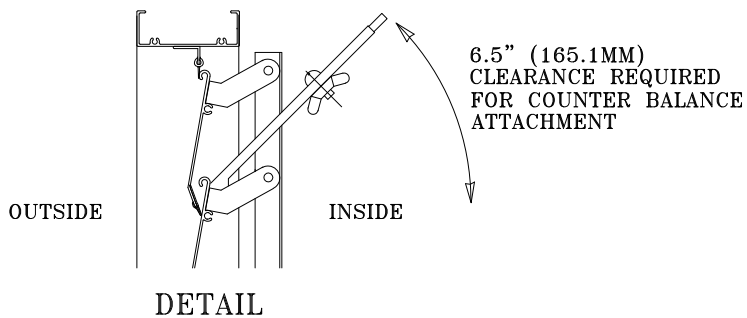




# BACKDRAFT DAMPER BDX-3C3-LB



### STANDARD SPECIFICATIONS

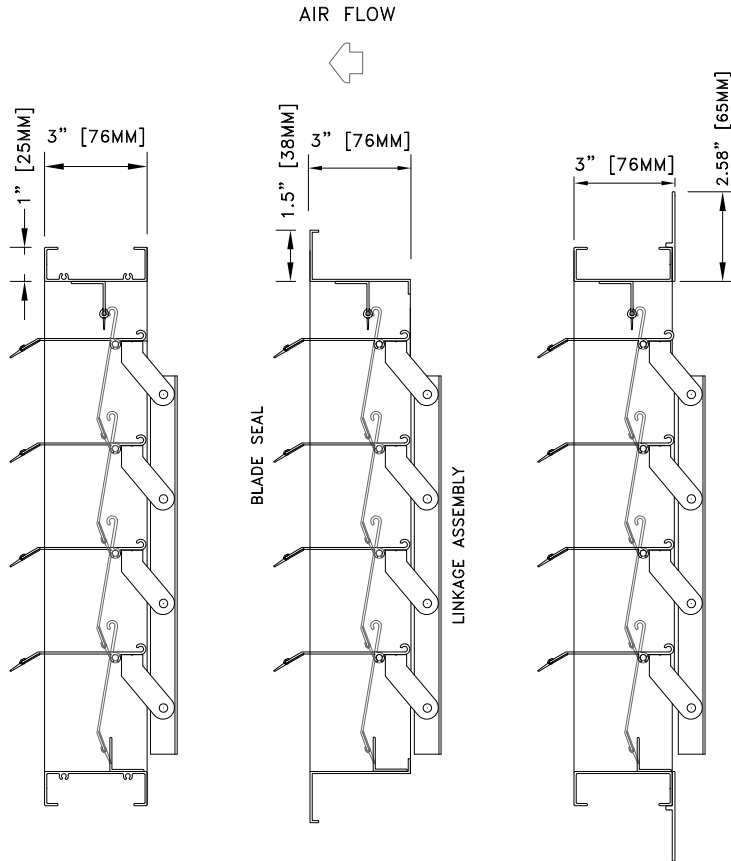
- CONST. - EXTRUDED ALUMINUM, WELDED FRAME
- FRAME - 3" X 1" (76.2MM X 25.4MM) EXTRUDED ALUMINUM
- BLADES - 3.5" X .06" (88.9MM X 1.5MM) TAPERED EXTRUDED ALUMINUM, 3.06" (77.7MM) BLADE SPACING
- SEALS - DUAL DUROMETER VINYL BLADE SEAL, -40° F. TO +200° F.
- SHAFTS - .19" X 1.25" (4.8MM X 31.8MM) PLATED STEEL
- BEARINGS - .19" (4.8MM) NYLON BUSHINGS
- LINKAGE - INSIDE AIRSTREAM, ON ENTERING SIDE
- C.B. WTS. - AS REQUIRED
- FINISH - MILL ALUMINUM
- SIZE - MINIMUM 12" W X 12" H (304.8MM X 304.8MM)  
- MAXIMUM 32" W X 60" H (812.8MM X 1524MM)

