

LINEAR BAR GRILLE - LBG

DESCRIPTION & FEATURES

Linear Bar Grilles are suitable for supply and extract air in sidewall or cill applications. They are available with 0°, 15°, 45° blades pitched to give either 50% or 75% free area. Standard flanges are 32mm although 19mm are available with alignment joints to give a continuous appearance.



LBG

Available with Opposed Blade Dampers, Adjustable Vertical Rear Blades, Plenum Boxes and Plaster Frame.

LBG Grilles are manufactured from extruded aluminium sections, the mitred corners being fully welded and finished.

Standard finish is RAL9010 or polyester powder coated to the customers colour requirement.

PLENUM BOXES

Plenum boxes are accessories for use with Grilles and Diffusers. They are designed to equalise the pressure profile within the box and hence provide an even velocity at the face of the Grille or Diffuser without the use of Equalising Grids.

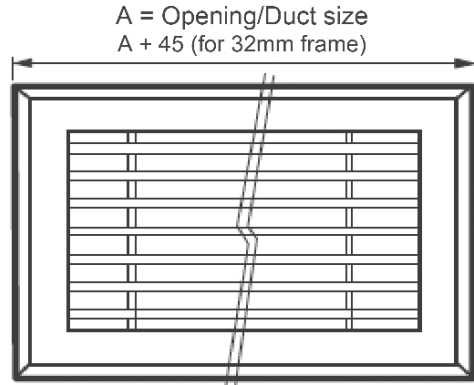
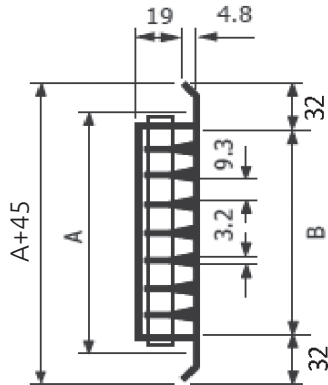
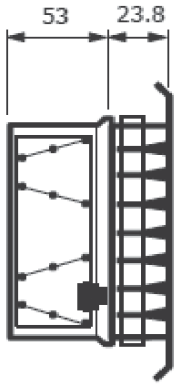
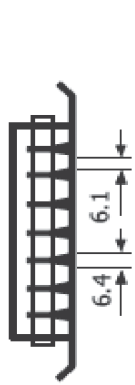
LBG ORDERING CODE (DIFFUSER)	
Series:	LBG
Blades:	NB - Narrow Blades (3.2mm) WB - Wide Blades (6.1mm)
Core:	F - Fixed Core R - Removable Core
Deflect:	0 - 0° Fixed Blades, 15 - 15° Fixed Blades 45 - 45° Fixed Blades
Frame:	S - 32mm Frame (std) N - 19mm Frame PF - Plaster Frame JF - Joinery Frame
Access:	OB - Opposed Blade Damper RB - Adjustable Rear Blades OR - Damper & Adjustable Rear Blades 0 - Not Applicable
Fixing:	F0 - No fixings F1 - CSK Flange Fixing Holes F2 - Spring Clip F4 - Rear Strap F5 - Rear Strap & Bracket F6 - Goal Post Bracket
Finish:	1 - (Mill Finish) 2 - RAL9006 (Silver/Grey) 3 - RAL9010 (White) 4 - RAL9005 (Black) 5 - RAL9003 (White) 6 - RAL9016 (White), 7 - Other RAL/BS Code (additional costs may apply) 8 - Chrome Finish - Powder Coated
Notes:	Linear Bar Grilles can also be manufactured from various grades of Stainless Steel, please contact Sales Office.
Example: LBG/NB/F/15/S/OB/F1/3/Nominal Opening Size	

LBG ORDERING CODE (PLENUM)	
Type:	PBU - Un-Lined Side Entry PBL - Lined Side Entry PBA - Adaptor Top Entry
Series:	LBG
Mesh:	P - Perforated Equalising Mesh 0 - No Equalising Mesh
Damper:	LS - Lever Spigot Damper CS - Cord Spigot Damper 0 - No Damper
Spigot:	OP - 2 Opposite Spigots AD - 2 Adjacent Spigots FL - Flat Oval Spigot
Finish:	IN - Black Internal EX - Black External IE - Black Internal & External
Example: PBL/LBG/CS/Nominal Size/Spigot Size	

LINEAR BAR GRILLE - LBG

LBG DIMENSIONS (GRILLE)

