

# DLS

## Concealed linear slot diffuser with 20 or 30 mm slots with aluminium aerodynamic profile and adjustable deflectors



### Product

DLS

### Application

Supply or return, concealed

### Construction

Frame and deflectors in aluminium painted RAL 9005 and RAL 9016 (DLSB)

### SPECIFICATION

Concealed linear diffusers with 20 mm or 30 mm slots with aluminium aerodynamic profile and adjustable deflectors, for optimal airflow control.

### MOUNTING

By plenum with bridge mounting system. Anti-creak tape positioning on frame and subsequent plaster finishing.

### ACCESSORIES

Galvanised plenum, insulated plenum, mounting bridges and continuity kit. From 1 to 3 slots

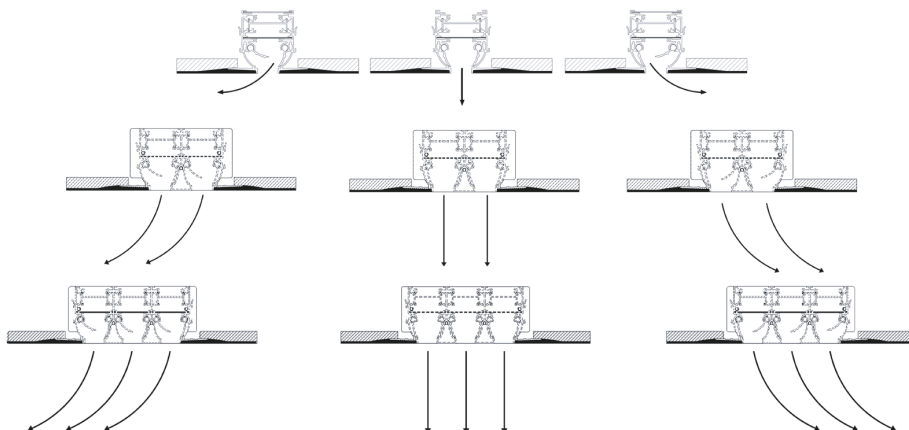
Dimensions available in single piece:

- minimum length 300 mm;
- maximum length 2000 mm

### VARIANTS

- DLS20/DLS20B: concealed linear diffusers without deflectors with 20 mm slot.
- DLS20D/DLS20BD: concealed linear diffusers with deflectors and 20 mm slot.
- DLS20SE/DLS20BSE: concealed linear diffusers without deflectors, with damper and 20 mm slot.
- DLS20DSE/DLS20BDSE: concealed linear diffusers with deflectors, damper and 20 mm slot.
- DLS30/DLS30B: concealed linear diffusers without deflectors with 30 mm slot.
- DLS30D/DLS30BD: concealed linear diffusers with deflectors and 30 mm slot.
- DLS30SE/DLS30BSE: concealed linear diffusers without deflectors, with damper and 30 mm slot.
- DLS30DSE/DLS30BDSE: concealed linear diffusers with deflectors, damper and 30 mm slotmm

