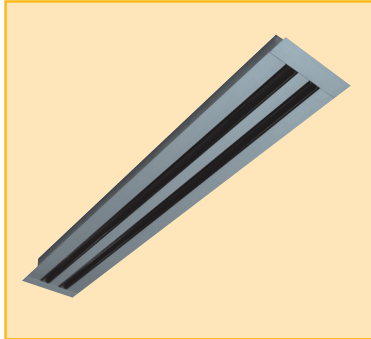
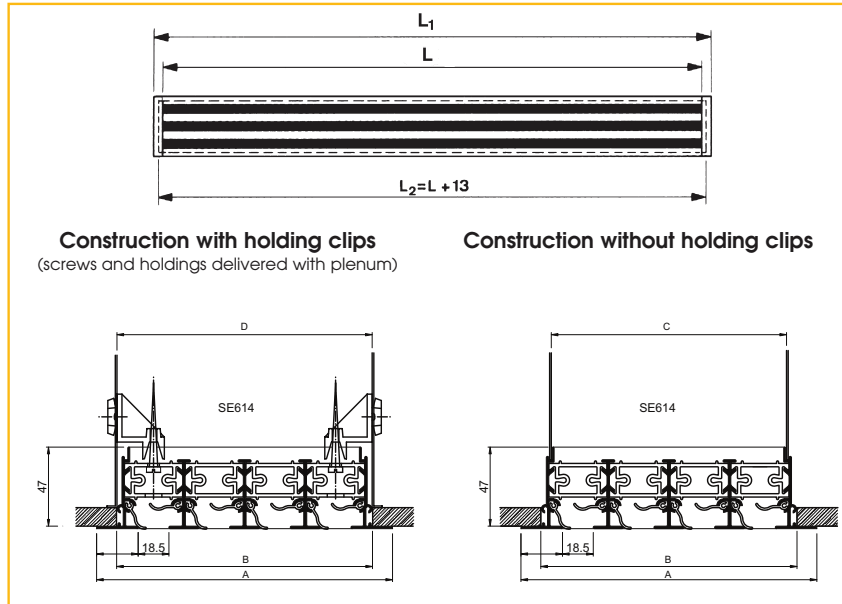


ADJUSTABLE SLOT DIFFUSER

TYPE: SE600



Installation dimensions



Application

The slot diffuser, type SE600 is used for the supply of cooled and heated air in facilities such as offices, shops, meeting rooms, ...

It is designed for ceiling or sidewall mounting and is available with 1 to 8 slots. Each slot is individually adjustable and equipped with 2 deflector vanes of a special design to minimise the internal turbulences. An ideal air supply pattern adjustable over 180° can be obtained.

All lengths are available for an ideal fit in every ceiling-system.

Technical information

Characteristics

- **SE600**: available with up to 8 slots
- all lengths available (in steps of 1 mm): from 300 mm up to 2000 mm in one piece; larger lengths with intermediate pieces (length = 1500 mm) and end pieces
- 25 mm frame
- non operational parts or dummy diffusers; slots are blanked off by black PVC strips (SE650)
- exhaust: without deflectors
- supply: horizontal or vertical air supply pattern possible through adjustable deflectors

	Number of slots							
	1	2	3	4	5	6	7	8
A (SE)	68,5	105	141,5	178	214,5	251	287,5	324
B	48	84	121	157	193	230	266	303
C	32,5	69	105,5	142	178,5	215	251,5	288
D	44	81	117	154	190	227	263	300

L = slot length

SE: $L_1 = L + 50$

All dimensions in mm

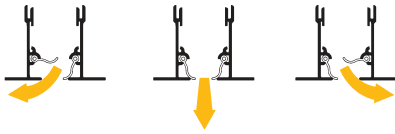
L_2 , B = minimum ceiling opening

E = 25

ADJUSTABLE SLOT DIFFUSER

TYPE: SE600

Adjustment possibilities:

