**Specifications for CamCarb XG**

1. **General**
	1. The conical cylinder shall be composed of two fully-disposable concentric cones constructed from high-impact ABS plastic and shall not contain any adhesives or any parts constructed from metal except for the mounting knobs.
	2. Sizes shall be noted on enclosed drawings or other support materials.
2. **Construction**
	1. The inner cone shall be centered within the outer cone to create a tapered media bed and secured in place by the inlet cap without adhesives to facilitate uniform airflow across the entire surface of the molecular media.
	2. The inlet cap shall have a radial design to reduce air turbulence and a co-molded TPE gasket to reduce air bypass.
	3. The inlet cap shall have three stainless steel bayonet pins capable of mounting in both 1.5 mm and 2.0 mm holding frames to form a mechanical connection with the gasket limiting air bypass.
	4. The dimension of the filter shall have a diameter of 5.7" and a length of (17.8" for XG2600 or 23.4" for XG3500).
	5. The outer cone shall have an integrated ergonomic grip at the end to allow for easy handling and installation of the filters.
	6. Cylinder shall have two scrim options available based upon media selection:
		1. Two internal scrims installed within the structure of the filter located at the inlet and outlet of the airstream.
		2. One internal scrim installed within the structure of the filter, located at the inlet of the airstream, and an external sock installed at the outlet of the filter.
	7. Manufacturer shall provide evidence of facility certification to ISO 9001:2015.
3. **Performance**
	1. The pressure drop at the rated airflow of 16 cylinders shall not exceed .38" w.g. for XG2600 and .66" w.g. for XG3500.
	2. The face velocity through the system shall not exceed 375 fpm for the XG 2600 18" model or 500 fpm for the XG 3500 24" model.
	3. The ISO 10121-2:2014 performance test must be performed in-house by the manufacturer. Note: Gas challenge tests using high concentrations (>100 ppm), including ASTM D6646, are not permitted as the results of these tests do not reflect achieved performance in real conditions.
	4. A filter test report shall be submitted with the following accelerated challenge test conditions:
		1. 50% RH ± 3%
		2. 23°C ± 0.5°C
		3. Maximum 80 ppm for toluene or 10 ppm for gases in section 3.4.5
		4. The corresponding number of filters in a 610 mm x 610 mm area shall be tested in a molecular test rig at 2.5 m/s face velocity.
		5. The test gas shall be hydrogen sulfide, toluene, nitrogen oxide, ammonia, or gases as otherwise specified.
	5. The filters shall be delivered to the site in heat-sealed PE bags to ensure the ‘as new’ condition of the filled media.
4. **Supporting Data**
	1. The supplier shall conduct Computer Fluid Dynamics simulation reports of the filters showing uniform airflow distribution across the media bed of the filters.
	2. ISO 10121-2 test certificates shall be provided during the submission of this tender.
	3. The supplier shall conduct lifetime simulation reports of the filters that are based on the actual required concentration and airflow. The simulation data shall be based on test results or stoichiometric calculations.

**Filters shall be Camfil’s CamCarb XG (2600 or 3500) ([**ACIDS]; [ACIDS\_NO2]; [ACIDS\_H2S]; [ALDEHYDES]; [BASES]; [ETHYLENE]; [DECONTAMINATE]; [H2S\_MERCAPTANS]; [O3]; [SO2\_H2S]; [TERPENES]; [VOC]; [VOC\_ALDEHYDES]; [VOC\_H2S\_SO2]; [VOC\_O3\_ACID\_H2S]; [VOC\_O3\_H2S\_SO2]; [VOC\_O3\_NO2\_SO2])

Items in parentheses ( ) require selection.

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