

Application:

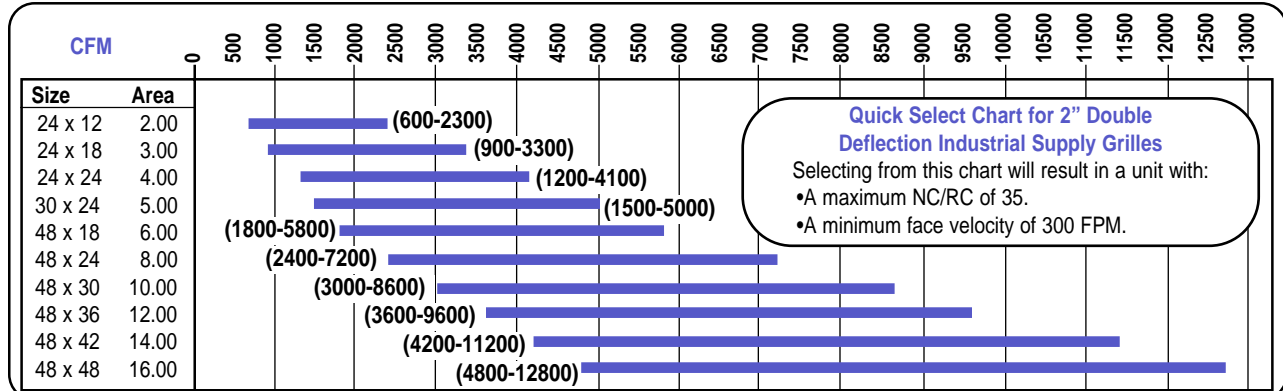
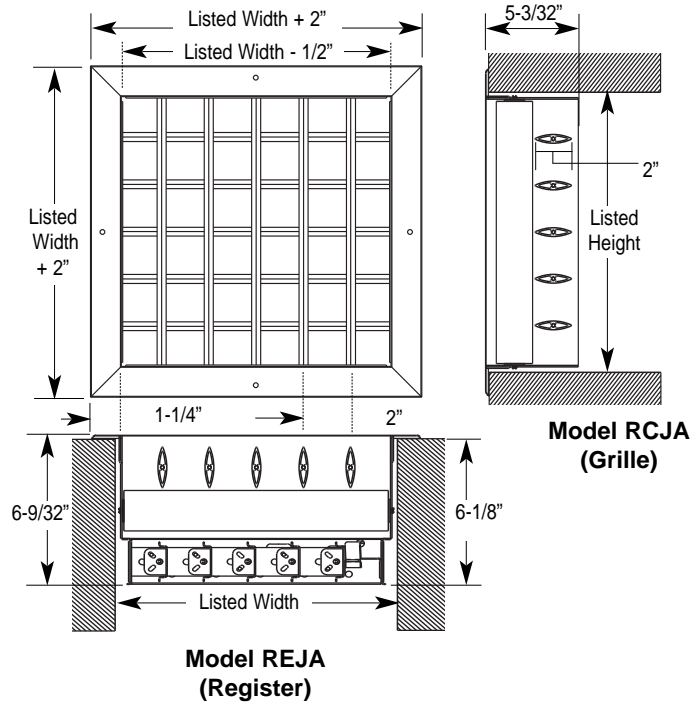
This model serves well in any area where the air volume is large, and a durable double deflection supply unit is called for.

Standard Features:

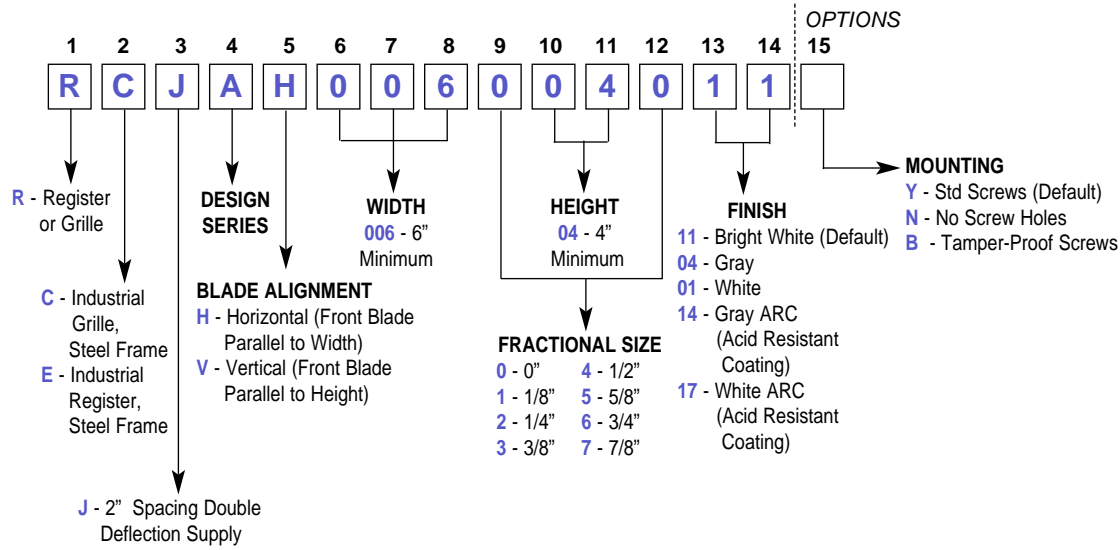
- Construction is of extruded aluminum blade with 20 gauge steel frame.
- Double deflection design.
- Blades are 2" deep, on 2" centers, and can be aligned horizontally or vertically.
- Blades are airfoil shape, and are individually adjustable for fine tuning of throw, blow pattern or spread.
- Polyurethane foam gasket at edge of frame.
- Standard finish is #11 bright white. Other colors are available on request.
- Register model REJ uses the model RXEA opposed blade damper (p. A437) for data on model RXEA).

Optional Features:

- Fusible link (p. A343).
- Holt head #8 x 1-1/2" screws (Opt. B) can be specified to prevent tampering.
- "No screw holes" can be specified for custom installations.



