

METALAIRE™

GRD PRODUCT CATALOG



DISPLACEMENT VENTILATION PRODUCTS

DISPLACEMENT VENTILATION PRODUCTS

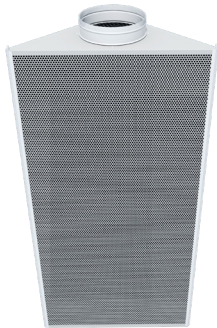
Displacement Ventilation systems provide conditioned air at floor level at very low velocity and allow heat sources within the room (like computers, lamps or people) to create the convective forces that move the warmed air to the ceiling for extraction.



Rectangular Wall Mount Displacement Diffusers

Rectangular Shaped In-Room, Wall-Mount Displacement Diffusers.

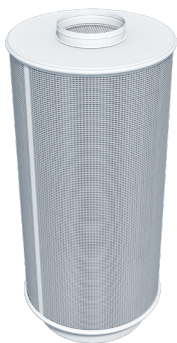
PAGE 2



Corner Unit Displacement Diffuser

Corner Unit, 1-Way Displacement Diffuser.

PAGE 8



Round Wall Mount Displacement Diffusers

Round Shaped In-Room, Wall-Mount Displacement Diffusers.

PAGE 11



In-Wall Mount Displacement Diffusers

Rectangular Shaped, 1-Way Displacement Diffusers.

PAGE 18



DD-REC 1W

The Model DD-REC is a rectangular displacement diffuser designed for wall mounting around the periphery of a room. Our uniquely designed mounting system allows for quick and easy installation of these wall mount displacement diffusers.

DD-REC is available in -1W (One Way), -2 (Two Way, in 3 different combinations) and -3W (Three Way) configurations providing maximum flexibility. The DD-REC is offered in 1' to 4' widths in a variety of heights.

Optional bases and duct covers are available to complete the installation.

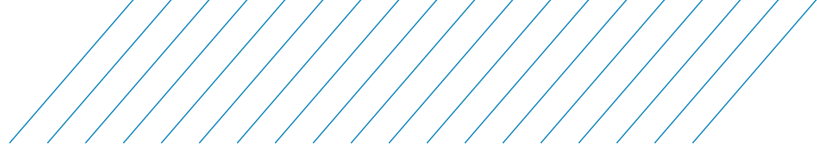
- 23% Perforated Face
- Designed to match DD-CU



DISPLACEMENT VENTILATION PERFORMANCE DATA

MODEL DD-REC 1W

Unit Size (w x h)	Inlet Size	Neck Velocity	200	300	400	500	600	700	800
		Velocity Pressure	0.002	0.006	0.01	0.016	0.022	0.031	0.04
24"x24"	8" Dia.	CFM	70	105	140	175	210	245	280
		P _t	0.015	0.030	0.050	0.079	0.109	0.144	0.182
		Throw	1	3	4	4	6	8	10
		NC	-	-	-	-	-	11	14
24"x36"	8" Dia.	CFM	70	105	140	175	210	245	280
		P _t	0.014	0.025	0.046	0.076	0.105	0.144	0.190
		Throw	1	2	3	4	5	6	7
		NC	-	-	-	-	-	-	-
24"x48"	8" Dia.	CFM	110	165	220	275	330	380	440
		P _t	0.011	0.025	0.044	0.069	0.100	0.132	0.177
		Throw	1	2	3	4	4	6	6
		NC	-	-	-	-	-	-	-
24"x60"	10" Dia.	CFM	110	165	220	275	330	380	440
		P _t	0.011	0.025	0.044	0.069	0.100	0.132	0.177
		Throw	2	3	5	5	6	7	8
		NC	-	-	-	-	-	-	-
36"x24"	10" Dia.	CFM	110	165	220	275	330	380	440
		P _t	0.011	0.025	0.044	0.069	0.100	0.132	0.177
		Throw	3	4	6	5	10	8	9
		NC	-	-	-	-	-	12	15
36"x36"	10" Dia.	CFM	110	165	220	275	330	380	440
		P _t	0.012	0.025	0.047	0.073	0.100	0.134	0.177
		Throw	3	4	5	5	9	8	9
		NC	-	-	-	-	-	-	-
36"x48"	10" Dia.	CFM	160	240	320	400	470	550	630
		P _t	0.011	0.025	0.045	0.071	0.098	0.134	0.175
		Throw	6	9	12	15	18	21	23
		NC	-	-	-	-	-	-	-
36"x60"	10" Dia.	CFM	160	240	320	400	470	550	630
		P _t	0.014	0.031	0.054	0.085	0.117	0.160	0.210
		Throw	5	8	10	14	16	20	21
		NC	-	-	-	-	-	-	-



