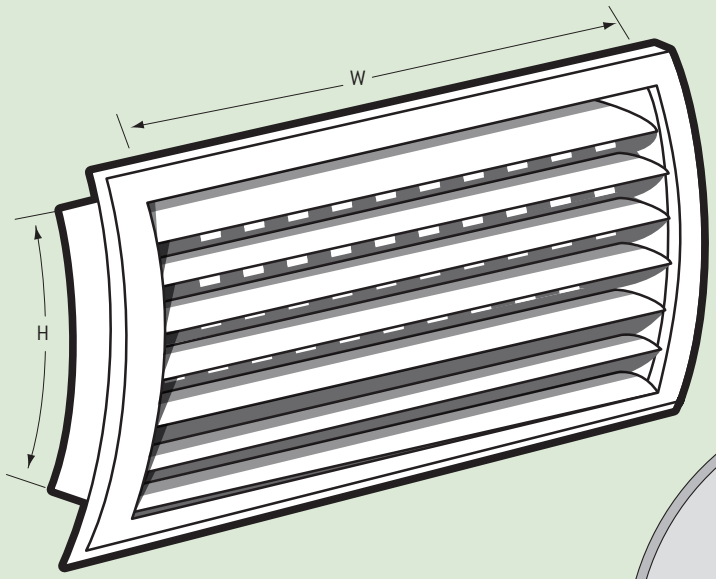
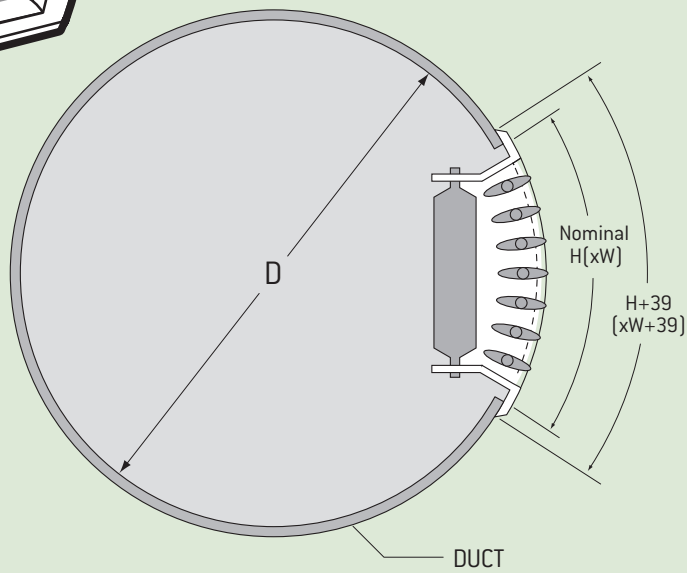




All measurements are taken on the round duct surface.

The TLC version of certain sizes of models DDL & SDL20 has been specifically designed for direct mounting on to Holyoake Spiroloc rigid round duct. Only the heights listed are available and only the units with front blades in the 'W' direction (DDL and SDL) can be produced.

When selecting from the standard data, allowance must be made for the neck area reduction caused by the angle between the two sides. This can be approximated by using selection data from a grille 50mm less in height than nominal, as shown in the table.

*Where mounting duct diameter is greater than double the minimum listed, this correction can be ignored.

Nominal Width, W	Nominal Height, H	Minimum Duct Diameter D	*Selection Height
300	150	300	100
400	200	400	150
500	250	500	200
600	300	600	250

Maximum nominal grille width: 600mm.

Example:

Select a TLC-DDL-20 for 0.227m³/s, NC 24 & 12.2m throw to Vt 0.25m/s on a 450 dia. duct.

From page 207E, follow the NC20 line to 0.227m³/s and select a 450 x 150 conventional DDL-20 **(factors for DDL-20 do modify the listed data).**

Selection size for TLC-DDL-20 is 450 x 200 to give similar performance.

Guide Product Weights				
Approximate Weight in Kg.				
Size	SDL20	DDL20	TLC-SDL20	TLC-DDL20
150 x 150	0.28	0.50	0.45	0.75
200 x 200	0.43	0.75	0.65	1.07
250 x 250	0.64	1.07	0.95	1.53
300 x 300	0.95	1.53	1.70	2.70
400 x 400	1.67	2.70	2.75	4.33

Note

Other Product Series, Materials and Configurations may be available, contact your local Holyoake branch.

Due to a policy of continuous development and improvement the right is reserved to supply products which may differ slightly from those illustrated and described in this publication.

SUPPLY PERFORMANCE DATA

See Notes and Tables on Page 202E.

