

**XG-AFL FORMATIONS PERFORMANCE DATA**  
**2 SLOT STANDARD BLADE HORIZONTAL THROW WITH PLENUM**

Two Slot — 1" Slot Width	Horizontal Throw	8" Oval Inlet	2 ft.	CFM	115	145	175	205	235	260	290	320
				Ps	.046	.072	.103	.140	.183	.232	.286	.346
Pt	.054	.084	.121	.165	.215	.271	.335	.405				
NC	-	16	22	27	31	35	38	40				
Throw	7-11-16	9-13-18	11-14-19	12-15-21	13-16-22	14-17-24	14-18-25	15-19-26				
Two Slot — 1" Slot Width <td rowspan="2">Horizontal Throw <td rowspan="2">10" Oval Inlet <td rowspan="2">2 ft.</td> <td>CFM</td> <td>235</td> <td>290</td> <td>350</td> <td>410</td> <td>465</td> <td>525</td> <td>580</td> <td>640</td> </td></td>	Horizontal Throw <td rowspan="2">10" Oval Inlet <td rowspan="2">2 ft.</td> <td>CFM</td> <td>235</td> <td>290</td> <td>350</td> <td>410</td> <td>465</td> <td>525</td> <td>580</td> <td>640</td> </td>	10" Oval Inlet <td rowspan="2">2 ft.</td> <td>CFM</td> <td>235</td> <td>290</td> <td>350</td> <td>410</td> <td>465</td> <td>525</td> <td>580</td> <td>640</td>	2 ft.	CFM	235	290	350	410	465	525	580	640
				Ps	.051	.080	.115	.156	.204	.257	.318	.384
Pt	.083	.129	.186	.254	.329	.418	.513	.622				
NC	-	18	24	29	33	37	40	42				
Throw	10-15-22	12-18-25	15-19-28	17-21-30	18-22-32	19-24-34	20-25-35	21-26-37				
Two Slot — 1" Slot Width <td rowspan="2">Horizontal Throw <td rowspan="2">10" Oval Inlet <td rowspan="2">4 ft.</td> <td>CFM</td> <td>295</td> <td>365</td> <td>440</td> <td>510</td> <td>585</td> <td>655</td> <td>730</td> <td>800</td> </td></td>	Horizontal Throw <td rowspan="2">10" Oval Inlet <td rowspan="2">4 ft.</td> <td>CFM</td> <td>295</td> <td>365</td> <td>440</td> <td>510</td> <td>585</td> <td>655</td> <td>730</td> <td>800</td> </td>	10" Oval Inlet <td rowspan="2">4 ft.</td> <td>CFM</td> <td>295</td> <td>365</td> <td>440</td> <td>510</td> <td>585</td> <td>655</td> <td>730</td> <td>800</td>	4 ft.	CFM	295	365	440	510	585	655	730	800
				Ps	.056	.088	.126	.172	.224	.283	.349	.422
Pt	.107	.165	.239	.323	.423	.533	.660	.795				
NC	-	20	26	31	35	38	41	43				
Throw	13-20-25	17-24-28	20-26-31	23-28-33	25-30-35	26-32-38	27-34-40	29-35-42				
Two Slot — 1" Slot Width <td rowspan="2">Horizontal Throw <td rowspan="2">10" Oval Inlet <td rowspan="2">4 ft.</td> <td>CFM</td> <td>115</td> <td>145</td> <td>175</td> <td>205</td> <td>235</td> <td>260</td> <td>290</td> <td>320</td> </td></td>	Horizontal Throw <td rowspan="2">10" Oval Inlet <td rowspan="2">4 ft.</td> <td>CFM</td> <td>115</td> <td>145</td> <td>175</td> <td>205</td> <td>235</td> <td>260</td> <td>290</td> <td>320</td> </td>	10" Oval Inlet <td rowspan="2">4 ft.</td> <td>CFM</td> <td>115</td> <td>145</td> <td>175</td> <td>205</td> <td>235</td> <td>260</td> <td>290</td> <td>320</td>	4 ft.	CFM	115	145	175	205	235	260	290	320
				Ps	.037	.058	.083	.112	.147	.185	.229	.276
Pt	.041	.064	.092	.125	.163	.205	.254	.307				
NC	-	16	22	27	31	35	38	40				
Throw	7-11-16	9-13-18	11--14-19	12-15-21	13-16-22	14-17-24	14-18-25	15-19-26				
Two Slot — 1" Slot Width <td rowspan="2">Horizontal Throw <td rowspan="2">10" Oval Inlet <td rowspan="2">5 ft.</td> <td>CFM</td> <td>235</td> <td>290</td> <td>350</td> <td>410</td> <td>465</td> <td>525</td> <td>580</td> <td>640</td> </td></td>	Horizontal Throw <td rowspan="2">10" Oval Inlet <td rowspan="2">5 ft.</td> <td>CFM</td> <td>235</td> <td>290</td> <td>350</td> <td>410</td> <td>465</td> <td>525</td> <td>580</td> <td>640</td> </td>	10" Oval Inlet <td rowspan="2">5 ft.</td> <td>CFM</td> <td>235</td> <td>290</td> <td>350</td> <td>410</td> <td>465</td> <td>525</td> <td>580</td> <td>640</td>	5 ft.	CFM	235	290	350	410	465	525	580	640
				Ps	.041	.064	.092	.125	.163	.206	.254	.307
Pt	.057	.089	.128	.175	.227	.288	.354	.429				
NC	-	18	24	29	33	37	40	42				
Throw	10-15-22	12-18-25	15-19-28	17-21-30	18-22-32	19-24-34	20-25-35	21-26-37				
Two Slot — 1" Slot Width <td rowspan="2">Horizontal Throw <td rowspan="2">10" Oval Inlet <td rowspan="2">5 ft.</td> <td>CFM</td> <td>295</td> <td>365</td> <td>440</td> <td>510</td> <td>585</td> <td>655</td> <td>730</td> <td>800</td> </td></td>	Horizontal Throw <td rowspan="2">10" Oval Inlet <td rowspan="2">5 ft.</td> <td>CFM</td> <td>295</td> <td>365</td> <td>440</td> <td>510</td> <td>585</td> <td>655</td> <td>730</td> <td>800</td> </td>	10" Oval Inlet <td rowspan="2">5 ft.</td> <td>CFM</td> <td>295</td> <td>365</td> <td>440</td> <td>510</td> <td>585</td> <td>655</td> <td>730</td> <td>800</td>	5 ft.	CFM	295	365	440	510	585	655	730	800
				Ps	.045	.070	.101	.137	.179	.227	.279	.338
Pt	.071	.110	.159	.215	.281	.354	.438	.528				
NC	-	20	26	31	35	38	41	43				
Throw	13-20-25	17-24-28	20-26-31	23-28-33	25-30-35	26-32-38	27-34-40	29-35-42				

