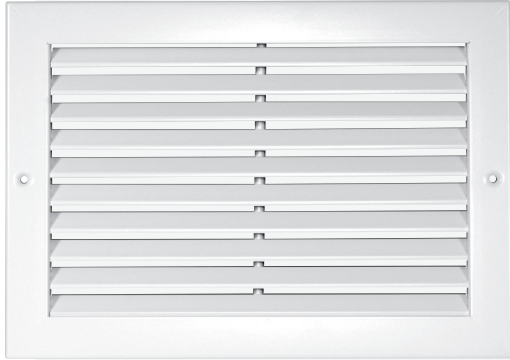




Aluminium Fixed Blade Return Grilles

4900 Series

Aluminium Fixed Blade Return Grilles



Models 5145H and 51FH Return Grilles have fixed horizontal blades (parallel to width/first specified dim.) spaced on 19mm centres with 45° or 0° straight face deflection.

Models 5145V and 51FV Return Grilles have fixed vertical blades (parallel to height/second specified dim.) spaced on 19mm centres with 45° or 0° straight face deflection. Their appearance compliments the supply grilles in the 5100 Series.

The streamlined blades and open spacing maintain an effective free area average capacity of over 50% for 45° and 75% for 0°, which minimises intake velocity, reduces inlet pressure and provides quiet operation. The smooth blade shapes do not accumulate lint and plug up. Deflected blade grilles installed in a low or high side wall location are vision-proof with the grille deflection facing away from the line of sight.

The design features a concealed rear reinforcing blade support mullion on 45° models. The grille therefore has a continuous louvred blade appearance with no visible face mullions on all single section sizes, thereby offering superior architectural appearance.

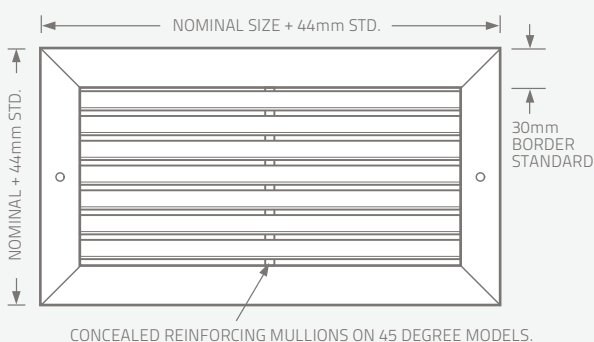
Features:

- High quality, extruded aluminium construction.
- 30mm wide face border with a 25mm overlap margin standard, supplied with countersunk screw holes and mounting screws. NF Narrow Frame with 25mm face border optional. Concealed mounting is optional for type 51F.
- Rigid extruded aluminium frames with reinforced mitred corners.
- Streamlined shaped extruded blades on 19mm centres. Blades positively hold deflection setting under all conditions of velocity and pressure.
- Integral dampers - aluminium. Opposed blade design with screwdriver slot operator or lever operator for 45° grilles.
- White polyester powder finish RAL 9010 semi-gloss is standard. Other finishes are available.
- Standard sizes are available from 100mm x 100mm to 1200mm x 1200mm in single section construction. Other sizes, including multiple section assemblies, are available on request but are subject to manufacturing limitations.
- 50mm increments only on the height

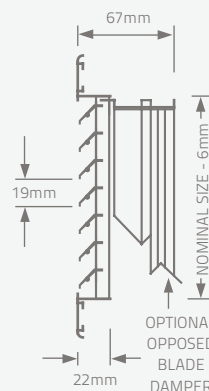
Models:

5145H, 5145V, 51FH and 51FV
(Suffix 'OA' adds opposed blade damper)

