

Model KX1

Single Deflection Grilles

Introduction

KMC supply Grilles and Registers usually have adjustable louvers and are available in single or double deflection models.

The Single deflection grilles are designed to have one set of blades in the horizontal or vertical orientation.

Air pattern is adjustable in one plane only.

The Horizontal type provides the control over the deflection of the air pattern on adjustments whereas the vertical type provides the spread control of the air pattern reducing both throw and drop.

Application

- Recommended for heating, cooling, or ventilating applications.
- Versatile directional, throw distance, and spread pattern control.
- Typically installed high in a sidewall, soffit, or Duct.

Product Features

- Single deflection supply grilles and registers exceeding the industry standard using corrosion resistant aluminum materials
- Single set of horizontal or vertical blades
- Aerodynamic blade design resulting in lowest achievable sound and pressure levels
- 12mm / 19mm spacing of individually adjustable blades
- Blades rotate smoothly without bending.
- Registers include a factory attached, opposed blade volume control damper
- Powder coated to RAL 9010 as standard
- Maximum size one piece construction is 2000mm x 1800mm
- Larger sizes shipped in multiple sections for field assembly.

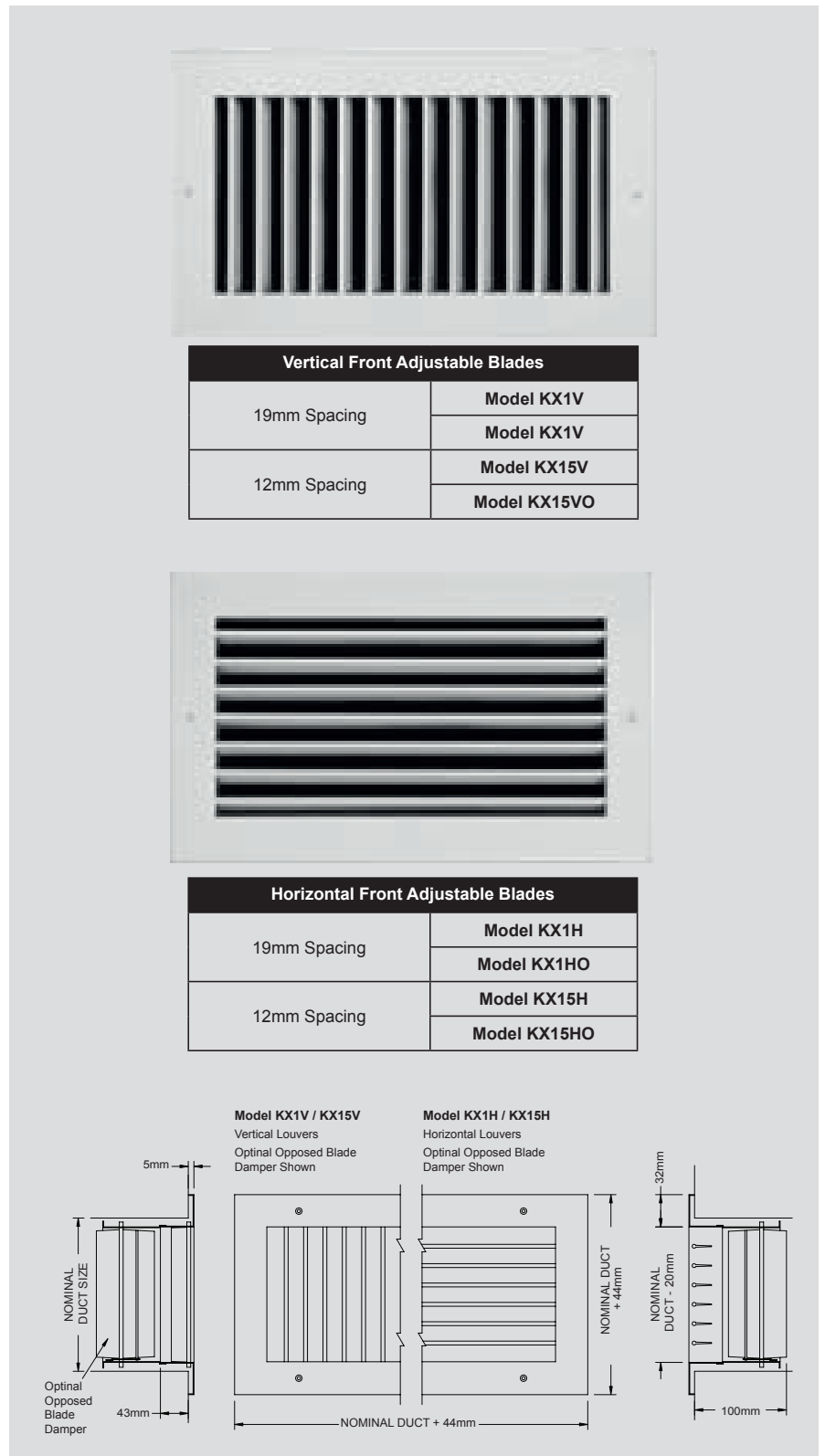
Options

- Mounting holes in frame neatly countersunk
- Custom Colors

Selection Procedure :

The selections can be made by means of a straight read-off from the "Performance Data" for the selected Model.

