



## CORROSION PRODUCT SAMPLER

### *Quantify & Identify Corrosion Products*

- Easy to use filter holder
- Measure effectiveness of chemical treatment program
- Identify sludge traps where corrosion products accumulate
- Bypass capability allows isokinetic sample flow rates

#### Background

The control and prevention of corrosion are primary concerns of water chemists in the power plant. Left uncontrolled, corrosion can result in serious equipment failures. Of equal importance, deposition of corrosion products in the turbine or boiler can significantly reduce both capacity and efficiency of the plant.

Since corrosion is a dynamic process, it is difficult to get a representative sample by normal grab sample methods. An integrating sampler is required. This means using filters to collect a continuous sample over a period of time, and measuring the amount of corrosion products which are captured by the filters.

A particulate filter is used to collect undissolved matter, and dissolved species are often collected via special cation and anion filters.

#### Description

The Sentry Corrosion Product Sampler (CPS) is a discrete module which can be mounted in a central sample panel or as a stand alone unit at the sample source. Major components include:

1. An easy to use, high pressure filter holder capable of containing a particulate filter, plus a combination of cation and anion filters.
2. A totalizing meter which is designed for high accuracy at very low flow rates.

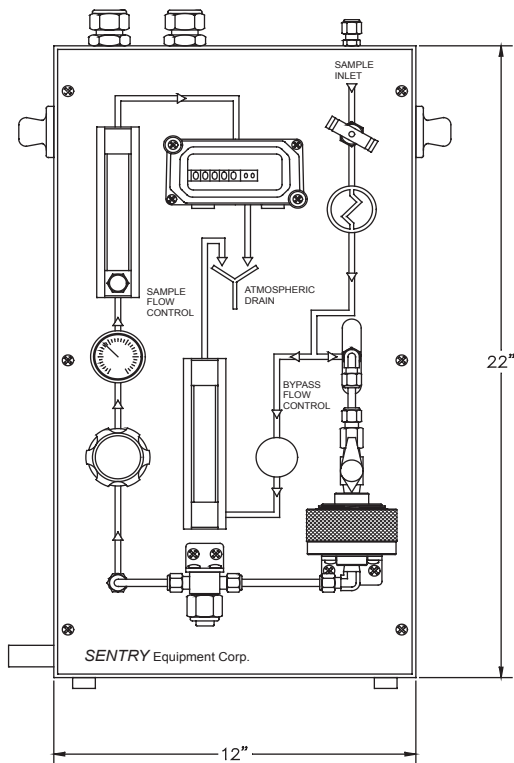
The standard CPS is designed for portability so that it can be easily moved around the plant to conduct studies of corrosion product generation and transport within the system.

## SPECIFICATIONS

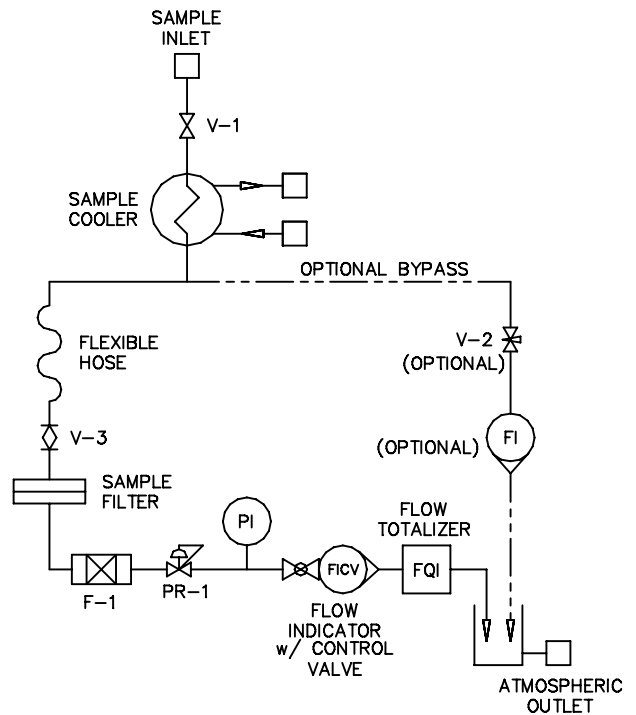
<b>Maximum Inlet Pressure:</b>	2850 PSIG
<b>Maximum Temperature:</b> (without sample cooling option)	150°F [66°C]
<b>Sample Flow Range:</b>	2 to 330 cc/min
<b>Bypass Flow Range:</b>	to 1300 cc/min
<b>Wetted Materials:</b>	316SS, PTFE, Viton
<b>Weight:</b>	62.5 lb (28.4 kg)
<b>Ambient Temperature:</b>	40°F to 140°F (5°C to 60°C)
<b>Maximum Back Pressure:</b>	Atmospheric

### Available Options

- Panel mount or free standing enclosure
- Sample cooling
- Speed loop (bypass circuit to maintain velocity through sample line)
- Multiple modules in one enclosure
- Pressure reduction before the sampler
- Lease or purchase
- Higher pressure rating



**Single Sample Module  
Model CPS-11**  
(drawing shown for reference only)



**Flow Diagram  
Single Sample Module**  
(drawing shown for reference only)

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