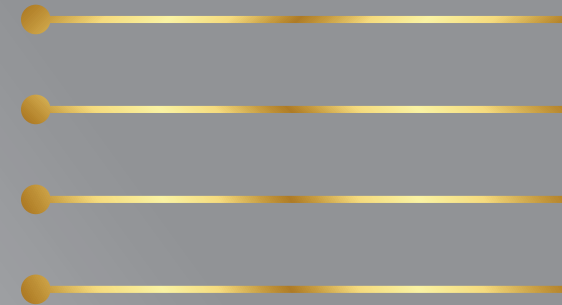


**Makkah**  
**For Air Outlets**



# AIR GRILL FIXED BLADES

## Product Description

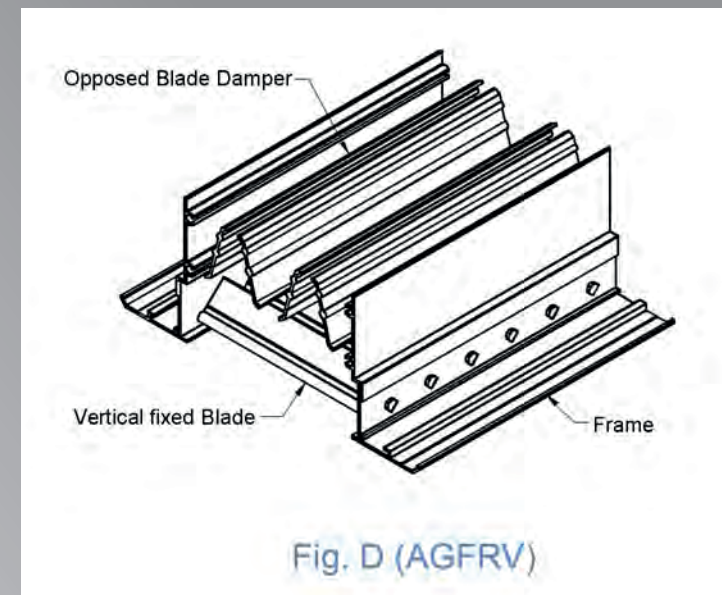
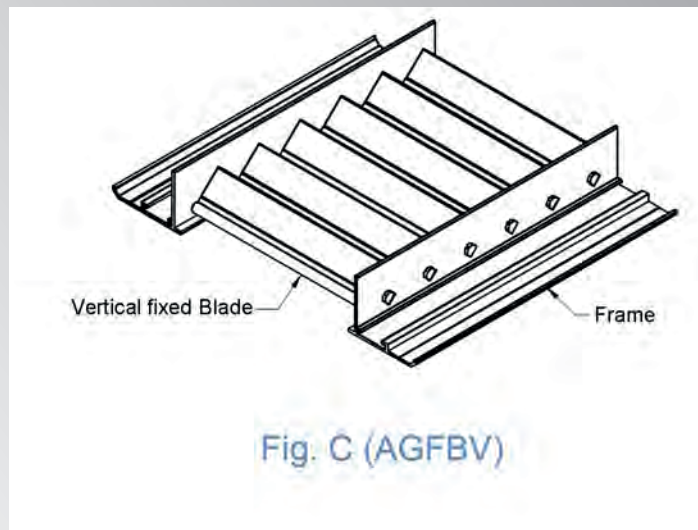
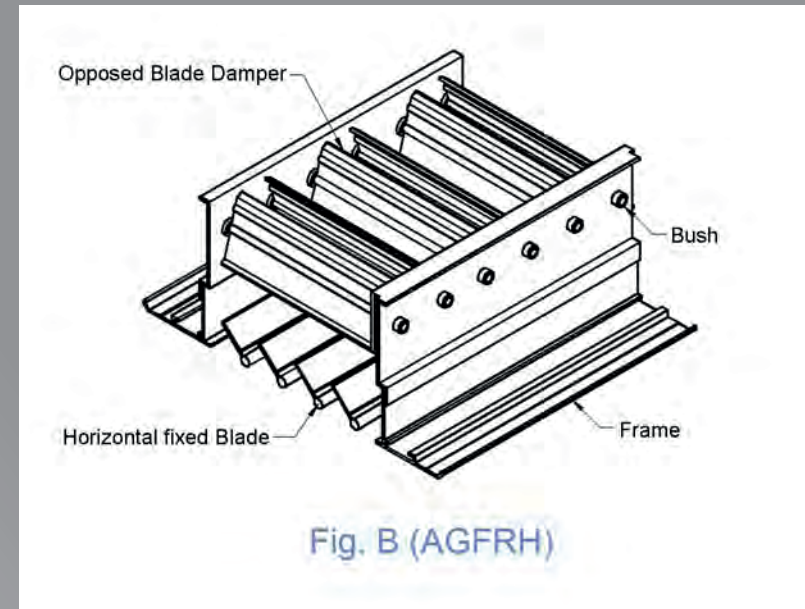
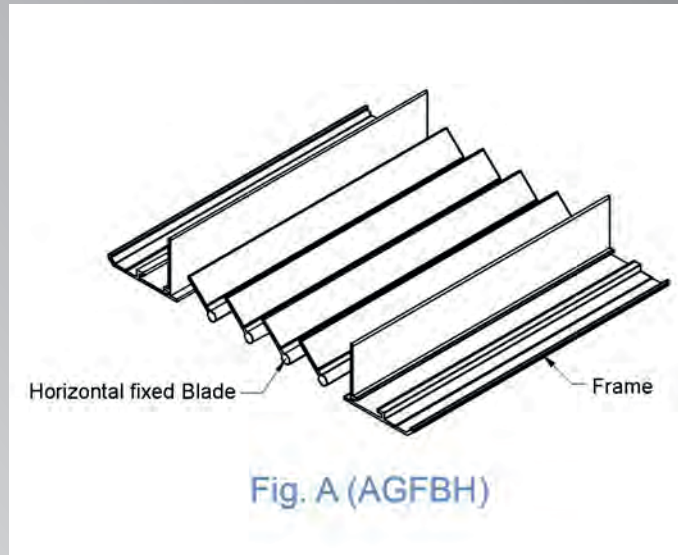
**Fixed blades air grill:** - a grill of a single set of fixed horizontal (fig. A) or vertical (fig. B) blades on 45° shape, frame blades are extruded aluminum alloy and polyester powder coated, used as a side wall return grille.

