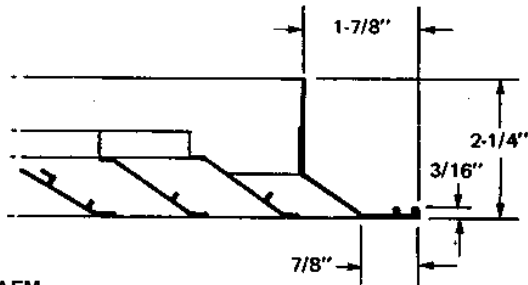
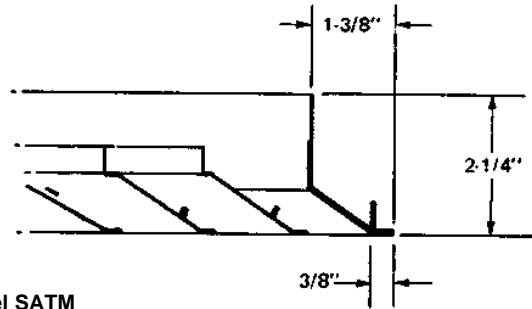


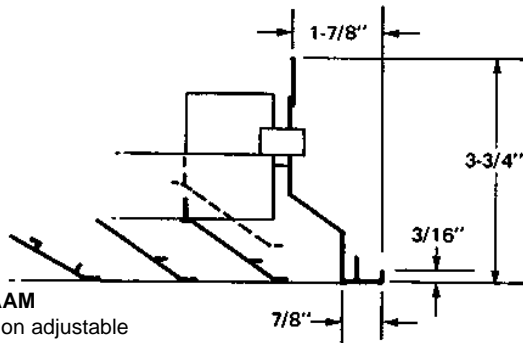
SQUARE NECK MODELS



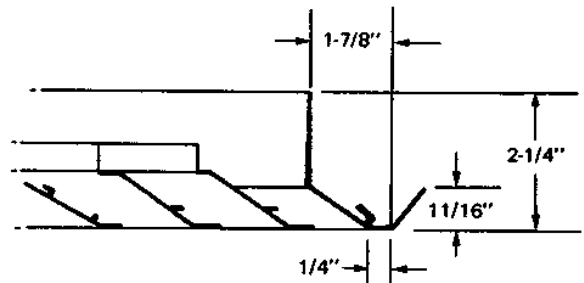
Model SAFM
Flange type for tile or plaster ceilings



Model SATM
For fully-exposed T-bar ceilings

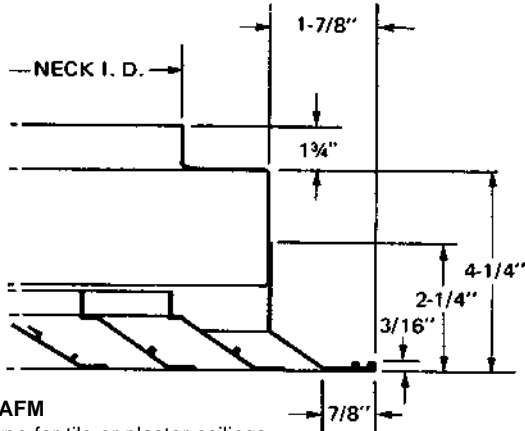


Model SAAM
Two position adjustable

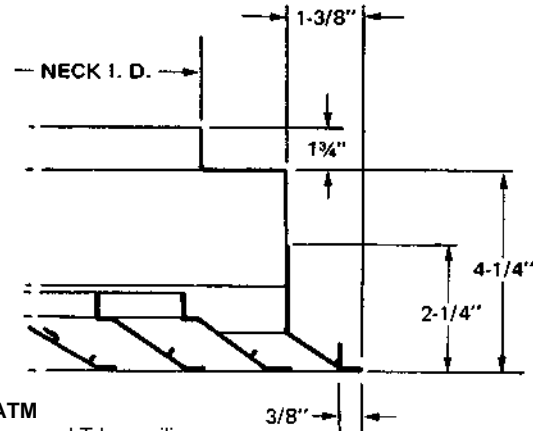


Model SASM
Beveled type for tile or plastered ceilings

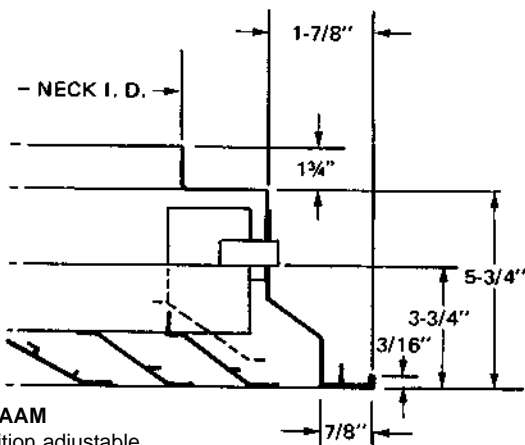
ROUND NECK MODELS



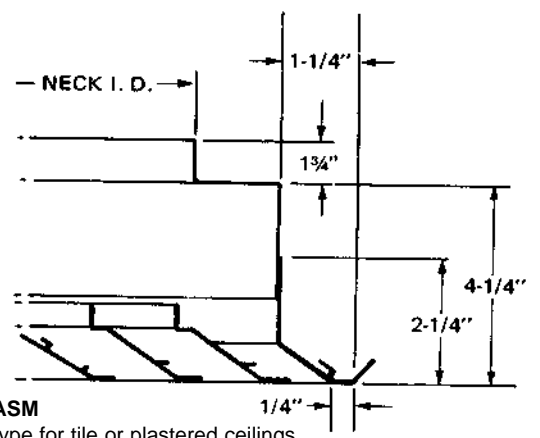
Model SAFM
Flange type for tile or plaster ceilings



Model SATM
For fully-exposed T-bar ceilings

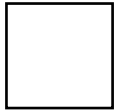


Model SAAM
Two position adjustable



Model SASM
Beveled type for tile or plastered ceilings

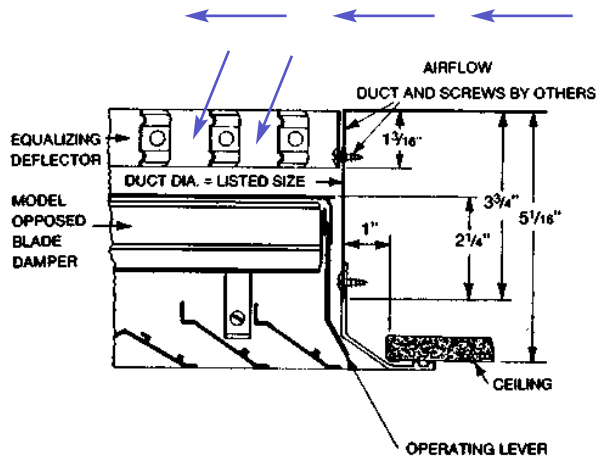
SQUARE NECK



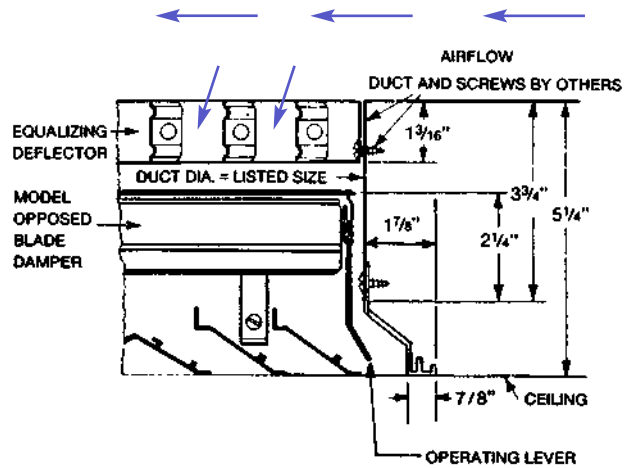
When the diffuser is connected to a duct stub the diffuser collar is sized to fit outside the duct stub. This is done to minimize ceiling streaking.

Inside neck dimension is listed size +1/16".

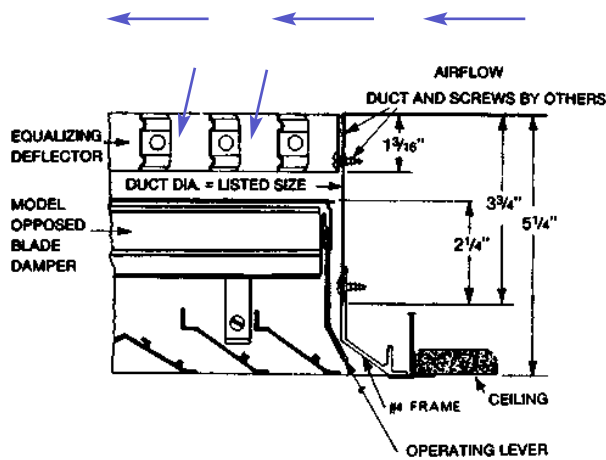
Model SAFM
Flange type for tile or plastered ceilings



