



05-018A  
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## **ADDING A NEW CHARCOAL SCRUBBER TO YOUR NOX PUMP**

### **I. PURPOSE:**

API has seen occasions where the exhaust side of a NOx analyzer's external pump will have a particulate build up in it. Over time this will damage the pump and cause it to need to be rebuilt. API has made an inexpensive disposable charcoal scrubber that is installed between the inlet to the pump and the exhaust of the analyzer. This scrubber scrubs out any caustic gasses that might be damaging the pump.

### **II. TOOLS:**

9/16<sup>th</sup> wrench

### **III. PARTS:**

051990000 Disposable Charcoal scrubber  
¼" Teflon tubing

### **IV. PROCEDURE:**

- 1.) The first step is to determine if you need the charcoal scrubber. After about 6 months of running or if your pump is prematurely failing you will want to inspect inside of the pump. Remove the 6 screws holding the top of the pump and look inside. If there is corrosion, erosion, particulate buildup, or any other type of damage that isn't normal wear, you will want to install this charcoal scrubber.
- 2.) Take the Disposable Charcoal Scrubber and locate the label on it indicating the direction of the flow. Connect the exhaust of the scrubber to the inlet of the pump using ¼ Teflon tubing. Connect the inlet of the scrubber to the exhaust of the analyzer using ¼ Teflon tubing.
- 3.) Return the analyzer to normal operation. Using the TST buttons on the front panel scroll through until you get Rcell Pressure. Make sure that this value is reading <10" inHg. If it is not, check all the tubing connections from the exhaust of the analyzer to the inlet of the pump for leaks.
- 4.) This scrubber should be replaced annually. The charcoal material inside is not serviceable and the scrubber is designed to be throw away and a new one installed. For further information on this scrubber please contact API.