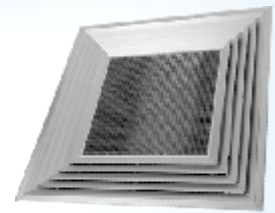




CSR



Diffusers | Concentric Supply / Return Diffusers



Combination Supply/ Return • High Capacity

CSR, CSR-P

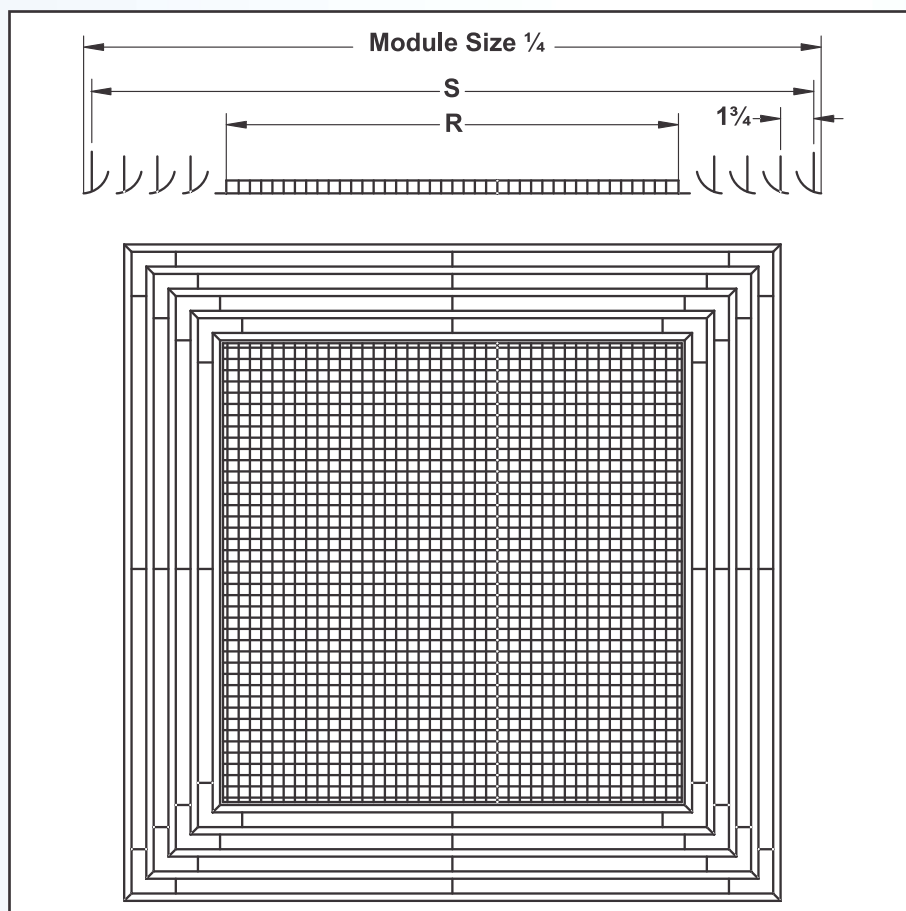
Models:

- CSR • Without Plenum
- CSR-P • With Plenum

- The  CSR Series is designed to maximize the performance of a combine supply/return diffuser.
- Supply and return air is handled through one air device.

- The CSR and CSR-P are compatible with unitary package equipment from 2½ to 70 tons.
- The CSR-P shown in the figure is ideal for applications requiring a system that provides equal distribution on all four sides while maintaining low noise levels. It may be installed in a T-bar ceiling or plaster ceiling, or duct mounted in an open area.
- Features and benefits of the CSR and CSR-P diffusers include:
 - Four-way horizontal airflow.
 - Low noise, low pressure performance.

- Anti-smudging characteristics.
- Aluminum diffuser and return air eggcrate.
- Lightweight design.
- Built-in hanging support for easy installation.
- Large commercial buildings, warehouses, and retail stores will find the CSR-P the prime selection for single point air distribution systems. Titus provides the entire plenum and diffuser in one piece. The assembled CSR-P unit makes for an easy, low cost installation.