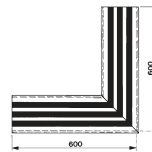


- corner sections: for types SE600 and SE650 of slot diffusers corner sections in one piece are available in the dimensions as indicated. No plenum available for corner sections. Standard construction with corner of 90°, fitting in a ceiling opening of 600 mm. O/all dimension = 614 mm

- available with plenum:
 - with or without damper in the inlet
 - up to a length of 1600 mm supplied with one circular inlet spigot, over 1600 mm: two circular inlet spigots

Construction

- natural tone anodised aluminium, with black or white deflectors
- galvanised steel sheet, optional insulation



Specifications description

Example:

Aluminium linear diffuser with 2 supply slots and adjustable deflectors. Complete with fixed mounted plenum, internal insulation, with circular side inlet spigot and damper. Natural tone anodised diffuser, black aluminium deflectors.

Type: SE612 + SP132 G
L = ... mm

Accessories

BOBSE: blanking off baffle; steel sheet painted black RAL 9005

SE mounting brackets for ceiling application: direct mounting when no plenum is provided.

Insertpat: for diffuser mounting on different plenum lengths.

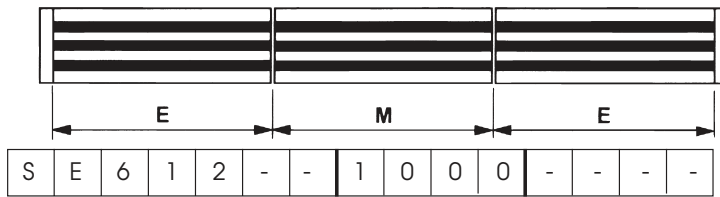
(see Assembly drawing SP100)

Fixing

- concealed fixing
- either by direct and fixed mounting of the diffuser on the plenum (mounting by Grada upon request)
- or with mounting brackets so the diffuser can be removed from the plenum
- plenum provided with mounting eyes (∅ 7 mm), mounting straps available upon request

How to order

SE600 with 2 slots and black aluminium deflectors, slot length 1000 mm



slot length (mm)

- : slot diffuser in one piece with end caps on both sides

E: end pieces, with one end cap

M: intermediate piece, without end caps

C: corner section 90° (600 x 600 mm)

number of slots

0: exhaust, no deflectors

1: supply, with **black** aluminium deflectors

2: supply, with **white** aluminium deflectors

5: dummy diffuser

E: frame width 25 mm

Slot diffuser in a panel



slot length (mm) panel length

F: painted in RAL-colors

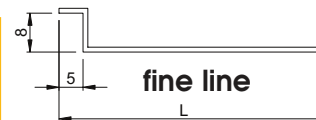
P: with panell, with rebord of 10 mm on all sides*

Z: with panel, with fine line 5/8 ont het two shortest sides**

4: number of slots

1: black deflectors

2: white deflectors



* All panels have a width of 300 mm and a flange of 10 mm at all sides.

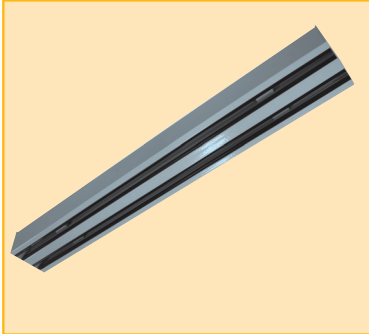
** All panels have a width of 300 mm and a flange of 10 mm at the longest side. The length of the panel, is the total length, fine line included

Remarque: The length of the panel must be 55 mm (at the minimum) longer than the nominal length of the diffuser.