- Determine the Air flow rate per outlet.
- Establish the required Throw (Refer Notes for Throw Pattern) Opposing Grilles : Maximum Throw for each Grille should be no more than 75% of half of the distance between them.
- Select the Grille based on required Air flow rate against the outlet velocity, limiting pressure drop and sound level requirements.



Product Selection Check List

- Select Unit Size (L x W) based on desired performance characteristics.
- Select outlet type by Model Number.
- Select blade orientation.
- Select fastening type (Face / Concealed)
- Select Finish

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Nominal Duct Size		Nominal Duct m2	Core Area m2	Core Velocity		1.5			2.0			2.5			3.0			3.5			4.0			5.0			6.0						
W	H			Ps	0°		2.5		2.5		5.0		5.0		7.5		7.5		10.0		10.0		15.0		15.0		22.5		22.5				
					22.5°		2.5		5.0		7.5		10.0		10.0		15.0		15.0		17.5		17.5		30.0		30.0		42.5		42.5		
				45°		5.0		7.5		10.0		10.0		15.0		15.0		22.5		22.5		27.5		27.5		45.0		45.0					
600	450	0.279	0.260	CMH		1428		1904		2380		2856		3332		3808		4760		5712		5712		5712		5712		5712					
				NC		<20		<20		20		25		30		34		40		45		45		45		45		45		45		45	
				Throw		0°		6.1	9.1	17.4	8.2	12.2	20.1	10.4	15.5	22.6	12.2	17.4	24.7	14.3	18.9	26.8	16.5	20.1	28.7	18.3	22.6	32.0	20.1	24.7	35.1		
						22.5°		4.3	6.7	12.5	5.8	8.8	14.6	7.3	11.3	16.2	8.8	12.5	17.7	10.4	13.7	19.2	11.9	14.6	20.7	13.1	16.2	23.2	14.6	17.7	25.3		
				45°		3.4	5.2	9.5	4.6	6.7	11.0	5.8	8.5	12.5	6.7	9.5	13.7	7.9	10.4	14.6	9.1	11.0	15.9	10.1	12.5	17.7	11.0	13.7	19.2				
550	550	0.312	0.293	CMH		1615		2142		2686		3213		3757		4284		5355		6443		6443		6443		6443		6443					
				NC		<20		<20		21		26		30		34		41		46		46		46		46		46		46		46	
				Throw		0°		6.7	9.8	18.6	8.8	13.1	21.3	11.0	16.5	24.1	13.1	18.6	26.2	15.2	20.1	28.4	17.4	21.3	30.2	19.5	24.1	33.8	21.3	26.2	37.2		
						22.5°		4.9	7.0	13.4	6.4	9.5	15.2	7.9	11.9	17.4	9.5	13.4	18.9	11.0	14.6	20.4	12.5	15.2	21.6	14.0	17.4	24.4	15.2	18.9	26.8		
				45°		3.7	5.5	10.4	4.9	7.3	11.9	6.1	9.1	13.1	7.3	10.4	14.3	8.5	11.0	15.5	9.5	11.9	16.5	10.7	13.1	18.6	11.9	14.3	20.4				
600	600	0.372	0.350	CMH		1921		2567		3213		3842		4488		5134		6409		7701		7701		7701		7701		7701					
				NC		<20		<20		21		27		31		35		41		47		47		47		47		47		47		47	
				Throw		0°		7.0	10.7	20.4	9.5	14.3	23.5	11.9	18.0	26.2	14.3	20.4	28.7	16.8	22.0	31.1	19.2	23.5	33.2	21.3	26.2	37.2	23.5	28.7	40.5		
						22.5°		5.2	7.6	14.6	6.7	10.4	16.8	8.5	12.8	18.9	10.4	14.6	20.7	12.2	15.9	22.3	13.7	16.8	23.8	15.2	18.9	26.8	16.8	20.7	29.3		
				45°		4.0	5.8	11.3	5.2	7.9	12.8	6.4	9.8	14.3	7.9	11.3	15.9	9.1	12.2	17.1	10.7	12.8	18.3	11.9	14.3	20.4	12.8	15.9	22.3				
700	550	0.398	0.375	CMH		2057		2754		3434		4131		4811		5491		6868		8245		8245		8245		8245		8245					
				NC		<20		<20		22		27		31		35		42		47		47		47		47		47		47		47	
				Throw		0°		7.3	11.0	21.0	9.8	14.9	24.4	12.2	18.6	27.1	14.9	21.0	29.9	17.4	22.6	32.0	19.8	24.4	34.5	22.3	27.1	38.4	24.4	29.6	42.1		
						22.5°		5.2	7.9	15.2	7.0	10.7	17.7	8.8	13.4	19.5	10.7	15.2	21.6	12.5	16.2	23.2	14.3	17.7	24.7	16.2	19.5	27.7	17.7	21.3	30.2		
				45°		4.0	6.1	11.6	5.5	8.2	13.4	6.7	10.4	14.9	8.2	11.6	16.5	9.5	12.5	17.7	11.0	13.4	18.9	12.2	14.9	21.0	13.4	16.2	23.2				
900	450	0.418	0.395	CMH		2159		2890		3604		4335		5049		5780		7225		8653		8653		8653		8653		8653					
