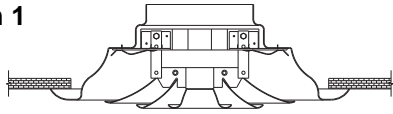
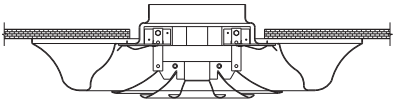




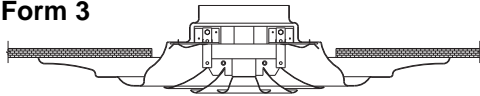
**Form 1**



**Form 2**



**Form 3**



### Application

High capacity unit with low sound levels, for large spaces where adjustment is required only during installation and balancing.

### Standard Features

- Spun steel construction.
- Core is easily removed for installation or maintenance.
- Form 1 has the least projection from the ceiling, and is available in neck sizes 5" - 38".
- Form 2 has the best anti-smudge characteristics, and is available in neck sizes 5" - 28".
- Form 3 has a broad cone for easy cleaning, and is available in neck sizes 5" - 24".
- Neck is sized to fit over duct for minimum air leakage.
- Discharge is adjustable from horizontal to vertical with one intermediate setting.
- Center button is removable for easy access to damper.
- Standard finish is electrocoat acrylic baked enamel. Other finishes are available upon request.
- Standard color is #11 bright white. Other colors are available upon request.

### Optional Features

- Safety chain (Option S) prevents damage or injury when removing core by connecting the core to the form.
- Gasket (Option G) minimizes air leaks around edge of diffuser.

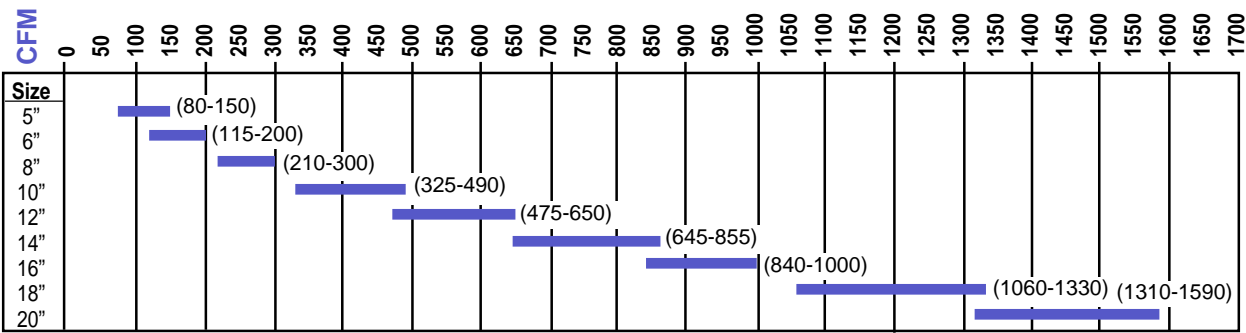
### Accessories

- When specifying damper for sizes 4-24, use opposed blade round damper model KXRA (p. 427).
- When specifying damper for sizes 28-38, use radial deflector damper model KXNA (p. 430).

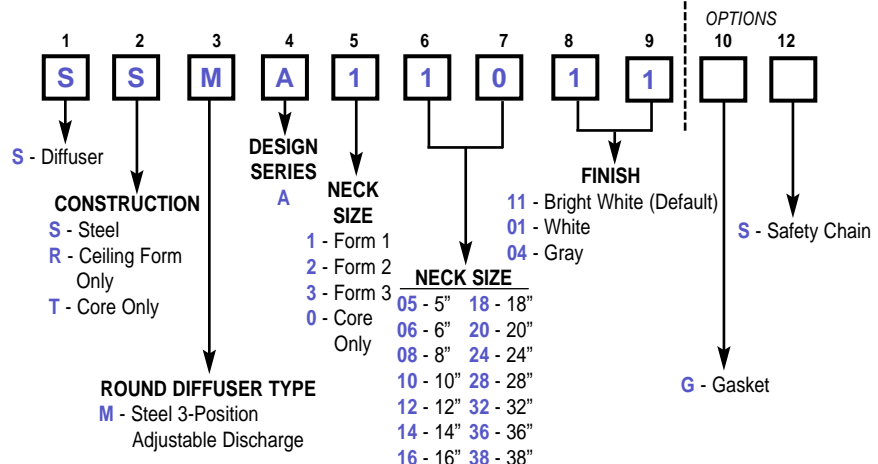
### Quick Select Chart

This shows units with:
 