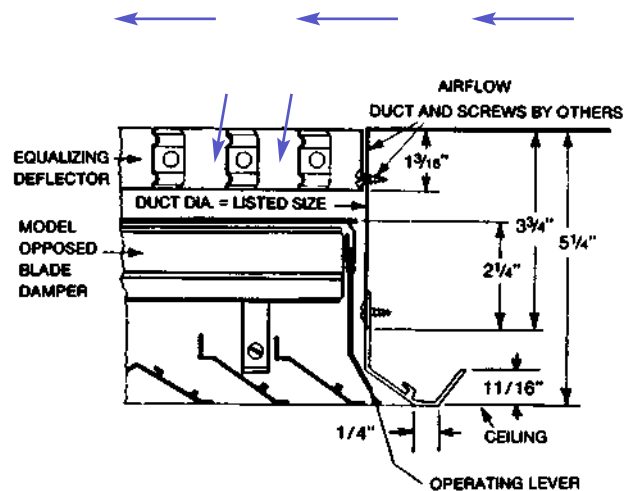
Model SAAM
Two position adjustable

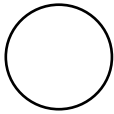


Model SATM
For fully-exposed T-bar ceilings



Model SASM
Beveled type for tile or plastered ceilings



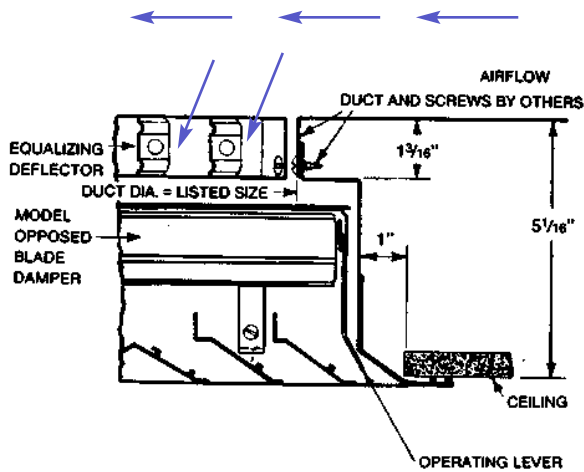


ROUND NECK

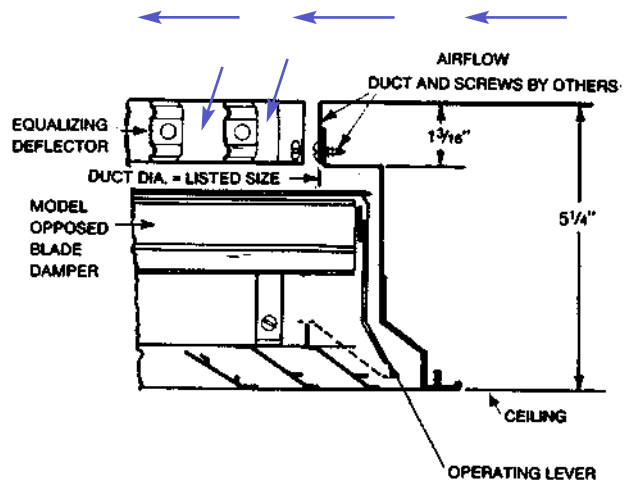
When the diffuser is connected to a duct stub the diffuser collar is sized to fit outside the duct stub. This is done to minimize ceiling streaking.

Inside neck dimension is listed size +1/32".

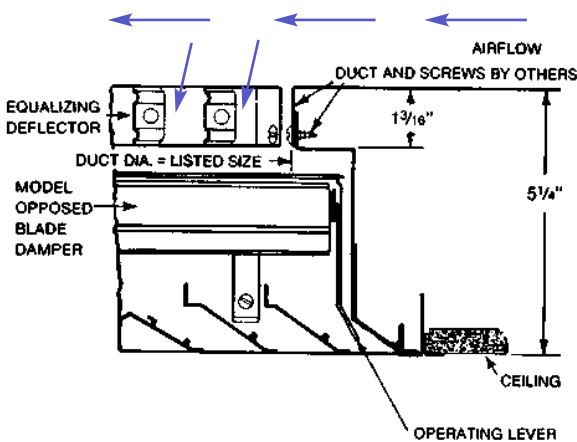
Model SAFM
Flange type for tile or plastered ceilings



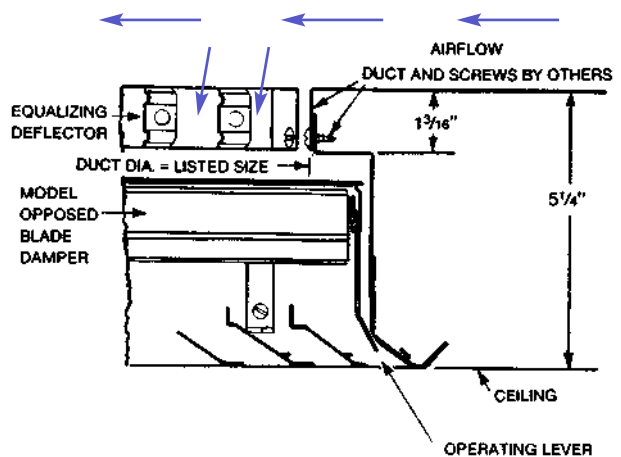
Model SAAM
Two position adjustable



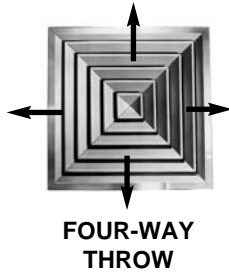
Model SATM
For fully-exposed T-bar ceilings



Model SASM
Beveled type for tile or plastered ceilings



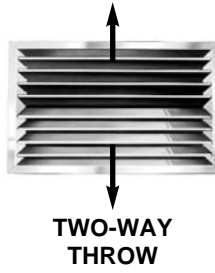
Sq. & Rect. Louvered Diffusers



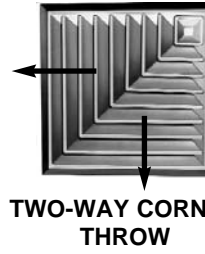
FOUR-WAY THROW



THREE-WAY THROW



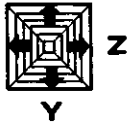
TWO-WAY THROW



TWO-WAY CORNER THROW



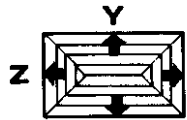
ONE-WAY THROW



These diffusers are available in both square and rectangular design. The inner section of any diffuser of a size is interchangeable with frame of similar size. Available frames are on page A17.

SQUARE NECK — FOUR-WAY THROW (Blow Pattern 40)

Neck Size Inches Y & Z	Neck Velocity Total Pressure W.G.		300		400		500		600		700		800	
			.035		.062		.096		.14		.19		.24	
6 x 6 AREA: .25 Sq. Ft. AK - .12	TOTAL CFM	NC	75	L	100		125		150		175		200	
	CFM Each Side Y & Z		19		25	20	32	26	38	30	44	35	50	39
	Throw Each Side Y & Z		4-5		5-7		6-8		8-11		10-13		11-15	
9 x 9 AREA: .56 Sq. Ft. AK - .24	TOTAL CFM	NC	168	L	224		280		336		392		448	
	CFM Each Side Y & Z		42		56	25	70	30	84	34	98	39	112	44
	Throw Each Side Y & Z		4-5		6-8		8-10		9-12		11-15		14-18	
12 x 12 AREA: 1.00 Sq. Ft. AK - .42	TOTAL CFM	NC	300	L	400		500		600		700		800	
	CFM Each Side Y & Z		75		100	26	125	32	150	37	175	41	200	44
	Throw Each Side Y & Z		5-7		7-10		9-12		11-15		14-18		15-20	
15 x 15 AREA: 1.56 Sq. Ft. AK - .65	TOTAL CFM	NC	468	L	624		780		936		1092		1248	
	CFM Each Side Y & Z		117		156	27	195	34	235	39	273	43	312	46
	Throw Each Side Y & Z		6-8		8-11		11-14		13-17		17-21		19-24	
18 x 18 AREA: 2.25 Sq. Ft. AK - .94	TOTAL CFM	NC	675	L	900		1125		1350		1575		1800	
	CFM Each Side Y & Z		169	22	225	29	281	36	338	40	394	45	450	48
	Throw Each Side Y & Z		6-8		8-11		12-15		14-18		17-22		20-26	
21 x 21 AREA: 3.06 Sq. Ft. AK - 1.28	TOTAL CFM	NC	918	L	1224		1530		1836		2142		2448	
	CFM Each Side Y & Z		229	23	306	31	382	37	459	42	535	46	612	50
	Throw Each Side Y & Z		6-8		9-12		12-15		15-19		18-23		20-27	



RECTANGULAR NECK — FOUR-WAY THROW (Blow Pattern 41)

6 x 9 AREA: .375 Sq. Ft. AK - .16	TOTAL CFM	NC	113	L	150		190		225		260		300	
	CFM Each Side Y		38		50		65		75		85		100	
	CFM Each Side Z		19		25	21	30	27	38	32	45	36	50	41
	Throw Each Side Y		5-7		6-9		8-12		10-14		11-16		12-19	
	Throw Each Side Z		2-3		3-4		4-5		4-6		5-7		6-8	
6 x 12 AREA: .50 Sq. Ft. AK - .21	TOTAL CFM	NC	150	L	200		250		300		350		400	
	CFM Each Side Y		56		75		93		112		131		150	
	CFM Each Side Z		19		25	23	32	28	38	34	44	37	50	42
	Throw Each Side Y		5-7		6-9		8-12		10-14		11-16		12-19	
	Throw Each Side Z		2-3		3-4		4-5		4-6		5-7		6-8	
6 x 15 AREA: .625 Sq. Ft. AK - .26	TOTAL CFM	NC	188	L	250		312		375		438		500	
	CFM Each Side Y		75		100		124		150		175		200	
	CFM Each Side Z		19		25	24	32	29	38	35	44	38	50	43
	Throw Each Side Y		6-8		7-10		9-13		10-15		12-18		14-21	
	Throw Each Side Z		2-3		3-4		4-5		4-6		5-7		6-8	
6 x 18 AREA: .75 Sq. Ft. AK - .31	TOTAL CFM	NC	225	L	300		375		450		525		600	
	CFM Each Side Y		94		125		156		188		218		250	
	CFM Each Side Z		19		25	24	32	30	38	35	44	39	50	44
	Throw Each Side Y		6-8		7-11		9-13		11-16		12-19		15-22	
	Throw Each Side Z		2-3		3-4		4-5		4-6		5-7		6-8	
6 x 21 AREA: .875 Sq. Ft. AK - .37	TOTAL CFM	NC	263	L	350		438		525		612		700	
	CFM Each Side Y		112		150		187		224		262		300	
	CFM Each Side Z		19		25	25	32	31	38	36	44	40	50	45
	Throw Each Side Y		6-9		8-12		10-15		11-17		14-20		15-23	
	Throw Each Side Z		2-3		3-4		4-5		4-6		5-7		6-8	

NC = Noise Criteria (18 db room attenuation) 10⁻¹³.

L = NC Less than 20. If Over = 23

Color Numbers

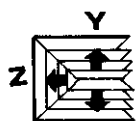
Italic Numbers

Diffuser selections which will result in noise criteria not exceeding approximately 30 db based on a room attenuation of 18 db. Resulting criteria not exceeding approximately 40 db.

