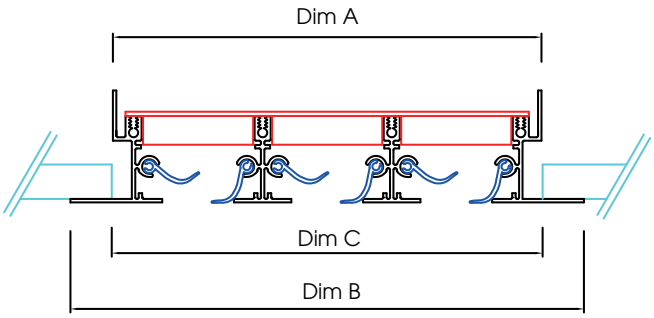
# Slot Diffuser – Type BSD-25

Fully manufactured from Aluminium Extrusion, our Slot Diffuser has been designed for either ceiling or wall mounting.

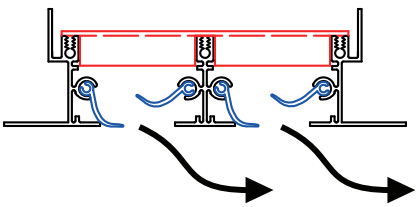
All individual slots are fully adjustable to give three different air patterns to achieve comfort criteria within the occupied zone. The Slot Diffuser can be supplied with up to 8 Slots and is manufactured in any length to suit site requirements. Mitred corners also available.



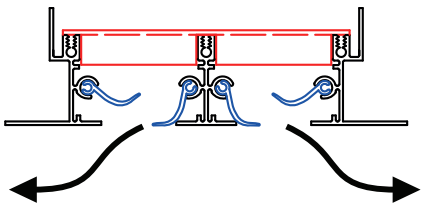
## Blade Patterns



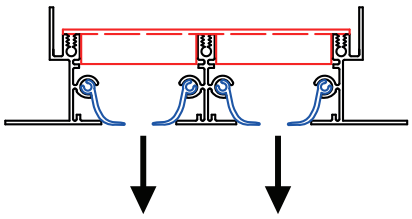

| No of Slots | Dim A | Dim B | Dim C |
|---|---|---|---|
| 1 | 60 | 89 | 70 |
| 2 | 105 | 134 | 115 |
| 3 | 150 | 179 | 160 |
| 4 | 195 | 224 | 205 |
| 5 | 240 | 269 | 250 |
| 6 | 285 | 314 | 295 |
| 7 | 330 | 359 | 340 |
| 8 | 395 | 404 | 385 |



1 way air pattern



2 way air pattern



Vertical air pattern

## How to Order

| Type | Slot Width | Slot Qty | End Flange | RAL Colour | |
|---|---|---|---|---|---|
| BSD | 25 | 1 up to 8 | 0 | Face | Blade |
| BSD-P | | | 1EF | RAL 9010 | B - Black |
| BSD-PL | | | 2EF | | AF - As Face |

