

## INTRODUCTION

The Krueger 1240P/51240P/1240PE series of modular core perforated diffusers are one of Krueger's most versatile designs, combining excellent performance with on-the-job flexibility. The 1240P/51240P/1240PE series diffusers exhibit typical isothermal throws of 10' to 15' for 4-way air distribution and 35' to 50' for 1-way air distribution. The perforated face conceals the interior modular cores for an uninterrupted ceiling appearance. The modular cores are factory set for a 4-way air pattern, but may be field adjusted for 1-, 2- or 3-way air patterns. The modular capability makes the 1240P/51240P/1240PE ideal for installations with changing air pattern requirements such as tenant lease spaces.

## MODELS

- 1240P - Modular Core Diffuser with Perforated Face and Architectural Frame, Steel Construction
- 51240P - Modular Core Diffuser with Perforated Face and Architectural Frame, Aluminum Construction
- 1240PE - Modular Core Diffuser with Perforated Face and Single Border, Steel Construction

## FEATURES

- Hand-removable modular cores.
- Variety of discharge air patterns

## PANEL SIZE

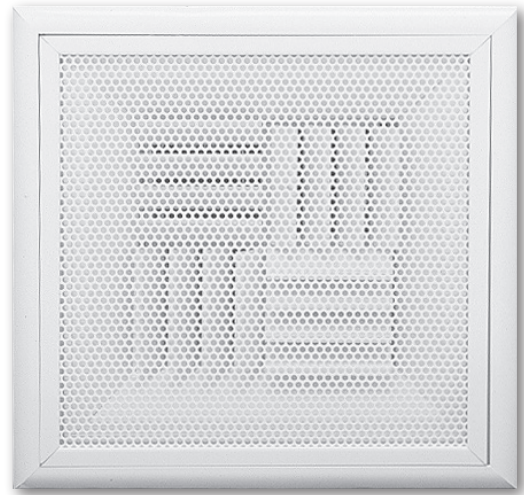
- 24"x24"

## ACCESSORIES

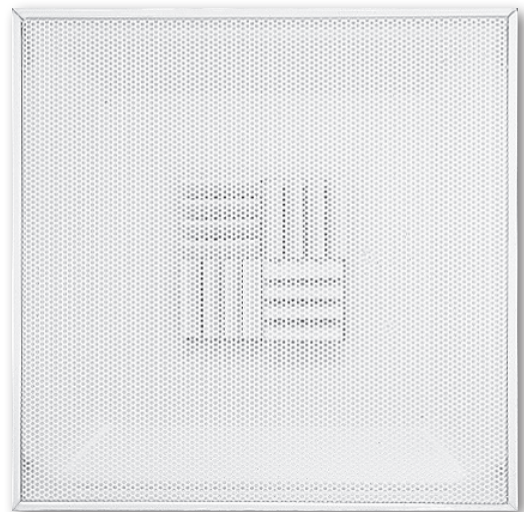
- Damper for 1240P (Model OBD1240, 5OBD1240)
- Damper for 51240P and 1240PE (Model OBD)
- Straightening Grid (Model SSG)

## FINISHES

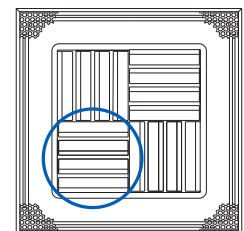
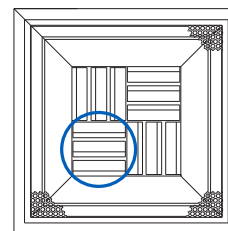
- Standard finish is #44 British White
- Optional finishes available



1240P



1240PE



The areas encircled represent one core. Each core represents one quarter section of the diffuser.

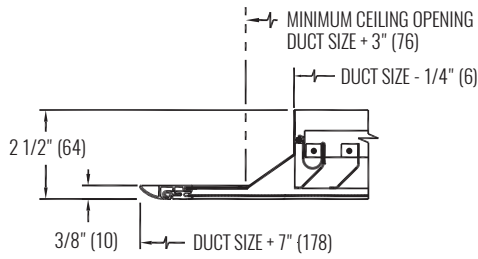
**EXAMPLE:** Two core throw will show two of the four cores facing in the same direction. Three core throw will show three of the four cores facing in the same direction.

# 1240P, 51240P, 1240PE SERIES

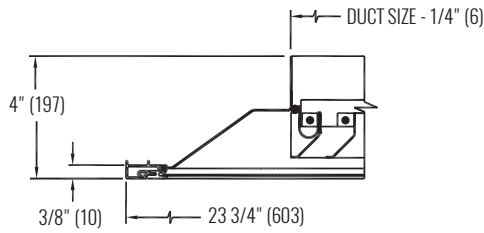
Diffuser | Modular Core, Perforated



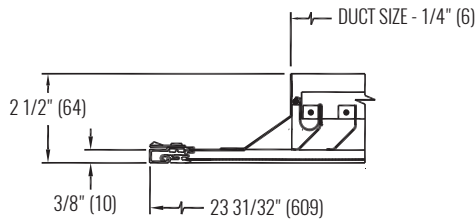
## DIMENSIONAL DATA | 1240P



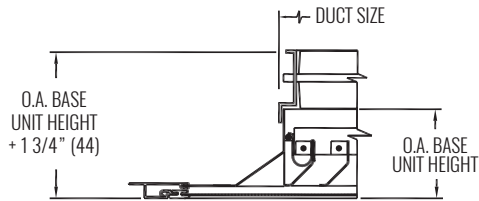
**F22  
SURFACE MOUNT**



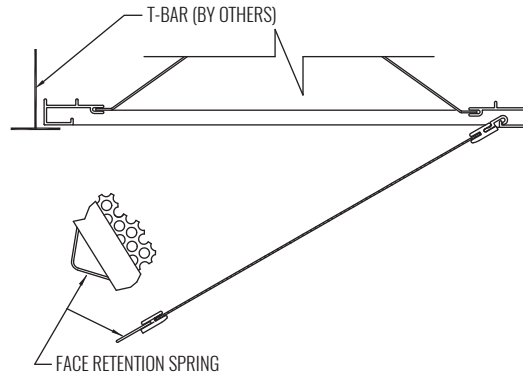
**F23  
LAY-IN T-BAR**



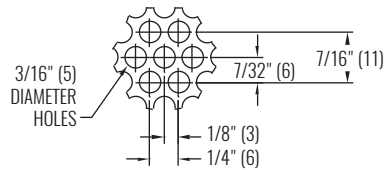
**F29  
CAMLOCK**



**DAMPER DETAIL**



**HINGE DETAIL**

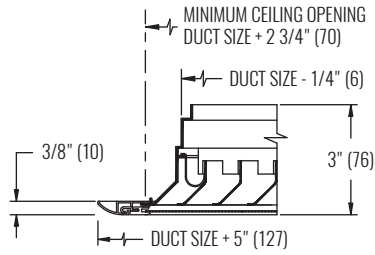


**PERFORATION DETAIL**

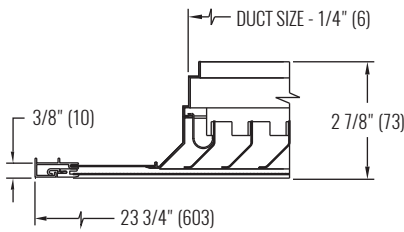
AVAILABLE NECK SIZES			
NECK SIZE	FRAME STYLE		
	SURFACE MOUNT	24" X 24" LAY-IN PANEL	
		F22	F23
6" x 6" (152 x 152)	•	•	•
8" x 8" (203 x 203)	•	•	•
10" x 10" (254 x 254)	•	•	•
12" x 12" (305 x 305)	•	•	•
14" x 14" (356 x 356)	•	•	•
16" x 16" (406 x 406)	•	•	•
18" x 18" (457 x 457)	•	•	•
20" x 20" (508 x 508)	•		

NOTES: Dimensions in parentheses are mm.  
Dot indicates available neck sizes.

