

Publication  
Self Drain  
LOUVRES

Section 2

SEPT 2005

# Self Drain Louvres

high performance



JC VENTS

# Self Drain Louvres

## introduction

Series ODL louvres have been developed to provide maximum weather protection to critical ventilation openings in buildings. This is achieved by an innovative blade design which drains any surface water internally and thereby prevents carry over by the intake air.

In addition the deep format frame allows a shallow blade angle (35 degrees) which increases louvre free area and can reduce louvre size. The frame is ideal for modular louvres although it is possible to form curtain walling via butt jointing.



## description

ODL louvres are composed of aluminium frame and blade assemblies manufactured to suit the aperture size. Frame styles include recessed and flange types.

## manufacture

Louvres are constructed entirely from aluminium extrusions to BS1474 using material to HE9 specification. Frames and blades are rivetted or screwed to form a robust construction.

## size convention

Louvres are conventionally specified in terms of the building aperture size, and suitable tolerances are built in before manufacture. Size should be given in terms of Width 'W'x Height'H'

## applications

ODL louvres are designed for maximum weather protection of supply and exhaust ventilation openings in buildings. Especially where water ingress must be kept to a minimum, ideal for coastal and exposed areas. In addition ODL louvres can be applied to curtain walling applications around plant enclosures and rooms.

## finishes

Standard finish stove silver Special finishes are available to suit most architectural requirements and include:

**Natural satin anodised**  
**Colour Anodised**  
**Polyester powder coat**  
**Stoved epoxy**  
**Stoved acrylic**  
**Syntha Pulvin**  
**PVF2**  
**Primed**  
**Mill**

## accessories

Bird or vermin guard (BS) galvanized mesh fixed to the rear of the louvre section. Insect screen (IS) in stainless steel. Where used in deep recessed applications, the ODL louvres can be supplied with an extended bottom cill to carry water away from the building fascia.