- A maximum NC/RC of 35.
- A minimum face velocity of 400 FPM.

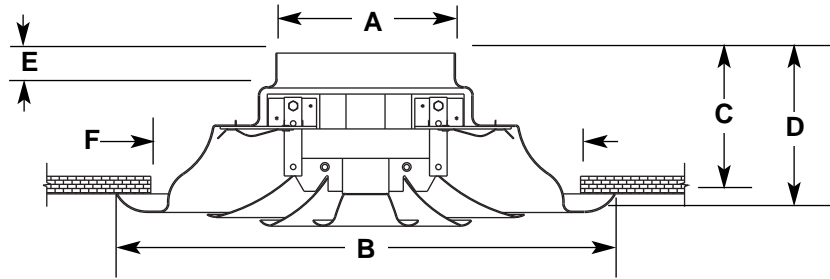


### Model Numbering System



**Form One**

Offers a flush mount where the least obtrusive mounting is desired.



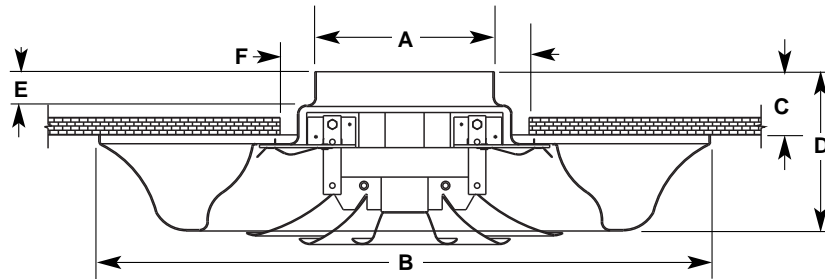
Dim	Description	5	6	8	10	12	14	16
A	Collar I.D.	5-1/16	6-1/16	8-1/16	10-1/16	12-1/16	14-1/16	16-1/8
B	Form O.D.	14-1/4	14-1/4	18-3/4	23-1/8	27-1/4	31-7/16	37-1/2
C	Projection from Ceiling	4-1/16	3-1/4	4-1/8	4-7/16	4-7/8	5-1/4	7-1/2
D	Unit Height	4-9/16	3-3/4	4-5/8	4-15/16	5-5/8	6	8-5/8
E	Collar Height	3/4	1	1	1	1	1	2
F	Rec. Ceiling Opening	11-3/4	11-3/4	15-1/2	19-1/2	23-1/4	27-1/4	31-3/4

Dim	Description	18	20	24	28	32	36	38
A	Collar I.D.	18-1/8	20-1/8	24-1/8	28-1/8	32-3/16	36-3/16	38-3/16
B	Form O.D.	40-15/16	45-3/16	53	61	70	70	70
C	Projection from Ceiling	7-7/8	8-1/4	9-13/16	11-3/8	12-1/4	12-1/4	12-1/4
D	Unit Height	9	9-3/8	11-3/16	12-3/4	13-1/2	13-1/2	13-1/2
E	Collar Height	2	2	3	3	3	3	3
F	Rec. Ceiling Opening	35	39	47	55	63	63	63

