



REGISTERS & DIFFUSERS



YOUR FAMOUS 33 BRANDS PURCHASES



Together, we provided
96,000 MEALS
feeding neighbors in Ohio,
Pennsylvania, & West Virginia



FIGHT HUNGER AND SAVE LIVES.



Together, we impacted

1,910 LIVES

by providing access to safe water,
keeping families healthy worldwide



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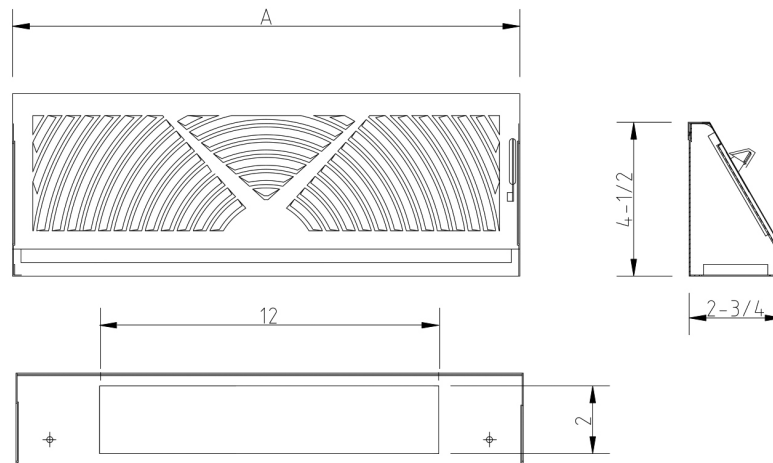
BBD

FEATURES

- 24 GA all-steel construction

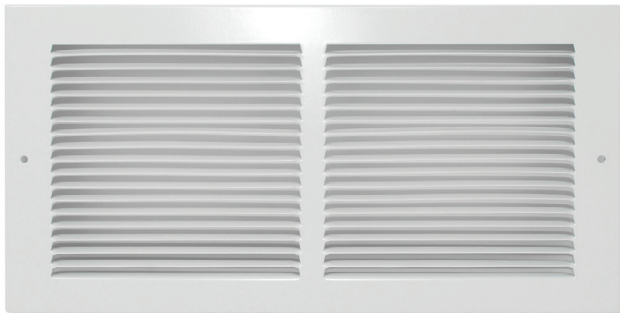
FINISHES

-  White (WH)
-  Brown (BR)



SPECIFICATIONS

Finish	Size (A)	Model	ID No.	Free Area (Sq. In.)	Opening Width	UPC
WH	15"	BZ33BBD15WH	.3466136	32	12"	 8 19030 02782 2
WH	18"	BZ33BBD18WH	.3466171	38	12"	 8 19030 02791 4
WH	24"	BZ33BBD24WH	.3496178	50	12"	 8 10018 12574 5
BR	15"	BZ33BBD15BR	.3466138	32	12"	 8 19030 02781 5
BR	18"	BZ33BBD18BR	.3466170	38	12"	 8 19030 02792 1



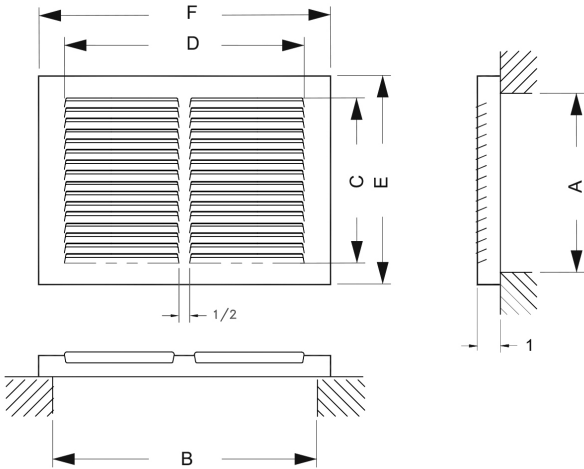
BBRAG

FEATURES

- 24 GA all-steel construction
- 1/3" or 1/2" spaced fins set
- Exceptional free area
- 1-way

FINISHES

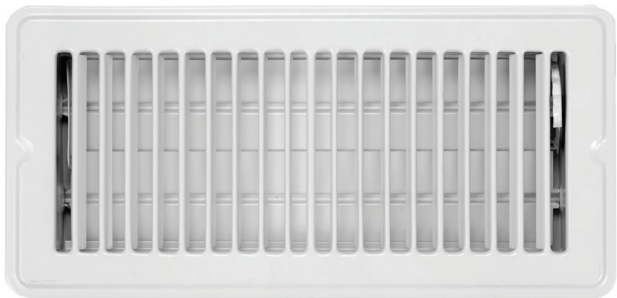
White (WH)



BBRAG Size Options (In.)				
Height (A)	Width (B)			
	6	8	10	18
10	●			
12	●			
14	●	●		
18				●
24		●		
30	●	●	●	

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		Fin	UPC
					C	D	E	F		
WH	10" x 6"	BZ33BBRAG1006-13WH	.3465693	38	9-1/2"	5-1/2"	11-3/4"	7-3/4"	1/3"	 8 19030 02711 2
WH	12" x 6"	BZ33BBRAG1206-13WH	.3465690	46	11-1/2"	5-1/2"	13-3/4"	7-3/4"	1/3"	 8 19030 02719 8
WH	14" x 6"	BZ33BBRAG1406-13WH	.3465880	55	13-1/2"	5-1/2"	15-3/4"	7-3/4"	1/3"	 8 19030 02726 6
WH	14" x 6"	BZ33BBRAG1406-12WH	.3496151	55	13-1/2"	5-1/2"	15-3/4"	7-3/4"	1/2"	 8 10018 12576 9
WH	14" x 8"	BZ33BBRAG1408-13WH	.3465816	75	13-1/2"	7-1/2"	15-3/4"	9-3/4"	1/3"	 8 19030 02738 9
WH	24" x 8"	BZ33BBRAG2408-13WH	.3465697	126	23-1/2"	7-1/2"	25-3/4"	9-3/4"	1/3"	 8 19030 02776 1
WH	30" x 6"	BZ33BBRAG3006-13WH	.3466039	116	29-1/2"	5-1/2"	31-3/4"	7-3/4"	1/3"	 8 19030 02777 8
WH	30" x 8"	BZ33BBRAG3008-13WH	.3465701	158	29-1/2"	7-1/2"	31-3/4"	9-3/4"	1/3"	 8 19030 02790 7



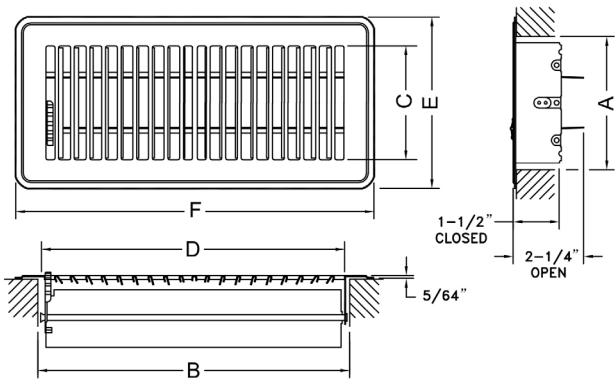
FR

FEATURES

- 24 GA steel
- Multi-angle fin setting
- Foot operated dial control
- Opposed blade damper included

FINISHES

- White (WH)
- Brown (BR)
- Silver (S)
- Java (J)



FR Size Options (In.)				
Height (A)	Width (B)			
	8	10	12	14
2		● ●	● ●	● ●
4	●	● ● ● ●	● ● ● ●	● ● ●
6		● ●	● ●	●

SPECIFICATIONS

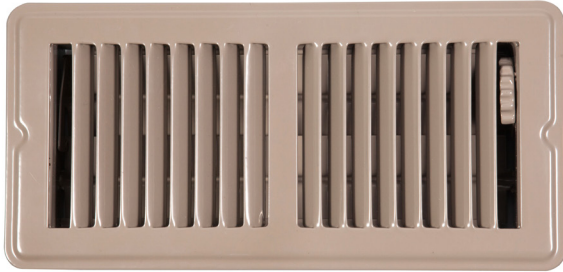
Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		UPC
					C	D	E	F	
WH	2" x 10"	BZ33FR0210WH	.3466263	14	2"	9-5/8"	3-3/4"	11-1/2"	
WH	2" x 12"	BZ33FR0212WH	.3466283	17	2"	11-5/8"	3-3/4"	13-1/2"	
WH	2" x 14"	BZ33FR0214WH	.3466046	20	2"	13-5/8"	3-3/4"	15-1/2"	
WH	4" x 10"	BZ33FR0410WH	.3466440	27	3-3/4"	9-5/8"	5-1/2"	11-1/2"	
WH	4" x 12"	BZ33FR0412WH	.3466448	32	3-3/4"	11-5/8"	5-1/2"	13-1/2"	
WH	4" x 14"	BZ33FR0414WH	.3466246	37	3-3/4"	13-5/8"	5-1/2"	15-1/2"	
WH	6" x 10"	BZ33FR0610WH	.3465867	38	5-1/2"	9-5/8"	7-1/2"	11-1/2"	
WH	6" x 12"	BZ33FR0612WH	.3465833	45	5-1/2"	11-5/8"	7-1/2"	13-1/2"	
BR	2" x 10"	BZ33FR0210BR	.3466264	14	2"	9-5/8"	3-3/4"	11-1/2"	

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		UPC
					C	D	E	F	
BR	2" x 12"	BZ33FR0212BR	.3466286	17	2"	11-5/8"	3-3/4"	13-1/2"	 8 19030 02713 6
BR	2" x 14"	BZ33FR0214BR	.3496131	20	2"	13-5/8"	3-3/4"	15-1/2"	 8 10018 12558 5
BR	4" x 8"	BZ33FR0408BR	.3466293	22	3-3/4"	7-5/8"	5-1/2"	9-1/2"	 8 19030 02716 7
BR	4" x 10"	BZ33FR0410BR	.3466441	27	3-3/4"	9-5/8"	5-1/2"	11-1/2"	 8 19030 02724 2
BR	4" x 12"	BZ33FR0412BR	.3466419	32	3-3/4"	11-5/8"	5-1/2"	13-1/2"	 8 19030 02735 8
BR	4" x 14"	BZ33FR0414BR	.3466247	37	3-3/4"	13-5/8"	5-1/2"	15-1/2"	 8 19030 02742 6
BR	6" x 10"	BZ33FR0610BR	.3465868	38	5-1/2"	9-5/8"	7-1/2"	11-1/2"	 8 19030 02747 1
BR	6" x 12"	BZ33FR0612BR	.3466057	45	5-1/2"	11-5/8"	7-1/2"	13-1/2"	 8 19030 02757 0
BR	6" x 14"	BZ33FR0614BR	.3465718	52	5-1/2"	13-5/8"	7-1/2"	15-1/2"	 8 19030 02766 2

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		UPC
					C	D	E	F	
S	4" x 10"	BZ33FR0410S	.3468960	27	3-3/4"	9-5/8"	5-1/2"	11-1/2"	
S	4" x 12"	BZ33FR0412S	.3445561	32	3-3/4"	11-5/8"	5-1/2"	13-1/2"	
J	4" x 10"	BZ33FR0410J	.3468962	27	3-3/4"	9-5/8"	5-1/2"	11-1/2"	
J	4" x 12"	BZ33FR0412J	.3445560	32	3-3/4"	11-5/8"	5-1/2"	13-1/2"	
J	4" x 14"	BZ33FR0414J	.3468987	37	3-3/4"	13-5/8"	5-1/2"	15-1/2"	



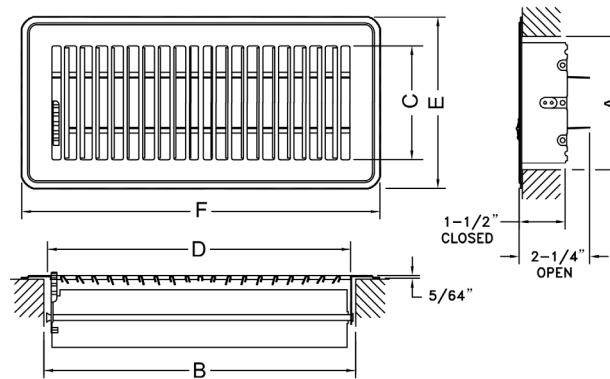
HDFR

FEATURES

- 24 GA steel
- Multi-angle fin setting
- Foot operated dial control
- Opposed blade damper included

FINISHES

 Brown (**BR**)



SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		UPC
					C	D	E	F	
BR	4" x 10"	BZ33HDFR0410BR	.3496187	27	3-3/4"	9-5/8"	5-1/2"	11-1/2"	
BR	4" x 12"	BZ33HDFR0412BR	.3496190	32	3-3/4"	11-5/8"	5-1/2"	13-1/2"	



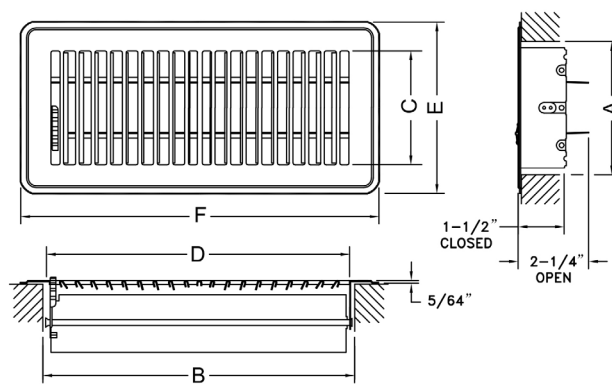
FRWSH

FEATURES

- 24 GA steel
- Multi-angle fin setting
- Foot operated dial control
- Opposed blade damper included

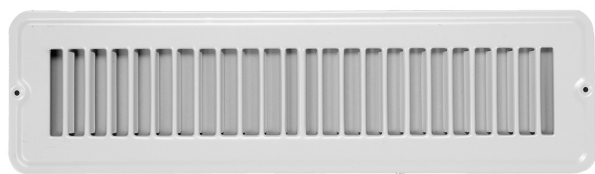
FINISHES

 Brown (**BR**)



SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		UPC
					C	D	E	F	
BR	2" x 12"	BZ33FRWSH0212BR	.3496119	17	2"	11-5/8"	3-3/4"	13-1/2"	



TSG

FEATURES

- 24 GA steel

FINISHES

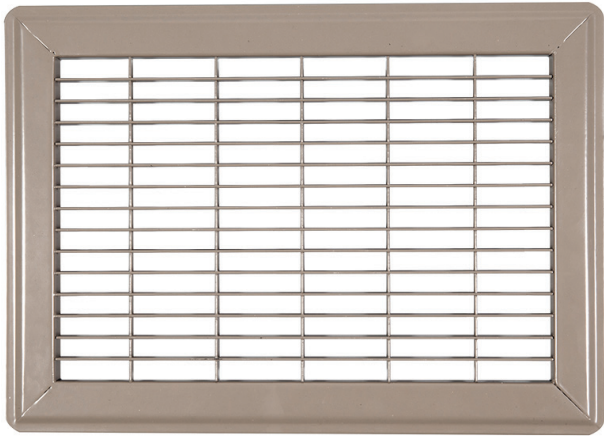
-  White (WH)
-  Brown (BR)



TSG Size Options (In.)			
Height (A)	Width (B)		
	10	12	14
2			
4			

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		UPC
					C	D	E	F	
WH	2" x 10"	BZ33TSG0210WH	.3496128	14	2"	9-5/8"	3-3/4"	11-1/2"	 8 10018 12564 6
WH	2" x 12"	BZ33TSG0212WH	.3496132	17	2"	11-5/8"	3-3/4"	13-1/2"	 8 10018 12562 2
WH	2" x 14"	BZ33TSG0214WH	.3496137	20	2"	13-5/8"	3-3/4"	15-1/2"	 8 10018 12566 0
WH	4" x 12"	BZ33TSG0412WH	.3496148	32	3-3/4"	11-5/8"	5-1/2"	13-1/2"	 8 10018 12568 4
BR	2" x 10"	BZ33TSG20210BR	.3496129	14	2"	9-5/8"	3-3/4"	11-1/2"	 8 10018 12565 3
BR	2" x 12"	BZ33TSG20212BR	.3496118	17	2"	11-5/8"	3-3/4"	13-1/2"	 8 10018 12563 9
BR	2" x 14"	BZ33TSG20214BR	.3496138	20	2"	13-5/8"	3-3/4"	15-1/2"	 8 10018 12567 7
BR	4" x 12"	BZ33TSG20412BR	.3496149	32	3-3/4"	11-5/6"	5-1/2"	13-1/2"	 8 10018 12569 1



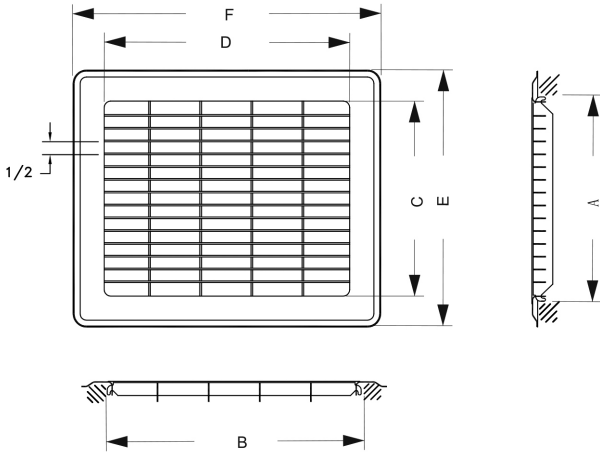
FRAG

FEATURES

- 24 GA all-steel steel construction
- Provides firm, smooth surface
- Extremely rigid

FINISHES

 Brown (BR)



FRAG Size Options (In.)							
Height (A)	Width (B)						
	10	12	14	16	20	24	30
4	●	●	●			●	●
6	●	●	●		●	●	●
8	●	●	●	●	●	●	●
10	●	●	●		●	●	●
12		●	●		●	●	●
14			●	●		●	●
16							●
20							●
24							●

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		UPC
					C	D	E	F	
BR	4" x 10"	BZ33FRAG0410BR	.3465878	29	3-1/2"	9-1/2"	5-3/4"	11-3/4"	
BR	4" x 12"	BZ33FRAG0412BR	.3465871	35	3-1/2"	11-1/2"	5-3/4"	13-3/4"	
BR	4" x 14"	BZ33FRAG0414BR	.3465885	41	3-1/2"	13-1/2"	5-3/4"	15-3/4"	
BR	4" x 24"	BZ33FRAG0424BR	.3465872	71	3-1/2"	23-1/2"	5-3/4"	25-3/4"	
BR	4" x 30"	BZ33FRAG0430BR	.3465879	90	3-1/2"	29-1/2"	5-3/4"	31-3/4"	
BR	6" x 10"	BZ33FRAG0610BR	.3466052	45	5-1/2"	9-1/2"	7-3/4"	11-3/4"	
BR	6" x 12"	BZ33FRAG0612BR	.3465887	55	5-1/2"	11-1/2"	7-3/4"	13-3/4"	
BR	6" x 14"	BZ33FRAG0614BR	.3466055	64	5-1/2"	13-1/2"	7-3/4"	15-3/4"	
BR	6" x 20"	BZ33FRAG0620BR	.3466049	92	5-1/2"	19-1/2"	7-3/4"	21-3/4"	

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		UPC
					C	D	E	F	
BR	6" x 24"	BZ33FRAG0624BR	.3466134	111	5-1/2"	23-1/2"	7-3/4"	25-3/4"	
BR	6" x 30"	BZ33FRAG0630BR	.3466135	140	5-1/2"	29-1/2"	7-3/4"	31-3/4"	
BR	8" x 10"	BZ33FRAG0810BR	.3466128	59	7-1/2"	7-1/2"	9-3/4"	11-3/4"	
BR	8" x 12"	BZ33FRAG0812BR	.3466158	72	7-1/2"	11-1/2"	9-3/4"	13-3/4"	
BR	8" x 14"	BZ33FRAG0814BR	.3466164	87	7-1/2"	13-1/2"	9-3/4"	15-3/4"	
BR	8" x 16"	BZ33FRAG0816BR	.3466162	100	7-1/2"	17-1/2"	9-3/4"	17-3/4"	
BR	8" x 20"	BZ33FRAG0820BR	.3466165	126	7-1/2"	19-1/2"	9-3/4"	21-3/4"	
BR	8" x 24"	BZ33FRAG0824BR	.3466238	151	7-1/2"	23-1/2"	9-3/4"	25-3/4"	
BR	8" x 30"	BZ33FRAG0830BR	.3466278	190	7-1/2"	29-1/2"	9-3/4"	31-3/4"	

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		UPC
					C	D	E	F	
BR	10" x 12"	BZ33FRAG1012BR	.3466157	92	9-1/2"	11-1/2"	11-3/4"	13-3/4"	
BR	10" x 14"	BZ33FRAG1014BR	.3466167	110	9-1/2"	13-1/2"	11-3/4"	15-3/4"	
BR	10" x 20"	BZ33FRAG1020BR	.3466272	159	9-1/2"	19-1/2"	11-3/4"	21-3/4"	
BR	10" x 24"	BZ33FRAG1024BR	.3466288	191	9-1/2"	23-1/2"	11-3/4"	25-3/4"	
BR	10" x 30"	BZ33FRAG1030BR	.3466273	240	9-1/2"	29-1/2"	11-3/4"	31-3/4"	
BR	12" x 12"	BZ33FRAG1212BR	.3466269	113	11-1/2"	11-1/2"	13-3/4"	13-3/4"	
BR	12" x 14"	BZ33FRAG1214BR	.3466277	131	11-1/2"	13-1/2"	13-3/4"	15-3/4"	
BR	12" x 20"	BZ33FRAG1220BR	.3466276	191	11-1/2"	19-1/2"	13-3/4"	13-3/4"	
BR	12" x 24"	BZ33FRAG1224BR	.3466296	230	11-1/2"	23-1/2"	13-3/4"	25-3/4"	

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		UPC
					C	D	E	F	
BR	12" x 30"	BZ33FRAG1230BR	.3466294	289	11-1/2"	29-1/2"	13-3/4"	31-3/4"	 8 19030 02841 6
BR	14" x 14"	BZ33FRAG1414BR	.3466280	156	13-1/2"	13-1/2"	15-3/4"	15-3/4"	 8 19030 02832 4
BR	14" x 16"	BZ33FRAG1416BR	.3466271	179	13-1/2"	15-1/2"	15-3/4"	17-3/4"	 8 19030 02834 8
BR	14" x 24"	BZ33FRAG1424BR	.3466275	271	13-1/2"	23-1/2"	15-3/4"	25-3/4"	 8 19030 02840 9
BR	14" x 30"	BZ33FRAG1430BR	.3466353	340	13-1/2"	29-1/2"	15-3/4"	31-3/4"	 8 19030 02847 8
BR	20" x 30"	BZ33FRAG2030BR	.3466291	489	19-1/2"	29-1/2"	21-3/4"	31-3/4"	 8 19030 02848 5
BR	24" x 30"	BZ33FRAG2430BR	.3466352	592	23-1/2"	29-1/2"	25-3/4"	31-3/4"	 8 19030 02849 2

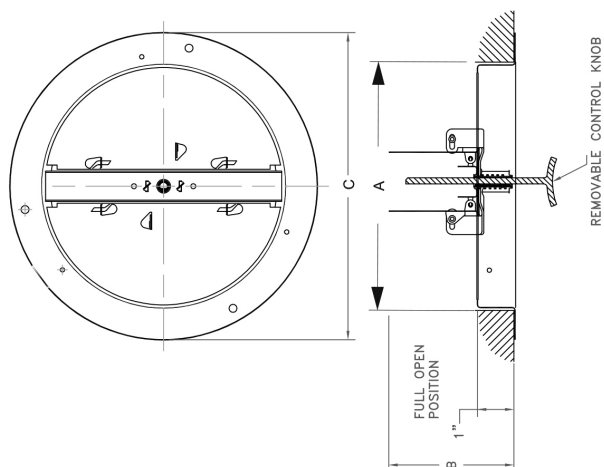
RCDP

FEATURES

- 24 GA all-steel steel construction
- Controls air volume evenly
- Removable knob allows for adjustment from closed to fully open

FINISHES

 Brown (**BR**)



SPECIFICATIONS

Finish	Size (A)	Model	ID No.	B	C	UPC
BR	6"	BZ33RCDP06BR	.3465869	3-11/16"	7-1/2"	 8 19030 02723 5
BR	8"	BZ33RCDP08BR	.3465706	4-11/16"	9-1/2"	 8 19030 02745 7
BR	10"	BZ33RCDP10BR	.3465694	5-11/16"	10-7/8"	 8 19030 02761 7
BR	12"	BZ33RCDP12BR	.3465692	6-11/16"	12-7/8"	 8 19030 02775 4

