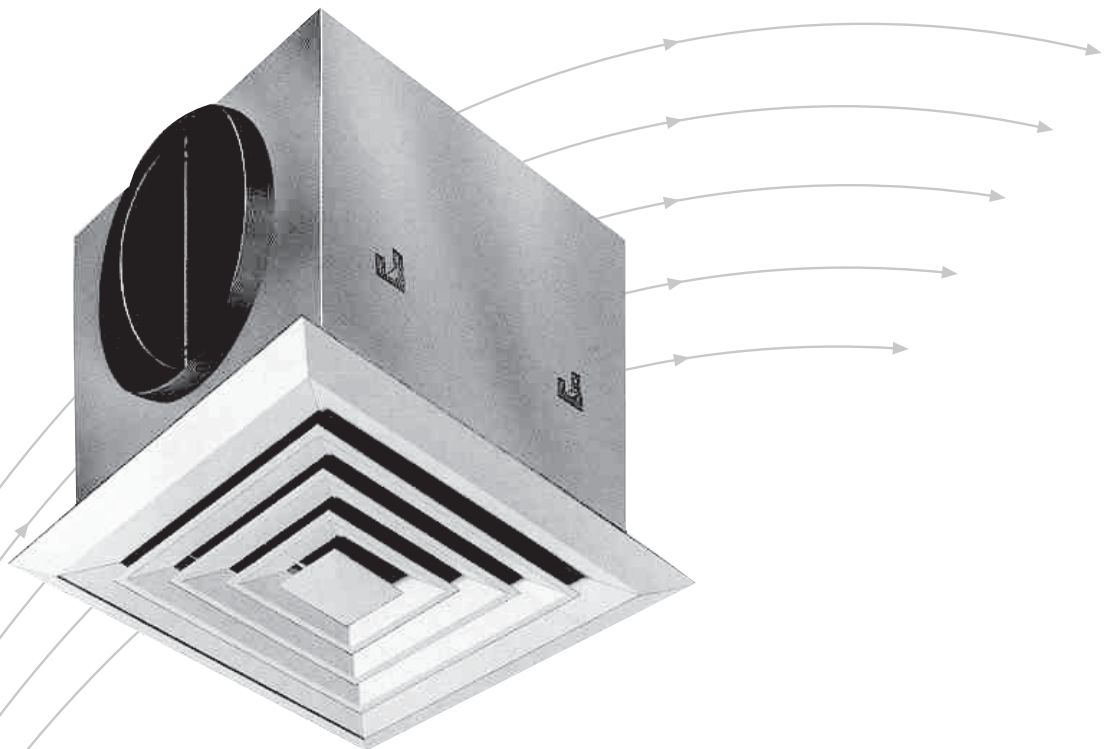


# Ceiling Diffusers

Type ADT



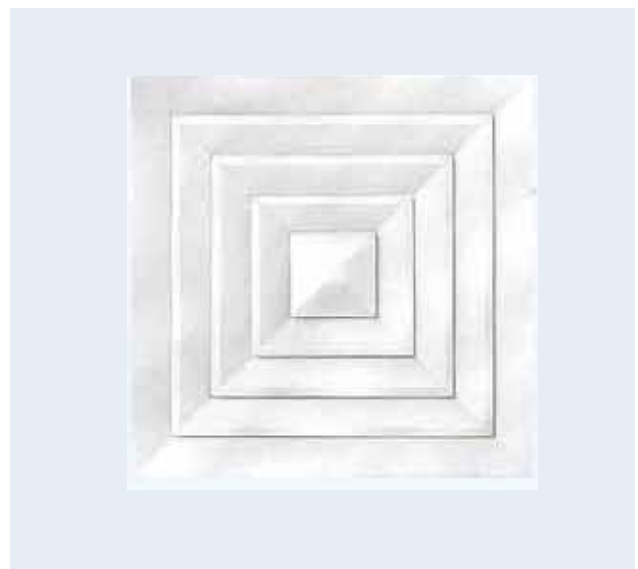
**TROX<sup>®</sup> TECHNIK**

TROX Malaysia Sdn. Bhd.  
20 Persiaran Bunga Tanjung 1  
Senawang Land Industrial Park  
70400 Seremban  
Negeri Sembilan Darul Khusus  
Malaysia

Telephone + 606-678 8188  
Telefax + 606-678 8288 / 388  
E-mail enquiry@troxmal.com.my  
www.troxapo.com

# Contents · Description

Description _____	2	Nomenclature · Technical Data _____	8
Construction · Dimensions _____	3	Technical Data · ADTF · ADTC _____	9
Standard Sizes · Ancillaries · Materials _____	4	Technical Data ADTL _____	19
Standard Sizes · Installation · Plenum Boxes _____	5	Flow Measurement _____	22
Core Arrangements _____	7	Order Details _____	23



Square or rectangular ceiling diffusers Type ADT have removable core with 1, 2, 3 and 4 way discharge patterns, ideal for flush mounting in ceilings. They are suitable for use in rooms with heights from 2.6 to 4 m. The recommended supply air temperature differential is  $\pm 10K$ . Ceiling diffusers can be used for both supply and extract air applications.

The removable core is only suitable for horizontal discharge.

Various border sections are available to cater for flush, recessed T-bar and tile clip fixing. Specially developed ancillaries and plenum boxes with optional volume control dampers are available to ensure optimum discharge characteristics.

# Construction · Dimensions

## Types · ADTF · ADTC · ADTL

Types ADTF, ADTC and ADTL have face sections consisting of a peripheral border, removable diffuser core made up with fixed air control blades designed for horizontal air discharge. The core is positioned or removed by action of spring loaded device located within the outer frame.

The type ADTF has a flanged border for directly mounting to a closed flush ceiling (to maintain horizontal discharge).

The type ADTC has a modified border detail to enable fitting into a Burgess ceiling or equivalent. The type ADTC has a modified border detail to enable fitting into a Burgess ceiling or equivalent. The border style is also suitable used as a recessed border to enable the diffuser to be mounted flush with ceiling tile modules without overlapping (in this method clips are not required).

The type ADTL is similar to ADTF but has a border designed to lay into exposed T-Bar System.

## Duct Fixing and Core Removal

Insertion of diffuser core is effected by depressing core pin springs in holes located at end of border frame and releasing core when pins are aligned with corresponding holes at opposite end of frame.

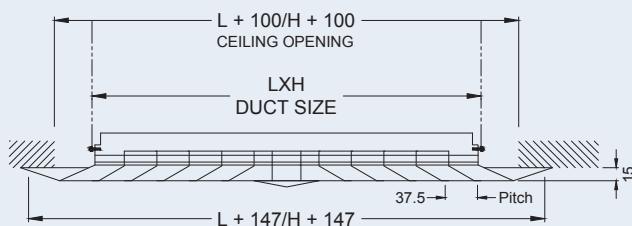
Procedure is reversed for removal of core.

## Core Styles

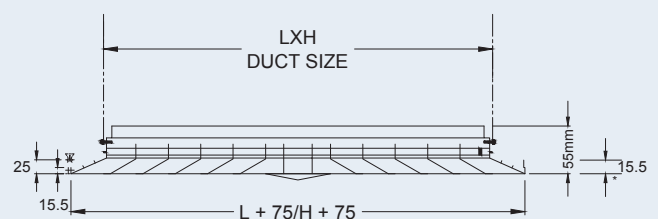
For aerodynamic and acoustic performance see pages 9 to 21. Core styles are interchangeable between diffusers for a given border configuration and of the same size.

Should site requirements alter, alternative air patterns can in some cases be obtained by replacing of existing cores ie : Changing ADTL/500 x 500 with 4 core style to 1/2/3 core style for example. Refer to Table 1 on page 4.

Type ADTF

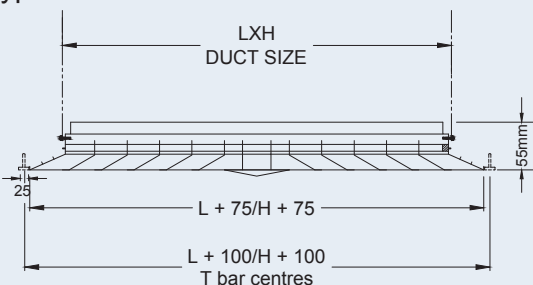


Type ADTC

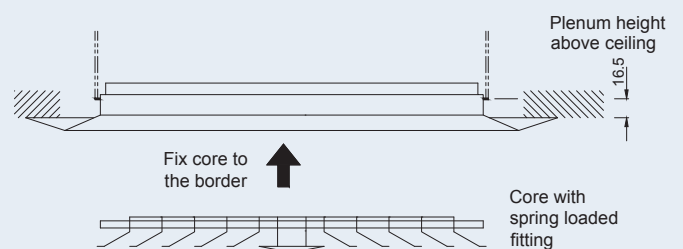


Note: When fixing clips not required this must be stated on the order.  
\* Rectangular diffusers will have clips fitted to longest side as standard.

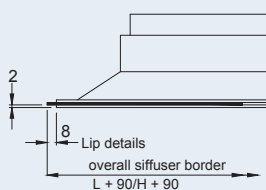
Type ADTL



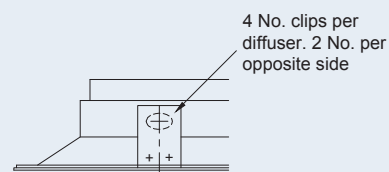
Core Removal Detail



Type ADTL Lip Detail



Type ADTC Clip Detail



# Standard Sizes · Ancillaries · Materials

## Types ADTF-A ADTC-A ADTL-A

Fixed blade diffuser, face section only for supply or extract.

## Types ADTF-AG ADTC-AG ADTL-AG

Diffuser face section plus opposed blade volume control, accessible for adjustment by removal of core.

## Types ADTF-AG ADTC-C ADTL-C

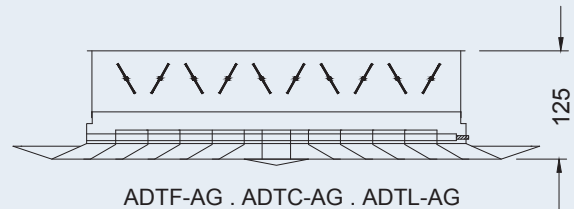
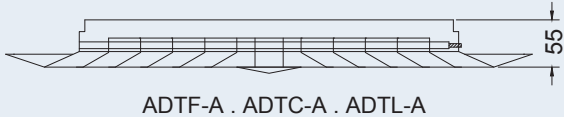
Diffuser face section plus friction held individually adjustable flaps, accessible for adjustment by removal of core.

## Materials ADT

The diffuser face is in extruded aluminium sections powder coated in matt white (RAL 9010) as standard supply. The rear ancillaries are formed sheet steel surfaces, painted in black (RAL 9005).

**Table 1 : Standard sizes Type ADTL**

Duct Size LxH (mm)	Core Style											
	1	2	2C	3	4	1L	2L	3L	4L	1S	2S	
200 x 200												
500 x 350												
500 x 500												



**Table 2 : Standard Sizes, Types ADTF-ADTC**

Duct Size L x H (mm)	Core Style											
	1	2	2C	3	4	1L	2L	3L	4L	1S	2S	
150 x 150												
225												
300												
375												
450												
225 x 225												
300												
375												
450												
525												

Duct Size L x H (mm)	Core Style											
	1	2	2C	3	4	1L	2L	3L	4L	1S	2S	
300 x 300												
375												
450												
525												
375 x 375												
450												
525												
450 x 450												
525												
600												
525 x 525												
600 X 600												

# Standard Sizes · Installation · Plenum Boxes

## Type ADF-AC ADTC-AC

Diffuser with selected border style complete with circular friction held damper in circular spigot. Damper comprises two flaps each individually adjustable from front face with diffuser core removed.

