

TREADWELL™

TOTAL "Fit & Forget" SOLUTIONS

Corrosion Resistant Ventilation Components

Fibreglass reinforced plastic louvres from Treadwell provide effective air control and long service life in the most demanding structural and environmental conditions. Applicable to a wide range of needs, the louvres are available with either fixed or adjustable blades and openings.

With durable components, Treadwell's FRP LouvrEX® have a long history of withstanding tough chemical exposure and high wind loadings. Having a glass fibre reinforcing content of over 50% of its weight, the FRP frames and blades are extremely strong and stiff, and being formulated with premium resins, the units are resistant to attack from aggressive chemicals.

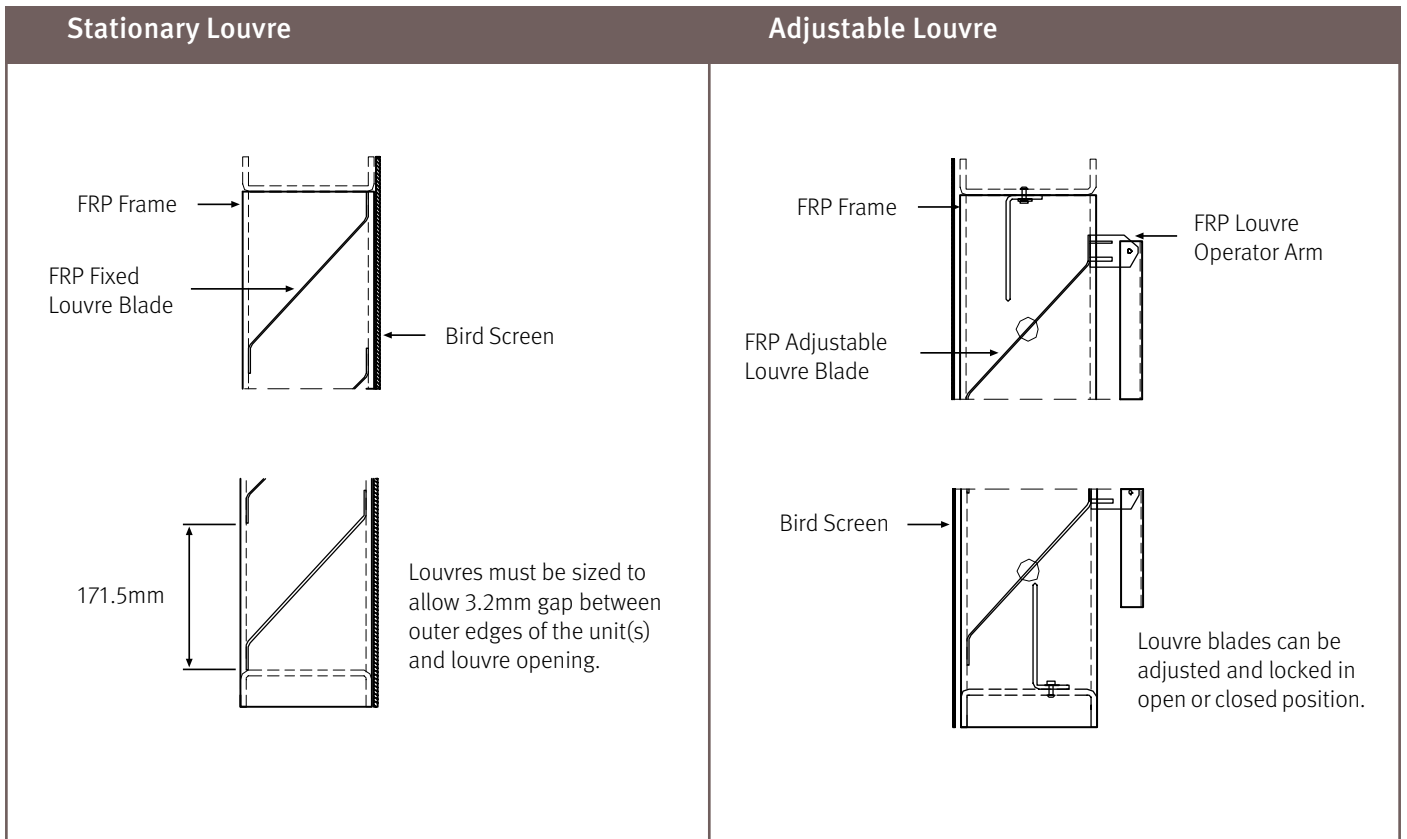
The fire retardant FRP components have a Class 1 flame spread rating of 25 or less per ASTM E84.

