

## PERFORMANCE DATA:

### INDUSTRIAL SUPPLY GRILLES & REGISTERS • MODULAR CORE MODELS • 81MG SERIES

#### Model 81MG1 • One Module

Listed Duct Size (inches)	Core Area (sq. ft.)	Ak Factor	Core Velocity, FPM		500	600	700	800	1000	1200	1400	1600	1800	
			Velocity	Pressure	.016	.022	.031	.040	.062	.090	.122	.160	.202	
8	0.38		CFM											
			Noise Criteria											
			Throw	0°	11-18-25	12-19-27	14-21-29	16-22-30	19-24-33	21-26-36	23-28-39	25-30-41	27-32-44	
				22 1/2°	9-14-20	10-16-22	11-17-23	13-17-24	15-19-26	17-21-29	18-22-31	20-24-33	22-25-35	
10	0.61		CFM											
			Noise Criteria											
			Throw	0°	14-22-30	17-24-33	19-26-36	22-28-39	25-30-42	27-33-45	29-35-49	31-37-52	33-40-55	
				22 1/2°	11-17-24	14-19-26	15-21-29	18-22-31	20-24-34	22-26-36	23-28-39	25-30-41	26-32-44	
12	0.90		CFM											
			Noise Criteria											
			Throw	0°	17-27-37	20-29-40	22-31-43	25-33-46	28-36-50	31-39-54	34-42-58	37-44-62	40-47-66	
				22 1/2°	14-21-30	16-23-32	18-25-34	20-26-37	22-29-40	25-31-43	27-33-46	30-35-50	32-37-53	
15	1.44		CFM											
			Noise Criteria											
			Throw	0°	23-33-46	27-37-52	31-41-57	34-44-61	38-48-67	42-52-72	45-55-77	49-59-82	52-63-87	
				22 1/2°	18-26-37	22-30-42	25-33-46	27-35-49	30-39-54	33-41-58	36-44-62	39-47-66	42-50-70	

#### Model 81MG2 • Two Module

Listed Duct Size (inches)	Core Area (sq. ft.)	Ak Factor	Core Velocity, FPM		500	600	700	800	1000	1200	1400	1600	1800	
			Velocity	Pressure	.016	.022	.031	.040	.062	.090	.122	.160	.202	
8	0.76		CFM											
			Noise Criteria											
			Throw	0°	15-23-32	18-26-36	20-29-40	22-31-43	26-33-46	29-36-50	31-39-54	34-41-57	36-44-61	
				22 1/2°	12-18-26	14-21-29	16-23-32	18-25-34	21-26-37	23-29-40	25-31-43	27-33-46	29-35-49	
10	1.22		CFM											
			Noise Criteria											
			Throw	0°	18-30-42	22-34-47	27-37-52	30-40-56	34-43-60	37-46-65	41-50-69	44-53-74	47-55-78	
				22 1/2°	14-24-34	28-27-38	22-30-42	24-32-45	27-35-48	30-37-52	32-40-55	35-42-59	38-44-62	
12	1.80		CFM											
			Noise Criteria											
			Throw	0°	24-37-52	28-42-59	32-46-64	36-49-68	41-54-75	45-57-81	50-61-86	54-65-92	58-69-97	
				22 1/2°	19-30-42	22-34-47	26-37-51	29-39-54	33-43-60	36-46-64	40-49-69	43-52-73	46-55-78	
15	2.87		CFM											
			Noise Criteria											
			Throw	0°	29-47-65	35-52-72	40-57-80	45-62-87	51-67-95	57-73-102	63-78-110	69-83-117	75-88-124	
				22 1/2°	23-37-52	28-41-58	32-45-64	36-49-70	41-54-76	46-58-82	50-62-88	55-66-93	60-70-99	

#### Performance Notes:

- All pressures are in inches w.g..
- Throw values are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.
- Total pressures are based upon a grille without an opposed blade damper. Correction for grille with opposed blade damper – Multiply total pressure by 1.12.

- Noise Criteria values are based upon a grille without an opposed blade damper and a 0° deflection. Correction for grille with opposed blade damper – Add 5 dB to Noise Criteria. Correction for 22 1/2° deflection – Add 1 dB to Noise Criteria. Correction for 45° deflection – Add 7 dB to Noise Criteria.

- Noise Criteria (NC) values are based upon 10dB room absorption, re 10<sup>-12</sup> watts @ 0° deflection. Dash (-) in space indicates an Noise Criteria of less than 15.
- Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

