

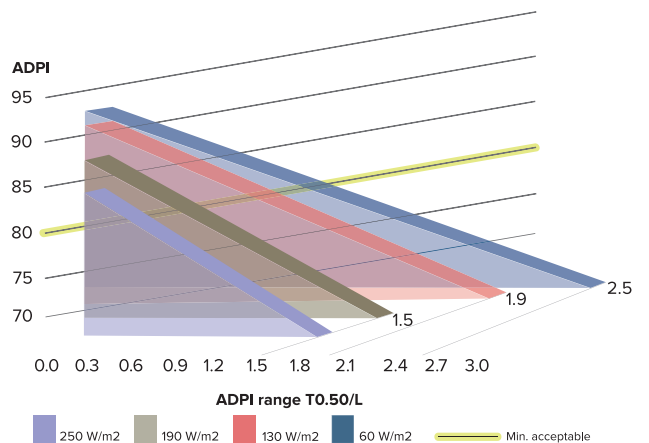
# Flangeless Ceiling Slot Diffusers CSDP Series

Create the perfect  
environment





- ☐ Blends seamlessly into the ceiling
- ☐ No visible flange
- ☐ Utilises the Holyoake CSD mounting frame
- ☐ Suitable for plaster ceilings
- ☐ Holyoake CSDP-19 and CSDP-25 profiles available
- ☐ Black or natural anodised pattern blades
- ☐ Up to 2.5m continuous individual segments
- ☐ ADPI Greensmart performance graphs



# FLANGELESS linear diffuser seamless integration

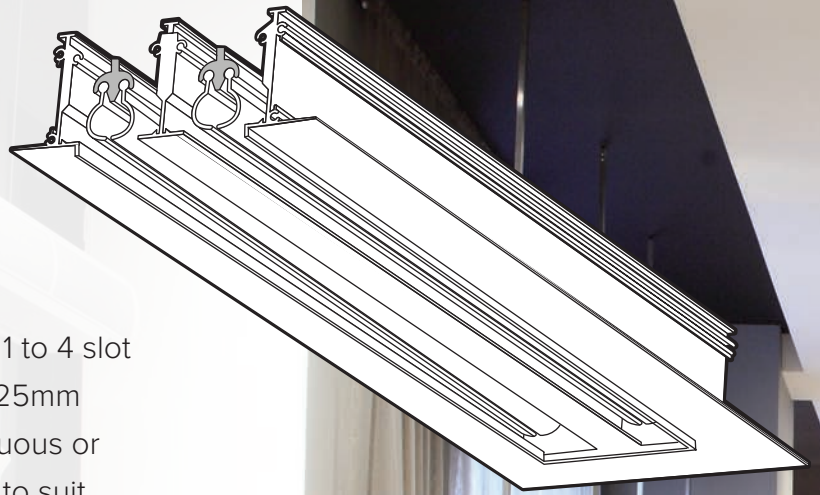


In cooling mode, diffuser selection should be based on the ratio of the diffusers throw to the length of the zone/area being supplied, at all design airflow rates, to achieve an acceptable Air Diffusion Performance Index (ADPI). In heating mode, the diffuser to room temperature difference ( $\Delta t$ ) should not exceed 15°C, to avoid excessive temperature stratification.

ASHRAE has defined a term for describing the mixing of supply and room air as Air Change Effectiveness, or ACE. This term is used in both ASHRAE Standard 129, the Method of Test for Air Change Effectiveness, and in ASHRAE Ventilation Standard 62.1-2013. When a high ADPI is measured, the ACE is always high as well. Holyoake have simplified ADPI analysis by combining a diffuser's throw performance with a  $l/s/m^2$  analysis and diffuser spacing to produce an ADPI Performance Envelope graph.

# Flangeless Ceiling Slot Diffuser

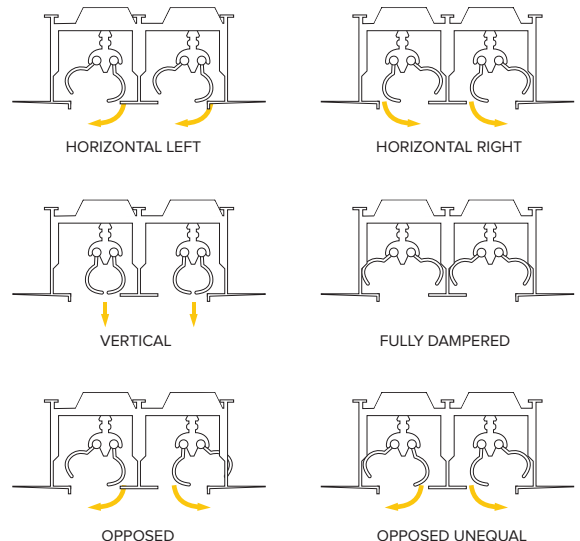
## CSDP Series



Single or Multi-slot Ceiling Diffuser 1 to 4 slot CSDP-19 (19mm SLOTS) CSDP-25 (25mm SLOTS) extruded aluminium continuous or discrete length linear slot diffusers to suit modern interiors, whilst providing unobtrusive draftless air distribution over widely ranging airflows. Particularly suited to variable air volume applications and ideal for perimeter supply in major commercial buildings. Supply and return air configurations are identical in construction except for omission of pattern controls.

### Features

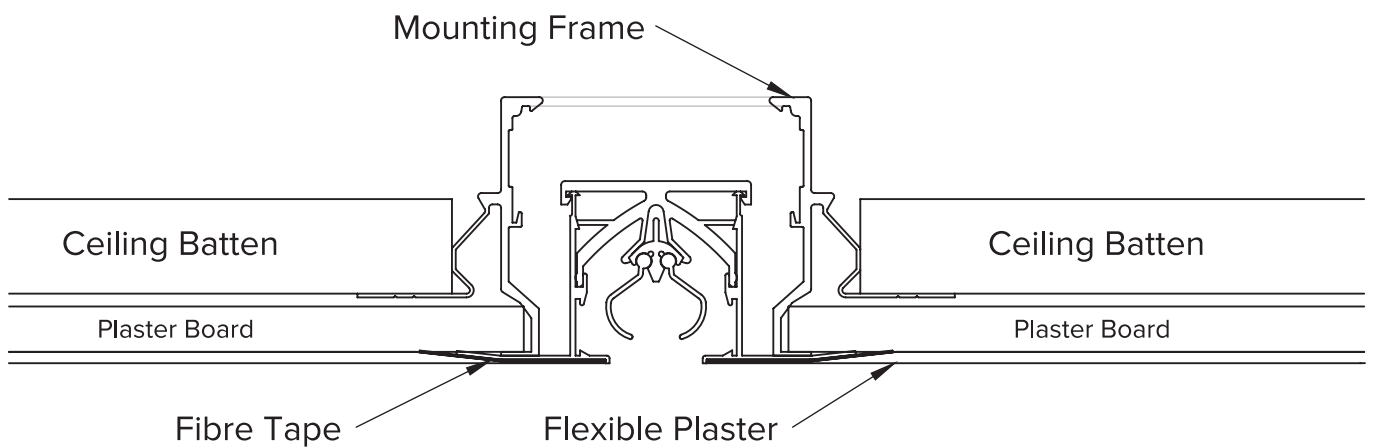
- Available in one to four slots with two slot widths.
- Standard universal pattern control is aluminium, black anodised for best visual effect and can be adjusted to give full 180° control of air pattern, with volume control to shut off.
- Alternative factory set black or white polymer snap-in pattern control provides, at reduced cost, left or right ceiling effect only.
- CSD-MF mounting frame is essential for ease of installation and a high standard of finish.
- For use with diffuser Adapter CSDA/I, plenum supply or linear duct.
- Up to 2.5 metres individual segments. For standard universal pattern control/damper, specify CSDP. For return air application, specify CSDPR. Performance for CSDP and CSDPR may be read from the following supply performance data.





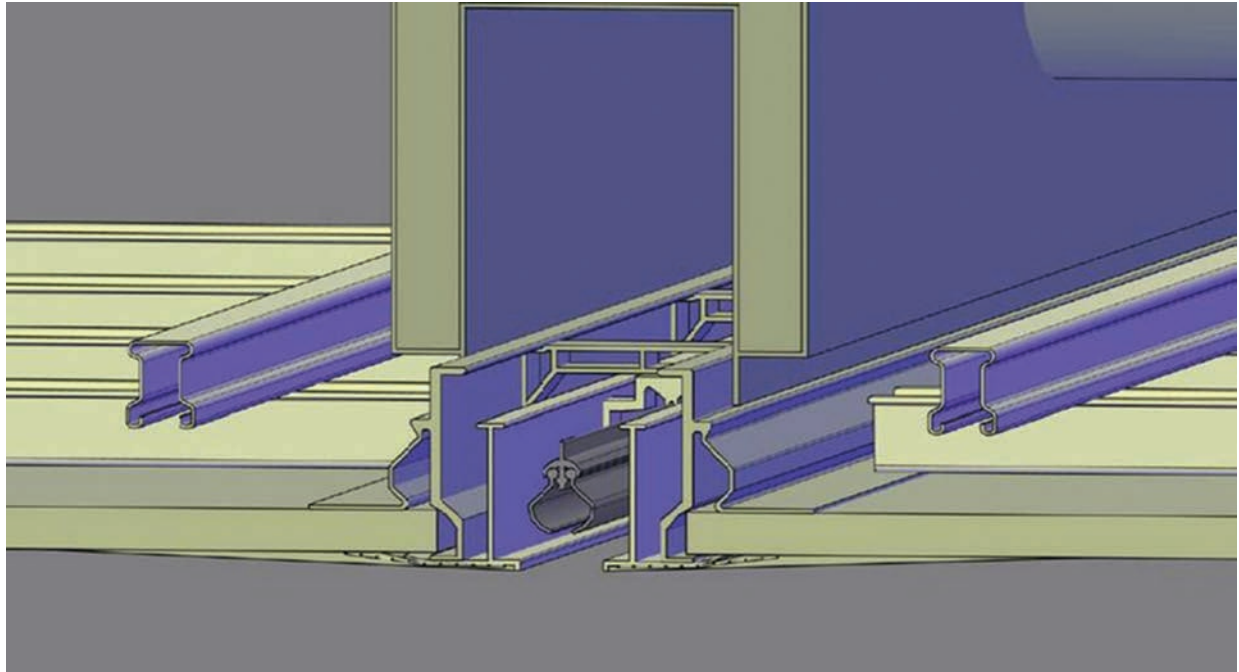
## Notes

1. The illustration below is a single slot CSDP supply diffuser. Return air assembly Model CSDPR is similar, but with pattern controls deleted.
2. Duct dimensions include 20mm clearance on length and 7mm clearance on width (or specify exact length required).
3. For more critical applications check overall widths and advise your local Holyoake branch when ordering.