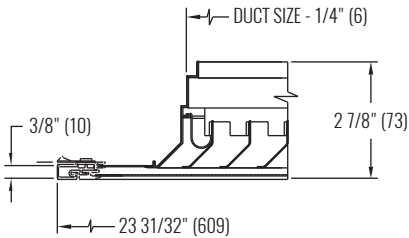
## DIMENSIONAL DATA | 51240P



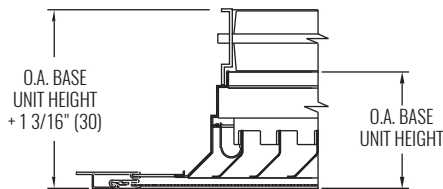
**F22  
SURFACE MOUNT**



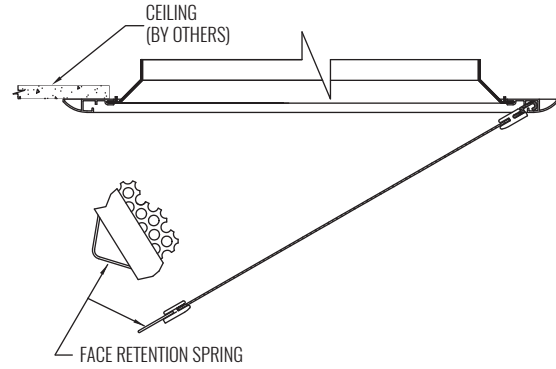
**F23  
LAY-IN T-BAR**



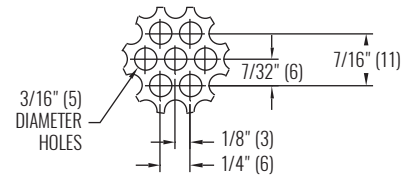
**F29  
CAMLOCK**



**DAMPER DETAIL**



**HINGE DETAIL**



**PERFORATION DETAIL**

AVAILABLE NECK SIZES			
NECK SIZE	FRAME STYLE		
	SURFACE MOUNT	24" X 24" LAY-IN PANEL	
		F22	F23
6" x 6" (152 x 152)	•	•	•
8" x 8" (203 x 203)	•	•	•
10" x 10" (254 x 254)	•	•	•
12" x 12" (305 x 305)	•	•	•
14" x 14" (356 x 356)	•	•	•
16" x 16" (406 x 406)	•	•	•
18" x 18" (457 x 457)	•	•	•
20" x 20" (508 x 508)	•		

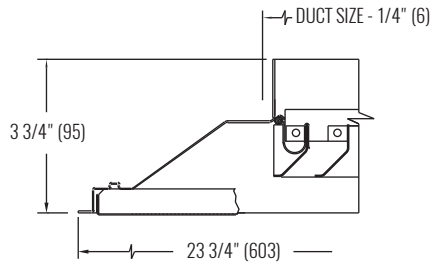
NOTES: Dimensions in parentheses are mm. Dot indicates available neck sizes.

# 1240P, 51240P, 1240PE SERIES

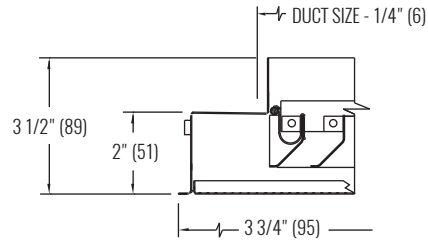
Diffuser | Modular Core, Perforated



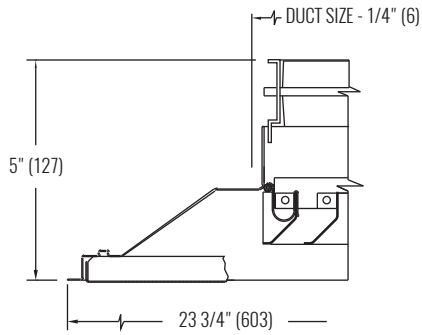
## DIMENSIONAL DATA | 1240PE



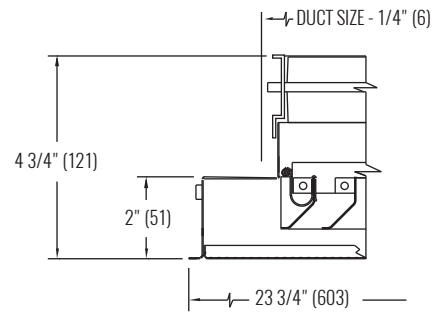
**F23**  
LAY-IN T-BAR  
6"X6" - 14"X14" NECK



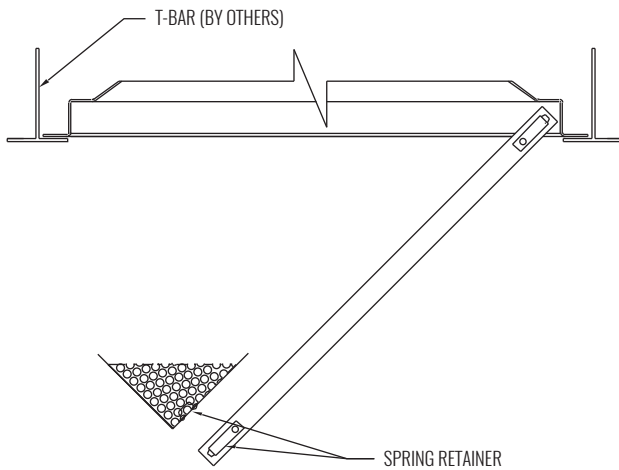
**F23**  
LAY-IN T-BAR  
16"X16" - 18"X18" NECK



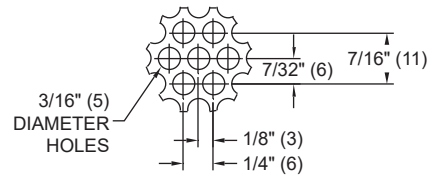
**F23**  
LAY-IN T-BAR  
6"X6" - 14"X14" NECK - WITH OBD



**F23**  
LAY-IN T-BAR  
16"X16" - 18"X18" NECK - WITH OBD



**HINGE DETAIL**



**PERFORATION DETAIL**

AVAILABLE NECK SIZES	
NECK SIZE	FRAME STYLES
	24" x 24" LAY-IN PANEL
	F23
6" x 6" (152 x 152)	•
8" x 8" (203 x 203)	•
10" x 10" (254 x 254)	•
12" x 12" (305 x 305)	•
14" x 14" (356 x 356)	•
16" x 16" (406 x 406)	•
18" x 18" (457 x 457)	•

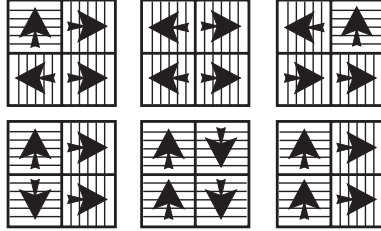
NOTES: Dimensions in parentheses are mm. Dot indicates available neck sizes.

