

nordic water



Odour Control System

OCS

CARBONS ADSORPTION SYSTEMS

Carbon adsorption is an effective means of odor control for many applications. Carbon adsorbers can efficiently remove a variety of inorganic and organic compounds from municipal and industrial process air. Typical compounds adsorbed include hydrogen sulfide, aldehydes, ketones, and a wide range of industrial solvents and volatile organic compounds, ammonia, amines, mercury, sulfur dioxide, chlorine, hydrochloric acid, poisonous gases, phenols, butyric acid.

Carbon adsorbers are particularly useful for low air flows, low odor loads, remote locations, and for the control of specific volatile organic compounds. We offer a complete line of carbon adsorption systems, ranging from skid-mounting modular systems to custom designed, single and dual-bed systems capable of handling air flows in excess of 20,000cfm.

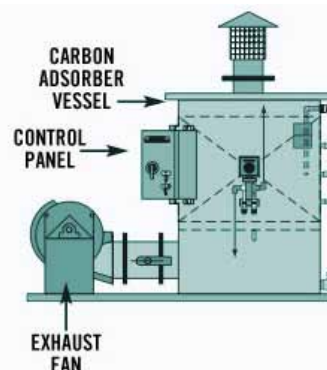
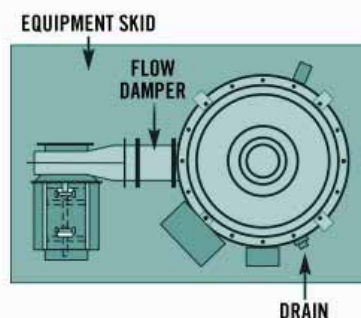
TYPICAL APPLICATIONS

These adsorber systems effectively control odors for acid gases, sulfides, mercaptans, and similar compounds originated from treatment facilities, petrochemical plants, pulp and paper mills, and other industrial sites.

- Wastewater treatment plants
- Life stations
- Petroleum facilities
- Semi-conductor manufacturing
- Paper and pulp mills
- Chemical plants
- Dechlorination facilities
- Electroplating facilities
- Dry cleaning facilities

FEATURES AND BENEFITS

- Pre-assembled and skid-mounted for simple installation
- Models for air flowrates from 100 to 20000 cfm
- Passive flow systems available
- High performance carbon media
- Vessel constructed of polypropylene or premium vinyl ester fiberglass reinforced plastic, stainless steel
- Fan manufactured of stainless steel or fiberglass reinforced plastic
- Includes control panel, drain and grounding rod
- Available with volume control damper, carbon sample ports, differential pressure gauge
- 4 x 6 pellerized carbon provides lower pressure drop than other types



NW-ACS MODELS

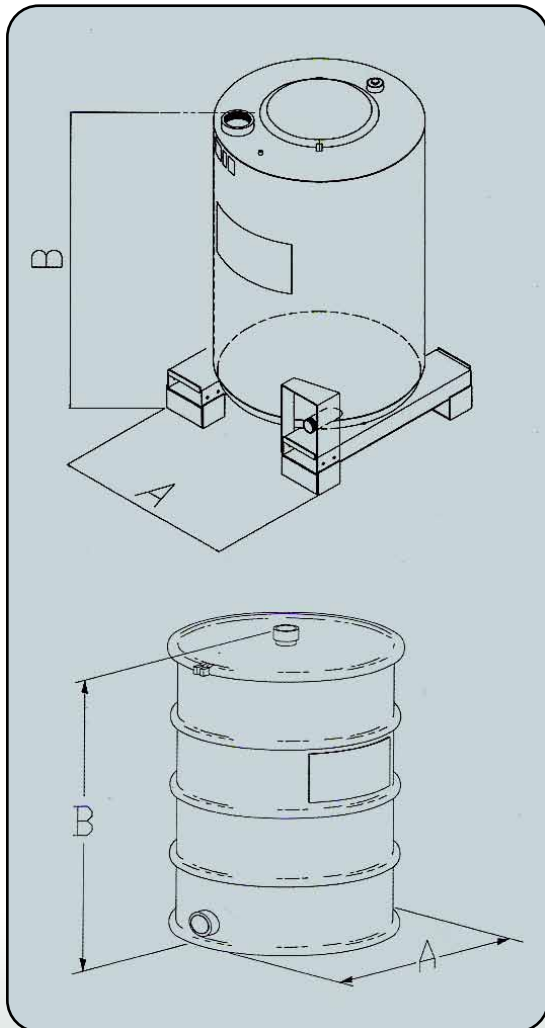
Nordicwater has a complete range of equipments. Active types (with fan and interconnector pipes include) and passive types for natural process ventilator in place of fan.

