

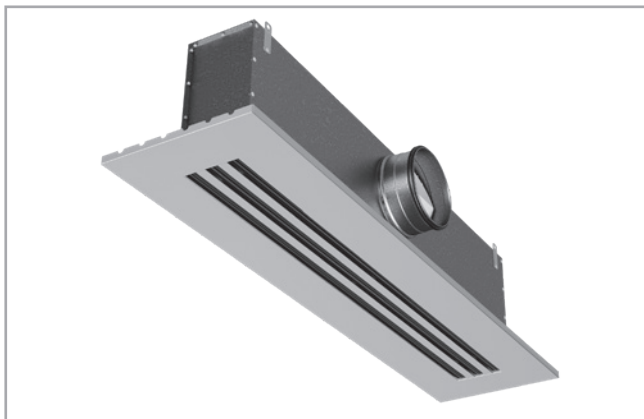
# LTDP

Slot diffuser - Panel



# Slot diffuser

# LTDP



## Description

LTDP is a linear slot diffuser made of aluminium and mounted on a galvanized steel panel. The diffuser has a hinged openable face plate, which makes changing of the filter (LTDPF) and maintenance from the room side very easy. LTDP(F) is equipped with a filter FP-15 G3. LTDP is delivered with one of the plenum boxes GBPF, JBPF, NBPF or KBPF, always mounted from the factory.

## Order code

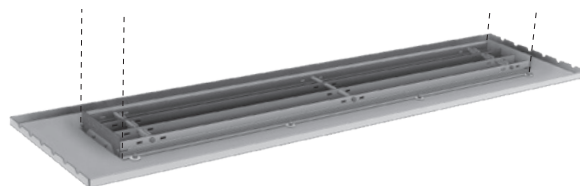
Product	LTDP	25	a	bbbb	cc	dd	ee	ff+g	h	iiii	j
<b>Type</b>	LTDP										
<b>Nominal slot width</b>	25										
<b>Number of slots</b>	3, 4, 5, 6										
<b>Length</b>	600-1200 (In steps of 50 mm)										
<b>Colour of profiles / Panel</b>	S1 White RAL 9010, gloss 30 S2 White RAL 9003, gloss 30										
<b>Colour of deflectors</b>	D0 Black RAL 9005, gloss 30 D1 White RAL 9010, gloss 30 D2 White RAL 9003, gloss 30 D3 - No deflectors										
<b>Panel type - 1-5 slots</b>	P1 1195 x 295 When diffuser length L ≤ 1000 P2 1345 x 295 When diffuser length L > 1000										
<b>Panel type - 6 slots</b>	P3 1195 x 380 6 slots L ≤ 1000 P4 1345 x 380 6 slots L > 1000										
<b>Panel bending options</b> (In steps of 1 mm)	<b>B1</b> L x W: A-bend 10 ≤ a ≤ 15 → <b>B1 + a dim.</b> <b>B2</b> L: A-bend a=14 W: A/B-bend 5 ≤ a/b ≤ 8 → <b>B2 + a/b dim.</b> <b>B3</b> L x W: A/B-bend 5 ≤ a/b ≤ 8 → <b>B3 + a/b dim.</b>										
<b>Filter</b>	F Filter version for Extract air only (LTDP(F)) x No filter (LTDP)										
<b>Plenum box</b>	GBPF, JBPF, NBPF, KBPF										
<b>Damper type</b>	C Supply air Not for filter version (LTDP(F)) E Extract air No damper										

Example 1: LTDP-25-4-1200-S2-D2-P2-B2-7-F-NBPF-E  
Example 2: LTDP-25-3-1000-S1-D1-P1-B1-14-x-GBPF-C

## Features

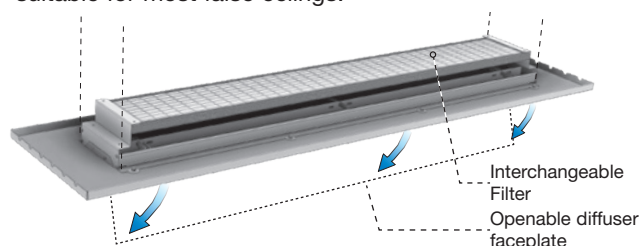
### LTDP

- Design linear slot diffuser.
- Suitable for supply and extract air.
- Managing high airflows with minimum pressure loss and noise level.
- Easy mounting of the fully assembled LTDP.
- 3 different standard panel edge bends make the LTDP suitable for most false ceilings.



### LTDP(F)

- Design linear slot diffuser.
- Suitable for extract air.
- Openable diffuser provides easy maintenance process and replacing of FP-15 G3 filter.
- Easy mounting of the fully assembled LTDP(F).
- 3 different standard panel edge bends make the LTDP(F) suitable for most false ceilings.