Colours can be modified to match any colour available. As an additional option, the louvre blades can be translucent to provide natural lighting for the facility.



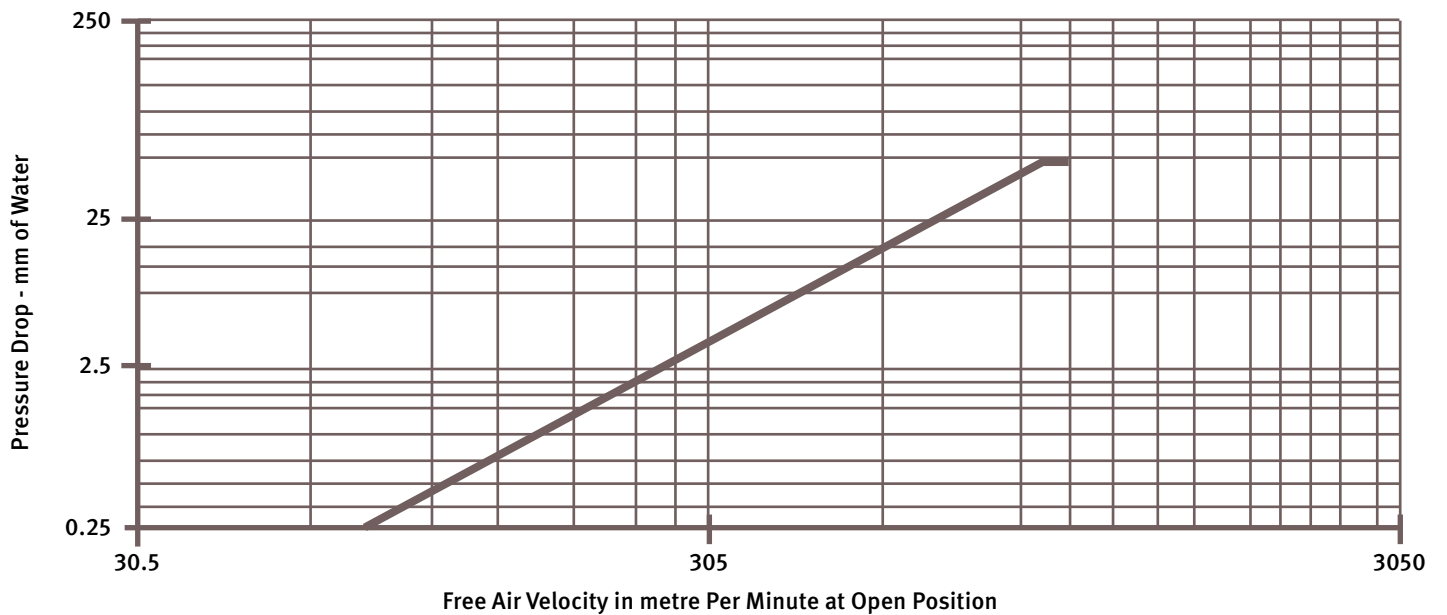
Products	Features & Benefits	
LouvrEX® Fixed Blade	Corrosion Resistance	Size Options
LouvrEX® Adjustable Blade	High Strength	Fire Retardant
	Durable	Life-Cycle Cost Savings
	Fixed or Adjustable Blades	Long, Maintenance-Free Life

Products Description			
LouvrEX® Fixed Blade - Size Range	Height: 610 - 3048mm	Width: 610 - 2438mm	Depth: 152mm
LouvrEX® Adjustable Blade - Size Range	Height: 610 - 2438mm	Width: 610 - 1219mm	Depth: 152mm
FRP Components	Frame: ArchitEX™ Pultruded C-Section	Blades: Louvre Span Panel	
Resin Systems	I-Series™ Isophthalic Polyester and V-Series™ Vinylester		
Flame Spread Rating, ASTM E-84	Class 1, 25 or less		
Hardware: 304 Stainless Steel	Optional: Hardware - 316 Stainless Steel		
Bird Screen: Black Plastic (12.7mm) Mesh	Optional: Bird Screen - 304 or 316 SS 19ga Wire Optional: Insect Screen - 304 or 316 SS 33ga Wire Cloth		
Standard Colors	Blades: Light Grey, White, Beige Custom colors are available for added cost & order minimums		Frame: Light Grey



Free Air Velocity Chart

Standard 150mm Deep Louvre



ArchitEX™ FRP Louvre System Worksheet

Approved By: _____
 Company: _____
 Date: _____

Louvre Size			Opening Size	
Qty	Width	Height	Width	Height

Note: Louvres shall be sized so there is a 6.4mm gap between the outer edges of a band of louvres or around a single louvre (as applicable). The total louvre width and height will be 12.7mm less than the opening.

