Guide to Application Parameters for Technologies

Measurement Technology		Technology	Stack Diameter (m)	Concentration (mg/m^3)		Filter Type	Certification		Dry	Humid	Wet	ATEX IECEx Hazardous Zone		Type of Dust		Velocity Dependant
				Min	Max		EU	USA				Gas	Dust	Same	Changing	
Probe Electrification	Charge Induction (AC)	PCME ElectroDynamic™	0.2 - 4	0.05	1000	Bag, Cyclone, Drier, Scrubber (5) None (6)	QAL1 (7) TUV MCERTS	MACT, PM detector	✓	✓	×	✓ (7)	✓	✓	×	No (8)
	Contact Charge Transfer (DC)	*DC Triboelectric*	0.2 - 2	1	1000	Bag, Cyclone	×	MACT	✓	×	×	?	✓	✓	×	Yes
	Combination AC & DC	*Combination AC & DC/Tribo*	0.2 - 2	1	1000	Bag, Cyclone	TUV	MACT	✓	×	×	✓	✓	✓	×	Yes
Transmisometry	Ratiometric Opacity	PCME DynamicOpacity™	1 - 8 (PCME VIEW 580 /480) 1 - 15 (PCME STACK 602)	10 (3)	1000	Bag (1), Cyclone, EP, None	TUV	PM detector	✓	×	×	×	×	✓	×	No
		Dynamic Detection Principle	0.5 - 12	20	1000	Bag (1), Cyclone, EP, None	×	×	✓	×	×	×	×	✓	×	No
	Opacity	PCME Opacity	2 - 10 (1)	30 (4)	1000	EP, None	TUV	PS-1	✓	×	×	✓	✓	✓	×	No
		Other Transmittance	0.5 - 12	30	10000	EP, None	TUV	PS-1	✓	×	×	✓	✓	✓	×	No
Scattered Light	Scattered Light (Forward)	PCME ProScatter™	1 - 4 (2)	0.02	300 (10)	Bag, Cyclone, EP, none	QAL1 TUV MCERTS	PS-11, PM detector	✓	×	✓ (9)	POA (7)	POA (7)	✓	×	No
		Other Forward Scatter	1 - 3 (2)	0.1	200 (10)	Bag, Cyclone, EP, none	QAL1 TUV MCERTS	PM detector	✓	×	✓ (9)	✓	✓	✓	×	No
	Scattered Light (Back/Side)	*Back/Side Scatter*	1 - 4 (1) (2)	25	500 (10)	Bag (1), Cyclone, EP, none	TUV	PM detector	✓	×	×	?	?	✓	×	No
		PCME ProScatter™ /Backscatter	2 - 10	10	500	Bag (1), Cyclone, EP, none	x	PM detector	✓	×	×	×	×	✓	×	No

Notes:

(1) Concentration dependant
(2) Repeatable Flow dependant
(3) Application specific
(4) Stack diameter dependant
(5) No water droplets
(6) No filter - not advised
(7) Model specific
(8) Velocity range 8-20m/sec
(9) Using Wet Stack monitor
(10) Must have constant clean air purge supply 24/7

The above statements are for guidance only and fulfill the majority of application parameters, however, the actual stack conditions will dictate suitability, therefore, a Site Survey Form should always be undertaken to confirm suitability. If in doubt ask ENVEA Ltd for advice.

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