# Flangeless Ceiling Slot Diffuser

## CSDP Series installation



The CSDP mounting frame (CSD-MF) is a base frame which is designed to be built into a solid ceiling. Once the frame has been installed the CSDP is then inserted into this mounting frame.

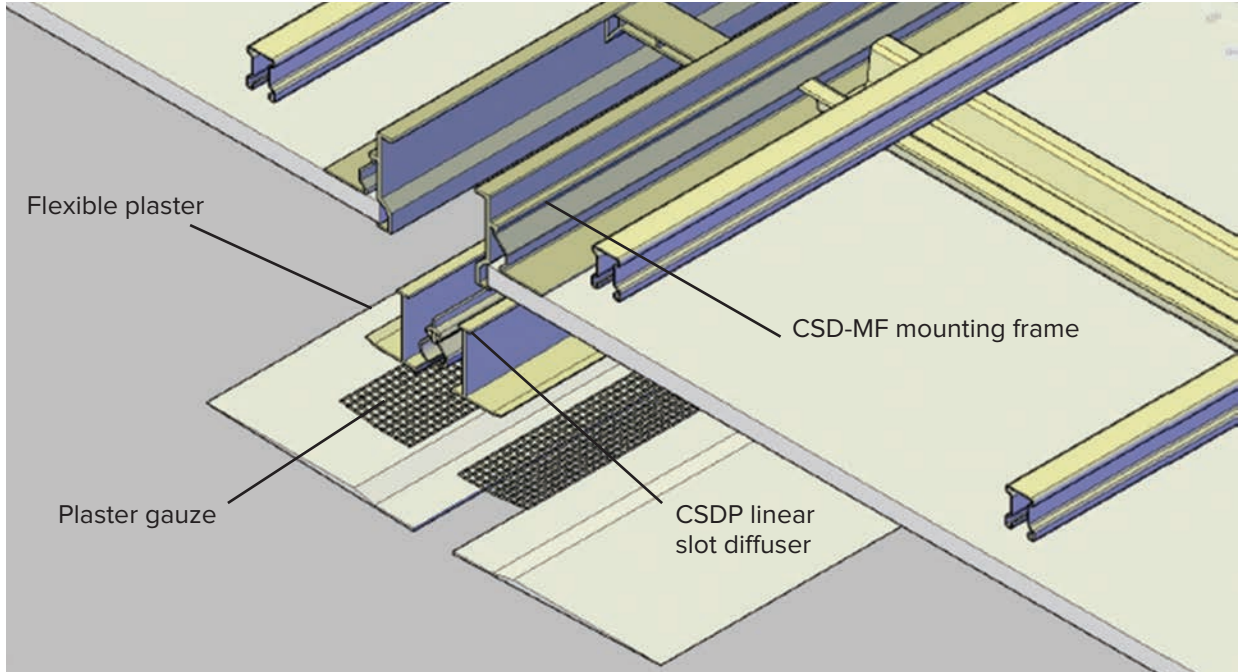
The CSD-MF offers a vastly improved alternative to the standard method of CSD installation. This system will not only save time for all of the contractors involved (HVAC, ceiling erectors, plasterers etc.) but will also give a much higher standard of finish than was typically able to be achieved. Normally ceiling slot diffusers are one of the most difficult supply diffusers to install into a solid ceiling.

During the process of installation it is not uncommon for both the plasterer and the painter to have to carry out remedial work to ensure a reasonable standard of finish is achieved. All of this work is obviously detrimental as it takes time and often damages the linear diffuser and contributes to the poor overall appearance of the CSDP. The CSD-MF is installed as part of the solid ceiling grid system. This allows the supply air boots to be installed when there is clear access to the ceiling space and there is no danger of damaging the high quality finish of the CSDP. When it is time to line the ceiling, the ceiling erector has a slot to slide the gib or plaster sheet into. The plasterer can now Stop and Fill the ceiling sheets, then the painter is free to paint the entire ceiling.

The CSD-MF has many design features that enable a faultless CSD installation. The mounting frame is equipped with a flexible edge which is fastened to the adjacent steel or wooden ceiling battens, whichever is used. This flexible edge allows for any discrepancies in the ceiling itself. If the flexible edge does not take up any discrepancies in the ceiling, the solid main section of the frame remains rigid to provide an accurate slot for the CSDP. With these features, the use of the CSD-MF will not only save time in installing the CSDP, but will also result in a much higher standard of finish for the project.

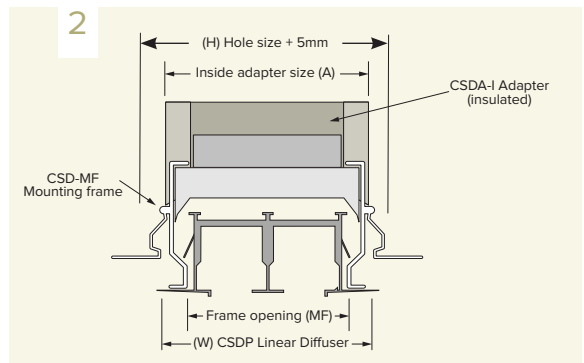
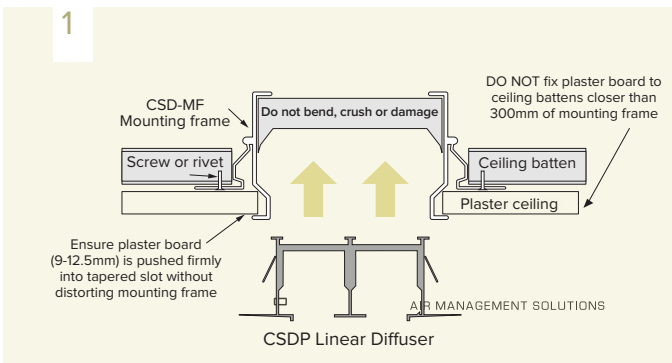
The CSD mounting frame (CSD-MF) is a base frame which is designed to be built into a solid ceiling. Once the frame has been installed, the CSDP is then inserted into this mounting frame.

NOTE A flexible plaster product must be used when plastering the diffuser into the ceiling. It is strongly recommended that the joint between the aluminium plaster slot diffuser and the ceiling plaster board is taped with fibre tape prior to plastering.



### CSDP Mounting Frame - Series CSD-MF

NOTE Do not fix plaster board to ceiling battens closer than 300mm of the mounting frame. For more detailed instructions please contact your local Holyoake branch.



### CSDP-19 AND CSDP-25 DIMENSIONS

	CSDP-19				CSDP-25			
	Diffuser Flange	Adapter Size	Ceiling Opening	Frame Opening	Diffuser Flange	Adapter Size	Ceiling Opening	Frame Opening
No. of Slots	W	A	H	MF	W	A	H	MF
1	82	77	107	53	88	83	113	60
2	120	115	145	92	133	127	157	104
3	158	153	183	130	177	172	202	149
4	196	191	221	168	222	216	246	191

# Flangeless Ceiling Slot Diffuser

## CSDP Series

### Model CSDP-T

#### Thermally operated Ceiling Slot Diffuser

The Holyoake CSDP-T Thermally Operated Ceiling Slot Diffuser is designed to utilise standard CSD Slot Diffuser components, which provide unobtrusive, draftless air distribution over widely ranging airflows.

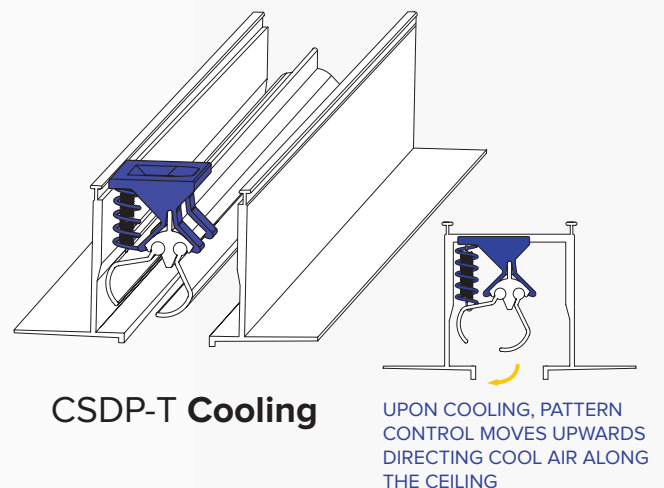
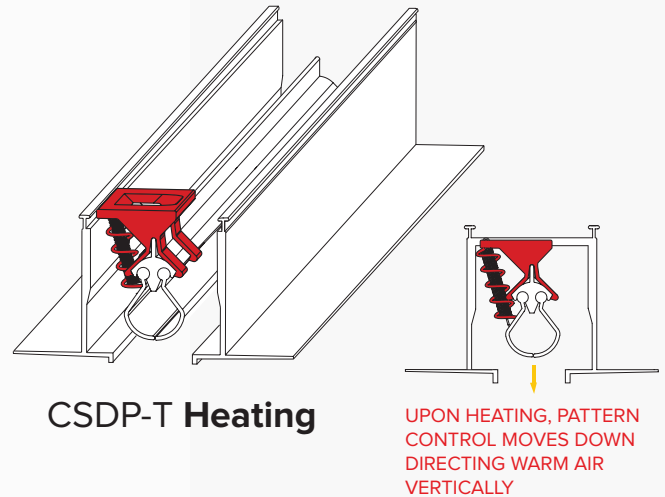
Particularly suited to variable air volume applications and ideal for perimeter supply in major commercial buildings.