				NC		<20		<20		22		27		32		35		42		47		47		47		47		47		47		47	
				Throw		0°		7.6	11.3	21.6	10.1	15.2	25.0	12.5	18.9	27.7	15.2	21.6	30.5	17.7	23.2	32.9	20.1	25.0	35.1	22.9	27.7	39.3	25.0	30.5	43.0		
						22.5°		5.5	8.2	15.5	7.3	11.0	18.0	9.1	13.7	20.1	11.0	15.5	22.0	12.8	16.8	23.8	14.6	18.0	25.3	16.5	20.1	28.4	18.0	22.0	31.1		
				45°		4.3	6.1	11.9	5.5	8.5	13.7	7.0	10.4	15.2	8.5	11.9	16.8	9.8	12.8	18.0	11.0	13.7	19.2	12.5	15.2	21.6	13.7	16.8	23.8				
800	550	0.454	0.430	CMH		2363		3145		3944		4726		5508		6307		7871		9452		9452		9452		9452		9452					
				NC		<20		<20		22		28		32		36		42		48		48		48		48		48		48		48	
				Throw		0°		7.9	11.9	22.6	10.7	15.9	25.9	13.1	19.8	29.0	15.9	22.6	31.7	18.6	24.4	34.5	21.0	25.9	36.9	23.8	29.0	41.2	25.9	31.7	45.1		
						22.5°		5.8	8.5	16.2	7.6	11.3	18.6	9.5	14.3	20.7	11.3	16.2	22.9	13.4	17.7	24.7	15.2	18.6	26.5	17.1	20.7	29.6	18.6	22.9	32.6		
				45°		4.3	6.4	12.5	5.8	8.8	14.3	7.3	11.0	15.9	8.8	12.5	17.4	10.4	13.4	18.9	11.6	14.3	20.4	13.1	15.9	22.6	14.3	17.4	24.7				
750	600	0.465	0.441	CMH		2414		3230		4029		4845		5644		6460		8075		9673		9673		9673		9673		9673					
				NC		<20		<20		22		28		32		36		42		48		48		48		48		48		48		48	
				Throw		0°		7.9	11.9	22.9	10.7	16.2	26.2	13.4	20.1	29.3	16.2	22.9	32.3	18.6	24.7	34.8	21.3	26.2	37.2	24.1	29.3	41.5	26.2	32.3	45.4		
						22.5°		5.8	8.5	16.5	7.6	11.6	18.9	9.8	14.6	21.0	11.6	16.5	23.2	13.4	17.7	25.0	15.2	18.9	26.8	17.4	21.0	29.9	18.9	23.2	32.6		
				45°		4.3	6.4	12.5	5.8	8.8	14.3	7.3	11.0	16.2	8.8	12.5	17.7	10.4	13.7	19.2	11.9	14.3	20.4	13.1	16.2	22.9	14.3	17.7	25.0				
850	550	0.482	0.458	CMH		2516		3349		4199		5032		5865		6698		8381		10064		10064		10064		10064		10064					
				NC		<20		<20		23		28		32		36		43		48		48		48		48		48		48		48	
				Throw		0°		8.2	12.2	23.2	11.0	16.5	26.8	13.7	20.4	29.9	16.5	23.2	32.9	19.2	25.0	35.4	21.6	26.8	37.8	24.4	29.9	42.4	26.8	32.9	46.3		
						22.5°		5.8	8.8	16.8	7.9	11.9	19.2	9.8	14.6	21.6	11.9	16.8	23.8	13.7	18.0	25.6	15.5	19.2	27.1	17.7	21.6	30.5	19.2	23.8	33.2		
				45°		4.6	6.7	12.8	6.1	9.1	14.6	7.6	11.3	16.5	9.1	12.8	18.0	10.7	13.7	19.5	11.9	14.6	20.7	13.4	16.5	23.2	14.6	18.0	25.6				
1000	500	0.517	0.490	CMH		2686		3587		4488		5372		6273		7174		8959		10761		10761		10761		10761		10761					
				NC		<20		<20		23		28		33		36		43		48		48		48		48		48		48		48	
				Throw		0°		8.5	12.8	24.1	11.3	17.1	27.7	14.0	21.0	31.1	16.8	24.1	33.8	19.8	25.9	36.6	22.6	27.7	39.3	25.3	31.1	43.9	27.7	33.8	48.2		
						22.5°		6.1	9.1	17.4	8.2	12.2	20.1	10.1	15.2	22.3	12.2	17.4	24.4	14.3	18.6	26.2	16.2	20.1	28.4	18.3	22.3	31.7	20.1	24.4	34.8		
				45°		4.6	7.0	13.1	6.1	9.5	15.2	7.6	11.6	17.1	9.1	13.1	18.6	11.0	14.3	20.1	12.5	15.2	21.6	14.0	17.1	24.1	15.2	18.6	26.5				
900	600	0.558	0.532	CMH		2907		3893		4862		5831		6800		7769		9724		11662		11662		11662		11662		11662					
				NC		<20		<20		23		28		33		37		43		48		48		48		48		48		48		48	
				Throw		0°		8.8	13.1	25.0	11.9	17.7	29.0	14.6	22.0	32.3	17.7	25.0	35.4	20.4	27.1	38.1	23.5	29.0	40.9	26.2	32.3	45.7	29.0	35.4	50.0		
						22.5°		6.4	9.5	18.0	8.5	12.8	20.7	10.7	15.9	23.2	12.8	18.0	25.6	14.6	19.5	27.4	16.8	20.7	29.3	18.9	23.2	32.9	20.7	25.6	36.0		
				45°		4.9	7.3	13.7	6.4	9.8	15.9	7.9	12.2	17.7	9.8	13.7	19.5	11.3	14.9	21.0	12.8	15.9	22.6	14.3	17.7	25.3	15.9	19.5	27.4				
750	750	0.581	0.555	CMH		3043		4063		5066																							