ADJUSTABLE SLOT DIFFUSER

SB600

Installation dimensions

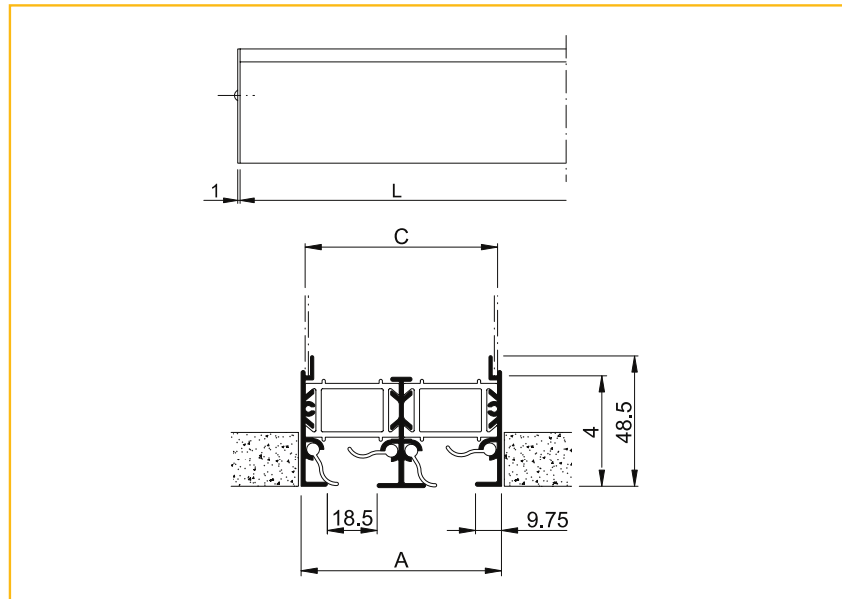


Application

The slot diffuser, type SB600 is used for the supply of cooled and heated air in facilities such as offices, shops, meeting rooms, ...

It is designed for installation in the ceiling or sidewall and is available with 1 to 5 slots. Each slot is individually adjustable and equipped with 2 specially designed deflector vanes to minimise the internal turbulences. An ideal air supply pattern adjustable over 180° can be obtained.

All lengths are available for an ideal fit in every ceiling system.



	Number of slots				
	1	2	3	4	5
A	38	74,5	111	147,5	184
C	34,5	71	107,5	144	180,5

L = slot length

All dimensions in mm

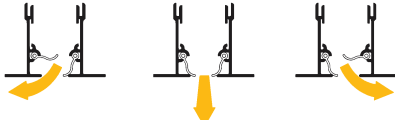
Technical information

Characteristics

- available up to 5 slots
- all lengths available (in steps of 1 mm): from 300 mm up to 2000 mm in one piece
- non operational parts or dummy diffusers; slots are blanked off by black PVC strips (SB650)
- exhaust: without deflectors
- supply: horizontal or vertical air supply pattern possible by adjustable deflectors

ADJUSTABLE SLOT DIFFUSER

SB600



Adjustment possibilities:

available with plenum:

- with or without damper in the inlet
- up to a length of 1600 mm supplied with one circular inlet spigot, over 1600 mm: two circular inlet spigots

Construction

- slot diffusers out of natural tone anodised aluminium, with deflectors in black extruded aluminium
- construction with deflectors in white extruded aluminium, diffuser standard satin anodised
- plenum out of galvanised steel sheet, optional insulation

Specifications description

Example:

Aluminium linear diffuser with 2 supply slots and adjustable deflectors. Complete with fixed mounted plenum, insulated at the inside, with circular side inlet spigot and damper. Diffuser natural tone anodised, black aluminium deflectors.

Type: SB612 + SP132 G
L = ... mm

Accessories

BOBSE: blanking off baffle; made out of steel sheet, painted black (RAL 9005)

Fixing

- concealed fixing
- direct and fixed mounting of the diffuser on the plenum (mounting Grada upon request)
- provided with mounting eyes (ø 7 mm), mounting straps available upon request

How to order

SB600 with 2 slots and black aluminium deflectors, slot length 1000 mm.

