

Total Air Diffuser (TAD) | Radial Flow Diffuser

TAD, TADSS, TADHF, TADSSHF Performance Data

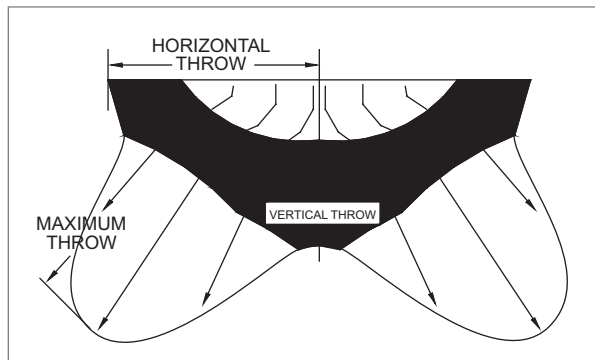
Because the TAD is a radial diffuser, traditional methods of presenting diffuser data are not sufficient to document the TAD's performance. The data below gives terminal velocities in both the horizontal and vertical directions along with maximum throw listed. Krueger has additional data on room air motion, ADPI, Computational Fluid Dynamics Analysis, etc., available upon request. Data shown below is for TAD units with optional backpan.

IP DATA: TAD, TADSS, TADHF, TADSSHF

Throw Pattern	IP Data												NC	
	Panel Size		Inlet Dia.	Neck Vel	Air Flow	Pt	Ps	ΔT	Throw,ft @ FPM					
	W	L							Horizontal		Max	Vertical		
in	in	in	FPM	CFM	"WG	"WG	F	100	50	50	100	50		
180° Air Pattern	24"	48"	12"	765	600	0.094	0.06	-5	2	4	8	2	4	20
				1019	800	0.167	0.10		3	4	10	3	5	29
				1274	1000	0.261	0.16		4	6	11	4	7	37
180° Air Pattern	24"	48"	12"	765	600	0.094	0.06	-15	2	3	7	3	6	20
				1019	800	0.167	0.10		2	4	8	4	8	29
				1274	1000	0.261	0.16		3	6	10	5	9	37
90° Air Pattern	24"	48"	12"	765	600	0.099	0.06	-5	3	6	8	3	3	17
				1019	800	0.177	0.11		5	6	12	7	-	26
				1274	1000	0.276	0.18		6	8	15	8	-	34
90° Air Pattern	24"	48"	12"	765	600	0.099	0.06	-15	3	5	9	7	-	17
				1019	800	0.177	0.11		4	5	11	8	-	26
				1274	1000	0.276	0.18		4	7	14	9	-	34
180° Air Pattern	24"	24"	8"	860	300	0.111	0.07	-5	2	3	7	4	6	15
				1147	400	0.197	0.12		3	4	9	4	7	21
				1433	500	0.308	0.18		3	5	10	5	7	27
180° Air Pattern	24"	24"	8"	860	300	0.111	0.07	-15	2	3	6	7	9	15
				1147	400	0.197	0.12		2	3	8	8	-	21
				1433	500	0.308	0.18		2	4	9	9	-	27
90° Air Pattern	24"	24"	8"	860	300	0.118	0.07	-5	4	6	8	5	8	10
				1147	400	0.210	0.13		5	8	12	6	9	18
				1433	500	0.328	0.20		3	7	8	6	8	26
90° Air Pattern	24"	24"	8"	860	300	0.118	0.07	-15	4	5	7	6	9	10
				1147	400	0.210	0.13		4	6	9	7	-	18
				1433	500	0.328	0.20		5	7	11	8	-	26
90° Air Pattern	12"	48"	8"	860	300	0.229	0.18	-5	2	4	8	2	4	18
				1147	400	0.229	0.15		3	4	9	3	4	26
				1433	500	0.358	0.23		4	6	10	3	5	32
90° Air Pattern	12"	48"	8"	860	300	0.229	0.18	-15	2	3	7	2	5	18
				1147	400	0.229	0.15		2	4	8	4	7	26
				1433	500	0.358	0.23		3	6	9	5	8	32

NOTES: Air distribution within a space is strongly affected by the temperature difference between supply and room air (ΔT). In most cases, the unit supplies air colder than the room, typically at about -5°F ΔT. Return air should be exhausted with low sidewall return grilles for optimum performance. For maximum throw column, see isovel below.

TYPICAL ISOVEL



NOTES: Test cell dimensions 12'x12'x9'. Tested with optional backpan.

