Skid-Mounted Carbon Adsorber – MCS Series

The IMS Model MCS carbon adsorber is a once-through activated carbon odor removal system designed to treat hydrogen sulfide (H2S) & organic odors (VOCs) found in municipal wastewater collection systems and treatment processes. The MCS is a factory- assembled, skid-mounted odor control system complete with exhaust fan, damper, interconnecting ductwork, vessel, activated carbon media and local control panel. All components are mounted, piped, and wired on an epoxy coated carbon steel skid. System is designed for continuous and automatic operation as well as manual operation as required.

Superior Performance Media

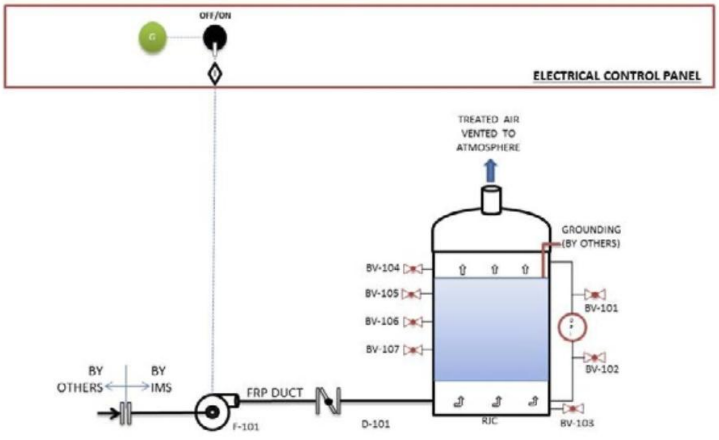
The IMS carbon systems are designed to work with a wide selection of media:

- Virgin activated carbon media for low odor levels
- High-capacity carbon for higher H2S concentrations

MCS

Major System Components

- Epoxy Coated Steel Equipment Skid
- FRP Exhaust Fan
- FRP Transition Duct
- FRP Inlet Damper
- FRP Carbon Adsorber Vessel and Exhaust Stack
- Activated Carbon Media
- Electrical Control Panel



MCS Process & Instrumentation Diagram

How it Works

The exhaust fan operates continuously, pulling foul air from the process area and passing it through the carbon media. A volume control damper at the system inlet allows regulation of airflow through the carbon adsorber.

Inside the vessel, the foul air flows through a densely packed bed of activated carbon. The odorous compounds are removed from the airstream through a combination of physical adsorption and chemisorption. Odorous compounds are physically adsorbed in the carbon pores, and some may undergo chemical reaction to form elemental sulfur and sulfuric acid. This process continues until the activated carbon pores are filled up and the odorous compounds break through and are released out the stack.

System Features and Benefits

- Superior non-corrosive material
- Easy to operate
- Suitable for outdoor installation
- Fan sound enclosure (Optional)
- Compact, skid-mounted design
- Pre-assembled and factory tested

MCS Activated Carbon Odor Control System Standard Model Design Data

Model	Airflow Rate CFM (m^3/h)	Vessel Dimensions I.D. x SSH ft (mm)	Overall Dimension L x W x H ft (mm)	Inlet Connection inches (mm)	Approx. Weight* lbs (kg)	Carbon Weight lbs (kg)	Fan Motor HP (kw)
MCS-018	100 (190)	18 x 54 (460 x 1370)	6.0 x 3.11 x 6.0 (1830 x 1190 x 1830)	4 (100)	100 (450)	160 (70)	1 (.75)
MCS-024	200 (340)	24 x 56 (610 x 1420)	6.0 x 3.11 x 6.2 (1830 x 1190 x 1880)	6 (150)	1200 (550)	280 (130)	1 (.75)
MCS-030	300 (510)	30 x 56 (760 x 1420)	7.0 x 4.5 x 6.2 (2130 x 1350 x 1880)	6 (150)	1500 (680)	440 (200)	2 (1.5)
MCS-036	425 (720)	36 x 58 (910 x 1470)	7.0 x 4.5 x 6.5 (2130 x 1350 x 1960)	8 (200)	1700 (770)	640 (290)	2 (1.5)
MCS-042	600 (1020)	42 x 58 (1070 x 1470)	9.1 x 5.3 x 6.5 (2770 x 1600 x 1960)	8 (200)	2300 (1040)	870 (390)	2 (1.5)
MCS-048	750 (1270)	48 x 60 (1220 x 1520)	9.1 x 3.11 x 6.11 (2770 x 1600 x 2110)	10 (250)	2600 (1180)	1130 (510)	2 (1.5)
MCS-054	1000 (1700)	54 x 60 (1370 x 1520)	10.1 x 6.1 x 6.11 (3070 x 1850 x 2110)	10 (250)	3200 (1450)	1430 (650)	3 (2.25)
MCS-060	1250 (2120)	60 x 62 (1525 x 1570)	10.1 x 6.1 x 7.1 (3070 x 1850 x 2160)	12 (300)	3600 (1630)	1770 (800)	3 (2.25)

**Approx. weight is an Estimate*

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