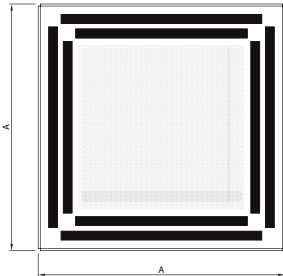


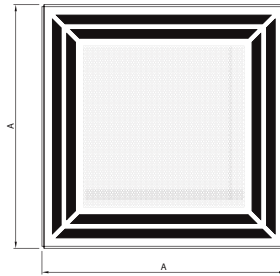
# 4-WAY EXHAUST SLOT DIFFUSER FOR MOUNTING IN A FALSE CEILING WITH CENTRAL EXHAUST GRILL TYPE: TS750

## Installation dimensions

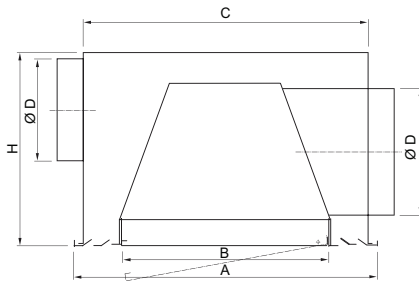
TS 752: "square design"



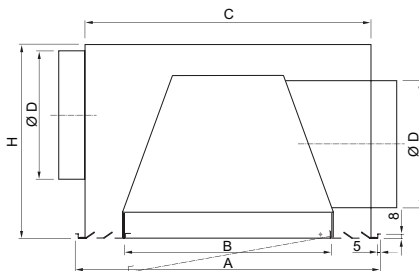
TS772: "corner design"



TS750/770: mounting on T-bars



TS760/780: mounting on Z-profile



All dimensions in mm

nominal dimensions: 594 x 594 mm

	A x A	B x C	Ø D	H	XFI-filter
TS751	594 x 594	580 x 560	250	380	470 x 470 x 5
TS752	594 x 594	580 x 560	250	380	400 x 400 x 5
TS753	594 x 594	580 x 560	250	380	330 x 330 x 5

nominal dimensions: 670 x 670 mm

	A x A	B x C	Ø D	H	XFI-filter
TS751	670 x 670	656 x 636	250	380	546 x 546 x 5
TS752	670 x 670	656 x 636	250	380	476 x 476 x 5
TS753	670 x 670	656 x 636	250	380	406 x 406 x 5



## Application

The slot diffuser typ TS750 is used for supply and exhaust of heated and cooled air in facilities such as offices, meeting rooms,...

A fixed horizontal air exhaust pattern in 4 directions is obtained by special designed adjustable vanes. In this way a high induction and penetration of the air stream in the room without internal turbulence is obtained. The diffuser has a hinged perforplate, suitable for a wire mesh filter. The bonder can be obtained depending on the ceiling type (T-bars or Z-profile).

## Technical Information

- available in 2 visible vesions: "square design" with straight vanes or "corner design" with mitre vanes
- supply: available up to 3 slots
- supply: regular horizontal supply pattern possible
- exhaust: perforation with free outlet of 51%
- suitable for a wire mesh filter
- diffuser with double plenum (supply and exhaust part) isolated or not

## Construction

- diffuser made of steel, RAL 9010
- double plenum galvanised steel sheet

# 4-WAY EXHAUST SLOT DIFFUSER FOR MOUNTING IN A FALSE CEILING WITH CENTRAL EXHAUST GRILL TYPE: TS750

## Specification description

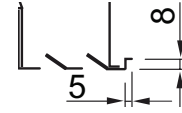
Ceiling diffuser made of steel for supply and exhaust. The supply part exists of fixed vanes. The border of the diffuser can be obtained depending on the ceiling type. The diffuser is painted RAL 9010. The total diffuser is delivered with a double plenum for fixed mounting, made of galvanised steel.

**Type:** TS753S  
Size ... mm

## Fixing

Lay in on T-bars or Z-profile (fine line 5/8). Suspension brackets dia. 7 mm.

## Fine line



Other dimensions on demand.