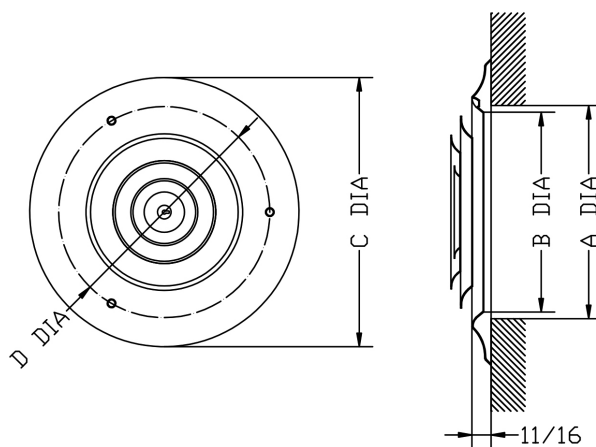
RCDF

FEATURES

- 24 GA all-steel steel construction
- Step-down diffuser rings deflect air stream 360°

FINISHES

White (WH)



SPECIFICATIONS

Finish	Diameter	Model	ID No.	B	C	D	UPC
WH	6"	BZ33RCDF06WH	.3465877	5-3/4"	10"	6-1/2"	 8 19030 02733 4
WH	8"	BZ33RCDF08WH	.3466054	7-3/4"	12"	8-1/2"	 8 19030 02760 0
WH	10"	BZ33RCDF10WH	.3465720	9-3/4"	14"	10-1/2"	 8 19030 02780 8
WH	12"	BZ33RCDF12WH	.3465705	11-3/4"	16"	12-1/2"	 8 19030 02799 0



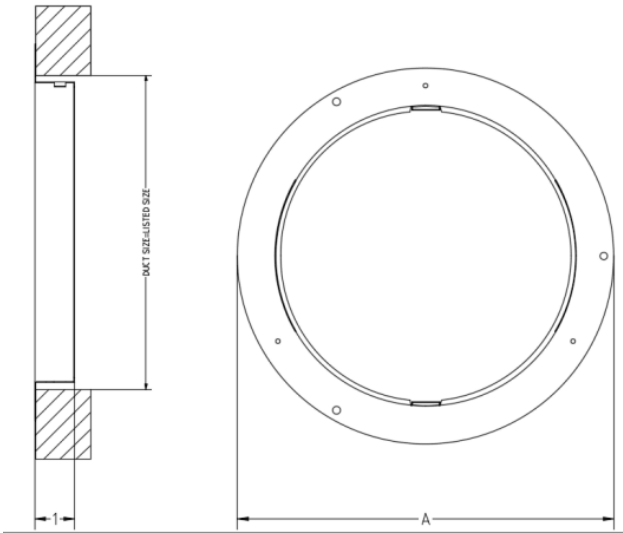
DR

FEATURES

- 24 GA all-steel steel construction
- For use with BZ33RCDF Round Ceiling Diffuser

FINISHES

 Brown (BR)



SPECIFICATIONS

Finish	Diameter	Model	ID No.	UPC
BR	6"	BZ33DR6BR	.3496120	 8 10018 12594 3
BR	8"	BZ33DR8BR	.3496139	 8 10018 12595 0
BR	10"	BZ33DR10BR	.3496144	 8 10018 12596 7
BR	12"	BZ33DR12BR	.3496161	 8 10018 12597 4



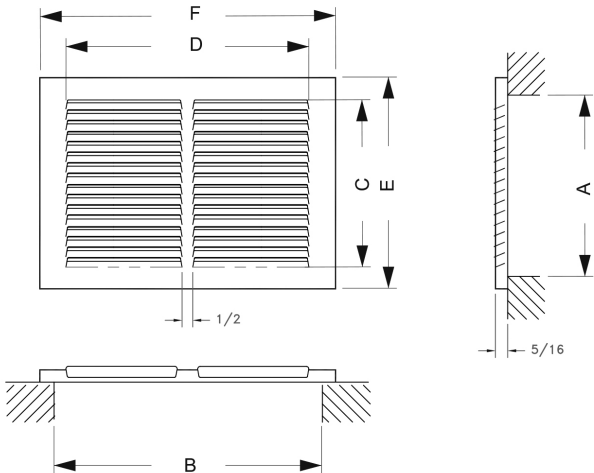
WRAG

FEATURES

- 24 GA all-steel steel construction
- 1/3" or 1/2" spaced fins set
- Exceptional free area
- 2-way

FINISHES

White (WH)



WRAG Size Options (In.)											
Height (A)	Width (B)										
	4	6	8	10	12	14	16	18	20	24	30
6		•				•					
8		•	•								
10	•	•	•	•							
12	•	•	•	•	•					•	
14	•	•	•	•	•	•			•	•	
16			•	•	•	•	•		•		
18						•	•	•			
20		•	•	•	•	•	•		•		
24	•	•	•	•	•	•	•	•	•	•	•
30	•	•	•	•	•	•	•		•	•	•
36		•	•								

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		Fin	UPC
					C	D	E	F		
WH	6" x 6"	BZ33WRAG0606-13WH	.3465888	23	5-1/2"	5-1/2"	7-3/4"	7-3/4"	1/3"	 8 19030 02702 0
WH	6" x 14"	BZ33WRAG0614-13WH	.3466178	55	5-1/2"	13-1/2"	7-3/4"	15-3/4"	1/3"	 8 19030 02722 8
WH	8" x 6"	BZ33WRAG0806-12WH	.3496113	30	5-1/2"	7-1/2"	7-3/4"	9-3/4"	1/2"	 8 10018 12616 2
WH	8" x 8"	BZ33WRAG0808-13WH	.3466130	40	7-1/2"	7-1/2"	9-3/4"	9-3/4"	1/3"	 8 19030 02710 5
WH	10" x 4"	BZ33WRAG1004-13WH	.3465882	24	9-1/2"	3-1/2"	11-3/4"	5-3/4"	1/3"	 8 19030 02703 7
WH	10" x 6"	BZ33WRAG1006-13WH	.3466371	38	9-1/2"	3-1/2"	11-3/4"	7-3/4"	1/3"	 8 19030 02709 9
WH	10" x 8"	BZ33WRAG1008-13WH	.3466050	52	9-1/2"	7-1/2"	11-3/4"	9-3/4"	1/3"	 8 19030 02717 4
WH	10" x 10"	BZ33WRAG1010-13WH	.3466051	65	9-1/2"	9-1/2"	11-3/4"	11-3/4"	1/3"	 8 19030 02730 3
WH	12" x 4"	BZ33WRAG1204-13WH	.3466042	30	11-1/2"	3-1/2"	13-3/4"	5-3/4"	1/3"	 8 19030 02705 1

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		Fin	UPC
					C	D	E	F		
WH	12" x 6"	BZ33WRAG1206-13WH	.3466374	46	11-1/2"	5-1/2"	13-3/4"	7-3/4"	1/3"	
WH	12" x 8"	BZ33WRAG1208-13WH	.3466179	62	11-1/2"	7-1/2"	13-3/4"	9-3/4"	1/3"	
WH	12" x 10"	BZ33WRAG1210-13WH	.3466103	77	11-1/2"	9-1/2"	13-3/4"	11-3/4"	1/3"	
WH	12" x 12"	BZ33WRAG1212-13WH	.3466266	97	11-1/2"	9-1/2"	13-3/4"	13-3/4"	1/3"	
WH	12" x 12"	BZ33WRAG1212-12WH	.3466423	77	11-1/2"	11-1/2"	13-3/4"	13-3/4"	1/2"	
WH	12" x 24"	BZ33WRAG1224-12WH	.3496155	194	23-1/2"	11-1/2"	25-3/4"	13-3/4"	1/2"	
WH	14" x 4"	BZ33WRAG1404-13WH	.3465889	35	13-1/2"	3-1/2"	15-3/4"	5-3/4"	1/3"	
WH	14" x 6"	BZ33WRAG1406-13WH	.3466373	55	13-1/2"	5-1/2"	15-3/4"	7-3/4"	1/3"	
WH	14" x 6"	BZ33WRAG1406-12WH	.3466444	55	13-1/2"	5-1/2"	15-3/4"	7-3/4"	1/2"	

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		Fin	UPC
					C	D	E	F		
WH	14" x 8"	BZ33WRAG1408-13WH	.3466358	75	13-1/2"	7-1/2"	15-3/4"	9-3/4"	1/3"	
WH	14" x 8"	BZ33WRAG1408-12WH	.3466369	75	13-1/2"	7-1/2"	15-3/4"	9-3/4"	1/2"	
WH	14" x 10"	BZ33WRAG1410-13WH	.3466105	91	13-1/2"	9-1/2"	15-3/4"	11-3/4"	1/3"	
WH	14" x 12"	BZ33WRAG1412-13WH	.3466181	115	13-1/2"	11-1/2"	15-3/4"	13-3/4"	1/3"	
WH	14" x 14"	BZ33WRAG1414-13WH	.3466110	134	13-1/2"	13-1/2"	15-3/4"	15-3/4"	1/3"	
WH	14" x 14"	BZ33WRAG1414-12WH	.3466428	134	13-1/2"	13-1/2"	15-3/4"	15-3/4"	1/2"	
WH	14" x 20"	BZ33WRAG1420-13WH	.3466097	177	13-1/2"	19-1/2"	15-3/4"	21-3/4"	1/3"	
WH	14" x 20"	BZ33WRAG1420-12WH	.3496158	177	19-1/2"	13-1/2"	21-3/4"	15-3/4"	1/2"	
WH	14" x 24"	BZ33WRAG1424-13WH	.3466099	228	13-1/2"	23-1/2"	15-3/4"	25-3/4"	1/3"	

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		Fin	UPC
					C	D	E	F		
WH	16" x 8"	BZ33WRAG1608-13WH	.3466180	79	15-1/2"	7-1/2"	17-3/4"	9-3/4"	1/3"	 8 19030 02744 0
WH	16" x 8"	BZ33WRAG1608-12WH	.3496133	79	7-1/2"	15-1/2"	9-3/4"	17-3/4"	1/2"	 8 10018 12618 6
WH	16" x 10"	BZ33WRAG1610-12WH	.3496146	99	9-1/2"	15-1/2"	11-3/4"	17-3/4"	1/2"	 8 10018 12624 7
WH	16" x 12"	BZ33WRAG1612-13WH	.3496147	127	11-1/2"	15-1/2"	13-3/4"	17-3/4"	1/3"	 8 10018 12633 9
WH	16" x 14"	BZ33WRAG1614-13WH	.3466112	138	15-1/2"	13-1/2"	17-3/4"	15-3/4"	1/3"	 8 19030 02783 9
WH	16" x 16"	BZ33WRAG1616-13WH	.3496162	166	15-1/2"	15-1/2"	17-3/4"	17-3/4"	1/3"	 8 10018 12628 5
WH	16" x 16"	BZ33WRAG1616-12WH	.3466163	166	15-1/2"	15-1/2"	17-3/4"	17-3/4"	1/2"	 8 19030 02785 3
WH	16" x 20"	BZ33WRAG1620-13WH	.3466109	209	15-1/2"	19-1/2"	17-3/4"	21-3/4"	1/3"	 8 19030 02806 5
WH	16" x 20"	BZ33WRAG1620-12WH	.3466172	209	15-1/2"	19-1/2"	17-3/4"	21-3/4"	1/2"	 8 19030 02802 7

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		Fin	UPC
					C	D	E	F		
WH	18" x 14"	BZ33WRAG1814-12WH	.3496115	151	13-1/2"	17-1/2"	15-3/4"	19-3/4"	1/2"	 8 10018 12627 8
WH	18" x 16"	BZ33WRAG1816-13WH	.3466048	176	17-1/2"	15-1/2"	19-3/4"	17-3/4"	1/3"	 8 19030 02798 3
WH	18" x 18"	BZ33WRAG1818-13WH	.3466108	209	17-1/2"	17-1/2"	19-3/4"	19-3/4"	1/3"	 8 19030 02805 8
WH	18" x 18"	BZ33WRAG1818-12WH	.3466168	209	17-1/2"	17-1/2"	19-3/4"	19-3/4"	1/2"	 8 19030 02801 0
WH	20" x 6"	BZ33WRAG2006-13WH	.3466139	68	19-1/2"	5-1/2"	21-3/4"	7-3/4"	1/3"	 8 19030 02746 4
WH	20" x 8"	BZ33WRAG2008-13WH	.3466169	98	19-1/2"	7-1/2"	21-3/4"	9-3/4"	1/3"	 8 19030 02762 4
WH	20" x 10"	BZ33WRAG2010-13WH	.3466132	123	19-1/2"	9-1/2"	21-3/4"	11-3/4"	1/3"	 8 19030 02778 5
WH	20" x 10"	BZ33WRAG2010-12WH	.3496114	120	9-1/2"	19-1/2"	11-3/4"	21-3/4"	1/2"	 8 10018 12622 3
WH	20" x 12"	BZ33WRAG2012-13WH	.3466129	151	19-1/2"	11-1/2"	21-3/4"	13-3/4"	1/3"	 8 19030 02787 7

