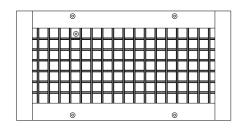
An enterpise of United McGill Corporation — Founded in 1951

# Single Deflection Register, DDFRSDS<sup>5</sup> Double Deflection Register, DDFRDDS<sup>5</sup>





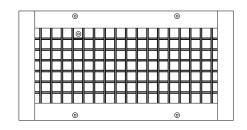
Average disc	harge velocity (fpm)	300	400	500	600	700	800	900	1000	1100	1200
	CFM	70	90	115	140	160	185	205	230	255	275
12 x 4 <sup>6</sup>	Static Pressure <sup>1</sup>	0.008	0.015	0.023	0.033	0.045	0.059	0.075	0.093	0.112	0.134
Ak= 0.23 <sup>4</sup>	Horizontal Throw <sup>2</sup>	5-3	7-4	9-4	10-5	12-6	14-7	16-8	17-9	19-9	21-10
	Noise Criteria <sup>3</sup>	-	-	-	-	-	-	-	<20	20	25
	CFM	100	130	165	200	230	265	295	330	365	395
12 x 6 <sup>6</sup>	Static Pressure <sup>1</sup>	0.008	0.015	0.023	0.033	0.045	0.059	0.075	0.093	0.112	0.133
Ak= 0.33 <sup>4</sup>	Horizontal Throw <sup>2</sup>	6-3	8-4	10-5	12-6	14-7	16-8	18-9	20-10	21-11	23-12
	Noise Criteria <sup>3</sup>	-	1	-	1	-	1	1	<20	20	25
	CFM	155	210	260	310	365	415	470	520	570	625
14 x 8 <sup>6</sup>	Static Pressure <sup>1</sup>	0.008	0.014	0.023	0.032	0.044	0.058	0.073	0.090	0.109	0.130
18 x 6 <sup>6</sup> Ak= 0.52 <sup>4</sup>	Horizontal Throw <sup>2</sup>	7-4	10-5	12-6	14-7	17-8	19-10	22-11	24-12	27-13	29-14
	Noise Criteria <sup>3</sup>	-	1	-	1	-	1	<20	20	25	30
	CFM	175	235	295	355	415	470	530	590	650	710
16 x 8 <sup>6</sup>	Static Pressure <sup>1</sup>	0.008	0.014	0.022	0.032	0.044	0.057	0.072	0.089	0.108	0.128
20 x 6 <sup>6</sup> Ak= 0.59 <sup>4</sup>	Horizontal Throw <sup>2</sup>	8-4	10-5	13-6	15-8	18-9	20-10	23-11	26-13	28-14	31-15
	Noise Criteria <sup>3</sup>	-	1	-	1	-	<20	20	25	25	30
	CFM	200	270	335	400	470	535	605	670	735	805
24 x 6 <sup>6</sup> 18 x 8 <sup>6</sup>	Static Pressure <sup>1</sup>	0.008	0.014	0.022	0.032	0.044	0.057	0.072	0.089	0.107	0.128
Ak= 0.67 <sup>4</sup>	Horizontal Throw <sup>2</sup>	8-4	11-5	14-7	17-8	19-10	22-11	25-12	28-14	30-15	33-16
	Noise Criteria <sup>3</sup>	-	1	-	1	<20	20	25	30	30	35
	CFM	220	295	370	445	520	590	665	740	815	890
20 x 8 <sup>6</sup>	Static Pressure <sup>1</sup>	0.008	0.014	0.022	0.032	0.043	0.057	0.072	0.089	0.107	0.128
16 x 10 <sup>6</sup> Ak= 0.74 <sup>4</sup>	Horizontal Throw <sup>2</sup>	9-4	11-6	14-7	17-8	20-10	23-11	26-13	28-14	31-15	34-17
	Noise Criteria <sup>3</sup>	-	1	-	<20	20	20	25	25	30	35
	CFM	245	330	410	490	575	655	740	820	900	985
18 x 10 <sup>6</sup>	Static Pressure <sup>1</sup>	0.008	0.014	0.022	0.031	0.042	0.055	0.070	0.087	0.105	0.124
Ak= 0.82 <sup>4</sup>	Horizontal Throw <sup>2</sup>	9-4	12-6	15-7	18-9	21-10	24-12	27-13	30-15	32-16	35-17
	Noise Criteria <sup>3</sup>	-	-	-	<20	20	25	30	30	35	40
	CFM	280	370	465	560	650	745	835	930	1025	1115
20 x 10 <sup>6</sup> 24 x 8 <sup>6</sup>	Static Pressure <sup>1</sup>	0.008	0.014	0.022	0.031	0.042	0.055	0.070	0.086	0.100	0.123
24 x 8° Ak= 0.93 <sup>4</sup>	Horizontal Throw <sup>2</sup>	10-5	13-6	16-8	19-9	22-11	25-12	29-14	32-16	35-17	38-19
	Noise Criteria <sup>3</sup>	-	ı	<20	20	25	30	35	40	40	45