DISPLACEMENT VENTILATION PERFORMANCE DATA

MODEL DD-REC 1W

Unit Size (w x h)	Inlet Size	Neck Velocity	200	300	400	500	600	700	800
		Velocity Pressure	0.002	0.006	0.01	0.016	0.022	0.031	0.04
48"x24"	10" Dia.	CFM	110	165	220	275	330	380	440
		P _t	0.011	0.023	0.047	0.068	0.106	0.138	0.175
		Throw	1	3	3	7	12	13	14
		NC	-	-	-	-	-	13	15
48"x36"	10" Dia.	CFM	110	165	220	275	330	380	440
		P _t	0.011	0.025	0.044	0.069	0.100	0.132	0.177
		Throw	1	2	2	5	10	11	12
		NC	-	-	-	-	-	-	-
48"x72"	12" Dia.	CFM	160	240	320	400	470	550	630
		P _t	0.011	0.025	0.045	0.071	0.098	0.134	0.175
		Throw	4	8	10	11	13	15	17
		NC	-	-	-	-	-	-	-
48"x72"	24"x8"	CFM	265	395	530	665	790	930	1065
		P _t	0.011	0.024	0.043	0.068	0.096	0.132	0.174
		Throw	7	11	15	17	22	23	27
		NC	-	-	-	-	13	18	21

PERFORMANCE NOTES FOR MODEL DD-REC 1W

All data is tested in accordance with ANSI/ASHRAE 70-2006.

DEFINITION OF UNITS

CFM Cubic Feet per Minute (air)

P_t Total pressure (inches of water column)

Throw Distance in feet @50fpm terminal velocity with 10°FΔT cooling differential.

NC Noise criterion, sound pressure level NC ratings are based on sound power level (Lw) re: 10⁻¹² watts minus a 10dB room attenuation in all octave bands

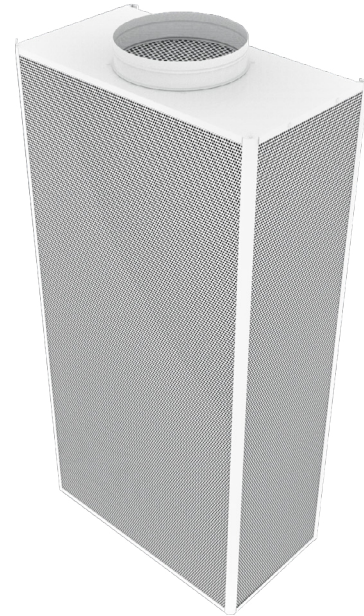
DD-REC 3W

The Model DD-REC is a rectangular displacement diffuser designed for wall mounting around the periphery of a room. Our uniquely designed mounting system allows for quick and easy installation of these wall mount displacement diffusers.

DD-REC is available in -1W (One Way), -2 (Two Way, in 3 different combinations) and -3W (Three Way) configurations providing maximum flexibility. The DD-REC is offered in 1' to 4' widths in a variety of heights.

Optional bases and duct covers are available to complete the installation.

- 23% Perforated Face
- Designed to match DD-CU



DISPLACEMENT VENTILATION PERFORMANCE DATA

MODEL DD-REC 3W

Unit Size (w x h)	Inlet Size	Neck Velocity	200	300	400	500	600	700	800
		Velocity Pressure	0.002	0.006	0.010	0.016	0.022	0.031	0.040
24"x24"	8" Dia.	CFM	70	105	140	175	210	245	280
		P _t	0.005	0.011	0.020	0.031	0.044	0.060	0.078
		Throw	2	3	4	5	6	7	8
		NC	-	-	-	-	-	-	15
24"x48"	10" Dia.	CFM	110	165	220	275	325	380	435
		P _t	0.005	0.011	0.020	0.031	0.043	0.059	0.077
		Throw	1	2	2	3	5	7	9
		NC	-	-	-	-	-	-	-
24"x60"	10" Dia.	CFM	110	165	220	275	325	380	435
		P _t	0.005	0.011	0.020	0.031	0.043	0.059	0.077
		Throw	1	2	2	3	5	7	9
		NC	-	-	-	-	-	-	-
48"x24"	10" Dia.	CFM	110	165	220	275	325	380	435
		P _t	0.005	0.011	0.020	0.031	0.043	0.059	0.077
		Throw	1	1	2	3	5	7	8
		NC	-	-	-	-	-	-	15
60"x24"	10" Dia.	CFM	110	165	220	275	325	380	435
		P _t	0.005	0.011	0.020	0.031	0.043	0.059	0.077
		Throw	1	2	3	4	5	6	7
		NC	-	-	-	-	-	-	-
36"x48"	12" Dia.	CFM	155	235	315	395	470	550	630
		P _t	0.005	0.011	0.020	0.031	0.044	0.060	0.078
		Throw	2	4	5	6	8	9	11
		NC	-	-	-	-	-	-	13
36"x60"	12" Dia.	CFM	155	235	315	395	470	550	630
		P _t	0.005	0.011	0.020	0.031	0.044	0.060	0.078
		Throw	1	3	4	5	7	8	9
		NC	-	-	-	-	-	-	-
48"x36"	12" Dia.	CFM	155	235	315	395	470	550	630
		P _t	0.005	0.011	0.020	0.031	0.044	0.060	0.078
		Throw	2	3	5	6	8	9	10
		NC	-	-	-	-	-	-	15