**XG-AFL FORMATIONS PERFORMANCE DATA**  
**2 SLOT STANDARD BLADE HORIZONTAL THROW WITH PLENUM**

Two Slot — 1.5" Slot Width	Horizontal Throw	8" Oval Inlet	2 ft.	CFM	125	160	190	220	255	285	320	350		
				Ps	.045	.071	.102	.140	.183	.232	.287	.347		
				Pt	.054	.086	.123	.168	.221	.279	.346	.419		
				NC	-	17	23	28	32	36	39	41		
				Throw	6-9-17	8-12-18	9-14-20	11-15-22	12-17-23	14-18-25	15-19-26	16-19-28		
		Horizontal Throw	4 ft.	CFM	250	315	380	445	510	570	635	700		
						Ps	.050	.079	.114	.155	.203	.258	.319	.386
						Pt	.086	.136	.198	.271	.355	.447	.553	.671
						NC	-	19	25	30	34	38	41	43
					Throw	9-13-23	11-16-26	13-20-29	15-22-31	18-23-33	20-25-35	21-26-37	22-28-39	
				5 ft.	CFM	315	395	475	555	635	715	795	875	
						Ps	.055	.087	.125	.171	.224	.283	.350	.424
						Pt	.113	.177	.256	.350	.458	.581	.718	.870
						NC	-	21	27	32	36	39	42	45
					Throw	12-18-26	15-22-29	18-27-32	21-29-35	24-31-37	27-33-39	29-35-41	30-37-44	
Two Slot — 1.5" Slot Width	Horizontal Throw		12" Oval Inlet	2 ft.	CFM	125	160	180	220	255	285	320	350	
					Ps	.031	.049	.071	.098	.128	.162	.200	.243	
					Pt	.034	.054	.078	.106	.139	.177	.219	.265	
					NC	-	17	22	28	32	35	38	41	
				Throw	6-9-17	8-12-18	9-14-20	11-15-22	12-17-23	14-18-25	15-19-26	16-19-28		
					4 ft.	CFM	250	315	380	445	510	570	635	700
		Ps		.035		.055	.079	.108	.142	.180	.222	.270		
		Pt		.046		.073	.105	.144	.189	.238	.295	.358		
		NC	-	19		24	30	34	37	40	43			
					Throw	9-13-23	11-16-26	13-20-29	15-22-31	18-23-33	20-25-35	21-26-37	22-29-39	
			5 ft.	CFM	315	395	475	555	635	715	795	875		
		Ps		.038	.060	.087	.119	.156	.198	.245	.296			
		Pt		.056	.088	.128	.175	.229	.290	.358	.434			
		NC		-	20	26	31	35	39	42	44			
					Throw	12-18-26	15-22-29	18-27-32	21-29-35	24-31-37	27-33-39	29-35-41	30-37-44	

