

# MODEL LFB Series

## LINEAR FLOW BAR DIFFUSERS

### APPLICATION

Flow Bar systems satisfy both the architect's and the engineer's requirements for air distribution system that will maintain optimum room air conditions. The KBE Flow Bar linear system is a continuous slot system which allows the air distribution while being fully integrated within the ceiling system and its components.



### STANDARD CONSTRUCTION

• **Frame:**

- Constructed of extruded aluminum alloy 6063-T5
  - Flanged Fixed Frame (FF) with Angle end cap

• **Frame Partition:**

- Constructed of extruded aluminum alloy 6063-T5

• **Deflectors:**

- Constructed of extruded aluminum alloy 6063-T5
- Deflectors color: Black
- The fully adjustable deflectors allow for air pattern to be controlled from vertical straight down to horizontal along the ceiling.

• **Sizes:**

- Standard slot sizes are 1, 1 1/2" , 2" , 2 1/2" , 3".
- Minimum length of 8".
- Length up to 114" full section. Multi-Sections are joined with alignment strips for continuous appearance.

• **Number of slots: 1 or 2**

- For V-shape only 1 slot .

• **Finish:**

- Standard finish is white color ( RAL 9010) for face of the diffuser & black (RAL 9005) for the deflectors.

### OPTIONS

**1.Frame Type:**

- Removable (RF) or Frameless (F0) or V-shape hidden frame (VF) or (EF) Embedded hidden frame under spackling paste. //Refer to frame type dimensions sheet

**2.End Cap Configuration:**

- Angle end cap (Standard for Fixed frame (FF), Removable frame (RF) & Embedded frame (EF))
- Flush end cap (Standard for V-shaped (VF) and frameless (F0) frame type)
- Mitered end cap (applicable for all frames except for V-shaped frame (VF) type)
- Open end cap

//Refer to End Cap, Corners & Curved configurations sheet

**3.Throw Type:**

- High Throw: for ceiling & wall application.
- Jet Throw: for wall application.
- Long Throw: for ceiling & wall application.

**4.Accessories:**

- LS Light Shield //Refer to Accessories sheet
- FC field cut //Refer to Accessories sheet
- BO metal blank-off //Refer to Accessories sheet
- Bracket applicable for Fixed Frame (FF), Removable Frame (RF), Embedded Frame (EF) & Frameless (F0).
- Clips applicable for V-shaped (VF) (STD) & Frameless (F0) (STD).

**5.Corners & Curved:**

- Mitered corner for ceiling & wall application. //Refer to End Cap, Corners & Curved configurations sheet
- Curved for ceiling & wall application. ///Refer to End Cap, Corners & Curved configurations sheet

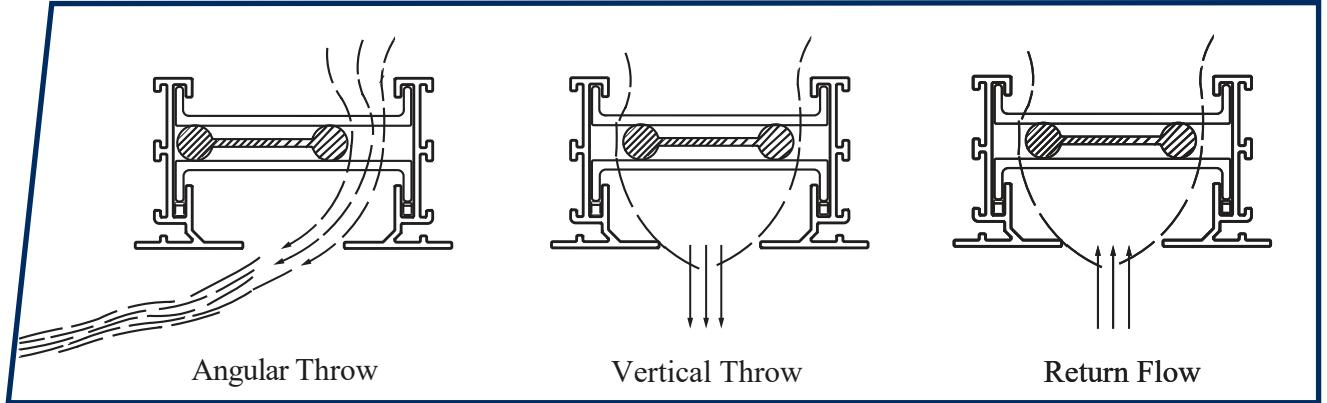
6. Other color available upon request.

