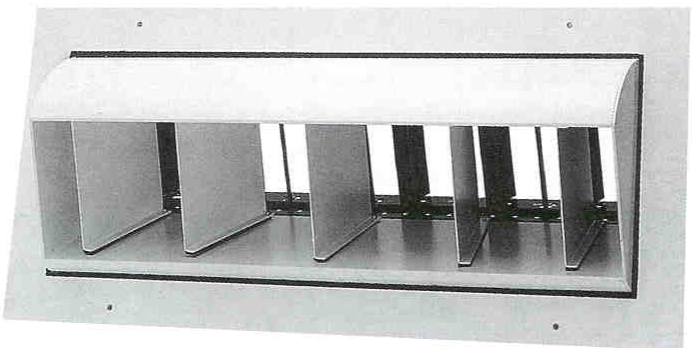
Industrial Drum Louvre

Type AIL-A

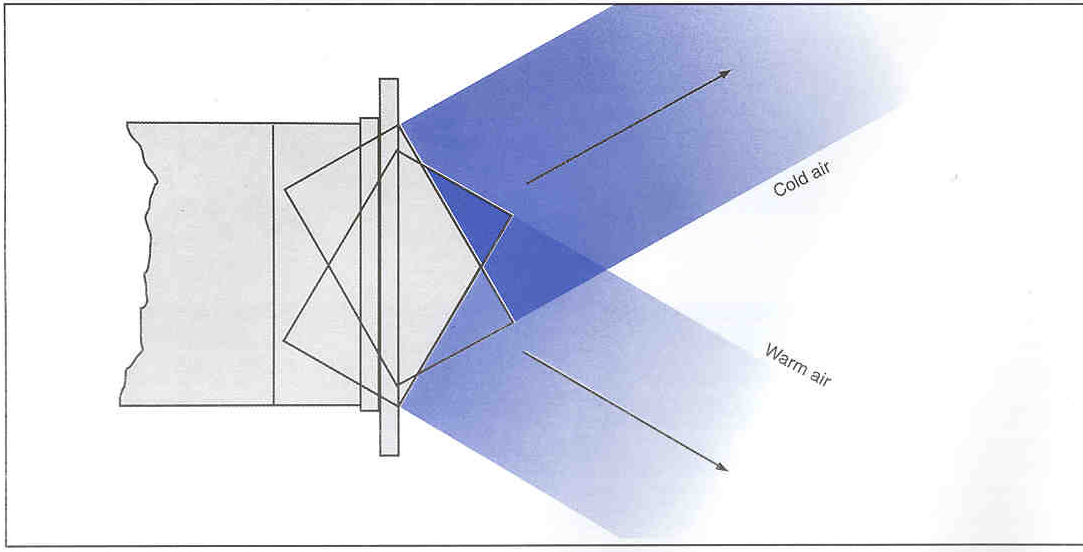


TROX® TECHNIK

Trox (Malaysia) Sdn. Bhd. (278360-V)
20 Persiaran Bunga Tanjung 1
Senawang Land Industrial Park
70400 Seremban
Negeri Sembilan Darul Khusus
Malaysia

Telephone (+6) 06 6788 188
Telefax (+6) 06 6788 288 / 388
e-mail trox@troxmal.com.my
http://www.troxmal.com.my

Contents • Description



Drum louvres are used for preference where the supply air from the diffuser has to travel a large distance to the occupied zone. This is the case in large rooms (halls, assembly rooms etc.), particularly when the supply of air via ceiling diffusers is not possible or not practical. Here Drum louvres are arranged in the side wall areas.
When the temperature difference between the supply air and the room air changes, the air stream is deflected upwards, (for warm air) or downwards (for cold air). Also the direction of the air stream can be affected by other factors, eg: local convection effects or draughts within the room. For this reason, Trox Drum louvres are designed so that they can be adjusted to meet requirements for use in heating or cooling situations. Drum louvres are designed for handling large air volumes and long throws making them ideal for buildings with high ceilings such as Airport Terminal Buildings, Hotel reception areas, Shopping Arcades, Museums, Sports Centres and Departmental Stores. Drum louvres are especially suitable for Atrium Installation.