RECTANGULAR NECK — FOUR-WAY THROW (Blow Pattern 41)

[Continued]

Neck Size In Inches Y & Z	Neck Velocity FPM Total Pressure W.G.		300 .035		400 .062		500 .096		600 .14		700 .19		800 .24	
9 x 12 AREA: .75 Sq. Ft. AK - .31	TOTAL CFM		225		300		375		450		525		600	
	CFM Each Side Y	NC	70	L	94		118		141		165		188	
	CFM Each Side Z		42		56	24	70	30	84	35	98	39	112	44
	Throw Each Side Y		6-8		7-10		8-12		10-15		11-17		14-20	
	Throw Each Side Z		4-6		6-9		7-10		8-13		10-15		11-17	
9 x 15 AREA: .938 Sq. Ft. AK - .39	TOTAL CFM		282		375		470		563		656		750	
	CFM Each Side Y	NC	99	L	132		165		198		230		263	
	CFM Each Side Z		42		56	25	70	31	84	36	98	40	112	45
	Throw Each Side Y		6-8		7-11		10-14		11-17		14-20		15-23	
	Throw Each Side Z		5-7		6-9		7-10		8-13		10-15		11-17	
9 x 18 AREA: 1.125 Sq. Ft. AK - .47	TOTAL CFM		338		450		562		675		788		900	
	CFM Each Side Y	NC	127	L	169		211		234		296		338	
	CFM Each Side Z		42		56	26	70	32	84	37	98	41	112	46
	Throw Each Side Y		6-9		7-11		10-14		12-18		14-20		15-22	
	Throw Each Side Z		5-7		6-9		7-10		8-13		10-15		11-17	
9 x 21 AREA: 1.31 Sq. Ft. AK - .55	TOTAL CFM		393		524		656		786		917		1050	
	CFM Each Side Y	NC	155	L	206		258		309		360		413	
	CFM Each Side Z		42		56	26	70	32	84	37	98	42	112	46
	Throw Each Side Y		6-9		8-12		10-15		12-18		14-21		15-24	
	Throw Each Side Z		5-7		6-9		7-10		8-13		10-15		11-17	
12 x 15 AREA: 1.25 Sq. Ft. AK - .52	TOTAL CFM		375		500		625		750		875		1000	
	CFM Each Side Y	NC	113	L	150		188		225		263		300	
	CFM Each Side Z		75		100	26	125	32	150	37	175	42	200	46
	Throw Each Side Y		6-9		8-12		10-15		11-17		14-20		15-23	
	Throw Each Side Z		6-8		7-10		9-13		10-15		12-18		14-21	
12 x 18 AREA: 1.50 Sq. Ft. AK - .63	TOTAL CFM		450		600		750		900		1050		1200	
	CFM Each Side Y	NC	150	L	200		250		300		350		400	
	CFM Each Side Z		75		100	27	125	33	150	38	175	42	200	47
	Throw Each Side Y		6-9		8-12		10-15		12-18		14-21		16-24	
	Throw Each Side Z		6-8		7-10		9-13		10-15		12-18		14-21	
12 x 21 AREA: 1.75 Sq. Ft. AK - .73	TOTAL CFM		525		700		875		1050		1225		1400	
	CFM Each Side Y	NC	188		250		313		375		438		500	
	CFM Each Side Z		75	20	100	28	125	34	150	39	175	44	200	48
	Throw Each Side Y		7-10		9-13		11-16		13-19		15-23		17-26	
	Throw Each Side Z		6-8		7-10		9-13		10-15		12-18		14-21	
15 x 18 AREA: 1.875 Sq. Ft. AK - .78	TOTAL CFM		563		750		938		1125		1313		1500	
	CFM Each Side Y	NC	165		219		274		329		384		438	
	CFM Each Side Z		117	20	156	28	195	34	234	39	273	44	312	48
	Throw Each Side Y		6-9		8-12		11-16		13-19		15-22		17-25	
	Throw Each Side Z		6-9		8-12		10-15		12-18		14-21		16-24	
15 x 21 AREA: 2.19 Sq. Ft. AK - .92	TOTAL CFM		675		876		1095		1313		1533		1750	
	CFM Each Side Y	NC	211		282		353		422		494		563	
	CFM Each Side Z		118	21	156	29	195	35	235	40	273	44	312	49
	Throw Each Side Y		6-9		9-13		11-16		13-19		15-22		17-25	
	Throw Each Side Z		6-9		8-12		10-15		12-18		14-21		16-24	
18 x 21 AREA: 2.62 Sq. Ft. AK - 1.09	TOTAL CFM		786		1048		1310		1572		1834		2096	
	CFM Each Side Y	NC	224		299		374		448		523		598	
	CFM Each Side Z		169	22	225	29	281	36	338	41	394	46	450	50
	Throw Each Side Y		7-10		9-13		11-16		14-20		15-23		18-26	
	Throw Each Side Z		6-9		8-12		10-15		13-19		15-22		17-25	



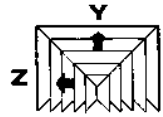
SQUARE NECK — THREE-WAY THROW (Blow Pattern 30)

6 x 6 AREA: .25 Sq. Ft. AK - .12	TOTAL CFM		75		100		125		150		175		200	
	CFM Each Side Y	NC	28	L	38		47		56		66		75	
	CFM Side Z		19		25	20	32	26	38	30	44	35	50	39
	Throw Each Side Y		3-5		5-7		6-9		7-11		9-13		10-14	
	Throw Side Z		2-4		4-6		5-7		6-9		7-11		8-12	
9 x 9 AREA: .56 Sq. Ft. AK - .24	TOTAL CFM		168		224		280		336		392		448	
	CFM Each Side Y	NC	63	L	84		105		126		147		168	
	CFM Side Z		43		56	25	70	30	85	34	98	39	112	44
	Throw Each Side Y		4-6		6-9		8-12		10-14		11-16		13-19	
	Throw Side Z		4-6		6-8		6-9		7-11		8-12		10-14	

SQUARE NECK — THREE-WAY THROW (Blow Pattern 30)

[Continued]

Neck Size In Inches Y & Z	Neck Velocity FPM Total Pressure W.G.		300 .035		400 .062		500 .096		600 .14		700 .19		800 .24
12 x 12 AREA: 1.00 Sq. Ft. AK - .42	TOTAL CFM	NC	300	L	400	26	500	32	600	37	700	41	800
	CFM Each Side Y		113		150		188		225		263		300
	CFM Side Z		75		100		125		150		175		200
	Throw Each Side Y		6-8		7-11		10-14		12-17		14-20		17-22
Throw Side Z	6-8	7-10	8-12	10-15	12-17	13-19	44						
15 x 15 AREA: 1.56 Sq. Ft. AK - .65	TOTAL CFM	NC	468	L	625	27	780	34	936	39	1092	43	1250
	CFM Each Side Y		175		235		293		350		410		469
	CFM Side Z		118		156		195		235		272		312
	Throw Each Side Y		6-9		9-13		11-16		13-19		16-23		17-25
Throw Side Z	6-8	7-11	10-14	11-17	13-19	14-21	46						
18 x 18 AREA: 2.25 Sq. Ft. AK - .94	TOTAL CFM	NC	675	22	900	29	1125	36	1350	40	1575	45	1800
	CFM Each Side Y		253		338		422		506		591		675
	CFM Side Z		169		225		281		338		394		450
	Throw Each Side Y		8-12		10-15		13-19		16-23		18-27		20-30
Throw Side Z	6-9	8-12	10-15	12-18	14-21	16-24	48						
21 x 21 AREA: 3.06 Sq. Ft. AK - 1.28	TOTAL CFM	NC	918	23	1224	31	1530	37	1836	42	2142	46	2450
	CFM Each Side Y		345		459		574		689		804		919
	CFM Side Z		230		306		382		459		535		612
	Throw Each Side Y		8-12		11-16		14-20		16-24		17-28		22-32
Throw Side Z	7-10	9-13	11-17	14-20	16-23	18-27	50						



RECTANGULAR NECK — THREE-WAY THROW (Blow Pattern 31)

6 x 9 AREA: .375 Sq. Ft. AK - .16	TOTAL CFM	NC	113	L	150	21	190	27	225	32	263	36	300
	CFM Each Side Y		43		56		70		85		98		112
	CFM Side Z		35		47		60		70		83		94
	Throw Each Side Y		3-5		5-7		6-8		7-10		8-10		9-13
Throw Side Z	2-4	3-5	4-6	6-8	6-9	7-10	41						
6 x 12 AREA: .50 Sq. Ft. AK - .21	TOTAL CFM	NC	150	L	200	23	250	28	300	34	350	37	400
	CFM Each Side Y		75		100		125		150		175		200
	CFM Side Z		38		50		63		75		88		100
	Throw Each Side Y		3-5		5-7		6-8		7-10		8-12		9-13
Throw Side Z	2-4	3-5	4-6	6-8	6-9	7-10	42						
6 x 15 AREA: .625 Sq. Ft. AK - .26	TOTAL CFM	NC	188	L	250	24	313	29	375	35	438	38	500
	CFM Each Side Y		118		156		195		235		273		312
	CFM Side Z		35		47		59		70		83		94
	Throw Each Side Y		4-6		6-8		7-10		8-12		10-15		12-17
Throw Side Z	2-4	3-5	4-6	6-8	6-9	7-10	43						
6 x 18 AREA: .75 Sq. Ft. AK - .26	TOTAL CFM	NC	225	L	300	24	375	30	450	35	525	39	600
	CFM Each Side Y		169		225		281		338		394		450
	CFM Side Z		28		38		47		56		66		75
	Throw Each Side Y		6-8		7-10		9-13		10-15		12-18		14-20
Throw Side Z	2-3	3-4	3-5	4-6	6-8	6-9	44						
6 x 21 AREA: .875 Sq. Ft. AK - .37	TOTAL CFM	NC	263	L	350	25	438	31	525	36	612	39	700
	CFM Each Side Y		230		306		382		459		535		612
	CFM Side Z		17		22		28		33		39		44
	Throw Each Side Y		7-10		9-13		11-16		13-19		15-22		18-27
Throw Side Z	2-3	2-3	2-4	3-5	5-7	6-8	45						
9 x 12 AREA: .875 Sq. Ft. AK - .21	TOTAL CFM	NC	225	L	300	24	375	30	450	35	525	39	600
	CFM Each Side Y		75		100		125		150		175		200
	CFM Side Z		75		100		125		150		175		200
	Throw Each Side Y		5-7		7-10		8-12		10-15		12-18		14-20
Throw Side Z	5-7	7-10	8-12	10-15	12-18	14-20	44						
9 x 15 AREA: .625 Sq. Ft. AK - .39	TOTAL CFM	NC	282	L	375	25	469	31	563	36	657	40	750
	CFM Each Side Y		118		156		195		235		273		312
	CFM Side Z		82		110		137		164		192		219
	Throw Each Side Y		7-10		10-13		12-17		14-20		16-24		18-27
Throw Side Z	5-7	7-10	8-12	10-14	12-17	13-19	45						
6 x 18 AREA: .75 Sq. Ft. AK - .47	TOTAL CFM	NC	338	L	450	26	562	32	675	37	788	41	900
	CFM Each Side Y		169		225		281		338		394		450
	CFM Side Z		85		113		140		169		197		225
	Throw Each Side Y		7-10		10-15		13-19		15-22		18-26		20-29
Throw Side Z	4-6	6-9	7-10	7-11	9-13	10-15	46						

NC = Noise Criteria (18 db room attenuation) 10¹³.
L = NC Less than 20. If Over = 23

Color Numbers

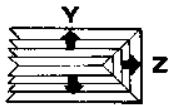
Italic Numbers

Diffuser selections which will result in noise criteria not exceeding approximately 30 db based on a room attenuation of 18 db. Resulting criteria not exceeding approximately 40 db.