#### **Performance Data**

# McGill AirFlow LLC

An enterpise of United McGill Corporation — Founded in 1951

#### Single Deflection Register, DDFRSDS<sup>5</sup> Double Deflection Register, DDFRDDS<sup>5</sup>





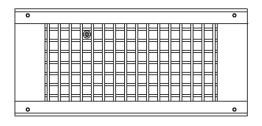
Average disc	Average discharge velocity (fpm)		400	500	600	700	800	900	1000	1100	1200
	CFM	335	445	555	665	775	890	1000	1110	1220	1330
24 x 10 <sup>6</sup>	Static Pressure <sup>1</sup>	0.008	0.014	0.022	0.032	0.043	0.055	0.071	0.086	0.104	0.123
20 x 12 <sup>6</sup> Ak= 1.11 <sup>4</sup>	Horizontal Throw <sup>2</sup>	10-5	14-7	17-8	21-10	24-12	28-14	31-15	34-17	38-19	41-20
	Noise Criteria <sup>3</sup>	-	<20	20	25	30	30	35	40	45	45
	CFM	405	540	675	810	945	1080	1215	1350	1485	1620
24 x 12 <sup>6</sup>	Static Pressure <sup>1</sup>	0.008	0.014	0.022	0.031	0.043	0.054	0.071	0.086	0.104	0.122
Ak= 1.35 <sup>4</sup>	Horizontal Throw <sup>2</sup>	11-6	15-7	19-9	23-11	27-13	30-15	34-17	38-19	42-21	46-22
	Noise Criteria <sup>3</sup>	-	<20	20	25	30	35	35	40	45	>45
	CFM	500	670	835	1000	1170	1335	1505	1670	1835	1620
30 x 12 <sup>6</sup>	StaticPressure <sup>1</sup>	0.008	0.014	0.022	0.031	0.043	0.054	0.071	0.086	0.104	0.122
Ak= 1.67 <sup>4</sup>	Horizontal Throw <sup>2</sup>	13-6	17-8	21-10	25-12	29-14	33-16	38-19	42-21	46-23	50-25
	Noise Criteria <sup>3</sup>	-	20	25	30	35	40	40	45	>45	>45

Notes: 1. Static Pressure in inches water column

- 2. Throw data are in feet at terminal velocities of 75 and 150 fpm, respectively.
- 3. Noise Criteria (NC) based on a 10 dB room absorption evaluated at 125 Hz through 4000 Hz octave bands.
- 4. Ak = Effective area in square feet
- 5. Units come standard with air scoop.
- 6. Width x Height is the nominal hole size in the duct. Width is the longer dimension.

An enterpise of United McGill Corporation — Founded in 1951

# Universal, Single Deflection Register, DDFRUSDS<sup>5</sup> Universal, Double Deflection Register, DDFRUDDS<sup>5</sup>





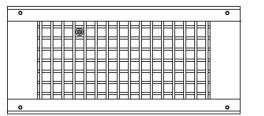
		ı		I							
Average disc	charge velocity (fpm)	300	400	500	600	700	800	900	1000	1100	1200
	CFM	49	65	81	98	114	130	146	163	179	195
12 x 4 <sup>6</sup>	Static Pressure <sup>1</sup>	0.010	0.020	0.020	0.030	0.050	0.060	0.080	0.090	0.110	0.140
16 x 3 <sup>6</sup> Ak= 0.16 <sup>4</sup>	Horizontal Throw <sup>2</sup>	5-2	6-3	8-4	10-5	11-6	13-6	15-7	16-8	18-9	19-10
	Noise Criteria <sup>3</sup>	-	-	-	<20	21	25	28	32	33	37
	CFM	65	86	108	129	151	172	194	215	237	258
10 x 6 <sup>6</sup> 20 x 3 <sup>6</sup>	Static Pressure <sup>1</sup>	0.010	0.010	0.020	0.030	0.050	0.060	0.080	0.090	0.110	0.13
$Ak = 0.22^4$	Horizontal Throw <sup>2</sup>	6-3	8-4	10-5	11-6	13-8	15-7	17-8	19-9	20-10	22-1
	Noise Criteria <sup>3</sup>	-	-	-	<20	22	26	29	33	36	38
12 x 6 <sup>6</sup>	CFM	81	108	135	162	189	216	243	270	297	324
24 x 3 <sup>6</sup>	Total Pressure <sup>1</sup>	0.010	0.010	0.020	0.030	0.050	0.060	0.080	0.090	0.110	0.13
18 x 4 <sup>6</sup> Ak= 0.27 <sup>4</sup>	Horizontal Throw <sup>2</sup>	6-3	8-4	10-5	11-6	15-7	17-8	19-9	21-10	23-11	25-1
AK- 0.27	Noise Criteria <sup>3</sup>	-	-	-	<20	23	27	31	34	37	39
	CFM	98	131	164	196	229	262	295	327	360	393
14 x 6 <sup>6</sup>	Static Pressure <sup>1</sup>	0.010	0.010	0.020	0.030	0.050	0.060	0.070	0.090	0.110	0.13
$Ak = 0.33^4$	Horizontal Throw <sup>2</sup>	7-3	9-5	11-6	14-7	16-8	18-9	21-10	23-11	25-13	27-1
	Noise Criteria <sup>3</sup>	-	-	-	<20	24	27	31	34	37	40
	CFM	116	155	193	232	271	309	348	387	425	464
16 x 6 <sup>6</sup> 24 x 4 <sup>6</sup>	Static Pressure <sup>1</sup>	0.010	0.010	0.020	0.030	0.050	0.060	0.070	0.090	0.110	0.13
$24 \times 4^{\circ}$ Ak= $0.39^{4}$	Horizontal Throw <sup>2</sup>	7-4	10-5	12-6	15-7	17-9	20-10	22-11	25-12	27-14	30-1
	Noise Criteria <sup>3</sup>	-	-	-	<20	24	28	32	35	38	40
	CFM	141	188	234	281	328	375	422	469	516	563
14 x 8 <sup>6</sup>	Static Pressure <sup>1</sup>	0.010	0.010	0.020	0.030	0.040	0.060	0.070	0.090	0.110	0.13
$Ak = 0.47^4$	Horizontal Throw <sup>2</sup>	8-4	11-6	14-7	16-8	19-10	22-11	25-12	27-14	30-15	33-1
	Noise Criteria <sup>3</sup>	-	-	<20	20	25	29	32	36	39	41
	CFM	153	204	256	307	358	409	460	511	562	613
20 x 6 <sup>6</sup> 30 x 4 <sup>6</sup>	Static Pressure <sup>1</sup>	0.010	0.010	0.020	0.030	0.040	0.060	0.070	0.090	0.110	0.13
Ak= 0.51 <sup>4</sup>	Horizontal Throw <sup>2</sup>	9-4	11-6	14-7	17-9	20-10	23-11	26-13	29-14	31-16	34-1
	Noise Criteria <sup>3</sup>	-	-	<20	21	25	29	32	36	39	41
10 × 06	CFM	193	257	321	385	449	513	578	642	706	770
18 x 8 <sup>6</sup> 24 x 6 <sup>6</sup>	Static Pressure <sup>1</sup>	0.010	0.010	0.020	0.030	0.040	0.060	0.070	0.090	0.110	0.11
36 x 4 <sup>6</sup>	Horizontal Throw <sup>2</sup>	10-5	13-6	16-8	19-10	22-11	26-13	29-14	32-16	35-18	38-1
Ak= 0.64 <sup>4</sup>	Noise Criteria <sup>3</sup>	-	-	<20	22	26	30	35	37	40	43