**DISCHARGE AIR PATTERNS**

**1 CORE THROW  
(4-WAY THROW)**



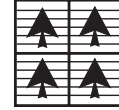
**2 CORE THROW  
(2 OR 3-WAY THROW)**



**3 CORE THROW  
(2-WAY THROW)**

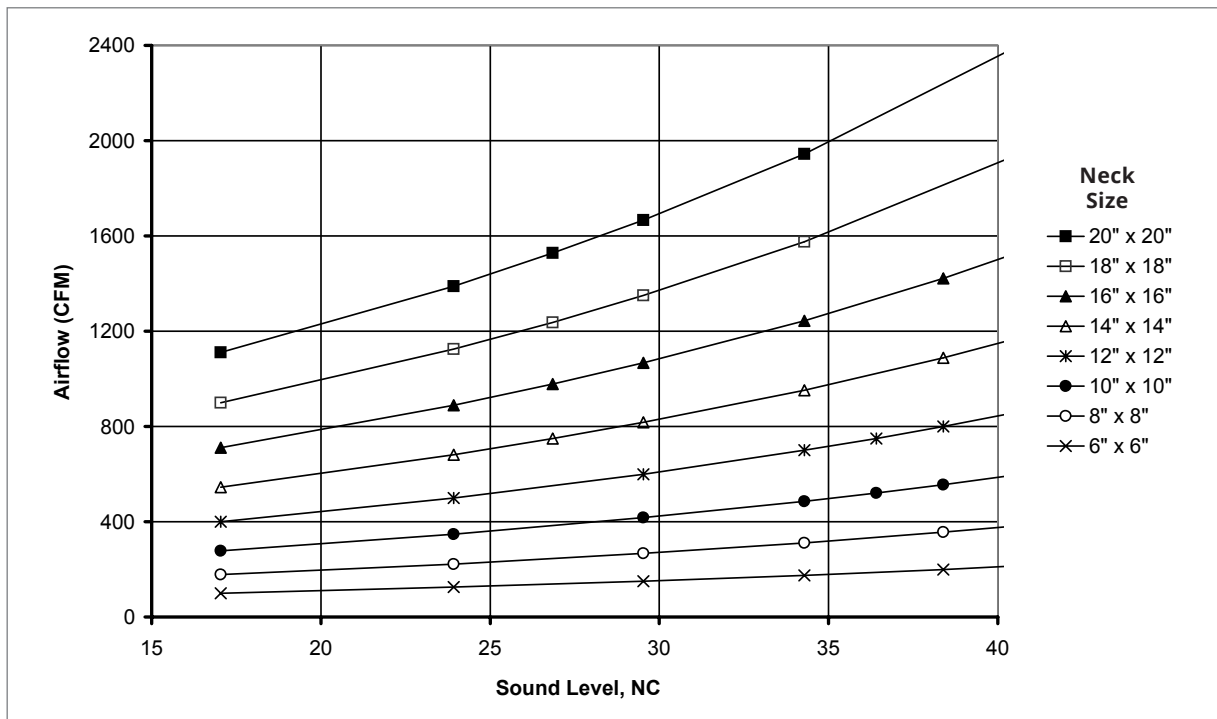


**4 CORE THROW  
(1-WAY THROW)**



NOTE: Reference page D1-13 for core detail.