S	B	6	1	2	-	-	1	0	0	0	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

slot length (mm)

-: slot diffuser in one piece with end caps on both sides
E: end pieces, with one end cap
M: intermediate piece, without end caps

number of slots

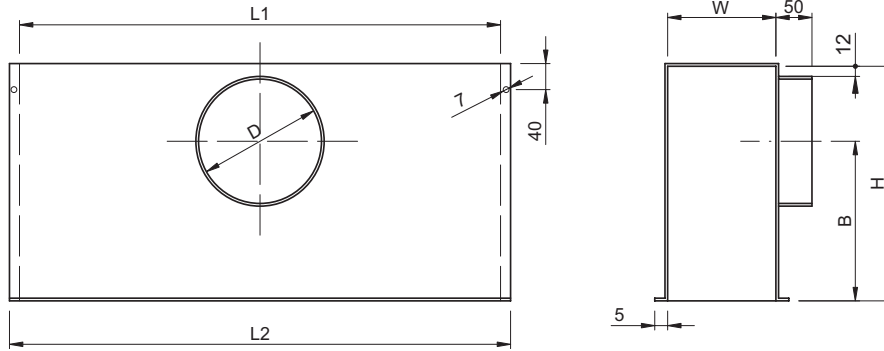
0: exhaust, no deflectors
1: supply, with **black** aluminium deflectors
2: supply, with **white** aluminium deflectors
5: dummy diffuser

PLENUM FOR SLOT DIFFUSER

TYPE: S-600 SERIES

Installation dimensions

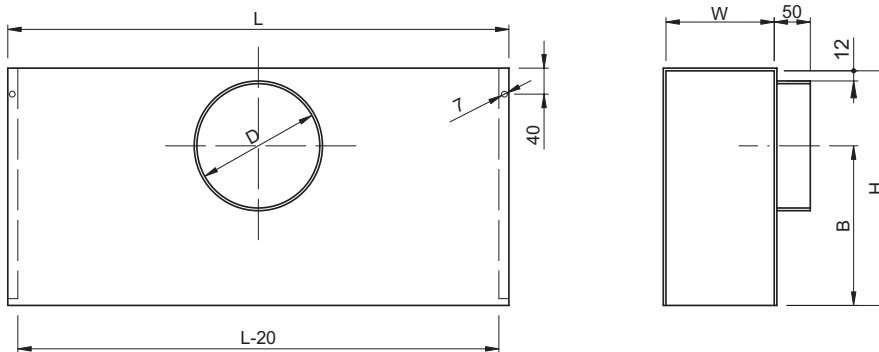
SP100 • SP110
For mounting with holding clips (only for SE600)



	Number of slots							
	1	2	3	4	5	6	7	8
$\varnothing D$	123	158	198	198	248	248	313	313
B	125	158	188	238	263	263	280	280
H	200	250	300	350	400	400	450	450
W	44	81	117	154	190	227	263	300

SP100 • SP110: $L_1 = L + 11$ $L_2 = L + 35$ L = slot length
 SP100L&R • SP110L&R: $L_1 = L + 6$ $L_2 = L + 18$
 SP100M • SP110M: $L_1 = L - 22$ $L_2 = L$

SP120 • SP130
For direct and fixed mounting (for SE600 and SB600)