Model Numbering System — Industrial R&G Double Deflection Supply (Models RCJ, REJ)



Heavy Duty Registers & Grilles

Duct Velocity	Velocity Press.	300	400	500	600	700	800	1000	1200	1400	1600	
		0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090	0.122	0.160	
Nom. Size (in.)	Total	0°	0.008	0.014	0.022	0.032	0.045	0.058	0.091	0.131	0.182	0.238
	Press.	22.5°	0.010	0.019	0.029	0.043	0.058	0.077	0.119	0.172	0.236	0.307
	(w.g.)	45°	0.016	0.028	0.044	0.064	0.087	0.114	0.177	0.252	0.348	0.454
6 x 6 25 ft²	Flow (CFM)		75	100	125	150	175	200	250	300	350	400
	0°	Throw	6-10-15	8-12-18	10-14-19	11-15-21	12-17-23	13-18-24	15-19-27	16-21-30	17-22-32	19-24-34
	Sound		---/---	---/---	---/---	---/---	---/---	---/---	10/11H	14/15N	21/22N	24/25N
8 x 6 33 ft²	Flow (CFM)		100	133	167	200	233	267	333	400	467	533
	0°	Throw	7-11-18	9-15-20	11-16-22	12-18-24	14-19-26	15-20-28	17-22-32	19-25-35	19-26-38	21-28-40
	Sound		---/---	---/---	---/---	---/---	---/---	---/---	14/15H	19/20N	25/26N	29/30N
10 x 6 42 ft²	Flow (CFM)		125	167	208	250	292	333	417	500	583	667
	0°	Throw	8-13-19	10-16-22	13-18-25	15-19-28	16-21-30	17-22-32	19-25-36	20-28-39	22-29-42	24-32-45
	Sound		---/---	---/---	---/---	---/---	---/---	10/10H	17/18H	23/24N	29/30N	33/34N
12 x 6 50 ft²	Flow (CFM)		150	200	250	300	350	400	500	600	700	800
	0°	Throw	8-14-21	11-18-24	14-19-27	16-21-30	18-23-33	19-24-35	20-27-39	22-30-43	24-32-46	26-35-49
	Sound		---/---	---/---	---/---	---/---	---/---	12/12H	19/20H	25/26N	31/32N	35/36N
12 x 8 67 ft²	Flow (CFM)		200	267	333	400	467	533	667	800	933	1067
	0°	Throw	10-16-24	13-20-28	16-22-32	19-24-35	20-26-38	21-28-41	23-32-45	26-35-50	28-38-54	30-40-57
	Sound		---/---	---/---	---/---	---/---	---/---	14/14H	21/22N	28/28N	34/34N	38/38N
18 x 6 75 ft²	Flow (CFM)		225	300	375	450	525	600	750	900	1050	1200
	0°	Throw	10-17-26	14-21-30	18-23-34	19-26-37	21-28-40	22-30-43	25-34-48	28-37-53	29-40-57	32-43-60
	Sound		---/---	---/---	---/---	---/---	10/10H	15/15H	22/23N	29/29N	35/35N	39/39N
12 x 10 83 ft²	Flow (CFM)		250	333	417	500	583	667	833	1000	1167	1333
	0°	Throw	11-18-27	15-22-32	18-25-36	20-27-39	22-30-42	23-32-46	26-36-51	29-39-56	31-42-59	34-45-63
	Sound		---/---	---/---	---/---	---/---	11/13H	16/17H	23/24N	30/30N	36/36N	39/39N
12 x 12 1.00 ft²	Flow (CFM)		300	400	500	600	700	800	1000	1200	1400	1600
	0°	Throw	12-19-30	16-24-35	19-27-39	22-30-43	24-33-47	26-35-50	29-39-56	32-43-60	34-46-65	37-49-69
	Sound		---/---	---/---	---/---	---/---	13/15H	17/18H	25/26N	32/32N	37/37N	41/41N
18 x 10 1.25 ft²	Flow (CFM)		375	500	625	750	875	1000	1250	1500	1750	2000
	0°	Throw	13-21-34	18-27-39	22-31-44	25-34-48	27-36-52	29-39-56	32-44-62	36-49-67	38-52-73	42-55-78
	Sound		---/---	---/---	---/---	---/---	14/14H	18/18N	26/26N	34/34N	38/39N	42/42N
	Flow (CFM)		300	400	500	600	700	800	1000	1200	1400	1600
	0°	Throw	10-17-27	14-22-31	18-25-35	20-27-38	22-29-41	23-31-44	26-35-50	29-39-54	30-41-58	34-44-62
	Sound		---/---	---/---	---/---	---/---	12/13H	17/18H	23/23H	28/28N	37/37N	42/42N
	Flow (CFM)		375	500	625	750	875	1000	1250	1500	1750	2000
	0°	Throw	6-10-16	8-13-19	11-15-21	12-16-23	13-17-25	14-19-27	15-21-30	17-23-32	18-25-35	20-26-37
	Sound		---/---	19/21H	26/28N	32/33N	37/37N	40/41N	47/49N	52/52N	55/55N	59/59N

Notes on Performance Data:

- Performance data is based on tests conducted in accordance with ANSI/ASHRAE Standard 70-1991.
- Actual Performance in the field may vary.
- Testing was conducted in isothermal conditions.
- Sound level values are based on a room absorption of 10db re 10⁻¹² watts.
- A "----" indicates an NC value less than 10.

Units of Measure Used:

- Velocity is given in Feet per Minute (fpm).
- Pressure is given in inches of Water (w.g.)
- Flows are given in Cubic Feet per Minute (CFM).
- Throws are given in feet to terminal velocities of 150, 100 and 50 fpm, respectively.
- Sound data is given in both NC and RC. NC is first with RC second, separated by a slash.