## Maintenance

Thanks to the hinged openable diffuser face plate of the diffuser, there is an easy access to the filter and into the plenum for cleaning and maintenance process. The visible parts of the diffuser can be wiped with a damp cloth.

## Materials & finish

Slot profiles: Aluminium  
Blade deflectors: Aluminium  
Panel: Galvanized steel

### Standard finishing:

Slot profiles / Panel: RAL 9010 gloss 30  
RAL 9003 gloss 30

Blade deflectors: Black 9005 gloss 30, aluminium  
White 9010 gloss 30, aluminium  
White 9003 gloss 30, aluminium

The linear slot diffuser LTDP is available in other colours. Please contact Lindab's sales department for further information.

# Slot diffuser

# LTDP

## Dimensions

### Plenum boxes

LTDP is always delivered mounted in one of the 4 plenum box variants.

- GBPF – without insulation.
- JBPF – 5 mm inside thermal insulation.
- NBPF – 5 mm outside thermal insulation.
- KBPF – 15 mm inside acoustic insulation.

Length (L): 600 - 1200 mm in steps of 50 mm.

### Panels

4 panels sizes are available:

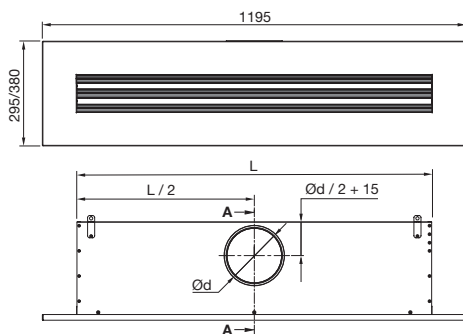
#### 1-5 slots:

1195 x 295 mm, when diffuser/plenum length  $L \leq 1000$ .  
 1345 x 295 mm, when diffuser / plenum length  $L > 1000$ .

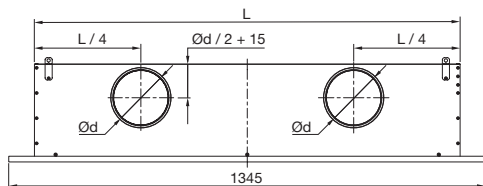
#### 6 slots:

1195 x 380 mm, 6 slots  $L \leq 1000$   
 1345 x 380 mm, 6 slots  $L > 1000$

#### LTDP - GBPF / NBPF / JBPF / KBPF one connection



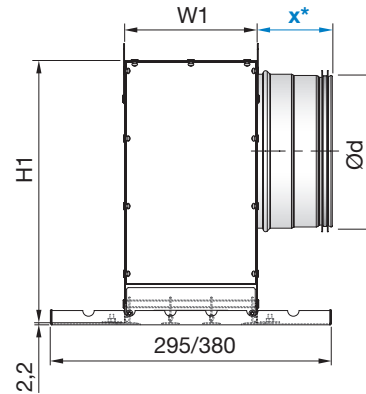
#### LTDP - GBPF / NBPF / JBPF / KBPF two connections



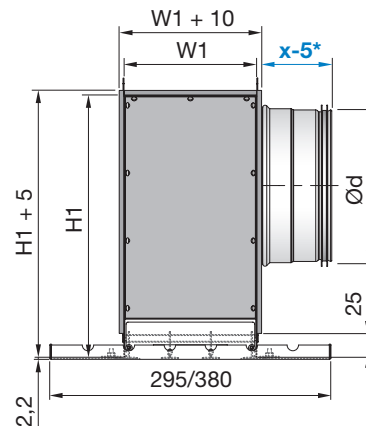
#### LTDP-25+box

No. of slots	W1 mm	W2 mm	Ød mm	No. of conn.	H1 mm	H2 mm	L mm
3	140	168	160	1	275	235	600 - 1100
3	140	168	160	2	275	235	1101 - 1200
4	183	208	200	1	315	275	600 - 800
4	183	208	250	1	365	325	801 - 1100
4	183	208	250	2	365	325	1101 - 1200
5	226	254	200	1	315	275	600 - 700
5	226	254	250	1	365	325	701 - 1100
5	226	254	250	2	365	325	1101 - 1200
6	269	297	250	1	365	325	600 - 1100
6	269	297	250	2	365	325	1101 - 1200