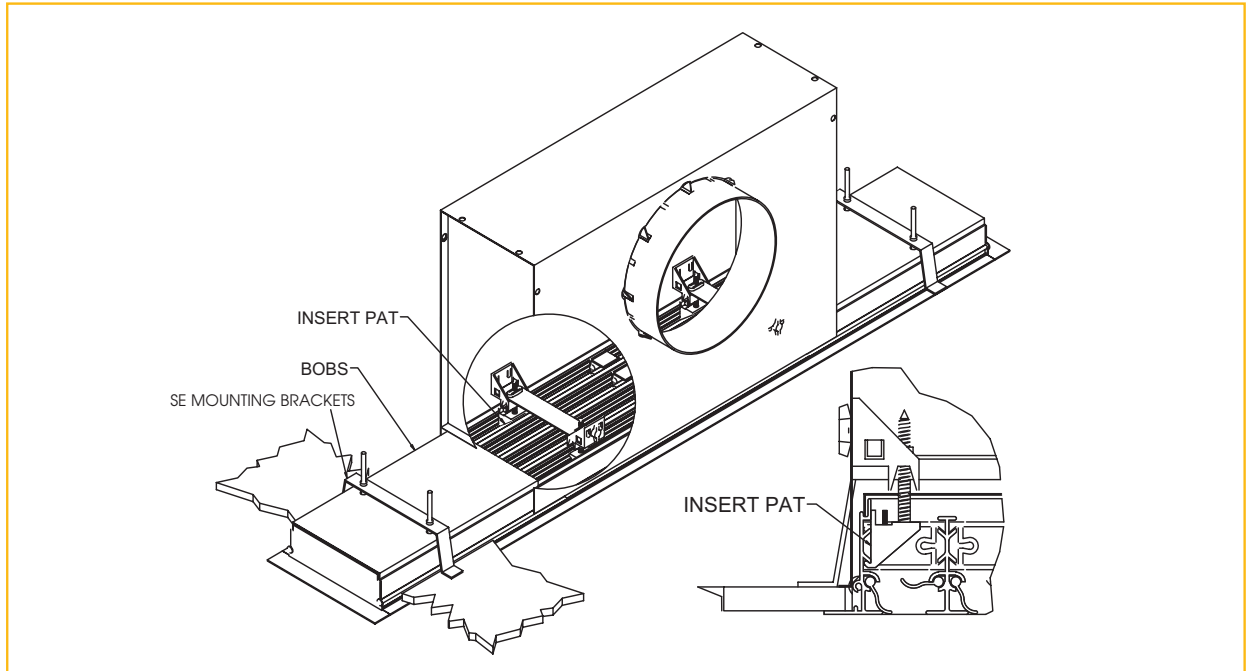
	Number of slots							
	1	2	3	4	5	6	7	8
$\varnothing D$	123	158	198	198	248	248	313	313
B	125	158	188	238	263	263	280	280
H	170	220	270	320	370	370	420	420
W	34	71	107	144	180	217	253	290

* NOTE: L (Left) and R (Right) looking at plenum front
 L = slot length
 All dimensions in mm

PLENUM FOR SLOT DIFFUSER

TYPE: S-600 SERIES

Assembly drawing



How to order

SP100 for a slot diffuser with 2 slots, insulated, for mounting with holding clips, no damper, L = 1000 mm; delivered separately.

S	P	1	0	2	-	G	0	1	6	0	1	0	0	0
							spigot diameter		slot length (mm)					
							-		non insulated plenum					
							G:		internally insulated plenum					
							H:		plenum insulated at the top and on the opposite side of the inlet					
							-		one piece					
							R:		end piece right*					
							L:		end piece left*					
							M:		intermediate piece					
									number of slots					

- 0: for mounting with screws**, no damper in the inlet spigot
- 1: for mounting with screws**, with damper in the inlet spigot
- 2: for direct fixed mounting, no damper in the inlet spigot
- 3: for direct fixed mounting, with damper in the inlet spigot
- 4: for mounting with mounting brackets, without damper and with mounting straps***
- 5: for mounting with mounting brackets, with damper and with mounting straps***
- 6: for direct fixed mounting, without damper and with mounting straps***
- 7: for direct fixed mounting, with damper and with mounting straps***

* L (Left) and R (Right) looking at plenum front

** mounting of grill onto the plenum

*** mounting of the plenum into the ceiling

SELECTION DATA

TYPE: SB/SE600 SERIES

20MM ONE SLOT

NUMBER OF SLOT DIFF	VOL PER MTR L/S	OUTLET VEL	THROW	PA	NR
1 SLOT	20	2.82	2.0	6.0	20.0
1 SLOT	25	3.52	2.4	9.3	25.0
1 SLOT	30	4.23	2.9	13.4	30.0
1 SLOT	35	4.93	3.4	18.2	35.0
1 SLOT	40	5.63	3.9	23.8	40.0
1 SLOT	50	7.04	4.9	37.1	45.0

20MM TWO SLOT

NUMBER OF SLOT DIFF	VOL PER MTR L/S	OUTLET VEL	THROW	PA	NR
2 SLOT	36	2.54	2.5	5.2	20.0
2 SLOT	42	2.96	2.9	7.1	25.0
2 SLOT	55	3.87	3.8	12.2	30.0
2 SLOT	65	4.58	4.5	17.0	35.0
2 SLOT	75	5.28	5.2	22.6	40.0
2 SLOT	90	6.34	6.2	32.5	45.0

