



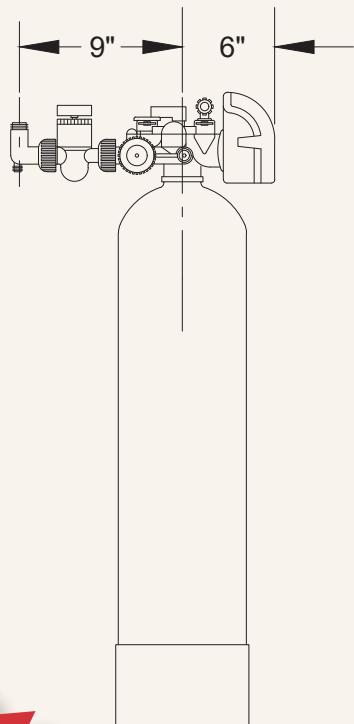
# LANCASTER

## WATER TREATMENT

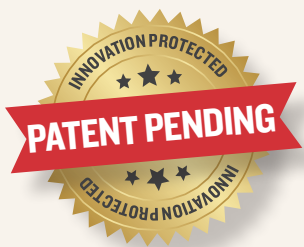
DIAMOND LINE LXBCAT - CITYGUARD PRO FILTERS

### X-FACTOR SERIES LXBCAT CITYGUARD PRO FILTER

OUTLET SIDE VIEW  
SHOWN WITH BYPASS  
AND 1.0 MNPT ELBOW  
ASSEMBLY



FRONT VIEW



LXBCAT PROGRAM CYCLES*		CITYGUARD PRO LX FILTER	
Model Number		7-LXBCAT-1.5B	
Units:	Minutes	Gallons	
1st Cycle: Backwash	10	53	
2nd Cycle: Rinse	5	26.5	
3rd Cycle: End		-	
DLFC - GPM		5.3	
Total Gallons to Drain		79.5	
Total Minutes		15.0	
Days Between Backwash**		7	

\*Factory Program Settings. To adjust cycle programming, consult factory.

\*\*Factory Program Setting. Days between backwash can be field adjusted based on local conditions. Refer to manual.



# X-FACTOR SERIES LXMB CAT CITYGUARD PRO FILTER

LXMB CAT SPECIFICATIONS		CITYGUARD PRO LX FILTER [PATENT PENDING]		
Model Number		7-LXMB CAT-1.5B		
Inlet/Outlet Fitting Options (Inches) <sup>1</sup>		0.75 - 1.0 <sup>1</sup> - 1.25 - 1.5		
Bypass Included		Yes		
Drain Fitting Elbow NPT (Inches)		3/4 NPT		
Water Pressure Range (PSI)		20 - 100		
Water Operating Temperature Range (°F)		35 - 100		
Plug-In Power Adapter Input (VAC - Hz - A)		120V AC - 60Hz - 0.35A		
Plug-In Power Adapter Output (VDC - A)		15V DC - 0.5A		
Plug-In Power Adapter Cord Length (FT)		15 FT		
PC Board Relay Terminal Block DC Output (V)		12V DC		
3 Volt Lithium Coin Cell Battery (Type)		CR2032		
Cubic Feet of Catalytic Carbon - PN: LWG-CSH-SS (LBS) <sup>2</sup>		1.0 (28 LBS)		
Service Flow Rates (GPM) <sup>3</sup>	Recommended Maximum	Organics	1.0	
		Chlorine	RO Feed	2.0
			Commercial	3.0
	Chloramine	1.87		
	Typical	Continuous	2.7	
Intermittent (Peak)		5.5		
Cubic Feet of Zeolite - PN: A8023 (LBS) <sup>4</sup>		0.5 (25 LBS)		
Reduction of Suspended Matter/Solids (µm)		5 micron		
#20 Flint Gravel Support Bedding - PN: A8072-15 (LBS)		15.0		
Overall Height (Inches)		61.4		
Mineral Tank Size: Diameter x Height - PN: FG1054 (Inches)		10 x 54		
Top Distributor Type		None (N/A)		
Trident EcoSense-Filled Distribution Tube with Bottom Distributor Assembly		DTAS-54		
Cubic Feet of EcoSense Media (Filtersorb SP3) - PN: SP-3 (LBS) <sup>5</sup>		0.02 (1.0 LBS)		
Bottom Distributor Type		Stack - II Segment		
Drain Line Flow Control - PN: V3162-053 (GPM)		5.3		
Water to Drain (Gallons)		79.5		