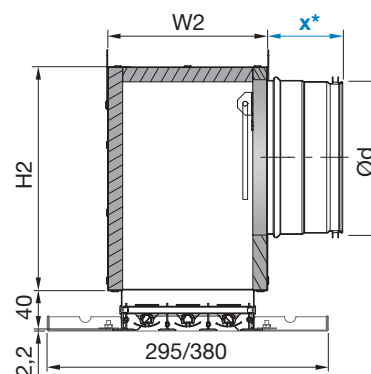
#### LTDP - GBPF/JBPF Side view



#### LTDP - NBPF Side view



#### LTDP - KBPF A - A



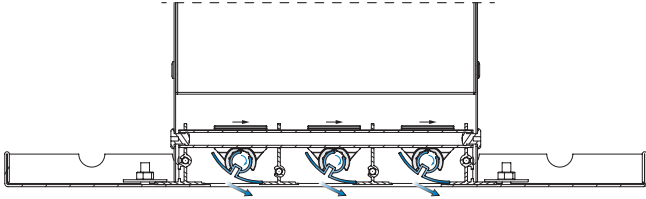
$x^*$ :  $\text{Ød} \leq 200 \Rightarrow x = 79$ ,  $\text{Ød} > 200 \Rightarrow x = 119$

# Slot diffuser

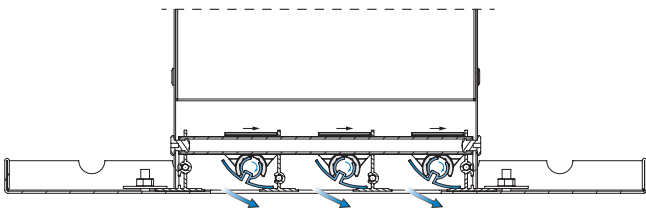
# LTDP

## Supply air LTDP

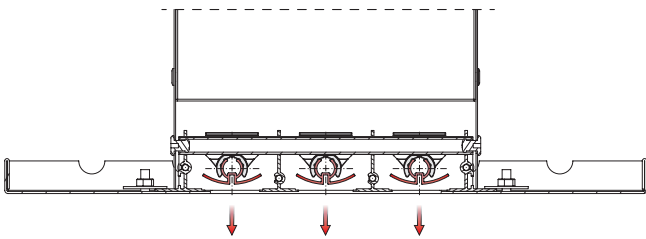
### Horizontal - High Coanda effect



### Horizontal - High air capacity

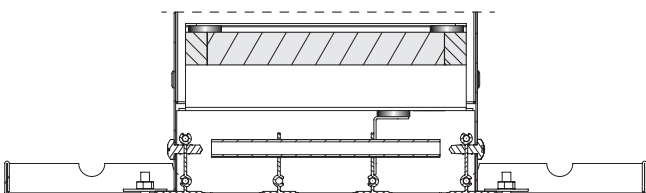
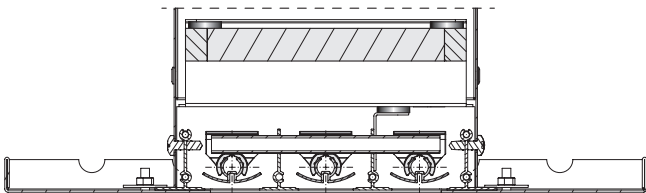


### Vertical / Straight



## Extract air LTDP(F)

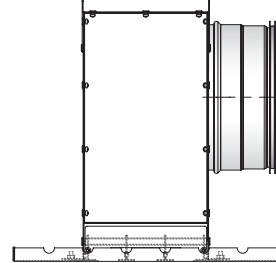
Used for extract air, the moveable/rotatable deflectors are not necessary, but to keep the aesthetic design, the diffuser can still be equipped with the aluminium blade deflectors.



## Plenum box Insulation

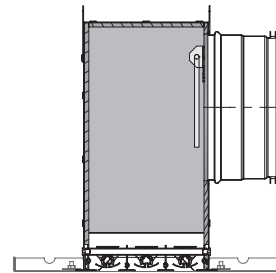
### LTDP-GBPF - Without insulation

LTDP-GBPF, 3-5 slots  
Side-view



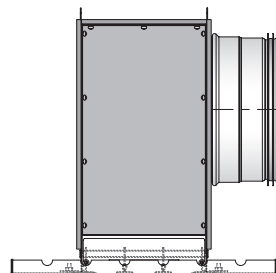
### LTDP-JBPF - 5 mm internal insulation, Thermal.

LTDP-JBPF, 3-5 slots  
A - A



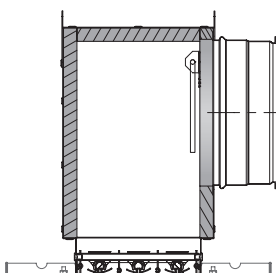
### LTDF-NBPF - 5 mm external insulation, Thermal.

