



GRILLES & LOUVRES

# RETURN AIR GRILLE



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# RETURN AIR GRILLE

## RAG-FB

ADF Return Air Grilles are designed and constructed to meet wide range of applications. They are commonly installed on internal walls or partitions, ceilings and duct system for air extract purpose.

### DESIGN & CONSTRUCTION

ADF Return Air Grilles are of fixed blade type which blade angle are set at 45° and sight proof, besides perform to a quality standard in air flow, pressure drop as well as noise rating. Grille frame is of external flange border. These return air grilles can be constructed of Galvanised Steel or Aluminium and finished to baked enamel or natural anodised.

### FEATURES

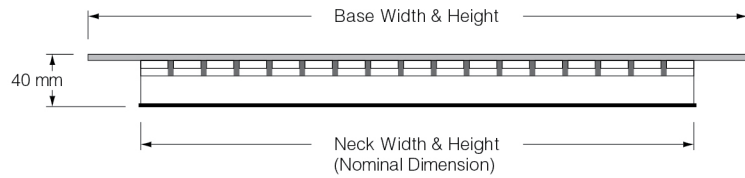
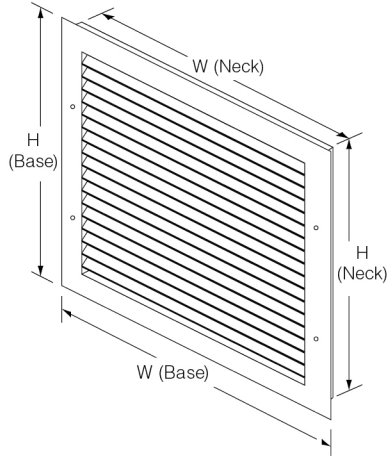
- Neat, clean and pleasant appearance to meet requirement.
- Galvanised Steel construction offers strength and rigidity while durability and lightness in weight for aluminium construction are extra advantages to consider.
- Minimum 45° blade angle designed to ensure visual privacy.
- Available in horizontal aligned or continuous line construction to enhance and complement architectural designs.



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Model RAG-FB

## PHYSICAL DIMENSION



Code	Nominal Area sq.m.	Nominal Grille Dimension mm x mm			
A	0.02	250 x 100			
		200 x 100			
B	0.03	350 x 100	250 x 150		
		300 x 100			
C	0.04	450 x 100	300 x 150		
		400 x 100	200 x 200		
D	0.05	500 x 100	250 x 200		
		350 x 150			
E	0.06	600 x 100	300 x 200		
		400 x 150	250 x 250		
F	0.07	750 x 100	500 x 150	350 x 200	
		700 x 100	450 x 150	300 x 250	
G	0.08	800 x 100	600 x 150	500 x 200	400 x 200
		750 x 100	550 x 150	450 x 200	400 x 250
H	0.10	1200 x 100	600 x 150	500 x 250	350 x 250
		750 x 150	600 x 200	450 x 250	400 x 300
I	0.13	1500 x 100	750 x 200	450 x 300	
		900 x 150	600 x 250	400 x 350	
J	0.17	1200 x 150	750 x 250	600 x 300	450 x 400
		900 x 200	700 x 250	500 x 350	400 x 400
K	0.20	1500 x 150	900 x 250	600 x 350	450 x 450
		1000 x 200	750 x 300	500 x 400	
L	0.25	1800 x 150	1000 x 300	800 x 300	600 x 400
		1200 x 200	900 x 300	650 x 350	500 x 450
M	0.30	1500 x 200	1200 x 300	750 x 400	900 x 450
		1200 x 250	900 x 400	900 x 450	600 x 500
N	0.45	1800 x 250	1200 x 400	900 x 500	
		1500 x 300	1000 x 450	750 x 600	
O	0.50	1800 x 300	1200 x 450	900 x 600	
		1500 x 350	1000 x 500		