7. Plenum box - insulated or non-insulated.

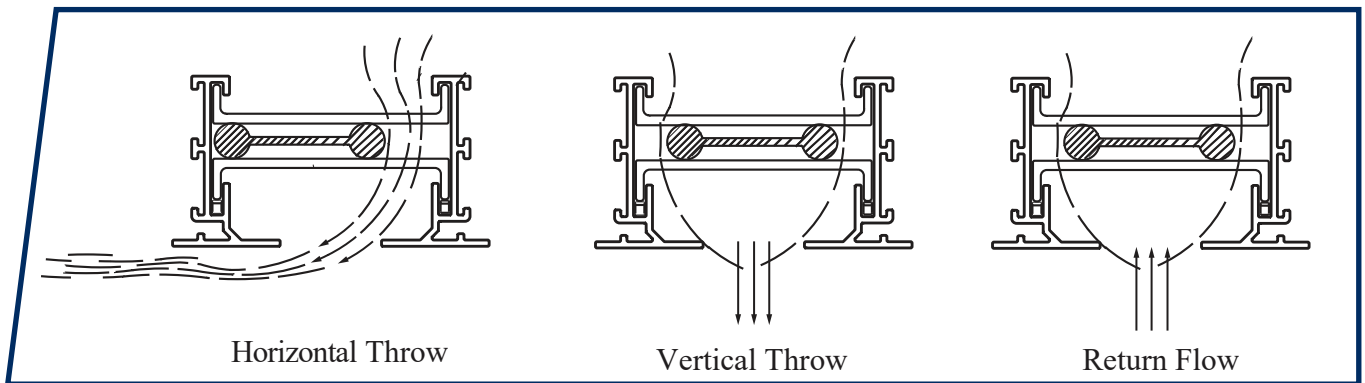
# MODEL LFB Series

## THROW TYPES

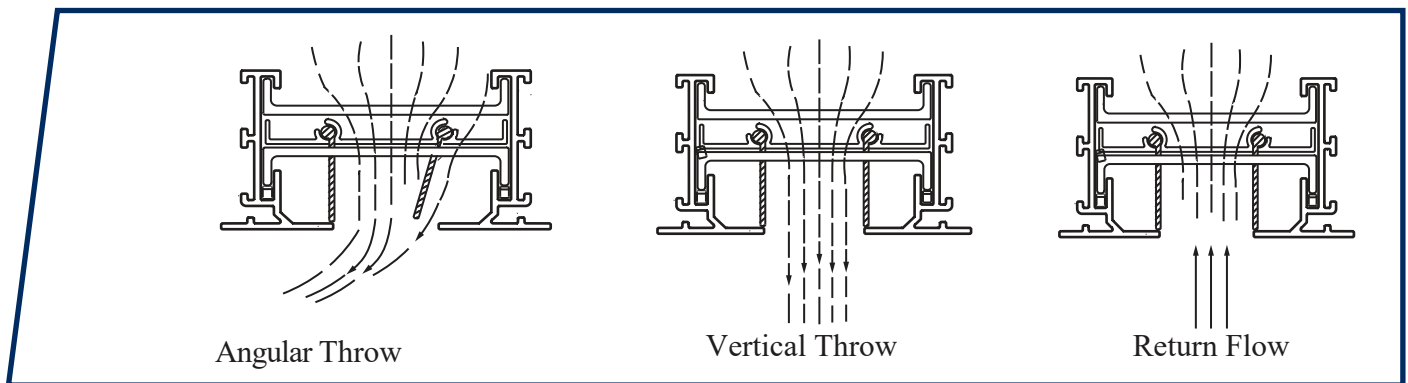
### ILLUSTRATION



### High Throw (HT Model)



### Long Throw (LT Model)



### Jet Throw (JT Model)

**Note:** Throw can be adjusted on site

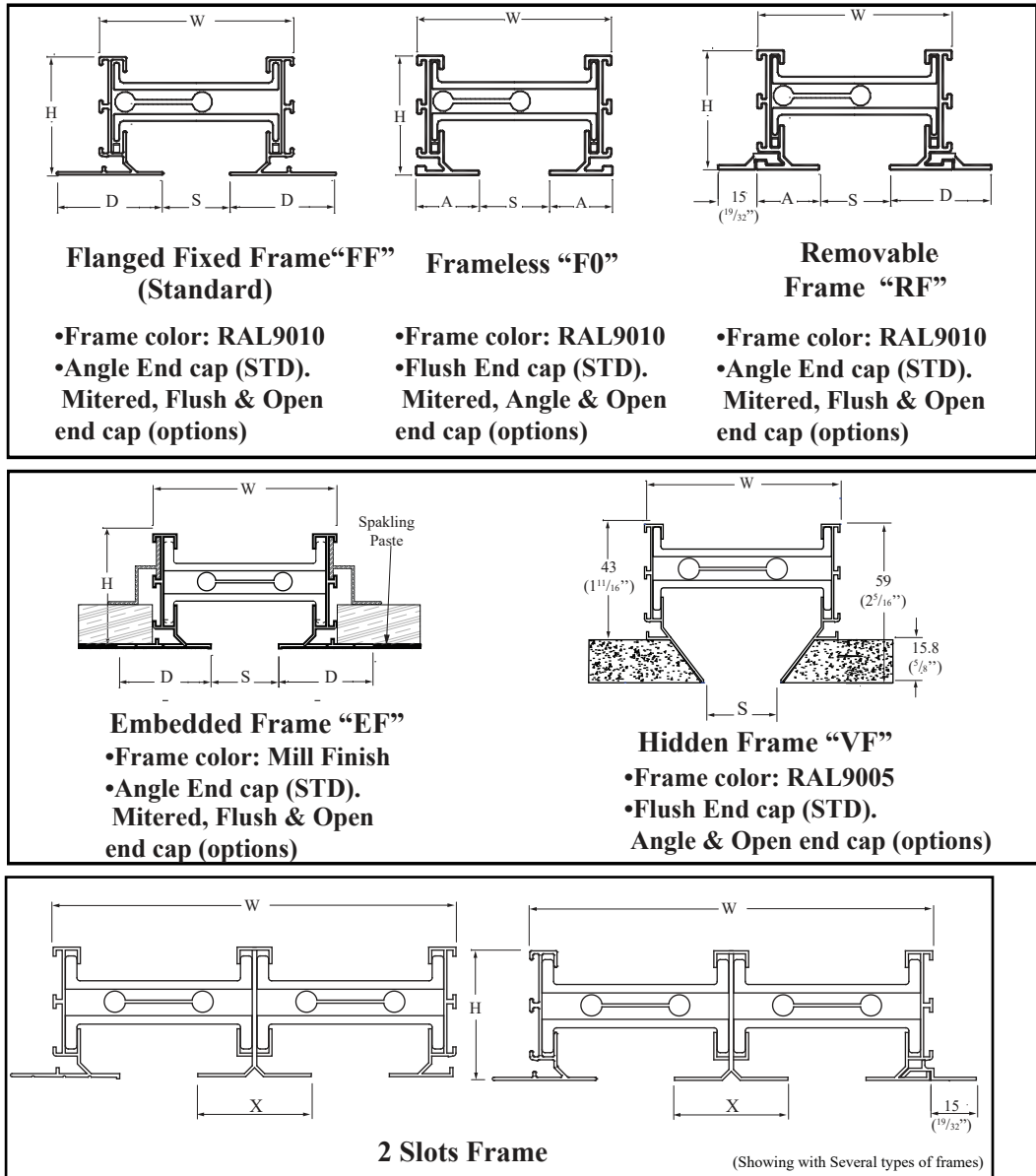
# MODEL LFB Series

## LINEAR FLOW BAR DIFFUSERS

### FRAME TYPE DIMENSIONS

#### MODELS

|        |     |      |
|--------|-----|------|
| LFB-10 | 1"  | Slot |
| LFB-15 | 1½" | Slot |
| LFB-20 | 2"  | Slot |
| LFB-25 | 2½" | Slot |
| LFB-30 | 3"  | Slot |

