

## STAD/STBD

### Line diffuser Supply Surface-mounted

#### Available types

**S T - D - - -**

**S** line diffuser

**T** supply

#### - Discharge patterns

**A** two pattern adjustment blades

**B** one pattern adjustment blade

**D** surface-mounted

#### - End caps

**A** no end caps

**B** one end cap

**C** two end caps

**D** two flat end caps (T-bar fitting)

#### - Plenum box

**O** none

**R** assembled, internally insulated plenum box

**U** assembled, uninsulated plenum box

#### - Mounting brackets (supplied separately)

**A** diffuser bracket A

**B** plenum mounting bracket B

**C** plenum "click-in" bracket C (mount plenum first)

**D** diffuser/ceiling bracket D

**O** none

#### Plenum box

**S O O O - -**

**S** line diffuser

**O** plenum box only

**O** not applicable

**O** not applicable

#### - Fitted plenum box

**R** internally insulated plenum box

**U** uninsulated plenum box

#### - Mounting bracket preparation

**O** none; straight plenum box

**C** prepared for mounting bracket C; "click-in" plenum box

#### SA-Select

Check SA-Select to create extended order codes and selection details online. **NB!** At this moment, SA-Select is only available in Dutch. But it is possible to create extended order codes and selection details online.

#### Use

The STAD/STBD line diffuser is suitable for supplying cooled or heated air with a large temperature difference in respect of the room temperature. The diffuser can be fitted in the ceiling or the wall, and is fitted standard with an insulated or uninsulated plenum box. As standard, the plenum box is equipped with 8 mm hanging holes in the edge of the plenum. The two built-in pattern blades mean the discharge pattern is adjustable. The diffusers can be connected together for long lengths by using the supplied keys. The spacers are under the underside of the profile, guaranteeing a straight slot.

#### Characteristics

Max. number of air changes: up to 10 x

Undertemperature: up to 10 K

Overtemperature: up to 15 K

#### Version

##### Line diffuser

Frame: extruded aluminium

Post-treatment: epoxy

Colour: white RAL 9010, optional RAL colour of your choice

Pattern blades: extruded aluminium

Post-treatment: black

##### Plenum box

Material: sendzimir galvanised steel

Internal insulation: 1/2" duct liner

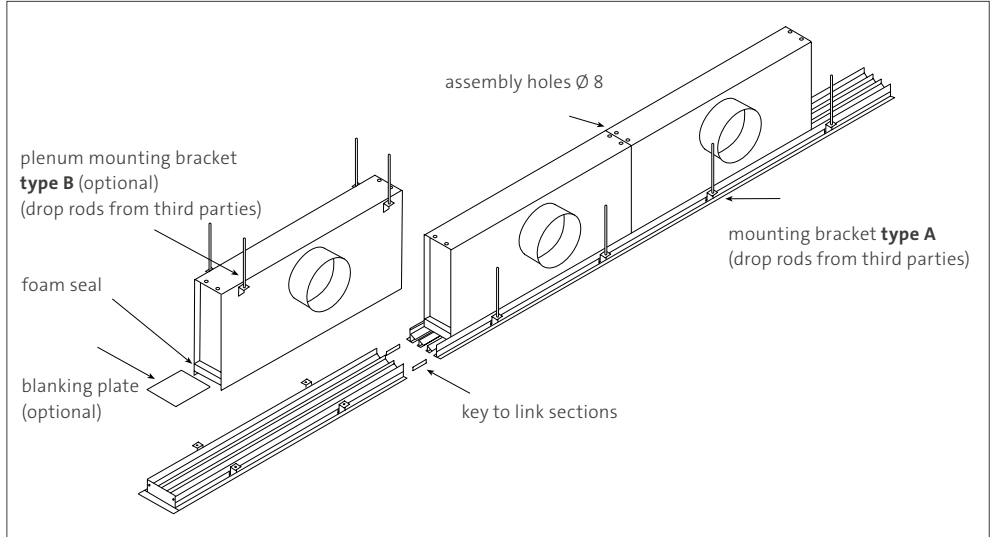
Post-treatment: none

##### Optional

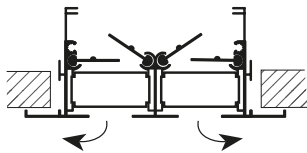
Plenum box: several connections, oval connection and different heights

Diffuser: blanking plate

## Fitting a continuous line diffuser with key and plenum box

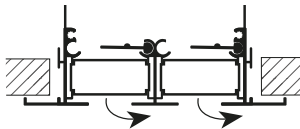


### Discharge direction



#### STAD - 2 slots

Depending on the position of the pattern adjustment sheets, the right or left can be blown out.



