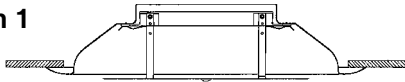


Form 1



### Application

High capacity plaque diffuser 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.
- Available in form 1 only.
- 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

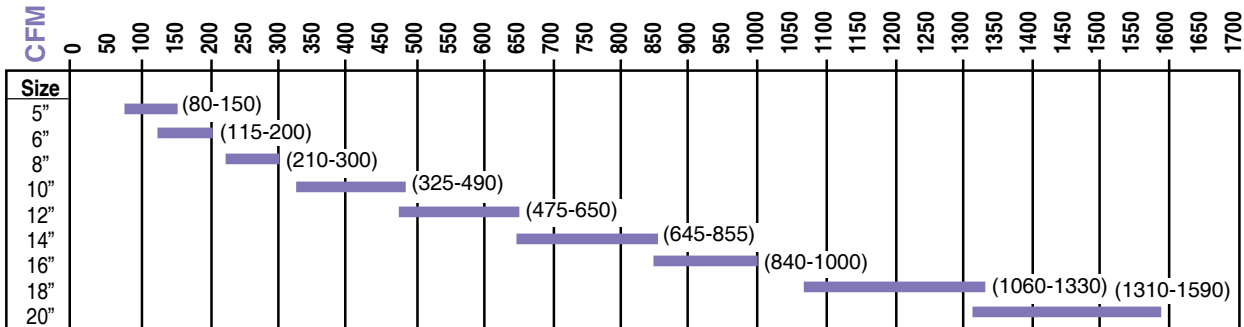
- Safety chain (Option S) prevents damage or injury when removing core by connecting the core to the form.
- Gasket (Option G) minimizes air leaks around edge of diffuser.

### Accessories

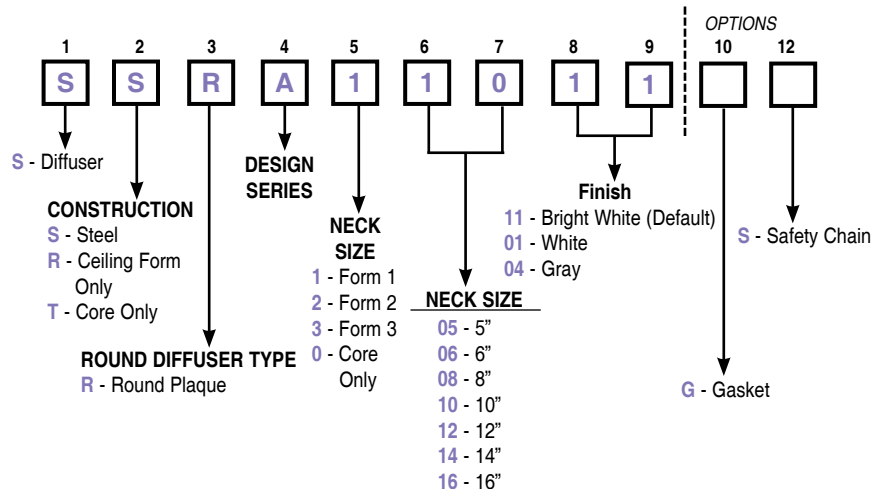
- When specifying damper for sizes 4-24, use opposed blade round damper model KXRA (p. A427).
- When specifying damper for sizes 28-38, use radial deflector damper model KXNA (p. A430).

