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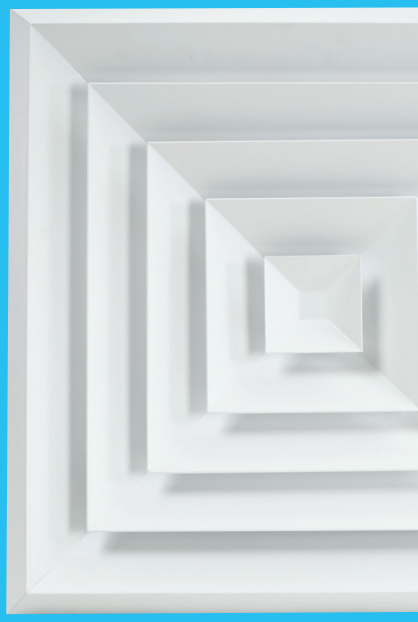

SPIRIT

directional diffuser

BF
BF166
BF199
BF466
BF499
BF366
BF399
BF2066
BF2099
BF11212
BF11515
BF11818
BF31212
BF31515
BF31818
BF41212
BF41515
BF41818
BF2O1212
BF2O1515
BF2O1818
BF2CR66
BF2CR99
BF2CR1515
BF2CR1818

BP
BP6
BP9
BP12
BP15
BP18

FF
FF166
FF199
FF1HT
FF366
FF399
FF3HT
FF466
FF499
FF4HT
FF11212
FF11515
FF2OP66
FF2OP99
FF2OP1212
FF2OP1515
FF2OPHT
FF2CR66
FF2CR99
FF2CR1212
FF2CR1515
FF2CRHT
FF31212
FF31515
FF41212
FF41515
FF42121
FF4395F
FF4605F

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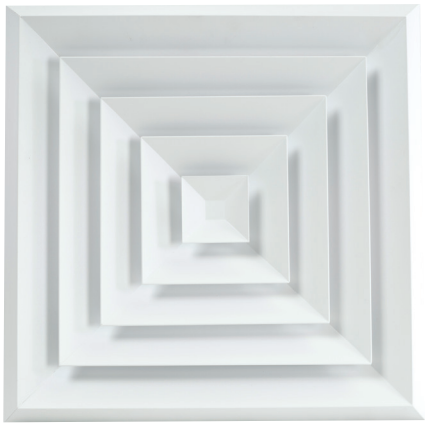
PRODUCT DATA SHEET

1 YR WARRANTY

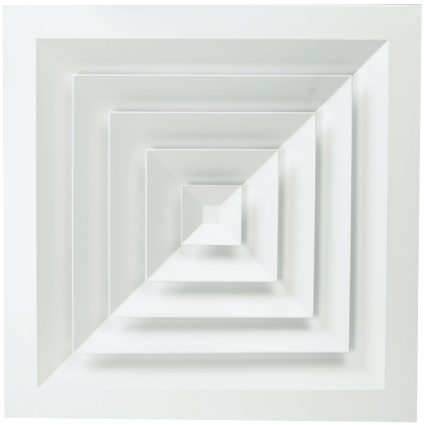
DIRECTIONAL DIFFUSER

Overview

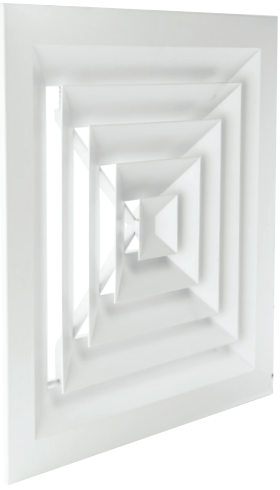
The BF – Bevel Frame and FF – Flush frame square directional diffusers are designed for ceiling applications. Both grille styles are all aluminium construction and have easily removable centres for installation and maintenance. They are available in a variety of sizes and perspective configurations. A range of standard products are available. The standard finish is powder coated RAL9016. Other colours are available upon request.



