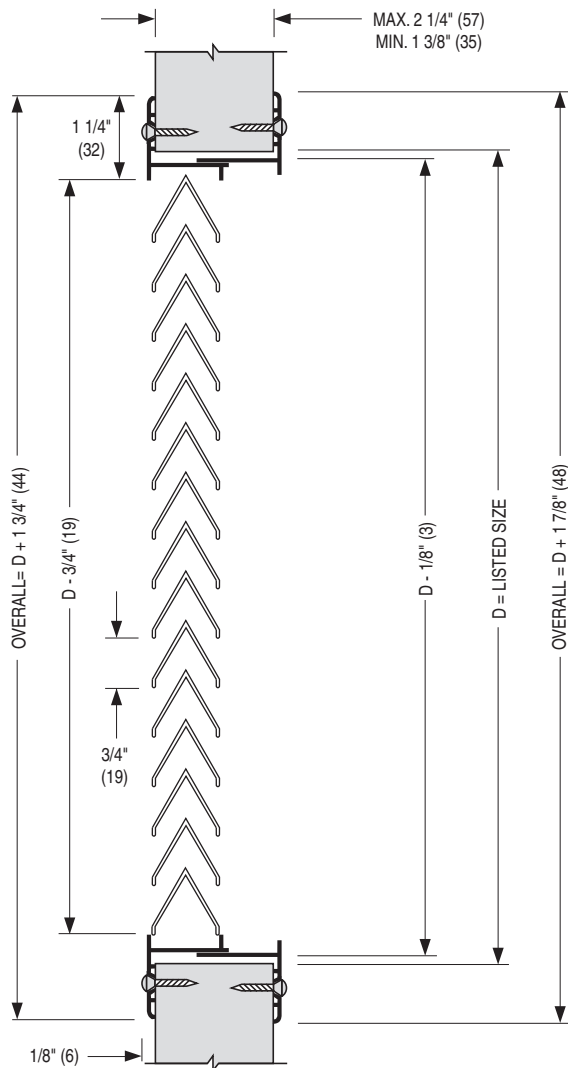
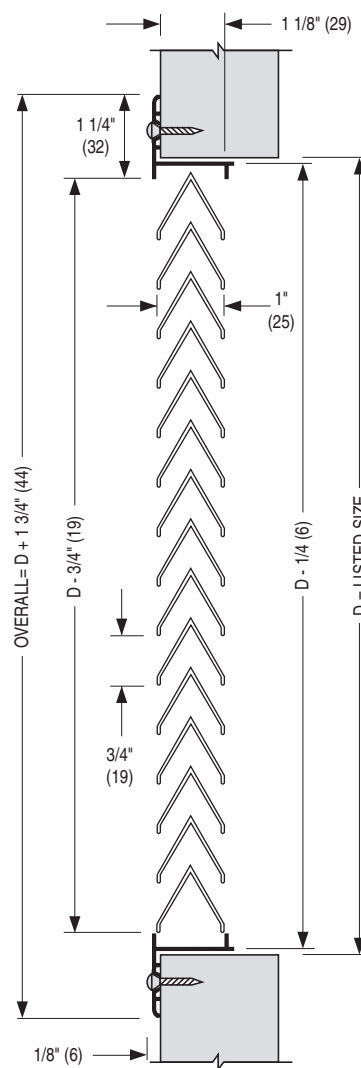


MODEL 51DGD (DOUBLE FLANGE)


AUXILIARY FRAME ASSEMBLY

MODEL 51DGS (SINGLE FLANGE)


CORE AND FLANGE FRAME ASSEMBLY

DESCRIPTION:

1. Construction: Extruded aluminum, heavy gauge frame, mechanically interlocked with reinforced mitered corners for strength. Heavy duty chevron louvers provide rigidity and strength and are mechanically locked in place.
2. Model Series 51DG offers a high free area with a completely sight-proof design, utilizing an inverted 'V' louver on 3/4" (19) centers. Solid construction will tolerate abuse from bumps and kicks. The 51DG Series Door Grille may also be used as a transfer grille and in place of standard design exhaust and return air grilles where it is important that the interior of the plenum or duct be concealed.

3. Minimum size is 6" x 4" (152 x 102). Maximum size is 36" x 36" (914 x 914). Available in nominal 1" (25) increments.
4. Standard fastening is Type 'A' countersunk screw holes.
5. Standard finish is AW Appliance White.

OPTIONS:

1. Finish:
 - ☐ SP Special _____.
 - ☐ AL Aluminum paint
 - ☐ BK Black
 - ☐ SA Satin (Clear) Anodized.

Dimensions are in inches (mm).

