#### PRODUCT DATA

CLEAN-LINE™ SERIES 05FB/07FB PD-CLFB-03A JANUARY 2003 AIR FILTRATION EQUIPMENT

## CLEAN-LINE™ SERIES 05FB AND 07FB

2" AND 4" FLAT BANK FILTER HOUSINGS



## CONSTRUCTION FEATURES

- 16 GAUGE ALUMINIZED STEEL
- FACTORY ASSEMBLED
- (2) HINGED ACCESS DOORS
- GASKETED ACCESS DOORS
- 2" OR 4" STEEL FILTER TRACKS
- 1 1/2" MOUNTING FLANGES

### **Options**

Weatherproofing for outside installations consists of a pitched roof, rain guards over the doors and a permanent (non-silicon) sealer at all seams. Insulation is available in 1 inch thick, 1.5 pound density applied to the exterior of the access doors and the unit. BLC's Double Wall Insulation combats vibration, noise and condensation (protecting the quality of the filtered air). With this application, the insulation is enclosed with 24 gauge aluminized panels ensuring the insulation's integrity for the life of the unit. Adapter flanges for all commercial air handling units and adapter flanges to meet any ductwork requirements are available. Stainless Steel, Epoxy Coating or High Pressure options are also available.

## Flat Bank

The BLC Flat Bank Filter Housing is engineered to provide a rugged one piece unit. It is completely factory assembled, ready for immediate installation when received at the job site. Unit sizes range from 1 foot wide x 2 feet high to 10 feet wide x 7 feet high. The BLC Flat Bank Housing for the HVAC industry is offered in two styles to provide filtration flexibility. Supplied with 2 inch steel filter slide tracks, the 2 inch Flat Bank Housing will accommodate 2 inch panel styled filters in a minimal depth of 5 3/16 inches. Equipped with 4 inch steel filter slide tracks, the 4 inch Flat Bank Housing utilizes 4 inch panel styled filters in a unit depth of 7 3/16 inches to achieve the maximum square footage of filtering area for the Flat Bank Series. All models of the Flat Bank Housing require only 2 sizes of filters, 12 x 24 and 24 x 24 (nominal) in 2 or 4 inch depths; thereby reducing stocking requirements and eliminating confusion when change-out of the filters are required.

#### CONSTRUCTION

Aluminized steel provides superior corrosion and heat resistance, resulting in longer product life and appearance. Aluminized steel offers an improved overall product appearance when compared to galvanized material. Aluminized steel conforms to ASTM Specification A463 and is used for such applications as space heaters, mufflers and incinerators which are subjected to extremely corrosive conditions. Clearly, BLC engineers have determined that the Flat Bank Filter Section be manufactured from 16 gauge aluminized steel. We are currently the only manufacturer who does so.

Spot weld construction and fasteners are used to assemble units and each is supplied with 2 access doors hinged at the rear of the housing for easy access to filters. Each door is fully gasketed at its perimeter and at the end of the filter tracks by use of EPDM gasket. Quick acting, over-center, positive lock latches are used to secure doors without bypass. This standard design will withstand positive or negative pressure up to 3" W.G.

#### **EQUIPMENT OPTIONS**

- INSULATION
- DOUBLE WALL INSULATION
- WEATHERPROOFING
- HIGH PRESSURE
- FLANGE ADAPTERS
- SUPPORT LEGS
- HANGER BRACKETS
- STATIC TAPS
- STAINLESS STEEL

These and other specialty options are available, please contact factory for further information.

Corporate Headquarters P.O. Box 14187,

Louisville, Kentucky 40214 Phone: (502) 366-6002 Fax: (502) 366-6255 E-Mail: askus@blcind.com

BLC-WEST Phone: (480) 839-5333 Fax: (480) 839-1584 www.blcind.com

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## Series O5FB: Dimensional Data

