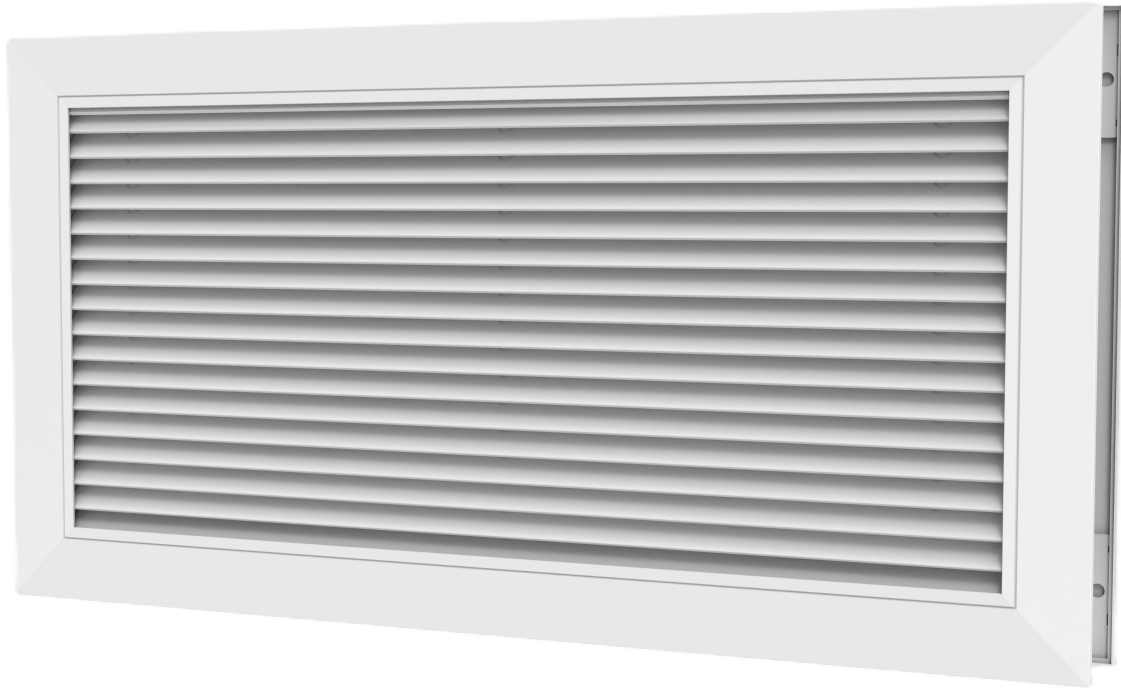


NS

No Sight Air Transfer Grille



Quick Facts

- Suitable for door or wall application
- Core only/Framed/Rear matching frame
- Telescopic rear frame
- Light blocking configuration in 9005 Black
- Volume flow rate range - up to 1620l/s (based on maximum size NR 35 maximum)
- Available in a variety of RAL colours

Technical Description

Design

The NS air transfer grilles are designed to allow air to transfer between rooms of high pressure to low pressure. Suitable for mounting in doors, partitions and walls to allow ventilation air to pass between adjacent rooms.

The NS series is a small format grilles with a chevron blade for a No-Sight feature. Available with a wide variety of frames & fixing options to suit various design needs.

Material and Surface Treatment

Constructed from extruded Aluminium

Polyester powder coated to RAL9010 Matt (20%) finish to all external surfaces.

Alternative standard RAL colours to select from:

- 9016 Matt (20%) finish - White
- 9003 Matt (40%) finish - White
- 9006 Matt (40%) finish - Silver
- 9005 Matt (30%) finish - Black

Project Planning

NS

A Core only air transfer grille (3) design for flush mounting in doors, panels & partitions. It requires beading in place and should be clamped firmly using mouldings.

NSA

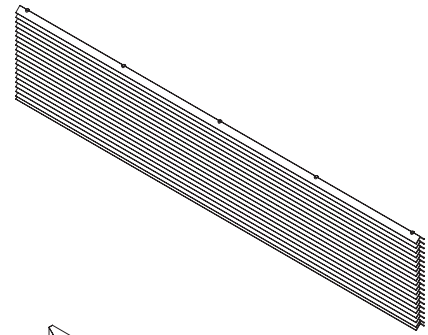
A framed no-sight air transfer grille (1) with matching reverse frame (2) most commonly used as a door transfer grille.