NW-ACS-P (Passive Types) MODELS

Contaminated air can simply be ducted to one or more adsorbers which contain specially selected activated carbon. The carbon adsorbs the pollutants or odor producing chemicals, allowing clean air to be vented to the atmosphere.

APPLICATIONS

- Air stripper exhaust
- Tank venting
- Emission control
- Pilot studies
- Soil vapor extraction systems
- Sewage plant odor control
- Work area protection



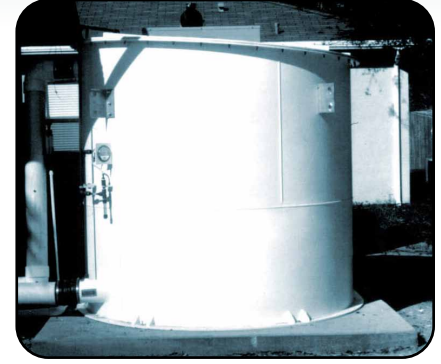
Specifications

| Model Number | NW-170 | NW-500 | NW-1000 | NW-2000 |
|------------------------------|--------|--------|---------|---------|
| Maximum Flow | 100cfm | 300cfm | 500cfm | 500cfm |
| Minimum Carbon Weight (lbs.) | 170 | 500 | 1000 | 2000 |
| Maximum Pressure (psig) | 8 | 10 | 10 | 10 |
| Dimension A (in.) | 23 | 35 | 46 | 46 |
| Dimension B (in.) | 34 | 60 | 64 | 88 |
| System Pressure Drop | 4" wc | 8" wc | 12" wc | 19" wc |

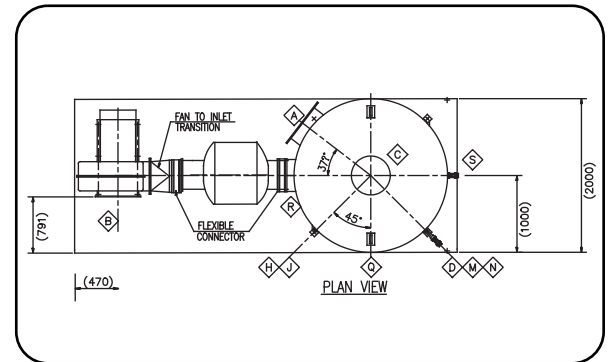
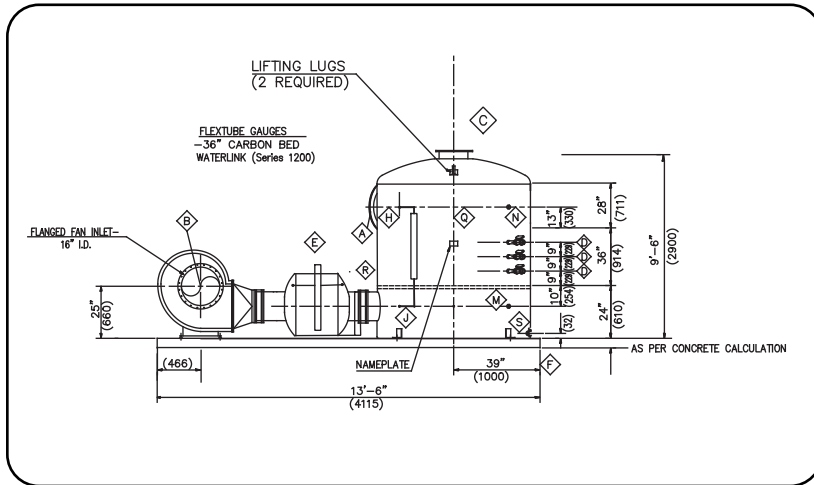


NW-ACS-A (Active Type Adsorbers) MODELS

For larger air flows rates NW offers custom designed single and dual bed carbon adsorbers. Carbon adsorbers units can be designed to handle in excess for 20,000 cfm. As with the modular carbon adsorber system, the carbon media type is selected based on the specific application.