## Multiple Variations

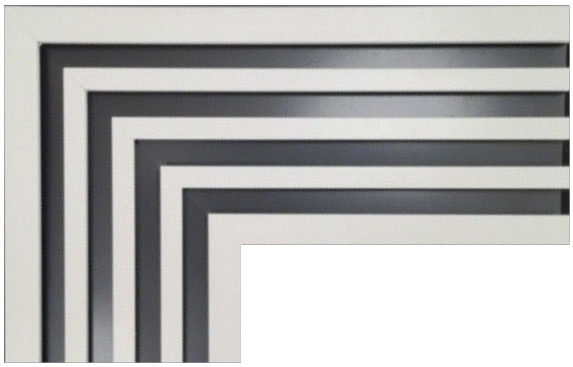
**Plaster In Frame - BSD-P**



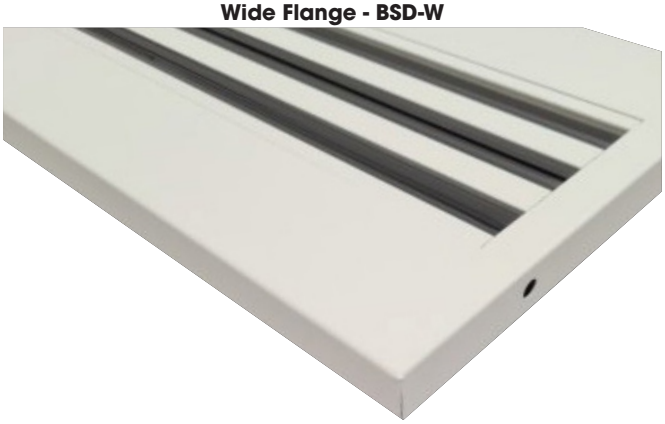
**Plank Slot Diffuser - BSD-PL**



**Mitred Corner**



**Wide Flange - BSD-W**



**Clip In Type - BSD-M**



## Performance Data 25mm Slot Diffuser
## Horizontal Projection with Ceiling Effect

Throw are based on a supply air temperature room ceiling height of 2.7  differential of 10°C for a 1 metre active length and a metres.

| Air Volume l/s | No of Slots | Throw m | Total Pressure Pa | Noise Level NR |
|---|---|---|---|---|
| | | 0.25 - 0.5 m/s | | |
| 20 | 1 | 2.4- 1.2 | 4 | - |
| | 2 | 2.1 - 1.0 | 1 | - |
| 30 | 1 | 3.6 - 1.8 | 9 | - |
| | 2 | 3.1 - 1.6 | 3 | - |
| 40 | 1 | 4.8 - 2.4 | 17 | 20 |
| | 2 | 4.1 - 2.1 | 5 | - |
| | 3 | 3.5 - 1.7 | 2 | - |
| 50 | 1 | 5.9 - 3.0 | 26 | 27 |
| | 2 | 5.2 - 2.6 | 8 | - |
| | 3 | 4.4 - 2.2 | 3 | - |
| 60 | 1 | 7.1 - 3.6 | 37 | 32 |
| | 2 | 6.2 - 3.1 | 12 | 17 |
| | 3 | 5.7 - 2.8 | 4 | - |
| | 4 | 4.9 - 2.5 | 2 | - |
| 70 | 1 | 8.3 - 4.2 | 51 | 36 |
| | 2 | 7.2 - 3.6 | 16 | 21 |
| | 3 | 6.6 - 3.3 | 6 | 11 |
| | 4 | 5.8 - 2.9 | 3 | 6 |

| Air Volume l/s | No of Slots | Throw m | Total Pressure Pa | Noise Level NR |
|---|---|---|---|---|
| 80 | 2 | 8.3 - 4.1 | 21 | 15 |
| | 3 | 7.6 - 3.8 | 7 | - |
| | 4 | 6.6 - 3.3 | 4 | - |
| 90 | 2 | 9.3 - 4.7 | 26 | 28 |
| | 3 | 8.5 - 4.3 | 9 | 18 |
| | 4 | 7.4 - 3.7 | 5 | - |
| | 5 | 7.1 - 3.5 | 4 | - |
| 100 | 2 | 10.3 - 5.2 | 32 | 31 |
| | 3 | 9.5 - 4.7 | 12 | 21 |
| | 4 | 8.2 - 4.1 | 6 | 16 |
| | 5 | 7.8 - 3.9 | 5 | - |
| 120 | 2 | 12.4 - 6.2 | 47 | 36 |
| | 3 | 11.4 - 5.7 | 17 | 26 |
| | 4 | 9.9 - 4.9 | 9 | 21 |
| | 5 | 9.4 - 4.7 | 7 | 16 |
| | 6 | 9.0 - 4.6 | 4 | - |
| 140 | 3 | 13.2 - 6.6 | 23 | 31 |
| | 4 | 11.5 - 5.8 | 13 | 26 |
| | 5 | 11.0 - 5.5 | 9 | 21 |
| | 6 | 10.2 - 5.0 | 6 | 16 |
| 160 | 3 | 15.1 - 7.6 | 30 | 34 |
| | 4 | 13.1 - 6.6 | 17 | 29 |
| | 5 | 12.5 - 6.3 | 12 | 24 |
| | 6 | 12.0 - 6.0 | 8 | 19 |
| 180 | 5 | 14.1 - 7.1 | 15 | 28 |
| | 6 | 13.9 - 7.1 | 10 | 23 |
| | 7 | 12.9 - 6.4 | 8 | 20 |
| | 8 | 12.1 - 6.0 | 5 | 18 |
| 200 | 5 | 15.7 - 7.9 | 18 | 31 |
| | 6 | 15.2 - 7.5 | 12 | 26 |
| | 7 | 14.3 - 7.2 | 10 | 23 |
| | 8 | 13.4 - 6.7 | 7 | 21 |
| 250 | 6 | 19.4 - 9.5 | 19 | 32 |
| | 7 | 17.9 - 9.0 | 16 | 29 |
| | 8 | 16.8 - 8.6 | 11 | 27 |
| 300 | 6 | 23.2 - 11.7 | 28 | 37 |
| | 7 | 21.5 -10.7 | 23 | 34 |
| | 8 | 20.1 - 10.0 | 15 | 32 |

