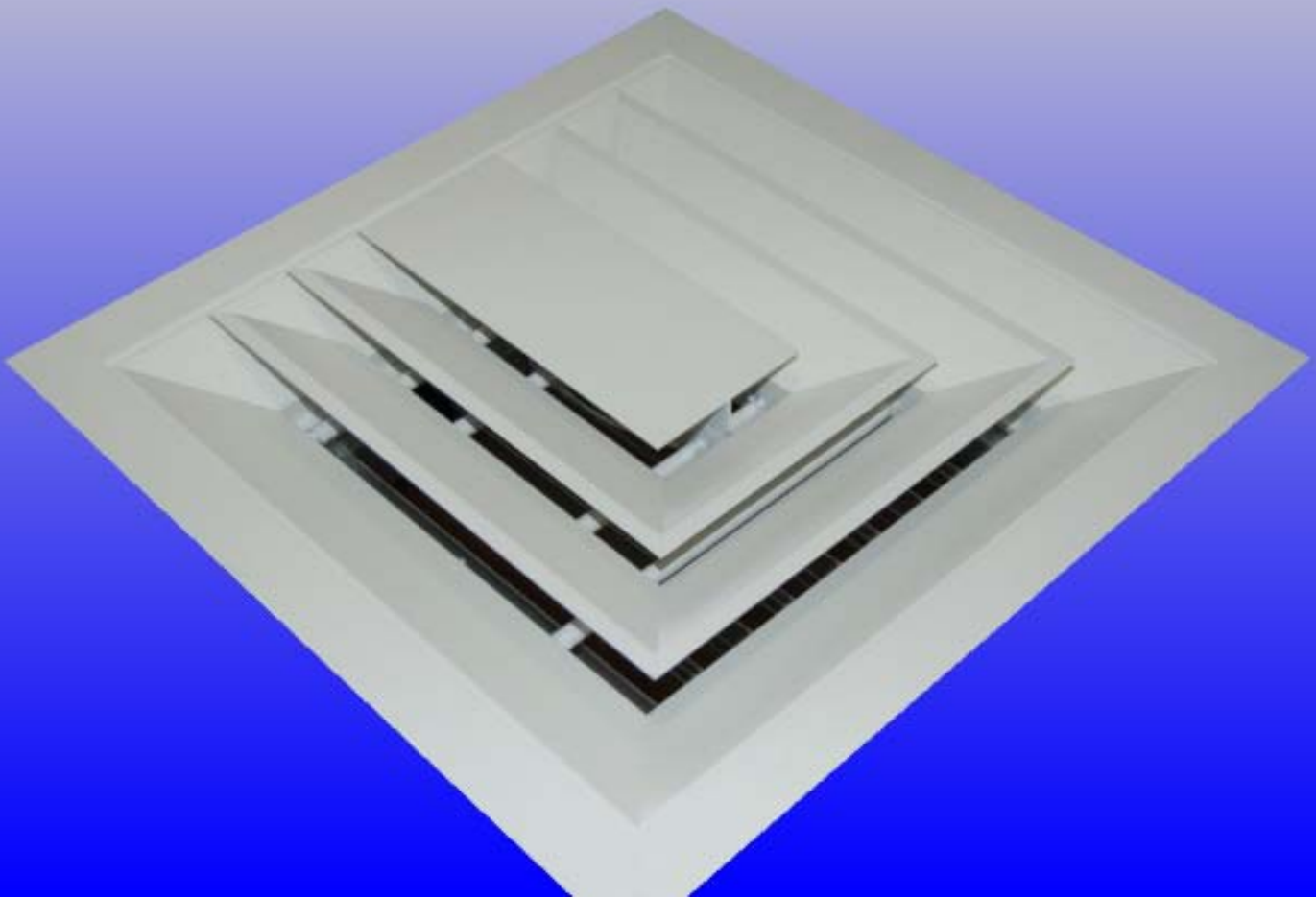




# **Ceiling diffuser - 3 way blow Series CD3**



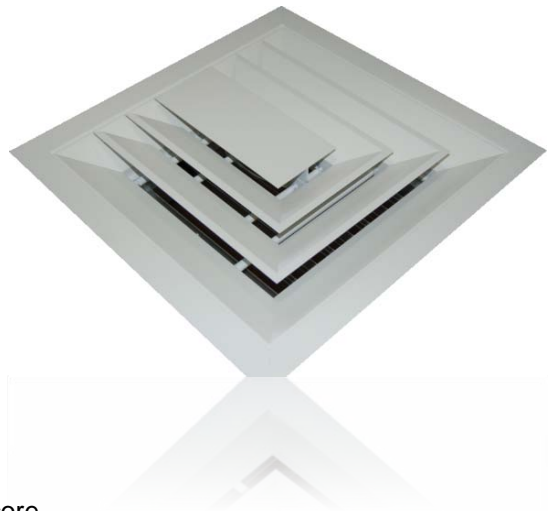
# Ceiling diffuser - 3 way blow

## Model

CD3

## Overview

3 way blow ceiling diffusers are best suited to supply applications, their blow pattern making them especially useful when positioned next to a wall, where directing air at the wall would be wasteful. When positioned correctly, a CD3 can be an efficient method of directing air where it is needed, while retaining comfort in the nearby vicinity.



## Construction

- Extruded aluminium frame (30mm flat flange) and core.
- Welded corners, reinforced with pressed aluminium corners on frame.
- Removable core utilising spring clips and safety cord as standard

## Options and accessories

HVC can supply you a standard 3 way blow ceiling diffuser, or a customised unit made to your exact specifications. Please see our list of options and accessories below for an overview of what we can do.

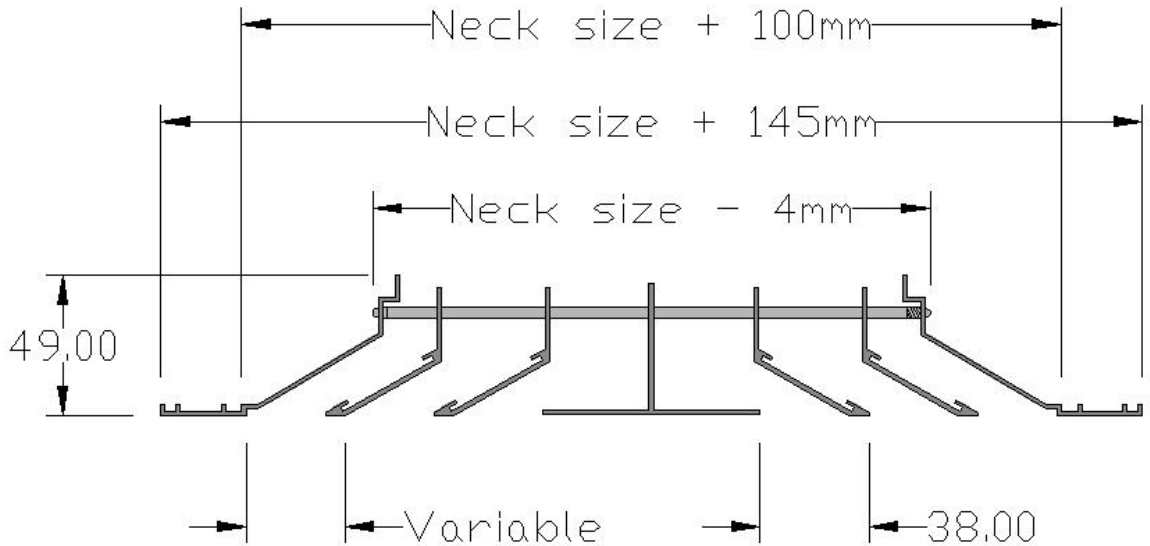
- **Opposed blade damper** - Operated via key/screwdriver, access possible by removing core. . Lever operated OBDs can also be fitted to ceiling diffusers, access is also possible by removing the core.
- **Blanking plate** - Blanking plates enable a portion or all of the grille to be disabled. These are useful with CD3s when line of sight through the diffuser is undesirable. However, if air movement is the main criteria our range of 2 way blow and 1 way blow ceiling diffusers may be better suited to your needs.
- **Specialised tiles** - HVC can cater for situations where specific tile formats are needed. Please get in touch with our sales team for more information on CD3s fitted into tile layouts such as Burgess clip in systems.



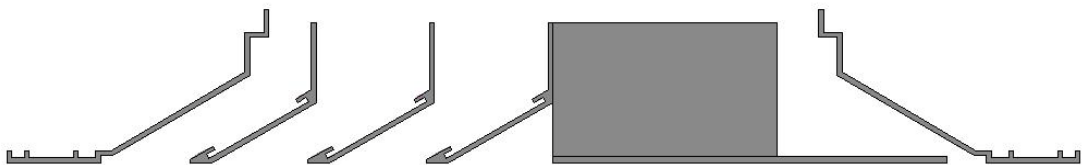
## Technical information

- Free area - Approximately 50%
- CD3      Mass / M<sup>2</sup> - 8.5 KG
- CD3/D    Mass / M<sup>2</sup> - 16 KG
  
- \_\_\_ x \_\_\_ - CD3

### Front profile



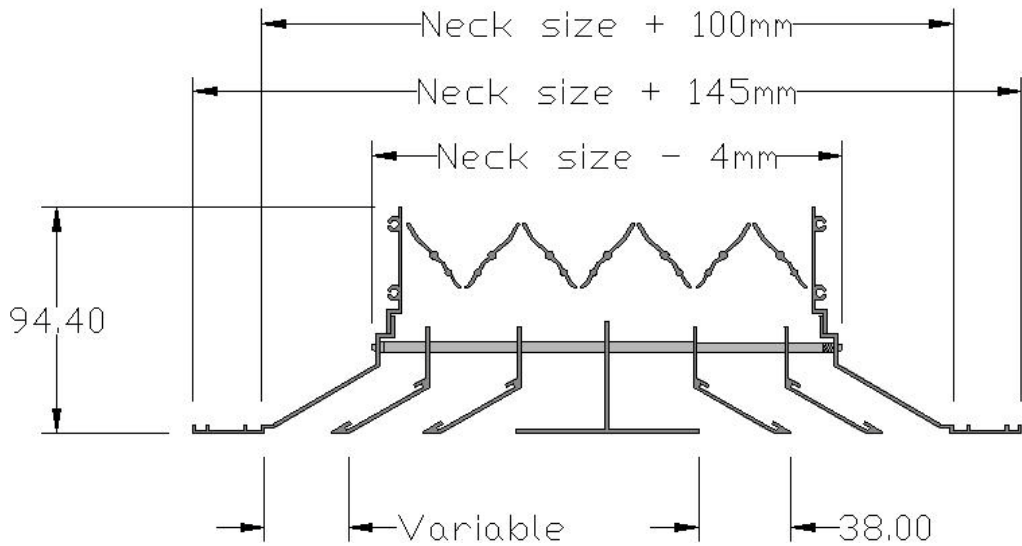
### Side profile



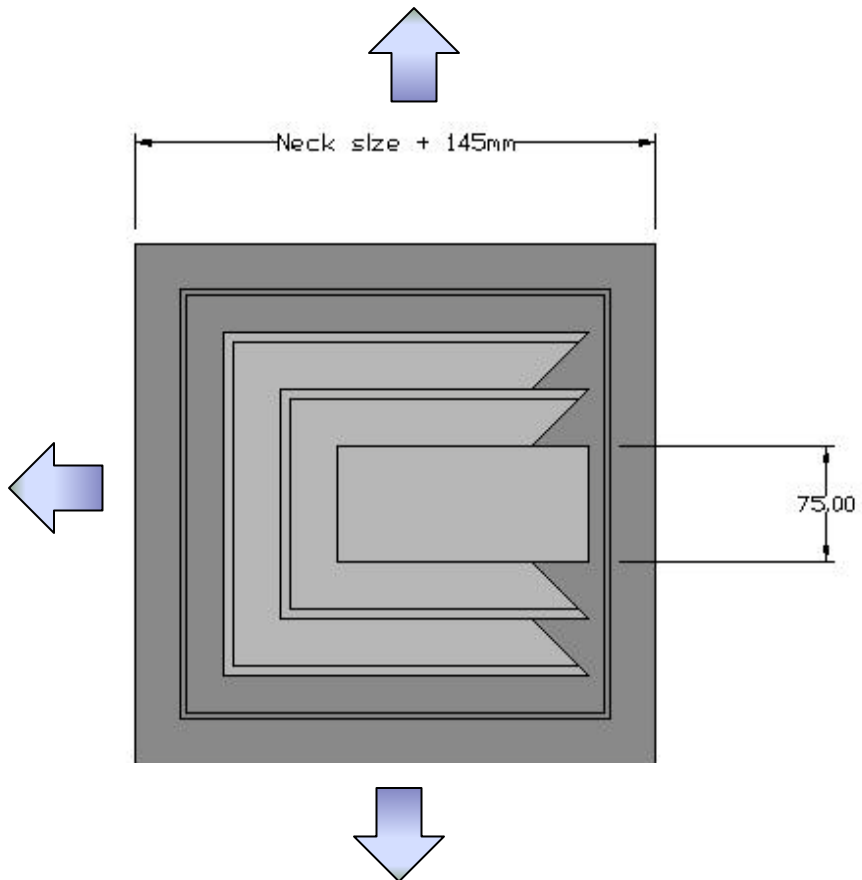
Spacing between frame and outermost blade is variable based on the size of diffuser selected. Never will this gap be large enough to enable line of sight into ductwork / ceiling void from directly below the diffuser.



- \_\_\_ x \_\_\_ - CD3 - D



- \_\_\_ x \_\_\_ - CD3 / \_\_\_ x \_\_\_ - CD3 - D



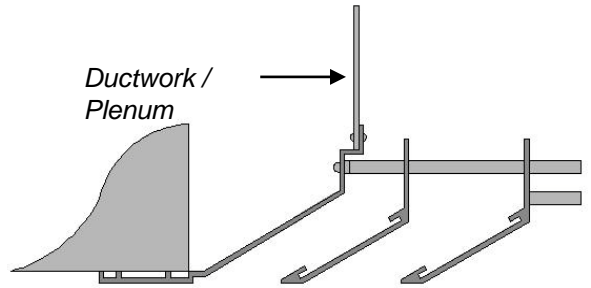
Spacing between frame and outermost blade is variable based on the size of diffuser selected. Never will this gap be large enough to enable line of sight into ductwork / ceiling void from directly below the diffuser.



## Installation instructions

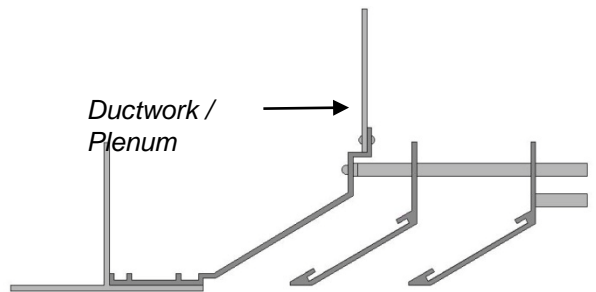
### • SURFACE MOUNTED

A surface mounted CD2 must be put into position and then fixed to supporting ductwork or plenum, using pop rivets or another suitable fixing method. This is easiest when the core is removed allowing access through the face of the grille



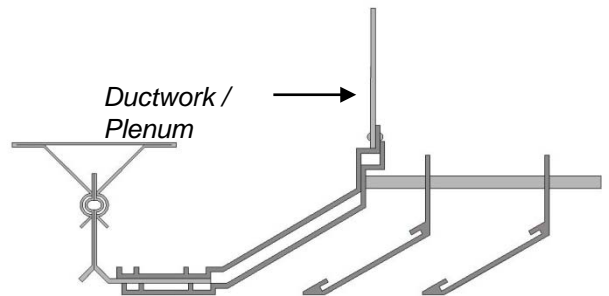
### • LAY IN

Simply lay the diffuser into the pre-prepared T bar ceiling grid and then through the face, connect the diffuser to the ductwork.



### • BURGESS / OTHER TILE SYSTEM

The diffuser will be fitted into the tile before despatch. Installation then involves simply clipping the burgess tile into the pre-prepared ceiling grid.



Please note - Diagrams are for illustrative purposes only



### CD3 – Square sizes

SIZE	AK m sq.	NECK VELOCITY m/s	1.5	2	2.5	3	3.5
		<b>Total Pd mm wg</b>	<b>0.9</b>	<b>1.5</b>	<b>2.3</b>	<b>3.3</b>	<b>4.3</b>
<b>150 x 150</b>	<b>0.0097</b>	<b>m cub/sec</b>	0.0361	0.0472	0.0597	0.0708	0.0833
		<b>Throw min-max (m)</b>	0.7 - 1.6	0.9 - 1.9	1.3 - 2.2	1.6 - 2.5	1.6 - 2.8
		<b>Noise (dB)</b>					19
<b>225 x 225</b>	<b>0.0219</b>	<b>m cub/sec</b>	0.0805	0.1069	0.1319	0.1611	0.1861
		<b>Throw min-max (m)</b>	1.3 - 2.5	1.6 - 3.1	1.9 - 3.4	2.2 - 3.7	2.5 - 4.0
		<b>Noise (dB)</b>				23	27
<b>300 x 300</b>	<b>0.039</b>	<b>m cub/sec</b>	0.1416	0.1888	0.2361	0.2833	0.3305
		<b>Throw min-max (m)</b>	1.6 - 3.4	1.9 - 4.0	2.5 - 4.3	2.9 - 4.9	3.4 - 5.2
		<b>Noise (dB)</b>		20	25	29	32
<b>375 x 375</b>	<b>0.0609</b>	<b>m cub/sec</b>	0.2222	0.2958	0.368	0.4444	0.5166
		<b>Throw min-max (m)</b>	1.9 - 4.3	2.2 - 4.9	3.1 - 5.5	3.7 - 6.1	4.3 - 6.4
		<b>Noise (dB)</b>		24	29	33	37
<b>450 x 450</b>	<b>0.0878</b>	<b>m cub./sec.</b>	0.3194	0.425	0.5319	0.6375	0.7444
		<b>Throw min-max (m)</b>	2.2 - 5.2	2.8 - 5.8	3.7 - 6.7	4.3 - 7.4	4.9 - 8.0
		<b>Noise (dB)</b>	22	28	33	36	40
<b>525 x 525</b>	<b>0.12</b>	<b>m cub./sec.</b>	0.4347	0.5791	0.7222	0.8694	1.0138
		<b>Throw min-max (m)</b>	2.5 - 6.1	3.4 - 7.1	4.3 - 7.7	4.9 - 8.6	5.8 - 9.2
		<b>Noise (dB)</b>	25	31	36	39	43
<b>600 x 600</b>	<b>0.156</b>	<b>m cub./sec.</b>	0.5666	0.7555	0.9444	11.3330	13.2220
		<b>Throw min-max (m)</b>	2.8 - 6.7	4.0 - 8.0	4.6 - 4.9	5.8 - 9.8	6.7 - 10.4
		<b>Noise (dB)</b>	27	33	38	43	46



## CD3S – Shorter side blades

SIZE	AK m sq.	NECK VELOCITY m/s	1.5	2	2.5	3	3.5
		<b>Total Pd mm wg</b>	<b>0.9</b>	<b>1.5</b>	<b>2.3</b>	<b>3.3</b>	<b>4.3</b>
<b>225 x 150</b>	<b>0.0147</b>	m cub/sec	0.0541	0.0708	0.0902	0.1069	0.1250
		Throw min-max (m) - Front	1.2 - 2.5	1.9 - 4.0	1.9 - 3.4	2.2 - 3.7	3.4 - 5.2
		Throw min-max (m) - Sides	0.9 - 2.5	1.3 - 2.8	1.6 - 3.1	1.9 - 3.4	2.2 - 3.7
		Noise (dB)			23	27	30
		m cub/sec	0.0708	0.0944	0.1180	0.1416	0.1652
<b>300 x 150</b>	<b>0.0195</b>	Throw min-max (m) - Front	1.6 - 6.4	1.9 - 4.0	2.5 - 4.3	2.8 - 4.9	3.4 - 5.2
		Throw min-max (m) - Sides	0.9 - 2.5	1.3 - 2.8	1.6 - 3.1	1.9 - 3.4	2.2 - 3.7
		Noise (dB)			24	28	32
<b>375 x 150</b>	<b>0.0244</b>	m cub/sec	0.0902	0.1180	0.1486	0.1777	0.2083
		Throw min-max (m) - Front	1.9 - 4.3	2.5 - 4.9	3.1 - 5.5	3.4 - 5.8	4.0 - 6.4
		Throw min-max (m) - Sides	0.9 - 2.5	1.3 - 2.8	1.9 - 3.1	1.9 - 3.4	2.2 - 3.7
		Noise (dB)		20	26	29	33
<b>450 x 150</b>	<b>0.0292</b>	m cub/sec	0.1083	0.1416	0.1791	0.2125	0.2500
		Throw min-max (m) - Front	2.2 - 4.9	2.8 - 5.5	3.4 - 6.4	4.0 - 6.7	4.6 - 7.3
		Throw min-max (m) - Sides	0.9 - 2.5	1.3 - 2.8	1.9 - 3.1	1.9 - 3.4	2.2 - 3.7
		Noise (dB)		22	27	30	34
<b>300 x 225</b>	<b>0.0292</b>	m cub/sec	0.1083	0.1416	0.1791	0.2125	0.2500
		Throw min-max (m) - Front	1.6 - 3.4	1.9 - 4.0	2.5 - 4.3	2.8 - 4.9	3.4 - 5.2
		Throw min-max (m) - Sides	1.6 - 3.4	1.9 - 4.0	2.5 - 4.3	2.8 - 4.9	3.4 - 5.2
		Noise (dB)		22	27	30	34
<b>375 x 225</b>	<b>0.0367</b>	m cub/sec	0.1319	0.1777	0.2222	0.2666	0.3125
		Throw min-max (m) - Front	1.9 - 4.3	2.5 - 4.9	3.1 - 5.5	3.7 - 6.1	4.3 - 6.4
		Throw min-max (m) - Sides	1.6 - 3.7	1.9 - 4.3	2.5 - 4.6	3.1 - 5.2	3.4 - 5.5
		Noise (dB)		22	27	32	35
<b>525 x 225</b>	<b>0.0511</b>	m cub/sec	0.1861	0.2486	0.3097	0.3708	0.4319
		Throw min-max (m) - Front	2.5 - 5.8	3.4 - 6.7	4.0 - 7.7	4.9 - 8.6	5.8 - 6.1
		Throw min-max (m) - Sides	1.6 - 3.7	2.2 - 4.3	2.5 - 4.6	3.1 - 5.2	3.4 - 5.5
		Noise (dB)		24	29	33	37
<b>375 x 300</b>	<b>0.0487</b>	m cub/sec	0.1777	0.2361	0.2958	0.3541	0.4138
		Throw min-max (m) - Front	1.9 - 4.3	2.5 - 4.9	3.1 - 5.5	3.7 - 6.1	4.3 - 6.4
		Throw min-max (m) - Sides	1.9 - 3.4	2.5 - 4.0	3.1 - 4.6	3.7 - 4.9	4.3 - 5.2
		Noise (dB)		24	29	33	36
<b>450 x 300</b>	<b>0.0585</b>	m cub/sec	0.2125	0.2833	0.3541	0.4250	0.4958
		Throw min-max (m) - Front	2.2 - 5.2	2.8 - 5.8	3.7 - 6.7	4.3 - 7.3	4.9 - 8.0
		Throw min-max (m) - Sides	1.9 - 4.6	2.5 - 5.5	3.4 - 6.1	4.0 - 6.7	4.6 - 7.4
		Noise (dB)		25	30	33	37
<b>450 x 375</b>	<b>0.0732</b>	m cub/sec	0.2666	0.3541	0.4444	0.5333	0.6208
		Throw min-max (m) - Front	2.5 - 5.5	3.1 - 6.4	4.0 - 7.1	4.6 - 8.0	5.5 - 8.6
		Throw min-max (m) - Sides	2.2 - 5.2	2.8 - 5.8	3.7 - 6.7	4.3 - 7.3	4.9 - 8.0
		Noise (dB)	20	26	31	35	38
<b>525 x 450</b>	<b>0.1020</b>	m cub/sec	0.3736	0.4958	0.6208	0.7458	0.8694
		Throw min-max (m) - Front	2.8 - 6.7	3.7 - 7.7	4.6 - 8.6	5.5 - 9.5	6.4 - 10.1
		Throw min-max (m) - Sides	2.5 - 6.1	3.4 - 7.1	4.3 - 7.7	4.9 - 8.6	5.8 - 9.2
		Noise (dB)	22	28	34	37	40

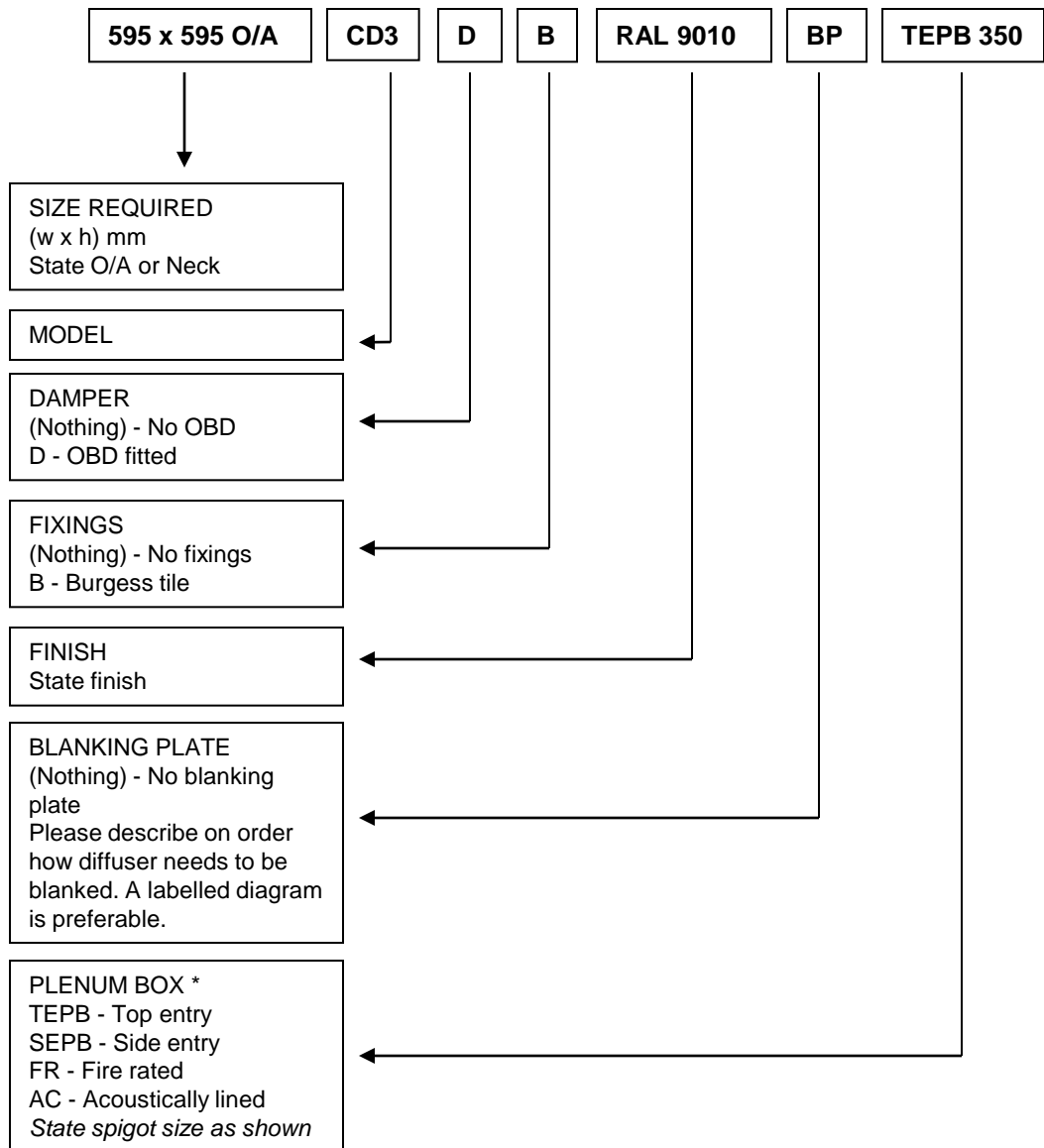


## CD3S – Longer side blades

SIZE	AK m sq.	NECK VELOCITY m/s	1.5	2	2.5	3	3.5
		<b>Total Pd mm wg</b>	<b>0.9</b>	<b>1.5</b>	<b>2.3</b>	<b>3.3</b>	<b>4.3</b>
<b>225 x 150</b>	<b>0.0147</b>	m cub/sec	0.0541	0.0708	0.0902	0.1069	0.1250
		Throw min-max (m) - Front	0.7 - 1.9	0.9 - 1.9	1.9 - 3.4	2.2 - 4.0	2.8 - 4.3
		Throw min-max (m) - Sides	1.3 - 2.8	1.6 - 3.1	1.9 - 3.4	2.2 - 4.0	2.8 - 4.3
		Noise (dB)			23	27	30
<b>300 x 150</b>	<b>0.0195</b>	m cub/sec	0.0708	0.0944	0.1180	0.1486	0.1652
		Throw min-max (m) - Front	0.7 - 1.9	0.9 - 1.9	1.3 - 2.2	1.6 - 2.5	1.6 - 2.8
		Throw min-max (m) - Sides	1.3 - 3.4	1.9 - 3.7	2.2 - 4.3	2.8 - 4.6	3.2 - 4.9
		Noise (dB)			24	28	32
<b>375 x 150</b>	<b>0.0244</b>	m cub/sec	0.0902	0.1180	0.1486	0.1777	0.2083
		Throw min-max (m) - Front	0.6 - 1.9	0.9 - 1.9	1.3 - 2.2	1.6 - 2.5	1.6 - 2.8
		Throw min-max (m) - Sides	1.6 - 3.7	2.2 - 4.3	2.5 - 4.6	3.1 - 5.2	3.7 - 5.5
		Noise (dB)		20	26	29	33
<b>300 x 225</b>	<b>0.0292</b>	m cub/sec	0.1083	0.1416	0.1791	0.2125	0.2500
		Throw min-max (m) - Front	0.9 - 2.5	1.6 - 3.1	1.9 - 3.4	2.2 - 3.7	2.5 - 4.0
		Throw min-max (m) - Sides	1.6 - 3.7	2.2 - 4.3	2.8 - 4.9	3.1 - 5.5	3.7 - 5.8
		Noise (dB)		22	27	30	34
<b>375 x 225</b>	<b>0.0367</b>	m cub/sec	0.1319	0.1777	0.2222	0.2666	0.3125
		Throw min-max (m) - Front	0.9 - 2.5	1.6 - 3.1	1.9 - 3.4	2.2 - 3.7	
		Throw min-max (m) - Sides	1.9 - 4.3	2.5 - 4.9	3.1 - 5.5	3.6 - 6.1	4.3 - 6.7
		Noise (dB)		22	27	32	35
<b>525 x 225</b>	<b>0.0511</b>	m cub/sec	0.1861	0.2486	0.3097	0.3708	0.4319
		Throw min-max (m) - Front	1.3 - 2.5	1.6 - 3.1	1.9 - 3.4	2.3 - 3.7	2.5 - 4.0
		Throw min-max (m) - Sides	2.2 - 5.2	2.8 - 6.1	3.7 - 6.7	4.3 - 7.4	5.2 - 8.0
		Noise (dB)		24	29	33	37
<b>375 x 300</b>	<b>0.0487</b>	m cub/sec	0.1777	0.2361	0.2958	0.3541	0.4138
		Throw min-max (m) - Front	1.6 - 3.4	1.9 - 4.0	2.5 - 4.3	2.8 - 4.9	3.4 - 5.2
		Throw min-max (m) - Sides	2.2 - 4.9	2.8 - 5.8	3.4 - 6.4	4.0 - 6.7	4.6 - 7.4
		Noise (dB)					
<b>450 x 300</b>	<b>0.0585</b>	m cub/sec	0.2125	0.2833	0.3541	0.4250	0.4958
		Throw min-max (m) - Front	1.6 - 3.4	1.9 - 4.0	2.5 - 4.3	2.8 - 4.9	3.4 - 5.2
		Throw min-max (m) - Sides	2.2 - 5.5	3.1 - 6.4	3.7 - 7.1	4.6 - 8.0	5.2 - 8.3
		Noise (dB)		25	30	33	37
<b>450 x 375</b>	<b>0.0732</b>	m cub/sec	0.2666	0.3541	0.4444	0.5333	0.6208
		Throw min-max (m) - Front	1.9 - 4.3	2.5 - 4.9	3.1 - 5.5	3.7 - 6.1	4.3 - 6.4
		Throw min-max (m) - Sides	2.5 - 5.8	3.4 - 6.7	4.0 - 7.7	4.9 - 8.3	5.8 - 9.2
		Noise (dB)	20	26	31	35	38
<b>525 x 450</b>	<b>0.102</b>	m cub/sec	0.3736	0.4958	0.6208	0.7458	0.8694
		Throw min-max (m) - Front	2.2 - 5.2	2.8 - 5.8	3.7 - 6.7	4.3 - 7.4	4.9 - 8.0
		Throw min-max (m) - Sides	2.8 - 7.1	4.0 - 8.0	4.9 - 8.9	5.8 - 9.8	6.7 - 10.7
		Noise (dB)	22	28	32	37	40



## Ordering Codes



\* Plenum boxes are as standard 100mm deep, please state should other depth be required.

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