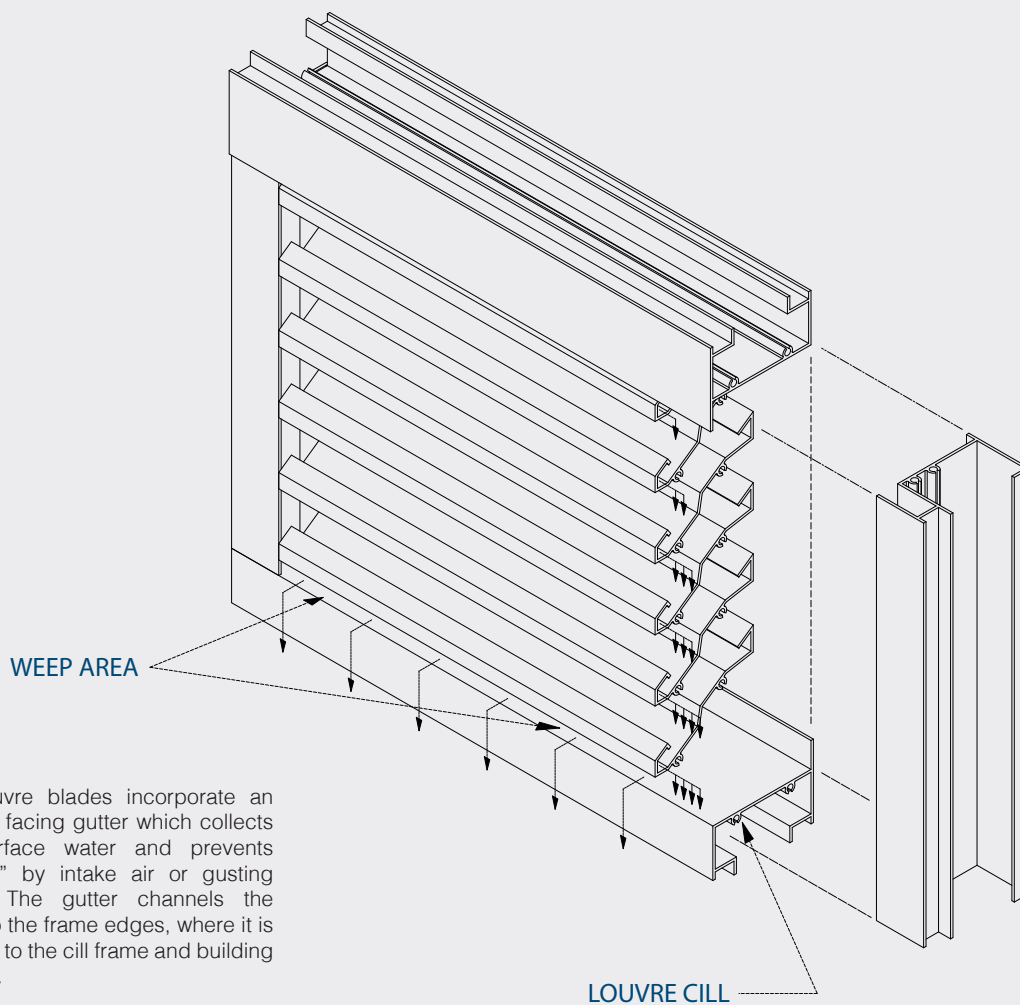
## Principle of operation

ODL louvres are manufactured under license from Arrow United Industries Ltd. The product has achieved a certified performance as approved by the Air Movement and Control Association of America. Certified that the Model ODL louvres shown herein are licensed to bear the AMCA seal.

The ratings shown are based on tests made in accordance with the AMCA Standard 500 and comply with the requirements of the AMCA Certified Ratings Programme. The AMCA seal applies to air performance and water penetration ratings.

authority

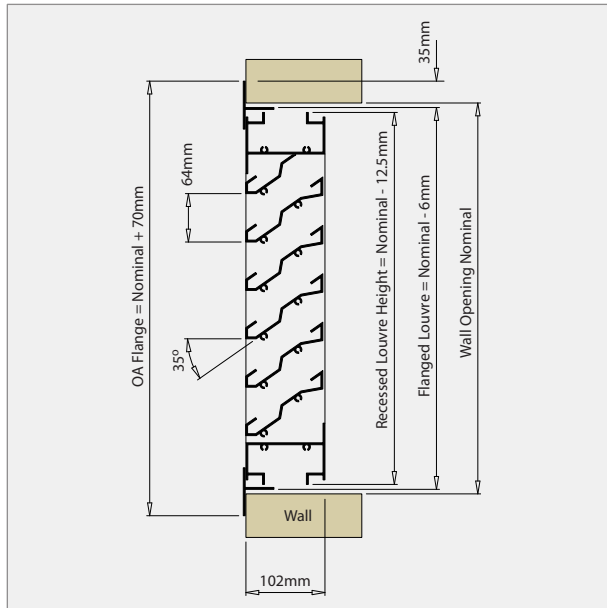
ODL / R



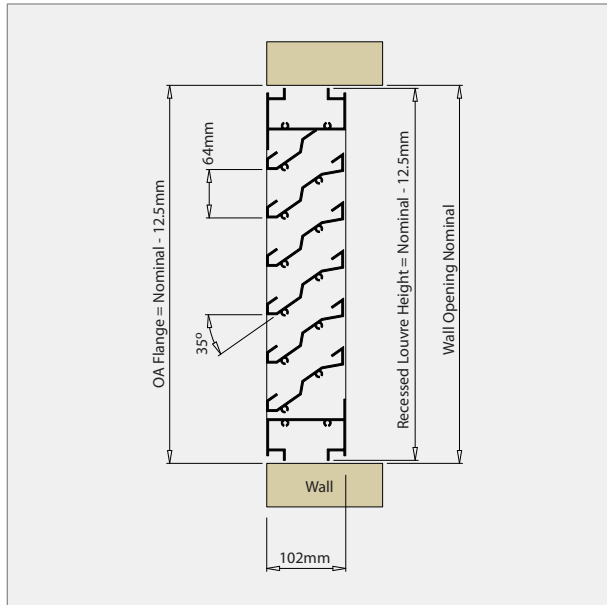
The louvre blades incorporate an upward facing gutter which collects the surface water and prevents "pickup" by intake air or gusting winds. The gutter channels the water to the frame edges, where it is drained to the cill frame and building exterior.