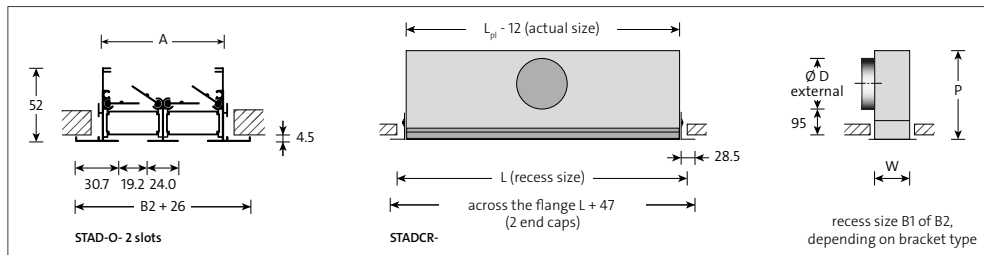
#### STBD - 2 slots

Depending on the position of the pattern adjustment sheets, it can be blown out to one side.

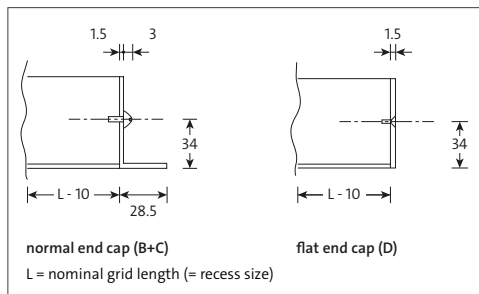
### Note

- The listed dimensions are in mm.
- If actual or over frame dimensions are required, please state this clearly because otherwise nominal dimensions will be used.
- One-piece diffuser elements up to approx. 2410 mm.
- For large lengths, Solid Air determines the section lengths if they have not been stated specifically. The standard sections are nominal 1800 mm, with an adapter at the start and end of the diffuser to achieve the total required length.
- Standard plenum box lengths  $L_{pl}$  are: 600, 750, 900, 1200, 1500 and 1800 mm.
- Flat-sided plenum boxes are available on request.
- For diffuser brackets C and D, the maximum thickness of the ceiling panel is 35 mm.