Louvre Type: Fixed Blade Adjustable Blade

Louvre Color: Blades: _____
 Frame: _____

Resin Type: Polyester - FR Vinyl Ester - FR

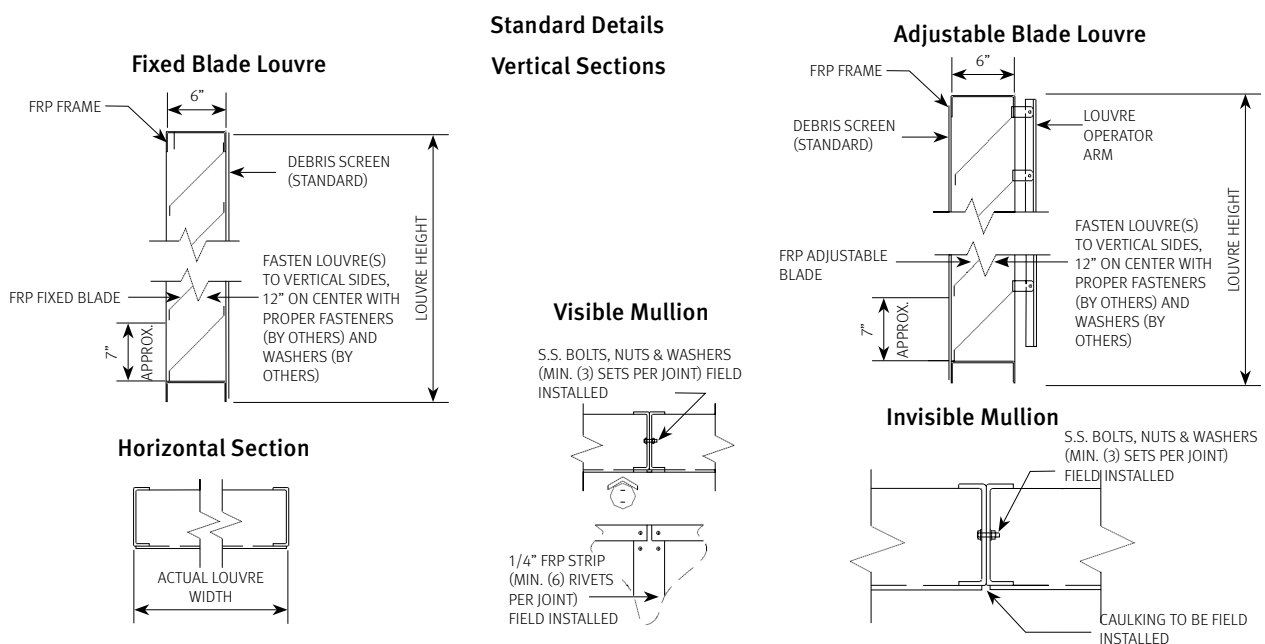
Screen: Fixed Louvre - located on back. Adjustable Louvre - located on front.

- 12.7mm Mesh Black Polyethylene Debris Screen (standard screen)
- 304 Series Stainless Steel Debris Screen
- 316 Series Stainless Steel Debris Screen
- Removable Fiberglass Cover
- No screen or cover required

Hardware:

- 304 Series Stainless Steel (standard hardware)
- 316 Series Stainless Steel

Notes: _____



Note: This drawing is intended for conceptual purposes only and is not a true representation of actual site conditions. Louvre design and drawings are the property of Treadwell and cannot be used or disclosed without Treadwell's written permission.

Product: ArchitEX™ FRP Louvre System
 Project: _____
 Location: _____
 Submitted by: _____ Date: ____/____/____

LouvrEX® Installation Guide

Manufacturer’s Assistance

These instructions are intended for FRP Louvres. For further assistance, please contact: 1800 246 800.