NSC

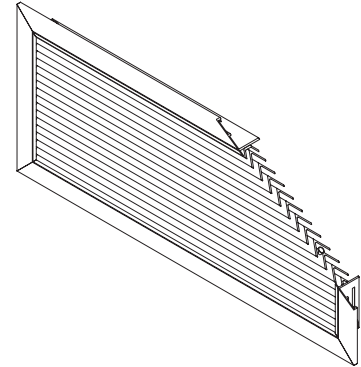
The NSC is a Framed No-Sight air transfer grille used on one side of the wall or in pairs each on its own side of the wall.

2 x NSC air transfer grilles are suitable for partitions 53mm or greater

NS



NSC



NSA

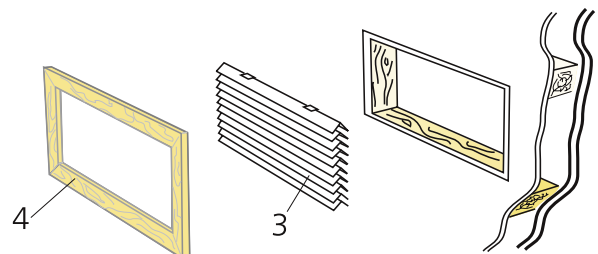
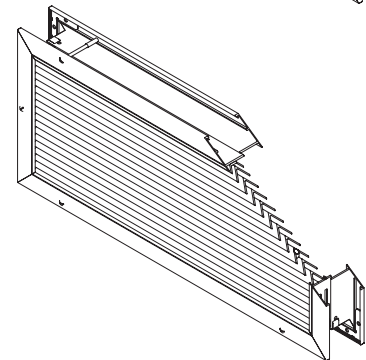
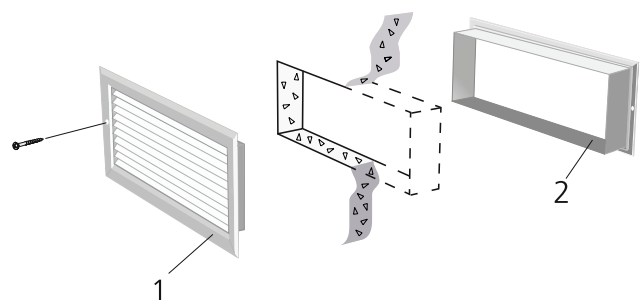


