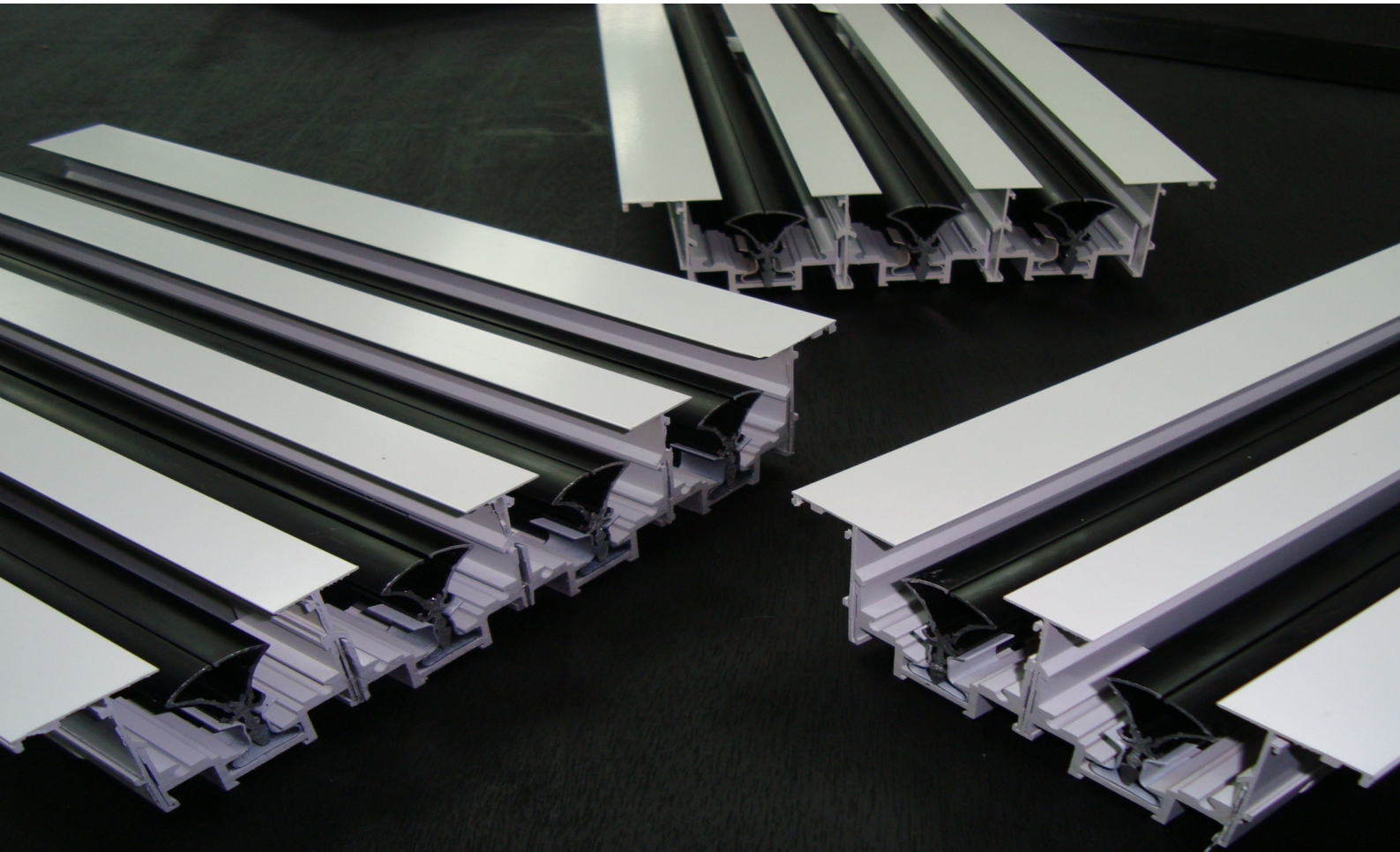


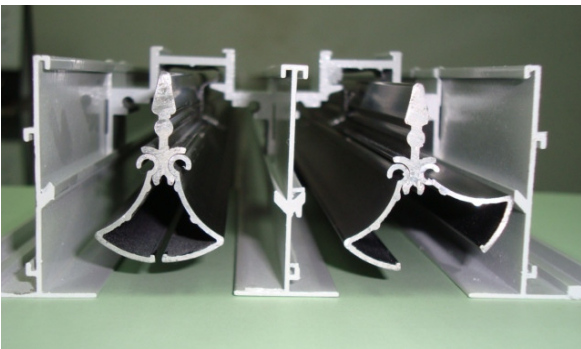
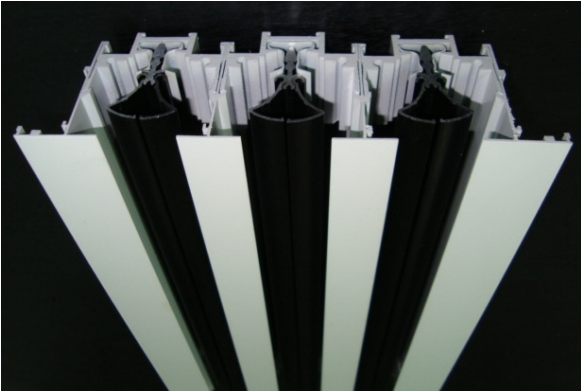


EXTRUDED ALUMINUM DIFFUSER

**R. GLAZEN SINGAPORE PTE LTD**

# Linear Diffuser





### Features

- ⇒ Designed to suit modern architectural and interior decoration requirements.
- ⇒ Efficient, quiet and draftless.
- ⇒ Stylish, scratch resistant and non-yellowing.
- ⇒ Vanes can be adjusted to provide 180° flow pattern and complete flow rate control including blank off.
- ⇒ Flow pattern can be easily adjusted after diffusers are installed.
- ⇒ Diffuser can be supplied in standard lengths of 1.2m, 1.8m, 3m and 6m. Other lengths can also be supplied.
- ⇒ All linear supply and return diffusers are available in 1 slot to 8 slot.
- ⇒ Standard slot widths is 20mm. Also available is the 25mm slot.
- ⇒ Engineered for butting together with hairline precision.
- ⇒ The curved frame is designed for excellent throw, static pressure and noise characteristics.
- ⇒ Applicable for heating , cooling and ventilation.