Type AIL-A Standard Supply

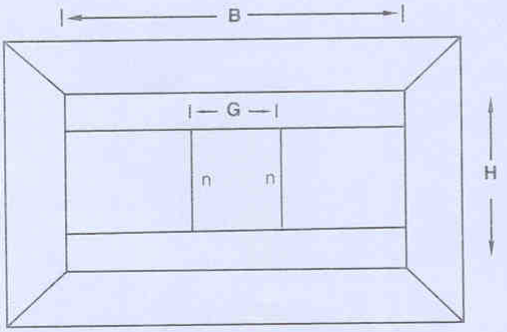
Comprises of drum louvre section of extruded aluminium mounted in extruded aluminium border for mounting onto wall. The border profile can be supplied with punched or unpunched flange for screw fixing.

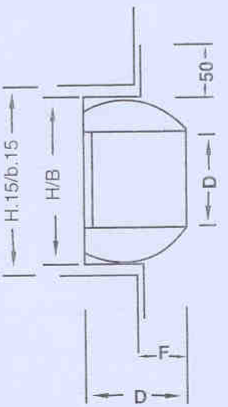
The drum louvre can be adjusted 30º upwards and 30º downwards. The drum louvre guide vanes can also be laterally adjusted to enable the airstream to the fully directional.

For volume control purposes, an opposed blade damper can be fixed to the rear of the drum louvre, and is operable from the front of the drum louvre.

Dimensions

SIZE	B	H	G	D	F	n
1	250	150	75	90	40	2
2	300	150	75	90	40	3
3	475	150	75	90	40	5
4	625	150	75	90	40	7
5	500	250	125	150	60	3
6	650	250	125	150	60	4
7	750	250	125	150	60	5
8	900	250	125	150	60	6





Aerodynamic Data • Nomenclature

V (m³/h)	=	Supply Air Volume
Veff (m/s)	=	Effective Jet Velocity
Vx max (m/s)	=	Maximum Core Velocity at distance X
Xm	=	Throw
Δ pt	=	Total Pressure Drop (pa)
NC, dB(A)	=	Sound Pressure Level Assuming 6 dB Room Attenuation

