



الرمح الذهبي لمقاولات تركيب وحدات التكييف ذ.م.م
AL RIMH AL DAHABI A/C UNITS FIX. CONT. LLC



Company Profile

AL RIMH AL DAHABI A/C UNITS FIX. CONT. LLC had been established in 2015 as an industrial firm producing all Types of HVAC Products. Control to end up with high quality products which distinguishes our product among the others.

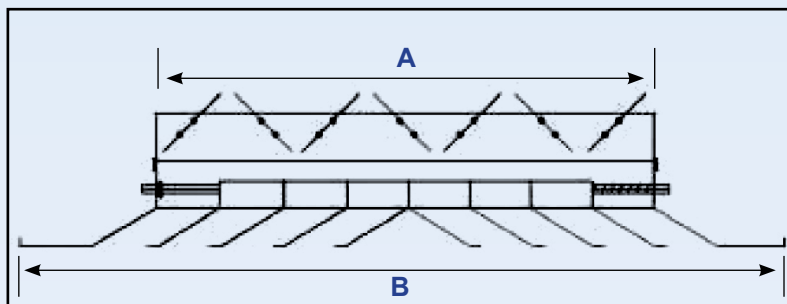


Managing Director

Our location in the Sharjah gives us a better opportunity to serve our customer faster & on call service.

We are located at Sharjah - Al Nahda Industrial Area # 1,
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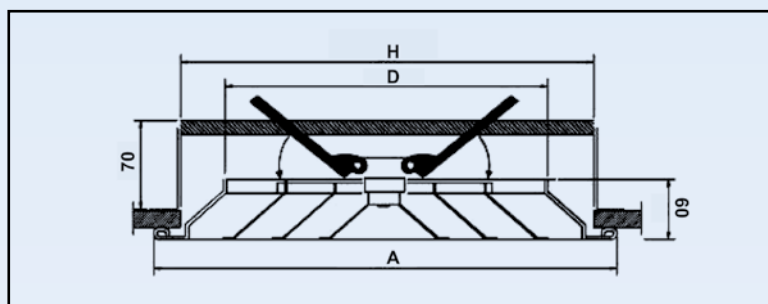




Standard sizes AxA(mm)	BxB(mm)	Effective area(m ²)	Air volume(m ³ /h)	Throw Max. (m)
150x150	295x295	0.014	119	0.90
225x225	370x370	0.028	240	1.40
300x300	445x445	0.049	400	1.70
375x375	520x520	0.069	600	2.00
450x450	595x595	0.097	840	2.40
525x525	670x670	0.130	1120	2.55
600x600	745x745	0.169	1460	2.70

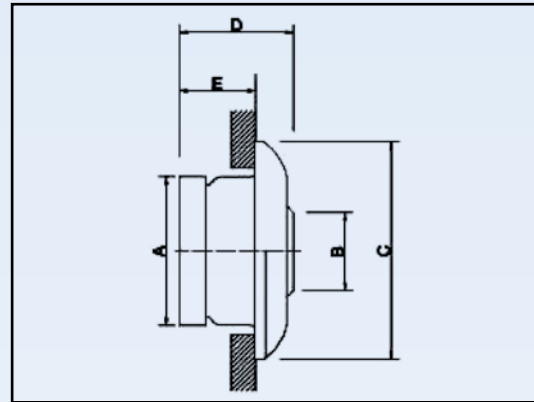
Technical data

			AIR VOLUME(m3/h)												
Size (mm)	Effective Area(m2)		100	200	300	400	500	600	700	800	900	1000	2000	3000	4000
150x150	0.0138	Vk(m/s)	2	4	6.4	-	-	-	-	-	-	-	-	-	-
		Pt(pa)	3.4	9.6	24.7	-	-	-	-	-	-	-	-	-	-
		Lt(m)	-	1.6	2.4	-	-	-	-	-	-	-	-	-	-
		NR	-	23	33	-	-	-	-	-	-	-	-	-	-
225x225	0.0277	Vk(m/s)	-	2	2.9	4	4.8	-	-	-	-	-	-	-	-
		Pt(pa)	-	2.4	4.7	9.6	13.9	-	-	-	-	-	-	-	-
		Lt(m)	-	1.1	1.7	2.3	2.5	-	-	-	-	-	-	-	-
		NR	-	-	20	25	30	-	-	-	-	-	-	-	-
300x300	0.0486	Vk(m/s)	-	-	1.8	2.4	2.8	3.5	4	4.7	5.4	6	-	-	-
		Pt(pa)	-	-	2	3.5	4.7	7.5	9.6	13	17.6	21.7	-	-	-
		Lt(m)	-	-	1.3	1.7	2	2.45	2.5	3.1	3.4	4	-	-	-
		NR	-	-	-	16	21	25	28	31	34	36	-	-	-
375x375	0.0694	Vk(m/s)	-	-	-	1.6	2	2.4	2.7	3	3.4	4	-	-	-
		Pt(pa)	-	-	-	1.5	2.4	3.5	4.7	5.4	7	9.6	-	-	-
		Lt(m)	-	-	-	1.5	1.7	2.1	2.4	2.5	2.7	3.2	-	-	-
		NR	-	-	-	-	15	1.8	22	24	26	37	-	-	-
450x450	0.0972	Vk(m/s)	-	-	-	-	-	1.7	2	2.3	2.1	2.7	5.5	-	-
		Pt(pa)	-	-	-	-	-	1.5	2.4	3.2	3.5	4.7	19	-	-
		Lt(m)	-	-	-	-	-	1.7	2.3	2.3	2.5	2.6	5	-	-
		NR	-	-	-	-	-	-	16	18	21	24	37	-	-
525x525	0.1296	Vk(m/s)	-	-	-	-	-	-	-	1.8	2	2.2	4.2	6.4	-
		Pt(pa)	-	-	-	-	-	-	-	2	2.4	2.9	10.6	24.7	-
		Lt(m)	-	-	-	-	-	-	-	2	2.3	2.5	4.3	7	-
		NR	-	-	-	-	-	-	-	14	16	18	33	42	-
600x600	0.1692	Vk(m/s)	-	-	-	-	-	-	-	-	-	1.6	3	4.7	-
		Pt(pa)	-	-	-	-	-	-	-	-	-	1.5	5.4	13	-
		Lt(m)	-	-	-	-	-	-	-	-	-	2.3	4	6.5	-
		NR	-	-	-	-	-	-	-	-	-	15	28	36	-



Size(mm)	Inner Dimension ØD(mm)	Outer Dimension ØA(mm)	Air volume (m3/h)	Throw Max. (m)
150	145	250	135	0.8
200	195	300	240	1.3
250	245	350	360	1.55
300	295	400	500	1.8
350	345	450	666	2.2
400	395	500	810	2.4
450	445	550	1050	2.7
500	495	600	1215	2.9

RCD-VA, VB, VC			AIR VOLUME(m3/h)												
Size (mm)	Effective Area(m2)		150	200	300	400	500	600	700	800	900	1000	1400	2000	2500
150	0.011	Vk(m/s)	3.8	5.2	7.8	-	-	-	-	-	-	-	-	-	-
		Pt(pa)	15	24	65	-	-	-	-	-	-	-	-	-	-
		Lt(m)	2.2	2.8	4.5	-	-	-	-	-	-	-	-	-	-
		NR	-	28	48	-	-	-	-	-	-	-	-	-	-
200	0.020	Vk(m/s)	2.3	2.8	4.5	6.0	7.4	-	-	-	-	-	-	-	-
		Pt(pa)	5.4	7.9	20	30	60	-	-	-	-	-	-	-	-
		Lt(m)	1.6	2.2	3.4	4.5	4.5	-	-	-	-	-	-	-	-
		NR	-	-	27	36	48	-	-	-	-	-	-	-	-
250	0.031	Vk(m/s)	-	-	2.8	3.8	4.6	5.5	6.5	7.5	-	-	-	-	-
		Pt(pa)	-	-	7.9	16	21	26	41	62	-	-	-	-	-
		Lt(m)	-	-	2.7	3.1	4.5	5.4	6.2	4.5	-	-	-	-	-
		NR	-	-	-	-	30	36	42	48	-	-	-	-	-
300	0.046	Vk(m/s)	-	-	-	2.5	3.1	3.7	4.3	5.0	5.5	6.2	-	-	-
		Pt(pa)	-	-	-	6.5	9	15	19	22	26	34	-	-	-
		Lt(m)	-	-	-	2.8	3.6	4.7	5.3	6	7	6.2	-	-	-
		NR	-	-	-	-	-	25	30	35	38	42	-	-	-
350	0.055	Vk(m/s)	-	-	-	2.0	2.5	3.0	3.5	4.0	4.5	5.0	7.0	-	-
		Pt(pa)	-	-	-	4.2	6.5	8	13	17	20	22	51	-	-
		Lt(m)	-	-	-	2.6	3.2	3.7	4.7	5.2	6	7	9.8	-	-
		NR	-	-	-	-	-	-	24	27	33	36	47	-	-
400	0.070	Vk(m/s)	-	-	-	-	2.0	2.4	2.8	3.3	3.6	4.0	5.5	-	-
		Pt(pa)	-	-	-	-	4.2	6.1	7.9	11	14	17	26	-	-
		Lt(m)	-	-	-	-	2.8	3.4	4.2	4.7	5.2	6	9	-	-
		NR	-	-	-	-	-	-	-	23	26	30	42	-	-
450	0.089	Vk(m/s)	-	-	-	-	-	-	2.3	-	2.8	3.1	4.2	6.0	-
		Pt(pa)	-	-	-	-	-	-	5.4	2.4	7.9	9	18	30	7.8
		Lt(m)	-	-	-	-	-	-	3.4	6.1	4.6	5.1	8	10.5	65
		NR	-	-	-	-	-	-	-	4.2	-	23	34	46	13
500	0.108	Vk(m/s)	-	-	-	-	-	-	-	2.0	-	2.5	3.6	5.0	6.2
		Pt(pa)	-	-	-	-	-	-	-	4.2	2.3	6.5	14	22	34
		Lt(m)	-	-	-	-	-	-	-	3.6	5.2	4.6	7	10	12
		NR	-	-	-	-	-	-	-	-	4.2	-	28	41	48

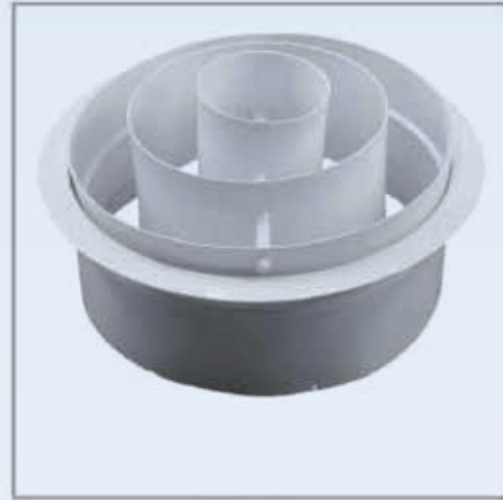


Jet Nozzle Size Data

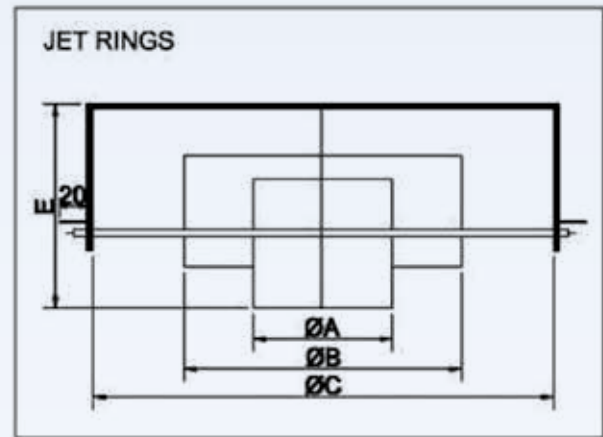
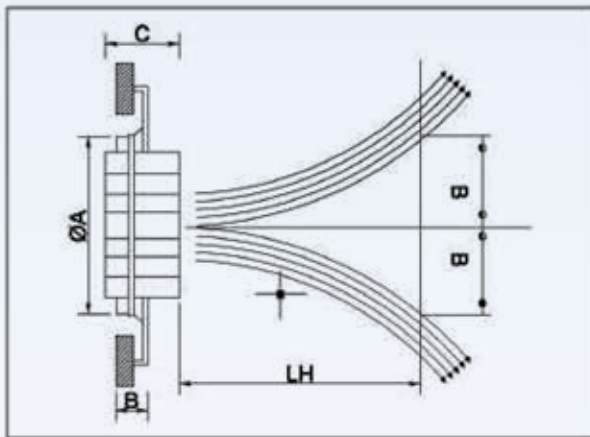
size(mm)	A	B	C	D	E
125	120	61	172	96	72
150	145	75	200	113	83
160	155	75	200	113	83
200	195	105	265	142	107
250	245	128	314	179	135
315	310	165	390	230	174
350	345	185	433	251	186
400	395	210	495	285	218
450	445	235	559	316	235
500	495	256	618	350	259
630	625	323	779	440	335

Size(mm)	Effective area(m2)	Air volume(m3/h)	Pressure lost (Pa)	Noise dB(A)	Throw (m)
160	0.005	100	18.5	26	10.8
		125	22.8	30	13.5
		160	56	34	17.4
		200	82	39	22.2
		250	116	43	27.3
200	0.009	160	10	30	12.7
		200	21	33	16
		250	54	38	20
		320	82	41	25.7
		400	116	45	32.2
250	0.0145	250	11	29	12.9
		320	22	34	16.9
		400	55	39	25.2
		500	81	42	31.5
		630	116	46	37.5
315	0.023	400	12.8	26	16
		500	21	34	20
		630	46	38	25
		800	68	42	30.2
		1000	94	46	37
400	0.0415	630	8	32	17.6
		800	17	36	22.2
		1000	31	39	28.4
		1250	58	43	34
		1600	80	46	40
500	0.0642	1000	5	30	18.3
		1250	12	36	22.8
		1600	28.8	41	28.9
		2000	51	44	34.8
		2500	70	50	41.2
630	0.127	2000	6	36	17.5
		2500	12.5	41	21.8
		3200	29.4	43	27.6
		4000	52	46	35.4
		5000	78	49	44.3

Data were chosen when the air velocity is 2.5m/s and the velocity at throw distance is 0.25m/s.



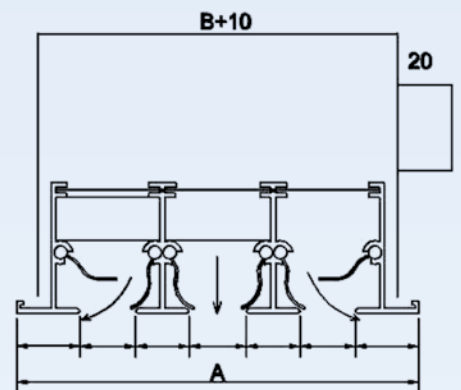
- * They are used for long throw conditions with a 60° rotation angle.
- * They ensure a high air current in reduced pressure loss.
- * JD has an inner core with a 360° horizontal rotation angle.
- * They can be multi design with a panel.
- * Material: They are made of aluminum sheet.
- * Mounting: Ceiling or wall mounting by screws, or collected into a circular duct.
- * Finishing: White powder coating Ral9016, Ral9010, or customized color.



