



## Adjustable Curved Vane Diffusers

### ACDH / ACDV

#### Introduction

The Waterloo ACD diffusers are ideally suited to commercial and industrial projects requiring relatively low cost but versatile air outlets. Available with 1, 2, 3 or 4 way patterns with individually adjustable vanes, the diffusers can be manufactured to any increment between the minimum and maximum sizes to suit ceiling or duct integration requirements.

As the air pattern is easily adjustable from the face it is recommended that ACD diffusers are not located in low or easily accessible ceiling locations.

#### Product Description

**ACDH** Vanes are parallel to the width dimension

**ACDV** Vanes are parallel to the height dimension

**OBSS** Allen key operated opposed blade damper through face of diffuser

#### Features

- 1, 2, 3 and 4 way patterns
- Variable size range
- Adjustable air patterns
- Vertical or horizontal diffusers

#### Finishes

PPG9010 (RAL 9010 Gloss - 80% Gloss White)

PPM9010 (RAL 9010 Matt - 20% Gloss White)

PPM9006 (RAL 9006 Matt - 30% Gloss Silver)

Other colours available on request

#### Weights

Approx 9kg/m<sup>2</sup> face area  
OBSS/ED 9.5kg/m<sup>2</sup> face area

#### Sizes

Standard sizes Minimum size - 150 x 150mm  
Maximum size - 600 x 600mm

Special sizes Minimum size - 150 x 100mm  
(ACD1 & 2 only) Maximum size - 1500 x 1500mm

#### Selection Criteria

Performance data is based on diffusers mounted in a ceiling with air at 11 °C cooling differential.

l/s tabulated is the total discharged by the diffuser.

For a 2 way pattern one half of the tabulated l/s is discharged in each direction and for a 3 way one third in each direction. The 4 way pattern discharges one third at the tabulated l/s through each end section (Xl) & one sixth through each centre section (Xs).

Noise level is based on diffuser sound power level (L<sub>w</sub>) re 10<sup>-12</sup> W level less 8dB room absorption.

#### Selection Example ACD 600 x 400

Total air flow rate 400 l/s

**ACD1**  
Velocity 2.8 m/s Pressure Loss 4.4 Pa  
Throw 3.8m 41dBA level

**ACD2**  
Velocity 2.8 m/s Pressure Loss 5.4 Pa  
Throw 2.7m 41dBA level

**ACD3**  
Velocity 2.8 m/s Pressure Loss 6.5 Pa  
Throw 2.4m 41dBA level

**ACD4**  
Velocity 2.8 m/s Pressure Loss 7.6 Pa  
Throw 2.4m (Xl) 1.6m (Xs) 41dBA level

#### ORDER EXAMPLE

ACDH/4/300/300/25T/SF/PPG9010/OBSS

Type \_\_\_\_\_

Air pattern \_\_\_\_\_

Duct width \_\_\_\_\_

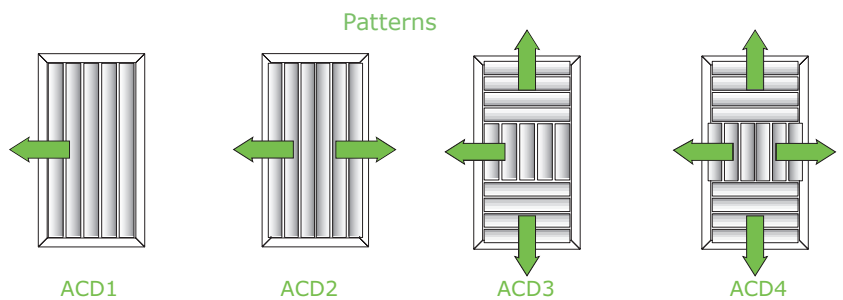
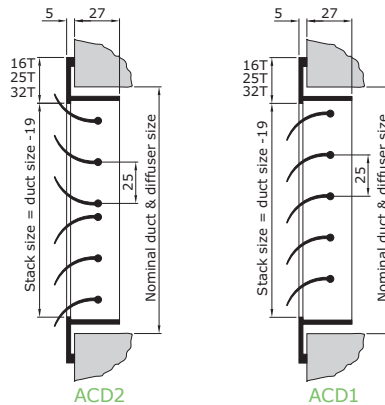
Duct height \_\_\_\_\_

Border type \_\_\_\_\_

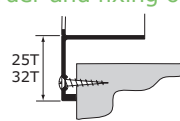
Fixing \_\_\_\_\_

Finish \_\_\_\_\_

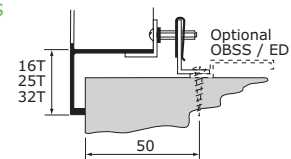
Damper \_\_\_\_\_



#### Border and fixing options



SF Screw fixing through flange (available on 25T & 32T only)



CRB Concealed rear bracket (Bracket can be reversed to reduce overall depth)

#### Performance graph

