



1400, 1400FR, 51400, M1400 & M51400
These supply diffusers feature a round neck and four cones.



1400A & 51400A
These supply diffusers feature a round neck, four cones, and adjustable pattern controllers.



1450, 51450, M1450, & M51450
These supply diffusers feature a round neck and three cones.



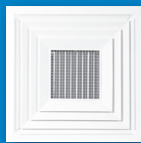
1450A & 51450A
These supply diffusers feature a round neck, three cones, and adjustable pattern controllers.



SH, 5SH, SHFR, MSH, SHV, 5SHV, SHR, 5SHR, SHRV, 5SHRV, SHFB, & 5SHFB
These supply diffusers feature a square neck, fixed louvered blades (1-way to 4-way), and removable core.



SHPC, 5SHPC, SHPCR, & 5SHPCR
These supply diffusers feature a square neck, fixed louvered blades (1-way to 4-way), removable core, and adjustable pattern controllers.



5SH/CAD & 5SHR/CAD
These supply diffusers feature fixed louvered blades with a center downblow.



SHRPLQ
This supply diffuser features fixed louvered blades (1, 2, or 3 slots) with center plaque faceplate.



7000
This combination supply/return diffuser features fixed louvered blades with removable egg-crate center frame.

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Introduction: 7000

Krueger's 7000 series combination supply/return diffusers are designed to provide quick single point air distribution for rooftop air conditioning packages and are commonly used in department stores, strip malls, and restaurants. The 7000 series can be mounted in plaster or standard T-bar ceilings and feature an optional factory mounted supply plenum with mounting supports and turning vane, which further simplifies installation. Plenums serving 5 tons or less capacity packages are made of molded fiberglass and plenums for units serving 7.5 tons or less capacity packages are made of duct board fiberglass. Larger sizes are constructed of sheet metal. All optional plenums are insulated.

MODEL

7000 - Aluminum Combination Supply/Return Diffuser

FEATURES

- Egg-crate frame is removable for ease of cleaning.
- Anti-sweat gasket.
- Supply slots are constructed of aluminum extrusions with staked corner chevrons.
- Center return air section is 1/2" square aluminum egg-crate, clipped in place.

PANEL SIZES

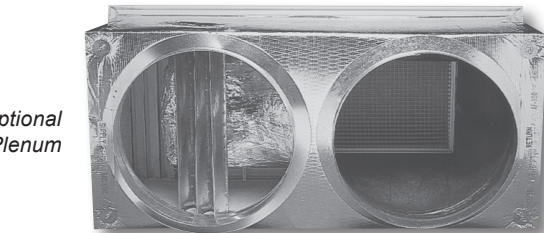
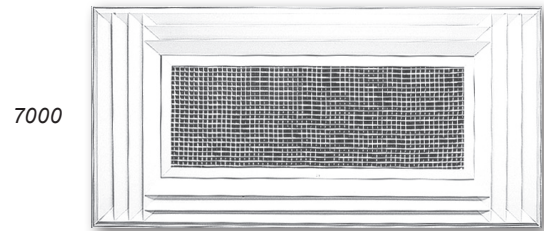
- 24"x48"
- 36"x48"
- 48"x48"
- 60"x60"

ACCESSORIES

- Optional Plenum

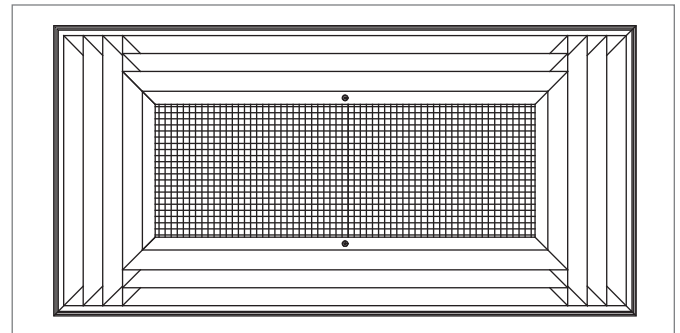
FINISHES

- Standard finish is Mill.
- Optional finish is #44 British White.