# ODL Louvre

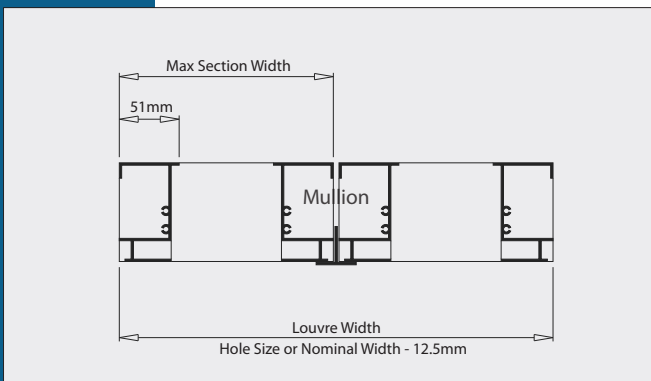
## ODL / F flanged frame



## ODL / R recessed frame



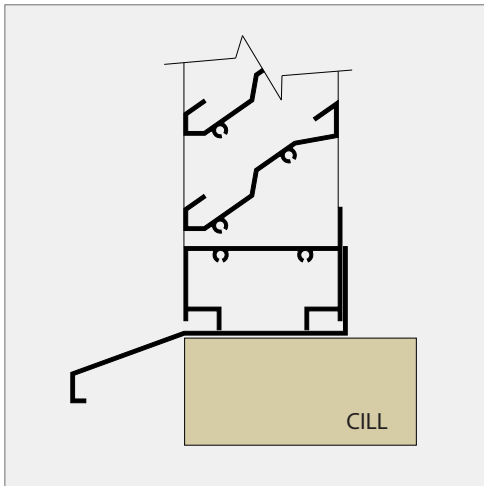
## jointing arrangement



ODL louvres are designed for maximum weather protection of supply and exhaust ventilation openings in buildings.

Especially where water ingress must be kept to a minimum. Ideal for coastal and exposed areas.

## ODL Louvre



ODL louvres are manufactured to suit the building aperture sizes on a contract basis. For individual modular louvres the following ordering designation should be applied.

type	frame	accessories	size	finish
ODL	/ *	/ **	/ *** X ***	/ F *

### frame

F = Flanged  
R = Recessed

### accessories

BS = Bird Screen  
IS = Insect Screen  
BC = Bottom Cill

### size

Width x Height (mm)  
(Nominal opening).

### finish

FO = Stove Silver  
F1 = Anodised Natural  
F2 = Anodised Colour  
F3 = Powder Coat Colour  
F4 = Stoved Epoxy Colour  
F5 = Stoved Acrylic Colour  
F6 = Syntha Pulvin  
F7 = Primed Coat

Louvre free areas, pressure loss and general selection data are shown on page 7.