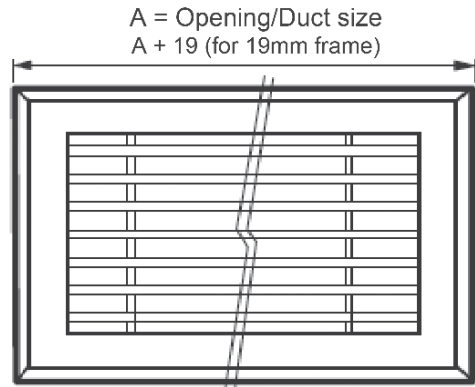
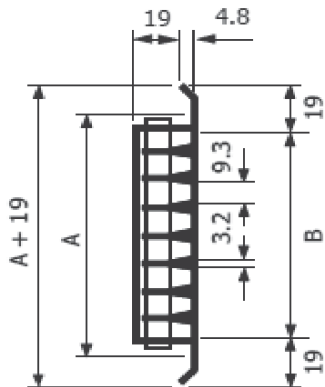
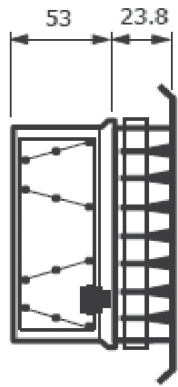
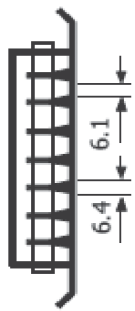
LBG



LBG-WB
(50% Free Area)

c/w OBD
(on 4 bar and over)

LBG-NB
(75% Free Area)

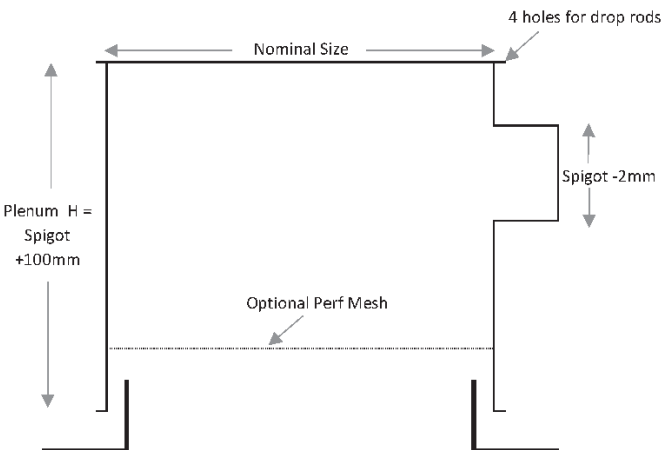


PLENUM BOX DIMENSIONS

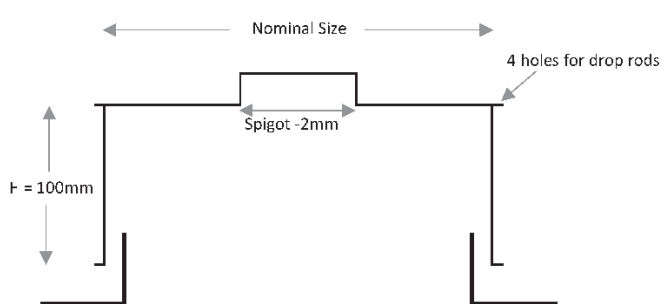
Number of bars	1	2	3	4	5	6	7	8	9	10	11	12
A Opening / Duct height	37.5	50	62.5	75	87.5	100	112.5	125	137.5	150	162.5	175
B Grille core height	18.5	31	43.5	56	68.5	81	93.5	106	118.5	131	143.5	156

Number of bars	13	14	15	16	17	18	19	20	21	22	23	24
A Opening / Duct height	187.5	200	212.5	225	237.5	250	262.5	275	287.5	300	312.5	325
B Grille core height	168.5	181	193.5	206	218.5	231	243.5	256	268.5	281	293.5	306