JD-VC Selection Table (JD-VC1/JD-VC2)

A	B	C _(JD-VC1)	C _(JD-VC2)
150	50	60	140
200	50	60	140
250	50	60	140
300	50	60	140
350	50	60	140
400	50	60	140

With Plenum



SIZE'S OF SLOT DIFFUSER

NO OF SLOT	S-16		S-20		S-25	
	NECK SIZE (mm)	OUTER SIZE (mm)	NECK SIZE (mm)	OUTER SIZE (mm)	NECK SIZE (mm)	OUTER SIZE (mm)
1 SLOT	35	75	38	78	45	82
2 SLOT	70	105	80	115	90	125
3 SLOT	104	140	115	153	132	170
4 SLOT	140	173	154	190	172	202
5 SLOT	172	210	191	231	214	248
6 SLOT	205	243	230	265	255	290
7 SLOT	235	272	263	300	298	336



LINEAR SLOT DIFFUSER

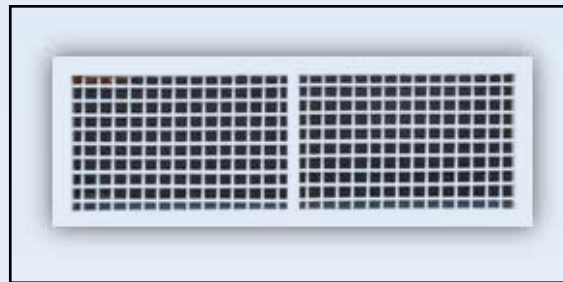
Performance Data (20mm slot)

1 slot	Airflow(m ³ /h)	33	66	106	140	173	206	240	279	312
	Static pressure	0.10	0.41	0.94	1.65	2.58	3.71	5.05	6.60	8.38
	NC			14	20	26	30	34	37	40
	Throw(m)	1	2	3	4	4	5	5	5	5
2slots	Airflow(m ³ /h)	67	139	205	278	348	413	485	552	625
	Static pressure	0.10	0.41	0.94	1.65	2.58	3.71	5.05	6.60	8.38
	NC			17	23	29	33	37	40	43
	Throw(m)	1	3	4	5	6	6	7	7	8
3slots	Airflow(m ³ /h)	105	205	312	415	520	625	725	830	932
	Static pressure	0.10	0.41	0.94	1.65	2.58	3.71	5.05	6.60	8.38
	NC			18	25	31	35	39	42	45
	Throw(m)	2	3	5	6	7	8	9	9	10
4slots	Airflow(m ³ /h)	140	278	413	550	692	830	970	1105	1239
	Static pressure	0.10	0.41	0.94	1.65	2.58	3.71	5.05	6.60	8.38
	NC			20	26	32	36	40	43	46
	Throw(m)	2	4	6	7	8	9	10	10	11
5slots	Airflow(m ³ /h)	173	345	520	692	865	1038	1211	1385	1558
	Static pressure	0.10	0.41	0.94	1.65	2.58	3.71	5.05	6.60	8.38
	NC			21	27	33	37	41	44	47
	Throw(m)	2	4	6	8	9	10	11	12	12
6slots	Airflow(m ³ /h)	206	413	625	831	1038	1244	1451	1663	1869
	Static pressure	0.10	0.41	0.94	1.65	2.58	3.71	5.05	6.60	8.38
	NC			21	28	34	38	42	45	48
	Throw(m)	2	5	7	9	10	11	12	13	14

Performance Data (25mm slot)

1 slot	Airflow(m ³ /h)	39	73	112	145	183	222	256	296	329
	Static pressure	0.10	0.36	0.81	1.45	2.26	3.25	4.42	5.79	7.32
	NC			13	20	26	30	34	37	40
	Throw(m)	1	2	4	4	5	5	5	6	6
2slots	Airflow(m ³ /h)	73	145	223	296	368	441	513	590	665
	Static pressure	0.10	0.36	0.81	1.45	2.26	3.25	4.42	5.79	7.32
	NC			16	23	29	33	37	40	43
	Throw(m)	2	3	5	6	7	7	8	9	9
3slots	Airflow(m ³ /h)	112	223	329	440	550	664	776	881	990
	Static pressure	0.10	0.36	0.81	1.45	2.26	3.25	4.42	5.79	7.32
	NC			18	25	30	35	39	42	45
	Throw(m)	2	4	6	7	8	9	10	10	11
4slots	Airflow(m ³ /h)	145	296	440	590	738	881	1032	1177	1328
	Static pressure	0.10	0.36	0.81	1.45	2.26	3.25	4.42	5.79	7.32
	NC			19	26	32	36	40	43	46
	Throw(m)	2	5	7	9	9	10	11	12	13
5slots	Airflow(m ³ /h)	183	368	551	736	920	1105	1289	1473	1658
	Static pressure	0.10	0.36	0.81	1.45	2.26	3.25	4.42	5.79	7.32
	NC			20	27	33	37	41	44	47
	Throw(m)	3	5	8	9	10	12	12	13	14
6slots	Airflow(m ³ /h)	222	440	663	881	1105	1328	1546	1768	1986
	Static pressure	0.10	0.36	0.81	1.45	2.26	3.25	4.42	5.79	7.32
	NC			21	28	33	38	42	45	48
	Throw(m)	3	6	9	10	12	12	14	15	16

DOUBLE DEFLECTION GRILL (ADJUSTABLE)



LxH	100x	200			250			300			350			400		
M3/H	Deflection.	0	22.5	45	0	22.5	45	0	22.5	45	0	22.5	45	0	22.5	45
100	Vel	2.36	2.62	3.31	1.85	2.06	2.60	1.52	1.69	2.14	1.40	1.44	1.82	1.13	1.26	1.58
	P	0.33	0.41	0.66	0.21	0.25	0.41	0.14	0.17	0.28	0.11	0.12	0.20	0.08	0.09	0.15
	T	3.45	2.86	2.46	3.05	2.52	2.18	2.77	2.30	1.97	2.56	2.12	1.82	2.38	1.97	1.70
	dbA	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
200	Vel	4.72	5.24	6.63	3.70	4.12	5.20	3.05	3.39	4.28	2.59	2.88	3.64	2.25	2.50	3.16
	P	1.34	1.65	2.63	0.82	1.02	1.62	0.56	0.69	1.10	0.40	0.50	0.79	0.30	0.38	0.60
	T	6.90	5.71	4.91	6.11	5.06	4.35	5.55	4.59	3.95	5.11	4.23	3.64	4.77	3.95	3.39
	dbA	18	19	20	16	17	18	15	15	15	17	15	15	15	15	15
300	Vel	7.08	7.87	9.94	5.56	6.18	7.80	4.57	5.08	6.42	3.89	4.32	5.46	3.38	3.76	4.75
	P	3.00	3.71	5.93	1.85	2.29	3.65	1.26	1.55	2.48	0.91	1.12	1.79	0.69	0.85	1.35
	T	10.35	8.75	7.37	9.17	7.59	6.53	8.32	6.89	5.92	7.67	6.35	5.46	7.15	5.92	5.09
	dbA	25	26	28	23	24	26	22	23	25	20	21	23	19	20	22
400	Vel	9.44	10.49	13.25	7.41	8.23	10.40	6.10	6.78	8.57	5.18	5.76	7.28	4.51	5.01	6.33
	P	5.34	6.60	10.53	3.29	4.07	6.49	2.22	2.78	4.40	1.60	1.99	3.19	1.22	1.51	2.41
	T	13.78	11.43	9.83	12.22	10.12	8.71	11.09	9.18	7.90	10.22	8.46	7.28	9.53	7.98	6.78
	dbA	31	32	33	29	30	32	27	28	30	26	27	29	24	25	28
500	Vel	11.79	13.11	16.56	9.26	10.29	13.01	7.62	8.47	10.71	6.48	7.20	9.10	5.63	6.26	7.91
	P	8.35	10.31	16.46	5.15	6.36	10.15	3.49	4.31	6.88	2.52	3.11	4.97	1.90	2.35	3.75
	T	17.24	14.28	12.28	15.29	12.66	10.89	13.86	11.48	9.87	12.78	10.58	9.10	11.92	9.86	8.49
	dbA	36	36	38	34	35	36	32	33	35	30	31	34	29	30	32
600	Vel	14.15	15.73	19.88	11.11	12.35	15.61	9.15	10.17	12.85	7.77	8.64	10.92	6.76	7.51	9.49
	P	12.02	14.85	23.70	7.41	9.15	14.62	5.02	6.20	9.90	3.63	4.48	7.15	2.74	3.39	5.40
	T	20.69	17.13	14.74	18.34	15.18	13.06	16.65	13.77	11.85	15.34	12.70	10.92	14.31	11.85	10.18
	dbA	40	40	42	38	39	40	36	37	39	34	35	37	33	34	36
700	Vel	16.51	18.35	23.19	12.97	14.41	18.21	10.67	11.86	14.99	9.07	10.08	12.74	7.89	8.76	11.07
	P	16.36	20.21	32.26	10.09	12.46	19.89	6.84	8.44	13.48	4.94	6.10	9.73	3.73	4.61	7.36
	T	24.14	19.99	17.19	21.39	17.71	15.24	19.41	16.07	13.82	17.89	14.81	12.74	16.68	13.81	11.88
	dbA	43	44	45	41	42	44	39	40	42	38	39	41	36	37	40
800	Vel	18.87	20.98	26.50	14.82	16.47	20.81	12.20	13.56	17.13	10.37	11.52	14.56	9.01	10.02	12.66
	P	21.37	26.39	41.15	13.18	16.28	25.98	8.93	11.03	17.61	6.45	7.96	12.71	4.87	6.02	9.61
	T										20.45	18.93	14.56	19.06	15.78	13.58
	dbA										41	42	44	39	40	43
900	Vel										11.66	12.96	16.38	10.15	11.27	14.25
	P										8.16	10.08	16.09	6.17	7.62	12.16
	T										23.00	19.04	16.38	21.45	17.76	15.28
	dbA										43	44	47	42	43	45
1000	Vel										12.96	14.40	18.20	11.26	12.52	15.83
	P										10.07	12.44	19.87	7.61	9.40	15.01
	T										25.56	21.16	18.20	23.83	19.73	16.97
	dbA										46	47	49	44	45	48

LxH	100x	200			250			300			350			400		
M3/H	Deflection.	0	22.5	45	0	22.5	45	0	22.5	45	0	22.5	45	0	22.5	45
100	Vel	2.36	2.62	3.31	1.85	2.06	2.60	1.52	1.69	2.14	1.40	1.44	1.82	1.13	1.26	1.58
	P	0.33	0.41	0.66	0.21	0.25	0.41	0.14	0.17	0.28	0.11	0.12	0.20	0.08	0.09	0.15
	T	3.45	2.86	2.46	3.05	2.52	2.18	2.77	2.30	1.97	2.56	2.12	1.82	2.38	1.97	1.70
	dbA	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
200	Vel	4.72	5.24	6.63	3.70	4.12	5.20	3.05	3.39	4.28	2.59	2.88	3.64	2.25	2.50	3.16
	P	1.34	1.65	2.63	0.82	1.02	1.62	0.56	0.69	1.10	0.40	0.50	0.79	0.30	0.38	0.60
	T	6.90	5.71	4.91	6.11	5.06	4.35	5.55	4.59	3.95	5.11	4.23	3.64	4.77	3.95	3.39
	dbA	18	19	20	16	17	18	15	15	15	17	15	15	15	15	15
300	Vel	7.08	7.87	9.94	5.56	6.18	7.80	4.57	5.08	6.42	3.89	4.32	5.46	3.38	3.76	4.75
	P	3.00	3.71	5.93	1.85	2.29	3.65	1.26	1.55	2.48	0.91	1.12	1.79	0.69	0.85	1.35
	T	10.35	8.75	7.37	9.17	7.59	6.53	8.32	6.89	5.92	7.67	6.35	5.46	7.15	5.92	5.09
	dbA	25	26	28	23	24	26	22	23	25	20	21	23	19	20	22
400	Vel	9.44	10.49	13.25	7.41	8.23	10.40	6.10	6.78	8.57	5.18	5.76	7.28	4.51	5.01	6.33
	P	5.34	6.60	10.53	3.29	4.07	6.49	2.22	2.78	4.40	1.60	1.99	3.19	1.22	1.51	2.41
	T	13.78	11.43	9.83	12.22	10.12	8.71	11.09	9.18	7.90	10.22	8.46	7.28	9.53	7.98	6.78
	dbA	31	32	33	29	30	32	27	28	30	26	27	29	24	25	28
500	Vel	11.79	13.11	16.56	9.26	10.29	13.01	7.62	8.47	10.71	6.48	7.20	9.10	5.63	6.26	7.91
	P	8.35	10.31	16.46	5.15	6.36	10.15	3.49	4.31	6.88	2.52	3.11	4.97	1.90	2.35	3.75
	T	17.24	14.28	12.28	15.29	12.66	10.89	13.86	11.48	9.87	12.78	10.58	9.10	11.92	9.86	8.49
	dbA	36	36	38	34	35	36	32	33	35	30	31	34	29	30	32
600	Vel	14.15	15.73	19.88	11.11	12.35	15.61	9.15	10.17	12.85	7.77	8.64	10.92	6.76	7.51	9.49
	P	12.02	14.85	23.70	7.41	9.15	14.62	5.02	6.20	9.90	3.63	4.48	7.15	2.74	3.39	5.40
	T	20.69	17.13	14.74	18.34	15.18	13.06	16.65	13.77	11.85	15.34	12.70	10.92	14.31	11.85	10.18
	dbA	40	40	42	38	39	40	36	37	39	34	35	37	33	34	36
700	Vel	16.51	18.35	23.19	12.97	14.41	18.21	10.67	11.86	14.99	9.07	10.08	12.74	7.89	8.76	11.07
	P	16.36	20.21	32.26	10.09	12.46	19.89	6.84	8.44	13.48	4.94	6.10	9.73	3.73	4.61	7.36
	T	24.14	19.99	17.19	21.39	17.71	15.24	19.41	16.07	13.82	17.89	14.81	12.74	16.68	13.81	11.88
	dbA	43	44	45	41	42	44	39	40	42	38	39	41	36	37	40
800	Vel	18.87	20.98	26.50	14.82	16.47	20.81	12.20	13.56	17.13	10.37	11.52	14.56	9.01	10.02	12.66
	P	21.37	26.39	41.15	13.18	16.28	25.98	8.93	11.03	17.61	6.45	7.96	12.71	4.87	6.02	9.61
	T										20.45	18.93	14.56	19.06	15.78	13.58
	dbA										41	42	44	39	40	43
900	Vel										11.66	12.96	16.38	10.15	11.27	14.25
	P										8.16	10.08	16.09	6.17	7.62	12.16
	T										23.00	19.04	16.38	21.45	17.76	15.28
	dbA										43	44	47	42	43	45
1000	Vel										12.96	14.40	18.20	11.26	12.52	15.83
	P										10.07	12.44	19.87	7.61	9.40	15.01
	T										25.56	21.16	18.20	23.83	19.73	16.97
	dbA										46	47	49	44	45	48