**Fixed blades air register:** - is a return air grill with opposed blade damper (fig. C & D).

**Makkah** customer support department's techniques are available to take actual measurements on site on request.



# Construction and dimensions Air Grill Fixed blade (AGF)



# Dimensional data

Air grill fixed blade & registers  
AGF

W = ceiling or wall opening (width)

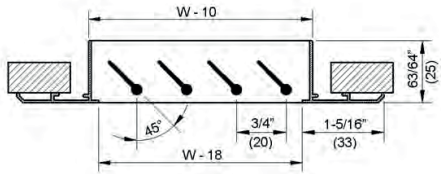


Fig. A (AGFBH)

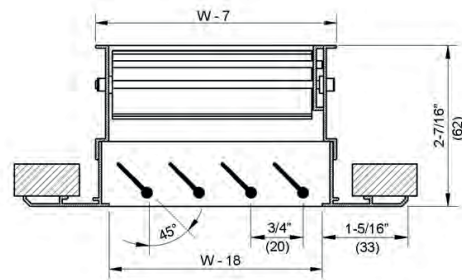


Fig. B (AGFRH)

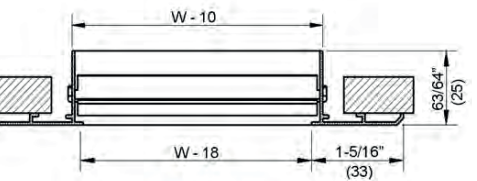


Fig. C (AGFBV)

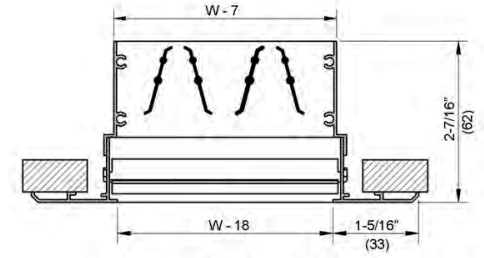


Fig. D (AGFRV)