LTDF-NBPF, 3-5 slots  
Side-view



### LTDP-KBPF - 15 mm internal insulation, acoustic.

LTDF-KBPF, 3-5 slots  
A - A



# Slot diffuser

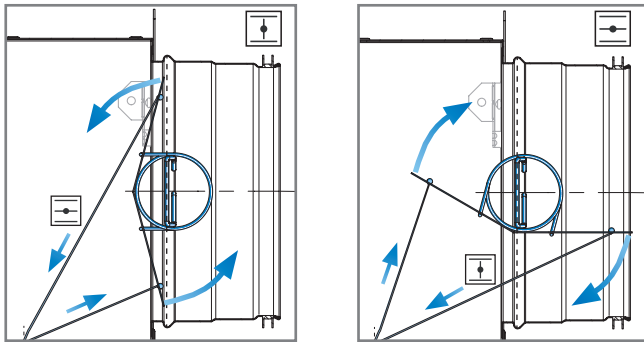
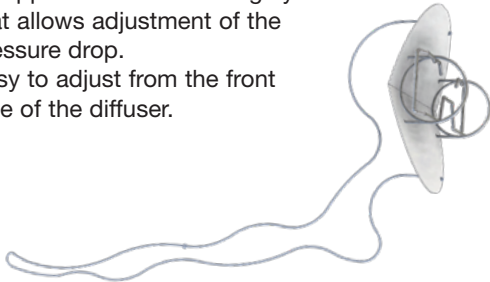
# LTDP

## Accessories

### C damper

Supply damper with rotating blade is:

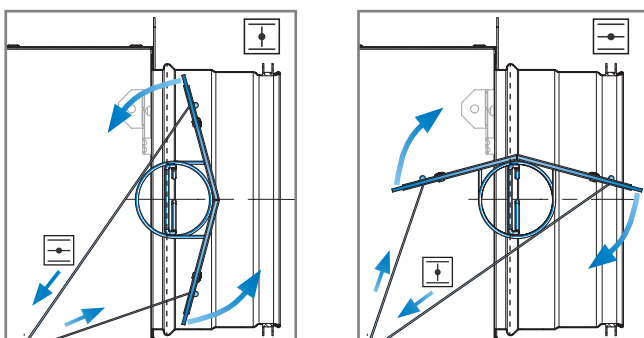
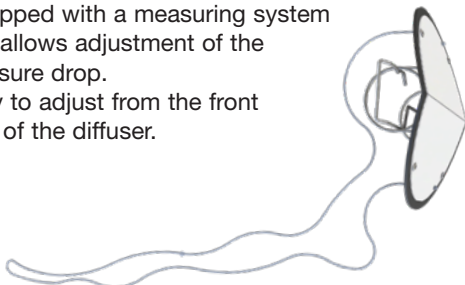
- Easy to mount and dismount into/from the plenum spigot.
- Equipped with a measuring system that allows adjustment of the pressure drop.
- Easy to adjust from the front side of the diffuser.



### E damper

Extract damper with rotating blade is:

- Easy to mount and dismount into/from the plenum spigot.
- Equipped with a measuring system that allows adjustment of the pressure drop.
- Easy to adjust from the front side of the diffuser.



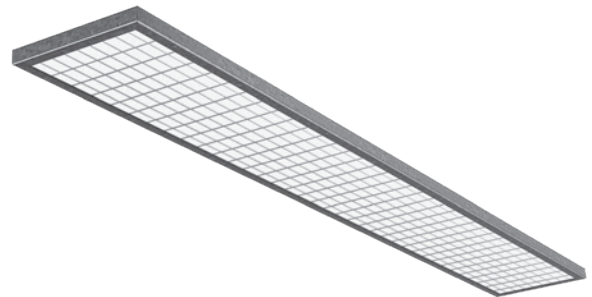
### FP-15 filter ( Only for LTDP(F) version )

Flat filter, material 100% polyester fiber, with frame of galvanized steel.

Thickness 15 mm.

Filtration class according ISO 16890-3 : ISO coarse 65%, EN 779:2012 : class G3.

Reaction to fire according DIN 53438-3 : class F1.



### Order code

<b>Product</b>	FP	15	LTDP(F)	a	bbbb
<b>Filter type</b>	FP				
<b>Filter thickness</b>	15				
<b>Usage for</b>	LTDP(F)*				
<b>Number of slots</b>	3, 4, 5, 6				
<b>Length</b>	600-1200 ( In steps of 50 mm )				

Example: FP-15-LTDPF-3-1000

LTDP(F)\* : Filter only for the LTDP(F) version.