## How to order

T	S	7	5	3	S	G	0	2	5	0	0	5	9	4
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

dimensions A

connection diameter

- : not isolated double plenum

G: solated double plenum

number of slots per side (1, 2 or 3)

5: lay-in on T-bars, version "square design"

6: mounting with Z-profile (fine line 5/8), version "square design"

7: lay-in on T-bars, version "corner design"

8: mounting with Z-profile (fine line 5/8), version "corner design"

T: diffuser in steel

I: diffuser in stainless steel (only the visible parts)

X	F	I	0	0	2	M	-	-	-	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

XF1002M: wire mesh filter class G2

XF1003M: wire mesh filter class G3

XF1004M: wire mesh filter class G4

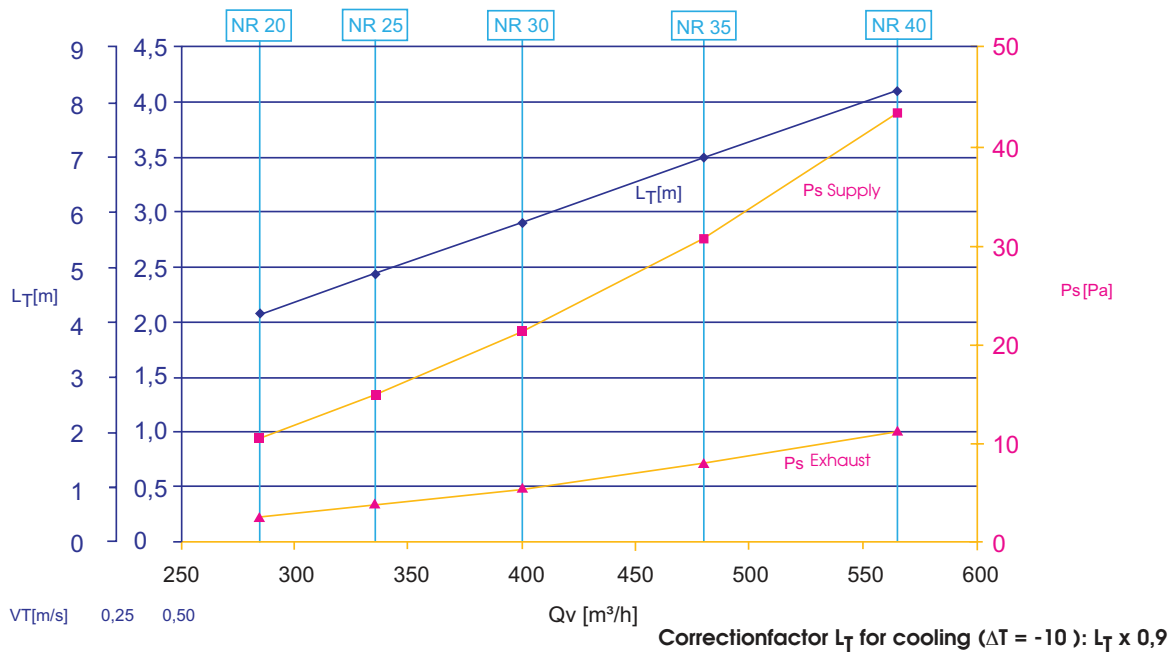
## 4-WAY EXHAUST SLOT DIFFUSER FOR MOUNTING IN A FALSE CEILING WITH CENTRAL EXHAUST GRILL TYPE: TS750

### Selection diagram

**TS751 594 x 594**

Ak 0,024 m<sup>2</sup>

Qv (m <sup>3</sup> /h)	L <sub>T</sub> (0,5 m/s) (m)	Vk (m/s)	ΔPs (Pa) exhaust	ΔPs (Pa) supply	L <sub>w</sub> (NR)	L <sub>w</sub> (dB(A))
285	2,1	3,4	3	11	20	26,5
335	2,4	3,5	4	15	25	30,9
400	2,9	4,7	5	22	30	36,1
480	3,5	5,7	8	31	35	41,1
565	4,1	6,7	11	44	40	45,3