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		Fin	UPC
					C	D	E	F		
WH	20" x 14"	BZ33WRAG2014-13WH	.3496165	194	13-1/2"	19-1/2"	15-3/4"	21-3/4"	1/3"	
WH	20" x 14"	BZ33WRAG2014-12WH	.3496112	194	13-1/2"	19-1/2"	15-3/4"	21-3/4"	1/2"	
WH	20" x 16"	BZ33WRAG2016-13WH	.3496169	209	15-1/2"	19-1/2"	17-3/4"	21-3/4"	1/3"	
WH	20" x 16"	BZ33WRAG2016-12WH	.3496111	209	15-1/2"	19-1/2"	17-3/4"	21-3/4"	1/2"	
WH	20" x 20"	BZ33WRAG2020-13WH	.3466143	269	19-1/2"	19-1/2"	21-3/4"	21-3/4"	1/3"	
WH	20" x 20"	BZ33WRAG2020-12WH	.3466248	269	19-1/2"	19-1/2"	21-3/4"	21-3/4"	1/2"	
WH	24" x 4"	BZ33WRAG2404-13WH	.3466160	59	23-1/2"	3-1/2"	21-3/4"	5-3/4"	1/3"	
WH	24" x 6"	BZ33WRAG2406-13WH	.3466363	93	23-1/2"	5-1/2"	25-3/4"	7-3/4"	1/3"	
WH	24" x 6"	BZ33WRAG2406-12WH	.3496140	93	5-1/2"	23-1/2"	7-3/4"	25-3/4"	1/2"	

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		Fin	UPC
					C	D	E	F		
WH	24" x 8"	BZ33WRAG2408-13WH	.3496143	126	7-1/2"	23-1/2"	9-3/4"	25-3/4"	1/3"	
WH	24" x 8"	BZ33WRAG2408-12WH	.3466301	126	23-1/2"	7-1/2"	25-3/4"	9-3/4"	1/2"	
WH	24" x 10"	BZ33WRAG2410-13WH	.3466133	160	23-1/2"	9-1/2"	25-3/4"	7-3/4"	1/3"	
WH	24" x 10"	BZ33WRAG2410-12WH	.3496153	160	9-1/2"	23-1/2"	11-3/4"	25-3/4"	1/2"	
WH	24" x 12"	BZ33WRAG2412-13WH	.3466145	194	23-1/2"	11-1/2"	25-3/4"	13-3/4"	1/3"	
WH	24" x 12"	BZ33WRAG2412-12WH	.3496157	194	11-1/2"	23-1/2"	13-3/4"	25-3/4"	1/2"	
WH	24" x 14"	BZ33WRAG2414-13WH	.3466047	228	23-1/2"	13-1/2"	25-3/4"	15-3/4"	1/3"	
WH	24" x 16"	BZ33WRAG2416-13WH	.3466106	259	23-1/2"	15-1/2"	25-3/4"	17-3/4"	1/3"	
WH	24" x 16"	BZ33WRAG2416-12WH	.3466161	247	23-1/2"	15-1/2"	25-3/4"	17-3/4"	1/2"	

SPECIFICATIONS

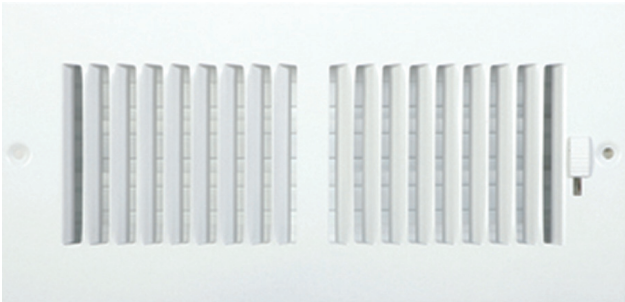
Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		Fin	UPC
					C	D	E	F		
WH	24" x 18"	BZ33WRAG2418-13WH	.3496182	260	17-1/2"	23-1/2"	19-3/4"	25-3/4"	1/3"	 8 10018 12640 7
WH	24" x 20"	BZ33WRAG2420-13WH	.3496189	285	19-1/2"	23-1/2"	21-3/4"	25-3/4"	1/3"	 8 10018 12631 5
WH	24" x 24"	BZ33WRAG2424-13WH	.3465886	396	23-1/2"	23-1/2"	25-3/4"	25-3/4"	1/3"	 8 19030 02827 0
WH	24" x 24"	BZ33WRAG2424-12WH	.3466131	396	23-1/2"	23-1/2"	25-3/4"	25-3/4"	1/2"	 8 19030 02824 9
WH	24" x 30"	BZ33WRAG2430-13WH	.3496213	430	29-1/2"	23-1/2"	31-3/4"	25-3/4"	1/3"	 8 10018 12644 5
WH	30" x 4"	BZ33WRAG3004-13WH	.3496136	108	3-1/2"	29-1/2"	5-3/4"	31-3/4"	1/3"	 8 10018 12641 4
WH	30" x 6"	BZ33WRAG3006-13WH	.3466370	116	29-1/2"	5-1/2"	31-3/4"	7-3/4"	1/3"	 8 19030 02772 3
WH	30" x 6"	BZ33WRAG3006-12WH	.3466430	116	29-1/2"	5-1/2"	31-3/4"	7-3/4"	1/2"	 8 19030 02767 9
WH	30" x 8"	BZ33WRAG3008-13WH	.3466299	158	29-1/2"	7-1/2"	31-3/4"	9-3/4"	1/3"	 8 19030 02788 4

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		Fin	UPC
					C	D	E	F		
WH	30" x 10"	BZ33WRAG3010-13WH	.3466166	200	29-1/2"	9-1/2"	31-3/4"	11-3/4"	1/3"	
WH	30" x 10"	BZ33WRAG3010-12WH	.3496159	200	9-1/2"	29-1/2"	11-3/4"	31-3/4"	1/2"	
WH	30" x 12"	BZ33WRAG3012-13WH	.3496175	242	11-1/2"	29-1/2"	13-3/4"	31-3/4"	1/3"	
WH	30" x 12"	BZ33WRAG3012-12WH	.3496166	242	11-1/2"	29-1/2"	13-3/4"	31-3/4"	1/2"	
WH	30" x 14"	BZ33WRAG3014-13WH	.3496181	284	13-1/2"	29-1/2"	15-3/4"	31-3/4"	1/3"	
WH	30" x 16"	BZ33WRAG3016-13WH	.3496183	316	15-1/2"	29-1/2"	17-3/4"	31-3/4"	1/3"	
WH	30" x 20"	BZ33WRAG3020-13WH	.3496191	400	19-1/2"	29-1/2"	21-3/4"	31-3/4"	1/3"	
WH	30" x 24"	BZ33WRAG3024-13WH	.3496200	430	23-1/2"	29-1/2"	25-3/4"	31-3/4"	1/3"	
WH	30" x 30"	BZ33WRAG3030-13WH	.3496212	621	29-1/2"	29-1/2"	31-3/4"	31-3/4"	1/3"	

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Free Area (Sq. In.)	Daylight Opening		Overall		Fin	UPC
					C	D	E	F		
WH	36" x 6"	BZ33WRAG3606-13WH	.3496177	160	5-1/2"	35-1/2"	7-3/4"	37-3/4"	1/3"	
WH	36" x 8"	BZ33WRAG3608-13WH	.3496116	182	7-1/2"	35-1/2"	9-3/4"	37-3/4"	1/3"	



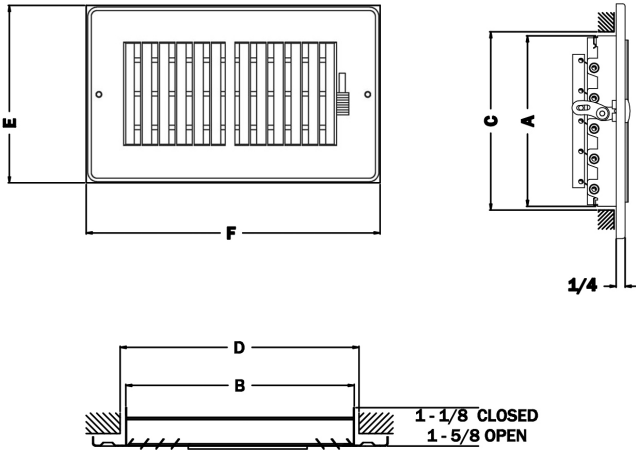
WCR

FEATURES

- 24 GA all-steel steel construction
- 1/3" or 1/2" spaced fins set
- Exceptional free area
- 2-way

FINISHES

White (WH)



WCR Size Options (In.)					
Height (A)	Width (B)				
	4	6	8	10	12
6		●			
8		●	●		
10	●	●	●	●	
12	●	●	●	●	●
14	●	●	●	●	
16			●		

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Daylight Opening		Overall		Fin	UPC
				C	D	E	F		
WH	6" x 6"	BZ33WCR0606-13WH	.3466100	5-1/2"	5-1/2"	7-3/4"	7-3/4"	1/3"	
WH	8" x 6"	BZ33WCR0806-13WH	.3465890	7-1/2"	5-1/2"	9-3/4"	7-3/4"	1/3"	
WH	8" x 8"	BZ33WCR0808-13WH	.3465954	7-1/2"	7-1/2"	9-3/4"	9-3/4"	1/3"	
WH	10" x 4"	BZ33WCR1004-13WH	.3496124	3-1/2"	9-1/2"	5-3/4"	11-3/4"	1/3"	
WH	10" x 4"	BZ33WCR1004-12WH	.3466446	9-1/2"	3-1/2"	11-3/4"	5-3/4"	1/2"	
WH	10" x 4"	BZ33WCR1004-3W12WH	.3496130	3-1/2"	3-1/2"	11-3/4"	5-3/4"	1/2"	
WH	10" x 6"	BZ33WCR1006-13WH	.3496127	5-1/2"	9-1/2"	7-3/4"	11-3/4"	1/3"	
WH	10" x 6"	BZ33WCR1006-12WH	.3466447	9-1/2"	5-1/2"	11-3/4"	7-3/4"	1/2"	
WH	10" x 8"	BZ33WCR1008-13WH	.3466102	9-1/2"	7-1/2"	11-3/4"	9-3/4"	1/3"	

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Daylight Opening		Overall		Fin	UPC
				C	D	E	F		
WH	10" x 10"	BZ33WCR1010-13WH	.3496110	9-1/2"	9-1/2"	11-3/4"	11-3/4"	1/3"	
WH	12" x 4"	BZ33WCR1204-13WH	.3496126	3-1/2"	11-1/2"	5-3/4"	13-3/4"	1/3"	
WH	12" x 4"	BZ33WCR1204-12WH	.3466445	11-1/2"	3-1/2"	13-3/4"	5-3/4"	1/2"	
WH	12" x 6"	BZ33WCR1206-12WH	.3466372	11-1/2"	5-1/2"	13-3/4"	7-3/4"	1/2"	
WH	12" x 8"	BZ33WCR1208-12WH	.3466438	11-1/2"	7-1/2"	13-3/4"	9-3/4"	1/2"	
WH	12" x 10"	BZ33WCR1210-13WH	.3465837	11-1/2"	9-1/2"	13-3/4"	11-3/4"	1/3"	
WH	12" x 12"	BZ33WCR1212-13WH	.3465874	11-1/2"	11-1/2"	13-3/4"	13-3/4"	1/3"	
WH	14" x 4"	BZ33WCR1404-13WH	.3466147	13-1/2"	3-1/2"	15-3/4"	5-3/4"	1/3"	
WH	14" x 6"	BZ33WCR1406-13WH	.3466421	13-1/2"	5-1/2"	15-3/4"	7-3/4"	1/3"	

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Daylight Opening		Overall		Fin	UPC
				C	D	E	F		
WH	14" x 8"	BZ33WCR1408-13WH	.3465955	13-1/2"	7-1/2"	15-3/4"	9-3/4"	1/3"	
WH	16" x 8"	BZ33WCR1608-13WH	.3465873	15-1/2"	7-1/2"	17-3/4"	9-3/4"	1/3"	