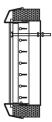
#### **Performance Data**

## McGill AirFlow LLG

An enterpise of United McGill Corporation — Founded in 1951

# Universal, Single Deflection Register, DDFRUSDS<sup>5</sup> Universal, Double Deflection Register, DDFRUDDS<sup>5</sup>



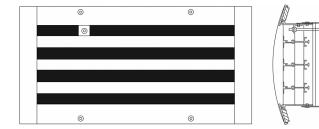


Average disc	harge velocity (fpm)	300	400	500	600	700	800	900	1000	1100	1200
	CFM	220	293	366	439	512	586	659	732	805	878
16 x 10 <sup>6</sup>	Static Pressure <sup>1</sup>	0.010	0.010	0.020	0.03	0.04	0.060	0.070	0.090	0.110	0.130
20 x 8 <sup>6</sup> Ak= .73 <sup>4</sup>	Horizontal Throw <sup>2</sup>	10-5	14-7	17-9	21-10	24-12	27-14	31-15	34-17	38-19	41-21
	Noise Criteria <sup>3</sup>	-	-	<20	23	27	31	35	38	41	44
	CFM	254	339	424	509	594	678	763	1018	1485	1620
30 x 6 <sup>6</sup>	Static Pressure <sup>1</sup>	0.010	0.010	0.020	0.030	0.040	0.060	0.070	0.090	0.110	0.130
Ak= .85 <sup>4</sup>	Horizontal Throw <sup>2</sup>	11-6	15-7	18-9	22-11	26-13	29-15	33-17	37-19	41-20	44-22
	Noise Criteria <sup>3</sup>	-	ı	<20	23	27	31	35	38	41	44
	CFM	319	426	532	639	745	852	958	1065	1171	1278
36 x 6 <sup>6</sup> 18 x 12 <sup>6</sup>	Static Pressure <sup>1</sup>	0.010	0.010	0.020	0.030	0.040	0.060	0.070	0.090	0.110	0.120
Ak= 1.06 <sup>4</sup>	Horizontal Throw <sup>2</sup>	12-6	17-8	21-10	25-12	29-14	33-17	37-19	41-21	45-23	50-25
	Noise Criteria <sup>3</sup>	-	-	<20	24	28	32	36	39	42	44
24 x 10 <sup>6</sup>	CFM	364	486	607	729	850	972	1093	1215	1336	1456
24 x 10° 20 x 12 <sup>6</sup>	Static Pressure	0.010	0.010	0.020	0.030	0.040	0.050	0.070	0.090	0.100	0.120
30 x 8 <sup>6</sup> Ak= 1.21 <sup>4</sup>	Horizontal Throw	13-7	18-9	22-11	26-13	31-15	35-18	40-20	44-22	48-24	53-26
AK- 1.21	Noise Criteria	-	-	<20	24	29	33	36	39	42	45
	CFM	605	806	1008	1209	1411	1612	1814	2016	2217	2419
30 x 12 <sup>6</sup> 36 x 10 <sup>6</sup>	Static Pressure	0.010	0.010	0.020	0.030	0.040	0.050	0.060	0.080	0.090	0.110
Ak= 2.02 <sup>4</sup>	Horizontal Throw	17-9	23-11	28-14	37-17	40-20	45-23	51-26	57-26	62-31	68-34
	Noise Criteria	-	-	20	26	30	34	38	41	44	47

Notes: 1. Static Pressure in inches water column

- 2. Throw data are in feet at terminal velocities of 75 and 150 fpm, respectively.
- 3. Noise Criteria (NC) based on a 10 dB room absorption evaluated at 125 Hz through 4000 Hz octave bands.
- 4. Ak = Effective area in square feet
- 5. Units come standard with air scoop.
- 6. Width x Height is the nominal hole size in the duct. Width is the longer dimension.