DISPLACEMENT VENTILATION PERFORMANCE DATA

MODEL DD-REC 3W

Unit Size (w x h)	Inlet Size	Neck Velocity	200	300	400	500	600	700	800
		Velocity Pressure	0.002	0.006	0.010	0.016	0.022	0.031	0.040
60"x36"	12" Dia.	CFM	155	235	315	395	470	550	630
		P _t	0.005	0.011	0.020	0.031	0.044	0.060	0.078
		Throw	2	3	4	5	6	8	9
		NC	-	-	-	-	-	13	14
24"x24"	16"x6"	CFM	135	200	265	335	400	465	535
		P _t	0.005	0.011	0.019	0.031	0.044	0.059	0.078
		Throw	5	5	6	8	10	13	15
		NC	-	-	-	-	17	21	24
24"x48"	16"x8"	CFM	180	265	355	445	535	620	710
		P _t	0.005	0.011	0.019	0.030	0.044	0.059	0.078
		Throw	5	5	6	8	10	15	17
		NC	-	-	-	-	-	15	18
24"x60"	18"x8"	CFM	200	300	400	500	600	700	800
		P _t	0.005	0.011	0.019	0.030	0.044	0.060	0.078
		Throw	5	5	6	8	10	16	18
		NC	-	-	-	-	-	-	17
48"x24"	16"x8"	CFM	180	265	355	445	535	620	710
		P _t	0.004	0.009	0.015	0.024	0.035	0.047	0.061
		Throw	4	6	7	8	9	10	11
		NC	-	-	-	-	-	-	21

PERFORMANCE NOTES FOR MODEL DD-REC 3W

All data is tested in accordance with ANSI/ASHRAE 70-2006.

DEFINITION OF UNITS

CFM Cubic Feet per Minute (air)

P_t Total pressure (inches of water column)

Throw Distance in feet @50fpm terminal velocity with 10°FΔT cooling differential.

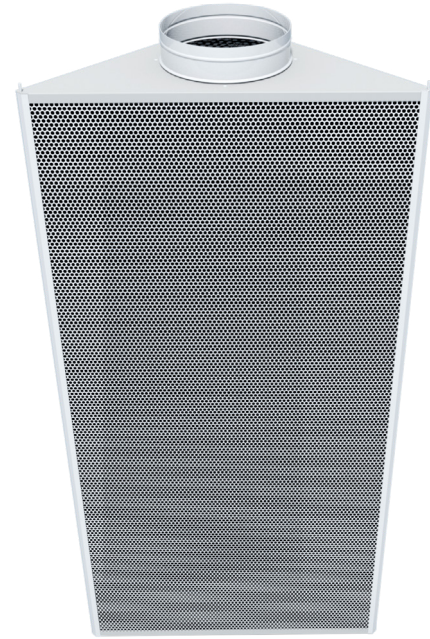
NC Noise criterion, sound pressure level NC ratings are based on sound power level (Lw) re: 10⁻¹² watts minus a 10dB room attenuation in all octave bands

DD-CU 1W

The Model DD-CU is a triangular displacement diffuser designed for mounting in corners of rooms. Our uniquely designed mounting system allows for quick and easy installation of these corner mount displacement diffusers. The DD-CU is offered in 1' to 4' widths in a variety of heights.

Optional bases and duct covers are available to complete the installation.

- 23% Perforated Face
- Designed to match DD-REC



DISPLACEMENT VENTILATION PERFORMANCE DATA

MODEL DD-CU 1W

Unit Size (w x h)	Inlet Size	Neck Velocity	200	300	400	500	600	700	800
		Velocity Pressure	0.002	0.006	0.01	0.016	0.022	0.031	0.04
24"x24"	8" Dia.	CFM	70	105	140	175	210	245	280
		P _t	0.009	0.016	0.024	0.031	0.046	0.061	0.082
		Throw	3	4	5	6	7	9	10
		NC	-	-	-	-	9	14	17
24"x36"	8" Dia.	CFM	70	105	140	175	210	245	280
		P _t	0.009	0.016	0.024	0.031	0.046	0.061	0.082
		Throw	3	4	5	7	8	9	11
		NC	-	-	-	-	-	12	14
24"x48"	8" Dia.	CFM	70	105	140	175	210	245	280
		P _t	0.009	0.016	0.024	0.031	0.046	0.061	0.082
		Throw	3	4	6	-	8	9	10
		NC	-	-	-	-	-	-	13
24"x60"	8" Dia.	CFM	70	105	140	175	210	245	280
		P _t	0.009	0.016	0.024	0.031	0.046	0.061	0.082
		Throw	3	4	6	7	8	10	11
		NC	-	-	-	-	-	-	12
24"x72"	8" Dia.	CFM	70	105	140	175	210	245	280
		P _t	0.009	0.016	0.024	0.031	0.046	0.061	0.082
		Throw	3	4	6	8	9	9	11
		NC	-	-	-	-	-	-	-
30"x24"	8" Dia.	CFM	70	105	140	175	210	245	280
		P _t	0.009	0.016	0.024	0.031	0.046	0.061	0.082
		Throw	3	4	5	6	6	8	9
		NC	-	-	-	-	-	17	12
30"x36"	8" Dia.	CFM	70	105	140	175	210	245	280
		P _t	0.009	0.016	0.024	0.031	0.046	0.061	0.082
		Throw	3	4	5	5	7	8	9
		NC	-	-	-	-	-	11	10
30"x48"	8" Dia.	CFM	70	105	140	175	210	245	280
		P _t	0.009	0.016	0.024	0.031	0.046	0.061	0.082
		Throw	3	4	5	5	7	8	9
		NC	-	-	-	-	-	-	-