The unique die cast clip attaches to the pattern blades to provide CSD with a thermal control, enabling energy savings to be made and improvements in room comfort levels. Above 24 degrees C the CSDP-T starts to move the pattern position, providing vertical air flow.

On Multi-Slot diffusers CSDP-T is required on the first slot only. Discuss with your local Holyoake branch other options available.

#### Construction

Extruded aluminium continuous or individual length linear slot diffusers. Utilising standard CSDP components and mounting frame, with a specifically designed die cast clip containing a temperature sensitive alloy, for thermal adjustment of the pattern blades.



#### Features

- Thermal CSDP-T option to give CSD a self-powered thermal control.
- Die cast clip may be retrofitted to existing installations.
- Operation is controlled by a temperature sensitive alloy.
- Changes the air distribution pattern from horizontal (across ceiling when cooling), to vertical (down to floor in heating).
- Energy savings and improved comfort levels.
- Enables cost savings to be made.

Guide Product Weights	
Model	Approximate Weight Kg
CSD-T Die Cast Thermal Clip	0.05
Add to CSD 19 of 25 Weights*	0.05

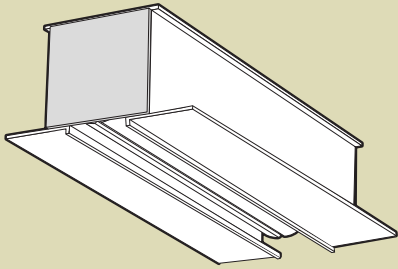
Refer to your local Holyoake branch for quantities per specific diffusers.

1. Fits all standard CSDP models.
2. Use CSDP horizontal and Vertical Performance Data.
3. On Multi-Slot diffusers, CSDP-T quantity required, per slot length and any special site requirements.
5. Seismic restraints required but not supplied.



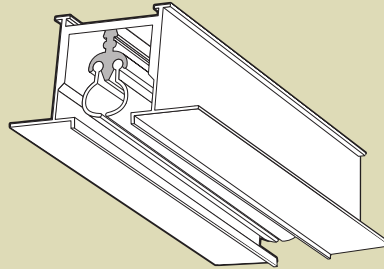
## End styles

Stop End - Type S



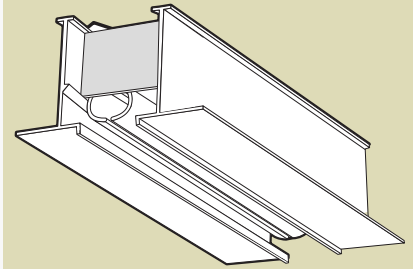
**Stop End - Type S** is used where the diffuser terminates at a wall or partition.

Open End - Type O



**Open End - Type O** is for use when diffuser terminates at a wall or partition, or when the diffuser is to be butted with another diffuser. Also used when field cutting is required.

Partition End - Type P



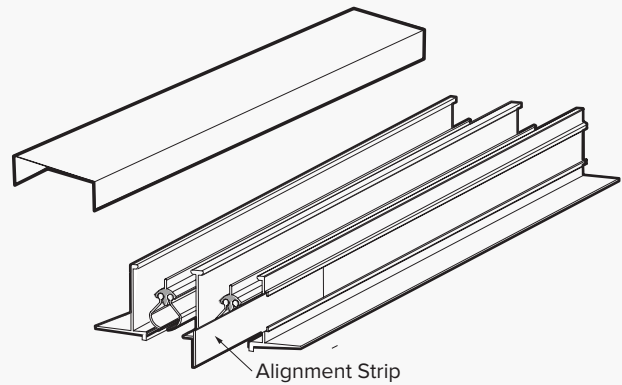
**Partition End - Type P** is used to separate between active and inactive sections of diffuser when part of a continuous length.

## Accessories

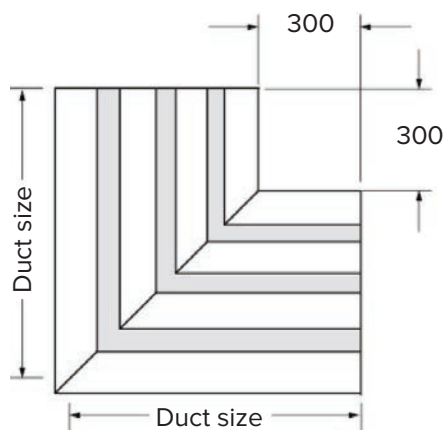
**Blanking caps** are used to cover inactive sections of diffuser shipped in 1200mm or 2400mm sections for field cutting and installation.

Material: 0.55 galvanised steel, matt black finish.

**Alignments strips** can be used to assist alignment of continuous diffusers if required.



## Mitred corners



# Flangeless Ceiling Slot Diffuser

## CSDP Series | One Slot

Aerodynamic performance



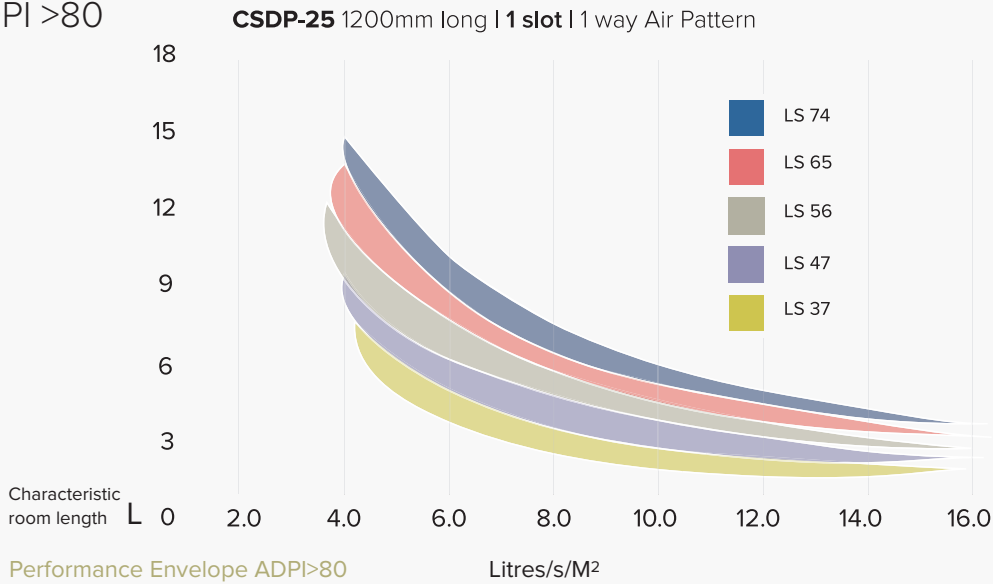
### Supply air 19mm 1 Slot Model: CSDP with CSDA Supply Adapters

Capacity m <sup>3</sup> /s		0.038	0.047	0.057	0.066	0.076	0.085	0.094	0.104	0.113	
Projection, m		H	1.2-3.4	1.5-3.7	1.8-4.0	2.1-4.0	2.4-4.6	2.7-4.9	3.1-5.2	3.1-5.6	
		V	0.9-1.8	0.9-2.1	1.2-2.4	1.5-2.4	1.5-2.7	1.5-3.1	1.8-3.1	1.8-3.1	1.8-3.4
Nom. Length	Spread m	H	1.8-4.6	2.1-4.9	2.7-5.8	3.1-6.4	3.7-6.7	4.0-6.7	4.0-7.3	4.6-7.6	4.6-8.2
		V	1.2-2.4	1.2-2.7	1.5-3.1	1.8-3.1	1.8-3.7	1.8-4.0	2.4-4.0	2.4-4.0	2.4-4.3
0.9m	TP	40	59	89	121	157					
	NC	27	33	39	44	48					
1.2m	TP	22	34	50	68	88	111	135	165		
	NC	18	24	30	35	39	42	45	48		
1.5m	TP	12	18	27	36	47	60	72	88	107	
	NC	-	16	22	27	31	34	37	40	43	

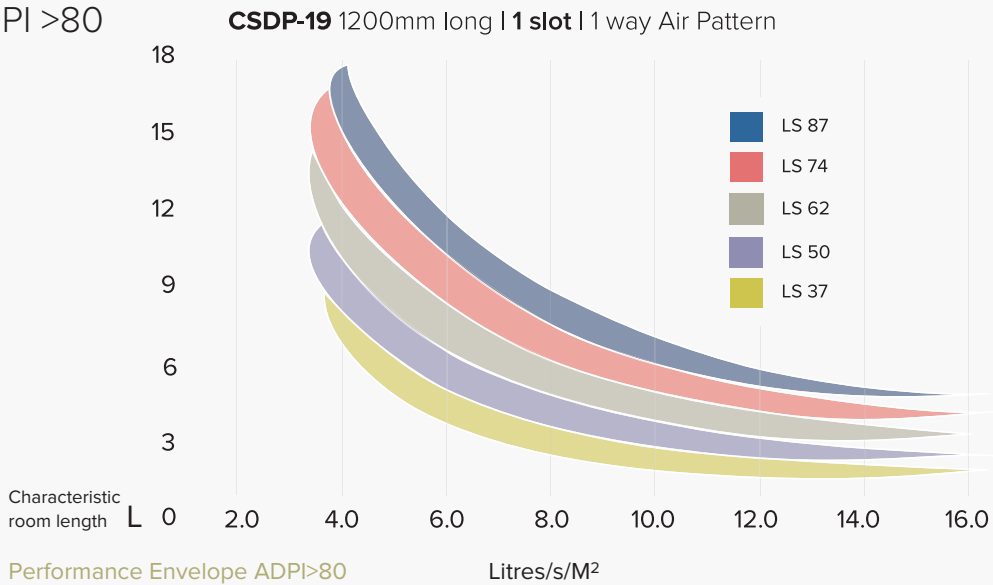
### Return air 19mm 1 - 4 Slot Models

SLOTS	Neg. S.P.	2	7	16	27	43	63	86	113
1	m <sup>3</sup> /s/m	0.015	0.031	0.047	0.062	0.078	0.093	0.109	0.124
	NC	-	-	18	26	32	37	41	45
2	m <sup>3</sup> /s/m	0.031	0.062	0.093	0.124	0.155	0.186	0.217	0.248
	NC	-	-	21	29	35	40	44	48
3	m <sup>3</sup> /s/m	0.047	0.093	0.140	0.186	0.233	0.279	0.326	0.372
	NC	-	-	23	31	37	42	46	50
4	m <sup>3</sup> /s/m	0.062	0.124	0.186	0.248	0.310	0.372	0.434	0.496
	NC	-	-	24	32	38	43	47	51

