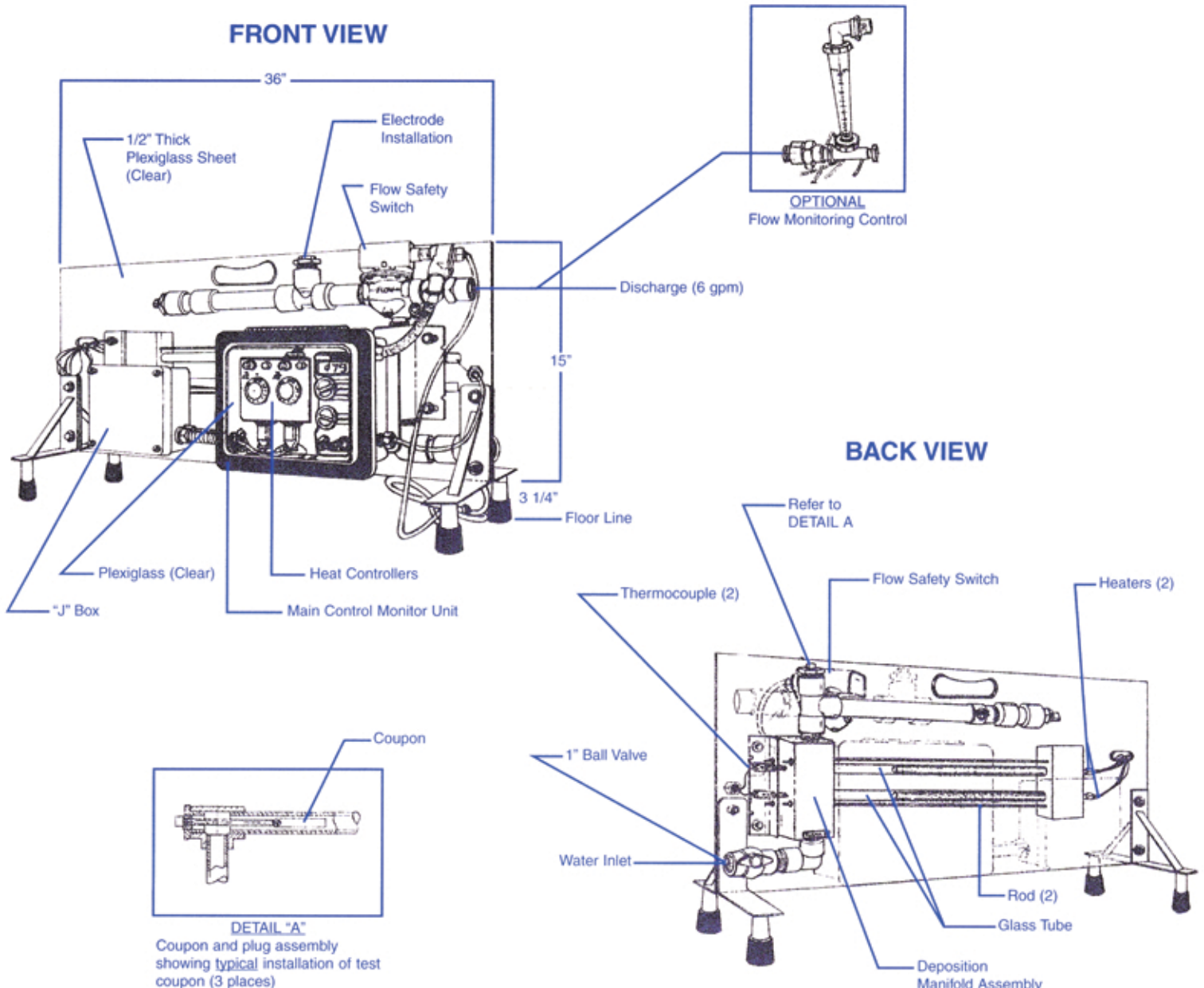
Biological - attachment of macroorganisms and/or microorganisms to a heat transfer surface with associated adherent slimes.