**Form Two**

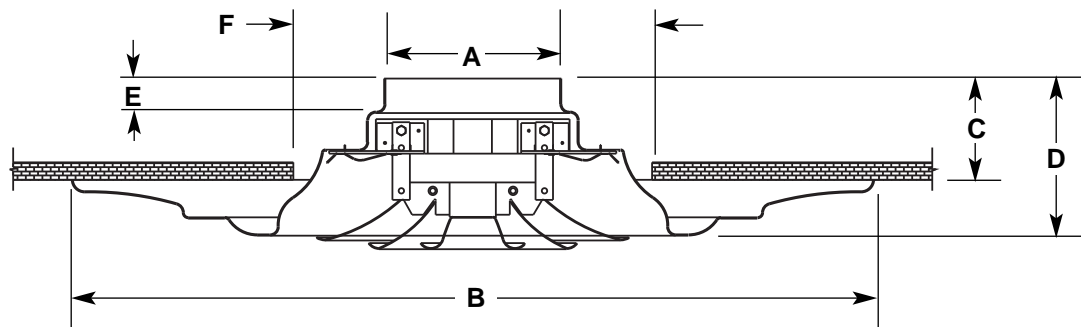
Offers the best anti-smudge protection because of the distance from the bottom edge of the form back up to the ceiling.



Dim	Description	5	6	8	10	12	14	16	18	20	24	28
A	Collar I.D.	5-1/16	6-1/16	8-1/16	10-1/16	12-1/16	14-1/16	16-1/8	18-1/8	20-1/8	24-1/8	28-1/8
B	Form O.D.	17-1/2	17-1/2	23-1/4	28	34-1/4	38	44-1/2	51-1/4	56	66	76
C	Projection from Ceiling	1-13/16	1	1	1	1	1	2-5/8	2-1/2	2-1/2	3-1/4	3-1/2
D	Unit Height	4-9/16	3-3/4	4-5/8	4-15/16	5-5/8	6	8-5/8	9	9-3/8	11-13/16	12-3/4
E	Collar Height	3/4	1	1	1	1	1	2	2	2	3	3
F	Rec. Ceiling Opening	6-1/4	6-1/4	8-1/4	10-1/4	12-1/4	14-1/4	16-3/8	18-3/8	20-3/8	24-3/8	28-3/8

**Form Three**

Wide flange provides an easily cleaned surface for areas of high dirt smudging rates.



Dim	Description	5	6	8	10	12	14	16	18	20	24
A	Collar I.D.	5-1/16	6-1/16	8-1/16	10-1/16	12-1/16	14-1/16	16-1/8	18-1/8	20-1/8	24-1/8
B	Form O.D.	23-1/4	23-1/4	30	35	43-1/2	48	55-1/2	57-1/2	61-1/2	65-1/2
C	Projection from Ceiling	2-15/16	2-1/8	2-1/4	2-7/16	2-3/4	3	4-5/8	5	5-3/8	7-15/16
D	Unit Height	4-9/16	3-3/4	4-5/8	4-15/16	5-5/8	6	8-5/8	9	9-3/8	11-3/16
E	Collar Height	3/4	1	1	1	1	1	2	2	2	3
F	Rec. Ceiling Opening	11	11	14-1/2	18-1/2	21-1/2	25	28-1/4	32-1/2	37	47