BF Front view



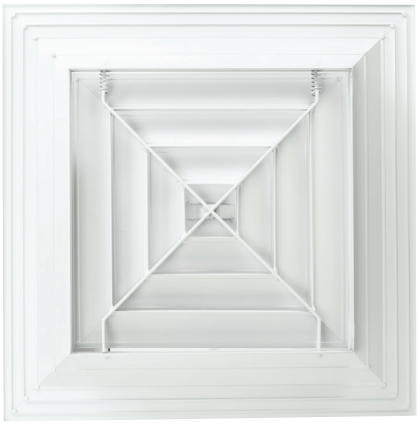
FF Front view



FF Front perspective view

BF End view

BF Rear view



FF Rear view

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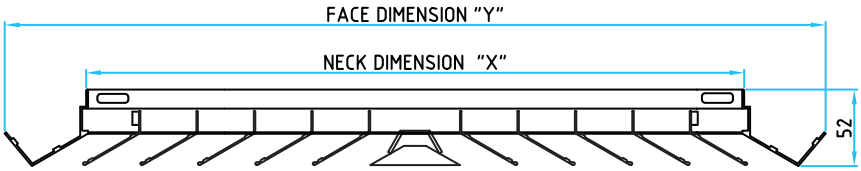

PRODUCT CODE BF – BEVEL FRAMED DIRECTIONAL DIFFUSER

Product Code	Description	Face Size "Y"	Neck Size "X"
BF466	Bevel Frame 4 Way Ceiling Diffuser - 150 x 150 Nominal Neck	258	146
BF499	Bevel Frame 4 Way Ceiling Diffuser - 225 x 225 Nominal Neck	333	221
BF41212	Bevel Frame 4 Way Ceiling Diffuser - 300 x 300 Nominal Neck	408	296
BF41515	Bevel Frame 4 Way Ceiling Diffuser - 375 x 375 Nominal Neck	483	371
BF41818	Bevel Frame 4 Way Ceiling Diffuser - 450 x 450 Nominal Neck	558	446
BF366	Bevel Frame 3 Way Ceiling Diffuser - 150 x 150 Nominal Neck	258	146
BF399	Bevel Frame 3 Way Ceiling Diffuser - 225 x 225 Nominal Neck	333	221
BF31212	Bevel Frame 3 Way Ceiling Diffuser - 300 x 300 Nominal Neck	408	296
BF31515	Bevel Frame 3 Way Ceiling Diffuser - 375 x 375 Nominal Neck	483	371
BF31818	Bevel Frame 3 Way Ceiling Diffuser - 450 x 450 Nominal Neck	558	446
BF2066	Bevel Frame 2 way - Opposite blow Ceiling Diffuser - 150 x 150 Nominal Neck	258	146
BF2O99	Bevel Frame 2 Way - Opposite Blow Ceiling Diffuser - 225 x 225 Nominal Neck	333	221
BF2O1212	Bevel Frame 2 Way - Opposite Blow Ceiling Diffuser - 300 x 300 Nominal Neck	408	296
BF2O1515	Bevel Frame 2 Way - Opposite Blow Ceiling Diffuser - 375 x 375 Nominal Neck	483	371
BF2O1818	Bevel Frame 2 Way - Opposite Blow Ceiling Diffuser - 450 x 450 Nominal Neck	558	446
BF166	Bevel Frame 1 way Ceiling Diffuser - 150 x 150 Nominal Neck	258	146
BF199	Bevel Frame 1 Way Ceiling Diffuser - 225 x 225 Nominal Neck	333	221
BF11212	Bevel Frame 1 Way Ceiling Diffuser - 300 x 300 Nominal Neck	408	296
BF11515	Bevel Frame 1 Way Ceiling Diffuser - 375 x 375 Nominal Neck	483	371
BF11818	Bevel Frame 1 Way Ceiling Diffuser - 450 x 450 Nominal Neck	558	446
BF2CR66	Bevel Frame 2 Way Corner Blow Ceiling Diffuser - 150 x 150 Nominal Neck	258	146
BF2CR99	Bevel Frame 2 Way Corner Blow Ceiling Diffuser - 225 x 225 Nominal Neck	333	221
BF2CR1212	Bevel Frame 2 Way Corner Blow Ceiling Diffuser - 300 x 300 Nominal Neck	408	296
BF2CR1515	Bevel Frame 2 Way Corner Blow Ceiling Diffuser - 375 x 375 Nominal Neck	483	371
BF2CR1818	Bevel Frame 2 Way Corner Blow Ceiling Diffuser - 450 x 450 Nominal Neck	558	446

Dimensions in millimetres

Options

Blanking plates to suit the BF & FF directional diffusers are availalble. Painted black.