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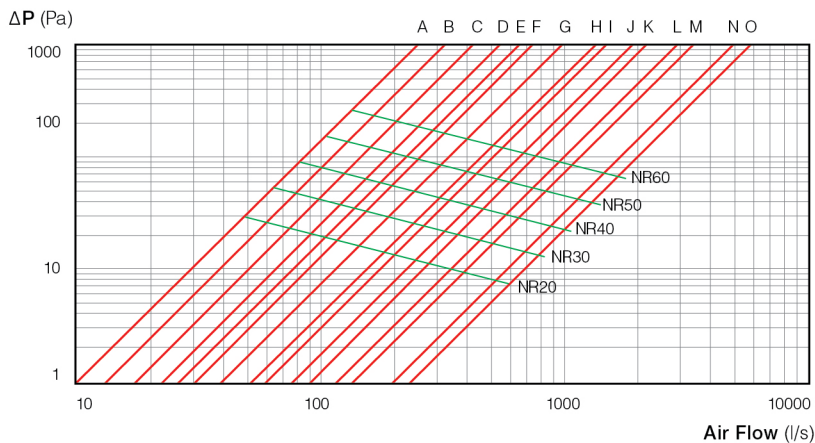
## PERFORMANCE DATA

Neck Velocity, m/s			1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5
Nominal Area sq.m.	Negative $\Delta P$ Pa		5	14	25	38	54	75	98	122	152	183
		A	.02	I/s	21	31	42	52	62	73	83	91
		NR	<10	10	18	23	30	35	42	47	50	53
B	.03	I/s	28	43	57	71	85	99	113	128	142	156
		NR	<10	12	19	27	33	39	45	48	53	55
C	.04	I/s	37	55	74	92	110	129	147	166	184	200
		NR	<10	13	22	29	35	41	47	50	55	58
D	.05	I/s	49	74	98	123	147	172	196	217	245	270
		NR	<10	15	23	31	37	44	48	52	56	60
E	.06	I/s	57	85	113	147	170	198	227	255	283	302
		NR	<10	16	24	32	39	45	50	54	58	61
F	.07	I/s	65	100	147	163	195	228	261	293	326	358
		NR	<10	17	26	33	40	46	51	55	60	62
G	.08	I/s	85	147	180	212	255	297	340	382	415	467
		NR	<10	18	28	35	42	48	52	57	61	64
H	.10	I/s	112	172	233	278	334	390	445	498	557	613
		NR	<10	19	30	38	45	51	55	60	63	65
I	.13	I/s	137	190	263	316	389	443	506	569	632	696
		NR	<10	20	31	39	46	51	56	60	64	67
J	.17	I/s	170	255	340	405	500	595	660	725	820	904
		NR	<10	22	33	40	48	53	58	63	67	69
K	.20	I/s	196	298	397	491	589	687	775	863	982	1180
		NR	10	23	34	41	49	55	59	64	68	70
L	.25	I/s	262	394	525	636	787	895	1000	1181	1312	1443
		NR	11	25	36	44	50	57	61	65	69	71
M	.30	I/s	294	440	597	734	881	1027	1274	1321	1468	1614
		NR	13	26	38	45	52	58	63	66	70	72
N	.45	I/s	439	658	888	1097	1317	1536	1756	1975	2194	2414
		NR	14	28	41	49	55	61	65	69	72	74
O	.50	I/s	527	790	1173	1317	1580	1843	1997	2370	2633	2797
		NR	16	30	43	50	56	62	66	70	73	75

## SELECTION NOMOGRAPH

MODEL RAG-FB

AIR FLOW vs PRESSURE LOSS vs NR



## SELECTION GUIDE

1. Select from horizontal axis the required air flow, plot a vertical line up.
2. Select the required pressure drop by plotting a horizontal line to cross-section with the plotted air flow line.
3. The cross-section point will determine the desired diffuser with the closest Neck Size, Throw and NR.