### THROW CHARACTERISTICS



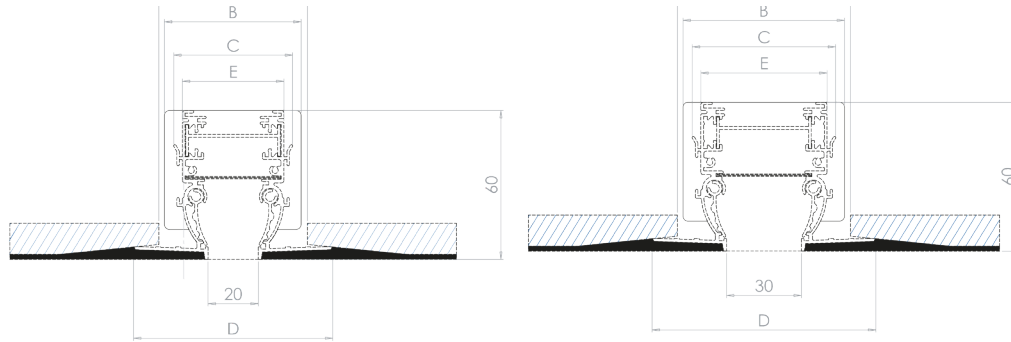


**Diffusion**

Components  
for perfect air  
distribution in HVAC  
systems

## DIFFUSER DIMENSIONS

### 1F



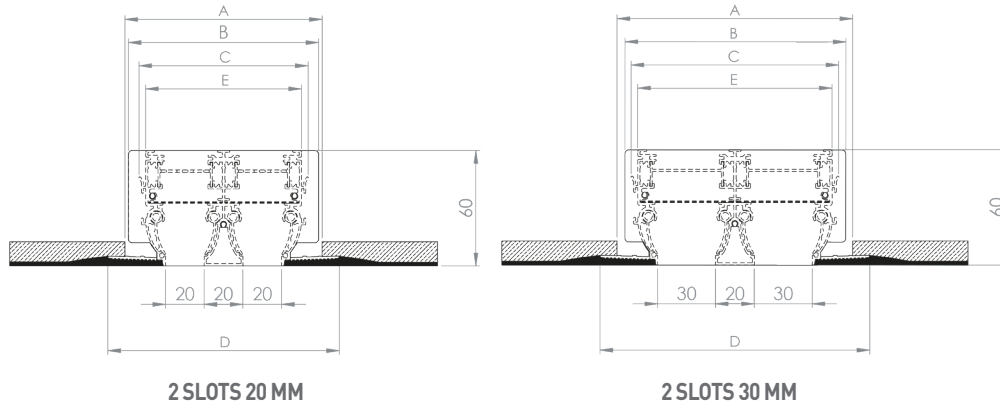
20 MM SLOT

30 MM SLOT

SLOT	L	A	B	C	E	D	number of bridges mounting
SLOT FROM 20 mm	800						2
	1000						2
	1200	60	55	48	41	80	2
	1500						2
	2000						2
SLOT FROM 30 mm	800						2
	1000						2
	1200	70	65	58	51	90	2
	1500						2
	2000						2

## DIFFUSER DIMENSIONS

### 2F

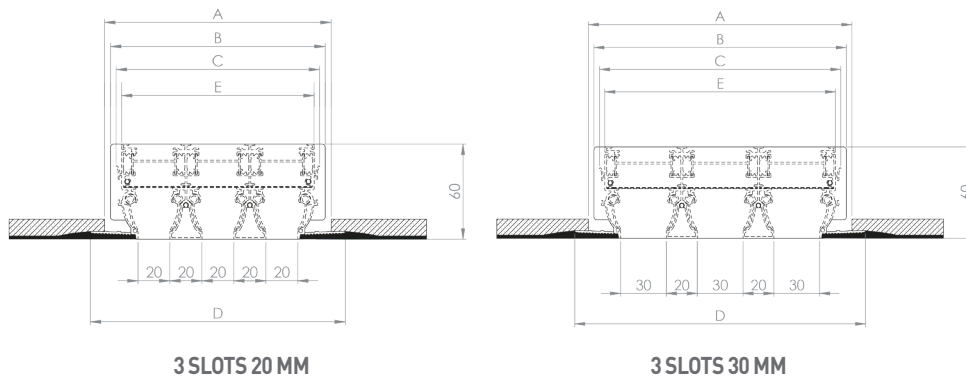


2 SLOTS	L	A	B	C	D	E	number of bridges mounting
SLOTS FROM 20 mm	800						2
	1000						2
	1200	100	95	88	120	81	2
	1500						2
	2000						2
SLOTS FROM 30 mm	800						2
	1000						2
	1200	120	115	108	140	101	2
	1500						2
	2000						2



## DIFFUSER DIMENSIONS

### 3F



3 SLOTS	L	A	B	C	D	E	number of bridges mounting
SLOTS FROM 20 mm	800						2
	1000						2
	1200	140	135	128	160	121	2
	1500						2
	2000						3
SLOTS FROM 30 mm	800						2
	1000						2
	1200	170	165	158	190	151	2
	1500						2
	2000						3

## OPERATING DATA

Data referred to 1m long diffusers, with terminal velocity  $V_t=0.25$  m/s and temperature differential of 10/12 °C, flush ceiling mounted with lateral throw.

