50 CFM – 7400 CFM

Drum Scrubber (DS)

Unisorb Canada

MODEL NUMBER NOMENCLATURE

DS	Model “DS” Drum Scrubber		
2200	CFM		
BT	Configuration	BT	Blow-thru
		DT	Draw-thru
		PA	Passive
HDPE	Construction	HDPE	High Density Polyethylene
		FRP	Fiberglass
XXX	Options (See List Below)		

OPTIONS

+ IL (Intake Louver); IH (Intake Hood);
+ PF (Pre-filter); MG (Mist and Grease Eliminator); FF (Final Filter);
+ DF (Down Flow); UF (Upflow);
+ MB (Multiple Media Beds); PW (Prewired Control Panel)
+ DS (Discharge Silencer)

The model described above is a Drum Scrubber, 2200 CFM, High Density Polyethylene or Fiberglass construction, with a blower or passive.

SYSTEM DESCRIPTION

The Unisorb Canada Drum Scrubber is a vent control system that is completely self-contained. This system provides a reasonable inexpensive air purification system for small flow odor air streams ranging in volume without prefiltering or mist/grease elimination, 50 to 7,400 CFM.

The Unisorb Canada Drum Scrubber systems may be connected to an exhaust vent and used for passive odor control or environmental emission applications. The most common applications are process vessels; storage tanks (HCL); sewage lift stations; pump stations; and package sewage treatment plants. This configuration can also be used for air purification for corrosion protection of electrical rooms.

Drum scrubbers can be configured to include pre-filters, final filters, or mist/grease eliminators. A blower system can be configured for a blow-thru or draw-thru to ensure active purging of contaminants.

The standard Drum Scrubber air purification system includes the following:

CONSTRUCTION

Choice of casing construction: high density polyethylene drums or Fiberglass construction.

CHEMICAL MEDIA SECTION

This section houses the Unisorb Canada chemical media as selected to suit the specific contaminant control application.

The Drum Scrubber can come complete with media.

Disposal of spent media is made easy by top mounted loading hatches or removal lids for easy access with a vacuum hose for removal. The convenience of not having maintenance personnel exposed to hazardous waste, or captured fumes while changing the media is a great benefit for easy disposal of the Drum Scrubber.

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STANDARD CONSTRUCTION

+ High Density Polyethylene Drum
+ ¼ Turn Snap Acting Positive Pressure Latches
+ Blower - TEFC Motor
+ Single Media Bed
+ 1½” Media Sample Port
+ 1½” Drain Plug Connection
+ On/Off control panel

OPTIONS

- ☐ FRP Drum Construction
- ☐ SS Drum Construction
- ☐ Draw-thru Design
- ☐ Blow-thru Design
- ☐ Downflow Configuration
- ☐ Upflow Configuration
- ☐ Top Loading Hatch (16"D, 20"D, 24"D)
- ☐ Removal Lid (FRP or HDPE tanks)
- ☐ SS Base Construction (304 / 316L)
- ☐ Structural Steel (Epoxy Coated Mild Steel) Base Frame
- ☐ Base Frame w/ Loading Platform (Epoxy Coated Mild Steel Construction)
- ☐ Pre-filter Section with 4" 3-stage Mist and Grease Eliminator section w/ Magnehelic Gauge
- ☐ Multiple Stacked Medias
- ☐ Multiple 1½" Media Sample Ports (Qty:)
- ☐ Intake Louver with Birdscreen
- ☐ Intake Hood with Birdscreen
- ☐ Particulate Pre-filter Section with Magnehelic Gauge
- ☐ Particulate Final Filter Section with Magnehelic Gauge
- ☐ Media Bed Monitor (Main Carbon Bed)
- ☐ Photohelic Differential Pressure Gauges (for signal outputs)
- ☐ Explosion Proof Motor (TEXP)
- ☐ Spark Proof Blower Construction
- ☐ Discharge Silencer
- ☐ Inlet Flange Size – ANSI
- ☐ Isolation Damper
- ☐ Back Draft Damper
- ☐ Other _____

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DS SELECTION GUIDE

DS Modle No.	Air Flow Range (CFM)	Motor Range (HP)	Media Volume (FT^3) *	Shipping Weight Empty (LBS)	Operating Weight (LBS) *
150	50-175	1	5	355	605
300	175-300	1 - 1.5	10	520	970
500	300-500	1.5	15	700	1450
700	420-700	2	21	1005	2055
1250	700-1250	3	38	1290	3190
1850	1200-1850	5	56	1645	4445
3850	1850-3850	10 - 15	115	2080	4955

*Media Volume and Operating Weights based on typical 3' deep media bed

SPECIFICATIONS

1.0 PURPOSE

A Unisorb Canada Drum Scrubber air purification system is to be provided for this application. The system shall be a complete package designed for controlling odors from tank vents. The system shall be connected to an exhaust vent.

2.0 DESIGN

2.1 The manufacturer shall have a minimum of 5 years of history in design, fabrication, and testing of similar air purification systems. The system shall provide a minimum airflow capacity as outlined in the specification parameters.

2.2 The air purification system shall have a chemical media bed, and a fan blower section to as required suit the specific requirements.

2.3 The system shall be configured either in a passive or active blow-thru or draw-thru configuration as suited to the application.

2.4 The manufacturer shall guarantee a minimum life expectancy for the system according to the inlet and outlet contaminant levels for this application. Discharge contaminant levels shall not exceed defined parameters at any time before media expiry.

3.0 CONSTRUCTION AND FABRICATION

3.1 To produce high quality low distortion welds, the GTAW (TIG) welding process, HDPE injection molded, FRP shall be used.

4.0 CHEMICAL MEDIA

4.1 The chemical media shall be as selected for this application with minimum performance and physical characteristics as defined for the application. Media data sheets, current SDS information and original samples are to be provided by the manufacturer.

4.2 The media bed depth, bed volume, and residence time shall meet or exceed the minimum requirements.

4.3 Media bed face velocities shall not exceed the specified rate for this application.

4.4 Media pressure losses shall not exceed the design limitations.

5.0 PACKAGING & HANDLING

5.1 The air purification system shall be capable of preventing any deflection during rigging, handling, transportation, operation, or servicing.