Ring 4 Quick Guide

About Ring 4

Ring 4 is an optional flow ring for the Series B Duct Blaster® fan used to measure very low air flows. Ring 4 has a flow range of approximately 2.4 to 25.0 cfm (1.1 l/s, 4.0 m^3/h). To install Ring 4, place the flat side of the ring against the inlet of the fan so the outer edges of the ring roughly line up with the outer edge of the inlet flange on the fan. Secure the outer edge of the ring and the fan flange together by pushing the black connecting trim over both edges all the way around the fan.

When using Ring 4, always use the pressure tap mounted on Ring 4 to connect the fan to the Channel B Input tap on your gauge (rather than the pressure tap on the fan housing).

Determining flow rates and calibration information

Flow rates can be displayed using various TEC software/apps including TECTITE and TECLOG. In addition, flow rates can be manually determined by measuring the fan pressure signal from Ring 4 and using the flow table below.

Fan Pressure (Pa)	Flow (CFM)	Fan Pressure (Pa)	Flow (CFM)	Fan Pressure (Pa)	Flow (CFM)	Fan Pressure (Pa)	Flow (CFM)	Fan Pressure (Pa)	Flow (CFM)
5	2.4	105	11.0	205	15.4	305	18.8	405	21.7
10	3.4	110	11.3	210	15.6	310	18.9	410	21.8
15	4.1	115	11.5	215	15.8	315	19.1	415	21.9
20	4.8	120	11.8	220	16.0	320	19.3	420	22.1
25	5.4	125	12.0	225	16.1	325	19.4	425	22.2
30	5.9	130	12.3	230	16.3	330	19.6	430	22.3
35	6.3	135	12.5	235	16.5	335	19.7	435	22.5
40	6.8	140	12.7	240	16.7	340	19.8	440	22.6
45	7.2	145	12.9	245	16.8	345	20.0	445	22.7
50	7.6	150	13.2	250	17.0	350	20.1	450	22.8
55	8.0	155	13.4	255	17.2	355	20.3	455	23.0
60	8.3	160	13.6	260	17.3	360	20.4	460	23.1
65	8.7	165	13.8	265	17.5	365	20.6	465	23.2
70	9.0	170	14.0	270	17.7	370	20.7	470	23.4
75	9.3	175	14.2	275	17.8	375	20.8	475	23.5
80	9.6	180	14.2	280	18.0	380	21.0	480	23.6
85	9.9	185	14.6	285	18.2	385	21.1	485	23.7
90	10.2	190	14.8	290	18.3	390	21.3	490	23.8
95	10.5	195	15.0	295	18.5	395	21.4	495	24.0
100	10.7	200	15.2	300	18.6	400	21.5	500	24.1

Calibration Parameters for Ring 4

Flow (cfm) = C x (fan pressure in Pa) ^{n}
Where; C = 1.064, n = 0.502

Flow Range: 2.4 cfm to 25.0 cfm
Min. Fan Pressure: 5 Pascals
Max. Back Pressure: 100 Pascals
Accuracy: +/- 1 cfm

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