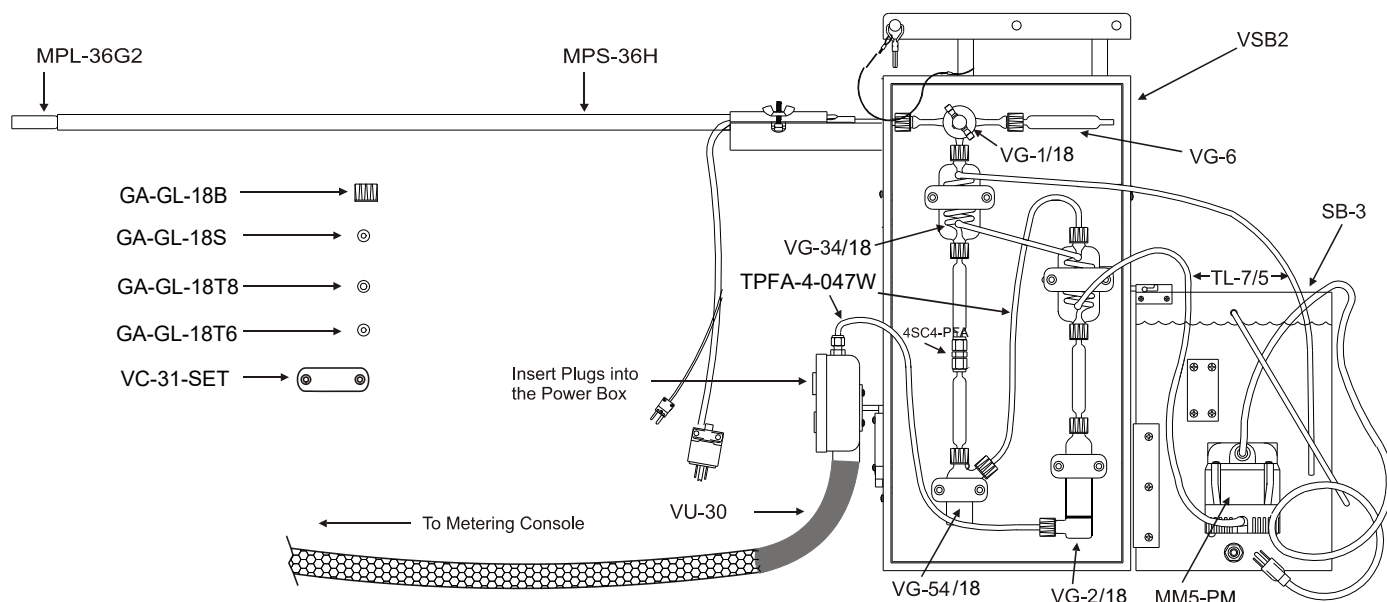


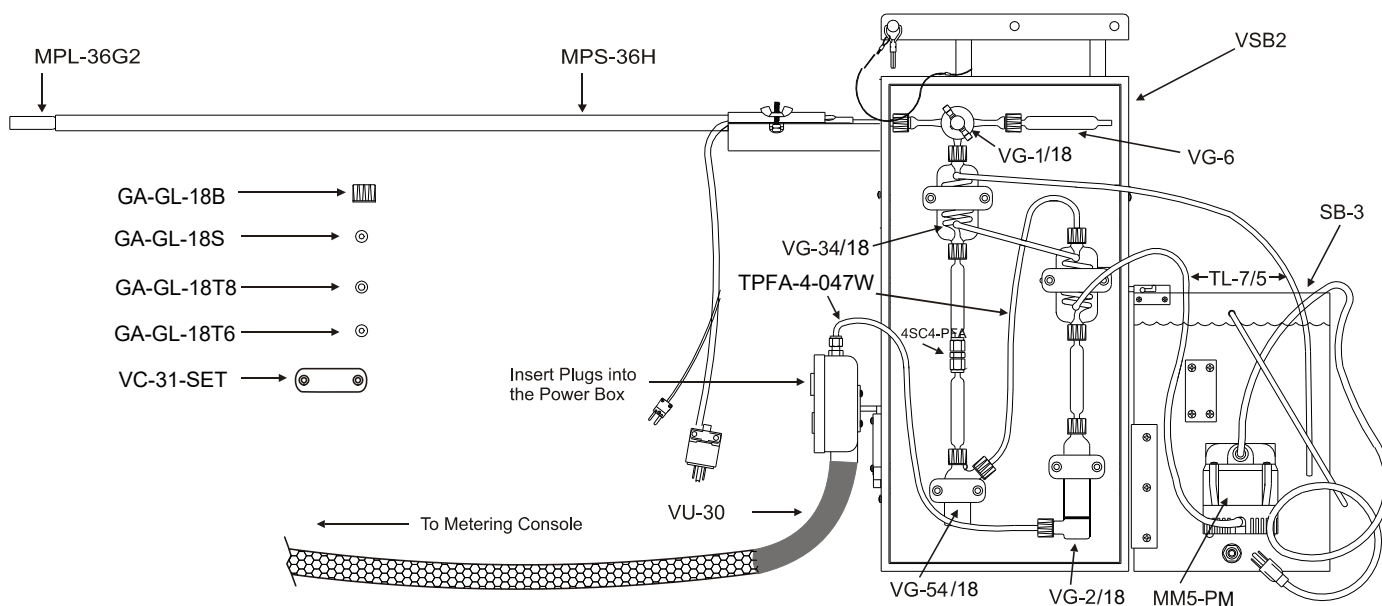
SuperVOST Kit #SK-0031 Packing List



SuperVOST Kit (#SK-0031) includes the following:				
Part #	Description		Qty	Qty Shipped
VSB2	VersaCase2- Includes VSB2MP and VC31SET		1	
PC-3/4	Probe Clamp for 3/4 inch OD probes		1	
MPS-36H	36 inch Heated Probe Assembly, 120V		1	
MPL-36G2	36 inch Pyrex Liner (8mm) with Glass Cup (No Ball Joint)		3	
VU-30	30 Foot VersaCase Umbilical Cable		1	
MM5-P	Submersible Coolant Pump, 120V		1	
SB-3	Impinger Box / Insulated Coolant Reservoir, Model 100		1	
V31-CGS	SuperVOST Glassware Set		1	
Includes:	VG-1 /18	3-Way Valve with #18 Threads Inlet & Purge, 8mm Outlet	1	
	VG-2/18	Drying Tube, Charcoal Trap with Glass Grit, #18 Joints	1	
	VG-34/18	SuperVOST Coil Condenser, 2 inch dia., #18 Joints	2	
	VG-54/18	SuperVOST Water Trap, 40ml with #18 Joints	1	
	VG-6	Adsorption Cartridge	4	
	4SC4-PFA	1/4 Tube Union, PFA	1	
	GA-GL-18T8	TFE Seal Ring, #18/8	2	
	GA-GL-18T6	TFE Seal Ring, #18/6	7	
	GA-GL-18B	Bored Cap, #18	10	
	GA-GL-18S	Seal Ring, #18/6mm Silicone	1	
	TPFA-4-047W	TFE Tubing, 1/4 inch, 36 inch Length	1	
	TPFA-4-047W	TFE Tubing, 1/4 inch, 24 inch Length	1	
	TL-7/5	Elastic Tubing, 3/8 inch, 32 inch Length	2	
	TL-7/5	Elastic Tubing, 3/8 inch, 12 inch Length	1	