Nom. Size (in.)	Duct Velocity	Velocity Press.	300	400	500	600	700	800	1000	1200	1400	1600
			0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090	0.122	0.160
18 x 12 1.50 ft ²	0°	Throw	0.008	0.014	0.022	0.032	0.045	0.058	0.091	0.131	0.182	0.238
		Sound	0.010	0.019	0.029	0.043	0.058	0.077	0.119	0.172	0.236	0.307
	22.5°	Throw	0.016	0.028	0.044	0.064	0.087	0.114	0.177	0.252	0.348	0.454
		Sound	---	---	---	---	---	---	---	---	---	---
	45°	Throw	15-24-37	19-30-43	24-33-48	27-37-53	30-40-57	32-43-60	36-48-67	39-53-74	42-57-80	46-60-85
		Sound	---/---	---/---	---/---	---/---	16/16H	19/19N	28/28N	35/35N	40/41N	43/43N
18 x 14 1.75 ft ²	0°	Throw	0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090	0.122	0.160
		Sound	0.008	0.014	0.022	0.032	0.045	0.058	0.091	0.131	0.182	0.238
	22.5°	Throw	0.010	0.019	0.029	0.043	0.058	0.077	0.119	0.172	0.236	0.307
		Sound	0.016	0.028	0.044	0.064	0.087	0.114	0.177	0.252	0.348	0.454
	45°	Throw	16-26-40	20-33-46	26-36-52	30-40-57	32-43-61	34-47-65	38-52-73	42-57-80	45-60-86	49-65-92
		Sound	---/---	---/---	---/---	10/11H	17/17H	20/20N	29/29N	36/36N	41/42N	44/44N
24 x 12 2.00 ft ²	0°	Throw	0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090	0.122	0.160
		Sound	0.008	0.014	0.022	0.032	0.045	0.058	0.091	0.131	0.182	0.238
	22.5°	Throw	0.010	0.019	0.029	0.043	0.058	0.077	0.119	0.172	0.236	0.307
		Sound	0.016	0.028	0.044	0.064	0.087	0.114	0.177	0.252	0.348	0.454
	45°	Throw	12-21-32	16-27-37	21-29-41	24-32-45	26-34-49	27-37-52	30-41-58	34-46-64	36-48-69	39-52-73
		Sound	---/---	---/---	13/13H	18/19H	25/25H	30/30N	39/39N	44/44N	48/48N	51/51N
18 x 18 2.25 ft ²	0°	Throw	0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090	0.122	0.160
		Sound	0.008	0.014	0.022	0.032	0.045	0.058	0.091	0.131	0.182	0.238
	22.5°	Throw	0.010	0.019	0.029	0.043	0.058	0.077	0.119	0.172	0.236	0.307
		Sound	0.016	0.028	0.044	0.064	0.087	0.114	0.177	0.252	0.348	0.454
	45°	Throw	7-12-18	9-15-21	12-16-23	13-18-25	15-19-27	15-21-29	17-23-32	19-25-36	20-27-38	22-29-41
		Sound	---/---	20/22H	27/29N	33/34N	38/38N	42/43N	48/50N	53/53N	57/57N	60/60N
30 x 12 2.50 ft ²	0°	Throw	0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090	0.122	0.160
		Sound	0.008	0.014	0.022	0.032	0.045	0.058	0.091	0.131	0.182	0.238
	22.5°	Throw	0.010	0.019	0.029	0.043	0.058	0.077	0.119	0.172	0.236	0.307
		Sound	0.016	0.028	0.044	0.064	0.087	0.114	0.177	0.252	0.348	0.454
	45°	Throw	11/11H	21/23H	29/31N	34/35N	39/39N	43/44N	49/51N	54/54N	58/58N	61/61N
		Sound	17-27-43	22-35-50	28-39-56	32-43-60	34-46-65	37-50-70	41-56-78	46-61-85	48-65-92	53-69-98
24 x 18 3.00 ft ²	0°	Throw	0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090	0.122	0.160
		Sound	0.008	0.014	0.022	0.032	0.045	0.058	0.091	0.131	0.182	0.238
	22.5°	Throw	0.010	0.019	0.029	0.043	0.058	0.077	0.119	0.172	0.236	0.307
		Sound	0.016	0.028	0.044	0.064	0.087	0.114	0.177	0.252	0.348	0.454
	45°	Throw	13-13-19	10-16-22	13-17-25	15-19-27	15-21-29	16-22-31	18-25-35	20-28-38	22-29-41	23-31-44
		Sound	11/11H	21/23H	29/31N	34/35N	39/39N	43/44N	49/51N	54/54N	58/58N	61/61N
42 x 12 3.50 ft ²	0°	Throw	0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090	0.122	0.160
		Sound	0.008	0.014	0.022	0.032	0.045	0.058	0.091	0.131	0.182	0.238
	22.5°	Throw	0.010	0.019	0.029	0.043	0.058	0.077	0.119	0.172	0.236	0.307
		Sound	0.016	0.028	0.044	0.064	0.087	0.114	0.177	0.252	0.348	0.454
	45°	Throw	17-27-43	22-35-50	28-39-56	32-43-60	34-46-65	37-50-70	41-56-78	46-61-85	48-65-92	53-69-98
		Sound	---/---	---/---	---/---	11/12H	17/17H	21/21N	29/29N	37/37N	41/42N	45/45N
30 x 18 3.75 ft ²	0°	Throw	0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090	0.122	0.160
		Sound	0.008	0.014	0.022	0.032	0.045	0.058	0.091	0.131	0.182	0.238
	22.5°	Throw	0.010	0.019	0.029	0.043	0.058	0.077	0.119	0.172	0.236	0.307
		Sound	0.016	0.028	0.044	0.064	0.087	0.114	0.177	0.252	0.348	0.454
	45°	Throw	8-13-21	11-17-24	14-19-27	15-21-29	16-22-31	18-24-34	20-27-37	22-29-41	23-31-44	25-33-47
		Sound	12/12H	22/24H	30/32N	35/36N	40/40N	44/45N	50/52N	55/55N	59/59N	62/62N
24 x 24 4.00 ft ²	0°	Throw	0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090	0.122	0.160
		Sound	0.008	0.014	0.022	0.032	0.045	0.058	0.091	0.131	0.182	0.238
	22.5°	Throw	0.010	0.019	0.029	0.043	0.058	0.077	0.119	0.172	0.236	0.307
		Sound	0.016	0.028	0.044	0.064	0.087	0.114	0.177	0.252	0.348	0.454
	45°	Throw	13-13-19	10-16-22	13-17-25	15-19-27	15-21-29	16-22-31	18-25-35	20-28-38	22-29-41	23-31-44
		Sound	11/11H	21/23H	29/31N	34/35N	39/39N	43/44N	49/51N	54/54N	58/58N	61/61N

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- Flows are given in Cubic Feet per Minute (CFM).
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Heavy Duty Registers & Grilles