**XG-AFL FORMATIONS PERFORMANCE DATA**  
**2 SLOT STANDARD BLADE HORIZONTAL THROW WITH PLENUM**

Two Slot — 2" Slot Width	Horizontal Throw	8" Oval Inlet	2 ft.	CFM	155	190	225	260	295	330	365	400				
				Ps	.065	.097	.137	.183	.235	.294	.360	.432				
				Pt	.079	.118	.166	.222	.286	.357	.437	.525				
				NC	-	16	21	26	30	33	36	38				
				Throw	9-13-18	11-14-20	13-16-22	14-17-24	15-18-25	15-19-27	16-20-28	17-21-29				
		12" Oval Inlet	4 ft.	CFM	310	380	450	520	590	560	730	800				
						Ps	.072	.108	.152	.203	.261	.327	.400	.480		
						Pt	.128	.192	.270	.360	.464	.580	.710	.853		
						NC	-	18	23	28	32	35	38	40		
						Throw	9-14-26	11-17-29	14-20-31	16-23-34	18-25-36	20-27-38	22-28-40	24-29-42		
				5 ft.	CFM	390	475	565	650	740	825	915	1000			
						Ps	.079	.119	.167	.223	.287	.359	.440	.528		
						Pt	.168	.250	.353	.469	.606	.756	.927	1.110		
						NC	-	19	24	29	33	36	39	42		
						Throw	12-19-29	15-23-32	18-27-35	21-31-37	24-34-40	27-36-42	29-38-44	32-39-47		
Two Slot — 2" Slot Width	Horizontal Throw		12" Oval Inlet	2 ft.	CFM	155	190	225	260	295	330	365	400			
					Ps	.032	.048	.067	.089	.115	.143	.175	.211			
					Pt	.036	.054	.076	.101	.130	.163	.199	.239			
		NC			-	16	21	26	30	33	36	38				
							Throw	6-10-18	8-12-20	10-14-22	11-17-24	13-18-25	14-19-27	16-20-28	17-21-29	
						4 ft.	CFM	310	380	450	520	590	660	730	800	
								Ps	.035	.053	.074	.099	.127	.159	.195	.234
								Pt	.052	.079	.110	.147	.190	.238	.291	.349
								NC	-	18	23	28	32	35	38	40
							Throw	9-14-26	11-17-29	14-20-31	16-23-34	18-25-36	20-27-38	22-28-40	24-29-42	
						5 ft.	CFM	390	475	565	650	740	825	915	1000	
								Ps	.039	.058	.081	.109	.140	.175	.214	.257
								Pt	.066	.099	.139	.185	.238	.297	.365	.437
				NC	-		19	24	29	33	36	39	42			
				Throw	12-19-29	15-23-32	18-27-35	21-31-37	24-34-40	27-36-42	29-38-44	32-39-47				

