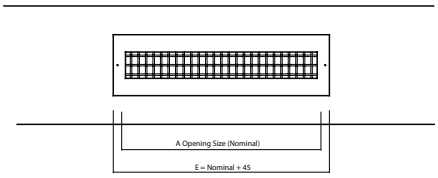
briteair

BDM Diffuser

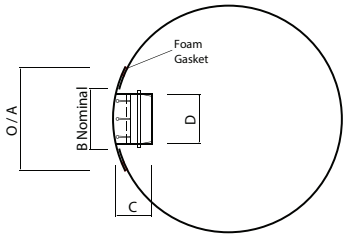
The BDM Diffuser has been designed to sit directly onto exposed circular ductwork saving the cost of a branch or saddle piece. The BDM is available with either a single row of horizontal adjustable blades or with a row of horizontal adjustable blades at the front and a set of vertical adjustable blades behind. The diffuser frame is laser cut from a single piece of galvanised metal giving it both added strength and accuracy. The diffuser can be supplied with a combined deflectrol/hit and miss damper.



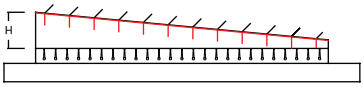
BDM Curved Plan



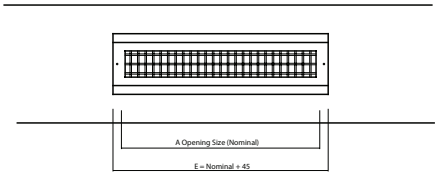
BDM Curved Side



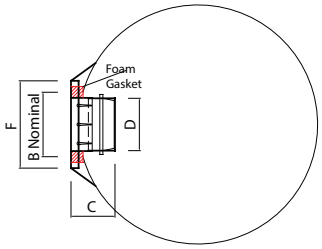
BDM Damper



BDM Folded Plan



BDM Folded Side



Dimensions in millimetres

Nominal Opening Dimension A	Nominal Opening Dimension B	Single Deflection C	Double Deflection C	Neck D	Width o/a E	F	H
225 - 1225	85	34	72	65	Nom + 45	Neck + 45	-
225 - 1225	125	34	72	105	Nom + 45	Neck + 45	-
225 - 1225	175	34	72	155	Nom + 45	Neck + 45	-
225 - 1225	225	34	72	205	Nom + 45	Neck + 45	-



Damper height in millimetres

	225	325	425	525	625	825	1225
H	40	50	60	70	80	80	80

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BDM Performance Data: Diffuser

SIZE	Air Volume l/s								
225 x 85	Air Volume l/s	20	30	40	50	60	70	80	90	100
	Throw (0.25m/s)	2.0	3.0	4.0	5.1	6.1	7.1	8.1	9.1	10.0
	Pd	2	4	7	11	16	22	29	37	46
	NR Level	<20	<20	24	29	34	40	45	50	55

SIZE	Air Volume l/s								
325 x 85	Air Volume l/s	30	40	50	60	70	80	90	100	110
	Throw (0.25m/s)	2.5	3.4	4.2	5.1	5.9	6.7	7.6	8.4	9.3
	Pd	2	3	5	8	11	14	18	22	26
	NR Level	<20	<20	21	25	28	32	36	39	43

SIZE	Air Volume l/s								
425 x 85	Air Volume l/s	50	60	70	80	90	100	110	120	130
	Throw (0.25m/s)	3.7	4.4	5.2	5.9	6.6	7.4	8.1	8.8	9.6
	Pd	3	5	6	8	10	13	15	18	22
	NR Level	<20	20	22	25	28	31	33	36	39

SIZE	Air Volume l/s								
525 x 85	Air Volume l/s	70	80	90	100	120	130	150	170	180
	Throw (0.25m/s)	4.6	5.3	6.0	6.6	8.0	8.6	9.9	11.3	11.9
	Pd	4	5	7	8	12	14	19	24	27
	NR Level	<20	21	23	25	30	32	37	41	43

SIZE	Air Volume l/s								
625 x 85	Air Volume l/s	90	100	120	140	150	170	180	200	220
	Throw (0.25m/s)	5.5	6.1	7.3	8.5	9.1	10.3	10.9	12.1	13.4
	Pd	5	6	9	12	13	17	19	24	29
	NR Level	20	21	26	29	31	35	37	41	44