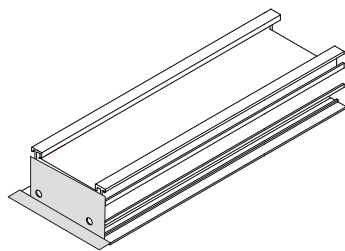


| Number of Slots | Slot "S" Width | W Width        | A Border     | D Border     | X 2 Slots      | H HT, LT & JT Series | H VF Frame Only |
|-----------------|----------------|----------------|--------------|--------------|----------------|----------------------|-----------------|
| 1               | 25 (1")        | 70 (2¾")       | 21 (53/64")  | 36 (13/8")   | ---            | 43 (111/16")         | 59 (25/16")     |
|                 | 38 (1½")       | 95 (3¾")       | 28 (15/64")  | 42 (15/8")   | ---            | 43 (111/16")         | 59 (25/16")     |
|                 | 48 (2")        | 120 (4¾")      | 35 (123/64") | 50 (115/16") | ---            | 43 (111/16")         | 59 (25/16")     |
|                 | 64 (2½")       | 146 (5¾")      | 40 (119/32") | 55 (23/16")  | ---            | 43 (111/16")         | 59 (25/16")     |
|                 | 76 (3")        | 171 (6¾")      | 47 (127/32") | 62 (27/16")  | ---            | 43 (111/16")         | 59 (25/16")     |
| 2               | 25 (1")        | 133 (515/64")  | 21 (53/64")  | 36 (13/8")   | 37.5 (131/64") | 43 (111/16")         | ---             |
|                 | 38 (1½")       | 182 (711/64")  | 28 (15/64")  | 42 (15/8")   | 50.5 (2")      | 43 (111/16")         | ---             |
|                 | 48 (2")        | 232 (97/64")   | 35 (123/64") | 50 (115/16") | 65 (235/64")   | 43 (111/16")         | ---             |
|                 | 64 (2½")       | 285 (1115/64") | 40 (119/32") | 55 (23/16")  | 76 (3")        | 43 (111/16")         | ---             |
|                 | 76 (3")        | 336 (137/32")  | 47 (127/32") | 62 (27/16")  | 89 (31/2")     | 43 (111/16")         | ---             |

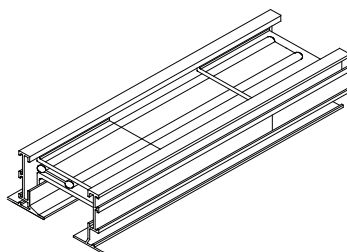
Dimensions are in mm (inches).

# MODEL LFB Series LINEAR FLOW BAR DIFFUSERS

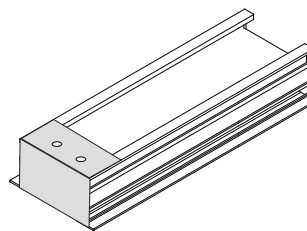
## END CAPS, CORNERS & CURVED CONFIGURATIONS