**SOUND CHART | NO DAMPER**



# 1240P, 51240P, 1240PE SERIES

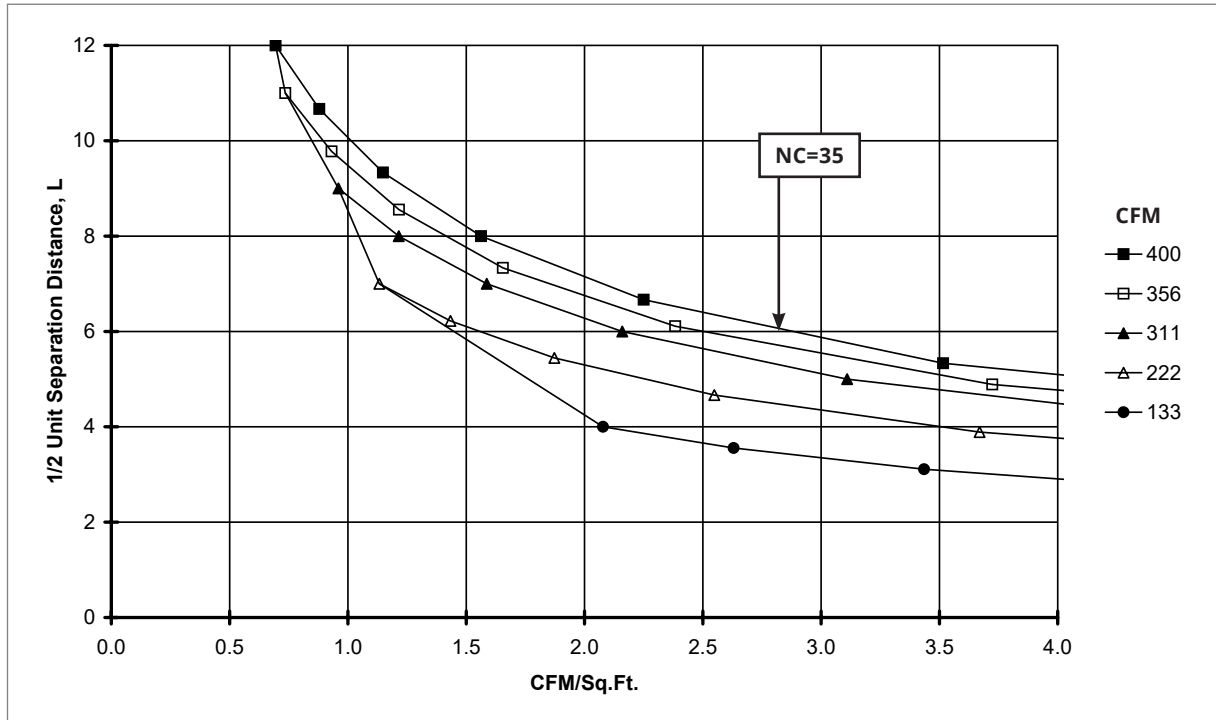
Diffuser | Modular Core, Perforated



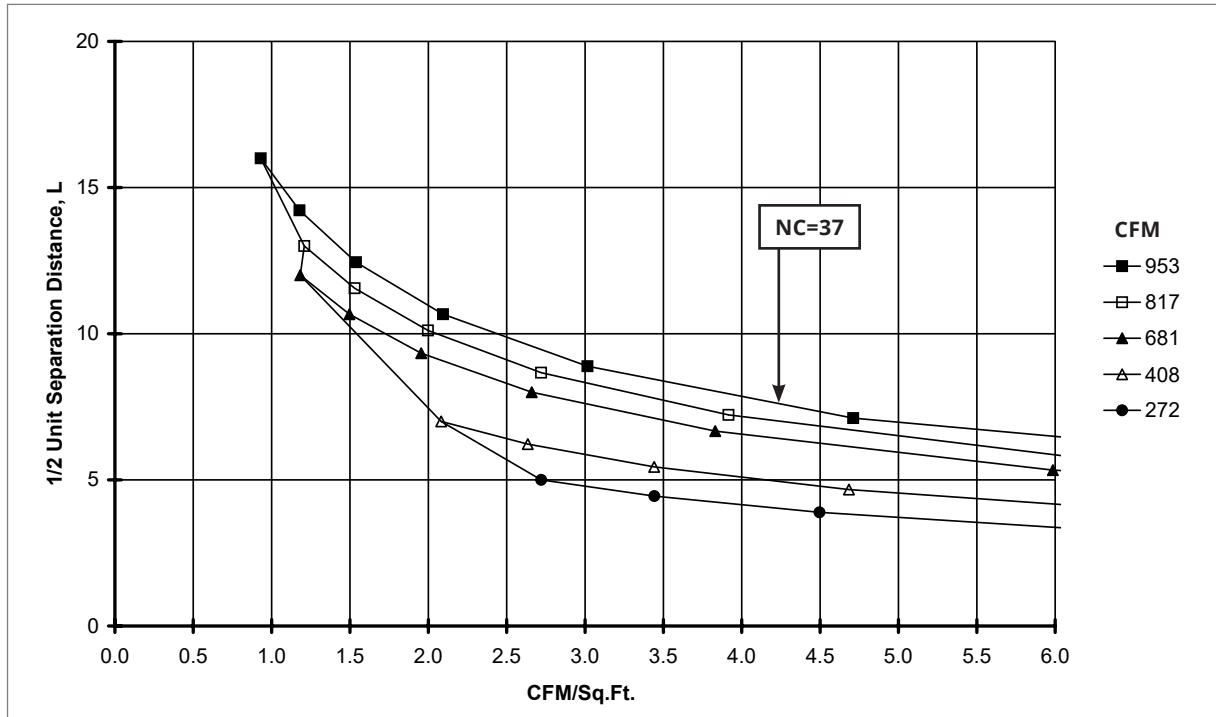
DIFFUSERS | MODULAR CORE

## ADPI CHARTS | NO DAMPER

DIFFUSER SPACING FOR 80% ADPI: 8"x8" NECK, 4-WAY (NO DAMPER)



DIFFUSER SPACING FOR 80% ADPI: 14"x14" NECK, 4-WAY (NO DAMPER)



NOTES: Charts are at 20 BTUH/ft<sup>2</sup> loads. See the Engineering section of this catalog for instructions on how to read these charts and additional ADPI information.

## PERFORMANCE DATA | 1-CORE, NO DAMPER

NECK SIZE	IP DATA					NC	METRIC DATA					OCTAVE BAND, dB						
	NECK VEL	AIR FLOW	Ps	Pt	1-CORE 4-WAY THROW		NECK VEL	AIR FLOW	Ps	Pt	1-CORE 4-WAY THROW							
	FPM	CFM	"WG	"WG	ft		m/s	L/s	Pa	Pa	m	2	3	4	5	6	7	
6" x 6"	300	75	0.009	0.015	1-2-3	-	1.52	35	2.2	3.6	0.2-0.5-0.9	26	26	18	-	-	-	
	400	100	0.016	0.026	1-2-4	-	2.03	47	4.0	6.5	0.4-0.6-1.2	30	31	25	18	-	-	
	500	125	0.025	0.041	2-3-5	12	2.54	59	6.2	10.1	0.5-0.8-1.5	34	34	30	24	11	-	
	600	150	0.036	0.058	2-3-6	18	3.05	71	9.0	14.6	0.6-0.9-1.8	37	37	34	29	19	-	
	700	175	0.049	0.080	2-4-7	22	3.56	83	12.2	19.8	0.7-1.1-2.1	39	39	37	34	26	13	
	800	200	0.064	0.104	3-4-8	27	4.06	94	15.9	25.9	0.8-1.2-2.4	41	41	40	38	32	20	
	900	225	0.081	0.132	3-5-9	30	4.57	106	20.2	32.8	0.9-1.4-2.6	43	43	43	41	37	26	
	1000	250	0.100	0.162	3-5-9	33	5.08	118	24.9	40.4	1.0-1.5-2.7	44	45	45	44	42	31	
8" x 8"	1100	275	0.121	0.197	4-6-9	36	5.59	130	30.2	48.9	1.1-1.7-2.9	46	46	47	47	46	35	
	300	133	0.013	0.019	1-2-4	-	1.52	63	3.2	4.6	0.3-0.6-1.2	28	28	22	14	-	-	
	400	178	0.023	0.033	2-3-5	-	2.03	84	5.7	8.2	0.5-0.8-1.6	32	33	28	22	-	-	
	500	222	0.036	0.051	2-3-7	17	2.54	105	8.9	12.8	0.7-1.0-2.0	36	36	33	29	17	-	
	600	267	0.052	0.074	3-4-8	23	3.05	126	12.8	18.4	0.8-1.2-2.4	38	39	37	34	26	13	
	700	311	0.070	0.101	3-5-9	27	3.56	147	17.5	25.1	0.9-1.4-2.8	41	41	41	39	32	20	
	800	356	0.092	0.132	4-5-11	31	4.06	168	22.8	32.8	1.1-1.6-3.2	43	43	44	43	38	26	
	900	400	0.116	0.167	4-6-11	35	4.57	189	28.9	41.5	1.2-1.8-3.4	44	45	46	46	44	32	
10" x 10"	1000	444	0.143	0.206	4-7-12	38	5.08	210	35.7	51.2	1.4-2.0-3.6	46	47	49	49	48	37	
	1100	489	0.173	0.249	5-7-13	41	5.59	231	43.2	62.0	1.5-2.2-3.8	47	48	51	52	53	42	
	300	208	0.018	0.024	1-3-5	-	1.52	98	4.5	5.9	0.3-0.8-1.5	29	30	24	18	-	-	
	400	278	0.032	0.042	2-3-7	14	2.03	131	7.9	10.4	0.6-1.0-2.0	34	34	30	26	13	-	
	500	347	0.050	0.065	3-4-8	21	2.54	164	12.4	16.3	0.8-1.3-2.5	37	38	36	33	23	-	
	600	417	0.072	0.094	3-5-10	26	3.05	197	17.8	23.4	1.0-1.5-3.1	40	40	40	38	31	18	
	700	486	0.097	0.128	4-6-12	31	3.56	229	24.3	31.9	1.2-1.8-3.6	42	43	43	42	38	25	
	750	521	0.112	0.147	4-6-13	33	3.81	246	27.8	36.6	1.3-1.9-3.8	43	44	45	44	41	28	
12" x 12"	800	556	0.127	0.167	4-7-13	35	4.06	262	31.7	41.6	1.4-2.0-4.1	44	45	46	46	44	32	
	900	625	0.161	0.212	5-8-14	39	4.57	295	40.1	52.7	1.5-2.3-4.3	46	47	49	50	49	37	
	1000	694	0.199	0.261	6-8-15	42	5.08	328	49.5	65.0	1.7-2.5-4.5	47	48	51	53	53	42	
	300	300	0.024	0.030	1-3-6	-	1.52	142	6.0	7.4	0.4-0.9-1.8	30	31	26	21	-	-	
	400	400	0.043	0.053	2-4-8	17	2.03	189	10.6	13.1	0.7-1.2-2.4	35	35	33	29	17	-	
	500	500	0.067	0.082	3-5-10	24	2.54	236	16.6	20.5	1.0-1.5-3.1	38	39	38	36	27	13	
	600	600	0.096	0.118	4-6-12	30	3.05	283	23.9	29.5	1.2-1.8-3.7	41	42	42	41	35	22	
	700	700	0.131	0.161	5-7-14	34	3.56	330	32.5	40.2	1.4-2.1-4.3	43	44	45	45	42	29	
12" x 12"	750	750	0.150	0.185	5-8-15	36	3.81	354	37.4	46.1	1.5-2.3-4.6	44	45	47	47	45	33	
	800	800	0.171	0.211	5-8-16	38	4.06	378	42.5	52.4	1.6-2.4-4.9	45	46	48	49	48	36	
	900	900	0.216	0.267	6-9-17	42	4.57	425	53.8	66.4	1.8-2.7-5.2	47	48	51	53	53	41	
	1000	1000	0.267	0.329	7-10-18	45	5.08	472	66.4	81.9	2.0-3.1-5.4	48	50	53	56	58	47	