## Vertical Projection

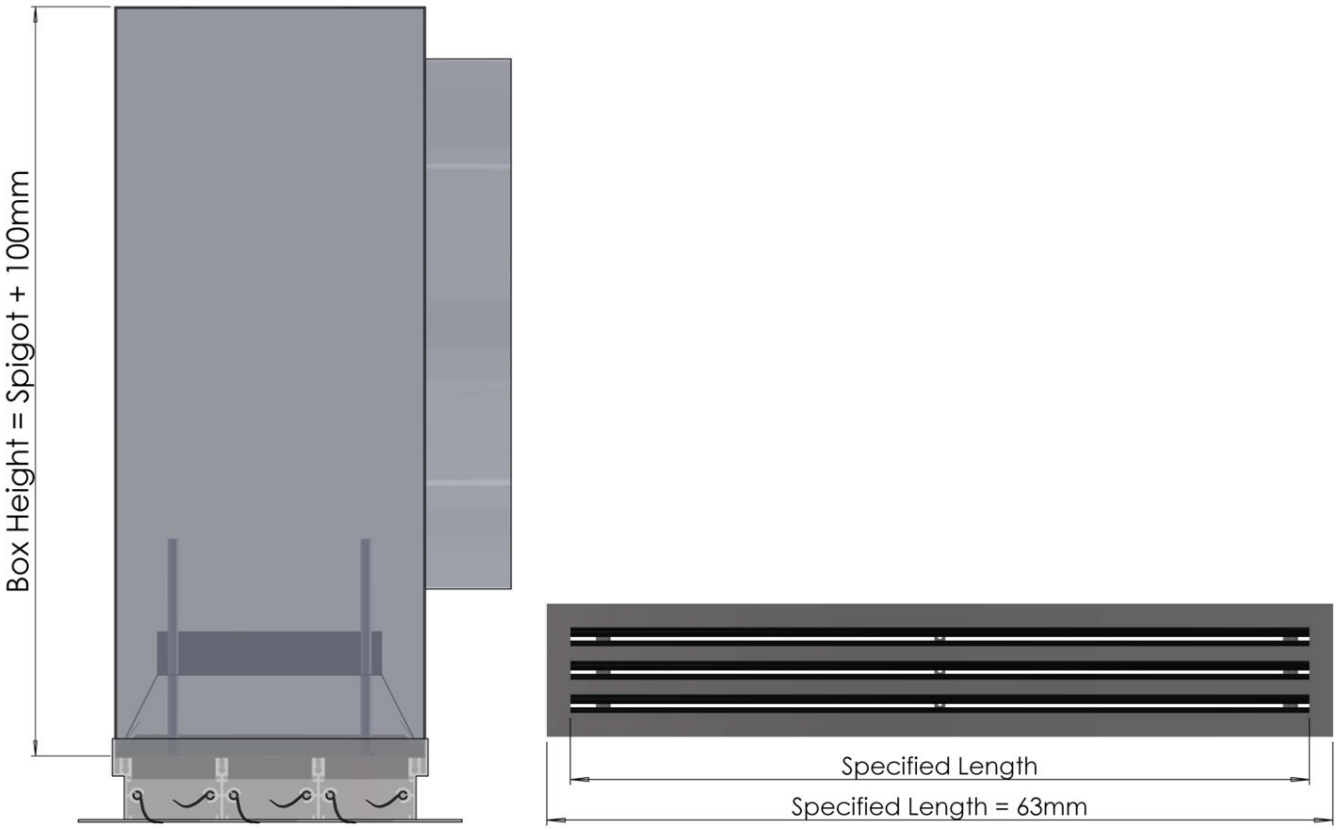
For vertical projection of the supply then please apply the relevant correction factor to the horizontal throw values given in the table below.