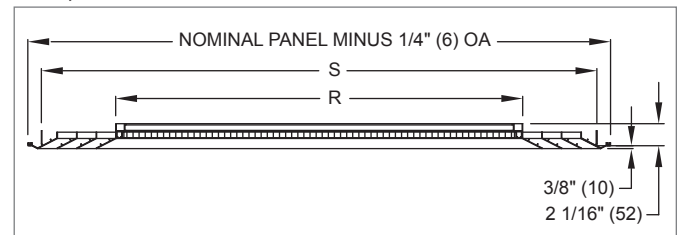


7000 Dimensional Information

7000, FACE VIEW



7000, CROSS SECTION



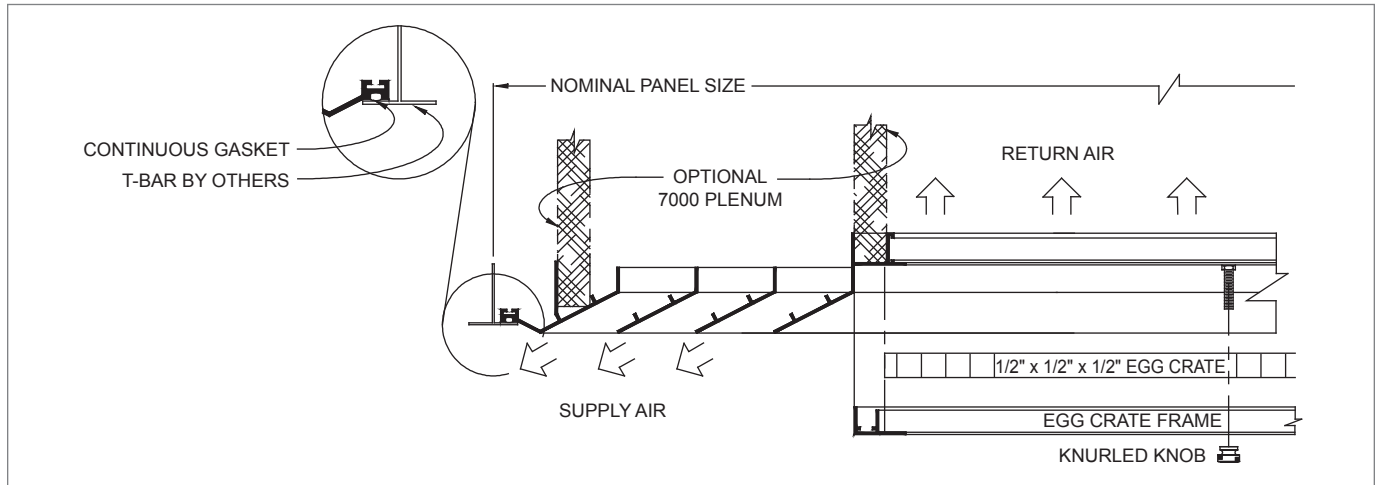
7000, AVAILABLE NECK SIZES

Size	Nominal Panel	S	R	Nominal Capacity Tons [KW]
24"x48"	24"x48" (610x1219)	21"x45" (533x1143)	11 5/8"x33" (295x838)	5 [17.5]
36"x48"	36"x48" (914x1219)	33"x45" (838x1143)	19"x33" (483x838)	10 [35]
48"x48"	48"x48" (1219x1219)	45"x45" (1143x1143)	33"x33" (838x838)	15 [52.5]
60"x60"	60"x60" (1524x1524)	57"x57" (1448x1448)	45"x45" (1143x1143)	20 [70]

NOTES: Dimensions in parentheses are mm. 'OA' is overall length.