Product Code	Size
BP6	150 x 150
BP9	225 x 225
BP12	300 x 300
BP15	375 x 375
BP18	450 x 450

Dimensions in millimetres

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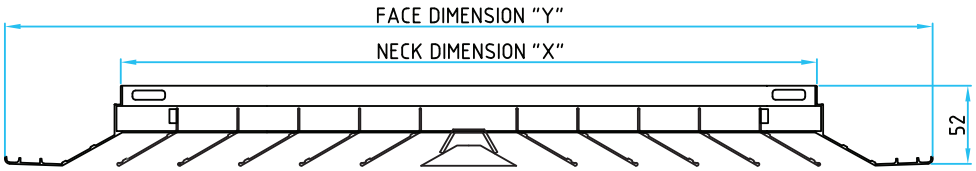

PRODUCT CODE FF – FLUSH FRAMED DIRECTIONAL DIFFUSER

Product Code	Description	Face Size "Y"	Neck Size "X"
FF466	Flush Frame 4 Way Ceiling Diffuser - 150 x 150 Nominal Neck	294	146
FF499	Flush Frame 4 Way Ceiling Diffuser - 225 x 225 Nominal Neck	369	221
FF41212	Flush Frame 4 Way Ceiling Diffuser - 300 x 300 Nominal Neck	444	296
FF41515	Flush Frame 4 Way Ceiling Diffuser - 375 x 375 Nominal Neck	519	371
FF4HT	Flush Frame 4 Way Ceiling Diffuser - Half Tile - 595 x 595 Face Size	595	446
FF42121	Flush Frame 4 Way Ceiling Diffuser - 525 x 525 Nominal Neck	669	521
FF4395F	Flush Frame 4 Way Ceiling Diffuser - 395 x 395 Face Size	395	247
FF4605F	Flush Frame 4 Way Ceiling Diffuser - 605 x 605 Face Size	605	457
FF366	Flush Frame 3 Way Ceiling Diffuser - 150 x 150 Nominal Neck	294	146
FF399	Flush Frame 3 Way Ceiling Diffuser - 225 x 225 Nominal Neck	369	221
FF31212	Flush Frame 3 Way Ceiling Diffuser - 300 x 300 Nominal Neck	444	296
FF31515	Flush Frame 3 Way Ceiling Diffuser - 375 x 375 Nominal Neck	519	371
FF3HT	Flush Frame 3 Way Ceiling Diffuser - Half Tile - 595 x 595 Face Size	595	446
FF2OP66	Flush Frame 2 Way - Opposite Blow Ceiling Diffuser - 150 x 150 Nominal Neck	294	146
FF2OP99	Flush Frame 2 Way - Opposite Blow Ceiling Diffuser - 225 x 225 Nominal Neck	369	221
FF2OP1212	Flush Frame 2 Way - Opposite Blow Ceiling Diffuser - 300 x 300 Nominal Neck	444	296
FF2OP1515	Flush Frame 2 Way - Opposite Blow Ceiling Diffuser - 375 x 375 Nominal Neck	519	371
FF2OPHT	Flush Frame 2 Way - Opposite Blow Ceiling Diffuser - Half Tile - 595 x 595 Face Size	595	446
FF2CR66	Flush Frame 2 Way - Corner Blow Ceiling Diffuser - 150 x 150 Nominal Neck	294	146
FF2CR99	Flush Frame 2 Way - Corner Blow Ceiling Diffuser - 225 x 225 Nominal Neck	369	221
FF2CR1212	Flush Frame 2 Way - Corner Blow Ceiling Diffuser - 300 x 300 Nominal Neck	444	296
FF2CR1515	Flush Frame 2 Way - Corner Blow Ceiling Diffuser - 375 x 375 Nominal Neck	519	371
FF2CRHT	Flush Frame 2 Way - Corner Blow Ceiling Diffuser - Half Tile - 595 x 595 Face Size	595	446
FF166	Flush Frame 1 Way Ceiling Diffuser - 150 x 150 Nominal Neck	294	146
FF199	Flush Frame 1 Way Ceiling Diffuser - 225 x 225 Nominal Neck	369	221
FF11212	Flush Frame 1 Way Ceiling Diffuser - 300 x 300 Nominal Neck	444	296
FF11515	Flush Frame 1 Way Ceiling Diffuser - 375 x 375 Nominal Neck	519	371
FF1HT	Flush Frame 1 Way Ceiling Diffuser - Half Tile - 595 x 595 Face Size	595	446