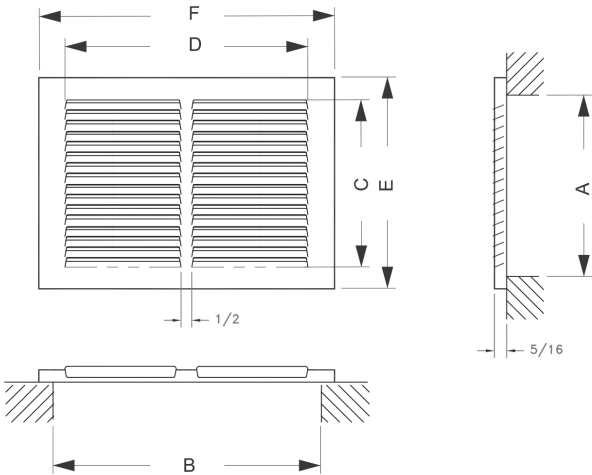
RAFG

FEATURES

- 24 GA all-steel steel construction
- Controls air volume evenly

FINISHES

White (WH)



RAFG Size Options (In.)								
Height (A)	Width (B)							
	12	14	16	18	20	24	25	30
12	●							
14		●			●	●	●	
16			●		●		●	
18				●				
20		●	●		●		●	●
24	●	●				●		
25		●	●		●			

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Daylight Opening		Overall		Fin	UPC
				C	D	E	F		
WH	12" x 12"	BZ33RAFG1212-13WH	.3496179	11-7/8"	11-7/8"	14-5/8"	14-5/8"	1/3"	
WH	14" x 14"	BZ33RAFG1414-13WH	.3496186	13-7/8"	13-7/8"	16-5/8"	16-5/8"	1/3"	
WH	14" x 14"	BZ33RAFG1414-12WH	.3496170	13-7/8"	13-7/8"	16-5/8"	16-5/8"	1/2"	
WH	14" x 20"	BZ33RAFG1420-13WH	.3496198	19-7/8"	13-7/8"	22-5/8"	16-5/8"	1/3"	
WH	14" x 24"	BZ33RAFG1424-13WH	.3496219	23-7/8"	13-7/8"	26-5/8"	16-5/8"	1/3"	
WH	14" x 25"	BZ33RAFG1425-13WH	.3496216	24-7/8"	13-7/8"	27-5/8"	16-5/8"	1/3"	
WH	16" x 16"	BZ33RAFG1616-13WH	.3496195	15-7/8"	15-7/8"	18-5/8"	18-5/8"	1/3"	
WH	16" x 16"	BZ33RAFG1616-12WH	.3496201	15-7/8"	15-7/8"	18-5/8"	18-5/8"	1/2"	
WH	16" x 20"	BZ33RAFG1620-13WH	.3496204	19-7/8"	15-7/8"	22-5/8"	18-5/8"	1/3"	

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Daylight Opening		Overall		Fin	UPC
				C	D	E	F		
WH	16" x 25"	BZ33RAFG1625-13WH	.3496220	24-7/8"	15-7/8"	27-5/8"	18-5/8"	1/3"	 8 10018 12652 0
WH	18" x 18"	BZ33RAFG1818-13WH	.3496207	17-7/8"	17-7/8"	20-5/8"	20-5/8"	1/3"	 8 10018 12664 3
WH	18" x 18"	BZ33RAFG1818-12WH	.3496185	17-7/8"	17-7/8"	20-5/8"	20-5/8"	1/2"	 8 10018 12647 6
WH	20" x 14"	BZ33RAFG2014-13WH	.3496199	13-7/8"	19-7/8"	16-5/8"	22-5/8"	1/3"	 8 10018 12663 6
WH	20" x 16"	BZ33RAFG2016-13WH	.3496202	15-7/8"	19-7/8"	18-5/8"	22-5/8"	1/3"	 8 10018 12659 9
WH	20" x 20"	BZ33RAFG2020-13WH	.3496197	19-7/8"	19-7/8"	22-5/8"	22-5/8"	1/3"	 8 10018 12653 7
WH	20" x 20"	BZ33RAFG2020-12WH	.3496196	19-7/8"	19-7/8"	22-5/8"	22-5/8"	1/2"	 8 10018 12646 9
WH	20" x 25"	BZ33RAFG2025-13WH	.3496221	24-7/8"	19-7/8"	27-5/8"	22-5/8"	1/3"	 8 10018 12657 5
WH	20" x 30"	BZ33RAFG2030-13WH	.3496224	29-7/8"	19-7/8"	32-5/8"	22-5/8"	1/3"	 8 10018 12665 0

SPECIFICATIONS

Finish	Size (A x B)	Model	ID No.	Daylight Opening		Overall		Fin	UPC
				C	D	E	F		
WH	24" x 12"	BZ33RAFG2412-13WH	.3496205	11-7/8"	23-7/8"	14-5/8"	26-5/8"	1/3"	
WH	24" x 12"	BZ33RAFG2412-12WH	.3496192	11-7/8"	23-7/8"	14-5/8"	26-5/8"	1/2"	
WH	24" x 14"	BZ33RAFG2414-13WH	.3496203	13-7/8"	23-7/8"	16-5/8"	26-5/8"	1/3"	
WH	24" x 24"	BZ33RAFG2424-13WH	.3496223	23-7/8"	23-7/8"	26-5/8"	26-5/8"	1/3"	
WH	25" x 14"	BZ33RAFG2514-13WH	.3496217	13-7/8"	24-7/8"	16-5/8"	26-5/8"	1/3"	
WH	25" x 16"	BZ33RAFG2516-13WH	.3496215	15-7/8"	24-7/8"	18-5/8"	27-5/8"	1/3"	
WH	25" x 20"	BZ33RAFG2520-13WH	.3496222	19-7/8"	24-7/8"	22-5/8"	27-5/8"	1/3"	



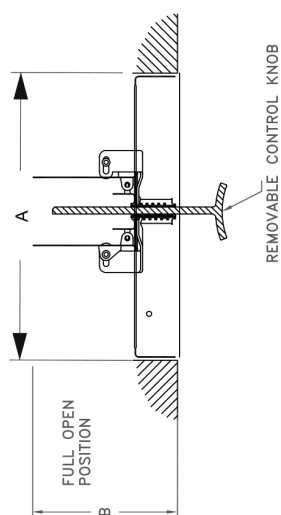
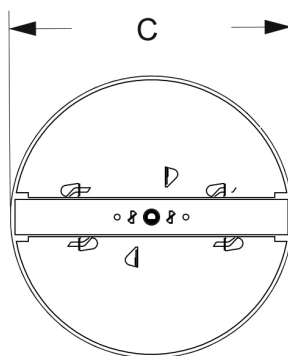
BFD

FEATURES

- 24 GA all-steel steel construction
- Controls air volume evenly
- Removable knob operator for adjustment from closed to fully open

FINISHES

 Brown (**BR**)



SPECIFICATIONS

Finish	Size (A)	Model	ID No.	B	C	UPC
BR	6"	BZ33BFD06BR	.3465698	3-11/16"	5-1/2"	 8 19030 02704 4
BR	8"	BZ33BFD08BR	.3465716	4-11/16"	7-1/2"	 8 19030 02714 3
BR	10"	BZ33BFD10BR	.3465691	5-11/16"	9-1/2"	 8 19030 02729 7
BR	12"	BZ33BFD12BR	.3465696	6-11/16"	11-1/2"	 8 19030 02753 2
BR	14"	BZ33BFD14BR	.3496168	7-11/16"	14-7/8"	 8 10018 12593 6



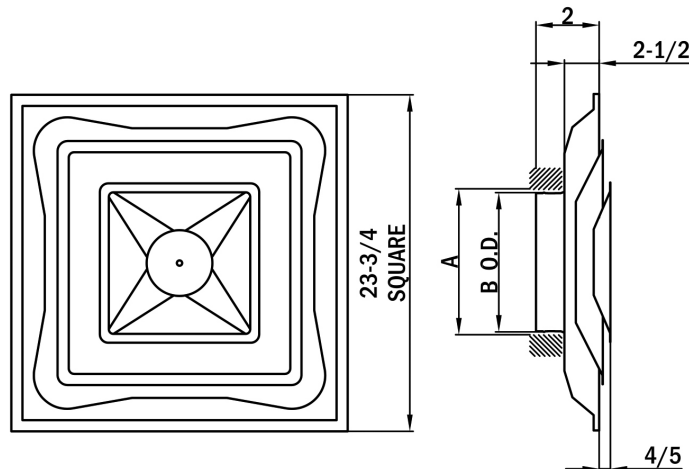
TBFPD

FEATURES

- 24 GA all-steel steel construction
- Provides high air volume delivery
- 360° air diffusion
- Two-cone fixed core
- Damper adjustable through face

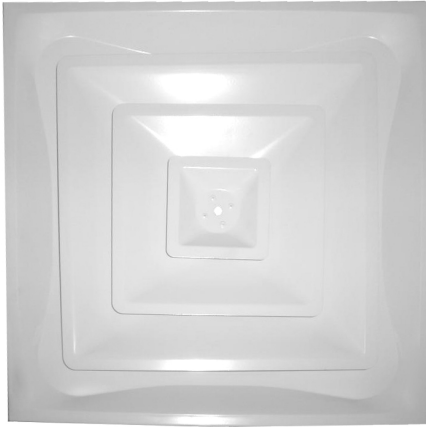
FINISHES

 White (WH)



SPECIFICATIONS

Finish	Size (A)	Model	ID No.	B	UPC
WH	6"	BZ33TBFPD06WH	.3466427	5-7/8"	 8 19030 02845 4
WH	8"	BZ33TBFPD08WH	.3466442	7-7/8"	 8 19030 02846 1
WH	10"	BZ33TBFPD10WH	.3466426	9-7/8"	 8 19030 02844 7
WH	12"	BZ33TBFPD12WH	.3466425	11-7/8"	 8 19030 02843 0
WH	14"	BZ33TBFPD14WH	.3466424	13-7/8"	 8 19030 02842 3



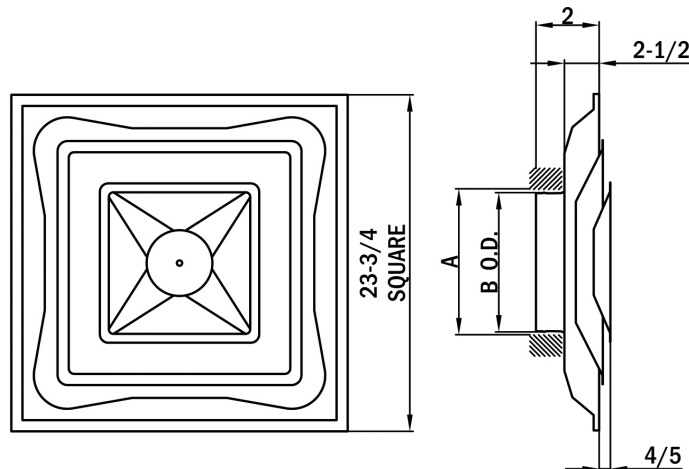
TBFPD3C

FEATURES

- 24 GA all-steel steel construction
- Provides high air volume delivery
- 360° air diffusion
- Three-cone fixed core
- Damper adjustable through face

FINISHES

 White (WH)



SPECIFICATIONS

Finish	Size (A)	Model	ID No.	B	UPC
WH	6"	BZ33TBFPD3C06WH	.3496209	5-7/8"	 8 10018 12671 1
WH	8"	BZ33TBFPD3C08WH	.3496208	7-7/8"	 8 10018 12670 4
WH	10"	BZ33TBFPD3C10WH	.3496210	9-7/8"	 8 10018 12673 5
WH	12"	BZ33TBFPD3C12WH	.3496211	11-7/8"	 8 10018 12674 2

BASEBOARD DIFFUSERS - 15"

Face Velocity		300	400	500	600	700	800
15" Ak.159	CFM	48	63	79	95	111	127
	Ps	0.005	0.009	0.014	0.02	0.027	0.035
Throw	50	5.5	7.5	9	11	13	14.5
Spread	FPM	5.5	7.5	7.5	11.5	13.5	15
Throw	100	3	3.5	4.5	5.5	6.5	7.5
Spread	FPM	3	3.5	4.5	5.5	6.5	7.5
Throw	150	2	2.5	3	3.5	4.5	5
Spread	FPM	2	2.5	3	3.5	4.5	5

BASEBOARD DIFFUSERS - 18"

Face Velocity		300	400	500	600	700	800
Pressure Loss		0.013	0.022	0.035	0.048	0.067	0.088
18" Ak .260	CFM	80	105	130	155	180	210
	Spread	4.5	6.5	7.5	8.5	9.5	11
	Throw	5	7	8	9	10	11

BASEBOARD DIFFUSERS - 24"

Face Velocity		300	400	500	600	700	800
Pressure Loss		0.017	0.03	0.05	0.06	0.09	0.12
24" Ak .36	CFM	105	140	170	200	230	270
	Spread	5.5	7	8.5	10.5	12	13.5
	Throw	6	7.5	9	11	12.5	14