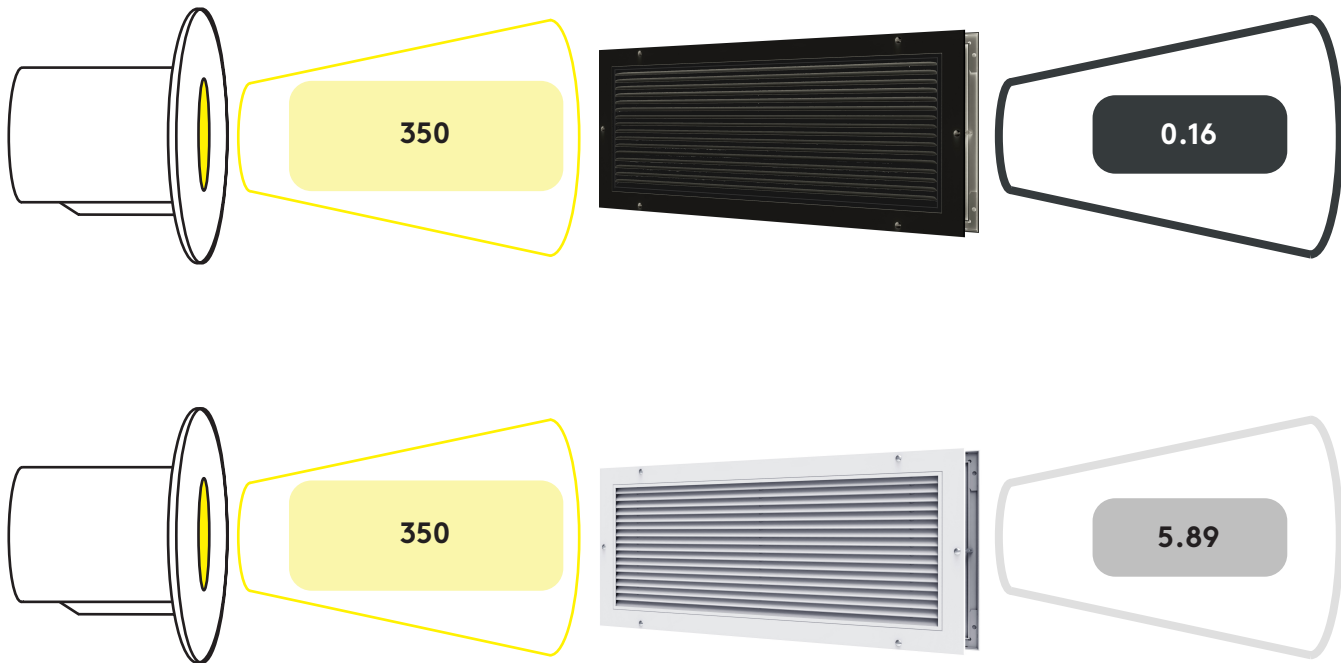
Figure 1

1. NSA
2. Matching frame supplied with NSA
3. NS Transfer grille
4. Beading/Moulding (not supplied)



Dark Room

For a no sight/No light feature the NSA or NSC grille can be ordered in 9005 black



Light (Lx)	0 - 0.3	0.4 - 2	3 - 10	11 - 50	51 - 100	101 - 200	201 - 400	401 - 600	600 +
Effect	Blinding	Dark	Dusky	Gloomy	Dim	Satisfactory	Good	Bright	Glaring

Installation

For our range of fixing details, please see our installation, operation & maintenance manual.

Maintenance

These are static units without moving parts therefore maintenance is confined to cleaning. Powder coated surfaces should be washed with a warm water solution of mild detergent or suitable proprietary cleaning agent. Abrasive cleaners or those containing ketones, esters, acids, alkali or alcohol should not be used

Environment

Our standard power coating process is suitable for a C2 Internal environment classification, ISO 12944-2. Design life >25 years.

Sizing

- Acoustic testing carried out in general accordance to BS EN ISO 5135:1999 acoustics. Determination of sound power levels of noise from air-terminal devices, air-terminal units, dampers and valves by measurement in a reverberation room.
- NR figures are based on a product in a room with a 8dB room absorption
- If two NSC grilles are used in a back to back application add a correction factor x2 for pressure x1.2 for Noise data