Dimensions in millimetres

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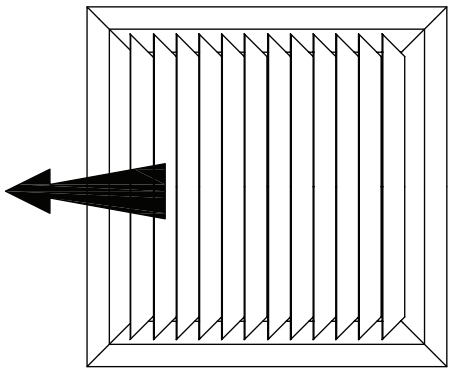

PRODUCT CODE FF1 & BF1
DIRECTIONAL DIFFUSER - 1 WAY BLOW

Size (Neck - square)	Pressure Drop (Pa)	5	10	20	40	60	80	100
150 x 150	Flow Rate (l/s)	26	38	53	75	92	105	110
	Throw (m)	1.25 to 2.5	1.75 to 3.5	2.2 to 4.4	3.0 to 6.0	3.6 to 7.2	4.0 to 8.0	4.4 to 8.8
	Noise NR	<20	<20	<20	27	33	37	39
225 x 225	Flow Rate (l/s)	60	84	115	180	215	240	275
	Throw (m)	2.25 to 4.5	2.6 to 5.2	3.5 to 7.0	4.3 to 8.6	4.6 to 9.2	5.2 to 10.4	5.6 to 11.2
	Noise NR	<20	<20	23	32	37	41	43
300 x 300	Flow Rate (l/s)	105	150	205	305	385	435	495
	Throw - (m)	2.6 to 5.2	3.6 to 7.2	4.5 to 9.0	5.4 to 10.8	6.0 to 12.0	6.6 to 13.2	7.5 to 15
	Noise NR	<20	<20	26	36	40	44	46
375 x 375	Flow Rate (l/s)	180	235	330	505	605	710	805
	Throw (m)	3.5 to 7.0	4.4 to 8.8	5.3 to 10.6	6.4 to 12.8	7.0 to 14.0	7.75 to 15.5	8.1 to 16.2
	Noise NR	<20	21	28	38	43	46	
450 x 450	Flow Rate (l/s)	255	355	505	715	895	1015	1150
	Throw - (m)	4.1 to 8.2	4.8 to 5.6	6.0 to 12	7.2 to 14.4	7.5 to 15.0	8.0 to 16.0	8.5 to 17/0
	Noise NR	<20	22	31	40	45	49	52

Dimensions in millimetres.
Throw - Terminal velocities - 0.30 & 0.60m/sec.
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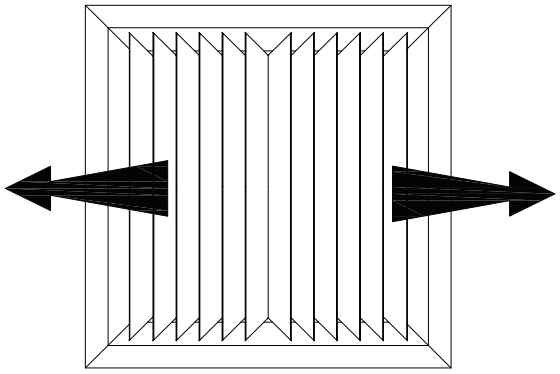
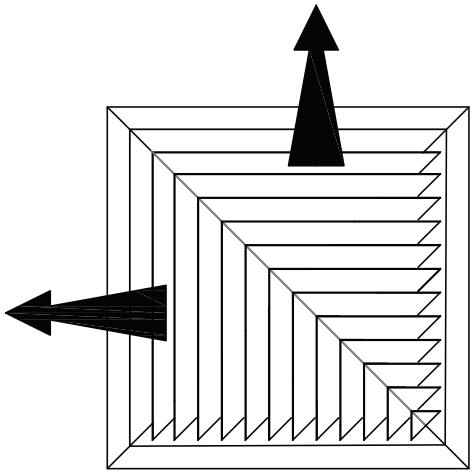