Size W X H													
									NC 20		NC 30		NC 40
	Vel. m/s		1.52	2.03	2.54	3.05	3.56	4.06	5.08	6.10	7.11	8.13	9.14
	Vel. Press	(Pa)	2	3	5	6	8	10	16	23	31	40	51
	Tot Press	0°	2	4	7	10	13	17	27	39	53	69	87
	(Pa)	22.5°	3	5	8	11	14	19	30	44	59	77	98
		45°	4	7	12	16	22	29	45	66	89	116	147
185 x 100 145 x 125 Ac = 0.014m²	m³/s		0.020	0.028	0.035	0.042	0.050	0.057	0.071	0.085	0.099	0.113	0.127
	NC		-	-	-	-	13	17	23	29	34	38	41
	Throw	0°	1.2-1.8-3.7	1.5-2.4-4.3	2.1-3.4-4.9	2.4-3.7-5.2	2.7-4.0-5.8	3.4-4.3-6.1	4.0-4.9-6.7	4.3-5.2-7.3	4.6-5.8-7.9	4.9-6.1-8.5	5.2-6.7-9.2
	in	22.5°	0.9-1.5-3.1	1.2-1.8-3.4	1.8-2.4-4.0	1.8-3.1-4.9	2.1-3.1-4.3	2.7-3.4-5.9	2.1-4.0-5.5	3.4-4.3-5.8	3.7-4.6-6.4	4.0-4.9-6.7	4.3-5.5-7.3
	m	45°	0.6-0.9-1.8	0.9-1.2-2.1	0.9-1.5-2.4	1.2-1.8-2.7	1.5-2.1-2.7	1.5-2.1-3.1	1.8-2.4-3.4	2.1-2.7-3.7	2.4-2.7-4.0	2.4-3.1-4.3	2.7-3.4-4.6
220 x 100 175 x 125 145 x 150 Ac = 0.017m²	m³/s		0.026	0.033	0.042	0.052	0.059	0.068	0.085	0.101	0.118	0.137	0.153
	NC		-	-	-	10	15	19	25	31	36	40	43
	Throw	0°	1.2-2.1-4.0	1.8-2.4-4.6	2.1-3.4-5.2	2.7-4.0-5.8	3.1-4.6-6.1	3.4-4.9-6.7	4.3-5.2-7.3	4.6-5.8-7.9	5.2-6.4-8.8	5.5-6.7-9.5	5.8-7.3-10.2
	in	22.5°	0.9-1.8-3.1	1.5-1.8-3.7	1.8-2.7-4.3	2.1-3.1-4.3	2.4-3.7-4.9	2.7-4.0-5.5	3.4-4.3-5.8	3.7-4.6-6.4	4.3-5.2-7.0	4.3-5.5-7.6	4.6-5.8-7.9
	m	45°	0.6-0.9-2.1	0.9-1.2-2.4	1.2-1.5-2.7	1.2-2.1-3.1	1.5-2.1-3.1	1.8-2.4-3.4	2.1-2.7-3.7	2.4-3.1-4.0	2.4-3.1-4.3	2.7-3.4-4.6	3.1-3.7-4.9
260 x 100 205 x 125 170 x 150 Ac = 0.020m²	m³/s		0.031	0.042	0.052	0.061	0.073	0.083	0.104	0.125	0.146	0.165	0.186
	NC		-	-	-	10	15	19	25	31	36	40	43
	Throw	0°	1.2-2.1-4.3	2.1-3.1-5.2	2.4-3.7-5.8	2.7-4.6-6.4	3.4-4.9-7.0	4.0-5.8-8.2	4.9-5.8-8.2	5.2-6.4-8.8	5.8-7.9-8.0	6.1-7.6-10.4	6.4-7.9-11.0
	in	22.5°	0.9-1.8-3.4	1.8-2.4-4.3	1.8-3.1-4.6	2.1-3.7-5.2	2.7-4.5-5.0	4.0-4.6-6.7	4.3-5.2-6.7	4.3-5.2-7.0	4.6-5.5-7.9	4.9-6.1-9.2	5.2-6.4-8.8
	m	45°	0.6-1.2-2.1	0.9-1.5-2.7	1.2-1.8-3.1	1.5-2.1-3.1	1.8-2.4-3.4	1.8-2.7-3.7	2.4-3.1-4.0	2.7-3.4-4.6	2.7-3.7-4.9	3.1-3.7-5.2	3.4-4.0-5.5
305 x 100 240 x 125 195 x 150 Ac = 0.024m²	m³/s		0.038	0.050	0.061	0.073	0.085	0.099	0.123	0.146	0.172	0.196	0.222
	NC		-	-	-	11	16	20	26	32	37	41	44
	Throw	0°	1.5-2.4-4.9	2.1-3.4-5.8	2.7-4.0-6.4	3.1-4.9-7.0	3.7-5.2-7.3	4.3-5.8-7.9	5.2-6.4-8.8	5.8-7.0-9.8	6.1-7.6-10.7	6.7-7.9-11.3	7.0-8.2-12.2
	in	22.5°	1.2-1.8-4.0	1.8-3.1-4.6	2.1-3.1-5.2	2.4-4.0-5.5	3.1-4.3-5.8	3.4-4.6-6.4	4.3-5.2-7.0	4.6-5.5-7.9	4.9-6.1-8.5	5.5-6.4-9.2	5.5-6.7-9.8
	m	45°	0.9-1.2-2.4	1.2-1.5-2.7	1.2-2.1-3.1	1.5-2.4-3.4	1.8-2.7-3.7	2.1-2.7-4.0	2.4-3.4-4.6	2.7-3.7-4.9	3.1-4.0-5.2	3.4-4.0-5.5	3.7-4.3-6.1
345 x 100 270 x 125 220 x 150 Ac = 0.024m²	m³/s		0.042	0.057	0.071	0.085	0.099	0.113	0.142	0.170	0.188	0.227	0.255
	NC		-	-	-	11	16	20	26	32	37	41	44
	Throw	0°	1.5-2.7-5.2	2.4-3.4-6.1	2.7-4.3-6.7	3.4-5.2-7.3	4.0-5.8-7.9	4.6-6.1-8.5	5.5-7.0-9.5	6.1-7.6-10.4	6.7-8.2-11.3	7.3-8.8-12.2	7.6-9.2-12.8
	in	22.5°	1.2-2.1-4.3	1.8-2.7-4.9	2.1-3.4-5.5	2.7-4.3-5.8	3.1-4.6-6.4	3.7-4.9-6.7	4.3-5.5-7.6	4.9-6.1-8.2	5.5-6.7-9.2	6.8-7.0-9.8	6.1-7.3-10.4
	m	45°	0.9-1.2-2.4	1.2-1.8-3.1	1.5-2.1-3.4	1.8-2.4-3.7	2.1-2.7-4.0	2.4-3.1-4.3	2.7-3.4-4.9	3.1-3.7-5.2	3.4-4.0-5.8	3.7-4.3-6.1	3.7-4.6-6.4
380 x 100 295 x 125 240 x 150 Ac = 0.030m²	m³/s		0.047	0.064	0.080	0.097	0.113	0.127	0.161	0.194	0.224	0.257	0.288
	NC		-	-	-	12	17	21	27	33	38	42	45
	Throw	0°	1.5-2.7-5.5	2.4-3.4-6.4	3.1-4.6-7.3	3.7-5.8-7.9	4.3-6.1-8.5	4.9-6.7-9.2	6.1-7.3-10.1	6.7-7.9-11.3	7.0-8.5-12.2	7.6-9.2-12.8	7.9-9.8-13.7
	in	22.5°	1.2-2.1-4.3	1.8-3.1-5.2	2.4-3.7-5.8	3.1-4.6-6.4	3.4-4.9-6.7	4.0-5.5-7.3	4.9-5.8-7.9	5.5-6.4-9.2	5.5-6.7-9.8	6.1-7.3-10.4	6.4-7.9-11.0
	m	45°	0.9-1.2-2.7	1.2-1.8-3.4	1.5-2.4-3.7	1.8-2.7-4.0	2.1-3.1-4.3	2.4-3.4-4.6	3.1-3.7-5.2	3.4-4.0-5.5	3.7-4.3-6.1	3.7-4.6-6.4	4.0-4.9-6.7
450 x 100 350 x 125 285 x 150 215 x 200 Ac = 0.036m²	m³/s		0.054	0.073	0.092	0.111	0.130	0.146	0.184	0.222	0.257	0.295	0.337
	NC		-	-	-	13	18	22	28	34	39	43	46
	Throw	0°	1.8-2.7-5.7	2.7-4.0-7.0	3.4-4.9-7.6	4.0-5.8-8.5	4.6-6.7-9.2	5.2-7.0-9.8	6.4-7.9-11.0	7.0-8.2-12.2	7.6-9.2-12.8	8.2-10.1-13.7	8.5-10.7-14.6
	in	22.5°	1.5-2.1-4.6	2.1-3.1-5.5	2.7-4.0-6.1	3.1-4.6-6.7	3.7-5.5-7.3	4.3-5.5-7.9	5.2-6.4-8.8	5.5-6.7-9.8	6.1-7.3-10.4	6.7-7.9-11.0	6.7-8.5-11.6
	m	45°	0.9-1.5-3.1	1.2-1.8-3.4	1.5-2.4-4.0	2.1-3.1-4.3	2.4-3.4-4.6	2.7-3.7-4.9	3.4-4.0-5.5	3.7-4.3-6.1	3.7-4.6-6.4	4.0-4.9-7.0	4.3-5.2-7.3
								NC 20		NC 30		NC 40	