NOTES: Throw values are given for terminal velocities of 150, 100, and 50 FPM (0.75, 0.50, and 0.25 m/s). Throw values are given for isothermal conditions. NC values are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, re10<sup>-12</sup> Watts. Dash in space denotes a NC or dB value of less than 10. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70, ISO Standard 5219, and ISO Standard 3741. If the diffuser is mounted on an exposed duct, the throw values are 70% of those listed in the table. See Krueger's selection software for performance data not shown.

DIFFUSERS | MODULAR CORE

# 1240P, 51240P, 1240PE SERIES

Diffuser | Modular Core, Perforated



## PERFORMANCE DATA | 1-CORE, NO DAMPER

NECK SIZE	IP DATA					NC	METRIC DATA					OCTAVE BAND, dB						
	NECK VEL	AIR FLOW	Ps	Pt	1-CORE 4-WAY THROW		NECK VEL	AIR FLOW	Ps	Pt	1-CORE 4-WAY THROW							
	FPM	CFM	"WG	"WG	ft		m/s	L/s	Pa	Pa	m	2	3	4	5	6	7	
14" x 14"	200	272	0.014	0.016	1 - 2 - 5	-	1.02	128	3.5	4.1	0.2 - 0.5 - 1.4	25	26	19	11	-	-	
	300	408	0.031	0.037	2 - 4 - 7	-	1.52	193	7.8	9.2	0.5 - 1.1 - 2.1	31	32	28	23	-	-	
	400	544	0.056	0.065	3 - 5 - 9	20	2.03	257	13.8	16.3	0.8 - 1.4 - 2.8	36	36	34	32	20	-	
	500	681	0.087	0.102	4 - 6 - 12	27	2.54	321	21.6	25.5	1.2 - 1.8 - 3.6	39	40	39	38	30	17	
	550	749	0.105	0.124	4 - 6 - 13	29	2.79	353	26.1	30.8	1.3 - 2.0 - 3.9	40	41	41	41	35	21	
	600	817	0.125	0.147	5 - 7 - 14	32	3.05	385	31.1	36.7	1.4 - 2.1 - 4.3	42	43	43	43	38	25	
	700	953	0.170	0.201	5 - 8 - 16	37	3.56	450	42.3	49.9	1.7 - 2.5 - 5.0	44	45	47	48	45	33	
	800	1089	0.222	0.262	6 - 9 - 19	41	4.06	514	55.3	65.2	1.9 - 2.8 - 5.7	46	47	50	52	51	39	
	900	1225	0.281	0.332	7 - 11 - 20	45	4.57	578	70.0	82.6	2.1 - 3.2 - 6.0	48	49	53	55	57	45	
16" x 16"	200	356	0.018	0.020	1 - 2 - 5	-	1.02	168	4.4	5.0	0.2 - 0.5 - 1.6	26	27	20	14	-	-	
	300	533	0.040	0.045	2 - 4 - 8	13	1.52	252	9.9	11.2	0.5 - 1.2 - 2.4	32	33	29	25	11	-	
	400	711	0.070	0.080	3 - 5 - 11	22	2.03	336	17.5	20.0	1.0 - 1.6 - 3.3	36	37	36	34	23	-	
	500	889	0.110	0.125	4 - 7 - 13	29	2.54	420	27.4	31.2	1.4 - 2.0 - 4.1	40	41	41	40	33	20	
	550	978	0.133	0.152	5 - 7 - 15	32	2.79	461	33.1	37.8	1.5 - 2.2 - 4.5	41	42	43	43	38	24	
	600	1067	0.158	0.181	5 - 8 - 16	34	3.05	503	39.4	45.0	1.6 - 2.4 - 4.9	42	44	45	46	42	29	
	700	1244	0.215	0.246	6 - 9 - 19	39	3.56	587	53.6	61.2	1.9 - 2.8 - 5.7	45	46	48	50	48	36	
	800	1422	0.281	0.321	7 - 11 - 21	43	4.06	671	70.0	80.0	2.2 - 3.3 - 6.5	47	48	51	54	54	42	
	900	1600	0.356	0.407	8 - 12 - 23	47	4.57	755	88.7	101.2	2.4 - 3.7 - 6.9	49	50	54	57	60	48	
18" x 18"	100	225	0.005	0.006	0 - 1 - 2	-	0.51	106	1.4	1.5	0.1 - 0.2 - 0.6	16	17	-	-	-	-	
	200	450	0.022	0.024	1 - 2 - 6	-	1.02	212	5.4	6.0	0.3 - 0.6 - 1.8	27	27	22	15	-	-	
	300	675	0.049	0.055	2 - 5 - 9	15	1.52	319	12.2	13.6	0.6 - 1.4 - 2.7	33	34	31	27	13	-	
	400	900	0.087	0.097	4 - 6 - 12	24	2.03	425	21.7	24.2	1.1 - 1.8 - 3.7	37	38	37	36	26	12	
	500	1125	0.136	0.152	5 - 8 - 15	31	2.54	531	33.9	37.8	1.5 - 2.3 - 4.6	40	42	42	42	36	22	
	550	1238	0.165	0.184	6 - 8 - 17	34	2.79	584	41.0	45.7	1.7 - 2.5 - 5.0	42	43	44	45	40	27	
	600	1350	0.196	0.218	6 - 9 - 18	36	3.05	637	48.8	54.4	1.8 - 2.7 - 5.5	43	44	46	48	44	31	
	700	1575	0.267	0.297	7 - 11 - 21	41	3.56	743	66.4	74.0	2.1 - 3.2 - 6.4	45	47	50	52	51	39	
	800	1800	0.348	0.388	8 - 12 - 24	45	4.06	850	86.8	96.7	2.4 - 3.7 - 7.3	47	49	53	56	57	45	
20" x 20"	100	278	0.007	0.007	0 - 1 - 2	-	0.51	131	1.6	1.8	0.1 - 0.2 - 0.7	17	17	-	-	-	-	
	200	556	0.026	0.029	1 - 2 - 7	-	1.02	262	6.6	7.2	0.3 - 0.7 - 2.0	27	28	23	17	-	-	
	300	833	0.060	0.065	2 - 5 - 10	17	1.52	393	14.8	16.2	0.7 - 1.5 - 3.1	33	34	32	29	16	-	
	400	1111	0.106	0.116	4 - 7 - 13	26	2.03	524	26.4	28.8	1.2 - 2.0 - 4.1	38	39	38	37	29	14	
	500	1389	0.165	0.181	6 - 8 - 17	33	2.54	655	41.2	45.1	1.7 - 2.5 - 5.1	41	42	43	44	39	25	
	550	1528	0.200	0.219	6 - 9 - 18	36	2.79	721	49.8	54.5	1.9 - 2.8 - 5.6	42	44	45	47	43	30	
	600	1667	0.238	0.261	7 - 10 - 20	38	3.05	787	59.3	64.9	2.0 - 3.1 - 6.1	44	45	47	49	47	34	
	700	1944	0.324	0.355	8 - 12 - 23	43	3.56	918	80.7	88.3	2.4 - 3.6 - 7.1	46	48	51	54	54	41	
	800	2222	0.424	0.463	9 - 13 - 27	47	4.06	1049	105.5	115.4	2.7 - 4.1 - 8.1	48	50	54	58	60	48	

