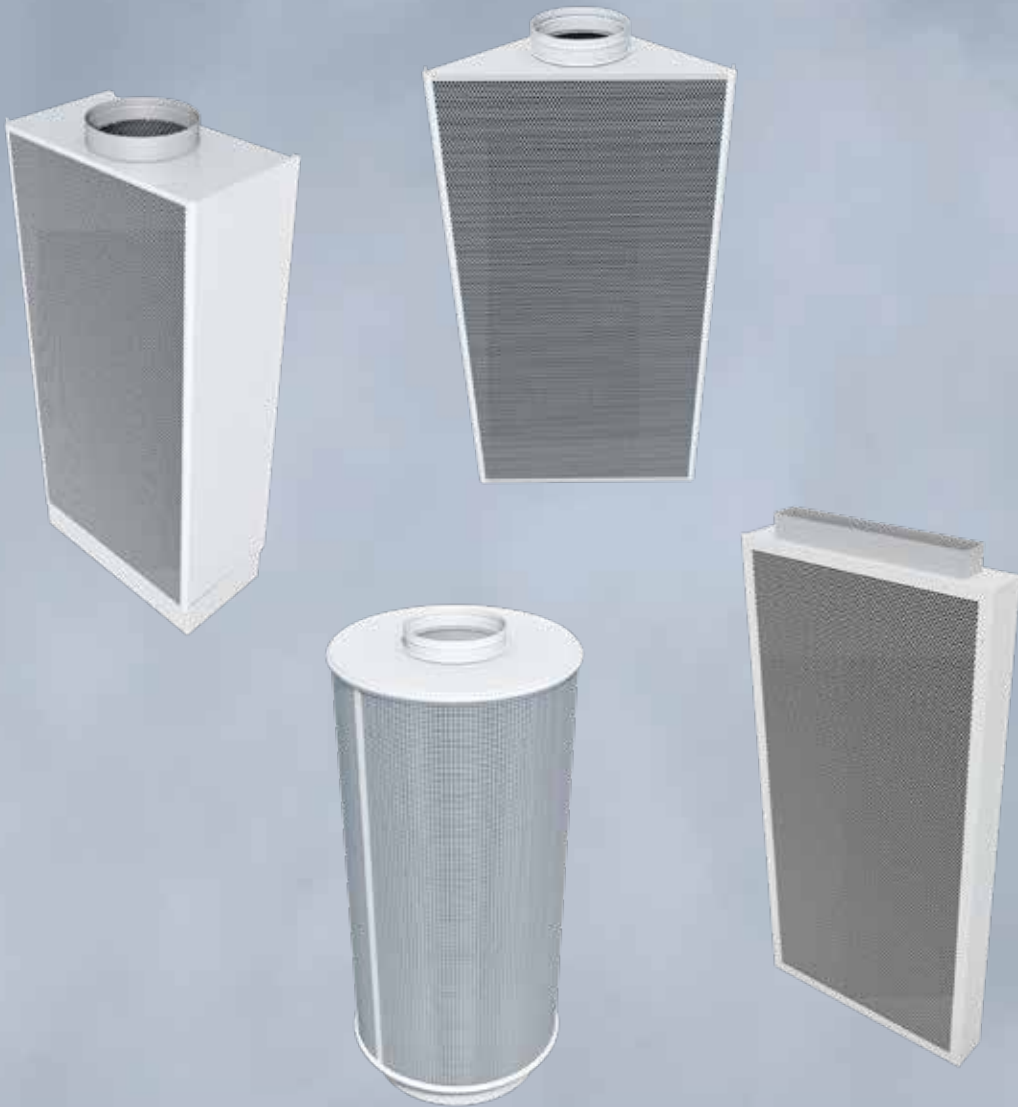


# Displacement Ventilation



BUILDING VALUE IN AIR.



February  
2022

# DISPLACEMENT VENTILATION

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 11



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

PAGE 15



**In-Wall Mount Displacement Diffusers**  
Rectangular Shaped, 1-Way Displacement Diffusers.

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# XG-DD-REC 1W

The Model XG-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.

XG-DD-REC is available in -1W (One Way), -2 (Two Way, in 3 different combinations) and -3W (Three Way) configurations providing maximum flexibility. The XG-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.