See Notes and Tables on Page 202E.

								NC 20		NC 30		NC 40		
	Vel. m/s		1.52	2.03	2.54	3.05	3.56	4.06	5.08	6.10	7.11	8.13	9.14
Size WXH	Vel. Press	(Pa)	2	3	5	6	8	10	16	23	31	40	51
	Tot Press	0°	2	4	7	10	13	17	27	39	53	69	87
	(Pa)	22.5°	3	5	8	11	14	19	30	44	59	77	98
		45°	4	7	12	16	22	29	45	66	89	116	147
535 x 100	m^3/s		0.066	0.087	0.109	0.130	0.151	0.175	0.217	0.260	0.305	0.347	0.392
415 x 125	NC		-	-	-	13	18	22	28	34	39	43	46
340 x 150	Throw	0°	2.1-3.1-6.7	2.7-4.3-7.6	3.7-5.2-8.2	4.3-6.7-9.2	4.9-7.0-9.8	5.8-7.6-10.7	7.0-8.2-11.9	7.6-9.5-13.1	8.2-10.1-14.0	8.8-10.7-14.9	9.5-11.6-15.9
250 x 200	in	22.5°	1.8-2.4-5.5	2.1-3.4-6.1	3.1-4.3-6.7	3.4-5.5-7.3	4.0-5.5-7.9	4.6-6.1-8.5	5.5-6.7-9.5	6.1-7.6-10.4	6.7-7.9-11.3	7.0-8.5-11.9	7.6-9.2-12.8
Ac = 0.043m^2	m	45°	0.9-1.5-3.4	1.5-2.1-3.7	1.8-2.7-4.3	2.1-3.4-4.6	2.4-3.4-4.9	3.1-4.0-5.2	3.4-4.3-6.1	3.7-4.6-6.4	4.3-5.2-7.0	4.3-5.5-7.3	4.6-5.8-7.9
595 x 100	m^3/s		0.073	0.099	0.123	0.146	0.172	0.196	0.246	0.295	0.345	0.382	0.441
460 x 125	NC		-	-	-	14	19	23	29	35	40	44	47
380 x 150	Throw	0°	2.1-3.4-7.0	3.1-4.6-7.9	4.0-5.9-8.8	4.6-6.7-9.8	5.5-7.6-10.7	6.1-7.9-11.3	7.3-9.2-12.5	8.2-10.1-13.7	8.8-10.7-14.9	9.5-11.6-15.9	9.8-12.2-16.8
	in	22.5°	1.8-2.7-5.5	2.4-3.7-6.4	3.1-4.6-7.0	3.7-5.5-7.9	4.3-6.1-8.5	4.9-6.4-9.2	5.8-7.3-10.1	6.7-7.9-11.0	7.0-8.5-11.9	7.6-9.2-12.8	7.9-9.8-13.4
Ac = 0.048m^2	m	45°	0.9-1.5-3.4	1.5-2.1-4.0	1.8-2.7-4.6	2.4-3.4-4.9	2.7-3.7-5.2	3.1-4.0-5.5	3.7-4.6-6.4	4.0-4.9-7.0	4.3-5.5-7.3	4.6-5.8-7.9	4.9-6.1-8.5
535 x 125	m^3/s		0.085	0.113	0.142	0.170	0.198	0.227	0.283	0.340	0.397	0.453	0.510
440 x 150	NC		-	-	10	15	20	24	30	36	41	45	48
325 x 200	Throw	0°	2.1-3.7-7.3	3.4-4.9-8.5	4.3-6.1-9.5	4.9-7.3-10.4	5.8-8.2-11.3	6.7-8.8-12.2	7.9-9.8-13.7	8.8-10.7-14.6	9.5-11.6-15.9	7.0-12.2-17.1	10.7-13.1-18.0
260 x 250	in	22.5°	1.8-3.1-5.8	2.7-4.0-6.7	3.4-4.9-7.6	4.0-5.8-8.2	4.6-6.7-9.2	5.5-7.0-9.8	6.4-7.9-11.0	7.0-8.5-11.6	7.6-9.2-12.8	7.9-9.8-13.7	8.5-10.4-14.3
Ac = 0.056m^2	m	45°	1.2-1.8-3.7	1.5-2.4-4.3	2.1-3.1-4.9	2.4-3.7-5.2	3.1-4.0-5.8	3.4-4.3-6.1	4.0-4.9-6.7	4.3-5.2-7.3	4.6-5.8-7.9	4.9-6.1-8.5	5.2-6.4-8.8
610 x 125	m^3/s		0.097	0.130	0.163	0.196	0.229	0.260	0.326	0.392	0.456	0.519	0.585
500 x 150	NC		-	-	10	15	20	24	30	36	41	45	48