## ordering

## legend

## performance

## sizes

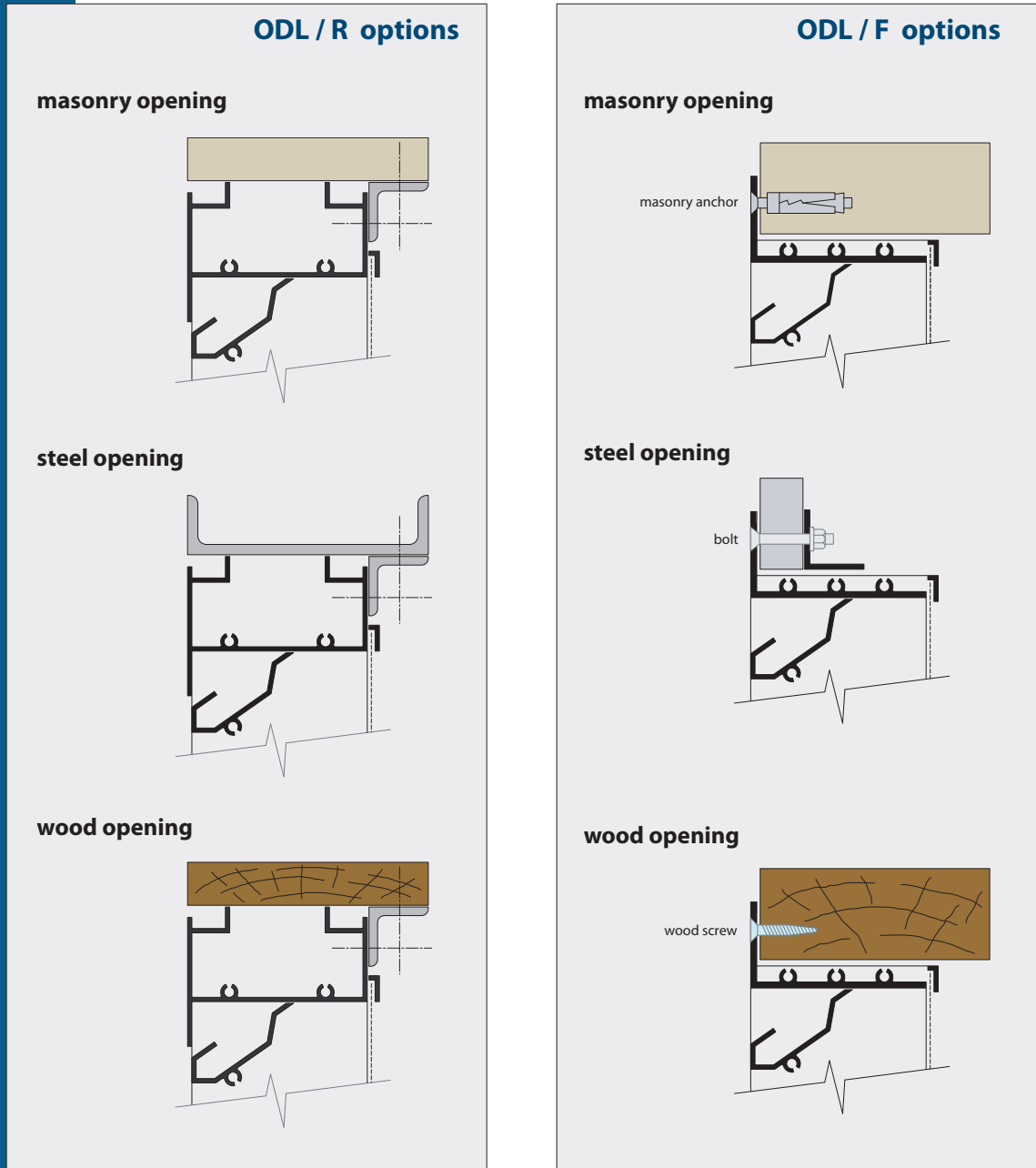
Maximum size  
1500 X 2400

Minimum size  
300 X 300

Larger sizes are available in sections.

## fixing

A wide range of fixing options are possible with the ODL louvre systems as shown below.



## transport and storage

ODL louvres are of extreme robust construction but care should be taken to ensure that the surface finish is not damaged. Dry storage is recommended.