### OPTIONS

- FRAME - FLANGE, REVERSE FLANGE
- SCREEN - AS REQUIRED, BDX-3C3-LB, SCREEN IS ON FACE. WHEN SCREEN IS USED BLADES ONLY OPEN TO APPROX. 45°.
- FINISH - MILL ALUMINUM, ANODIZED

### TECHNICAL NOTES

- CAUTION** - DO NOT USE FOR INTAKE UNLESS WITH OUTSIDE WEATHER COWL
- BDX-3C3-LB - RECOMMENDED ON LARGER DAMPERS BECAUSE OF LINKAGE WEIGHT
- MAX. RECOMMENDED VEL. - 3000 FPM
- MAXIMUM TEMPERATURE - 200° F.
- MAXIMUM WIDTH - 5.5" (139.7MM) WHEN BLADE IS IN FULL OPEN POSITION PLUS CLEARANCE FOR COUNTER BALANCE WEIGHTS SEE ABOVE
- SHIPPING WEIGHT - APPROX. 5 LB/SQ. FT.
- DAMPERS 3F3 AND 3R3 ARE MANUFACTURED .5" (12.7MM) SMALLER THAN OPENING SIZE UNLESS EXACT DIMENSIONS ARE STATED. DAMPERS 3C3 ARE MANUFACTURED .25" (6.4MM) SMALLER THAN OPENING SIZE UNLESS EXACT DIMENSIONS ARE STATED.
- \* FOR MORE INFORMATION, CONTACT OUR FACTORY \*



**BDX-3C3-LB**  
SECTION

**BDX-3F3-LB**  
SECTION

**BDX-3RF-LB**  
SECTION

STANDARD  
CHANNEL FRAME

OPTIONAL  
FLANGED FRAME

OPTIONAL  
REVERSE FLANGE  
FRAME

NOTE: PLEASE SPECIFY WHETHER YOU WANT - CHANNEL FLANGE, OR REVERSE FLANGE AND WALL MOUNT OR CEILING MOUNT.

## NOTES

## APPROVAL

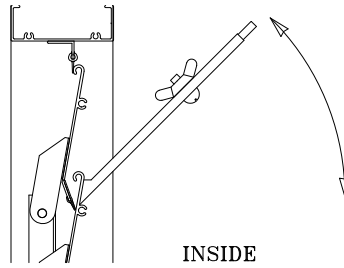
DATE:  
PROJECT:  
ENGINEER:  
CUSTOMER:  
DISTRIBUTOR:

BDX-3C3.DWG



# BACKDRAFT DAMPER BDX-3C3-LF

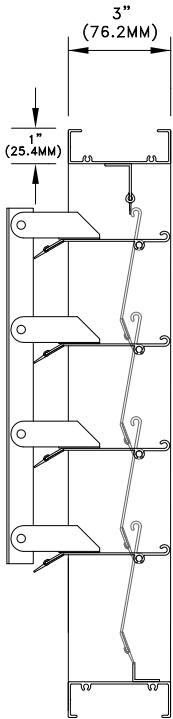
OUTSIDE



6.5" (165.1MM)  
CLEARANCE REQUIRED  
FOR COUNTER BALANCE  
ATTACHMENT

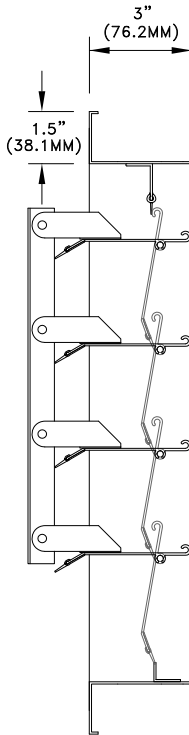
INSIDE

AIR FLOW



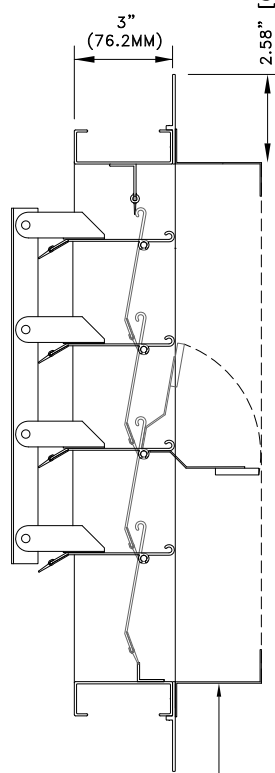
**BDX-3C3-LF**  
SECTION

STANDARD  
CHANNEL FRAME



**BDX-3F3-LF**  
SECTION

OPTIONAL  
FLANGED FRAME



**BDX-3RF-LF**  
SECTION

OPTIONAL  
REVERSE FLANGE  
FRAME

OPTIONAL SCREEN IN Z FRAME

STANDARD SPECIFICATIONS

- CONST. - EXTRUDED ALUMINUM, WELDED FRAME
- FRAME - 3" X 1" (76.2MM X 25.4MM) EXTRUDED ALUMINUM
- BLADES - 3.5" X .06" (88.9MM X 1.5MM) TAPERED EXTRUDED ALUMINUM, 3.06" (77.7MM) BLADE SPACING
- SEALS - DUAL DUROMETER VINYL BLADE SEAL, -40° F. TO +200° F.
- SHAFTS - .19" X 1.25" (4.8MM X 31.8MM) PLATED STEEL
- BEARINGS - .19" (4.8MM) NYLON BUSHINGS
- LINKAGE - INSIDE AIRSTREAM, ON LEAVING SIDE
- C.B. WTS. - AS PER OUR FACTORY GUIDELINES
- FINISH - MILL ALUMINUM
- SIZE - MINIMUM 12" W X 12" H (304.8MM X 304.8MM)  
- MAXIMUM 32" W X 60" H (812.8MM X 1524MM)

OPTIONS

- FRAME - FLANGE, REVERSE FLANGE
- SCREEN - AS REQUIRED IN A FORMED GALVANIZED - Z FRAME, USED WITH LOW PROFILE COUNTER BALANCE WEIGHTS
- FINISH - MILL ALUMINUM, ANODIZED

TECHNICAL NOTES

- CAUTION - DO NOT USE FOR INTAKE UNLESS WITH OUTSIDE WEATHER COWL
- BDX-3C3-LF - RECOMMENDED ON SMALLER DAMPERS BECAUSE OF LINKAGE WEIGHT
- MAX. RECOMMENDED VEL. - 3000 FPM
- MAXIMUM TEMPERATURE - 200° F.
- MAXIMUM WIDTH - 5.5" (139.7MM) WHEN BLADE IS IN FULL OPEN POSITION PLUS CLEARANCE FOR COUNTER BALANCE WEIGHTS SEE ABOVE
- SHIPPING WEIGHT - APPROX. 5 LB/SQ. FT.

DAMPERS 3F3 & 3RF ARE MANUFACTURED .5" (12.7MM) SMALLER THAN OPENING SIZE UNLESS EXACT DIMENSIONS ARE STATED AND 3C3 IS .25" (6.4MM) UNDERSIZED.

\* FOR MORE INFORMATION, CONTACT OUR FACTORY \*

PLEASE SPECIFY WHEN ORDERING:  
-CHANNEL, FLANGE OR REVERSE FLANGE FRAME TYPE  
-DAMPER BEING MOUNTED HORIZONTALLY

## NOTES

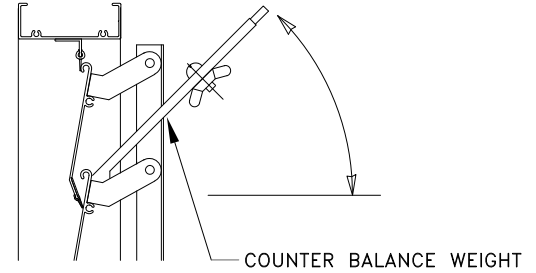
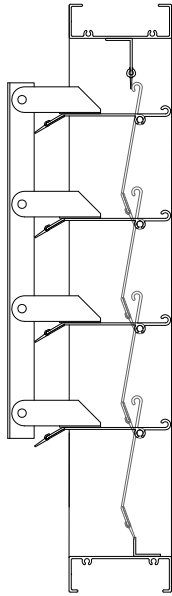
## APPROVAL