SIDE ENTRY PLENUM



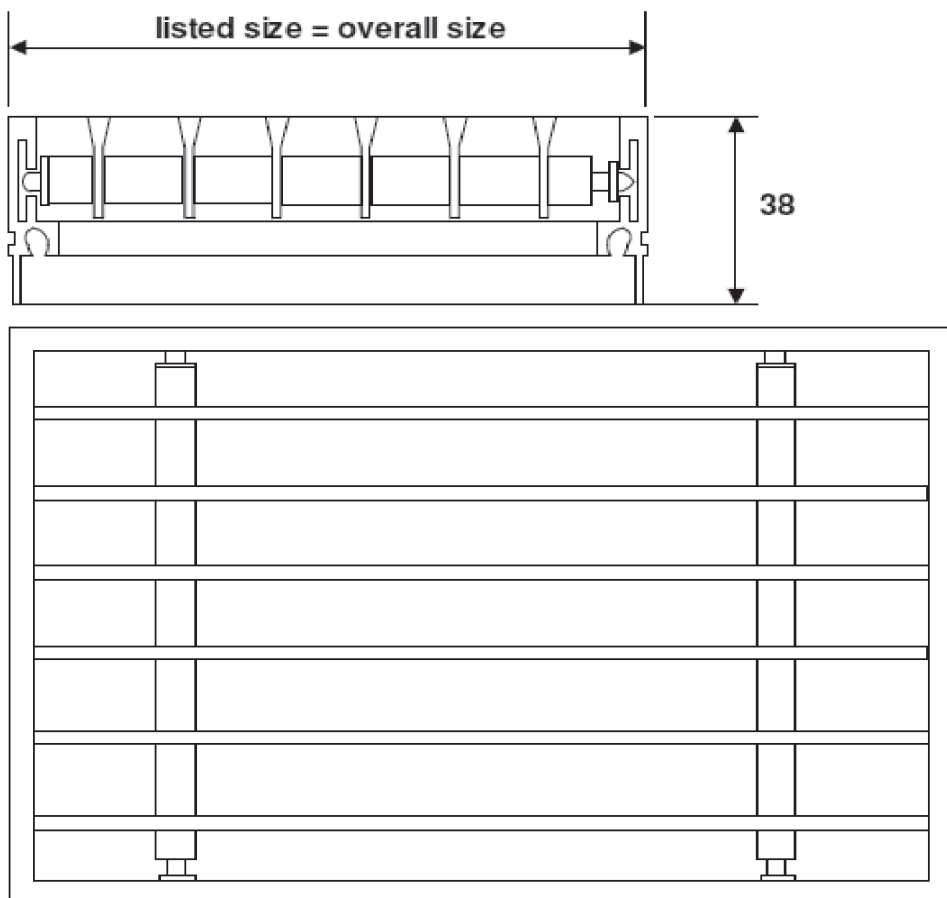
TOP ENTRY ADAPTOR BOX



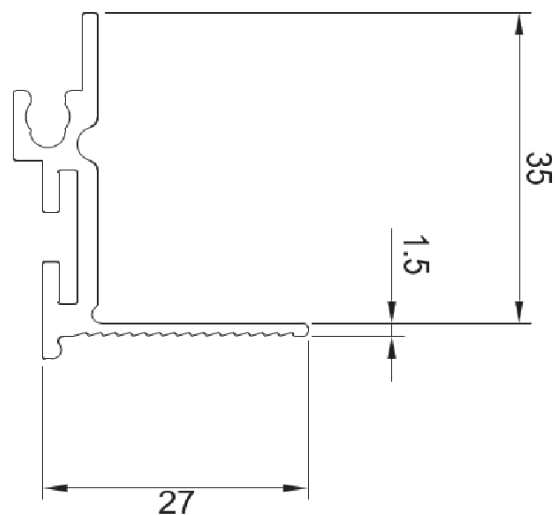
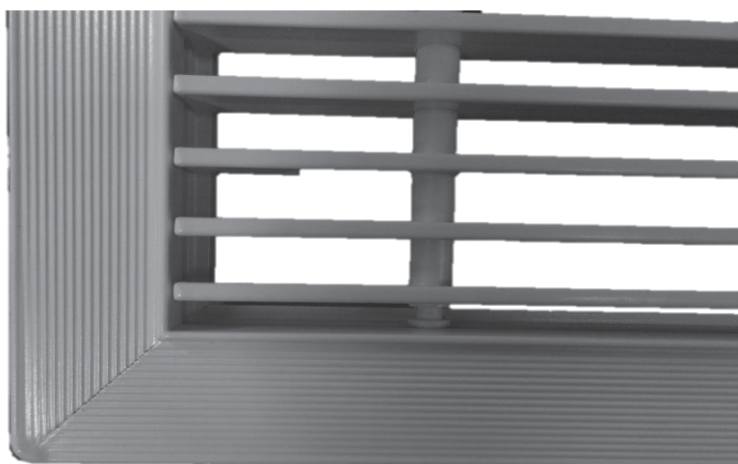
Side entry as drawn. Top entry 250 high.