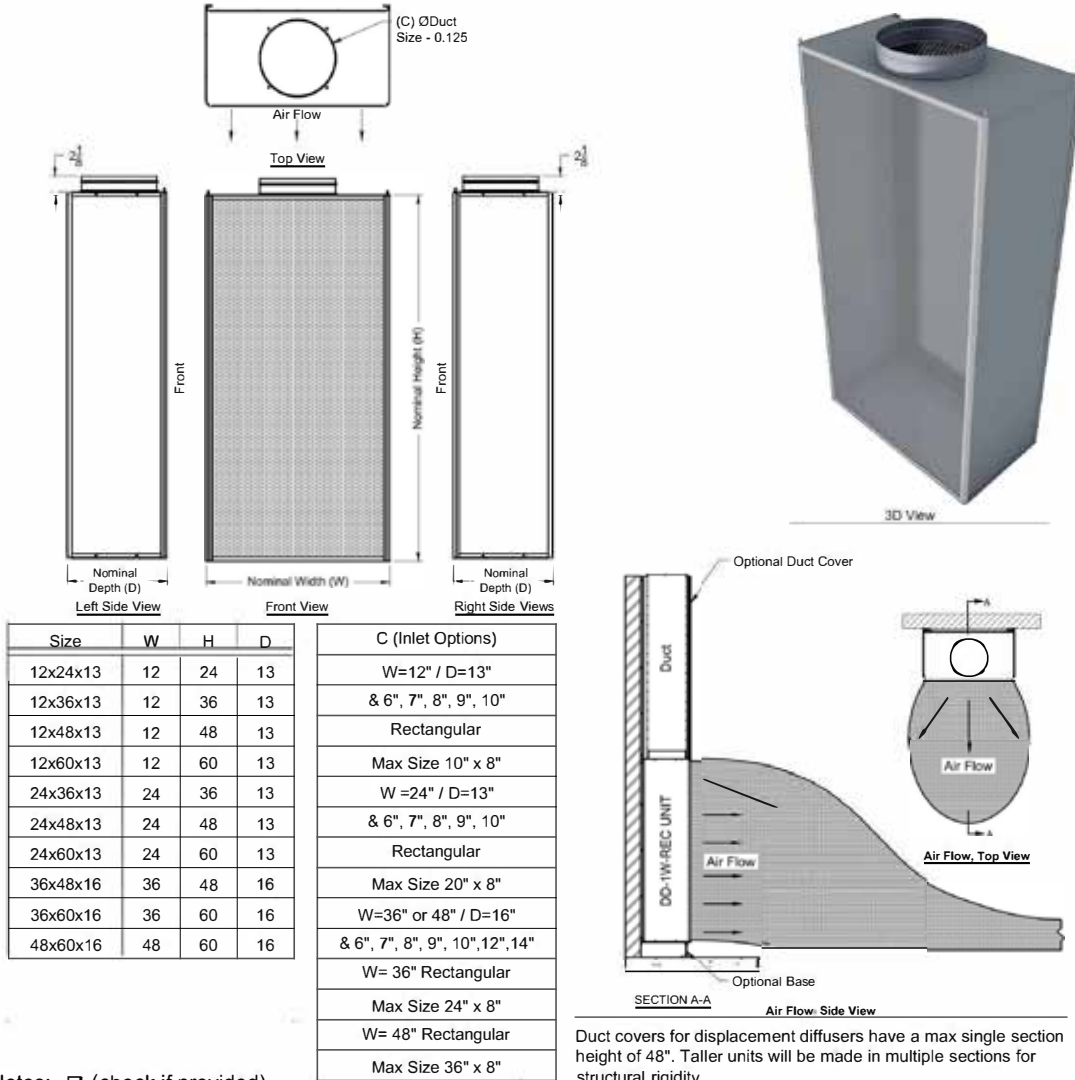
- 23% Perforated Face
- Designed to match XG-DD-CU



# XG-DD-REC 1W

## Displacement Diffusers Rectangular 1-Way

Models: **XG-DD-REC-1W** Rectangular Displacement Diffuser 1-Way Airflow



Duct covers for displacement diffusers have a max single section height of 48". Taller units will be made in multiple sections for structural rigidity.

1. Available Finishes	2. Available Accessories	3. Available Options	4. Construction Details
<b>Standard Finish:</b> <input type="checkbox"/> 01 White. <b>Optional Finish (additional Charge):</b> <input type="checkbox"/> 03 Black. <input type="checkbox"/> 28 Custom Color / Setup Charge	<input type="checkbox"/> Duct Cover <input type="checkbox"/> Base		<ul style="list-style-type: none"> <li>● 18 Ga steel perforated face panels</li> <li>● 23% free area perforated face</li> <li>● 16 Ga extruded aluminum frames</li> </ul>

**DISPLACEMENT VENTILATION PERFORMANCE DATA**  
**MODEL XG-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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 XG-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 XG-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<sup>-12</sup> watts minus a 10dB room attenuation in all octave bands

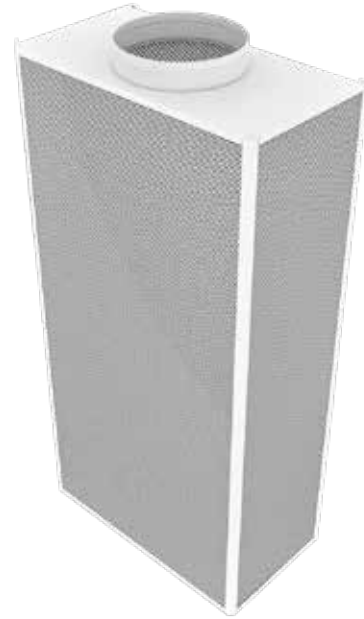
## XG-DD-REC 3W

The Model XG-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.

XG-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.