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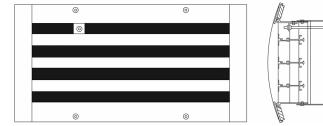


#### Linear Slot Register, DDFRLS<sup>7</sup>

(1/2-, 3/4-, and 1-inch-wide slots)

		Airflow Rate <sup>2</sup>	7	10	13	17	20	23	27	30	33	37
	4 01 1	Static Pressure <sup>2</sup>	0.002	0.003	0.006	0.009	0.016	0.018	0.024	0.030	0.037	0.045
	1 Slot	Horizontal Throw <sup>2,4,5</sup>	7-4-2	11-6-4	15-7-5	19-9-6	22-11-7	26-13-9	30-15-10	33-17-11	37-19-12	41-20-14
		Noise Criteria <sup>3,6</sup>	<15	<15	<15	<15	<15	<15	19	21	23	25
		Airflow Rate <sup>2</sup>	10	17	23	30	37	43	50	57	63	70
	2 Slot	Static Pressure <sup>2</sup>	0.001	0.002	0.004	0.007	0.011	0.015	0.020	0.026	0.032	0.039
ots	2 3101	Horizontal Throw <sup>2,4,5</sup>	6-3-2	9-5-3	13-6-4	17-8-6	20-10-7	24-12-8	28-14-9	31-16-10	35-18-12	39-19-13
h Sic		Noise Criteria <sup>3,6</sup>	<15	<15	<15	<15	<15	<15	19	23	27	31
1/2-inch Slots		Airflow Rate <sup>2</sup>	13	23	33	43	53	63	73	83	93	103
1/;	3 Slot	Static Pressure <sup>2</sup>	0.001	0.002	0.004	0.006	0.009	0.012	0.017	0.021	0.027	0.033
	3 3101	Horizontal Throw <sup>2,4,5</sup>	5-3-2	10-5-3	14-7-5	18-9-6	22-11-7	26-13-9	30-15-10	34-17-11	38-19-13	42-21-14
		Noise Criteria <sup>3,6</sup>	<15	<15	<15	<15	<15	18	21	25	30	33
		Airflow Rate <sup>2</sup>	17	30	43	57	70	83	97	110	123	137
	4 Slot	Static Pressure <sup>2</sup>	0.001	0.002	0.003	0.005	0.008	0.012	0.016	0.020	0.025	0.031
	4 0101	Horizontal Throw <sup>2,4,5</sup>	6-3-2	10-5-3	15-8-5	20-10-7	24-12-8	29-14-10	31-17-11	38-19-13	43-21-14	47-24-16
		Noise Criteria <sup>3,6</sup>	<15	<15	<15	<15	18	20	22	27	32	34
						1				1		
		Airflow Rate <sup>2</sup>	10	15	20	25	30	35	40	45	50	55
	1-Slot	Airflow Rate <sup>2</sup> Static Pressure <sup>2</sup>	0.002	15 0.004	0.007	25 0.011	30 0.015	35 0.020	40 0.027	45 0.034	50 0.042	55 0.050
	1-Slot											0.050
	1-Slot	Static Pressure <sup>2</sup>	0.002	0.004	0.007	0.011	0.015	0.020	0.027	0.034	0.042	0.050
	1-Slot	Static Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup>	0.002 6-3-2	0.004 9-5-3	0.007	0.011 15-8-5	0.015 18-9-6	0.020	0.027	0.034 28-14-9	0.042 31-15-10	0.050 34-17-11
		Static Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup> Noise Criteria <sup>3,6</sup>	0.002 6-3-2 <15	0.004 9-5-3 <15	0.007 12-6-4 <15	0.011 15-8-5 <15	0.015 18-9-6 19	0.020 22-11-7 21	0.027 25-12-8 25	0.034 28-14-9 30	0.042 31-15-10 34	0.050 34-17-11 39
ots	1-Slot 2-Slot	Static Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup> Noise Criteria <sup>3,6</sup> Airflow Rate <sup>2</sup>	0.002 6-3-2 <15 15	0.004 9-5-3 <15 25	0.007 12-6-4 <15 35	0.011 15-8-5 <15 45	0.015 18-9-6 19 55	0.020 22-11-7 21 65	0.027 25-12-8 25 75	0.034 28-14-9 30 85	0.042 31-15-10 34 95	0.050 34-17-11 39 105 0.044
th Slots		Static Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup> Noise Criteria <sup>3,6</sup> Airflow Rate <sup>2</sup> Static Pressure <sup>2</sup>	0.002 6-3-2 <15 15 0.001	0.004 9-5-3 <15 25 0.003	0.007 12-6-4 <15 35 0.005	0.011 15-8-5 <15 45 0.008	0.015 18-9-6 19 55 0.012	0.020 22-11-7 21 65 0.017	0.027 25-12-8 25 75 0.022	0.034 28-14-9 30 85 0.029	0.042 31-15-10 34 95 0.036	0.050 34-17-11 39 105 0.044
4-inch Slots		Static Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup> Noise Criteria <sup>3,6</sup> Airflow Rate <sup>2</sup> Static Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup>	0.002 6-3-2 <15 15 0.001 5-2-2	0.004 9-5-3 <15 25 0.003 8-4-3	0.007 12-6-4 <15 35 0.005 11-5-4	0.011 15-8-5 <15 45 0.008 14-7-6	0.015 18-9-6 19 55 0.012 17-8-6	0.020 22-11-7 21 65 0.017 20-10-7	0.027 25-12-8 25 75 0.022 23-12-8	0.034 28-14-9 30 85 0.029 26-13-9	0.042 31-15-10 34 95 0.036 29-15-10	0.050 34-17-11 39 105 0.044 32-16-11
3/4-inch Slots	2-Slot	Static Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup> Noise Criteria <sup>3,6</sup> Airflow Rate <sup>2</sup> Static Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup> Noise Criteria <sup>3,6</sup>	0.002 6-3-2 <15 15 0.001 5-2-2 <15	0.004 9-5-3 <15 25 0.003 8-4-3 <15	0.007 12-6-4 <15 35 0.005 11-5-4 <15	0.011 15-8-5 <15 45 0.008 14-7-6 <15	0.015 18-9-6 19 55 0.012 17-8-6	0.020 22-11-7 21 65 0.017 20-10-7	0.027 25-12-8 25 75 0.022 23-12-8 32	0.034 28-14-9 30 85 0.029 26-13-9 35	0.042 31-15-10 34 95 0.036 29-15-10	0.050 34-17-11 39 105 0.044 32-16-11 41
