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	8960	8100	7310	6550	5900	5310	4800	4330	3900	3510	3170	2850
	Cfm	97.2	93.1	89.4	85.0	83.0	81.2	77.7	75.5	73.1	71.1	69.3	67.8
1	Btuh	8070	7290	6580	5950	5400	4880	4400	3980	3550	3200	2900	2620
	Cfm	88.4	85.2	82.2	79.3	76.9	74.6	72.5	70.7	68.9	67.1	65.7	64.2
2	Btuh	7340	6650	6020	5460	4950	4500	4070	3680	3300	2980	2680	2410
	Cfm	81.1	78.6	76.0	73.9	71.9	70.0	68.2	66.6	64.1	63.7	62.3	61.0
3	Btuh	6810	6180	5600	5070	4610	4200	3800	3420	3080	2770	2480	2230
	Cfm	75.0	73.0	71.0	69.2	67.3	65.8	64.4	63.1	61.7	60.2	59.0	58.2
4	Btuh	6350	5750	5210	4740	4300	3900	3530	3180	2870	2570	2300	2070
	Cfm	70.4	68.8	67.0	65.4	64.0	62.5	61.1	60.0	58.8	57.7	56.7	55.9
5	Btuh	5970	5400	4900	4440	4040	3670	3330	2990	2770	2410	2160	1930
	Cfm	65.2	64.8	63.2	62.0	60.7	59.4	58.3	57.4	56.2	55.3	54.4	53.7
6	Btuh	5660	5120	4630	4190	3800	3430	3100	2800	2520	2270	2040	1800
	Cfm	63.0	61.5	60.2	59.1	58.0	56.9	55.9	55.1	54.0	53.0	52.2	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.

Tapered Extended Plenum Starting Collar.

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	7070	6400	5800	5260	4800	4350	3940	3550	3190	2870	2580	2310
	Cfm	77.8	75.6	73.4	71.4	69.5	68.0	66.4	64.8	63.4	62.0	60.6	59.5
1	Btuh	6570	5970	5400	4890	4430	4010	3640	3290	2950	2650	2380	2140
	Cfm	72.6	70.8	68.9	67.2	65.6	64.2	62.8	61.5	60.3	59.0	58.0	57.0
2	Btuh	6180	5610	5080	4590	4160	3770	3410	3080	2770	2480	2210	2000
	Cfm	68.4	66.8	65.2	63.7	62.3	61.1	60.0	58.7	57.6	56.4	55.3	54.4
3	Btuh	5800	5250	4750	4310	3900	3540	3200	2890	2600	2340	2100	1870
	Cfm	64.4	63.1	61.8	60.5	59.3	58.3	57.1	56.3	55.5	54.7	53.9	53.2
4	Btuh	5490	4960	4500	4080	3700	3340	3020	2720	2440	2200	1970	1750
	Cfm	61.2	60.0	58.8	57.8	56.7	55.8	54.9	54.1	53.3	52.6	51.9	51.1
5	Btuh	5200	4710	4280	3870	3510	3180	2880	2580	2310	2060	1830	1640
	Cfm	58.5	57.5	56.5	55.5	54.5	53.7	52.9	52.1	51.4	50.7	50.0	49.5
6	Btuh	5000	4520	5100	3700	3350	3010	2700	2440	2160	1910	1700	1551
	Cfm	56.0	55.0	54.0	53.4	52.4	51.7	51.0	50.5	59.7	49.1	48.6	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	9800	9100	8430	7820	7230	6700	6200	5730	5320	4920	4550	4210
	Cfm	106.6	104.4	102.3	100.3	98.5	96.8	95.0	93.1	91.7	90.0	88.5	87.2
1	Btuh	9230	8550	7930	7360	6800	6300	5830	5400	5000	4620	4280	3960
	Cfm	100.4	98.7	97.0	95.3	93.7	92.0	90.4	88.9	87.6	86.2	84.9	83.8
2	Btuh	8740	8100	7500	6960	6420	5960	5510	5110	4730	4390	4050	3750
	Cfm	95.5	93.8	92.2	90.6	89.4	88.0	86.5	85.2	84.0	82.8	81.6	80.6
3	Btuh	8300	7690	7130	6600	6110	5680	5240	4850	4500	4170	3840	3560
	Cfm	91.0	89.5	88.0	86.7	85.5	84.2	83.0	82.0	80.9	79.8	78.8	77.9
4	Btuh	7930	7350	6800	6290	5830	5400	5000	4620	4270	3940	3630	3370
	Cfm	86.8	85.5	84.2	83.3	82.0	81.0	80.0	79.1	78.0	77.0	76.1	75.3
5	Btuh	7600	7020	6500	6020	5580	5160	4770	4410	4080	3770	3470	3190
	Cfm	83.6	82.5	81.3	80.2	79.1	78.1	77.1	76.4	75.3	74.4	73.5	72.8
6	Btuh	7300	6760	6260	5780	5350	4950	4560	4200	3900	3580	3300	3040
	Cfm	80.4	79.5	78.4	77.5	76.3	75.3	74.4	73.5	72.8	72.0	71.2	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.

Tapered Extended Plenum Starting Collar.

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	8700	8050	7450	6900	6400	5910	5470	5160	4670	4300	4000	3720
	Cfm	95.0	93.2	91.7	90.0	88.6	87.3	86.0	84.7	83.5	82.4	81.3	80.2
1	Btuh	8260	7640	7090	6560	6080	5630	5200	4820	4470	4140	3830	3530
	Cfm	90.2	88.8	87.5	86.2	85.0	83.7	82.6	81.7	80.4	79.4	78.4	77.5
2	Btuh	7880	7290	6750	6250	5800	5380	4980	4590	4260	3940	3620	3340
	Cfm	86.3	85.0	84.0	82.9	81.7	80.5	79.6	78.7	77.6	76.7	75.8	74.9
3	Btuh	7560	7000	6470	5980	5540	5130	4740	4380	4060	3730	3430	3170
	Cfm	83.0	82.0	81.0	79.8	79.0	78.0	76.9	76.0	75.1	74.2	73.3	72.5
4	Btuh	7260	6700	6200	5740	5290	4900	4510	4160	3850	3560	3290	3020
	Cfm	80.0	79.1	78.1	77.2	76.2	75.2	74.3	73.5	72.7	71.9	71.0	70.2
5	Btuh	7000	6470	5970	5490	5070	4700	4320	3990	3600	3400	3120	2870
	Cfm	77.3	76.3	75.4	74.5	73.6	72.8	71.9	71.2	70.2	69.3	68.7	68.1
6	Btuh	6770	6230	5740	5290	4890	4500	4140	3820	3520	3240	2980	2760
	Cfm	74.6	73.8	73.0	72.2	71.3	70.5	69.8	69.0	68.3	67.5	66.9	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.

Tapered Extended Plenum Starting Collar.