## Type ADF-CS ADTC-CS

As above excluding flap damper.

## Type ADF-AGC ADTC-AGC

Diffuser with selected border style complete with opposed blade volume control damper adjustable from front face with diffuser core removed and with top entry plenum with circular spigot.

## Type ADF-KM ADTC-KM

Diffuser with selected border style complete with side entry plenum with a perforated metal volume control damper in the spigot manually adjustable with diffuser core removed ('X'=75).

## Type ADF-K ADTC-K

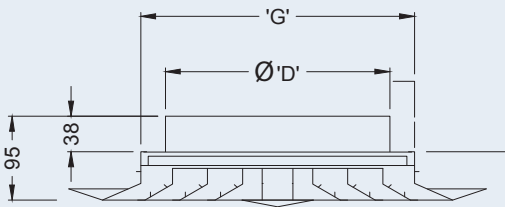
As above but excluding volume control damper('X'=38). All sizes are available.

## Plenum Box

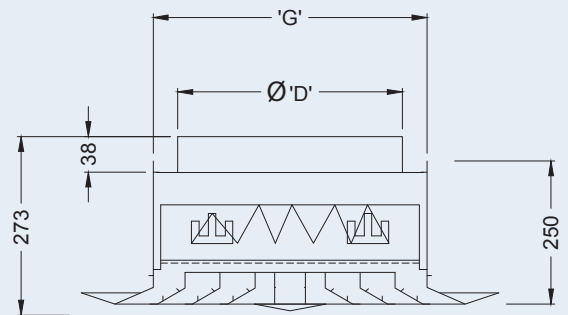
This can be supplied with 6mm thick rubber foam lining or 25mm thick fibre glass insulation if requested.

**Notes :** Side mounted hanging brackets all types except ADF-AC and CS (quantity 4, 2 off on opposite sides). Types ADF-AC and CS will be fitted with flat swing out brackets fixed to top face plenum. All side entry plenums are internally baffled to ensure correct discharge performance. For rectangular diffusers the spigot diameter and location is related to the largest dimensions of 'H' or 'L'. Spigot sizes ØD are TROX Standard. Non-standard sizes should be referred to TROX Technical Department for evaluation.

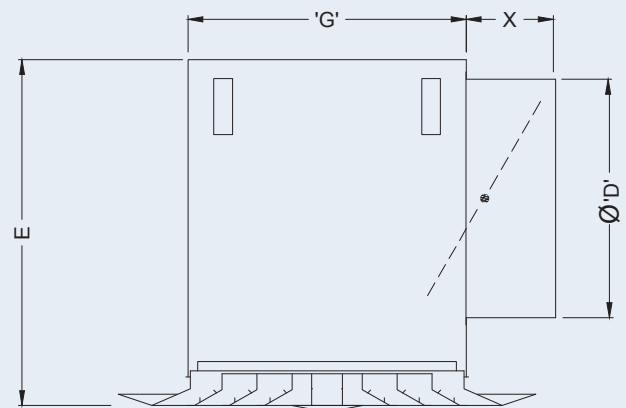
\*Spigot are located on longest side.



ADF-AC . ADTC-AC



ADF-AGC . ADTC-AGC



ADF-K & KM . ADTC-K & KM

Note: ADF border style shown

**Table 3 : Standard Sizes, Types ADF•ADTC**

SIZE	C	ØD	E	G
150	152	123	285	150
225	190	198	360	225
300	215	248	410	300
375	247	298	475	375
450	290	298	475	450
525	315	298	475	525
600	340	298	475	600

# Standard Sizes · Installation · Plenum Boxes

## Type ADTL-AC

Diffuser with selected border style complete with circular friction held damper in circular spigot. Damper comprises two flaps each individually adjustable from front face with diffuser core removed.

## Type ADTL-CS

As above excluding flap damper.

## Type ADTL-AGC

Diffuser with selected border style complete with opposed blade volume control damper adjustable from face with diffuser core removed. C/W top entry plenum with circular spigot.

## Type ADTL-KM

Diffuser with selected border style complete with side entry plenum with a perforated metal volume control damper in the spigot manually adjustable with diffuser core removed ('X' = 75).

## Type ADTL-K

As above but excluding volume control damper ('X' = 38). All sizes are available.

## Plenum Box

This can be supplied with 6mm thick rubber foam lining or 25mm thick fibre glass insulation if requested.

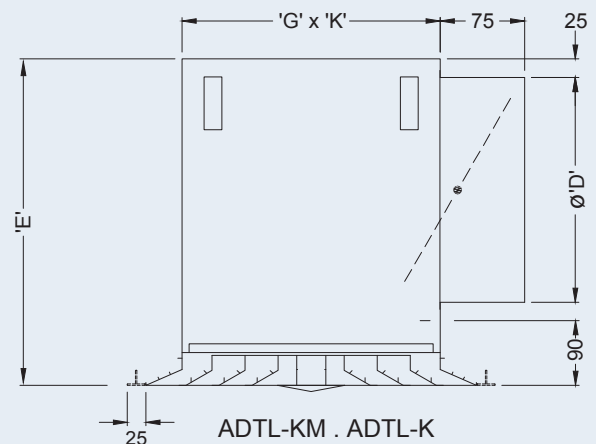
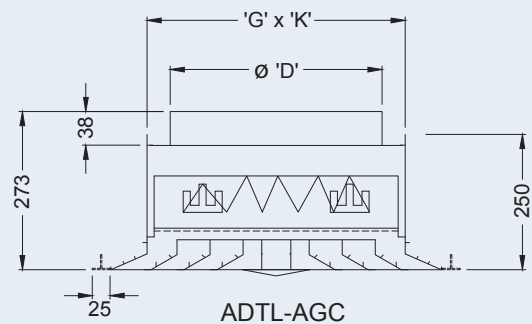
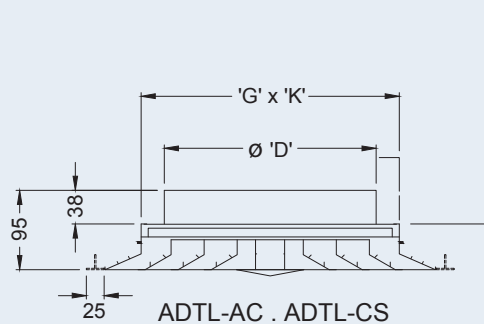
Notes : Side mounted hanging brackets all types



except ADTL-AC and CS (quantity 4, 2 off on opposite sides). Types ADTL-AC and CS will be fitted with flat swing out brackets fixed to top face plenum.

All side entry plenums are internally baffled to ensure correct discharge performance.

For rectangular diffusers the spigot diameter and location is related to the largest dimensions of 'H' or 'L'. Spigot sizes  $\varnothing D$  are TROX Standard. Non-standard sizes should be referred to TROX Technical Department for evaluation.



**Table 4 : ADTL (with 25mm 'T' section)  
Standard Plenum Dimension**

SIZE	C	ØD	E	G	K
200 x 200	149	128	320	200	200
500 x 350	229	298	475	350	500
500 x 500	269	298	475	500	500

# Core Arrangements

**Core Styles**

For aerodynamic and acoustic performance see pages 9 to 21.

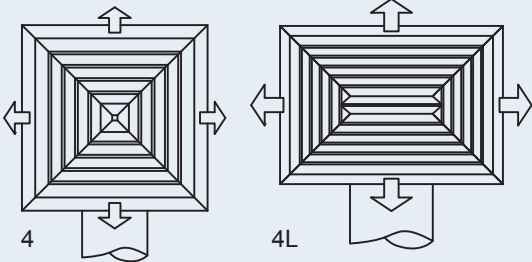
Cores are interchangeable between borders of the same configuration and size.

Should site requirement alter, alternative air patterns can in some cases be obtained by repositioning of existing cores ie : 2 way configuration.

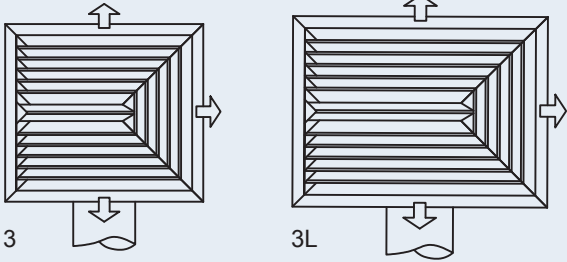
**Table 5 : Core Arrangements**

Core Style	Possible Angle of Rotation		
	90°	180°	270°
1			
1L			
1S			
2			
2C			
3			
3L			

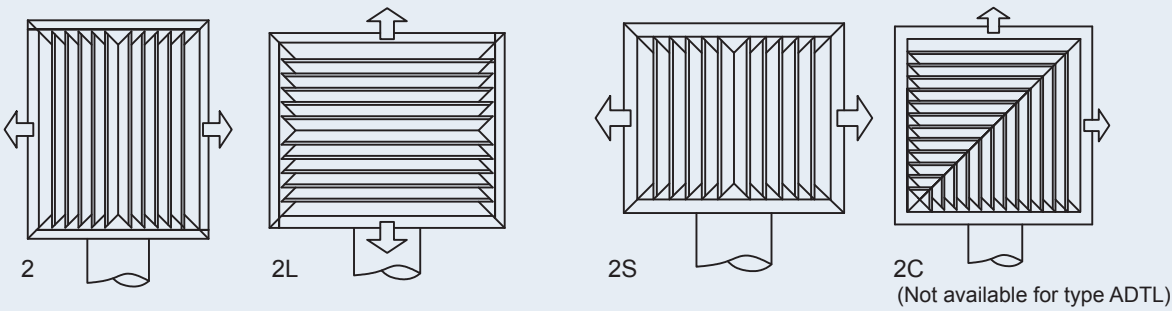
**4 way Discharge**



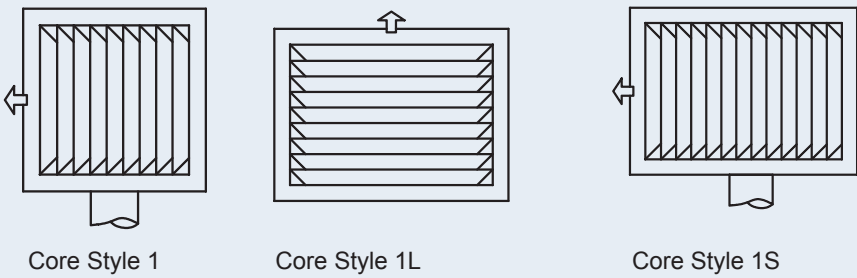
**3 way Discharge**



**2 way Discharge**



**1 way Discharge**



# Nomenclature · Technical Data

## Air Generated Noise

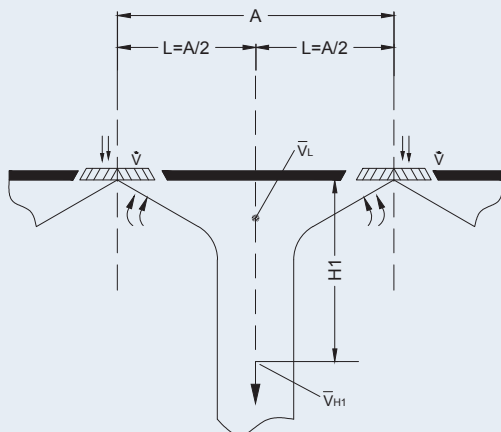
All sound pressure levels ( $L_{pNC}$ ) quoted following tables exclude noise generated by plenum boxes. When these are fitted refer to correction tables.