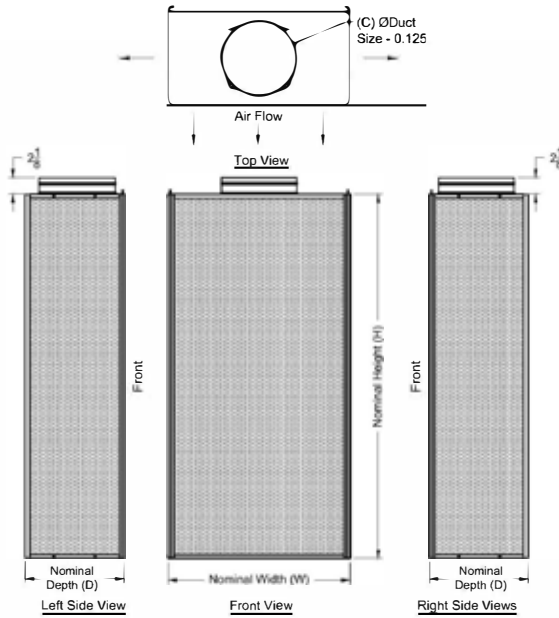
- 23% Perforated Face
- Designed to match XG-DD-CU



# XG-DD-REC 3W

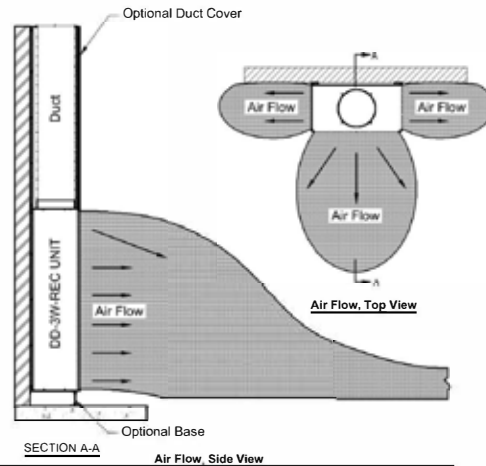
## Displacement Diffusers Rectangular 3-Way

Models: **XG-DD-REC-3W** Rectangular Displacement Diffuser 3-Way Airflow



Size	W	H	D
12x24x13	12	24	13
12x36x13	12	36	13
12x48x13	12	48	13
12x60x13	12	60	13
24x36x13	24	36	13
24x48x13	24	48	13
24x60x13	24	60	13
36x48x16	36	48	16
36x60x16	36	60	16
48x60x16	48	60	16

C (Inlet Options)
W=12" / D=13" & 6", 7", 8", 9", 10"
Rectangular
Max Size 10" x 8"
W=24" / D=13" & 6", 7", 8", 9", 10"
Rectangular
Max Size 20" x 8"
W=36" or 48" / D=16" & 6", 7", 8", 9", 10", 12", 14"
W= 36" Rectangular
Max Size 24" x 8"
W= 48" Rectangular
Max Size 36" x 8"



Duct covers for displacement diffusers have a max single section height of 48". Taller units will be made in multiple sections for structural rigidity.

Notes:  (check if provided)

1. Available Finishes	2. Available Accessories	3. Available Options	4. Construction Details
<b>Standard Finish:</b> <input type="checkbox"/> 01 White. <b>Optional Finish (additional Charge):</b> <input type="checkbox"/> 03 Black. <input type="checkbox"/> 28 Custom Color / Setup Charge	<input type="checkbox"/> Duct Cover <input type="checkbox"/> Base		<ul style="list-style-type: none"> <li>● 18 Ga steel perforated face panels</li> <li>● 23% free area perforated face</li> <li>● 16 Ga extruded aluminum frames</li> </ul>



**DISPLACEMENT VENTILATION PERFORMANCE DATA**  
**MODEL XG-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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 XG-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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 XG-DD-REC 3W**

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

**DEFINITION OF UNITS**

CFM Cubic Feet per Minute (air)

P<sub>t</sub> Total pressure (inches of water column)

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

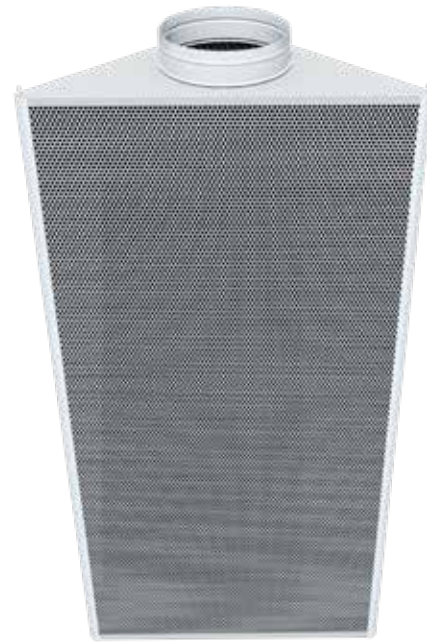
NC Noise criterion, sound pressure level NC ratings are based on sound power level (Lw) re: 10<sup>-12</sup> watts minus a 10dB room attenuation in all octave bands

# XG-DD-CU 1W

The Model XG-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 XG-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.