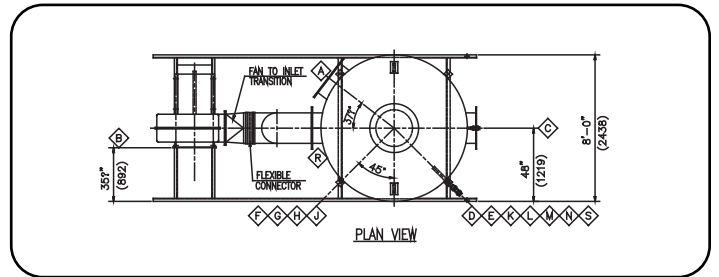
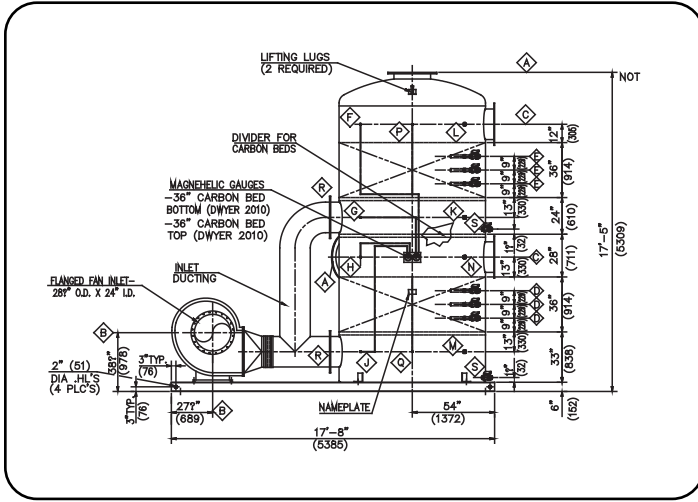


NW-ACS-AS (Single Bed Active Type Adsorbers)



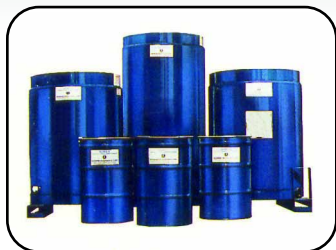
| Model | Flow rate (125 mm.w.c) 4°C Sm ³ /h Scfm | Fan Model | HP | Diameter mm | Height mm | Weight Kg | Inlet/Outlet Diameter mm |
|---------------|--|-----------|-----|----------------|--------------|--------------|-----------------------------|
| NWACS-AS-200 | 340 200 | 2 | 0.5 | 540 | 1600 | 320 | 100 |
| NWACS-AS-450 | 765 450 | 4.5 | 1 | 820 | 1700 | 590 | 150 |
| NWACS-AS-800 | 1360 800 | 8 | 2 | 1100 | 1900 | 980 | 200 |
| NWACS-AS-1250 | 2120 1250 | 12.5 | 2.5 | 1300 | 2200 | 1400 | 250 |
| NWACS-AS-1500 | 2550 1500 | 15 | 3 | 1500 | 2400 | 1800 | 300 |
| NWACS-AS-2100 | 3600 2100 | 21 | 4 | 1800 | 2600 | 2500 | 350 |
| NWACS-AS-2600 | 4400 2600 | 26 | 6 | 2000 | 2800 | 3300 | 400 |
| NWACS-AS-3300 | 5600 3300 | 33 | 8 | 2200 | 2900 | 4200 | 450 |
| NWACS-AS-4300 | 7300 4300 | 43 | 8 | 2500 | 3100 | 5200 | 500 |
| NWACS-AS-5200 | 8850 5200 | 52 | 10 | 2800 | 3300 | 6200 | 550 |
| NWACS-AS-6200 | 10500 6200 | 62 | 16 | 3000 | 3500 | 7400 | 600 |

NW-ACS-AD (Dual Beds Active Type Adsorbers)