SQUARE NECK — THREE-WAY THROW (Blow Pattern 31)

[Continued]

Neck Size In Inches Y & Z	Neck Velocity FPM Total Pressure W.G.		300 .035		400 .062		500 .096		600 .14		700 .19		800 .24	
9 x 21 AREA: 1.31 Sq. Ft. AK - .55	TOTAL CFM	NC	393		524		655		786		917		1048	
	CFM Each Side Y		230	L	306		382		459		535		612	
	CFM Side Z		82		109	26	137	32	163	37	191	42	218	46
	Throw Each Side Y		9-13		12-18		15-22		17-22		20-29		22-23	
	Throw Side Z		3-4		4-6		6-8		7-10		8-12		9-13	
12 x 15 AREA: 1.25 Sq. Ft. AK - .52	TOTAL CFM	NC	375		500		625		750		875		1000	
	CFM Each Side Y		118	L	156		195		235		273		312	
	CFM Side Z		129		172	26	215	32	258	37	301	42	344	46
	Throw Each Side Y		6-9		8-12		10-15		12-18		14-21		16-24	
	Throw Side Z		7-10		9-13		12-17		13-19		16-23		18-26	
12 x 18 AREA: 1.50 Sq. Ft. AK - .63	TOTAL CFM	NC	450		600		750		900		1050		1200	
	CFM Each Side Y		169	L	225		281		338		394		450	
	CFM Side Z		140		188	27	235	33	281	38	328	42	375	47
	Throw Each Side Y		7-10		10-14		12-17		14-20		16-24		18-27	
	Throw Side Z		6-9		8-12		10-15		10-17		12-19		15-22	
12 x 21 AREA: 1.75 Sq. Ft. AK - .73	TOTAL CFM	NC	525		700		875		1050		1225		1400	
	CFM Each Side Y		230		306		382		459		535		612	
	CFM Side Z		148	20	197	28	242	34	296	39	345	44	394	47
	Throw Each Side Y		8-12		11-16		13-19		16-23		18-27		20-31	
	Throw Side Z		5-7		7-10		9-13		10-15		12-18		13-20	
15 x 18 AREA: 1.875 Sq. Ft. AK - .78	TOTAL CFM	NC	563		750		938		1125		1313		1500	
	CFM Each Side Y		169		225		281		338		394		450	
	CFM Side Z		197	20	263	28	328	34	394	39	460	44	525	48
	Throw Each Side Y		7-10		9-13		11-16		13-19		16-23		17-25	
	Throw Side Z		7-11		10-15		13-19		16-23		18-27		20-30	
15 x 21 AREA: 2.19 Sq. Ft. AK - .92	TOTAL CFM	NC	657		876		1095		1314		1533		1750	
	CFM Each Side Y		230		306		382		459		535		612	
	CFM Side Z		214	21	285	29	357	35	428	40	499	44	569	49
	Throw Each Side Y		7-10		9-13		12-17		14-20		16-23		18-27	
	Throw Side Z		6-9		8-12		11-16		13-19		15-22		17-25	
18 x 21 AREA: 2.62 Sq. Ft. AK - 1.09	TOTAL CFM	NC	786		1048		1310		1572		1834		2096	
	CFM Each Side Y		230		306		382		459		535		612	
	CFM Side Z		278	22	371	29	464	36	557	41	650	46	742	50
	Throw Each Side Y		7-10		9-13		12-17		14-20		16-23		18-27	
	Throw Side Z		8-12		11-16		14-20		16-24		19-28		22-33	



RECTANGULAR NECK — THREE-WAY THROW (Blow Pattern 32)

6 x 9 AREA: .375 Sq. Ft. AK - .16	TOTAL CFM	NC	113		150		190		225		263		300	
	CFM Each Side Y		47	L	63		79		94		108		125	
	CFM Side Z		19		25	21	32	27	38	32	44	36	50	41
	Throw Each Side Y		3-5		6-8		7-10		8-12		9-13		10-15	
	Throw Side Z		2-3		3-4		3-5		3-5		4-6		4-6	
6 x 12 AREA: .50 Sq. Ft. AK - .21	TOTAL CFM	NC	150		200		250		300		350		400	
	CFM Each Side Y		66	L	88		109		131		153		175	
	CFM Side Z		19		25	23	32	28	38	34	44	37	50	42
	Throw Each Side Y		4-6		6-9		7-11		9-13		10-15		12-17	
	Throw Side Z		2-3		3-4		3-5		3-5		4-6		4-6	
6 x 15 AREA: .625 Sq. Ft. AK - .26	TOTAL CFM	NC	188		250		312		375		438		500	
	CFM Each Side Y		85	L	113		140		169		197		225	
	CFM Side Z		19		25	24	32	29	38	35	44	38	50	43
	Throw Each Side Y		6-8		7-10		8-12		10-14		11-16		12-18	
	Throw Side Z		2-3		3-4		3-5		3-5		4-6		4-6	
6 x 18 AREA: .75 Sq. Ft. AK - .31	TOTAL CFM	NC	225		300		375		450		525		600	
	CFM Each Side Y		103	L	138		172		206		241		275	
	CFM Side Z		19		25	24	32	30	38	35	44	39	50	44
	Throw Each Side Y		5-7		6-9		8-12		10-15		11-17		13-19	
	Throw Side Z		2-3		3-4		3-5		3-5		4-6		4-6	
6 x 21 AREA: .875 Sq. Ft. AK - .37	TOTAL CFM	NC	263		350		438		525		612		700	
	CFM Each Side Y		122	L	163		203		244		284		325	
	CFM Side Z		19		25	25	32	31	38	36	44	40	50	45
	Throw Each Side Y		6-8		7-11		10-14		11-16		12-18		14-21	
	Throw Side Z		2-3		3-4		3-5		3-5		4-6		4-6	
9 x 12 AREA: .75 Sq. Ft. AK - .31	TOTAL CFM	NC	225		300		375		450		525		600	
	CFM Each Side Y		92	L	122		153		184		214		244	
	CFM Side Z		42		56	24	70	31	85	35	98	39	112	43
	Throw Each Side Y		4-6		6-9		8-12		9-13		11-16		12-18	
	Throw Side Z		2-4		3-5		4-6		4-6		5-7		6-8	

Sq. & Rect. Louvered Diffusers

RECTANGULAR NECK — THREE-WAY THROW (Blow Pattern 32)

[Continued]

Neck Size In Inches Y & Z	Neck Velocity FPM Total Pressure W.G.		300 .035	400 .062	500 .096	600 .14	700 .19	800 .24	
9 x 15 AREA: .938 Sq. Ft. AK - .39	TOTAL CFM CFM Each Side Y CFM Side Z Throw Each Side Y Throw Side Z	NC	282 120 43 6-8 2-3	L 375 160 56 7-10 3-5	25 469 200 70 8-12 4-6	31 563 239 85 10-15 4-6	36 657 280 98 11-17 5-7	40 750 319 112 13-19 6-8	45
9 x 18 AREA: 1.125 Sq. Ft. AK - .47	TOTAL CFM CFM Each Side Y CFM Side Z Throw Each Side Y Throw Side Z	NC	338 148 43 6-8 2-3	L 450 197 56 7-10 3-5	26 562 246 70 8-12 4-6	32 675 296 85 10-15 4-6	37 788 345 98 11-17 5-7	41 900 394 112 13-19 6-8	46
9 x 21 AREA: 1.31 Sq. Ft. AK - .55	TOTAL CFM CFM Each Side Y CFM Side Z Throw Each Side Y Throw Side Z	NC	393 175 43 6-8 2-3	L 524 234 56 7-11 3-5	26 656 293 70 10-14 4-6	32 786 350 85 11-17 4-6	37 917 410 98 14-20 5-7	42 1048 468 112 15-22 6-8	46
12 x 15 AREA: 1.25 Sq. Ft. AK - .52	TOTAL CFM CFM Each Side Y CFM Side Z Throw Each Side Y Throw Side Z	NC	375 150 75 6-8 2-4	L 500 200 100 7-10 3-5	26 625 250 125 9-13 4-6	32 750 300 150 10-15 6-8	37 875 350 175 12-18 6-9	42 1000 400 200 14-20 7-10	46
12 x 18 AREA: 1.50 Sq. Ft. AK - .63	TOTAL CFM CFM Each Side Y CFM Side Z Throw Each Side Y Throw Side Z	NC	450 188 75 6-9 2-4	L 600 250 100 7-11 3-5	27 750 313 125 10-14 4-6	33 900 375 150 11-17 6-8	38 1050 438 175 13-19 6-9	42 1200 500 200 15-22 7-10	47
12 x 21 AREA: 1.75 Sq. Ft. AK - .73	TOTAL CFM CFM Each Side Y CFM Side Z Throw Each Side Y Throw Side Z	NC	525 225 75 6-9 2-4	20 700 300 100 8-12 3-5	28 875 375 125 10-15 4-6	34 1050 450 150 12-18 6-8	39 1225 525 175 14-21 6-9	44 1400 600 200 16-24 7-10	48
15 x 18 AREA: 1.875 Sq. Ft. AK - .78	TOTAL CFM CFM Each Side Y CFM Side Z Throw Each Side Y Throw Side Z	NC	563 223 118 6-9 2-4	20 750 297 156 7-11 4-6	28 938 372 195 10-14 6-8	34 1125 445 235 12-17 6-9	39 1313 520 273 14-20 7-10	44 1500 594 312 15-22 8-12	48
15 x 21 AREA: 2.19 Sq. Ft. AK - .92	TOTAL CFM CFM Each Side Y CFM Side Z Throw Each Side Y Throw Side Z	NC	657 270 118 6-9 2-4	21 876 360 156 8-12 4-6	29 1095 450 195 10-15 6-8	35 1314 540 235 13-19 6-9	40 1533 630 273 15-22 7-10	44 1750 719 312 18-26 8-12	49
18 x 21 AREA: 2.62 Sq. Ft. AK - 1.09	TOTAL CFM CFM Each Side Y CFM Side Z Throw Each Side Y Throw Side Z	NC	786 309 169 7-10 4-6	22 1048 413 225 9-13 5-7	29 1310 515 281 12-17 6-9	36 1572 617 338 14-20 7-11	41 1834 720 394 16-23 9-13	46 2096 823 450 16-26 10-14	50



