



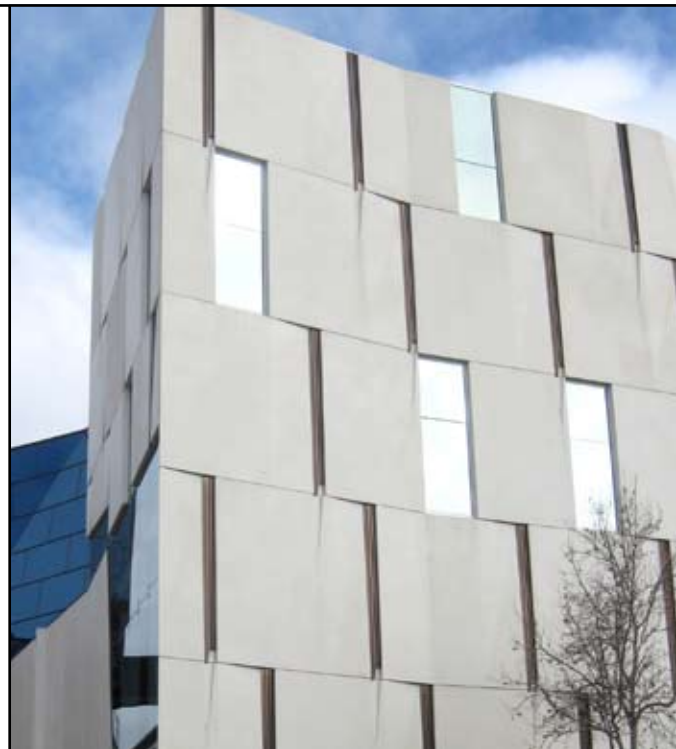
#### ❖ CSD APPLICATION

CSD Series Directional Diffuser provides an aesthetically pleasing solution to air distribution requirements, regardless of room configuration. 1, 2, 3 & 4 ways air pattern variations are virtually limitless due to the unique assembly of these diffusers.

#### ❖ CSD STANDARD CONSTRUCTION / FEATURES

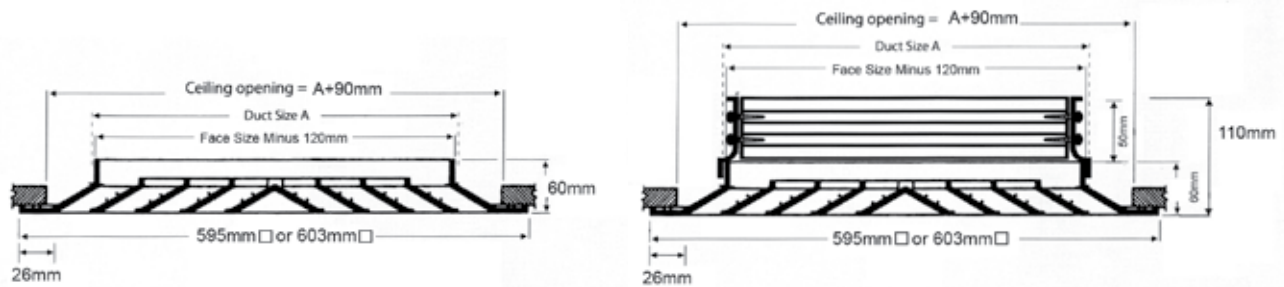
Frame is constructed from extruded aluminum material or steel with interlocked corners and mechanically stacked to form a rigid frame. Core is made of extruded aluminum or steel assembled using a series of integral cross braces which interlock to secure discharge vanes and preclude rattling.

All air pattern cores are equipped with spring loaded latches, providing easy snap in/out core installation, no special tools required. Opposed blade damper or radial blade damper adjustable by hand lever from the face of the diffuser. The surface is phosphate treated and powder coated with white color as standard.



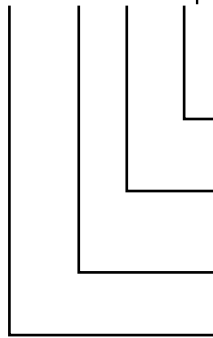
❖ **OPTIONS**

- Square to round transition adaptor c/w radial damper.
- All types of RAL finishing.
- Rubber gasket on the back of the frame.
- Opposed blade damper operational with screw black painted.