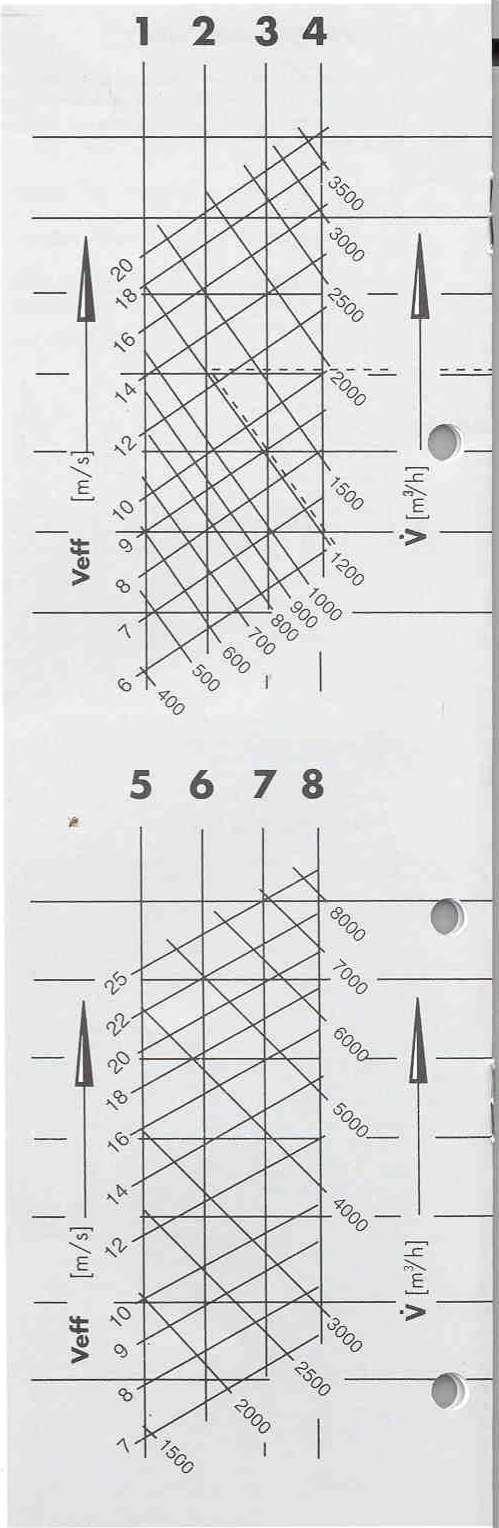
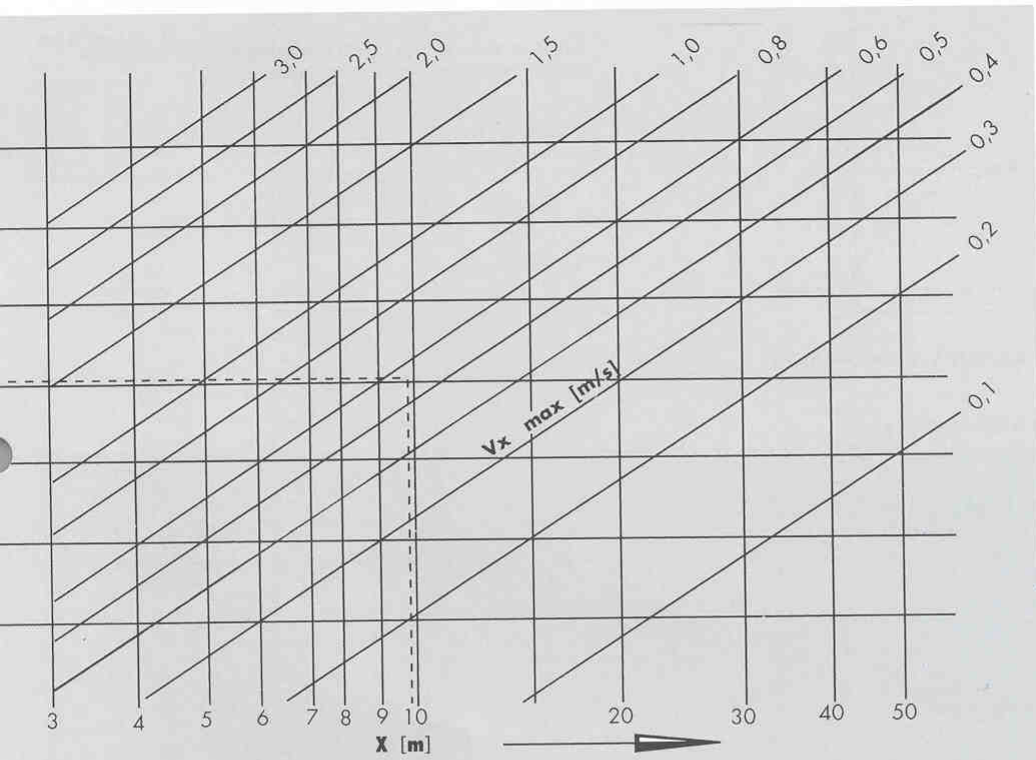
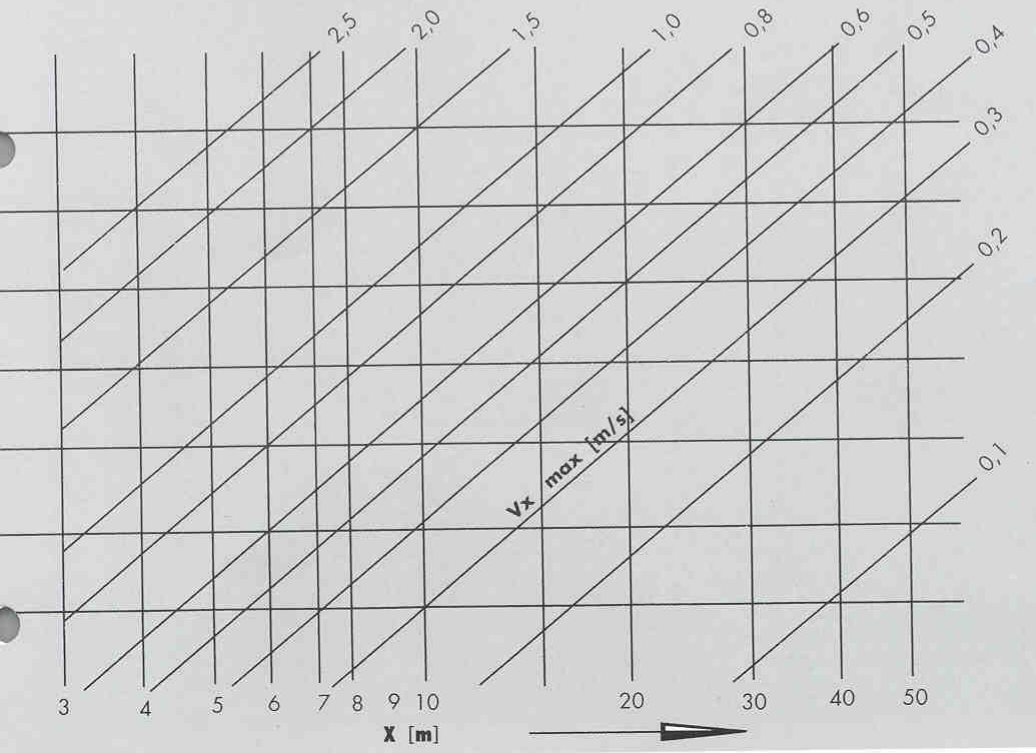
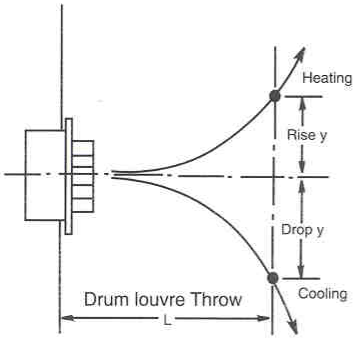