Duct Velocity	Velocity Press.	300	400	500	600	700	800	1000	1200	1400	1600	
		0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090	0.122	0.160	
Nom. Size (in.)	Total Press.	0°	0.008	0.014	0.022	0.032	0.045	0.058	0.091	0.131	0.182	0.238
	22.5°	0.010	0.019	0.029	0.043	0.058	0.077	0.119	0.172	0.236	0.307	
	45°	0.016	0.028	0.044	0.064	0.087	0.114	0.177	0.252	0.348	0.454	
36 x 18 4.50 ft²	Flow (CFM)	0°	1350	1800	2250	2700	3150	3600	4500	5400	6300	7200
	Throw Sound	0°	24-42-64	33-53-74	42-57-83	48-64-92	52-68-98	55-74-105	61-83-117	67-91-128	72-96-138	78-104-147
	22.5°	19-34-51	27-42-59	34-46-66	38-51-73	41-55-79	44-59-84	49-66-94	54-73-102	58-77-111	62-83-118	
30 x 24 5.00 ft²	Flow (CFM)	0°	1500	2000	2500	3000	3500	4000	5000	6000	7000	8000
	Throw Sound	0°	26-44-67	35-56-78	44-61-88	51-67-96	55-73-103	57-78-110	64-88-123	71-96-134	75-101-144	83-109-155
	22.5°	21-35-54	28-44-62	35-49-70	41-54-76	44-58-83	46-62-88	51-70-98	57-77-108	60-81-115	66-87-124	
42 x 18 5.25 ft²	Flow (CFM)	0°	1575	2100	2625	3150	3675	4200	5250	6300	7350	8400
	Throw Sound	0°	26-45-69	36-57-81	45-62-90	52-69-98	56-74-105	58-80-114	66-90-126	73-98-138	78-104-149	85-112-159
	22.5°	21-36-55	29-45-65	36-50-72	41-55-79	44-59-84	47-64-91	53-72-101	58-79-111	62-83-119	68-90-127	
48 x 18 6.00 ft²	Flow (CFM)	0°	1800	2400	3000	3600	4200	4800	6000	7200	8400	9600
	Throw Sound	0°	28-48-74	39-60-86	48-66-96	55-74-105	59-80-113	63-86-121	70-96-134	78-105-147	83-112-159	91-120-170
	22.5°	23-38-59	31-48-69	38-53-76	44-59-84	48-64-90	51-69-97	56-76-108	62-84-118	66-90-127	73-96-136	
30 x 30 6.25 ft²	Flow (CFM)	0°	1875	2500	3125	3750	4375	5000	6250	7500	8750	10000
	Throw Sound	0°	29-50-76	40-62-88	50-68-98	57-75-108	61-82-115	64-88-124	72-97-137	80-107-151	85-115-163	93-123-173
	22.5°	23-40-61	32-50-70	40-55-79	45-60-87	49-65-92	51-70-99	58-78-110	64-86-121	68-92-130	74-98-139	
42 x 24 7.00 ft²	Flow (CFM)	0°	2100	2800	3500	4200	4900	5600	7000	8400	9800	11200
	Throw Sound	0°	31-52-80	42-65-93	52-72-104	59-80-113	64-86-122	68-93-131	76-103-145	84-113-159	90-121-172	97-130-183
	22.5°	25-41-64	34-52-74	41-58-83	48-64-90	51-69-97	55-74-104	61-83-116	67-90-127	72-97-138	78-104-147	
36 x 30 7.50 ft²	Flow (CFM)	0°	2250	3000	3750	4500	5250	6000	7500	9000	10500	12000
	Throw Sound	0°	32-54-83	44-67-96	54-75-107	61-82-117	67-89-127	71-96-135	79-107-150	88-118-165	93-125-178	101-134-190
	22.5°	26-43-66	35-54-77	43-60-86	49-65-94	54-71-101	57-76-108	63-86-120	70-94-132	74-100-143	81-107-152	
48 x 24 8.00 ft²	Flow (CFM)	0°	2400	3200	4000	4800	5600	6400	8000	9600	11200	12800
	Throw Sound	0°	33-56-86	45-69-98	56-77-110	63-85-121	69-92-130	73-99-139	82-110-155	90-122-170	96-130-184	104-138-197
	22.5°	27-44-69	36-55-79	44-62-88	51-68-97	55-73-104	58-80-111	65-88-124	72-97-136	76-104-147	83-111-157	
42 x 30 8.75 ft²	Flow (CFM)	0°	2625	3500	4375	5250	6125	7000	8750	10500	12250	14000
	Throw Sound	0°	34-58-90	47-73-103	58-81-115	67-89-126	72-96-136	77-103-146	86-116-163	95-128-178	100-135-192	109-145-207
	22.5°	27-47-72	37-58-83	47-65-92	54-71-101	58-77-109	62-83-117	69-93-130	76-102-143	80-108-154	87-116-165	