Single Deflection Grilles

Nominal Duct Size		Nominal Duct m ²	Core Area m ²	Core Velocity		1.5			2.0			2.5			3.0			3.5			4.0			5.0			6.0				
W	H			Ps	0°			2.5			5.0			5.0			7.5			10.0			15.0			22.5					
					22.5°			5.0			7.5			10.0			15.0			22.5			30.0			42.5					
				45°			7.5			10.0			15.0			22.5			27.5			45.0			62.5						
900	750	0.6970	0.6682	CMH			3672			4896			6103			7327			8551			9775			12223			14671			
				NC			<20			<20			24			29			34			38			44			49			
				Throw	0°			9.8	14.9	28.0	13.1	19.8	32.3	16.5	24.7	36.3	19.8	28.0	39.6	23.2	30.2	42.7	26.2	32.3	45.7	29.6	36.3	51.2	32.3	39.6	56.1
					22.5°			7.0	10.7	20.1	9.5	14.3	23.2	11.9	17.7	26.2	14.3	20.1	28.7	16.8	21.6	30.8	18.9	23.2	32.9	21.3	26.2	36.9	23.2	28.7	40.2
45°			5.5	8.2	15.5	7.3	11.0	17.7	9.1	13.7	19.8	11.0	15.5	22.0	12.8	16.5	23.5	14.3	17.7	25.3	16.2	19.8	28.0	17.7	22.0	30.8					
950	750	0.7361	0.7063	CMH			3876			5168			6460			7752			9044			10336			12920			15487			
				NC			<20			<20			24			30			34			38			44			50			
				Throw	0°			10.1	15.2	29.0	13.4	20.4	33.2	17.1	25.3	37.2	20.4	29.0	40.9	23.8	31.1	43.9	27.1	33.2	47.0	30.5	37.2	52.7	33.2	40.9	57.6
					22.5°			7.3	11.0	20.7	9.8	14.6	23.8	12.2	18.3	26.8	14.6	20.7	29.3	17.1	22.3	31.7	19.5	23.8	33.8	22.0	26.8	38.1	23.8	29.3	41.5
45°			5.5	8.5	15.9	7.3	11.3	18.3	9.5	14.0	20.4	11.3	15.9	22.6	13.1	17.1	24.1	14.9	18.3	25.9	16.8	20.4	29.0	18.3	22.6	31.7					
1200	600	0.7435	0.7119	CMH			3910			5202			6511			7820			9112			10421			13022			15623			
				NC			<20			<20			24			30			34			38			44			50			
				Throw	0°			10.1	15.2	29.0	13.7	20.4	33.5	17.1	25.6	37.5	20.4	29.0	40.9	23.8	31.1	44.2	27.1	33.5	47.3	30.5	37.5	52.7	33.5	40.9	57.9
					22.5°			7.3	11.0	20.7	9.8	14.6	24.1	12.2	18.3	27.1	14.6	20.7	29.3	17.1	22.3	31.7	19.5	24.1	34.1	22.0	27.1	38.1	24.1	29.3	41.8
45°			5.5	8.5	15.9	7.6	11.3	18.6	9.5	14.0	20.7	11.3	15.9	22.6	13.1	17.1	24.4	14.9	18.6	25.9	16.8	20.7	29.0	18.6	22.6	32.0					
1050	700	0.7593	0.7286	CMH			3995			5321			6664			7990			9316			10659			13328			15980			
				NC			<20			<20			25			30			34			38			45			50			
				Throw	0°			10.4	15.5	29.3	13.7	20.7	33.8	17.1	25.9	37.8	20.7	29.3	41.5	24.1	31.7	44.8	27.4	33.8	47.9	30.8	37.8	53.4	33.8	41.5	58.5
					22.5°			7.3	11.3	21.0	9.8	14.9	24.4	12.2	18.6	27.1	14.9	21.0	29.9	17.4	22.9	32.3	19.8	24.4	34.5	22.3	27.1	38.4	24.4	29.9	42.1
45°			5.8	8.5	16.2	7.6	11.3	18.6	9.5	14.3	20.7	11.3	16.2	22.9	13.1	17.4	24.7	15.2	18.6	26.2	17.1	20.7	29.3	18.6	22.9	32.3					
1100	700	0.7955	0.7630	CMH			4182			5593			6987			8381			9775			11169			13957			16762			
				NC			<20			<20			25			30			34			38			45			50			
				Throw	0°			10.7	15.9	29.9	14.0	21.0	34.8	17.7	26.5	38.7	21.0	29.9	42.4	24.7	32.3	45.7	28.0	34.5	48.8	31.7	38.7	54.6	34.8	42.4	60.1
					22.5°			7.6	11.3	21.6	10.1	15.2	25.0	12.8	19.2	27.7	15.2	21.6	30.5	17.7	23.2	32.9	20.1	24.7	35.1	22.9	27.7	39.3	25.0	30.5	43.3
45°			5.8	8.8	16.5	7.6	11.6	19.2	9.8	14.6	21.3	11.6	16.5	23.2	13.7	17.7	25.3	15.5	18.9	26.8	17.4	21.3	29.9	19.2	23.2	32.9					
900	900	0.8364	0.8048	CMH			4420			5882			7361			8840			10302			11781			14722			17663			
				NC			<20			<20			25			30			35			39			45			50			
				Throw	0°			11.0	16.2	30.8	14.3	21.6	35.4	18.0	27.1	39.6	21.6	30.8	43.6	25.3	33.2	47.0	29.0	35.7	50.3	32.3	39.6	56.1	35.7	43.6	61.6
