



Application

High capacity unit with low sound levels, for large spaces where seasonal or periodic discharge adjustment is required.

Standard Features

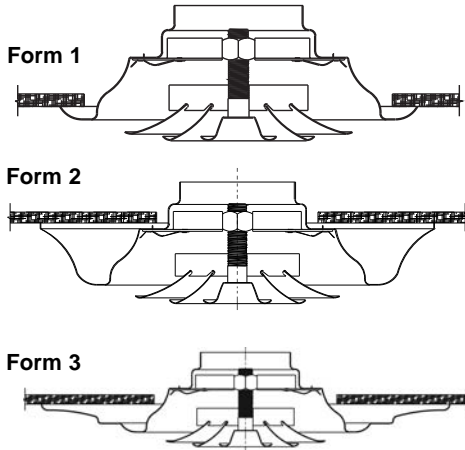
- Available in heavy gauge steel or aluminum. Aluminum available through size 18 only.
- Core is easily removed for installation or maintenance.
- Neck is sized to fit over duct for minimum leakage.
- Discharge is adjustable from horizontal to vertical by rotating core.
- Center button is removable for easy access to damper.
- 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 smudge cone, and is available in neck sizes 5" - 24".
- Safety chain prevents damage or injury when removing core by connecting the core to the form.

Optional Features

- Gasket (Option G) minimizes air leaks around edge of diffuser.

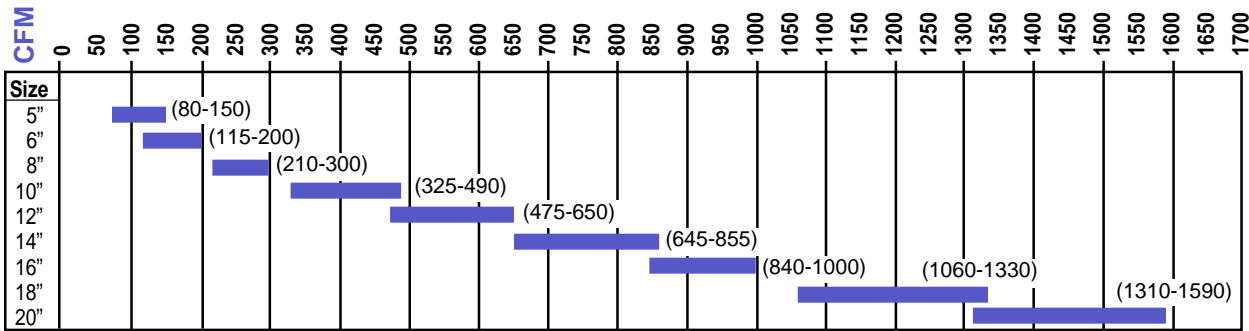
Accessories

- When specifying damper for sizes 5-24, use opposed blade round damper model KXRA (p. A427).
- When specifying damper for sizes 28-38, use radial deflector damper model KXNA (p. A430).

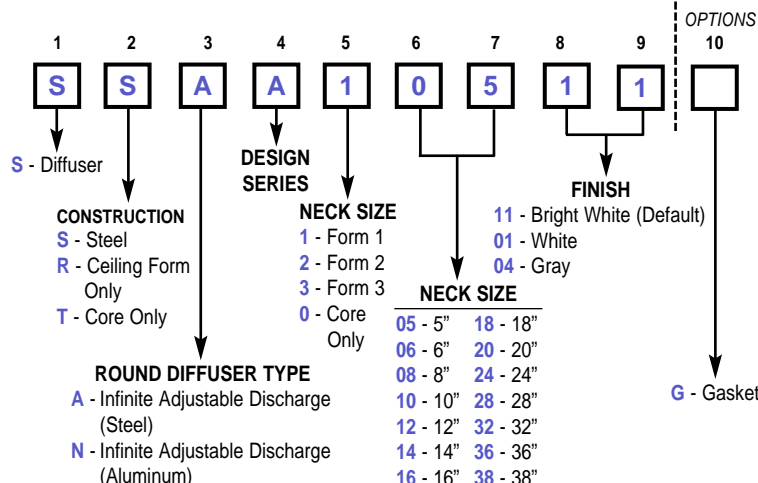


Quick Select Chart

This shows units with: • A maximum NC/RC of 35.
• A minimum face velocity of 400 FPM.