### CONSTRUCTION

The exposed surfaces, vanes and space bar are made from extruded aluminum. The linear diffusers are designed to withstand rough handling without distortion.

### FINISHES

All Supply and return linear diffusers are available in natural anodize finish as standard for scratch resistant. For painted finishes, the diffusers will be enamel coated and oven-baked. For other finishes, please consult R. Glazen technical representatives.

### SPECIFICATIONS

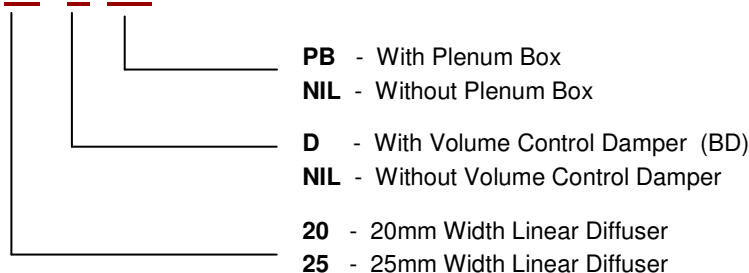
Linear Diffusers shall be constructed with extruded aluminum of not less than 1.5mm thickness. The diffusers shall be selected based on the air volumes shown in the specification drawings and the noise levels generated shall not exceed NR 35.

Deflectors of diffusers shall be adjustable to provided 180° flow pattern, including blank-off. Finishes for diffusers shall be oven-baked enamel, colour shall be white unless otherwise specified.

Diffusers shall be tested to Air Diffusion Council (ADC) standard 1062R4 or British Standard BS 1042 Part 1 by an independent accredited test laboratory.