370 x 200	Throw	0°	2.4-4.0-7.9	3.7-5.2-9.2	4.6-6.7-10.4	5.5-7.9-11.3	6.4-8.8-12.2	7.3-9.5-13.1	8.5-10.4-14.3	9.2-11.6-15.9	10.1-12.2-17.1	10.7-13.1-18.3	11.3-13.7-19.2
290 x 250	in	22.5°	1.8-3.1-6.4	3.1-4.3-7.3	3.7-5.5-8.2	4.3-6.4-9.2	5.2-7.0-9.8	5.8-7.6-10.4	6.7-8.2-11.6	7.3-9.2-12.8	7.9-9.8-13.7	8.5-10.4-14.6	9.2-11.0-15.3
Ac = 0.064m^2	m	45°	1.2-1.8-4.0	1.8-2.7-4.6	2.1-3.4-5.2	2.7-4.0-5.5	3.1-4.3-6.1	3.7-4.6-6.4	4.3-5.2-7.3	4.6-5.8-7.9	4.9-6.1-8.5	5.5-6.7-9.2	5.8-7.0-9.5
535 x 150	m^3/s		0.113	0.153	0.191	0.229	0.267	0.307	0.382	0.458	0.534	0.614	0.689
390 x 200	NC		-	-	11	16	21	25	31	37	42	46	49
	Throw	0°	2.4-4.3-8.5	4.0-5.8-10.1	4.9-7.0-11.3	5.8-8.5-12.2	7.0-9.5-13.1	7.9-10.1-14.0	9.2-11.3-15.6	10.1-12.5-17.1	11.0-13.4-18.3	11.6-14.0-19.5	12.2-14.9-20.7
Ac = 0.069m^2	in	22.5°	1.8-3.4-6.7	3.1-4.6-7.9	4.0-5.5-9.2	4.6-6.7-9.8	5.5-7.6-10.4	6.4-7.9-11.3	7.3-9.2-12.5	7.9-10.1-13.7	8.8-10.7-14.6	9.2-11.3-15.6	9.8-11.9-16.5
	m	45°	1.2-2.1-4.3	1.8-2.7-4.9	2.4-3.7-5.5	3.1-4.3-6.1	3.4-4.6-6.7	4.0-5.2-7.0	4.6-5.8-7.9	5.2-6.1-8.5	5.5-6.7-9.2	5.8-7.0-9.8	6.1-7.6-10.4
650 x 150	m^3/s		0.127	0.170	0.212	0.225	0.297	0.340	0.425	0.510	0.595	0.680	0.765
475 x 200	NC		-	-	11	16	21	25	31	37	42	46	49
380 x 250	Throw	0°	2.7-4.6-9.2	4.3-6.1-10.4	5.2-7.6-11.9	6.4-9.2-12.8	7.3-10.1-13.7	8.2-10.7-14.6	9.2-11.9-16.8	10.7-13.1-18.0	11.3-14.0-19.2	12.2-14.9-20.7	12.8-15.9-22.0
315 x 300	in	22.5°	2.1-3.7-7.3	3.4-4.9-8.2	4.3-6.1-9.5	5.2-7.3-10.4	5.8-7.9-11.0	6.7-8.5-11.6	7.9-9.5-13.4	8.5-10.4-14.3	9.2-11.3-15.3	9.8-11.9-16.5	10.4-12.8-17.7
Ac = 0.084m^2	m	45°	1.5-2.4-4.6	2.1-3.1-5.2	2.7-4.0-5.8	3.1-4.6-6.4	3.7-4.9-7.0	4.3-5.2-7.3	4.9-6.1-8.2	5.2-6.4-8.8	5.8-7.0-9.8	6.1-7.3-10.4	6.4-7.9-11.0
765 x 150	m^3/s		0.151	0.203	0.253	0.302	0.354	0.404	0.505	0.604	0.708	0.807	0.911
440 x 250	NC		-	-	11	16	21	25	31	37	42	46	49
365 x 300	Throw	0°	3.1-4.9-9.8	4.6-6.7-11.6	5.5-8.5-12.8	6.7-10.1-14.0	7.6-11.0-14.9	8.8-11.6-16.2	10.7-13.1-18.0	11.6-14.0-19.	12.5-15.3-21.0	13.1-16.2-22.6	14.0-17.4-24.1
	in	22.5°	2.4-4.0-7.9	3.7-5.5-9.2	4.3-6.7-10.4	5.5-7.9-11.3	6.4-8.8-11.9	7.0-9.2-12.8	8.5-10.4-14.3	9.2-11.3-15.6	10.1-12.2-16.8	10.4-12.8-18.0	11.3-14.0-19.2
Ac = 0.099m^2	m	45°	1.5-2.4-4.9	2.1-3.4-5.8	2.7-4.3-6.4	3.4-5.2-7.0	4.0-5.5-7.6	4.3-5.8-7.9	5.2-6.4-8.8	5.8-7.0-9.8	6.1-7.6-10.7	6.7-8.2-11.3	7.0-8.5-12.2
								NC 20		NC 30		NC 40		