19mm slot  
ADPI >80



25mm slot  
ADPI >80



**Supply air 25mm 1 Slot Model: CSDP with CSDA Supply Adapters**

Capacity m³/s			0.047	0.057	0.066	0.076	0.085	0.094	0.104	0.113	0.123
Projection, m		H	1.2-3.4	1.5-3.7	1.8-4.0	2.1-4.3	2.4-4.6	2.7-4.9	3.1-5.2	3.1-5.2	3.1-5.6
		V	0.6-1.8	0.9-2.1	0.9-2.1	0.9-2.4	1.2-2.4	1.2-2.7	1.5-2.7	1.5-2.7	1.8-3.1
Nom. Length	Spread m	H	1.8-4.9	2.1-5.6	2.7-5.8	3.1-6.4	3.7-6.7	4.0-7.3	4.6-7.6	4.6-7.6	4.6-8.2
		V	0.9-2.4	1.2-2.7	1.2-2.7	1.2-3.1	1.5-3.1	1.5-3.7	1.8-3.7	1.8-3.7	2.4-4.0
0.9m	TP		42	60	80	105	134	162			
	NC		28	34	39	42	46	49			
1.2m	TP		21	31	42	55	68	83	103	122	
	NC		19	25	30	33	37	40	43	46	
1.5m	TP		13	19	25	33	41	51	61	72	88
	NC		-	17	22	25	29	32	35	38	40

**Return air 25mm 1 - 4 Slot Models**

SLOTS	Neg. S.P	5	10	18	27	40	54	70	113
1	m³/s/m	0.031	0.047	0.062	0.078	0.093	0.109	0.124	0.155
	NC	-	-	19	25	30	34	38	44
2	m³/s/m	0.062	0.093	0.124	0.155	0.186	0.217	0.248	0.310
	NC	-	-	22	28	33	37	41	47
3	m³/s/m	0.093	0.140	0.186	0.233	0.279	0.326	0.372	0.465
	NC	-	-	24	30	35	39	43	49
4	m³/s/m	0.124	0.186	0.248	0.310	0.372	0.434	0.496	0.620
	NC	-	17	25	31	36	40	44	50

# Flangeless Ceiling Slot Diffuser

## CSDP Series | Two Slot

Aerodynamic performance



### Supply air 19mm 2 Slot Model: CSDP with CSDA Supply Adapters

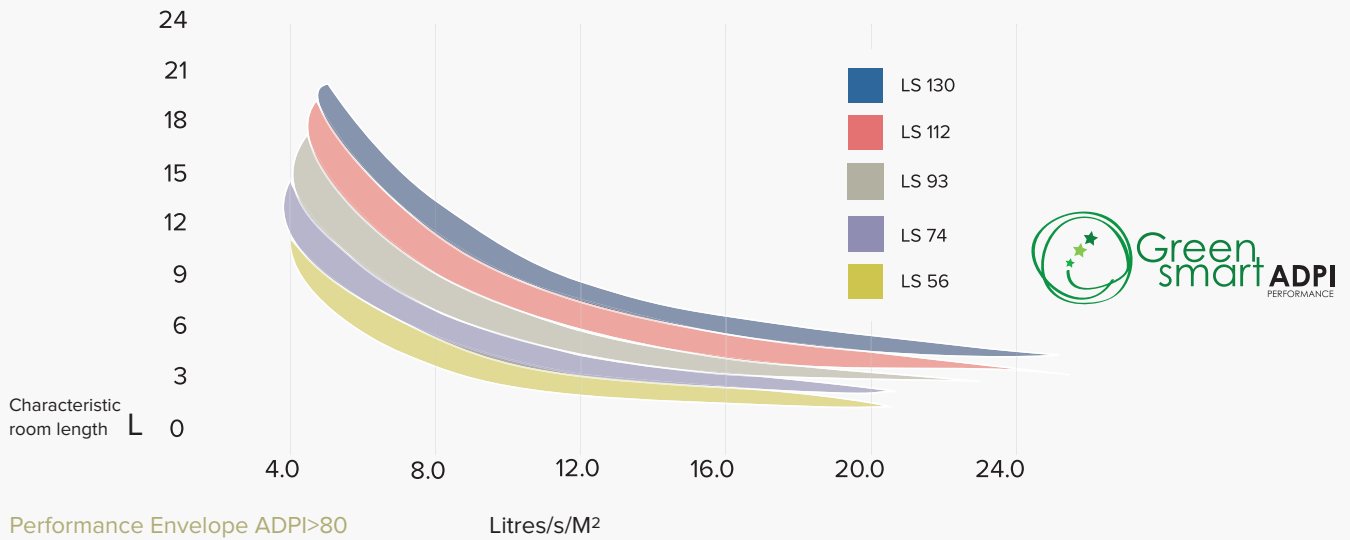
Capacity m <sup>3</sup> /s		0.061	0.076	0.090	0.104	0.118	0.132	0.146	0.161	0.175	
Projection, m		H	1.5-3.7	1.8-4.0	2.1-4.3	2.4-4.6	2.7-4.9	3.1-5.2	3.1-5.6	3.4-5.8	3.4-6.1
		V	0.6-1.8	0.9-1.8	1.2-2.1	1.2-2.1	1.5-2.4	1.5-2.4	1.5-2.7	1.5-2.7	1.8-3.1
Nom. Length	Spread m	H	2.1-5.6	2.7-5.8	3.1-6.4	3.7-6.7	4.0-7.3	4.6-7.6	4.6-8.5	4.9-8.5	4.9-9.1
		V	0.9-2.4	1.2-2.4	1.5-2.7	1.5-2.7	1.8-3.1	1.8-3.1	1.8-3.7	1.8-3.7	2.4-4.0
0.9m	TP	24	36	51	67	90	113	136			
	NC	23	29	35	39	43	47	50			
1.2m	TP	13	19	27	36	48	60	71	84	101	
	NC	-	19	25	29	33	37	40	42	45	
1.5m	TP	9	13	17	23	30	38	47	55	64	
	NC	-	-	19	23	27	31	34	36	39	

### Return air 19mm 1 - 4 Slot Models

SLOTS	Neg. S.P.	2	7	16	27	43	63	86	113
1	m <sup>3</sup> /s/m	0.015	0.031	0.047	0.062	0.078	0.093	0.109	0.124
	NC	-	-	18	26	32	37	41	45
2	m <sup>3</sup> /s/m	0.031	0.062	0.093	0.124	0.155	0.186	0.217	0.248
	NC	-	-	21	29	35	40	44	48
3	m <sup>3</sup> /s/m	0.047	0.093	0.140	0.186	0.233	0.279	0.326	0.372
	NC	-	-	23	31	37	42	46	50
4	m <sup>3</sup> /s/m	0.062	0.124	0.186	0.248	0.310	0.372	0.434	0.496
	NC	-	-	24	32	38	43	47	51