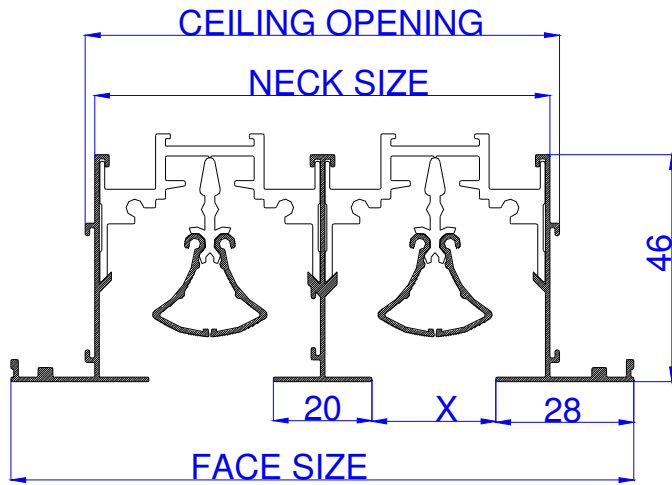
#### Ordering Key:

**GLD 20- D-PB**



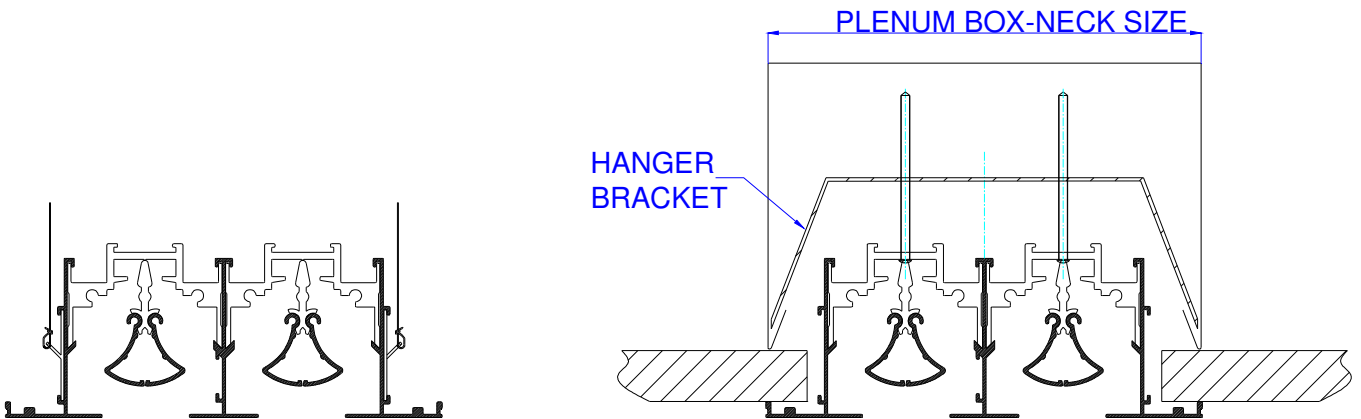


**DIMENSIONAL DETAILS**



SLOT NO	MEDIUM CAPACITY (X: 20mm WIDTH SLOT)			HIGH CAPACITY ( X: 25 mm WIDTH SLOT)		
	FACE SIZE	NECK SIZE	CEILING OPENING	FACE SIZE	NECK SIZE	CEILING SIZE
1	76	44	54	81	49	59
2	116	84	94	126	94	104
3	156	124	134	171	139	149
4	196	164	174	216	184	194
5	236	204	214	261	229	239
6	276	244	254	306	274	284
7	316	284	294	351	319	329
8	356	324	334	396	364	374

**MOUNTING DETAILS**

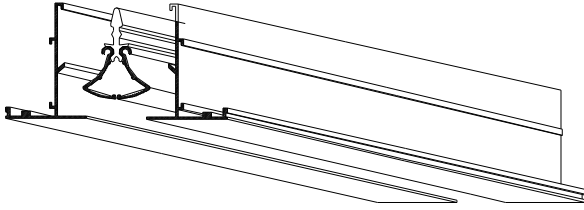


Mounting in exposed ceiling grid system.