Values referred to diffuser without damper or with open sliding damper. Values referred to diffuser with deflectors in working position with 50% surface utilisation of

The deflector position reduces the effective section. With deflectors fully open or if the diffuser is used for return, the flow rates in m<sup>3</sup>/h shown in the table can be

Vk: effective velocity (m/s)

m<sup>3</sup>/h: air flow rate

Pa: pressure drop in Pascal

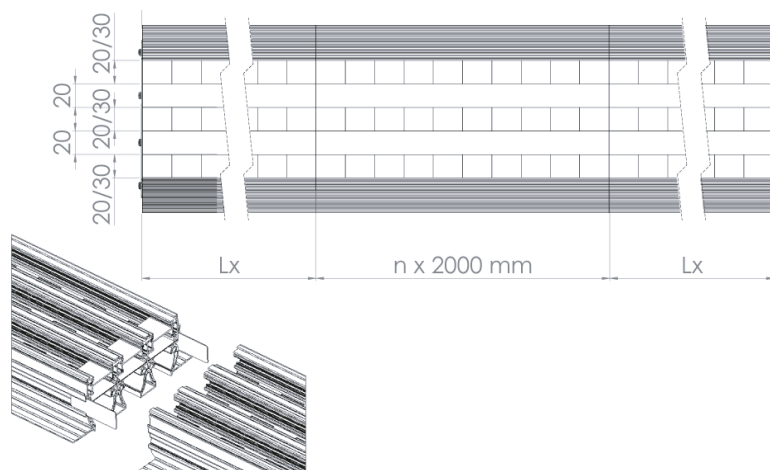
L(m): throw in metres

dB(A): noise level index

SLOTS	DIMENSIONS SLOTS	EFFECTIVE SECTION M <sup>2</sup>	AIR FLOW RATE AND THROW						
			m <sup>3</sup> /h	70	105	140	175	210	245
1 SLOT	SLOT from 20 mm	0,0097	L(m)	1.8	2.7	3.6	4.5	5.4	6.3
			m <sup>3</sup> /h	105	158	210	262	315	368
	SLOT from 30 mm	0,0146	L(m)	1,6	2,5	3,4	4,2	5	5,8
			noise level index	dB(A)	<20	22	32	37	44
2 SLOTS	SLOT from 20 mm	0,0194	L(m)	2,6	3,9	5,1	6,4	7,7	9,0
			m <sup>3</sup> /h	210	316	420	524	630	736
	SLOT from 30 mm	0,0292	L(m)	2,3	3,6	4,9	6,0	7,1	8,3
			noise level index	dB(A)	<20	24	34	39	46
3 SLOTS	SLOT from 20 mm	0,0291	L(m)	3,9	5,8	7,7	9,6	11,6	13,5
			m <sup>3</sup> /h	210	315	420	525	630	735
	SLOT from 30 mm	0,0438	L(m)	3,4	5,4	7,3	9,0	10,7	12,4
			m <sup>3</sup> /h	315	474	630	786	945	1104
		noise level index	dB(A)	<20	26	36	41	48	52
Vk			m/s	2	3	4	5	6	7
PRESSURE DROPS			Pa	7	15	26	41	59	80

### CONTINUITY KIT

The continuity kit is a necessary accessory for creating continuous linear diffuser lines longer than 2 metres. It consists of two junction plates that allow