LxH	200x	200			250			300			350			400		
M3/H	Deflection.	0	22.5	45	0	22.5	45	0	22.5	45	0	22.5	45	0	22.5	45
100	Vel	1.07	1.19	1.50	0.84	0.93	1.18	0.69	0.77	0.97	0.59	0.65	0.82	0.51	0.57	0.72
	P	0.07	0.08	0.14	0.04	0.05	0.08	0.03	0.04	0.06	0.02	0.03	0.04	0.02	0.02	0.03
	T	2.32	1.92	1.65	2.06	1.70	1.46	1.87	1.54	1.33	1.72	1.42	1.23	1.60	1.33	1.14
	dbA	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
200	Vel	2.14	2.38	3.00	1.68	1.86	2.36	1.38	1.54	1.94	1.17	1.30	1.65	1.03	1.13	1.43
	P	0.27	0.34	0.54	0.17	0.21	0.33	0.11	0.14	0.23	0.08	0.10	0.16	0.06	0.08	0.12
	T	4.64	3.84	3.31	4.11	3.41	2.93	3.73	3.09	2.66	3.44	2.85	2.45	3.21	2.66	2.28
	dbA	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
300	Vel	3.21	3.56	3.50	2.52	2.81	3.53	2.07	2.30	2.91	1.76	1.96	2.47	1.53	1.70	2.15
	P	0.62	0.76	1.22	0.38	0.47	0.75	0.26	0.32	0.51	0.19	0.23	0.37	0.14	0.17	0.28
	T	6.96	5.76	4.96	6.18	5.11	4.39	5.60	4.63	3.99	5.16	4.27	3.68	4.81	3.98	3.43
	dbA	18	19	22	15	16	19	15	15	17	15	15	15	15	15	15
400	Vel	4.27	4.75	6.00	3.36	3.73	4.71	2.76	3.07	3.88	2.35	2.61	3.30	2.03	2.28	2.87
	P	1.10	1.35	2.16	0.68	0.83	1.33	0.46	0.57	0.90	0.33	0.41	0.65	0.25	0.31	0.49
	T	9.28	7.69	6.61	8.23	6.81	5.86	7.46	6.18	5.32	6.88	5.70	4.90	6.42	5.33	4.57
	dbA	24	25	27	21	22	25	18	20	23	16	17	21	15	15	19
500	Vel	5.34	5.93	7.50	4.19	4.66	5.89	3.45	3.84	4.85	2.93	3.26	4.12	2.55	2.83	3.58
	P	1.17	2.12	3.38	1.06	1.30	2.08	0.72	0.88	1.41	0.53	0.64	1.02	0.39	0.48	0.77
	T	11.60	9.61	8.27	10.28	8.51	7.32	9.33	7.72	6.65	8.60	7.12	6.13	8.02	6.64	5.71
	dbA	28	30	32	25	27	29	23	24	27	21	22	25	18	20	23
600	Vel	6.41	7.13	9.00	5.03	5.59	7.08	4.14	4.61	5.82	3.53	3.91	4.95	3.06	3.40	4.30
	P	2.48	3.05	4.86	1.52	1.88	3.00	1.03	1.28	2.03	0.74	0.92	1.47	0.56	0.69	1.11
	T	13.93	11.53	9.92	12.33	10.22	8.79	1.20	9.27	7.97	10.32	8.54	7.35	9.62	7.97	6.85
	dbA	32	33	36	29	31	33	27	28	31	24	26	29	22	24	27
700	Vel	7.48	8.31	10.50	5.87	6.53	8.25	4.83	5.37	6.79	4.11	4.57	5.57	3.58	3.98	5.02
	P	3.36	4.15	6.62	2.08	2.56	4.08	1.40	1.73	2.77	1.01	1.25	2.00	0.77	0.95	1.51
	T	16.25	13.45	11.58	14.40	11.93	10.25	3.06	10.81	9.30	12.05	9.98	8.58	11.23	9.29	8.00
	dbA	36	37	39	33	34	37	30	32	35	28	29	33	26	27	31
800	Vel	8.55	9.50	12.00	6.71	7.46	9.43	5.53	6.14	7.76	4.70	5.22	6.59	4.08	5.54	5.73
	P	4.38	5.42	8.65	2.70	3.33	5.33	1.84	2.26	3.61	1.32	1.63	2.61	1.00	1.23	1.97
	T	18.57	15.37	13.22	16.45	13.62	11.72	4.93	12.36	10.63	13.76	11.39	9.80	12.83	10.62	9.14
	dbA	39	40	42	36	37	40	33	35	38	31	32	36	29	30	34
900	Vel	9.62	10.69	13.50	7.55	8.39	10.60	6.22	6.90	8.74	5.38	5.88	7.42	4.59	5.10	6.46
	P	5.55	6.85	10.95	3.43	4.23	6.75	3.32	2.86	4.57	1.68	2.08	3.30	1.28	1.56	2.50
	T	20.89	17.29	14.88	18.51	15.32	13.18	6.79	12.70	11.96	15.48	12.83	11.03	14.43	11.95	10.28
	dbA	41	42	45	38	40	42	36	37	40	34	35	38	31	33	36
1000	Vel	10.68	11.88	15.00	8.39	9.32	11.78	6.91	7.68	9.70	5.88	6.52	8.25	5.10	5.68	7.18
	P	6.85	8.46	13.51	4.22	5.22	8.33	2.87	3.55	5.65	2.08	2.55	4.08	1.56	1.94	3.08
	T	23.21	19.21	16.53	20.57	17.05	14.65	8.66	15.45	13.29	17.20	14.25	12.25	16.05	13.28	11.43
	dbA	44	45	47	41	42	45	38	40	43	36	38	41	34	35	39
1200	Vel				10.08	11.19	14.15	8.29	9.21	11.64	7.05	7.83	9.89	6.12	6.81	8.60
	P				6.08	7.51	11.99	4.12	5.09	8.13	2.98	3.68	5.88	2.25	2.78	4.44
	T				24.68	20.43	17.58	12.39	19.54	15.95	20.64	17.09	14.70	19.25	15.94	13.71
	dbA				45	47	49	43	44	47	40	42	45	38	41	43

LxH	250x	200			250			300			350			400		
M3/H	Deflection.	0	22.5	45	0	22.5	45	0	22.5	45	0	22.5	45	0	22.5	45
100	Vel	0.66	0.73	0.93	0.54	0.60	0.76	0.46	0.51	0.65	0.40	0.45	0.56	0.35	0.39	0.50
	P	0.03	0.03	0.05	0.02	0.02	0.03	0.01	0.02	0.03	0.01	0.01	0.02	0.01	0.01	0.01
	T	1.82	1.51	1.30	1.65	1.38	1.18	1.52	1.26	1.09	1.42	1.18	1.01	1.35	1.11	0.95
	dbA	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
200	Vel	1.32	1.46	1.85	1.08	1.21	1.52	0.92	1.02	1.92	0.80	0.89	1.13	0.71	0.79	1.00
	P	0.10	0.13	0.21	0.07	0.09	0.14	0.05	0.06	0.10	0.04	0.05	0.08	0.03	0.04	0.06
	T	3.64	3.02	2.60	3.31	3.75	2.36	3.05	2.52	2.18	2.84	2.35	2.03	2.68	2.21	1.90
	dbA	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
300	Vel	1.98	2.20	2.78	1.63	1.81	2.28	1.38	1.55	1.95	1.20	1.33	1.69	1.06	1.18	1.49
	P	0.23	0.29	0.46	0.16	0.20	0.31	0.11	0.14	0.23	0.09	0.11	0.17	0.07	0.08	0.13
	T	5.47	4.53	3.89	4.96	4.11	3.53	4.58	3.79	3.26	4.26	3.53	3.05	4.01	3.32	2.86
	dbA	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
400	Vel	2.64	2.93	3.70	2.17	2.41	3.05	1.85	2.05	2.59	1.60	1.78	2.25	1.43	1.58	1.99
	P	0.42	0.51	0.82	0.28	0.35	0.56	0.20	0.25	0.40	0.15	0.19	0.30	0.13	0.15	0.24
	T	7.29	6.05	5.19	6.61	5.48	4.72	6.10	5.05	4.35	5.68	4.71	4.05	5.35	4.43	3.82
	dbA	18	19	22	15	16	20	15	15	17	15	15	15	15	15	15
500	Vel	3.29	3.66	4.63	2.71	3.01	3.81	2.30	2.56	3.25	2.00	2.23	2.81	1.77	1.98	2.48
	P	0.65	0.80	1.28	0.44	0.55	0.87	0.32	0.39	0.63	0.25	0.30	0.47	0.19	0.23	0.38
	T	9.11	7.55	6.49	8.28	6.85	5.89	7.63	6.31	5.42	7.11	5.88	5.06	6.68	5.53	4.76
	dbA	22	24	27	19	21	24	17	18	22	15	16	20	15	15	18
600	Vel	3.95	4.39	5.5	3.35	3.62	4.57	2.77	3.07	3.88	2.40	2.67	3.38	2.13	2.36	2.99
	P	0.95	1.16	1.85	0.64	0.78	1.25	0.46	0.57	0.90	0.35	0.43	0.68	0.27	0.34	0.53
	T	10.93	9.05	7.79	9.92	8.21	7.07	9.15	7.57	6.51	8.53	7.06	6.08	8.02	6.65	5.71
	dbA	26	28	31	23	25	28	21	22	26	18	20	24	16	18	22
700	Vel	4.61	5.13	6.48	3.80	4.22	5.33	3.23	3.59	4.53	2.81	3.12	3.95	2.48	2.76	3.48
	P	1.28	1.58	2.52	0.86	1.07	1.71	0.62	0.77	1.23	0.47	0.58	0.93	0.38	0.46	0.73
	T	12.76	10.56	9.09	11.58	9.58	8.25	10.67	8.83	7.60	9.95	8.25	7.09	9.36	7.75	6.66
	dbA	30	31	34	37	28	32	24	26	29	21	23	27	19	21	25
800	Vel	5.27	5.86	7.40	4.34	4.82	6.09	3.69	4.10	5.18	3.21	3.56	4.50	2.83	3.15	3.98
	P	1.67	2.06	3.29	1.13	1.40	2.23	0.82	1.01	1.61	0.62	0.76	1.22	0.48	0.60	0.95
	T	14.58	12.07	10.38	13.23	10.95	9.42	12.19	1.10	8.69	11.38	9.41	8.10	10.69	8.85	7.62
	dbA	33	34	37	30	31	35	27	29	32	24	26	30	22	24	28
900	Vel	5.93	6.59	8.33	4.88	5.43	6.85	4.15	4.61	5.82	3.61	4.01	5.06	3.19	3.54	4.48
	P	2.11	2.61	4.16	1.43	1.77	2.82	1.03	1.27	2.05	0.78	0.96	1.55	0.61	0.75	1.20
	T	16.40	13.58	11.68	14.88	12.32	10.60	13.72	11.36	9.77	12.79	10.59	9.11	12.03	9.96	8.57
	dbA	35	37	40	32	34	37	30	31	35	27	29	33	25	27	31
1000	Vel	6.59	7.32	9.25	5.42	6.03	7.62	4.61	5.12	6.48	4.01	4.45	5.63	3.55	3.95	4.98
	P	2.60	3.22	5.13	1.76	2.18	3.48	1.28	1.58	2.51	0.96	1.19	1.90	0.75	0.93	1.49
	T	18.22	15.09	12.98	16.54	13.69	11.78	15.24	12.62	10.86	14.21	11.77	10.12	13.37	11.07	9.52
	dbA	38	39	42	35	36	40	32	34	37	30	31	35	27	29	33
1200	Vel	7.91	8.79	11.10	6.51	7.23	9.14	5.53	6.15	7.77	4.81	5.34	6.75	4.25	4.73	5.98
	P	3.75	4.63	7.40	2.55	3.14	5.01	1.83	2.27	3.62	1.39	1.71	2.74	1.08	1.34	2.15
	T	21.87	18.11	15.58	19.84	16.43	14.13	18.29	15.14	13.03	17.05	14.12	12.15	16.04	13.28	11.42
	dbA	42	43	46	39	41	44	36	38	42	34	36	40	32	34	38

SINGLE DEFLECTION GRILLE

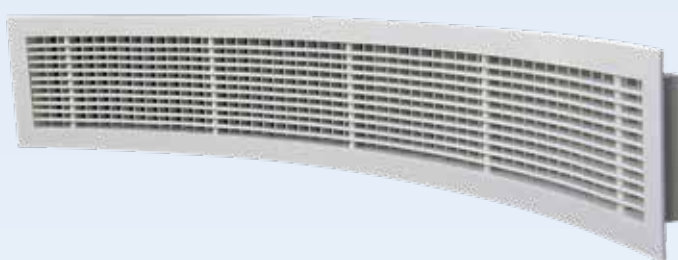
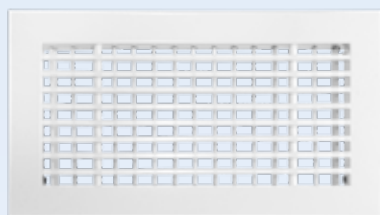