Round Diffusers

Neck Velocity		200	400	600	800	1000	1200	1400	1600
Velocity Pressure		.003	.010	0.022	0.040	0.062	0.090	0.122	0.160
5"	<b>Air Flow (CFM)</b>	<b>27</b>	<b>55</b>	<b>82</b>	<b>109</b>	<b>136</b>	<b>164</b>	<b>191</b>	<b>218</b>
	Total Pressure	0.004	0.017	0.039	0.070	0.109	0.159	0.218	0.283
	Horizontal Sound (NC/RC)	--/--	--/--	11/--	16/15H	23/23N	28/27N	35/34N	40/39N
	Radius of Diffusion	1-1-1	1-1-2	1-2-4	2-3-5	3-4-6	3-4-7	4-5-8	4-6-9
	Total Pressure	0.006	0.022	0.049	0.086	0.132	0.190	0.259	0.334
	Vertical Sound (NC/RC)	--/--	--/--	13/--	19/18H	25/25N	31/31N	36/36N	41/41N
6"	<b>Air Flow (CFM)</b>	<b>39</b>	<b>79</b>	<b>118</b>	<b>157</b>	<b>196</b>	<b>236</b>	<b>275</b>	<b>314</b>
	Total Pressure	0.006	0.025	0.056	0.099	0.154	0.222	0.303	0.396
	Horizontal Sound (NC/RC)	--/--	--/--	12/--	18/17H	24/24N	30/29N	37/36N	42/41N
	Radius of Diffusion	1-1-1	1-2-3	2-2-4	2-3-6	3-4-7	4-5-9	4-6-10	5-7-12
	Total Pressure	0.009	0.036	0.080	0.141	0.216	0.309	0.418	0.543
	Vertical Sound (NC/RC)	--/--	--/--	14/10H	20/19N	26/26N	33/33N	38/38N	42/42N
8"	<b>Air Flow (CFM)</b>	<b>70</b>	<b>140</b>	<b>209</b>	<b>279</b>	<b>349</b>	<b>419</b>	<b>489</b>	<b>559</b>
	Total Pressure	0.005	0.022	0.049	0.086	0.134	0.193	0.259	0.338
	Horizontal Sound (NC/RC)	--/--	--/--	14/10H	20/19H	26/26N	33/32N	40/39N	44/43N
	Radius of Diffusion	1-1-2	1-2-4	2-3-6	3-4-8	4-6-9	5-7-11	6-8-13	7-10-15
	Total Pressure	0.007	0.031	0.069	0.122	0.192	0.277	0.380	0.496
	Vertical Sound (NC/RC)	--/--	--/--	15/11H	22/22N	29/29N	35/35N	40/40N	44/44N
10"	<b>Air Flow (CFM)</b>	<b>109</b>	<b>218</b>	<b>327</b>	<b>436</b>	<b>545</b>	<b>654</b>	<b>764</b>	<b>873</b>
	Total Pressure	0.005	0.022	0.049	0.086	0.134	0.193	0.259	0.338
	Horizontal Sound (NC/RC)	--/--	--/--	15/11H	22/21H	28/28N	34/34N	41/40N	45/44N
	Radius of Diffusion	1-1-2	2-3-5	3-4-7	4-6-10	5-7-12	6-9-15	7-10-17	9-12-20
	Total Pressure	0.008	0.032	0.072	0.128	0.198	0.287	0.392	0.507
	Vertical Sound (NC/RC)	--/--	10/--	16/13H	24/24N	30/29N	36/36N	41/41N	45/45N
