

Acoustic Louvres

- 150 deep
- 300 deep
- 600 deep
- Steel
- Aluminium



Louvres Sunscreens Natural Ventilators

Ruskin Air Management Limited
www.ruskinuk.co.uk

Introduction

The Naco range of acoustic louvres has been developed by Ruskin (USA), our associate company.

Sound data is produced from tests carried out in the Ruskin Sound Laboratory based on ASTM E90-90 and classified in accordance with ASTM E413-87.

Types

150mm deep with
150mm blade pitch

300mm deep with
300mm blade pitch

Coefficient of discharge

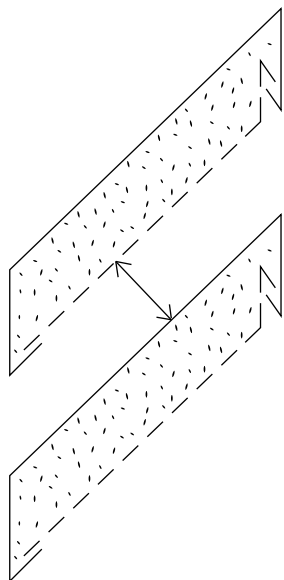
NAL150 0.210
NAL300 0.240

Cd and Ce figures can, for all practical purposes, be taken as the same.

Free area (based on 1m² area)

NAL150/300C 30%
NAL300/600C 28%

Free area is the minimum measured area of each opening through which air can pass.



Materials

Zinc plated steel sheet formed to required profile

Frame 18g
Blades 22g
Perforated sheet 16g

Mill finish aluminium is available for frame and blades.

Bird wire guard

18g expanded aluminium, fitted as standard.

Acoustic material

Rockwool RW3 with non-woven mineral black tissue finish. RW3 is highly water resistant, non-combustible and vermin proof.

Finishes

Steel louvres are available for site painting (not by Naco) or polyester powder coated to the RAL colour range.

Aluminium louvres are available in mill finish, polyester powder coated to the RAL colour range or, natural anodised.

Note, the perforated sheet is pre-galvanised in all cases.

Bird wire guard is mill finish as standard

Construction

Steel louvres are fabricated, assembled, painted (if required) with the acoustic material fitted last.

Aluminium louvres are fabricated, finished (polyester powder coated / anodised), assembled, with the acoustic material fitted last.

Sizes

NAL150

Maximum panel area: 2.25m²
Maximum width: 1500 mm

NAL300

Maximum panel area: 1.7m²
Maximum width: 1500 mm

Doors

Doors are available with dummy blades for NAL150 and 300 louvres.

An insulated blanking plate is fitted as standard.

Transmission Loss (Sound Reduction Index)

| Type | Hz | 125 | 250 | 500 | 1 K | 2 K | 4 K | 8 K |
|---------|----|-----|-----|-----|-----|-----|-----|-----|
| NAL150 | | 7 | 5 | 8 | 14 | 15 | 16 | 17 |
| NAL300 | | 9 | 8 | 12 | 16 | 15 | 15 | 17 |
| NAL300C | | 9 | 9 | 15 | 22 | 23 | 24 | 25 |
| NAL600C | | 14 | 17 | 17 | 25 | 25 | 25 | 30 |

Free Field Noise Reduction dB

| Type | Hz | 125 | 250 | 500 | 1 K | 2 K | 4 K | 8 K |
|---------|----|-----|-----|-----|-----|-----|-----|-----|
| NAL150 | | 13 | 11 | 14 | 20 | 21 | 22 | 23 |
| NAL300 | | 15 | 14 | 18 | 22 | 21 | 21 | 23 |
| NAL300C | | 15 | 15 | 21 | 28 | 29 | 30 | 31 |
| NAL600C | | 20 | 23 | 23 | 31 | 31 | 31 | 36 |

Transmission loss is the ratio in decibels of the acoustic energy transmitted through the louvre, to that incident upon it, stated as a function of frequency.

Free field noise reduction is the difference in decibels between the sound pressure level on the noise side and that measured on the opposite side at 1500 mm from the louvre.

Pressure Loss Pa

| Face velocity m/s | 0.5 | 1.0 | 1.5 | 2.0 | 2.5 | 3.0 |
|-------------------|-----|-----|-----|-----|-----|-----|
| NAL150 | 4 | 14 | 31 | 54 | 85 | 123 |
| NAL300 | 3 | 11 | 24 | 42 | 65 | 94 |
| NAL300C | 6 | 15 | 42 | 74 | 116 | 166 |
| NAL600C | 4 | 15 | 32 | 56 | 86 | 126 |

Panel Weight (Kg / m²)

| Type | 150 | 300 | 300C | 600C |
|-----------|-----|-----|------|------|
| Steel | 30 | 41 | 60 | 82 |
| Aluminium | 22 | 30 | 44 | 60 |

300C = 2 No. 150 units back to back

600C = 2 No. 300 units back to back

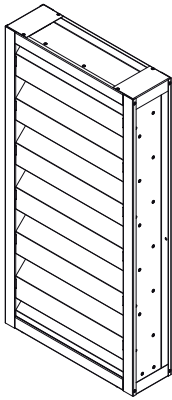
Note: Units supplied separately for site assembly.