### Listed Sizes

Size (inches)	Velocity (fpm)	Size (inches)	Velocity (fpm)	Size (inches)	Velocity (fpm)	Size (inches)	Velocity (fpm)
12 x 6	300 - 900	18 x 8	300 - 900	30 x 10	300 - 900	18 x 18	300 - 900
16 x 6	300 - 900	20 x 8	300 - 900	32 x 10	300 - 900	24 x 18	300 - 900
18 x 6	300 - 900	24 x 8	300 - 900	36 x 10	300 - 900	30 x 18	300 - 900
20 x 6	300 - 900	30 x 8	300 - 900	12x 12	300 - 900	36 x 18	300 - 900
24 x 6	300 - 900	36 x 8	300 - 900	18 x 12	300 - 900	20 x 20	300 - 900
30 x 6	300 - 900	12 x 10	300 - 900	24 x 12	300 - 900	24 x 20	300 - 900
36 x 6	300 - 900	18 x 10	300 - 900	28 x 12	300 - 900	30 x 20	300 - 900
12 x 8	300 - 900	20 x 10	300 - 900	30 x 12	300 - 900	24 x 24	300 - 900
16 x 8	300 - 900	24 x 10	300 - 900	36 x 12	300 - 900	36 x 24	300 - 900

# Air grill fixed blade (performance data)

## AGFB

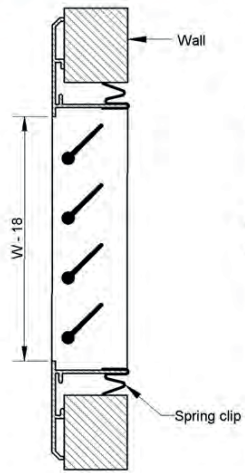
Listed Sizes (inches)	Face Velocity (fpm)	300	400	450	500	550	600	650	700	750	800	900
	Static Pressure Drop (in. w.g.)	0.008	0.015	0.019	0.023	0.028	0.032	0.038	0.044	0.050	0.056	0.071
12 x 6	CFM	45	60	68	75	82	90	97	105	112	120	135
	NC	<20	<20	<20	<20	<20	<20	<20	20	21	24	27
16 x 6	CFM	60	80	90	100	110	120	130	140	150	160	180
	NC	<20	<20	<20	<20	<20	<20	21	22	24	25	28
18 x 6	CFM	75	100	113	125	137	150	163	175	188	200	225
	NC	<20	<20	<20	<20	<20	<20	22	23	24	26	29
20 x 6	CFM	90	120	135	150	165	180	195	210	225	240	270
	NC	<20	<20	<20	<20	<20	<20	22	24	25	27	30
24 x 6	CFM	111	148	167	185	203	222	240	259	277	296	333
	NC	<20	<20	<20	<20	<20	21	23	25	27	29	32
30 x 6	CFM	135	180	203	225	247	270	292	315	338	360	405
	NC	<20	<20	<20	<20	<20	21	23	25	27	29	32
36 x 6	CFM	162	216	243	270	297	324	351	378	405	432	486
	NC	<20	<20	<20	<20	21	23	25	27	29	31	34
12 x 8	CFM	60	80	90	100	110	120	130	140	150	160	180
	NC	<20	<20	<20	<20	<20	<20	20	22	24	25	28
16 x 8	CFM	96	128	144	160	176	192	208	224	240	256	288
	NC	<20	<20	<20	<20	<20	20	22	24	26	28	31
18 x 8	CFM	111	148	167	185	203	222	240	259	277	296	333
	NC	<20	<20	<20	<20	<20	21	23	25	27	29	32
20 x 8	CFM	123	164	185	205	225	246	266	287	308	328	369
	NC	<20	<20	<20	<20	<20	21	23	25	27	29	32
24 x 8	CFM	150	200	225	250	275	300	325	350	375	400	450
	NC	<20	<20	<20	<20	20	22	24	26	28	30	33
30 x 8	CFM	180	240	270	300	330	360	390	420	450	480	540
	NC	<20	<20	<20	<20	21	23	25	27	29	31	34
36 x 8	CFM	222	296	333	370	407	444	481	518	555	592	666
	NC	<20	<20	<20	<20	22	24	26	28	30	32	36
12 x 10	CFM	90	120	135	150	165	180	195	210	225	240	270
	NC	<20	<20	<20	<20	<20	<20	22	24	25	27	30
18 x 10	CFM	132	176	198	220	242	264	286	308	330	352	396
	NC	<20	<20	<20	<20	<20	21	24	26	27	29	32
20 x 10	CFM	147	196	220	245	270	294	318	343	367	392	441
	NC	<20	<20	<20	<20	20	22	24	26	28	30	33
24 x 10	CFM	180	240	270	300	330	360	390	420	450	480	540
	NC	<20	<20	<20	<20	21	23	25	27	29	31	34
30 x 10	CFM	222	296	333	370	407	444	481	518	555	592	666
	NC	<20	<20	<20	<20	22	24	26	28	30	32	36
32 x 10	CFM	246	328	369	410	451	492	533	574	615	656	738
	NC	<20	<20	<20	20	23	25	27	29	31	33	37
36 x 10	CFM	276	368	414	460	506	552	598	644	690	736	828
	NC	<20	<20	20	23	25	28	30	32	34	36	40
12 x 12	CFM	111	148	167	185	203	222	240	259	277	296	333
	NC	<20	<20	<20	<20	<20	21	23	25	27	29	32
18 x 12	CFM	162	216	243	270	297	324	351	378	405	432	486
	NC	<20	<20	<20	<20	21	23	25	27	29	31	34
24 x 12	CFM	222	296	333	370	407	444	481	518	555	592	666
	NC	<20	<20	<20	<20	22	24	26	28	30	32	36
28 x 12	CFM	261	348	391	435	478	522	565	609	653	696	783
	NC	<20	<20	<20	20	23	25	27	29	31	33	37
30 x 112	CFM	276	368	414	460	506	552	598	644	690	736	828
	NC	<20	<20	20	23	25	28	30	32	34	36	40
36 x 12	CFM	336	448	504	560	616	672	728	784	840	896	1008
	NC	<20	<20	<20	21	24	26	29	31	32	34	38

