



Keika Ventures

## Low Flow (Non-Isokinetic) Methods: Method 6, Method 26 and VOST (Method 0030 & 0031)

### UNI-VOS-ACD Low Flow Control Console / Digital DGM



The UNI-VOS-ACD is the ideal Metering Control Console for accurate volume measurements in gas sampling methods such as Method 6 (SO<sub>2</sub>), Method 26 (HCl), Method 0030/0031 (VOST).

#### Features:

Ideal for gas sampling methods requiring sample rates between 0.5 to 2 liters per minute. Flow rate adjustments, gauges and temperature readouts on the console and the 0.01 Liter resolution of the dry gas meter allow the tester to maintain a constant and accurate flow rate while monitoring gas meter pressure, and five remote temperatures received from the sample caddy. Two digital temperature controllers are provided for maintaining probe and filter heat control where applicable.

## CO-QC4-SS-Set Low Flow Calibration Orifice Set



The CO-QC4-SS-SET is a set of three Critical Orifices designed to be used in the calibration of the Low Flow UNI-VOS-ACD Console and other apparatus with low flow specifications. The Stainless Steel orifices are certified and come in three flow rates.

### Features:

- 3 Stainless Steel Orifices
- Foam Lined Storage Case
- ¼" QC Stems
- Typical Flow Rates 0.5, 1.0, and 1.5 LPM

## The UC-LF-(XXX) Low Flow Umbilical



The UC-LF-(XXX) Low Flow Umbilical is designed to work for VOST, Method 6, and Method 26. It is constructed to provide the same rugged endurance and performance that all Environmental Supply umbilicals have built in. (Custom lengths available)

**Features:**

- Heat Shranked
- Spiral Cable Wrapped
- Brass Inserts in Tubing
- Brass Quick Connects
- Strain Relief Rope
- 4 Pin Amphenol Connectors
- Full Size Type "K" Thermocouplers
- Vinyl Tubing 1/4" OD / 1/8" ID
- Spiral Cable Wrap

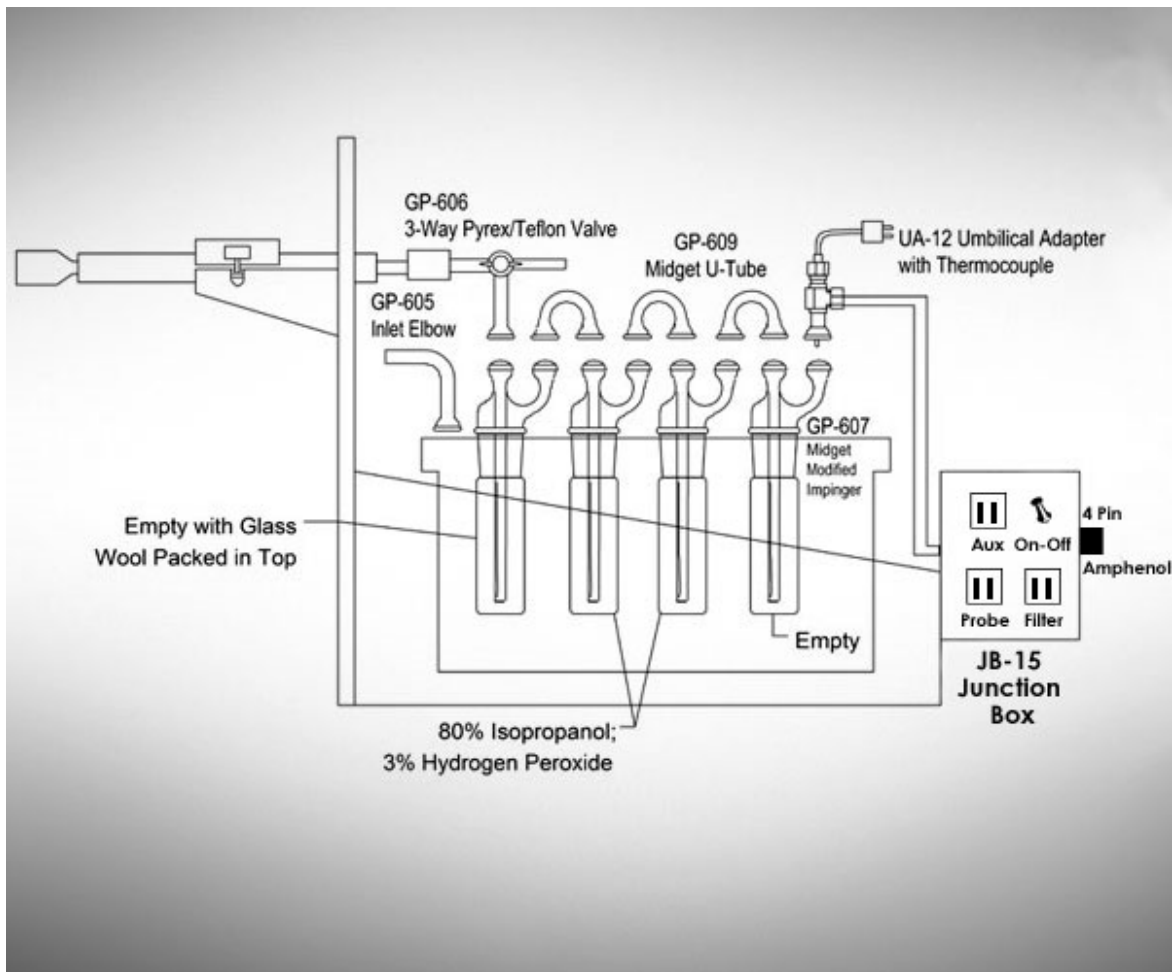
**Probe Assembly for VOST, Method 6, and Method 26**