						W	IDTH COD	E (Nomina	al)			
CODE	ACTUAL	MODEL	01	02	03	04	05	06	07	08	09	10
	ACTUAL HEIGHT	MODEL					ACTUAL	. WIDTH				
(Nominal)	пеівпі	EXT.	11 1/2"	23 1/2"	35"	47"	58 1/2"	70 1/2"	82"	94"	105 1/2"	117 1/2"
		MODEL EXT.		02X07	03X07	04X07	05X07	06X07	07X07	08X07	09X07	10X07
07	85 3/4"	CFM @ 500 FPM		7000	10000	14000	17000	21000	24000	28000	31000	35000
		FILTER QTY.		1H 3F	4H ■ 3F	2H 6F	5H ■ 6F	3H 9F	6H <b>□</b> 9F	4H 12F	7H■12F	5H 15F
		MODEL EXT.	01X06	02X06	03X06	04X06	05X06	06X06	07X06	08X06	09X06	10X06
06	74 1/16"	CFM @ 500 FPM	3000	6000	9000	12000	15000	18000	21000	24000	27000	30000
		FILTER QTY.	3H	3F	3H 3F	6F	3H 6F	9F	3H 9F	12F	3H 12F	15F
	62 1/16"	MODEL EXT.		02X05	03X05	04X05	05X05	06X05	07X05	08X05	09X05	10X05
05		CFM @ 500 FPM		5000	7000	10000	12000	15000	17000	20000	22000	25000
		FILTER QTY.		1H 2F	3H ■ 2F	2H 4F	4H ■ 4F	3H 6F	5H ■ 6F	4H 8F	6H ■ 8F	5H 10F
		MODEL EXT.	01X04	02X04	03X04	04X04	05X04	06X04	07X04	08X04	09X04	10X04
04	50 3/8"	CFM @ 500 FPM		4000	6000	8000	10000	12000	14000	16000	18000	20000
		FILTER QTY.	2H	2F	2H 2F	4F	2H 4F	6F	2H 6F	8F	2H 8F	10F
		MODEL EXT.		02X03	03X03	04X03	05X03	06X03	07X03	08X03	09X03	10X03
03	38 3/8"	CFM @ 500 FPM		3000	4000	6000	7000	9000	10000	12000	13000	15000
		FILTER QTY.		1H 1F	2H 🔲 1F	2H 2F	3H ■ 2F	3H 3F	4H ■ 3F	4H 4F	5H ■ 4F	5H 5F
02	26 11/16"	MODEL EXT.	01X02	02X02	03X02	04X02	05X02	06X02	07X02	08X02	09X02	10X02
		CFM @ 500 FPM	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
		FILTER QTY.	1H	1F	1H 1F	2F	1H 2F	3F	1H 3F	4F	1H 4F	5F
		MODEL EXT.		02X01		04X01		06X01		08X01		10X01
01	14 11/16"	CFM @ 500 FPM		1000		2000		3000		4000		5000
		FILTER QTY.		1H		2H		3H		4H		5H

- 1. H denotes half size filter 11 3/8 x 23 3/8 x 1 7/8.
- 2. F denotes full size filter 23 3/8 x 23 3/8 x 1 7/8.
- 3. denotes unit requires an 11 3/8 x 11 3/8 x 1 7/8 blank off panel, which is supplied.
- 4. Unit depth is 5 3/16".

#### MODEL NUMBER KEY 05FB04X02

Insert model number extension to complete model number.

**05-** 5 3/16" Depth

FB- Flat Bank

**04-** Unit Width

02- Unit Height

## Series 07FB: Dimensional Data

						W	IDTH COD	E (Nomin	al)		_	
HEIGHT	ACTUAL	MODEL	01	02	03	04	05	06	07	08	09	10
CODE	HEIGHT	EXT.					ACTUAL	WIDTH				
(Nominal)	пеівпі	LXI.	11 1/2"	23 1/2"	35"	47"	58 1/2"	70 1/2"	82"	94"	105 1/2"	117 1/2"
		MODEL EXT.		02X07	03X07	04X07	05X07	06X07	07X07	08X07	09X07	10X07
07	85 3/4"	CFM @ 625 FPM		8750	12500	17500	21250	26250	30000	35000	38750	43750
		FILTER QTY.		1H 3F	4H ■ 3F	2H 6F	5H ■ 6F	3H 9F	6H <b>□</b> 9F	4H 12F	7H ■12F	5H 15F
		MODEL EXT.	01X06	02X06	03X06	04X06	05X06	06X06	07X06	08X06	09X06	10X06
06	74 1/16"	CFM @ 625 FPM	3750	7500	11250	15000	18750	22500	26250	30000	33750	37500
		FILTER QTY.	3H	3F	3H 3F	6F	3H 6F	9F	3H 9F	12F	3H 12F	15F
		MODEL EXT.		02X05	03X05	04X05	05X05	06X05	07X05	08X05	09X05	10X05
05	62 1/16"	CFM @ 625 FPM		6250	8750	12500	15000	18750	21250	25000	27500	31250
		FILTER QTY.		1H 2F	3H 🔲 2F	2H 4F	4H 🔲 4F	3H 6F	5H ■ 6F	4H 8F	6H ■ 8F	5H 10F
		MODEL EXT.	01X04	02X04	03X04	04X04	05X04	06X04	07X04	08X04	09X04	10X04
04	50 3/8"	CFM @ 625 FPM	2500	5000	7500	10000	12500	15000	17500	20000	22500	25000
		FILTER QTY.	2H	2F	2H 2F	4F	2H 4F	6F	2H 6F	8F	2H 8F	10F
		MODEL EXT.		02X03	03X03	04X03	05X03	06X03	07X03	08X03	09X03	10X03
03	38 3/8"	CFM @ 625 FPM		3750	5000	7500	8750	11250	12500	15000	16250	18750
		FILTER QTY.		1H 1F	2H 🔲 1F	2H 2F	3H ■ 2F	3H 3F	4H ■ 3F	4H 4F	5H ■ 4F	5H 5F
		MODEL EXT.	01X02	02X02	03X02	04X02	05X02	06X02	07X02	08X02	09X02	10X02
02	26 11/16"	CFM @ 625 FPM	1250	2500	3750	5000	6250	7500	8750	10000	11250	12500
		FILTER QTY.	1H	1F	1H 1F	2F	1H 2F	3F	1H 3F	4F	1H 4F	5F
		MODEL EXT.		02X01		04X01		06X01		08X01		10X01
01	14 11/16"	CFM @ 625 FPM		1250		2500		3750		5000		6250
		FILTER QTY.		1H		2H		3H		4H		5H

