

SpotDiffuser with Condensation Control Air Guide

Model: **PK-K**



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Seiho's popular SpotDiffuser is now available with the Condensation Control Air Guide - PK-K! The PK-K's Air Guide is designed to lead the air to the diffuser's outer surface, and help reduce the area where condensation may occur. The Air Guide is made of low thermal conductance material with the dual airflow design (Patent Pending). The PK-K is virtually condensation-free and is perfect for high humidity areas such as gyms, kitchens and food processing facilities.

MATERIAL

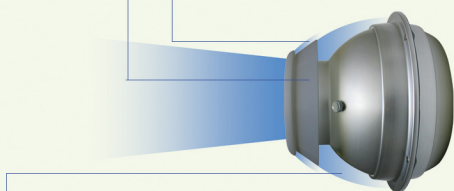
- SpotDiffuser: Aluminum
- Air Guide: ABS Resin

FINISH

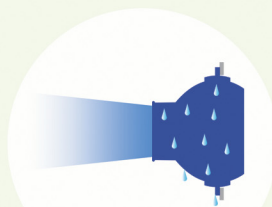
- SpotDiffuser: Anodized
- Air Guide: Gray
- Custom Colors Available

FEATURES

- Made of low thermal conductance material (ABS Resin)
- Dual Air Flow design also helps to reduce condensation on Air Guide

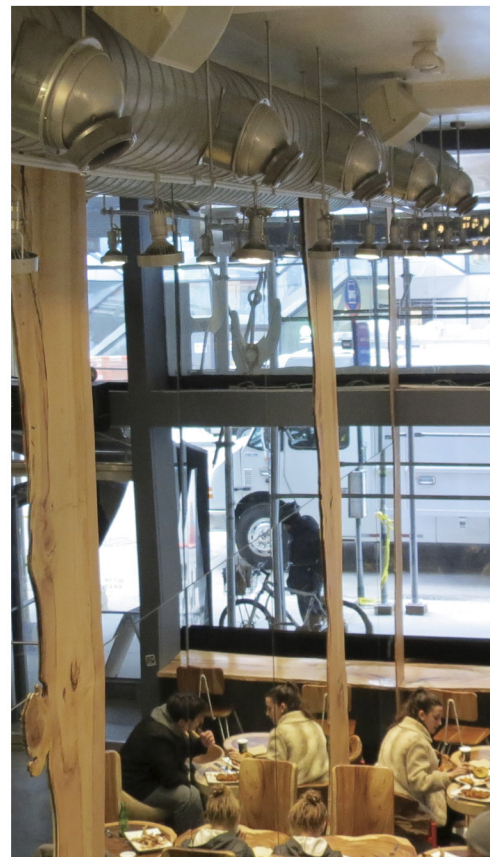
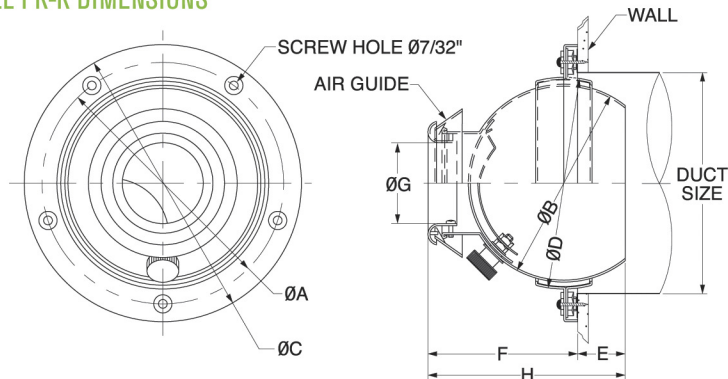


■ Air envelope that is created by the air guide covers the cold surface of the diffuser and reduces condensation build-up.