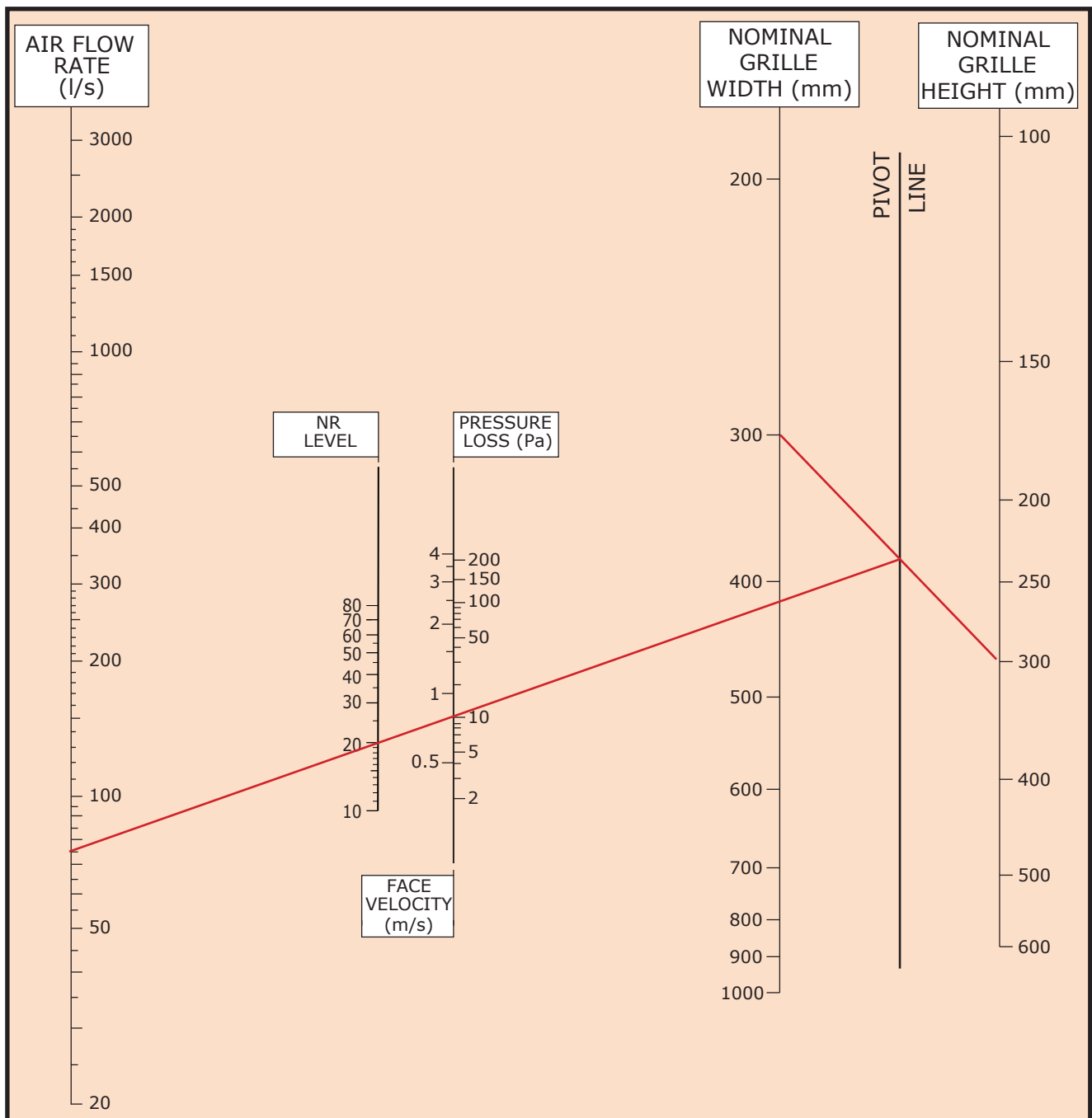
Selection example NS

Air flow rate - 75 l/s

Pressure loss - 10pa

Room Noise Rating - NR 20

Size - 300 x 300



NS Grille - Free Area (m²)

- Table features the core free area values of each grille size.
- Recommended core velocity for door transfer grilles should be between 1 - 2 m/s
- Flow Rate (Q) = Flow Velocity (V) × Cross-sectional Area (A).

Example

300 x 300 nominal size

$$1\text{m/s} \times 0.0362\text{m}^2 = 0.036\text{m}^3/\text{s}$$

$$2\text{m/s} \times 0.0362\text{m}^2 = 0.072\text{m}^3/\text{s}$$

Nom Width (mm)		150	200	250	300	350	400	500	600	700	800	900	1000	1100	1200
Nom. Height (mm)	100	0.0033	0.0050	0.0067	0.0084	0.0100	0.0114	0.0147	0.0181	0.0211	0.0245	0.0278	0.0309	0.0342	0.0376
	150	0.0061	0.0092	0.0122	0.0153	0.0184	0.0209	0.0270	0.0332	0.0388	0.0449	0.0510	0.0566	0.0628	0.0689
	200	0.0089	0.0134	0.0178	0.0223	0.0267	0.0304	0.0393	0.0482	0.0564	0.0653	0.0742	0.0824	0.0913	0.1002
	250	0.0117	0.0175	0.0234	0.0292	0.0351	0.0399	0.0516	0.0633	0.0740	0.0857	0.0974	0.1081	0.1198	0.1315
	300	0.0145	0.0217	0.0289	0.0362	0.0434	0.0494	0.0639	0.0784	0.0916	0.1061	0.1206	0.1338	0.1483	0.1628
	350	0.0172	0.0259	0.0345	0.0431	0.0518	0.0589	0.0762	0.0935	0.1093	0.1265	0.1438	0.1596	0.1769	0.1941
	400	0.0200	0.0300	0.0401	0.0501	0.0601	0.0684	0.0885	0.1085	0.1269	0.1469	0.1670	0.1853	0.2054	0.2254