LxH	100x	200			250			300			350			400		
M3/H	Deflection.	0	22.5	45	0	22.5	45	0	22.5	45	0	22.5	45	0	22.5	45
100	Vel	2.36	2.62	3.31	1.85	2.06	2.60	1.52	1.69	2.14	1.40	1.44	1.82	1.13	1.26	1.58
	P	0.33	0.41	0.66	0.21	0.25	0.41	0.14	0.17	0.28	0.11	0.12	0.20	0.08	0.09	0.15
	T	3.45	2.86	2.46	3.05	2.52	2.18	2.77	2.30	1.97	2.56	2.12	1.82	2.38	1.97	1.70
	dbA	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
200	Vel	4.72	5.24	6.63	3.70	4.12	5.20	3.05	3.39	4.28	2.59	2.88	3.64	2.25	2.50	3.16
	P	1.34	1.65	2.63	0.82	1.02	1.62	0.56	0.69	1.10	0.40	0.50	0.79	0.30	0.38	0.60
	T	6.90	5.71	4.91	6.11	5.06	4.35	5.55	4.59	3.95	5.11	4.23	3.64	4.77	3.95	3.39
	dbA	18	19	20	16	17	18	15	15	15	17	15	15	15	15	15
300	Vel	7.08	7.87	9.94	5.56	6.18	7.80	4.57	5.08	6.42	3.89	4.32	5.46	3.38	3.76	4.75
	P	3.00	3.71	5.93	1.85	2.29	3.65	1.26	1.55	2.48	0.91	1.12	1.79	0.69	0.85	1.35
	T	10.35	8.75	7.37	9.17	7.59	6.53	8.32	6.89	5.92	7.67	6.35	5.46	7.15	5.92	5.09
	dbA	25	26	28	23	24	26	22	23	25	20	21	23	19	20	22
400	Vel	9.44	10.49	13.25	7.41	8.23	10.40	6.10	6.78	8.57	5.18	5.76	7.28	4.51	5.01	6.33
	P	5.34	6.60	10.53	3.29	4.07	6.49	2.22	2.78	4.40	1.60	1.99	3.19	1.22	1.51	2.41
	T	13.78	11.43	9.83	12.22	10.12	8.71	11.09	9.18	7.90	10.22	8.46	7.28	9.53	7.98	6.78
	dbA	31	32	33	29	30	32	27	28	30	26	27	29	24	25	28
500	Vel	11.79	13.11	16.56	9.26	10.29	13.01	7.62	8.47	10.71	6.48	7.20	9.10	5.63	6.26	7.91
	P	8.35	10.31	16.46	5.15	6.36	10.15	3.49	4.31	6.88	2.52	3.11	4.97	1.90	2.35	3.75
	T	17.24	14.28	12.28	15.29	12.66	10.89	13.86	11.48	9.87	12.78	10.58	9.10	11.92	9.86	8.49
	dbA	36	36	38	34	35	36	32	33	35	30	31	34	29	30	32
600	Vel	14.15	15.73	19.88	11.11	12.35	15.61	9.15	10.17	12.85	7.77	8.64	10.92	6.76	7.51	9.49
	P	12.02	14.85	23.70	7.41	9.15	14.62	5.02	6.20	9.90	3.63	4.48	7.15	2.74	3.39	5.40
	T	20.69	17.13	14.74	18.34	15.18	13.06	16.65	13.77	11.85	15.34	12.70	10.92	14.31	11.85	10.18
	dbA	40	40	42	38	39	40	36	37	39	34	35	37	33	34	36
700	Vel	16.51	18.35	23.19	12.97	14.41	18.21	10.67	11.86	14.99	9.07	10.08	12.74	7.89	8.76	11.07
	P	16.36	20.21	32.26	10.09	12.46	19.89	6.84	8.44	13.48	4.94	6.10	9.73	3.73	4.61	7.36
	T	24.14	19.99	17.19	21.39	17.71	15.24	19.41	16.07	13.82	17.89	14.81	12.74	16.68	13.81	11.88
	dbA	43	44	45	41	42	44	39	40	42	38	39	41	36	37	40
800	Vel	18.87	20.98	26.50	14.82	16.47	20.81	12.20	13.56	17.13	10.37	11.52	14.56	9.01	10.02	12.66
	P	21.37	26.39	41.15	13.18	16.28	25.98	8.93	11.03	17.61	6.45	7.96	12.71	4.87	6.02	9.61
	T										20.45	18.93	14.56	19.06	15.78	13.58
	dbA										41	42	44	39	40	43
900	Vel										11.66	12.96	16.38	10.15	11.27	14.25
	P										8.16	10.08	16.09	6.17	7.62	12.16
	T										23.00	19.04	16.38	21.45	17.76	15.28
	dbA										43	44	47	42	43	45
1000	Vel										12.96	14.40	18.20	11.26	12.52	15.83
	P										10.07	12.44	19.87	7.61	9.40	15.01
	T										25.56	21.16	18.20	23.83	19.73	16.97
	dbA										46	47	49	44	45	48

LxH	150x	200			250			300			350			400		
M3/H	Deflection.	0	22.5	45	0	22.5	45	0	22.5	45	0	22.5	45	0	22.5	45
100	Vel	1.35	1.48	1.98	1.06	1.16	1.55	0.88	0.96	1.28	0.75	0.82	1.08	0.65	0.71	0.95
	P	0.11	0.13	0.23	0.08	0.09	0.14	0.05	0.05	0.10	0.03	0.04	0.06	0.02	0.03	0.05
	T	2.13	1.76	1.55	1.89	1.56	1.38	1.72	1.42	1.25	1.58	1.31	1.15	1.48	1.22	1.08
	dbA	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
200	Vel	2.69	2.96	3.95	2.11	2.32	3.10	1.75	1.91	2.55	1.49	1.63	2.18	1.39	1.41	1.88
	P	0.43	0.53	0.93	0.27	0.32	0.58	0.18	0.22	0.39	0.13	0.16	0.28	0.10	0.12	0.22
	T	4.26	3.52	3.10	3.78	3.11	2.75	3.43	2.82	2.49	3.16	2.61	2.30	2.95	2.44	2.15
	dbA	15	15	16	15	15	15	15	15	15	15	15	15	15	15	15
300	Vel	4.04	4.45	5.93	3.18	3.49	4.65	3.62	2.88	3.83	2.22	2.45	3.25	1.93	2.12	2.84
	P	0.98	1.18	2.11	0.61	0.73	1.30	0.42	0.49	0.88	0.30	0.36	0.63	0.22	0.28	0.48
	T	6.39	5.26	4.65	5.68	4.68	4.12	5.15	4.23	3.75	4.75	3.90	3.45	4.42	3.65	3.22
	dbA	20	21	24	18	19	22	16	17	20	15	15	18	15	15	17
400	Vel	5.38	5.92	7.89	4.23	4.65	6.20	3.48	3.83	5.10	2.96	3.25	4.33	2.57	2.83	3.77
	P	1.74	2.10	3.74	1.07	1.30	2.30	0.73	0.88	1.55	0.52	0.63	1.13	0.41	0.49	0.85
	T	8.52	7.02	6.20	7.55	6.22	5.50	6.85	5.63	4.99	6.32	5.20	4.60	5.89	4.85	4.29
	dbA	8.52	27	30	24	25	28	21	22	26	19	20	24	17	19	22
500	Vel	6.73	7.40	9.86	5.29	5.81	7.75	4.35	4.78	6.38	3.70	4.07	5.42	3.21	3.53	4.71
	P	2.72	3.29	5.83	1.68	2.03	3.60	1.14	1.38	2.44	0.82	0.99	1.76	0.62	0.75	1.33
	T	10.65	8.77	7.75	9.44	7.78	6.87	8.57	7.05	6.23	7.90	6.50	5.75	7.36	6.06	5.36
	dbA	31	32	34	28	29	32	26	27	30	24	25	29	22	23	27
600	Vel	8.08	8.88	11.83	6.33	6.98	9.29	5.22	5.75	7.65	4.44	4.88	6.50	3.86	4.24	5.65
	P	3.91	4.73	8.41	2.41	2.92	5.18	1.64	1.98	3.51	1.18	1.43	2.54	0.89	1.08	1.92
	T	12.79	10.53	9.30	11.33	9.33	8.24	10.28	8.47	7.48	9.48	7.80	6.89	8.85	7.28	6.43
	dbA	35	36	38	32	33	36	30	31	34	28	29	32	26	27	31
700	Vel	9.42	10.36	13.81	7.40	8.14	10.84	6.09	6.70	8.93	5.18	5.69	7.59	4.50	4.95	6.59
	P	5.33	6.44	11.44	3.29	3.97	7.06	2.23	2.69	4.78	1.61	1.94	3.45	1.21	1.47	2.61
	T	14.92	12.28	10.85	13.22	10.89	9.62	11.99	9.88	8.73	11.06	9.10	8.04	10.31	8.49	7.50
	dbA	38	39	42	36	37	39	33	34	38	31	32	36	29	30	34
800	Vel	10.77	11.85	15.78	8.46	9.30	12.39	6.96	7.65	10.20	5.92	6.50	8.67	5.14	5.66	7.54
	P	6.96	14.04	14.95	4.29	5.19	9.22	2.91	3.52	6.24	2.10	2.54	4.51	1.59	1.92	3.41
	T	17.05	13.30	12.40	15.11	12.44	10.99	13.71	11.29	9.98	12.63	10.40	9.19	11.78	9.70	8.57
	dbA	41	42	45	39	40	42	36	37	41	34	35	39	32	33	37
900	Vel	12.12	10.65	17.76	9.51	10.46	13.94	7.83	8.61	11.48	6.65	7.32	9.75	5.79	6.36	8.48
	P	8.81	15.79	18.92	5.43	6.57	11.66	3.68	4.45	7.90	2.66	3.21	5.71	2.01	2.43	4.31
	T	19.18	15.21	13.95	17.00	14.01	12.37	15.42	12.70	11.22	14.21	11.71	10.34	13.25	10.91	9.64
	dbA	44	45	47	41	42	45	39	40	43	37	38	41	35	36	40
1000	Vel	13.46	14.86	19.73	10.57	11.62	15.49	8.70	9.68	12.75	7.39	8.13	10.83	6.43	7.07	9.42
	P	10.87	13.15	23.35	6.70	8.11	14.40	4.45	5.49	9.76	3.28	3.97	7.05	2.48	3.00	5.33
	T	21.31	17.55	15.51	18.88	15.55	13.74	17.13	14.11	12.47	15.79	13.01	11.49	14.73	12.13	10.71
	dbA	46	47	50	44	45	48	41	43	46	39	41	44	37	39	42
1200	Vel										8.87	9.76	13.00	7.71	8.48	11.31
	P										4.72	5.71	10.15	3.57	4.32	7.67
	T										18.95	15.61	13.79	17.67	14.55	12.86
	dbA										44	45	48	42	43	47

LxH	200x	200			250			300			350			400		
M3/H	Deflection.	0	22.5	45	0	22.5	45	0	22.5	45	0	22.5	45	0	22.5	45
100	Vel	0.98	1.08	1.43	0.77	0.84	1.13	0.63	0.70	0.93	0.55	0.59	0.79	0.47	0.51	0.68
	P	0.06	0.07	0.12	0.04	0.04	0.08	0.02	0.03	0.05	0.02	0.02	0.04	0.01	0.02	0.03
	T	1.82	1.50	1.32	1.61	1.33	1.17	1.46	1.20	1.06	1.35	1.11	0.98	1.26	1.03	0.91
	dbA	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
200	Vel	1.96	2.15	2.87	1.54	1.69	2.25	1.26	1.39	1.85	1.07	1.18	1.57	0.93	1.03	1.37
	P	0.23	0.28	0.49	0.14	0.17	0.30	0.10	0.12	0.21	0.07	0.08	0.15	0.05	0.06	0.11
	T	3.63	2.99	2.64	3.22	2.65	2.34	2.92	2.41	2.13	2.69	2.22	1.96	2.51	2.07	1.83
	dbA	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
300	Vel	2.93	3.23	4.30	2.30	2.53	3.38	1.90	2.09	2.78	1.61	1.77	2.36	1.40	1.54	2.05
	P	0.52	0.62	1.11	0.32	0.39	0.68	0.22	0.26	0.46	0.16	0.19	0.33	0.12	0.14	0.25
	T	5.45	4.49	3.96	4.83	3.98	3.51	4.38	3.61	3.19	4.04	3.33	2.94	3.77	3.10	2.74
	dbA	17	18	21	15	15	19	15	15	16	15	15	15	15	15	15
400	Vel	3.91	4.30	5.73	3.07	3.38	4.50	2.53	2.78	3.71	2.15	2.36	3.15	1.87	2.05	2.74
	P	0.92	1.11	1.97	0.57	0.68	1.22	0.38	0.46	0.82	0.28	0.33	0.59	0.21	0.25	0.45
	T	7.27	5.98	5.29	6.44	5.30	4.68	5.84	4.81	4.25	5.38	4.43	3.92	5.02	4.13	3.65
	dbA	23	24	27	20	21	24	17	18	22	15	16	20	15	15	18
500	Vel	4.89	5.38	7.17	3.84	4.22	5.63	3.16	3.48	4.63	2.69	2.95	3.94	2.34	2.57	3.42
	P	1.43	1.73	3.08	0.88	1.07	1.90	0.60	0.72	1.29	0.43	0.52	0.93	0.33	0.40	0.70
	T	9.08	7.48	6.61	8.05	6.63	5.86	7.30	6.01	5.31	6.73	5.54	4.90	6.28	5.17	4.57
	dbA	27	28	31	24	26	29	12	23	27	19	21	25	17	18	23
600	Vel	5.87	6.45	8.60	4.61	5.07	6.75	3.79	4.17	5.56	3.22	3.54	4.72	2.80	3.08	4.11
	P	2.07	2.50	4.44	1.27	1.54	2.74	0.86	1.04	1.85	0.62	0.75	1.34	0.47	0.57	1.01
	T	10.90	8.97	7.93	9.66	7.95	7.03	8.76	7.22	6.38	8.08	6.65	5.88	7.53	6.20	5.48
	dbA	31	32	35	28	29	33	26	27	31	23	25	29	21	22	27
700	Vel	6.85	7.53	10.03	5.38	5.91	7.88	4.43	4.87	6.49	3.76	4.13	5.51	3.27	3.59	4.79
	P	2.81	3.40	6.04	1.73	2.10	3.72	1.17	1.42	2.52	0.85	1.03	1.82	0.64	0.78	1.38
	T	12.71	10.47	9.25	11.27	9.28	8.20	10.22	8.42	7.44	9.42	7.76	6.86	8.79	7.24	6.39
	dbA	35	36	39	32	33	36	29	30	34	26	28	32	24	26	30
800	Vel	7.82	8.60	11.47	6.14	6.76	9.00	5.06	5.56	7.41	4.30	4.73	6.30	3.74	4.11	5.48
	P	3.67	4.44	7.89	2.26	2.74	4.86	1.53	1.86	3.30	1.11	1.34	2.38	0.84	1.01	1.80
	T	14.53	11.97	10.57	12.88	10.60	9.37	11.68	9.62	8.50	10.77	8.87	7.84	10.04	8.27	7.31
	dbA	38	39	42	35	36	39	32	33	37	29	31	35	27	29	33
900	Vel	8.80	9.68	12.90	6.91	7.60	10.13	5.69	6.26	8.34	4.83	5.32	7.09	4.20	4.62	6.16
	P	4.65	5.62	9.98	2.87	3.48	6.16	1.94	2.35	4.18	1.41	1.70	3.02	1.06	1.28	2.28
	T	16.35	13.46	11.89	14.49	11.93	10.54	13.14	10.82	9.56	12.12	9.98	8.82	11.30	9.30	8.22
	dbA	40	41	44	37	39	42	35	36	40	32	34	38	30	31	36
1000	Vel	9.78	10.75	14.33	7.68	8.44	11.25	6.32	6.95	9.26	5.37	5.91	7.87	4.67	5.14	6.85
	P	5.74	6.95	12.32	3.55	4.28	7.60	2.40	2.90	5.15	1.73	2.09	3.78	1.31	1.58	2.81
	T	18.16	14.96	13.22	16.09	13.25	11.71	4.60	12.03	10.63	13.46	11.09	9.79	12.55	10.34	9.13
	dbA	43	44	47	40	41	44	37	38	42	35	36	40	32	34	38
1200	Vel				9.22	10.13	13.50	7.59	8.35	11.12	6.45	7.09	9.45	5.60	6.16	8.21
	P				5.10	6.16	10.95	3.45	4.17	7.42	2.49	3.01	5.35	1.88	2.28	4.05
	T				19.31	15.90	14.05	17.52	14.43	12.75	16.15	13.30	11.75	15.06	12.40	10.96
	dbA				44	45	49	41	43	45	39	40	44	37	38	43

