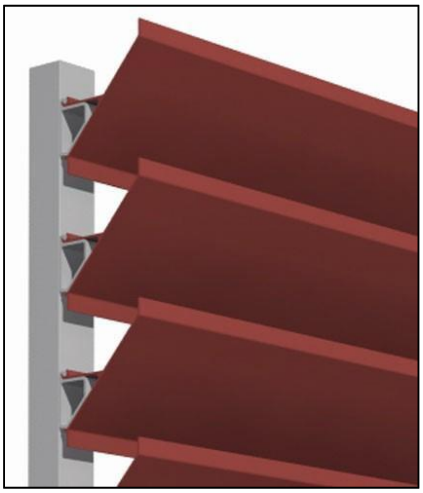
VisionGuard® L10 Angled Louver

Description:

VisionGuard® Angled Louvers incorporate a 45° inverted-blade profile designed for architectural and vision-proofing applications. Our continuous-blade design allows greater flexibility to achieve the aesthetics desired. Instead of the pre-framed panelized louvers commonly found on the market, VisionGuard® louvers consist of individual continuous blades that can extend seamlessly across any distance without the need for frame flanges or mullions. If vertical mullions, or a panelized aesthetic is desired, it can easily be achieved with the use of trims.



Components:

- Louver Blade: .100” thick extruded aluminum, ASTM B 221, Alloy 6063-T6.
- Louver Clip: .125” thick extruded aluminum, ASTM B 221, Alloy 6063-T6.
- Vertical Tree: 3” x 3” x .188” thick extruded aluminum, ASTM B 221, Alloy 6061-T6.
- Self-Drilling Screw: #12-24 x 1.25” carbon with premium coating.
- SS Rivet: Stainless steel open end domed head .0187" x 0.565"

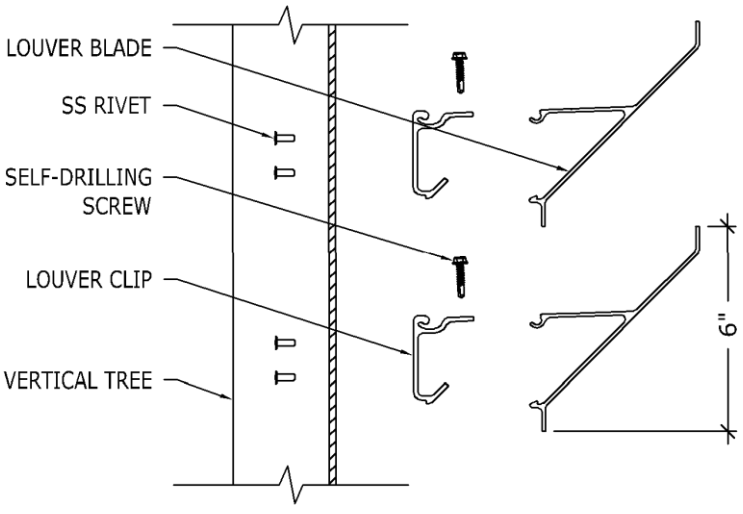


Figure 1

Exploded View

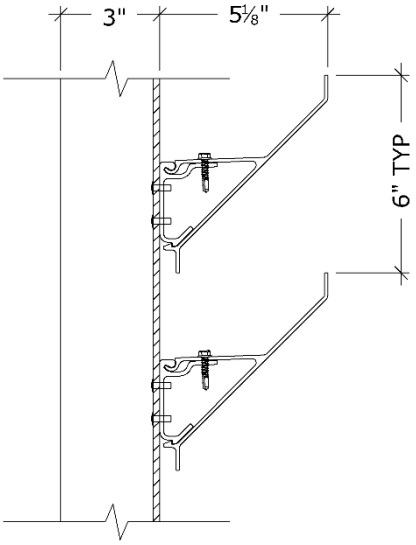


Figure 2

Assembled View

Finish Options:

- Paint finish meeting AAMA 2605
- Faux wood grain
- Mill Finish

Application:

VisionGuard® Angled Louvers are architectural by design and are not appropriate for weatherproofing applications. The flexible design, with continuous-blade configuration and snap-in clips makes them an excellent choice for rooftop equipment screens, overhead trellises, parking garage screens, building facades and more.