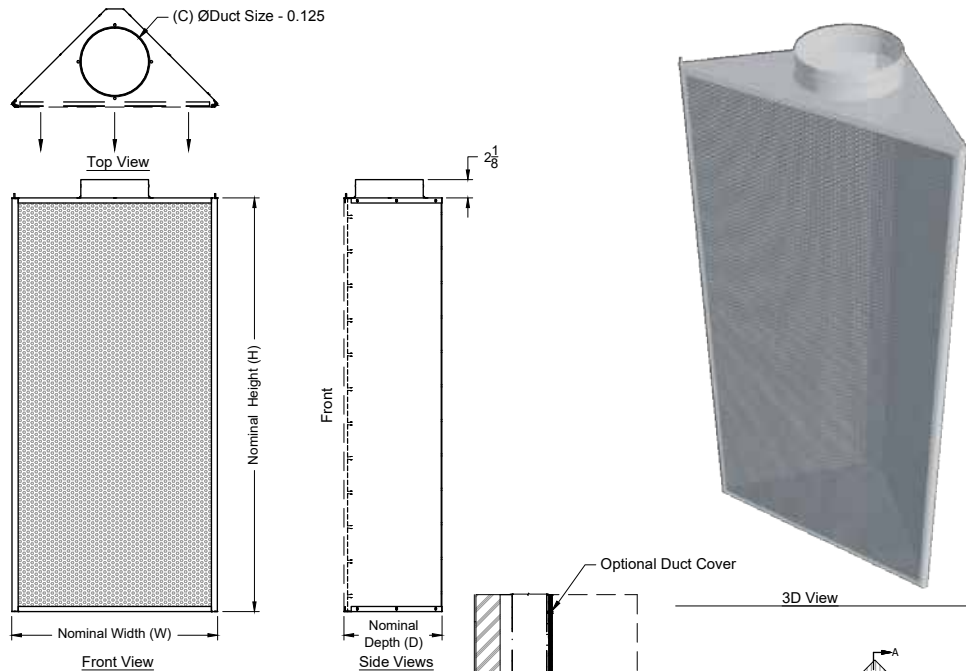
- 23% Perforated Face
- Designed to match XG-DD-REC



# XG-DD-CU 1W

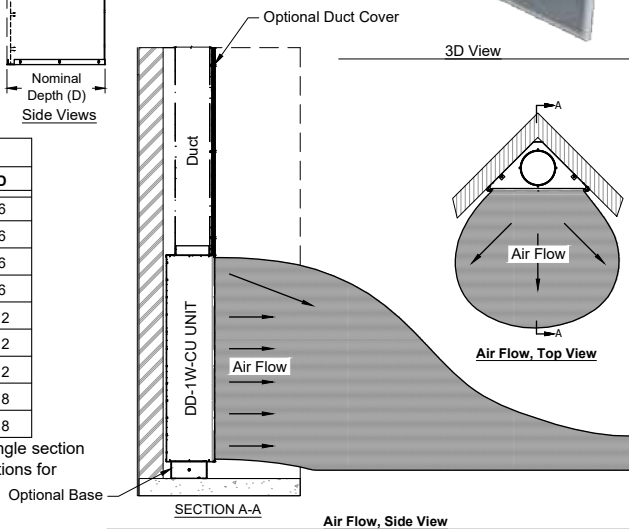
## Displacement Diffusers Triangular Corner Unit 1-Way

Models: **XG-DD-CU-1W** Corner Unit Displacement Diffuser 1-Way Airflow



Triangular Corner Unit, 1-Way Size Table				
Size	W	H	C (Inlet Options)	D
12x24x6	12	24	4	6
12x36x6	12	36	4	6
12x48x6	12	48	4	6
12x60x6	12	60	4	6
24x36x12	24	36	6 & 8	12
24x48x12	24	48	6 & 8	12
24x60x12	24	60	6 & 8	12
36x48x18	36	48	6, 8, 10 & 12	18
36x60x18	36	60	6, 8, 10 & 12	18

Duct covers for displacement diffusers have a max single section height of 48". Taller units will be made in multiple sections for structural rigidity.



1. Available Finishes	2. Available Accessories	3. Available Options:	4. Construction Details
<p><b>Standard Finish:</b></p> <input type="checkbox"/> 01 White.	<input type="checkbox"/> Duct Cover <input type="checkbox"/> Base		<ul style="list-style-type: none"> <li>● Steel Construction</li> <li>● 23% Perforated Face</li> <li>● Extruded Corners</li> <li>● Steel Panels</li> </ul>
<p><b>Optional Finish (additional Charge):</b></p> <input type="checkbox"/> 03 Black. <input type="checkbox"/> 28 Custom Color / Setup Charge			

**DISPLACEMENT VENTILATION PERFORMANCE DATA**  
**MODEL XG-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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 XG-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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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<sub>t</sub> 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<sup>-12</sup> watts minus a 10dB room attenuation in all octave bands

# XG-DD-RD-360

The model XG-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 XG-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.