### [lindQST](#) - Calculations

Use the advanced Lindab web tool [LindQST](#) to [calculate](#) the full range of slot diffusers and to find the suitable diffuser type and dimension for all applications.

Product selection, room dimensioning and documentation search are easy available directly on web and mobile devices.

Find this and much more on [www.lindQST.com](http://www.lindQST.com).

# Slot diffuser

LTDP

## Panel bending options

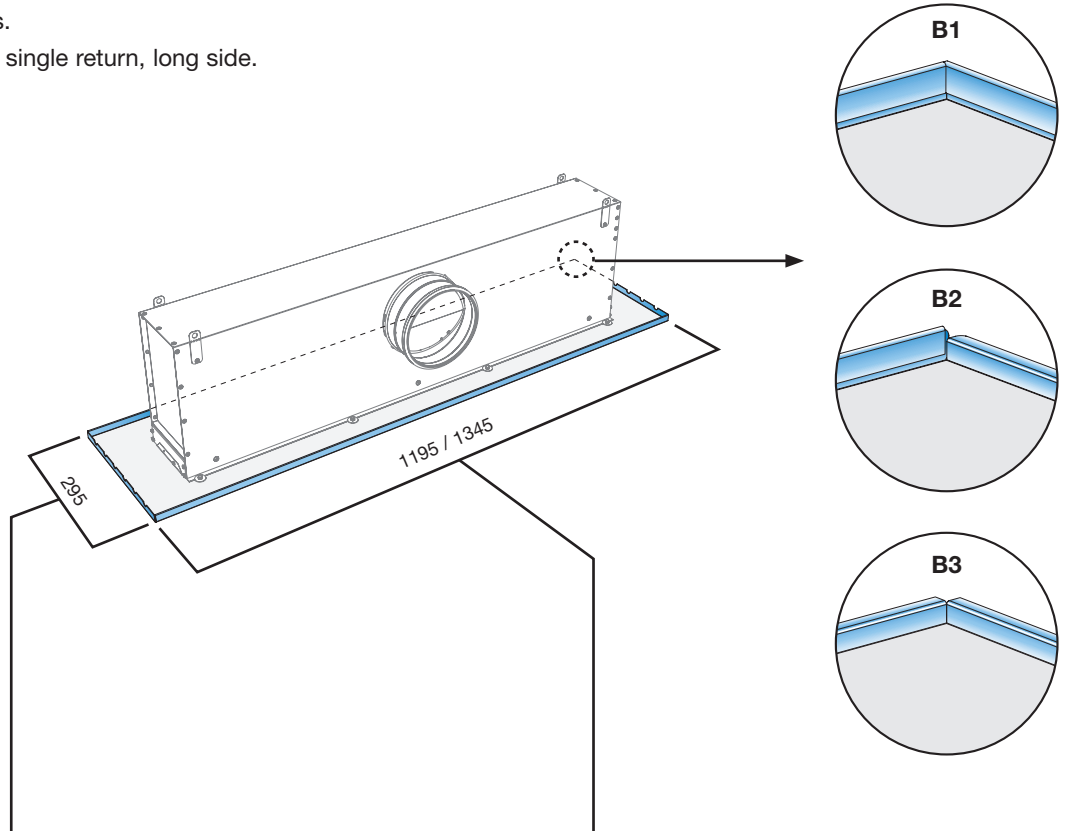
### B1, B2, B3

In the LTDP order code, you can choose one of the 3 bending finishes of the panel.

**B1:** Single return, both sides.

**B2:** Fine line, short side and single return, long side.

**B3:** Fine line, both sides.



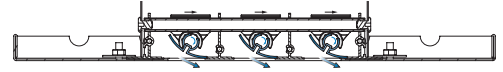
LTDP bending options

Bend options	Short side	Type	a	b	Long side	Type	a	b
	295							
B1		Single return	10 - 15	-		Single return	10 - 15	-
B2		Fine line	5 - 8	5 - 8		Single return	14	-
B3		Fine line	5 - 8	5 - 8		Fine line	5 - 8	5 - 8