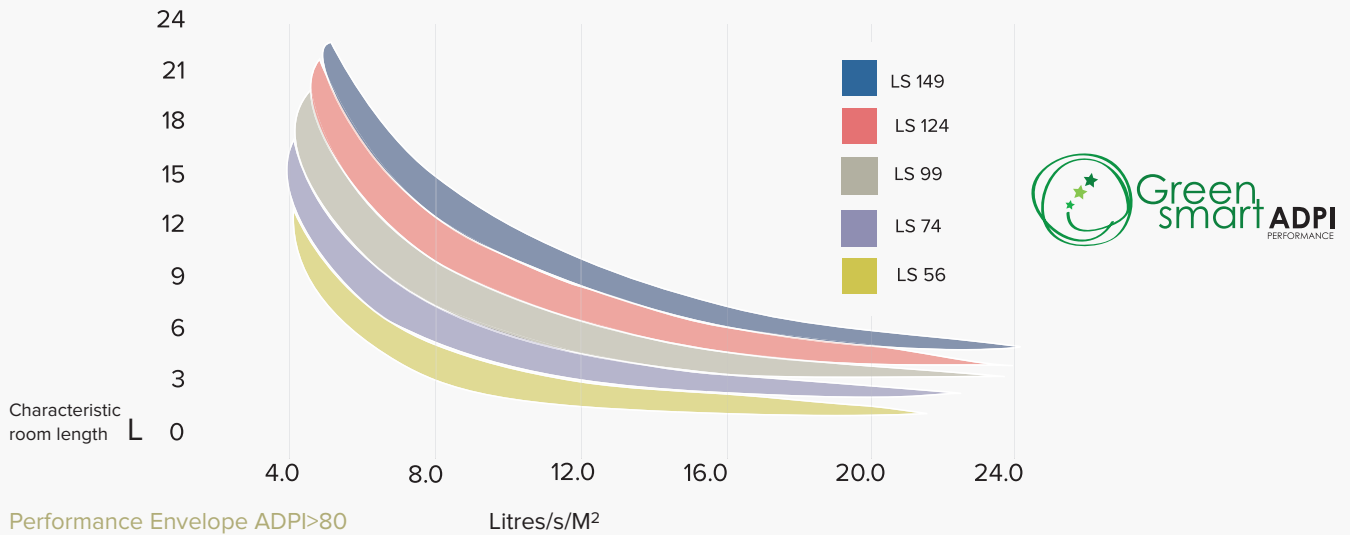
19mm slot  
ADPI >80

**CSDP-19** 1200mm long | 2 slot | 1 way Air Pattern



25mm slot  
ADPI >80

**CSDP-25** 1200mm long | 2 slot | 1 way Air Pattern



**Supply air 25mm 2 Slot Model: CSDP with CSDA Supply Adapters**

Capacity n/s		0.076	0.090	0.104	0.118	0.132	0.146	0.161	0.175	0.189	
Projection, m	H	1.5-3.7	1.8-4.3	2.1-4.6	2.4-4.9	2.7-5.2	3.1-5.6	3.4-5.6	3.4-5.8	3.4-6.1	
	V	0.6-1.8	0.9-2.1	0.9-2.1	0.9-2.1	1.2-2.4	1.2-2.4	1.5-2.4	1.5-2.7	1.5-2.7	
Nom. Length	Spread m	H	2.1-5.6	2.7-6.7	3.1-6.7	3.7-7.3	4.0-7.6	4.6-8.2	4.9-8.2	4.9-8.5	4.9-9.2
		V	0.9-2.4	1.2-2.7	1.2-2.7	1.2-2.7	1.5-3.1	1.5-3.1	1.8-3.1	1.8-3.7	1.8-3.7
0.9m	TP	25	36	48	63	80	97	114			
	NC	24	29	34	37	41	44	46			
1.2m	TP	14	19	26	34	42	51	60	70	83	
	NC	-	19	24	27	31	34	36	39	42	
1.5m	TP	9	12	16	21	26	31	37	44	51	
	NC	-	-	17	20	24	27	29	32	35	

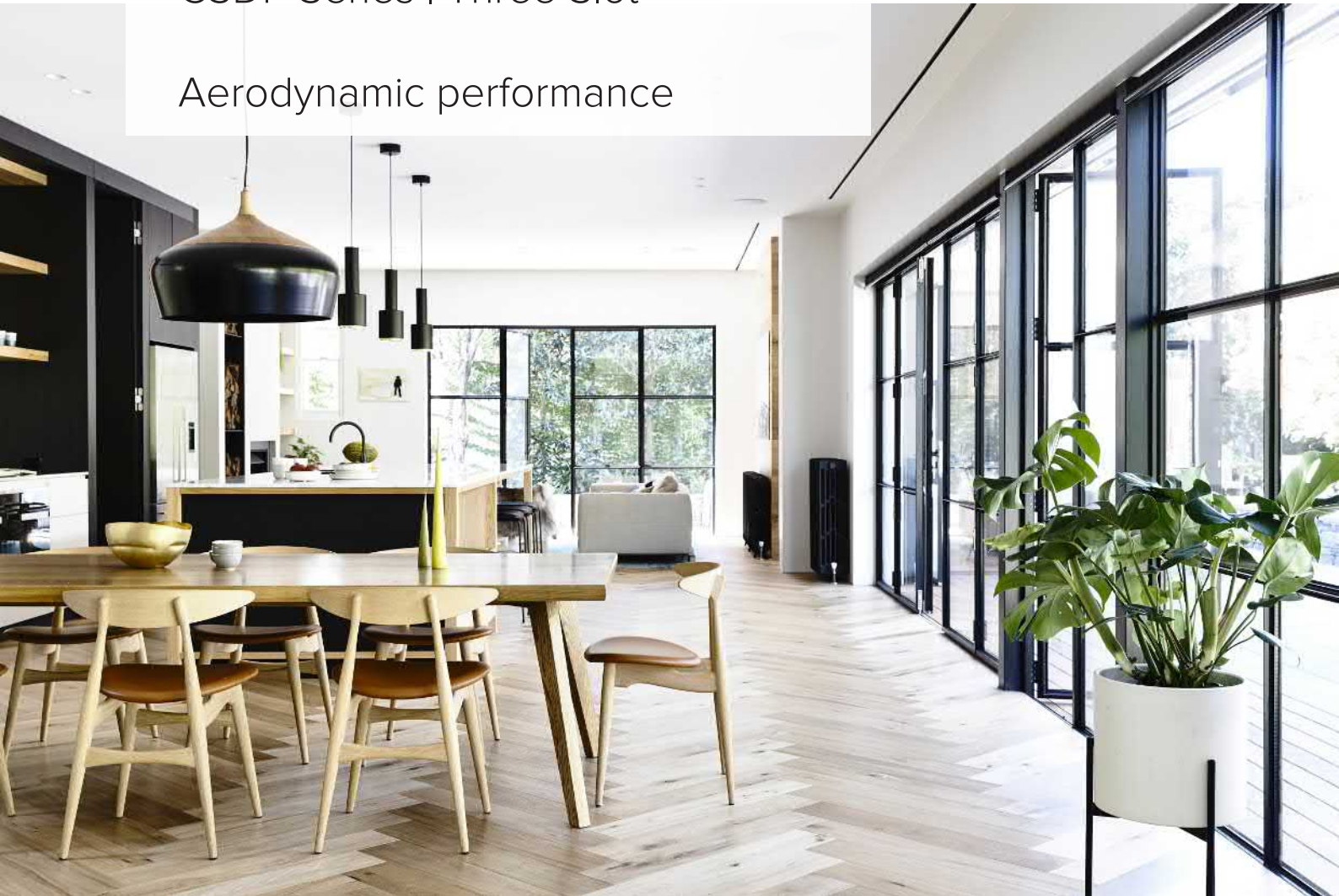
**Return air 25mm 1 - 4 Slot Models**

SLOTS	Neg. S.P	5	10	18	27	40	54	70	113
1	m³/s/m	0.031	0.047	0.062	0.078	0.093	0.109	0.124	0.155
	NC	-	-	19	25	30	34	38	44
2	m³/s/m	0.062	0.093	0.124	0.155	0.186	0.217	0.248	0.310
	NC	-	-	22	28	33	37	41	47
3	m³/s/m	0.093	0.140	0.186	0.233	0.279	0.326	0.372	0.465
	NC	-	-	24	30	35	39	43	49
4	m³/s/m	0.124	0.186	0.248	0.310	0.372	0.434	0.496	0.620
	NC	-	17	25	31	36	40	44	50

# Flangeless Ceiling Slot Diffuser

## CSDP Series | Three Slot

Aerodynamic performance



### Supply air 19mm 3 Slot Model: CSDP with CSDA Supply Adapters

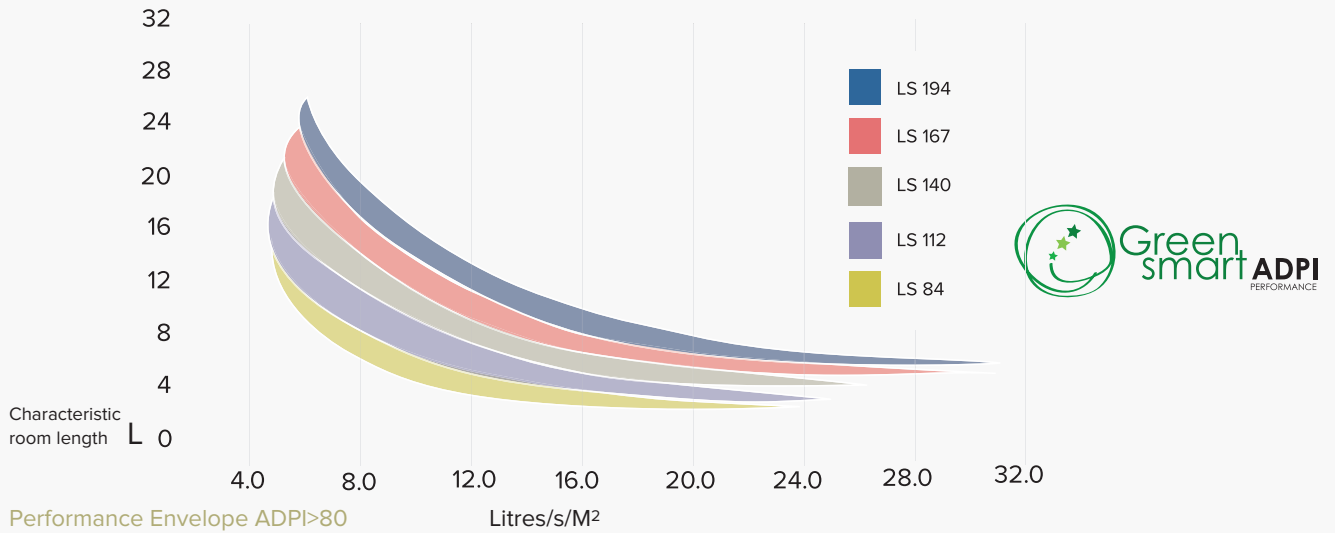
Capacity m <sup>3</sup> /s		0.076	0.090	0.104	0.118	0.132	0.146	0.160	0.175	0.189	
Projection, m	H	1.5-3.7	1.8-4.0	1.8-4.3	2.1-4.6	2.4-4.9	2.7-5.2	3.1-5.6	3.1-5.8	3.4-5.8	
	V	0.6-1.5	0.9-1.8	0.9-1.8	0.9-2.1	1.2-2.1	1.2-2.4	1.5-2.4	1.5-2.4	1.5-2.7	
Nom. Length	Spread m	H	2.1-5.6	2.7-5.8	2.7-6.4	3.1-6.7	3.7-7.3	4.0-7.6	4.6-8.2	4.6-8.5	4.9-8.5
		V	0.9-1.8	1.2-2.4	1.2-2.4	1.2-2.7	1.5-2.7	1.5-3.1	1.8-3.1	1.8-3.1	1.8-3.7
0.9m	TP	17	23	31	40	52	63	73	86	101	
	NC	17	23	27	31	35	38	40	42	45	
1.2m	TP	9	13	17	23	28	34	40	47	54	
	NC	-	-	18	22	26	29	31	33	36	
1.5m	TP	6	8	11	13	18	22	26	29	34	
	NC	-	-	-	16	20	23	25	27	30	