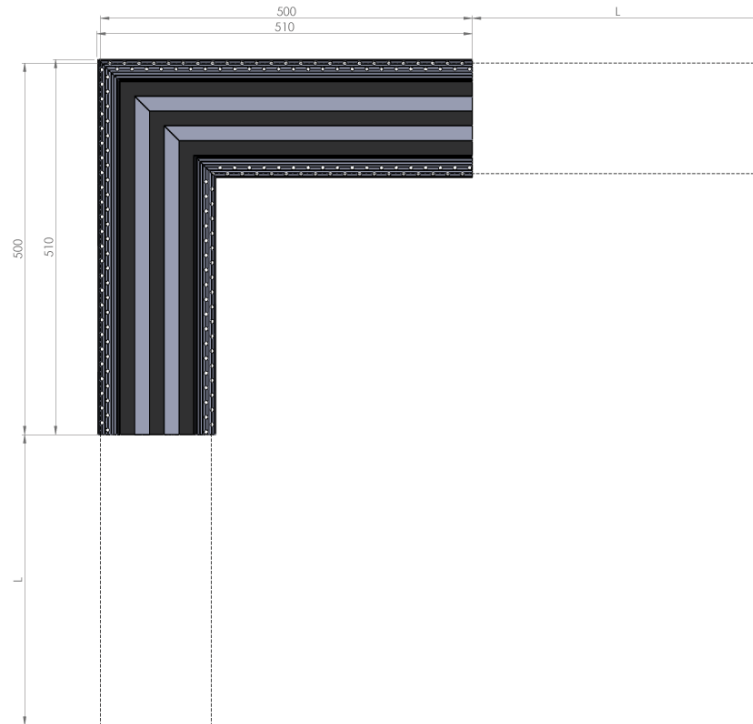
## CONNECTION ANGLE

### DIMENSIONS DETAILS

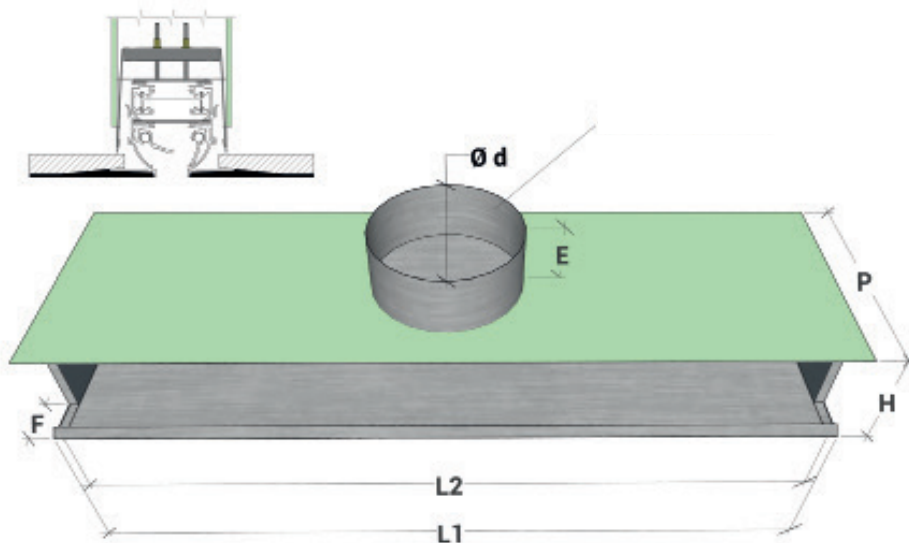
#### 3-SLOT DIFFUSER

Aesthetic connection element between two linear diffuser lines at 90° angle and 500 mm length per side. It has no ventilation function.

All dimensions are expressed in mm.



## PLENUM DIMENSIONS AND MOUNTING SYSTEM WITH FIXING BRIDGES



1 SLOT	PLENUM DIMENSIONS								
	L	L1	L2	Number branches	Ø d	P	H	E	F
SLOT from 20 mm	800	800	770	1	145	240	60	80	56
	1000	1000	970	1					
	1200	1200	1170	2					
	1500	1500	1470	2					
	2000	2000	1970	2					
SLOT from 30 mm	800	800	770	1	145	240	70	80	56
	1000	1000	970	1					
	1200	1200	1170	2					
	1500	1500	1470	2					
	2000	2000	1970	2					

2 SLOTS	PLENUM DIMENSIONS								
	L	L1	L2	Number branches	Ø d	P	H	E	F
SLOT from 20 mm	800	800	770	2	145	300	100	80	56
	1000	1000	970	2					
	1200	1200	1170	2					
	1500	1500	1470	2					
	2000	2000	1970	2					
SLOT from 30 mm	800	800	770	2	198	300	120	80	56
	1000	1000	970	2					
	1200	1200	1170	2					
	1500	1500	1470	2					
	2000	2000	1970	2					

3 SLOTS	PLENUM DIMENSIONS								
	L	L1	L2	Number branches	Ø d	P	H	E	F
SLOT from 20 mm	800	800	770	2	198	300	140	80	56
	1000	1000	970	2					
	1200	1200	1170	2					
	1500	1500	1470	2					
	2000	2000	1970	2					
SLOT from 30 mm	800	800	770	2	198	300	160	80	56
	1000	1000	970	2					
	1200	1200	1170	2					
	1500	1500	1470	2					
	2000	2000	1970	2					