20MM THREE SLOT

NUMBER OF SLOT DIFF	VOL PER MTR L/S	OUTLET VEL	THROW	PA	NR
3 SLOT	50	2.35	2.8	4.6	20.0
3 SLOT	60	2.82	3.4	6.7	25.0
3 SLOT	75	3.52	4.2	10.4	30.0
3 SLOT	90	4.23	5.1	15.0	35.0
3 SLOT	100	4.69	5.7	18.5	40.0
3 SLOT	125	5.87	7.1	28.9	45.0

SELECTION DATA

TYPE: SB/SE600 SERIES

20MM FOUR SLOT

NUMBER OF SLOT DIFF	VOL PER MTR L/S	OUTLET VEL	THROW	PA	NR
4 SLOT	65	2.28	3.2	3.7	20.0
4 SLOT	80	2.81	3.9	5.7	25.0
4 SLOT	95	3.33	4.6	8.0	30.0
4 SLOT	110	3.86	5.4	10.7	35.0
4 SLOT	140	4.91	6.8	17.4	40.0
4 SLOT	160	5.61	7.8	22.7	45.0

20MM FIVE SLOT

NUMBER OF SLOT DIFF	VOL PER MTR L/S	OUTLET VEL	THROW	PA	NR
5 SLOT	80	2.21	3.5	3.8	20.0
5 SLOT	95	2.62	4.1	5.4	25.0
5 SLOT	100	2.76	4.3	5.9	30.0
5 SLOT	120	3.31	5.2	8.5	35.0
5 SLOT	150	4.14	6.5	13.4	40.0
5 SLOT	185	5.10	8.0	20.3	45.0

20MM SIX SLOT

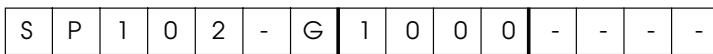
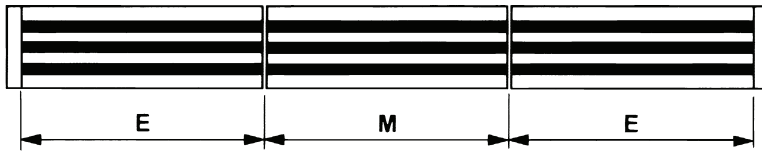
NUMBER OF SLOT DIFF	VOL PER MTR L/S	OUTLET VEL	THROW	PA	NR
6 SLOT	90	2.11	3.6	3.9	20.0
6 SLOT	115	2.69	4.6	6.3	25.0
6 SLOT	125	2.92	5.0	7.4	30.0
6 SLOT	150	3.51	6.0	10.7	35.0
6 SLOT	180	4.21	7.2	15.4	40.0
6 SLOT	250	5.85	10.0	29.8	45.0

PLENUM FOR SLOT DIFFUSER

TYPE: SE600

How to order

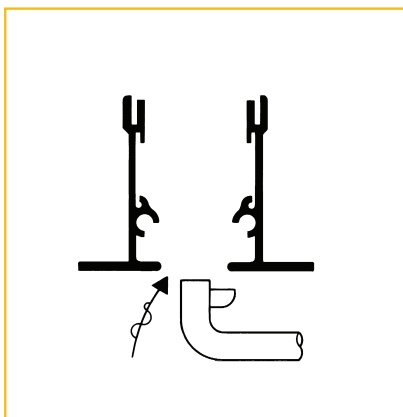
SP100 for a slot diffuser with 2 slots, insulated, for mounting with hanger brackets, no damper, L = 1000 mm; delivered separately.