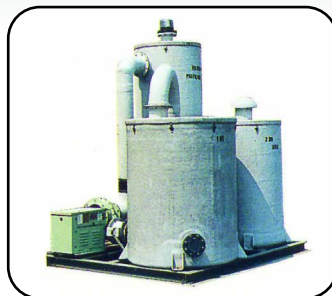
| Model | Flow rate (125 mm.w.c) 4°C | Fan Model | HP | Diameter mm | Height mm | Weight Kg | Inlet/Outlet Diameter mm |
|----------------|----------------------------|-----------|----|----------------|--------------|--------------|-----------------------------|
| | Sm ³ /h Scfm | | | | | | |
| NWACS-AD-3000 | 5100 3000 | 30 | 6 | 1600 | 4500 | 3700 | 400 |
| NWACS-AD-4200 | 7100 4200 | 42 | 8 | 1800 | 4800 | 5100 | 450 |
| NWACS-AD-5200 | 8800 5200 | 52 | 10 | 2000 | 5100 | 6600 | 550 |
| NWACS-AD-6600 | 11200 6600 | 66 | 16 | 2300 | 5400 | 8300 | 600 |
| NWACS-AD-8600 | 14600 8600 | 86 | 16 | 2600 | 5900 | 10300 | 700 |
| NWACS-AD-10400 | 17700 10400 | 104 | 18 | 2800 | 6100 | 12300 | 750 |
| NWACS-AD-12400 | 21100 12400 | 124 | 20 | 3000 | 6300 | 14700 | 800 |

ENGINEERED EQUIPMENT AND SYSTEMS



PORTABLE ADSORBERS

Low cost, adsorbers are widely used for short-term air and water purification. Available in drums, canisters, and in reinforced vessels for pressures to 150 psig. Easily installed units permits high flexibility in treatment system design.



ODOR CONTROL SYSTEMS

Adsorption systems control odors from acid gases, sulfides, mercaptans, etc., and are commonly specified in municipal and industrial wastewater treatment plants. FRP construction protects unit from corrosion.



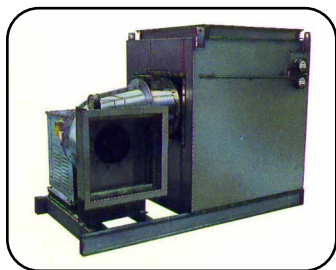
CONTAINMENT HOUSINGS

All-stainless housing use high efficiency carbon and/or particulate filters to isolate and remove potentially hazardous gases. Bag-out system protects personnel from toxic or radioactive contaminants during filter changeout.



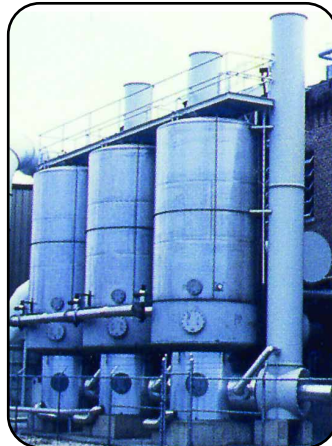
PACKAGED SOLVENT RECOVERY SYSTEMS

Pre-assembled, skid-mounted plants are ideal for applications with airflows to 7000 scfm. Units are factory tested and documented to minimize installation/startup efforts and space requirements.



VERTICAL DEEP BED ADSORBERS

This versatile system purifies airstream in many industrial and commercial environments. Its compact, energy efficient design lowers operating costs and floor space requirements. Standard and customized systems can handle air volumes to 30,000 scfm and more.



SITE-INSTALLED SOLVENT RECOVERY SYSTEMS

Expertly designed installations can treat up to 300,000 scfm of solvent laden air. Savings in process solvents can cost-justify a system in as little as six months. Complete turnkey service included process design, procurement, installation, start-up, and operator training.



CONCENTRATORS

The deep bed rotary concentrator is designed for economical removal of low concentration VOC/HAPs in high volume airstreams. Organics are adsorbed on rotating carbon cells, then desorbed into a more concentrated low volume airstream for efficient downtime recovery or destruction.



SOIL VAPOR EXTRACTION

Mobile systems treat up to 1000 lbs. per day of vapor contaminants drawn from multiple extraction wells. Engineered units include carbon adsorbers, high pressure vacuum blowers, liquid entrainment separators, and instrumentation.

MAJOR MARKETS SERVED

- Pigments
- Wood Preservatives
- Ceramics
- Water Treatment
- Catalysts
- Chemical Processing
- Steel
- Pharmaceutical
- Food/Beverage
- Sugar/Sweeteners
- Gas/Oil Refineries
- Pollution Control

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