DATE:  
PROJECT:  
ENGINEER:  
CUSTOMER:  
DISTRIBUTOR:

BDX.DWG



# BDX BACKDRAFT DAMPER

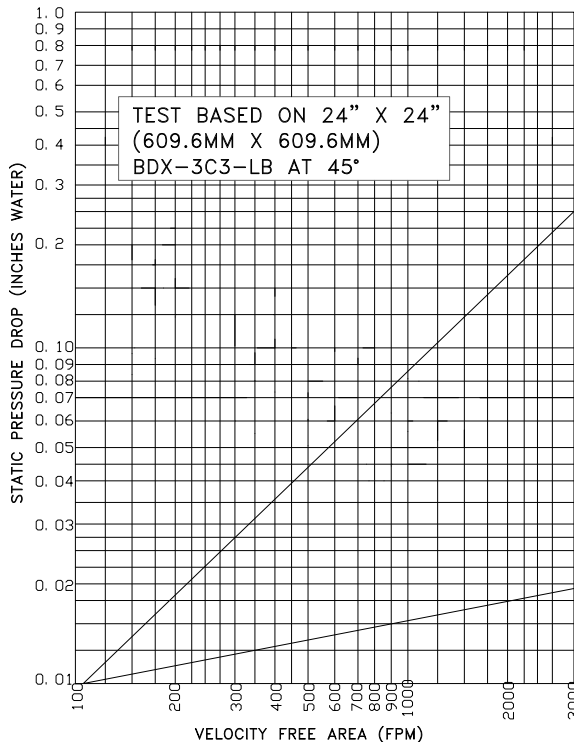


DETAIL

FREE AREA TABLE (SQ. FT.) AT  
BLADES AT 45 DEGREE ANGLE  
(FOR BLADES OPENING TO 90° MULTIPLY BY 1.3)

HEIGHT (INCHES)	WIDTH (INCHES)						
	8	12	16	20	24	28	32
8	0.16	0.26	0.37	0.47	0.58	0.68	0.79
12	0.29	0.48	0.67	0.86	1.06	1.25	1.44
16	0.42	0.78	0.98	1.25	1.54	1.81	2.89
20	0.55	0.92	1.28	1.65	2.01	2.38	2.75
24	0.68	1.13	1.59	2.04	2.49	2.95	3.40
28	0.81	1.35	1.89	2.43	2.97	3.51	4.05
32	0.94	1.57	2.28	2.82	3.45	4.00	4.71
36	1.07	1.79	2.58	3.22	3.93	4.65	5.36
40	1.28	2.01	2.81	3.61	4.41	5.21	6.02
44	1.33	2.22	3.11	4.00	4.89	5.78	6.67
48	1.45	2.44	3.42	4.39	5.37	6.35	7.32
52	1.68	2.66	3.72	4.79	5.85	6.91	7.98
56	1.73	2.88	4.03	5.18	6.33	7.48	8.63
60	1.86	3.89	4.33	5.57	6.81	8.85	9.28

PRESSURE DROP FOR DUCT MOUNTED DAMPERS



AIR PERFORMANCE GRAPH

WITHOUT COUNTER BALANCE WEIGHTS

WITH (1) COUNTER BALANCE WEIGHT ADJUSTED FULL OUT

FOR WALL MOUNTED DAMPERS INCREASE PRESSURE DROP BY A FACTOR OF 1.5

THE INFORMATION CONTAINED ON THIS DATA SHEET REMAINS THE PROPERTY OF WESTERN VENTILATION PRODUCTS LTD. AND IS PROTECTED BY COPYRIGHT. WESTVENT AIR PERFORMANCE RATINGS SHOWN ARE BASED ON TESTS MADE BY TECHNICIANS IN OUR TEST LABORATORY.