NOTES: Throw values are given for terminal velocities of 150, 100, and 50 FPM (0.75, 0.50, and 0.25 m/s). Throw values are given for isothermal conditions. NC values are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, re10<sup>-12</sup> Watts. Dash in space denotes a NC or dB value of less than 10. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70, ISO Standard 5219, and ISO Standard 3741. If the diffuser is mounted on an exposed duct, the throw values are 70% of those listed in the table. See Krueger's selection software for performance data not shown.



## PERFORMANCE DATA | 2-, 3-, 4-CORE, NO DAMPER

NECK SIZE	IP DATA					METRIC DATA				
	NECK VEL	AIR FLOW	2-CORE 3-WAY THROW	3-CORE 2-WAY THROW	4-CORE 1-WAY THROW	NECK VEL	AIR FLOW	2-CORE 3-WAY THROW	3-CORE 2-WAY THROW	4-CORE 1-WAY THROW
	FPM	CFM	ft	ft	ft	m/s	L/s	m	m	m
6" x 6"	300	75	2-3-5	2-3-7	3-5-10	1.52	35	0.5-0.8-1.5	0.7-1.1-2.1	1.0-1.6-3.1
	400	100	2-3-7	3-5-9	5-7-14	2.03	47	0.7-1.0-2.1	0.9-1.4-2.8	1.4-2.1-4.1
	500	125	3-4-8	4-6-12	6-9-17	2.54	59	0.9-1.3-2.6	1.2-1.8-3.5	1.7-2.6-5.2
	600	150	3-5-10	5-7-13	7-10-19	3.05	71	1.0-1.5-3.1	1.4-2.1-3.8	2.1-3.1-5.9
	700	175	4-6-11	5-8-14	8-12-21	3.56	83	1.2-1.8-3.4	1.6-2.5-4.2	2.4-3.6-6.4
	800	200	5-7-12	6-9-15	9-14-22	4.06	94	1.4-2.1-3.6	1.9-2.8-4.4	2.8-4.1-6.8
	900	225	5-8-13	7-10-16	10-15-24	4.57	106	1.5-2.3-3.8	2.1-3.2-4.7	3.1-4.7-7.2
	1000	250	6-8-13	8-12-16	11-17-25	5.08	118	1.7-2.6-4.1	2.4-3.5-5.0	3.4-5.2-7.6
8" x 8"	1100	275	6-9-14	9-12-17	12-19-26	5.59	130	1.9-2.8-4.3	2.6-3.7-5.2	3.8-5.7-8.0
	300	133	2-3-7	3-5-9	5-7-14	1.52	63	0.7-1.0-2.1	0.9-1.4-2.8	1.4-2.1-4.1
	400	178	3-5-9	4-6-12	6-9-18	2.03	84	0.9-1.4-2.7	1.3-1.9-3.8	1.8-2.8-5.5
	500	222	4-6-11	5-8-15	8-11-23	2.54	105	1.1-1.7-3.4	1.6-2.4-4.7	2.3-3.4-6.9
	600	267	5-7-14	6-9-17	9-14-26	3.05	126	1.4-2.1-4.1	1.9-2.8-5.1	2.8-4.1-7.9
	700	311	5-8-15	7-11-18	11-16-28	3.56	147	1.6-2.4-4.5	2.2-3.3-5.5	3.2-4.8-8.5
	800	356	6-9-16	8-12-19	12-18-30	4.06	168	1.8-2.7-4.8	2.5-3.8-5.9	3.7-5.5-9.1
	900	400	7-10-17	9-14-21	14-20-32	4.57	189	2.1-3.1-5.1	2.8-4.2-6.3	4.1-6.2-9.6
10" x 10"	1000	444	8-11-18	10-15-22	15-23-33	5.08	210	2.3-3.4-5.4	3.1-4.7-6.6	4.6-6.9-10.2
	1100	489	8-12-19	11-16-23	17-25-35	5.59	231	2.5-3.8-5.7	3.5-4.9-6.9	5.1-7.5-10.7
	300	208	3-4-8	4-6-12	6-9-17	1.52	98	0.9-1.3-2.6	1.2-1.8-3.5	1.7-2.6-5.2
	400	278	4-6-11	5-8-15	8-11-23	2.03	131	1.1-1.7-3.4	1.6-2.4-4.7	2.3-3.4-6.9
	500	347	5-7-14	6-10-19	9-14-28	2.54	164	1.4-2.1-4.3	2.0-2.9-5.9	2.9-4.3-8.6
	600	417	6-8-17	8-12-21	11-17-32	3.05	197	1.7-2.6-5.1	2.4-3.5-6.4	3.4-5.2-9.8
	700	486	7-10-19	9-14-23	13-20-35	3.56	229	2.0-3.0-5.7	2.7-4.1-6.9	4.0-6.0-10.6
	750	521	7-11-19	10-15-24	14-21-36	3.81	246	2.1-3.2-5.9	2.9-4.4-7.2	4.3-6.5-11.0
12" x 12"	800	556	8-11-20	10-15-24	15-23-37	4.06	262	2.3-3.4-6.0	3.1-4.7-7.4	4.6-6.9-11.4
	900	625	8-13-21	12-17-26	17-26-40	4.57	295	2.6-3.9-6.4	3.5-5.3-7.9	5.2-7.8-12.1
	1000	694	9-14-22	13-19-27	19-28-42	5.08	328	2.9-4.3-6.8	3.9-5.9-8.3	5.7-8.6-12.7
	300	300	3-5-10	5-7-14	7-10-20	1.52	142	1.0-1.5-3.1	1.4-2.1-4.2	2.1-3.1-6.2
	400	400	5-7-14	6-9-19	9-14-27	2.03	189	1.4-2.1-4.1	1.9-2.8-5.7	2.8-4.1-8.3
	500	500	6-8-17	8-12-23	11-17-34	2.54	236	1.7-2.6-5.1	2.4-3.5-7.0	3.4-5.2-10.3
	600	600	7-10-20	9-14-25	14-20-39	3.05	283	2.1-3.1-6.2	2.8-4.2-7.7	4.1-6.2-11.8
	700	700	8-12-22	11-16-27	16-24-42	3.56	330	2.4-3.6-6.8	3.3-4.9-8.3	4.8-7.2-12.8
12" x 12"	750	750	8-13-23	12-17-28	17-26-43	3.81	354	2.6-3.9-7.0	3.5-5.3-8.6	5.2-7.8-13.2
	800	800	9-14-24	12-19-29	18-27-45	4.06	378	2.7-4.1-7.3	3.8-5.7-8.9	5.5-8.3-13.6
	900	900	10-15-25	14-21-31	20-31-48	4.57	425	3.1-4.6-7.7	4.2-6.4-9.4	6.2-9.3-14.5
	1000	1000	11-17-27	15-23-33	23-34-50	5.08	472	3.4-5.1-8.1	4.7-7.0-9.9	6.9-10.3-15.3