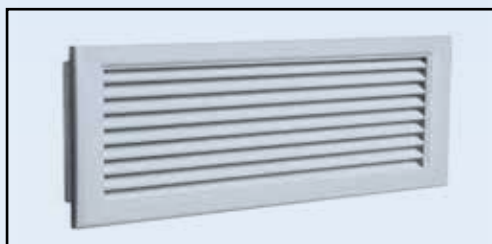
LxH	250x	200			250			300			350			400		
M3/H	Deflection.	0	22.5	45	0	22.5	45	0	22.5	45	0	22.5	45	0	22.5	45
100	Vel	0.60	0.66	0.88	0.50	0.55	0.73	0.42	0.46	0.62	0.37	0.40	0.54	0.32	0.36	0.48
	P	0.02	0.03	0.05	0.01	0.02	0.03	0.01	0.01	0.02	0.01	0.01	0.02	0.01	0.01	0.01
	T	1.43	1.17	1.04	1.29	1.07	0.94	1.19	0.98	0.87	1.11	0.92	0.81	1.05	0.86	0.76
	dbA	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
200	Vel	1.21	1.33	1.77	0.99	1.09	1.45	0.84	0.93	1.24	0.73	0.81	1.07	0.65	0.71	0.95
	P	0.09	0.11	0.19	0.06	0.07	0.13	0.04	0.05	0.09	0.03	0.04	0.07	0.03	0.03	0.05
	T	2.85	2.35	2.98	2.59	2.13	1.88	2.39	1.96	1.74	2.22	1.83	1.62	2.09	1.72	1.52
	dbA	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
300	Vel	1.81	1.99	2.65	1.49	1.64	2.18	1.27	1.39	1.85	1.10	1.21	1.61	0.97	1.07	1.43
	P	0.20	0.24	0.42	0.13	0.16	0.29	0.10	0.12	0.21	0.07	0.09	0.16	0.06	0.07	0.12
	T	4.28	3.52	3.11	3.88	3.20	2.82	3.58	2.95	2.60	3.34	2.75	2.43	3.14	2.58	2.28
	dbA	15	15	16	15	15	15	15	15	15	15	15	15	15	15	15
400	Vel	2.41	2.65	3.53	1.99	2.18	2.91	1.69	1.86	2.47	1.47	1.61	2.15	1.30	1.43	1.90
	P	0.35	0.42	0.75	0.24	0.29	0.51	0.17	0.21	0.37	0.13	0.16	0.28	0.10	0.12	0.22
	T	5.70	4.70	4.15	5.18	4.26	3.77	4.77	3.93	3.47	4.45	3.66	3.24	4.18	3.45	3.04
	dbA	16	18	21	15	15	19	15	15	17	15	15	15	15	15	15
500	Vel	3.01	3.32	4.42	2.48	2.73	3.64	2.11	2.32	3.09	1.83	2.02	2.69	1.62	1.78	2.38
	P	0.55	0.66	1.17	0.37	0.45	0.79	0.27	0.32	0.57	0.20	0.24	0.43	0.16	0.19	0.34
	T	7.13	5.87	5.19	6.47	5.33	4.71	5.96	4.91	4.34	5.56	4.58	4.05	5.23	4.31	3.81
	dbA	21	22	26	18	19	24	15	17	21	15	15	19	15	15	17
600	Vel	3.62	3.98	5.30	2.98	3.27	4.36	2.53	2.78	3.71	2.20	2.42	3.22	1.95	2.14	2.85
	P	0.79	0.95	1.69	0.53	0.64	1.14	0.38	0.46	0.83	0.29	0.35	0.62	0.23	0.27	0.49
	T	8.56	7.05	6.23	7.76	6.39	5.65	7.16	5.89	5.21	6.67	5.50	4.86	6.28	5.17	4.57
	dbA	25	26	30	22	23	28	19	21	25	16	18	23	15	16	21
700	Vel	4.22	6.64	6.19	3.47	3.82	5.09	2.95	3.25	4.33	2.57	2.82	3.76	2.27	2.50	3.33
	P	1.07	1.29	2.30	0.72	0.88	1.56	0.52	0.63	1.12	0.40	0.48	0.85	0.31	0.37	0.66
	T	9.98	8.22	7.26	9.06	7.46	6.59	8.35	6.88	6.08	7.79	6.41	5.66	7.32	6.03	5.33
	dbA	28	30	33	25	27	31	22	24	29	20	22	26	17	19	24
800	Vel	4.82	5.30	7.07	3.97	4.37	5.82	3.37	3.71	4.95	2.93	3.23	4.30	2.59	2.85	3.80
	P	1.40	1.69	3.00	0.95	1.14	2.03	0.68	0.83	1.47	0.52	0.62	1.11	0.40	0.49	0.87
	T	11.41	9.40	8.30	10.35	8.52	7.53	9.54	7.87	6.94	8.90	7.33	6.47	8.37	6.89	6.09
	dbA	31	33	36	28	30	34	25	27	32	23	25	29	20	22	27
900	Vel	5.43	5.97	7.95	4.47	4.91	6.55	3.80	4.17	5.56	3.30	3.63	4.84	2.92	3.21	4.28
	P	1.77	2.14	3.80	1.20	1.45	2.57	0.86	1.05	1.86	0.65	0.79	1.40	0.51	0.62	1.10
	T	12.84	10.57	9.34	11.65	9.95	8.47	10.74	8.84	7.81	10.01	8.24	7.28	9.41	7.75	6.85
	dbA	34	35	39	31	32	37	28	30	34	25	27	32	23	25	30
1000	Vel	6.03	6.63	8.84	4.96	5.46	7.27	4.22	4.64	6.18	3.67	4.03	5.37	3.24	3.57	4.75
	P	2.18	2.64	4.69	1.48	1.79	3.18	1.07	1.29	2.29	0.81	0.98	1.73	0.63	0.76	1.36
	T	14.26	11.74	10.38	12.94	10.66	9.42	11.93	9.82	8.68	11.12	9.16	8.09	10.56	8.61	7.61
	dbA	36	38	42	33	35	39	31	32	37	28	30	35	26	27	33
1200	Vel	7.24	7.96	10.60	5.96	6.55	8.73	5.06	5.57	7.42	4.40	4.84	6.45	3.89	4.28	5.70
	P	3.14	3.80	6.75	2.13	2.57	4.57	1.54	1.86	3.30	1.16	1.40	2.50	0.91	1.10	1.95
	T	17.11	14.09	12.45	15.53	12.79	11.30	14.31	11.79	10.42	13.35	10.99	9.71	12.55	10.34	9.13
	dbA	41	42	46	38	39	43	35	37	41	32	34	39	30	32	37



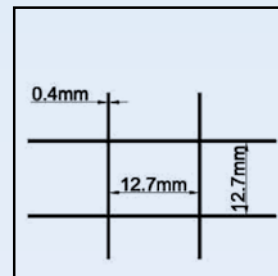
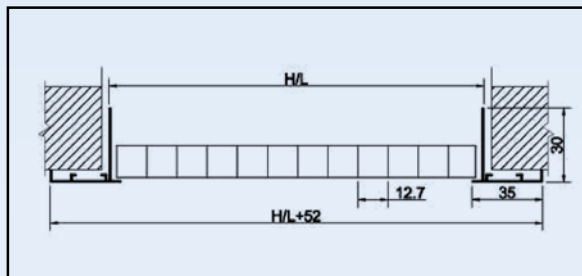
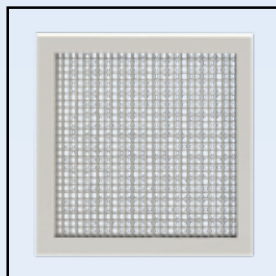
Size(mm)	Velocity(m/s)	2	3	4	5	6	7	8
300x100	M3/H	121	180	241	301	360	422	481
	dbA					30	34	38
	Throw	1.9-2.8	3.2-4.3	4.1-5.6	4.9-7.2	4.8-8.3	6.8-9.9	8.0-11.1
600x100	M3/H	226	338	452	564	677	791	903
	dbA				28	33	37	40
	Throw	2.5-3.5	3.5-4.9	4.7-6.8	5.9-8.3	7.1-10.2	8.0-11.7	9.5-13.5
900x100	M3/H	348	519	692	865	1039	1210	1385
	dbA				30	35	39	42
	Throw	2.8-4.1	4.4-5.9	5.6-7.7	6.8-9.9	7.9-11.7	9.5-13.6	10.8-15.5
1200x100	M3/H	466	700	933	1166	1399	1632	1867
	dbA				31	36	40	43
	Throw	3.2-5.3	4.7-6.5	5.9-8.3	7.4-10.5	8.9-12.6	10.2-14.7	12.0-16.9
1500x100	M3/H	587	881	1173	1467	1761	2055	2348
	dbA				32	37	41	44
	Throw	3.2-4.7	4.7-6.8	6.5-9.2	8.0-11.4	9.5-13.5	11.1-15.9	12.6-18.1
1800x100	M3/H	707	1061	1414	1768	2122	2475	2829
	dbA			27	33	38	42	45
	Throw	4.0-5.1	5.3-7.4	7.1-9.9	8.6-12.3	10.5-14.4	12.0-16.9	13.5-19.3

Size(mm)	Velocity(m/s)	2	3	4	5	6	7	8
300x150	M3/H	226	338	452	563	677	791	903
	dbA				27	32	36	40
	Throw	2.4-3.4	3.5-4.9	4.6-6.7	5.8-8.2	7.0-10.1	7.9-11.6	9.2-13.4
600x150	M3/H	423	636	847	1059	1272	1482	1695
	dbA				30	35	39	42
	Throw	2.7-4.0	4.3-6.1	5.8-8.2	7.3-10.4	8.5-12.2	10.4-14.3	11.6-16.5
900x150	M3/H	649	974	1299	1624	1948	2273	2598
	dbA				32	37	41	44
	Throw	3.4-4.6	4.6-6.7	6.4-8.8	7.9-11.0	9.4-13.4	11.0-15.5	12.2-17.7
1200x150	M3/H	876	1312	1751	2188	2625	3063	3502
	dbA			27	33	38	42	45
	Throw	3.4-4.9	5.5-7.6	7.6-10.1	8.8-12.5	10.4-14.9	12.2-17.7	14.3-20.1
1500x150	M3/H	1102	1651	2202	2752	3303	3854	4403
	dbA			28	34	39	43	46
	Throw	4.0-5.5	5.8-8.2	7.9-11.0	9.8-13.8	11.6-16.5	13.1-19.2	15.5-22.3
1800x150	M3/H	1326	1989	2652	3315	3978	4641	5304
	dbA			29	35	40	44	47
	Throw	4.0-5.8	6.4-8.8	7.9-11.6	10.7-14.6	11.9-17.4	14.6-20.4	16.5-23.2

EXHUAUST AIR GRILLE (EAG)



L x H	250x	250	300	350	400	450	500	600	700	800
M3/H										
100	Vel	0.63	0.51	0.43	0.37	0.33	0.29	0.24	0.21	0.18
	P	0.02	0.01	0.01	0.01	0.01	0	0	0	0
	dbA	15	15	15	15	15	15	15	15	15
200	Vel	1.26	1.02	0.86	0.75	0.66	0.59	0.48	0.43	0.36
	P	0.08	0.05	0.04	0.03	0.02	0.02	0.01	0.01	0.01
	dbA	15	15	15	15	15	15	15	15	15
300	Vel	1.89	1.54	1.29	1.12	0.99	0.88	0.73	0.62	0.54
	P	0.18	0.12	0.09	0.06	0.05	0.04	0.03	0.02	0.01
	dbA	19	15	15	15	15	15	15	15	15
400	Vel	2.51	2.05	1.73	1.49	1.31	1.17	0.97	0.82	0.72
	P	0.32	0.21	0.15	0.11	0.09	0.07	0.05	0.03	0.03
	dbA	26	22	18	15	15	15	15	15	15
500	Vel	3.14	2.56	2.16	1.87	1.64	1.47	1.21	1.03	0.90
	P	0.50	0.33	0.24	0.18	0.14	0.11	0.07	0.05	0.04
	dbA	31	27	23	15	17	15	15	15	15
600	Vel	3.77	3.07	2.59	2.24	1.97	1.76	1.45	1.23	1.07
	P	0.73	0.48	0.34	0.26	0.20	0.16	0.11	0.08	0.06
	dbA	35	31	27	24	21	18	15	15	15
700	Vel	4.40	3.58	3.02	2.61	2.30	2.05	1.69	1.44	1.25
	P	0.99	0.65	0.47	0.35	0.27	0.22	0.15	0.11	0.08
	dbA	39	35	31	28	25	22	16	15	15
800	Vel	5.03	4.09	3.45	2.98	2.63	2.35	1.94	1.65	1.43
	P	1.29	0.85	0.61	0.45	0.35	0.28	0.19	0.14	0.10
	dbA	42	38	34	31	28	25	20	15	15
900	Vel	5.66	4.61	3.88	3.36	2.96	2.64	2.18	1.85	1.61
	P	1.63	1.08	0.77	0.57	0.45	0.36	0.24	0.17	0.13
	dbA	45	41	37	34	31	28	22	17	15
1000	Vel	6.29	5.12	4.32	3.73	3.29	2.94	2.42	2.06	1.79
	P	2.20	1.34	0.95	0.71	0.55	0.44	0.30	0.22	0.16
	dbA	48	44	40	37	34	31	25	20	16
1100	Vel		5.63	4.75	4.10	3.61	3.23	2.66	2.26	1.97
	P		1.62	1.15	0.86	0.67	0.53	0.36	0.26	0.20
	dbA		46	43	39	36	33	28	23	18
1200	Vel		6.14	5.18	4.48	3.94	3.52	2.90	2.47	2.15
	P		1.92	1.37	1.02	0.79	0.63	0.43	0.31	0.24
	dbA		49	45	42	38	35	30	25	20

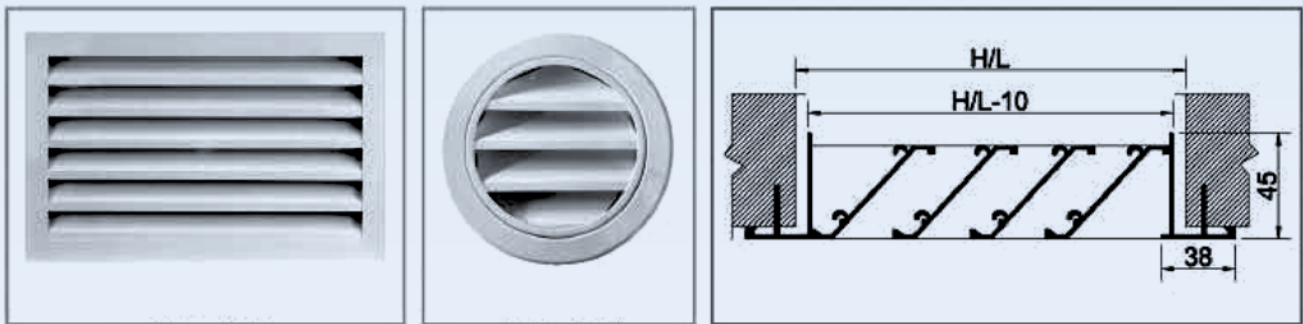


Selection Table:

Standard Size (mm)	Effective Area(m2)	Air Volume (m3/h)
200x200	0.031	300
250x250	0.049	450
300x300	0.076	735
350x350	0.103	900
400x400	0.134	1300
450x450	0.177	1750
500x500	0.212	2050
600x600	0.326	3000
700x700	0.449	4000
800x800	0.590	6000
900x900	0.751	7000