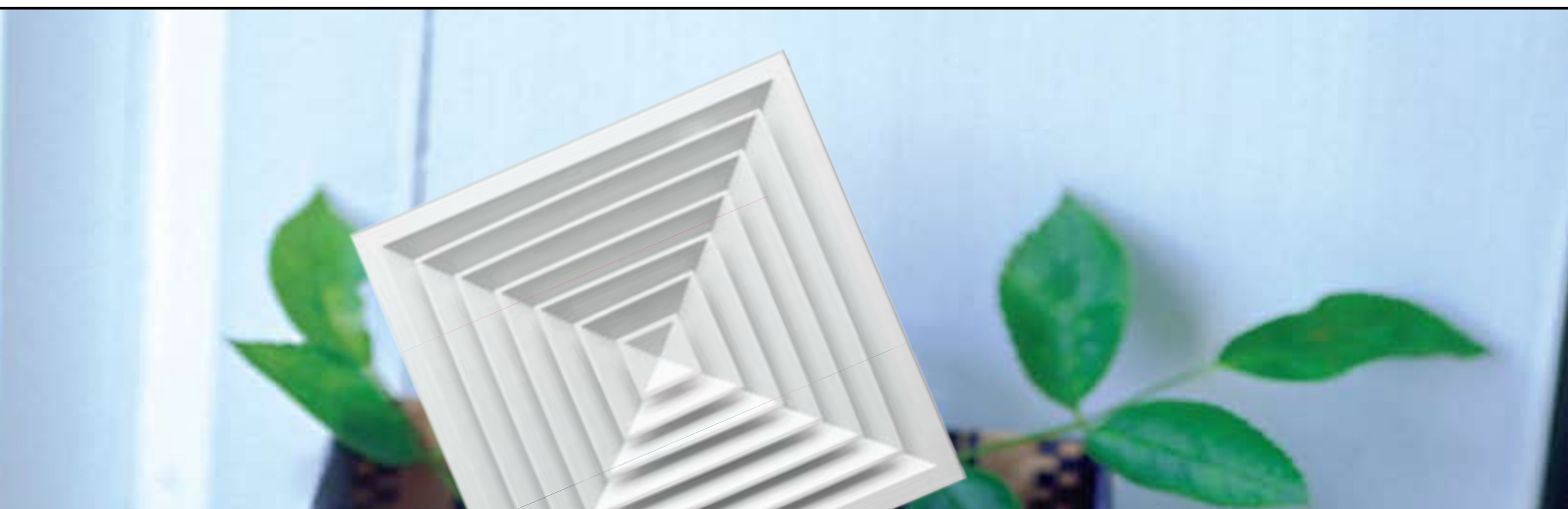


❖ **CSD ORDER KEY INFORMATION**

CSD - S4 - A + Adp



<b>Accessories</b>	Opposed Blade Damper (OBD), Plenum Box (PB), Insect Netting (IN), Transition Square to Round Adaptor c/w Radial Damper(RBD)
<b>Material</b>	Extruded Aluminum (A), Galvanized Steel (S), SUS 304 (SUS), Aluminum Zinc (AZ)
<b>Throw Pattern</b>	Refer to appendix "A"
<b>Model</b>	CSD – Ceiling Supply Diffuser



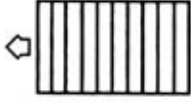
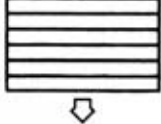
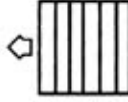

❖ APPENDIX "A"

■ SERIES 1

**SERIES S1:** One way throw - square diffuser square neck.

**SERIES R1 a:** One way throw -rectangular diffuser. Rectangular neck -vanes long dimension.

**SERIES R1 b:** One way throw - rectangular diffuser. Rectangular neck - vanes short dimension.

R1 b	R1 a	S1	1-Way
			

■ SERIES 2

**SERIES S2:** Two way throw -square diffuser square neck.


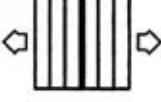
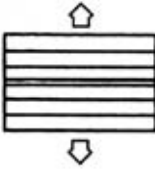

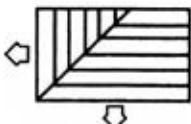
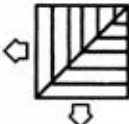
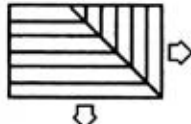