Mounting in concealed ceiling

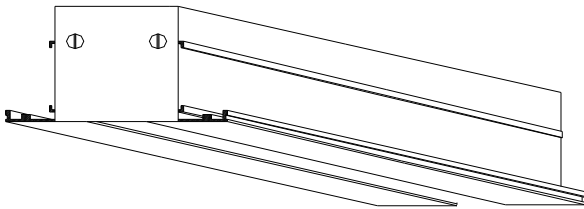


**BLANKING OFF & END CONSTRUCTION**



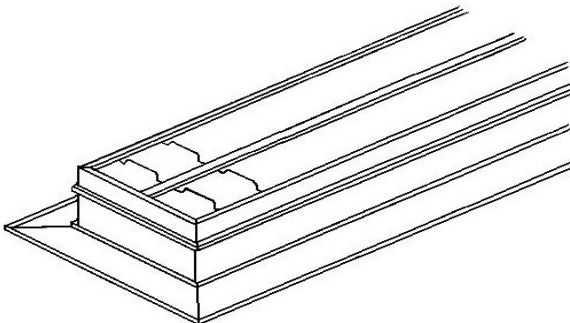
**TYPE "EX"**

Open end construction. For use when diffuser is to butt with another diffuser. Alignment strips provided for joining the diffusers.



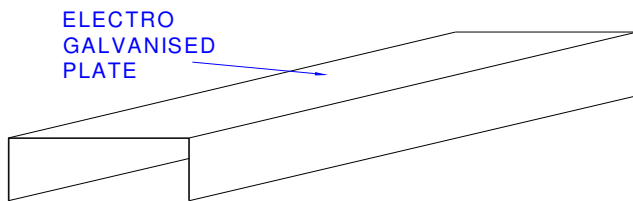
**TYPE "EB"**

Normal end cap. For use when terminates against wall.



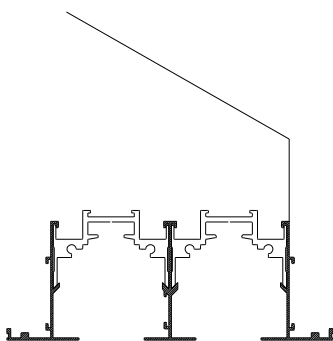
**TYPE "EM"**

45° mitre end caps. For use where a border is required at the ends of the diffuser.



**BLANK OFF**

For use to cover inactive sections of diffusers.



**ANGLE BLANK OFFS**

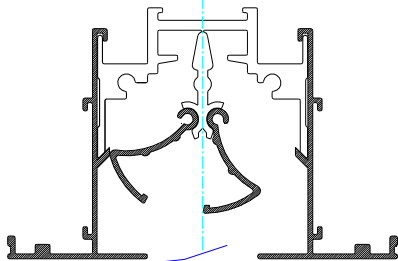
For use to prevent view of ceiling void through the slots. This is used mainly for return air slots in ceiling return systems. The blank off strip is painted black.



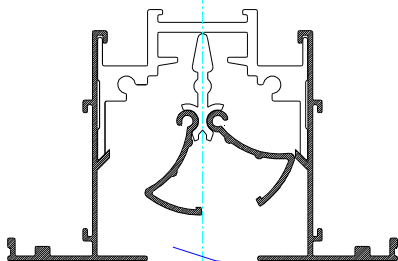
**PATTERN ADJUSTMENTS**

Adjustable contoured deflectors provide various air patterns as shown below, complete flow rate control including blank-off.