BASEBOARD RETURNS

Face Velocity		300	400	500	600
10 x 6	CFM	84	112	140	168
	Ps	0.01	0.018	0.029	0.041
12 x 6 Ak .337	CFM	101	135	168	200
	Ps	0.01	0.018	0.029	0.041
14 x 6 Ak .394	CFM	118	158	197	236
	Ps	0.01	0.018	0.029	0.041
14 x 8 Ak .527	CFM	158	211	264	316
	Ps	0.01	0.018	0.029	0.041
18 x 18 Ak 1.46	CFM	439	585	732	878
	Ps	0.019	0.033	0.052	0.073
24 x 6 Ak .681	CFM	204	272	340	408
	Ps	0.01	0.018	0.029	0.041
24 x 8 Ak .911	CFM	273	364	455	547
	Ps	0.01	0.018	0.029	0.041
30 x 8	CFM	343	457	571	685
	Ps	0.01	0.018	0.029	0.041
30 x 10 Ak 1.36	CFM	410	546	680	820
	Ps	0.031	0.056	0.088	0.126

FLOOR REGISTERS

Face Velocity		300	400	500	600	700	800	900	1000
Pressure Loss		0.006	0.01	0.016	0.022	0.031	0.04	0.05	0.062
2 x 10 Ak .085	CFM	30	35	45	50	60	70	75	85
	Spread	3	3	5	5	6	7	8	9
	Throw	3.5	4	4.5	6	7	8	9	10
2 x 12 Ak .100	CFM	30	40	50	60	70	80	90	100
	Spread	3	4	4.5	5.5	6.5	7	8	9
	Throw	3.5	4.5	5.5	7	8	9	10	11
2 x 14 Ak .115	CFM	35	45	60	70	80	90	105	115
	Spread	3.5	4	5	7	7	8	9	10
	Throw	3.5	4.5	6	8	8	9.5	10.5	12
4 x 8 Ak .130	CFM	40	50	65	80	90	105	115	130
	Spread	3	4	5	6.5	7.5	8.5	9.5	11
	Throw	4	4.5	6	7.5	8.5	10	11	13
4 x 10 Ak .170	CFM	50	70	85	100	120	135	155	170
	Spread	4.5	5	6.5	7.5	9	10	11.5	13
	Throw	4	6	8	10	11	12.5	14	15.5
4 x 12 Ak .195	CFM	60	80	100	120	140	160	175	195
	Spread	5	6.5	8	9.5	11.5	13	14.5	16
	Throw	4	5.5	7	8	9.5	11	12	13

ENGINEERING DATA

FLOOR REGISTERS

Face Velocity		300	400	500	600	700	800	900	1000
4 x 14 Ak .230	CFM	70	90	115	140	160	185	205	230
	Spread	5.5	7	8.5	10	12	13.5	15.5	17
	Throw	4.5	5.5	7	8.5	10	11.5	12.5	14
6 x 10 Ak 0.24	CFM	70	95	120	145	170	190	215	240
	Spread	5.5	7	8	10	12	14	15	17
	Throw	4	5.5	7	8.5	10	11	12.5	14
6 x 12 Ak 0.285	CFM	85	115	140	170	200	230	255	285
	Spread	6	7.5	9	11	13	15	17	19
	Throw	4.5	6	7.5	9	10	12	14	16
6 x 14 Ak 0.33	CFM	100	130	165	200	230	265	300	330
	Spread	6.5	8	9	12	14	16.5	18	20
	Throw	4.5	6.5	8	9.5	11	13	15	17

TOE SPACE GRILLES

Face Velocity		300	400	500	600	700	800	900	1000
Pressure Loss		0.006	0.01	0.016	0.022	0.031	0.04	0.05	0.062
2 x 10 Ak .085	CFM	30	35	45	50	60	70	75	85
	Spread	2	3	5	5	6	7	8	9
	Throw	3.5	4	4.5	6	7	8	9	10
2 x 12 Ak .085	CFM	30	40	50	60	70	80	90	100
	Spread	3	4	4.5	5.5	6.5	7	8	9
	Throw	3.5	4.5	5.5	7	8	9	10	11
2 x 14 Ak .115	CFM	35	45	60	70	80	90	105	115
	Spread	3.5	4	5	7	7	8	9	10
	Throw	3.5	4.5	6	8	8	9.5	10.5	12
4 x 12 Ak .195	CFM	60	80	100	120	140	160	175	190
	Spread	5	6.5	8	9.5	11.5	13	14.5	16
	Throw	4	5.5	7	8	9.5	11	12	13

FLOOR RETURNS

Face Velocity		400	500	600	700	800	900	1000
4 x 10 Ak .255	CFM	105	135	165	195	225	255	285
	Ps	0.10	0.17	0.23	0.32	0.42	0.45	0.55
4 x 12 Ak .295	CFM	120	150	175	205	235	265	295
	Pt	0.011	0.017	0.024	0.033	0.043	0.054	0.065
4 x 14 Ak .335	CFM	135	170	200	235	270	300	335
	Pt	0.011	0.016	0.023	0.032	0.042	0.052	0.064
4 x 24 Ak .68	CFM	270	340	410	475	545	610	680
	Pt	0.009	0.014	0.019	0.027	0.035	0.044	0.055
4 x 30 Ak .85	CFM	340	425	510	595	680	765	850
	Pt	0.009	0.013	0.019	0.026	0.033	0.042	0.053
6 x 10 Ak .37	CFM	150	185	220	260	295	335	370
	Pt	0.01	0.016	0.022	0.031	0.041	0.051	0.063
6 x 12 Ak .445	CFM	180	225	265	310	355	400	445
	Pt	0.01	0.015	0.021	0.03	0.039	0.049	0.06

FLOOR RETURNS

Face Velocity		400	500	600	700	800	900	1000
6 x 14 Ak .51	CFM	205	255	305	355	410	460	510
	Pt	0.01	0.015	0.02	0.029	0.038	0.047	0.058
6 x 20 Ak .72	CFM	290	360	430	505	575	650	720
	Ps	0.009	0.014	0.019	0.027	0.035	0.043	0.054
6 x 24 Ak .85	CFM	340	425	510	595	680	765	850
	Pt	0.009	0.013	0.019	0.026	0.033	0.042	0.053
6 x 30 Ak .103	CFM	410	515	620	720	825	925	1030
	Pt	0.008	0.012	0.018	0.024	0.032	0.04	0.049
8 x 10 Ak 0.49	CFM	195	245	295	345	390	440	490
	Pt	0.01	0.015	0.021	0.029	0.038	0.047	0.059
8 x 12 Ak .565	CFM	235	295	350	410	470	525	585
	Pt	0.009	0.014	0.02	0.028	0.036	0.046	0.057
8 x 14 Ak .68	CFM	270	340	410	475	545	610	680
	Pt	0.009	0.014	0.019	0.027	0.035	0.044	0.055
8 x 16 Ak 0.72	CFM	280	350	420	490	560	630	700
	Ps	0.009	0.013	0.019	0.027	0.035	0.043	0.054
8 x 20 Ak 1.35	CFM	410	515	620	725	830	935	1040
	Ps	0.10	0.17	0.23	0.027	0.035	0.043	0.054
8 x 24 Ak 1.11	CFM	445	555	665	775	890	1000	1110
	Pt	0.008	0.012	0.018	0.024	0.031	0.039	0.048
8 x 30 Ak 1.35	CFM	540	675	810	945	1080	1215	1350
	Pt	0.008	0.012	0.017	0.023	0.03	0.037	0.046
10 x 10 Ak .68	CFM	220	285	345	400	455	510	570
	Ps	0.004	0.006	0.01	0.013	0.017	0.022	0.027
10 x 12 Ak .72	CFM	270	340	410	475	545	610	680
	Pt	0.009	0.014	0.019	0.027	0.035	0.043	0.054
10 x 14 Ak 0.85	CFM	340	425	510	595	680	765	850
	Ps	0.009	0.013	0.019	0.026	0.033	0.042	0.053
10 x 20 Ak 1.21	CFM	450	550	650	750	850	950	1050
	Ps	0.07	0.011	0.016	0.022	0.033	0.035	0.043
10 x 24 Ak 1.58	CFM	220	285	345	400	455	510	570
	Ps	0.007	0.011	0.016	0.022	0.029	0.036	0.045
10 x 30 Ak 0.85	CFM	220	285	345	400	455	510	570
	Ps	0.04	0.006	0.01	0.013	0.017	0.022	0.027
12 x 12 Ak 0.85	CFM	340	425	510	595	680	765	850
	Pt	0.009	0.013	0.019	0.026	0.033	0.042	0.053
12 x 14 Ak 1.08	CFM	350	435	520	605	690	775	860
	Ps	0.008	0.014	0.019	0.027	0.035	0.043	0.054
12 x 20 Ak 1.45	CFM	600	660	720	780	840	900	960
	Ps	0.009	0.013	0.019	0.026	0.033	0.042	0.053
12 x 24 Ak 1.64	CFM	655	820	985	1150	1310	1475	1690
	Pt	0.007	0.011	0.016	0.022	0.029	0.036	0.044
12 x 30 Ak 2.00	CFM	800	1000	1200	1400	1600	1800	2000
	Pt	0.007	0.011	0.015	0.021	0.027	0.034	0.042

ENGINEERING DATA

FLOOR RETURNS

Face Velocity		400	500	600	700	800	900	1000
14 x 14 Ak 1.15	CFM	460	575	690	805	920	1035	1150
	Pt	0.008	0.012	0.018	0.024	0.031	0.039	0.048
14 x 16 Ak 1.25	CFM	475	490	505	520	535	550	565
	Ps	0.007	0.014	0.019	0.027	0.035	0.043	0.054
14 x 24 Ak 1.87	CFM	750	935	1120	1310	1495	1685	1870
	Pt	0.007	0.011	0.015	0.021	0.028	0.035	0.043
14 x 30 Ak 2.35	CFM	940	1175	1410	1645	1880	2115	2350
	Pt	0.007	0.011	0.015	0.02	0.026	0.033	0.04
16 x 30 Ak 2.74	CFM	1090	1350	1650	1920	2200	2450	2700
	Pt	0.021	0.032	0.048	0.064	0.085	0.105	0.13
20 x 30 Ak 4.35	CFM	1350	1570	1790	2010	223	2450	2670
	Ps	0.008	0.011	0.015	0.023	0.033	0.035	0.04
24 x 30 Ak 5.25	CFM	1550	1790	2030	2270	2510	2750	2990
	Ps	0.007	0.011	0.015	0.023	0.03	0.033	0.038

ROUND CEILING DIFFUSERS

Face Velocity		300	400	500	600	700	800	900	1000
Pressure Loss		0.006	0.01	0.016	0.022	0.031	0.04	0.05	0.062
6" Neck Ak .135	CFM	45	55	65	80	95	105	120	135
	Throw	2	2.5	3	3.5	4	4.5	5	5.5
8" Neck Ak .225	CFM	70	90	115	135	160	180	200	225
	Throw	2	3	3.5	4.5	5	5.5	6.5	7
10" Neck Ak .345	CFM	105	140	175	210	240	275	310	345
	Throw	2.5	3.5	4.5	5	6	7	8	8.5
12" Neck Ak .500	CFM	150	200	250	300	350	400	450	500
	Throw	3	4	5	6	7.5	8.5	9	10.5

WALL RETURNS - 1/3" FINS

Face Velocity		300	400	500	600
6 x 6 Ak .167	CFM	50	67	83	100
	Ps	0.01	0.018	0.029	0.041
6 x 14 Ak .390	CFM	116	155	193	232
	Ps	0.019	0.034	0.054	0.078
8 x 6 Ak .223	CFM	67	89	112	134
	Ps	0.01	0.018	0.029	0.041
8 x 8 Ak .299	CFM	90	120	150	179
	Ps	0.01	0.018	0.029	0.041
10 x 4 Ak .186	CFM	56	74	93	111
	Ps	0.01	0.018	0.029	0.041
10 x 6 Ak .280	CFM	84	112	140	168
	Ps	0.01	0.018	0.029	0.041
10 x 8 Ak .375	CFM	112	150	187	225
	Ps	0.01	0.018	0.029	0.041
10 x 10 Ak .470	CFM	141	188	235	282
	Ps	0.01	0.018	0.029	0.041

WALL RETURNS - 1/3" FINS

Face Velocity		300	400	500	600
12 x 4 Ak .28	CFM	84	112	140	168
	Ps	0.01	0.018	0.029	0.041
12 x 6 Ak .337	CFM	101	135	168	202
	Ps	0.01	0.018	0.029	0.041
12 x 8 Ak .451	CFM	135	180	226	271
	Ps	0.01	0.018	0.029	0.041
12 x 10 Ak .566	CFM	170	226	283	339
	Ps	0.01	0.018	0.029	0.041
12 x 12 Ak .681	CFM	204	272	340	408
	Ps	0.01	0.018	0.029	0.041
14 x 4 Ak .337	CFM	101	135	168	202
	Ps	0.01	0.018	0.029	0.041
14 x 6 Ak .394	CFM	118	158	197	236
	Ps	0.01	0.018	0.029	0.041
14 x 8 Ak .527	CFM	158	211	264	316
	Ps	0.01	0.018	0.029	0.041