12"	<b>Air Flow (CFM)</b>	<b>157</b>	<b>314</b>	<b>471</b>	<b>628</b>	<b>785</b>	<b>942</b>	<b>1100</b>	<b>1257</b>
	Total Pressure	0.005	0.022	0.049	0.086	0.134	0.193	0.259	0.338
	Horizontal Sound (NC/RC)	--/--	--/--	16/13H	22/22H	29/30N	35/35N	42/41N	46/46N
	Radius of Diffusion	1-2-3	2-3-6	3-5-9	5-7-12	6-9-14	7-10-17	9-12-20	10-14-23
	Total Pressure	0.008	0.032	0.072	0.128	0.198	0.287	0.392	0.507
	Vertical Sound (NC/RC)	--/--	11/--	17/15H	25/25N	31/30N	37/37N	42/42N	46/46N
14"	<b>Air Flow (CFM)</b>	<b>214</b>	<b>428</b>	<b>641</b>	<b>855</b>	<b>1069</b>	<b>1283</b>	<b>1497</b>	<b>1710</b>
	Total Pressure	0.006	0.024	0.052	0.091	0.142	0.204	0.277	0.356
	Horizontal Sound (NC/RC)	--/--	10/--	16/14H	23/23N	29/30N	36/36N	43/42N	47/47N
	Radius of Diffusion	1-2-3	3-4-7	4-6-10	6-8-13	7-10-17	19-12-20	10-15-24	12-17-27
	Total Pressure	0.008	0.032	0.072	0.128	0.198	0.287	0.392	0.507
	Vertical Sound (NC/RC)	--/--	12/--	18/16H	25/25N	32/32N	38/38N	43/43N	47/47N
16"	<b>Air Flow (CFM)</b>	<b>279</b>	<b>559</b>	<b>838</b>	<b>1117</b>	<b>1369</b>	<b>1676</b>	<b>1955</b>	<b>2234</b>
	Total Pressure	0.006	0.025	0.056	0.099	0.154	0.222	0.303	0.396
	Horizontal Sound (NC/RC)	--/--	10/--	17/15H	23/24N	30/30N	36/36N	44/43N	47/47N
	Radius of Diffusion	1-2-4	3-4-8	5-7-12	6-9-16	8-12-20	10-14-24	12-17-27	14-19-31
	Total Pressure	0.007	0.029	0.066	0.118	0.184	0.264	0.366	0.476
	Vertical Sound (NC/RC)	--/--	12/--	18/17H	26/26H	32/32N	38/38N	44/44N	48/48N
18"	<b>Air Flow (CFM)</b>	<b>353</b>	<b>707</b>	<b>1060</b>	<b>1414</b>	<b>1767</b>	<b>2121</b>	<b>2474</b>	<b>2827</b>
	Total Pressure	0.005	0.020	0.045	0.080	0.122	0.178	0.238	0.308
	Horizontal Sound (NC/RC)	--/--	11/--	17/16H	24/25N	30/30N	37/37N	44/43N	48/48N
	Radius of Diffusion	2-2-4	3-5-9	5-8-13	7-10-18	9-13-22	11-16-27	14-19-31	16-23-36
	Total Pressure	0.006	0.027	0.062	0.109	0.169	0.248	0.339	0.442
	Vertical Sound (NC/RC)	--/--	13/--	19/18H	27/27N	33/33N	39/39N	46/46N	49/49N