SQUARE NECK — TWO-WAY THROW (Blow Pattern 20)

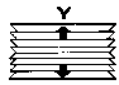
6 x 6 AREA: .25 Sq. Ft. AK - .12	TOTAL CFM CFM EACH SIDE Y THROW EACH SIDE Y	NC	75 38 4-6	L 100 50 5-7	20 125 63 6-9	26 150 75 7-11	30 175 88 9-13	35 200 100 10-15	39
9 x 9 AREA: .56 Sq. Ft. AK - .24	TOTAL CFM CFM EACH SIDE Y THROW EACH SIDE Y	NC	168 84 5-7	L 224 112 6-9	25 280 140 8-12	30 336 168 10-15	34 392 196 11-17	39 448 224 13-19	44
12 x 12 AREA: 1.00 Sq. Ft. AK - .42	TOTAL CFM CFM EACH SIDE Y THROW EACH SIDE Y	NC	300 150 6-9	L 400 200 7-11	26 500 250 10-14	32 600 300 11-17	37 700 350 14-20	41 800 400 16-23	44
15 x 15 AREA: 1.56 Sq. Ft. AK - .65	TOTAL CFM CFM EACH SIDE Y THROW EACH SIDE Y	NC	468 234 6-10	L 624 312 9-13	27 780 390 11-17	34 936 468 14-20	39 1092 546 16-23	43 1248 624 18-26	46
18 x 18 AREA: 2.25 Sq. Ft. AK - .94	TOTAL CFM CFM EACH SIDE Y THROW EACH SIDE Y	NC	675 338 7-11	22 900 450 10-15	29 1125 563 13-19	36 1350 675 15-22	40 1575 788 18-26	45 1800 900 20-30	48
21 x 21 AREA: 3.06 Sq. Ft. AK - 1.28	TOTAL CFM CFM EACH SIDE Y THROW EACH SIDE Y	NC	918 459 9-13	23 1224 612 11-17	31 1530 765 14-21	37 1836 918 18-26	42 2142 1061 20-30	46 2450 1225 24-34	50

NC = Noise Criteria (18 db room attenuation) 10¹⁵
L = NC Less than 20. If Over = 23

Color Numbers

Italic Numbers

Diffuser selections which will result in noise criteria not exceeding approximately 30 db based on a room attenuation of 18 db.
Resulting criteria not exceeding approximately 40 db.



RECTANGULAR NECK — TWO-WAY THROW (Blow Pattern 21)

Neck Size In Inches Y & Z	Neck Velocity FPM Total Pressure W.G.		300		400		500		600		700		800	
			.035		.062		.096		.14		.19		.24	
6 x 9 AREA: 3.75 Sq. Ft. AK - .16	TOTAL CFM	NC	113	L	150	<u>21</u>	190	<u>27</u>	225	<u>32</u>	260	<u>36</u>	300	<u>41</u>
	CFM Each Side Y		57	L	75	<u>21</u>	95	<u>27</u>	113	<u>32</u>	130	<u>36</u>	150	<u>41</u>
	Throw Each Side Y		5-7		6-9		8-12		10-14		10-15		12-18	
6 x 12 AREA: .50 Sq. Ft. AK - .21	TOTAL CFM	NC	150	L	200	<u>23</u>	250	<u>29</u>	300	<u>34</u>	350	<u>37</u>	400	<u>42</u>
	CFM Each Side Y		75	L	100	<u>23</u>	125	<u>29</u>	150	<u>34</u>	175	<u>37</u>	200	<u>42</u>
	Throw Each Side Y		6-8		7-10		8-12		10-15		11-17		14-20	
6 x 15 AREA: .625 Sq. Ft. AK - .26	TOTAL CFM	NC	188	L	250	<u>24</u>	312	<u>29</u>	375	<u>35</u>	438	<u>38</u>	500	<u>43</u>
	CFM Each Side Y		94	L	125	<u>24</u>	156	<u>29</u>	188	<u>35</u>	219	<u>38</u>	250	<u>43</u>
	Throw Each Side Y		6-8		7-10		9-13		10-15		12-18		14-20	
6 x 18 AREA: .75 Sq. Ft. AK - .31	TOTAL CFM	NC	225	L	300	<u>24</u>	375	<u>30</u>	450	<u>35</u>	525	<u>39</u>	600	<u>44</u>
	CFM Each Side Y		113	L	150	<u>24</u>	188	<u>30</u>	225	<u>35</u>	263	<u>39</u>	300	<u>44</u>
	Throw Each Side Y		6-8		7-10		9-13		11-16		12-18		14-21	
6 x 21 AREA: .875 Sq. Ft. AK - .37	TOTAL CFM	NC	263	L	350	<u>25</u>	438	<u>31</u>	525	<u>36</u>	612	<u>40</u>	700	<u>45</u>
	CFM Each Side Y		132	L	175	<u>25</u>	219	<u>31</u>	263	<u>36</u>	306	<u>40</u>	350	<u>45</u>
	Throw Each Side Y		6-9		8-12		10-15		11-17		14-20		15-23	
9 x 12 AREA: .75 Sq. Ft. AK - .31	TOTAL CFM	NC	225	L	300	<u>24</u>	375	<u>30</u>	450	<u>35</u>	525	<u>39</u>	600	<u>44</u>
	CFM Each Side Y		113	L	150	<u>24</u>	188	<u>30</u>	225	<u>35</u>	263	<u>39</u>	300	<u>44</u>
	Throw Each Side Y		6-8		7-11		10-14		11-16		13-19		15-22	
9 x 15 AREA: .938 Sq. Ft. AK - .39	TOTAL CFM	NC	282	L	375	<u>25</u>	470	<u>31</u>	563	<u>36</u>	656	<u>40</u>	750	<u>45</u>
	CFM Each Side Y		141	L	188	<u>25</u>	235	<u>31</u>	283	<u>36</u>	328	<u>40</u>	375	<u>45</u>
	Throw Each Side Y		6-9		8-12		10-14		11-17		14-20		16-23	
9 x 18 AREA: 1.125 Sq. Ft. AK - .47	TOTAL CFM	NC	338	L	450	<u>26</u>	562	<u>32</u>	675	<u>37</u>	788	<u>41</u>	900	<u>46</u>
	CFM Each Side Y		169	L	225	<u>26</u>	281	<u>32</u>	338	<u>37</u>	394	<u>41</u>	450	<u>46</u>
	Throw Each Side Y		6-9		8-12		10-15		12-18		15-21		16-24	
9 x 21 AREA: 1.31 Sq. Ft. AK - .55	TOTAL CFM	NC	393	L	524	<u>26</u>	655	<u>32</u>	786	<u>37</u>	917	<u>42</u>	1048	<u>46</u>
	CFM Each Side Y		196	L	262	<u>26</u>	328	<u>32</u>	393	<u>37</u>	459	<u>42</u>	524	<u>46</u>
	Throw Each Side Y		7-10		9-13		11-16		13-19		15-22		17-25	
12 x 15 AREA: 1.25 Sq. Ft. AK - .52	TOTAL CFM	NC	375	L	500	<u>26</u>	625	<u>32</u>	750	<u>37</u>	875	<u>42</u>	1000	<u>46</u>
	CFM Each Side Y		188	L	250	<u>26</u>	313	<u>32</u>	375	<u>37</u>	438	<u>42</u>	500	<u>46</u>
	Throw Each Side Y		7-10		9-13		11-16		13-19		15-22		17-25	
12 x 18 AREA: 1.50 Sq. Ft. AK - .63	TOTAL CFM	NC	450	L	600	<u>27</u>	750	<u>33</u>	900	<u>38</u>	1050	<u>42</u>	1200	<u>47</u>
	CFM Each Side Y		225	L	300	<u>27</u>	375	<u>33</u>	450	<u>38</u>	525	<u>42</u>	600	<u>47</u>
	Throw Each Side Y		7-10		9-13		11-17		14-20		16-23		18-27	
12 x 21 AREA: 1.75 Sq. Ft. AK - .73	TOTAL CFM	NC	525	<u>20</u>	700	<u>28</u>	875	<u>34</u>	1050	<u>39</u>	1225	<u>44</u>	1400	<u>48</u>
	CFM Each Side Y		263	<u>20</u>	350	<u>28</u>	438	<u>34</u>	525	<u>39</u>	613	<u>44</u>	700	<u>48</u>
	Throw Each Side Y		7-11		10-14		11-17		14-21		16-24		18-27	
15 x 18 AREA: 1.875 Sq. Ft. AK - .78	TOTAL CFM	NC	563	<u>20</u>	750	<u>28</u>	938	<u>34</u>	1125	<u>39</u>	1313	<u>44</u>	1500	<u>48</u>
	CFM Each Side Y		282	<u>20</u>	375	<u>28</u>	469	<u>34</u>	563	<u>39</u>	657	<u>44</u>	750	<u>48</u>
	Throw Each Side Y		7-10		10-14		11-17		14-21		17-25		19-28	
15 x 21 AREA: 2.19 Sq. Ft. AK - .92	TOTAL CFM	NC	657	<u>21</u>	876	<u>29</u>	1095	<u>35</u>	1313	<u>40</u>	1533	<u>44</u>	1750	<u>49</u>
	CFM Each Side Y		329	<u>21</u>	438	<u>29</u>	548	<u>35</u>	657	<u>40</u>	767	<u>44</u>	875	<u>49</u>
	Throw Each Side Y		8-12		11-16		14-21		16-24		18-27		22-31	
18 x 21 AREA: 2.62 Sq. Ft. AK - 1.09	TOTAL CFM	NC	786	<u>22</u>	1048	<u>29</u>	1310	<u>36</u>	1572	<u>41</u>	1834	<u>46</u>	2096	<u>50</u>
	CFM Each Side Y		393	<u>22</u>	524	<u>29</u>	655	<u>36</u>	786	<u>41</u>	917	<u>46</u>	1048	<u>50</u>
	Throw Each Side Y		8-12		12-17		14-21		17-25		20-29		22-33	