- 1. H denotes half size filter 11 3/8 x 23 3/8 x 3 7/8.
- 2. F denotes full size filter 23 3/8 x 23 3/8 x 3 7/8.
- 3. denotes unit requires an 11 3/8 x 11 3/8 x 3 7/8 blank off panel, which is supplied.
- 4. Unit depth is 7 3/16".

MODEL NUMBER KEY 07FB08X04

Insert model number extension to complete model number.

**07-** 7 3/16" Depth

FB- Flat Bank

08- Unit Width

**04-** Unit Height

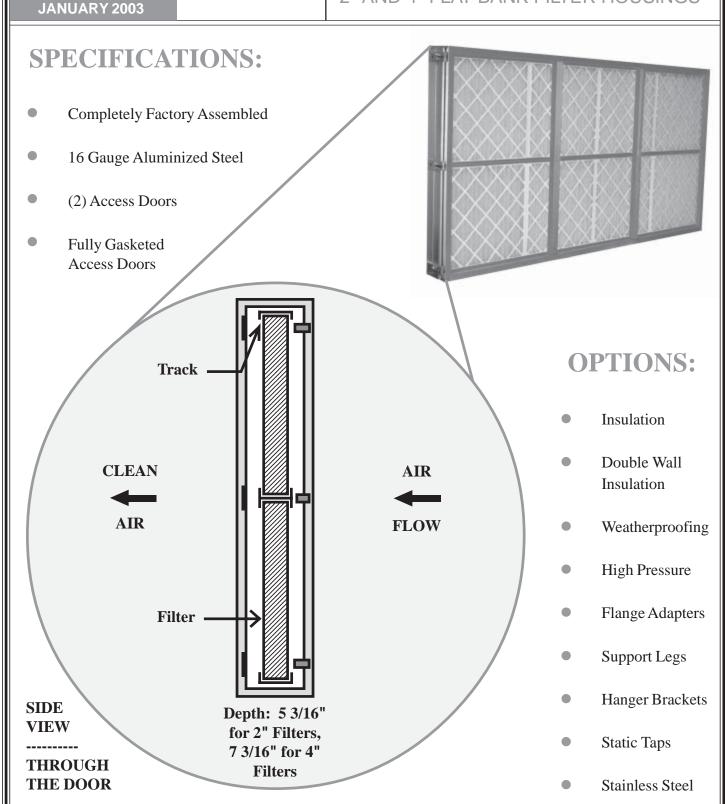
SPECIFICATION
DATA
CLEAN-LINE™
SERIES 05FB/07FB

SPD-CLFB-03A

AIR FILTRATION EQUIPMENT

## CLEAN-LINE™ FLAT BANK HOUSING

2" AND 4" FLAT BANK FILTER HOUSINGS



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#### MECHANICAL SPECIFICATIONS - CLEAN-LINE FLAT BANK HOUSINGS

Filter housings shall be CLEAN-LINE Flat Bank Housings as manufactured by BLC Industries, Inc. Units shall be completely factory assembled with 1 1/2" mounting flanges provided for field installation. Standard design for 3" W.G. positive or negative pressure. Units shall include the following equipment features and options:

#### STANDARD UNIT CONSTRUCTION

#### **Material of Construction**

Flat Bank Housing(s) shall be manufactured of 16 gauge aluminized steel. All fasteners are to be corrosion resistant finish.