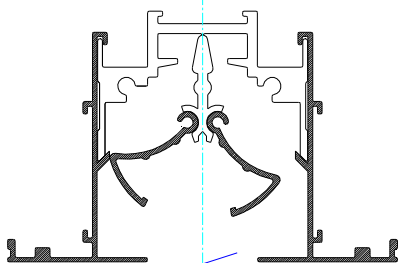
**One Slot**



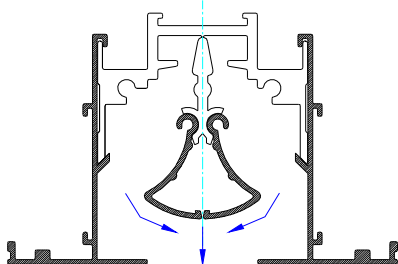
Horizontal Left



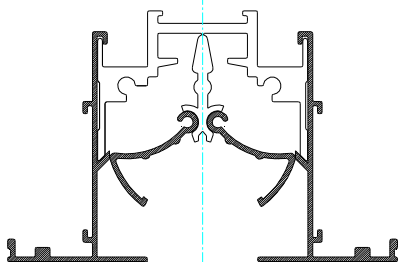
Horizontal Right



Dampered horizontal Left

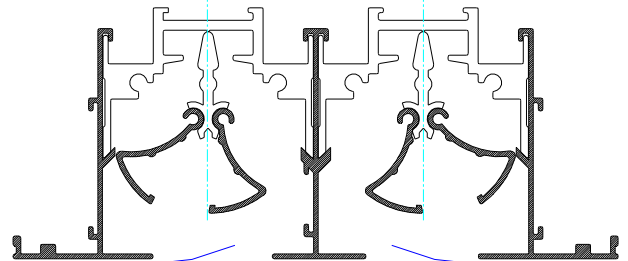


Vertical

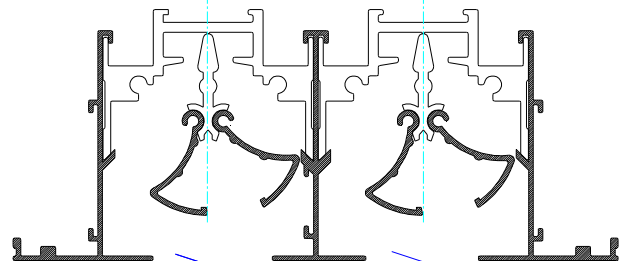


Fully Dampered

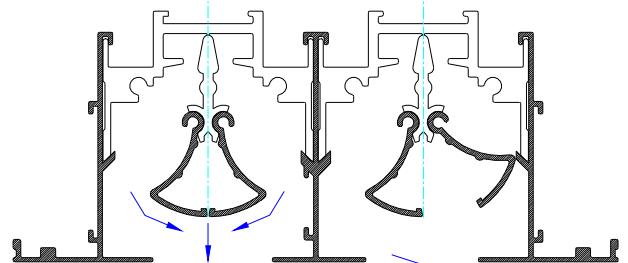
**Two Slot**



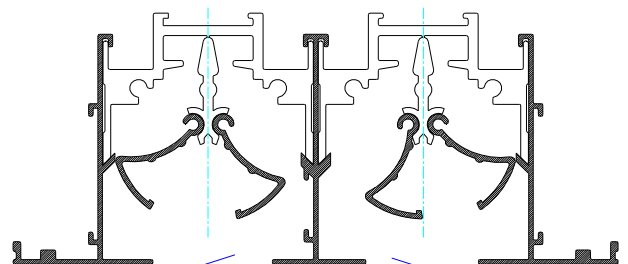
Opposed



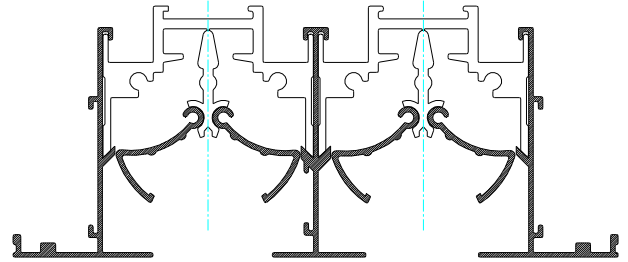
One Way



Vertical & Horizontal



Opposed Unequal Flow (One Slot Dampered)