RECTANGULAR NECK — TWO-WAY THROW (Blow Pattern 22)

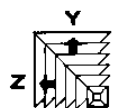
6 x 9 AREA: .375 Sq. Ft. AK - .16	TOTAL CFM	NC	113	L	150	<u>21</u>	190	<u>27</u>	225	<u>32</u>	260	<u>36</u>	300	<u>41</u>
	CFM Each Side Z		57	L	75	<u>21</u>	95	<u>27</u>	113	<u>32</u>	130	<u>36</u>	150	<u>41</u>
	Throw Each Side Z		5-7		6-9		8-12		10-15		11-17		13-19	
6 x 12 AREA: .50 Sq. Ft. AK - .21	TOTAL CFM	NC	150	L	200	<u>23</u>	250	<u>28</u>	300	<u>34</u>	350	<u>37</u>	400	<u>42</u>
	CFM Each Side Z		75	L	100	<u>23</u>	125	<u>28</u>	150	<u>34</u>	175	<u>37</u>	200	<u>42</u>
	Throw Each Side Z		5-7		6-9		8-12		10-15		11-17		14-20	
6 x 15 AREA: .625 Sq. Ft. AK - .26	TOTAL CFM	NC	188	L	250	<u>24</u>	312	<u>29</u>	375	<u>35</u>	438	<u>39</u>	500	<u>43</u>
	CFM Each Side Z		94	L	125	<u>24</u>	156	<u>29</u>	188	<u>35</u>	219	<u>39</u>	250	<u>43</u>
	Throw Each Side Z		6-8		7-10		9-13		10-15		12-18		14-21	
6 x 18 AREA: .75 Sq. Ft. AK - .31	TOTAL CFM	NC	225	L	300	<u>24</u>	375	<u>30</u>	450	<u>35</u>	525	<u>39</u>	600	<u>44</u>
	CFM Each Side Z		113	L	150	<u>24</u>	188	<u>30</u>	225	<u>35</u>	263	<u>39</u>	300	<u>44</u>
	Throw Each Side Z		6-8		7-10		9-13		10-15		12-18		14-20	

RECTANGULAR NECK — TWO-WAY THROW (Blow Pattern 22)

[Continued]

Neck Size In Inches Y & Z	Neck Velocity FPM Total Pressure W.G.		300 .035	400 .062	500 .096	600 .14	700 .19	800 .24
6 x 21 AREA: .875 Sq. Ft. AK - .37	TOTAL CFM CFM Each Side Z Throw Each Side Z	NC	263 132 6-9	350 175 8-12	438 219 10-14	525 263 11-17	612 306 13-19	700 350 14-21
9 x 12 AREA: .75 Sq. Ft. AK - .31	TOTAL CFM CFM Each Side Z Throw Each Side Z	NC	225 113 6-8	300 150 7-11	375 188 10-14	450 225 11-16	525 263 13-19	600 300 15-22
9 x 15 AREA: .938 Sq. Ft. AK - .39	TOTAL CFM CFM Each Side Z Throw Each Side Z	NC	282 141 6-9	375 188 8-12	470 235 10-14	563 282 11-17	656 328 14-20	750 375 16-23
9 x 18 AREA: 1.125 Sq. Ft. AK - .47	TOTAL CFM CFM Each Side Z Throw Each Side Z	NC	338 169 7-10	450 225 9-13	562 281 11-16	675 338 13-19	788 394 15-22	900 450 17-25
9 x 21 AREA: 1.31 Sq. Ft. AK - .55	TOTAL CFM CFM Each Side Z Throw Each Side Z	NC	393 197 6-9	524 262 9-13	655 328 11-17	786 393 13-19	917 459 15-22	1048 524 17-25
12 x 15 AREA: 1.25 Sq. Ft. AK - .52	TOTAL CFM CFM Each Side Z Throw Each Side Z	NC	375 188 7-10	500 250 9-13	625 313 11-16	750 375 13-19	875 438 15-22	1000 500 17-25
12 x 18 AREA: 1.50 Sq. Ft. AK - .63	TOTAL CFM CFM Each Side Z Throw Each Side Z	NC	450 225 7-10	600 300 9-13	750 375 11-17	900 450 14-20	1050 525 15-23	1200 600 17-26
12 x 21 AREA: 1.75 Sq. Ft. AK - .73	TOTAL CFM CFM Each Side Z Throw Each Side Z	NC	525 263 7-11	700 350 10-14	875 438 11-17	1050 525 14-20	1225 613 16-24	1400 700 18-27
15 x 18 AREA: 1.875 Sq. Ft. AK - .78	TOTAL CFM CFM Each Side Z Throw Each Side Z	NC	563 282 7-11	750 375 10-14	938 469 12-18	1125 563 14-21	1313 657 17-25	1500 750 19-28
15 x 21 AREA: 2.19 Sq. Ft. AK - .92	TOTAL CFM CFM Each Side Z Throw Each Side Z	NC	657 329 8-12	876 438 10-15	1095 548 13-19	1313 657 15-23	1533 767 18-27	1752 876 21-31
18 x 21 AREA: 2.62 Sq. Ft. AK - 1.09	TOTAL CFM CFM Each Side Z Throw Each Side Z	NC	786 393 8-12	1048 524 11-16	1310 655 14-20	1572 786 16-24	1834 917 20-29	2096 1048 22-33

Sq. & Rect. Louvered Diffusers



SQUARE NECK — TWO-WAY THROW (Blow Pattern 25)

6 x 6 AREA: .25 Sq. Ft. AK - .12	TOTAL CFM CFM Each Side Y & Z Throw Each Side Y & Z	NC	75 37 4-6	100 50 5-7	125 63 6-9	150 75 7-11	175 88 9-13	200 100 10-15
9 x 9 AREA: .56 Sq. Ft. AK - .24	TOTAL CFM CFM Each Side Y & Z Throw Each Side Y & Z	NC	168 84 5-7	224 112 6-9	280 140 8-12	336 168 10-15	392 196 11-17	448 224 13-19
12 x 12 AREA: 1.00 Sq. Ft. AK - .42	TOTAL CFM CFM Each Side Y & Z Throw Each Side Y & Z	NC	300 150 6-9	400 200 7-11	500 250 10-14	600 300 11-17	700 350 14-20	800 400 16-23
15 x 15 AREA: 1.56 Sq. Ft. AK - .65	TOTAL CFM CFM Each Side Y & Z Throw Each Side Y & Z	NC	468 234 6-10	624 312 9-13	780 390 11-17	936 468 14-20	1092 546 16-23	1248 624 18-26
18 x 18 AREA: 2.25 Sq. Ft. AK - .94	TOTAL CFM CFM Each Side Y & Z Throw Each Side Y & Z	NC	675 338 7-11	900 450 10-15	1125 563 13-19	1350 675 15-22	1575 788 18-26	1800 900 20-30
21 x 21 AREA: 3.06 Sq. Ft. AK - 1.28	TOTAL CFM CFM Each Side Y & Z Throw Each Side Y & Z	NC	918 459 9-13	1224 612 11-17	1530 765 14-21	1836 918 18-26	2142 1071 20-30	2450 1225 24-34

NC = Noise Criteria (18 db room attenuation) 10⁻¹³.

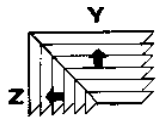
L = NC Less than 20. If Over = 23

Color Numbers

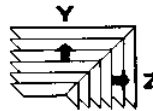
Italic Numbers

Diffuser selections which will result in noise criteria not exceeding approximately 30 db based on a room attenuation of 18 db.

Resulting criteria not exceeding approximately 40 db.