SUPPLY PERFORMANCE DATA

See Notes and Tables on Page 202E.

						NC 20		NC 30		NC 40			
	Vel. m/s		1.52	2.04	2.54	3.05	3.56	4.06	5.08	6.10	7.11	8.13	9.14
Size W X H	Vel. Press	(Pa)	2	3	5	6	8	10	16	23	31	40	51
	Tot Press (Pa)	0°	2	4	7	10	13	17	27	39	53	69	87
		22.5°	3	5	8	11	14	19	30	44	59	77	98
		45°	4	7	12	16	22	29	45	66	89	116	147
620 x 200	m^3/s		0.168	0.222	0.279	0.335	0.390	0.446	0.557	0.670	0.779	0.892	1.000
490 x 250	NC		-	-	12	17	22	26	32	38	43	47	50
345 x 350	Throw	0°	3.1-5.2-10.4	4.6-7.0-12.2	5.8-8.5-13.4	7.0-10.7-14.6	8.2-11.6-15.9	9.5-12.2-17.1	11.0-13.7-18.9	12.2-14.6-20.4	13.1-15.9-22.3	13.7-17.1-23.81	14.6-18.0-25.3
	in	22.5°	2.4-4.3-8.2	3.7-5.5-9.8	4.6-6.7-10.7	5.5-8.5-11.6	6.7-9.2-12.8	7.6-9.8-13.7	8.8-11.0-15.3	9.8-11.6-16.5	10.4-12.8-17.7	11.0-13.7-18.9	11.6-14.3-20.1
Ac = 0.11 m^2	m	45°	1.5-2.4-5.2	2.4-3.4-6.1	3.1-4.3-6.7	3.7-5.2-7.3	4.0-5.8-7.9	4.6-6.1-8.5	5.5-6.7-9.5	6.1-7.3-10.4	6.4-7.9-11.0	7.0-8.5-11.9	7.3-9.2-12.5
920 x 150	m^3/s		0.189	0.253	0.316	0.380	0.444	0.505	0.633	0.760	0.888	1.010	1.140
670 x 200	NC		-	-	13	18	23	27	33	39	44	48	51
530 x 250	Throw	0°	3.4-5.5-11.0	4.9-7.3-12.8	6.1-9.2-14.3	7.3-11.3-15.6	8.5-12.2-17.1	9.8-13.1-18.0	11.9-14.3-19.8	12.8-15.9-22.0	13.7-17.1-23.8	14.6-18.3-25.3	15.6-19.2-27.2
440 x 300	in	22.5°	2.7-4.3-8.8	4.0-5.8-10.4	4.9-7.3-11.6	5.8-9.2-12.5	6.7-9.8-13.7	7.9-10.4-14.3	9.5-11.6-15.9	10.4-12.8-17.7	11.0-13.7-18.9	11.6-14.6-20.1	12.5-15.3-21.7
375 x 350	m	45°	1.8-2.7-5.5	2.4-3.7-6.4	3.1-4.6-7.0	3.7-5.5-7.6	4.3-6.1-8.5	4.9-6.4-8.8	5.8-7.0-10.1	6.4-7.9-11.0	7.0-8.5-11.9	7.3-9.2-12.9	7.9-9.8-13.4
Ac = 0.12m^2													
620 x 250	m^3/s		0.227	0.302	0.378	0.453	0.529	0.604	0.756	0.907	1.060	1.210	1.360
510 x 300	NC		-	-	13	18	23	27	33	39	44	48	51
435 x 350	Throw	0°	4.0-6.1-12.2	5.5-7.9-14.0	6.7-9.8-15.6	8.2-11.9-17.1	9.5-13.1-18.3	10.7-14.0-19.5	12.8-15.6-22.0	14.0-17.1-24.1	14.9-18.6-25.9	16.2-19.8-27.8	17.1-21.0-29.6
380 x 400	in	22.5°	3.1-4.9-9.8	4.3-6.4-11.3	5.5-7.9-12.5	6.7-9.5-13.7	7.6-10.4-14.6	8.5-11.3-15.6	10.4-12.5-17.7	11.3-13.7-19.2	11.9-14.9-20.7	12.8-15.9-22.3	13.7-16.8-23.8
Ac = 0.14m^2	m	45°	1.8-3.1-6.1	2.7-4.0-7.0	3.4-4.9-7.6	4.0-6.1-8.5	4.6-6.7-9.2	5.2-7.0-9.8	6.4-7.9-11.0	7.0-8.5-11.9	7.6-9.2-13.1	7.9-9.8-14.0	8.5-10.7-14.6
705 x 250	m^3/s		0.255	0.340	0.425	0.510	0.595	0.680	0.850	1.020	1.190	1.360	1.530
580 x 300	NC		-	-	14	19	24	28	34	40	45	49	52
495 x 350	Throw	0°	4.0-6.4-12.8	5.8-8.5-14.6	7.3-10.7-16.8	8.8-13.1-18.0	9.8-14.0-19.2	11.3-14.9-20.7	13.7-16.8-23.2	14.6-18.3-25.6	15.9-19.8-27.5	17.1-21.0-29.6	18.3-22.3-31.4
