

TABLE 5. HEATING CAPACITIES AND CFM OF BRANCH DUCTS IN EXTENDED PLENUM PERIMETER SYSTEMS

SECTION A. SIDE TAKEOFF TO 5-INCH ROUND PIPE FOR SIDEWALL, FLOOR AND BASEBOARD DIFFUSERS

Extended Plenum Pressure 0.12 in. Static at 160 F Furnace Plenum Pressure 0.15 in. Static at 170 F

No. of Elbows		ACTUAL LENGTH FROM EXTENDED PLENUM TO DIFFUSER—FEET											
		5	10	15	20	25	30	35	40	45	50	55	60
0	Btuh Cfm	8960 97.2	8100 93.1	7310 89.4	6550 86.0	5900 83.0	5310 81.2	4800 77.7	4330 75.5	3900 73.1	3510 71.1	3170 69.3	2850 67.8
1	Btuh Cfm	8070 88.4	7290 85.2	6580 82.2	5950 79.3	5400 76.9	4880 74.6	4400 72.5	3980 70.7	3550 68.9	3200 67.1	2900 65.7	2620 64.2
2	Btuh Cfm	7340 81.1	6650 78.6	6020 76.0	5460 73.9	4950 71.9	4500 70.0	4070 68.2	3680 66.6	3300 64.1	2980 63.7	2680 62.3	2410 61.0
3	Btuh Cfm	6810 75.0	6180 73.0	5600 71.0	5070 69.2	4610 67.3	4200 65.8	3800 64.4	3420 63.1	3080 61.7	2770 60.2	2480 59.0	2230 58.2
4	Btuh Cfm	6350 70.4	5750 68.8	5210 67.0	4740 65.4	4300 64.0	3900 62.5	3530 61.1	3180 60.0	2870 58.8	2570 57.7	2300 56.7	2070 55.9
5	Btuh Cfm	5970 65.2	5400 64.8	4900 63.2	4440 62.0	4040 60.7	3670 59.4	3330 58.3	2990 57.4	2700 56.2	2410 55.3	2160 54.4	1930 53.7
6	Btuh Cfm	5660 63.0	5120 61.5	4630 60.2	4190 59.1	3800 58.0	3430 56.9	3100 55.9	2800 55.1	2520 54.0	2270 53.0	2040 52.2	1800 51.8

Note: Where any of the first three runs from the extended plenum exceed 20 ft and 3 elbows count 3 extra elbows for that run.

The Equivalent Length Values used and included in calculating this table are: Diffuser and Boot = 35 ft; Each Elbow = 12 ft; Side Takeoff = 20 ft.
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SECTION B. TOP TAKEOFF TO 5-INCH ROUND PIPE FOR SIDEWALL, FLOOR AND BASEBOARD DIFFUSERS

Extended Plenum Pressure 0.12 in. Static at 160 F Furnace Plenum Pressure 0.15 in. Static at 170 F

No. of Elbows		ACTUAL LENGTH FROM EXTENDED PLENUM TO DIFFUSER—FEET											
		5	10	15	20	25	30	35	40	45	50	55	60
0	Btuh Cfm	7070 77.8	6400 75.6	5800 73.4	5260 71.4	4800 69.5	4350 68.0	3940 66.4	3550 64.8	3190 63.4	2870 62.0	2580 60.6	2310 59.5
1	Btuh Cfm	6570 72.6	5970 70.8	5400 68.9	4890 67.2	4430 65.6	4010 64.2	3640 62.8	3290 61.5	2950 60.3	2650 59.0	2380 58.0	2140 57.0
2	Btuh Cfm	6180 68.4	5610 66.8	5080 65.2	4590 63.7	4160 62.3	3770 61.1	3410 60.0	3080 58.7	2770 57.6	2480 56.4	2210 55.3	2000 54.4
3	Btuh Cfm	5800 64.4	5250 63.1	4750 61.8	4310 60.5	3900 59.3	3540 58.3	3200 57.1	2890 56.3	2600 55.5	2340 54.7	2100 53.9	1870 53.2
4	Btuh Cfm	5490 61.2	4960 60.0	4500 58.8	4080 57.8	3700 56.7	3340 55.8	3020 54.9	2720 54.1	2440 53.3	2200 52.6	1970 51.9	1750 51.1
5	Btuh Cfm	5200 58.5	4710 57.5	4280 56.5	3870 55.5	3510 54.5	3180 53.7	2880 52.9	2580 52.1	2310 51.4	2060 50.7	1830 50.0	1640 49.5
6	Btuh Cfm	5000 56.0	4520 55.0	4100 54.0	3700 53.4	3350 52.4	3010 51.7	2700 51.0	2440 50.5	2160 50.0	1910 49.1	1700 48.6	1550 48.1

Note: Where any of the first three runs from the extended plenum exceeds 20 ft and 3 elbows count 3 extra elbows for that run.

The Equivalent Length Values used and included in calculating this table are: Diffuser and Boot = 35 ft; Each Elbow = 12 ft; Top Takeoff = 50 ft.