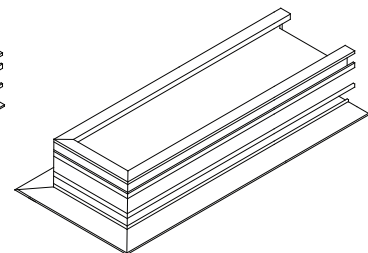
**Type A**  
Angle end cap



**Type O**  
Open end cap



**Type F**  
Flush end cap

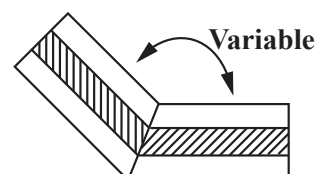
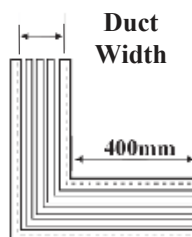
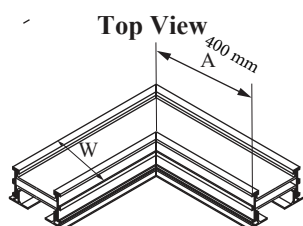


**Type M**  
Mitered end cap

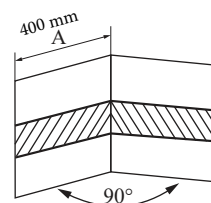
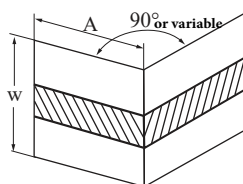
### CORNERS (C)

- Factory assembled mitered corner sections are available with 90° angle or any special angle.
- Mitered corners are provided with standard length of 40cm internal dimension, other lengths are provided upon request.
- Mitered corners are rendered inactive with factory installed blank-offs.
- For corner edge (wall) a drawing showing the airflow must be provided.

### CEILING CORNERS



### WALL CORNERS



### CURVED LFB

- Curved Ceiling LFB are available for 1 slot only.
- Curved Wall Convex and Concave LFB are available for 1 slot and 2 slots.
- Curved LFB are provided as a standard WITHOUT deflectors.
- Deflectors can be requested with additional price. // Please refer to our engineers
- Curved LFB are provided as arc or full circle for LIMITED radii only.
- Length and radius must be verified with factory prior to request. // Please refer to our engineers
- Curved diffusers can be provided for ceiling (CU-CE) or wall applications.
- Curved wall applications can be either CONCAVE (CU-CVE) or CONVEX (CU) LFB.
- Applicable end cap configurations for Curved LFB are Angle, Flush and Open end caps.
- Curved LFB are NOT available for V-shaped hidden frame (VF)
- Design plans must be shared with KBE for curved LFB.

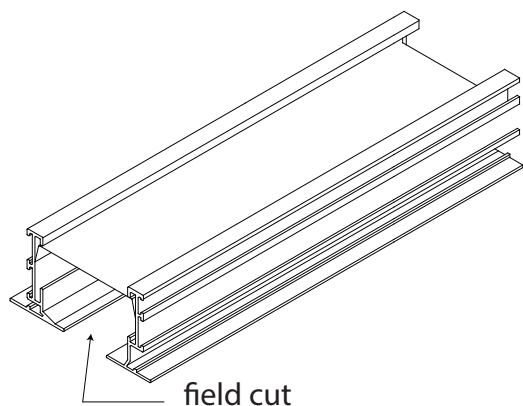


- For other non-standard requirements, please refer to our engineers.

