

TW-445-SS / HW-445-SS



FIXED STEEL LOUVERS STORMPROOF

STANDARD CONSTRUCTION

FRAME	16 GA, 304-4 STAINLESS STEEL
BLADES	16 GA, 304-4 STAINLESS STEEL
BLADE ANGLE	48°
BLADE SPACING	± 4" (101.6 MM)
BLADE FASTENING	RIVETED TO FRAME
BIRD SCREEN	STAINLESS STEEL 1/2" X 1/2" (12.7 MM X 12.7 MM)
SINGLE SECTION	MIN. 6" (152 MM) X 8" (203 MM) MAX. 60" (1 524 MM) X 96" (2 438 MM)
MULTIPLE SECTIONS	VARIOUS CONFIGURATIONS AVAILABLE

PERFORMANCE: 48" X 48" SECTION

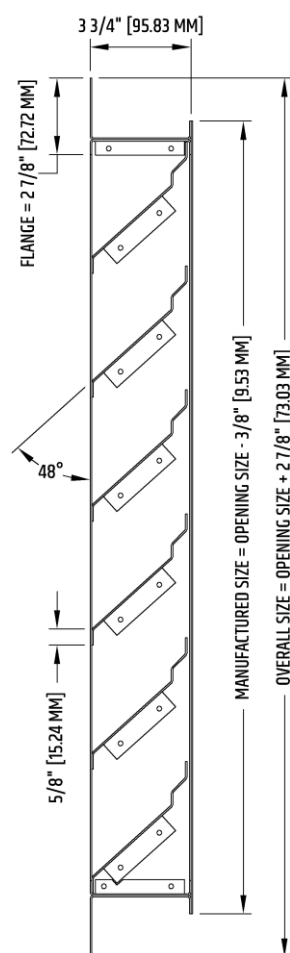
FREE AREA	7.19 FT ² (0.668 M ²)
PERCENTAGE OF FREE AREA	45 %
BEGINNING POINT OF WATER PENETRATION	534 FT/MIN (2.71 M/S)
PRESSURE DROP AT BEGINNING POINT OF WATER PENETRATION	0.034" W.G. (8.5 PA)

NOTE: Louvers tested with bird screen installed

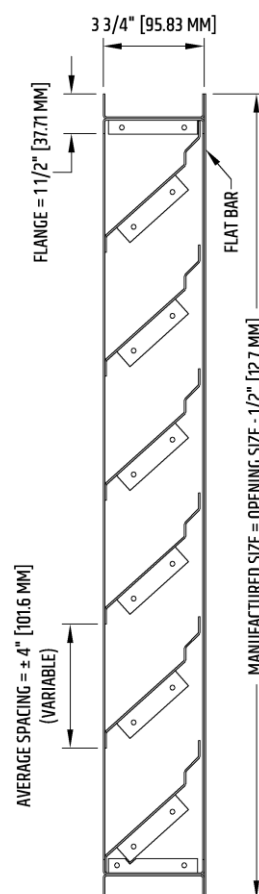
AVAILABLE OPTIONS

MATERIAL	SATIN COAT STEEL
	GALVANIZED STEEL
	304-2B STAINLESS STEEL
	316-2B STAINLESS STEEL
	316-4 STAINLESS STEEL
MATERIAL THICKNESS	14 GA
BLANK-OFF PANEL	NON INSULATED
	INSULATED AND FASTENED (WITH THERMAL BARRIER)
	INSULATED AND REMOVABLE (WITH THERMAL BARRIER)
ACCESS LOUVER (DOOR)	MOUNTED ON HINGES

TW-445-SS



HW-445-SS

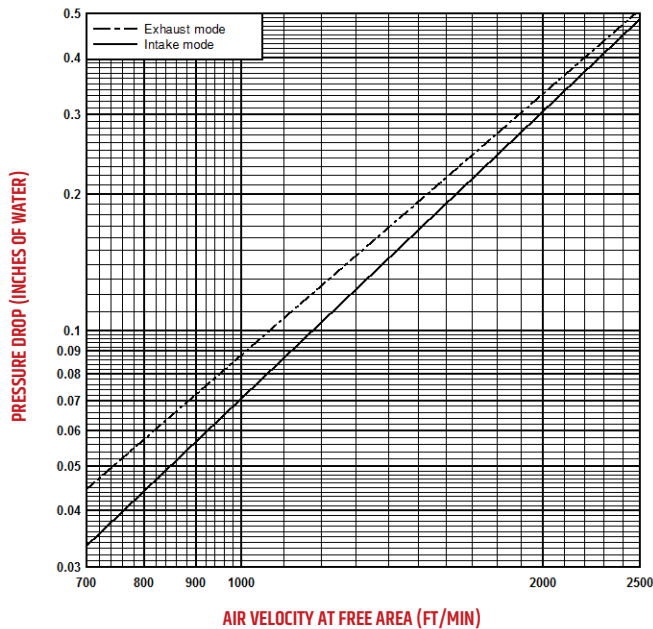


LOUVER FREE AREA (IN²)