Tapered Extended Plenum Starting Collar.

TABLE 5. HEATING CAPACITIES AND CFM OF BRANCH DUCTS IN EXTENDED PLENUM PERIMETER SYSTEMS (Continued)

SECTION C. SIDE TAKEOFF TO 6-INCH ROUND PIPE FOR BASEBOARD DIFFUSERS ONLY

Extended Plenum Pressure 0.12 in. Static at 160 F Furnace Plenum Pressure 0.15 in. Static at 170 F

No. of Elbows		ACTUAL LENGTH FROM EXTENDED PLENUM TO DIFFUSER—FEET											
		5	10	15	20	25	30	35	40	45	50	55	60
0	Btuh Cfm	9800 106.6	9100 104.4	8430 102.3	7820 100.3	7230 98.5	6700 96.8	6200 95.0	5730 93.1	5320 91.7	4920 90.0	4550 88.5	4210 87.2
1	Btuh Cfm	9230 100.4	8550 98.7	7930 97.0	7360 95.3	6800 93.7	6300 92.0	5830 90.4	5400 88.9	5000 87.6	4620 86.2	4280 84.9	3960 83.8
2	Btuh Cfm	8740 95.5	8100 93.8	7500 92.2	6960 90.6	6420 89.4	5960 88.0	5510 86.5	5110 85.2	4730 84.0	4390 82.8	4050 81.6	3750 80.6
3	Btuh Cfm	8300 91.0	7690 89.5	7130 88.0	6600 86.7	6110 85.5	5680 84.2	5240 83.0	4850 82.0	4500 80.9	4170 79.8	3840 78.8	3560 77.9
4	Btuh Cfm	7930 86.8	7350 85.5	6800 84.2	6290 83.3	5830 82.0	5400 81.0	5000 80.0	4620 79.1	4270 78.0	3940 77.0	3630 76.1	3370 75.3
5	Btuh Cfm	7600 83.6	7020 82.5	6500 81.3	6020 80.2	5580 79.1	5160 78.1	4770 77.1	4410 76.4	4080 75.3	3770 74.4	3470 73.5	3190 72.8
6	Btuh Cfm	7300 80.4	6760 79.5	6260 78.4	5780 77.5	5350 76.3	4950 75.3	4560 74.4	4200 73.5	3900 72.8	3580 72.0	3300 71.2	3040 70.6

Note: Where any of the first three runs from the extended plenum exceeds 20 ft and 3 elbows, count 3 extra elbows for that run.

The Equivalent Length Values used and included in calculating this table are: Diffuser and Boot = 100 ft; Each Elbow = 14 ft; Side Takeoff = 20 ft.

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SECTION D. TOP TAKEOFF TO 6-INCH ROUND PIPE FOR BASEBOARD DIFFUSERS ONLY

Extended Plenum Pressure 0.12 in. Static at 160 F Furnace Plenum Pressure 0.15 in. Static at 170 F

No. of Elbows		ACTUAL LENGTH FROM EXTENDED PLENUM TO DIFFUSER—FEET											
		5	10	15	20	25	30	35	40	45	50	55	60
0	Btuh Cfm	8700 95.0	8050 93.2	7450 91.7	6900 90.0	6400 88.6	5910 87.3	5470 86.0	5160 84.7	4670 83.5	4300 82.4	4000 81.3	3720 80.2
1	Btuh Cfm	8260 90.2	7640 88.8	7090 87.5	6560 86.2	6080 85.0	5630 83.7	5200 82.6	4820 81.7	4470 80.4	4140 79.4	3830 78.4	3530 77.5
2	Btuh Cfm	7880 86.3	7290 85.0	6750 84.0	6250 82.9	5800 81.7	5380 80.5	4980 79.6	4590 78.7	4260 77.6	3940 76.7	3620 75.8	3340 74.9
3	Btuh Cfm	7560 83.0	7000 82.0	6470 81.0	5980 79.8	5540 79.0	5130 78.0	4740 76.9	4380 76.0	4060 75.1	3730 74.2	3430 73.3	3170 72.5
4	Btuh Cfm	7260 80.0	6700 79.1	6200 78.1	5740 77.2	5290 76.2	4900 75.2	4510 74.3	4180 73.5	3850 72.7	3560 71.9	3290 71.0	3020 70.2
5	Btuh Cfm	7000 77.3	6470 76.3	5970 75.4	5490 74.5	5070 73.6	4700 72.8	4320 71.9	3990 71.2	3600 70.2	3320 69.3	3120 68.7	2870 68.1
6	Btuh Cfm	6770 74.6	6230 73.8	5740 73.0	5290 72.2	4890 71.3	4500 70.5	4140 69.8	3820 69.0	3520 68.3	3240 67.5	2980 66.9	2760 66.1

Note: Where any of the first three runs from the extended plenum exceeds 20 ft and 3 elbows count 3 extra elbows for that run.

The Equivalent Length Values used and included in calculating this table are: Diffuser and Boot = 100 ft; Each Elbow = 14 ft; Top Takeoff = 50 ft.

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