Diagram 1


3,0
2,5
2,0
1,5
1,0
0,8
0,6
0,5
0,4
0,3
0,2
0,1
Vx max [m/s]
3
4
5
6
7
8
9
10
20
30
40
50
X [m]


2,5
2,0
1,5
1,0
0,8
0,6
0,5
0,4
0,3
0,2
0,1
Vx max [m/s]
3
4
5
6
7
8
9
10
20
30
40
50
X [m]

Aerodynamic Data

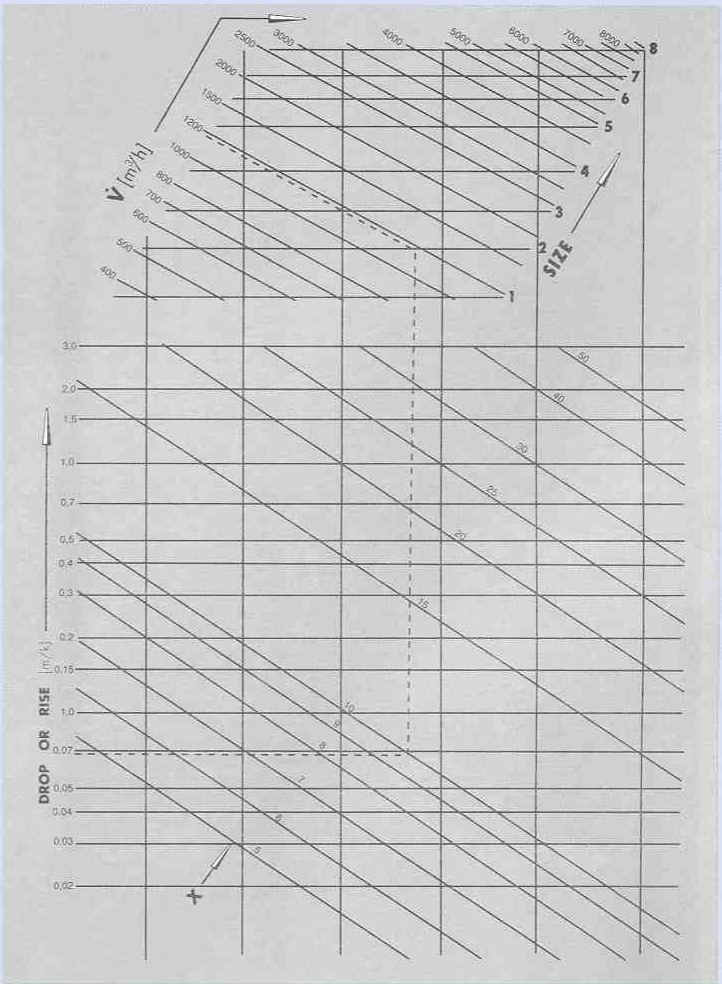


Airstream Drop or Rise due to varying temperature difference between supply and room temperature Δt_z (K).