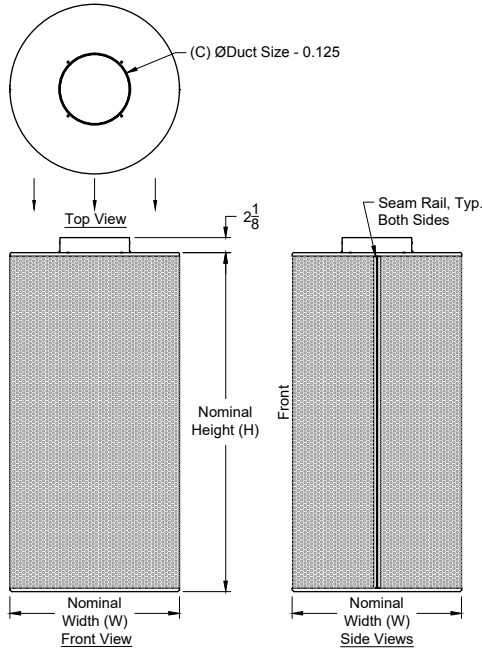
- Steel Construction
- 23% Perforated Face
- Designed to match the XG-DD-RD-180 and XG-DD-RD-90



# XG-DD-RD 360

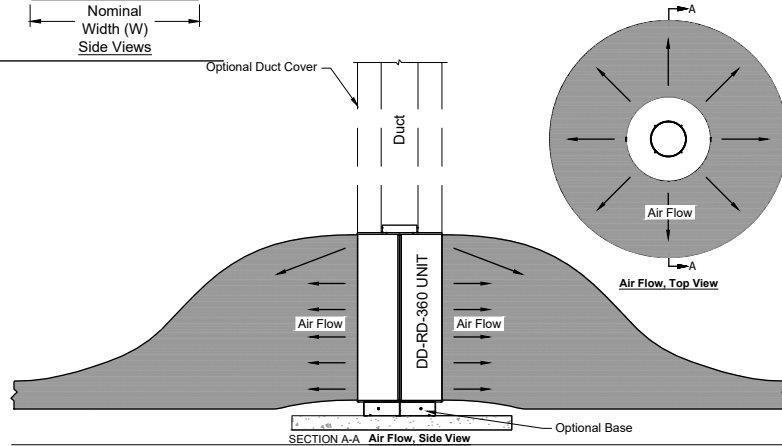
## Displacement Diffusers 360 Degree Round

Models: **XG-DD-RD-360** Round Displacement Diffuser 360 Degree Airflow



3D View

Size	W Ø	H	C (Inlet Options)
18Øx24	18	24	6, 8, 10 & 12
18Øx36	18	36	6, 8, 10 & 12
18Øx48	18	48	6, 8, 10 & 12
24Øx24	24	24	8, 10, 12 & 14
24Øx36	24	36	8, 10, 12 & 14
24Øx48	24	48	8, 10, 12 & 14
24Øx60	24	60	8, 10, 12 & 14
30Øx24	30	24	10, 12, 14 & 16
30Øx36	30	36	10, 12, 14 & 16
30Øx48	30	48	10, 12, 14 & 16
30Øx60	30	60	10, 12, 14 & 16
36Øx36	36	36	10, 12, 14 & 16
36Øx48	36	48	10, 12, 14 & 16
36Øx60	36	60	10, 12, 14 & 16



Duct covers for displacement diffusers have a max single section height of 48". Taller units will be made in multiple sections for structural rigidity.

1. Available Finishes	2. Available Accessories	3. Available Options:	4. Construction Details
<b>Standard Finish:</b> <input type="checkbox"/> 01 White. <b>Optional Finish (additional Charge):</b> <input type="checkbox"/> 03 Black. <input type="checkbox"/> 28 Custom Color / Setup Charge	<input type="checkbox"/> Duct Cover <input type="checkbox"/> Base		<ul style="list-style-type: none"> <li>● Steel Construction</li> <li>● 23% Perforated Face</li> </ul>



**DISPLACEMENT VENTILATION PERFORMANCE DATA**  
**MODEL XG-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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 XG-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 <sub>t</sub>	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 <sub>t</sub>	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 XG-DD-RD-360**

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

**DEFINITION OF UNITS**

CFM Cubic Feet per Minute (air)

P<sub>t</sub> 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<sup>-12</sup> watts minus a 10dB room attenuation in all octave bands

# XG-DD-RD-180

The model XG-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 XG-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.

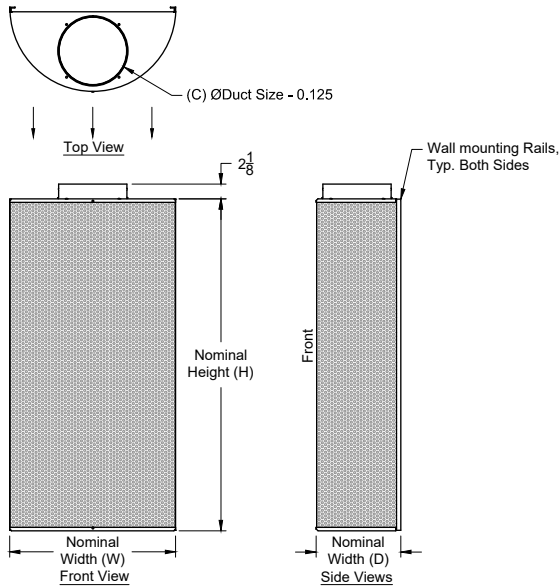
- Steel Construction
- 23% Perforated Face
- Designed to match the XG-DD-RD-360 and XG-DD-RD-90



