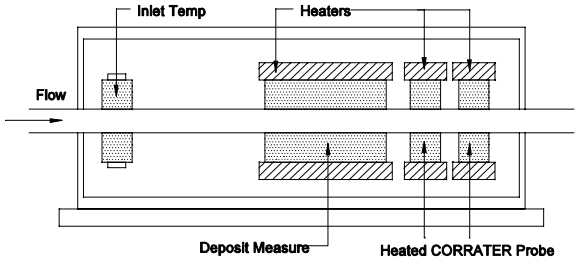
Model CorrDATS™ Corrosion & Deposit Monitoring System

Features:

- ***Complete Integrated Corrosion and Deposit Monitoring System***
- ***Corrosion Rate and Pitting Tendency Of Heated Surface***
- ***Corrosion Measurements Of two Alloys***
- ***Integral Data Logging Of All Parameters***
- ***Field Proven Technologies***

Rohrback Cosasco Systems and Bridger Scientific have collaborated to produce the new Rohrback Cosasco Systems CorrDATS™ integrated corrosion and deposit monitoring system. The main parameters required for control of a water treatment program have been combined into this integrated data logging system which may be interrogated with a local portable or desktop PC, or remotely via modem over a telephone line.

In the actual field environment of water treatment, it is necessary to maintain the proper balance between low pH (more acidic) which increases corrosion, and high pH (more alkaline) which increases scaling tendency. Consequently, to achieve this balance, the operator must control pH, conductivity, corrosion, scaling and deposition. The CorrDATS™ unit was developed to specifically blend comprehensive, sophisticated yet field-proven technologies into an economical package.



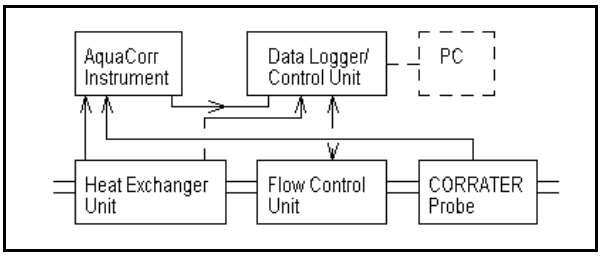
The heat exchanger flow tube of the system is matched to the alloy of the plant heat exchanger to be monitored in the field. The flow through the tube is programmed and controlled to represent the most critical plant condition, usually the lowest flow velocity. The heated surfaces are programmed and controlled to represent the most critical heat transfer conditions, normally the highest heat flux, and connected to the highest water temperature from the plant heat exchanger outlet. This sets up the system for scale and deposit monitoring.

In many systems, the heat exchanger tubing is a copper-based alloy and the rest of the system is carbon steel. Separate elements of the corrosion inhibition must be simultaneously regulated to prevent corrosion of both of these alloys. In addition, the corrosion rate on the heated exchanger tube material can change with temperature. The CorrDATS™ system is unique because:

1. It provides CORRATER® measurements from electrodes which are made from the same material as the heat exchanger, and;

2. The electrodes are under the same heat flux conditions as the deposit monitoring section of the system.

The new 9030-Plus corrosion monitoring electronics are used in the CorrDATS™ system, for increased flexibility (see bulletin #303 for more details). The 9030-Plus unit monitors multiple parameters, including corrosion rate and pitting tendency from two CORRATER® probes.



System Diagram

In the data logging version of the unit, any four of the measured parameters from the 9030-Plus unit are data logged, with p to 124 records, at 0.05 to 99 hour intervals. Software is included with the system for uploading of the accumulated data. Data files are in ASCII format, (*.prn files) for importing into standard spreadsheet programs. Alternately, an analog unit is available with 11 outputs and 2 inputs.

UNS CODE	ALLOY
K03005	Carbon Steel
C11000	Copper
C44300	Arsenical Admiralty Brass
C70610	90/10 Copper Nickel
C71500	70/30 Copper Nickel
Other alloys subject to availability	

Table 1

Specifications:

- **Maximum Heat Flux:** 50,000 Btu/hr.ft^2
- **Maximum Fluid Temp:** +180° Deg F
- **Flow Velocity Range:** 1-10 ft/sec
- **Tube Size:** 7/8" dia.
- **Tube Alloy:** Any Commercially available
- **Enclosures:** Plastic sealed enclosures Stainless steel/ Aluminum heat exchanger case
- **Corrosion Rate:** 0 - 1000 mpy
- **Imbalance (Pitting Index):** 0 - 1000 pitting units
- **Operating Range:** Conductivity (µmhos/cm) divided by corrosion rate (mpy) > 4
- **AquaCorr™ Data Logged Parameters** Max 4
- **9030-Plus Inputs:**
  2 Channel Corrosion Rate
  2 Channel Imbalance
  2 Channel Temperature

Ordering Information:

MODEL	DESCRIPTION
CorrDATS™	CORROSION AND DEPOSIT MONITORING SYSTEM

CODE	HEATED TUBE ALLOY AND HEATED CORRATER® PROBE ALLOY
XXXXXX	ENTER UNS CODE (SEE TABLE 1)

CODE	UNHEATED CORRATER PROBE ALLOY
XXXXXX	ENTER UNS CODE (SEE TABLE 1)

CODE	SUPPLY VOLTAGE
115	115 VAC 50/60 Hz
230	230 VAC 50/60 Hz

CODE	FLOWMETER OPTION
0	PADDLE FLOWMETER
1	MAGNETIC FLOWMETER

CODE	INTERNAL MODEM OPTION
0	NO MODEM

CODE	ANALOG OUTPUT UNIT
0	DATS II DATALOGGER
1	DATS III ANALOG OUTPUT

CorrDATS™	**C44300**	**K03005**	**115**	**0**	**0**	**0**	**Typical Order Number**

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