**Table 6 : Correction Table: Plenum Boxes**

Type	Size	Correction in dB
ADTF - AC/AGC ADTC - AC/AGC ADTF - AC/CS/AGC	All	+5
ADTF - K/KM ADTC - K/KM	150 to 300	+10
	375	+12
	450	+14
	525 600	+15 +19
ADTL - K/KM	200 x 200	+10
	500 x 350	+10
	500 x 500	+14

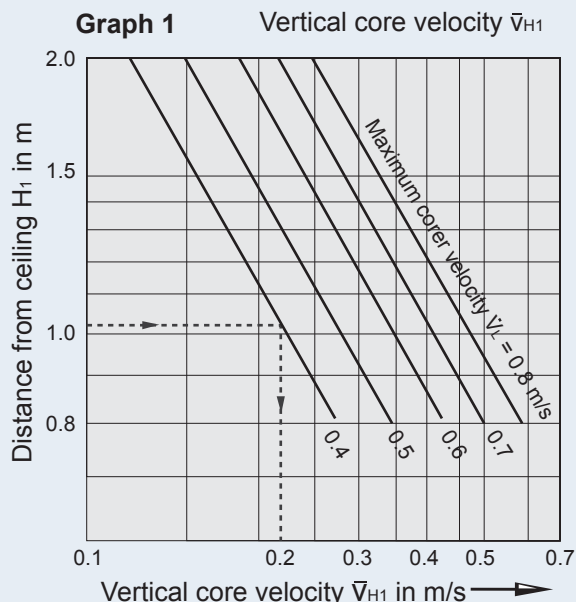
**Table 7 : Correction Table: Damper**

Damper Position	Supply Air		Return Air	
	$\Delta pt$	$L_{pNC}$	$\Delta pt$	$L_{pNC}$
100% open	x 1	0	$1.2 \times \Delta pt$	+ 7
50% open	x 1.5	+ 5	$1.7 \times \Delta pt$	+ 9
25% open	x 2.4	+ 11	$2.6 \times \Delta pt$	+ 12



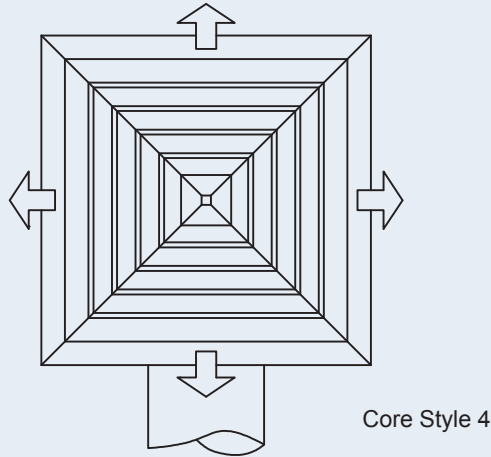
### Nomenclature

- $\dot{V}$  in l/s: Volume flow per diffuser.
- A in m: Spacing between two diffusers (distance to collision point  $L = A/2$ ).
- L in m: Distance from the outlet where the maximum time average air velocity  $\bar{V}_L$  is 0.75 m/s – 0.50 m/s – 0.25 m/s respectively.
- $L_x$  in m: Distance from the short side of a rectangular diffuser where the maximum time average air velocity  $\bar{V}_L$  is 0.75 m/s – 0.50 m/s – 0.25 m/s respectively.
- $L_y$  in m: Distance from the long side of a rectangular diffuser where the maximum time average air velocity  $\bar{V}_L$  is 0.75 m/s – 0.50 m/s – 0.25 m/s respectively.
- $H_1$  in m: Distance between ceiling and occupied zone.
- $A_{eff}$  in m: Effective outlet area.
- $V_{eff}$  in m/s: Effective discharge jet velocity.
- $v_k$  in m/s: Diffuser neck velocity.
- $\bar{V}_{H1}$  in m/s: Time average air velocity between two diffuser at distance  $H_1$  from the ceiling.
- $\bar{V}_L$  in m/s: Time average air velocity.
- $\Delta P_t$  in Pa: Total pressure drop.
- $\Delta P_s$  in Pa: Static pressure drop.
- $L_{pNC}$  : rating of room sound pressure level based on assumed 8dB room attenuation.



The air velocity under the collision point of two airstreams can be calculated as follows: From the tabulated data for terminal velocities, and throw distance, estimate the terminal velocity  $\bar{V}_L$  at the collision point halfway between adjacent diffusers. The air velocity  $\bar{V}_{H1}$  can be obtained from using graph 1 for the terminal velocity  $\bar{V}_L$  at the ceiling; and  $H_1$  the distance down from the ceiling to the occupied zone.

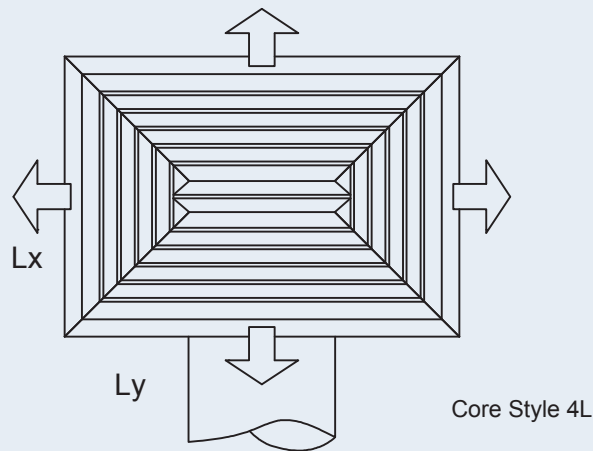
# TECHNICAL DATA ADTF · ADTC



**Table 8 :Core Style 4 - 4 Way Discharge**

NECK SIZE	$V_k$ - m/s	1.0	1.5	2.0	2.5	3.0	3.5
	$\Delta P_t$ (Pa)	5	12	21	33	47	64
150 x 150	$\dot{V}$ (l/s)	24	36	48	60	72	84
	L(m)	0.4-0.8-1.5	0.8-1.0-2.7	0.9-1.5-3.5	1.2-2.1-3.8	1.6-2.7-4.2	2.1-3.3-4.5
	$L_{pNC}$			16	22	28	33
225 x 225	$\dot{V}$ (l/s)	53	80	105	130	160	185
	L(m)	0.6-1.2-2.1	1.2-1.5-3.4	1.5-2.1-4.3	1.8-2.7-4.6	2.1-3.4-5.2	2.7-4.0-5.5
	$L_{pNC}$			19	26	31	36
300 x 300	$\dot{V}$ (l/s)	95	140	190	240	280	330
	L(m)	0.9-1.5-3.1	1.5-2.2-4.3	1.8-3.1-4.9	2.4-3.7-5.5	3.1-4.3-5.8	3.4-4.6-6.4
	$L_{pNC}$			22	28	34	39
375 x 375	$\dot{V}$ (l/s)	150	225	300	375	450	525
	L(m)	1.2-1.8-3.7	1.8-2.7-4.6	2.4-3.7-5.5	3.1-4.3-6.1	3.7-4.6-6.7	4.3-5.2-7.3
	$L_{pNC}$			24	30	36	41
450 x 450	$\dot{V}$ (l/s)	212	320	425	530	640	750
	L(m)	1.5-2.1-4.3	2.1-3.4-5.2	3.1-4.3-6.1	3.7-4.6-6.7	4.3-5.2-7.3	4.6-5.5-7.9
	$L_{pNC}$			25	32	37	42
525 x 525	$\dot{V}$ (l/s)	287	430	575	720	860	1010
	L(m)	1.8-2.7-4.6	2.7-4.0-5.5	3.4-4.6-6.4	4.3-5.2-7.3	4.6-5.5-7.9	4.9-6.1-8.5
	$L_{pNC}$		18	27	32	39	44
600 x 600	$\dot{V}$ (l/s)	375	560	750	940	1120	1310
	L(m)	2.1-3.1-4.9	3.1-4.3-6.1	4.0-4.9-7.0	4.6-5.5-7.6	4.9-6.1-8.5	5.2-6.4-9.2
	$L_{pNC}$		19	28	34	40	45