# MODEL LFB Series

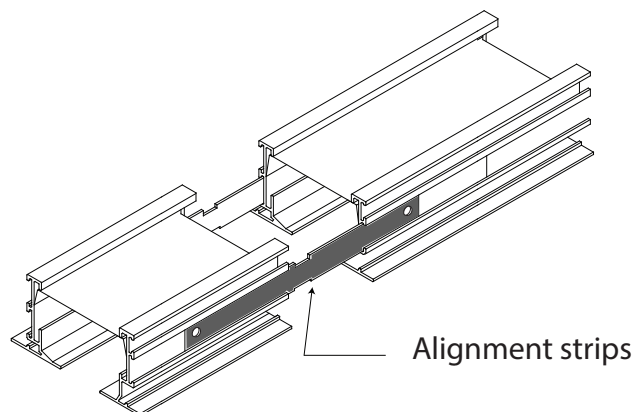
## LINEAR FLOW BAR DIFFUSERS

### ACCESSORIES



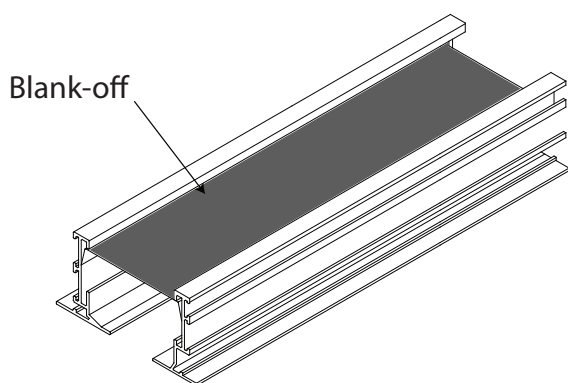
#### FC FIELD CUT

This option allows the linear flow bar to be cut to size at the job site. The diffuser is supplied 150mm (6") longer with the linear spacers set back to allow trimming. Field cut would be specified where a continuous run of diffuser or room layout is required and where there may be a duct length variation.



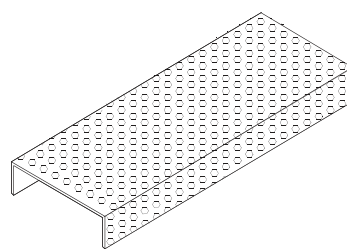
#### ALIGNMENT STRIPS

Join strips and Pins are provided on all units over 2850mm (114") with no extra cost. Providing linear alignment of continuous linear flow bar diffuser, the join strip slides into the outside & inside channels of the diffuser frame. Typical for all frame types.



#### BLANK-OFF

Blank-offs are used to cover inactive sections of the linear flow bar diffuser. A drawing specifying the area of concern should be provided



#### LIGHT SHIELD

Light shield is used to cover non plenum sections of the linear flow bar from light reflection, It is factory installed. A drawing specifying the area of concern should be provided

MODEL LFB Series

LINEAR FLOW BAR DIFFUSERS

ORDERING INFORMATION

| MODEL                                                                                                                                                                                                                                                                                                              | SERIE | THROW                                                                                                                                                     | Spacing                                                                                    | Frame Type                                                                                                      | END Configuration                                                                                                                                                                                                                                | Finishing                                                                             | Length Sizes (inch)                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------|
| --                                                                                                                                                                                                                                                                                                                 | LFB   | HT1                                                                                                                                                       | 15                                                                                         | FF                                                                                                              | A                                                                                                                                                                                                                                                | RAL 9010                                                                              | X 40                                        |
| -- : Standard<br>CU-CE : Curved Ceiling (STD without deflector)<br>CU: Curved wall convex<br>CU-CVE: Curved wall concave<br>CU-CE-DF: Curved ceiling with deflector<br>CU-DF: Curved wall convex with deflector<br>CU-CVE-DF: Curved wall concave with deflector<br>C : Corner Wall (JT)<br>C -CE : Corner Ceiling |       | HT1: High Throw 1 slot<br>HT2: High Throw 2 slots<br>JT1: Jet Throw 1 slot<br>JT2: Jet Throw 2 slots<br>LT1: Long Throw 1 slot<br>LT2 :Long Throw 2 slots | 10: 1" Spacing<br>15: 1.5" Spacing<br>20: 2" Spacing<br>25: 2.5" Spacing<br>30: 3" Spacing | FF: Fixed Frame (Std)<br>RF: Removable Frame<br>F0: Frameless<br>VF: V Shape Hidden Frame<br>EF: Embedded Frame | A : Angle end cap<br>(Std for Fixed ,Removable & Embedded frame type)<br>F : Flush end cap<br>(Std for V-shaped & Frameless frame type)<br>M : Mitered end cap<br>(Applicable for all frames except for V-shaped frame type)<br>O : Open end cap | RAL 9010: (std)<br>RAL "num": Other Ral color<br>B: Mill Finish<br>(Std for EF Frame) | 8" & Up.<br><br>400x400mm<br>(for C & C-CE) |

Example: STD : LFB-HT1-15-FF- A-RAL9010-40"