# Slot diffuser

# LTDP

Quick selection  
Supply LTDP-25 - High coanda effect



[mm]			Airflow																
			m³/h	50	100	150	200	250	300	350	400	500	600	700	800	900	1000	1200	1400
			l/s	14	28	42	56	69	83	97	111	139	167	194	222	250	278	333	389
3 slots	600	$L_{WA}$ [dB(A)]		23	29	37	42												
		$\Delta p_t$ [Pa]		5	12	22	34												
		$I_{0.2}$ [m]		4.7	8.8	12.3	15.1												
	800	$L_{WA}$ [dB(A)]		23	27	32	36	41											
$\Delta p_t$ [Pa]			4	8	14	22	32												
$I_{0.2}$ [m]			2.9	5.8	8.9	11.7	14												
1000	$L_{WA}$ [dB(A)]		23	27	32	36	40	44											
	$\Delta p_t$ [Pa]		3	6	11	16	24	32											
	$I_{0.2}$ [m]		1.9	4.1	6.5	9	11.3	13.3											
1200	$L_{WA}$ [dB(A)]	20	22	24	26	28	32	36	40										
	$\Delta p_t$ [Pa]	0	1	3	5	9	12	17	22										
	$I_{0.2}$ [m]	0.3	1.4	3	4.9	7.1	9.2	11.1	12.9										
4 slots	600	$L_{WA}$ [dB(A)]		20	24	31	36	41	44										
		$\Delta p_t$ [Pa]		3	6	11	18	26	35										
		$I_{0.2}$ [m]		3.1	6.2	9.4	12.2	14.4	16.3										
	800	$L_{WA}$ [dB(A)]		20	23	26	30	35	39	42									
$\Delta p_t$ [Pa]			2	4	7	11	16	22	29										
$I_{0.2}$ [m]			1.9	3.9	6.3	8.8	11	13	14.7										
1000	$L_{WA}$ [dB(A)]			20	22	26	30	34	37	43									
	$\Delta p_t$ [Pa]			2	4	7	9	13	17	26									
	$I_{0.2}$ [m]			2.7	4.5	6.4	8.4	10.3	12	14.9									
1200	$L_{WA}$ [dB(A)]		20	21	21	22	27	30	34	39	44								
	$\Delta p_t$ [Pa]		1	1	3	4	6	8	10	16	23								
	$I_{0.2}$ [m]		0.9	1.9	3.3	4.8	6.5	8.2	9.8	12.7	15.1								
5 slots	600	$L_{WA}$ [dB(A)]		20	23	26	32	36	40	44									
		$\Delta p_t$ [Pa]		2	5	8	13	18	25	32									
		$I_{0.2}$ [m]		2.1	4.4	7	9.5	11.8	13.7	15.4									
	800	$L_{WA}$ [dB(A)]			20	22	25	30	34	37	43								
$\Delta p_t$ [Pa]				2	4	7	10	13	17	27									
$I_{0.2}$ [m]				2.7	4.5	6.4	8.4	10.3	12	14.8									
1000	$L_{WA}$ [dB(A)]			20	22	23	25	29	33	38	43								
	$\Delta p_t$ [Pa]			2	3	5	7	9	12	19	27								
	$I_{0.2}$ [m]			1.8	3.1	4.5	6.1	7.8	9.3	12.2	14.5								
1200	$L_{WA}$ [dB(A)]		20	21	21	22	23	25	29	35	39	43							
	$\Delta p_t$ [Pa]		0	1	2	3	4	5	7	11	16	22							
	$I_{0.2}$ [m]		0.6	1.3	2.2	3.3	4.6	6	7.3	10	12.3	14.3							
6 slots	600	$L_{WA}$ [dB(A)]			20	22	27	32	36	40									
		$\Delta p_t$ [Pa]			3	6	9	12	17	22									
		$I_{0.2}$ [m]			3.1	5.1	7.3	9.4	11.3	12.9									
	800	$L_{WA}$ [dB(A)]			20	22	23	26	30	33	40								
$\Delta p_t$ [Pa]				2	3	5	8	10	14	21									
$I_{0.2}$ [m]				1.9	3.2	4.7	6.3	7.9	9.5	12.3									
1000	$L_{WA}$ [dB(A)]			20	22	23	25	27	29	34	39	44							
	$\Delta p_t$ [Pa]			1	2	4	6	7	10	15	22	30							
	$I_{0.2}$ [m]			1.2	2.1	3.2	4.4	5.7	7.1	9.7	12	14							
1200	$L_{WA}$ [dB(A)]		20	21	21	22	23	24	25	30	35	39	43						
	$\Delta p_t$ [Pa]		0	1	1	2	3	4	6	9	12	17	22						
	$I_{0.2}$ [m]		0.4	0.9	1.5	2.3	3.3	4.3	5.4	7.6	9.8	11.8	13.5						

Data valid for isothermal supply 1-way.  
Other sizes, settings and flows,  
Go to [LindQST Calculator](#)

20 ≤ L<sub>WA</sub> < 30

30 ≤ L<sub>WA</sub> < 40

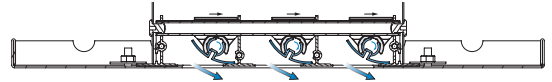
40 ≤ L<sub>WA</sub> < 45

Next page - High air capacity.