		Static Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup> Noise Criteria <sup>3,6</sup> Airflow Rate <sup>2</sup> Static Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup> Noise Criteria <sup>3,6</sup> Airflow Rate <sup>2</sup>	0.002 6-3-2 <15 15 0.001 5-2-2 <15	0.004 9-5-3 <15 25 0.003 8-4-3 <15 35	0.007 12-6-4 <15 35 0.005 11-5-4 <15	0.011 15-8-5 <15 45 0.008 14-7-6 <15	0.015 18-9-6 19 55 0.012 17-8-6 19	0.020 22-11-7 21 65 0.017 20-10-7 26 95	0.027 25-12-8 25 75 0.022 23-12-8 32 110 0.019	0.034 28-14-9 30 85 0.029 26-13-9 35 125	0.042 31-15-10 34 95 0.036 29-15-10 38 140 0.030	0.050 34-17-11 39 105 0.044 32-16-11 41
	2-Slot	Static Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup> Noise Criteria <sup>3,6</sup> Airflow Rate <sup>2</sup> Static Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup> Noise Criteria <sup>3,6</sup> Airflow Rate <sup>2</sup> Static Total Pressure <sup>2</sup>	0.002 6-3-2 <15 15 0.001 5-2-2 <15 20 0.001	0.004 9-5-3 <15 25 0.003 8-4-3 <15 35 0.002	0.007 12-6-4 <15 35 0.005 11-5-4 <15 50 0.004	0.011 15-8-5 <15 45 0.008 14-7-6 <15 65 0.007	0.015 18-9-6 19 55 0.012 17-8-6 19 80 0.010	0.020 22-11-7 21 65 0.017 20-10-7 26 95 0.014	0.027 25-12-8 25 75 0.022 23-12-8 32 110 0.019	0.034 28-14-9 30 85 0.029 26-13-9 35 125 0.024	0.042 31-15-10 34 95 0.036 29-15-10 38 140 0.030	0.050 34-17-11 39 105 0.044 32-16-11 41 155 0.037
	2-Slot	Static Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup> Noise Criteria <sup>3,6</sup> Airflow Rate <sup>2</sup> Static Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup> Noise Criteria <sup>3,6</sup> Airflow Rate <sup>2</sup> Static Total Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup>	0.002 6-3-2 <15 15 0.001 5-2-2 <15 20 0.001 5-2-2	0.004 9-5-3 <15 25 0.003 8-4-3 <15 35 0.002 8-4-3	0.007 12-6-4 <15 35 0.005 11-5-4 <15 50 0.004 11-6-4	0.011 15-8-5 <15 45 0.008 14-7-6 <15 65 0.007	0.015 18-9-6 19 55 0.012 17-8-6 19 80 0.010 18-9-6	0.020 22-11-7 21 65 0.017 20-10-7 26 95 0.014 22-11-7	0.027 25-12-8 25 75 0.022 23-12-8 32 110 0.019 25-12-8	0.034 28-14-9 30 85 0.029 26-13-9 35 125 0.024 28-14-9	0.042 31-15-10 34 95 0.036 29-15-10 38 140 0.030 32-16-11	0.050 34-17-11 39 105 0.044 32-16-11 41 155 0.037 38-18-12
	2-Slot 3-Slot	Static Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup> Noise Criteria <sup>3,6</sup> Airflow Rate <sup>2</sup> Static Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup> Noise Criteria <sup>3,6</sup> Airflow Rate <sup>2</sup> Static Total Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup> Noise Criteria <sup>3,6</sup>	0.002 6-3-2 <15 15 0.001 5-2-2 <15 20 0.001 5-2-2 <15	0.004 9-5-3 <15 25 0.003 8-4-3 <15 35 0.002 8-4-3 <15	0.007 12-6-4 <15 35 0.005 11-5-4 <15 50 0.004 11-6-4 <15	0.011 15-8-5 <15 45 0.008 14-7-6 <15 65 0.007 15-7-5	0.015 18-9-6 19 55 0.012 17-8-6 19 80 0.010 18-9-6 23	0.020 22-11-7 21 65 0.017 20-10-7 26 95 0.014 22-11-7 28	0.027 25-12-8 25 75 0.022 23-12-8 32 110 0.019 25-12-8 33	0.034 28-14-9 30 85 0.029 26-13-9 35 125 0.024 28-14-9	0.042 31-15-10 34 95 0.036 29-15-10 38 140 0.030 32-16-11 40	0.050 34-17-11 39 105 0.044 32-16-11 41 155 0.037 38-18-12 43
	2-Slot	Static Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup> Noise Criteria <sup>3,6</sup> Airflow Rate <sup>2</sup> Static Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup> Noise Criteria <sup>3,6</sup> Airflow Rate <sup>2</sup> Static Total Pressure <sup>2</sup> Horizontal Throw <sup>2,4,5</sup> Noise Criteria <sup>3,6</sup> AirFlow Rate <sup>2</sup>	0.002 6-3-2 <15 15 0.001 5-2-2 <15 20 0.001 5-2-2 <15 25	0.004 9-5-3 <15 25 0.003 8-4-3 <15 35 0.002 8-4-3 <15 45	0.007 12-6-4 <15 35 0.005 11-5-4 <15 50 0.004 11-6-4 <15 65	0.011 15-8-5 <15 45 0.008 14-7-6 <15 65 0.007 15-7-5 18 85	0.015 18-9-6 19 55 0.012 17-8-6 19 80 0.010 18-9-6 23 105	0.020 22-11-7 21 65 0.017 20-10-7 26 95 0.014 22-11-7 28 125	0.027 25-12-8 25 75 0.022 23-12-8 32 110 0.019 25-12-8 33 145	0.034 28-14-9 30 85 0.029 26-13-9 35 125 0.024 28-14-9 37 165	0.042 31-15-10 34 95 0.036 29-15-10 38 140 0.030 32-16-11 40 185 0.028	0.050 34-17-11 39 105 0.044 32-16-11 41 155 0.037 38-18-12 43 205