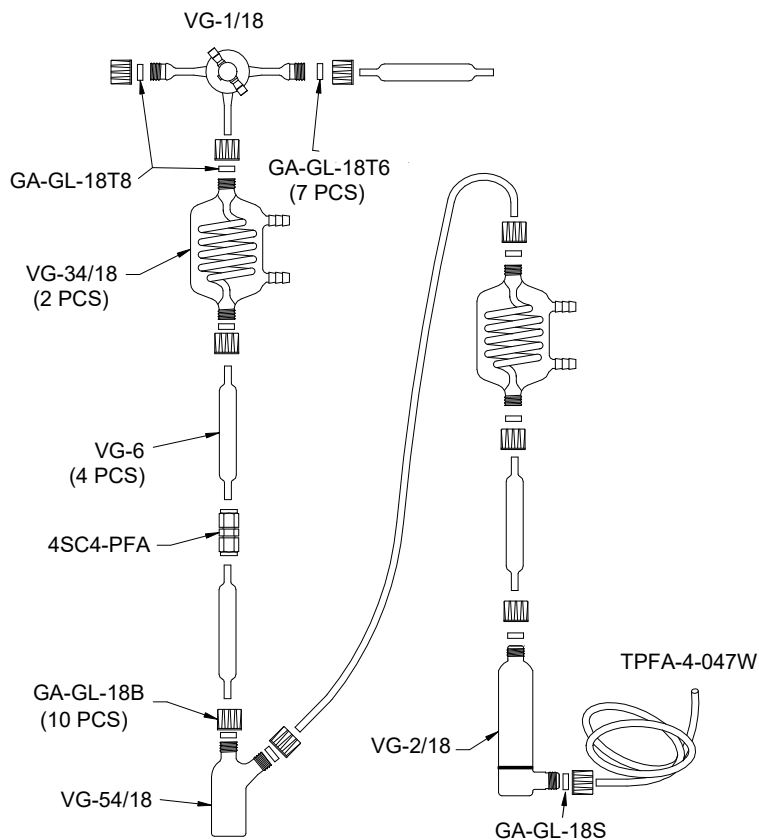
EPA Method 0031 for VOC's SuperVOST Kit #SK-0031

The Method 0031 is used to determine volatile organic compounds in gaseous emissions from a wide variety of stationary sources including hazardous waste incinerators. This method employs a sampling module and meter box to withdraw a 20-L sample of effluent gas containing volatile organic compounds from a stationary source at a flow rate of 1 lpm for a "fast VOST". Where VOC's are more concentrated, a "slow VOST" should be an option of the sampler and or Agency Administrator. A "slow VOST" would be inducted at a sample drawn rate of 0.5 lpm. This lower sample draw rate will allow the sample gas to have more contact time (retention time) within the absorption tubes and will enhance absorption. In addition, the "slow VOST" will deter channeling of the sample through the absorbent. However in conducting either the "fast VOST" at 1 lpm or the "slow VOST" at 0.5 lpm, one must calibrate at the sample draw rate to be used to circumvent the phenomena of often times greater than 10 percent difference in the actual Gamma (γ) at the sample draw rate as specified above.



The illustration above depicts the Apex Instruments Method 0031 sampling system. The sampling train includes a stainless steel probe that has a glass liner with a cup containing glass wool in the sample end to remove particulate matter. The probe will be heated to $130^{\circ}\text{C} \pm 5^{\circ}\text{C}$. The sample then enters the isolation valve and is either purged through a charcoal trap or enters the condenser. The condenser is chilled by the circulating ice water that is provided by the submersible pump inside the cold box. The cooled sample is then passed through two sorbent tubes that contain $1.6 \pm 0.1\text{g}$ of Tenax[®]-GC resin. The sample is then passed into a flask and then into a second chilled condenser and on into a third sorbent tube containing $5.0 \pm 0.1\text{g}$ of Anasorb[®]-747. (The sorbent tubes should be marked with an arrow to indicate sample flow direction.) The sample is then passed into a drying tube that contains *new* Silica gel and on to the meter console through the Umbilical Cord Power Supply Box.

Glassware Set for Method 0031 #V31-CGS Packing List



V31-CGS Glassware Set for Method 0031 includes:			
Part #	Description	Quantity	Qty Shipped
VG-1/18	3-way Valve with #18 Threads Inlet & purge, 8mm outlet	1	
VG-2/18	Drying Tube, Charcoal Trap with Glass Grit, #18 Threads	1	
VG-34/18	SuperVOST Coil Condenser, 2" diameter, #18 Joints	2	
VG-54 /18	SuperVOST Water Trap, 40ml with #18 Joints	1	
VG-6	Absorption Cartridge	4	
4SC4-PFA	1/4" Tube Union, PFA	1	
GA-GL-18T8	TFE Seal Ring, #18/8	2	
GA-GL-18T6	TFE Seal Ring, #18/6	7	
GA-GL-18B	Bored Cap, #18	10	
GA-GL-18S	Seal Ring, #18/6mm Silicone	1	
TPFA-4-047W	TFE Tubing, 1/4", 36" Length	1	
TPFA-4-047W	TFE Tubing, 1/4", 24" Length	1	
TL-7/5	Surgical Tubing, 7/16" OD x 5/16" ID, 32" Length	1	
TL-7/5	Surgical Tubing, 7/16" OD x 5/16" ID, 12" Length	1	