DISPLACEMENT VENTILATION PERFORMANCE DATA

MODEL DD-CU 1W

Unit Size (w x h)	Inlet Size	Neck Velocity	200	300	400	500	600	700	800
		Velocity Pressure	0.002	0.006	0.01	0.016	0.022	0.031	0.04
30"x60"	10" Dia.	CFM	110	165	215	270	325	380	435
		P _t	0.008	0.014	0.023	0.031	0.047	0.064	0.080
		Throw	4	5	7	9	10	11	12
		NC	-	-	-	-	-	-	-
30"x72"	10" Dia.	CFM	110	165	215	270	325	380	435
		P _t	0.008	0.014	0.023	0.031	0.047	0.064	0.080
		Throw	4	5	7	9	10	11	11
		NC	-	-	-	-	-	16	22
36"x24"	10" Dia.	CFM	110	165	215	270	325	380	435
		P _t	0.008	0.014	0.023	0.031	0.047	0.064	0.080
		Throw	4	5	6	8	9	9	11
		NC	-	-	-	-	-	16	22
36"x36"	10" Dia.	CFM	110	165	215	270	325	380	435
		P _t	0.008	0.014	0.023	0.031	0.047	0.064	0.080
		Throw	4	5	6	8	9	10	11
		NC	-	-	-	-	-	11	16
36"x48"	10" Dia.	CFM	110	165	215	270	325	380	435
		P _t	0.008	0.014	0.023	0.031	0.047	0.064	0.080
		Throw	4	6	6	8	9	10	12
		NC	-	-	-	-	-	-	11
36"x60"	12" Dia.	CFM	160	235	315	395	475	550	630
		P _t	0.007	0.013	0.022	0.034	0.051	0.069	0.082
		Throw	4	5	8	10	19	16	15
		NC	-	-	-	-	-	12	16
36"x72"	12" Dia.	CFM	160	235	315	395	475	550	630
		P _t	0.007	0.035	0.063	0.098	0.143	0.193	0.245
		Throw	-	-	-	-	-	-	-
		NC	-	-	-	-	-	-	14

PERFORMANCE NOTES FOR MODEL DD-CU 1W

All data is tested in accordance with ANSI/ASHRAE 70-2006.

DEFINITION OF UNITS

CFM Cubic Feet per Minute (air)

P_t Total pressure (inches of water column)

Throw Distance in feet @50fpm terminal velocity with 10°FΔT cooling differential.

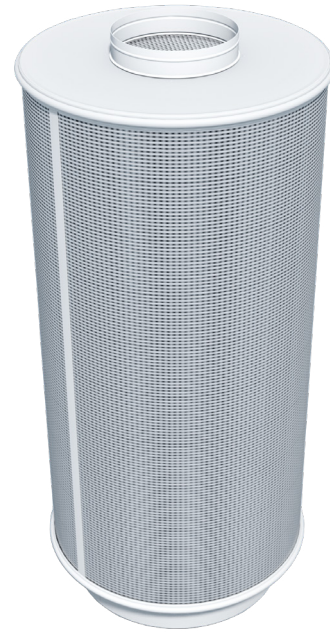
NC Noise criterion, sound pressure level NC ratings are based on sound power level (Lw) re: 10⁻¹² watts minus a 10dB room attenuation in all octave bands

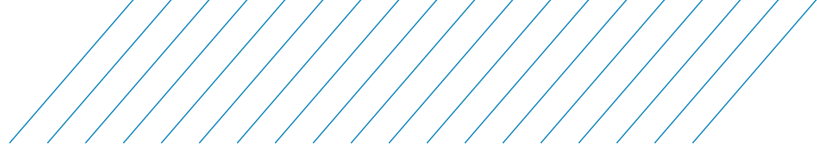
DD-RD-360

The Model DD-RD-360 is a round displacement diffuser with a 360 degree airflow designed for free-standing mounting for displacement coverage of very large rooms. Our uniquely designed mounting system allows for quick and easy installation of these free-standing displacement diffusers. The DD-RD-360 is offered in 18", 24", 30" and 36" diameters in a variety of heights to accommodate various flow requirements.

Optional bases and duct covers are available to complete the installation.

