

CHARACTERISTICS OF AIR AND GAS CLEANING METHODS AND EQUIPMENT FOR COLLECTING GASES AND VAPORS

	ABSORPTION	ADSORPTION	COMBUSTION	
			DIRECT	CATALYTIC
	Packed Tower	Carbon Bed	Direct Flame Incinerator	Catalytic Converter
Contaminants	Inorganic Gases HCl, NO ₂ , SO ₂ , NH ₃	Organic Gases and Vapors, Odors	Organic Gases and Vapors, Odors	Organic Gases and Vapors, Odors
Loadings	ppm to %	ppb to %	ppb to %	ppb to %
Overall Efficiency	design dependent	95-99%+	90-99%	90-98%
Pressure Drop, kPa	2-10	1-3	<0.1	0.5 - 1
Initial Cost	Moderate to High	Moderate to High	Low	Moderate
Operating Cost	Moderate to High	Moderate	Extremely High	High
Serviceability	Poor	Fair	Good	Poor
Limitations	Liquid Disposal		Fuel Cost	Catalyst Life