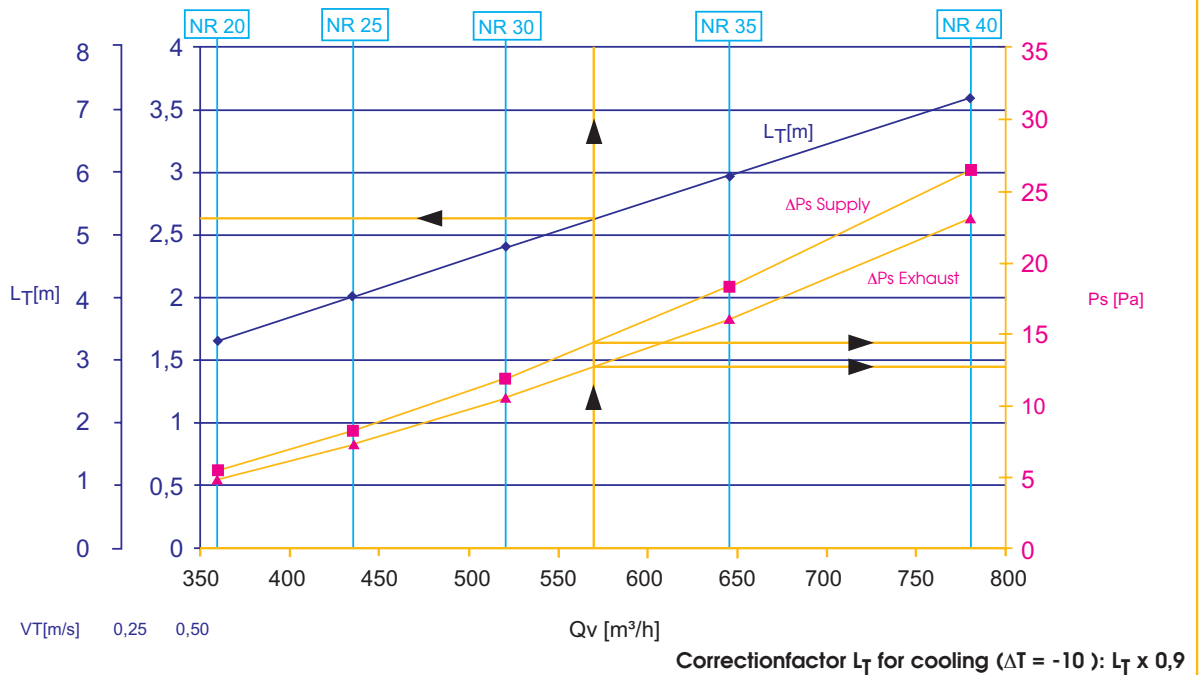
# 4-WAY EXHAUST SLOT DIFFUSER FOR MOUNTING IN A FALSE CEILING WITH CENTRAL EXHAUST GRILL TYPE: TS750

## Selection diagram

TS752 594 x 594

Ak 0,038 m<sup>2</sup>

Qv (m <sup>3</sup> /h)	L <sub>T</sub> (0,5 m/s) (m)	Vk (m/s)	ΔPs (Pa) exhaust	ΔPs (Pa) supply	L <sub>W</sub> (NR)	L <sub>W</sub> (dB(A))
360	1,7	2,6	5	5	20	26,3
435	2,0	3,2	7	8	25	30,8
520	2,4	3,8	11	12	30	36,0
645	3,0	4,7	16	18	35	40,9
780	3,6	5,7	23	27	40	46,0



### Example:

#### Data:

air flow = 570 m<sup>3</sup>/h  
maximum noise level NR33  
size diffuser 594 x 594

#### Solution:

TS752 (594 x 594)  
supply air velocity Vk = 4,2 m/s  
ΔPs (Pa) exhaust = 12,5 Pa  
ΔPs (Pa) supply = 14 Pa  
noise level NR32  
throw = 2,6 m