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#### Linear Slot Register, DDFRLS<sup>7</sup>

(1/2-, 3/4-, and 1-inch-wide slots)

		Airdless Date2	13	20	27	33	40	47	53	60	67	73
		Airflow Rate <sup>2</sup>	13	20	21	33	40	47	55	00	07	/3
	1 Slot	Static Pressure <sup>2</sup>	0.002	0.005	0.009	0.014	0.020	0.027	0.036	0.045	0.056	0.067
	1 3101	Horizontal Throw <sup>2,4,5</sup>	5-2-2	7-4-2	10-5-3	12-6-4	15-7-5	17-9-6	20-10-7	22-11-7	25-12-8	27-14-9
		Noise Criteria <sup>3,6</sup>	<15	<15	<15	20	25	31	37	41	43	45
		Airflow Rate <sup>2</sup>	20	33	47	60	79	87	100	113	127	140
	2 Slot	Static Pressure <sup>2</sup>	0.001	0.003	0.007	0.011	0.016	0.023	0.030	0.038	0.048	0.059
છ	2 3101	Horizontal Throw <sup>2,4,5</sup>	4-2-1	6-3-2	9-4-3	11-6-4	14-7-5	16-8-5	19-9-6	21-10-7	23-12-8	26-13-9
Slots		Noise Criteria <sup>3,6</sup>	<15	<15	<15	23	32	35	40	44	48	51
1-inch		Airflow Rate <sup>2</sup>	27	47	67	87	107	127	147	167	187	207
-	3 Slot	Static Pressure <sup>2</sup>	0.001	0.003	0.005	0.009	0.013	0.019	0.025	0.032	0.040	0.049
	3 3101	Horizontal Throw <sup>2,4,5</sup>	4-2-1	6-3-2	9-5-3	12-6-4	15-7-5	17-9-6	20-10-7	23-11-8	38-19-13	28-14-9
		Noise Criteria <sup>3,6</sup>	<15	<15	<15	23	32	35	40	44	48	51
		Airflow Rate <sup>2</sup>	33	60	87	113	140	167	193	220	247	273
	4 01=4	Static Pressure <sup>2</sup>	0.001	0.002	0.005	0.008	0.012	0.017	0.023	0.030	0.038	0.046
	4 Slot	Horizontal Throw <sup>2,4,5</sup>	4-2-1	7-3-2	10-5-3	13-7-4	16-8-5	19-10-8	22-11-7	25-13-8	29-14-10	32-16-11
		Noise Criteria <sup>3,6</sup>	<15	16	22	27	31	37	42	46	50	54

Notes: 1. Tests conducted in accordance with ANSI/ASHRAE 7-1991 at isothermal conditions.

2. Engineering Units: Airflow Rate = cfm per linear foot

Static Pressure = inches water column

Throw = feet at 50, 100, and 150 fpm terminal velocity

- 3. Noise Criteria (NC) is based on a 10 dB room absorption evaluated at 125 through 4000 Hz octave bands.
- 4. Throw data are based on a horizontal discharge in one direction only. For 2-way discharge pattern, the throw is determined from the published engineering data based on the number of slots and cfm per linear foot discharge in each direction.
- 5. Throw data are for 4-foot active diffuser lengths. For other active lengths, throw may be determined by applying the following multiplication factors:

Diffuser Length (feet)	Multiplication Factor
1	0.50
2	0.85
3	0.95
4	1.00

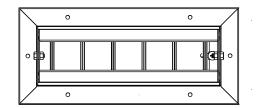
Noise Criteria are for 4-foot active diffuser lengths. For other lengths, add or deduct the following values to or from the reported NC level:

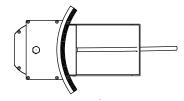
Diffuser Length (feet)	NC Correction
1	-2
2	-2
3	-1
4	0

- 7. The air scoop is standard equipment on units with 1-inch-wide slots and is not available on units with 1/2- or 3/4-inch-wide slots.
- 8. Width x height is the nominal hole size in the duct. Width is the longer dimension.

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#### **Drum Register, DDFRDS**