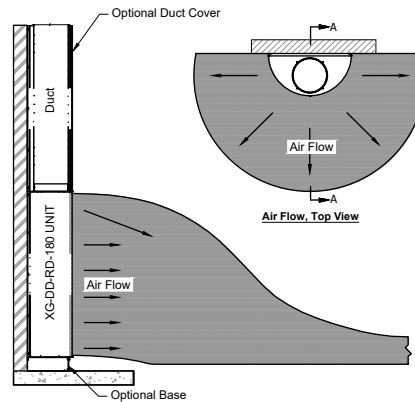
# XG-DD-RD 180

## Displacement Diffusers Semi Round 180 Degree

Models: **XG-DD-RD-180** Semi Round Displacement Diffuser 180 Degree Airflow



3D View



Size	W	H	C (Inlet Options)	D
18x24x9	18	24	6	9
18x36x9	18	36	6	9
18x48x9	18	48	6	9
24x24x12	24	24	8 & 10	12
24x36x12	24	36	8 & 10	12
24x48x12	24	48	8 & 10	12
24x60x12	24	60	8 & 10	12
30x24x15	30	24	8, 10 & 12	15
30x36x15	30	36	8, 10 & 12	15
30x48x15	30	48	8, 10 & 12	15
30x60x15	30	60	8, 10 & 12	15
36x36x18	36	36	8, 10, 12 & 14	18
36x48x18	36	48	8, 10, 12 & 14	18
36x60x18	36	60	8, 10, 12 & 14	18

Duct covers for displacement diffusers have a max single section height of 48". Taller units will be made in multiple sections for structural rigidity.

1. Available Finishes	2. Available Accessories	3. Available Options:	4. Construction Details
<b>Standard Finish:</b> <input type="checkbox"/> 01 White. <b>Optional Finish (additional Charge):</b> <input type="checkbox"/> 03 Black. <input type="checkbox"/> 28 Custom Color / Setup Charge	<input type="checkbox"/> Duct Cover <input type="checkbox"/> Base		<input checked="" type="checkbox"/> Steel Construction <input checked="" type="checkbox"/> 23% Perforated Face

**DISPLACEMENT VENTILATION PERFORMANCE DATA**  
**MODEL XG-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 XG-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<sup>-12</sup> watts minus a 10dB room attenuation in all octave bands

## XG-DD-RD 90

The model XG-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 XG-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.

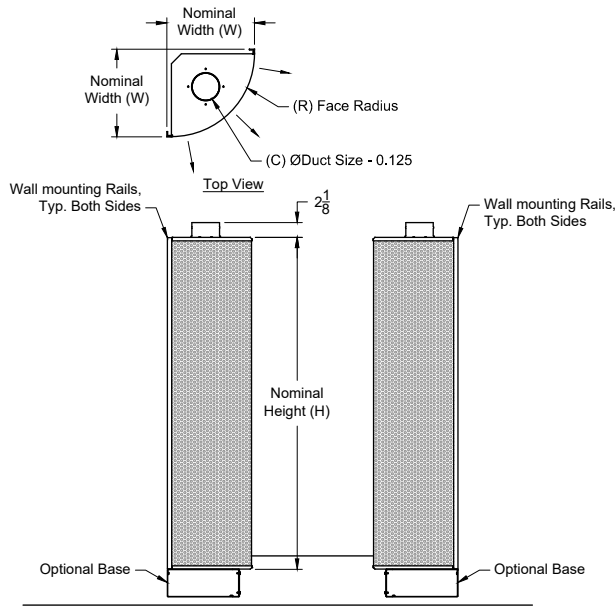
- Steel Construction
- 23% Perforated Face
- Designed to match the XG-DD-RD-360 and XG-DD-RD-180



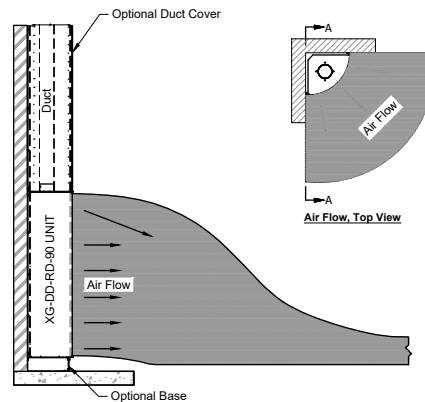
# XG-DD-RD 90

## Displacement Diffusers Quarter Round - 90 Degree Unit

Models: **XG-DD-RD-90** Quarter Round Displacement Diffuser 90 Degree Airflow



Size (RxH)	R	W	H	C (Inlet Options)
12x24	12	12 3/4	24	4, 6 & 8
12x30	12	12 3/4	30	4, 6 & 8
12x36	12	12 3/4	36	4, 6 & 8
12x48	12	12 3/4	48	4, 6 & 8
15x24	15	15 3/4	24	6, 8 & 10
15x30	15	15 3/4	30	6, 8 & 10
15x36	15	15 3/4	36	6, 8 & 10
15x48	15	15 3/4	48	6, 8 & 10
18x24	18	18 3/4	24	6, 8, 10 & 12
18x30	18	18 3/4	30	6, 8, 10 & 12
18x36	18	18 3/4	36	6, 8, 10 & 12
18x48	18	18 3/4	48	6, 8, 10 & 12
24x24	24	24 3/4	24	8, 10, 12 & 14
24x30	24	24 3/4	30	8, 10, 12 & 14
24x36	24	24 3/4	36	8, 10, 12 & 14
24x48	24	24 3/4	48	8, 10, 12 & 14



Duct covers for displacement diffusers have a max single section height of 48". Taller units will be made in multiple sections for structural rigidity.