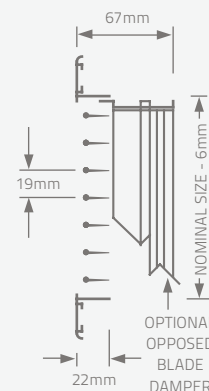
Model 5145H



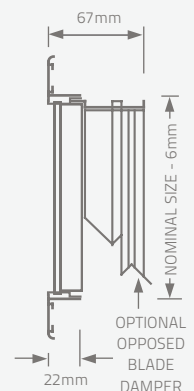
Model 5145H



Model 51FH



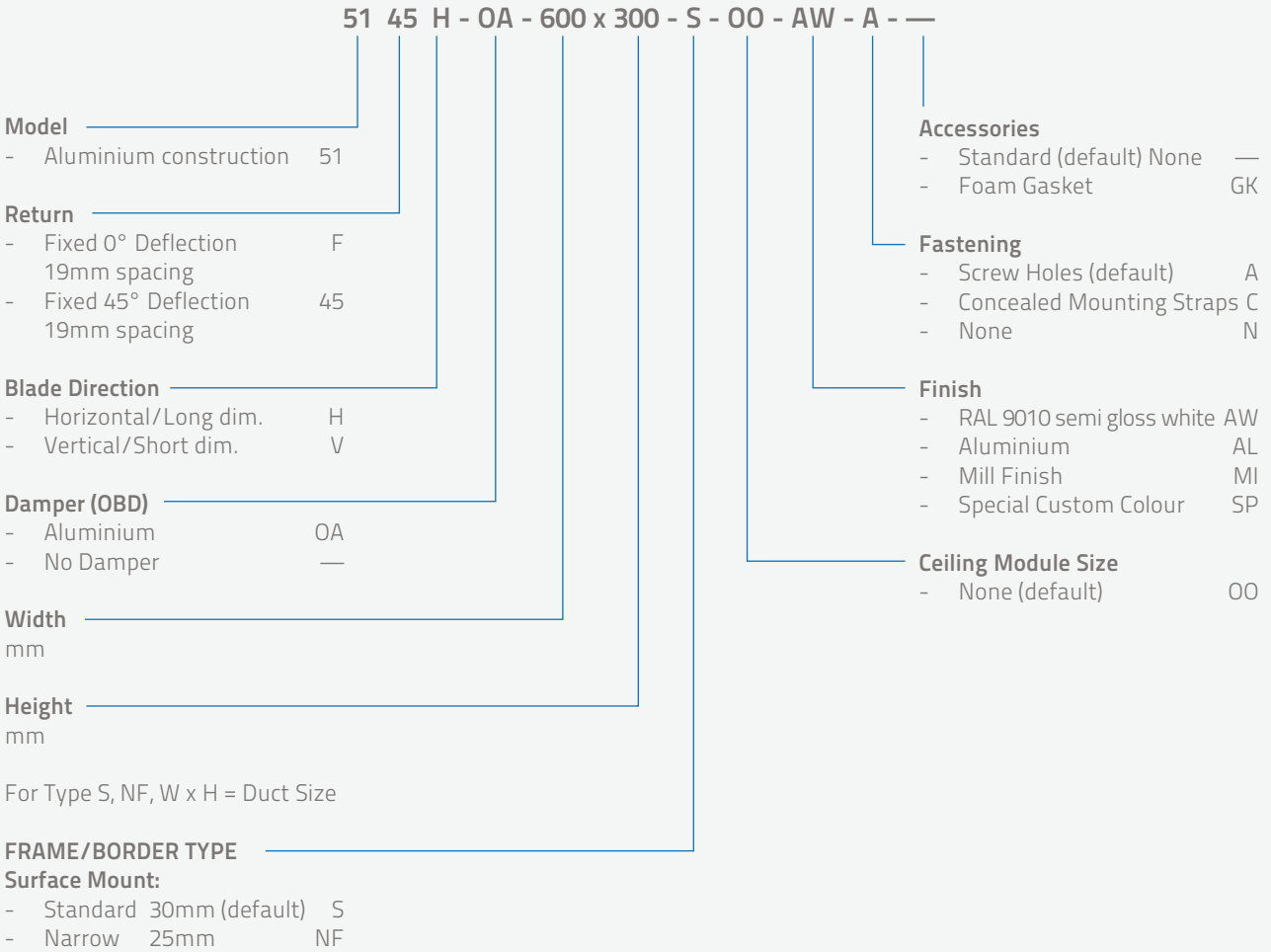
Model 51FV





How To Specify or To Order

Aluminium Return Grilles ■ Model Series 5100



(Show complete Model Number and Size, unless "Default" is desired)

Notes:

1. For a standard grille with no special requirements, specification is only required as far as the damper selection. The "default" will automatically be selected. For example, an aluminium 45° deflection grille, 19mm blade spacing, horizontal orientation and damper, is Model 5145H-OA. Unit will be supplied with screw holes and White polyester powder finish RAL 9010 semi-gloss.