SIZE	Air Volume l/s								
825 x 85	Air Volume l/s	100	120	140	160	180	200	220	240	260
	Throw (0.25m/s)	5.3	6.3	7.4	8.5	9.5	10.6	11.6	12.7	13.7
	Pd	3	5	7	9	11	14	16	20	23
	NR Level	<20	20	23	26	29	32	34	37	40

SIZE	Air Volume l/s								
1225 x 85	Air Volume l/s	150	170	190	210	230	260	290	320	350
	Throw (0.25m/s)	6.5	7.4	8.2	9.1	10.0	11.3	12.6	13.9	15.2
	Pd	3	4	6	7	8	10	13	16	19
	NR Level	<20	20	21	23	25	28	31	34	0.37

SIZE	Air Volume l/s								
225 x 125	Air Volume l/s	30	40	50	60	70	80	90	100	110
	Throw (0.25m/s)	2.5	3.4	4.2	5.1	5.9	6.7	7.6	8.4	9.3
	Pd	2	3	5	8	11	14	18	22	26
	NR Level	<20	<20	21	25	28	32	36	39	43

SIZE	Air Volume l/s								
325 x 125	Air Volume l/s	50	60	70	80	90	100	110	120	130
	Throw (0.25m/s)	3.5	4.2	4.9	5.6	6.3	6.9	7.6	8.3	9.0
	Pd	3	4	5	6	8	10	12	15	17
	NR Level	<20	<20	20	23	25	28	30	33	35

SIZE	Air Volume l/s								
425 x 125	Air Volume l/s	70	90	100	110	130	150	170	190	210
	Throw (0.25m/s)	4.3	5.5	6.1	6.7	7.9	9.1	10.3	1.5	12.8
	Pd	3	5	6	7	10	13	17	21	26
	NR Level	<20	20	22	24	27	31	35	39	43

SIZE	Air Volume l/s								
525 x 125	Air Volume l/s	100	120	130	140	160	180	200	220	230
	Throw (0.25m/s)	5.5	6.6	7.1	7.7	8.7	9.8	10.9	12.0	13.1
	Pd	4	6	7	8	10	13	15	19	22
	NR Level	<20	21	23	24	27	30	33	37	40

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BDM Performance Data: Diffuser

SIZE										
625 x 125	Air Volume l/s	100	125	150	175	200	225	250	275	300
	Throw (0.25m/s)	5.0	6.3	7.5	8.8	6.6	11.3	12.5	13.8	15.0
	Pd	3	4	6	8	10	14	17	21	25
	NR Level	<20	20	22	25	28	32	35	38	41

SIZE										
1225 x 125	Air Volume l/s	300	325	350	375	400	425	450	475	500
	Throw (0.25m/s)	10.7	11.6	12.5	13.4	14.3	15.2	16.1	17.0	17.9
	Pd	6	8	9	10	11	13	14	16	18
	NR Level	23	24	26	27	29	31	32	34	36

SIZE										
225 x 175	Air Volume l/s	70	80	90	100	110	120	130	140	150
	Throw (0.25m/s)	4.9	5.6	6.3	7.1	7.8	8.5	9.2	9.9	10.6
	Pd	5	7	9	11	13	15	18	21	24
	NR Level	21	23	26	28	31	33	36	39	44

SIZE										
325 x 175	Air Volume l/s	80	100	110	120	140	160	180	200	220
	Throw (0.25m/s)	4.7	5.9	6.5	7.0	8.2	9.4	10.6	11.7	12.9
	Pd	3	5	6	7	10	13	17	21	25
	NR Level	<20	21	22	24	28	31	35	38	42

SIZE										
425 x 175	Air Volume l/s	100	130	160	180	200	220	250	270	300
	Throw (0.25m/s)	5.1	6.7	8.2	9.2	10.3	11.3	12.8	13.9	15.4
	Pd	3	5	8	10	12	15	19	22	27
	NR Level	<20	20	25	27	30	33	37	39	43