### Return air 19mm 1 - 4 Slot Models

SLOTS	Neg. S.P.	2	7	16	27	43	63	86	113
1	m <sup>3</sup> /s/m	0.015	0.031	0.047	0.062	0.078	0.093	0.109	0.124
	NC	-	-	18	26	32	37	41	45
2	m <sup>3</sup> /s/m	0.031	0.062	0.093	0.124	0.155	0.186	0.217	0.248
	NC	-	-	21	29	35	40	44	48
3	m <sup>3</sup> /s/m	0.047	0.093	0.140	0.186	0.233	0.279	0.326	0.372
	NC	-	-	23	31	37	42	46	50
4	m <sup>3</sup> /s/m	0.062	0.124	0.186	0.248	0.310	0.372	0.434	0.496
	NC	-	-	24	32	38	43	47	51

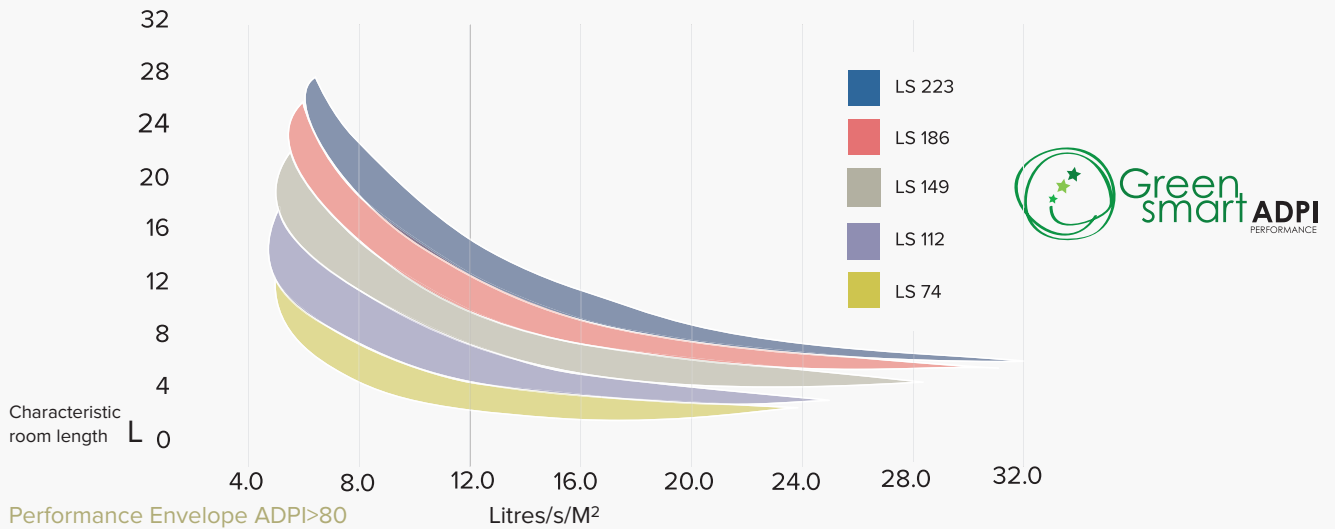
19mm slot  
ADPI >80

**CSDP-25** 1200mm long | 3 slot | 1 way Air Pattern



25mm slot  
ADPI >80

**CSDP-19** 1200mm long | 3 slot | 1 way Air Pattern



**Supply air 25mm 3 Slot Model: CSDP with CSDA Supply Adapters**

Capacity m³/s			0.090	0.104	0.118	0.132	0.146	0.161	0.175	0.189	0.203
Projection, m		H	1.5-3.7	1.8-4.3	1.8-4.6	2.1-4.6	2.4-4.9	2.4-5.2	2.7-5.6	3.1-5.6	3.4-5.8
		V	0.6-1.8	0.6-1.8	0.9-1.8	0.9-2.1	0.9-2.1	0.9-2.1	1.2-2.4	1.2-2.4	1.2-2.4
Nom. Length	Spread m	H	2.1-5.6	2.7-6.4	2.7-6.7	3.1-6.7	3.7-7.3	3.7-7.6	4.0-8.2	4.6-8.2	4.9-8.5
		V	0.9-2.4	0.9-2.4	1.2-2.4	1.2-2.7	1.2-2.7	1.2-2.7	1.5-3.1	1.5-3.1	1.5-3.1
0.9m	TP		16	22	28	35	43	51	60	69	80
	NC		18	23	26	30	33	36	38	41	43
1.2m	TP		9	12	16	19	23	28	32	37	44
	NC		-	-	-	19	22	25	27	30	32
1.5m	TP		6	7	10	12	15	17	20	24	27
	NC		-	-	-	-	-	18	20	23	25

**Return air 25mm 1 - 4 Slot Models**

SLOTS	Neg. S.P	5	10	18	27	40	54	70	113
1	m³/s/m	0.031	0.047	0.062	0.078	0.093	0.109	0.124	0.155
	NC	-	-	19	25	30	34	38	44
2	m³/s/m	0.062	0.093	0.124	0.155	0.186	0.217	0.248	0.310
	NC	-	-	22	28	33	37	41	47
3	m³/s/m	0.093	0.140	0.186	0.233	0.279	0.326	0.372	0.465
	NC	-	-	24	30	35	39	43	49
4	m³/s/m	0.124	0.186	0.248	0.310	0.372	0.434	0.496	0.620
	NC	-	17	25	31	36	40	44	50

# Flangeless Ceiling Slot Diffuser

## CSDP Series | Four Slot

Aerodynamic performance



### Supply air 19mm 4 Slot Model: CSDP with CSDA Supply Adapters

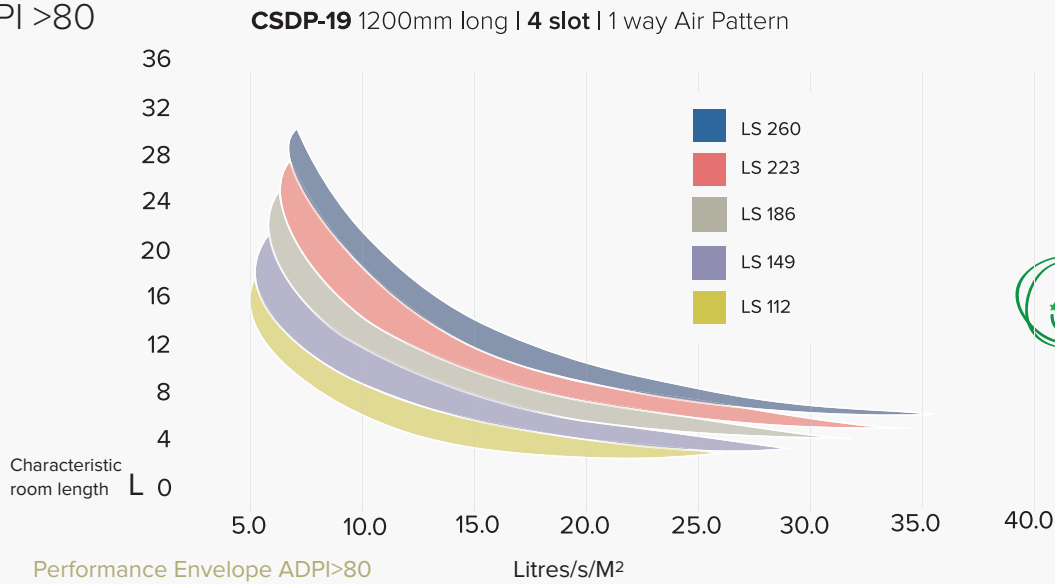
Capacity m <sup>3</sup> /s		0.094	0.113	0.132	0.151	0.170	0.189	0.208	0.227	0.246	
Projection, m		H	1.5-4.0	1.5-4.3	2.1-4.6	2.4-4.9	2.7-5.2	3.1-5.6	3.4-5.8	3.4-6.1	3.7-6.4
		V	0.6-1.8	0.9-1.8	0.9-2.1	1.2-2.1	1.2-2.1	1.2-2.4	1.5-2.4	1.5-2.7	1.5-2.7
Nom. Length	Spread m	H	2.1-5.8	2.7-6.4	3.1-6.7	3.7-7.3	4.0-7.6	4.6-8.2	4.9-8.5	4.9-9.2	5.6-9.4
		V	0.9-2.4	1.2-2.4	1.2-2.7	1.5-2.7	1.5-2.7	1.5-3.1	1.8-3.1	1.8-3.7	1.8-3.7
0.9m	TP	15	22	30	38	48	58	69	84	100	
	NC	17	23	28	32	35	38	41	44	46	
1.2m	TP	8	12	16	20	25	30	36	44	52	
	NC	-	-	18	22	25	28	31	34	36	
1.5m	TP	5	8	11	13	16	20	24	28	34	
	NC	-	-	-	16	19	22	25	28	30	