Notes:  (check if provided)

1. Available Finishes	2. Available Accessories	3. Available Options	4. Construction Details
<b>Standard Finish:</b> <input type="checkbox"/> 01 White. <b>Optional Finish (additional Charge):</b> <input type="checkbox"/> 03 Black. <input type="checkbox"/> 28 Custom Color / Setup Charge	<input type="checkbox"/> Duct Cover <input type="checkbox"/> Base		<ul style="list-style-type: none"> <li>● Steel Construction</li> <li>● 23% Perforated Face</li> </ul>

**DISPLACEMENT VENTILATION PERFORMANCE DATA**  
**MODEL XG-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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 XG-DD-RD 90**

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

**DEFINITION OF UNITS**

CFM Cubic Feet per Minute (air)

P<sub>t</sub> 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<sup>-12</sup> watts minus a 10dB room attenuation in all octave bands



# XG-DD-WALL 1W

The model XG-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.

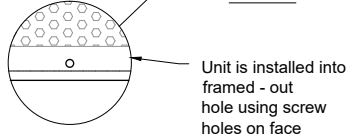
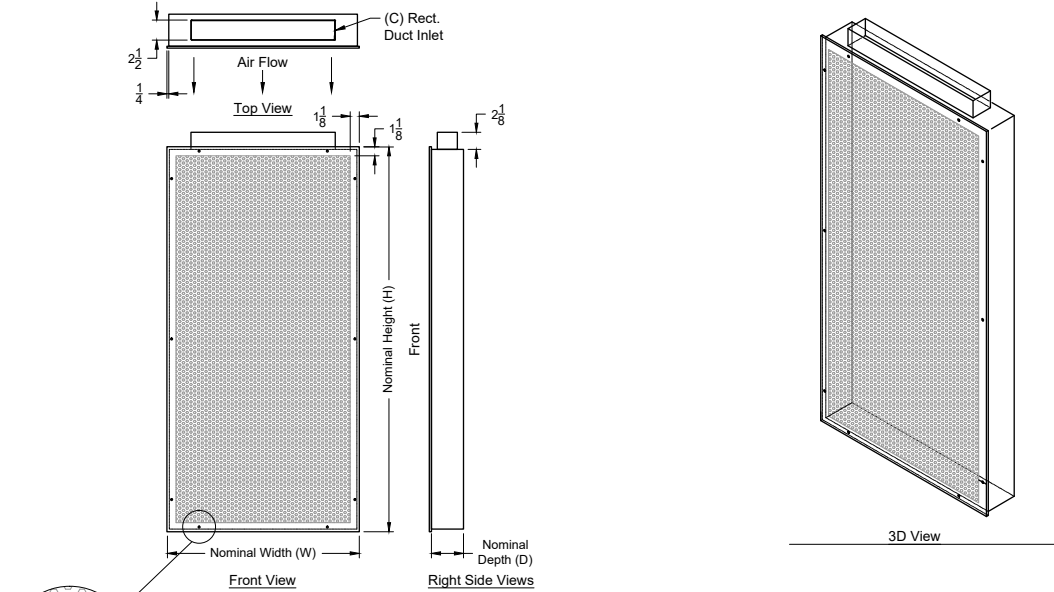
- Steel Construction
- 23% Perforated Face



# XG-DD-WALL 1W

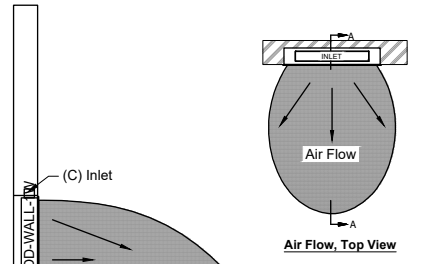
## In Wall Displacement Diffuser Surface Mount 1-Way Airflow

Models: **XG-DD-WALL-1W** In Wall Displacement Diffuser Surface Mount 1-Way Airflow



Size	W	H	D
Minimum	12 ± $\frac{1}{16}$	12 ± $\frac{1}{16}$	3 ± $\frac{1}{16}$
Maximum	36 ± $\frac{1}{16}$	60 ± $\frac{1}{16}$	3 ± $\frac{1}{16}$

C (Inlet Options)
Rectangular
W=12"
Min. 6" x 2 1/2"
W=36"
Max 30" x 2 1/2"



Notes:  (check if provided)

1. Available Finishes	2. Available Accessories	3. Available Options	4. Construction Details
<p><b>Standard Finish:</b></p> <p><input type="checkbox"/> 01 White.</p> <p><b>Optional Finish (additional Charge):</b></p> <p><input type="checkbox"/> 02 Satin Silver</p> <p><input type="checkbox"/> 03 Black.</p> <p><input type="checkbox"/> 28 Custom Color / Setup Charge</p>			<ul style="list-style-type: none"> <li>● 23% Perforated Face .050" Aluminum</li> <li>● 24ga Steel Frame</li> </ul>

**DISPLACEMENT VENTILATION PERFORMANCE DATA**  
**MODEL XG-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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 <sub>t</sub>	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 XG-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 XG-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°FΔT cooling differential.

