



OAC-20BB

## OIL ADSORBING CARTRIDGE

**Modified cellulose-based filter material chemically bonds specifically with hydrocarbons and other pollutants such as dissolved and dispersed oils from water**

**Instantaneous adsorption, more effective than activated carbon**

**90 percent of total hydrocarbons are removed in a single pass**

**For use in 20-inch Big Blue® filter housings**

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

### Features

- Instantaneous adsorption - over 90 percent of total hydrocarbons removed in a single pass in most instances
- 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 they have to handle. Because no appreciable increase in pressure drop is observed during service life, the filter must be changed when its adsorption capacity is exhausted.

<b>Dimensions</b>		<b>Material Specifications</b>	
Length	20.125 in. (511 mm)	End Caps	Black PVC Plastisol
Outside Diameter	4.5 in. (114 mm)	Center Core	Natural Polypropylene
Core I.D.	1.110 in. (28 mm)	Outer Net	Polyethylene
Temperature Limit	125°F (51.7°C)	Media	Modified Cellulose
Flow Rate	5-10 gpm (19-38 lpm)	Area	18 sq. ft. (1.6 sq. m.)
Pressure Drop (at 5-10 gpm)	0.2-1.0 psi (0.01-0.07 bar)	Weight	1.75 lbs. (0.8 kg)
		Chemical Notification #	0 (zero)

# OAC-20BB

## Oil Adsorbing Cartridge



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

Liquid	Specific Gravity	Viscosity 60°F	Weight lbs/gallon	Liquid	Specific Gravity	Viscosity 60°F	Weight lbs/gal.
<b>Miscellaneous Liquids</b>				<b>Other Oils</b>			
Water	1.0	31.5	8.33	Castor Oil	0.96	9000	8.00
Gasoline	.68-.74	30	5.6-6.2	Chinawood	0.943	1800	7.85
Jet Fuel	.74-.85	35	6.2-7.1	Coconut	0.925	500	7.70
Kerosene	.78-.82	38	6.5-6.8	Cod	0.928	600	7.73
Turpentine	.86-.87	33	7.2	Corn	0.924	700	7.70
Varnish Spar	0.9	1600	7.5	Cotton Seed	.88 – .925	600	7.33 – 7.7
<b>Fuel Oil and Diesel Oil</b>				Cylinder	.82 – .95	14000	6.83 – 7.9
No.1 Fuel Oil	.82-.95	38	6.8-7.9	Navy No.1 Fuel	0.989	1100	8.24
No.2 Fuel Oil	.82-.95	50	6.8-7.9	Navy No.2 Fuel	1.0	24000	8.33
No.3 Fuel Oil	.82-.95	68	6.8-7.9	Gas	.887	90	7.39
No.5A Fuel Oil	.82-.95	400	6.8-7.9	Insulating Lard	.912-.925	600	7.6 – 7.7
No.5B Fuel Oil	.82-.95	600	6.8-7.9	Linseed	.925-.939	500	7.7 – 7.82
No.6 Fuel Oil	.82-.95	70000	6.8-7.9	Raw Menhadden	0.933	500	7.77
No.2D Diesel Fuel	.82-.95	68	6.8-7.9	Neats Foot	0.917	1000	7.64
No.3D Diesel Fuel	.82-.95	120	6.8-7.9	Olive	.912-.918	550	7.6 – 7.65
No.4D Diesel Fuel	.82-.95	600	6.8-7.9	Palm	0.924	700	7.70
No.5D Diesel Fuel	.82-.95	5000	6.8-7.9	Peanut	0.92	500	7.66
<b>Crankcase Oil - Automobile Lubricating Oils</b>				Quencing	--	900	--
SAE 10	.88-.935	600-900	7.3-7.8	Rape Seed	0.919	900	7.65
SAE 20	.88-.935	900-3000	7.3-7.8	Rosin	0.98	7800	8.16
SAE 30	.88-.935	3000-4400	7.3-7.8	Rosin (Wood)	1.09	Extreme Viscose	9.1
SAE 40	.88-.935	4400-6000	7.3-7.8	Sesame	0.923	500	7.69
SAE 50	.88-.935	6000-10000	7.3-7.8	Soya Bean	.927-.98	475	7.72 – 8.16
SAE 60	.88-.935	10000-17000	7.3-7.8	Sperm	0.883	250	7.35
SAE 70	.88-.935	17000-45000	7.3-7.8	Turbine (Light)	0.91	350	7.58
<b>Transmission Oils - Automobile Transmission Gear Lubricants</b>				Turbine (Heavy)	0.91	1400	7.58
SAE 90	.88-.935	5500	7.33-7.79	Whale	0.925	450	7.70
SAE 140	.88-.935	12000	7.33-7.79				
SAE 250	.88-.935	50000	7.33-7.79				

### Performance

Oil Adsorbing cartridge typically reduces hydrocarbon containment 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 parallel to each other.

**For 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.



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