| Distance from slot to wall | - 10° C Temp | -/+ 0° C Temp | + 10° C Temp |
|---|---|---|---|
| +600mm | Throw x 0.75 | Throw x 0.60 | Throw x 0.40 |
| - 600mm | Throw x 100 | Throw x 0.85 | Throw x 0.60 |

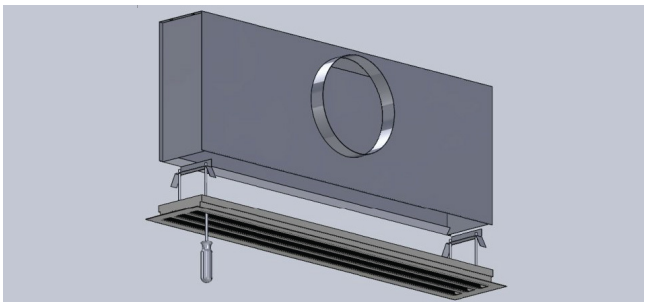
## Correction Factors

| Length | Throw Multiplier | Sound Level Correction |
|---|---|---|
| 0.4 | 0.6 | - 4 db |
| 0.5 | 1.7 | - 3 db |
| 1 | 1 | 0 |
| 1.5 | 1.15 | - 2 db |
| 2 | 1.25 | - 3 db |
| 3+ | 1.3 | - 5 db |

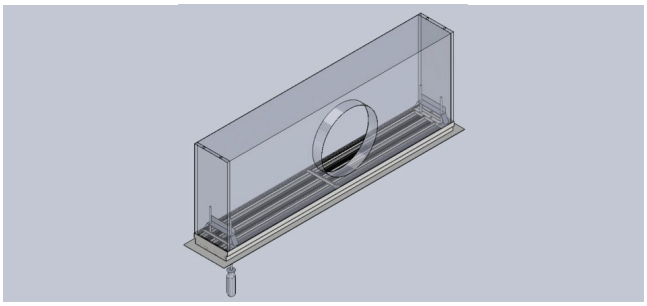
## Plenum Box Variations



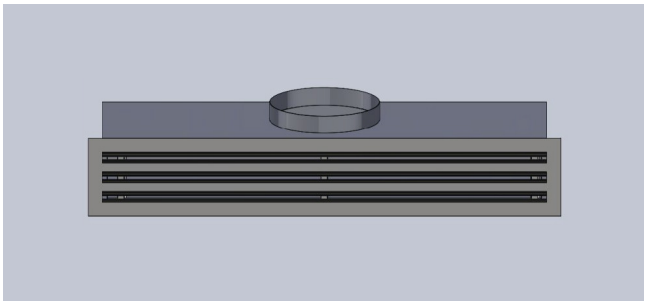
## Fixing Detail



Insert a screw through the neck bracket on the slot diffuser and screw through the plenum box bracket, repeat this for the remaining plenum box brackets on the slot diffuser.



Push the slot diffuser with the plenum box brackets into the plenum box, the brackets will spring out after passing through the hemmed edges and will now sit inside the plenum box, tighten the screws to pull the slot diffuser tight to the plenum box.



The slot diffuser will now be attached to the plenum box which is sitting inside the neck of the slot diffuser.

**Please contact our Sales Office on for selection guidance on the above:**

3-4 Torridge Close,
Telford Way Industrial Estate,
Kettering, Northants, NN16 8PY

**P** 01536 519 922

**E** sales@polyaire.co.uk