Concealed fastening ("C") is not available on Model 5145.

Performance Data

Fixed Blade Return Grilles ■ Model Series: 5145H & 5145V

Listed Duct Size (mm)	Alternate Size (mm)	Core Area (m ²)	Core Velocity (m/s) Pressure Drop (Pa)	0.5 1	1.0 5	1.5 10	2.0 17	2.5 26	3.0 37	3.5 50	4.0 65	4.5 83
150 x 150	200 x 100	0.02	Flowrate (l/s)	9	19	28	38	47	57	66	76	85
	250 x 100		NC Level	–	–	–	–	–	19	24	28	32
200 x 150	250 x 125	0.03	Flowrate (l/s)	13	26	40	53	66	79	92	106	119
	300 x 100		NC Level	–	–	–	–	15	20	25	29	33
250 x 150	300 x 125	0.03	Flowrate (l/s)	17	33	50	66	83	99	116	132	149
	400 x 100		NC Level	–	–	–	–	16	21	26	30	34
200 x 200	350 x 125	0.04	Flowrate (l/s)	18	35	54	72	90	108	126	143	161
			NC Level	–	–	–	–	17	22	27	31	35
300 x 150	450 x 100	0.04	Flowrate (l/s)	20	40	59	79	99	119	139	159	178
			NC Level	–	–	–	–	18	23	27	32	36
300 x 200	400 x 150	0.05	Flowrate (l/s)	27	55	82	109	137	164	192	219	246
	600 x 100		NC Level	–	–	–	–	19	24	28	33	37
250 x 250	350 x 175	0.06	Flowrate (l/s)	29	58	86	115	144	173	202	230	259
	650 x 100		NC Level	–	–	–	–	19	24	29	34	37
450 x 150	350 x 200	0.06	Flowrate (l/s)	31	61	92	123	153	184	215	245	276
	700 x 100		NC Level	–	–	–	15	20	25	30	34	38
300 x 250	400 x 200	0.07	Flowrate (l/s)	35	70	105	140	175	210	244	279	314
	600 x 125		NC Level	–	–	–	15	20	25	30	35	39
300 x 300	350 x 250	0.08	Flowrate (l/s)	42	85	127	170	212	255	297	340	382
	450 x 200		NC Level	–	–	–	16	21	26	31	36	39
350 x 350	400 x 300	0.12	Flowrate (l/s)	59	117	176	234	293	351	410	468	527
	500 x 250		NC Level	–	–	–	16	21	26	31	36	40
450 x 300	400 x 350	0.13	Flowrate (l/s)	65	129	194	259	323	388	453	517	582
	550 x 250		NC Level	–	–	–	17	22	27	32	37	40
600 x 250	500 x 300	0.14	Flowrate (l/s)	72	143	215	287	359	430	502	574	646
	750 x 200		NC Level	–	–	–	17	22	27	32	38	41
400 x 400	450 x 350	0.15	Flowrate (l/s)	77	155	232	310	387	464	542	619	697
	550 x 300		NC Level	–	–	–	18	23	28	33	38	41
600 x 300	450 x 400	0.17	Flowrate (l/s)	87	175	262	349	437	524	611	698	786
	500 x 350		NC Level	–	–	–	18	23	28	33	38	41
450 x 450	500 x 400	0.20	Flowrate (l/s)	99	198	297	396	495	595	694	793	892
	600 x 350		NC Level	–	–	–	18	23	29	34	39	42
750 x 300	500 x 450	0.22	Flowrate (l/s)	109	219	328	438	547	657	766	876	985
	550 x 400		NC Level	–	–	–	19	24	29	34	39	42
500 x 500	600 x 450	0.24	Flowrate (l/s)	123	246	369	493	616	739	862	985	1108
	650 x 400		NC Level	–	–	–	19	24	30	35	40	43
550 x 550	600 x 500	0.29	Flowrate (l/s)	150	299	449	598	748	898	1047	1197	1346
	650 x 450		NC Level	–	–	–	20	25	31	35	40	43
750 x 450	600 x 550	0.33	Flowrate (l/s)	167	334	501	668	835	1001	1169	1336	1503
	850 x 400		NC Level	–	–	–	20	25	31	36	41	44
600 x 600	650 x 550	0.35	Flowrate (l/s)	179	358	537	715	894	1073	1252	1431	1610
	700 x 500		NC Level	–	–	–	20	25	31	36	41	44
900 x 450	800 x 500	0.40	Flowrate (l/s)	202	403	605	806	1008	1252	1411	1612	1814
	1000 x 400		NC Level	–	–	–	21	26	32	37	42	45
650 x 650	700 x 600	0.42	Flowrate (l/s)	211	422	633	844	1055	1266	1477	1688	1898
	1200 x 350		NC Level	–	–	–	21	26	32	37	42	45
750 x 600	700 x 650	0.44	Flowrate (l/s)	225	450	675	900	1125	1351	1576	1801	2026
	800 x 550		NC Level	–	–	15	22	27	33	38	42	46
700 x 700	750 x 650	0.48	Flowrate (l/s)	245	491	736	982	1227	1472	1718	1936	2208
	900 x 550		NC Level	–	–	15	22	27	33	38	43	46
900 x 600	750 x 700	0.53	Flowrate (l/s)	271	542	813	1083	1354	1625	1896	2167	2438
	1000 x 550		NC Level	–	–	15	22	28	34	38	43	47
750 x 750	850 x 650	0.56	Flowrate (l/s)	283	565	848	1131	1413	1696	1979	2261	2544
	950 x 600		NC Level	–	–	15	22	28	34	39	43	47