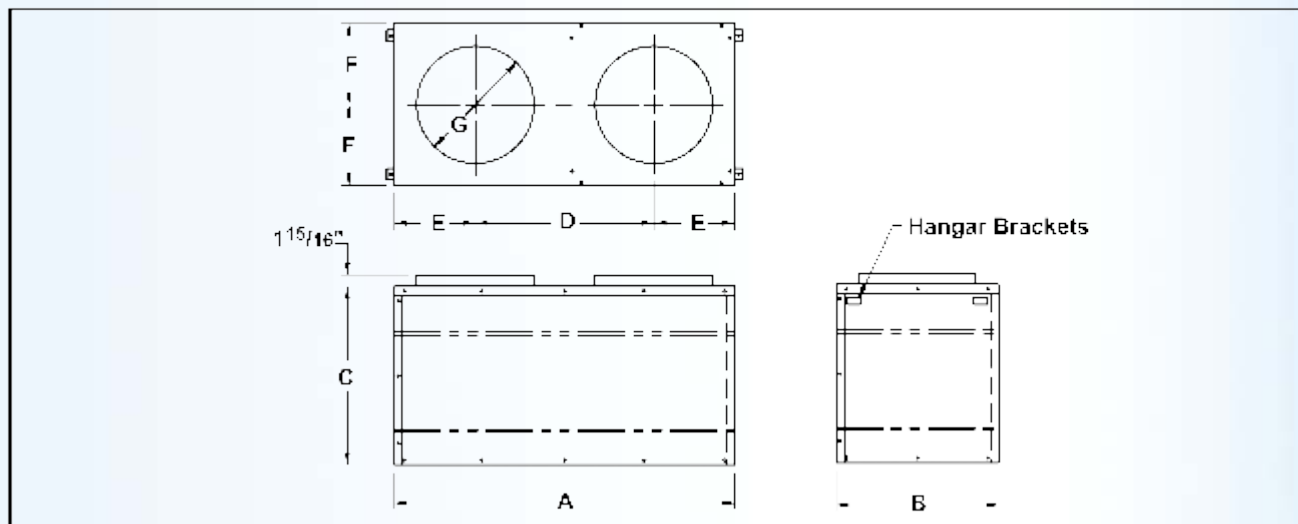


Nominal Tonnage	Module Size	Supply Duct S	Return Duct R
2½ - 5	48 x 24	46¾ x 22¾	36⅞ x 12⅞
6 - 10	48 x 36	46¾ x 34¾	32⅞ x 20⅞
10 - 15	48 x 48	46¾ x 46¾	29⅞ x 29⅞
15 - 25	60 x 60	58¾ x 58¾	37⅞ x 37⅞