$$\frac{570 \text{ m}^3/\text{h}}{3600 \text{ s}} = 0,16 \text{ m}^3/\text{s}$$

$$\frac{0,16 \text{ m}^3/\text{s}}{0,038 \text{ m}^2} = 4,21 \text{ m/s}$$

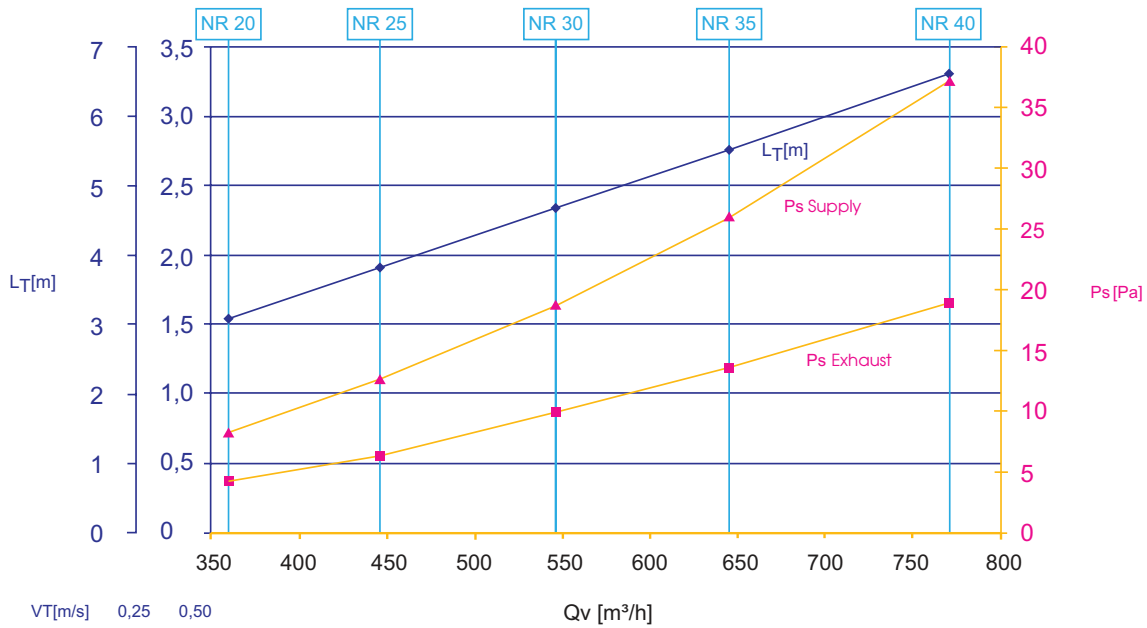
## 4-WAY EXHAUST SLOT DIFFUSER FOR MOUNTING IN A FALSE CEILING WITH CENTRAL EXHAUST GRILL TYPE: TS750

### Selection diagram

**TS753 594 x 594**

Ak 0,043 m<sup>2</sup>

Qv (m <sup>3</sup> /h)	L <sub>T</sub> (0,5 m/s) (m)	Vk (m/s)	ΔPs (Pa) exhaust	ΔPs (Pa) supply	L <sub>w</sub> (NR)	L <sub>w</sub> (dB(A))
360	1,5	2,3	8	4	20	26,1
445	1,9	2,9	13	6	25	31,0
545	2,3	3,5	19	10	30	36,1
645	2,8	4,1	26	14	35	40,7
770	3,3	4,9	37	19	40	45,6



Correctionfactor L<sub>T</sub> for cooling (ΔT = -10): L<sub>T</sub> x 0,9

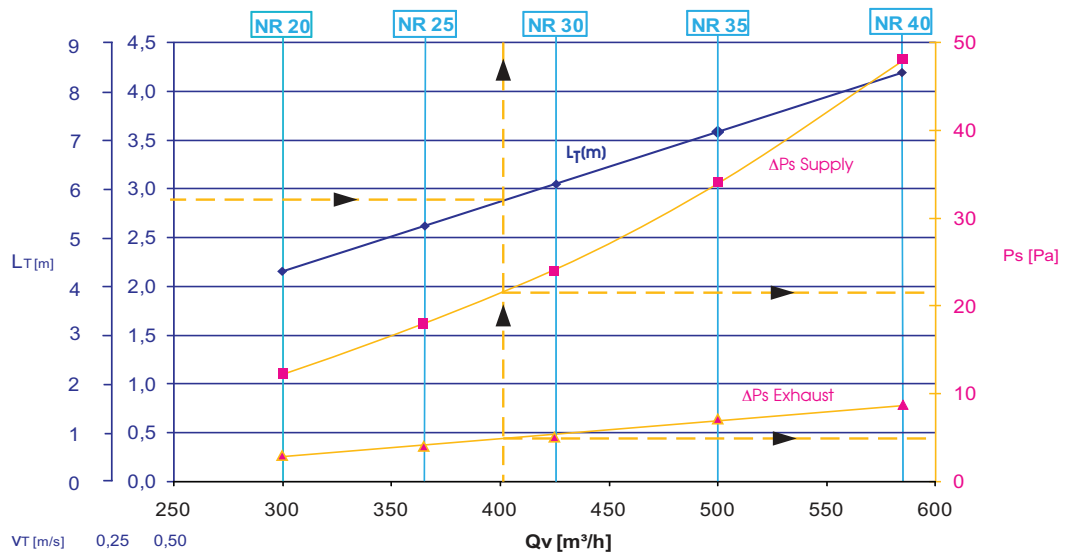
# 4-WAY EXHAUST SLOT DIFFUSER FOR MOUNTING IN A FALSE CEILING WITH CENTRAL EXHAUST GRILL TYPE: TS750