435 x 400	in	22.5°	3.1-5.2-10.4	4.6-6.7-11.6	5.8-8.5-13.4	7.0-10.4-14.3	7.9-11.3-15.3	9.2-11.9-16.5	11.0-13.4-18.6	11.6-14.6-20.4	12.8-15.9-22.0	13.7-16.8-23.8	14.6-17.7-25.0
Ac = 0.16m^2	m	45°	2.1-3.4-6.4	2.7-4.3-7.3	3.7-5.2-8.2	4.3-6.4-8.8	4.9-7.0-9.8	5.8-7.3-10.4	6.7-8.2-11.6	7.3-9.2-11.8	7.9-9.8-13.7	8.5-10.7-14.6	9.2-11.3-15.6
875 x 250	m^3/s		0.295	0.392	0.491	0.590	0.689	0.784	0.982	1.180	1.370	1.570	1.770
725 x 300	NC		-	-	14	19	24	28	34	40	45	49	52
615 x 350	Throw	0°	4.3-7.0-13.7	6.1-9.2-15.9	7.9-11.6-17.7	9.2-13.4-19.2	10.7-14.9-20.7	12.2-16.2-22.3	14.6-18.0-25.0	15.9-19.5-27.5	17.1-21.0-29.6	18.3-22.9-31.7	19.5-24.1-33.6
540 x 400	in	22.5°	3.4-5.5-11.0	4.9-7.3-12.8	6.4-9.2-14.0	7.3-10.7-15.3	8.5-11.9-16.5	9.8-12.8-17.7	11.6-14.3-20.1	12.8-15.6-22.0	13.7-16.8-23.8	14.6-18.3-25.3	15.6-19.2-26.8
480 x 450	m	45°	2.1-3.4-7.0	3.1-4.6-7.9	4.0-5.8-8.8	4.6-6.7-9.8	5.2-7.6-10.4	6.1-11.0-11.3	7.3-8.8-12.5	7.9-9.8-13.7	8.5-10.7-14.6	9.2-11.3-15.9	9.8-12.2-16.8
Ac = 0.20m^2													
795 x 300	m^3/s		0.347	0.463	0.576	0.694	0.812	0.925	1.160	1.390	1.620	1.850	2.080
675 x 350	NC		-	-	15	20	25	29	35	41	46	50	53
590 x 400	Throw	0°	4.6-7.6-14.9	6.7-10.1-17.4	8.2-12.2-18.9	9.8-14.6-20.7	11.6-16.5-22.6	13.1-17.4-24.4	15.9-19.5-27.2	17.4-21.4-29.6	18.6-23.2-32.3	19.8-24.7-34.5	21.4-26.5-36.6
525 x 450	in	22.5°	3.7-6.1-11.9	5.5-7.9-14.0	6.7-9.8-15.3	7.9-11.6-16.5	9.2-13.1-18.0	10.4-14.0-19.5	12.8-15.6-21.7	14.0-17.1-23.8	14.9-18.6-25.9	15.9-19.8-27.5	17.1-21.4-29.3
Ac = 0.22m^2	m	45°	2.1-3.7-7.3	3.4-4.9-8.5	4.3-6.1-9.5	4.9-7.3-10.4	5.8-8.2-11.3	6.7-8.5-12.2	7.9-9.8-13.7	8.5-10.7-14.9	9.8-11.6-16.7	10.1-12.8-17.1	10.7-13.1-18.3
900 x 300	m^3/s		0.390	0.524	0.656	0.788	0.921	1.050	1.310	1.580	1.840	2.100	2.360
670 x 400	NC		-		16	21	26	30	36	42	47	51	54
595 x 450	Throw	0°	4.9-7.9-15.9	7.0-10.4-18.3	8.8-12.8-20.4	10.7-15.3-22.	12.2-17.4-24.1	13.7-18.6-25.9	16.8-20.7-29.0	20.1-22.9-31.7	19.8-24.7-34.2	21.4-26.5-37.2	22.6-28.4-39.0
535 x 500	in	22.5°	4.0-6.4-12.8	5.5-8.2-14.6	7.0-10.4-16.5	8.5-12.2-17.7	9.8-14.0-19.2	11.0-14.9-20.7	13.4-16.5-23.2	14.6-18.3-25.3	15.9-19.8-27.5	17.1-21.4-29.9	18.0-22.6-31.1
Ac = 0.25m^2	m	45°	2.4-4.0-7.9	3.7-5.2-9.2	4.3-6.4-10.1	5.2-7.6-11.3	6.1-8.5-12.2	7.0-9.2-12.8	8.5-10.4-14.3	9.2-11.3-15.9	10.1-12.2-17.1	10.7-13.1-18.6	11.3-14.0-19.5
					NC 20			NC 30	NC 40		NC 50		

NC 50

See Notes and Tables on Page 202E.