Assumed air velocity is 2.5-2.7m/s

L x H	250x	250	300	350	400	450	500	600	700	800
M3/H										
100	Vel	0.63	0.51	0.43	0.37	0.33	0.29	0.24	0.21	0.18
	P	0.02	0.01	0.01	0.01	0.01	0	0	0	0
	dbA	15	15	15	15	15	15	15	15	15
200	Vel	1.26	1.02	0.86	0.75	0.66	0.59	0.48	0.43	0.36
	P	0.08	0.05	0.04	0.03	0.02	0.02	0.01	0.01	0.01
	dbA	15	15	15	15	15	15	15	15	15
300	Vel	1.89	1.54	1.29	1.12	0.99	0.88	0.73	0.62	0.54
	P	0.18	0.12	0.09	0.06	0.05	0.04	0.03	0.02	0.01
	dbA	19	15	15	15	15	15	15	15	15
400	Vel	2.51	2.05	1.73	1.49	1.31	1.17	0.97	0.82	0.72
	P	0.32	0.21	0.15	0.11	0.09	0.07	0.05	0.03	0.03
	dbA	26	22	18	15	15	15	15	15	15
500	Vel	3.14	2.56	2.16	1.87	1.64	1.47	1.21	1.03	0.90
	P	0.50	0.33	0.24	0.18	0.14	0.11	0.07	0.05	0.04
	dbA	31	27	23	15	17	15	15	15	15
600	Vel	3.77	3.07	2.59	2.24	1.97	1.76	1.45	1.23	1.07
	P	0.73	0.48	0.34	0.26	0.20	0.16	0.11	0.08	0.06
	dbA	35	31	27	24	21	18	15	15	15
700	Vel	4.40	3.58	3.02	2.61	2.30	2.05	1.69	1.44	1.25
	P	0.99	0.65	0.47	0.35	0.27	0.22	0.15	0.11	0.08
	dbA	39	35	31	28	25	22	16	15	15
800	Vel	5.03	4.09	3.45	2.98	2.63	2.35	1.94	1.65	1.43
	P	1.29	0.85	0.61	0.45	0.35	0.28	0.19	0.14	0.10
	dbA	42	38	34	31	28	25	20	15	15
900	Vel	5.66	4.61	3.88	3.36	2.96	2.64	2.18	1.85	1.61
	P	1.63	1.08	0.77	0.57	0.45	0.36	0.24	0.17	0.13
	dbA	45	41	37	34	31	28	22	17	15
1000	Vel	6.29	5.12	4.32	3.73	3.29	2.94	2.42	2.06	1.79
	P	2.20	1.34	0.95	0.71	0.55	0.44	0.30	0.22	0.16
	dbA	48	44	40	37	34	31	25	20	16
1100	Vel		5.63	4.75	4.10	3.61	3.23	2.66	2.26	1.97
	P		16.2	1.15	0.86	0.67	0.53	0.36	0.26	0.20
	dbA		46	43	39	36	33	28	23	18
1200	Vel		6.14	5.18	4.48	3.94	3.52	2.90	2.47	2.15
	P		1.92	1.37	1.02	0.79	0.63	0.43	0.31	0.24
	dbA		49	45	42	38	35	30	25	20



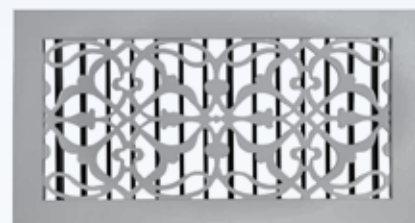
Selection Table

H \ L	Air Flow M ³ /H (V=1m/s)											
	200	200	300	350	400	450	500	600	700	800	900	1000
100	37	48	58	68	78	88	98	118	138	158	178	198
150	58	74	90	106	122	138	154	185	216	247	278	309
200	80	101	123	145	167	189	211	253	295	337	379	421
250	101	129	156	184	212	240	268	321	374	427	480	533
300	122	156	189	223	257	291	325	389	453	517	581	645
350	144	183	222	262	302	342	382	457	532	607	682	757
400	165	210	255	301	347	393	439	526	611	697	783	869
500	208	265	322	379	437	495	553	662	769	877	985	1093
600	251	319	388	457	527	597	667	798	927	1057	1187	1317

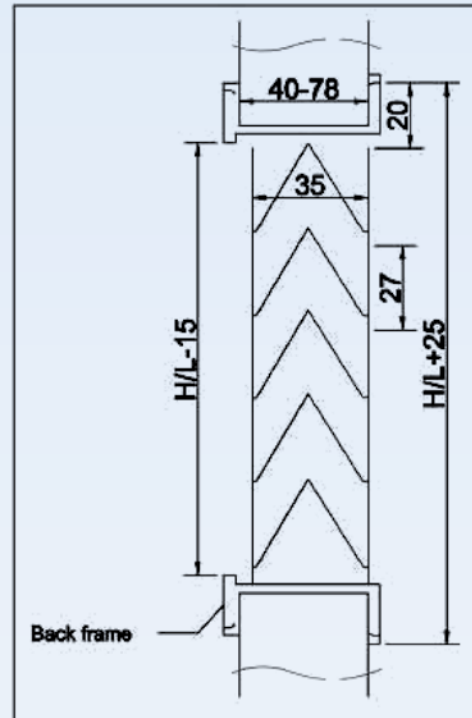
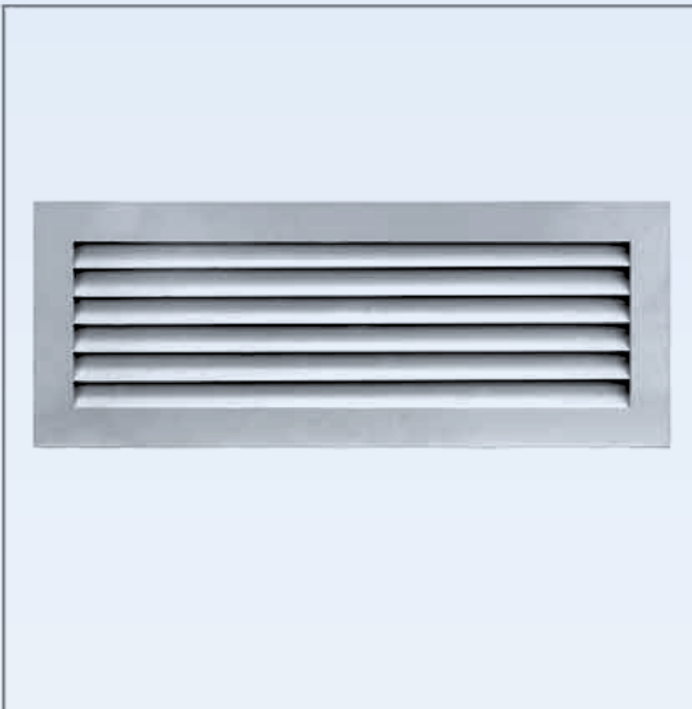
Velocity / Pressure Drop (intake)

Velocity	1	2	3	4	5	6	8
P	9.31	1.23	2.76	4.90	7.65	11.0	19.58

DECORATIVE GRILLS

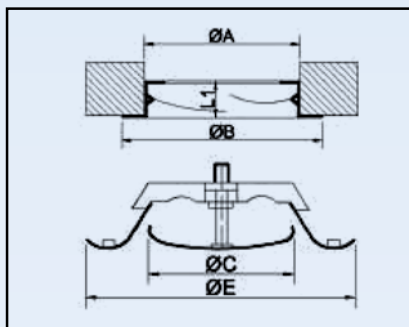
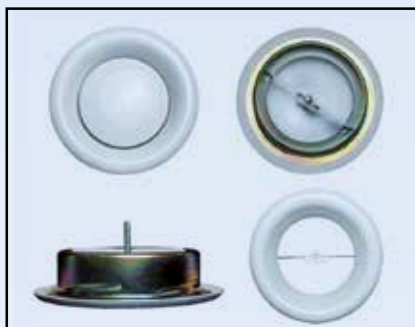


DOOR GRILLE / TRANSFER GRILLE



Standard Size H/L(mm)	Effective Area(m2)	Air Volume (m3/h)
300x150	0.029	139
500x150	0.050	244
500x250	0.088	429
750x250	0.131	670
750x350	0.183	950
900x300	0.203	1050
900x500	0.338	1750
1000x250	0.188	1000
1000x350	0.263	1360
1000x500	0.400	2070
Assumed velocity is 2.5m/s		

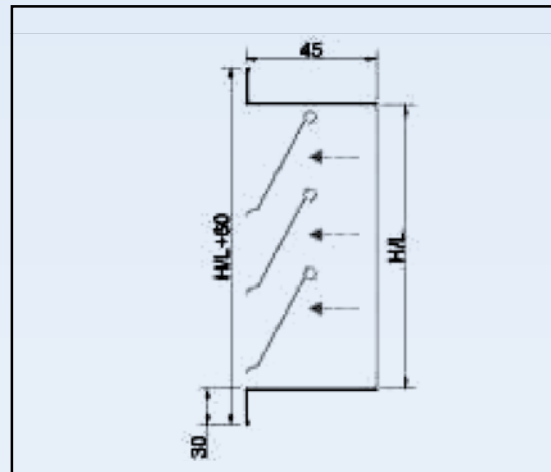




Size Table

Size	A	C	E
100	98	75	138
125	123	100	164
150	148	120	202
160	158	130	211
200	198	158	248

	Nominal Size (mm)					Air Flow, M3/H									
	80	100	125	150/160	200	M3/H	20	40	60	80	100	150	200	300	
	-9					Pa	90								
						NR	-								
	-6	-9				Pa	45	170							
						NR	-	20							
	-3	-6	-12			Pa	20	80	200	300					
						NR	-	12	25	28					
	0	-3			-20	Pa	10	50	120	200					
NR						-	-	17	26						
Opening Distance (mm)	6		-6			Pa		30	70	120	200				
						NR		-	12	20	28				
	9	6				Pa		20	40	80	130				
						NR		-	-	15	22				
			0		15	Pa		15	30	60	80	200			
						NR		-	-	11	18	30			
		12	6			Pa		10	20	40	60	150			
						NR		-	-	-	13	27			
				0		Pa			15	25	40	90	170		
						NR			-	-	9	21	30		
			12	6		Pa				15	25	60	100	220	
						NR				-	-	15	25	31	
				12	0	Pa					15	30	60	150	
						NR					-	10	18	30	



Selection table

1. Effective Area (m2)

H (mm)	L (mm)									
	150	200	259	300	350	400	450	500	550	600
150	0.018	0.024	0.030	0.037	0.043	0.049	0.063	0.073	0.085	0.098
200	0.024	0.032	0.041	0.049	0.058	0.067	0.084	0.098	0.115	0.132
250	0.030	0.041	0.051	0.062	0.073	0.084	0.105	0.124	0.145	0.167
300	0.037	0.050	0.063	0.077	0.090	0.103	0.130	0.152	0.179	0.205
350	0.043	0.058	0.074	0.089	0.105	0.121	0.152	0.178	0.209	0.240
350	0.049	0.067	0.085	0.102	0.120	0.138	0.173	0.203	0.239	0.274
350	0.055	0.067	0.095	0.115	0.135	0.155	0.195	0.229	0.269	0.309
350	0.062	0.085	0.107	0.130	0.152	0.175	0.219	0.257	0.302	0.347
350	0.068	0.093	0.118	0.142	0.167	0.192	0.241	0.283	0.332	0.382
350	0.074	0.101	0.128	0.155	0.182	0.209	0.263	0.308	0.362	0.416

2. Air Volume (m3/h) with 3m/s velocity

H (mm)	L (mm)									
	150	200	259	300	350	400	450	500	550	600
150	194	259	324	400	464	529	670	788	918	1058
200	259	346	443	529	626	724	907	1058	1242	1426
250	324	443	551	670	788	907	1134	1339	1566	1804
300	400	540	680	832	972	1112	1404	1642	1933	2214
350	464	626	799	961	1134	1307	1642	1922	2257	2592
400	529	724	918	1102	1296	1490	1868	2192	2581	2959
450	594	810	1026	1242	1458	1674	2106	2473	2905	3337
500	670	918	1156	1404	1642	1890	2365	2776	3262	3748
550	734	1004	1274	1534	1804	2074	2603	3056	3586	4126
550	799	1091	1382	1674	1966	2257	2840	3326	3910	4493

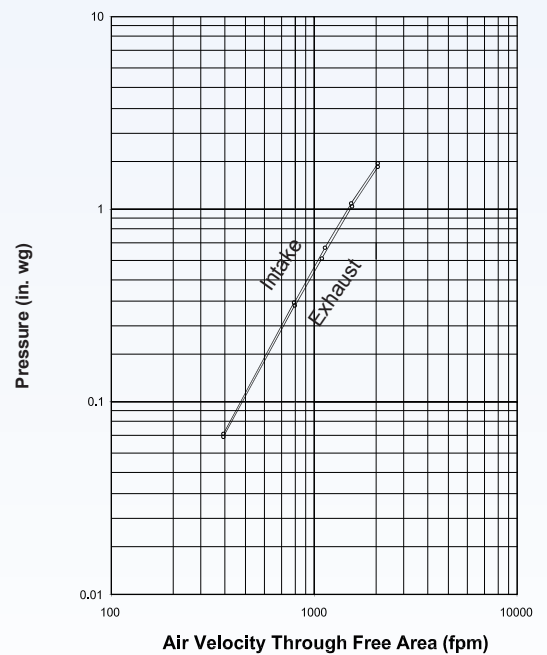
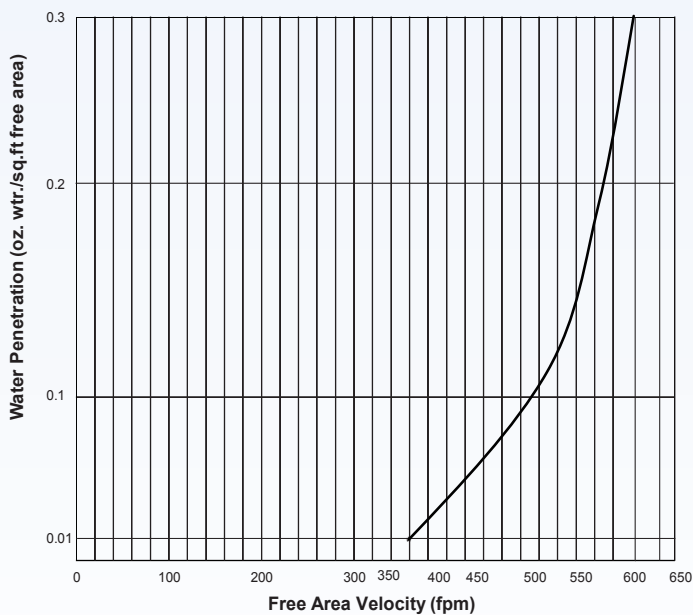
SAND TRAP LOUVER (STL)