- Steel Construction
- 23% Perforated Face
- Designed to match the DD-RD-180 and DD-RD-90





DISPLACEMENT VENTILATION PERFORMANCE DATA

MODEL DD-RD-360

Unit Size (w x h)	Inlet Size	Neck Velocity	200	300	400	500	600	700	800
		Velocity Pressure	0.002	0.006	0.010	0.016	0.022	0.031	0.040
18"x36"	14" Dia.	CFM	215	320	430	535	640	750	855
		P _t	0.004	0.009	0.017	0.026	0.037	0.051	0.066
		Throw	5	8	9	10	11	13	14
		NC	-	-	-	-	-	-	18
24"x36"	14" Dia.	CFM	215	320	430	535	640	750	855
		P _t	0.004	0.009	0.017	0.026	0.037	0.051	0.066
		Throw	4	6	7	8	8	10	11
		NC	-	-	-	-	-	-	16
30"x36"	14" Dia.	CFM	215	320	430	535	640	750	855
		P _t	0.004	0.009	0.017	0.026	0.037	0.051	0.066
		Throw	3	5	5	6	7	8	8
		NC	-	-	-	-	-	-	-
18"x48"	14" Dia.	CFM	215	320	430	535	640	750	855
		P _t	0.004	0.009	0.017	0.026	0.037	0.051	0.066
		Throw	4	6	7	8	8	10	11
		NC	-	-	-	-	-	-	16
24"x48"	14" Dia.	CFM	215	320	430	535	640	750	855
		P _t	0.004	0.009	0.017	0.026	0.037	0.051	0.066
		Throw	3	5	5	5	6	7	8
		NC	-	-	-	-	-	-	-
30"x48"	16" Dia.	CFM	280	420	560	700	840	975	1115
		P _t	0.004	0.009	0.017	0.026	0.037	0.050	0.066
		Throw	7	9	11	13	13	14	16
		NC	-	-	-	-	16	17	19
24"x60"	16" Dia.	CFM	280	420	560	700	840	975	1115
		P _t	0.004	0.009	0.017	0.026	0.037	0.050	0.066
		Throw	7	8	10	13	14	14	16
		NC	-	-	-	-	-	-	18
30"x60"	18" Dia.	CFM	355	530	705	885	1060	1235	1415
		P _t	0.004	0.009	0.016	0.026	0.037	0.050	0.066
		Throw	15	18	19	22	24	24	26
		NC	-	-	-	-	-	17	19

DISPLACEMENT VENTILATION PERFORMANCE DATA

MODEL DD-RD-360

Unit Size (w x h)	Inlet Size	Neck Velocity	200	300	400	500	600	700	800
		Velocity Pressure	0.002	0.006	0.010	0.016	0.022	0.031	0.040
36"x36"	18" Dia.	CFM	355	530	705	885	1060	1235	1415
		P_t	0.004	0.009	0.016	0.026	0.037	0.050	0.066
		Throw	11	13	14	16	17	17	19
		NC	-	-	-	-	17	20	24
36"x48"	20" Dia.	CFM	435	655	875	1090	1310	1525	1745
		P_t	0.004	0.009	0.017	0.026	0.037	0.050	0.066
		Throw	10	13	16	17	19	20	22
		NC	-	-	-	-	18	20	21

PERFORMANCE NOTES FOR MODEL DD-RD-360

All data is tested in accordance with ANSI/ASHRAE 70-2006.

DEFINITION OF UNITS

CFM Cubic Feet per Minute (air)

P_t Total pressure (inches of water column)

Throw Distance in feet @50fpm terminal velocity with $10^\circ F \Delta T$ cooling differential.

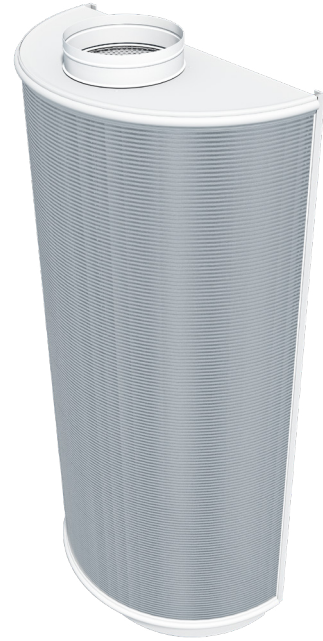
NC Noise criterion, sound pressure level NC ratings are based on sound power level (Lw) re: 10^{-12} watts minus a 10dB room attenuation in all octave bands

DD-RD-180

The Model DD-RD-180 is a semi-round displacement diffuser with a 180 degree airflow designed for wall mounting around the periphery of a room. Our uniquely designed mounting system allows for quick and easy installation of these wall mount displacement diffusers. The DD-RD-180 is offered in 18", 24", 30" and 36" diameters in a variety of heights to accommodate various flow requirements.

Optional bases and duct covers are available to complete the installation.