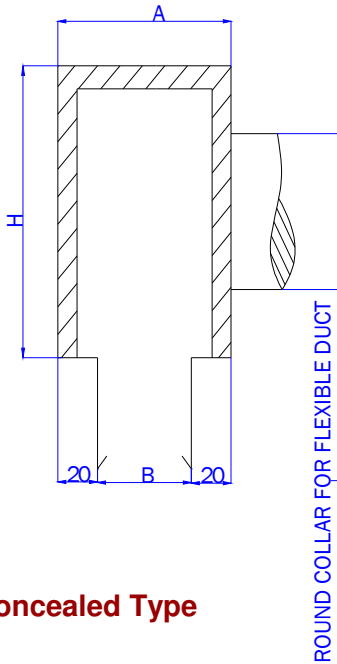


Fully Dampered



**PLENUM BOX**

The plenum box shall be constructed of 24 gauge galvanized sheet, internally insulated with 12mm thick fiber-glass of density 48kg/m<sup>3</sup>.



**Concealed Type**

**Dimensions for 20 mm slot, Concealed Type Linear diffuser**

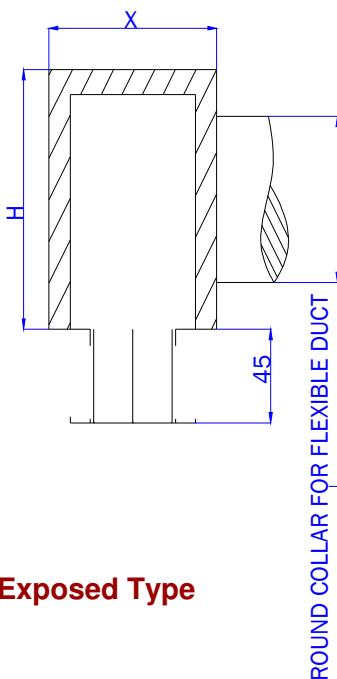
COLLAR SIZE (Ø)	1 SLOT				2 SLOT				3 SLOT				4 SLOT				
	H	A	B	C	H	A	B	C	H	A	B	C	H	A	B	C	
100mm	150	110	75	45	150	140	110	45									
125mm	175	110	75	45													
150mm	200	110	75	45	200	140	110	45	200	180	150	45	200	220	190	45	
200mm					250	140	110	45	250	180	150	45	250	220	190	45	
250mm					300	140	110	45	300	180	150	45	300	220	190	45	
300mm									350	180	150	45	350	220	190	45	

**Dimensions for 25 mm slot, Concealed Type Linear diffuser**

COLLAR SIZE (Ø)	1 SLOT				2 SLOT				3 SLOT				4 SLOT				
	H	A	B	C	H	A	B	C	H	A	B	C	H	A	B	C	
100mm	150	115	75	45	150	150	120	45									
125mm	175	115	75	45													
150mm	200	115	75	45	200	150	120	45	200	195	165	45	200	240	210	45	
200mm					250	150	120	45	250	195	165	45	250	240	210	45	
250mm					300	150	120	45	300	195	165	45	300	240	210	45	
300mm									350	195	165	45	350	240	210	45	

**Dimensions for 20 mm slot, Exposed Type Linear diffuser**

COLLAR SIZE (Ø)	1 SLOT			2 SLOT			3 SLOT			4 SLOT		
	H	H +45	X	H	H +45	X	H	H +45	X	H	H +45	X
100mm	150	195	94	150	195	124						
125mm	175	220	94									
150mm	200	245	94	200	245	124	200	245	164	200	245	204
200mm				250	295	124	250	295	164	250	295	204
250mm				300	345	124	300	345	164	300	345	204
300mm							350	395	164	350	395	204



**Exposed Type**

**Dimensions for 25 mm slot, Exposed Type Linear diffuser**

COLLAR SIZE (Ø)	1 SLOT			2 SLOT			3 SLOT			4 SLOT		
	H	H +45	X	H	H +45	X	H	H +45	X	H	H +45	X
100mm	150	195	99	150	195	134						
125mm	175	220	99									
150mm	200	245	99	200	245	134	200	245	179	200	245	224
200mm				250	295	134	250	295	179	250	295	224
250mm				300	345	134	300	345	179	300	345	224
300mm							350	395	179	350	395	224