#### **Track System**

Flat Bank Housing(s) filter tracks shall be manufactured from aluminized steel and allow for 2" or 4" nominal depth filters. Each filter track is sealed at its end by use of EPDM gasket.

#### **Access Doors**

Flat Bank Housing(s) shall be provided with two hinged access doors. Doors to be sealed with over-center draw latches. Door perimeters are sealed with EPDM gasket.

#### **UNIT OPTIONS**

#### Insulation

Flat Bank Housing(s) shall be provided with 1 inch thick insulation. Insulation is applied to the exterior of the access doors and to the exterior of the top and bottom panels. Insulation may be 1.5 pound or 3.0 pound density.

#### **Double Wall Insulation**

Flat Bank Housing(s) shall be provided with 1 inch thick Double Wall Insulation. Insulation shall be enclosed in 24 gauge aluminized steel panels located on the exterior of the access doors and the exterior of the top and bottom panels. Insulation may be 1.5 or 3.0 pound density.

#### Weatherproofing

Flat Bank Housing(s) shall be provided with a 16 gauge aluminized steel pitched rain roof. All seams shall be sealed using a high viscosity permanent sealer (non-silicon).

#### **High Pressure**

Flat Bank Housing(s) shall be provided to meet operating static pressure of 10 IN W.G. (Positive/Negative). Access door are provided with full length piano hinges welded in place. Consult factory for all other high pressure applications.

#### **Mounting Flange Adapters**

Flat Bank Housing(s) shall be provided with 16 gauge aluminized steel flat adapter flange to match customer equipment/specifications. Flanges may be single-air entering, single-air leaving or double-air entering and air leaving per customer requirements.

#### Support Legs

Flat Bank Housing(s) shall be provided with 12 gauge aluminized steel support legs. Maximum height of 6 inches from bottom of flange to floorline. Quantity of support legs are as follows: 01 ft - 04 ft wide units/2 support legs, 05 ft - 07 ft wide units/3 support legs, 08 ft - 10 ft wide units/4 support legs. For other applications, consult factory.

#### **Hanger Brackets**

Flat Bank Housing(s) shall be provided with 12 gauge aluminized steel hanger brackets welded to the top panel. Location may be one (1) pair of brackets - air entering/top corners or one (1) pair of brackets - air leaving/top corners brackets are supplied with a 5/8" diameter hole for hanger rod. Hanger brackets are for support of the filter housing only. Any other equipment or duct connections must be supported independently.

#### **Static Taps**

Flat Bank Housing(s) shall be supplied with static pressure fittings for 1/4" metal tube connection. Tap Location No. 1: Before filter. Tap Location No. 3: After filter.

#### **Alternate Material of Construction**

Flat Bank Housings shall be manufactured of 304 or 316 stainless steel. Standard aluminized units shall be supplied with an air dried epoxy coating. Epoxy coating can be interior-only, exterior-only or interior and exterior.