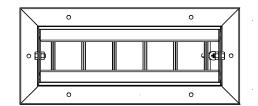


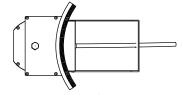


Average di	scharge velocity (fpm)	500	720	1000	1500	2000	2500
	CFM	72	107	143	215	286	358
12 x 4 <sup>6</sup>	Total Pressure <sup>1</sup>	0.021	0.047	0.084	0.189	0.334	0.523
Ak= 0.14 <sup>4</sup>	Horizontal Throw <sup>2</sup>	3-5-10	4-8-16	5-10-22	8-17-31	11-22-36	11-28-41
l	Noise Criteria	<15	<15	<15	21	29	39
	CFM	114	171	228	342	456	570
18 x 4 <sup>6</sup>	Total Pressure <sup>1</sup>	0.024	0.055	0.098	0.219	0.391	0.611
Ak= 0.23 <sup>4</sup>	Horizontal Throw <sup>2</sup>	4-8-16	5-12-25	8-18-32	13-26-40	18-32-46	22-36-52
i t	Noise Criteria <sup>3</sup>	<15	<15	<15	23	33	41
	CFM	146	218	291	437	583	728
24 x 4 <sup>6</sup>	Total Pressure <sup>1</sup>	0.023	0.051	0.091	0.204	0.365	0.570
Ak= 0.29 <sup>4</sup>	Horizontal Throw <sup>2</sup>	5-10-23	8-16-30	11-23-37	17-32-46	22-37-53	25-41-65
İ	Noise Criteria <sup>3</sup>	<15	<15	<15	24	34	42
	CFM	183	274	366	549	731	914
30 x 4 <sup>6</sup>	Total Pressure <sup>1</sup>	0.024	0.052	0.095	0.208	0.379	0.590
Ak= 0.37 <sup>4</sup>	Horizontal Throw <sup>2</sup>	7-14-29	10-21-35	14-29-41	22-36-50	25-41-59	28-47-65
	Noise Criteria <sup>3</sup>	<15	<15	<15	25	35	43
	CFM	220	330	440	660	880	1100
36 x 4 <sup>6</sup>	Total Pressure <sup>1</sup>	0.024	0.052	0.095	0.208	0.379	0.590
Ak= 0.44 <sup>4</sup>	Horizontal Throw <sup>2</sup>	8-17-32	12-24-39	17-32-46	24-40-55	28-46-64	31-50-72
	Noise Criteria <sup>3</sup>	>15	>15	<15	28	38	47
	CFM	257	386	514	772	1029	1286
42 x 4 <sup>6</sup>	Total Pressure <sup>1</sup>	0.024	0.054	0.095	0.215	0.381	0.593
Ak= 0.51 <sup>4</sup>	Horizontal Throw <sup>2</sup>	10-20-35	15-27-42	20-35-49	26-42-60	30-49-70	33-55-78
	Noise Criteria <sup>3</sup>	<15	<15	<15	27	37	46
	CFM	294	442	589	883	1178	1472
48 x 4 <sup>6</sup>	Total Pressure <sup>1</sup>	0.024	0.054	0.096	0.215	0.384	0.593
Ak= 0.59 <sup>4</sup>	Horizontal Throw <sup>2</sup>	12-23-37	17-30-45	22-37-53	28-46-65	32-53-74	36-59-83
	Noise Criteria <sup>3</sup>	<15	<15	<15	28	38	47
	CFM	369	553	738	1106	1475	1844
60 x 4 <sup>6</sup>	Total Pressure <sup>1</sup>	0.024	0.054	0.097	0.216	0.385	0.603
Ak= 0.74 <sup>4</sup>	Horizontal Throw <sup>2</sup>	14-29-42	19-35-50	25-42-59	31-50-72	26-59-83	40-66-92
	Noise Criteria <sup>3</sup>	<15	<15	>15	29	38	48

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#### **Drum Register, DDFRDS**

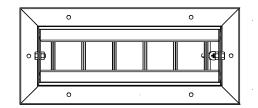


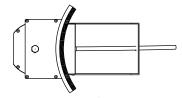


Average dis	scharge velocity (fpm)	500	720	1000	1500	2000	2500
	CFM	135	203	270	338	405	540
12 x 6 <sup>6</sup>	Total Pressure <sup>1</sup>	0.028	0.044	0.112	0.176	0.253	0.450
Ak= 0.274	Horizontal Throw <sup>2</sup>	5-10-20	8-16-31	10-2036	12-25-39	15-31-43	21-36-50
	Noise Criteria	<15	<15	16	24	30	41
	CFM	205	308	410	513	615	820
18 x 6 <sup>6</sup>	Total Pressure <sup>1</sup>	0.030	0.067	0.119	0.189	0.267	0.476
Ak= 0.41 <sup>4</sup>	Horizontal Throw <sup>2</sup>	8-16-31	12-24-38	15-31-43	19-34-48	23-38-54	27-43-62
	Noise Criteria <sup>3</sup>	<15	<15	18	26	32	42
	CFM	276	413	551	689	827	1102
24 x 6 <sup>6</sup>	Total Pressure <sup>1</sup>	0.030	0.69	0.123	0.192	0.276	0.492
Ak= 0.554	Horizontal Throw <sup>2</sup>	11-21-36	15-31-44	21-36-50	24-40-56	27-44-62	31-50-72
	Noise Criteria <sup>3</sup>	<15	<15	20	28	34	44
	CFM	346	518	691	864	1037	1382
30 x 6 <sup>6</sup>	Total Pressure <sup>1</sup>	0.031	0.070	0.126	0.195	0.281	0.504
Ak= 0.69 <sup>4</sup>	Horizontal Throw <sup>2</sup>	13-26-41	20-35-49	24-40-56	27-44-63	30-49-70	35-56-80
	Noise Criteria <sup>3</sup>	<15	<15	21	29	35	45
	CFM	416	624	832	1040	1248	1664
36 x 6 <sup>6</sup>	Total Pressure <sup>1</sup>	0.032	0.071	0.128	0.199	0.285	0.510
Ak= 0.83 <sup>4</sup>	Horizontal Throw <sup>2</sup>	16-31-44	23-38-54	27-44-62	30-49-69	33-54-77	38-62-88
	Noise Criteria <sup>3</sup>	<15	<15	22	30	36	46
	CFM	487	730	973	1216	1460	1948
42 x 6 <sup>6</sup>	Total Pressure <sup>1</sup>	0.032	0.072	0.129	0.201	0.287	0.512
Ak= 0.97 <sup>4</sup>	Horizontal Throw <sup>2</sup>	19-34-48	25-41-59	29-48-67	32-53-75	36-59-83	41-67-95
	Noise Criteria <sup>3</sup>	<15	<15	23	31	37	47
	CFM	557	835	1113	1391	1670	2226
48 x 6 <sup>6</sup>	Total Pressure <sup>1</sup>	0.032	0.072	0.129	0.202	0.290	0.514
Ak= 0.1.11 <sup>4</sup>	Horizontal Throw <sup>2</sup>	22-36-52	27-44-62	31-52-72	35-57-80	39-62-89	44-72-102
	Noise Criteria <sup>3</sup>	<15	<15	23	32	38	48
	CFM	698	1046	1396	1744	2093	2790
60 x 6 <sup>6</sup>	Total Pressure <sup>1</sup>	0.033	0.073	0.131	0.204	0.293	0.522
Ak= 0.1.40 <sup>4</sup>	Horizontal Throw <sup>2</sup>	24-41-58	31-49-70	35-58-80	39-64-89	43-70-98	49-80-114
	Noise Criteria <sup>3</sup>	<15	<15	24	32	39	49