The PRAM-P03-8M Probe Assembly for VOST, Method 6, and Method 26 is a 3' Pyrex liner with cup and 8mm OD on the outlet end, and comes equipped with heating mantle. The assembly can be used for several methods.

**Features:**

- 3' Pyrex liner with cup and 8mm outlet end
- Heating mantle
- Stainless Steel sheath
- 5/8" Stainless nut
- Standard Length 3' (custom length probe assemblies are available)

## M6-S1 Method 6 Sampling Train



The M6-S1 Method 6 Sampling Train is an efficient low flow, non-isokinetic system for extracting a gas sample from the stack and separating the sulfuric acid mist, including sulfur trioxide, from the sulfur dioxide fraction that is to be measured using barium-thorin titration

**Features:**

- Miniature Pyrex lined, heated probe assembly
- Midget sample caddy with insulated glassware tray
- Midget glassware set
- Impinger outlet adapter with thermocouple
- UC-25LF-025 umbilical with connector box

**GSM-6B Method 6 Glassware Set**

The GSM-06B Method 6 Midget Glassware Set provides precision ground miniature glassware to meet the exacting specifications of EPA Method 6

**Features:**

- 3-Way Pyrex/Teflon Valve
- Midget Impinger, Modified
- Midget Impinger, Greenberg-Smith (with Orifice)
- Midget U-Tube Connector
- Stainless Steel Pinch Clamp, #12





### **M6-SC Sample Case / Method 6 and Method 26**

The M6-SC Sample Case for Method 6 and Method 26 is constructed with welded steel and comes with sturdy aluminum handle. The caddy supports a stainless foam lined miniature glassware cold box (included with the Method 6 and Method 26 system).



### **M6-S1-V Method 6 Sampling Train includes the following**

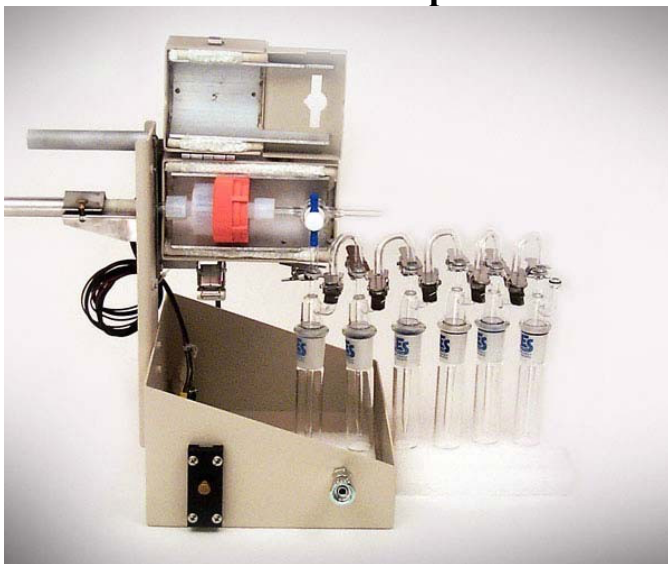
- M6-SC Method 6/26 Sample Caddy w/ Probe Support
- (1) PRAM-P03-06 3' Heated Miniature Probe Assembly, 3/8" Pyrex Liner
- (3) PRLM-P03-06 3' Pyrex Liner, 3/8", with Cup, 5/8"
- (1) PFA-620-6 3/8" PFA Teflon Union
- (1) M6-PPL Handheld Probe Purge Bulb
- (1) M6-CB Insulated SS Glassware Tray
- (1) GSM-6B Midget Method 6 Glassware Set, Ball Joint w/ O-Ring