WALL RETURNS - 1/3" FINS

Face Velocity		300	400	500	600
14 x 10 Ak .661	CFM	198	265	331	397
	Ps	0.01	0.018	0.029	0.041
14 x 12 Ak .796	CFM	239	318	398	477
	Ps	0.01	0.018	0.029	0.041
14 x 14 Ak .930	CFM	279	372	465	558
	Ps	0.01	0.018	0.029	0.041
14 x 20 Ak 1.335	CFM	401	534	668	801
	Ps	0.01	0.018	0.029	0.041
14 x 24 Ak 1.607	CFM	582	643	803	964
	Ps	0.01	0.018	0.029	0.041
16 x 8 Ak .604	CFM	181	242	302	362
	Ps	0.01	0.018	0.029	0.041
16 x 12 Ak .911	CFM	273	364	455	547
	Ps	0.01	0.018	0.029	0.041
16 x 14 Ak 1.065	CFM	320	426	533	639
	Ps	0.01	0.018	0.029	0.041
16 x 16 Ak 1.219	CFM	366	488	610	732
	Ps	0.01	0.018	0.029	0.041
16 x 20 Ak 1.374	CFM	412	550	687	825
	Ps	0.01	0.018	0.029	0.041
18 x 14 Ak 1.2	CFM	360	480	600	720
	Ps	0.01	0.018	0.029	0.041
18 x 16 Ak 1.27	CFM	380	507	634	760
	Ps	0.019	0.033	0.052	0.074
18 x 18 Ak 1.548	CFM	465	619	774	929
	Ps	0.01	0.018	0.029	0.041
20 x 6 Ak .556	CFM	170	226	283	339
	Ps	0.01	0.018	0.029	0.041
20 x 8 Ak .750	CFM	220	275	330	385
	Ps	0.018	0.032	0.051	0.07
20 x 10 Ak .949	CFM	285	380	475	570
	Ps	0.01	0.018	0.029	0.041
20 x 12 Ak 1.142	CFM	343	457	571	685
	Ps	0.01	0.018	0.029	0.041
20 x 14 Ak 1.335	CFM	401	534	668	801
	Ps	0.01	0.018	0.029	0.041
20 x 16 Ak 1.374	CFM	412	550	687	825
	Ps	0.01	0.018	0.029	0.041
20 x 20 Ak 1.917	CFM	575	767	959	1150
	Ps	0.01	0.018	0.029	0.041
24 x 4 Ak .451	CFM	135	180	226	271
	Ps	0.01	0.018	0.029	0.041
24 x 6 Ak .681	CFM	204	272	340	408
	Ps	0.01	0.018	0.029	0.041

WALL RETURNS - 1/3" FINS

Face Velocity		300	400	500	600
24 x 8 Ak .911	CFM	273	364	455	547
	Ps	0.01	0.018	0.029	0.041
24 x 10 Ak 1.142	CFM	343	457	571	685
	Ps	0.01	0.018	0.029	0.041
24 x 12 Ak 1.374	CFM	412	550	687	825
	Ps	0.01	0.018	0.029	0.041
24 x 14 Ak 1.607	CFM	482	643	803	964
	Ps	0.01	0.018	0.029	0.041
24 x 16 Ak 1.84	CFM	552	736	920	1104
	Ps	0.01	0.018	0.029	0.041
24 x 18 Ak 1.94	CFM	583	777	971	1166
	Ps	0.018	0.032	0.051	0.07
24 x 20 Ak 2.307	CFM	692	923	1153	1384
	Ps	0.01	0.019	0.029	0.042
24 x 24 Ak 2.775	CFM	832	1110	1387	1665
	Ps	0.01	0.019	0.029	0.042
24 x 30 Ak 3.479	CFM	1044	1392	1740	2088
	Ps	0.01	0.019	0.029	0.042
30 x 4 Ak .556	CFM	170	226	283	339
	Ps	0.01	0.018	0.029	0.041
30 x 6 Ak .853	CFM	256	341	427	512
	PS	0.01	0.018	0.029	0.041
30 x 8 Ak 1.142	CFM	343	457	571	685
	PS	0.01	0.018	0.029	0.041
30 x 10 Ak 1.432	CFM	430	573	716	859
	PS	0.01	0.018	0.029	0.041
30 x 12 Ak 1.723	CFM	517	689	862	1034
	Ps	0.01	0.018	0.029	0.041
30 x 14 Ak 2.015	CFM	604	806	1007	1209
	Ps	0.01	0.018	0.029	0.042
30 x 16 Ak 2.22	CFM	726	968	1210	1452
	Ps	0.018	0.032	0.05	0.068
30 x 20 Ak 2.892	CFM	868	1157	1446	1735
	Ps	0.01	0.019	0.029	0.042
30 x 24 Ak 3.479	CFM	1044	1392	1740	2088
	Ps	0.01	0.019	0.029	0.042
30 x 30 Ak 4.363	CFM	1309	1745	2181	2618
	Ps	0.01	0.019	0.029	0.042
36 x 6 Ak 1.027	CFM	308	411	513	616
	Ps	0.01	.018	0.029	0.041
36 x 8 Ak 1.374	CFM	412	550	687	825
	Ps	0.01	0.018	0.029	0.041

ENGINEERING DATA

WALL RETURNS - 1/2" FINS

Face Velocity		300	400	500	600
8 x 6 Ak .220	CFM	67	89	111	134
	Ps	0.019	0.035	0.054	0.079
12 x 6 Ak .440	CFM	100	133	166	199
	Ps	0.019	0.034	0.054	0.078
12 x 12 Ak .660	CFM	197	263	329	395
	Ps	0.019	0.034	0.053	0.07
12 x 24 Ak 1.3	CFM	391	521	651	782
	Ps	0.019	0.033	0.052	0.073
14 x 6 Ak .390	CFM	116	155	193	232
	Ps	0.019	0.034	0.053	0.077
14 x 8 Ak .510	CFM	154	205	257	308
	Ps	0.019	0.034	0.053	0.077
14 x 14 Ak .890	CFM	267	357	446	535
	Ps	0.019	0.034	0.053	0.075
14 x 20 Ak 1.27	CFM	380	507	634	760
	Ps	0.019	0.033	0.052	0.074
16 x 8 Ak .590	CFM	176	234	293	352
	Ps	0.019	0.034	0.053	0.077
16 x 10 Ak .730	CFM	219	292	365	438
	Ps	0.019	0.034	0.053	0.076
16 x 16 Ak 1.160	CFM	348	464	580	696
	Ps	0.019	0.033	0.052	0.074
16 x 20 Ak 1.270	CFM	380	507	634	760
	Ps	0.019	0.033	0.052	0.074
16 x 24 Ak 1.73	CFM	519	692	865	1038
	Ps	0.018	0.033	0.051	0.071
16 x 25 Ak 1.8	CFM	540	720	900	1081
	Ps	0.018	0.033	0.051	0.071
18 x 14 Ak 1.14	CFM	343	457	571	685
	Ps	0.019	0.033	0.052	0.074
18 x 18 Ak 1.460	CFM	439	585	732	878
	Ps	0.019	0.033	0.052	0.073

WALL RETURNS - 1/2" FINS

Face Velocity		300	400	500	600
20 x 10 Ak .91	CFM	273	364	455	546
	Ps	0.019	0.034	0.053	0.075
20 x 14 Ak 1.27	CFM	380	507	634	760
	Ps	0.019	0.033	0.052	0.074
20 x 16 Ak 1.27	CFM	380	507	634	760
	Ps	0.019	0.033	0.052	0.074
20 x 20 Ak .1800	CFM	540	720	900	1081
	Ps	0.018	0.033	0.051	0.07
20 x 24 Ak 2.16	CFM	647	862	1078	1293
	Ps	0.018	0.032	0.05	0.069
24 x 6 Ak .66	CFM	197	263	329	395
	Ps	0.019	0.034	0.053	0.077
24 x 8 Ak .870	CFM	262	349	437	524
	Ps	0.019	0.034	0.053	0.076
24 x 10 Ak 1.09	CFM	327	435	544	653
	Ps	0.019	0.033	0.052	0.074
24 x 12 Ak 1.3	CFM	391	521	651	782
	Ps	0.019	0.033	0.052	0.073
24 x 16 Ak 1.720	CFM	519	692	865	1038
	Ps	0.018	0.033	0.051	0.071
24 x 24 Ak 2.580	CFM	774	1032	1290	1548
	Ps	0.018	0.032	0.049	0.067
30 x 4 Ak .55	CFM	165	220	275	330
	Ps	0.019	0.034	0.053	0.077
30 x 6 Ak .820	CFM	246	328	410	492
	Ps	0.019	0.034	0.053	0.076
30 x 10 Ak 1.36	CFM	407	543	678	814
	Ps	0.019	0.033	0.052	0.073
30 x 12 Ak 1.62	CFM	487	649	812	974
	Ps	0.018	0.033	0.051	0.072

WALL/CEILING REGISTERS - 1/3"

Face Velocity		300	400	500	600	700	800	900	1000
Pressure Loss		0.006	0.01	0.016	0.022	0.031	0.04	0.05	0.062
6 x 6 Ak .110	CFM	40	60	80	100	120	140	160	180
	Throw	0.3	0.35	0.4	0.45	0.5	0.55	0.6	0.65
8 x 6 Ak .140	CFM	40	55	70	90	100	110	125	140
	Throw	5	6	8	9	11	12	14	15
8 x 8 Ak .200	CFM	60	80	100	120	140	160	180	200
	Throw	4	5.5	7	8	9.5	11	12.5	13.5
10 x 4 Ak .115	CFM	35	45	60	70	80	90	105	115
	Throw	3	4	5	6	7	8	9	10

WALL/CEILING REGISTERS - 1/3"

Face Velocity		300	400	500	600	700	800	900	1000
10 x 6 Ak .185	CFM	55	75	95	110	130	150	165	185
	Throw	4	5	6.5	8	9	10.5	12	13
10 x 8 Ak .225	CFM	70	90	115	135	160	180	205	225
	Throw	4.5	6	7.5	8.5	10.5	12	13	14.5
10 x 10 Ak .310	CFM	95	125	155	185	215	250	280	310
	Throw	5	7	8.5	10	12	14	15.5	17
12 x 4 Ak .14	CFM	40	55	70	85	100	110	125	140
	Throw	3.5	4.5	5.5	6.5	8	9	10	11.5
12 x 10 Ak .39	CFM	115	155	195	235	275	310	350	390
	Throw	6	8	10	12	14	16	18	20
12 x 12 Ak .470	CFM	140	190	235	280	330	375	425	470
	Throw	6.5	8.5	10.5	12.5	15	17	19	21
14 x 4 Ak .225	CFM	70	90	115	135	160	180	205	225
	Throw	6	8	12	12	14	16	18	20
14 x 6 Ak .290	CFM	85	115	145	175	205	230	260	290
	Throw	7	9	16	14	17	19	21	24
14 x 8 Ak .390	CFM	115	155	195	235	275	310	350	390
	Throw	6	8	10	12	14	16	18	20
16 x 6 Ak .33	CFM	100	130	165	200	230	265	295	330
	Throw	8	10	18	15	18	20	23	25
16 x 8 Ak .330	CFM	100	130	165	200	230	265	295	330
	Throw	8	10	18	15	18	20	23	25

WALL/CEILING REGISTERS - 1/2"

Face Velocity		300	400	500	600	700	800	900	1000
Pressure Loss		0.006	0.01	0.016	0.022	0.031	0.04	0.05	0.062
10 x 4 Ak .115	CFM	35	45	60	70	80	90	105	115
	Throw	3	4	5	6	7	8	9	10
10 x 6 Ak .185	CFM	55	75	95	110	130	150	165	185
	Throw	4	5	6.5	8	9.5	10.5	12	13
12 x 4 Ak .185	CFM	55	75	95	110	130	150	165	185
	Throw	4	5	6.5	8	9.5	10.5	12	13
12 x 6 Ak .290	CFM	85	111	145	180	200	230	260	290
	Throw	5	5	8.5	10	11.5	13.5	15	17
12 x 8 Ak .320	CFM	95	130	160	190	225	255	290	320
	Throw	5.5	6.5	9	10.5	12.5	14	16	18
14 x 10 Ak .39	CFM	115	155	195	235	275	310	350	390
	Throw	8	11	14	17	20	22	25	28

