

# **OIL ADSORBING CARTRIDGE**

- . Modified cellulose-based filter material chemically bonds specifically with hydrocarbons and other pollutants such as dissolved and dispersed oils in water
- Instantaneous adsorption, more effective than activated carbon
- Up to 90 percent of total hydrocarbons are removed in a single pass
- For use in 20-inch Big Blue® filter housings

The OAC-20BB filter cartridge is made from modified cellulose-based filter media which is processed into sheets and assembled into cartridges for use in standard 20-inch Big Blue filter housings.

#### **Features**

- Instantaneous adsorption up to 90 percent of total hydrocarbons removed in a single pass
- High flow rates
- Removes dissolved and dispersed oils
- Low pressure drop

• Media can hold 250-300 percent of its own weight, with no release of removed hydrocarbons

#### Applications

- Gas and oil facilities
- Leisure/commercial shipping bilge water
- Surface water runoff (truck stops, airports, parking lots)
- Auto service stations
- Machine shops
- Industrial processes
- Factories and repair shops
- Car and truck washes

### Installation

Certain applications may require pre-filtration.

#### Change-Out Frequency

Change-out frequency will depend on the oil burden in the application. Because no appreciable increase in pressure drop is observed during service life, the filter must be changed when its adsorption capacity is exhausted.

Dimensions

Length Outside Diameter

20.125 in. (511 mm) 4.5 in. (114 mm) 1.110 in. (28 mm) Core I.D. 125°F (51.7°C)

Temperature Limit Flow Rate 5-10 gpm (19-38 L/min) Pressure Drop (at 5-10 gpm) 0.2-1.0 psi (0.01-0.07 bar) Material Specifications

End Caps Center Core Outer Net

Media Area

Weight Chemical Notification # PVC Plastisol Natural Polypropylene Polyethylene

Modified Cellulose 18 sq. ft. (1.6 sq. m.) 1.75 lbs. (0.8 kg)

0 (zero)



# OAC-20BB Oil Adsorbing Cartridge

## Specific Gravity, Viscosity, and Weights of Common Liquids

Liquid	Specific Gravity	Viscosity 60°F	Weight lbs/gallon					
Miscellaneous Liquids								
Water	1.0	31.5	8.33					
Gasoline	.6874	30	5.6-6.2					
Jet Fuel	.7485	35	6.2-7.1					
Kerosene	.7882	38	6.5-6.8					
Turpentine	.8687	33	7.2					
Varnish Spar	0.9	1600	7.5					
Fuel Oil and Diesel Oil								
No.1 Fuel Oil	.8295	38	6.8-7.9					
No.2 Fuel Oil	.8295	50	6.8-7.9					
No.3 Fuel Oil	.8295	68	6.8-7.9					
No.5A Fuel Oil	.8295	400	6.8-7.9					
No.5B Fuel Oil	.8295	600	6.8-7.9					
No.6 Fuel Oil	.8295	70000	6.8-7.9					
No.2D Diesel Fuel	.8295	68	6.8-7.9					
No.3D Diesel Fuel	.8295	120	6.8-7.9					
No.4D Diesel Fuel	.8295	600	6.8-7.9					
No.5D Diesel Fuel	.8295	5000	6.8-7.9					
Crankcase Oil - Auton	nobile Lubricati	ng Oils						
SAE 10	.88935	600-900	7.3-7.8					
SAE 20	.88935	900-3000	7.3-7.8					
SAE 30	.88935	3000-4400	7.3-7.8					
SAE 40	.88935	4400-6000	7.3-7.8					
SAE 50	.88935	6000-10000	7.3-7.8					
SAE 60	.88935	10000-17000	7.3-7.8					
SAE 70	.88935	17000-45000 7.3-7.8						
Transmission Oils - Automobile Transmission Gear Lubricants								
SAE 90	.88935	5500 7.33-7.79						
SAE 140	.88935	12000 7.33-7.79						
SAE 250	.88935	50000 7.33-7.79						

Liquid	Specific Gravity	Viscosity 60°F	Weight lbs/gallon				
Other Oils							
Castor Oil	0.96	9000	8.00				
Chinawood	0.943	1800	7.85				
Coconut	0.925	500	7.70				
Cod	0.928	600	7.73				
Corn	0.924	700	7.70				
Cotton Seed	.88 – .925	600	7.33 – 7.7				
Cylinder	.82 – .95	14000	6.83 – 7.9				
Navy No.1 Fuel	0.989	1100	8.24				
Navy No.2 Fuel	1.0	24000	8.33				
Gas	.887	90	7.39				
Insulating Lard	.912925	600	7.6 – 7.7				
Linseed	.925939	500	7.7 – 7.82				
Raw Menhadden	0.933	500	7.77				
Neats Foot	0.917	1000	7.64				
Olive	.912918	550	7.6 – 7.65				
Palm	0.924	700	7.70				
Peanut	0.92	500	7.66				
Quencing		900					
Rape Seed	0.919	900	7.65				
Rosin	0.98	7800	8.16				
Rosin (Wood)	1.09	Extreme Viscose	9.1				
Sesame	0.923	500	7.69				
Soya Bean	.92798	475	7.72 – 8.16				
Sperm	0.883	250	7.35				
Turbine (Light)	0.91	350 7.58					
Turbine (Heavy)	0.91	1400 7.58					
Whale	0.925	450	7.70				

#### **Performance**

The Oil Adsorbing cartridge typically reduces hydrocarbon contamination up to 90-95 percent in a single pass. Lower outlet levels of hydrocarbons can be achieved by connecting cartridges in series. Higher flow rates also can be achieved by connecting cartridges in parallel.

**Hydrocarbon-adsorbing capacity:** The cartridge media has the potential to remove up to 2270 grams (*5* lbs.) hydrocarbon contaminant. On this basis, the table below provides expected life data in hours or gallons at several contaminant levels based on a 10 gpm flow rate per 4.5" x 20" cartridge.

Hydrocarbon Concentration (PPM)	Hydrocarbon Concentration (% by weight)	Hydrocarbon Removal per Minute (grams)	Estimate Life in Hours	Gallons Fluid Treated	Estimated Cost per Gallon of Treated Fluid
10	0.001	0.36	106	63,308	0.001
100	0.01	3.6	10.6	6,330	0.01
1000	0.1	36	1.1	633	0.11

NOTE: Operating flow will vary based on applications, type of pollutants, flow rates and level of contamination.

DISPOSAL: Safe and acceptable method to meet all local and EPA regulations is recommended. End user is responsible for safe disposal of used cartridge at user's cost. Consult factory for additional information.



