

### Louvers

#### Wood Louvers

To prevent warping and sagging of the louvers and to increase the security of the installation, Forte™ Opening Solutions specially constructs large louvers.

When a single louver is 20" or wider in width for Flat-Slat or Round-Slat Louvers, or 24" or wider for Sight-Proof V-Slat, we will install two or more louvers with center mouldings in the cutout. See illustration #1.

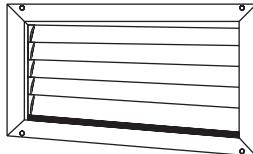
For Louvers 54" or longer and 20" or wider for Flat-Slat or Round-Slat, or 24" or wider for Sight-Proof, the louvers are installed as described above and with an additional vertical divider bar. See illustration #2.

Unfinished and primed doors will not have nail holes filled. Factory finished doors with installed louvers will have nail holes filled.

#### Fusible Link Louvers

Underwriters Laboratories (UL) and Intertek Testing Services - Wamock Hersey (ITS-WH) approved fusible link louvers are available for certain Forte Opening Solutions fire-rated doors.

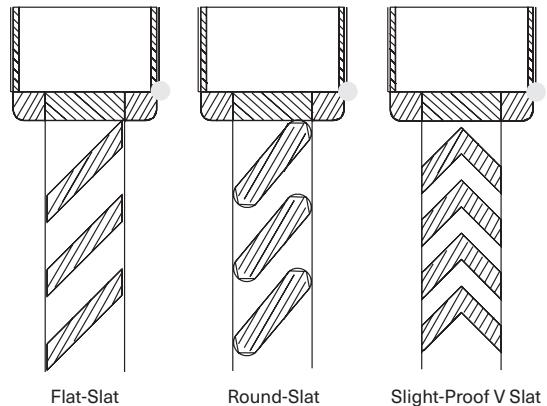
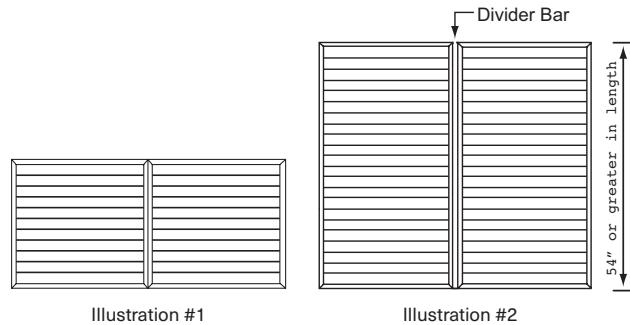
Please see Appendix G and H for specific size restrictions. Labeled doors used as a mean of egress are not allowed to have fusible link louvers. Care must be used to avoid overpainting in the field—too much paint can hinder proper operation.



View from Corridor Side



View from Occupancy Side



Downset may vary due to allowable tolerance deviations in components. For nominal louver size of 24"x12" actual cutout sizes are:  
24"x11-7/8" Flat Slat  
24"x11-3/4" Round-Slat  
24"x12" Sight-Proof V-Slat

## Appendix B

### Louvers



**Flat Slat Free Area:** Values in the table are square feet of Free Area. Example: 22" wide x 16" length: FA = 0.72 sqft.

WIDTH	LENGTH													
	6	12	13.25	16	21	26	31	36	41	46	51	56	61	
8	0.07	0.18	0.20	0.25	0.33	0.42	0.51	0.60	0.69	0.78	0.86	0.95	1.04	
9	0.08	0.20	0.23	0.28	0.38	0.48	0.58	0.68	0.78	0.88	0.98	1.08	1.18	
10	0.09	0.22	0.25	0.31	0.43	0.54	0.65	0.76	0.88	0.99	1.10	1.21	1.33	
11	0.10	0.25	0.28	0.35	0.47	0.60	0.72	0.85	0.97	1.10	1.22	1.35	1.47	
12	0.11	0.27	0.31	0.38	0.52	0.66	0.79	0.93	1.07	1.20	1.34	1.48	1.61	
13	0.12	0.30	0.33	0.42	0.57	0.71	0.86	1.01	1.16	1.31	1.46	1.61	1.76	
14	0.13	0.32	0.36	0.45	0.61	0.77	0.93	1.09	1.26	1.42	1.58	1.74	1.90	
15	0.14	0.35	0.39	0.48	0.66	0.83	1.00	1.18	1.35	1.52	1.70	1.87	2.04	
16	0.15	0.37	0.42	0.52	0.70	0.89	1.07	1.26	1.45	1.63	1.82	2.00	2.19	
17	0.16	0.39	0.44	0.55	0.75	0.95	1.15	1.34	1.54	1.74	1.94	2.13	2.33	
18	0.17	0.42	0.47	0.59	0.80	1.01	1.22	1.43	1.64	1.84	2.05	2.26	2.47	
19	0.18	0.44	0.50	0.62	0.84	1.06	1.29	1.51	1.73	1.95	2.17	2.40	2.62	
20	0.19	0.47	0.53	0.66	0.89	1.12	1.36	1.59	1.82	2.06	2.29	2.53	2.76	
21	0.20	0.49	0.55	0.69	0.94	1.18	1.43	1.67	1.92	2.17	2.41	2.66	2.90	
22	0.21	0.52	0.58	0.72	0.98	1.24	1.50	1.76	2.01	2.27	2.53	2.79	3.05	
23	0.22	0.54	0.61	0.76	1.03	1.30	1.57	1.84	2.11	2.38	2.65	2.92	3.19	
24	0.23	0.57	0.64	0.79	1.07	1.36	1.64	1.92	2.20	2.49	2.77	3.05	3.33	
25	0.24	0.59	0.66	0.83	1.12	1.41	1.71	2.00	2.30	2.59	2.89	3.18	3.48	
26	0.25	0.61	0.69	0.86	1.17	1.47	1.78	2.09	2.39	2.70	3.01	3.31	3.62	
27	0.26	0.64	0.72	0.89	1.21	1.53	1.85	2.17	2.49	2.81	3.13	3.45	3.76	
28	0.27	0.66	0.75	0.93	1.26	1.59	1.92	2.25	2.58	2.91	3.25	3.58	3.91	