Air Balancing **Devices**

Opposed Blade Dampers

Advanced Air Opposed Blade Dampers are manufactured from extruded aluminium blades and frame with miscellaneous steel components.

The gang operated multi-blade design with blades closing at 45 degrees permits fine volume control for accurate balancing with minimum disturbance to the airflow pattern. Blades are individually pivoted on 25mm centres.

The Opposed Blade Damper mounts directly on the neck of the grille and fits most Advanced Air grilles. Steel barbed S-clips are used for easy site mounting or removal when ordered separately. Supplied as standard with a screwdriver slot operator (Type SL) on supply grilles and a screwdriver pivot lever operator (Type PL) on fixed, angled deflection return grille. Type SL operator is standard if damper is ordered separately from grille.

Can be specified as an integral part of the grille by adding a OA suffix to the grille model.

Min. Size = 100mm x 64mm Max. Size = 600 x 600mm

Type SL Operator

The SL Operator incorporates a screwdriver slot, which adjusts from the face of the grille. This operator is the standard supplied with supply air grilles such as the single and double deflection adjustable blade.

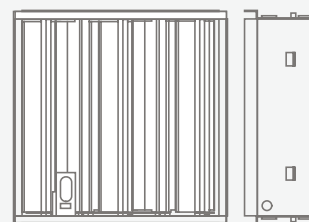
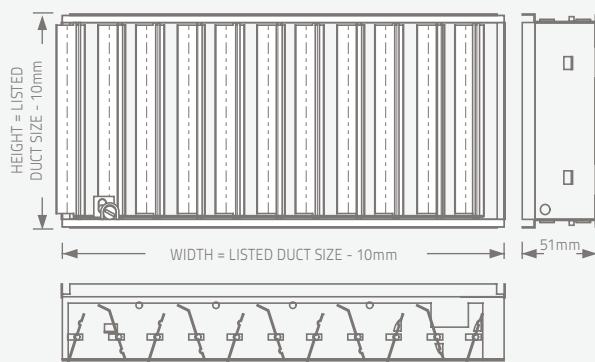
Type PL Operator

The PL Operator is a concealed pivot lever, which is adjusted from the face of the grille using a screwdriver. This operator is for use only on fixed blade, angled deflection, return air grilles. When specifying, the blade orientation of the damper must be opposite of the grille.