# Air grill fixed blade (performance data) AGFB

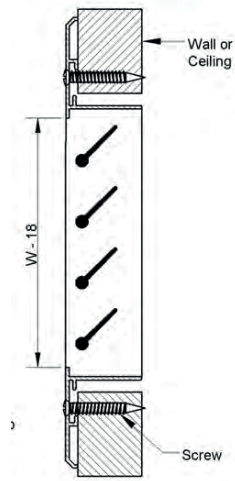
Listed Sizes (inches)	Face Velocity (fpm)	300	400	450	500	550	600	650	700	750	800	900
	Static Pressure Drop (in. w.g.)	0.008	0.015	0.019	0.023	0.028	0.032	0.038	0.044	0.050	0.056	0.071
16 x 16	CFM	195	260	293	325	358	390	423	455	488	520	585
	NC	<20	<20	<20	<20	22	24	26	28	30	32	36
18 x 18	CFM	249	332	374	415	456	498	539	581	622	664	747
	NC	<20	<20	<20	20	23	25	27	29	31	33	37
24 x 18	CFM	339	452	509	565	622	678	735	791	847	904	1017
	NC	<20	<20	<20	21	23	26	28	31	32	34	38
30 x 18	CFM	420	560	630	700	770	840	910	980	1050	1120	1260
	NC	<20	<20	20	23	25	28	30	32	34	36	40
36 x 18	CFM	513	684	770	855	940	1026	1111	1197	1282	1368	1539
	NC	<20	<20	21	24	27	29	31	33	35	37	41
20 x 20	CFM	312	416	468	520	572	624	676	728	780	832	936
	NC	<20	<20	20	21	24	26	28	30	32	34	38
24 x 20	CFM	381	508	572	635	699	762	825	889	952	1016	1143
	NC	<20	<20	20	22	25	27	29	31	33	35	39
30 x 20	CFM	471	628	707	785	863	942	1020	1099	1177	1256	1413
	NC	<20	<20	20	23	26	28	30	32	34	36	40
24 x 24	CFM	456	608	684	760	836	912	988	1064	1140	1216	1368
	NC	<20	<20	21	23	26	28	30	32	34	36	40
36 x 24	CFM	687	916	1030	1145	1260	1374	1488	1603	1717	1832	2061
	NC	<20	<20	23	25	28	30	32	34	36	38	42

# Air grill fixed blade (performance data) AGFB

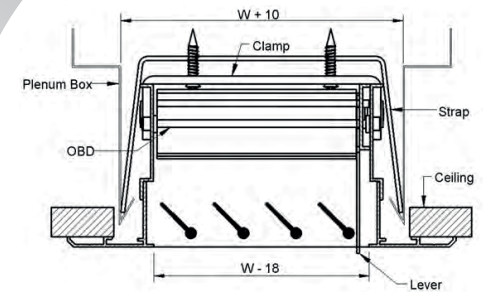
option R: by spring  
Clip (wall)



option S: by screw  
(wall or ceiling)



option P: by clamp and strap  
(plenum)





Option C: by clamp and strap (ceiling)

Option S: by screw (wall or ceiling)

Option D: by screw and collar (Duct)