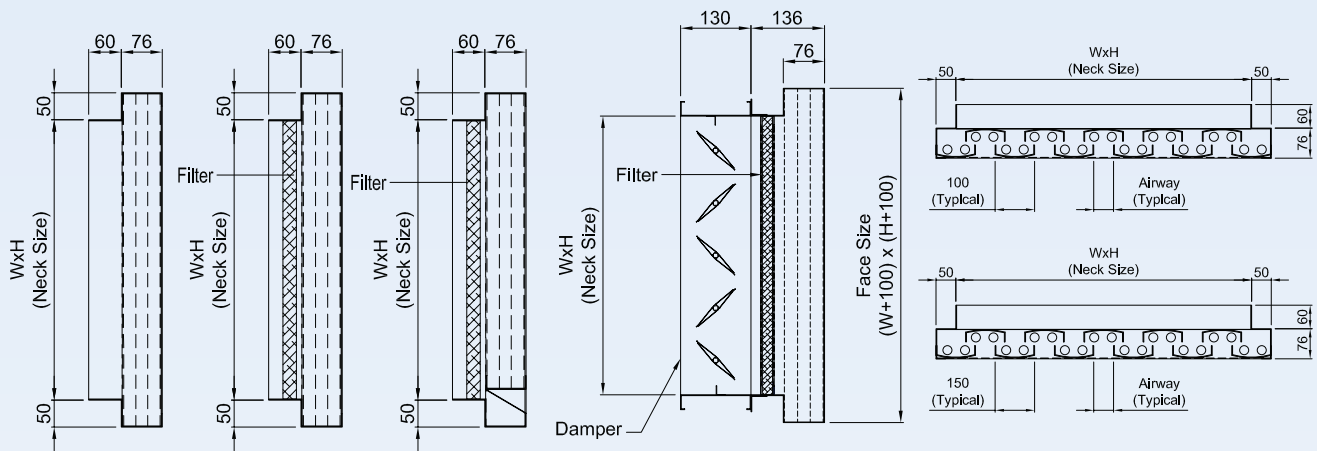
Performance Data

W/H	300	450	600	750	900	1050	1200	1500	1800	2100	2400
300	0.010	0.018	0.025	0.033	0.040	0.048	0.055	0.070	0.085	0.100	0.115
450	0.020	0.035	0.050	0.065	0.080	0.095	0.110	0.140	0.170	0.200	0.230
600	0.030	0.053	0.075	0.098	0.120	0.143	0.165	0.210	0.255	0.300	0.345
750	0.040	0.070	0.100	0.130	0.160	0.190	0.220	0.280	0.340	0.400	0.460
900	0.050	0.088	0.125	0.163	0.200	0.238	0.275	0.350	0.425	0.500	0.575
1050	0.060	0.105	0.150	0.195	0.240	0.285	0.330	0.420	0.510	0.600	0.690
1200	0.070	0.123	0.175	0.228	0.280	0.333	0.385	0.490	0.595	0.700	0.805
1500	0.091	0.158	0.226	0.293	0.361	0.428	0.496	0.630	0.765	0.900	1.035
1800	0.111	0.193	0.276	0.358	0.441	0.523	0.606	0.771	0.936	1.101	1.265
2100	0.131	0.228	0.326	0.423	0.521	0.618	0.716	0.911	1.106	1.301	1.496
2400	0.151	0.264	0.376	0.488	0.601	0.713	0.826	1.051	1.276	1.501	1.726

1220 x 1200 mm Louver free area 0.385 Sq.mt

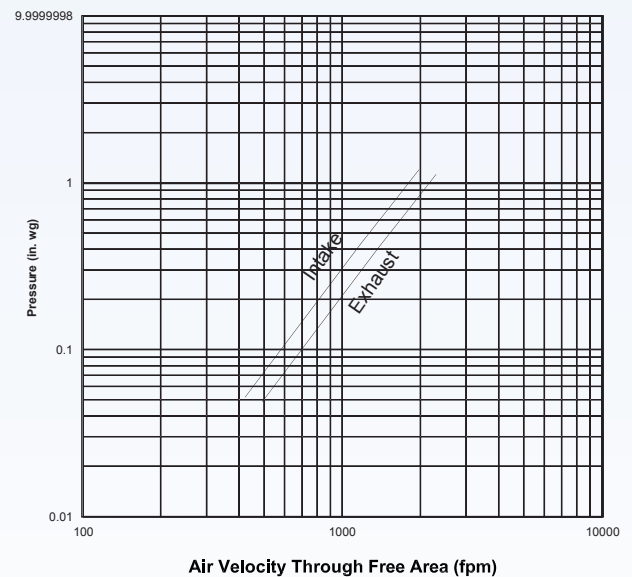
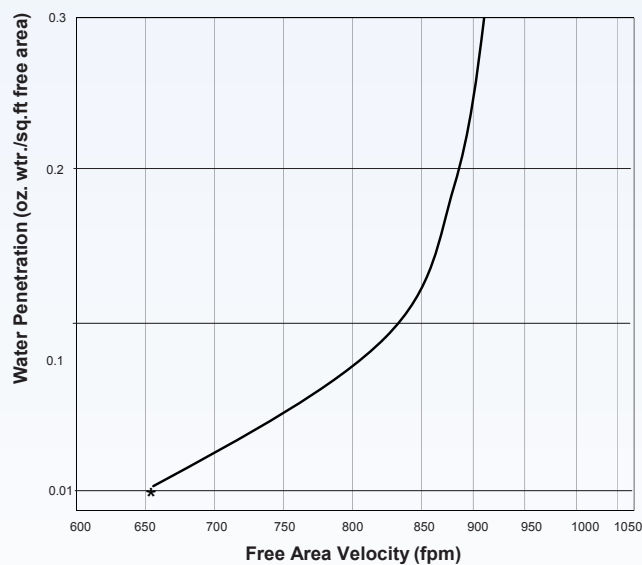


SAND TRAP LOUVER (STL)



W / H	300	450	600	750	900	1050	1200	1350	1500
300	0.016	0.024	0.033	0.041	0.049	0.057	0.065	0.073	0.081
450	0.024	0.037	0.049	0.061	0.073	0.085	0.098	0.110	0.122
600	0.033	0.049	0.065	0.081	0.098	0.114	0.130	0.146	0.163
750	0.041	0.061	0.081	0.102	0.122	0.142	0.163	0.183	0.203
900	0.049	0.073	0.098	0.122	0.146	0.171	0.195	0.219	0.244
1050	0.057	0.085	0.114	0.142	0.171	0.199	0.228	0.256	0.284
1200	0.065	0.098	0.130	0.163	0.195	0.228	0.260	0.293	0.325
1350	0.073	0.110	0.146	0.183	0.219	0.256	0.293	0.329	0.366
1500	0.081	0.122	0.163	0.203	0.244	0.284	0.325	0.366	0.406

1220 x 1220 mm Louver free area 0.260 Sq.mt





Diameter		Length
mm	Inch	m/pcs
100	4	10
125	5	10
150	6	10
200	8	10
250	10	10
300	12	10
350	14	10
400	16	10

NON - INSULATED	Description: Non-insulated aluminum flexible ducts are produced from two layer aluminum strengthened with high tension hard steel spring wire. Standard Length: 10 Meters Packaging: Individual Carton Boxes Fire Resistance: Difficult-Flammability Diameter Range: 100~610mm Temperature Range: -30~+140 °C Max Air Velocity: 30m/s Max Working Pressure: 2500Pa
WITH INSULATION	Description: Insulated flexible duct made of a thermal flex inner wall, supporting a 25 thickness 18kg/m3 fiberglass insulation, sheathed in a reinforced aluminum/polyester laminated jacket acting as a vapor barrier Standard Length: 10 Meters Packaging: Individual Carton Boxes Fire Resistance: Difficult-Flammability Diameter Range: 100~610mm Temperature Range: -30~+140 °C Max Air Velocity: 30m/s Max Working Pressure: 2500Pa Density: 18kg/m3 Thickness: 25~50mm Conductivity Factor: 0.034W/mK

WE ARE SPECIALISED IN

- ❖ Manufacture and installation of GI and PI ducts.
- ❖ Manufacturing of all HVAC products
- ❖ Supply of All types of AC units.
- ❖ Supply and installation of kitchen ducts.
- ❖ Annual Maintenance Contracts for AC and Kitchen exhaust/extract systems

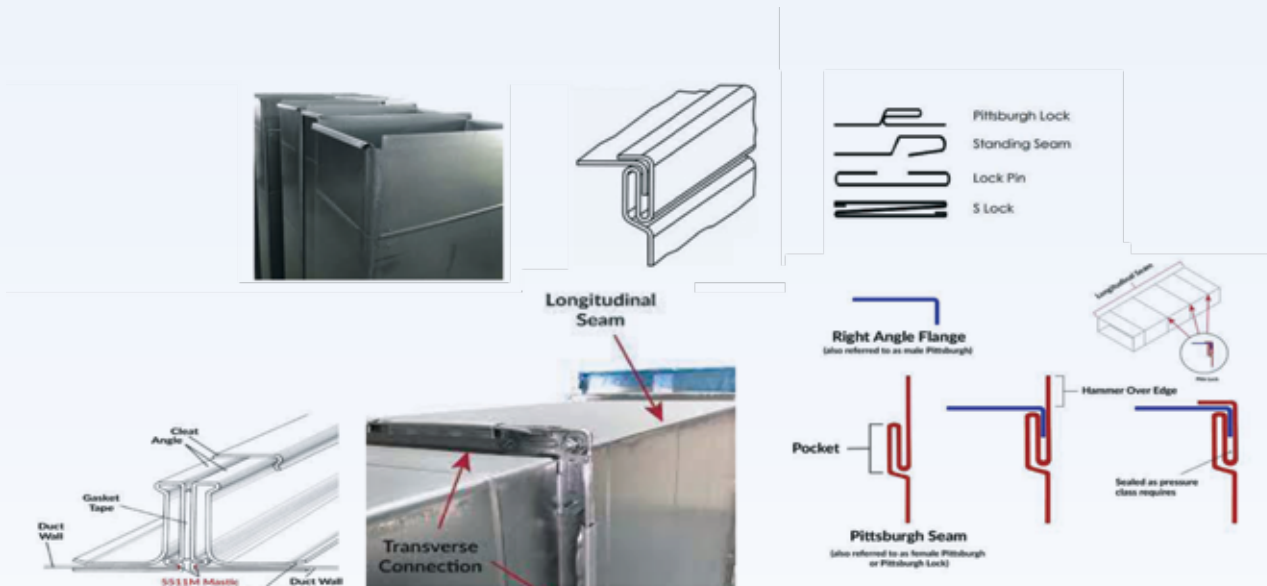
ARAD FACTORY PRODUCTS

PRE FABRICATED DUCT SYSTEMS

ARAD Produces the custom sized GI ducts as per the SMACNA standards according to the provided tag lists or drawings.

The production includes the Rectangular and round ducts with custom sizes extruded in Gauge 18 to Gauge 26 sheets with various brands of sheets including, AGIS, JSW, NIPPON, etc..

The GI and MS Ducts are available with various specifications including seam joints, welded joints, S&C Cleat system Duct mate flange system, GI welded flange system.



Also the Pre insulated ducts with PIR sheets and Fire rated UL-181 sheets are available. Phenolic pre insulated ducts are having core material as phenolic foam and facing aluminium sheets on both sides.

The ducts are non combustible which has no smoke and innocuous while catching fire. The sheets can be fabricated into all kind of rectangular ducts by cutting and adhesive connecting and can be match with all kind of specifications with flange connection and adhesive.

CONSTRUCTION:

Frame: 24.22 or 20 gauge galvanized steel sheet.

Optional accessories: Volume control damper.

Description:

- Fabricated from 24, 22 or 20 gauge galvanized steel sheet.
- Circular spigots of required diameter and standard length of 75 mm would be fixed to the plenum box. Square, rectangular and oval shape spigots are available if required.
- Plenum boxes with side inlet are standard. Other positions are available as per the site conditions to suit client specifications.
- Plenum boxes have hemmed edge at the opening for fixing universal mounting brackets.
- Plenum boxes of length of upto two meters can be manufactured with single spigot. For more than 2 meters plenum boxes will be arranged with multiple spigots.
- Volume control dampers can be fitted to the spigots on request.

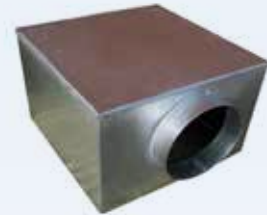


Plenum opening Vs No of slots:

No. of slots.	1	2	3	4	5	6	7	8
	Plenum opening size in mm							
1. 16 mm slot opening	48	78	108	138	168	197	228	258
2. 20 mm slot opening	52	86	120	154	188	188	256	290
3. 25 mm slot opening	57	96	136	174	213	213	291	330

Features:

- Manufactured from galvanized sheet steel.
- They are accoustically lined internally with mineral fiber.
- Provide uniform air distribution with minimum noise turbulence.
- All joints are Lock for Med for air tight functioning which adds to maintain rigidity.
- Plenum Boxes are manufactured to suit the full range of linear slot diffusers.



VCD:

Arad volume control damper has been specially designed for installation in systems where high / medium / low velocity and pressure are experienced.

Combine with its robust construction, the damper is suitable for use air handling units.

Single section dampers are designed to operate from one control point (hand locking quadrant or motor operation) can be manufactured in single module units to 1200 mm* to 1000 mm*

Material Specification :

Casing : Galvanized Steel Sheet (1.2 mm thick)

Blades : Galvanized steel sheet, thickness to suit size of dampers.

Blade Spindles : 12.5mm / 10mm diameter galvanized mild steel tube.

Quadrant : Manual Operation, locking type quadrant made of galvanized steel with full open and full shut markings.

Bushes : Injection moulded Nylon 66.

Rivets : High quality self sealed revets are used to European standards as relevant.

Paint : Aluminium primer is applied to all welds and ground surfaces.



Material Specification :

Case : 20ga. GL Steel Sheet

Blade : 20SWG Galvanised coated Mild Steel

Bushes : Nylon 66 injection Moulded Bushes

Spindies : 12.5 mm Galvanised Steel Tube Spindles

Quadrant : Galvanised Mild Steel Mounting Plate with Zinc Plated Handle

ARAD Circular VCD's are designed to regulate air volume in circular ducts. These dampers are easily accessible with round ducts.



Standard sizes

100
125
150
160
200
250
315

Sound Attenuator

Low noise level achievement has always been one of the key features of building design. In recent years noise control has become an important criteria due to increasing environmental awareness and the effects of noise on health, safety, comfort and efficiency. Control of the acoustical environment in a building means that all of the factors that may lead to noise problems must be fully considered. This means noise control of HVAC systems, controlling transmission of sound between rooms, protecting hallways, offices and other structures from high noise areas, and providing maximum privacy where needed.

ARAD manufactures new range of Sound Attenuators by adopting latest manufacturing techniques in fabrication and by using software for selecting proper and economical attenuators which are vastly used for both HVAC and industrial applications for either reducing or minimizing the generated noise.



ARAD manufactures square & rectangular Sound Attenuators, cylindrical Sound Attenuator, Cross Talk Attenuators, which provide effective and predictable noise reduction at substantial savings over other and ordinary methods.

They are designed using silencer selection software under given parameter conditions. The use of silencers which are accurately rated under operating conditions is a matter of prime importance.

Standard Types and Models			
Item	Series	Type	Construction
Sound Attenuators	B - 20	Square & Rectangular Sound Attenuator	Galvanized Steel (GI)
	B - 30	Cylindrical Sound Attenuator	Galvanized Steel (GI)
	B - 40	Cross Talk Sound Attenuator	Galvanized Steel (GI)

Material Details

All types and models of Sound Attenuator are available in Galvanized Steel according to the design and application.

Sheet Metal Galvanized Steel (GI)

Zinc coating Z-22 to Z-27 as per **ASTM-A653** Standards.

All Sound Attenuator units are designed to ensure airtight operations with low leakage factor of + 3 %. as per international standards DW 142 class C.