Conventional Aluminum Jet Nozzle

MODEL PK-K DIMENSIONS



MODEL	DUCT SIZE	PK SIZE	A	B	C	D	E	F	G	H
PK 6K	6 5/16	PK 6	6 25/32	5 29/32	7 15/32	6 7/32	1 1/2	4 7/32	2 5/32	5 23/32
PK 8K	8 3/16	PK 8	9 1/8	7 7/8	9 27/32	8 1/32	1 23/32	5 3/8	3	7 1/8
PK10K	11 1/32	PK10	11 31/32	10 1/2	12 3/4	10 7/8	1 31/32	7 1/4	4 9/16	9 7/32
PK12K	12 17/32	PK12	13 15/32	12	14 9/32	12 3/8	2 15/32	8 1/2	5 1/8	10 31/32
PK12WK	12 17/32	PK12WIDE	13 15/32	12	14 9/32	12 3/8	2 5/32	8 1/16	6 9/32	10 7/16
PK16K	16 23/32	PK16	17 3/4	16 5/32	18 1/2	16 1/2	3 5/8	10 7/8	7 1/4	14 1/2
PK20K	19 1/8	PK20	20 1/8	18 1/2	21 1/16	18 27/32	3 3/4	13 5/32	9 21/32	16 29/32

Product information is subject to change without notice. All dimensions in inches.

SpotDiffuser

Performance Data, Condensation Chart and Testing

Model: **PK-K**

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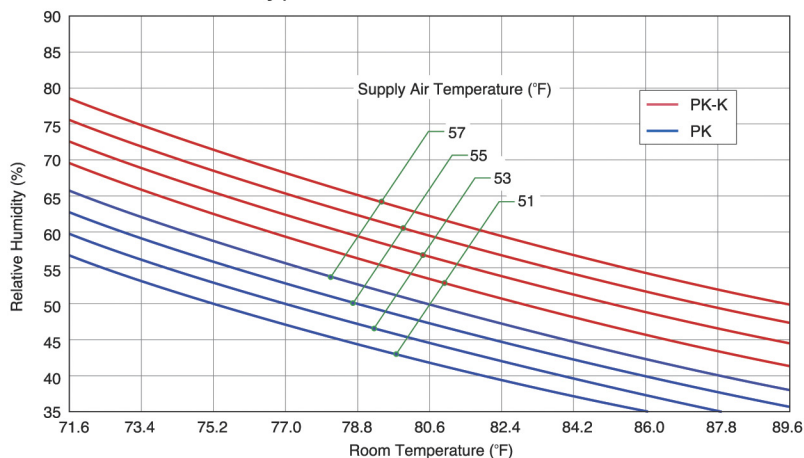
MODEL PK-K PERFORMANCE DATA