- (1) UA-12 SS 12/5 Umbilical Adapter, TC, Jumpline
- (1) UC-LF-025 25' Low Flow Umbilical Cable with
- (1) JB-15 Power Distribution Box

### **JB-15 Power Distribution Box**



### **M26-S1-H Method 26 Sampler**



The M26-S1-H Method 26 (HCL) Sampling System is for the determination of hydrogen chloride emissions from stationary sources. The sampler comes with miniature impingers, heated probe assembly, and a modular clamshell oven. Add to the sampler the Environmental Supply UNI-VOS-ACD Low Flow Control Console to make the system complete

#### **Features:**



- Miniature Impingers
- 25' Low Flow Umbilical
- Pyrex Heated Probe Assembly
- Additional Pyrex Liners Included
- Insulated Glassware Tray

**M26-S1-H Method 26 Sampling Train includes the following**

(1) M6-SC Sample Caddy

(3) PRLM-P03-06 3' Pyrex Liner w/ Cup

(1) M6-CB Insulated SS Cold Box

(1) UA-12 SS Umbilical Adapter

(1) M26-VFH Clamshell Filter Oven

(1) PRAM-P03-06 3' Heated Probe Assembly

(1) M6-PPL Handheld Probe Purge Bulb

(1) GSM-26B Midget Ball Joint Glassware Set

**GSM-26B Method 26 Midget Glassware Set**



The GSM-26B Method 26 Midget Glassware Set is designed to provide all of the needed glassware apparatus for the M26-SI-H Method 26 Sampler.

**Features:**

- Midget Impinger (includes bottle and stem)
- Midget U-Tube Connector
- Teflon Filter Holder
- 3-Way Pyrex Valve Teflon Plunger
- Stainless Steel Pinch Clamp, #12



**Midget U-Tube Connector**



**Teflon Filter Holder**



**3-Way Pyrex Valve Teflon Plunger**



**SS Pinch Clamp, #12**



**Vost sampling system**



The V-S1 VOST System is laid out so that same VOST caddy will house a single or double system (V-S2) can be run.

**Features:**

Vost Sample Caddy

3' Heated Pyrex Probe Assembly (for Vost)

3' Effective length Pyrex Probe Liner, 8mm with Cup (2 included)

Single or Double Glassware Set (please specify)

25" Low Flow Umbilical w/Connector Box

Coolant Recirculating Pump

4 Impinger Cold Box

**Specifications:**

V-S1 Single Vost sampling assembly - Sample Caddy, 3' VOST Probe, 2 Spare Pyrex Liners, Single Glassware Set, 25' Umbilical, Recirculating Pump, Coolant Reservoir

V-S2 Dual Vost sampling system - Same Components with Dual Glassware Set  
UNI-VOS-ACD Universal Volatile Organic Sampling Console, Digital Dry Gas Meter

CO-QC4-SS-SET Low Flow Calibration Orifice Set, 3 SS Orifices, 1/4" QC Stems, 0.5-1.0-2.0 LPM

V-SC Dual VOST Sample Caddy, Probe Support, 4-Way Valve, Leak Check Vacuum Gage

**Methods 15: Determination of H<sub>2</sub>S, Carbonyl Sulfide and Carbon Disulfide Emissions from Stationary Sources**

**Method 15**  
**(H<sub>2</sub>S, COS and CS<sub>2</sub>)**



**Method 15 Sampling Train includes the following**

- (1) PRA-T03-16A-V Probe Assembly, 3ft, Heated, 1/4" FEP, Elbow
- (15) XT-TEP-4-2 Tubing, FEP Teflon, 1/4" x 1/8"
- (1) M6-SC M6/26 Sample Caddy, Probe Support
- (1) GFT-2-4 Filter Holder, PFA, 27mm, 1/4" T
- (1) M26-VFH-V M26 V alve/Filter Oven, 230V
- (1) GF2-T-1/2 Filter, TFE, 47mm, 1-2micro, pk of 10
- (2) TFE-RU4-2 Union, Reducing, TFE, 1/4-1/8"
- (3) TW-375 Impinger, PFA, 275ml, with cap (1/2")
- (2) TW-LF16 Tube, FEP, 90Deg, 1/2" Full DOTH
- (2) TW-016-2.3 Orifice, PTFE, 2.3MM, 1/2" Tube
- (1) M5-CB04 Cold Box, 4 Impinger
- (10) XT-TFEP-8-6 FEP Teflon Tubing, 1/2" OD x 3/8" ID
- (1) EW-06406-74 FEP Tubing, 5/16" ID x 3/8" OD, pk of 25
- (2) EW-06381-83 Compression Reducing Union
- (1) 169300-22 Chemker 300 Teflon Vacuum Pump, 220V