Drop and rise is directly proportional to Δt_z

Airstream Drop and Rise y

Diagram 2



Selection Example

Given : 1,200 m³/h K = -16ºC

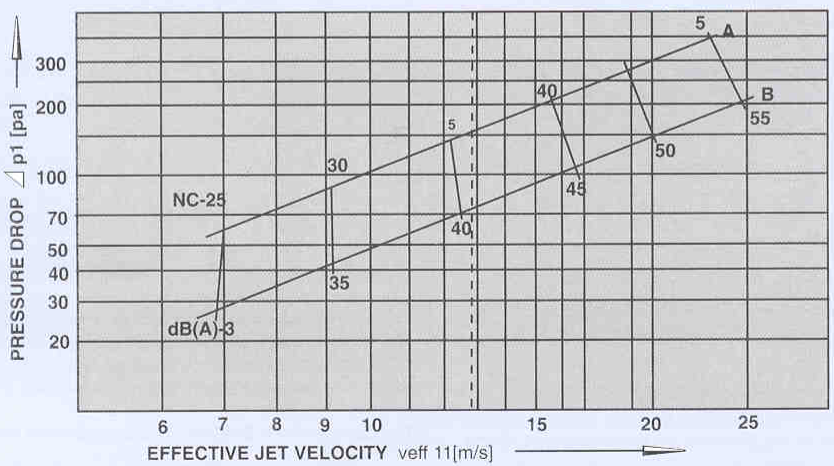
Select :

From Diagram 1
Size 2 Lourve
Veff 13 m/s
Throw 10m
Vx max = 54 m/s

From Diagram 3
Veff 13 m/s
NC = 35 or 40 dB(A)
Δ pt = 150 (pa)

From Diagram 2
1,200 m³/h, size 2, 10 m Throw
Airstream Drop = 0,07 mºK
Total Drop for 10m Throw = 1,12m

Pressure Drop and Noise Levels

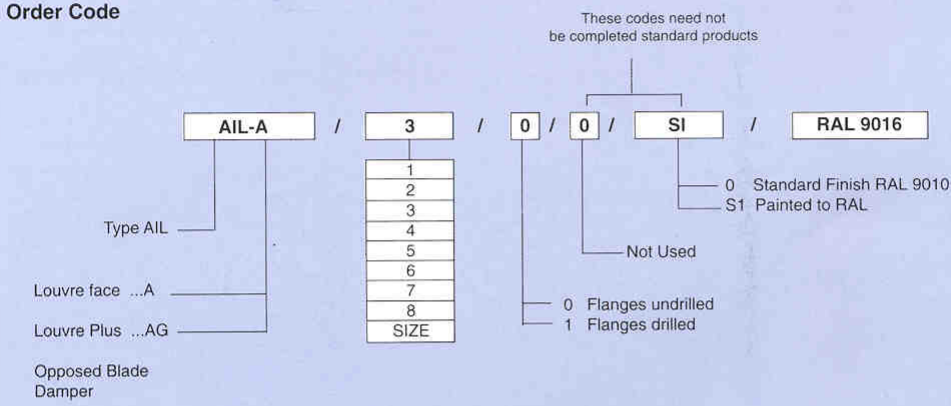


CORRECTION VALUES FOR dB(A) : NC

SIZE A	1		3	4	5	6	7	8
	-3	-1	-	+1	-3	-1	-	+1

Order Details

Order Code



Specification Text

Drum louvre type AIL-A for long throw distances and for heating and cooling purposes, manually adjustable allowing variation in discharge angle to compensate for changing temperature difference.

Drum louvres can be adjusted 30º upwards and 30º downwards, The drum louvre guide vanes can also be fully adjusted laterally which enables the air jets to be fully directional. There are eight sizes to choose from.

Materials

Construction is of aluminium, the border and drum louvre being extruded from aluminium to BS 1474 grade 6063T6.

AIL-A drum louvre are supplied with a powder coat finish to RAL 9010 as standard or can be painted in a wide range of colours to suit customers requirement.

Accessories

Drum louvre can be supplied with an opposed blade damper in the rear of the louvre. Construction is of galvanised mild steel to BS 2989 Z2 G275 M for the border and BS 1472 grade 6063T6 for the extruded aluminium blades.

The damper unit is finished stove enamel paint matt black.

Order Example

Make : TROX
Type : AIL-A/2/0

Make : TROX
Type : AIL-AG/41/0/S1/RAL 9001