	500	0.0256	0.0384	0.0512	0.0640	0.0768	0.0874	0.1131	0.1387	0.1621	0.1877	0.2134	0.2368	0.2624	0.2881
	600	0.0311	0.0467	0.0623	0.0779	0.0935	0.1065	0.1377	0.1689	0.1974	0.2286	0.2598	0.2883	0.3195	0.3507
	700	0.0367	0.0551	0.0735	0.0919	0.1102	0.1255	0.1622	0.1990	0.2326	0.2694	0.3061	0.3398	0.3765	0.4133
	800	0.0423	0.0634	0.0846	0.1058	0.1269	0.1445	0.1868	0.2292	0.2679	0.3102	0.3525	0.3912	0.4336	0.4759
	900	0.0478	0.0718	0.0957	0.1197	0.1436	0.1635	0.2114	0.2593	0.3031	0.3510	0.3989	0.4427	0.4906	0.5385
	1000	0.0534	0.0801	0.1069	0.1336	0.1603	0.1825	0.2360	0.2895	0.3383	0.3918	0.4453	0.4942	0.5477	0.6012
	1100	0.0589	0.0885	0.1180	0.1475	0.1770	0.2015	0.2606	0.3196	0.3736	0.4326	0.4917	0.5457	0.6047	0.6638
	1200	0.0645	0.0968	0.1291	0.1614	0.1938	0.2205	0.2851	0.3498	0.4088	0.4735	0.5381	0.5972	0.6618	0.7264
	1300	0.0701	0.1052	0.1403	0.1754	0.2105	0.2395	0.3097	0.3799	0.4441	0.5143	0.5845	0.6486	0.7188	0.7890
	1400	0.0756	0.1135	0.1514	0.1893	0.2272	0.2585	0.3343	0.4101	0.4793	0.5551	0.6309	0.7001	0.7759	0.8516
	1500	0.0812	0.1219	0.1625	0.2032	0.2439	0.2775	0.3589	0.4402	0.5146	0.5959	0.6772	0.7516	0.8329	0.9143
	1600	0.0867	0.1302	0.1737	0.2171	0.2606	0.2965	0.3835	0.4704	0.5498	0.6367	0.7236	0.8031	0.8900	0.9769
	1700	0.0923	0.1385	0.1848	0.2310	0.2773	0.3156	0.4080	0.5005	0.5851	0.6775	0.7700	0.8545	0.9470	1.0395
	1800	0.0979	0.1469	0.1959	0.2449	0.2940	0.3346	0.4326	0.5307	0.6203	0.7183	0.8164	0.9060	1.0041	1.1021