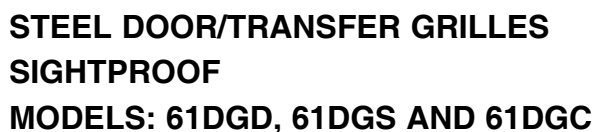
SCHEDULE TYPE:
PROJECT:
ENGINEER:
CONTRACTOR:
DATE
B SERIES
SUPERSEDES
DRAWING NO.

2 - 26 - 13

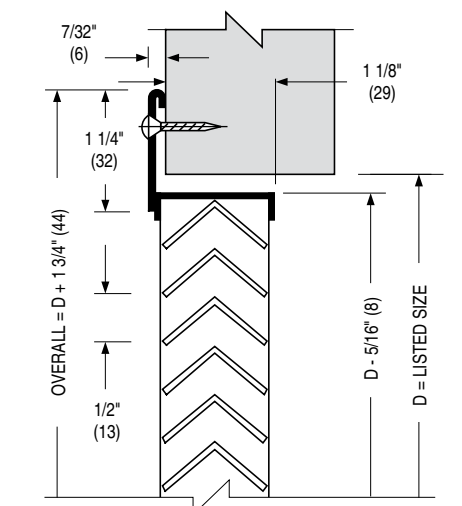
5100

7 - 17 - 12

51DG-1

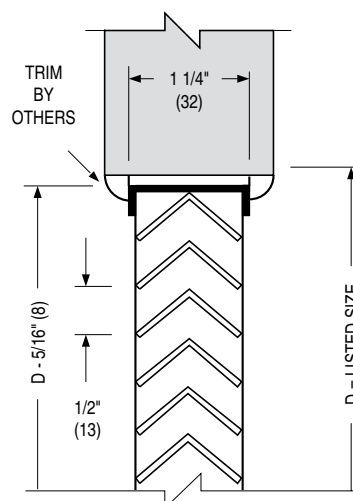


☐ **MODEL 61DGS (SINGLE FLANGE)**



CORE AND FLANGE FRAME ASSEMBLY

☐ **MODEL 61DGC (CORE ONLY)**

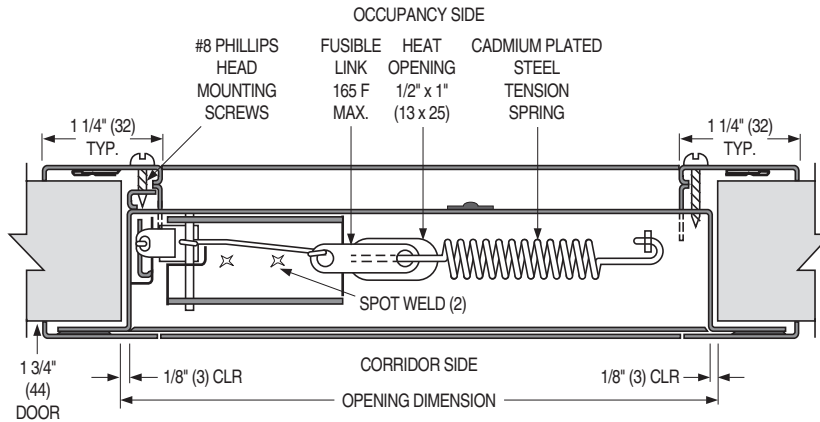


CORE AND CHANNEL FRAME ASSEMBLY

OPTIONS:

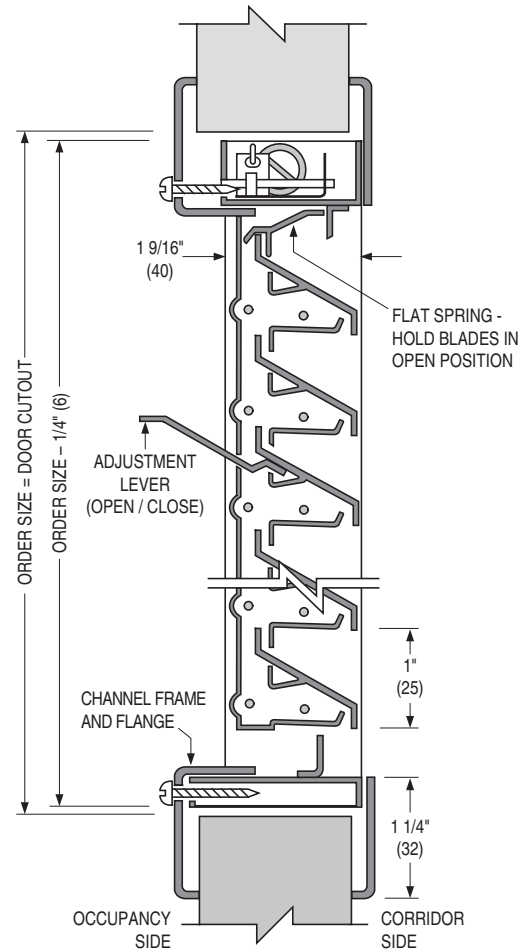
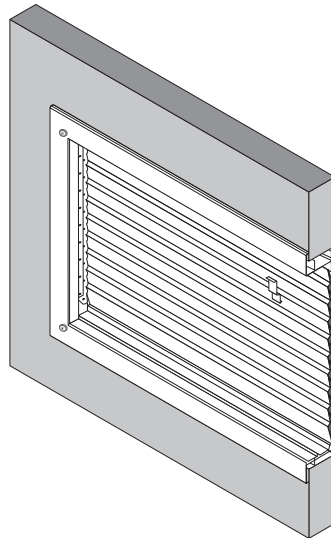
1. Finish:
☐ SP Special _____.

SCHEDULE TYPE:	Dimensions are in inches (mm).			
PROJECT:				
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	9 - 24 - 25	6100	2 - 1 - 11	61DG-1



HORIZONTAL SECTION

Stock Sizes:	
12 x 12	(305 x 305)
18 x 12	(457 x 305)
18 x 18	(457 x 457)
24 x 12	(610 x 305)
24 x 24	(610 x 610)



VERTICAL SECTION

DESCRIPTION:

The 61DGD-FR is listed by Underwriters Laboratories for use in hollow metal type and composite type fire doors with up to a 1 1/2 hr. rating. Suitable for doors 1 3/4" (44) thick. Ideal for installation in existing door cutouts.

Tested and Listed for UL10C, and classified in accordance with UBC7-2-94, ASTM E152, CAN/ULC S104, NFPA 252. Install in accordance with NFPA 80.

- **Material:** Cold rolled steel 18 ga. frame and 16 ga. blades.
- **Frame:** Mitered and welded corners.
- **Closing Assembly:** 165°F (74°C) UL listed fusible link with stainless steel operating spring and action bar.
- **Installation:**
 - Before installing Model 61DGD-FR Fire Door Louver into a fire door; be sure that the door cutout (order size) is accurate.
 - Position one side of Model 61DGD-FR in the door cutout (as it would be installed). Model 61DGD-FR requires a single door cutout only for installation.

c. With the frames in place, screw the mounting screw through the prepunched holes in the frame on the room side. Screw firmly together. Note: Use the 1/2" (13) long screws in hole nearest fusible link.

d. Visually inspect the fusible link to assure that it is unbroken. Do not install if link is not intact. **Paint should not be applied to the fusible link or any of the connecting hardware including the hold-open clip.** Note: Nailor is not responsible for customer painted louvers, due to possible changes to operating condition.

e. Tighten the Phillips head screws by hand. Power screwdrivers are not recommended.

- **Free Area:** 45%
- **Finish:** BP Dark Bronze powder coat paint.
- **Available Sizes. In 2" (51) nominal increments:**
Minimum 10" x 6" (254 x 152).
Maximum 24" x 24" (610 x 610).

SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
8 - 20 - 20	6100	7 - 30 - 20	61DGD-FR

PERFORMANCE DATA:

DOOR/TRANSFER GRILLES – 5100 AND 6100 SERIES

MODELS: 51DG, 61DG

Listed Duct Size (inches)	Alternate Sizes (inches)	Core Area (sq. ft.)	Ak Factor	Core Velocity Velocity Pressure Neg. Static Pressure	100 .001 .005	150 .001 .012	200 .002 .021	250 .004 .033	300 .006 .048	350 .008 .065	400 .010 .085	450 .013 .108
6 x 6	8 x 4 10 x 4	0.18	0.25	CFM Noise Criteria	18 –	27 –	36 –	45 18	54 22	63 25	72 28	81 30
8 x 6	12 x 4	0.25	0.33	CFM Noise Criteria	25 –	38 –	50 –	63 19	75 23	88 26	100 29	113 31
10 x 6	16 x 4	0.32	0.41	CFM Noise Criteria	32 –	48 –	64 15	80 20	96 24	112 27	128 30	144 33
8 x 8		0.35	0.44	CFM Noise Criteria	35 –	53 –	70 15	88 20	105 24	123 27	140 30	158 32
12 x 6	18 x 4	0.40	0.50	CFM Noise Criteria	40 –	60 –	80 16	100 21	120 25	140 28	160 31	180 33
12 x 8	16 x 6 24 x 4	0.55	0.66	CFM Noise Criteria	58 –	83 –	110 17	138 22	165 26	193 29	220 32	248 34
10 x 10	26 x 4	0.58	0.69	CFM Noise Criteria	61 –	87 –	116 17	145 22	174 26	203 29	232 32	261 35
12 x 10	16 x 8 20 x 6	0.70	0.82	CFM Noise Criteria	74 –	105 –	140 19	175 23	210 27	245 30	280 33	315 36
12 x 12	14 x 10 24 x 6 18 x 8	0.86	0.99	CFM Noise Criteria	90 –	129 –	172 20	215 24	258 28	301 31	344 34	387 36
14 x 14	16 x 12 24 x 8 20 x 10 34 x 6	1.20	1.35	CFM Noise Criteria	124 –	180 15	240 21	300 25	420 29	420 32	480 35	540 37
18 x 12	16 x 14 28 x 8 22 x 10	1.32	1.49	CFM Noise Criteria	132 –	198 16	264 22	330 26	396 30	462 33	528 36	594 38
16 x 16	18 x 14 30 x 8 22 x 12	1.59	1.76	CFM Noise Criteria	159 –	239 16	318 22	398 27	477 32	557 34	636 36	716 39
24 x 12	18 x 16 30 x 10 20 x 14	1.79	1.98	CFM Noise Criteria	179 –	269 17	358 23	448 28	537 33	627 35	716 37	806 40
18 x 18	20 x 16 28 x 12 24 x 14 32 x 10	2.04	2.23	CFM Noise Criteria	204 –	306 18	408 24	510 29	612 34	714 36	816 38	918 41
30 x 12	20 x 18 26 x 14 22 x 16 36 x 10	2.25	2.48	CFM Noise Criteria	225 –	338 18	450 24	563 29	675 34	788 36	900 38	1013 41
20 x 20	24 x 18 30 x 14 26 x 16 36 x 12	2.54	2.75	CFM Noise Criteria	254 –	381 19	508 25	635 30	762 35	889 43	1016 39	1143 42
22 x 22	24 x 20 30 x 16 26 x 18 36 x 14	3.10	3.33	CFM Noise Criteria	310 –	465 19	620 25	775 30	930 35	1085 38	1240 40	1395 43
30 x 18	24 x 22 40 x 14 34 x 16	3.46	3.71	CFM Noise Criteria	346 –	519 20	692 26	865 30	1038 35	1211 38	1384 40	1557 43
24 x 24	26 x 22 32 x 18 28 x 20 36 x 16	3.71	3.96	CFM Noise Criteria	371 –	557 20	742 26	928 30	1113 35	1299 38	1484 41	1670 44
36 x 18	32 x 20 46 x 14 40 x 16	4.18	4.46	CFM Noise Criteria	418 –	627 20	836 26	1045 30	1254 35	1463 39	1672 41	1881 44
26 x 26	28 x 24	4.38	4.65	CFM Noise Criteria	438 –	657 20	876 27	1095 31	1314 36	1533 39	1752 41	1971 44
30 x 24	28 x 26 36 x 20 32 x 22	4.68	4.95	CFM Noise Criteria	468 –	702 21	936 27	1170 31	1404 36	1638 39	1872 41	2106 44
28 x 28	30 x 26 36 x 22	5.11	5.39	CFM Noise Criteria	511 –	767 21	1022 28	1278 32	1533 37	1789 40	2044 42	2300 45
36 x 24	30 x 28	5.64	5.94	CFM Noise Criteria	564 –	846 22	1128 28	1410 32	1692 37	1974 40	2256 42	2538 45
30 x 30	34 x 26	5.89	6.19	CFM Noise Criteria	589 –	884 22	1178 28	1473 32	1767 37	2062 40	2356 42	2651 45

Performance Notes:

1. All pressures are in inches w.g..
2. Core Velocity is in feet per minute.
3. Ak balancing factors are based on an Alnor velometer with a 2220A or 6070P Jet Probe.

Position probe 1" (25) out from face of grille and take the average of several readings at various positions.

$$\text{Airflow (CFM)} = \text{Average Velocity (V}_k\text{)} \times \text{A}_k$$

4. Noise Criteria (NC) values are based on a room absorption of 10 dB, re 10⁻¹² watts. Dash (–) in space denotes a Noise Criteria level of less than 15.
5. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.