NOTES: Throw values are given for terminal velocities of 150, 100, and 50 FPM (0.75, 0.50, and 0.25 m/s). Throw values are given for isothermal conditions. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70, ISO Standard 5219, and ISO Standard 3741. If the diffuser is mounted on an exposed duct, the throw values are 70% of those listed in the table. See Krueger's selection software for performance data not shown, including octave band data.

# 1240P, 51240P, 1240PE SERIES



Diffuser | Modular Core, Perforated

## PERFORMANCE DATA | 2-, 3-, 4-CORE, NO DAMPER

DIFFUSERS | MODULAR CORE

NECK SIZE	IP DATA					METRIC DATA				
	NECK VEL	AIR FLOW	2-CORE 3-WAY THROW	3-CORE 2-WAY THROW	4-CORE 1-WAY THROW	NECK VEL	AIR FLOW	2-CORE 3-WAY THROW	3-CORE 2-WAY THROW	4-CORE 1-WAY THROW
	FPM	CFM	ft	ft	ft	m/s	L/s	m	m	m
14" x 14"	200	272	2 - 4 - 8	3 - 5 - 11	5 - 8 - 16	1.02	128	0.6 - 1.2 - 2.4	0.8 - 1.6 - 3.3	1.4 - 2.4 - 4.8
	300	408	4 - 6 - 12	5 - 8 - 16	8 - 12 - 24	1.52	193	1.2 - 1.8 - 3.6	1.6 - 2.5 - 4.9	2.4 - 3.6 - 7.2
	400	544	5 - 8 - 16	7 - 11 - 22	11 - 16 - 32	2.03	257	1.6 - 2.4 - 4.8	2.2 - 3.3 - 6.6	3.2 - 4.8 - 9.7
	500	681	7 - 10 - 20	9 - 14 - 27	13 - 20 - 40	2.54	321	2.0 - 3.0 - 6.0	2.7 - 4.1 - 8.2	4.0 - 6.0 - 12.1
	550	749	7 - 11 - 22	10 - 15 - 28	15 - 22 - 43	2.79	353	2.2 - 3.3 - 6.6	3.0 - 4.5 - 8.6	4.4 - 6.6 - 13.2
	600	817	8 - 12 - 24	11 - 16 - 30	16 - 24 - 45	3.05	385	2.4 - 3.6 - 7.2	3.3 - 4.9 - 9.0	4.8 - 7.2 - 13.8
	700	953	9 - 14 - 26	13 - 19 - 32	19 - 28 - 49	3.56	450	2.8 - 4.2 - 7.9	3.8 - 5.8 - 9.7	5.6 - 8.4 - 14.9
	800	1089	11 - 16 - 28	14 - 22 - 34	21 - 32 - 52	4.06	514	3.2 - 4.8 - 8.5	4.4 - 6.6 - 10.4	6.4 - 9.7 - 15.9
	900	1225	12 - 18 - 30	16 - 24 - 36	24 - 36 - 56	4.57	578	3.6 - 5.4 - 9.0	4.9 - 7.4 - 11.0	7.2 - 10.9 - 16.9
16" x 16"	200	356	2 - 5 - 9	3 - 6 - 12	5 - 9 - 18	1.02	168	0.7 - 1.4 - 2.7	0.9 - 1.9 - 3.8	1.6 - 2.8 - 5.5
	300	533	5 - 7 - 14	6 - 9 - 19	9 - 14 - 27	1.52	252	1.4 - 2.1 - 4.1	1.9 - 2.8 - 5.7	2.8 - 4.1 - 8.3
	400	711	6 - 9 - 18	8 - 12 - 25	12 - 18 - 36	2.03	336	1.8 - 2.7 - 5.5	2.5 - 3.8 - 7.5	3.7 - 5.5 - 11.0
	500	889	8 - 11 - 23	10 - 15 - 31	15 - 23 - 45	2.54	420	2.3 - 3.4 - 6.9	3.1 - 4.7 - 9.4	4.6 - 6.9 - 13.8
	550	978	8 - 12 - 25	11 - 17 - 32	17 - 25 - 50	2.79	461	2.5 - 3.8 - 7.5	3.5 - 5.2 - 9.8	5.1 - 7.6 - 15.1
	600	1067	9 - 14 - 27	12 - 19 - 34	18 - 27 - 52	3.05	503	2.7 - 4.1 - 8.2	3.8 - 5.7 - 10.3	5.5 - 8.3 - 15.8
	700	1244	11 - 16 - 30	14 - 22 - 36	21 - 32 - 56	3.56	587	3.2 - 4.8 - 9.0	4.4 - 6.6 - 11.1	6.4 - 9.7 - 17.0
	800	1422	12 - 18 - 32	17 - 25 - 39	24 - 36 - 60	4.06	671	3.7 - 5.5 - 9.7	5.0 - 7.5 - 11.9	7.4 - 11.0 - 18.2
	900	1600	14 - 20 - 34	19 - 28 - 41	27 - 41 - 63	4.57	755	4.1 - 6.2 - 10.3	5.7 - 8.5 - 12.6	8.3 - 12.4 - 19.3
18" x 18"	100	225	1 - 1 - 5	1 - 2 - 7	1 - 3 - 10	0.51	106	0.2 - 0.4 - 1.5	0.3 - 0.6 - 2.1	0.5 - 1.0 - 3.1
	200	450	3 - 5 - 10	3 - 7 - 14	6 - 10 - 20	1.02	212	0.8 - 1.5 - 3.1	1.0 - 2.1 - 4.2	1.8 - 3.1 - 6.2
	300	675	5 - 8 - 15	7 - 10 - 21	10 - 15 - 31	1.52	319	1.5 - 2.3 - 4.6	2.1 - 3.2 - 6.4	3.1 - 4.7 - 9.3
	400	900	7 - 10 - 20	9 - 14 - 28	14 - 20 - 41	2.03	425	2.1 - 3.1 - 6.2	2.8 - 4.2 - 8.5	4.1 - 6.2 - 12.4
	500	1125	8 - 13 - 25	12 - 17 - 35	17 - 26 - 51	2.54	531	2.6 - 3.9 - 7.7	3.5 - 5.3 - 10.5	5.2 - 7.8 - 15.5
	550	1238	9 - 14 - 28	13 - 19 - 36	19 - 28 - 56	2.79	584	2.8 - 4.2 - 8.5	3.9 - 5.8 - 11.1	5.7 - 8.5 - 17.0
	600	1350	10 - 15 - 30	14 - 21 - 38	20 - 31 - 58	3.05	637	3.1 - 4.6 - 9.3	4.2 - 6.4 - 11.5	6.2 - 9.3 - 17.7
	700	1575	12 - 18 - 33	16 - 24 - 41	24 - 36 - 63	3.56	743	3.6 - 5.4 - 10.2	4.9 - 7.4 - 12.5	7.2 - 10.9 - 19.1
	800	1800	14 - 20 - 36	19 - 28 - 44	27 - 41 - 67	4.06	850	4.1 - 6.2 - 10.9	5.7 - 8.5 - 13.3	8.3 - 12.4 - 20.5
20" x 20"	100	278	1 - 2 - 6	1 - 2 - 8	2 - 4 - 11	0.51	131	0.2 - 0.5 - 1.7	0.3 - 0.7 - 2.4	0.5 - 1.1 - 3.4
	200	556	3 - 6 - 11	4 - 8 - 15	7 - 11 - 23	1.02	262	0.9 - 1.7 - 3.4	1.2 - 2.4 - 4.7	2.0 - 3.4 - 6.9
	300	833	6 - 8 - 17	8 - 12 - 23	11 - 17 - 34	1.52	393	1.7 - 2.6 - 5.1	2.4 - 3.5 - 7.1	3.4 - 5.2 - 10.3
	400	1111	8 - 11 - 23	10 - 15 - 31	15 - 23 - 45	2.03	524	2.3 - 3.4 - 6.9	3.1 - 4.7 - 9.4	4.6 - 6.9 - 13.8
	500	1389	9 - 14 - 28	13 - 19 - 39	19 - 28 - 57	2.54	655	2.9 - 4.3 - 8.6	3.9 - 5.9 - 11.7	5.7 - 8.6 - 17.2
	550	1528	10 - 16 - 31	14 - 21 - 40	21 - 31 - 62	2.79	721	3.1 - 4.7 - 9.4	4.3 - 6.5 - 12.3	6.3 - 9.5 - 18.9
	600	1667	11 - 17 - 34	15 - 23 - 42	23 - 34 - 65	3.05	787	3.4 - 5.1 - 10.3	4.7 - 7.1 - 12.8	6.9 - 10.3 - 19.7
	700	1944	13 - 20 - 37	18 - 27 - 46	26 - 40 - 70	3.56	918	4.0 - 6.0 - 11.3	5.5 - 8.2 - 13.9	8.0 - 12.1 - 21.3
	800	2222	15 - 23 - 40	21 - 31 - 49	30 - 45 - 75	4.06	1049	4.6 - 6.9 - 12.1	6.3 - 9.4 - 14.8	9.2 - 13.8 - 22.7