## PERFORMANCE DATA:

### INDUSTRIAL SUPPLY GRILLES & REGISTERS • MODULAR CORE MODELS • 81MG SERIES

#### Model 81MG3 • Three Modules

Listed Duct Size (inches)	Core Area (sq. ft.)	Ak Factor	Core Velocity, FPM		500	600	700	800	1000	1200	1400	1600	1800
			VP		.016	.022	.031	.040	.062	.090	.122	.160	.202
			Total Pressure	0° 22 1/2° 45°	.036 .042 .061	.052 .060 .088	.071 .081 .119	.092 .106 .156	.144 .166 .244	.208 .239 .351	.283 .325 .478	.370 .425 .624	.468 .538 .790
8	1.15		CFM		565	678	791	904	1130	1356	1582	1808	2034
			Noise Criteria		–	15	19	23	29	34	38	41	45
		0.91 0.88 0.70	Throw	0° 22 1/2° 45°	17-29-40 14-23-32 8-14-19	21-32-44 17-25-35 10-15-21	25-35-49 20-28-39 12-17-24	28-38-53 22-31-42 13-18-25	31-41-57 25-33-46 15-20-27	34-44-61 27-35-49 16-21-29	38-46-66 30-38-52 20-24-33	41-50-70 33-40-56 20-24-33	44-53-74 35-42-59 21-25-36
10	1.83		CFM		915	1098	1281	1464	1830	2196	2562	2928	3294
			Noise Criteria		–	17	22	25	31	36	40	43	47
		1.46 1.42 1.14	Throw	0° 22 1/2° 45°	24-37-52 19-30-42 12-18-25	28-42-59 22-34-47 13-20-28	32-46-64 26-37-51 15-22-31	36-50-69 29-40-55 17-24-33	41-55-76 33-44-61 20-26-36	45-58-82 36-46-65 22-28-39	50-62-88 40-50-70 24-30-42	54-66-93 43-53-75 26-32-45	58-7099 46-56-79 28-34-48
12	2.70		CFM		1350	1620	1890	2160	2700	3240	3780	4320	4860
			Noise Criteria		15	19	23	27	33	38	42	46	49
		2.16 2.09 1.67	Throw	0° 22 1/2° 45°	29-45-63 23-36-50 14-22-30	35-50-70 28-40-56 17-24-34	40-55-77 32-44-62 19-27-37	45-60-84 36-48-67 22-29-40	50-65-92 40-52-74 24-31-44	56-70-99 44-56-79 27-34-48	61-76-107 49-60-85 29-36-51	67-81-114 53-65-91 32-39-55	72-86-121 58-69-97 35-41-58
15	4.31		CFM		2155	2586	3017	3448	4310	5172	6034	6896	7758
			Noise Criteria		18	22	26	30	36	40	44	48	51
		3.44 3.34 2.67	Throw	0° 22 1/2° 45°	35-58-82 28-47-66 17-28-39	42-63-89 34-51-71 20-30-43	49-69-97 39-55-78 24-33-47	55-75-105 44-60-84 26-36-50	62-82-115 50-65-92 30-39-55	69-88-124 55-71-99 33-42-60	77-95-134 61-76-107 37-45-64	84-101-143 67-81-114 40-49-69	91-108-152 73-86-122 44-52-73

#### Model 81MG4 • Four Modules

Listed Duct Size (inches)	Core Area (sq. ft.)	Ak Factor	Core Velocity, FPM		500	600	700	800	1000	1200	1400	1600	1800
			VP		.016	.022	.031	.040	.062	.090	.122	.160	.202
			Total Pressure	0° 22 1/2° 45°	.036 .042 .061	.052 .060 .088	.071 .081 .119	.092 .106 .156	.144 .166 .244	.208 .239 .351	.283 .325 .478	.370 .425 .624	.468 .538 .790
8	1.51		CFM		755	906	1057	1208	1510	1812	2114	2416	2718
			Noise Criteria		–	18	22	25	31	36	40	43	46
		1.21 1.17 0.94	Throw	0° 22 1/2° 45°	24-34-48 19-27-38 12-16-23	28-38-53 22-30-42 13-18-25	31-41-58 25-33-46 15-20-28	35-45-63 28-36-50 17-21-30	39-49-69 31-39-55 19-24-33	42-53-74 34-42-59 20-25-36	46-56-79 37-45-63 24-29-40	50-60-84 40-48-67 24-29-40	53-63-89 42-51-71 25-30-43
10	2.44		CFM		1220	1464	1708	1952	2440	2928	3416	3904	4392
			Noise Criteria		17	20	24	28	34	38	42	45	48
		1.95 1.89 1.51	Throw	0° 22 1/2° 45°	27-43-60 22-34-48 13-20-29	32-47-66 26-37-53 15-22-32	37-52-73 30-41-58 18-25-35	41-57-80 33-45-64 20-27-38	47-62-87 38-49-70 23-30-42	52-67-94 42-53-75 25-32-45	58-71-101 46-57-80 28-34-48	63-76-107 50-61-86 30-37-51	68-81-114 54-65-91 33-39-55
12	3.59		CFM		1795	2154	2513	2872	3590	4308	5026	5744	6462
			Noise Criteria		18	22	26	30	36	40	44	48	51
		2.88 2.78 2.23	Throw	0° 22 1/2° 45°	32-53-73 26-42-58 15-25-35	39-57-80 31-45-64 19-27-38	45-63-89 36-51-71 22-30-43	51-69-97 41-55-78 24-33-47	57-75-105 46-60-84 27-36-50	64-81-114 51-64-91 31-39-54	71-87-122 56-69-98 34-42-59	77-93-131 62-74-104 37-44-63	84-99-139 67-79-111 40-48-67
15	5.74		CFM		2870	3444	4018	4592	5740	6888	8036	9184	10332
			Noise Criteria		20	24	28	32	38	42	46	50	53
		4.59 4.45 3.56	Throw	0° 22 1/2° 45°	39-66-92 31-53-74 19-32-44	47-72-102 38-58-82 23-35-49	55-80-112 44-64-90 26-38-54	63-87-123 50-70-98 30-42-59	71-94-133 57-76-106 34-45-64	79-102-143 63-81-115 38-49-69	87-109-154 70-87-123 42-52-74	95-116-164 76-93-131 46-56-79	103-127-174 82-102-139 49-61-84

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