HEIGHT (IN)	WIDTH (IN)										
	12	18	24	30	36	42	48	54	60	66	72
12	0.31	0.48	0.64	0.81	0.98	1.14	1.31	1.48	1.64	1.75	1.92
18	0.50	0.76	1.03	1.30	1.56	1.83	2.10	2.36	2.63	2.81	3.07
24	0.69	1.05	1.42	1.79	2.16	2.52	2.89	3.26	3.63	3.87	4.24
30	0.96	1.48	1.99	2.50	3.02	3.53	4.05	4.56	5.08	5.42	5.93
36	1.24	1.91	2.57	3.23	3.90	4.56	5.23	5.89	6.56	7.00	7.66
42	1.43	2.20	2.97	3.74	4.50	5.27	6.04	6.80	7.57	8.08	8.85
48	1.71	2.62	3.53	4.45	5.36	6.28	7.19	8.10	9.02	9.63	10.54
54	1.90	2.92	3.93	4.95	5.97	6.99	8.00	9.02	10.04	10.71	11.73
60	2.17	3.33	4.49	5.65	6.82	7.98	9.14	10.30	11.46	12.23	13.40
66	2.46	3.77	5.09	6.40	7.72	9.03	10.35	11.66	12.98	13.85	15.17
72	2.64	4.05	5.46	6.88	8.29	9.70	11.12	12.53	13.94	14.88	16.30
78	2.92	4.48	6.04	7.60	9.17	10.73	12.29	13.85	15.41	16.45	18.02
84	3.19	4.90	6.61	8.32	10.03	11.73	13.44	15.15	16.86	18.00	19.71
90	3.38	5.18	6.99	8.80	10.60	12.41	14.22	16.02	17.83	19.03	20.84
96	3.67	5.63	7.59	9.55	11.51	13.47	15.44	17.40	19.36	20.67	22.63

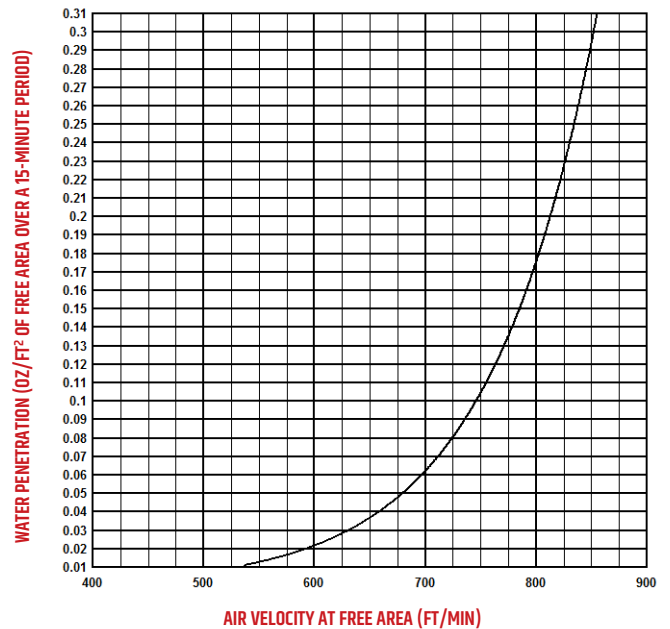
NOTE : Louvers tested with bird screen installed

PRESSURE DROP VS AIR VELOCITY MODEL TW-445



WATER PENETRATION MODEL TW-445

BEGINNING POINT OF WATER PENETRATION AT 534 FT/MIN



NOTE : Water penetration and pressure drop tests performed by Air-Ins Laboratories, in accordance with the AMCA 500 standard.

CALCULATION METHOD FOR REQUIRED FREE AREA

To determine the free area required for a louver:

- > Step 1: Divide the required flow (CFM) by the projected velocity at free area.
- > Step 2: Choose the desired louver size from the free area table that meets the minimum requirements.
- > Step 3: Compare specifications for certified water penetration and pressure drop.

Example for intake:

5 000 CFM flow at 500 FT/MIN :

$$\text{Min. free area} = \frac{\text{required CFM}}{\text{maximum projected velocity}^*} = \frac{5\,000}{500} = 10 \text{ ft}^2$$

Select a louver measuring 54" x 60" with 10.30 ft² of free area.

*Should not exceed beginning point of water penetration speed.

Trolec reserves the right to modify these specifications without notice.