7000 Frame Detail

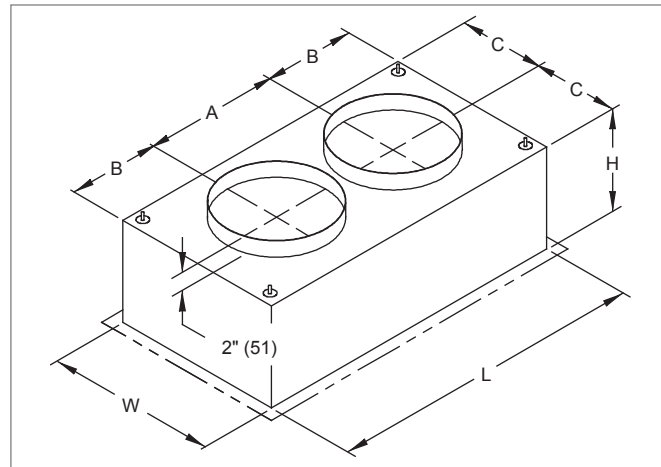
7000, FRAME CROSS SECTION



LOUVERED FACE DIFFUSERS

7000 Optional Plenum: Round Duct Connections

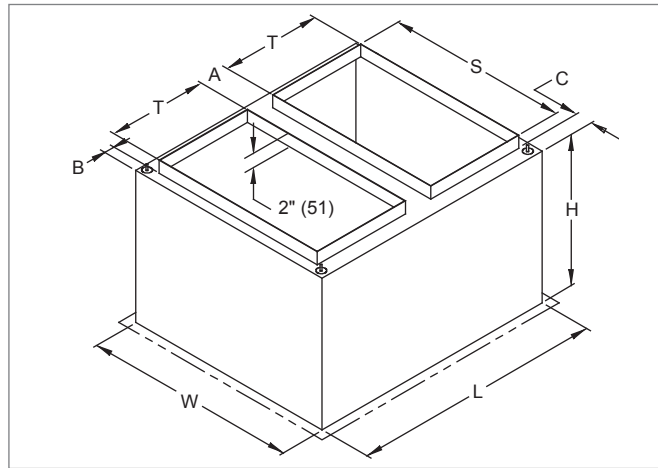
7000, OPTIONAL PLENUM ROUND DUCT CONNECTIONS



7000, OPTIONAL PLENUM, ROUND DUCT CONNECTIONS, AVAILABLE SIZES

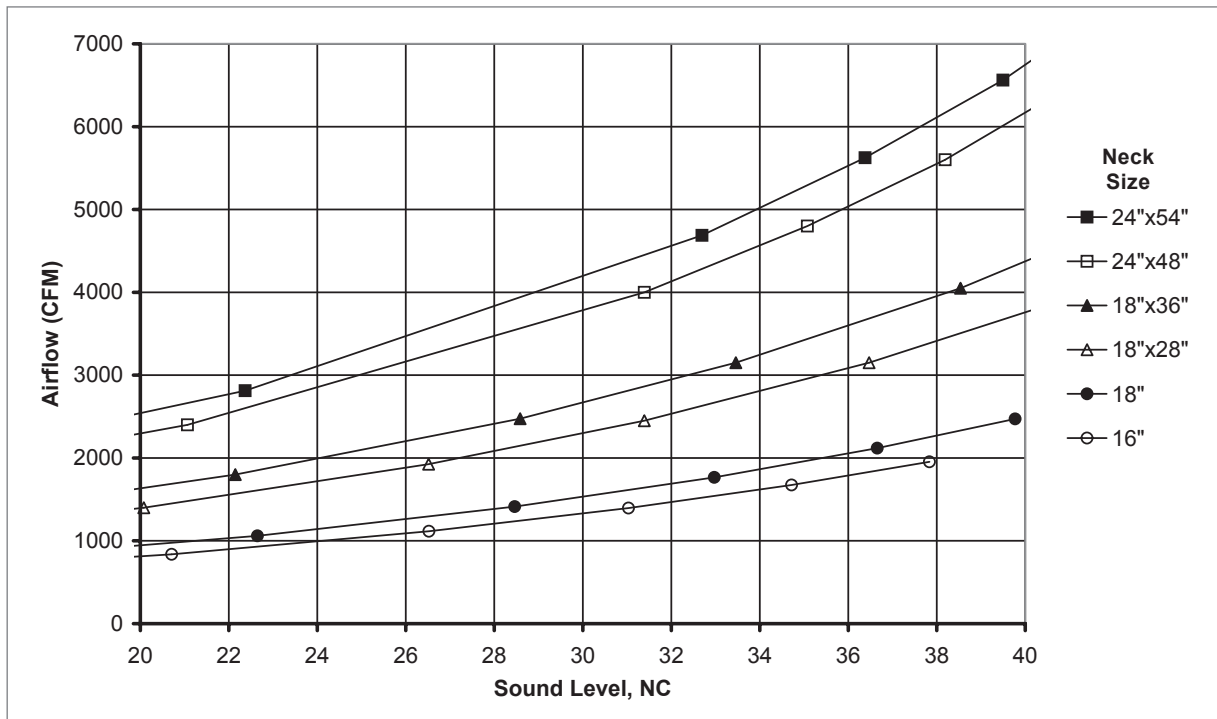
Size	Duct Size Nominal Diameter	L	W	H	A	B	C	Nominal Capacity Tons [KW]
24"x48"	16" (406)	45" (1143)	21" (533)	13 1/2" (343)	22 1/2" (572)	11 1/4" (286)	10 1/2" (522)	1 - 5 [17.5]
24"x48"	18" (457)	45" (1143)	21" (533)	13 1/2" (343)	22 1/2" (572)	11 1/4" (286)	10 1/2" (522)	1 - 5 [17.5]