- Steel Construction
- 23% Perforated Face
- Designed to match the DD-RD-360 and DD-RD-90



DISPLACEMENT VENTILATION PERFORMANCE DATA MODEL DD-RD-180

Unit Size (w x h)	Inlet Size	Neck Velocity	200	300	400	500	600	700	800
		Velocity Pressure	0.002	0.006	0.010	0.016	0.022	0.031	0.04
18"x24"	6" Dia.	CFM	70	105	140	175	210	245	280
		P _t	0.004	0.010	0.017	0.027	0.038	0.049	0.064
		Throw	3	5	5	8	7	7	9
		NC	-	-	-	-	-	-	15
24"x24"	8" Dia.	CFM	70	105	140	175	210	245	280
		P _t	0.004	0.009	0.017	0.026	0.037	0.051	0.066
		Throw	5	7	8	9	11	12	13
		NC	-	-	-	-	-	-	-
24"x36"	8" Dia.	CFM	70	105	140	175	210	245	280
		P _t	0.004	0.009	0.017	0.026	0.037	0.051	0.066
		Throw	5	7	8	10	11	11	13
		NC	-	-	-	-	-	-	16
24"x48"	10" Dia.	CFM	110	165	220	275	325	380	435
		P _t	0.004	0.009	0.017	0.026	0.036	0.050	0.065
		Throw	6	9	12	14	15	16	17
		NC	-	-	-	-	-	-	16
30"x24"	10" Dia.	CFM	110	165	220	275	325	380	435
		P _t	0.004	0.009	0.017	0.026	0.036	0.050	0.065
		Throw	6	8	10	12	14	15	16
		NC	-	-	-	-	-	-	17
30"x36"	10" Dia.	CFM	110	165	220	275	325	380	435
		P _t	0.004	0.009	0.017	0.026	0.036	0.050	0.065
		Throw	9	10	12	14	17	18	22
		NC	-	-	-	-	14	22	29

PERFORMANCE NOTES FOR MODEL DD-RD-180

All data is tested in accordance with ANSI/ASHRAE 70-2006.

DEFINITION OF UNITS

CFM Cubic Feet per Minute (air)

P_t Total pressure (inches of water column)

Throw Distance in feet @50fpm terminal velocity with 10°FΔT cooling differential.

NC Noise criterion, sound pressure level NC ratings are based on sound power level (Lw) re: 10⁻¹² watts minus a 10dB room attenuation in all octave bands

DD-RD 90

The Model DD-RD-90 is a radiused displacement diffuser designed for corner mounting. This unit provides 90 degree coverage allowing for low velocity displacement diffusion and is the perfect choice for corner coverage with minimal footprint. The DD-RD-90 is offered in 12", 15", 18" and 24" widths in 2' to 4' heights

Optional bases and duct covers are available to complete the installation.

- Steel Construction
- 23% Perforated Face
- Designed to match the DD-RD-360 and DD-RD-180



DISPLACEMENT VENTILATION PERFORMANCE DATA

MODEL DD-RD 90

Unit Size (w x h)	Inlet Size	Neck Velocity	100	200	300	400	500	600	700
		Velocity Pressure	0.001	0.002	0.006	0.010	0.016	0.022	0.031
18"x24"	6" Dia.	CFM	20	40	60	80	100	120	135
		P _t	0.001	0.004	0.010	0.017	0.027	0.038	0.049
		Throw	2	2	3	3	3	4	5
		NC	-	-	-	-	-	-	15
24"x24"	8" Dia.	CFM	35	70	105	140	175	210	245
		P _t	0.001	0.004	0.009	0.017	0.026	0.037	0.051
		Throw	2	3	4	5	6	7	7
		NC	-	-	-	-	-	-	-
24"x36"	8" Dia.	CFM	35	70	105	140	175	210	245
		P _t	0.001	0.004	0.009	0.017	0.026	0.037	0.051
		Throw	2	3	4	5	6	7	7
		NC	-	-	-	-	-	-	16
24"x48"	10" Dia.	CFM	55	110	165	220	275	325	380
		P _t	0.001	0.004	0.009	0.017	0.026	0.036	0.050
		Throw	4	5	6	7	7	8	8
		NC	-	-	-	-	-	-	16
30"x24"	10" Dia.	CFM	55	110	165	220	275	325	380
		P _t	0.001	0.004	0.009	0.017	0.026	0.036	0.050
		Throw	3	5	6	7	8	9	9
		NC	-	-	-	-	-	-	17
30"x36"	10" Dia.	CFM	55	110	165	220	275	325	380
		P _t	0.001	0.004	0.009	0.017	0.026	0.036	0.050
		Throw	5	6	7	8	9	10	11
		NC	-	-	-	-	-	-	17
36"x60"	12" Dia.	CFM	80	155	235	315	395	470	550
		P _t	0.001	0.004	0.009	0.017	0.026	0.037	0.050
		Throw	4	5	7	7	9	10	11
		NC	-	-	-	-	-	-	18
30"x60"	12" Dia.	CFM	80	155	235	315	395	470	550
		P _t	0.001	0.004	0.009	0.017	0.026	0.037	0.050
		Throw	5	6	7	8	9	10	11
		NC	-	-	-	-	-	-	17

PERFORMANCE NOTES FOR MODEL DD-RD 90

All data is tested in accordance with ANSI/ASHRAE 70-2006.