ENGINEERING DATA

RETURN AIR FILTER GRILLES

Face Velocity		300	400	500	600
12 x 12 Ak 0.681	CFM	204	272	340	408
	Ps	0.01	0.018	0.029	0.041
14 x 14 Ak 0.93	CFM	279	372	465	558
	Ps	0.01	0.018	0.029	0.041
14 x 20 Ak 1.335	CFM	401	534	668	801
	Ps	0.01	0.018	0.029	0.041
14 x 24 Ak 1.607	CFM	482	643	803	964
	Ps	0.01	0.018	0.029	0.041
14 x 25 Ak 1.73	CFM	519	692	865	1038
	Ps	0.018	0.033	0.051	0.073
16 x 16 Ak 1.219	CFM	366	488	610	732
	Ps	0.01	0.018	0.029	0.041
16 x 20 Ak 1.374	CFM	412	550	687	825
	Ps	0.01	0.018	0.029	0.041
16 x 25 Ak 1.95	CFM	552	736	920	1104
	Ps	0.01	0.018	0.029	0.041
18 x 18 Ak 1.548	CFM	465	619	774	929
	Ps	0.01	0.018	0.029	0.041
20 x 14 Ak 1.335	CFM	401	534	668	801
	Ps	0.01	0.018	0.029	0.041

RETURN AIR FILTER GRILLES

Face Velocity		300	400	500	600
20 x 16 Ak 1.46	CFM	439	585	732	878
	Ps	0.019	0.033	0.052	0.073
20 x 20 Ak 1.917	CFM	575	767	959	1150
	Ps	0.01	0.018	0.029	0.041
20 x 25 Ak 2.404	CFM	721	962	1202	1442
	Ps	0.01	0.019	0.029	0.042
20 x 30 Ak 2.892	CFM	868	1157	1446	1735
	Ps	0.01	0.019	0.029	0.042
24 x 12 Ak 1.374	CFM	412	550	687	825
	Ps	0.01	0.018	0.029	0.041
24 x 14 Ak 1.607	CFM	482	643	803	964
	Ps	0.01	0.018	0.029	0.041
24 x 24 Ak 2.775	CFM	832	1110	1387	1665
	Ps	0.01	0.019	0.029	0.042
25 x 14 Ak 1.607	CFM	482	643	803	964
	Ps	0.01	0.018	0.029	0.041
25 x 16 Ak .184	CFM	552	736	920	1104
	Ps	0.01	0.018	0.029	0.041
25 x 20 Ak 2.404	CFM	721	962	1202	1442
	Ps	0.01	0.019	0.029	0.042

T-BAR DIFFUSERS

Neck Velocity		400	500	600	700	800	900	1000	1200	1400	1600
6 An .200 Ak .115	CFM	80	100	120	135	155	175	195	235	275	315
	Ps	0.006	0.01	0.014	0.018	0.023	0.03	0.037	0.054	0.073	0.096
	NC	<20	<20	<20	<20	<20	20	25	30	35	40
	Throw	1	2	2	2.5	3	3.5	4	4.5	5.5	6.5
8 An .350 Ak .354	CFM	140	175	210	245	280	315	350	420	490	560
	Ps	0.01	0.015	0.022	0.029	0.038	0.049	0.06	0.086	0.117	0.15
	NC	<20	<20	<20	20	25	30	30	35	40	45
	Throw	2.5	3.5	4	4.5	5	5.5	6	7	8	9
10 An .540 Ak .400	CFM	220	275	325	380	435	490	545	655	765	875
	Ps	0.014	0.021	0.03	0.041	0.054	0.068	0.084	0.122	0.167	0.212
	NC	<20	<20	<20	20	25	30	35	40	45	50
	Throw	4	5.5	6.5	8	9	10.5	11.5	14.5	17	20
12 An .780 Ak .397	CFM	315	395	470	550	630	705	785	945	1100	1260
	Ps	0.015	0.023	0.033	0.045	0.06	0.072	0.094	0.132	0.18	0.23
	NC	<20	<20	20	25	30	35	35	40	45	50
	Throw	5.5	7	8.5	10	11.5	13	14.5	17.5	20.5	24
14 An 1.070 Ak .393	CFM	430	535	640	750	855	960	1070	1280	1500	1710
	Ps	0.023	0.036	0.051	0.071	0.093	0.115	0.14	0.205	0.277	0.35
	NC	<20	<20	25	30	35	35	40	45	50	55
	Throw	7	8.5	10.5	12	13.5	15.5	17	20.5	24	24.5

BREEZE33 RESIDENTIAL

	Breeze33	H&C	Accord	AirMate	Continental	Lima	Shoemaker	TruAire	US Aire
Baseboard Diffuser	BBD	406	150	350	150/180/240	470	875	115R/118R/120R	1340
Baseboard Return	BBRAG-13	657	195	174	BG31	671	1133	123R	—
Floor Register	FR	421	101	302	28/28PC	800	325	150M	1510D
Heavy Duty Floor Register	HDFR	411	110	310-FB	—	850	375	—	—
Floor Register, Screw Holes	FRWSH	421WSH	102	302-H	30	—	—	—	1510DX
Toe Space Grille	TSG	420	210	301	TG32	875	TS	150TS	1320
Floor Return	FRAG	265	120	325	F25	825	1600R	154R	1530
Round Ceiling Damper	RCDP	12	301	800-D	12B	—	—	801	—
Round Ceiling Diffuser	RCDF	16	300	800	16	150	90	800	9005
Duct Ring	DR	11	344	800-R	11	156	92	803	—
Wall Return (1/3")	WRAG-13	650	515	173	G35	63GH	1033	173	—
Wall Return (1/2")	WRAG-12	672	500	170	G25	60GH7	1050	170	1400
Wall/Ceiling Register (1/3")	WCR-13	661	222	163	32	632	833	132M	—
Wall/Ceiling Register (1/2")	WCR-12	682	202	160	22	602	850	102M	102M
Return Air Filter Grille	RAFG	659/673	520/525	170FF	FG2/FG3	60GH7	FG-1	190/190RF	1410F

BREEZE33 LIGHT COMMERCIAL

	Breeze33	H&C	Accord	AirMate	Carnes	Continental	Grille Tech	J&J	Krueger	Shoemaker	Titus	MetalAire	TruAir
Butterfly Damper	BFD	3800	343	800-DO	—	BCD	R22	RP12	RP12	AG-85	—	BDS	802
2 Cone T-Bar Diffuser	TBFPD	FPD	952	1302-INS	SFTB	FPD NI	—	—	M1450	HVL	350RLF	5700-6	2003CD
3 Cone T-Bar Diffuser	TBFPD3C	FPD3	962	1300-INS	SFTB	HVS	—	2004CD	—	HVD	TMS-3 IB	5800-6	2004CD

WARRANTY

WARRANTY

Breeze33 Products LLC (Breeze33) warrants to the ORIGINAL PURCHASER that its registers, grilles and diffusers shall be free from defects in material and workmanship under normal use and service for a lifetime. This warranty cannot be transferred - it is extended only to the original purchaser or first user of the product. By accepting and keeping this product you agree to all of the warranty terms and limitations of liability described below.

Breeze33's obligations under the warranty set forth above shall be to replace any Breeze33 register, grille or diffuser which is defective.

WHAT IS NOT COVERED?

The warranty above does not cover and Breeze33 is not liable for, (i) installation, (ii) any labor charges or (iii) products which have been damaged as a result of any accident, misuse, abuse, neglect, improper installation or maintenance, the use of abrasive or organic solvent cleaners, modification, failure to use the register, grille or diffuser in accordance with instructions provided by Breeze33.

HOW TO OBTAIN WARRANTY SERVICE

Contact our warranty department at 740-314-4404 to report the defect. Return failed product with proof of purchase, your name, and address within 30 days of failure to:

**Breeze33 Products LLC
350 Courtney Road
Sebring, Ohio 44672 USA**

LIMITATION OF LIABILITY

Breeze33's liability on any claim of any kind, including, without limitation, warranty, negligence and/or breach of contract, shall in no case exceed the purchase price paid by the customer. IN NO EVENT SHALL BREEZE33 BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING, WITHOUT LIMITATION, DAMAGE TO PROPERTY) OR PUNITIVE DAMAGES, DAMAGES IN THE NATURE OF PENALTIES OR SIMILAR OR RELATED DAMAGES OF ANY KIND.

DISCLAIMER OF WARRANTIES

BREEZE33 EXPRESSLY DISCLAIMS ALL WARRANTIES, EXCEPT AS EXPLICITLY STATED HEREIN, TO THE FULLEST EXTENT PERMITTED BY LAW, WHETHER WRITTEN, ORAL, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF PERFORMANCE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NONINFRINGEMENT. THIS DISCLAIMER INCLUDES ANY ORAL WARRANTIES OR REPRESENTATIONS MADE OR IMPLIED BY ANY AGENT, EMPLOYEE, SUBCONTRACTOR, MANAGER, DIRECTOR AND/OR REPRESENTATIVE OF BREEZE33.

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This image shows a full-page view of a blank sheet of white paper designed for writing. At the very top, there is a solid red horizontal band. Below this band, the word "NOTES" is printed in a large, bold, black sans-serif font. The remainder of the page is filled with horizontal grey lines, which are evenly spaced and extend across the width of the paper, providing a guide for handwriting.

[illegible]

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Available 8am-6pm
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3131 Industrial Blvd., Bethel Park, PA 15102
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354 West Main (Rt. 209), Byesville, OH 43723
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1215 McKinley Ave., SW. Canton, OH 44707
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6420 Woodland Ave., Cleveland, OH 44104
After Hours Emergency: 216-570-8974

Cleveland West 
216-529-1010
11200 Madison Ave., Cleveland, OH 44102
After Hours Emergency: 216-570-8974

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614-294-3500
1356 Cleveland Ave., Columbus, OH 43211
After Hours Emergency: 614-582-7832

Columbus West RDC 
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4300 Roberts Rd., Columbus, OH 43228
After Hours Emergency: 614-582-7832

Fremont 
419-332-2636
641 South Front St., Fremont, OH 43420
After Hours Emergency: 419-455-5996

Lorain 
440-245-6874
125 East 20th St., Lorain, OH 44052
After Hours Emergency: 440-343-2010

Mansfield 
419-524-0411
83 Smith Ave., Mansfield, OH 44905
After Hours Emergency: 419-571-4828

Melwood 
412-622-8100
434 Melwood Ave., Pittsburgh, PA 15213
After Hours Emergency: 412-310-8228

New Kensington
724-335-8343
419 Hileman Dr., New Kensington, PA 15068
After Hours Emergency: 412-527-6831

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740-345-9617
25 South 11th St., Newark, OH 43055
After Hours Emergency: 740-219-9623

North Hills
412-366-3143
331 Rochester Rd., Pittsburgh, PA 15237
After Hours Emergency: 330-604-7372

Pittsburgh RDC 
724-404-4021
72 E. Hillis St., Youngwood, PA 15697
After Hours Emergency: 724-221-0149

Sandusky 
419-625-5354
1341 Olds St., Sandusky, OH 44870
After Hours Emergency: 419-656-0566

Sebring CDC
330-851-4007
350 Courtney Rd., Sebring, OH 44672
After Hours Emergency: 330-414-4720

Steubenville 
740-282-0951
934 W. Adams St., Steubenville, OH 43952
After Hours Emergency: 304-914-1689

Toledo 
419-478-0343
220 Matzinger Rd., Toledo, OH 43612
After Hours Emergency: 419-392-2669

Uniontown 
724-437-9806
85 Pittsburgh St., Uniontown, PA 15401
After Hours Emergency: 724-323-2811

Warren 
330-369-2563
2436 Niles Rd., SE. Warren, OH 44484
After Hours Emergency: 330-509-9437

Washington 
724-225-8330
1110 W. Chestnut St., Washington, PA 15301
After Hours Emergency: 330-604-7372

Wheeling 
304-232-3310
2300 Market St., Wheeling, WV 26003
After Hours Emergency: 304-830-1324

Youngstown 
234-706-3525
886 E. Midlothian Blvd., Youngstown, OH 44502
After Hours Emergency: 330-301-1040

Famous Supply Outlet Store

Open every Friday 8AM - 4:30PM

216-223-3082
26200 Richmond Rd., Bedford Heights, OH 44146
Located across the street from our Bedford Heights branch

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Cleveland 
Kitchen & Bath: 216-223-3052
Window & Door: 216-356-4212
4701 Richmond Rd. Cleveland, OH 44128

Columbus 
Kitchen & Bath: 614-503-0875
4300 Roberts Rd. Columbus, OH 43228