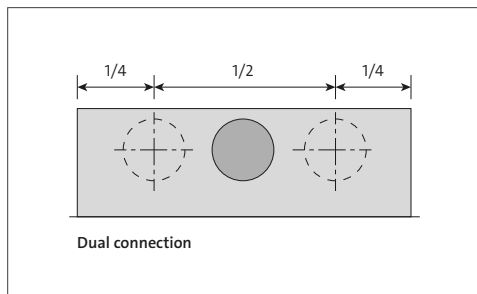
## Cross-section and lengthways view



## End caps



## Connections

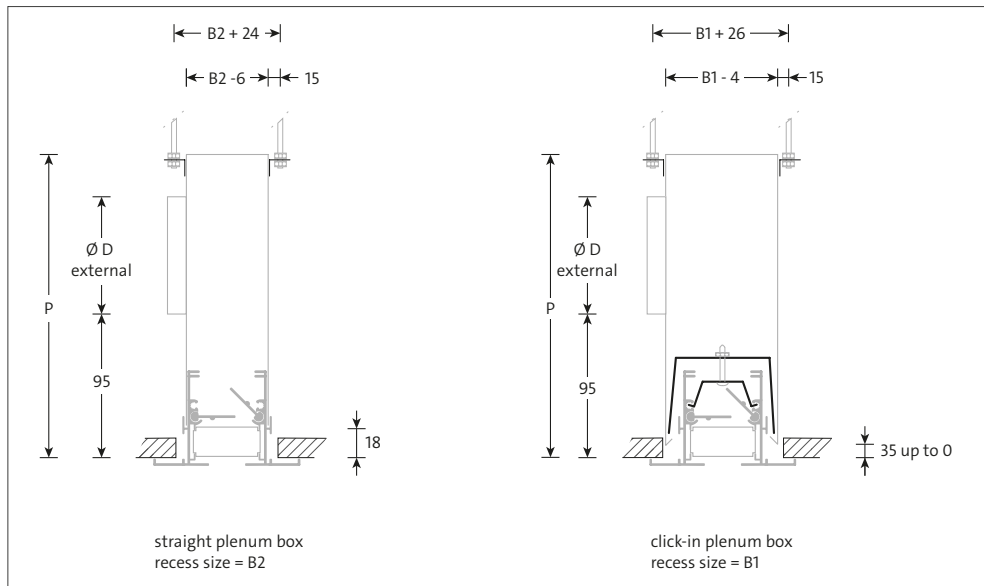


## Available dimensions, sizes and weights

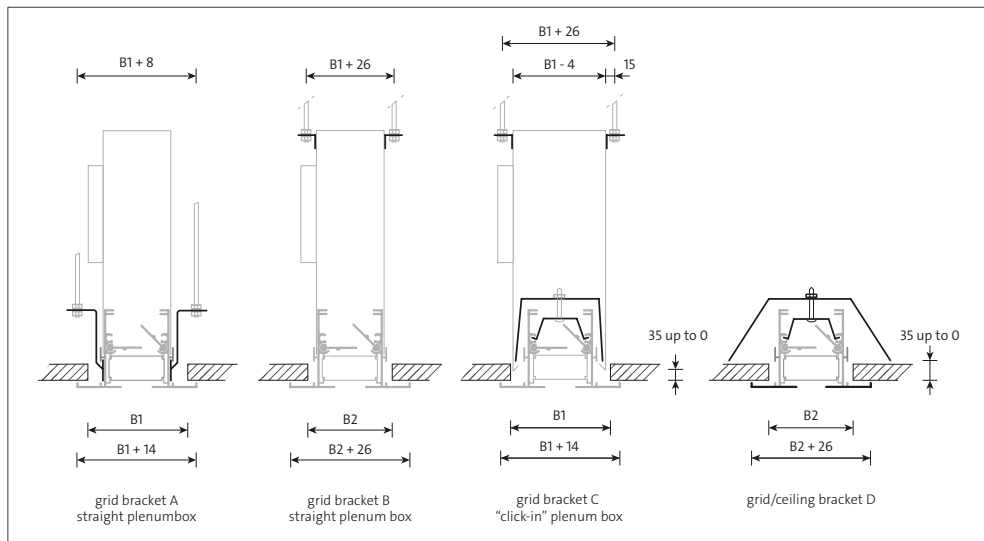
number of slots	B1	B2	P	D	A	diffuser kg	plenum kg
<b>L = 600</b>							
1	65	52	245	123	46	0.8	2.1
2	108	94	280	158	88	1.2	2.6
3	151	137	280	158	131	1.6	2.7
4	194	180	320	198	174	2.0	3.2
<b>L = 750</b>							
1	65	52	245	123	46	1.0	2.7
2	108	94	280	158	88	1.5	3.2
3	151	137	280	158	131	2.0	3.4
4	194	180	320	198	174	2.5	4.0
<b>L = 900</b>							
1	65	52	245	123	46	1.2	3.2
2	108	94	280	158	88	1.8	3.9
3	151	137	320	198	131	2.4	4.6
4	194	180	320	198	174	3.0	4.8

number of slots	B1	B2	P	D	A	diffuser kg	plenum kg
<b>L = 1200</b>							
1	65	52	280	158	46	1.6	4.8
2	108	94	320	198	88	2.4	5.8
3	151	137	320	198	131	3.2	6.1
4	194	180	370	248	174	4.0	7.2
<b>L = 1500</b>							
1	65	52	280	158	46	2.0	6.0
2	108	94	320	198	88	3.0	7.2
3	151	137	370	248	131	4.0	8.6
4	194	180	370	248	174	5.0	9.0
<b>L = 1800</b>							
1	65	52	320	198	46	2.4	8.1
2	108	94	370	248	88	3.6	9.8
3	151	137	435	313	131	4.8	11.8
4	194	180	435	313	174	6.0	12.3

## Plenum boxes



## Mounting brackets



### Note

- Drop rods not supplied.
- Recess size B1 or B2 depends on the fitting method, see the table with available dimensions, sizes and weights.