NOTE: Dimensions in parentheses are mm.

7000 Optional Plenum: Rectangular Duct Connections
OPTIONAL PLENUM, RECTANGULAR DUCT CONNECTIONS

7000, OPTIONAL PLENUM, RECTANGULAR DUCT CONNECTIONS, AVAILABLE SIZES

Size	Duct Size S x T	L	W	H	A	B	C	Nominal Capacity Tons [KW]
36"x48"	28"x18" (711x457)	45" (1143)	33" (838)	23 1/4" (591)	4 1/2" (114)	2 1/4" (57)	2 1/2" (64)	10 [35]
48"x48"	36"x18" (914x457)	45" (1143)	45" (1143)	29 1/4" (743)	4 1/2" (114)	2 1/4" (57)	4 1/2" (114)	15 [25.5]
60"x60"	48"x24" (1219x610)	57" (1448)	57" (1448)	35 1/4" (895)	4 1/2" (114)	2 1/4" (57)	4 1/2" (114)	20 [70]
60"x60"	54"x24" (1372x610)	57" (1448)	57" (1448)	35 1/4" (895)	4 1/2" (114)	2 1/4" (57)	4 1/2" (114)	20 [70]

NOTE: Dimensions in parentheses are mm.

7000 Reference Charts
AIRFLOW VS. NC LEVEL: 7000


7000 Performance Data: Horizontal Throw

IP DATA: 7000

Neck Dim	Neck Vel	Total Pres	Static Pres	Air Flow	NC	Horizontal Throw
in.	FPM	"WG	"WG	CFM		ft
16" Dia. Neck	200	0.011	0.009	279	-	0 - 1 - 5
	400	0.046	0.036	558	13	1 - 5 - 12
	600	0.103	0.080	837	21	1 - 9 - 16
	800	0.182	0.143	1116	27	2 - 12 - 19
24" x 48" Face	1000	0.285	0.223	1395	31	2 - 15 - 21
	1200	0.410	0.321	1674	35	3 - 16 - 23
	1400	0.559	0.436	1953	38	3 - 17 - 25
	200	0.012	0.009	353	-	0 - 1 - 6
18" Dia. Neck	400	0.047	0.037	706	14	1 - 6 - 14
	600	0.106	0.084	1059	23	1 - 10 - 18
	800	0.189	0.149	1413	28	2 - 14 - 21
	1000	0.295	0.232	1766	33	2 - 17 - 23
24" x 48" Face	1200	0.425	0.335	2119	37	3 - 18 - 26
	1400	0.578	0.456	2472	40	3 - 20 - 28
	200	0.014	0.011	700	-	1 - 2 - 8
	18" x 28" Neck	300	0.031	0.025	1050	14
400		0.055	0.045	1400	20	1 - 8 - 19
550		0.103	0.084	1925	27	2 - 13 - 24
36" x 48" Face	700	0.167	0.136	2450	31	2 - 17 - 28
	900	0.276	0.225	3150	36	3 - 22 - 31
	1100	0.412	0.337	3850	41	4 - 24 - 34
	200	0.015	0.012	900	-	1 - 2 - 9
18" x 36" Neck	300	0.033	0.027	1350	16	1 - 5 - 16
	400	0.059	0.049	1800	22	2 - 9 - 22
	550	0.111	0.092	2475	29	2 - 15 - 28
48" x 48" Face	700	0.180	0.149	3150	33	3 - 19 - 31
	900	0.297	0.247	4050	39	4 - 25 - 35
	1100	0.444	0.369	4950	43	4 - 28 - 39
	100	0.005	0.004	800	-	1 - 1 - 3
24" x 48" Neck	200	0.018	0.016	1600	13	1 - 3 - 12
	300	0.041	0.036	2400	21	2 - 7 - 22
	500	0.115	0.099	4000	31	3 - 18 - 35
60" x 60" Face	600	0.165	0.143	4800	35	3 - 22 - 39
	700	0.225	0.195	5600	38	4 - 25 - 42
	900	0.372	0.322	7200	43	5 - 33 - 47
	100	0.005	0.004	938	-	1 - 1 - 3
24" x 54" Neck	200	0.020	0.017	1875	14	1 - 3 - 14
	300	0.045	0.039	2813	22	2 - 8 - 24
	500	0.124	0.108	4688	33	3 - 20 - 38
60" x 60" Face	600	0.178	0.156	5625	36	3 - 24 - 42
	700	0.243	0.212	6563	39	4 - 28 - 45
	900	0.402	0.351	8438	45	5 - 35 - 51