Model OBD Type SL (Screwdriver Slot)

Type PL (Pivot Lever)

Grille Mount – Face Operator



Plenums ■ For Grilles and Diffusers

Plenum boxes are designed to give even airflow across the Advanced Air range of grilles and diffusers.

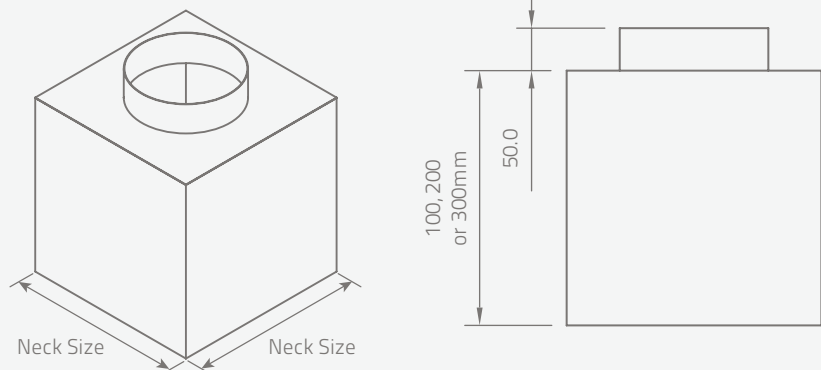
Manufactured from 0.6 to 0.8mm galvanised mild steel, the plenum boxes come with a range of spigots suitable for rectangular, circular or flat oval duct connections in either side or top entry applications. Plenums are supplied flangeless as standard. Flanges and fixing angles for drop rod/hanging support are optional extras. Concealed fixed plenums are also available on certain products, please contact Advanced Air sales for further details.

Plenums can also be supplied with optional balancing devices and thermal/acoustic lining where required. Plenum internals are natural finish as standard but optional matt black internal finish is available.

Please contact Advanced Air Sales for further details, or for bespoke solutions.

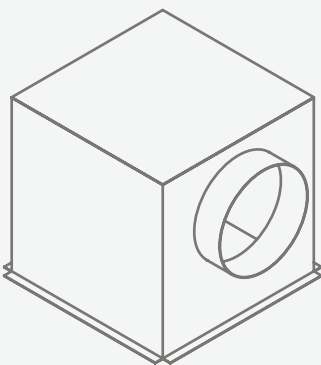
- Rectangular, Circular or Flat Oval Duct Connections
- Flanges & Fixing Angles Available
- Thermal/Acoustic Lining Option
- Variety of Finishes Available

Top Entry

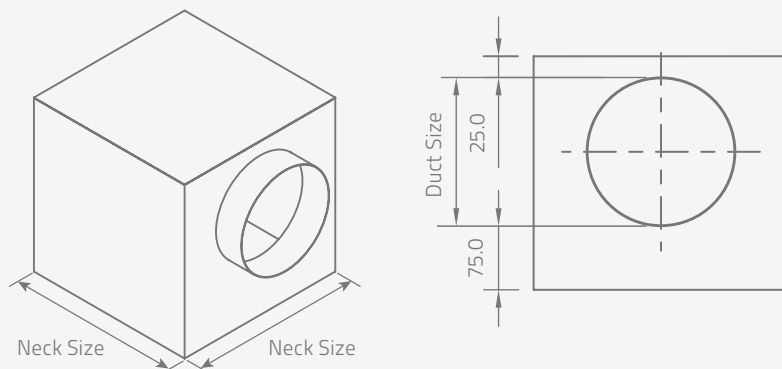


Flanges

15mm wide flanges are available.



Side Entry



Note:

As standard side entry plenum height is determined by specified spigot size, alternatively, overall height can be specified. Please contact Advanced Air sales for more details.