VisionGuard® Angled Louvers are mounted to vertical supports referred to as trees. These preassembled trees consist of 3” x 3” aluminum angles with attached clips to achieve the desired spacing between louver blades. Standard blade spacing is 6”, which provides vision proofing up to a 90° angle. The trees may be mounted to RoofScreen frames or any other supports or substrates. By mounting the trees horizontally, a vertical louver blade configuration is achieved. The distance between trees is determined by the maximum spanning distance of the louver blades (see table below). Maximum vertical spanning distance of trees is 5’, or as indicated in project calculations.

Installation:

Mount vertical support trees to the structure using fasteners adequate to resist applicable wind forces, or as detailed in project calculations. Trees must be installed square, plumb and level across entire length of each run to ensure louver blades will properly snap into the clips. To install louver blades, start at the bottom row. As illustrated in Figure 3, rotate louver into clip and snap into place. Install one self-drilling screw through top arm of louver into the top of the clip.

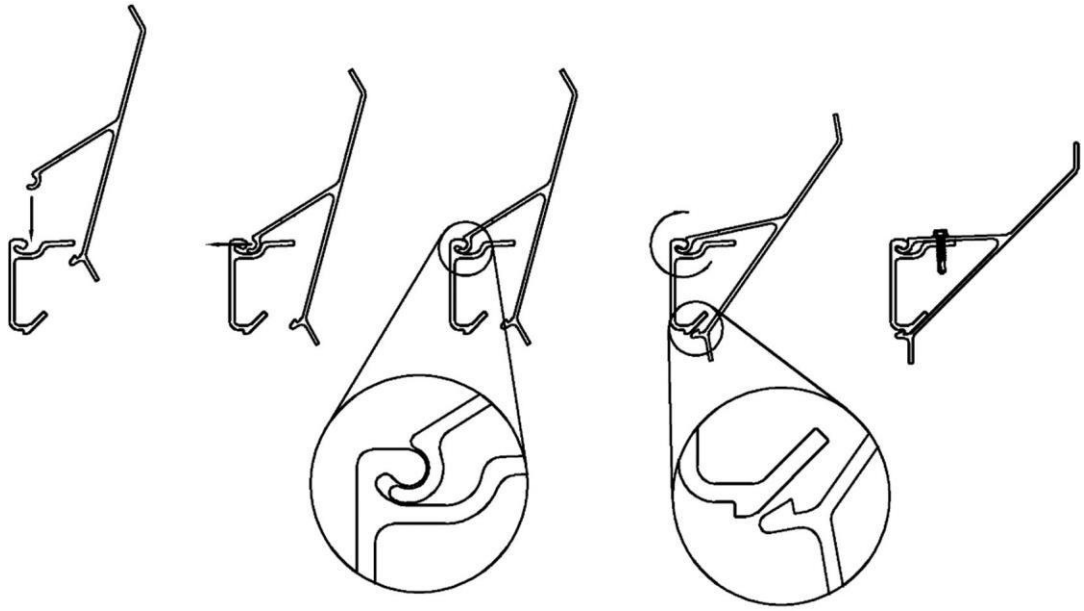


Figure 3

Properties and Span Table:
Basis of design will be 12' standard blade length.

Materials:
Aluminum Grade: 6063-T6
Tensile Yield: 25 ksi
Compressive Yield: 25 ksi
Compressive Modulus: 10100 ksi
Extruded Material Thickness: 0.1 in

L10 Angled Louver Properties															
Area (in^2)	Perimeter (in)	Centroid x (in)	Centroid y (in)	Weight (plf)	Stress (ksi)	IXX (in^4)	IYY (in^4)	IXY (in^4)	JZ (in^4)	CX (in)	CY (in)	KX (in)	KY (in)	SX (in^3)	SY (in^3)
1.196	22.855	1.986	-0.235	1.435	16.62	2.436	2.704	2.143	5.140	3.005	2.765	1.427	1.504	0.811	0.978

L10 Angled Louver Allowable Pressure* (psf)												
Span (ft)												
2	3	4	5	6	7	8	9	10	11	12	13	14
477.4	212.2	119.4	79.1	54.2	39.5	30.1	23.7	19.2	15.8	13.3	11.3	9.8

***Notes:**
1. Allowable loads (ASD) have been calculated in accordance with the 2015 Aluminum Design Manual.
2. Values limited by an allowable deflection of L/180.
3. Material properties per Aluminum Standards and Data 2017.
4. Member self-weight has not been deducted from the allowable loads.
5. Where permitted by Code, allowable loads do not include any stress increases for short-term loadings.

Warranty:

20-year limited warranty is included. Products must be installed in strict accordance with all details, calculations and instructions provided by RoofScreen. Finish warranties are dependent on type of finish. Please contact us for more details at (831) 421-9230.