METRIC DATA: 7000

Neck Dim	Neck Vel	Total Pres	Static Pres	Total Flow	NC	Horizontal Throw
mm	m/s	Pa	Pa	L/s		m
406 Dia. Neck	1.02	2.8	2.2	132	-	0.1 - 0.4 - 1.6
	2.03	11.4	8.9	263	13	0.3 - 1.6 - 3.7
	3.05	25.6	20.0	395	21	0.4 - 2.8 - 4.9
	4.06	45.4	35.5	527	27	0.5 - 3.7 - 5.6
	5.08	71.0	55.4	658	31	0.7 - 4.5 - 6.3
	6.10	102.2	79.8	790	35	0.8 - 4.9 - 6.9
610 x 1220 Face	7.11	139.1	108.7	922	38	0.9 - 5.3 - 7.5
	1.02	2.9	2.3	167	-	0.1 - 0.4 - 1.8
	2.03	11.7	9.3	333	14	0.3 - 1.8 - 4.2
	3.05	26.4	20.8	500	23	0.4 - 3.1 - 5.5
	4.06	47.0	37.0	667	28	0.6 - 4.2 - 6.3
	5.08	73.4	57.9	833	33	0.7 - 5.0 - 7.1
457 Dia. Neck	6.10	105.7	83.4	1000	37	0.9 - 5.5 - 7.8
	7.11	143.9	113.5	1167	40	1.0 - 5.9 - 8.4
	1.02	3.4	2.8	330	-	0.2 - 0.6 - 2.5
	1.52	7.6	6.2	496	14	0.3 - 1.4 - 4.4
	2.03	13.6	11.1	661	20	0.4 - 2.5 - 5.9
	2.79	25.7	21.0	908	27	0.6 - 4.0 - 7.4
914 x 1220 Face	3.56	41.6	33.9	1156	31	0.7 - 5.1 - 8.4
	4.57	68.7	56.1	1487	36	0.9 - 6.6 - 9.5
	5.59	102.6	83.8	1817	41	1.2 - 7.4 - 10.5
	1.02	3.7	3.0	425	-	0.2 - 0.7 - 2.8
	1.52	8.2	6.8	637	16	0.4 - 1.6 - 5.0
	2.03	14.6	12.1	850	22	0.5 - 2.8 - 6.6
457 x 914 Neck	2.79	27.6	22.9	1168	29	0.7 - 4.6 - 8.4
	3.56	44.8	37.2	1487	33	0.8 - 5.8 - 9.5
	4.57	74.0	61.4	1911	39	1.1 - 7.5 - 10.8
	5.59	110.6	91.8	2336	43	1.3 - 8.4 - 11.9
	0.51	1.1	1.0	378	-	0.2 - 0.2 - 0.9
	1.02	4.6	4.0	755	13	0.3 - 0.9 - 3.8
1220 x 1220 Face	1.52	10.3	8.9	1133	21	0.5 - 2.1 - 6.6
	2.54	28.6	24.7	1888	31	0.8 - 5.5 - 10.7
	3.05	41.2	35.6	2265	35	0.9 - 6.6 - 11.7
	3.56	56.1	48.4	2643	38	1.1 - 7.7 - 12.6
	4.57	92.7	80.1	3398	43	1.4 - 10.0 - 14.3
	0.51	1.2	1.1	442	-	0.2 - 0.3 - 1.0
610 x 1372 Neck	1.02	4.9	4.3	885	14	0.3 - 1.0 - 4.1
	1.52	11.1	9.7	1327	22	0.5 - 2.3 - 7.2
	2.54	30.9	27.0	2212	33	0.9 - 6.0 - 11.6
	3.05	44.4	38.8	2655	36	1.0 - 7.2 - 12.7
1524 x 1524 Face	3.56	60.5	52.9	3097	39	1.2 - 8.4 - 13.7
	4.57	100.0	87.4	3982	45	1.5 - 10.8 - 15.5

NOTES: Throw values are given for isothermal conditions and terminal velocities of 150, 100, and 50 FPM (0.75, 0.50, and 0.25 m/s). NC values are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, re 10⁻¹² Watts. Dash in space denotes a NC 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. See Krueger's selection software for performance data not shown, including octave band data.

LOUVERED FACE DIFFUSERS

7000

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7000 Suggested Specification & Configuration

1. SERIES: (XXXX)

7000 - Aluminum Combination Supply/Return Diffuser

2. DIM 1: (XX) *

16" - For 24"x48" Panel

18" - For 24"x48", 36"x48", and 48"x48" Panels

24" - For 60"x60" Panels

3. DIM 2: (XX) *

0" - For 24"x48" Panel

28" - For 36"x48" Panel

36" - For 48"x48" Panel

48" - For 60"x60" Panel

54" - For 60"x60" Panel

4. PANEL: (XX)x(XX)

24"x48"

36"x48"

48"x48"

60"x60"

5. ACCESSORIES: (X)

0 - No Accessories

P - Plenum

6. FINISH: (XX)

01 - Mill

44 - British White

* Enter configuration code only if Accessory 'P' is chosen.

7000

The concentric diffuser system shall be a Krueger model 7000 providing a single point air distribution system of the sizes shown on the plans. The 7000 shall be an all aluminum construction diffuser with a built in permanent (not adhesive) anti-sweat gasket and an easily removable aluminum 1/2"x1/2"x1/2" egg-crate return section. The 7000 optional plenum shall be fully insulated and constructed of molded fiberglass (for units serving up to 5 tons), fiberglass duct board (for units serving up to 7.5 tons), or sheet metal (for units serving over 7.5 tons). The optional plenum shall have all seams sealed by the manufacturer and have hanging supports installed at the factory for ease of plenum installation in the field.

PERFORMANCE

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 #01 Mill or a #44 British White.