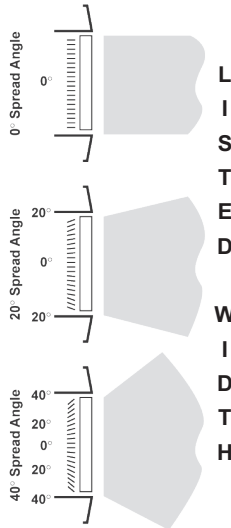


**SIDE SPREAD DEFLECTION**



Position the Vertical Rear Blades to obtain the Air Patterns shown below. Determine change in T, P<sub>T</sub>, A<sub>k</sub> and V<sub>k</sub> from Table 2.

LISTED HEIGHT	A <sub>k</sub> OUTLET AREA IN SQ. FT.	T	P, Inches WC															
			V <sub>k</sub> Outlet Velocity FPM															
			.01	.015	.02	.03	.4	.05	.06	.08	.09	.11	.12	.14	.16			
4 6 8	10 12 14	18 20 24	30 36	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600		
6				.10	CFM	40	50	60	70	80	90	100	110	120	130	140	150	160
10 6				.15	CFM	60	75	90	105	120	135	150	165	180	195	210	225	240
12 8				.20	CRM	80	100	120	140	160	180	200	220	240	260	280	300	320
18 12 10				.30	CRM	120	150	180	210	240	270	300	330	360	390	420	450	480
24 16 12	10			.40	CRM	160	200	240	280	320	360	400	440	480	520	560	600	640
30 20 16	12			.50	CRM	200	250	300	350	400	450	500	550	600	650	700	750	800
36 24 18	14 12			.60	CRM	240	300	360	420	480	540	600	660	720	780	840	900	960
44 30 22	18 14			.72	CRM	300	372	450	525	600	675	750	825	900	975	1050	1125	1200
40 60	24 20 18			1.0	CRM	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600
46	36 30 26	20		1.5	CRM	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400
	48 40 34	26 24		2.0	CRM	800	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200
		40 36 30		3.0	CRM	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800
		48 40	32	4.0	CRM	1600	2000	2400	2800	3200	3600	4000	4400	4800	5200	5600	6000	6400
		48	40	5.0	CRM	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	7500	8000
		48 40	6.0	6.0	CRM	2400	3000	3600	4200	4800	5400	6000	6600	7200	7800	8400	9000	9600

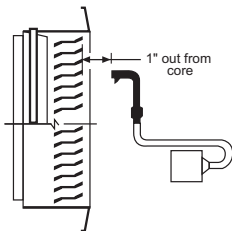
≤NC25
NC25-30
NC30-35
NC35-40

**Symbols** V<sub>T</sub> Terminal Velocity of 75 FPM  
 V<sub>k</sub> Outlet Velocity in FPM  
 NC re 8db room attenuation 10<sup>-12</sup> watts reference  
 T Throw in Feet  
 A<sub>k</sub> Outlet Area in Sq. Ft.  
 P<sub>T</sub> Total Pressure in. WC

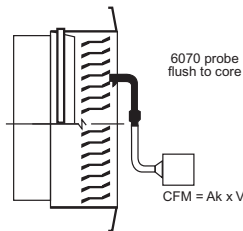
**TABLE 2 SIDE SPREAD FACTORS**

Multiply Table 1 Data By Factor For Various Spread Angles At Listed CFM					
Spread Angle	Throw	V <sub>k</sub>	A <sub>k</sub>	NC	P <sub>T</sub>
20°	.85	1.03	.97	+0	1.2
40°	.70	1.06	.94	+3	1.5

**AIR MEASUREMENT - RETURN**



**AIR MEASUREMENT - SUPPLY**



V<sub>k</sub> METER recommended is Velometer series 6006 with 6070 probe.

CFM - A<sub>k</sub> x V<sub>k</sub>

**Symbols** A<sub>k</sub> Outlet Area  
 NC re 8db room attenuation, 10<sup>-12</sup> watts reference  
 P<sub>T</sub> Total Pressure in. WC  
 V<sub>T</sub> Terminal Velocity of 75 FPM  
 V<sub>k</sub> Inlet/Outlet Velocity

**RETURN AIR CAPACITY**

Listed Size W x H	A <sub>k</sub> Inlet Area in Sq.Ft.	<NC 20 - 25 Application Non-Ducted		NC 25 - 30 Application Ducted		NC 30 - 40 Application Ducted	
		PS		PS		PS	
		-.02" CFM	-.03" CFM	-.08" CFM	-.10" CFM	-.15" CFM	-.20" CFM
6 x 4	.19	50	60	95	105	135	155
8 x 4	.26	75	90	145	160	200	230
8 x 6	.34	100	115	190	215	256	305
12 x 6	.50	150	175	290	320	395	460
12 x 8	.63	200	235	385	425	525	615
12 x 10	.76	250	290	480	535	660	765
12 x 12	.89	300	350	575	640	790	920
18 x 10	1.1	375	440	720	800	990	1150
20 x 12	1.5	500	585	960	1070	1320	1530
24 x 12	1.8	590	710	1160	1310	1600	1860
30 x 12	2.2	750	875	1440	1600	1975	2300
24 x 20	2.8	1000	1160	1920	2130	2630	3060
30 x 24	4.1	1500	1750	2880	3200	3950	4600
48 x 20	5.2	2000	2340	3830	4270	5270	6130
48 x 30	7.4	3000	3500	5750	6400	7900	9200

Performance of any size not shown will be the same as for a size shown that has the same calculated area.

**EXAMPLE:** A 30 x 16 size (not shown) has a calculated area of 480 sq. in. Its performance will be identical to a 24 x 20 size (shown) which has the same calculated area.