Notes on

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Units of

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	Press.	22.5°	0.010	0.019	0.029	0.043	0.058	0.077	0.119	0.172	0.236	
	(w.g.)	45°	0.016	0.028	0.044	0.064	0.087	0.114	0.177	0.252	0.348	
36 x 36 9.00 ft²	Flow (CFM)		2700	3600	4500	5400	6300	7200	9000	10800	14400	
	0°	Throw	35-59-91	48-74-105	59-82-117	67-90-129	73-97-138	78-105-148	87-118-166	96-129-180	101-137-196	110-147-209
		Sound	--- / ---	--- / ---	--- / ---	20/22H	26/27N	31/32N	38/38N	45/45N	48/49N	51/51N
48 x 30 10.00 ft²	Flow (CFM)		3000	4000	5000	6000	7000	8000	10000	14000	16000	
	0°	Throw	37-62-96	50-78-111	62-86-124	71-96-134	77-102-146	82-110-157	92-124-173	100-135-191	107-144-206	117-154-200
		Sound	--- / ---	--- / ---	--- / ---	21/23H	27/28N	32/33N	39/39N	46/46N	49/50N	52/52N
42 x 36 10.50 ft²	Flow (CFM)		3150	4200	5250	6300	7350	8400	10500	14700	16800	
	0°	Throw	38-63-97	52-80-113	63-88-127	73-97-138	79-105-150	84-114-161	94-127-177	103-139-196	110-148-211	120-159-225
		Sound	--- / ---	--- / ---	--- / ---	21/23H	27/28N	32/33N	39/39N	46/46N	49/50N	52/52N
40 x 40 11.11 ft²	Flow (CFM)		3333	4444	5556	6667	7778	8889	11111	13333	15556	17778
	0°	Throw	39-65-100	53-82-117	65-91-131	75-100-143	81-109-155	86-117-166	96-131-182	106-144-202	114-153-216	124-163-231
		Sound	--- / ---	--- / ---	--- / ---	21/23H	28/29N	32/33N	39/39N	46/46N	49/50N	52/52N
48 x 36 12.00 ft²	Flow (CFM)		3600	4800	6000	7200	8400	9600	12000	14400	16800	19200
	0°	Throw	41-68-104	55-86-121	68-95-135	78-104-148	85-113-160	90-121-172	100-135-190	111-149-209	118-159-225	128-170-241
		Sound	--- / ---	--- / ---	--- / ---	22/24H	28/29N	33/34N	40/40N	47/47N	49/50N	53/53N
42 x 42 12.25 ft²	Flow (CFM)		3675	4900	6125	7350	8575	9800	12250	14700	17150	19600
	0°	Throw	41-69-105	56-87-122	69-96-137	79-105-149	86-114-162	91-124-173	101-138-192	112-151-210	120-161-227	130-172-243
		Sound	--- / ---	--- / ---	--- / ---	22/24H	28/29N	33/34N	40/40N	47/47N	49/50N	53/53N
48 x 42 14.00 ft²	Flow (CFM)		4200	5600	7000	8400	9800	11200	14000	16800	19600	22400
	0°	Throw	44-74-113	59-93-131	74-102-146	85-113-160	92-122-173	97-131-185	108-146-206	120-161-225	127-172-243	138-183-260
		Sound	--- / ---	--- / ---	--- / ---	23/25H	29/30N	33/34N	41/41N	47/47N	50/51N	54/54N
48 x 46 15.33 ft²	Flow (CFM)		4600	6133	7667	9200	10733	12267	15333	18400	21467	24533
	0°	Throw	46-77-119	62-97-137	77-107-154	89-118-168	96-128-181	101-137-193	113-154-214	125-169-235	133-179-254	144-192-272
		Sound	--- / ---	--- / ---	--- / ---	23/25H	30/31N	34/36N	41/41N	48/48N	50/51N	54/54N
48 x 48 16.00 ft²	Flow (CFM)		4800	6400	8000	9600	11200	12800	16000	19200	22400	25600
	0°	Throw	47-79-121	63-98-139	79-109-156	90-121-171	97-131-185	103-140-198	115-157-219	128-172-240	135-183-259	148-196-279
		Sound	--- / ---	--- / ---	--- / ---	24/26H	30/31N	34/35N	41/41N	48/48N	50/51N	54/54N
48 x 48 16.00 ft²	Flow (CFM)		4800	6400	8000	9600	11200	12800	16000	19200	22400	25600
	22.5°	Throw	37-63-97	51-79-111	63-87-125	72-97-136	78-104-148	83-112-158	92-126-175	102-138-192	108-147-207	118-157-223
		Sound	--- / ---	15/15H	20/21H	26/27N	32/33N	38/39N	48/49N	52/52N	57/57N	61/61N
48 x 48 16.00 ft²	Flow (CFM)		4800	6400	8000	9600	11200	12800	16000	19200	22400	25600
	45°	Throw	22-38-58	30-47-67	38-52-75	43-58-82	47-63-89	50-67-95	55-75-105	61-83-115	65-88-124	71-94-134
		Sound	22/23H	31/33N	39/41N	44/45N	47/48N	52/53N	59/59N	65/65N	68/68N	71/71N

Notes on Performance Data:

- Performance data is based on tests conducted in accordance with ANSI/ASHRAE Standard 70-1991.
- Actual Performance in the field may vary.
- Testing was conducted in isothermal conditions.
- Sound level values are based on a room absorption of 10db re 10⁻¹² watts.
- A "----" indicates an NC value less than 10.

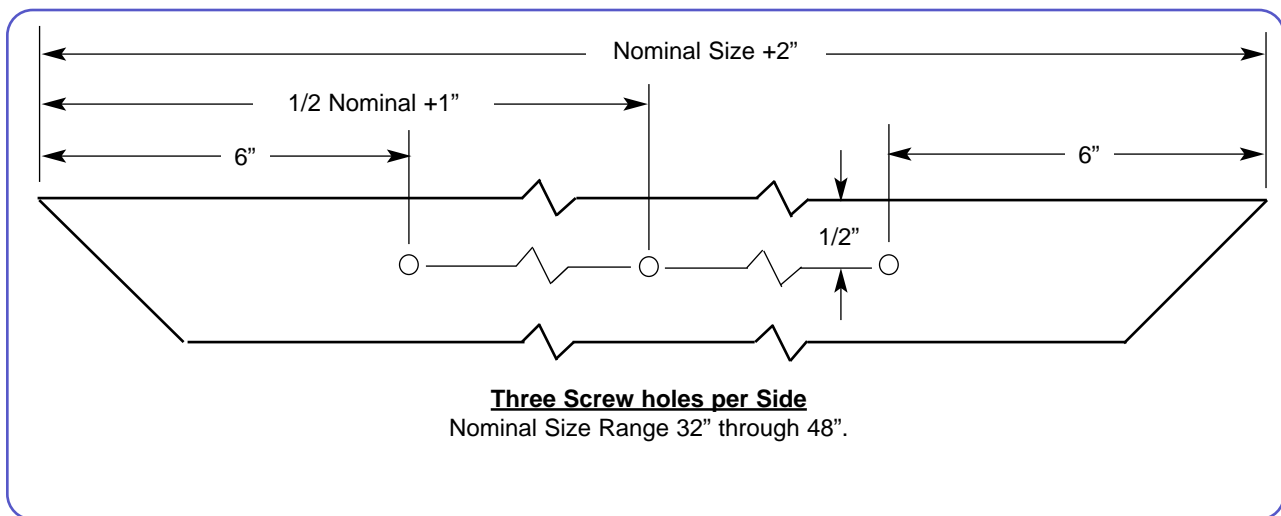
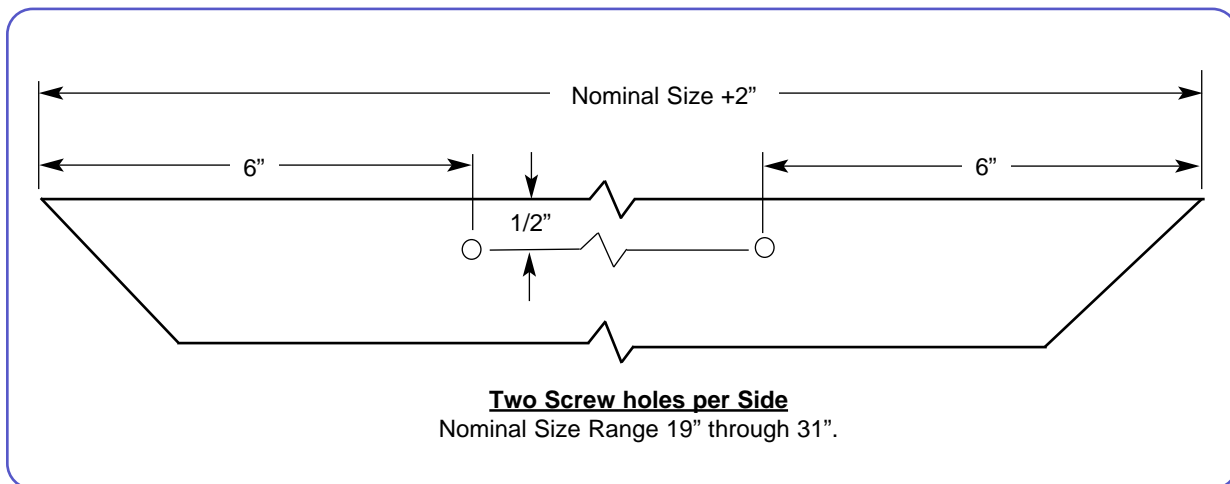
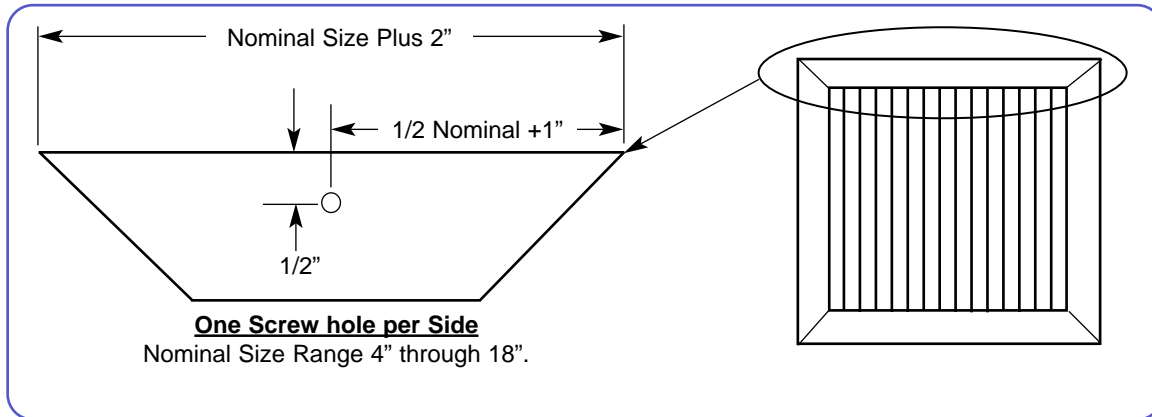
Units of Measure Used:

- Velocity is given in Feet per Minute (fpm).
- Pressure is given in inches of Water (w.g.)
- Flows are given in Cubic Feet per Minute (CFM).
- Throws are given in feet to terminal velocities of 150, 100 and 50 fpm, respectively.
- Sound data is given in both NC and RC. NC is first with RC second, separated by a slash.

Heavy Duty Registers & Grilles

Screw Hole Location on Steel Registers and Grilles

- Screw holes on the face are standard on Registers and Grilles.
- Steel R&G can be ordered without screw holes, for use with concealed hangers.
- The screw hole is 5/32" in diameter, counter sunk.
- Each Register or Grille is provided with the appropriate number of screws as standard.
- The standard screw is a #8 x 1-1/4" counter sunk screw, with a flat blade head.
- Tamper-proof screws are available as an option.

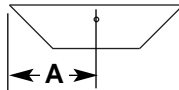


Screw Hole Location for the following Registers & Grilles

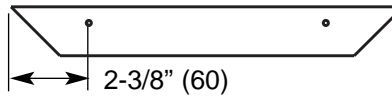
40° Return RSHA, RTHA
 0° Return RSEA, RTEA

Hole location for long side (if grille is rectangular) or opposite sides (if grille is square).

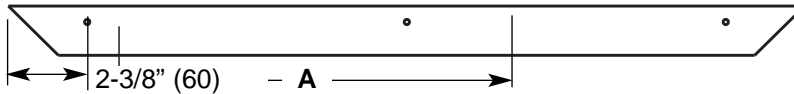
Nominal Size ->	4" (102)	6" (152)	8" (203)
Dim. "A" ->	3" (76)	4" (102)	5" (127)



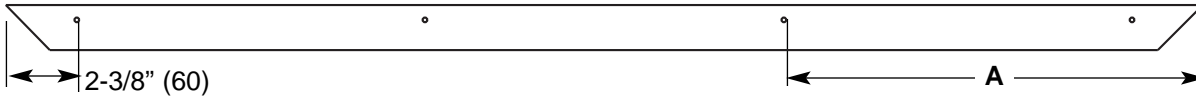
Nominal Size ->	10" (254)	12" (305)	14" (356)	16" (406)	18" (457)	20" (508)
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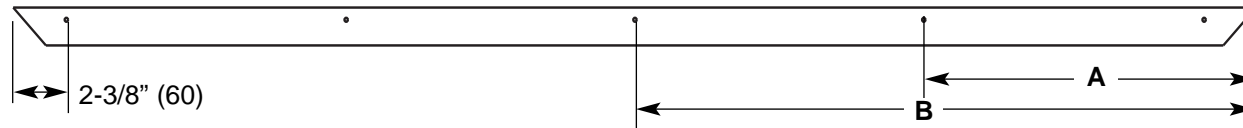
Nominal Size ->	22" (559)	24" (610)	26" (660)	28" (711)	30" (762)	32" (813)	34" (864)	36" (914)
Dim. "A" ->	12" (305)	13" (330)	14" (356)	15" (381)	16" (406)	17" (432)	18" (457)	19" (483)



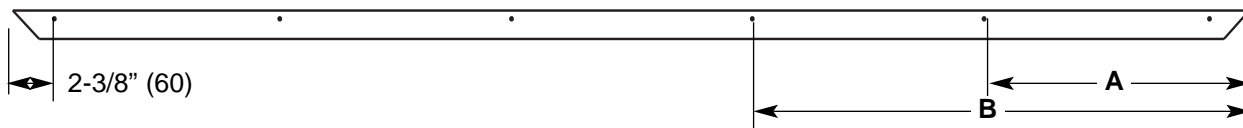
Nominal Size ->	38" (965)	40" (1016)	42" (1067)	44" (1118)	46" (1168)	48" (1219)	50" (1270)	52" (1321)
Dim. "A" ->	14" (356)	15" (381)	15 1/2" (394)	16" (406)	17" (432)	17 1/2" (445)	18" (457)	19" (483)