**SERIES R2a:** Two way throw - rectangular diffuser. Rectangular neck -vanes long dimension.

**SERIES R2b:** Two way throw -rectangular diffuser. Rectangular neck -vanes short dimension.

**SERIES S2c:** Two way corner throw - square diffuser - square neck.

**SERIES R2ca:** Two way corner throw - rectangular diffuser. Rectangular neck - left hand.

**SERIES R2cb:** Two way corner throw - rectangular diffuser. Rectangular neck - right hand.

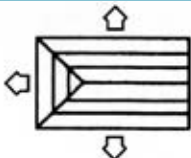
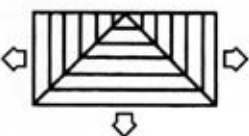
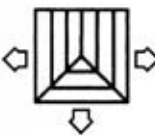
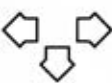
R2 b	R2 a	S2	2-Way
			
R2 cb	R2 ca	S2 c	2-Way Corner
			

■ SERIES 3

**SERIES S3:** Three way throw -square diffuser square neck.

**SERIES R3a :** Three way throw - rectangular diffuser. Rectangular neck - 2 short sides - 1 long side.

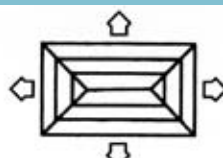
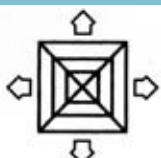

**SERIES R3b :** Three way throw - rectangular diffuser. Rectangular neck - 2 long sides - 1 short side.

R3 b	R3 a	S3	3-Way
			

■ SERIES 4

**SERIES S4:** Four way throw - square diffuser - square neck.

**SERIES R4:** Four way throw - rectangular diffuser. Rectangular neck.

R4	S4		4-Way
			

### ❖ CDS-S4 PERFORMANCE DATA 595X595MM AND 603X603MM-ROUND INLET

Size (inches)	Neck Velocity FPM	300	400	500	600	700	800
6"Ø	CFM	59	78	98	117	137	156
	Pt(in.w.g.)	0.019	0.034	0.053	0.076	0.106	0.137
	N.C.	-	-	22	26	32	40
	4 way-Throw	8-11	9-12	10-14	10-15	11-16	11-17
8"Ø	CFM	105	140	175	210	245	280
	Pt(in.w.g.)	0.014	0.024	0.035	0.053	0.073	0.095
	N.C.	-	-	22	26	32	40
	4 way-Throw	8.13	9-14	10-15	11-16	12-17	13-18
10"Ø	CFM	164	218	273	327	380	436
	Pt(in.w.g.)	0.017	0.031	0.049	0.070	0.094	0.124
	N.C.	-	-	-	24	30	35
	4 way-Throw	8-15	9-16	10-17	11-18	12-19	13-21
12"Ø	CFM	236	314	392	471	549	628
	Pt(in.w.g.)	0.023	0.041	0.063	0.092	0.125	0.164
	N.C.	-	22	27	33	38	44
	4 way-Throw	9-16	11-17	12-19	14-21	16-24	18-27
14"Ø	CFM	321	428	534	641	748	855
	Pt(in.w.g.)	0.039	0.069	0.108	0.155	0.212	0.277
	N.C.	-	23	27	34	38	44
	4 way-Throw	10-17	11-18	13-20	16-23	19-27	21-31

**Notes:**

- Static Pressure is in Inch of Water, Air volume is in CFM.
- NC values were determined by subtracting 10 dB from the sound power level for room absorption.
- Throw data is presented for terminal velocities of 100 and 50 ft./min.
- Throw values are given for Isothermal conditions, base on feet.
- For Return add + 1db on the NC level.

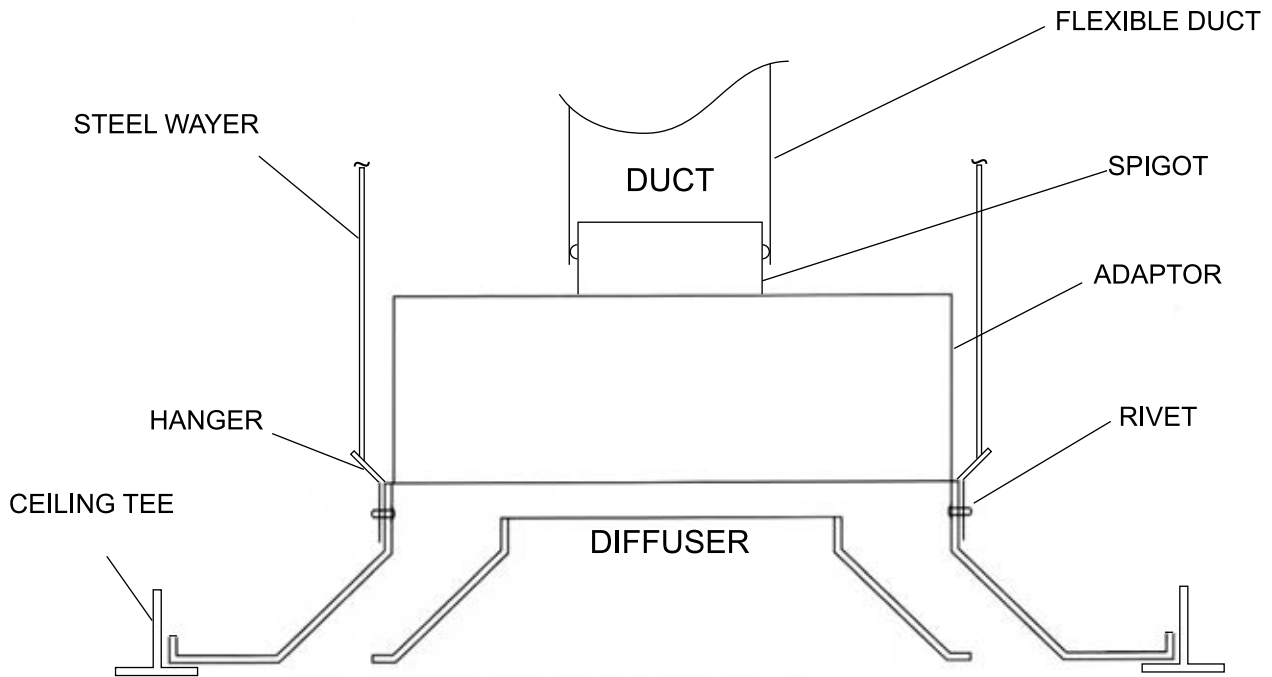
### ❖ CDS-S4 PERFORMANCE DATA 595X595MM AND 603X603MM-SQUARE INLET

Neck Size (") Neck Area (ft <sup>2</sup> )	Neck Velocity FPM	300	400	500	600	700	800
<b>6"x6"</b> <b>(0.25)</b>	CFM	75	100	125	150	175	200
	Pt(in.w.g.)	0.035	0.37	0.04	0.06	0.08	0.10
	N.C.	1.5	1.5-2.1	6-8	8-11	10-13	11-15
	4 way-Throw	4-5	5-6.8	22	28	33	41
<b>8"x8"</b> <b>(0.44)</b>	CFM	132	176	220	264	308	352
	Pt(in.w.g.)	0.04	0.042	0.043	0.06	0.08	0.10
	N.C.	4-5	6-8	8-10	7-12	11-15	13-17
	4 way-Throw	-	-	23	28	33	42
<b>10"x10"</b> <b>(0.069)</b>	CFM	207	276	345	414	483	552
	Pt(in.w.g.)	0.042	0.043	0.06	0.09	0.12	0.16
	N.C.	4-6	7-11	8-12	10-15	10-16	11-17
	4 way-Throw	-	-	-	26	31	36
<b>12"x12"</b> <b>(1.0)</b>	CFM	300	400	500	600	700	800
	Pt(in.w.g.)	0.047	0.06	0.09	0.13	0.18	0.23
	N.C.	5-7	7-10	9-12	11-15	13-17	15-20
	4 way-Throw	-	22	28	34	39	45
<b>14"x14"</b> <b>(1.36)</b>	CFM	408	544	680	816	952	1088
	Pt(in.w.g.)	0.047	0.051	0.082	0.11	0.16	0.20
	N.C.	6-8	8-11	11-13	13-17	17-21	19-23
	4 way-Throw	-	24	30	36	41	50

**Notes:**

- Total Pressure is in Inch of Water, Air volume is in CFM.
- NC values were determined by subtracting 10 dB from the sound power level for room absorption.
- Throw data is presented for terminal velocities of 100 and 50 ft./min.
- Throw values are given for Isothermal conditions.
- For Return add + 1db on the NC level.

❖ CSD INSTALLATION DETAILS FOR THE SUPPLY DIFFUSER-T-BAR CEILING



❖ CSD INSTALLATION DETAILS FOR THE SUPPLY DIFFUSER PLASTER CEILING