#### Equation for Calculation:

$$\text{Free Area} = L \times (A + B + N \times C) / 144$$

L = Minimum distance between Louver Jams [in]

A = Minimum distance between the frame and the top slat [in]

B = Minimum distance between the frame and the bottom slat [in]

N = Number of "C" openings in the Louver

C = Minimum distance between adjacent Slats [in]

W = Actual Louver width [in]

H = Actual Louver Height [in]

## Appendix B

### Louvers



**Sight Proof V-Slat Free Area:** Values in the table are square feet of Free Area. Example: 22" wide x 16" length: FA = 0.54 sqft.

WIDTH	LENGTH													
	6	12	13.25	16	21	26	31	36	41	46	51	56	61	
8	0.05	0.13	0.15	0.18	0.25	0.32	0.39	0.45	0.52	0.59	0.65	0.72	0.79	
9	0.06	0.15	0.17	0.21	0.29	0.36	0.44	0.52	0.59	0.67	0.74	0.82	0.90	
10	0.06	0.17	0.19	0.24	0.32	0.41	0.49	0.58	0.66	0.75	0.84	0.92	1.01	
11	0.07	0.19	0.21	0.26	0.36	0.45	0.55	0.64	0.74	0.83	0.93	1.02	1.12	
12	0.08	0.20	0.23	0.29	0.39	0.49	0.60	0.70	0.81	0.91	1.02	1.12	1.22	
13	0.09	0.22	0.25	0.31	0.43	0.54	0.65	0.77	0.88	0.99	1.11	1.22	1.33	
14	0.09	0.24	0.27	0.34	0.46	0.58	0.71	0.83	0.95	1.07	1.20	1.32	1.44	
15	0.10	0.26	0.29	0.36	0.49	0.63	0.76	0.89	1.02	1.15	1.29	1.42	1.55	
16	0.11	0.28	0.31	0.39	0.53	0.67	0.81	0.95	1.09	1.24	1.38	1.52	1.66	
17	0.11	0.29	0.33	0.41	0.56	0.71	0.87	1.02	1.17	1.32	1.47	1.62	1.77	
18	0.12	0.31	0.35	0.44	0.60	0.76	0.92	1.08	1.24	1.40	1.56	1.72	1.88	
19	0.13	0.33	0.37	0.46	0.63	0.80	0.97	1.14	1.31	1.48	1.65	1.82	1.99	
20	0.13	0.35	0.39	0.49	0.67	0.85	1.02	1.20	1.38	1.56	1.74	1.92	2.09	
21	0.14	0.37	0.41	0.52	0.70	0.89	1.08	1.27	1.45	1.64	1.83	2.02	2.20	
22	0.15	0.38	0.43	0.54	0.74	0.93	1.13	1.33	1.52	1.72	1.92	2.12	2.31	
23	0.15	0.40	0.45	0.57	0.77	0.98	1.18	1.39	1.60	1.80	2.01	2.21	2.42	
24	0.16	0.42	0.47	0.59	0.81	1.02	1.24	1.45	1.67	1.88	2.10	2.31	2.53	
25	0.17	0.44	0.49	0.62	0.84	1.07	1.29	1.52	1.74	1.96	2.19	2.41	2.64	
26	0.18	0.46	0.51	0.64	0.88	1.11	1.34	1.58	1.81	2.05	2.28	2.51	2.75	
27	0.18	0.47	0.53	0.67	0.91	1.15	1.40	1.64	1.88	2.13	2.37	2.61	2.86	
28	0.19	0.49	0.56	0.69	0.95	1.20	1.45	1.70	1.96	2.21	2.46	2.71	2.96	

**Equation for Calculation:**

$$\text{Free Area} = L \times (A + B + N \times C) / 144$$

L = Minimum distance between Louver Jams [in]

A = Minimum distance between the frame and the top slat [in]

B = Minimum distance between the frame and the bottom slat [in]

N = Number of "C" openings in the Louver

C = Minimum distance between adjacent Slats [in]

W = Actual Louver width [in]

H = Actual Louver Height [in]