### Return air 19mm 1 - 4 Slot Models

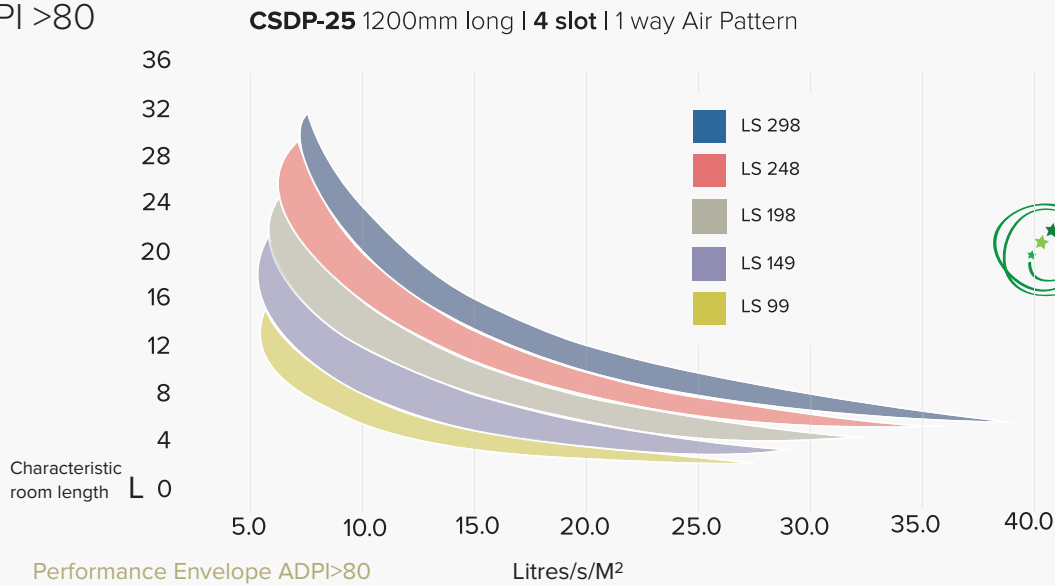
SLOTS	Neg. S.P.	2	7	16	27	43	63	86	113
1	m <sup>3</sup> /s/m	0.015	0.031	0.047	0.062	0.078	0.093	0.109	0.124
	NC	-	-	18	26	32	37	41	45
2	m <sup>3</sup> /s/m	0.031	0.062	0.093	0.124	0.155	0.186	0.217	0.248
	NC	-	-	21	29	35	40	44	48
3	m <sup>3</sup> /s/m	0.047	0.093	0.140	0.186	0.233	0.279	0.326	0.372
	NC	-	-	23	31	37	42	46	50
4	m <sup>3</sup> /s/m	0.062	0.124	0.186	0.248	0.310	0.372	0.434	0.496
	NC	-	-	24	32	38	43	47	51



19mm slot  
ADPI >80



25mm slot  
ADPI >80



**Supply air 25mm 4 Slot Model: CSDP with CSDA Supply Adapters**

Capacity m <sup>3</sup> /s		0.113	0.132	0.151	0.170	0.189	0.208	0.227	0.246	0.264	
Projection, m	H	1.5-4.3	1.8-4.6	2.1-4.9	2.4-5.2	2.7-5.6	3.1-5.6	3.1-5.8	3.4-6.1	3.7-6.4	
	V	0.6-1.8	0.6-1.8	0.9-1.8	0.9-2.1	1.2-2.1	1.2-2.4	1.2-2.4	1.5-2.4	1.5-2.7	
Nom. Length	Spread m	H	2.1-6.4	2.7-6.7	3.1-7.3	3.7-7.6	4.0-8.2	4.6-8.2	4.6-8.5	4.9-9.2	5.6-9.4
		V	0.9-2.4	0.9-2.4	1.2-2.4	1.2-2.7	1.5-2.7	1.5-3.1	1.5-3.1	1.8-3.1	1.8-3.7
0.9m	TP	15	21	26	33	40	48	57	68	80	
	NC	18	23	26	30	33	36	39	41	44	
1.2m	TP	8	11	14	17	21	25	30	36	42	
	NC	-	-	-	19	22	25	28	30	33	
1.5m	TP	6	8	10	12	15	17	21	24	29	
	NC	-	-	-	-	17	20	23	25	28	

**Return air 25mm 1 - 4 Slot Models**

SLOTS	Neg. S.P	5	10	18	27	40	54	70	113
1	m <sup>3</sup> /s/m	0.031	0.047	0.062	0.078	0.093	0.109	0.124	0.155
	NC	-	-	19	25	30	34	38	44
2	m <sup>3</sup> /s/m	0.062	0.093	0.124	0.155	0.186	0.217	0.248	0.310
	NC	-	-	22	28	33	37	41	47
3	m <sup>3</sup> /s/m	0.093	0.140	0.186	0.233	0.279	0.326	0.372	0.465
	NC	-	-	24	30	35	39	43	49
4	m <sup>3</sup> /s/m	0.124	0.186	0.248	0.310	0.372	0.434	0.496	0.620
	NC	-	17	25	31	36	40	44	50

# Flangeless Ceiling Slot Diffuser

## CSDP Series - Performance Data

General Notes on performance charts for single or multi slot linear diffusers in this section.

1. All pressures are in Pa (N/m<sup>2</sup>).
2. Projection (throw) values in metres are based upon the performance of a one metre long active section. When only 300mm is active, the values are 0.6 times those shown. For a 3 metre long continuous length, the values are 1.8 times those shown. See table below:

Length mm	300	400	500	600	700	800	900	1000	1200	1500	1800	2000	2400	3000
Correction Factor	0.6	0.66	0.72	0.8	0.84	0.9	0.96	1	1.08	1.2	1.32	1.4	1.56	1.8

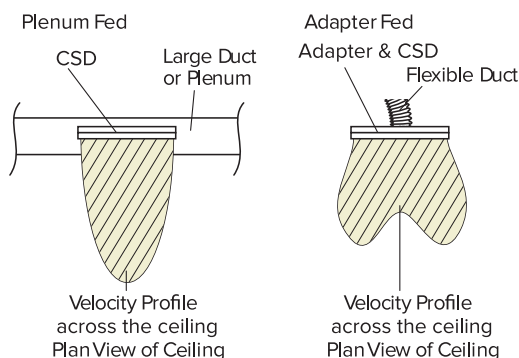
**H** : Horizontal projection : Minimum is to a terminal velocity of 0.75m/s and maximum to 0.25m/s. **V** : Vertical projection is to a terminal velocity of 0.25m/s.

3. Spread is the maximum width of the jet defined by the above velocities.
4. N.C. values are based upon horizontal projection from a three metre active section and a room absorption of 10dB re 10-12 watts. Vertical projection values are 11dB less than listed.
5. N.C. correction for length:

Length mm	300	600	1000	1200	1800	2400	3000	4500	6000	7500	9000
Supply	-16	-11	-7	-6	-3	-2	0	+3	+5	+6	+8
Return	-10	-7	-5	-4	-2	-1	0	+2	+3	+4	+5

6. Figures for plenum fed diffusers are for essentially zero inlet velocity. The velocity profile is relatively uniform for the length of the active section.
7. Figures for adapter fed diffusers take account of the effect of the adapter and inlet neck on diffuser velocities which tend to be less uniform and produce a velocity profile of the shape shown in the Velocity-Throw diagram below. The 0.25m/s isovel generally shows a projection reduction at the centre of approximately 25%.

### Typical Plenum and Adapter Fed Velocity Profiles



### Typical Throw envelopes for CSDA adapter fed CSD section

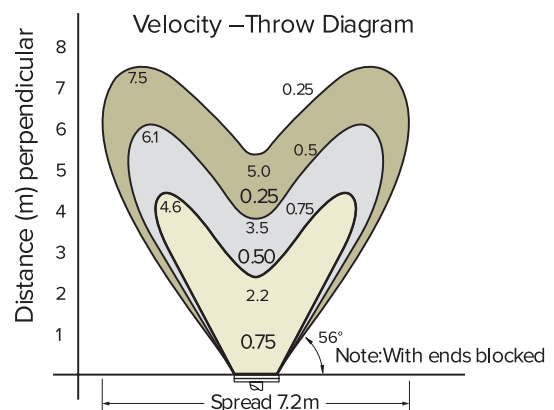
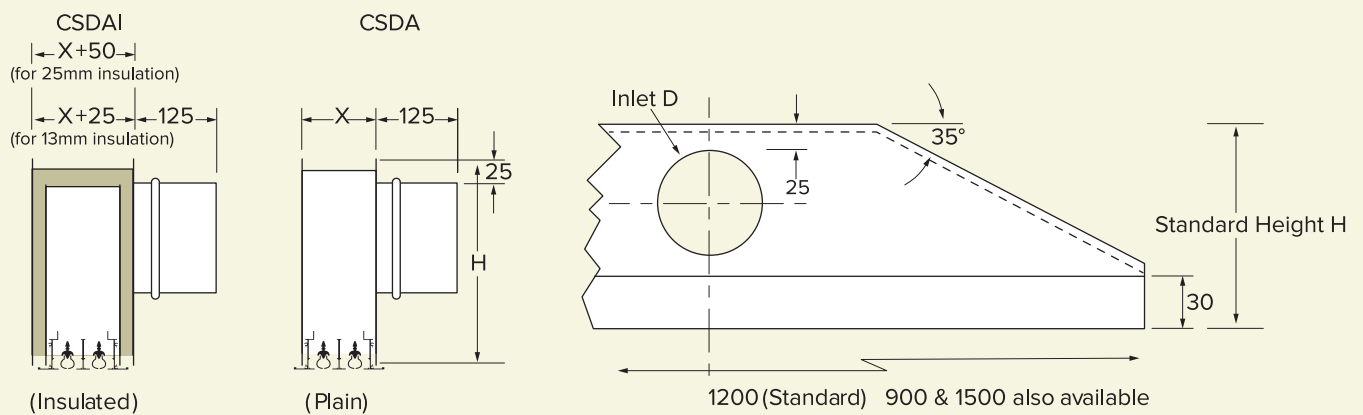


Diagram shows isovel envelopes for CSD19 x2 slot x 1000mm @ 118m<sup>3</sup>/s

# Flangeless Ceiling Slot Diffuser

## CSDP Series - Adapters

### CSDA Adapters



### CSDA Dimensions

	CSD-19			CSD-25		
	D	H	X	D	H	X
1	100	195	53	125	220	60
2	125	245	92	150	245	104
3	150	270	130	200	295	149
4	175	295	168	200	195	191