					22.5°			7.9	11.6	22.3	10.4	15.5	25.6	12.8	19.5	28.7	15.5	22.3	31.4	18.3	23.8	33.8	20.7	25.6	36.3	23.2	28.7	40.2	25.6	31.4	44.2
45°			6.1	8.8	17.1	7.9	11.9	19.5	9.8	14.9	22.0	11.9	17.1	24.1	14.0	18.3	25.9	15.9	19.5	27.7	17.7	22.0	30.8	19.5	24.1	33.8					
1000	850	0.8773	0.8448	CMH			4641			6188			7735			9282			10829			12376			15453			18547			
				NC			<20			<20			25			30			35			39			45			50			
				Throw	0°			11.0	16.8	31.4	14.9	22.3	36.3	18.6	27.7	40.9	22.3	31.4	44.5	25.9	34.1	48.2	29.6	36.3	51.5	33.2	40.5	57.6	36.3	44.5	63.1
					22.5°			7.9	12.2	22.6	10.7	16.2	26.2	13.4	20.1	29.3	16.2	22.6	32.0	18.6	24.7	34.8	21.3	26.2	37.2	23.8	29.3	41.5	26.2	32.0	45.4
45°			6.1	9.1	17.4	8.2	12.2	19.8	10.4	15.2	22.6	12.2	17.4	24.4	14.3	18.9	26.5	16.2	19.8	28.4	18.3	22.3	31.7	19.8	24.4	34.8					
1200	750	0.9294	0.8950	CMH			4913			6545			8194			9826			11458			13090			16371			19652			
				NC			<20			<20			25			31			35			39			45			51			
				Throw	0°			11.6	17.1	32.3	15.2	22.9	37.5	19.2	28.7	41.8	22.9	32.3	46.0	26.8	35.1	49.7	30.5	37.5	53.0	34.1	41.8	59.1	37.5	46.0	64.9
					22.5°			8.2	12.2	23.2	11.0	16.5	27.1	13.7	20.7	30.2	16.5	23.2	33.2	19.2	25.3	35.7	22.0	27.1	38.1	24.7	30.2	42.7	27.1	33.2	46.6
45°			6.4	9.5	17.7	8.5	12.5	20.7	10.7	15.9	22.9	12.5	17.7	25.3	14.6	19.2	27.4	16.8	20.7	29.3	18.9	22.9	32.6	20.7	25.3	35.7					
1050	900	0.9758	0.9414	CMH			5168			6885			8619			10336			12053			13770			17221			20672			
				NC			<20			<20			26			31			35			39			46			51			
				Throw	0°			11.6	17.7	33.2	15.5	23.5	38.4	19.5	29.3	43.0	23.5	33.2	47.0	27.4	36.0	50.9	31.4	38.4	54.3	35.1	43.0	60.7	38.4	47.0	66.5
					22.5°			8.2	12.8	23.8	11.3	16.8	27.7	14.0	21.0	31.1	16.8	23.8	33.8	19.8	25.9	36.6	22.6	27.7	39.0	25.3	31.1	43.6	27.7	33.8	47.9
45°			6.4	9.8	18.3	8.5	12.8	21.0	10.7	16.2	23.8	12.8	18.3	25.9	15.2	19.8	28.0	17.4	21.0	29.9	19.2	23.8	33.2	21.0	25.9	36.6					
1200	950	1.1775	1.1394	CMH			6256			8330			10421			12512			14586			16677			20842			25007			
				NC			<20			20			26			32			36			40			46			52			
				Throw	0°			12.8	19.5	36.6	17.1	25.9	42.4	21.6	32.3	47.3	25.9	36.6	51.8	30.2	39.6	55.8	34.5	42.4	59.8	38.7	47.3	66.8	42.4	51.8	73.2
					22.5°			9.1	14.0	26.2	12.2	18.6	30.5	15.5	23.2	34.1	18.6	26.2	37.2	21.6	28.7	40.2	24.7	30.5	43.0	27.7	34.1	48.2	30.5	37.2	52.7
45°			7.0	10.7	20.1	9.5	14.3	23.2	11.9	17.7	25.9	14.3	20.1	28.7	16.5	22.0	30.8	18.9	23.2	32.9	21.3	25.9	36.6	23.2	28.7	40.2					
1150	1100	1.3067	1.2667	CMH			6953			9265			11577			13906			16218			18530			23171			27795			
				NC			<20			21			27			32			37			41			47			52			
				Throw	0°			13.7	20.4	38.7	18.0	27.1	44.5	22.6	33.8	49.7	27.1	38.7	54.6	31.7	41.8	58.8	36.3	44.5	63.1	40.5	49.7	70.4	44.5	54.6	77.1
					22.5°			9.8	14.6	27.7	12.8	19.5	32.0	16.2	24.4	35.7	19.5	27.7	39.3	22.9	30.2	42.4	26.2	32.0	45.4	29.3	35.7	50.6	32.0	39.3	55.5
45°			7.6	11.3	21.3	9.8	14.9	24.4	12.5	18.6	27.4	14.9	21.3	29.9	17.4	22.9	32.3	19.8	24.4	34.8	22.3	27.4	38.7	24.4	29.9	42.4					
1200	1150	1.4247	1.3838	CMH			7599			10132			12648			15181			17714			20247			25313			30379			
				NC			<20			21			27			33			37			41			47			53			
				Throw	0°			14.3	21.3	40.2	18.9	28.4	46.6	23.8	35.7	52.1	28.4	40.2	57.0	33.2	43.6	61.6	37.8	46.6	65.9	42.4	52.1	73.8	46.6	57.0	80.8
					22.5°			10.4	15.2	29.0	13.7	20.																			