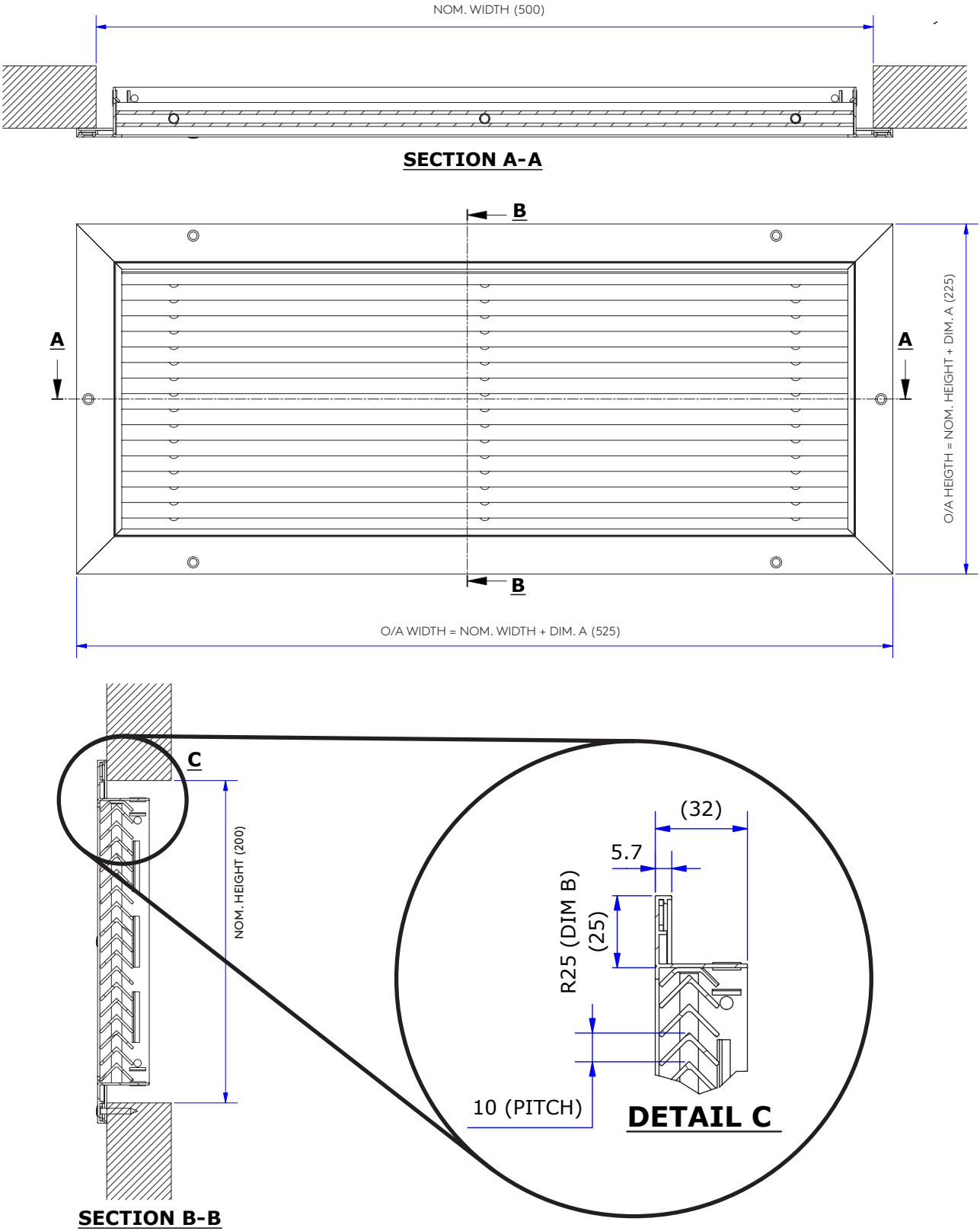
Dimensions & Weights

NSC Grille

1. MIN SIZE (WXH) - 150X100mm
2. MAX SIZE (WXH) - 1200X1800mm
3. HEIGHT AVAILABLE IN INCREMENTS OF 10MM ONLY
4. PRODUCT WEIGHT = 12KG/M²

BORDER TYPE	DIM. A	DIM. B