DEFINITION OF UNITS

CFM Cubic Feet per Minute (air)

P_t Total pressure (inches of water column)

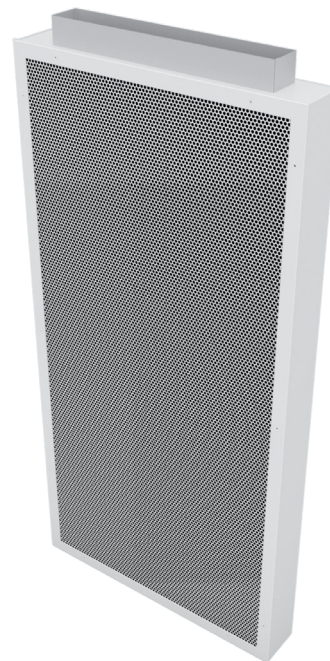
Throw Distance in feet @50fpm terminal velocity with 10°FΔT cooling differential.

NC Noise criterion, sound pressure level NC ratings are based on sound power level (Lw) re: 10⁻¹² watts minus a 10dB room attenuation in all octave bands

DD-WALL 1W

The Model DD-WALL-1W is a rectangular 1-way displacement unit designed for mounting inside of stud/gypsum walls. Units are available in 1' to 4' heights and in 15" width (to fit between studs) and 35" width (to span two studs). These are installed prior to the sheet rock being hung providing a clean, finished look.

- Steel Construction
- 23% Perforated Face



DISPLACEMENT VENTILATION PERFORMANCE DATA

MODEL DD-WALL 1W

Unit Size (w x h)	Inlet Size	Neck Velocity	200	300	400	500	600	700	800
		Velocity Pressure	0.002	0.006	0.010	0.016	0.022	0.031	0.040
16"x16"	10"x2"	CFM	30	40	55	70	85	95	110
		P _t	0.008	0.014	0.027	0.043	0.064	0.080	0.107
		Throw	1	1	1	2	2	2	3
		NC	-	-	-	-	17	21	24
16"x24"	10"x2"	CFM	30	40	55	70	85	95	110
		P _t	0.005	0.009	0.018	0.029	0.043	0.053	0.071
		Throw	1	1	1	2	2	2	3
		NC	-	-	-	-	16	20	25
20"x20"	12"x2"	CFM	35	50	65	85	100	115	135
		P _t	0.006	0.012	0.020	0.034	0.047	0.062	0.086
		Throw	1	2	3	3	3	4	4
		NC	-	-	-	-	16	22	26
24"x24"	14"x2"	CFM	40	60	80	95	115	135	155
		P _t	0.004	0.010	0.018	0.025	0.037	0.051	0.067
		Throw	1	2	3	3	4	4	5
		NC	-	-	-	-	16	22	26
24"x30"	20"x3"	CFM	85	125	165	210	250	290	335
		P _t	0.008	0.016	0.029	0.046	0.065	0.088	0.118
		Throw	2	3	4	5	5	6	6
		NC	-	-	-	-	17	24	28
24"x36"	20"x3"	CFM	85	125	165	210	250	290	335
		P _t	0.006	0.014	0.024	0.038	0.055	0.073	0.098
		Throw	2	3	4	5	6	6	7
		NC	-	-	-	-	17	23	28
24"x48"	20"x3"	CFM	85	125	165	210	250	290	335
		P _t	0.005	0.010	0.018	0.029	0.041	0.055	0.073
		Throw	3	4	5	5	5	6	7
		NC	-	-	-	-	17	22	26
30"x24"	20"x3"	CFM	85	125	165	210	250	290	335
		P _t	0.008	0.016	0.029	0.046	0.065	0.088	0.118
		Throw	4	5	5	6	6	6	7
		NC	-	-	-	-	18	23	27



DISPLACEMENT VENTILATION PERFORMANCE DATA

MODEL DD-WALL 1W

Unit Size (w x h)	Inlet Size	Neck Velocity	200	300	400	500	600	700	800
		Velocity Pressure	0.002	0.006	0.010	0.016	0.022	0.031	0.040
36"x24"	20"x3"	CFM	85	125	165	210	250	290	335
		P_t	0.006	0.014	0.024	0.038	0.055	0.073	0.098
		Throw	4	5	6	6	7	7	8
		NC	-	-	-	-	17	21	26
48"x24"	20"x3"	CFM	85	125	165	210	250	290	335
		P_t	0.005	0.010	0.018	0.029	0.041	0.055	0.073
		Throw	4	4	5	6	7	8	8
		NC	-	-	-	-	17	20	26
60"x24"	24"x3"	CFM	100	150	200	250	300	350	400
		P_t	0.005	0.010	0.017	0.028	0.039	0.053	0.071
		Throw	5	6	6	7	8	9	9
		NC	-	-	-	-	17	22	26

PERFORMANCE NOTES FOR MODEL DD-WALL 1W

All data is tested in accordance with ANSI/ASHRAE 70-2006.