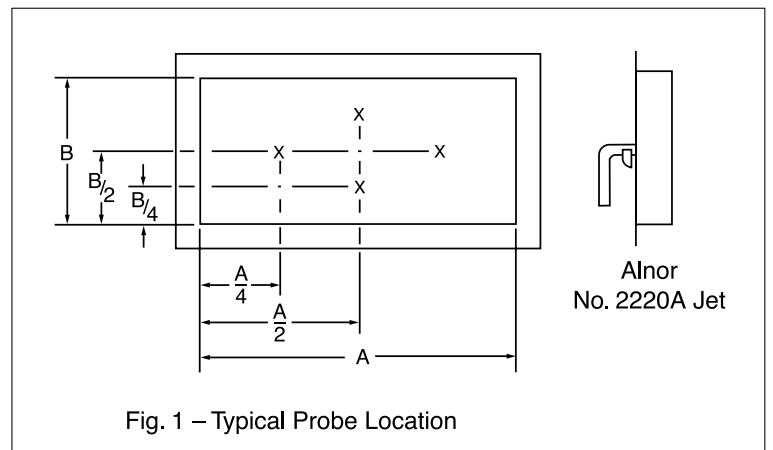
Model KX1

Single Deflection Grilles

BALANCING PROCEDURE

PROCEDURE AND DATA FOR BALANCING SUPPLY REGISTERS AND GRILLES USING ALNOR VELOMETER WITH NO. 2220A JET

1. Measure velocity at several locations near the face of the supply. (Typical probe locations are shown Fig. 1. Enough locations should be chosen to assure measurement of representative velocities.) Hold probe against grille face and rotate probe until maximum velocity reading is obtained at each location.
2. Calculate the average face velocity using the maximum velocity measured at each probe location.
3. From the table for the spread angle used determine the Balancing Area Factor (Ak) using the width and height of the grille.
4. Calculate the air volume by multiplying the average face velocity and the balancing area factor. CFM=Average Velocity x Ak