RECTANGULAR NECK
TWO-WAY CORNER THROW
 FACE VIEW (Blow Pattern 26)



TWO-WAY CORNER THROW
 FACE VIEW (Blow Pattern 27)

Neck Size Inches Y & Z	Neck Velocity Total Pressure W.G.	300 .035	400 .062	500 .096	600 .14	700 .19	800 .24	300 .035		400 .062		500 .096		600 .14		700 .19		800 .24		
								CFM	Throw	CFM	Throw	CFM	Throw	CFM	Throw	CFM	Throw	CFM	Throw	CFM
6 x 9 AREA: .375 Sq. Ft. AK - .16	NC	TOTAL CFM	113	150	190	225	260	300												
		CFM Side Y	75	100	127	150	172	200												
		CFM Side Z	38	50	63	75	88	100	41											
		Throw Side Y	5-7	6-9	7-10	8-12	10-14	11-16												
6 x 12 AREA: .50 Sq. Ft. AK - .21	NC	TOTAL CFM	150	200	250	300	350	400												
		CFM Side Y	113	150	187	225	262	300												
		CFM Side Z	38	50	63	75	88	100	42											
		Throw Side Y	5-7	7-10	8-12	10-15	11-17	13-19												
6 x 15 AREA: .625 Sq. Ft. AK - .26	NC	TOTAL CFM	188	250	312	375	438	500												
		CFM Side Y	150	200	249	300	350	400												
		CFM Side Z	38	50	63	75	88	100	43											
		Throw Side Y	6-8	7-11	9-13	12-16	13-18	14-21												
6 x 18 AREA: .75 Sq. Ft. AK - .31	NC	TOTAL CFM	225	300	375	450	525	600												
		CFM Side Y	188	250	312	375	437	500												
		CFM Side Z	38	50	63	75	88	100	44											
		Throw Side Y	6-8	7-11	10-14	11-17	13-20	15-22												
6 x 21 AREA: .875 Sq. Ft. AK - .37	NC	TOTAL CFM	263	350	438	525	612	700												
		CFM Side Y	225	300	375	450	524	600												
		CFM Side Z	38	50	63	75	88	100	45											
		Throw Side Y	7-10	8-12	10-15	12-18	14-21	16-24												
9 x 12 AREA: .75 Sq. Ft. AK - .31	NC	TOTAL CFM	225	300	375	450	525	600												
		CFM Side Y	140	187	235	280	330	375												
		CFM Side Z	85	113	140	170	195	225	44											
		Throw Side Y	3-5	5-7	6-9	7-10	8-12	10-13												
9 x 15 AREA: .938 Sq. Ft. AK - .39	NC	TOTAL CFM	282	375	470	563	656	750												
		CFM Side Y	197	262	330	393	461	525												
		CFM Side Z	85	113	140	170	195	225	45											
		Throw Side Y	4-6	5-7	6-9	7-11	9-13	10-15												
9 x 18 AREA: 1.125 Sq. Ft. AK - .47	NC	TOTAL CFM	338	450	562	675	788	900												
		CFM Side Y	253	337	422	505	593	675												
		CFM Side Z	85	113	140	170	195	225	46											
		Throw Side Y	6-8	7-11	10-14	11-17	13-19	15-22												
9 x 21 AREA: 1.31 Sq. Ft. AK - .55	NC	TOTAL CFM	393	524	655	786	917	1048												
		CFM Side Y	308	411	515	616	722	823												
		CFM Side Z	85	113	140	170	195	225	46											
		Throw Side Y	7-10	9-13	11-16	13-19	15-22	17-25												
12 x 15 AREA: 1.25 Sq. Ft. AK - .52	NC	TOTAL CFM	375	500	625	750	875	1000												
		CFM Side Y	225	300	375	450	525	600												
		CFM Side Z	150	200	250	300	350	400	46											
		Throw Side Y	6-8	7-10	9-13	10-15	12-18	14-20												
12 x 18 AREA: 1.50 Sq. Ft. AK - .63	NC	TOTAL CFM	450	600	750	900	1050	1200												
		CFM Side Y	300	400	500	600	700	800												
		CFM Side Z	150	200	250	300	350	400	47											
		Throw Side Y	6-9	8-12	10-14	11-17	14-20	16-23												
12 x 21 AREA: 1.75 Sq. Ft. AK - .73	NC	TOTAL CFM	525	700	875	1050	1225	1400												
		CFM Side Y	375	500	625	750	875	1000												
		CFM Side Z	150	200	250	300	350	400	48											
		Throw Side Y	7-10	9-13	12-17	14-20	16-23	18-27												
15 x 18 AREA: 1.875 Sq. Ft. AK - .78	NC	TOTAL CFM	563	750	938	1125	1313	1500												
		CFM Side Y	328	437	548	655	768	875												
		CFM Side Z	235	313	390	470	545	625	48											
		Throw Side Y	6-9	7-11	10-14	12-17	14-20	15-22												

Sq. & Rect. Louvered Diffusers

RECTANGULAR NECK —

TWO-WAY CORNER THROW (Blow Patterns 26 & 27)

[Continued]

Neck Size Inches Y & Z	Neck Velocity Total Pressure W.G.	NC	300 .035		400 .062		500 .096		600 .14		700 .19		800 .24	
			CFM	Throw	CFM	Throw	CFM	Throw	CFM	Throw	CFM	Throw	CFM	Throw
15 x 21 AREA: 2.19 Sq. Ft. AK - .92	TOTAL CFM	NC	657	L	876	21	1095	26	1313	30	1533	35	1752	39
	CFM Side Y		422	L	563	29	705	35	843	40	988	44	1127	49
	CFM Side Z		235	L	313	29	390	35	470	40	545	44	625	49
	Throw Side Y		7-10	L	8-12	29	10-15	35	13-19	40	15-22	44	17-25	49
Throw Side Z	4-6	L	6-8	29	7-10	35	8-12	40	10-14	44	11-16	49		
18 x 21 AREA: 2.62 Sq. Ft. AK - 1.09	TOTAL CFM	NC	786	L	1048	22	1310	29	1572	36	1834	41	2096	50
	CFM Side Y		448	L	598	29	747	36	897	41	1046	46	1196	50
	CFM Side Z		338	L	450	29	563	36	675	41	788	46	900	50
	Throw Side Y		7-10	L	9-13	29	11-16	36	13-19	41	15-23	46	17-26	50
Throw Side Z	6-8	L	7-10	29	9-13	36	10-15	41	12-18	46	14-20	50		



SQUARE NECK — ONE-WAY THROW (Blow Pattern 10)

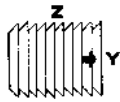
Neck Size Inches Y & Z	Neck Velocity Total Pressure W.G.	NC	300 .035		400 .062		500 .096		600 .14		700 .19		800 .24	
			CFM	Throw	CFM	Throw	CFM	Throw	CFM	Throw	CFM	Throw	CFM	Throw
6 x 6 - AK - .12 AREA: .25 Sq. Ft.	TOTAL CFM	NC	75	L	100	20	125	26	150	30	175	35	200	39
Throw	4-7		L	6-10	20	9-13	26	10-15	30	12-18	35	14-20	39	
9 x 9 - AK - .24 AREA: .56 Sq. Ft.	TOTAL CFM	NC	140	L	224	25	280	30	336	34	392	39	448	44
Throw	6-8		L	8-12	25	10-15	30	12-18	34	14-21	39	16-24	44	
12 x 12 - AK - .42 AREA: 1.00 Sq. Ft.	TOTAL CFM	NC	300	L	400	26	500	32	600	37	700	41	800	44
Throw	8-11		L	10-14	26	12-18	32	14-20	37	17-25	41	21-29	44	
15 x 15 - AK - .65 AREA: 1.56 Sq. Ft.	TOTAL CFM	NC	390	L	624	27	780	34	936	39	1092	43	1248	46
Throw	7-10		L	11-16	27	14-20	34	16-24	39	20-28	43	23-32	46	
18 x 18 - AK - .94 AREA: 2.25 Sq. Ft.	TOTAL CFM	NC	675	L	900	29	1125	36	1350	40	1575	45	1800	48
Throw	10-16		L	14-20	29	16-25	36	20-30	40	24-35	45	27-40	48	
21 x 21 - AK - 1.28 AREA: 3.06 Sq. Ft.	TOTAL CFM	NC	918	L	1224	31	1530	37	1836	42	2142	46	2448	50
Throw	12-18		L	16-23	31	20-29	37	24-34	42	27-40	46	30-43	50	



RECTANGULAR NECK — ONE-WAY THROW (Blow Pattern 11)

Neck Size Inches Y & Z	Neck Velocity Total Pressure W.G.	NC	300 .035		400 .062		500 .096		600 .14		700 .19		800 .24	
			CFM	Throw	CFM	Throw	CFM	Throw	CFM	Throw	CFM	Throw	CFM	Throw
6 x 9 - AK - .16 AREA: .375 Sq. Ft.	TOTAL CFM	NC	113	L	150	21	190	27	225	32	260	36	300	41
Throw	6-9		L	8-12	21	10-15	27	12-18	32	14-21	36	16-24	41	
6 x 12 - AK - .21 AREA: .50 Sq. Ft.	TOTAL CFM	NC	150	L	200	23	250	28	300	34	350	37	400	42
Throw	6-10		L	8-13	23	10-16	28	12-19	34	14-22	37	17-25	42	
6 x 15 - AK - .26 AREA: .625 Sq. Ft.	TOTAL CFM	NC	188	L	250	24	312	31	375	35	438	39	500	43
Throw	7-10		L	9-13	24	10-17	31	13-20	35	15-23	39	17-26	43	
6 x 18 - AK - .31 AREA: .75 Sq. Ft.	TOTAL CFM	NC	225	L	300	24	375	30	450	35	525	39	600	44
Throw	7-11		L	10-14	24	11-17	30	13-20	35	16-24	39	18-27	44	
6 x 21 - AK - .37 AREA: .875 Sq. Ft.	TOTAL CFM	NC	263	L	350	25	438	31	525	36	612	40	700	45
Throw	8-11		L	10-15	25	14-20	31	15-22	36	17-25	40	18-29	45	
9 x 12 - AK - .31 AREA: .75 Sq. Ft.	TOTAL CFM	NC	225	L	300	24	375	30	450	35	525	39	600	44
Throw	8-11		L	10-14	24	12-18	30	13-21	35	18-26	39	18-28	44	
9 x 15 - AK - .39 AREA: .938 Sq. Ft.	TOTAL CFM	NC	282	L	375	25	469	31	563	36	656	40	750	45
Throw	8-11		L	10-15	25	12-18	31	14-22	36	16-25	40	19-29	45	
9 x 18 - AK - .47 AREA: 1.125 Sq. Ft.	TOTAL CFM	NC	338	L	450	26	562	32	675	37	788	41	900	46
Throw	8-12		L	10-15	26	13-19	32	16-23	37	17-26	41	20-30	46	
9 x 21 - AK - .55 AREA: 1.31 Sq. Ft.	TOTAL CFM	NC	393	L	524	26	655	32	786	37	917	42	1048	46
Throw	8-12		L	10-16	26	14-20	32	16-24	37	18-28	42	22-32	46	
12 x 15 - AK - .52 AREA: 1.25 Sq. Ft.	TOTAL CFM	NC	375	L	500	26	625	32	750	37	875	42	1000	46
Throw	9-13		L	11-17	26	14-21	32	17-25	37	20-30	42	22-33	46	
12 x 18 - AK - .63 AREA: 1.50 Sq. Ft.	TOTAL CFM	NC	450	L	600	27	750	33	900	38	1050	42	1200	47
Throw	9-13		L	12-18	27	15-22	33	17-26	38	20-31	42	24-35	47	
12 x 21 - AK - .73 AREA: 1.75 Sq. Ft.	TOTAL CFM	NC	525	L	700	28	875	34	1050	39	1225	44	1400	48
Throw	10-14		L	13-19	28	16-23	34	19-28	39	22-33	44	26-38	48	
15 x 18 - AK - .78 AREA: 1.875 Sq. Ft.	TOTAL CFM	NC	563	L	750	28	938	34	1125	39	1313	44	1500	48
Throw	10-15		L	13-19	28	16-24	34	20-29	39	23-34	44	26-39	48	
15 x 21 - AK - .92 AREA: 2.19 Sq. Ft.	TOTAL CFM	NC	657	L	876	29	1095	35	1313	40	1533	44	1752	49
Throw	10-15		L	13-19	29	16-24	35	20-29	40	23-34	44	26-38	49	
18 x 21 - AK - 1.09 AREA: 2.62 Sq. Ft.	TOTAL CFM	NC	785	L	1050	29	1310	36	1570	41	1830	46	2100	50
Throw	11-17		L	15-22	29	19-28	36	23-34	41	26-39	46	34-44	50	