DEFINITION OF UNITS

CFM Cubic Feet per Minute (air)

P_t Total pressure (inches of water column)

Throw Distance in feet @50fpm terminal velocity with $10^\circ F\Delta T$ cooling differential.

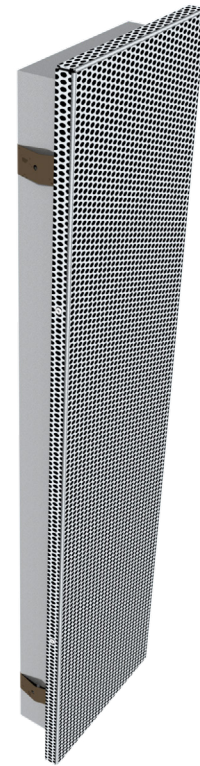
NC Noise criterion, sound pressure level NC ratings are based on sound power level (Lw) re: 10^{-12} watts minus a 10dB room attenuation in all octave bands

DD-WALL FM

The Model DD-WALL-RM is a spring-clip mounted perforated face displacement diffuser perfect for blending in the space architecture. This unit provides 1-way diffusion and can be custom sized to be discretely mounted in the room. These units are ideal for applications requiring 'hidden' air distribution - in trim, under kick guards of appliances, etc.

Units are available in single panel sizes ranging from 12" wide up to 48", and heights from 8" high up to 36". Multiple panel assemblies are also available.

- 18 ga. Steel Construction
- 23% Perforated Face
- Spring Clips





DISPLACEMENT VENTILATION PERFORMANCE DATA MODEL DD-WALL FM

Unit Size (D x H)	Neck Velocity	20	30	40	50
	Velocity Pressure	0.000	0.000	0.000	0.001
24"x 4"	CFM	15	20	25	35
	P _t	0.001	0.001	0.002	0.005
	Throw	-	2	4	8
	NC	-	-	-	-
24"x 6"	CFM	20	30	120	135
	P _t	0.001	0.001	0.003	0.004
	Throw	-	3	7	9
	NC	-	-	-	-
24"x 8"	CFM	25	40	55	65
	P _t	0.001	0.001	0.003	0.004
	Throw	-	4	8	11
	NC	-	-	-	-
30"x 4"	CFM	15	25	35	40
	P _t	0.001	0.001	0.003	0.004
	Throw	-	3	7	9
	NC	-	-	-	-
30"x 6"	CFM	25	40	50	65
	P _t	0.001	0.002	0.003	0.004
	Throw	-	4	9	11
	NC	-	-	-	-
30"x 8"	CFM	35	50	65	85
	P _t	0.001	0.001	0.002	0.004
	Throw	2	6	10	12
	NC	-	-	-	-
36"x 4"	CFM	20	30	40	50
	P _t	0.001	0.001	0.003	0.004
	Throw	-	4	8	11
	NC	-	-	-	-
36"x 6"	CFM	30	45	60	75
	P _t	0.001	0.001	0.003	0.004
	Throw	2	7	10	14
	NC	-	-	-	-

DISPLACEMENT VENTILATION PERFORMANCE DATA MODEL DD-WALL FM

Unit Size (D x H)	Neck Velocity	20	30	40	50
	Velocity Pressure	0.000	0.000	0.000	0.001
48"x 12"	CFM	80	120	160	200
	P _t	0.001	0.001	0.003	0.004
	Throw	7	12	16	21
	NC	-	-	-	-
24"x 24"	CFM	80	120	160	200
	P _t	0.001	0.001	0.003	0.004
	Throw	4	10	14	17
	NC	-	-	-	-
24"x 30"	CFM	100	150	200	250
	P _t	0.001	0.001	0.003	0.004
	Throw	6	11	15	19
	NC	-	-	-	-
24"x 36"	CFM	120	180	240	300
	P _t	0.007	0.016	0.029	0.046
	Throw	7	11	16	21
	NC	-	-	-	-
24"x 48"	CFM	160	240	320	400
	P _t	0.010	0.024	0.042	0.066
	Throw	8	14	17	27
	NC	-	-	-	-
30"x 24"	CFM	100	150	200	250
	P _t	0.019	0.042	0.075	0.117
	Throw	7	11	16	21
	NC	-	-	-	-
36"x 24"	CFM	120	180	240	300
	P _t	0.007	0.016	0.029	0.046
	Throw	8	14	17	23
	NC	-	-	-	-
48"x 24"	CFM	160	240	320	400
	P _t	0.010	0.024	0.042	0.066
	Throw	10	16	23	30
	NC	-	-	-	-

PERFORMANCE NOTES FOR MODEL DD-WALL FM

All data is tested in accordance with ANSI/ASHRAE 70-2006.

DEFINITION OF UNITS

CFM Cubic Feet per Minute (air)

P_t Total pressure (inches of water column)

Throw Distance in feet @50fpm terminal velocity with 10°FΔT cooling differential.

NC Noise criterion, sound pressure level NC ratings are based on sound power level (Lw) re: 10⁻¹² watts minus a 10dB room attenuation in all octave bands