All dimensions in millimeters



**PERFORMANCE DATA FOR GLD SERIES**

**SUPPLY AIR LINEAR DIFFUSER 20mm SLOT WIDTH**

No. of slot	CAP l/s	20	25	30	40	50	60	70	80	90	100	150	200	250	300	400	500	600	700	800	900	1000	
1	S.P. NR THROW	3 2.1	9 2.5	13 3	22 3.6	<b>34</b> <b>4.1</b>	<b>49</b> <b>4.6</b>	67 4.9	87 5.4	110 5.7	135 6	301 7.2	530 9.5	71	82	91							
2	S.P. NR THROW		1.6	2.2	3.1	3.7	4.3	4.7	<b>22</b> <b>5.1</b>	<b>28</b> <b>5.5</b>	<b>35</b> <b>5.8</b>	77 7	136 8.3	211 9.3	302	532	80	85					
3	S.P. NR THROW			1.7	2.5	3.1	3.6	4.1	4.7	5.2	<b>16</b> <b>5.6</b>	<b>35</b> <b>6.9</b>	61 8.3	95 9.2	136	240	373	535	74	79	83	87	90
4	S.P. NR THROW			15	17	18	19	20	21	22	22	<b>20</b> <b>6.7</b>	<b>34</b> <b>8.1</b>	<b>54</b> <b>9</b>	<b>77</b> <b>35</b>	135 43	210 49	301 55	408 61	530 66	71	75	
5	S.P. NR THROW					2.1	2.8	3.3	3.7	4.1	4.6	6 13	<b>13</b> <b>23</b>	<b>22</b> <b>30</b>	<b>35</b> <b>36</b>	50 41	87 66	136 55	195 60	264 65	343 69	433 71	532 77
6	S.P. NR THROW						1.8	2.3	2.8	3.3	3.8	9 10	<b>16</b> <b>26</b>	<b>24</b> <b>32</b>	35 37	61 44	95 50	136 55	184 60	240 65	303 68	372 72	

**SUPPLY AIR LINEAR DIFFUSER 25mm SLOT WIDTH**

No. of slot	CAP l/s	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	
1	S.P. NR THROW	20 3.8	<b>28</b> <b>4.2</b>	<b>39</b> <b>4.4</b>	50 4.6	64 5.1	77 5.2																
2	S.P. NR THROW				10 4.2	14 4.8	<b>16</b> <b>5.1</b>	<b>20</b> <b>5.3</b>	<b>23</b> <b>5.7</b>	<b>28</b> <b>5.9</b>	32 6.3	37 6.6	42 6.7	48 6.9	53 7.2								
3	S.P. NR THROW					10 3.9	11 4.2	<b>14</b> <b>5.1</b>	<b>17</b> <b>5.2</b>	<b>20</b> <b>5.7</b>	<b>23</b> <b>6.1</b>	26 6.4	30 6.6	34 6.9	39 7.2	43 7.4	46 7.6						
4	S.P. NR THROW								7 4.5	8 4.8	9 5.2	11 5.7	<b>12</b> <b>6</b>	<b>13</b> <b>6.4</b>	<b>16</b> <b>6.9</b>	<b>18</b> <b>7.1</b>	<b>19</b> <b>7.4</b>	<b>21</b> <b>7.7</b>	23 7.8	25 8.1	27 8.4	29 8.5	

- Result of performance is tested under NATA
- SP—Static Pressure in Pascals
- NR - Noise Rating in dB re 10Watts  
Room correction of 8dB (As per ADC R4)
- CAP - Capacity of flow in liter per second
- THROW— Throw at 0.5m/s in meters