BALANCING FACTORS

3/4" SPACING

0° SPREAD

Grille Width, in.	4	5	6	8	10	12	14	16	Grille Height, in.			24	26	28	30	36	40	44	48
									18	20	22								
4	0.06																		
5	0.08	0.1																	
6	0.09	0.12	0.15																
8	0.13	0.17	0.21	0.29															
10	0.17	0.21	0.26	0.36	0.46														
12	0.20	0.26	0.32	0.44	0.56	0.68													
14	0.24	0.31	0.38	0.52	0.66	0.81	0.95												
16	0.27	0.35	0.44	0.60	0.76	0.93	1.10	1.25											
18	0.31	0.40	0.49	0.68	0.86	1.05	1.23	1.42	1.60										
20	0.34	0.45	0.55	0.76	0.96	1.17	1.37	1.60	1.80	2.00									
22	0.38	0.49	0.61	0.83	1.06	1.29	1.50	1.75	1.95	2.20	2.40								
24	0.41	0.54	0.66	0.91	1.16	1.41	1.65	1.90	2.15	2.40	2.65	2.90							
26	0.45	0.58	0.72	0.99	1.26	1.55	1.80	2.10	2.35	2.60	2.90	3.15	3.45						
28		0.63	0.78	1.01	1.36	1.65	1.95	2.25	2.55	2.80	3.10	3.40	3.70	4.00					
30		0.68	0.83	1.15	1.46	1.75	2.10	2.40	2.70	3.05	3.35	3.65	3.95	4.30	4.60				
36			1.00	1.38	1.75	2.15	2.50	2.90	3.25	3.65	4.00	4.40	4.80	5.20	5.50	6.70			
40				1.55	1.95	2.40	2.80	3.20	3.65	4.10	4.50	4.90	5.30	5.70	6.20	7.40	8.30		
44				1.70	2.10	2.60	3.10	3.55	4.05	4.50	5.00	5.40	5.90	6.30	6.80	8.20	9.10	9.70	
48				1.85	2.35	2.85	3.40	3.90	4.40	4.90	5.40	5.90	6.40	6.90	7.40	8.90	9.90	11.00	12.00
52				2.05	2.55	3.05	3.60	4.15	4.70	5.30	5.80	5.90	6.90	7.40	7.90	9.70	10.80	12.00	13.00
56				2.20	2.75	3.30	3.80	4.40	5.00	5.60	6.20	5.90	7.40	7.90	8.50	10.50	11.6	12.80	14.00
60				2.95	3.55	4.00	4.70	5.40	6.00	6.60	5.90	7.90	8.40	9.10	11.20	12.50	13.70	15.00	

*In the interest of product development, KMC reserves the right to make changes without notice.

3/4" SPACING

22-1/2° SPREAD

Grille Width, in.	4	5	6	8	10	12	14	16	Grille Height, in.			24	26	28	30	36	40	44	48
									18	20	22								
4	0.04																		
5	0.06	0.08																	
6	0.08	0.10	0.13																
8	0.11	0.14	0.18	0.25															
10	0.14	0.18	0.23	0.32	0.41														
12	0.18	0.23	0.28	0.38	0.49	0.60													
14	0.21	0.27	0.33	0.46	0.58	0.71	0.83												
16	0.24	0.31	0.38	0.52	0.67	0.82	0.96	1.10											
18	0.27	0.35	0.43	0.60	0.76	0.93	1.09	1.26	1.45										
20	0.31	0.40	0.49	0.67	0.85	1.05	1.23	1.41	1.60	1.80									
22	0.35	0.45	0.54	0.74	0.95	1.16	1.36	1.55	1.80	2.00	2.25								
24	0.38	0.49	0.60	0.81	1.05	1.27	1.49	1.70	1.95	2.20	2.45	2.70							
26	0.42	0.53	0.65	0.90	1.13	1.38	1.65	1.85	2.15	2.40	2.65	2.90	3.20						
28		0.58	0.70	0.97	1.23	1.49	1.75	2.05	2.30	2.60	2.85	3.15	3.45	3.70					
30		0.62	0.76	1.05	1.32	1.60	1.90	2.20	2.50	2.80	3.10	3.40	3.70	4.00	4.40				
36			0.93	1.25	1.60	1.95	2.30	2.70	3.05	3.40	3.70	4.10	4.55	4.90	5.35	6.50			
40			1.04	1.41	1.80	2.20	2.60	3.05	3.40	3.80	4.15	4.60	5.10	5.50	5.90	7.30	8.30		
44				1.60	2.00	2.45	2.85	3.40	3.80	4.25	4.60	5.10	5.60	6.10	6.60	8.20	9.10	9.70	
48				1.75	2.20	2.65	3.15	3.70	4.15	4.70	5.10	5.60	6.20	6.60	7.20	8.90	9.90	11.00	12.00
52				1.85	2.40	2.90	3.45	4.05	4.55	5.10	5.60	6.10	6.70	7.10	7.80	9.70	10.80	12.00	13.00
56					2.60	3.15	3.70	4.35	4.90	5.50	6.10	6.70	7.30	7.70	8.50	10.50	11.60	12.80	14.00
60					2.80	3.40	4.00	4.70	5.30	5.90	6.60	7.30	7.90	8.40	9.10	11.20	12.50	13.70	15.00