# Technical Data ADTF · ADTC

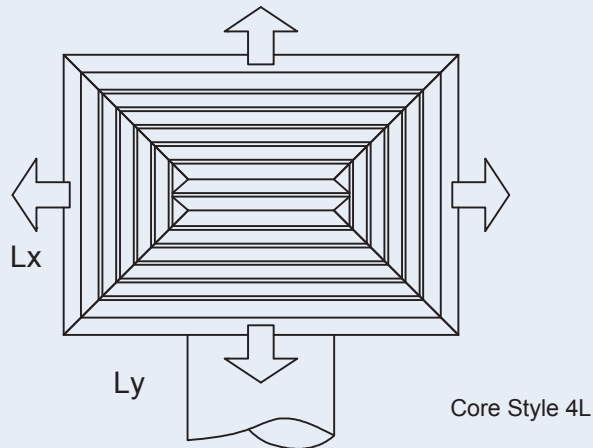


**Table 9 : Core Style 4L- 4 Way Discharge**

NECK SIZE	V <sub>k</sub> - m/s	1.0	1.5	2.0	2.5	3.0	3.5
	ΔP <sub>i</sub> (Pa)	5	12	21	33	47	64
225 x 150	V(I/s)	35	50	70	90	100	120
	L <sub>x</sub>	0.	0.8-1.0-2.7	0.9-1.5-3.5	1.2-2.1-3.8	1.6-2.7-4.2	2.1-3.3-4.5
	L <sub>y</sub>	4-0.8-1.5	1.2-1.5-4.0	1.5-2.4-4.3	1.8-3.4-4.6	2.7-4.0-5.2	3.4-4.0-5.8
	L <sub>pNC</sub>	0.9-1.2-2.4		17	24	29	34
300 x 150	V(I/s)	47	70	95	120	140	165
	L <sub>x</sub>	0.4-0.8-1.5	0.8-1.0-2.7	0.9-1.5-3.5	1.2-2.1-3.8	1.6-2.7-4.2	2.1-3.3-4.5
	L <sub>y</sub>	0.9-1.5-2.7	1.5-1.8-4.0	1.5-2.7-4.6	2.1-3.4-4.9	2.7-4.0-5.8	3.7-4.3-6.1
	L <sub>pNC</sub>			19	25	31	36
375 x 150	V(I/s)	60	90	120	150	180	210
	L <sub>x</sub>	0.4-0.8-1.5	0.8-1.0-2.7	0.9-1.5-3.5	1.2-2.1-3.8	1.6-2.7-4.2	2.1-3.3-4.5
	L <sub>y</sub>	1.2-1.5-3.1	1.5-2.1-4.3	1.1-3.1-4.9	2.4-3.7-5.2	3.1-4.3-5.8	3.7-4.6-6.4
	L <sub>pNC</sub>			19	26	31	35
450 x 150	V(I/s)	70	105	140	175	210	245
	L <sub>x</sub>	0.4-0.8-1.5	0.8-1.0-2.7	0.9-1.5-3.5	1.2-2.1-3.8	1.6-2.7-4.2	2.1-3.3-4.5
	L <sub>y</sub>	1.2-1.5-3.1	1.5-2.1-4.6	1.8-3.4-4.9	2.7-4.0-5.5	3.4-4.6-6.1	4.4-6.0-6.7
	L <sub>pNC</sub>			20	27	32	37
300 x 225	V(I/s)	70	105	140	175	210	245
	L <sub>x</sub>	0.6-1.2-2.1	1.2-1.5-3.4	1.5-2.1-4.3	1.8-2.7-4.6	2.1-3.4-5.2	2.7-4.0-5.5
	L <sub>y</sub>	1.2-1.8-3.4	1.8-2.1-4.3	1.8-3.1-4.9	2.7-4.0-5.5	3.1-4.6-6.1	4.4-6.0-6.7
	L <sub>pNC</sub>			20	27	32	37
375 x 225	V(I/s)	87	130	175	220	260	310
	L <sub>x</sub>	0.6-1.2-2.1	1.2-1.5-3.4	1.5-2.1-4.3	1.8-2.7-4.6	2.1-3.4-5.2	2.7-4.0-5.5
	L <sub>y</sub>	1.2-1.8-3.4	1.8-2.4-4.6	2.1-3.4-5.2	2.7-4.0-5.8	3.4-4.6-6.4	4.0-4.9-7.0
	L <sub>pNC</sub>			21	28	34	38
450 x 225	V(I/s)	105	160	210	265	320	375
	L <sub>x</sub>	0.6-1.2-2.1	1.2-1.5-3.4	1.5-2.1-4.3	1.8-2.7-4.6	2.1-3.4-5.2	2.7-4.0-5.5
	L <sub>y</sub>	1.2-1.8-4.0	1.8-2.7-4.9	2.4-4.0-5.5	3.4-4.3-6.1	4.0-4.9-6.7	4.3-5.2-7.3
	L <sub>pNC</sub>			22	29	34	39

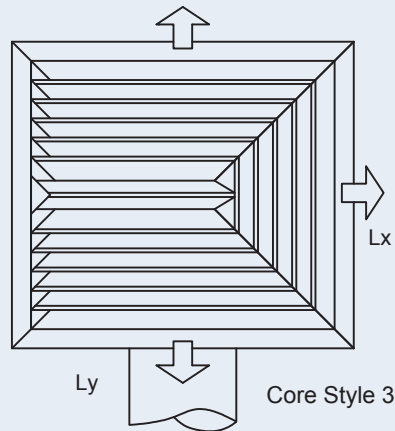
Continued on Page 11

# Technical Data ADTF · ADTC



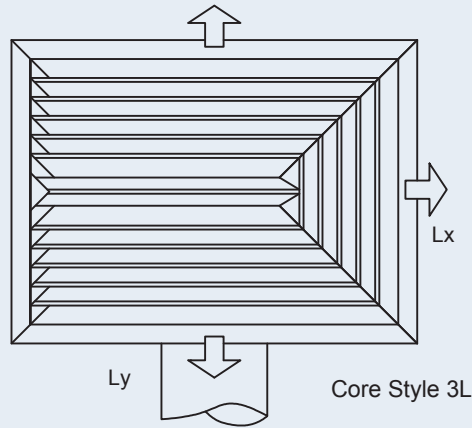
**Table 10 : Core Style 4L- 4 Way Discharge (Continued)**

NECK SIZE	$V_k$ - m/s	1.0	1.5	2.0	2.5	3.0	3.5
	$\Delta P_t$ (Pa)	5	12	21	33	47	64
525 x 225	$\dot{V}$ (l/s)	122	185	245	305	370	435
	Lx	0.6-1.2-2.1	1.2-1.5-3.4	1.5-2.1-4.3	1.8-2.7-4.6	2.1-3.4-5.2	2.7-4.0-5.5
	Ly	1.5-2.1-4.3	2.1-3.4-5.2	2.7-4.3-5.8	3.7-4.6-6.4	4.3-5.2-7.0	4.6-5.5-7.6
	$L_{pNC}$			23	30	35	40
375 x 300	$\dot{V}$ (l/s)	112	180	235	295	360	420
	Lx	0.9-1.5-3.1	1.5-2.1-4.3	1.8-3.1-4.9	2.4-3.7-5.5	3.1-4.3-5.8	3.4-4.6-6.4
	Ly	1.2-2.1-4.0	2.1-2.7-4.9	2.4-3.7-5.5	3.4-4.3-6.1	3.7-4.9-6.7	4.3-5.2-7.3
	$L_{pNC}$			22	29	34	38
450 x 300	$\dot{V}$ (l/s)	140	210	280	360	420	490
	Lx	0.9-1.5-3.1	1.5-2.1-4.3	1.8-3.1-4.9	2.4-3.7-5.5	3.1-4.3-5.8	3.4-4.6-6.4
	Ly	1.5-2.1-4.0	2.1-3.1-4.9	2.7-4.0-5.8	3.4-4.6-6.4	4.0-4.9-7.0	4.3-5.5-7.6
	$L_{pNC}$			23	30	36	40
525 x 300	$\dot{V}$ (l/s)	165	250	330	415	500	585
	Lx	0.9-1.5-3.1	1.5-2.1-4.3	1.8-3.1-4.9	2.4-3.7-5.5	3.1-4.3-5.8	3.4-4.6-6.4
	Ly	1.5-2.4-4.3	2.4-3.7-5.2	3.1-4.3-6.1	4.0-4.9-6.7	4.3-5.2-7.3	4.6-5.8-7.9
	$L_{pNC}$			24	31	36	41
450 x 375	$\dot{V}$ (l/s)	177	265	355	445	530	620
	Lx	1.2-1.8-3.7	1.8-2.7-4.6	2.4-3.7-5.5	3.1-4.3-6.1	3.7-4.6-6.7	4.3-5.2-7.3
	Ly	1.5-2.1-4.3	2.1-3.4-5.2	3.1-4.3-5.8	3.7-4.6-6.7	4.3-5.2-7.3	4.6-5.5-7.6
	$L_{pNC}$			24	31	37	41
525 x 375	$\dot{V}$ (l/s)	205	310	410	515	620	725
	Lx	1.2-1.8-3.7	1.8-2.7-4.6	2.4-3.7-5.5	3.1-4.3-6.1	3.7-4.6-6.7	4.3-5.2-7.3
	Ly	1.5-2.4-4.6	2.4-3.7-5.5	3.4-4.6-6.4	4.0-4.9-7.0	4.6-5.5-7.6	4.9-5.8-8.2
	$L_{pNC}$			25	32	37	42
525 x 450	$\dot{V}$ (l/s)	247	370	495	620	740	865
	Lx	1.5-2.1-4.3	2.1-3.4-5.2	3.1-4.3-6.1	3.7-4.6-6.7	4.3-5.2-7.3	4.6-5.5-7.9
	Ly	1.8-2.4-4.6	2.4-4.0-5.5	3.4-4.6-6.4	4.3-5.2-7.0	4.6-5.5-7.9	4.9-6.1-8.5
	$L_{pNC}$			26	33	38	43
600 x 450	$\dot{V}$ (l/s)	282	425	565	705	850	995
	Lx	1.5-2.1-4.3	2.1-3.4-5.2	3.1-4.3-6.1	3.7-4.6-6.7	4.3-5.2-7.3	4.6-5.5-7.9
	Ly	1.8-2.7-4.9	2.7-4.3-5.8	4.0-4.9-6.7	4.3-5.2-7.6	4.9-5.8-8.2	5.2-6.4-8.8
	$L_{pNC}$		18	26	33	39	43



**Table 11 : Core Style 3- 3 Way Discharge**

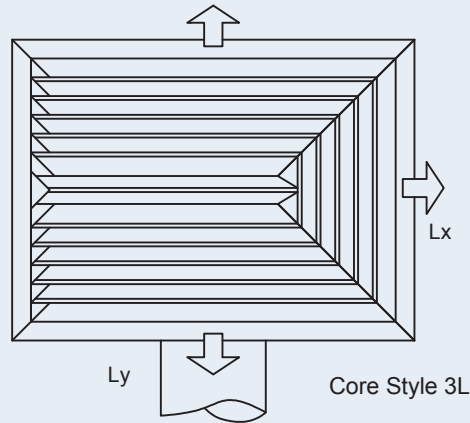
NECK SIZE	$V_k$ - m/s	1.0	1.5	2.0	2.5	3.0	3.5
	$\Delta P_t$ (Pa)	5	12	21	33	47	64
150 x 150	$\dot{V}$ (l/s)	24	36	48	60	72	84
	Lx	0.4-0.8-1.5	0.8-1.0-2.7	0.9-1.5-3.5	1.2-2.1-3.8	1.6-2.7-4.2	2.1-3.3-4.5
	Ly	0.6-0.9-2.1	0.9-1.5-3.1	1.2-2.1-3.7	1.5-2.7-4.3	2.1-3.1-4.6	2.4-3.4-4.7
	$L_{pNC}$			16	22	28	33
225 x 225	$\dot{V}$ (l/s)	53	80	105	130	160	185
	Lx	0.6-1.2-2.1	1.2-1.5-3.4	1.5-2.1-4.3	1.8-2.7-4.6	2.1-3.4-5.2	2.7-4.0-5.5
	Ly	0.9-1.2-2.7	1.2-2.1-4.0	1.8-2.7-4.6	2.1-3.4-5.2	2.7-4.0-5.8	3.1-4.3-6.1
	$L_{pNC}$			19	26	31	36
300 x 300	$\dot{V}$ (l/s)	95	140	190	240	280	330
	Lx	1.2-1.5-3.1	1.5-2.1-4.3	1.8-3.1-4.9	2.4-3.7-5.5	3.1-4.3-5.8	3.4-4.6-6.4
	Ly	1.2-1.8-3.7	1.8-2.1-4.6	2.4-3.7-5.5	3.1-4.3-6.1	3.7-4.6-6.7	4.0-4.9-7.0
	$L_{pNC}$			22	28	34	39
375 x 375	$\dot{V}$ (l/s)	150	225	300	375	400	525
	Lx	1.5-1.8-3.7	1.8-2.7-4.6	2.4-3.7-5.5	3.1-4.3-6.1	3.7-4.6-6.7	4.3-5.2-7.3
	Ly	1.5-2.4-4.3	2.4-3.4-5.2	3.1-4.3-6.1	4.0-4.9-6.7	4.3-5.2-7.3	4.6-5.5-7.9
	$L_{pNC}$			24	30	36	41
450 x 450	$\dot{V}$ (l/s)	212	320	425	530	640	750
	Lx	1.5-2.1-4.3	2.1-3.4-5.2	3.1-4.3-6.1	3.7-4.6-6.7	4.3-5.2-7.3	4.6-5.5-7.9
	Ly	1.8-2.7-4.6	2.7-4.0-5.8	3.7-4.6-6.7	4.3-5.2-7.3	4.6-5.8-7.9	5.2-6.1-8.8
	$L_{pNC}$			25	32	37	42
525 x 525	$\dot{V}$ (l/s)	287	430	575	720	860	1010
	Lx	1.8-2.7-4.6	2.7-4.0-5.5	3.4-4.6-6.4	4.3-5.2-7.3	4.6-5.5-7.9	4.9-6.1-8.5
	Ly	2.1-3.4-5.2	3.4-4.3-6.1	4.3-5.2-7.0	4.6-5.8-7.9	5.2-6.1-8.8	5.5-6.7-9.5
	$L_{pNC}$		18	27	33	39	44
600 x 600	$\dot{V}$ (l/s)	375	560	750	940	1120	1310
	Lx	2.1-3.1-4.9	3.1-4.3-6.1	4.0-4.9-7.0	4.6-5.5-7.6	4.9-6.1-8.5	5.2-6.4-9.2
	Ly	2.4-3.7-5.5	3.7-4.6-6.7	4.3-5.5-7.6	4.9-6.1-8.5	5.5-6.7-9.5	5.8-7.0-10.1
	$L_{pNC}$		17	28	34	40	45



**Table 12 : Core Style 3L- 3 Way Discharge**

NECK SIZE	$V_k$ - m/s	1.0	1.5	2.0	2.5	3.0	3.5
	$\Delta P_t$ (Pa)	5	12	21	33	47	64
225 x 150	$\dot{V}$ (l/s)	35	50	70	90	100	120
	Lx	0.4-0.8-1.5	0.8-1.0-2.7	0.9-1.5-3.5	1.2-2.1-3.8	1.6-2.7-4.2	2.1-3.3-4.5
	Ly	0.9-1.2-2.7	1.2-1.8-3.7	1.5-2.4-4.6	2.1-3.4-4.9	2.7-3.7-5.5	3.3-4.3-6.1
	$L_{pNC}$			17	24	29	34
300 x 150	$\dot{V}$ (l/s)	47	70	95	120	140	165
	Lx	0.4-0.8-1.5	0.8-1.0-2.7	0.9-1.5-3.5	1.2-2.1-3.8	1.6-2.7-4.2	2.1-3.3-4.5
	Ly	0.9-1.2-3.1	1.2-2.1-4.0	1.8-3.1-4.9	2.4-3.7-5.2	3.1-4.0-5.8	3.7-4.6-6.4
	$L_{pNC}$			19	25	31	36
300x 225	$\dot{V}$ (l/s)	70	105	140	175	210	245
	Lx	0.6-1.2-2.1	1.2-1.5-3.4	1.5-2.1-4.3	1.8-2.7-4.6	2.1-3.4-5.2	2.7-4.0-5.5
	Ly	1.2-2.1-3.4	1.8-2.4-4.3	2.1-3.4-5.2	2.7-4.0-5.8	3.4-4.3-6.4	4.0-4.9-7.0
	$L_{pNC}$			20	27	32	37
375 x 225	$\dot{V}$ (l/s)	87	130	175	220	260	310
	Lx	0.6-1.2-2.1	1.2-1.5-3.4	1.5-2.1-4.3	1.8-2.7-4.6	2.1-3.4-5.2	2.7-4.0-5.5
	Ly	1.2-1.8-3.7	1.8-2.7-4.6	2.4-3.7-5.5	3.1-4.3-6.1	3.7-4.6-6.7	4.0-5.2-7.3
	$L_{pNC}$			21	28	34	38
450 x 225	$\dot{V}$ (l/s)	106	160	112	265	320	375
	Lx	0.6-1.2-2.1	1.2-1.5-3.4	1.5-2.1-4.7	1.8-2.7-4.6	2.1-3.4-5.2	2.7-4.0-5.5
	Ly	1.5-2.1-4.0	2.1-3.1-4.9	2.7-4.0-5.8	3.4-4.6-6.4	4.0-4.9-7.0	4.3-5.5-7.6
	$L_{pNC}$			22	29	34	39
525 x 225	$\dot{V}$ (l/s)	125	190	250	315	380	445
	Lx	0.6-1.2-2.1	1.2-1.5-3.4	1.5-2.1-4.3	1.8-2.7-4.6	2.1-3.4-5.2	2.7-4.0-5.5
	Ly	1.5-2.1-4.3	2.1-3.4-5.2	3.1-4.3-6.1	3.7-4.9-6.7	4.3-5.2-7.3	4.6-5.5-7.6
	$L_{pNC}$			23	30	35	40
375 x 300	$\dot{V}$ (l/s)	112	180	235	295	360	420
	Lx	0.9-1.5-3.1	1.5-2.1-4.3	1.8-3.1-4.9	2.4-3.7-5.5	3.1-4.3-5.8	3.4-4.6-6.4
	Ly	1.5-2.1-4.3	2.1-3.1-4.9	2.7-4.0-5.8	3.4-4.6-6.4	4.0-4.9-7.3	4.6-5.5-7.9
	$L_{pNC}$			22	29	34	38

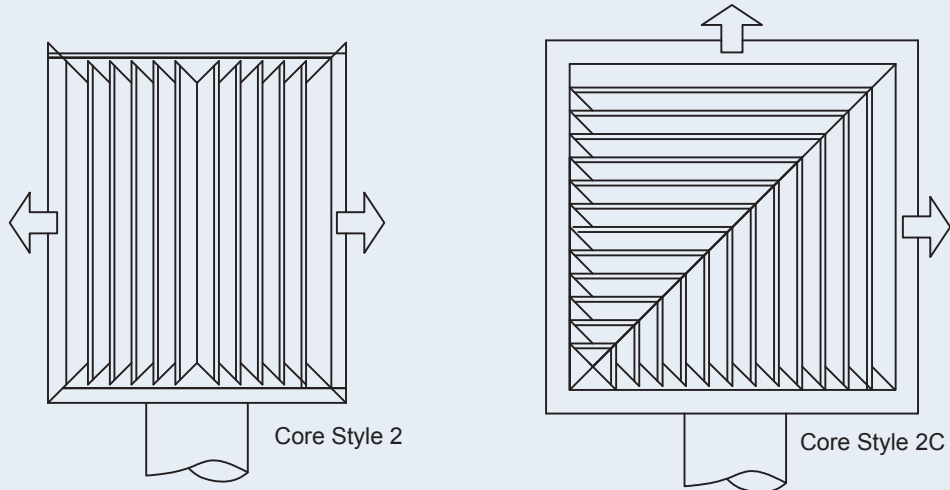
Continued on Page 14



**Table 13 : Core Style 3L- 3 Way Discharge**

NECK SIZE	$V_k$ - m/s	1.0	1.5	2.0	2.5	3.0	3.5
	$\Delta P_t$ (Pa)	5	12	21	33	47	64
450 x 300	$\dot{V}$ (l/s)	140	210	280	350	420	490
	Lx	0.9-1.5-3.1	1.5-2.1-4.3	1.8-3.1-4.9	2.4-3.7-5.5	3.1-4.3-5.8	3.4-4.6-6.4
	Ly	1.5-2.4-4.3	2.4-3.7-5.2	3.1-4.3-6.1	4.0-4.9-6.7	4.3-5.2-7.3	4.6-5.8-7.9
	$L_{pNC}$			23	30	36	40
450 x 375	$\dot{V}$ (l/s)	177	265	355	445	530	620
	Lx	1.2-1.9-3.7	1.8-2.7-4.6	2.4-3.7-5.5	3.1-4.3-6.1	3.7-4.6-6.7	4.3-5.2-7.3
	Ly	1.8-2.4-4.6	2.4-4.0-5.5	3.4-4.6-6.4	4.0-4.9-7.0	4.6-5.5-7.9	4.9-5.8-8.5
	$L_{pNC}$			24	31	37	41
525 x 375	$\dot{V}$ (l/s)	205	310	410	515	620	725
	Lx	1.2-1.9-3.7	1.8-2.7-4.6	2.4-3.7-5.5	3.1-4.3-6.1	3.7-4.6-6.7	4.3-5.2-7.3
	Ly	1.8-2.7-4.6	2.7-4.0-5.8	3.7-4.6-6.7	4.3-5.2-7.3	4.6-5.8-8.2	5.2-6.1-8.8
	$L_{pNC}$			25	32	37	42
525 x 450	$\dot{V}$ (l/s)	247	370	495	620	740	865
	Lx	1.5-2.1-4.3	2.1-3.4-5.2	3.1-4.3-6.1	3.7-4.6-6.7	4.3-5.2-7.3	4.6-5.5-7.9
	Ly	2.1-3.1-5.2	3.1-4.3-6.1	4.0-5.2-7.0	4.6-5.8-7.6	5.2-6.1-8.5	5.2-6.4-9.2
	$L_{pNC}$			26	33	38	43
600 x 450	$\dot{V}$ (l/s)	282	425	565	705	850	995
	Lx	1.5-2.1-4.3	2.1-3.4-5.2	3.1-4.3-6.1	3.7-4.6-6.7	4.3-5.2-7.3	4.6-5.5-7.9
	Ly	2.1-3.4-5.2	3.4-4.3-6.1	4.3-5.2-7.3	4.6-5.8-7.9	5.2-6.1-8.8	5.5-6.7-9.5
	$L_{pNC}$		18	26	33	39	43

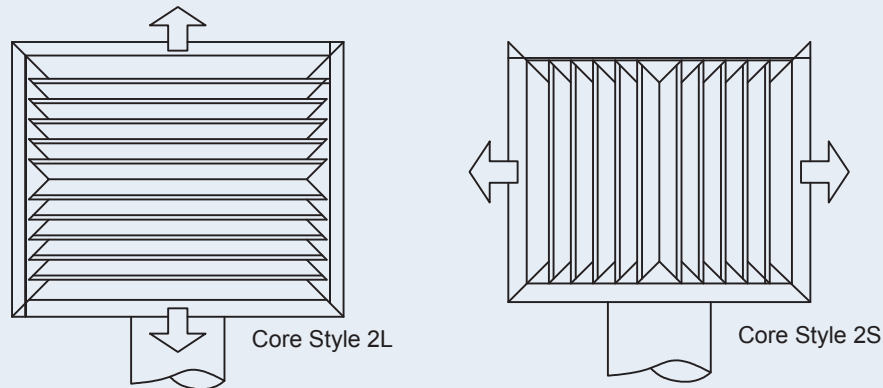
# Technical Data ADTF · ADTC



**Table 14 : Core Style 2/2C- 2 Way Discharge**

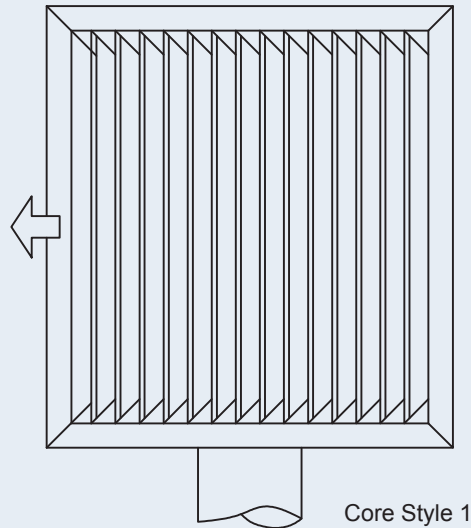
NECK SIZE	$V_k$ - m/s	1.0	1.5	2.0	2.5	3.0	3.5
	$\Delta P_t$ (Pa)	5	12	21	33	47	64
150 x 150	$\dot{V}$ (l/s)	24	36	48	60	72	84
	L	0.6-0.9-2.4	0.9-1.8-3.4	1.5-2.4-4.0	2.1-3.4-4.6	2.4-3.4-4.9	3.1-3.7-5.5
	$L_{pNC}$			16	22	28	33
225 x 225	$\dot{V}$ (l/s)	53	80	105	130	160	185
	L	0.9-1.5-3.1	1.5-2.4-4.3	2.1-3.1-4.9	2.7-4.0-5.5	3.1-4.3-6.1	3.7-4.6-6.7
	$L_{pNC}$			19	26	31	36
300 x 300	$\dot{V}$ (l/s)	95	140	190	240	280	330
	L	1.5-2.1-4.1	2.1-3.1-4.9	2.7-4.0-5.8	3.4-4.6-6.4	4.0-4.9-7.0	4.3-5.5-7.6
	$L_{pNC}$			22	28	34	39
375 x 375	$\dot{V}$ (l/s)	150	225	300	375	450	525
	L	1.8-2.7-4.6	2.7-4.0-5.5	3.7-4.6-6.4	4.3-5.2-7.3	4.6-5.5-7.9	4.9-6.1-8.5
	$L_{pNC}$			24	30	36	41
450 x 450	$\dot{V}$ (l/s)	212	320	425	530	640	750
	L	2.1-3.1-4.9	3.1-4.3-6.1	4.0-4.9-7.0	4.6-5.5-7.9	4.9-6.1-8.5	5.5-6.7-9.5
	$L_{pNC}$			25	32	37	42
525 x 525	$\dot{V}$ (l/s)	287	430	575	720	860	1010
	L	2.4-3.6-5.5	3.1-4.3-6.7	4.6-5.5-7.6	4.9-6.1-8.5	5.5-6.7-9.5	5.8-7.3-10.1
	$L_{pNC}$		18	27	33	39	49
600 x 600	$\dot{V}$ (l/s)	375	580	750	940	1120	1310
	L	2.7-4.0-5.8	4.0-4.9-7.0	4.9-5.8-8.2	5.2-6.4-9.2	5.8-7.0-10.1	6.4-7.6-11.0
	$L_{pNC}$		19	28	34	40	45

# Technical Data ADTF · ADTC



**Table 15 : Core Style 2L/2S- 2 Way Discharge**

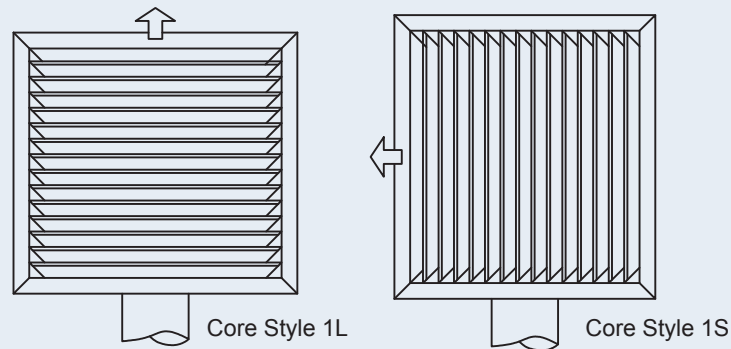
NECK SIZE	$V_k$ - m/s	1.0	1.5	2.0	2.5	3.0	3.5
	$\Delta P_t$ (Pa)	5	12	21	33	47	64
225 x 150	$\dot{V}$ (l/s)	35	55	70	90	110	130
	L	0.6-1.5-3.4	1.2-2.1-3.7	1.8-3.4-4.6	2.1-3.7-5.2	3.1-3.7-5.5	3.2-4.0-6.1
	$L_{pNC}$			17	24	29	34
300 x 150	$\dot{V}$ (l/s)	47	70	95	120	140	165
	L	0.9-1.5-3.4	1.5-2.4-4.0	2.1-3.4-4.9	2.4-4.0-5.5	3.3-4.0-6.1	3.5-4.3-6.7
	$L_{pNC}$			19	25	31	36
375 x 150	$\dot{V}$ (l/s)	60	90	120	150	180	210
	L	0.9-1.8-3.7	1.8-2.7-4.3	2.5-3.7-5.2	2.7-4.0-5.8	3.6-4.3-6.4	3.7-4.6-7.0
	$L_{pNC}$			19	26	31	35
450 x 150	$\dot{V}$ (l/s)	70	105	140	175	210	245
	L	0.9-1.8-3.7	1.8-2.7-4.6	2.4-3.7-5.5	3.1-4.3-6.1	3.7-4.6-6.7	4.0-4.9-7.3
	$L_{pNC}$			20	27	32	37
300 x 225	$\dot{V}$ (l/s)	70	105	140	175	210	245
	L	0.9-1.8-3.7	1.8-2.7-4.6	2.4-3.7-5.5	3.1-4.3-6.1	3.7-4.6-6.7	4.0-4.9-7.3
	$L_{pNC}$			20	27	32	37
375 x 225	$\dot{V}$ (l/s)	87	130	175	220	260	310
	L	1.2-2.0-4.1	2.1-3.1-4.9	2.7-4.0-5.8	3.4-4.6-6.4	4.0-4.9-7.0	4.3-5.2-7.6
	$L_{pNC}$			21	28	34	38
450 x 225	$\dot{V}$ (l/s)	105	160	210	265	320	375
	L	1.5-2.1-4.3	2.1-3.4-5.2	3.1-4.3-5.8	3.7-4.6-6.7	4.3-5.2-7.3	4.6-5.5-8.0
	$L_{pNC}$			22	29	34	39
525 x 225	$\dot{V}$ (l/s)	122	185	245	305	370	435
	L(m)	1.5-2.4-4.3	2.4-3.7-5.5	3.4-4.3-6.1	4.0-4.9-7.0	4.3-5.5-6.7	4.6-5.7-8.2
	$L_{pNC}$			23	30	35	40
375 x 300	$\dot{V}$ (l/s)	112	180	235	295	360	420
	L	1.5-2.4-4.3	2.4-3.4-5.2	3.1-4.3-6.1	3.7-4.9-6.7	4.3-5.2-7.6	4.6-5.5-8.2
	$L_{pNC}$			22	29	34	38
450 x 300	$\dot{V}$ (l/s)	140	210	280	350	420	490
	L(m)	1.8-2.4-4.6	2.4-4.0-5.5	3.4-4.6-6.4	4.3-5.2-7.0	4.6-5.5-7.9	4.9-6.1-8.5
	$L_{pNC}$			23	30	36	40
525 x 300	$\dot{V}$ (l/s)	165	250	330	415	500	585
	L	1.8-2.7-4.6	2.7-4.0-5.6	3.7-4.6-6.7	4.3-5.2-7.3	4.6-5.8-8.2	5.2-6.1-8.8
	$L_{pNC}$			24	31	36	41



**Table 16 : Core Style 1- 1 Way Discharge**

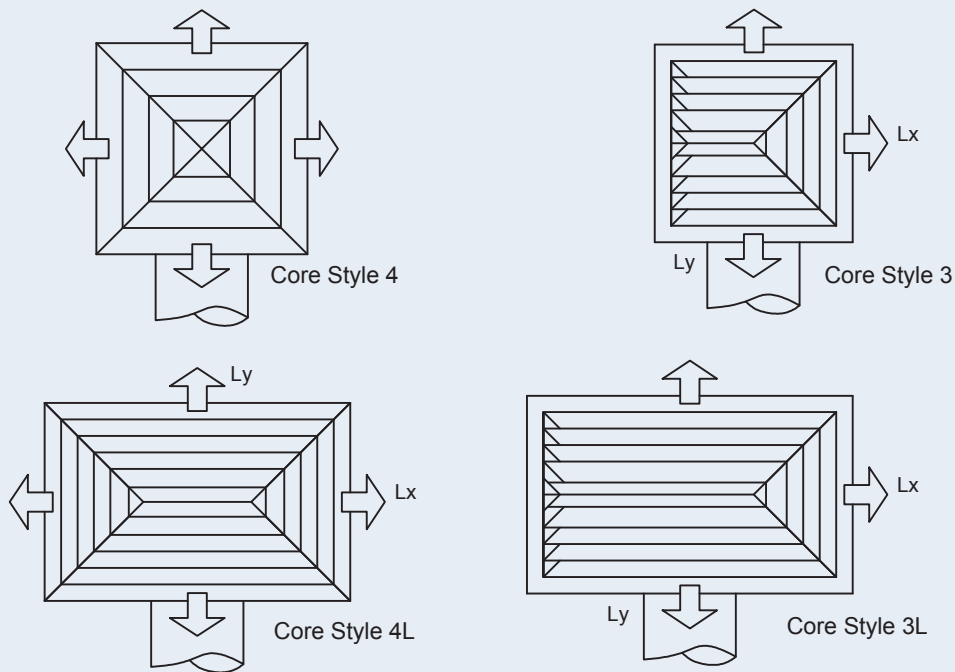
NECK SIZE	$V_k$ - m/s	1.0	1.5	2.0	2.5	3.0	3.5
	$\Delta P_t$ (Pa)	5	12	21	33	47	64
150 x 150	$\dot{V}$ (l/s)	24	36	48	60	72	84
	L(m)	0.4-0.8-1.5	0.8-1.0-2.7	0.9-1.5-3.5	1.2-2.1-3.8	1.6-2.7-4.2	2.1-3.3-4.5
	$L_{pNC}$			16	22	28	33
225 x 225	$\dot{V}$ (l/s)	53	80	105	130	160	185
	L(m)	1.5-2.1-4.3	2.1-3.4-5.2	3.1-4.3-5.8	3.7-4.6-6.7	4.3-5.2-7.3	4.6-5.5-7.9
	$L_{pNC}$			19	26	31	36
300 x 300	$\dot{V}$ (l/s)	95	140	190	240	280	330
	L(m)	1.8-3.1-4.9	3.1-4.3-5.8	4.0-4.9-6.7	4.6-5.5-7.6	4.9-5.8-8.5	5.2-6.4-9.2
	$L_{pNC}$			22	28	34	39
375 x 375	$\dot{V}$ (l/s)	150	225	300	375	450	525
	L(m)	2.4-3.7-5.5	3.7-4.6-6.7	4.6-5.5-7.6	4.9-6.1-8.5	5.5-6.7-9.5	5.8-7.3-10.2
	$L_{pNC}$			24	30	36	41
450 x 450	$\dot{V}$ (l/s)	212	320	425	530	640	750
	L(m)	3.1-4.3-6.1	4.3-5.2-7.3	4.9-6.1-8.5	5.5-6.7-9.5	6.1-7.3-10.4	6.4-7.9-10.2
	$L_{pNC}$			25	32	37	42
525 x 525	$\dot{V}$ (l/s)	287	430	575	720	860	1010
	L(m)	3.4-4.6-6.4	4.6-5.5-7.4	5.2-6.4-9.2	5.8-7.3-10.1	6.4-7.9-11.3	7.0-8.5-12.2
	$L_{pNC}$		18	27	33	39	44
600 x 600	$\dot{V}$ (l/s)	375	560	750	940	1120	1310
	L(m)	4.0-4.9-7.0	4.9-6.1-8.5	5.5-7.0-9.8	6.4-7.6-11.0	7.0-8.5-11.9	7.3-9.2-12.8
	$L_{pNC}$		19	28	34	40	45

# Technical Data ADTF · ADTC



**Table 17 : Core Style 1L/1S- 1 Way Discharge**

NECK SIZE	$V_k$ - m/s	1.0	1.5	2.0	2.5	3.0	3.5
	$\Delta P_t$ (Pa)	5	12	21	33	47	64
225 x 150	$\dot{V}$ (l/s)	35	50	70	90	100	120
	L	0.9-1.5-4.0	1.5-3.5-4.5	3.0-4.0-5.4	3.4-4.0-6.1	4.0-4.6-6.4	4.0-5.2-7.0
	$L_{pNC}$			17	24	29	34
300 x 150	$\dot{V}$ (l/s)	47	70	95	120	140	165
	L	1.2-1.8-4.3	1.8-3.7-4.9	3.4-4.3-5.8	3.7-4.3-6.7	4.3-4.9-7.0	4.3-5.5-7.6
	$L_{pNC}$			19	25	31	36
375 x 150	$\dot{V}$ (l/s)	60	90	120	150	180	210
	L	1.5-2.1-4.6	2.1-4.0-5.2	3.4-4.6-6.1	3.7-4.6-7.0	4.6-5.2-7.3	4.5-5.8-7.9
	$L_{pNC}$			19	26	31	35
450 x 150	$\dot{V}$ (l/s)	70	105	140	175	210	245
	L	1.5-2.4-4.6	2.4-4.0-5.5	3.7-4.6-6.4	4.0-4.9-7.3	4.6-5.5-7.6	4.9-6.1-8.2
	$L_{pNC}$			20	27	32	37
300 x 225	$\dot{V}$ (l/s)	70	105	140	175	210	245
	L	1.5-2.4-4.6	2.4-4.0-5.5	3.7-4.6-6.4	4.0-4.9-7.3	4.6-5.5-7.6	4.9-6.1-8.2
	$L_{pNC}$			20	27	32	37
375 x 225	$\dot{V}$ (l/s)	87	130	175	220	260	310
	L	1.8-2.7-4.9	2.7-4.3-5.8	4.0-4.9-6.7	4.3-5.2-7.6	4.9-5.8-8.2	5.2-6.4-8.8
	$L_{pNC}$			21	28	34	38
450 x 225	$\dot{V}$ (l/s)	106	160	112	265	320	375
	L	2.2-3.1-4.9	3.1-4.3-6.1	4.0-4.9-7.0	4.6-5.5-7.9	4.9-6.1-8.5	5.5-6.7-9.5
	$L_{pNC}$			22	29	34	39
525 x 225	$\dot{V}$ (l/s)	125	190	250	315	380	445
	L	2.1-3.4-5.2	3.4-4.6-6.4	4.3-5.2-7.3	4.9-5.8-8.2	5.2-6.4-8.8	5.5-7.0-9.8
	$L_{pNC}$			23	30	35	40
375 x 300	$\dot{V}$ (l/s)	112	180	235	245	360	420
	L	2.1-3.4-5.2	3.4-4.6-6.1	4.3-5.2-7.3	4.6-5.5-8.2	5.2-6.1-8.8	5.5-6.7-9.6
	$L_{pNC}$			22	29	34	38
450 x 300	$\dot{V}$ (l/s)	140	210	280	350	420	490
	L	2.4-3.7-5.5	3.7-4.6-6.7	4.3-5.5-7.6	4.9-6.1-8.5	5.5-6.7-9.2	5.8-7.0-10.1
	$L_{pNC}$			23	30	35	40
525 x 300	$\dot{V}$ (l/s)	165	250	330	415	500	585
	L	2.7-4.0-5.5	4.0-4.9-6.7	4.6-5.5-7.9	5.2-6.1-8.8	5.5-6.7-9.8	6.1-7.3-10.4
	$L_{pNC}$			24	31	36	41

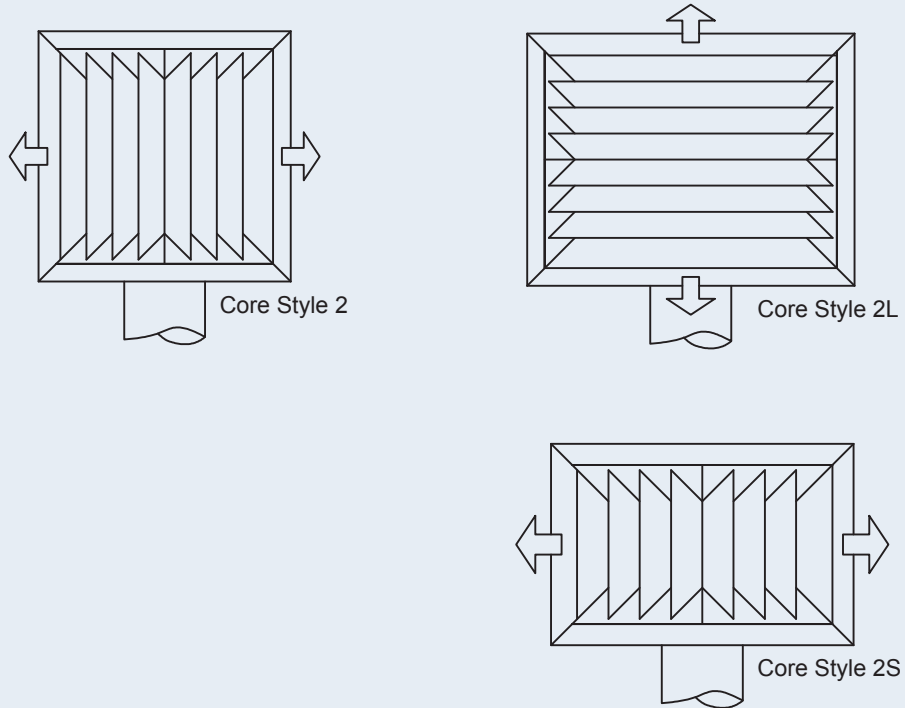


**Table 18 : Core Style 4/4L - 4 Way Discharge**

NECK SIZE	$V_k$ - m/s	1.0	1.5	2.0	2.5	3.0	3.5
	$\Delta P_t$ (Pa)	5	12	21	33	47	64
200 x 200	$\dot{V}$ (l/s)	40	60	80	100	120	140
	L(m)	0.5-1.1-2.0	0.8-1.4-2.5	1.3-1.6-3.6	1.5-2.1-4.4	1.8-2.6-4.8	2.0-3.1-5.1
	$L_{pNC}$			19	25	30	34
500 x 500	$\dot{V}$ (l/s)	250	375	500	625	700	875
	L(m)	1.7-2.6-4.5	2.3-3.8-5.4	3.1-4.5-7.1	3.8-5.0-7.0	4.3-5.3-7.5	4.8-5.7-8.2
	$L_{pNC}$		16	25	31	36	41
500 x 350	$\dot{V}$ (l/s)	175	263	350	438	525	613
	Lx	1.1-1.7-3.5	1.6-2.4-4.3	2.1-3.2-5.2	2.6-4.0-5.8	3.2-4.5-6.3	3.9-4.8-7.0
	Ly	1.5-2.3-4.5	2.1-3.2-5.3	2.9-4.2-6.1	3.6-4.9-6.8	4.2-5.1-7.3	4.8-5.7-7.9
	$L_{pNC}$			22	28	33	38

**Table 19 : Core Style 3/3L- 3 Way Discharge (Continued)**

NECK SIZE	$V_k$ - m/s	1.0	1.5	2.0	2.5	3.0	3.5
	$\Delta P_t$ (Pa)	5	12	21	33	47	64
200 x 200	$\dot{V}$ (l/s)	40	60	80	100	120	140
	Lx	0.5-1.1-2.0	0.8-1.4-2.5	1.3-1.6-3.6	1.5-2.1-4.4	1.8-2.6-4.8	2.0-3.1-5.1
	Ly	0.7-1.1-2.6	0.8-2.0-3.0	1.6-2.1-3.9	1.8-2.6-4.9	2.3-3.1-5.4	2.3-3.4-5.7
	$L_{pNC}$			19	25	30	34
500 x 500	$\dot{V}$ (l/s)	250	375	500	625	700	875
	Lx	1.7-2.6-4.5	2.5-3.8-5.4	3.8-4.5-6.1	3.8-5.0-7.0	4.3-5.3-7.5	4.8-5.7-8.2
	Ly	2.0-3.3-5.1	3.2-4.1-6.0	4.0-5.1-6.7	4.1-5.6-7.6	4.9-5.9-8.4	5.4-6.3-9.2
	$L_{pNC}$		16	25	31	36	41
500 x 350	$\dot{V}$ (l/s)	175	263	350	438	525	613
	Lx	1.1-1.7-3.5	1.6-2.4-4.3	2.1-3.2-5.2	2.6-4.0-5.8	3.2-4.5-6.3	3.9-4.8-7.0
	Ly	1.7-2.5-4.4	2.4-3.6-5.4	3.2-4.0-6.4	3.6-4.8-7.0	4.0-5.6-7.7	4.7-5.6-8.4
	$L_{pNC}$			22	28	33	38

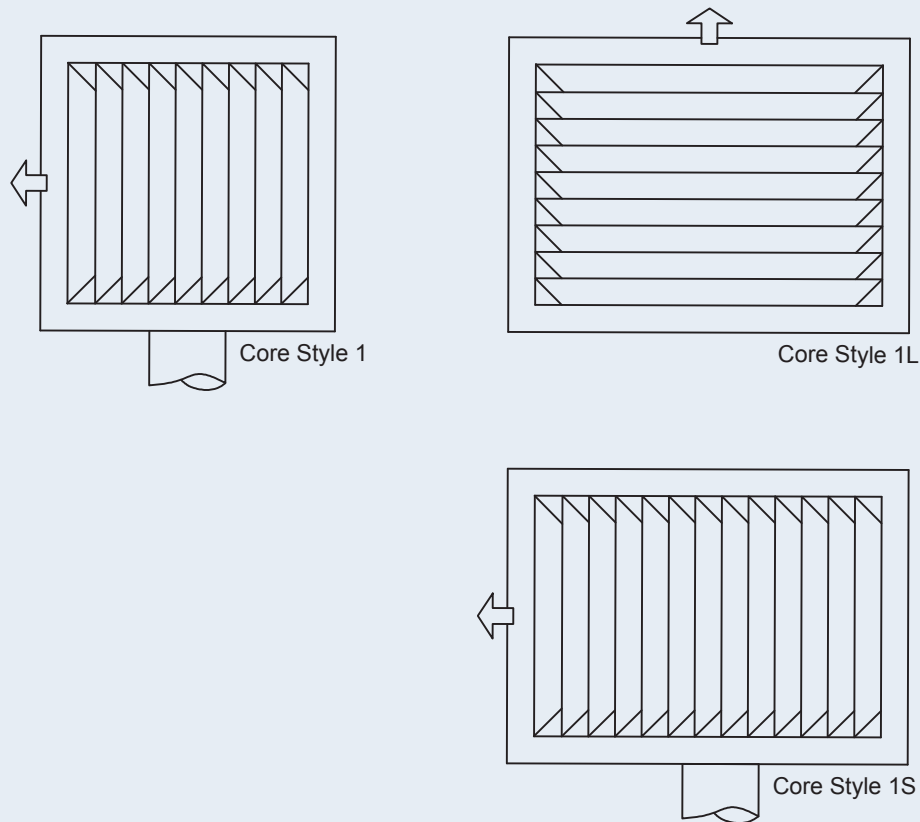


**Table 20 : Core Style 2 - 2 Way Discharge**

NECK SIZE	$V_k$ - m/s	1.0	1.5	2.0	2.5	3.0	3.5
	$\Delta P_t$ (Pa)	6	12	23	38	54	73
200 x 200	$\dot{V}$ (l/s)	40	60	80	100	120	140
	L	0.6-1.1-2.2	1.2-1.8-3.6	1.6-2.6-4.6	2.1-3.2-5.1	2.7-4.0-5.7	3.0-4.4-6.1
	$L_{pNC}$			19	25	30	34
500 x 500	$\dot{V}$ (l/s)	250	375	500	625	700	875
	L	2.4-3.6-5.6	3.3-4.4-6.5	4.3-5.6-7.4	4.9-5.9-8.3	5.1-6.3-8.7	5.7-7.0-9.9
	$L_{pNC}$		16	25	31	36	41

**Table 21 : Core Style 2L/ 2S - 2 Way Discharge**

NECK SIZE	$V_k$ - m/s	1.0	1.5	2.0	2.5	3.0	3.5
	$\Delta P_t$ (Pa)	6	12	23	38	54	73
500 x 350	$\dot{V}$ (l/s)	175	263	350	438	525	613
	L	2.1-3.0-4.9	3.0-4.3-5.8	4.0-4.9-7.3	4.6-5.5-7.8	4.9-6.1-8.8	5.6-6.5-9.4
	$L_{pNC}$			22	28	33	38



**Table 22 : Core Style 1 - 1Way Discharge**

NECK SIZE	$V_k$ - m/s	1.0	1.5	2.0	2.5	3.0	3.5
	$\Delta P_t$ (Pa)	6	12	23	38	54	73
200 x 200	$\dot{V}$ (l/s)	40	60	80	100	120	140
	L	1.4-1.9-4.1	1.7-2.6-5.0	2.3-3.6-5.6	3.1-4.4-6.1	3.6-4.8-6.8	4.2-5.1-7.4
	$L_{pNC}$			19	25	30	34
500 x 500	$\dot{V}$ (l/s)	250	375	500	625	700	875
	L	3.4-4.6-6.5	4.3-5.4-7.3	5.1-6.1-8.6	5.6-7.1-10.0	6.0-7.5-10.4	6.7-7.1-11.8
	$L_{pNC}$		16	25	31	36	41

**Table 23 : Core Style 1L/ 1S - 1 Way Discharge**

NECK SIZE	$V_k$ - m/s	1.0	1.5	2.0	2.5	3.0	3.5
	$\Delta P_t$ (Pa)	6	12	23	38	54	64
500 x 350	$\dot{V}$ (l/s)	175	263	350	438	525	613
	L	3.3-4.6-5.8	4.6-5.2-7.0	4.9-5.8-8.5	5.5-6.4-9.4	5.8-7.0-10.8	6.7-7.6-11.0
	$L_{pNC}$			22	28	33	38

# Flow Measurement

## Air Flow Measurement

Place velocity probe in a position as shown :  
 for supply air : at various slots and locations.  
 For return air : outer slot only.  
 Determine the average velocity and calculate  
 volume flow rate as shown :

$$\dot{V} = A_{\text{eff}} \times V_{\text{eff}} \times 1000$$

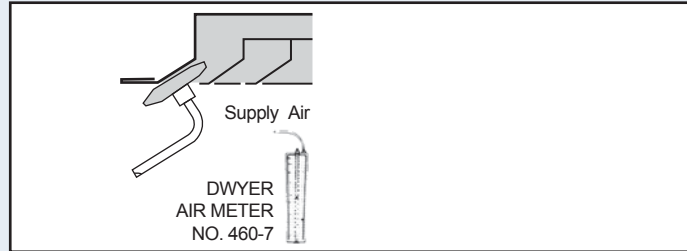
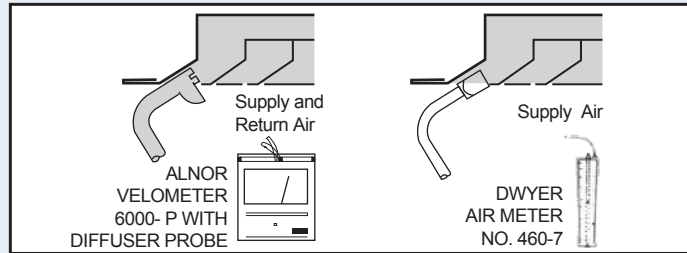
Supply and Return air with ALNOR.

$$\dot{V} = A_{\text{eff}} \times V_{\text{eff}} \times 930$$

Supply air with DWYER.

$$\dot{V} = A_{\text{eff}} \times V_{\text{eff}} \times 1080$$

Supply air with DWYER.



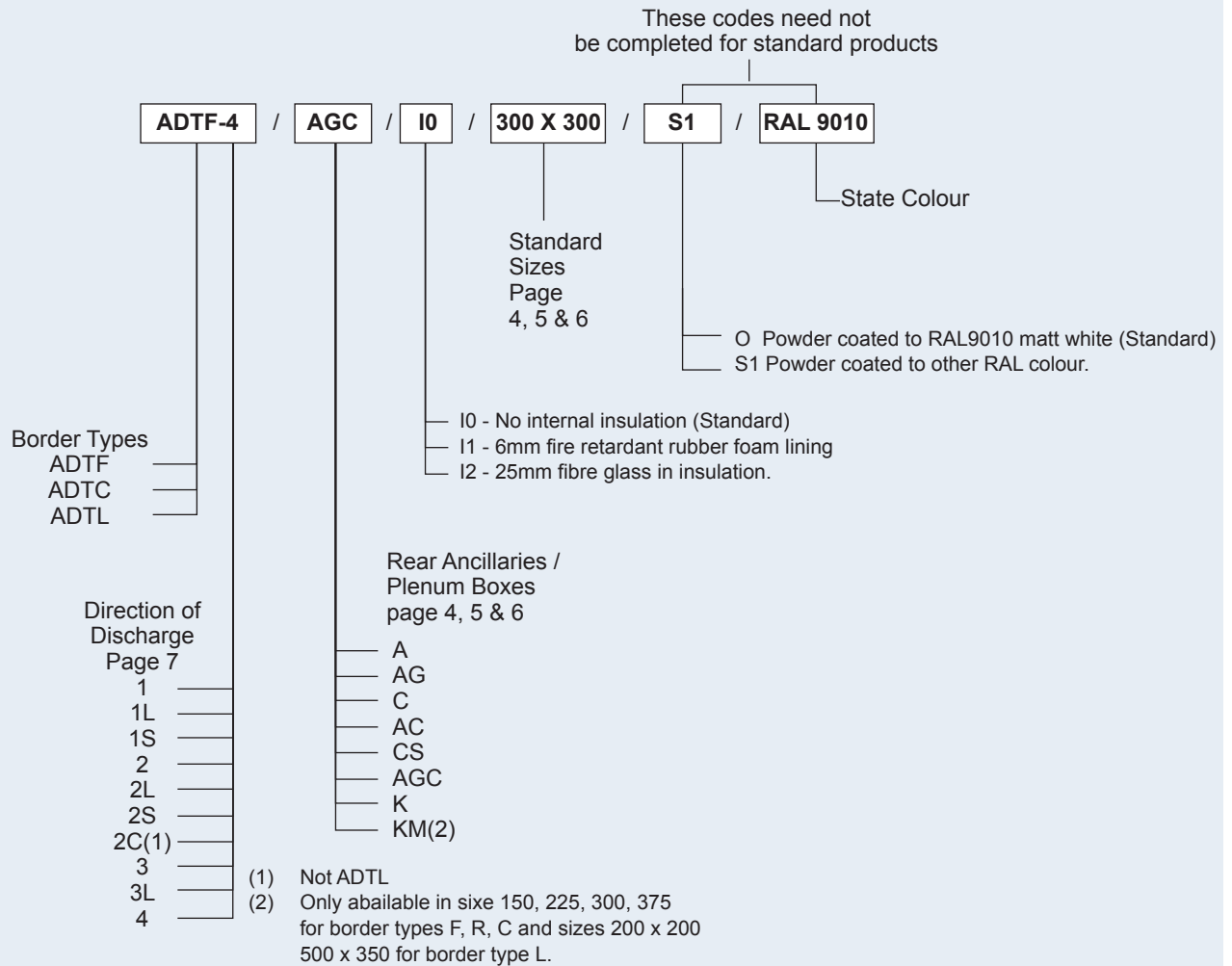
**Table 24 : Effective Areas ( $A_{\text{eff}}$ ) - Types ADTF. ADTC**

NECK SIZE	Core Style							
	1 - 2C - 4		2 - 3		2L - 3L - 4L		1L - 1S - 2S	
	Supply	Return	Supply	Return	Supply	Return	Supply	Return
150 X 150	0.007	0.007	0.006	0.006				
225 X 150					0.009	0.008	0.01	0.009
300 X 150					0.012	0.011	0.016	0.012
375 X 150					0.016	0.014	0.018	0.015
450 X 150					0.02	0.017	0.022	0.019
225 X 225	0.017	0.015	0.015	0.013				
300 X 225					0.02	0.017	0.022	0.019
375 X 225					0.026	0.021	0.028	0.023
450 X 225					0.031	0.025	0.034	0.028
525 X 225					0.037	0.03	0.04	0.032
300 X 300	0.032	0.026	0.030	0.024				
375 X 300					0.037	0.029	0.039	0.03
450 X 300					0.044	0.035	0.047	0.037
525 X 300					0.052	0.04	0.056	0.043
375 X 375	0.05	0.039	0.048	0.037				
450 X 375					0.058	0.044		
525 X 375					0.068	0.051		
450 X 450	0.074	0.055	0.071	0.053				
525 X 450					0.083	0.061		
600 X 450					0.096	0.07		
525 X 525	0.102	0.074	0.099	0.072				
600 X 600	0.135	0.095	0.092	0.092				

**Table 25 : Effective Areas ( $A_{\text{eff}}$ ) - Types ADTL**

NECK SIZE	Core Style							
	1 - 4		2 - 3		2L - 3L - 4L		1L - 1S - 2S	
	Supply	Return	Supply	Return	Supply	Return	Supply	Return
200 X 200	0.013	0.011	0.011	0.010				
500 X 500	0.081	0.07	0.079	0.068				
500 X 350					0.053	0.046	0.057	0.049

## Order Code



## Specification Text

Square or rectangular ceiling diffuser with removable 1, 2, 3, or 4 way discharge core suitable for horizontal discharge. The diffuser core has fixed air control blades and is held securely in position by means of spring loaded pins. The perimeter border has a number of optional styles, flange for flush mounting on ceiling surface, recessed to enable flush mounting with ceiling tiles, recessed with clip fixing detail (Burgess type ceilings) or lay-in 'T' Bar. Optional ancillaries, double flap or opposed blade volume control dampers, mounted on rear of diffuser; top entry plenum boxes; dampers if required; side entry boxes; dampers if required. All plenum boxes complete with hanging brackets for suspending assembly from the ceiling slab.

## Material

The diffuser face is in extruded aluminium sections, powder coated white (RAL 9010), rear ancillaries in formed sheet steel surfaces painted black (RAL 9005). The plenum box is galvanised sheet steel.

## Order details

Make: TROX  
Type: ADTF-4/AGC/300 x 300