## Selection details

### STAD

air volume		number of slots	plenum box length																		
			600			750			900			1200			1500			1800			
m <sup>3</sup> /s	m <sup>3</sup> /h		throw m	Δp <sub>s</sub> Pa	L <sub>pA</sub> dB(A)	throw m	Δp <sub>s</sub> Pa	L <sub>pA</sub> dB(A)	throw m	Δp <sub>s</sub> Pa	L <sub>pA</sub> dB(A)	throw m	Δp <sub>s</sub> Pa	L <sub>pA</sub> dB(A)	throw m	Δp <sub>s</sub> Pa	L <sub>pA</sub> dB(A)	throw m	Δp <sub>s</sub> Pa	L <sub>pA</sub> dB(A)	
0.010	36	1	2.2	3	11	2.0	1	5													
0.013	45	1	2.4	5	16	2.3	3	11	2.1	2	6										
0.015	54	1	2.7	6	21	2.5	5	15	2.3	3	11										
0.020	72	1	3.1	12	29	2.9	8	23	2.7	6	18	2.5	4	12	2.3	3	8				
		2	2.8	3	14	2.6	1	8													
0.025	90	1	3.8	18	35	3.2	13	29	3.0	10	24	2.8	6	18	2.6	5	13	2.4	1	10	
		2	3.2	4	19	3.0	3	14	2.8	2	9										
		3	3.0	1	9																
0.030	108	1	4.6	26	39	3.8	18	34	3.3	14	29	3.0	9	22	2.8	7	18	2.7	1	14	
		2	3.5	6	24	3.2	4	18	3.1	3	14										
		3	3.3	2	14	3.1	1	8													
0.040	144	1							4.4	25	36	3.5	15	30	3.3	12	26	3.1	2	22	
		2	4.0	10	32	3.7	7	26	3.5	5	21	3.2	3	15	3.0	2	9				
		3	3.8	4	22	3.6	3	16	3.4	2	13										
		4	3.7	2	16	3.4	1	10													
0.050	180	1										4.3	24	36	3.6	18	32	3.4	3	28	
		2	5.1	16	38	4.2	11	32	3.9	8	27	3.6	4	21	3.4	3	15	3.2	1	12	
		3	4.3	7	27	4.0	4	22	3.8	3	18	3.4	2	11							
		4	4.1	2	22	3.8	2	16	3.6	2	11										
0.060	216	1										5.2	34	41	4.3	26	36	3.8	5	32	
		2	6.1	23	42	5.1	15	36	4.3	11	32	3.9	6	26	3.7	4	20	3.5	1	17	
		3	4.7	10	32	4.4	6	26	4.1	4	23	3.8	2	16	3.5	2	11				
		4	4.5	5	26	4.2	3	21	4.0	2	16										
0.080	288	1																5.0	8	40	
		2							5.8	19	39	4.6	11	33	4.2	8	28	4.0	3	24	
		3	6.4	17	40	5.3	11	34	4.7	8	31	4.3	4	24	4.0	3	19	3.8	1	16	
		4	5.2	9	34	4.9	6	28	4.6	4	24	4.2	2	18	3.9	1	12				
0.100	360	2										5.8	18	39	4.7	12	33	4.5	4	30	
		3				6.7	17	40	5.7	12	37	4.8	7	29	4.5	4	25	4.3	2	21	
		4	6.7	14	40	5.4	9	34	5.1	6	29	4.7	3	23	4.4	2	18	4.1	1	14	
0.125	450	2										7.2	28	45	6.0	19	39	5.2	6	36	
		3							7.2	19	42	5.7	10	35	5.1	7	31	4.8	3	27	
		4	8.4	23	46	7.0	14	40	6.0	9	35	5.2	5	29	4.9	3	24	4.6	2	20	
		2											7.2	27	44	6.2	9	40			
0.150	540	3										6.8	15	40	5.5	10	35	5.2	4	32	
		4				8.4	18	45	7.3	14	40	5.7	8	34	5.3	5	28	5.0	3	25	
		3											7.7	14	41	6.2	8	36	5.8	5	30
0.200	720	4													7.6	18	43	6.5	7	40	
		3																5.8	5	33	
0.250	900	3																8.1	11	45	
		4										9.6	22	47	8.0	13	42	6.9	8	38	
0.300	1080	4													9.6	19	47	8.2	12	43	

### General

- The throw applies to flush-mounting in a flat, closed ceiling. If the discharge pattern is directed to one side.
- The assumed room attenuation is 10 dB.
- It is permitted to interpolate the interim values.