- slot length (mm)
- : non insulated plenum
- G: internally insulated plenum
- H: plenum insulated at the top and on the opposite side of the inlet
- : one piece
- R: end piece right
- L: end piece left
- M: intermediate piece
- number of slots
- 0: for mounting with hanger brackets, no damper in the inlet spigot
- 1: for mounting with hanger brackets, with damper in the inlet spigot
- 2: for direct fixed mounting, no damper in the inlet spigot
- 3: for direct fixed mounting, with damper in the inlet spigot
- 1: plenum delivered separately
- 3: plenum fitted directly on the slot diffuser

***NOTE** : L (Left) and R (Right) looking on the front of the plenum

Air flow rate measurement - exhaust



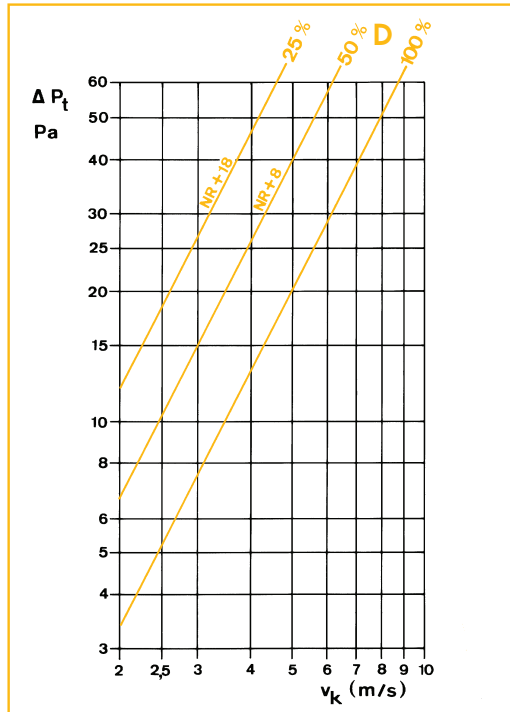
Velometer jet 2220 A or 6070

	A _k - values (m ² /m)			
	Number of slots			
	1	2	3	4
A _k	0,012	0,024	0,037	0,049