Chemical - formation of depositions at the heat transfer surface due to chemical reaction(s). The surface material is not regarded as a reactant.

Corrosion - accumulation of corrosion by-products on the heat transfer surface.

Particulate - accumulation of fine, distinct solids suspended in the cooling water; likely to become a deposit on the heat transfer surface due to gravity (therefore known as sedimentation fouling).

Proper identification and prompt treatment of heat transfer surfaces are essential to prevent further degradation (decreased heat transfer) and ultimately failure of the system. The Deposition Monitor, coupled with the Corrosion Coupon Test Assembly effectively form a comprehensive preventative maintenance program for your cooling water system.



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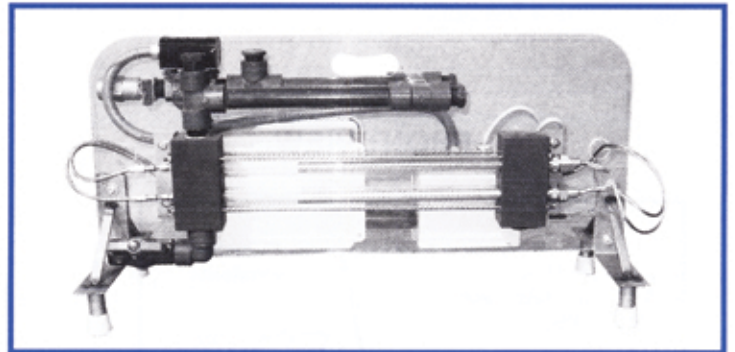
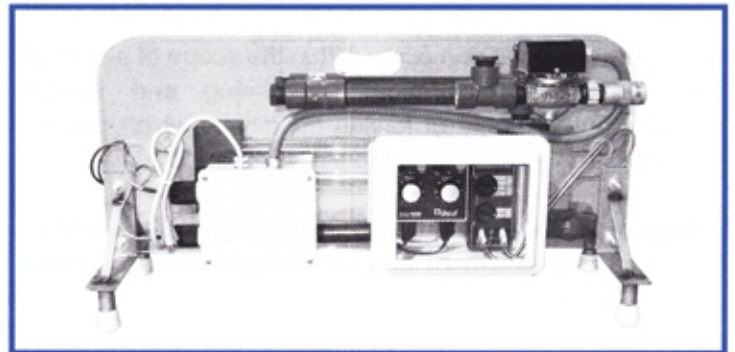
The PDM-1 Portable Deposition Monitor is designed to effectively simulate the operating conditions of plant heat transfer equipment for evaluation of the effects of a chemical treatment program.

The monitor provides **direct** observation of heat transfer surfaces. In conjunction with traditional monitoring tools, such as corrosion coupons and corrosion rate meters, the Deposition Monitor performs a comprehensive, diagnostic monitoring of cooling systems for chemical processing, industrial manufacturing and electric power generation plants.

Applications

The Deposition Monitor may be used to evaluate the following:

- Nature of deposits
- Effects of changes in pH limits, inhibitors, dispersants, microbiological control agents, cycles of concentration and water velocities
- Severity of process leaks and their operational effects
- Merits of various materials of construction of replacement equipment



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Features and Specifications

The 15" x 14" x 36" (H x W x L) Deposition Monitor is highly portable and easy to use - setting up for operation in minutes under most conditions.

Standard features include:

- Direct digital display of temperature differential
- Solid-state, enclosed panel controls
- Removable coupon holder and heater assemblies mounted within a plexiglass platform
- Dual thermostatic controls
- Constant-flow control valves; rated for 6 gpm at 7.2 fps
- 2, 1000w cartridge heaters rated at 7.5 amp (115V) with sensors
- Variable heat flux (0 to 11.453 BTU/hr/ft².)
- 3°F maximum temperature differential at 6.0 gpm (7.2 fps)
- Accommodates 20-100 psig
- 1" NPT sample connection ports
- Chromel-alumel thermocouples