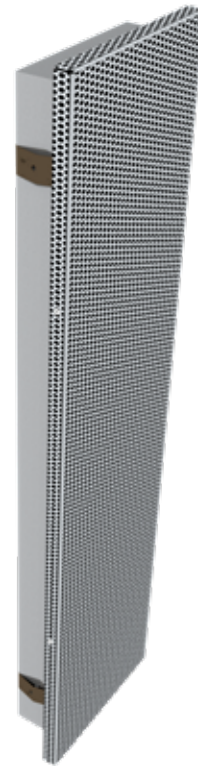
NC Noise criterion, sound pressure level NC ratings are based on sound power level (Lw) re: 10<sup>-12</sup> watts minus a 10dB room attenuation in all octave bands

# XG-DD-WALL FM

The model XG-DD-WALL-FM 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.

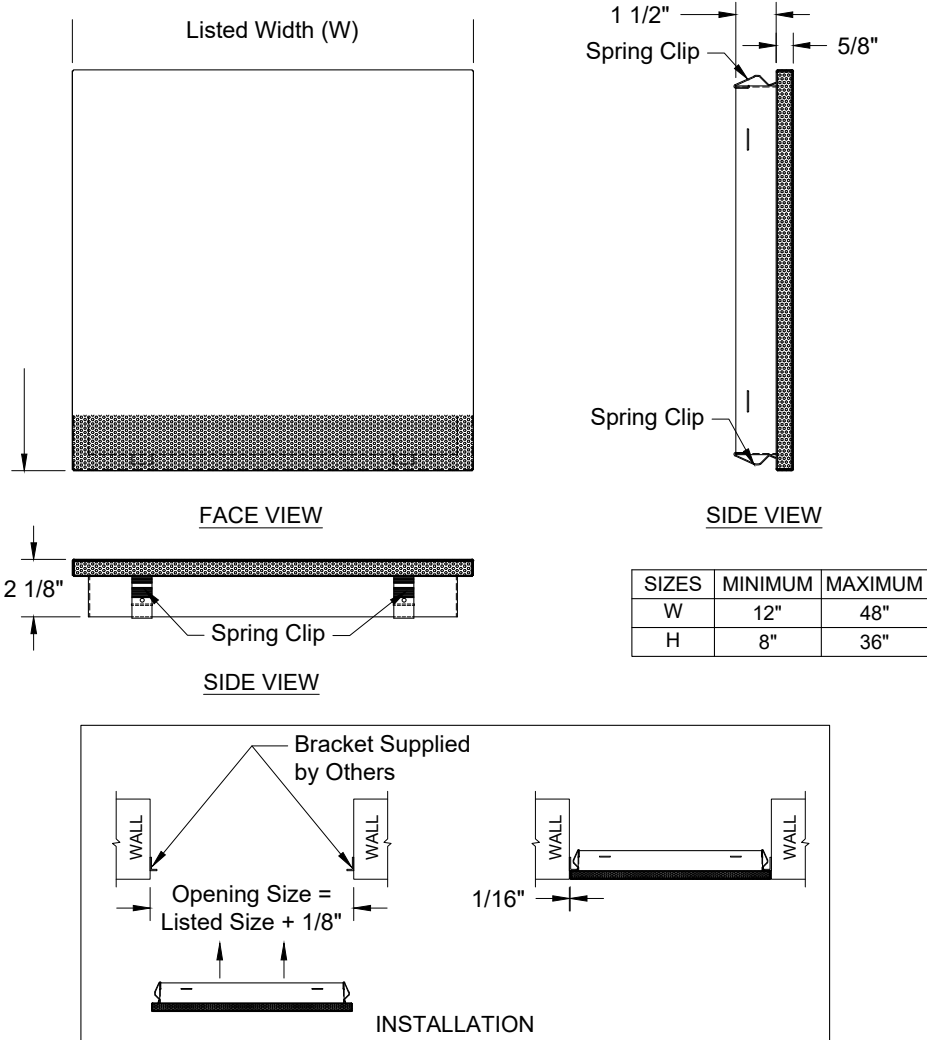
- 18 ga. Steel Construction
- 23% Perforated Face
- Spring Clips



# XG-DD-WALL FM

## Displacement Diffuser Wall Flush Mount

Models: **XG-DD-WALL-FM** Displacement Diffuser - Wall Flush Mount



Notes:  (check if provided)

1. Available Finishes	2. Available Accessories	3. Available Options	4. Construction Details
<p><b>Standard Finish:</b></p> <p><input type="checkbox"/> 03 Black</p> <p><b>Optional Finish (additional Charge):</b></p> <p><input type="checkbox"/> 01 White</p> <p><input type="checkbox"/> 02 Satin Silver</p> <p><input type="checkbox"/> 28 Special Color/Set up Charge</p>			<ul style="list-style-type: none"> <li>• 23% Perforated Face .050" Aluminum</li> <li>• 24ga Steel Frame</li> <li>• Spring Clips</li> </ul>

**DISPLACEMENT VENTILATION PERFORMANCE DATA**  
**MODEL XG-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 XG-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 XG-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<sup>-12</sup> watts minus a 10dB room attenuation in all octave bands



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