LINEAR BAR GRILLE - LBG

LBG JOINERY FRAME



LBG PLASTER FRAME

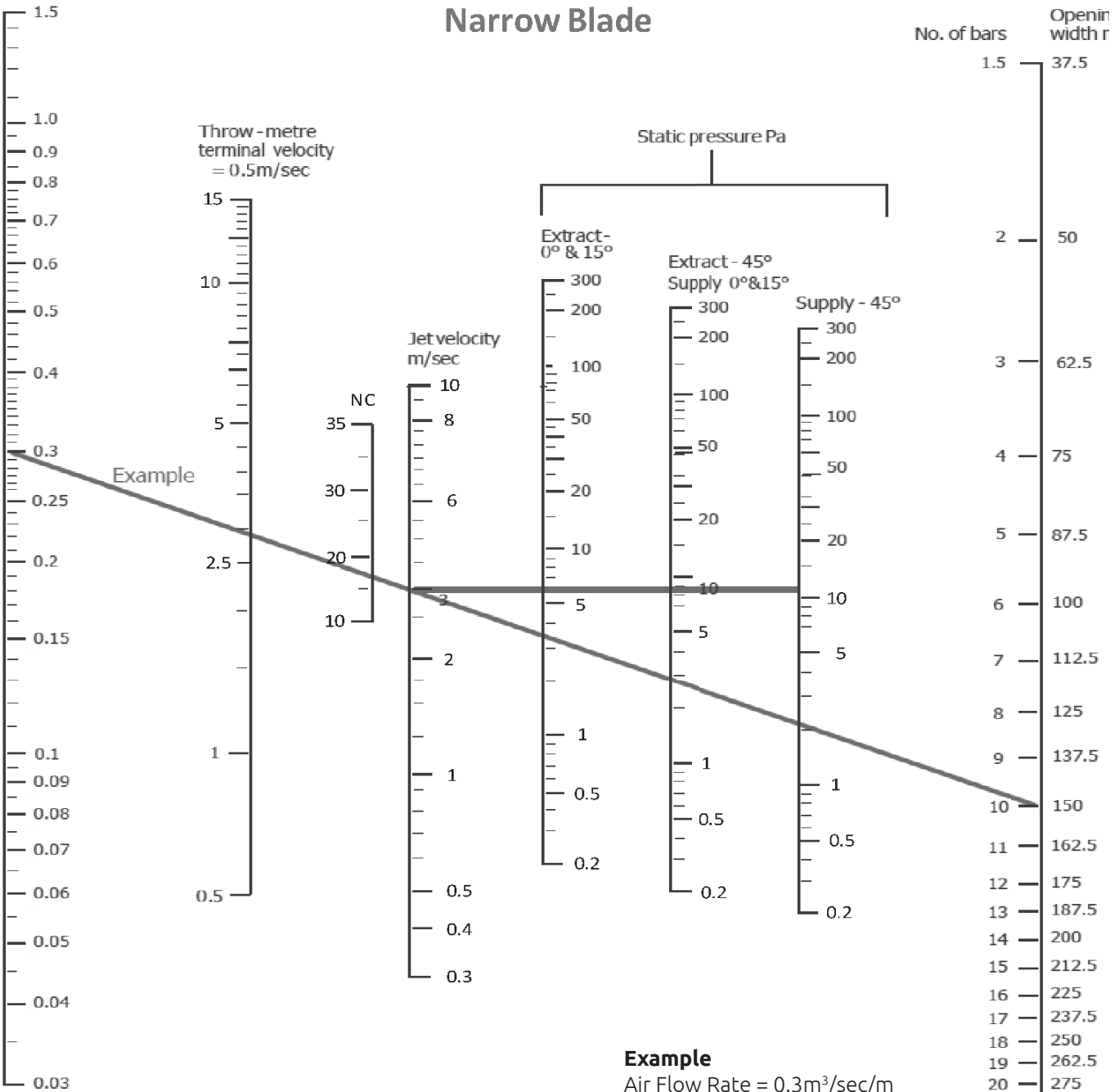


LINEAR BAR GRILLE - LBG

LBG PERFORMANCE DATA

LBG

Air flow rate
m³/sec/m



	Pressure difference PA	
	Blade angle	
	0° & 15°	45°
Supply	8	10
Extract	6	8

Note: Add 50% if damper fitted

Example

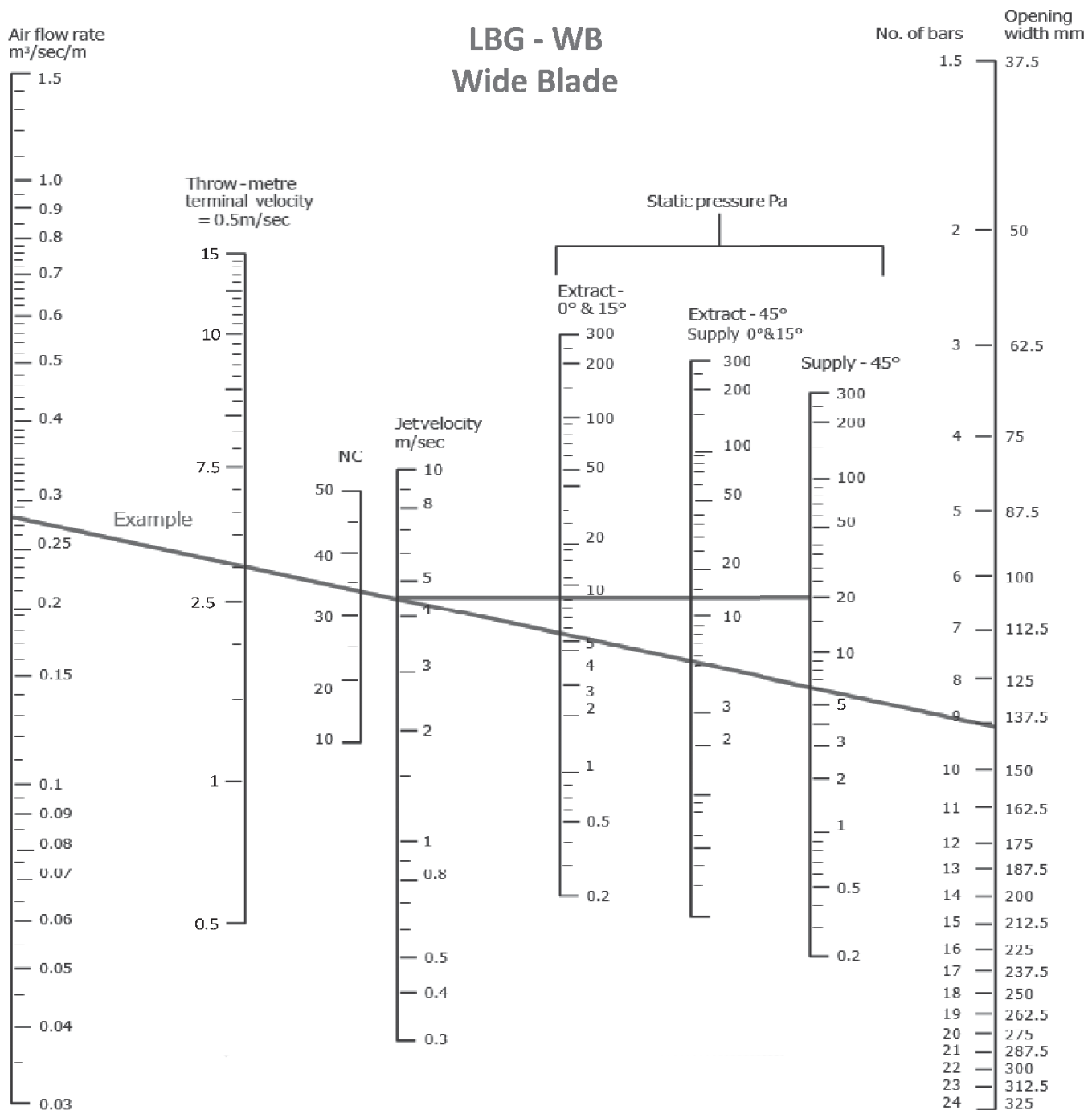
Air Flow Rate = 0.3m³/sec/m
 At points of intersection:
 Throw = 3m
 Jet Velocity = 3m/sec
 Opening Width = 150mm

Testing with Anemometer

Mean velocity 25mm from face = 83% of Jet Velocity

LINEAR BAR GRILLE - LBG

LBG PERFORMANCE DATA



Example

Example

Air Flow Rate = 0.278m³/sec/m
 At points of intersection:
 Throw = 3m
 Jet Velocity = 4.56m/sec
 Opening Width = 137.5mm

	Pressure difference PA	
	Blade angle	
	0° & 15°	45°
Supply	12	19
Extract	9	12

Note: Add 50% Damper if fitted

Testing with Anemometer

Mean velocity 25mm from face = 70% of Jet Velocity

Notes

LBG