Sq. & Rect. Louvered Diffusers



RECTANGULAR NECK — ONE-WAY THROW (*Blow Pattern 12*)

Neck Size In Inches Y & Z	Neck Velocity FPM Total Pressure W.G.	NC	300 .035		400 .062		500 .096		600 .14		700 .19		800 .24	
			Color Numbers	<i>Italic Numbers</i>	Color Numbers	<i>Italic Numbers</i>	Color Numbers	<i>Italic Numbers</i>	Color Numbers	<i>Italic Numbers</i>	Color Numbers	<i>Italic Numbers</i>	Color Numbers	<i>Italic Numbers</i>
6 x 9 - AK - .16 AREA: .375 Sq. Ft.	TOTAL CFM Throw	NC	113 6-9	L	150 8-12	21	190 10-15	27	225 12-18	32	260 14-21	36	300 16-24	41
6 x 12 - AK - .21 AREA: .50 Sq. Ft.	TOTAL CFM Throw	NC	150 7-10	L	200 9-13	23	250 11-16	28	300 14-20	34	350 16-23	37	400 18-26	42
6 x 15 - AK - .26 AREA: .625 Sq. Ft.	TOTAL CFM Throw	NC	188 7-10	L	250 10-14	24	310 11-17	29	375 14-20	35	440 16-24	38	500 18-27	43
6 x 18 - AK - .31 AREA: .75 Sq. Ft.	TOTAL CFM Throw	NC	225 7-10	L	300 10-14	24	375 12-18	30	450 14-21	35	525 17-25	39	600 19-28	44
6 x 21 - AK - .37 AREA: .875 Sq. Ft.	TOTAL CFM Throw	NC	263 7-11	L	350 10-15	25	440 12-18	31	525 15-22	36	610 17-25	40	700 20-29	45
9 x 12 - AK - .31 AREA: .75 Sq. Ft.	TOTAL CFM Throw	NC	225 7-11	L	300 10-14	24	375 12-18	30	450 15-22	35	525 17-25	39	600 20-29	44
9 x 15 - AK - .39 AREA: .938 Sq. Ft.	TOTAL CFM Throw	NC	280 8-11	L	375 10-15	25	470 13-19	31	560 15-22	36	660 17-25	40	750 20-29	45
9 x 18 - AK - .47 AREA: 1.125 Sq. Ft.	TOTAL CFM Throw	NC	338 7-11	L	450 10-15	26	560 13-19	32	675 15-23	37	790 18-27	41	900 20-30	46
9 x 21 - AK - .55 AREA: 1.31 Sq. Ft.	TOTAL CFM Throw	NC	393 8-12	L	524 11-16	26	655 14-20	32	786 16-24	37	917 19-28	42	1048 21-32	46
12 x 15 - AK - .52 AREA: 1.25 Sq. Ft.	TOTAL CFM Throw	NC	375 8-12	L	500 11-16	26	625 14-20	32	750 16-23	37	875 18-27	42	1000 20-31	46
12 x 18 - AK - .63 AREA: 1.50 Sq. Ft.	TOTAL CFM Throw	NC	450 8-12	L	600 11-16	27	750 14-20	33	900 16-24	38	1050 19-28	42	1200 22-32	47
12 x 21 - AK - .73 AREA: 1.75 Sq. Ft.	TOTAL CFM Throw	NC	525 10-14	20	700 12-18	28	875 16-23	34	1050 18-27	39	1225 22-32	44	1400 24-36	48
15 x 18 - AK - .78 AREA: 1.875 Sq. Ft.	TOTAL CFM Throw	NC	563 10-15	20	750 14-20	28	938 16-24	34	1125 20-30	39	1313 23-34	44	1500 26-39	48
15 x 21 - AK - .92 AREA: 2.19 Sq. Ft.	TOTAL CFM Throw	NC	657 10-15	21	876 14-20	29	1095 17-25	35	1314 20-30	40	1533 24-35	44	1752 27-40	49
18 x 21 - AK - 1.09 AREA: 2.62 Sq. Ft.	TOTAL CFM Throw	NC	786 10-15	22	1048 14-20	29	1310 18-26	36	1572 20-31	41	1834 24-36	46	2096 28-41	50

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Color Numbers

Diffuser selections which will result in noise criteria not exceeding approximately 30 db based on a room attenuation of 18 db.

Italic Numbers

Resulting criteria not exceeding approximately 40 db.

NOTES:

Sq. & Rect. Louvered Diffusers



ROUND NECK — FOUR-WAY THROW (Blow Pattern 40)

Neck Size (Inches)	Fits on Square Neck	Neck Velocity FPM	300		400		500		600		700		800		
			TOTAL PRESSURE W.G.	TOTAL CFM	CFM Each Side	Throw Each Side	TOTAL PRESSURE W.G.	TOTAL CFM	CFM Each Side	Throw Each Side	TOTAL PRESSURE W.G.	TOTAL CFM	CFM Each Side	Throw Each Side	TOTAL PRESSURE W.G.
5 Diameter AREA: .136 Sq. Ft. AK - .158	9 x 9	TOTAL PRESSURE W.G.	.006		.012		.018		.026		.035		.047		
		TOTAL CFM	41	55	68	82	95	109							
		CFM Each Side	10	14	17	20	24	27							
6 Diameter AREA: .196 Sq. Ft. AK - .210	9 x 9	TOTAL PRESSURE W.G.	.008		.015		.024		.034		.045		.060		
		TOTAL CFM	59	78	98	118	137	157							
		CFM Each Side	15	19	25	30	33	39							
8 Diameter AREA: .35 Sq. Ft. AK - .234	9 x 9	TOTAL PRESSURE W.G.	.015		.027		.043		.061		.082		.110		
		TOTAL CFM	105	140	175	210	245	280							
		CFM Each Side	26	35	44	53	61	70							
10 Diameter AREA: .545 Sq. Ft. AK - .433	12 x 12	TOTAL PRESSURE W.G.	.013		.021		.034		.049		.067		.088		
		TOTAL CFM	164	218	273	327	382	436							
		CFM Each Side	41	55	68	82	96	109							
12 Diameter AREA: .785 Sq. Ft. AK - .667	15 x 15	TOTAL PRESSURE W.G.	.011		.019		.030		.043		.058		.076		
		TOTAL CFM	236	314	393	471	550	628							
		CFM Each Side	59	79	98	118	138	157							
14 Diameter AREA: 1.07 Sq. Ft. AK - .683	15 x 15	TOTAL PRESSURE W.G.	.017		.031		.049		.070		.095		.125		
		TOTAL CFM	321	428	535	642	749	856							
		CFM Each Side	80	107	134	160	187	214							
16 Diameter AREA: 1.395 Sq. Ft. AK - .962	18 x 18	TOTAL PRESSURE W.G.	.017		.030		.047		.068		.092		.120		
		TOTAL CFM	416	558	697	832	976	1116							
		CFM Each Side	104	140	174	208	244	279							
8 Diameter AREA: .35 Sq. Ft. AK - .342	21 x 21	TOTAL PRESSURE W.G.	.007		.012		.019		.026		.035		.042		
		TOTAL CFM	105	140	175	210	245	280							
		CFM Each Side	26	35	44	53	61	70							
10 Diameter AREA: .545 Sq. Ft. AK - .493	21 x 21	TOTAL PRESSURE W.G.	.007		.015		.023		.032		.044		.054		
		TOTAL CFM	164	218	273	327	382	436							
		CFM Each Side	41	55	68	82	96	109							
12 Diameter AREA: .785 Sq. Ft. AK - .692	21 x 21	TOTAL PRESSURE W.G.	.009		.016		.024		.034		.048		.061		
		TOTAL CFM	236	314	393	471	550	628							
		CFM Each Side	59	79	98	118	138	157							
14 Diameter AREA: 1.07 Sq. Ft. AK - .907	21 x 21	TOTAL PRESSURE W.G.	.010		.017		.027		.039		.053		.070		
		TOTAL CFM	321	428	535	642	749	856							
		CFM Each Side	80	107	134	160	187	214							
16 Diameter AREA: 1.395 Sq. Ft. AK - 1.12	21 x 21	TOTAL PRESSURE W.G.	.013		.020		.032		.045		.061		.080		
		TOTAL CFM	416	558	697	832	976	1116							
		CFM Each Side	104	140	174	208	244	279							
18 Diameter AREA: 1.77 Sq. Ft. AK - 1.28	21 x 21	TOTAL PRESSURE W.G.	.015		.025		.039		.056		.078		.100		
		TOTAL CFM	531	708	885	1062	1239	1416							
		CFM Each Side	133	177	221	265	310	354							
20 Diameter AREA: 2.18 Sq. Ft. AK - 1.33	21 x 21	TOTAL PRESSURE W.G.	.020		.035		.055		.078		.105		.140		
		TOTAL CFM	654	872	1090	1308	1526	1744							
		CFM Each Side	164	218	272	327	382	436							

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Color Numbers

Italic Numbers

Diffuser selections which will result in noise criteria not exceeding approximately 30 db based on a room attenuation of 18 db.

Resulting criteria not exceeding approximately 40 db.

Sq. & Rect. Louvered Diffusers