## Selection diagram

TS751 670 x 670

Ak 0,023 m<sup>2</sup>

Qv (m <sup>3</sup> /h)	L <sub>T</sub> (0,5 m/s) (m)	Vk (m/s)	ΔPs (Pa) exhaust	ΔPs (Pa) supply	L <sub>W</sub> (NR)	L <sub>W</sub> (dB(A))
300	2,1	3,6	3	12	20	26,0
365	2,6	4,4	4	18	25	30,8
425	3,0	5,1	5	24	30	36,0
500	3,6	6,0	7	34	35	40,0
585	4,2	7,0	9	48	40	45,3



Correctionfactor  $L_T$  for cooling ( $\Delta T = -10$ ):  $L_T \times 0,9$

### Example:

#### Data:

air flow = 400 m<sup>3</sup>/h  
throw  $L_T = 2,9$  m at  $V_T = 0,5$  m/s  
maximum noise level NR30

#### Solution:

TS752 (670 x 670)  
air flow rate  $V_k = 2,6$  m/s  
noise level NR 25  
total pressure supply + exhaust:  $\Delta P_s = 11$  Pa

$$\longrightarrow \frac{400 \text{ m}^3/\text{h}}{3600 \text{ s}} = 0,11 \text{ m}^3/\text{s}$$

$$\longrightarrow \frac{0,11 \text{ m}^3/\text{s}}{0,023 \text{ m}^2} = 4,8 \text{ m/s}$$

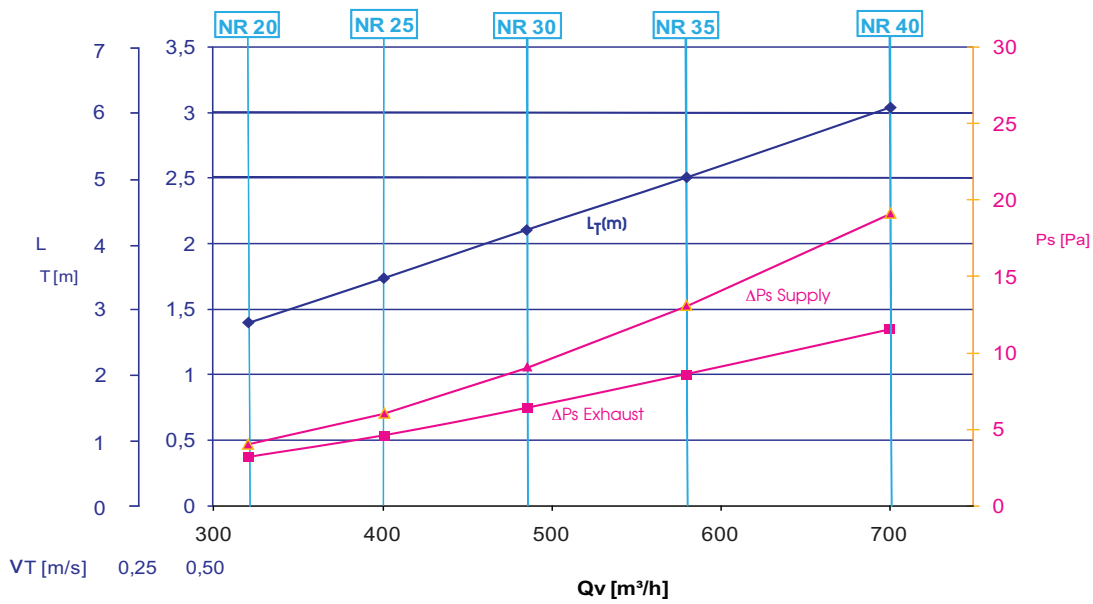
## 4-WAY EXHAUST SLOT DIFFUSER FOR MOUNTING IN A FALSE CEILING WITH CENTRAL EXHAUST GRILL TYPE: TS750