R16T32	7	16
R25T32	25	25
R32T32	39	32

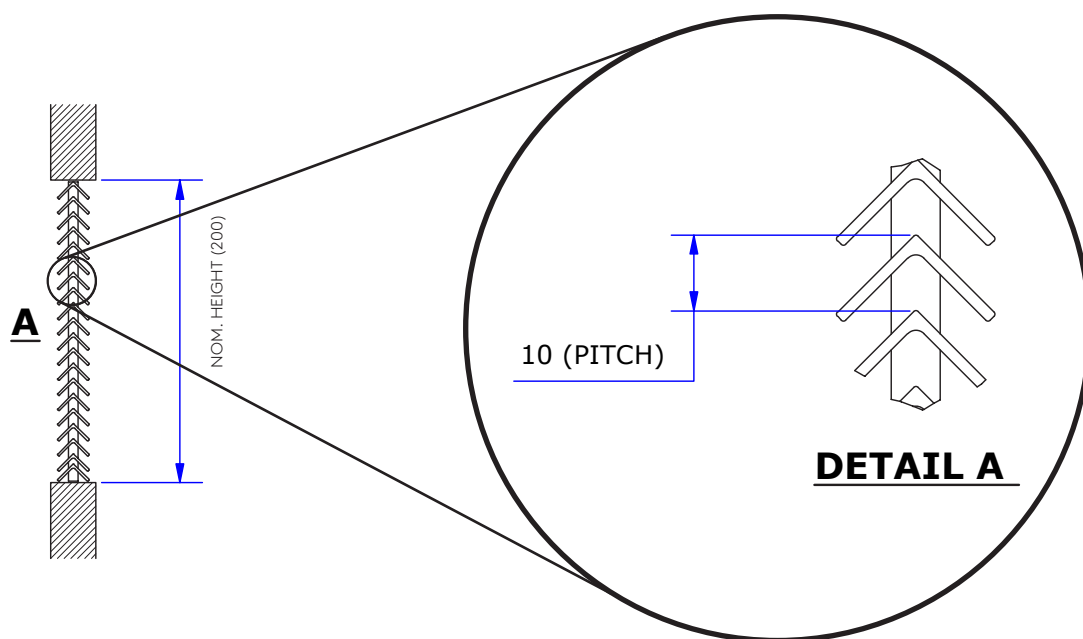
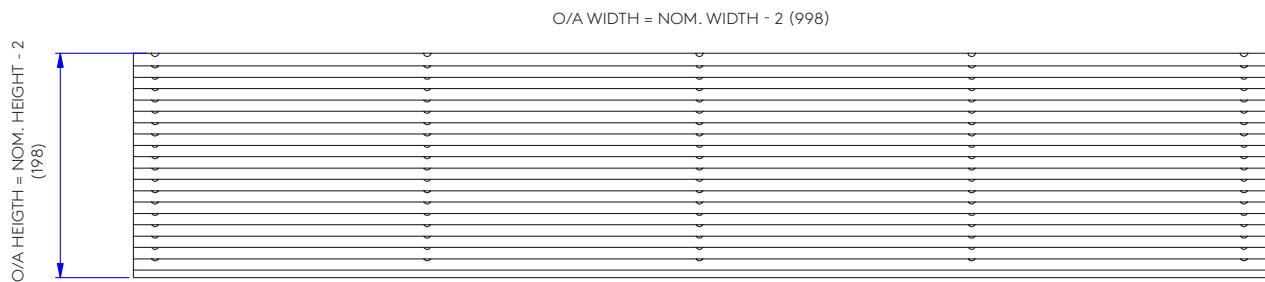
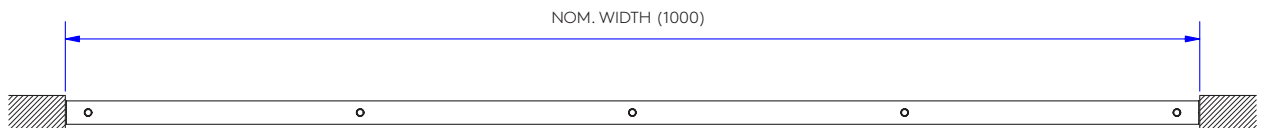
FIXING METHODS	
TYPE	DESCRIPTION
NF	NO FIXING
SF	SCREW FIXING
CF	CLIP FIXING



