

510 & 515 Series

FLUSH MOUNT CONCENTRIC DIFFUSER SYSTEM WITH FILTER GRILL

Light Commercial 'T' Bar Ceiling



Light Commercial Plaster Ceiling



RRS's 510 & 515 SERIES concentric diffuser systems are designed to provide a single point air distribution system. The systems may be used with either a "T-Bar" ceiling or a plaster ceiling.

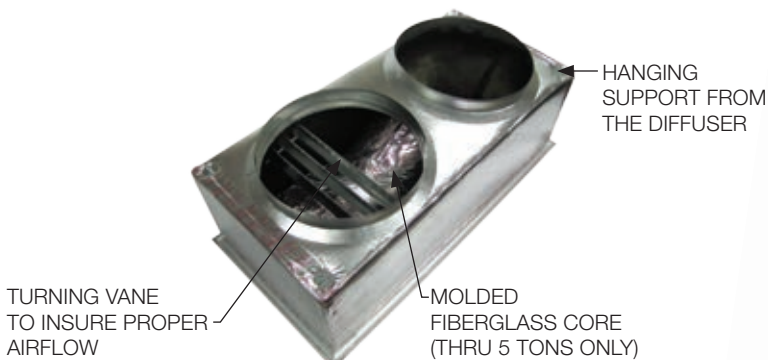
515 series — same as the 510 series, with an additional 4" fiberglass filter in the return section.

Standard features include:

- All anodized aluminum diffuser frame with aluminum return air egg crate.
- Built-in Anti-Sweat gasket.
- Molded Fiberglass Core (thru five tons).
- Built-in hanging supports.
- Diffuser box constructed of fiberglass ductboard (thru 7.5 tons) or sheetmetal.
- Stainless steel thumb screws.

Standard benefits include:

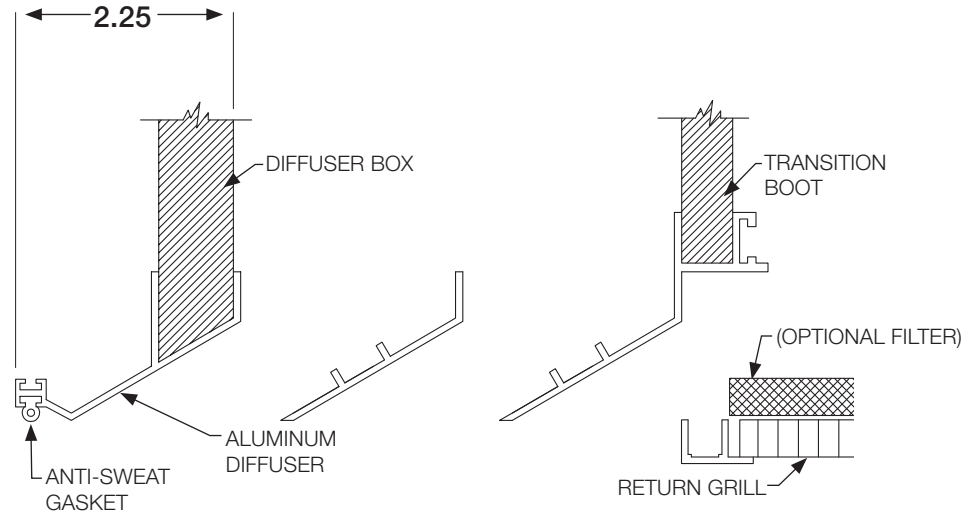
- Even four (4) way air distribution
- Lightweight design.
- Factory assembled and sealed.
- Guaranteed not to "sweat".
- Guaranteed not to recirculate airflow (short cycle).
- Return air eggcrate is easily removed.
- Units are fully insulated (both supply and return).



510 & 515 Series

Typical specifications

Furnish and install Ruskin Rooftop Systems “510 & 515 SERIES” concentric diffuser systems. The system shall consist of an aluminum supply diffuser with an aluminum eggcrate return. It shall also have a permanent (not adhesive) anti-sweat gasket and hanging supports. All units that are five (5) tons and smaller shall have a molded fiberglass interior transition.



510 & 515 Series Concentric Diffuser Engineering Data

MODEL #	CFM	STATIC PRESSURE	THROW IN FEET	NECK VELOCITY	JET VELOCITY	NOISE LEVEL	UNIT WEIGHT
01-510-16 01-515-16	600	0.09	10-14	234	417	18	27.00
	800	0.11	12-18	313	556	20	27.00
	1000	0.14	15-20	391	691	20	27.00
	1200	0.17	16-22	469	833	25	27.00
	1400	0.20	17-24	547	972	30	27.00
01-510-18 01-515-18	1000	0.14	15-20	391	694	20	27.00
	1200	0.17	16-22	469	833	25	27.00
	1400	0.20	17-24	547	972	30	27.00
	1600	0.24	18-25	625	1111	30	27.00
	1800	0.30	20-28	703	1250	35	27.00
01-510-20	2000	0.36	21-29	781	1389	40	27.00
	2200	0.40	22-30	859	1528	40	27.00
	2600	0.17	19-24	663	1294	30	42.00
	2800	0.20	20-28	714	1393	35	42.00
	3000	0.25	21-29	765	1492	35	42.00
01-510-22	3200	0.31	22-29	816	1592	40	42.00
	3400	0.37	22-30	867	1692	40	42.00
	3600	0.17	22-29	844	1646	34	104.00
01-510-22	4000	0.21	24-33	938	1829	40	104.00
	4400	0.27	28-37	1032	2011	40	104.00

