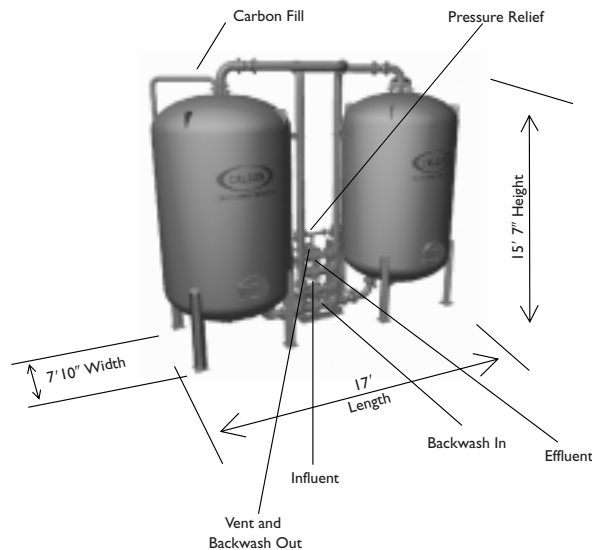


## MODEL 6

### Modular Carbon Adsorption System



#### Description

The Calgon Carbon Model 6 is an adsorption system designed for the removal of dissolved organic contaminants from liquids using granular activated carbon. The modular design concept allows for the selection of options or alternate materials to best meet the requirements of the customer's site and treatment application.

The Model 6 system is delivered as two adsorbers and a separate compact center piping network, requiring only minimal field assembly and site connections. An optional platform skid is available to facilitate installation. The pre-engineered Model 6 design assures that all adsorption system functions can be performed with the equipment process design.

The process piping valve network for the Model 6 offers operation of the adsorbers in parallel or series flow (with either adsorber placed in the lead stage). The piping valve network can also isolate either adsorber from the process flow. This permits carbon exchange or backwash operations to be performed on one adsorber without interrupting treatment.

The under-drain design provides for the efficient collection and uniform distribution of treatment water and the uniform distribution of backwash water. The Model 6 system is designed for use with Calgon Carbon's closed loop carbon exchange service. Using specially-designed trailers, spent carbon is removed from the adsorbers in a closed loop and returned to Calgon Carbon for reactivation. The transfer is accomplished without exposure of operating personnel to contaminated liquid. The trailers also recharge the adsorbers with fresh activated carbon.

#### System Specifications

##### Carbon Adsorbers

- Carbon steel ASME code stamped pressure vessels
- Internal vinyl ester lining (25 to 35 mils) for potable water and most liquid applications (recommended)
- Polypropylene slotted nozzles for water collection and backwash distribution

##### Standard Adsorption System Piping

- 4" schedule 40 carbon steel process piping with cast iron fittings accommodates lead/lag flow
- Cast iron butterfly valves for process piping
- PPL lined steel pipe for carbon discharge
- Full bore stainless steel ball valves for carbon fill and discharge pipelines

##### System External Coating

- Epoxy mastic paint

##### Available Options

- System platform skid
- In-bed water sample collection probes
- Process pipe sizes and materials of construction

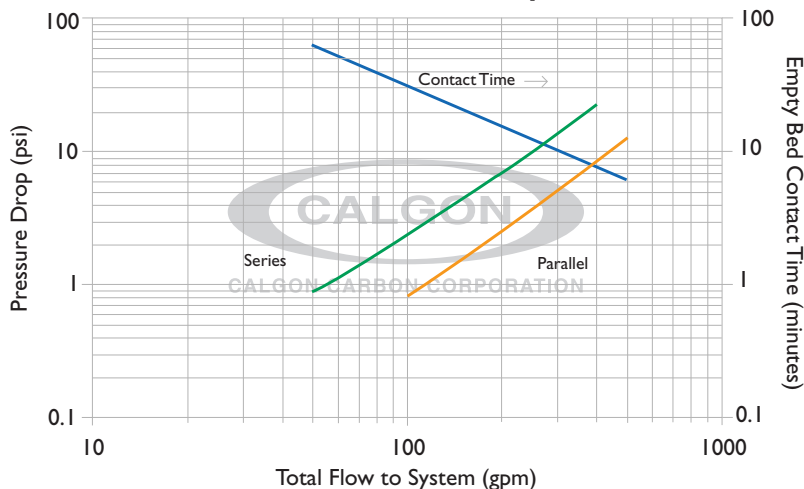
#### Equipment and Systems

Visit our website at [www.calgoncarbon.com](http://www.calgoncarbon.com), or call 800-422-7266 to learn more about our complete range of products and services, and obtain local contact information.

# MODEL 6

## Modular Carbon Adsorption System

### Model 6 Pressure Drop F300, 55F, 4" Steel Pipe



#### Operating Conditions

Carbon per Adsorber	6,000 lbs. (2,700 kg)
Pressure Rating	75 psig (517 KPa)
Pressure Relief	Graphite rupture disk (67 psig)
Vacuum Rating	14 psig
Temperature Rating	140°F maximum (65°C)
Backwash Rate	Typical 360 gpm (30% expansion)
Carbon transfer	Air pressure slurry transfer
Utility Air	100 scfm at 30 psig (reduce to 15 psig for trailer)
Utility Water	100 gpm at 30 psig
Freeze Protection	None provided; enclosure or protection recommended

#### Dimensions and Field Conditions

Adsorber Vessel Diameter	6 ft. (1,830 mm)
Process Pipe	4 in.
Process Pipe Connection	125# ANSI flange
Utility Water Connection	3/4 in. hose connection
Utility Air Connection	3/4 in. hose connection
Carbon Hose Connection	3 in. Kamlok type
Backwash Connections	4 in. flange
Adsorber Maintenance Access	20 in. round flanged manway
System Shipping Weight (empty)	14,000 lbs. (empty) (6,400 kg)
System Operating Weight	60,000 lbs. (27,000 kg)

#### Safety Message

Wet activated carbon preferentially removes oxygen from air. In closed or partially closed containers and vessels, oxygen depletion may reach hazardous levels. If workers

are to enter a vessel containing carbon, appropriate sampling and work procedures for potentially low oxygen spaces should be followed, including all applicable Federal and State requirements.

Visit our website at [www.calgoncarbon.com](http://www.calgoncarbon.com)



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