• Aluminum Round Diffusers available in sizes 6-18 only.

Neck Velocity		200	400	600	800	1000	1200	1400	1600
Velocity Pressure		.003	.010	0.022	0.040	0.062	0.090	0.122	0.160
<b>Air Flow (CFM)</b>		<b>436</b>	<b>873</b>	<b>1309</b>	<b>1745</b>	<b>2182</b>	<b>2618</b>	<b>3054</b>	<b>3491</b>
20"	Total Pressure	0.005	0.020	0.045	0.080	0.122	0.178	0.238	0.308
	Horizontal Sound (NC/RC)	--/--	11/--	18/17H	24/26N	31/31N	37/37N	45/44N	48/48N
	Radius of Diffusion	2-3-5	4-6-10	6-9-15	8-12-20	11-15-25	13-19-30	15-22-35	18-26-40
	Vertical Total Pressure	0.006	0.027	0.062	0.109	0.169	0.248	0.339	0.442
Vertical Sound (NC/RC)		--/--	13/--	19/18H	27/28N	33/33N	40/40N	46/46N	50/50N
	<b>Air Flow (CFM)</b>	<b>628</b>	<b>1257</b>	<b>1885</b>	<b>2513</b>	<b>3142</b>	<b>3770</b>	<b>4398</b>	<b>5027</b>
24"	Total Pressure	0.005	0.020	0.045	0.080	0.122	0.178	0.238	0.308
	Horizontal Sound (NC/RC)	--/--	12/--	18/18H	25/27N	31/32N	38/38N	46/45N	49/49N
	Radius of Diffusion	2-3-6	4-7-12	7-10-18	10-14-24	13-18-30	16-22-37	19-27-44	22-31-50
	Vertical Total Pressure	0.006	0.027	0.062	0.109	0.169	0.248	0.339	0.442
Vertical Sound (NC/RC)		--/--	13/--	20/19H	28/29N	34/34N	41/41N	47/47N	51/51N
	<b>Air Flow (CFM)</b>	<b>855</b>	<b>1710</b>	<b>2566</b>	<b>3421</b>	<b>4276</b>	<b>5131</b>	<b>5986</b>	<b>6842</b>
28"	Total Pressure	0.005	0.020	0.045	0.080	0.122	0.178	0.238	0.308
	Horizontal Sound (NC/RC)	--/--	12/--	19/19H	26/28N	32/33N	39/39N	46/46N	50/50N
	Radius of Diffusion	2-4-7	5-8-14	8-12-22	12-17-29	15-22-37	19-27-44	22-32-52	26-37-59
	Vertical Total Pressure	0.007	0.029	0.066	0.118	0.184	0.264	0.366	0.476
Vertical Sound (NC/RC)		--/--	14/10H	21/20H	29/30N	35/35N	41/41N	48/48N	52/52N
	<b>Air Flow (CFM)</b>	<b>1117</b>	<b>2234</b>	<b>3351</b>	<b>4468</b>	<b>5585</b>	<b>6702</b>	<b>7819</b>	<b>8936</b>
32"	Total Pressure	0.005	0.020	0.046	0.081	0.127	0.183	0.247	0.327
	Horizontal Sound (NC/RC)	--/--	13/10H	20/20H	26/28N	33/34N	39/40N	47/47N	50/50N
	Radius of Diffusion	3-4-8	6-9-16	10-14-25	13-20-34	17-25-43	21-31-52	26-37-61	30-43-70
	Vertical Total Pressure	0.006	0.027	0.062	0.109	0.169	0.248	0.339	0.442
Vertical Sound (NC/RC)		--/--	14/10H	22/21H	30/31N	36/36N	42/42N	49/49N	53/53N
	<b>Air Flow (CFM)</b>	<b>1414</b>	<b>2827</b>	<b>4241</b>	<b>5655</b>	<b>7069</b>	<b>8482</b>	<b>9896</b>	<b>11310</b>
36"	Total Pressure	0.007	0.027	0.061	0.106	0.166	0.238	0.327	0.425
	Horizontal Sound (NC/RC)	--/--	13/10H	20/20H	27/29N	33/34N	40/41N	47/47N	51/51N
	Radius of Diffusion	3-5-9	7-10-18	11-16-29	15-23-39	20-29-49	24-35-60	29-43-70	34-50-80
	Vertical Total Pressure	0.008	0.033	0.077	0.133	0.204	0.296	0.402	0.518
Vertical Sound (NC/RC)		--/--	15/11H	22/22H	31/32N	36/36N	43/43N	50/50N	54/54N
	<b>Air Flow (CFM)</b>	<b>1575</b>	<b>3150</b>	<b>4725</b>	<b>6301</b>	<b>7876</b>	<b>9451</b>	<b>11026</b>	<b>12601</b>
38"	Total Pressure	0.007	0.030	0.069	0.120	0.188	0.272	0.368	0.481
	Horizontal Sound (NC/RC)	--/--	13/10H	20/20H	27/29N	33/34N	40/41N	47/47N	51/51N
	Radius of Diffusion	3-5-10	7-11-20	12-18-31	16-24-41	21-31-52	26-38-64	31-46-74	36-53-86
	Vertical Total Pressure	0.009	0.037	0.082	0.142	0.224	0.324	0.438	0.568
Vertical Sound (NC/RC)		--/--	15/11H	22/22H	31/32N	37/37N	43/43N	50/50N	54/54N

**Notes on Performance Data:**

- Performance data is based on tests conducted according to ANSI/ASHRAE Standard 70-1991.
- Actual performance in the field may vary.
- Testing was conducted in isothermal conditions.
- Sound levels are based on a room absorption of 10db re 10<sup>-12</sup> watts.
- A "--" indicates an NC or RC level less than 10.

**Units of Measure Used:**

- The duct velocity is given in Feet per Minute (FPM).
- Velocity Pressure and Total Pressure are given in Inches of Water (w.g.).
- Radius of Diffusion values are given in feet for terminal velocities of 150, 100 and 50 FPM, respectively.
- Sound data is given in both NC (Noise Criteria) and RC (Room Criteria). NC is first with RC second, separated by a slash.