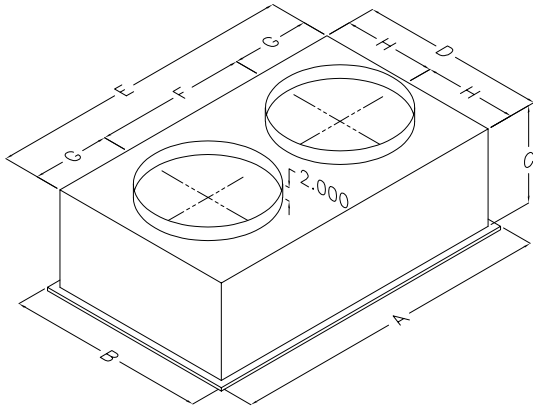
MODEL #	CFM	STATIC PRESSURE	THROW IN FEET	NECK VELOCITY	JET VELOCITY	NOISE LEVEL	UNIT WEIGHT
01-510-50	4500	0.31	25-34	922	1795	40	151.00
	5000	0.34	24-33	938	1829	40	151.00
	5400	0.39	32-41	1083	2107	45	151.00
01-510-60	5600	0.36	28-37	1000	2082	45	158.00
	6000	0.42	40-50	1071	2230	45	158.00
	6400	0.50	43-52	1143	2379	50	158.00
01-510-80	6600	0.54	45-56	1179	2454	50	158.00
	7200	0.39	26-35	996	2093	45	197.00
	8000	0.50	42-51	1107	2326	50	197.00
01-510-100	8400	0.56	44-54	1162	2442	50	197.00
	8800	0.63	48-59	1217	2558	50	197.00
	9600	0.41	32-41	1036	2159	45	197.00
01-510-300	10000	0.45	37-46	1079	2249	45	197.00
	10400	0.50	42-51	1122	2339	50	197.00
	10000	0.57	37-46	713	1506	35	244.00
01-510-300	11000	0.72	46-56	785	1657	35	244.00
	12000	0.90	54-66	856	1808	40	244.00
	13000	1.10	62-75	927	1958	40	244.00

- All data is based on the Air Diffusion Council guidelines.
- Throw data is based on Terminal Velocities of 75 FPM using isothermal air.
- "Neck Velocity" is the speed in feet per minute of the air coming into the diffusers – similar to duct velocity.*
- "Jet Velocity" is the speed in feet per minute of the air exiting the diffusers.*
- Actual noise levels are less than those shown.

* Jet velocity is higher than neck velocity on the (510) flush mount diffusers because the air gets "pinched down" as it exits – similar to high pressure water coming out of a garden hose with a sprayer.

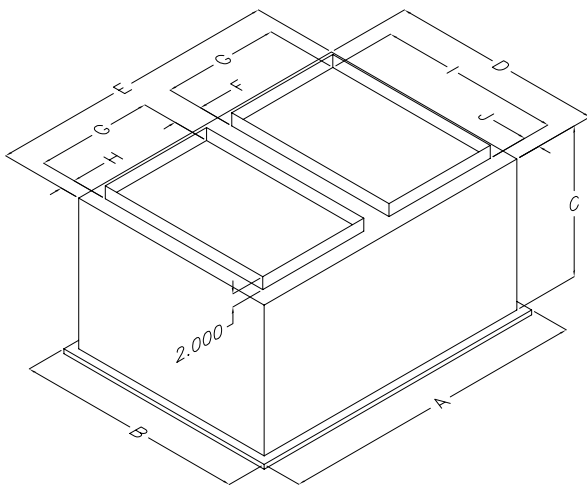
The drop down (530) diffusers have enough face area in the supply grills so that the air velocity does not increase significantly as it exits the concentric. That is why "Neck Velocity" and "Jet Velocity" are the same for the drop downs.

**FLUSH MOUNT
CONCENTRIC DIFFUSER SYSTEM
WITH FILTER GRILL**



Dimensional Data

MODEL #	A	B	C	D	E	F	G	H	DUCT SIZE
01-510-16 01-515-16	47 5/8	23 5/8	13 1/2	21	45	22 1/2	11 1/4	10 1/2	16 RD
01-510-18 01-515-18	47 5/8	23 5/8	13 1/2	21	45	22 1/2	11 1/4	10 1/2	18 RD
01-510-20	47 5/8	29 5/8	16 5/8	27	45	22 1/2	11 1/4	13 1/2	20 RD



Dimensional Data

MODEL #	A	B	C	D	E	F	G	H	I	J	DUCT SIZE
01-510-22	47 5/8	35 5/8	23 1/4	33	45	4 1/2	18	2 1/4	28	2 1/2	18x28
01-510-50	47 5/8	41 5/8	29 1/4	39	45	4 1/2	18	2 1/4	32	3 1/4	18x32
01-510-60	47 5/8	47 5/8	29 1/4	45	45	4 1/2	18	2 1/4	36	4 1/2	18x36
01-510-80	59 5/8	59 5/8	35 1/4	57	57	4 1/2	24	2 1/4	48	4 1/2	24x48
01-510-100	59 5/8	59 5/8	35 1/4	57	57	4 1/2	24	2 1/4	54	1 1/2	24x54
01-510-300	63 5/8	63 5/8	40	63 1/8	63 1/2	4 1/2	28	1 1/4	60	1 1/2	28x60