Guide Weights	
CSDA	CSDAI
1200	1200
4.78	5.08

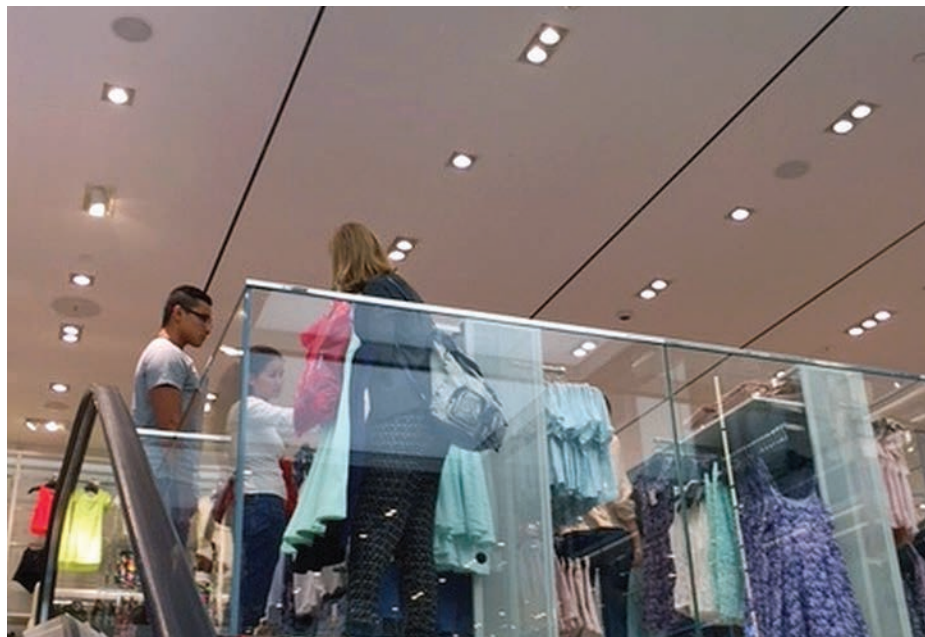
### Notes

1. For sizes other than shown Standard Height H = inlet Diameter +100
2. Construction details may vary\*
3. Premi-aire™ versions available\*

\* Please check with your local Holyoake branch



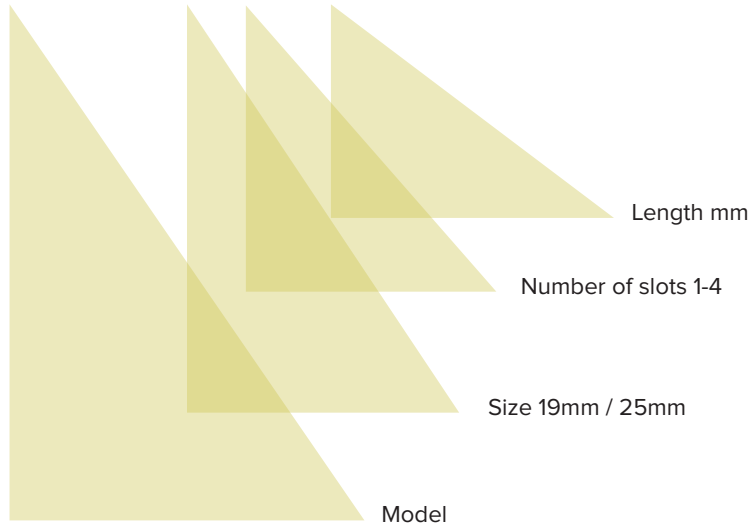
H & M the Swedish apparel chain opens in the Queen Street Mall, 170 Queen Street, Brisbane. The new store features Holyoake CSDP Flangeless, Integrated Linear Slot Diffuser.



# Flangeless Ceiling Slot Diffuser

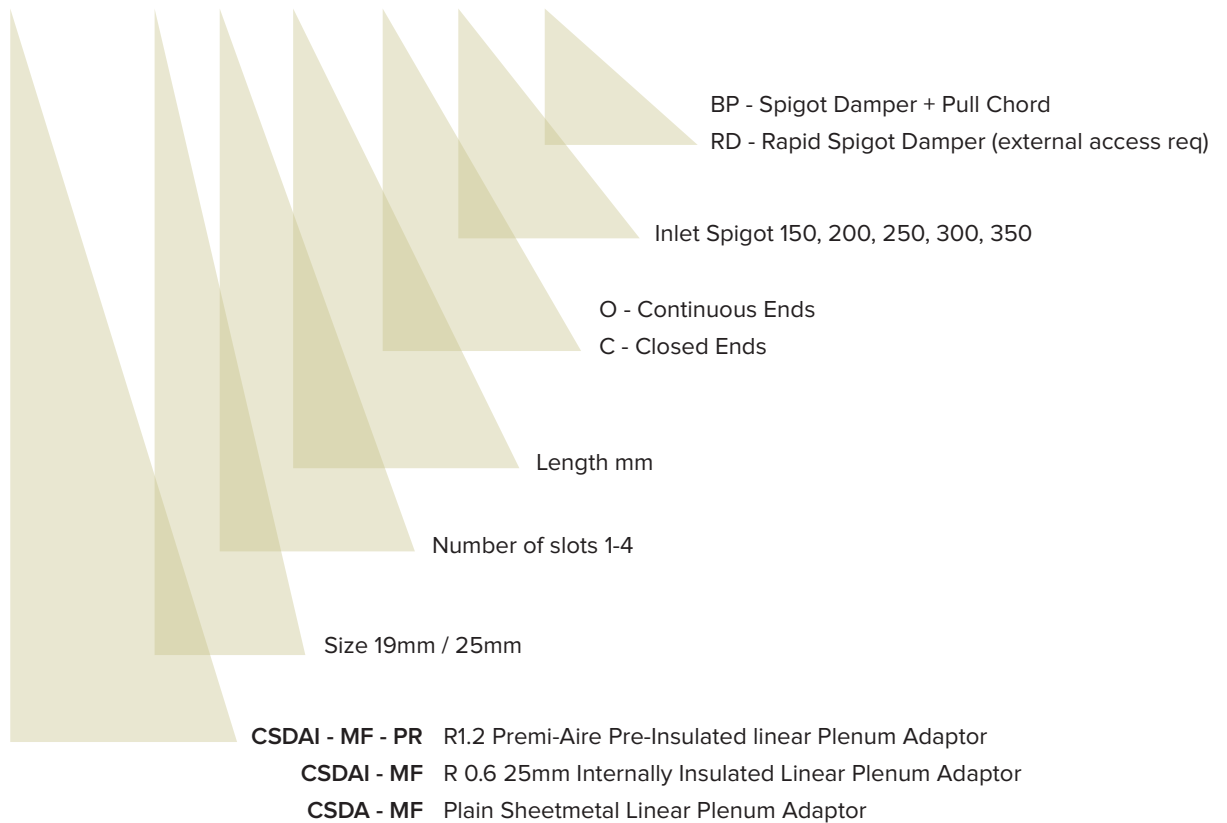
## CSDP Series - Nomenclature

CSDP-MF | 19 | 1 | Lmm |



## CSDA Adaptor - Nomenclature

CSDAI-MF-PR | 19 | 1 | Lmm | O | 200 | BP



Due to a policy of continuous development and improvement the right is reserved to supply products which may differ slightly from those illustrated and described in this publication.

## Related Products

### Linear Flow Diffusers

LF 1200 Series

## CONTINUOUS LINEAR DIFFUSER

Flangeless installation

Single piece aluminium construction

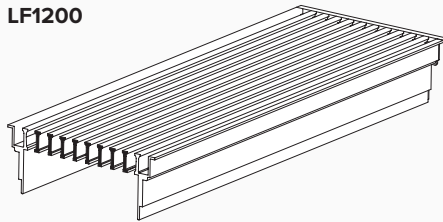
Mitred corners in both planes

100 | 150 | 200 available widths

Designed for use in the patented Holyoake  
plaster mounting frame

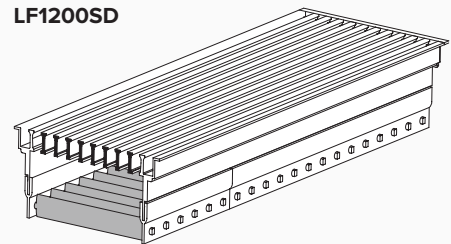


**LF1200**

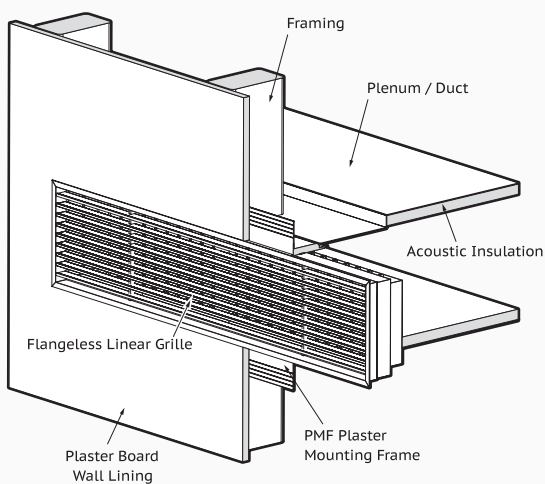


The LF1200 Linear Flow Diffuser is a one piece diffuser which can be supplied in any desired length continuous up to 5m. The Linear Flow Diffuser has been specifically designed to be used in conjunction with the Holyoake Plaster Mounting Frame (PMF) system.

**LF1200SD**



Ideally suited to apartment and hotel room projects, the LF1200SD Linear Flow Diffuser combines fixed linear flow bars at the fascia with adjustable rear single deflection airfoil blades, allowing control of the supply air laterally. This lateral air adjustment allows you to control the spread and depth of throw.



### Plaster Mounting Frame

The Holyoake Flangeless Diffuser Series - PMF, has been developed to keep pace with contemporary interior designs.

The PMF is versatile and can be used with all LD and LF Series Linear Bar Diffusers.

Designed for sidewall applications the PMF Series Flangeless Frame Diffusers are the least intrusive sidewall supply or return air product on the market.

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