Heights

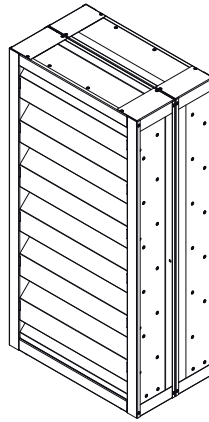
| Type | 150 | 300 | 300C | 600C |
|----------------|------|------|------|------|
| Minimum Height | 340 | 600 | 340 | 600 |
| Maximum Height | | | | |
| Single Panel | 1975 | 1975 | 1975 | 1975 |
| Double Panel | 3939 | 3763 | 3939 | 3763 |

Panels will be supplied as components for coupling where the width / height combination exceeds the recommended maximum panel area.

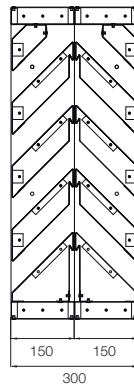
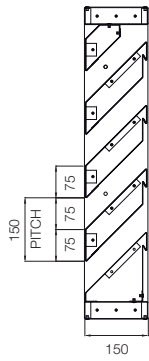
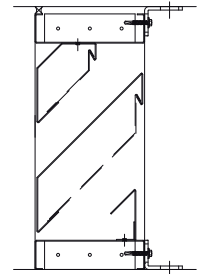
NAL 150



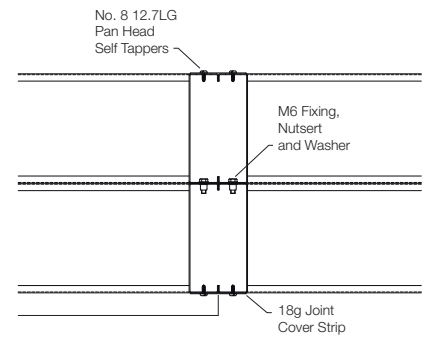
NAL 300C



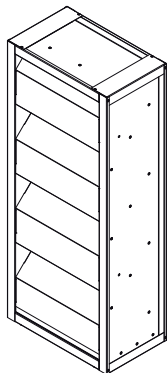
Typical Fixing Detail



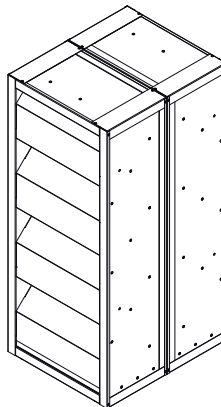
Vertical Couplings



NAL 300



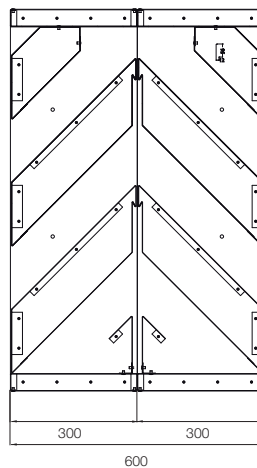
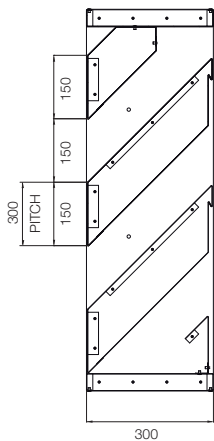
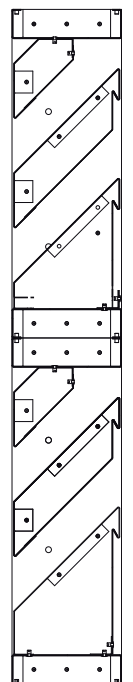
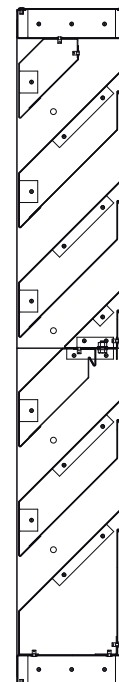
NAL 600C



Horizontal Couplings

Architectural

Industrial / Internal



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Comprehensive and detailed information is available for all Naco products. Visit our website at www.naco.co.uk

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