# Slot diffuser

# LTDP

Quick selection  
Supply LTDP-25 - High air capacity



[mm]			Airflow																
			m³/h	50	100	150	200	250	300	350	400	500	600	700	800	900	1000	1200	1400
			l/s	14	28	42	56	69	83	97	111	139	167	194	222	250	278	333	389
3 slots	600	$L_{WA}$ [dB(A)]		23	27	32	37	42											
		$\Delta p_t$ [Pa]		4	9	16	25	35											
		$l_{0.2}$ [m]		0.9	2.5	5.2	8.4	11.5											
	800	$L_{WA}$ [dB(A)]		23	27	32	36	40	44										
$\Delta p_t$ [Pa]			3	6	11	17	24	33											
$l_{0.2}$ [m]			0.4	1.2	2.6	4.5	6.9	9.4											
1000	$L_{WA}$ [dB(A)]		23	27	32	36	40	44											
	$\Delta p_t$ [Pa]		2	5	8	13	19	26											
	$l_{0.2}$ [m]		0.3	0.7	1.5	2.6	4.2	6											
1200	$L_{WA}$ [dB(A)]	20	22	24	26	28	30	32	35	40									
	$\Delta p_t$ [Pa]	0	1	2	4	6	9	12	16	25									
	$l_{0.2}$ [m]	0	0.2	0.5	0.9	1.7	2.7	3.9	5.5	8.8									
4 slots	600	$L_{WA}$ [dB(A)]		20	23	26	31	35	39	42									
		$\Delta p_t$ [Pa]		2	4	8	12	18	24	32									
		$l_{0.2}$ [m]		0.5	1.5	3.1	5.4	8	10.5	12.8									
	800	$L_{WA}$ [dB(A)]		20	23	26	28	31	34	37	42								
$\Delta p_t$ [Pa]			1	3	5	8	12	16	21	33									
$l_{0.2}$ [m]			0.3	0.7	1.5	2.7	4.2	6.1	8.1	11.9									
1000	$L_{WA}$ [dB(A)]			20	22	23	25	29	32	38	42								
	$\Delta p_t$ [Pa]			2	3	5	7	9	12	18	27								
	$l_{0.2}$ [m]			0.4	0.8	1.5	2.4	3.6	5	8.2	11.3								
1200	$L_{WA}$ [dB(A)]	20	21	21	22	23	26	29	34	38	42								
	$\Delta p_t$ [Pa]	0	1	2	3	4	5	7	11	16	21								
	$l_{0.2}$ [m]	0.1	0.3	0.5	1	1.5	2.3	3.2	5.6	8.3	11								
5 slots	600	$L_{WA}$ [dB(A)]		20	23	26	28	31	36	39									
		$\Delta p_t$ [Pa]		2	3	6	10	14	19	24									
		$l_{0.2}$ [m]		0.3	0.9	1.9	3.4	5.3	7.5	9.6									
	800	$L_{WA}$ [dB(A)]			20	22	23	25	29	33	39	44							
$\Delta p_t$ [Pa]				2	3	5	7	10	13	20	28								
$l_{0.2}$ [m]				0.4	0.9	1.6	2.6	3.9	5.4	8.7	11.8								
1000	$L_{WA}$ [dB(A)]			20	22	23	25	27	29	34	39	43							
	$\Delta p_t$ [Pa]			1	2	4	5	7	9	14	21	28							
	$l_{0.2}$ [m]			0.3	0.5	0.9	1.5	2.2	3.2	5.5	8.1	10.8							
1200	$L_{WA}$ [dB(A)]	20	21	21	22	23	24	25	29	34	39	42							
	$\Delta p_t$ [Pa]	0	1	1	2	3	4	5	8	11	16	20							
	$l_{0.2}$ [m]	0.1	0.2	0.3	0.6	0.9	1.4	2	3.6	5.6	7.8	10.1							
6 slots	600	$L_{WA}$ [dB(A)]			20	22	23	27	32	36	43								
		$\Delta p_t$ [Pa]			2	4	7	10	13	17	27								
		$l_{0.2}$ [m]			0.6	1.2	2.2	3.5	5.1	6.9	10.5								
	800	$L_{WA}$ [dB(A)]			20	22	23	25	27	29	35	41							
$\Delta p_t$ [Pa]				2	3	4	6	8	11	17	25								
$l_{0.2}$ [m]				0.3	0.6	1.1	1.7	2.5	3.6	6.1	8.9								
1000	$L_{WA}$ [dB(A)]			20	22	23	25	27	29	32	35	39	44						
	$\Delta p_t$ [Pa]			1	2	3	5	6	8	13	18	25	32						
	$l_{0.2}$ [m]			0.2	0.3	0.6	1	1.4	2	3.6	5.6	7.9	10.1						
1200	$L_{WA}$ [dB(A)]	20	21	21	22	23	24	25	26	30	35	39	42						
	$\Delta p_t$ [Pa]	0	1	1	2	2	3	4	7	10	13	17	22						
	$l_{0.2}$ [m]	0	0.1	0.2	0.4	0.6	0.9	1.3	2.3	3.7	5.4	7.2	9.2						