SIZE										
525 x 175	Air Volume l/s	150	180	200	220	250	280	300	320	350
	Throw (0.25m/s)	6.9	8.3	9.2	10.2	11.5	12.9	13.9	14.8	16.2
	Pd	4	6	8	10	12	15	18	20	24
	NR Level	<20	23	25	27	30	33	36	38	41

SIZE										
625 x 175	Air Volume l/s	170	200	250	280	300	320	350	370	400
	Throw (0.25m/s)	7.2	8.5	10.6	11.9	12.7	13.5	14.8	15.7	16.9
	Pd	4	6	9	9	13	14	17	19	22
	NR Level	20	21	26	29	30	32	35	37	40

SIZE										
825 x 175	Air Volume l/s	200	250	300	320	350	370	400	450	500
	Throw (0.25m/s)	7.4	9.2	11.1	11.8	12.9	13.6	14.7	16.6	18.4
	Pd	3	5	7	8	10	11	13	16	20
	NR Level	<20	20	24	25	27	29	31	34	38

SIZE										
1225 x 175	Air Volume l/s	400	450	500	550	600	650	700	750	800
	Throw (0.25m/s)	12.1	13.6	15.1	16.6	18.1	19.7	21.2	22.7	24.2
	Pd	6	7	9	11	13	15	18	20	23
	NR Level	22	24	26	29	31	33	36	38	40

SIZE										
225 x 225	Air Volume l/s	80	90	100	110	120	140	160	180	200
	Throw (0.25m/s)	5.0	5.6	6.2	6.8	7.5	8.7	10.0	11.2	12.4
	Pd	4	5	7	8	9	13	17	21	26
	NR Level	<20	21	23	25	27	31	35	39	43

SIZE										
325 x 225	Air Volume l/s	120	140	160	180	200	220	240	260	280
	Throw (0.25m/s)	6.2	7.2	8.3	9.3	10.4	11.4	12.4	13.5	14.5
	Pd	4	6	8	10	12	15	18	21	24
	NR Level	<20	22	25	28	30	33	36	39	41

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BDM Performance Data: Diffuser

SIZE										
425 x 225	Air Volume l/s	150	170	190	210	230	250	270	300	350
	Throw (0.25m/s)	6.8	7.7	8.6	9.5	10.4	11.3	12.2	13.6	15.8
	Pd	4	5	7	8	10	11	13	16	22
	NR Level	<20	21	23	25	27	29	31	34	40

SIZE										
525 x 225	Air Volume l/s	200	240	270	300	325	350	375	400	450
	Throw (0.25m/s)	8.1	9.8	11.0	12.2	13.2	14.3	15.3	16.3	18.3
	Pd	5	7	9	11	13	15	17	19	24
	NR Level	20	23	26	28	31	33	35	37	41

SIZE										
625 x 225	Air Volume l/s	300	325	350	375	400	425	450	475	520
	Throw (0.25m/s)	11.2	12.1	13.1	14.0	14.9	15.9	16.8	17.7	19.4
	Pd	8	9	10	12	13	15	17	19	23
	NR Level	24	26	28	30	31	33	35	37	40

SIZE										
1225 x 225	Air Volume l/s	500	600	650	700	750	800	850	900	1000
	Throw (0.25m/s)	13.3	16.0	17.3	18.7	20.0	21.3	22.7	24.0	26.7
	Pd	5	8	9	11	12	14	16	18	22
	NR Level	21	25	27	28	30	32	34	36	39

Correction Factors

Throw	22° - Multiply x 0.8
	45° - Multiply x 0.45

Return Air	Multiply the Pressure Drop by 0.75
	Noise Levels remain the same

Terminal Velocity Correction Factors

All data regarding throws are based on a terminal velocity of 0.25 m/s	0.25 m/s	0.4 m/s	0.5 m/s	0.7 m/s
	x 1.0	x 0.62	x 0.5	x 0.35

How to order

Type		Damper	Frame	Finish
BDM-DD	Double Deflection Grille	D - Hit & Miss Damper	C - Curved Frame	e.g.RAL 9010
BDM-SD	Single Deflection	0 - No Damper	F - Folded Frame	e.g.RAL 9010
e.g. 10 No BDM-DD-0-C-Galv Duct Mounted Double Deflection Grille c/w Curved Frame and Galv Finish				

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