### Selection diagram

TS752 670 x 670

Ak 0,045 m<sup>2</sup>

Qv (m <sup>3</sup> /h)	L <sub>T</sub> (0,5 m/s) (m)	Vk (m/s)	ΔPs (Pa) exhaust	ΔPs (Pa) supply	L <sub>w</sub> (NR)	L <sub>w</sub> (dB(A))
320	1,4	2,0	3	4	20	26,1
400	1,7	2,5	5	6	25	30,4
485	2,1	3,0	6	9	30	34,8
580	2,5	3,6	9	13	35	39,3
700	3,0	4,4	12	19	40	



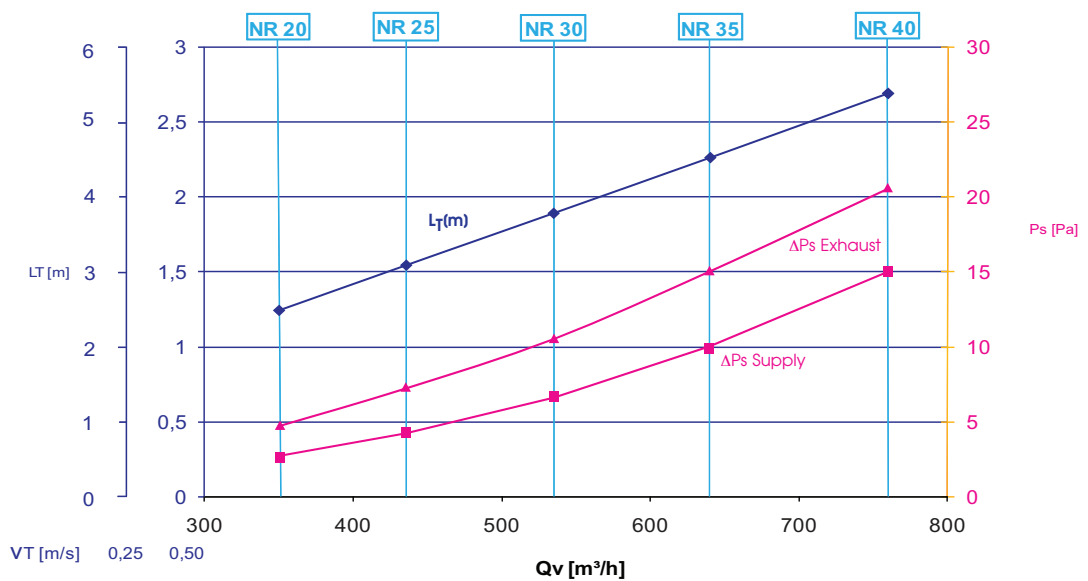
# 4-WAY EXHAUST SLOT DIFFUSER FOR MOUNTING IN A FALSE CEILING WITH CENTRAL EXHAUST GRILL TYPE: TS750

## Selection diagram

**TS753 670 x 670**

Ak 0,055 m<sup>2</sup>

Qv (m <sup>3</sup> /h)	L <sub>T</sub> (0,5 m/s) (m)	Vk (m/s)	ΔPs (Pa) exhaust	ΔPs (Pa) supply	L <sub>W</sub> (NR)	L <sub>W</sub> (dB(A))
350	1,2	1,8	5	3	20	26,0
435	1,5	2,2	7	4	25	31,0
535	1,9	2,7	11	7	30	35,6
640	2,3	3,2	15	10	35	40,3
760	2,7	3,9	21	15	40	44,2



Correctionfactor L<sub>T</sub> for cooling (ΔT = -10 ): L<sub>T</sub> x 0,9