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#### **Drum Register, DDFRDS**





Average di	scharge velocity (fpm)	500	720	1000	1500	2000	2500
	CFM	200	300	400	500	600	800
12 x 8 <sup>6</sup>	Total Pressure <sup>1</sup>	0.034	0.075	0.135	0.210	0.303	0.538
Ak= 0.40 <sup>4</sup>	Horizontal Throw <sup>2</sup>	8-16-30	12-23-37	15-30-43	18-33-48	22-37-53	26-43-61
	Noise Criteria	<15	<15	21	29	36	46
	CFM	304	456	608	760	912	1216
18 x8 <sup>6</sup>	Total Pressure <sup>1</sup>	0.036	0.081	0.143	0.223	0.322	0.572
Ak= 0.61 <sup>4</sup>	Horizontal Throw <sup>2</sup>	12-23-37	17-32-46	23-37-53	25-41-59	28-46-65	32-53-76
ĺ	Noise Criteria <sup>3</sup>	<15	<15	23	31	37	47
	CFM	408	612	816	1020	1224	1632
24 x 8 <sup>6</sup>	Total Pressure <sup>1</sup>	0.037	0.083	0.147	0.230	0.332	0.585
Ak= 0.82 <sup>4</sup>	Horizontal Throw <sup>2</sup>	15-31-43	23-38-54	27-43-61	29-48-68	32-54-76	38-61-88
	Noise Criteria <sup>3</sup>	<15	15	25	33	39	48
	CFM	512	768	1024	1280	1536	2048
30 x 8 <sup>6</sup>	Total Pressure <sup>1</sup>	0.037	0.084	0.149	0.234	0.335	0.595
Ak= 1.02 <sup>4</sup>	Horizontal Throw <sup>2</sup>	2-35-49	26-42-60	30-49-70	33-54-77	37-60-85	42-70-98
	Noise Criteria <sup>3</sup>	<15	16	26	34	40	49
	CFM	617	925	1233	1541	1850	2466
36 x 8 <sup>6</sup>	Total Pressure <sup>1</sup>	0.038	0.085	0.151	0.237	0.340	0.604
Ak= 1.23 <sup>4</sup>	Horizontal Throw <sup>2</sup>	23-38-54	29-47-66	33-54-76	36-60-84	40-66-92	47-76-107
	Noise Criteria <sup>3</sup>	<15	17	27	35	41	50
	CFM	721	1081	1441	1801	2162	2882
42 x 8 <sup>6</sup>	Total Pressure <sup>1</sup>	0.038	0.086	0.153	0.239	0.345	0.613
Ak= 1.44 <sup>4</sup>	Horizontal Throw <sup>2</sup>	25-41-58	31-50-71	35-58-82	39-64-91	43-71-101	50-82-116
	Noise Criteria <sup>3</sup>	<15	18	28	35	42	52
	CFM	825	1237	1649	2061	2474	3298
48 x 8 <sup>6</sup>	Total Pressure <sup>1</sup>	0.039	0.087	0.155	0.241	0.347	0.619
Ak= 1.65 <sup>4</sup>	Horizontal Throw <sup>2</sup>	27-44-62	33-54-76	38-62-88	42-69-98	47-76-108	55-88-124
	Noise Criteria <sup>3</sup>	<15	19	29	36	43	53
	CFM	1033	1550	2066	2583	3099	4132
60 x 8 <sup>6</sup>	Total Pressure <sup>1</sup>	0.039	0.088	0.156	0.244	0.350	0.622
Ak= 2.07 <sup>4</sup>	Horizontal Throw <sup>2</sup>	30-49-70	37-60-85	42-70-98	47-77-109	52-85-120	60-98-139
	Noise Criteria <sup>3</sup>	<15	20	30	37	44	54

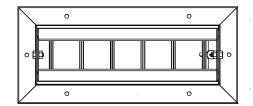
United McGill® products

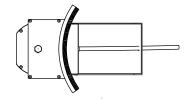
Performance Data

## McGill AirFlow LLC

An enterprise of United McGill Corporation - Founded in 1951

#### **Drum Register, DDFRDS**





#### **Performance Adjustment Factors for Various Deflection Angles**

Deflection Angle	0 Degress	15 Degrees	30 Degrees	45 Degrees
Total Pressure (times)	1.0	1.2	1.8	2.4
Horizontal Throw (times)	1.0	0.8	0.7	0.5
Noise Criteria (add)	+0	+3	+7	+12

Notes: 1. Total Pressure in inches water column

- 2. Throw data are in feet at terminal velocities of 200, 100, and 50 fpm, respectively.
- 3. Noise Criteria (NC) based on a 10 dB room absorption evaluated at 125 Hz through 4000 Hz octave bands.
- 4. Ak = Effective area in square feet
- 5. Units come standard with air scoop
- 6. Width x Height is the nominal hole size in the duct. Width is the longer dimension.
- 7. Discharge velocity is in fpm.