PRODUCT CODE FF2 & BF2
DIRECTIONAL DIFFUSER - 2 WAY BLOW



PRODUCT CODE FF2CR & BF2CR
DIRECTIONAL DIFFUSER - 2 WAY CORNER BLOW

Size (Neck - square)	Pressure Drop (Pa)	5	10	20	40	60	80	100
150 x 150	Flow Rate (l/s)	26	38	53	75	92	105	110
	Throw (m)	1.0 to 2.0	1.3 to 2.6	1.6 to 3.2	2.0 to 4.0	2.3 to 4.6	2.5 to 5.0	2.7 to 5.4
	Noise NR	<20	<20	<20	27	33	37	39
225 x 225	Flow Rate (l/s)	60	84	115	180	215	240	275
	Throw (m)	1.2 to 2.4	1.6 to 3.2	2.2 to 4.4	2.7 to 5.4	3.3 to 6.6	3.7 to 7.4	4.2 to 8.4
	Noise NR	<20	<20	23	32	37	41	43
300 x 300	Flow Rate (l/s)	105	150	205	305	385	435	495
	Throw - (m)	1.75 to 3.5	2.3 to 4.6	2.8 to 5.6	4.0 to 8.0	4.5 to 9.0	5.0 to 10.0	5.5 to 11.0
	Noise NR	<20	<20	26	36	40	44	46
375 x 375	Flow Rate (l/s)	180	235	330	505	605	710	805
	Throw (m)	2.2 to 4.4	2.6 to 5.6	3.8 to 7.6	4.8 to 9.6	5.6 to 11.2	6.4 to 12.4	6.8 to 13.8
	Noise NR	<20	21	28	38	43	46	
450 x 450	Flow Rate (l/s)	255	355	505	715	895	1015	1150
	Throw - (m)	2.6 to 5.2	3.4 to 6.8	4.5 to 9.0	5.6 to 11.2	6.2 to 12.4	7.0 to 14.0	7.7 to 15.4
	Noise NR	<20	22	31	40	45	49	52

Dimensions in millimetres.
Throw - Terminal velocities - 0.30 & 0.60m/sec.
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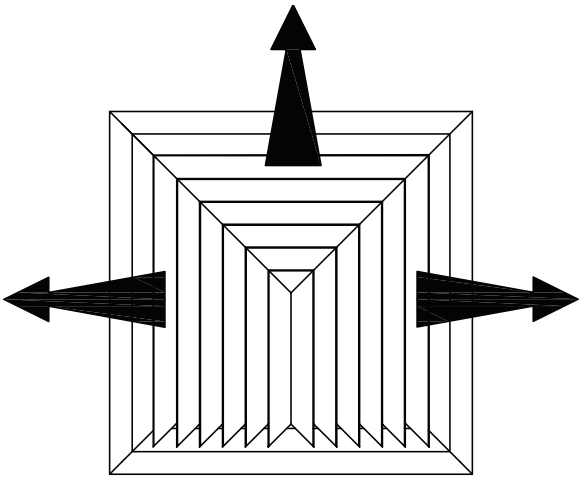

PRODUCT CODE FF3 & BF3
DIRECTIONAL DIFFUSER - 3 WAY BLOW

Size (Neck - square)	Pressure Drop (Pa)	5	10	20	40	60	80	100
150 x 150	Flow Rate (l/s)	26	38	53	75	92	105	110
	Throw (m)	0.3 to 0.6	0.5 to 1.0	1.0 to 2.0	1.5 to 3.0	2.0 to 4.0	2.2 to 4.4	2.5 to 5.0
	Noise NR	<20	<20	20	26	33	37	39
225 x 225	Flow Rate (l/s)	62	88	115	180	215	240	275
	Throw (m)	0.5 to 1.0	1.0 to 2.0	1.5 to 3.0	2.3 to 4.6	2.7 to 5.4	3.0 to 6.0	3.3 to 6.6
	Noise NR	<20	<20	22	32	37	41	43
300 x 300	Flow Rate (l/s)	105	150	205	305	385	435	495
	Throw - (m)	1.0 to 2.0	1.5 to 3.0	2.0 to 4.0	2.7 to 5.4	3.3 to 6.6	3.5 to 7.0	3.7 to 7.4
	Noise NR	<20	<20	26	36	40	44	46
375 x 375	Flow Rate (l/s)	180	235	330	505	605	710	805
	Throw (m)	1.3 to 2.6	1.8 to 3.6	2.5 to 5.0	3.3 to 6.6	3.7 to 7.4	4.2 to 8.4	4.6 to 9.2
	Noise NR	<20	21	28	38	43	46	49
450 x 450	Flow Rate (l/s)	255	355	505	715	895	1015	1150
	Throw - (m)	1.5 to 3.0	2.3 to 4.6	2.8 to 5.6	3.7 to 7.4	4.3 to 8.6	4.7 to 9.4	5.5 to 11.0
	Noise NR	<20	22	31	40	45	49	52