### Quick Select Chart

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

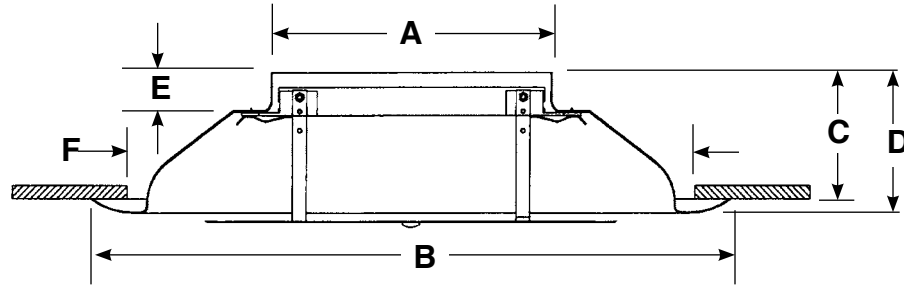


### Model Numbering System



**Form One**

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



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

**NOTES:**

Neck Size	Neck Velocity	200	400	600	800	1000	1200	1400	1600
	Velocity	0.003	0.010	0.022	0.040	0.062	0.090	0.122	0.160
6"	<b>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	0.023	0.051	0.091	0.141	0.204	0.278	0.363
	Horizontal NC / RC	- / -	- / -	- / -	13 / 12N	18 / 18N	23 / 22N	29 / 28N	33 / 32N
	Radius of Diffusion	1 1 2	1 2 4	2 3 6	2 4 7	4 5 9	5 6 11	5 7 12	6 8 13
	Total Pressure	0.010	0.039	0.087	0.153	0.235	0.366	0.455	0.591
	Vertical NC / RC	- / -	- / -	11 / 10N	17 / 16N	23 / 23N	30 / 30N	34 / 34N	38 / 38N
	Vertical Projection	1 1 2	1 3 4	2 3 7	2 4 8	4 6 10	5 7 12	5 8 13	6 8 14
8"	<b>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	0.020	0.045	0.079	0.123	0.177	0.238	0.310
	Horizontal NC / RC	- / -	- / -	- / -	14 / 13N	20 / 20N	25 / 24N	32 / 31N	35 / 34N
	Radius of Diffusion	1 2 3	1 3 5	2 4 7	3 5 9	5 8 12	6 9 14	7 10 16	8 12 18
	Total Pressure	0.008	0.034	0.075	0.133	0.209	0.301	0.413	0.540
	Vertical NC / RC	- / -	- / -	12 / 11N	18 / 18N	26 / 26N	32 / 32N	36 / 36N	40 / 40N
	Vertical Projection	1 2 3	1 3 6	3 4 8	4 5 10	6 9 13	7 10 15	8 11 18	9 13 20
10"	<b>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	0.020	0.045	0.079	0.123	0.177	0.238	0.310
	Horizontal NC / RC	- / -	- / -	10 / -	16 / 15N	21 / 21N	26 / 26N	33 / 32N	35 / 35N
	Radius of Diffusion	1 2 3	2 4 6	4 5 9	5 7 12	6 8 14	7 10 17	8 12 19	10 13 22
	Total Pressure	0.009	0.035	0.078	0.139	0.215	0.312	0.426	0.552
	Vertical NC / RC	- / -	- / -	13 / 12N	20 / 20N	26 / 26N	33 / 33N	37 / 37N	41 / 41N
	Vertical Projection	1 2 3	3 4 7	4 6 10	5 8 13	6 9 15	8 11 19	9 12 21	11 15 24
12"	<b>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	0.020	0.045	0.079	0.123	0.177	0.238	0.310
	Horizontal NC / RC	- / -	- / -	11 / -	16 / 16N	22 / 23N	27 / 27N	33 / 32N	37 / 37N
	Radius of Diffusion	1 2 4	2 4 7	3 6 10	5 8 13	7 10 16	8 12 20	10 14 23	11 16 26
	Total Pressure	0.009	0.035	0.078	0.139	0.215	0.312	0.426	0.552
	Vertical NC / RC	- / -	- / -	14 / 13N	21 / 21N	27 / 26N	34 / 34N	38 / 38N	42 / 42N
	Vertical Projection	1 3 4	3 4 8	4 6 11	6 8 14	8 11 18	9 13 22	11 15 25	12 17 29
14"	<b>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	0.022	0.048	0.083	0.130	0.187	0.254	0.326
	Horizontal NC / RC	- / -	- / -	11 / -	16 / 16N	22 / 23N	28 / 28N	34 / 33N	37 / 37N
	Radius of Diffusion	1 3 4	3 5 8	5 7 12	7 9 15	8 11 19	10 14 23	11 16 26	13 18 29
	Total Pressure	0.009	0.035	0.078	0.139	0.215	0.312	0.426	0.552
	Vertical NC / RC	- / -	- / -	15 / 14N	21 / 21N	28 / 28N	35 / 35N	39 / 39N	43 / 43N
	Vertical Projection	1 3 4	4 5 9	5 8 13	8 10 17	9 12 21	11 15 25	12 18 29	14 20 32
16"	<b>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	0.023	0.051	0.091	0.141	0.204	0.278	0.363
	Horizontal NC / RC	- -	- / -	12 / 10N	16 / 17N	23 / 23N	28 / 28N	35 / 34N	37 / 37N
	Radius of Diffusion	2 3 5	3 5 9	6 8 14	7 10 18	9 13 22	11 15 26	13 19 30	16 22 35
	Total Pressure	0.008	0.032	0.072	0.128	0.200	0.287	0.398	0.518
	Vertical NC / RC	- / -	- / -	15 / 14N	22 / 22N	28 / 28N	35 / 35N	40 / 40N	44 / 44N
	Vertical Projection	2 3 6	4 5 10	6 5 15	7 11 20	10 15 24	12 17 29	15 21 33	17 24 39

**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.