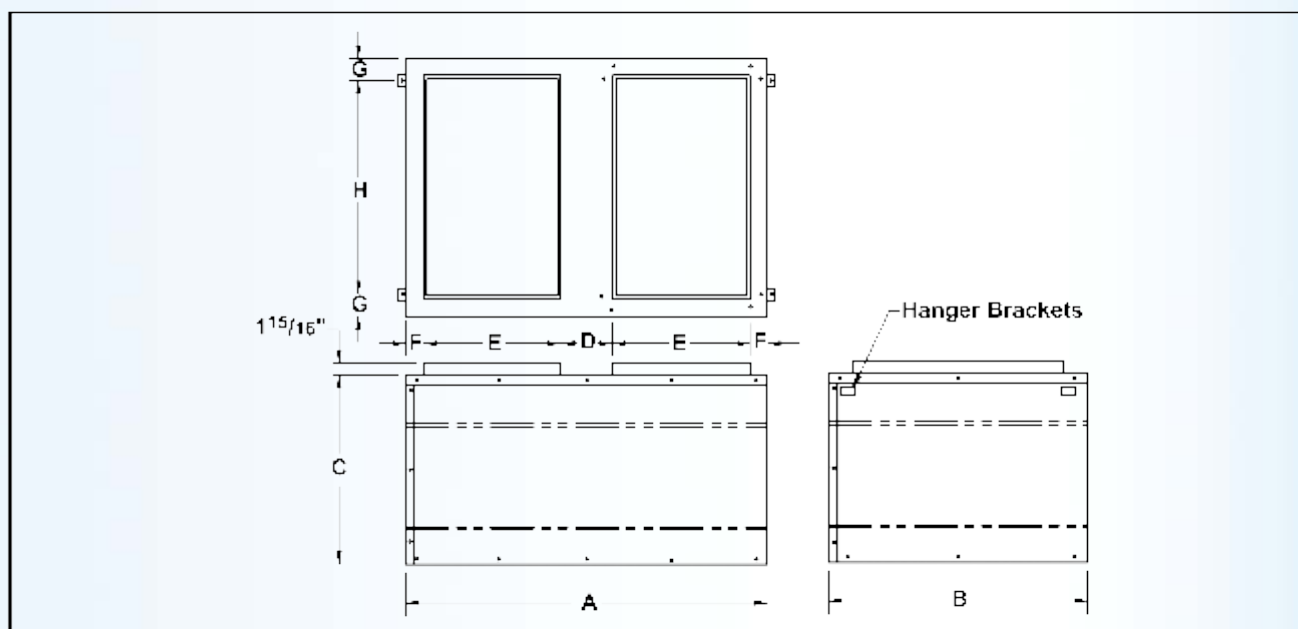


Diffusers | Concentric Supply / Return | Dimensions

Plenum Dimensions



Module Size	A	B	C	D	E	F	G
48 x 24	47	22 ^{15/16}	23 ^{5/16}	22 ^{1/2}	12 ^{1/4}	11 ^{1/2}	17 ^{15/16}



Module Size	A	B	C	D	E	F	G	H
48 x 36	47	35	23 ^{5/16}	4 ^{15/16}	17 ^{7/8}	3 ^{1/8}	3 ^{3/4}	27 ^{7/8}
48 x 48	47	47	23 ^{5/16}	4 ^{15/16}	17 ^{7/8}	3 ^{1/8}	5 ^{1/4}	35 ^{7/8}
60 x 60	59	59	23 ^{5/16}	4 ^{15/16}	23 ^{7/8}	3 ^{1/8}	5 ^{1/4}	47 ^{7/8}



Diffusers | Concentric Supply/Return | Performance Data

Performance Data CSR-P • Combination Supply/Return

48 x 24 inches	Airflow, cfm	1000	1500	2000	2500
	Total System Static Pressure (Inches WC)	0.13	0.29	0.51	0.79
	Supply Static Pressure (Inches WC)	0.05	0.12	0.21	0.33
	Return Static Pressure (Inches WC)	-0.08	-0.17	-0.30	-0.47
	NC (Noise Criterion)	14	24	31	36
	Throw, Feet	10-14-20	14-18-25	17-20-29	19-23-32

48 x 36 Inches	Airflow, cfm	1500	2000	2500	3000	3500	4000	4500	5000
	Total System Static Pressure (Inches WC)	0.07	0.13	0.20	0.29	0.40	0.52	0.65	0.81
	Supply Static Pressure (Inches WC)	0.04	0.08	0.12	0.17	0.23	0.30	0.38	0.47
	Return Static Pressure (Inches WC)	-0.03	-0.05	-0.09	-0.12	-0.17	-0.22	-0.28	-0.34
	NC (Noise Criterion)	19	25	30	34	37	40	43	45
	Throw, Feet	12-18-25	16-20-29	19-23-32	20-25-35	22-27-38	23-29-41	25-31-43	26-32-46

48 x 48 Inches	Airflow, cfm	2000	2500	3000	3500	4000	4500	5000	5500	6000
	Total System Static Pressure (Inches WC)	0.08	0.12	0.17	0.23	0.30	0.38	0.47	0.57	0.68
	Supply Static Pressure (Inches WC)	0.04	0.06	0.08	0.11	0.15	0.19	0.23	0.28	0.33
	Return Static Pressure (Inches WC)	-0.04	-0.06	-0.09	-0.12	-0.15	-0.19	-0.24	-0.29	-0.34
	NC (Noise Criterion)	17	23	28	32	35	38	41	44	46
	Throw, Feet	13-20-29	17-23-32	20-25-35	22-27-38	23-29-41	25-31-43	26-32-46	28-34-48	29-35-50

60 x 60 Inches	Airflow, cfm	3000	4000	5000	6000	7000	8000	9000	10000
	Total System Static Pressure (Inches WC)	0.07	0.12	0.19	0.28	0.38	0.49	0.63	0.77
	Supply Static Pressure (Inches WC)	0.04	0.08	0.12	0.17	0.24	0.31	0.39	0.48
	Return Static Pressure (Inches WC)	-0.03	-0.05	-0.07	-0.11	-0.14	-0.19	-0.24	-0.29
	NC (Noise Criterion)	22	31	38	43	48	52	55	59
	Throw, Feet	16-25-35	22-29-41	26-32-46	29-35-50	31-38-54	33-41-54	35-43-61	37-46-64

- NC based on a room, 68 x • 80 x 14 feet with the receiver located 9 feet from the diffuser.
- Total System Static Pressure is the sum of the supply static pressure and the return static pressure.
- Throw is listed as the distance in feet to terminal velocities of 150, 100 and 50 fpm under isothermal conditions.