All Sound Attenuators are lined internally, sealed and manufactured as per international standards and confirmed to NFPA 90 A and UL 181 standards for erosion.

Applications:

GI Construction :For **HVAC** commercial, residential etc.

The respective alphabet indicates the type of material.

G - Galvanized steel (**GI**)



ACCESS DOORS

Standard Specification :

Doors : Made of galvanized steel ga. 24/22 double skin and with internal insulation.

Door Frame :

Galvanised steel ga. 4/22 roller formed, Provided with foam gasket all around, bottom edge will be notched knock over for easy fixing onto the duct.



Features

- Choice of any conventional sizes
- Available in 25mm (1") and 50mm (2")
- Galvanized steel doors
- Door is two die-formed and seamless panels in a sandwich construction
- Thermal, acoustic and fire retardant insulation on request.

NON RETURN DAMPERS



ARAD non return dampers open and close for intake of or discharge of air according to the change in pressure in the room. As the room pressure increases, it opens to release the excess pressure in the room and gets closed by gravity when the pressure in the room drops back to normal.

ARAD Non return dampers are a wall mountable or duct mountable device. The duct mounted are of two types, Joint S & C type or Flange type.

Manufacturing Details : The body or frame of Non Return Dampers are constructed from 18 or 20 gauge galvanised sheet. The blades are made with 24 gauge lightweight aluminium or G.I. sheet. Standard Nylon Bushes are used. A gasket services for Low Leakage and to prevent ratting noises. It has galvanised steel supports. Leakage ranges from 3 - 5 %.

Standard Sizes : (Use any combination of width & length) Non standard sizes are available on request.

V.A.V CONTROLS



VAV controls are designed to achieve variable air volume delivery of conditional air to room in single duct, constant volume air distribution system variable air volume control is achieved by directing air flow either to the room or to a bypass in a direct response to signals from the room thermostat.

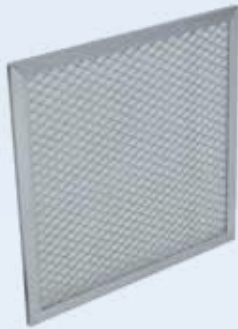
Air terminal use a primary air damper closes, the bypass port damper opens, and vice versa, but varying amounts and delivered to the room or total airflow through the air terminal. A locking quadrant on the inlet balancing damper determines the total airflow through the air terminal.

Air terminal are available in standard sizes of 6" 8" 10" 12" 14" and 16". Sizes 6" 8" and 10" have round inlet collars and sizes 12", 14" and 16" have equal flat oval collars. All basic terminals are 18 1/2" on height and 21 1/4" on over all length.

Performance :

Air terminal are available for system pressure dependent and system pressure independent applications. They are recommended for use in duct systems with static pressure up to 2" water gauge. Supply air capacity range from 200 to 4000CFM, depending on air terminal size.

SYNTHETIC / WASHABLE FILTERS



FEATURES :

Media : Washable synthetic / polyester material with GI mesh on both sides.

Frame : 24 gauge, GI/AL

Suitable for central air conditioning, Ventilators etc.

ALUMINIUM EXPANDED WASHABLE FILTERS

Features :

Frame : Rust proof aluminium .I. Mill finish 24 guage & 24 Guage GI Sheet.

Construction : Aluminum expanded media of 5/8 inch thick in one layer for 1: thick frame, and in two layers for 2" thick frame. The rust proof aluminium .I. mill finish 24 gauge frame.

The rust proof aluminum wahes easily, and its glistering appearance has exceptional consumer acceptance.



HIGH EFFICIENCY PLEATED WASHABLE FILTERS



Features :

Media : Various types of synthetic media for various applications, Zig Zag construction with GI or PC mesh on both sides

Frame : 24G, GI frame

Suitable for computer rooms, fresh air & Central air conditioning units.

GREEN FILTERS

Features :

Media Coir media with GI mesh on both sides

Frame : 24 guages GI/A1

widely used in central air conditioning Units.

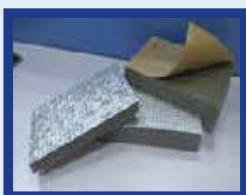




FABRICATION WORK

Our Production team include the specialized fabricators and ductman with well coordinated management resulting in the efficient production lineup and for the time oriented work completion and there by the superior customer satisfaction.





**Thermobreak
Insulation**



Duct-Tape



Refrigerant Gas



**Rubber
Insulation**



**Duct Coating
30-36 foster**



**Preinsulated
Accessories**



**Copper Pipe
Hard**



Copper Coils



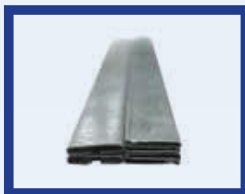
**Compressor
Copeland**



Canvas Cloth



**PVC-Invisible Flange
PVC H Slide**



S Cleat & C Cleat



GI Duct Corner



**Flexible Duct
Connector**



**Duct Mate
Flange**



**Customised
Fittings**



Flaring Tool Set



Charging Lines



**Cray Clamps
(20mm-30mm)**



**Pre Insulated
Sheets
(UL181)**



**Capacitor
(55 to 74MFD)**



Stainer



**Digital
Thermostats**



Charging Pin



**Freezer
Thermostat**



**Relays with
capacitor**



Pipe bender



**Jublee Clamp
(1 to 2.5 in)**



**Jublee Clamp
(4 to 12 in)**



Cutting Tools

List of Ducting Items, A/C, Ref. Pre-insulated Duct & Accessories	
DUCTING MATERIALS	A/C & REF. PARTS
30-36 DUCT COATING FOSTER USA	COMPRESSORS OF A/C
30-36 DUCT COATING LOCAL MAKE	COMPRESSORS OF REF
81-10 ADHESIVE GLUE FOSTER USA	CONTACTORS
81-10 ADHESIVE GLUE LOCAL MADE	RELAYS
ALUMINIUM TAPE SIZE 2" 3" 4"	TIMERS
DUCT TAPE SIZE 2" 3" 4"	COND FAN MOTORS
PVC PIPE WRAPPING TAPE BLACK	EVAP FAN MOTORS
PVC PIPE WRAPPING TAPE WHITE	COND FAN BALDES
SILICONE SEALANT LOCAL MADE	BELTS, BEARING
FLEXIBLE DUCT CONNECTOR USA	BLOWERS FILTER DRIERS & CORES
FLEX. DUCT CONNECTORS LOCAL	SIGHT GLASS
FLEX. INSULATED DUCT SIZE 4" TO 16"	WASHING MACHINE PARTS
FLEX. UNINSULATED DUCT SIZE 4" TO 14"	GASKITS + FOAM TAPE
FLEX. ALUMINIUM DUCT SIZE 4" TO 16"	COPPER COILS
ANTI VIBRATION PADS ALL SIZES	COPPER PIPES & FITTINGS
FIBER GLASS & ROCK WOOL INSULATIONS	SLEEVE ALL SIZES (COPPER PIPE)
RIGID BOARD & ROLLS	GLUE FOR PRE-INSULATED DUCT
RUBBER INSULATIONS PIPE & SHEETS	A/C BRACKET FOR 1 TO 3 TON SPLIT A/C
PRE-INSULATED DUCT & ACCESSORIES	
PID CUTTING TOOL SET	

LIST OF MAJOR CLIENTS:	
** JUMA AL MAJID Est.	** SMART SWITCH ELECTROMECHANICAL
** AL ARABIA FOR OPERATIONS AND MAINTENANCE	** SUPERPHASE ELECTROMECHANICAL
** CRUMBS ELYESS RESTAURENT	** AL SARAYA BUILDING CONTRACTING
** KABAB ERBIL IRAQI RESTAURENT	** NARKEL INTERIOR DESIGNING LLC (SUB-CON)
** LEBANONS RESTAURENT	** SMART SPACE INTERIORS LLC
** MARKISH GENERAL CONTRACTING	** AL HAZZA BUILDING CONTRACTING LLC
** AL AHLI GENERAL CONTRACTING EST.	** MODERN STYLE INTERIORS
** GHAZAL MADINA REAL ESTATE	** GOLDEN CAVALLI INTERIORS
** BAIT AL BAHAR INVESTMENT EST	** DUBAI MODERN EDUCATION SCHOOL

PROJECTS DETAILS OBTAIN UAE

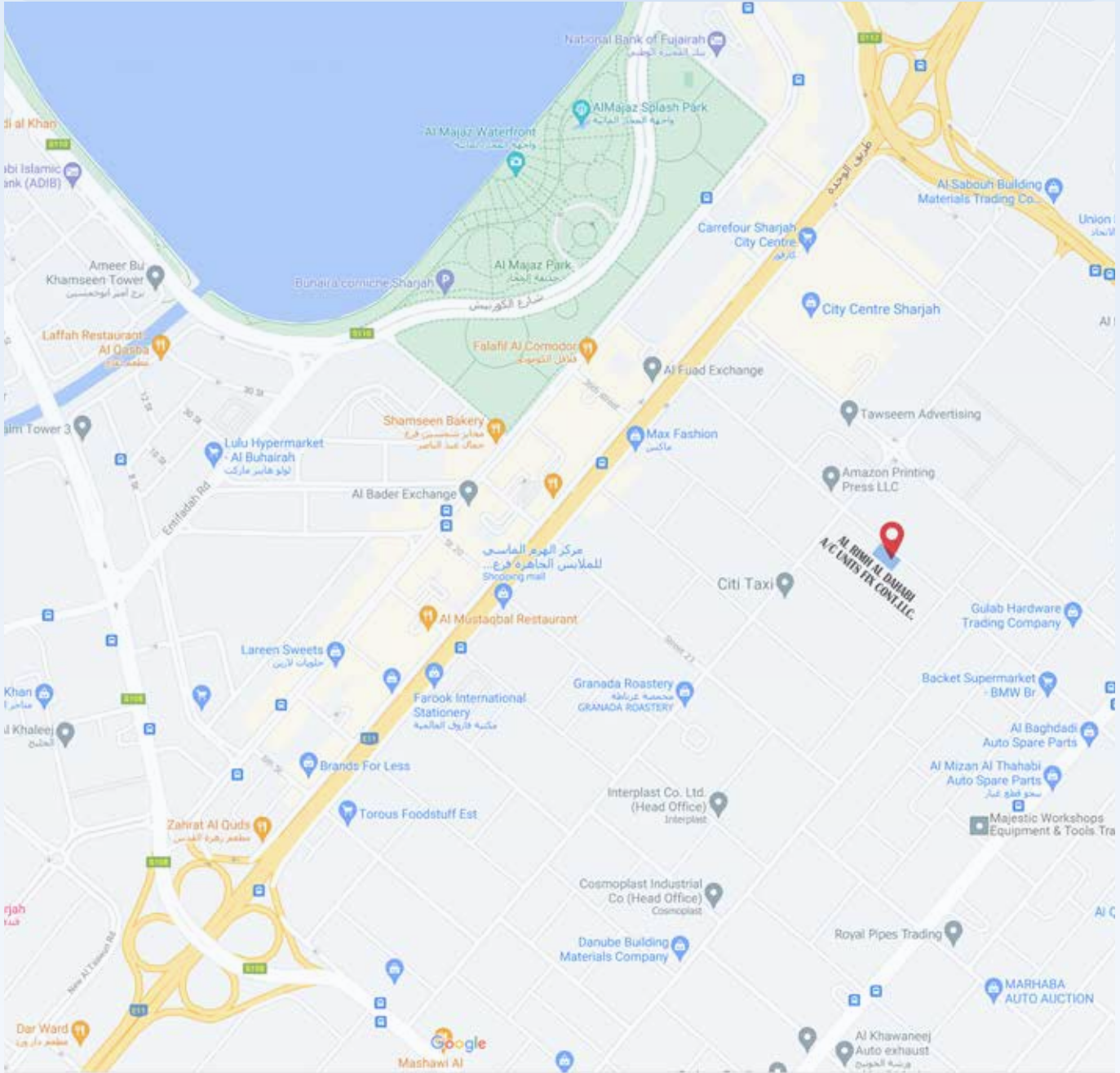
PROJECT DETAILS	CONSULTANT/CLIENT	MAIN CONTRACTOR
SIMMONS COOPERATE OFFICE G+3	GOLDEN CAVALLI INTERIORS	KOALA
ST. MARY'S HIGHSCHOOL, RAS AL KHAIMAH	URBANISM PLANNING ARCHITECTURE	AL HIKMA BLDG.CONT & ADVANCE PRO ELECTROMECHANICAL
FINANCE DEPARTMENT OFFICES	SHARJAH FINANCE DEPARTMENT	AL ARABIA - JUMA AL MAJID
SHUTDOWN MAINTENANCE- DMES	DUBAI MODERN SCHOOL-AL MIZHER	AL RIMH AL DAHABI
OFFICE SPACE- BINARY TOWER	DIKKO INDE ABDULLAHI	SMARTSPACE INTERIORS
GRAND TREAT RESTAURENT BUSINESS BAY	NICE EDGE INTERIORS	AL RIMH AL DAHABI
OFFICE SPACE-OPUS TOWER DUBAI	ATLAS ENG. CONSULTANTS/ GALOODA INVESTMENT	MODERN STYLE INTERIORS
FORENSICS LABORATORY- SHARJAH	SHARJAH POLICE	AL ARABIA - JUMA AL MAJID
ARAB BANK OFFICES- INNOVATION HUB,DEIRA,SHARJAH	ARAB BANK	MODERN STYLE INTERIORS
HISPANA LOUNGE- GARHOUD	HISPANA LOUNGE	AL RIMH AL DAHABI
QUASIMI AL FAL REATAURENT- WARQA		MODERN STYLE INTERIORS
GOLDS GYM-REEF MALL	GOLDS GYM	GULF SPRING CONTRACTING
HAMARIYA LADIES CLUB	GOVT. OF SHARJAH	AL ARABIA - JUMA AL MAJID
G+2 BUILDING AL MUTEENA	KLICK ENGINEERING CONSULTANTS	ROWAD AL JAZEERA
SHEIKH KHALIFA MEDICAL CITY AJMAN	AJMAN GENERAL HOSPITAL	AL ARABIA - JUMA AL MAJID
G+2+ROOF BUILDING HOR ALANZ	ENGINEERING CONSORTIUM CONSULTING ENGINEERS	SBR CONTRACTING AND ELECTROMECHANICAL
TAWJEEH & MFC UMM AL QUWAIN	GOVT OF UMM AL QUWAIN	MODERN STYLE INTERIORS
SPORTS BAR- JEBALALI	HOLIDAY INN DUBAI WORLD CENTRAL	MODERN STYLE INTERIORS
15+ STUDIO FLATS AND APARTMENTS IN SHARJAH, AJMAN, DUBAI		
VARIOUS VILLAS IN SHARJAH, AJMAN, DUBAI		



FORENSIC LABORATORY, RIFA, SHARJAH



LOCATION MAP AND ADDRESS



AL RIMH AL DAHABI A/C UNITS FIX CONT.LLC.

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E-mail : arad.uae15@gmail.com / sales@aradgroupuae.com

Website : www. aradgroupuae.com

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TRADING

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E-mail : samaalmadina3@gmail.com

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Mobile : +971 55 236 4674, +971 54 427 9922

E-mail : rawdat2016@gmail.com