						NC 20			NC 30	NC 40		NC 50	
	Vel. m/s		1.52	2.03	2.54	3.05	3.56	4.06	5.08	6.10	7.11	8.13	9.14
Size W X H	Vel. Press	(Pa)	2	3	5	6	8	10	16	23	31	40	51
	Tot Press	0°	2	4	7	10	13	17	27	39	53	69	87
	(Pa)	22.5°	3	5	8	11	14	19	30	44	59	77	98
		45°	4	7	12	16	22	29	45	66	89	116	147
750 x 400	m^3/s		0.441	0.585	0.747	0.883	1.030	1.180	1.470	1.760	2.050	2.350	2.640
665 x 450	NC		-	-	16	21	26	30	36	42	47	51	54
595 x 500	Throw	0°	5.2-8.2-16.8	7.3-11.0-19.2	10.4-13.7-21.7	12.5-16.2-23.8	14.3-18.3-25.6	14.6-19.5-27.5	17.7-22.0-30.5	19.5-24.1-33.6	21.0-26.2-36.0	22.6-28.1-39.0	24.1-29.6-41.2
540 x 550	in	22.5°	1.3-6.7-13.4	3.1-8.8-15.3	8.2-11.0-17.4	10.1-12.8-18.9	11.6-14.6-20.4	11.6-15.6-22.0	14.0-17.7-24.4	15.6-19.2-26.8	16.8-21.0-28.7	18.0-22.6-31.1	19.2-23.8-32.9
Ac = 0.28m^2	m	45°	2.4-4.3-8.5	3.7-5.5-9.5	5.2-6.7-10.7	6.1-7.9-11.9	7.0-9.2-12.8	7.3-9.8-12.7	8.8-11.0-15.3	9.8-12.2-16.8	10.7-13.1-18.0	11.3-14.0-19.5	12.2-14.9-20.4
880 x 400	m^3/s		0.510	0.680	0.850	1.020	1.190	1.360	1.700	2.040	2.380	2.730	3.070
780 x 450	NC		-	10	17	22	27	31	37	43	48	52	55
700 x500	Throw	0°	5.5-8.8-18.0	7.9-11.6-20.7	9.8-14.3-23.2	11.6-17.1-25.6	13.4-19.8-27.5	15.6-21.0-29.6	19.2-23.8-32.9	21.0-26.2-36.0	22.9-28.4-39.0	24.4-30.2-41.8	26.2-32.0-44.5
585 x 600	in	22.5°	4.3-7.0-14.3	6.4-9.2-16.5	7.9-11.6-18.6	9.2-13.7-20.4	10.7-15.9-22.0	12.5-16.8-23.8	15.3-18.9-26.2	16.8-21.0-28.7	18.3-22.6-31.1	18.3-24.1-33.6	19.2-23.8-32.9
Ac = 0.33m^2	m	45°	2.7-4.3-8.8	4.0-5.8-10.4	4.9-7.0-11.6	5.8-8.5-12.8	6.7-9.8-13.7	7.6-10.7-14.6	9.5-11.9-16.5	10.7-13.1-18.0	11.6-14.0-19.5	12.2-15.3-21.0	12.2-14.9-20.4
920 x 450	m^3/s		0.610	0.812	1.010	1.210	1.420	1.620	2.030	2.430	2.890	3.240	3.640
825 x 500	NC		-	11	18	23	28	32	38	44	49	53	56
750 x 550	Throw	0°	5.8-9.5-19.5	8.5-12.5-22.6	10.7-15.3-25.3	12.8-18.3-27.8	14.9-21.7-29.9	17.1-23.2-32.3	21.0-25.9-36.0	23.2-28.4-39.	25.0-31.1-42.7	26.8-32.9-45.4	28.1-35.1-48.2
	in	22.5°	4.6-7.6-15.6	6.7-10.1-18.0	8.5-12.2-20.1	10.4-14.6-22.3	11.9-17.4-23.8	13.7-18.6-25.9	16.8-20.7-28.7	18.6-22.6-31.7	20.1-25.0-34.2	21.4-26.2-36.3	22.6-28.1-38.4
Ac =0.39m^2	m	45°	3.1-4.6-9.8	4.3-6.1-11.3	5.2-7.6-12.8	6.4-9.2-14.0	7.3-10.7-14.9	8.5-11.6-16.2	10.4-13.1-18.0	11.6-14.3-19.8	12.5-15.6-21.4	13.4-16.5-22.9	14.0-17.4-24.1
885 x 500	m^3/s		0.660	0.878	1.100	1.320	1.540	1.760	2.200	2.630	3.070	3.510	3.950
740 x 600	NC		-	11	18	23	28	32	38	44	49	53	56
680 x 650	Throw	0°	6.1-10.1-20.4	8.8-13.1-23.8	11.0-16.5-26.5	13.4-19.8-29.0	15.6-22.6-31.4	17.7-24.1-33.6	22.0-27.2-37.5	24.1-29.6-41.2	26.2-32.0-44.5	27.8-34.5-47.6	29.3-36.6-50.0
	in	22.5°	4.9-7.9-16.5	7.0-10.4-18.9	8.8-13.1-21.4	10.7-15.9-23.2	12.5-18.0-25.0	14.0-19.2-26.8	17.7-21.7-29.9	19.2-23.8-32.9	21.0-25.9-35.7	22.3-27.5-38.1	23.5-29.3-40.0
Ac = 0.42 m^2	m	45°	3.1-4.9-10.1	4.6-6.7-11.9	5.5-8.2-13.1	6.7-9.8-14.6	7.6-11.3-15.9	8.8-12.2-16.8	11.0-13.4-18.6	11.9-14.9-20.4	13.1-15.9-22.3	14.0-17.1-23.8	14.6-18.3-25.0
1195 x 450	m^3/s		0.788	1.050	1.320	1.580	1.850	2.110	2.630	3.160	3.690	4.220	4.720
895 x 600	NC		-	12	19	24	29	33	39	45	50	54	57
	Throw	0°	6.7-11.0-22.3	9.5-14.3-25.9	12.2-18.0-29.0	14.3-22.0-31.7	16.8-24.7-34.5	19.2-26.5-37.2	24.1-29.6-39.6	26.5-32.6-45.1	28.4-35.4-48.8	30.5-38.1-52.2	32.3-40.3-54.9
	in	22.5°	5.5-8.8-17.7	7.6-11.6-20.7	9.8-14.4-23.3	11.6-17.7-25.3	13.4-19.8-27.5	15.3-21.4-29.9	19.2-23.8-32.9	21.4-26.2-36.0	22.6-28.4-39.7	24.4-30.5-41.8	25.9-32.0-42.7
Ac = 0.51m^2	m	45°	3.4-5.5-11.3	4.9-7.0-13.1	6.1-9.2-14.6	7.0-11.0-15.9	8.5-12.5-17.4	9.5-13.4-18.6	11.9-14.9-20.4	13.1-16.2-22.6	14.3-17.7-24.4	15.3-18.9-26.2	17.2-20.1-27.5
1175 x 500	m^3/s		0.888	1.180	1.470	1.770	2.070	2.360	2.950	3.540	4.130	4.720	5.290
780 x 750	NC		-	13	20	25	30	34	40	46	51	55	58
	Throw	0°	7.0-11.3-23.8	10.1-14.9-27.5	12.8-18.9-30.5	15.3-22.9-31.4	17.7-26.2-36.3	20.4-28.4-39.0	25.6-31.7-43.6	28.1-34.5-47.6	29.9-37.5-51.5	32.3-40.3-54.9	34.2-42.7-58.6
	in	22.5°	5.5-9.2-18.9	7.9-11.9-22.0	10.4-15.3-24.4	12.2-18.3-25.0	14.0-21.0-29.0	16.5-22.6-31.1	20.4-25.3-34.8	22.6-27.5-38.1	23.8-29.9-41.2	25.9-32.0-42.7	27.5-34.2-46.7
Ac = 0.56m^2	m	45°	3.7-5.8-11.9	5.2-7.6-13.7	6.4-9.5-15.3	7.6-11.3-15.6	8.8-13.1-18.3	10.4-14.0-19.5	12.8-15.9-22.0	14.0-17.4-23.8	14.9-18.6-25.9	16.2-20.1-29.3	17.1-21.4-29.3
						NC 20		NC 30		NC 40	NC 50		