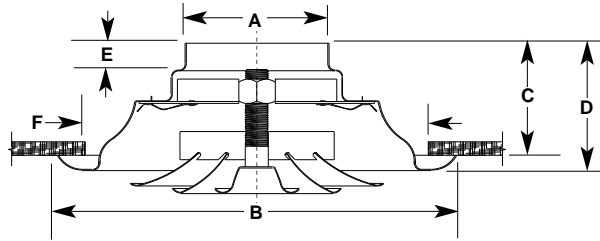


Model Numbering System



FORM ONE

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

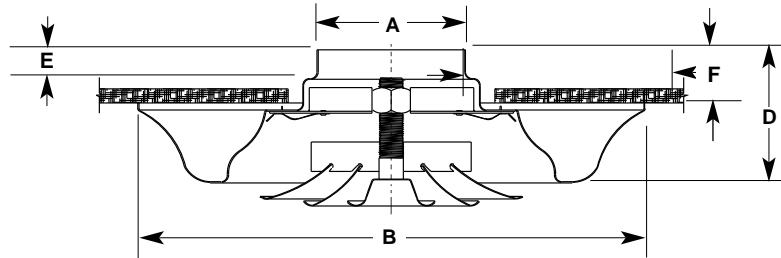


Dim	Description	5	6	8	10	12	14	16
A	Collar I.D.	5-1/16	6-1/16	8-1/16	10-1/16	12-1/16	14-1/16	16-1/16
B	Form O.D.	14-1/4	14-1/4	18-3/4	23-1/8	27-1/4	31-7/16	37-1/2
C	Projection from Ceiling	4-1/16	3-1/4	4-1/8	4-7/16	4-7/8	5-1/4	7-1/2
D	Unit Height	4-9/16	3-3/4	4-5/8	4-15/16	5-5/8	6	8-5/8
E	Collar Height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

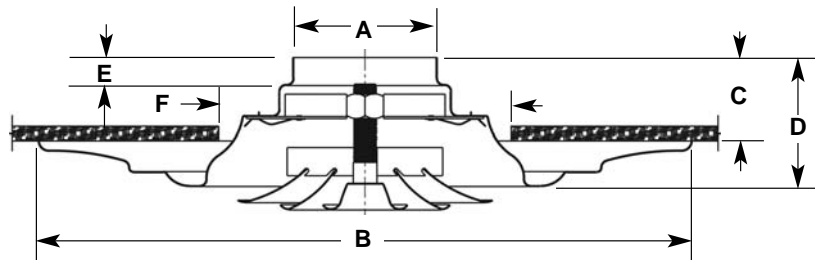
Offers the best anti-smudge protection because of the distance from the bottom edge of the form back up to the ceiling.



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	23-7/8	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	11-3/16	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

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"	Air Flow (CFM)	27	55	82	109	136	164	191	218
	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"	Air Flow (CFM)	39	79	118	157	196	236	275	314
	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"	Air Flow (CFM)	70	140	209	279	349	419	489	559
	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"	Air Flow (CFM)	109	218	327	436	545	654	764	873
	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"	Air Flow (CFM)	157	314	471	628	785	942	1100	1257
	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"	Air Flow (CFM)	214	428	641	855	1069	1283	1497	1710
	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"	Air Flow (CFM)	279	559	838	1117	1369	1676	1955	2234
	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"	Air Flow (CFM)	353	707	1060	1414	1767	2121	2474	2827
	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
20"	Air Flow (CFM)	436	873	1309	1745	2182	2618	3054	3491
	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
	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
24"	Air Flow (CFM)	628	1257	1885	2513	3142	3770	4398	5027
	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
	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
28"	Air Flow (CFM)	855	1710	2566	3421	4276	5131	5986	6842
	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
	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
32"	Air Flow (CFM)	1117	2234	3351	4468	5585	6702	7819	8936
	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
	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
36"	Air Flow (CFM)	1414	2827	4241	5655	7069	8482	9896	11310
	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
	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
38"	Air Flow (CFM)	1575	3150	4725	6301	7876	9451	11026	12601
	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
	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 10⁻¹² 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.