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	SUBMII IAL DATA				CLEA	Z-L	NE	FLAT	BAN	Y Y	CLEAN-LINE FLAT BANK HOUSING		SD-CLFB-03A JANUARY 2003
BLC Orde	BLC Order Number	Cust	Customer			P	Project Name	ıme		Tag		Purchase Order	Ship Date
BLC Mod	BLC Model Number	Qty.	Width	Height		Unit	60		nal Filter	(5 3/16" ,	Final Filter (5 3/16" Actual Depth)	th) Custom	
Door	Door Location	٨	Air Filter Information:	rmation:			0	07" - 4" Fi	inal Filter	(7 3/16"	Final Filter (7 3/16" Actual Depth)		
2 Doors	2 Doors		○ 2" Panel Type	pe	OC	Weathe	Weatherproofing Double Wall Insulation	g ulation	1.5#	3.0#		Air Filter Monitoring Information  Static Taps	lation
supplie Doors S	supplied with (2) Access Doors Standard.	0	4" Panel Type	, be	00	Stainless Steel High Pressure	ss Steel essure_	POS	Alloy NEG	W.G.		Note 4)	
Notes					0	Support Legs	t Legs						ry Mount O By Others
					00	Hanger B Adapters	<ul><li>Hanger Brackets</li><li>Adapters</li></ul>		○ Air Entering ○ Air Leaving ○ Both	r Leaving (	Both	By Others* Initial Supply	Spare Set
												*BLC provides no warranty as to the fit or performance of air filters supplied by others.	filters supplied by others.
	MODEL	01	02 0	03 (	04 05		90	07	80	60	10	Number Required - 12 x24	
	WIDTH 1	11 1/2	23 1/2 3	35 '	47 58 1/2	$\vdash$	70 1/2	82	94	105 1/2	117 1/2	Number Required - 24 x24	
MODEL	HEIGHT											Unit CFM @ 500 FPM	
0.7	06 2/4							Acce Bot	Access Door Both Ends			A is Elland True	
5	t c			Air Flow	ir ow							12x24 Model Nimber	
90	74 1/16			Plan			Rec	3"-0" Recommended	7			24x24 Model Number	
02	62 1/16	<u></u>		Unit Width		T	Ę.	For Service	T	1	_ Unit Depth	ASHRAE Efficiency	
04	50 3/8	L				F		755				Initial Pressure Drop	
03	38 3/8	+	1 1/2" Pe	1 1/2" Perimeter Flange,	-lange,		Chit		j Air			Recommended Final	
05	26 11/16						Height		MOIL	-			
10	14 11/16	_	Fro	Front Elevation	tion		1		En	End Elevation	tion		
NOTES:  1. MATERIAL O 2. UNITS ACCC 3. FILTER TRAC 4. OPTION UP	NOTES:  1. MATERIAL OF CONSTRUCTION: 16 GAUGE ALUMINIZED STEEL.  2. UNITS ACCOMMODATE 11 3/8 X 23 3/8 OR 23 3/8 X 23 3/8 INCH FILTERS.  3. FILTER TRACKS ARE 17/8" FOR 05FB HOUSINGS MID 3 7/8" FOR 05FB HOUSINGS.	16 GAUGE 23 3/8 OR 2 05FB HOUS	ALUMINIZED STEF 3 3/8 X 23 3/8 INCI 3 INGS AND 3 7/8"	EL. 4 FILTERS. DEEP FOR 07	FB HOUSINGS.								
4. OF IIONAL .	Allo IAF LOCALIO	DE	אם דאברובוה ט	- Arien r	1 L I E N.							Approved/Date	

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www.blcind.com

LOUISVILLE, KENTUCKY PHONE: (502) 366-6002 FAX: (502) 366-6255

BLC INDUSTRIES, INC.

TECHNICAL DATA CLEAN-LINE™ SERIES FB,VB,SA TD-CLFBVBSAI0I-A JANUARY 2003

AIR FILTRATION EQUIPMENT

## CLEAN-LINE<sup>TM</sup> SERIES FB,VB,SA

INSTALLATION AND OPERATION INSTRUCTIONS

# INSTALLATION AND OPERATION INSTRUCTIONS

## FLAT BANK, V-BANK AND SIDE ACCESS HOUSINGS

ORDER NUMBER:	
---------------	--

SERIAL NUMBER:\_\_\_\_

Corporate Headquarters P.O. Box 14187,

Louisville, Kentucky 40214 Phone: (502) 366-6002 Fax: (502) 366-6255 E-Mail: askus@blcind.com

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# INSTALLATION INSTRUCTIONS FLAT BANK, V-BANK AND SIDE ACCESS HOUSINGS

I. READ ENTIRE INSTALLATION INSTRUCTIONS BEFORE INSTALLING UNIT.

#### II. PRELIMINARY INSTALLATION OPERATIONS

- A. Separate all cartons marked "Filters" from material received. Store "Filters in clean, dry place until system is ready to be operated. **DO NOT OPEN CARTONS AT THIS TIME.**
- B. Distribute filter units are required to system locations. (See markings on each housing.)
- C. Carefully uncrate filter housings.
- D. Systems must allow for proper access to filters for routine servicing. General rule is to use housing depth.
- E. System must provide for firm, level and plumb installation for filter housing. **DO NOT DISTORT FILTER HOUSING.**

#### III. INSTALLATION OF FILTER HOUSING

- A. Installation of housing can be attained by anchoring duct work to and from housing flange. Housing flange(s) should be caulked to deter air by-pass.
- B. Housing is supplied with and air flow label to ensure proper orientation.

#### IV. FILTER INSTALLATION

- A. Open access door.
- B. Slide appropriate filter into housing tracks. Quantities and Model Numbers of filters are listed on unit ID nameplate.
- C. Secure access door.
- D. The use of a manometer is recommended to check pressure drop of final filter for determining when renewal of filter should be made.
- V. CAREFULLY REVIEW ABOVE INSTRUCTIONS.