Nominal Size ->	54" (1372)	56" (1422)	58" (1473)	60" (1524)	62" (1575)	64" (1626)	66" (1676)	68" (1727)
Dim. "A" ->	15" (381)	15 1/2" (394)	16" (406)	16 1/2" (419)	17" (432)	17 1/2" (445)	18" (457)	18 1/2" (470)
Dim. "B" ->	28" (711)	29" (737)	30" (762)	31" (787)	32" (813)	33" (838)	34" (864)	35" (889)



Nominal Size ->	70" (1778)	72" (1829)
Dim. "A" ->	15 1/2" (394)	16" (406)
Dim. "B" ->	29" (737)	30" (762)

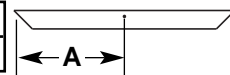


Hole Location for other sides.

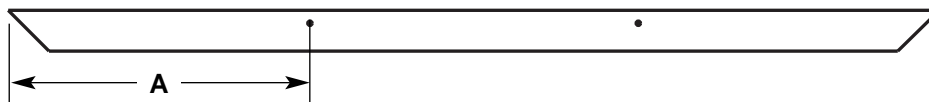
Nominal Size ->	4" (102)	6" (152)	8" (203)	10" (254)	12" (305)	14" (356)
	No Screw Holes					



Nominal Size ->	16" (406)	18" (457)	20" (508)	22" (559)	24" (610)	26" (660)	28" (711)	30" (762)
Dim. "A" ->	9" (229)	10" (254)	11" (279)	12" (305)	13" (330)	14" (356)	15" (381)	16" (406)



Nominal Size ->	32" (813)	34" (864)	36" (914)	38" (965)	40" (1016)	42" (1067)	44" (1118)	46" (1168)	48" (1219)
Dim. "A" ->	11" (279)	12" (305)	13" (330)	13" (330)	14" (356)	15" (381)	16" (406)	16" (406)	17" (432)



Notes:

- Standard screws are #8 x 1-1/4" (32) Phillips head sheet metal screws.
- Holes are countersunk for flush appearance.
- Hole center is placed 1/2" (13) in from outside edge.
- Metric (SI) dimensions are given in millimeters.

Panel for T-bar Ceiling (Option T)

Application

This option is used when the grille is to mount in a suspended ceiling, but is too small to lay in by itself. The grille is set in a panel that will lay into the appropriate size and type of ceiling.

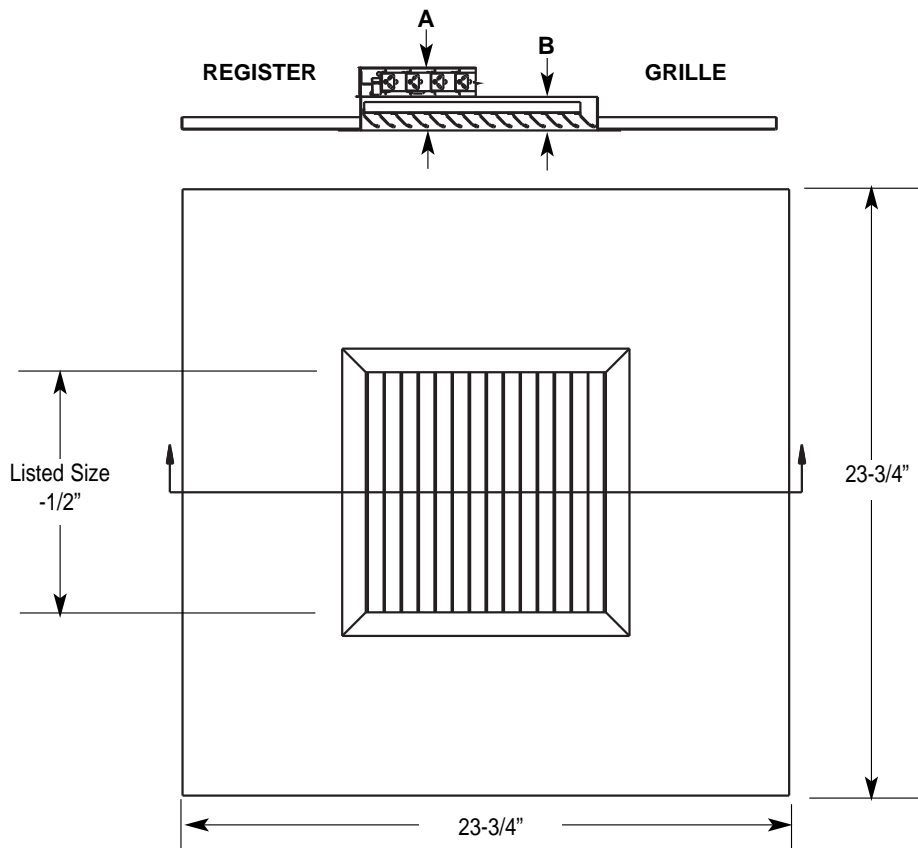
Features

The largest grille in this catalog that will fit in the following T-bar grid sizes is as follows:

T-bar Grid	Maximum Grille Nominal Size
12" x 12"	8" x 8"
12" x 24"	8" x 20"
24" x 24"	20" x 20"
24" x 48"	20" x 44" (Louvered and Perforated Face Returns)
24" x 48"	20" x 36" (Single and Double Deflection Supplies, and 0° and 45° Returns)

Sizing Note:

Carnes offers all steel, stainless steel and B-series aluminum grilles in a nominal 21-3/4" x 21-3/4" size that lays into standard 15/16" flat face T-bar with no need for Option T.



Sheared Frame for T-bar (Option S)

Application

This option is used when the grille is sized to lay into a suspended ceiling, and the design requires the largest possible grille for the opening.

Features

When this option is specified on the following sizes, Carnes shears the grille frame down to the following face outside diameters for layin ceilings.

Grille Nominal Size	Normal Face O. D.	Sheared Face O. D.
10" x 10"	12" x 12"	11-3/4" x 11-3/4"
10" x 22"	12" x 24"	11-3/4" x 23-3/4"
22" x 22"	24" x 24"	23-3/4" x 23-3/4"
22" x 46"	24" x 48"	23-3/4" x 47-3/4"

(Note: This size is only available on steel and B-series aluminum louvered and perforated face returns)

Sizing Note:

Carnes offers all steel, stainless steel and B-series aluminum grilles in a nominal 21-3/4" x 21-3/4" size that lays into standard 15/16" flat face T-bar with no need for Option S.