Dimensions in millimetres.
Throw - Terminal velocities - 0.30 & 0.60m/sec.
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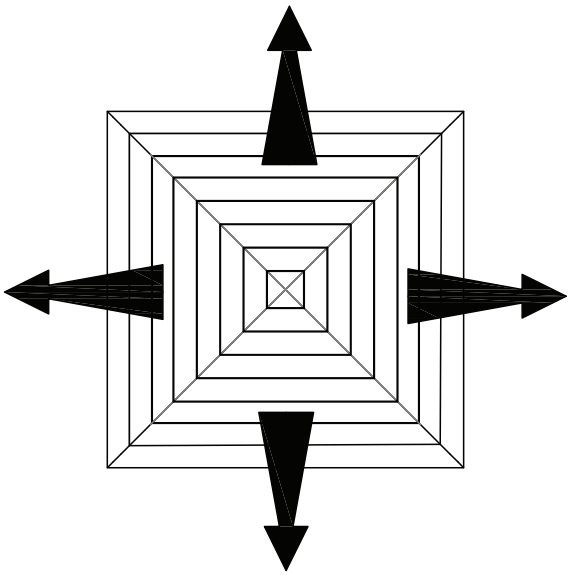

PRODUCT CODE FF4 & BF4
DIRECTIONAL DIFFUSER - 4 WAY BLOW

Size (Neck - square)	Pressure Drop (Pa)	5	10	20	40	60	80	100
150 x 150	Flow Rate (l/s)	26	38	53	75	92	105	110
	Throw (m)	0.3 to 0.6	0.5 to 1.0	1.0 to 2.0	1.5 to 3.0	2.0 to 4.0	2.2 to 4.4	2.5 to 5.0
	Noise NR	<20	<20	<20	21	25	28	31
225 x 225	Flow Rate (l/s)	62	88	115	180	215	240	275
	Throw (m)	0.5 to 1.0	1.0 to 2.0	1.5 to 3.0	2.3 to 4.6	2.7 to 5.4	3.0 to 6.0	3.3 to 6.6
	Noise NR	<20	<20	20	27	32	35	38
300 x 300	Flow Rate (l/s)	105	150	205	305	385	435	495
	Throw - (m)	1.0 to 2.0	1.5 to 3.0	2.0 to 4.0	2.7 to 5.4	3.3 to 6.6	3.5 to 7.0	3.7 to 7.4
	Noise NR	<20	<20	24	32	36	40	43
375 x 375	Flow Rate (l/s)	180	235	330	505	605	710	805
	Throw (m)	1.3 to 2.6	1.8 to 3.6	2.5 to 5.0	3.3 to 6.6	3.7 to 7.4	4.2 to 8.4	4.6 to 9.2
	Noise NR	<20	20	27	36	40	43	
450 x 450	Flow Rate (l/s)	255	355	505	715	895	1015	1150
	Throw - (m)	1.5 to 3.0	2.3 to 4.6	2.8 to 5.6	3.7 to 7.4	4.3 to 8.6	4.7 to 9.4	5.5 to 11.0
	Noise NR	<20	23	31	38	43	46	48
525 x 525	Flow Rate (l/s)	330	495	695	980	1100	1275	1500
	Throw (m)	1.7 to 3.4	2.4 to 4.8	3.2 to 6.4	4.0 to 8.0	4.7 to 9.4	5.5 to 11.0	6.0 to 12.0
	Noise NR	<20	25	33	41	46	49	52

Dimensions in millimetres.
Throw - Terminal velocities - 0.30 & 0.60m/sec.
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