



Selecting fans to be used with Model RT units.

Selecting fans to be used with the C_RT units is a relatively easy process. The first data that you will need are the desired CFM and the associated pressure drop of your system. Next, you will take extract the pressure drop from the table below and ADD that to the pressure drop of the system. This is the total pressure that your fan needs to overcome.

CFM	Pressure Drop In H2O		
	C2XRT	C3XRT	C4XRT
500	0.23	N/A	N/A
600	0.30	N/A	N/A
700	0.37	N/A	N/A
800	0.44	0.3	N/A
900	0.52	0.35	N/A
1000	0.60	0.41	N/A
1100	0.68	0.46	0.31
1200	0.76	0.51	0.35
1300	0.84	0.56	0.38
1400	0.93	0.62	0.41
1500	1.01	0.67	0.45
1600	1.10	0.72	0.49
1700	1.19	0.79	0.52
1800	1.28	0.85	0.57
1900	1.37	0.91	0.61
2000	1.46	0.97	0.65
2100	1.55	1.03	0.68
2200	1.65	1.1	0.73
2300	1.74	1.17	0.77
2400	N/A	1.23	0.81
2500	N/A	1.31	0.85
2600	N/A	1.38	0.9
2700	N/A	1.45	0.95
2800	N/A	1.52	1
2900	N/A	1.6	1.05
3000	N/A	1.68	1.1
3100	N/A	1.75	1.15
3200	N/A	N/A	1.2
3300	N/A	N/A	1.25
3400	N/A	N/A	1.3
3500	N/A	N/A	1.36
3600	N/A	N/A	1.41
3700	N/A	N/A	1.47
3800	N/A	N/A	1.52
3900	N/A	N/A	1.59
4000	N/A	N/A	1.64
4100	N/A	N/A	1.7
4200	N/A	N/A	1.76
4300	N/A	N/A	1.82
4400	N/A	N/A	1.89

Examples:

You wish to install a C_RT unit on the top of a multi-storey high rise building. The pressure drop of the ductwork, associated elbows, grilles, etc is 1.25" SP when the desired 2,000 CFM is exhausted.

Using the table, we see that the C2XRT core will add 1.46" SP to the system, so we select an exhaust fan that will remove 2000 CFM @ 2.71" SP – easy enough.

If we decided that we wanted to look at the C3XRT as an option, we look at the chart and see that the static pressure added would be .97" SP and we would select a fan that will remove 2000 CFM @ 2.22" SP.

For the C4XRT, 0.65" of static pressure would be added for a total of 1.9" SP.

Because of the higher static pressure ranges of the CM utility set series and the SQ inline series, these are the products that we recommend are used with the C_RT series of products by S&P.