Material Handling and Storage

1. Inspect material upon delivery. If damage is found, promptly advise both freight carrier and Treadwell. Note damage on carrier’s receiving ticket.
2. When lifting materials, use spreader bars. Do not use wire slings unless panels are protected.
3. Protect materials from surface cuts, impacts, and abrasions.
4. Louvres may have protective tape applied to bushings to hold parts in place during shipment. Do not remove this tape until louvre has been installed and shimmed.
5. If conditions do not permit immediate installation, store louvres upright (not flat) and under a cover. Store materials off the ground high enough to allow for air circulation and to be above standing water. Do not stack or store other building materials on top of unprotected units.

Louvre Installation

1. As indicated on drawings and required, cut and install framing for support of louvre.
2. As needed, clean and remove any projections on bearing for louvres.
3. Place louvres on supporting structure and adjust into final position with proper bearing and alignment before fastening. Adjacent units should be closely abutted. Apply a bead of caulk at edges of abutted ends. Shim bottom and sides of louvre units so they are straight and square.
4. Before installing Type A or B stainless steel self tapping screws, mark and drill pilot holes 300mm on center. **Drill pilot holes through louvre and structural support at very slow speed** using a sharp carbide-tipped drill bit. High-speed drilling hardens inside of holes, making it difficult for fastener threads to bite (thread rolling) and causing drill bits to burn-up faster than normal. Using lubricant may extend life span of bits.
5. Fasten louvre to supports 300mm on center with proper fasteners and washers.
 - a. **Drive all screws at 500 rpm or less.** To avoid excessive speed and heat build-up, “trigger” the drill motor (turn it on and off). If thread rolling occurs, lubricate screws with a drill bit lubricant. Thread rolling may occur when driving 316 stainless or monel fasteners into hard steel. If this happens, use a heat-treated Type B carbon steel screw to tap the hole before installing Type A or B stainless as steel or monel fasteners.
 - b. Tighten screws until the sealing washer extrudes slightly beyond the metal washer (see diagram). **DO NOT OVER TIGHTEN** screws as this can damage materials.
6. Install flashing as specified or shown n drawings with SB2 grommet fasteners, 305mm o.c. Drill a plot hole for SB2 fasteners before installation.
7. Apply sealant tape and caulk where specified or shown on drawings.

Cleaning and Repair

1. Clean louvres with soap and water first. If this does not work, some solvents can be used to clean spills or stains. However, solvents should be used sparingly and only if necessary. Some solvents like acetone may remove the acrylic polymer surface coating on coated materials.
2. Minor damage to louvre can be patched with a repair kit. Materials with other damage should be replaced.

Selecting Fasteners

1. **Type A Point screws** (9.5mm hex head): Used for fastening to wood structure, light gage metal (14 gage or lighter) and FRP structural members.
2. **Type B Point screws** (9.5mm hex head): Used for fastening to steel members, 2mm up to 12.7mm thick.
 - Type A and B fasteners are available in 300 and 316 stainless steel or monel. These metals are softer than carbon steel; so extra care must be taken for installation.
 - Type A and B fasteners will include a 18mm or 28.6mm diameter metal and neoprene seal washer as required by specifications and structural requirements.
3. **SB2 Grommet** (7.9mm hex head): Used to fasten flashing and panel-to-panel side laps. The SB2 is a grommet type fastener with a machine screw (300 and 316 stainless steel or monel), brass nut, and rubber sleeve.

Drill Bit Selection Chart

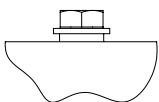
Structural Fastener	Member Gage	Member Gage
#14 Type B	14 up to 10 ga.	No. 8 or 5.1mm
	10 ga. up to 4.7mm	No. 4 or 5.5mm
	4.7mm to 9.5mm	No. 1 or 5.9mm
	9.5mm to 12mm	A size or 5.9mm
SX6 Self Driller	Wood, all depths	3.9mm
	16 to 14 ga. Metal	No. 8 or 5.1mm
	18 ga. Metal	No. 10 or 5.1mm
Side Lap Fastener SB2 Grommet	14 ga. to 6.3mm Metal	No. 22 or 4.3mm
	Drill Bit Size	Not required
	9.5mm	

Notes:

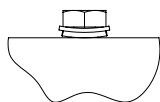
1. SX6 self-drilling, self-tapping fasteners are not suitable for use into stainless steel support members.
2. For fastening into light gage metal, Type A screws install easier than Type B screws.

Correct Fastener Installation

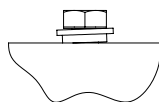
Visual Inspection



Correct Tightness!
Note slight circle of sealant extrusion.



Too Tight!
Metal backing of washer starts to turn up.



Too Loose!
Sealant is not compressed to form seal.