<sup>1</sup>1.0 MNPT Elbow Standard - Options Available

<sup>2</sup>Mineral used: Catalytic-High Activated Carbon. Used for removal of chlorine, chloramine, color, taste, odor and low levels of sulfur, etc. Catalytic Carbon's large micropore volume is well suited for removal of low molecular weight organic compounds and their chlorinated by-products such as chloroform and other trihalomethanes (THMs). Upon installation allow bed to soak a minimum of 12 hours; for best results soak for 24 hours before backwashing. The mineral bed should be backwashed periodically to eliminate accumulated suspended matter and re-grade the bed. Catalytic Carbon has an extremely high capacity but must be replaced when the filter bed loses the capacity for reduction of chlorine or chloramines. With an influent chlorine (Cl<sub>2</sub>) level of 1.0 ppm, CityGuard Pro has a 1,000,000 gallons capacity for dechlorination of water based on a 4 GPM service flow rate, 7.0 pH, and 70 °F. Higher influent chlorine levels will require lower service flow rates to achieve the same gallons capacity for dechlorination of water.

<sup>3</sup>Basis for Service Flow Rates:

Continuous - 5 GPM/SQ. FT.  
Intermittent (Peak) - 10 GPM/SQ. FT.  
Organics: 1 GPM/CU. FT.

Higher flow rates are possible, however lower flow rates produce higher quality water.  
Empty Bed Contact Time for Chloramine Removal using Catalytic Carbon ... at least 4 minutes.  
Service Flow Rate (GPM) =  $\frac{\text{Bed Volume (CU. FT.)} \times 7.481 \text{ Gallons/CU. FT.}}{\text{Empty Bed Contact Time in Minutes}}$

<sup>4</sup>Clinoptilolite, a natural zeolite media with a large surface area and microporous structure, which can be used as a highly efficient filter media for the reduction of suspended matter down to 5 micron level.

<sup>5</sup>Mineral used: Filtersorb SP3 is a scale prevention media, developed and produced in Germany by CWG (Chopra Water Group) / Watch Water Germany, and is distributed in the USA by Watch Water USA. Filtersorb SP3 is **NOT** an ion exchange resin therefore should **NOT** be considered a water softening media. Filtersorb SP3 is a "GREEN" alternative to ion exchange softeners.

**Primary Benefits:** Filtersorb SP3 media prevents the formation of scale on heating elements and on the pipes and hardware of plumbing systems. Water is directed UPFLOW through a fluidized layer of media which acts as a catalyst, pulling the hardness minerals of calcium and magnesium out of solution. The media (ceramic coated modified acrylic polymer beads) transforms the calcium and magnesium cations into neutral inactive crystal particles. The crystal particles attach to the media for a short time until they cluster to nano-sized particles and break off, freely flowing through the system and not able to attach to any surfaces. The process is called NUCLEATION ASSISTED CRYSTALLIZATION or NAC. The media also effectively descales existing scale buildup within the plumbing system. During the NAC process, dissolved carbon dioxide (CO<sub>2</sub>) is released as near-visible micro-bubbles, which gradually reduce previous formed scale over a period of time determined by water usage.

**Additional Benefits:**

Maintenance Free  
Chemical Free  
Salt Free  
WQA Gold Seal ANSI/NSF 61 (Health Effects)

**SP-3 Operating Parameters:**

pH 6.5 - 9.5 (6.8 - 7.5 optimum pH range for calcium carbonate).  
Ferrous Iron (Soluble) < (less than) 0.3 mg/L (or ppm).  
Manganese (Soluble) < (less than) 0.05 mg/L (or ppm).  
No Hydrogen Sulfide, Oil, Grease or Polyphosphates.  
Hardness 25 gpg (grains per gallon) max. for CityGuard Pro.  
Copper 1.3 mg/L (or ppm) max.  
Install CityGuard Pro in new facilities with copper pipe after six weeks of water use.  
Do not exceed CityGuard Pro typical flow rates shown in table above.  
Designed for intermittent flow applications for best results.  
The effective average lifespan of Filtersorb SP3 is 5 to 7 years, depending on the feed water conditions.