NOTES: Throw values are given for terminal velocities of 150, 100, and 50 FPM (0.75, 0.50, and 0.25 m/s). Throw values are given for isothermal conditions. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70, ISO Standard 5219, and ISO Standard 3741. If the diffuser is mounted on an exposed duct, the throw values are 70% of those listed in the table. See Krueger's selection software for performance data not shown, including octave band data.

## ENGINEERING SPECIFICATION & CONFIGURATION

### 1240P, 51240P

The modular core diffuser shall be Krueger model 1240P (steel) or 51240P (aluminum). The diffusers shall have a perforated face with 3/16" diameter holes on 1/4" centers resulting in a 51% free area. The perimeter of the perforated face and backpan shall be an aluminum extrusion resulting in an aesthetic appearance and a removable face. The 1240P and 51240P models shall have a tapered backpan resulting in a square neck. The core of the diffuser shall be made up of 4 independent fixed blade modules that can be easily removed without the use of special tools for 1-, 2-, 3-, or 4-way discharge air pattern adjustments or damper access.

Optional oppose blade damper (OBD) shall be constructed of heavy gage steel. Damper shall be operable from the face of the diffuser.

### 1240PE

The modular core diffuser shall be Krueger model 1240PE. The diffusers shall have a steel perforated face with 3/16" diameter holes on 1/4" centers resulting in a 51% free area. The 1240PE shall have a steel one piece stamped backpan resulting in a square neck for neck sizes smaller than 16". For neck sizes 16" and larger the diffuser shall have a steel can construction resulting in a square neck. The core of the diffuser shall be made up of 4 independent fixed bladed modules that can be easily removed without the use of special tools for 1-, 2-, 3-, or 4-way discharge air pattern adjustments or damper access.

Optional oppose blade damper (OBD) shall be constructed of heavy gage steel. Damper shall be operable from the face of the diffuser.

### PERFORMANCE

The manufacturer shall provide published (printed or electronic) performance data for the diffuser. Performance data shall include 2 - 7 octave band sound power levels. The diffuser shall be tested in accordance to the data standards at the time of product introduction or ANSI/ASHRAE Standard 70.

### FINISH

The paint finish shall be #44 British White and be an anodic acrylic paint, baked at 315°F for 30 minutes. The paint thickness shall be 0.8 - 1.0 mils, gloss at 60° per ASTM D523-89 of 50 - 85%, pencil hardness per ASTM D3363-92A of HB - H, crosshatch adhesion per ASTM D3359-83 of 4B - 5B, impact per ASTM D2794-93 of direct impact >100 in/lb and reverse impact >80 in/lb, salt spray per ASTM B117-9048 of 96 hours, humidity per ASTM D2247-92 of >500 hours and water soak per ASTM D870-92 of 250 hours.

#### 1. SERIES: (XXXXXX)

- 1240P - Double Border, Perforated Steel Modular Diffuser
- 51240P - Double Border, Perforated Aluminum Modular Diffuser
- 1240PE - Single Border, Perforated Steel Modular Diffuser

#### 2. WIDTH: SQUARE NECK ONLY (XX) \*

6" - 20" in 2" Increments

#### 3. HEIGHT: SQUARE NECK ONLY (XX) \*

6" - 20" in 2" Increments

#### 4. FRAME: (XXX) \*\*

- F22 - Surface Mount - Flat
- F23 - Lay-in T-Bar
- F29 - Camlock
- F30 - Drop Face \*\*\*
- F98 - Narrow-T \*\*\*

#### 5. PANEL: (XX)x(XX)

NONE  
24"x24"

#### 6. FINISH: (XX)

- 01 - Mill
- 10 - Alumican
- 35 - Black
- 44 - British White

Damper not included in configuration code.

\* Neck Size 20"x20" is only available with Frame 22.

\*\* Series 1240PE is available in Frame 23 only; maximum neck size is 18"x18".

\*\*\* Series 1240P and 51240P are not available in Frame 30 or Frame 98.