SIZE	Nozzle Area	Nozzle Velocity (fpm)	400	600	800	1000	1200	1400	1600	1800	2000
PK8K	Ø2.99in 0.0484sq.ft.	CFM	27	41	56	71	85	100	115	130	144
		SP (in.,wg.)	0.01	0.02	0.04	0.06	0.10	0.13	0.17	0.22	0.27
		Throw (Vt=@100fpm)	5	8	10	12	15	18	20	23	26
		Throw (Vt=@50fpm)	8	12	16	20	24	29	33	37	41
		NC	-	-	-	-	21.2	27.5	32.7	37.1	40.8
PK10K	Ø4.528in 0.112sq.ft.	CFM	59	89	118	148	177	207	236	266	295
		SP (in.,wg.)	0.01	0.02	0.04	0.06	0.09	0.12	0.16	0.20	0.25
		Throw (Vt=@100fpm)	7	11	15	18	22	26	31	34	39
		Throw (Vt=@50fpm)	12	17	24	30	36	42	48	55	62
		NC	-	-	-	-	19.3	25.0	30.3	34.4	37.9
PK12K	Ø5.315in 0.154sq.ft.	CFM	77	118	159	200	241	283	324	365	406
		SP (in.,wg.)	0.01	0.02	0.04	0.06	0.09	0.12	0.16	0.21	0.26
		Throw (Vt=@100fpm)	9	13	17	22	26	31	36	40	45
		Throw (Vt=@50fpm)	14	20	27	35	41	49	57	64	72
		NC	-	-	-	-	19.5	24.9	30.2	34.3	38.1
PK12WK	Ø6.102in 0.203sq.ft.	CFM	100	153	206	259	312	365	418	471	524
		SP (in.,wg.)	0.01	0.02	0.04	0.06	0.09	0.12	0.16	0.20	0.25
		Throw (Vt=@100fpm)	10	15	20	25	30	36	41	46	51
		Throw (Vt=@50fpm)	16	24	32	40	48	57	66	74	82
		NC	-	-	-	-	21.3	27.4	32.3	36.0	39.1
PK16K	Ø7.32in 0.292sq.ft.	CFM	153	236	318	401	483	565	648	730	813
		SP (in.,wg.)	0.01	0.02	0.03	0.05	0.08	0.11	0.14	0.18	0.22
		Throw (Vt=@100fpm)	11	17	22	28	33	40	46	51	56
		Throw (Vt=@50fpm)	18	28	36	45	54	64	73	82	91
		NC	-	-	-	18.2	25.4	31.6	36.1	39.9	43.4
PK20K	Ø9.65in 0.507sq.ft.	CFM	253	386	518	650	783	915	1048	1180	1313
		SP (in.,wg.)	0.01	0.02	0.03	0.05	0.08	0.11	0.14	0.17	0.21
		Throw (Vt=@100fpm)	13	20	27	33	40	47	53	60	66
		Throw (Vt=@50fpm)	21	32	43	53	64	74	85	95	106
		NC	-	-	-	18.7	25.8	32.0	36.5	40.4	43.9

DASHED LINE IN NC BOX INDICATES NOISE LEVEL IS LESS THAN 20.

CONDENSATION PERFORMANCE CHART

No condensation occurs at any point below the curves.



At Room Temperature 79 degrees F and supply air temperature 57 degrees F, For Standard PK Models: Condensation occurs when the relative humidity exceeds 53%. For Anti-condensation PK-K Models: Condensation does not occur until the relative humidity reaches 65%.

(PK20K Drip Test)

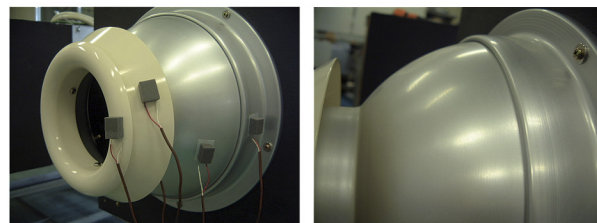
As for Model PK20K, at neck velocity 985 fpm, condensation occurs under the following conditions:

- Room Temperature: 79 degrees F
- Supply Air Temperature: 57 degrees F
- Relative Humidity: 65% (Dew Point: 66 degrees F)

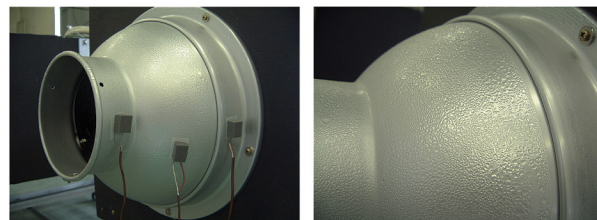
However, no drip is observed after a prolonged period of 24 hours. At neck velocity 1575 fpm, no drip is observed for 6 hours.

CONDENSATION TESTING

Size: #10
Room Temperature: 79F
Supply Air Temperature: 52F
Relative Humidity: 57%
Dew Point: 62F
Neck Velocity: 2000FPM



■ SpotDiffuser WITH Condensation Control Air Guide



■ SpotDiffuser WITHOUT Condensation Control Air Guide