45° SPREAD

Grille Width, in.	4	5	6	8	10	12	14	16	Grille Height, in.			24	26	28	30	36	40	44	48
									18	20	22								
4	0.02																		
5	0.03	0.05																	
6	0.04	0.06	0.08																
8	0.07	0.09	0.13	0.18															
10	0.09	0.13	0.17	0.25	0.32														
12	0.13	0.17	0.21	0.30	0.39	0.49													
14	0.15	0.21	0.26	0.36	0.47	0.58	0.69												
16	0.18	0.25	0.30	0.42	0.55	0.68	0.81	0.94											
18	0.21	0.28	0.34	0.49	0.63	0.76	0.92	1.10	1.25										
20	0.24	0.32	0.39	0.55	0.70	0.88	1.07	1.23	1.41	1.58									
22	0.27	0.36	0.44	0.61	0.78	0.98	1.19	1.37	1.57	1.78	2.00								
24	0.30	0.39	0.49	0.68	0.87	1.10	1.30	1.52	1.74	1.98	2.22	2.45							
26	0.33	0.43	0.53	0.75	0.97	1.20	1.42	1.65	1.90	2.15	2.38	2.68	3.00						
28		0.47	0.58	0.82	1.07	1.30	1.55	1.82	2.05	2.35	2.62	2.95	3.23	3.52					
30		0.51	0.63	0.88	1.14	1.41	1.70	1.98	2.23	2.55	2.85	3.20	3.50	3.80	4.10				
36			0.76	1.10	1.41	1.74	2.05	2.40	2.78	3.20	3.55	3.90	4.30	4.70	5.10	6.20			
40				1.22	1.60	1.96	2.35	2.75	3.20	3.60	4.00	4.50	5.05	5.40	5.75	7.00	7.85		
44				1.37	1.77	2.18	2.64	3.07	3.55	4.00	4.40	5.00	5.55	6.00	6.35	7.85	8.80	9.40	
48				1.52	1.96	2.40	2.93	3.40	3.90	4.45	4.90	5.55	6.10	6.50	7.00	8.40	9.80	10.40	11.60
52				1.65	2.12	2.60	3.15	3.65	4.30	4.75	5.30	5.90	6.40	7.00	7.60	9.20	10.00	11.40	12.60
56				1.80	2.32	2.85	3.40	3.95	4.60	5.10	5.70	6.40	7.00	7.60	8.20	10.00	11.10	12.40	13.60
60				1.94	2.50	3.10	3.70	4.30	4.90	5.50	6.20	7.00	7.60	8.20	9.00	11.00	12.20	13.40	14.60

Model KX1

Single Deflection Grilles

Single Deflection Grilles

Standard

ANSI / ASHRAE standard 70

For large grilles with a cooling differential, the drop of the air stream should be evaluated.

Data includes opposed blade volume control damper in full open position.

Throw

The numbers shown are throw distances, in meters, measured along the jet trajectory axis relating to terminal velocities of 0.75, 0.5, & 0.25 m/s, with the jet attached to the ceiling surface. 0°, 22.5°, 45° represent the blade deflection or spread angle settings. Terminal velocity is the air speed, in meters per second, measured in the supply air stream.

Opposed Blade Volume Control Dampers (OBD)
Data shown includes OBD (wide open)

Without damper, reduce NC -3

Without damper, reduce Ps x .75

Sound Levels

NC shown is for 0° blade angle setting and is noise criteria curve that will not be exceeded at the operating point. This is determined by assuming a 10dB (ref: 10-12 watts) room attenuation that is subtracted from the power levels in each of the 2nd thru 7th octave bands. For 22.5° blade angle setting, add 2 NC to the tabulated value shown. For 45° blade angle setting, add 6 NC to the tabulated value shown.

Neck Velocity, Core Velocity
Meters per second (m/s)

Pressure

Ps represents Static Pressure, Pa

WIDTH

100 mm to 2000mm

↓

HEIGHT

100 mm to 1800mm

↓

ACCESSORIES

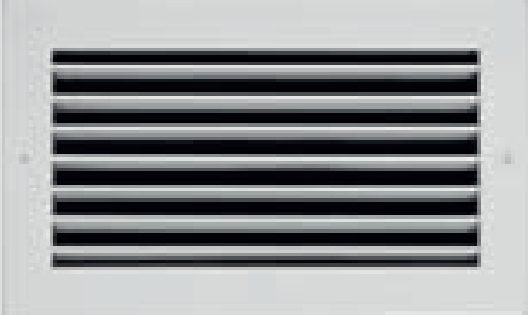
- OPPOSED BLADE DAMPER
• OBD - ALUMINUM
- NO BORDER MOUNTING HOLES

FACE BLADES

- Horizontal
- Vertical

MODEL

- 19mm Blade Spacing
- KX1 Aluminum Single Deflection



Typical Specification - Single Deflection Grilles

19mm Blade Spacing
Single deflection supply grilles and registers shall be KMC Model KX1 (aluminum, single deflection), or KX2 (aluminum, double deflection) with 12mm / 19mm blade spacing and as scheduled.

The grilles shall consist of an outer border or frame, with face directional blades horizontal or vertical as detailed. Blades shall be individually adjustable and designed to minimize noise and pressure loss, and shall consist of an extruded aluminum closed profile.

Blades shall rotate smoothly without bending and include a friction design to hold blade position, and prevent rattling. Frame mounting holes shall be countersunk for oval head screws, provided by the grille manufacturer (KMC).

Where scheduled and as shown, provide optional aluminum, face operated opposed blade volume control dampers.

Finish shall be powder coated with RAL 9010 or custom color as specified by the Architect.