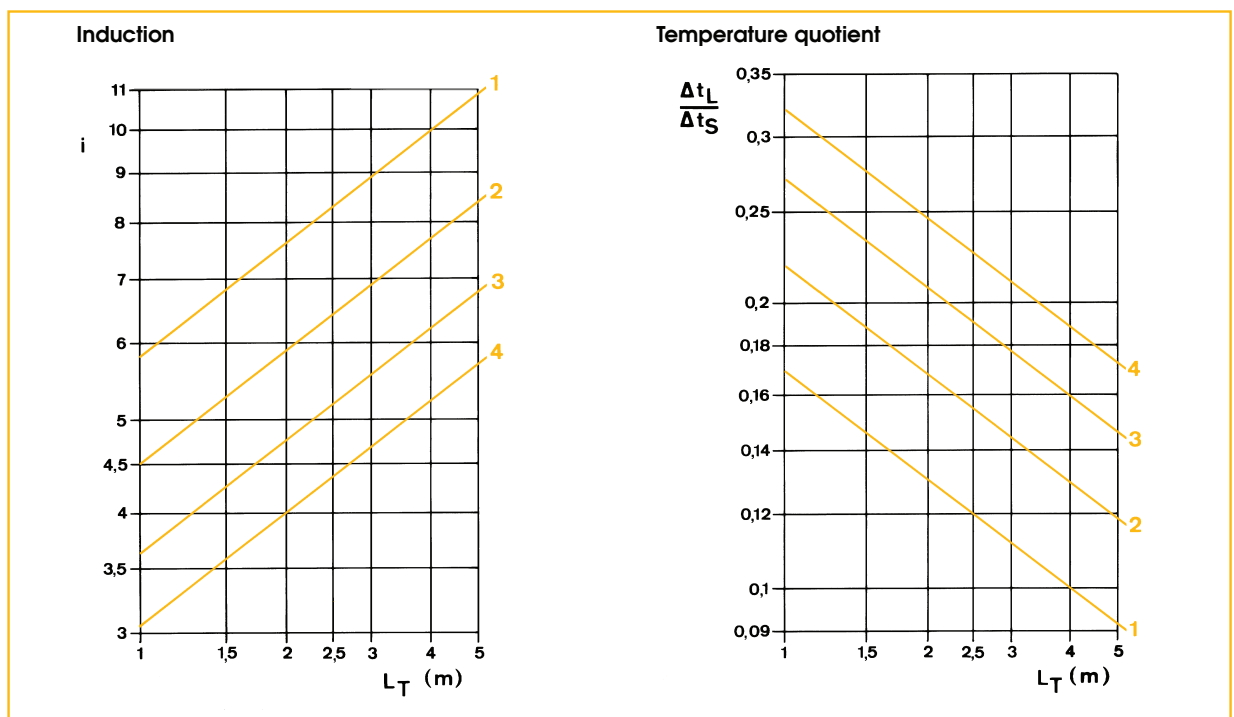
ADJUSTABLE SLOT DIFFUSER

TYPE: S-600

Pressure loss - supply



Induction and temperature quotient with ceiling effect



ADJUSTABLE SLOT DIFFUSER

TYPE: S-600

Example

SUPPLY

Selection data :

- Airflow rate $q_v = 0,04 \text{ m}^3/\text{s.m}$
- Throw $L_T = 2,8\text{m}$ at $v_T = 0,4 \text{ m/s}$

Solution :

- Number of slots : 2
- Supply air velocity $v_k = 2,7 \text{ m/s}$
- Noise level NR 23
- Total pressure loss with damper
100 % open: $\Delta p_t = 6,2 \text{ Pa}$

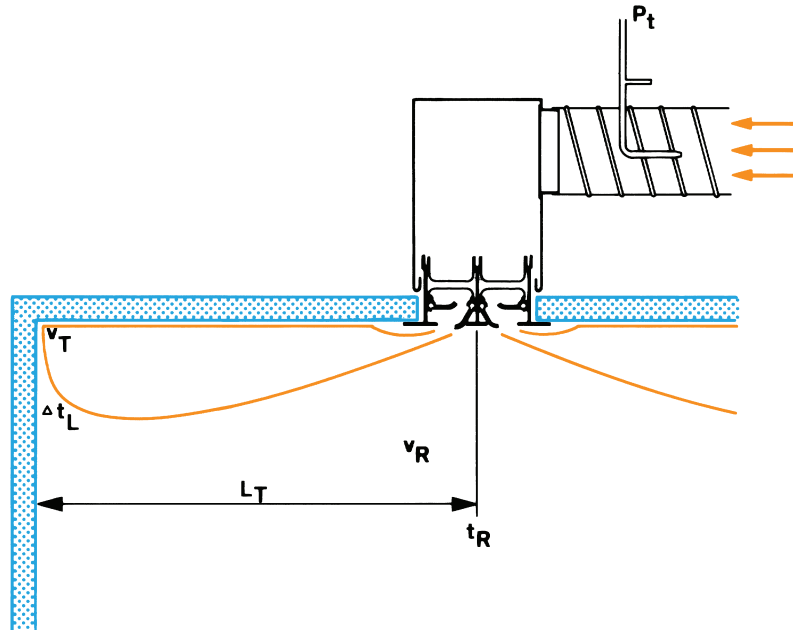
EXHAUST

Selection data :

- Airflow rate $q_v = 0,15 \text{ m}^3/\text{s.m}$

Solution :

- Number of slots: 3; without deflectors
- Supply air velocity $v_k = 4,2 \text{ m/s}$
- Noise level NR 32
- Total pressure loss with damper
100 % open: $\Delta p_t = 8\text{Pa}$



Correction factors

For linear slot diffusers

Slot length (m)	Throw correction	Noise rating correction (NR)
1 - 1,5	$L_T \times 1,00$	+0 NR
1,5 - 2	$L_T \times 1,05$	+2 NR
2 - 6,5	$L_T \times 1,1$	+5 NR

Correction factors on vertical throw

	Cooling	Ventilation	Heating
	$\Delta t = -10 \text{ K}$	$\Delta t = 0 \text{ K}$	$\Delta t = +15 \text{ K}$
Case 1	$L_T \times 1$	$L_T \times 0,9$	$L_T \times 0,6$
Case 2	$L_T \times 0,7$	$L_T \times 0,6$	$L_T \times 0,4$