Data valid for isothermal supply 1-way.  
Other sizes, settings and flows,  
Go to [Lindab QST Calculator](#)

Next page - Extract LTDP(F).

20 ≤ L<sub>WA</sub> < 30

30 ≤ L<sub>WA</sub> < 40

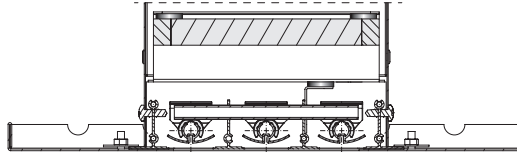
40 ≤ L<sub>WA</sub> < 45



# Slot diffuser

# LTDP

## Quick selection Extract LTDP(F)-25



[mm]			Airflow																
			m³/h	50	100	150	200	250	300	350	400	500	600	700	800	900	1000	1200	1400
			l/s	14	28	42	56	69	83	97	111	139	167	194	222	250	278	333	389
3 slots	600	$L_{WA}$ [dB(A)]		23	33	40													
		$\Delta p_t$ [Pa]		13	29	51													
	800	$L_{WA}$ [dB(A)]			27	34	40	44											
		$\Delta p_t$ [Pa]			16	29	45	65											
1000	$L_{WA}$ [dB(A)]			22	30	35	40	43											
	$\Delta p_t$ [Pa]			11	19	29	42	58											
	$l_{0.2}$ [m]			0	0	0	0	0											
1200	$L_{WA}$ [dB(A)]				26	31	36	40	43										
	$\Delta p_t$ [Pa]				13	20	29	39	51										
4 slots	600	$L_{WA}$ [dB(A)]			27	34	40	44											
		$\Delta p_t$ [Pa]			15	27	42	60											
	800	$L_{WA}$ [dB(A)]			21	28	34	38	42										
		$\Delta p_t$ [Pa]			9	15	24	34	47										
1000	$L_{WA}$ [dB(A)]				24	29	34	38	41										
	$\Delta p_t$ [Pa]				10	15	22	30	39										
1200	$L_{WA}$ [dB(A)]				20	26	30	34	37	43									
	$\Delta p_t$ [Pa]				7	10	15	20	27	42									
5 slots	600	$L_{WA}$ [dB(A)]			22	29	35	40	44										
		$\Delta p_t$ [Pa]			9	16	25	36	49										
	800	$L_{WA}$ [dB(A)]				23	29	34	38	41									
		$\Delta p_t$ [Pa]				9	14	20	28	36									
1000	$L_{WA}$ [dB(A)]					24	29	33	36	42									
	$\Delta p_t$ [Pa]					9	13	18	23	36									
1200	$L_{WA}$ [dB(A)]					20	25	29	32	38	43								
	$\Delta p_t$ [Pa]					6	9	12	16	25	36								
6 slots	600	$L_{WA}$ [dB(A)]				25	31	36	40	44									
		$\Delta p_t$ [Pa]				11	17	24	33	42									
	800	$L_{WA}$ [dB(A)]					24	29	33	37	43								
		$\Delta p_t$ [Pa]					9	14	18	24	38								
1000	$L_{WA}$ [dB(A)]						24	28	32	38	43								
	$\Delta p_t$ [Pa]						9	12	16	24	35								
1200	$L_{WA}$ [dB(A)]							20	24	28	34	39	43						
	$\Delta p_t$ [Pa]							6	8	11	17	24	33						

Data valid for extract with blade deflectors.  
Without blades, other sizes and flows  
Go to [LindQST Calculator](#)

$20 \leq L_{WA} < 30$

$30 \leq L_{WA} < 40$

$40 \leq L_{WA} < 45$



Most of us spend the majority of our time indoors. Indoor climate is crucial to how we feel, how productive we are and if we stay healthy.

We at Lindab have therefore made it our most important objective to contribute to an indoor climate that improves people's lives. We do this by developing energy-efficient ventilation solutions and durable building products. We also aim to contribute to a better climate for our planet by working in a way that is sustainable for both people and the environment.

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