

TWYER 4" (110mm) STORM RESISTANT HIDDEN MULLION LOUVER MODEL TWY420



TEST TO STANDARD ANSI/AMCA 500-L-07 WIND DRIVEN RAIN TEST

DESIGN DATA:

To maintain a **CLASS A (99%) effectiveness** rating with a 13m/s wind speed and a rainfall rate of 75mm/hr

- Maximum intake core velocity 2.398m/s
- Maximum intake free area velocity 4.20m/s
- Intake pressure drop 38pa
- Intake capacity 3.16m³/s

*louver tested with 1m² core area, mill finish and no screen

Free Area: 52.4%

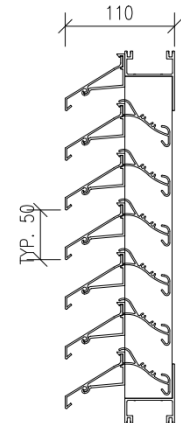
SUGGESTED SPECIFICATIONS:

1. GENERAL: Furnish and install where indicated on the drawings TWYER 4" (110mm) STORM RESISTANT HIDDEN MULLION TYPE LOUVER MODEL TWY420 as manufactured by TWYER LIMITED.
Complete details shall be submitted to the architect for approval prior to fabrication.

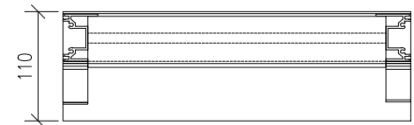
2. MATERIAL: Frames and blades to be fabricated from 6063-T5 aluminum alloy. Blades to be minimum 1.5mm thick extrusions and frames to be a minimum 2.03mm thick. Louver to be mechanically fastened using stainless steel or aluminum fasteners. Louvers to be a drainable system with architectural line "front appearance". Louvers to be installed in accordance with the manufacturer's recommended procedures to ensure complete water integrity performance of louver system. Louvers to be furnished with 0.05" (12.7mm) mesh screen if necessary, secured within extruded aluminum frame.

3. STRUCTURAL DESIGN: Structural supports shall be designed and furnished by the louver manufacturer to carry a wind load of not less than _____ kPa (Note: If this paragraph is omitted or if the design wind load is not specified, the louvers will be manufactured in self-supporting units up to a maximum of 1500 mm wide by 2400mm high. Any additional structural supports required to adequately secure these unit within the opening shall be the responsibility of others.

4. FINISH: Louvers shall be finished in PVDF, with minimum thickness as per paint manufacturer's recommendation. The coating shall meet or exceed all requirements of AAMA specification 2605 "Voluntary Specification for High Performance Organic Coatings on Architectural Extrusions and Panels". The Louver manufacturer shall supply an industry standard 5 year limited warranty upon the date of material shipment. The finish will be applied to the exterior elements only.



SECTION VIEW



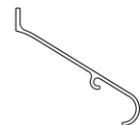
PLAN VIEW

TWY420

Discharge Coefficient
Cd = 0.303 (Class 2)



Flat Nose Design



Bull Nose Design

WIND DRIVEN RAIN PERFORMANCE:

The louver test was based on a 39.370" (1.00m) x 39.370" (1.00m) core area unit tested at a rainfall rate of 3 inches per hour (75mm/hr) and with a wind directed to the face of the louver at a velocity 29.1 mph (13m/s). The test data shall show the water penetration effectiveness rating at each corresponding ventilation rate.

Ventilation Rate (m3/s):	0.0	0.69	1.33	2.00	2.65	3.32	3.98	4.64
Core Ventilation Rate (m/s):	0.0	0.52	1.01	1.51	2.01	2.51	3.01	3.51
Free Area Ventilation Rate (m/s):	0	0.91	1.76	2.65	3.51	4.40	5.27	6.15
Rating effectiveness:	A	A	A	A	A	B	B	C
Effectiveness Rating:	A=1 to 0.99		B=0.989 to 0.95		C=0.949 to 0.80		D=0.80 to 0	