SD, DD, TLC & MDD

Grille Description Code Examples and Suggested Specifications

SD DD TLC-SD TLC-DD MDD	–	L or S L or S L L –	–	20 or 32 20 or 32 20 20 20 or 32	–	RC RC – – RC (Screw)	– 25 50 CMF	OBD-1 – W x H (DUCT) – FINISH

Single Deflection.
Double Deflection.
Curved Frame, Single Deflection.
Curved Frame, Double Deflection.
Modular Double Deflection.

Direction of Front Blades, (L - Parallel to long dimension, S - Parallel to short dimension).

Blade Spacing (mm).

Removable Core Frame*.

Optional Frame Styles.

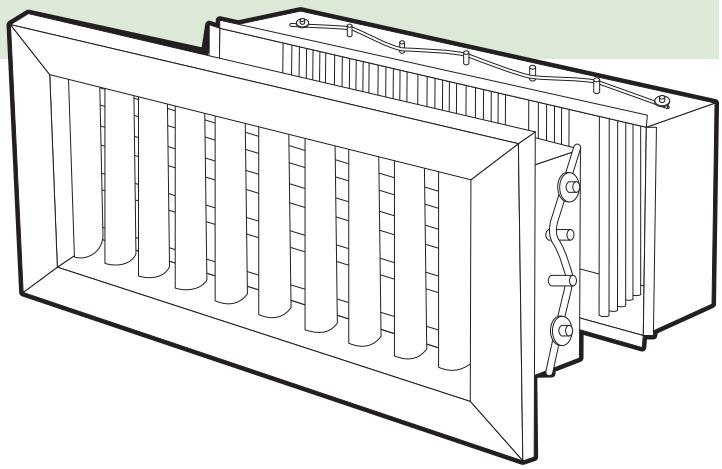
Opposed Blade Damper.

Width x Height Dimensions.

Holyoake White. Mill Aluminium. Powder Coat.

All Holyoake sidewall supply registers shall be of extruded aluminium construction, with true airfoil shaped single, or double deflection blades. Optional opposed blade volume control damper, which can be screw driver operated through the face of the grille.

All shall be as manufactured by Holyoake.



*** = See page 228E (For MDD, see page 210E).**

Guide Product Weights	
Description	**Approximate Weight in Kg.**
MDD	SUBJECT TO CORE ELEMENTS
Contact your local Holyoake Branch	

Note

Where appropriate, seismic restraints may be required, but are not supplied.