NS Grille

1. MIN. SIZE (WXH) - 150X100mm
2. MAX. SIZE (WXH) - 1200X1800mm
3. NS IS CORE ONLY - NO FRAME IS PROVIDED
4. HEIGHT AVAILABLE IN INCREMENTS OF 10MM ONLY
5. PRODUCT WEIGHT = 11.6KG/M²

FIXING METHODS	
TYPE	DESCRIPTION
NF	NO FIXING

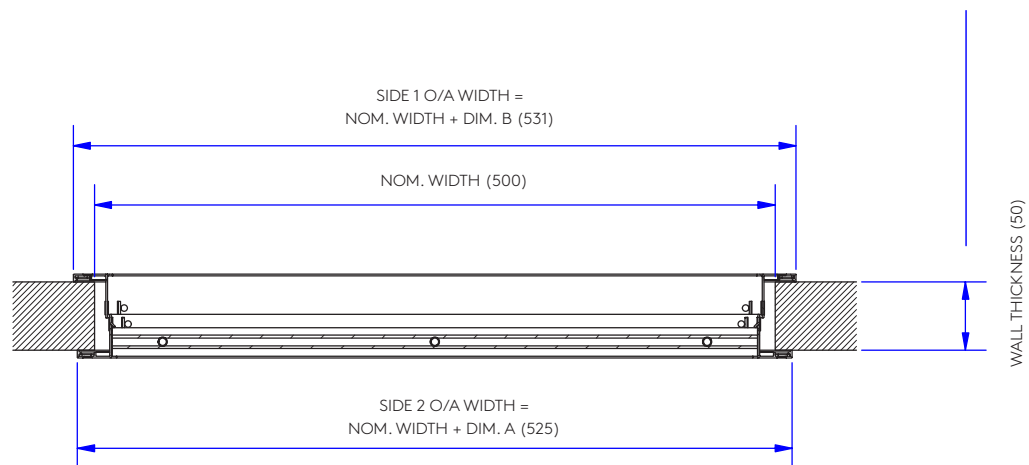


NSA Grille

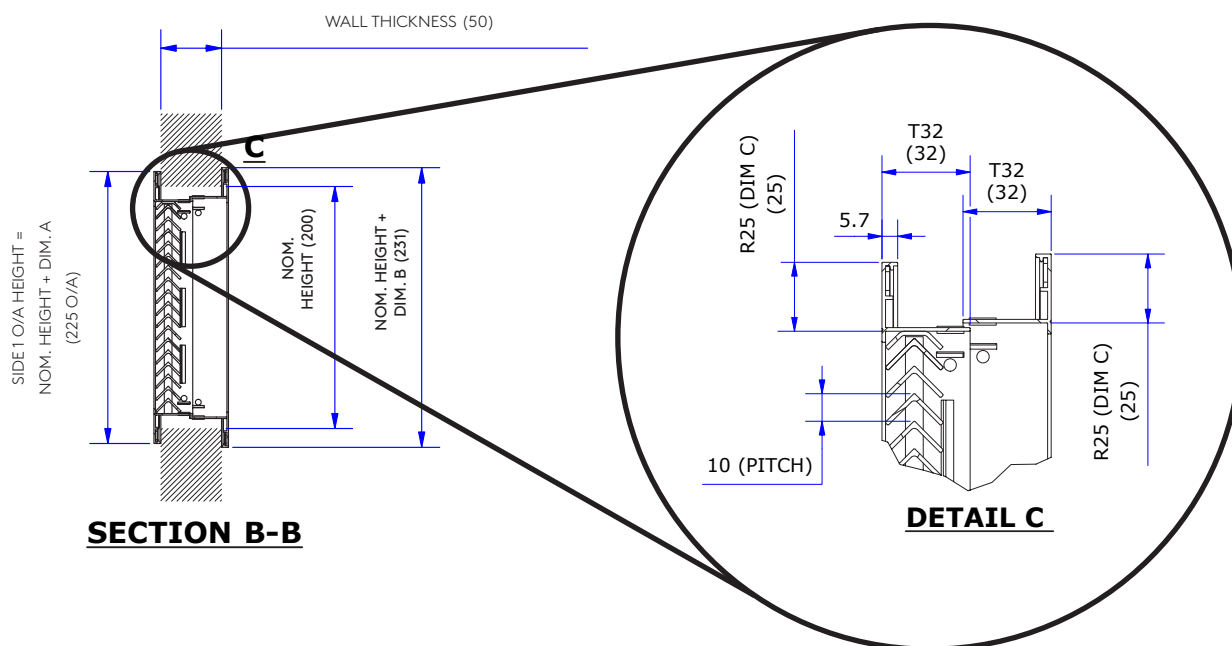
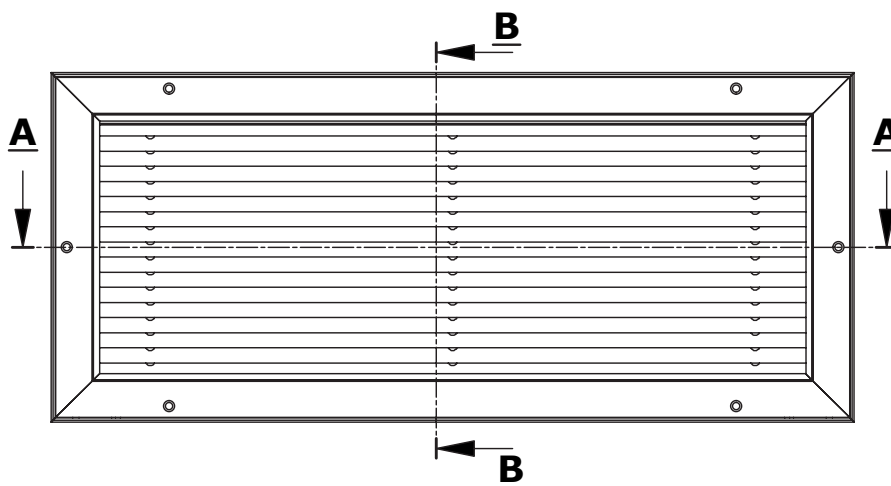
1. MIN SIZE (WxH) - 150x100mm
2. MAX SIZE (WxH) - 1200x1800mm
3. MIN./MAX. WALL SIZE: 30/50mm
4. HEIGHT AVAILABLE IN INCREMENTS OF 10MM ONLY
5. PRODUCT WEIGHT = 13KG/M²

BORDER TYPE	DIM. A	DIM. B	DIM. C
R16T32	7	13	16
R25T32	25	31	25
R32T32	39	45	32

FIXING METHODS	
TYPE	DESCRIPTION
NF	NO FIXING
SF	SCREW FIXING
PSF	PATENT SCREW FIXING



SECTION A-A



SECTION B-B

DETAIL C

Order Key

Composite Reference: NSA/25R/SF/400/400/9010

Diffuser Order Key		1	2	3	4	5	6
Order example:		NSA	25R	SF	400	400	9010
Blade type:							
NS	Transfer Grille Core only (beading in by others)						
NSA	Framed Transfer Grille with Matching frame						
NSC	Framed Transfer Grille (single)						
Frame Type:							
0R	No Frame						
16R	16mm Frame						
25R	25mm Frame						
32R	32mm Frame						
Fixing:							
NF	No Fix						
SF	Screw Fixing (25R & 32R only)						
CF	Clip Fixing (NSC only)						
PSF	Patent screw fix (only for NSA)						
Nominal Length:							
100	Lengths available in 1mm increments						
1200							
Nominal Height:							
150	Heights available in 10mm increments						
1800							
Finish:							
9010	White 9010 Matt (20%) finish						
9005	Black 9005 Matt (30%) finish						
9006	Silver 9006 Matt (40%) finish						
9016	White 9016 Matt (20%) finish						
9003	White 9003 Matt (40%) finish						
SPC	Other colours available to special order						

Specification Example

- Narrow core for slim door sets
- Ready to install
- Acoustic testing carried out in general accordance to BS EN ISO 5135:1999 acoustics. Determination of sound power levels of noise from air-terminal devices, air-terminal units, dampers and valves by measurement in a reverberation room.
- Polyester powder coated to RAL9010 – Matt finish to all external surfaces.