CRITICAL ROOM PRODUCTS

TAD

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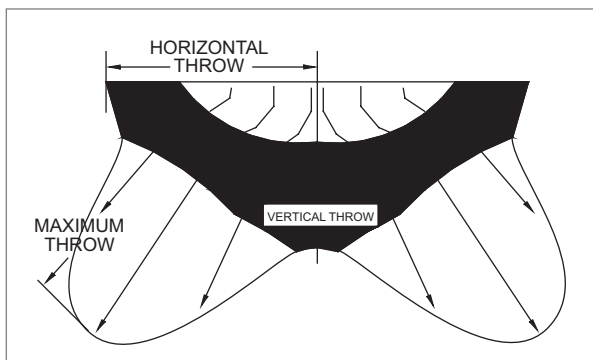
TAD, TADSS, TADHF, TADSSH Performance Data

Because the TAD is a radial diffuser, traditional methods of presenting diffuser data are not sufficient to document the TAD's performance. The data below gives terminal velocities in both the horizontal and vertical directions along with maximum throw listed. Krueger has additional data on room air motion, ADPI, Computational Fluid Dynamics Analysis, etc., available upon request. Data shown below is for TAD units with optional backpan.

METRIC DATA: TAD, TADSS, TADHF, TADSSH

Throw Pattern	Metric Data														NC
	Panel Size		Inlet Dia.	Neck Vel	Air Flow	Pt	Ps	ΔT	Throw, m, @ m/s						
	W	L							Horizontal		Max	Vertical			
	mm	mm	mm	m/s	L/s	Pa	Pa	C	0.5	0.25	0.25	0.5	0.25		
180° Air Pattern	610	1219	305	3.88	283	23.5	14.4	-2.8	0.6	1.2	2.4	0.6	1.2	20	
				5.18	378	41.5	25.4		0.9	1.2	3.0	0.9	1.5	29	
				6.47	472	65.0	39.8		1.2	1.8	3.3	1.2	2.1	37	
180° Air Pattern	610	1219	305	3.88	283	23.5	14.4	-8.3	0.6	0.9	2.1	0.9	1.8	20	
				5.18	378	41.5	25.4		0.6	1.2	2.4	1.2	2.4	29	
				6.47	472	65.0	39.8		0.9	1.8	3.0	1.5	2.7	37	
90° Air Pattern	610	1219	305	3.88	283	24.8	15.7	-2.8	0.9	1.8	2.4	0.9	0.9	17	
				5.18	378	44.0	27.9		1.5	1.8	3.6	2.1	-	26	
				6.47	472	68.8	43.6		1.8	2.4	4.6	2.4	-	34	
90° Air Pattern	610	1219	305	3.88	283	24.8	15.7	-8.3	0.9	1.5	2.7	2.1	-	17	
				5.18	378	44.0	27.9		1.2	1.5	3.3	2.4	-	26	
				6.47	472	68.8	43.6		1.2	2.1	4.3	2.7	-	34	
180° Air Pattern	610	610	203	4.37	142	27.7	16.2	-2.8	0.6	0.9	2.1	1.2	1.8	15	
				5.83	189	49.1	28.6		0.9	1.2	2.7	1.2	2.1	21	
				7.28	236	76.7	44.8		0.9	1.5	3.0	1.5	2.1	27	
180° Air Pattern	610	610	203	4.37	142	27.7	16.2	-8.3	0.6	0.9	1.8	2.1	2.7	15	
				5.83	189	49.1	28.6		0.6	0.9	2.4	2.4	-	21	
				7.28	236	76.7	44.8		0.6	1.2	2.7	2.7	-	27	
90° Air Pattern	610	610	203	4.37	142	29.4	17.9	-2.8	1.2	1.8	2.4	1.5	2.4	10	
				5.83	189	52.3	31.9		1.5	2.4	3.6	1.8	2.7	18	
				7.28	236	81.7	49.8		0.9	2.1	2.4	1.8	2.4	26	
90° Air Pattern	610	610	203	4.37	142	29.4	17.9	-8.3	1.2	1.5	2.1	1.8	2.7	10	
				5.83	189	52.3	31.9		1.2	1.8	2.7	2.1	-	18	
				7.28	236	81.7	49.8		1.5	2.1	3.3	2.4	-	26	
90° Air Pattern	305	1219	203	4.37	142	57.1	45.6	-2.8	0.6	1.2	2.4	0.6	1.2	18	
				5.83	189	57.0	36.6		0.9	1.2	2.7	0.9	1.2	26	
				7.28	236	89.2	57.3		1.2	1.8	3.0	0.9	1.5	32	
90° Air Pattern	305	1219	203	4.37	142	57.1	45.6	-8.3	0.6	0.9	2.1	0.6	1.5	18	
				5.83	189	57.0	36.6		0.6	1.2	2.4	1.2	2.1	26	
				7.28	236	89.2	57.3		0.9	1.8	2.7	1.5	2.4	32	

NOTES: Air distribution within a space is strongly affected by the temperature difference between supply and room air (ΔT). In most cases, the unit supplies air colder than the room, typically at about $-2.8^\circ\text{C } \Delta T$. Return air should be exhausted with low sidewall return grilles for optimum performance. For maximum throw column, see isovel below.

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