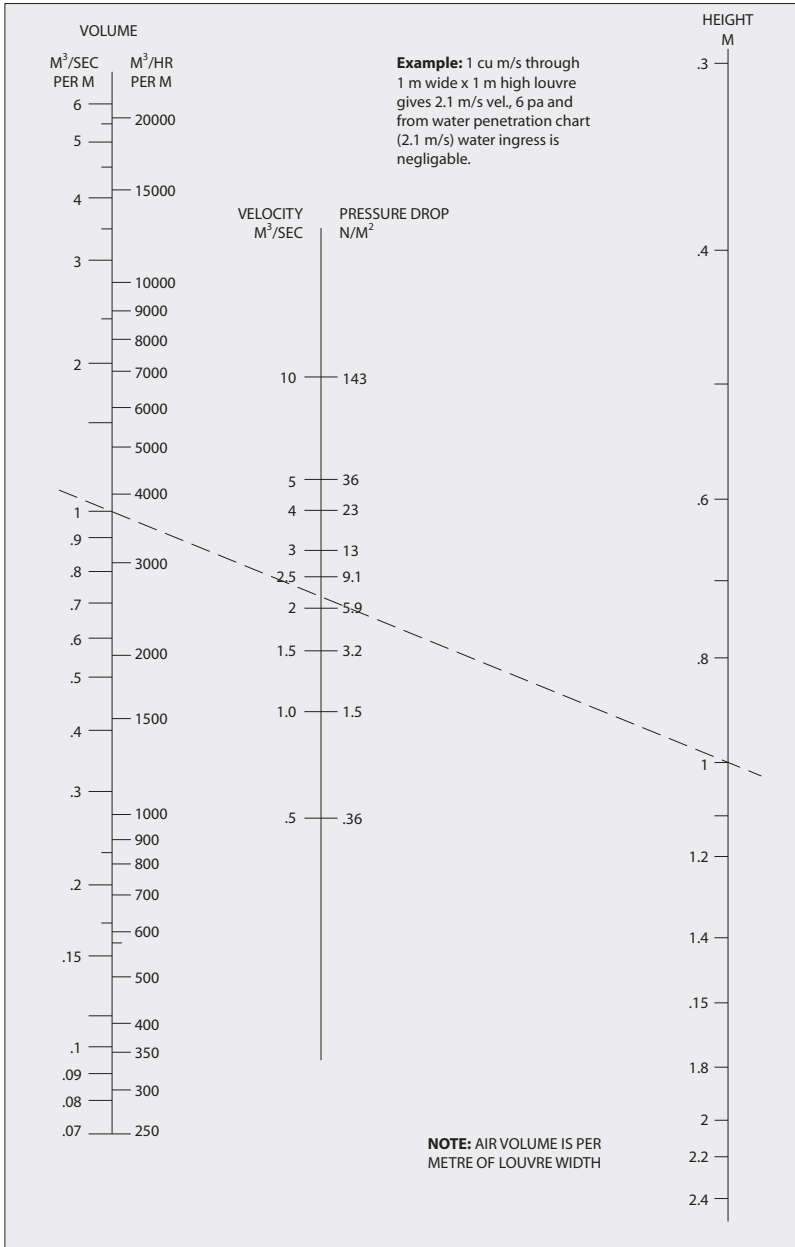
## installation

Building apertures should be clean and square with a general tolerance of 3mm. Lifting and placement is usually a two man operation and if lifting gear is used, no undue stress should be placed on the individual louvre blades.

## operation and maintenance

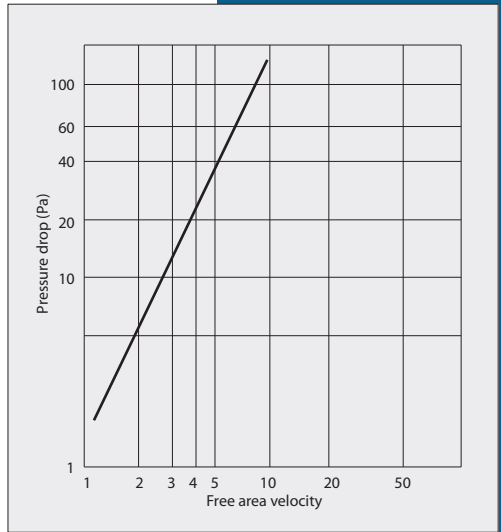
Louvres are maintenance free and should be cleaned by wiping with water and a mild detergent.

# Louvre selection



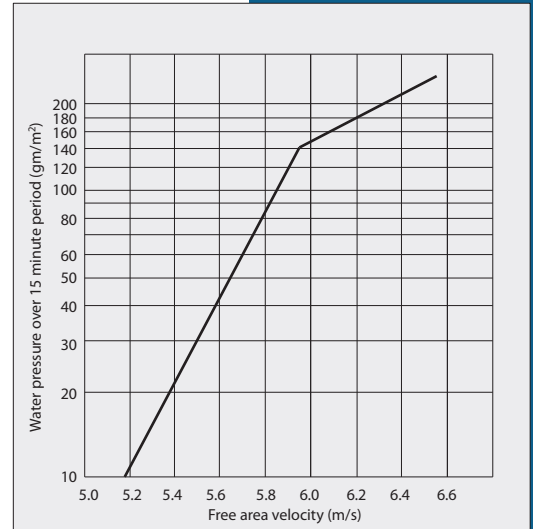
Conversion Factors  
 1m/s = 197ft/min  
 1Pa = 4.01 x 10<sup>3</sup> WG

**pressure loss characteristics**  
 based on  
 1.2m x 1.2m test samples



Conversion Factors  
 1m/s = 197ft/min  
 1gm/m<sup>2</sup> = 3.28 x 10<sup>3</sup> oz/ft<sup>2</sup>

**water penetration characteristics**  
 based on  
 1.2m x 1.2m test samples



## free area

Height (m)	FREE AREA (m <sup>2</sup> )					
	width (m)					
	0.45	0.6	0.75	0.9	1.2	1.5
<b>0.3</b>	0.04	0.05	0.07	0.09	0.12	0.15
<b>0.6</b>	0.11	0.15	0.2	0.25	0.34	0.44
<b>0.9</b>	0.18	0.26	0.34	0.41	0.57	0.73
<b>1.2</b>	0.25	0.36	0.47	0.58	0.79	1.01
<b>1.5</b>	0.32	0.47	0.61	0.74	1.02	1.3
<b>1.8</b>	0.4	0.57	0.75	0.92	1.27	1.62
<b>2.1</b>	0.47	0.68	0.88	1.08	1.49	1.89
<b>2.4</b>	0.55	0.77	1.01	1.25	1.73	2.2

# Louvre programme literature

## section 1

Standard Weather Louvres

## section 2

Self Drain Louvres  
High Performance

## section 3

Penthouse / Turret Louvres



## JC VENTS

JC House,  
Hurricane Way,  
Wickford Business Park,  
Wickford,  
Essex. SS11 8YB,  
UK.

Tel: +44 (0) 1268 561122  
Fax: +44 (0) 1268 560606  
email: [info@jcvents.co.uk](mailto:info@jcvents.co.uk)  
web: [www.jcvents.co.uk](http://www.jcvents.co.uk)