**RECOMMENDED NOISE CRITERIA FOR ROOMS**

TYPE	SPACE	NR LEVEL	RECOMMENDED FACE VELOCITY (m/s)
Auditoriums and Music Halls	Concert and Opera Halls, Studios for sound reproduction	20 -25	2.5
	Legitimate Theatres, Multi- Purpose Halls	25 – 30	2.5 – 3.75
	Movies theatres, Lectures Halls, Planetarium, TV Audience Studios	30 -35	2.5 -3.75
	Lobbies	35 -45	2.5 -3.75
Factory Areas	Light maintenance shops, Assembly lines	40 -50	3.0 - 6.5
	Office area, control room	40 -50	3.0 - 6.5
	Heavy industrial processing	60 -75	6.5 -10.0
Churches and schools	Sancturies	20 - 30	2.5 -3.75
	Libraries, schools and classrooms	30 - 40	2.5 – 5.0
	Laboratories	35 - 45	2.5 -5 .0
	Recreation halls, corridors and halls	35 - 50	2.5 – 6.5
Hotels/ Motel	Individual Rooms, suites or Ball Rooms	30 - 40	2.5 – 5.0
	Halls, corridors, Lobbies	35 - 40	2.5 – 5.0
	Kitchen and laundries, bars and lounges	40 - 50	3.0 - 6.5
Offices	Boardroom	20 - 30	2.5 -3.75
	Executive office	30 - 40	2.5 – 5.0
	Conference rooms	25 - 35	2.5 -3.75
	General Open offices	35 - 50	2.5 – 6.5
	Halls and corridors, computer room	35 - 55	2.5 – 6.5
Hospitals and Clinics	Intensive care wards, Private room	25 - 35	2.5 -3.75
	Hospitals wards, Operating room	30 - 40	2.5 – 5.0
	Waiting rooms and reception areas	35 - 45	2.5 – 5.0
	Wash rooms and toilets	40 - 50	3.0 - 6.5
Public	Public Libraries, museums, court rooms	30 - 40	2.5 – 5.0
	Post offices, Banking Areas, Department Stores, Restaurants, Night Clubs, Bowling		
	Alleys, Gymnasiums	35 - 45	2.5 – 5.0
	Cocktail Lounges	35 – 50	2.5 – 6.5
Transportation	Ticket sales offices	30 – 40	2.5 – 5.0
	Lounges, Waiting Rooms	35 -50	2.5 – 6.5
Stores Retail	Clothing Stores, Department Stores (upper Floor)	35 – 45	2.5 – 5.0
	Department Stores (main floor), small		
	Tetail Stores, Supermarkets	40 -50	3.0 - 6.5



**EXTRUDED ALUMINUM DIFFUSER**

**R. GLAZEN SINGAPORE PTE LTD**

## PERFORMANCE TESTING

Units of the grilles have been tested at independent N.A.T.A. accredited test laboratory in Australia. Test reports can be provided on request.

Throw and Noise Rating (NR) found in the performance data of this catalogue is based on distance measured from the diffuser to the furthest point where the velocity is 0.5m/s and room absorption of 8 dB in accordance to the recommendation of Air Diffusion Council.

## WARRANTY

R.GLAZEN SINGAPORE PTE LTD (the "Company") warrants that all goods in this catalogue that have been manufactured by the Company will be defects free in quality or material under normal use and service for a period of one year after goods are sold. The Company have the right to make improved changes to the products at any time. The company is obligated under this warranty, only to replace any product which is defective in quality or material under normal use and service within such period. Component parts or accessories which are covered by the warranty of the manufacturer will not be covered under this warranty. Any improper use of the product, after defective or worn parts had been discovered, accident or any modification or repair by others which the Company claims that it will materially and adversely affects the products, neglect substitution of parts not approved by the company, will void this warranty.

No person is authorized to assume any liability with respect to any goods sold, for the Company. No representatives or employee is authorized to change this warranty or give any other warranty, unless it is authorized By an officer of the Company at its home office in writing. In any event of payment of incidental or consequential damages, including without limitation, delay costs or damages for property or injury to persons, the company shall have no liability whatsoever.

Claims under this warranty, if not submitted, in writing and received by the company within thirty (30) days of the date to which each claim relates, is discovered or should have been discovered, will be deemed waived.



**R. GLAZEN SINGAPORE PTE LTD**

艾格雷森(新)私人有限公司

101 Pioneer Road, Singapore 639581

Phone: +65 68631123 Fax: +65 68631297 E-mail: sales@glazen.com.sg www.glazen.com.sg