Heavy Duty Registers & Grilles

No Screw Holes (Option N)

Application

This option is used when the grille is sized to lay into a suspended ceiling, and screw holes are therefore not needed, or when the installation requires custom placement of the screw holes.

Features

When this option is specified, Carnes manufactures the grille with no screw holes in the face.

Tamper-Proof Screws (Option B)

Application

This option is used to prevent casual access to the duct.

Features

- The screw used is Holt-Head Type A tamper-proof screw, size #8 x 1-1/4".
- Hand drivers, service drivers and power driver tips are available from Carnes.

Z-Clips for Spline Ceiling (Option Z)

Application

This is used to mount certain grille sizes in concealed spline ceilings.

Features

The option is applied to any of the steel, stainless steel and B-series aluminum grilles in the following nominal sizes to mount in the following concealed spline ceiling sizes:

<u>Grille Nominal Size</u>	<u>Spline Ceiling Size</u>
10" x 10"	12" x 12"
10" x 22"	12" x 24"
22" x 22"	24" x 24"

Sizing Note:

- Screw holes are automatically deleted when Option Z is specified.
- For grille sizes smaller than shown, custom mounting panels are available on request.

W-Clips for Snap-in Metal Pan Ceiling (Option U)

Application

This option is used to mount certain grille sizes in snap-in metal pan ceilings.

Features

This option is applied to any of the steel, stainless steel and B-series aluminum grilles in the following nominal sizes to mount in the following snap-in metal pan ceilings.

<u>Grille Nominal Size</u>	<u>Snap-in Metal Pan Ceiling Size</u>
22" x 22"	24" x 24"
10" x 22"	12" x 24"

- Screw holes are automatically deleted when Option U is specified.
- For grille sizes smaller than shown, custom mounting panels are available on request.

NOTES:

Debris Screen (Option 1)

Application

This option is used to prevent insects from getting through the grille, either into the duct or into the room.

Features

- The material used is 1814 insect screen.
- This option is available on both grilles and registers.

Concealed Hangers (Option C)

Application

This option is used to provide concealed mounting and tools-free duct access.

Features

- It requires that the duct be made 1" larger than the nominal grille size.
- If the duct is already installed, as in retro-fits, sizing the grille down by 1" will accomplish the same thing.
- Screw holes are automatically deleted when Option C is specified.
- A spring is factory-mounted on the back of the flange, and this spring snaps into a mounting bracket that is field mounted in the duct opening.

Pull Cord Damper Operator (Options P and A)

Application

This option allows balancing when the damper is mounted upstream of the grille, and the only access to the damper is through the grille.

Features

- Heavy duty cord is permanently mounted to damper.
- Cord ends are tucked behind grille face after balancing.
- Option P is used when the damper is mounted parallel to the floor.
- Option A is used when the damper is mounted perpendicular to the floor.

Lever Operator (Option V)

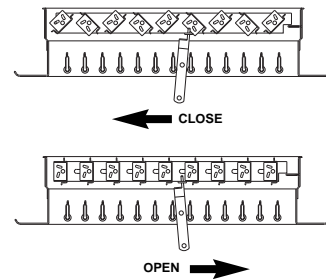
Application

This option allows tools-free balancing from the face of the register.

Features

- Lever is permanently mounted to register.
- Option V is available on these models:

	<u>Steel</u>	<u>Aluminum</u>	<u>Stainless Steel</u>
Single Deflection Supply	RTSB	RNSM	RMSB
Double Deflection Supply	RTDB	RNDM	RMDB
0° Fixed Return	RTRB	RNRM	RMRB
45° Fixed Return	RTAB	RNAM	RMAB



Fusible Link for Register (Option F)

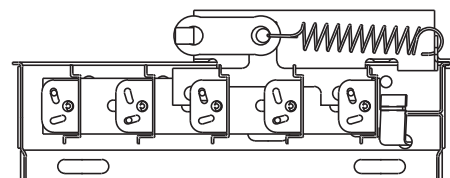
Application

Fusible links are general used in hazardous locations to prevent the possible spread of fire or reduce updrafts in case of fire. They are not UL-listed as fire dampers.

Features

- The link melts at approximately 160° Fahrenheit, activating a spring which pulls the damper closed.
- A link is mounted to each damper in a multi-damper assembly.
- The link does not interfere with the normal setting of the damper, but requires one inch of added depth in the duct.

Square/Rectangular Damper Model RXEA shown with Fusible Link installed.



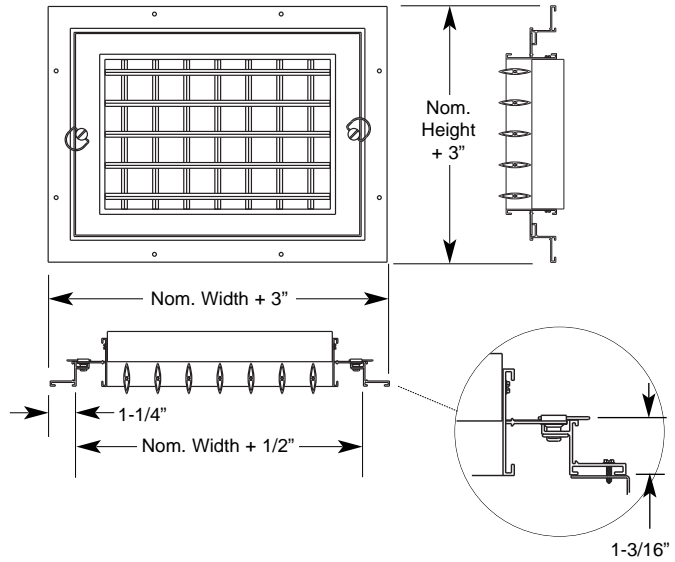
Option "M" for 1-1/2" Double Deflection
Supply Grille Model R&G

Application:

Use with the Double Deflection 1-1/2" Supply Grille when frequent or regular removal is required, either for cleaning or periodic alteration of the discharge.

Standard Features:

- All extruded aluminum construction
- Grille is held to frame by 1/4-turn fasteners.
- Standard finish is #20 mill finish.



NOTES: