

# RICKARD ELECTRONIC VAV DIFFUSER SERIES

## Square Electronic VAV Ceiling Diffusers



### Description

The square electronic diffusers feature a modern flush to the ceiling look and are available in 3 distinctive styles: square to square, square to round and square to swirl.

Square to square and square to round diffusers produce low noise levels and are designed for general building zones where a uniform radial air distribution pattern is preferred. The square to swirl diffuser is more efficient at generating good mixing between supply and room air.

Air volume control is achieved through the vertical up and down movement of the central control disc mechanism within the diffuser. This increases or decreases the aperture size which varies the volume of conditioned air to enter the occupied space.

Available in neck sizes from 150 to 350mm diameters and tile sizes of 495 x 495mm\* and 595 x 595mm (see range dimension diagrams for more detail)

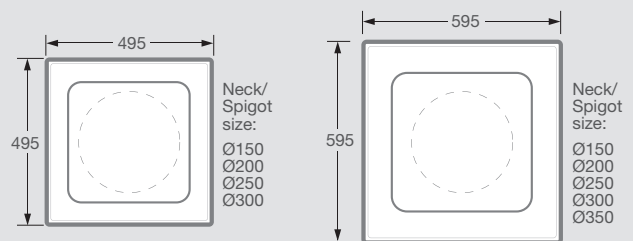
### Features

- All models available with in-built occupancy sensor.
- Can be installed in both suspended tiled ceilings with "T" frames and plastered ceilings.

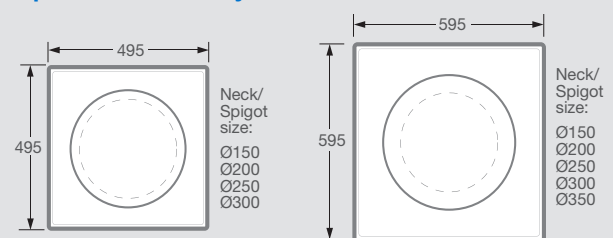
\*Minimum 12 weeks lead time.

### Dimensions

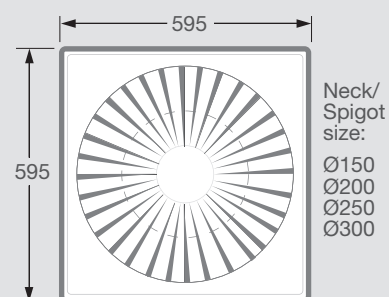
#### Square to Square Style



#### Square to Round Style



#### Square to Swirl Style













Dimensions in mm

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## Specifications And Performance

### Square to Square and Square to Round

Neck Size (mm)	Style	Part Number			Neck Total Pressure (Pa)								
		495mm x 495mm	595mm x 595mm		20	30	40	50	60	70	80	90	100
150		VSD1501S495	VSD1501S595	Airflow (L/s)	63	77	88	99	108	117	125	133	140
				Throw (m)	2.0	2.1	2.7	3.0	3.3	3.5	3.7	4.0	4.2
		VCD1501S495	VCD1501S595	NC Level (NC)	-	-	-	-	26	28	31	33	35
200		VSD2001S495	VSD2001S595	Airflow (L/s)	96	118	137	153	169	184	195	207	218
				Throw (m)	2.0	2.6	3.0	3.2	3.6	3.9	4.2	4.5	4.7
		VCD2001S495	VCD2001S595	NC Level (NC)	-	27	28	29	30	33	36	38	40
250		VSD2501S495	VSD2501S595	Airflow (L/s)	140	171	198	221	242	261	279	296	313
				Throw (m)	2.4	2.6	3.2	3.5	3.9	4.2	4.5	4.7	5.1
		VCD2501S495	VCD2501S595	NC Level (NC)	-	27	29	31	33	36	38	40	42
300		VSD3001S495	VSD3001S595	Airflow (L/s)	176	216	250	280	307	332	355	377	398
				Throw (m)	2.5	2.8	3.3	3.7	4.2	4.6	4.8	5.2	5.4
		VCD3001S495	VCD3001S595	NC Level (NC)	27	28	30	32	35	37	39	41	43
350		Not available	VSD3501S595	Airflow (L/s)	246	301	349	389	426	461	492	523	551
				Throw (m)	2.7	3.2	3.6	4.1	4.5	5.0	5.5	5.7	5.9
		Not available	VCD3501S595	NC Level (NC)	2.7	28	30	32	35	38	40	43	45

### Square to Swirl

Neck Size (mm)	Part Number		Neck Total Pressure (Pa)				
			20	40	50	60	70
150	VSW1501S595	Airflow (L/s)	68	79	88	96	104
		Throw (m)	1.8	2.1	2.3	2.5	2.7
		NC Level (NC)	26	29	31	33	35
200	VSW2001S595	Airflow (L/s)	112	130	145	159	172
		Throw (m)	2.2	2.5	2.8	3.1	3.3
		NC Level (NC)	28	31	33	35	37
250	VSW2501S595	Airflow (L/s)	159	183	205	225	243
		Throw (m)	2.9	3.3	3.7	4.1	4.4
		NC Level (NC)	29	33	35	37	39
300	VSW3001S595	Airflow (L/s)	194	224	250	274	296
		Throw (m)	2.9	3.3	3.7	4.1	4.4
		NC Level (NC)	30	33	36	38	40

Throw data is taken 25mm below the ceiling on a line through the centre of the diffuser with the control disc fully open & an air velocity of 0.25m/s.

Noise criteria levels apply to a single diffuser mounted in a room having a Sound Absorption of 10dB in octave bands having centre frequencies from 125Hz to 8000Hz (ie. the difference between Sound Pressure Level (dB re: 10<sup>-6</sup> Pa) and Sound Pressure Level (dB re: 10<sup>-12</sup> Pa) is equal to 10dB). These levels represent only the noise generated by the diffuser and do not take into account any duct-borne noise.

Diffusers are factory set for a minimum of 30% of the maximum flow levels reflected above. It should be noted that minimum Airflow settings are approximate & may require to be reset on site to compensate for actual site system pressures.



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