**XG-AFL FORMATIONS PERFORMANCE DATA**  
**2 SLOT STANDARD BLADE HORIZONTAL THROW WITH PLENUM**

Two Slot — 2.5" Slot Width	Horizontal Throw	10" Oval Inlet	2 ft.	CFM	210	255	300	345	390	430	475	520
				Ps	.061	.088	.122	.160	.203	.252	.306	.365
Pt	.074	.108	.148	.195	.248	.307	.373	.445				
NC	-	18	23	27	31	34	37	39				
Throw	8-12-21	10-15-24	11-17-25	13-19-27	15-20-29	16-22-31	18-23-32	19-24-34				
Two Slot — 2.5" Slot Width <td rowspan="2">Horizontal Throw <td rowspan="2">10" Oval Inlet <td rowspan="2">4 ft.</td> <td>CFM</td> <td>425</td> <td>510</td> <td>600</td> <td>690</td> <td>775</td> <td>865</td> <td>950</td> <td>1040</td> </td></td>	Horizontal Throw <td rowspan="2">10" Oval Inlet <td rowspan="2">4 ft.</td> <td>CFM</td> <td>425</td> <td>510</td> <td>600</td> <td>690</td> <td>775</td> <td>865</td> <td>950</td> <td>1040</td> </td>	10" Oval Inlet <td rowspan="2">4 ft.</td> <td>CFM</td> <td>425</td> <td>510</td> <td>600</td> <td>690</td> <td>775</td> <td>865</td> <td>950</td> <td>1040</td>	4 ft.	CFM	425	510	600	690	775	865	950	1040
				Ps	.067	.098	.135	.178	.226	.280	.340	.406
Pt	.121	.176	.242	.319	.404	.502	.608	.727				
NC	-	20	25	29	33	36	39	41				
Throw	11-17-30	14-21-33	16-24-36	19-27-39	21-29-41	23-31-43	26-32-45	27-34-47				
Two Slot — 2.5" Slot Width <td rowspan="2">Horizontal Throw <td rowspan="2">10" Oval Inlet <td rowspan="2">5 ft.</td> <td>CFM</td> <td>530</td> <td>640</td> <td>750</td> <td>860</td> <td>970</td> <td>1080</td> <td>1190</td> <td>1300</td> </td></td>	Horizontal Throw <td rowspan="2">10" Oval Inlet <td rowspan="2">5 ft.</td> <td>CFM</td> <td>530</td> <td>640</td> <td>750</td> <td>860</td> <td>970</td> <td>1080</td> <td>1190</td> <td>1300</td> </td>	10" Oval Inlet <td rowspan="2">5 ft.</td> <td>CFM</td> <td>530</td> <td>640</td> <td>750</td> <td>860</td> <td>970</td> <td>1080</td> <td>1190</td> <td>1300</td>	5 ft.	CFM	530	640	750	860	970	1080	1190	1300
				Ps	.084	.123	.169	.222	.282	.350	.425	.507
Pt	.168	.245	.336	.442	.562	.696	.845	1.009				
NC	16	21	26	31	35	38	41	43				
Throw	15-23-34	18-28-37	22-32-40	25-37-43	28-39-46	31-41-48	34-43-51	37-45-53				
Two Slot — 2.5" Slot Width <td rowspan="2">Horizontal Throw <td rowspan="2">12" Oval Inlet <td rowspan="2">2 ft.</td> <td>CFM</td> <td>210</td> <td>255</td> <td>300</td> <td>345</td> <td>390</td> <td>430</td> <td>475</td> <td>520</td> </td></td>	Horizontal Throw <td rowspan="2">12" Oval Inlet <td rowspan="2">2 ft.</td> <td>CFM</td> <td>210</td> <td>255</td> <td>300</td> <td>345</td> <td>390</td> <td>430</td> <td>475</td> <td>520</td> </td>	12" Oval Inlet <td rowspan="2">2 ft.</td> <td>CFM</td> <td>210</td> <td>255</td> <td>300</td> <td>345</td> <td>390</td> <td>430</td> <td>475</td> <td>520</td>	2 ft.	CFM	210	255	300	345	390	430	475	520
				Ps	.038	.055	.076	.100	.127	.157	.191	.228
Pt	.046	.067	.092	.121	.154	.191	.232	.277				
NC	-	17	22	26	30	34	36	39				
Throw	8-12-21	10-15-24	11-17-25	13-19-27	15-20-29	16-22-31	18-23-32	19-24-34				
Two Slot — 2.5" Slot Width <td rowspan="2">Horizontal Throw <td rowspan="2">12" Oval Inlet <td rowspan="2">4 ft.</td> <td>CFM</td> <td>425</td> <td>510</td> <td>600</td> <td>690</td> <td>775</td> <td>865</td> <td>950</td> <td>1040</td> </td></td>	Horizontal Throw <td rowspan="2">12" Oval Inlet <td rowspan="2">4 ft.</td> <td>CFM</td> <td>425</td> <td>510</td> <td>600</td> <td>690</td> <td>775</td> <td>865</td> <td>950</td> <td>1040</td> </td>	12" Oval Inlet <td rowspan="2">4 ft.</td> <td>CFM</td> <td>425</td> <td>510</td> <td>600</td> <td>690</td> <td>775</td> <td>865</td> <td>950</td> <td>1040</td>	4 ft.	CFM	425	510	600	690	775	865	950	1040
				Ps	.042	.061	.084	.111	.141	.175	.212	.254
Pt	.075	.108	.149	.196	.249	.309	.375	.448				
NC	-	19	24	28	32	36	38	41				
Throw	11-17-30	14-21-33	16-24-36	19-27-39	21-29-41	23-31-43	26-32-45	27-34-47				
Two Slot — 2.5" Slot Width <td rowspan="2">Horizontal Throw <td rowspan="2">12" Oval Inlet <td rowspan="2">5 ft.</td> <td>CFM</td> <td>530</td> <td>640</td> <td>750</td> <td>860</td> <td>970</td> <td>1080</td> <td>1190</td> <td>1300</td> </td></td>	Horizontal Throw <td rowspan="2">12" Oval Inlet <td rowspan="2">5 ft.</td> <td>CFM</td> <td>530</td> <td>640</td> <td>750</td> <td>860</td> <td>970</td> <td>1080</td> <td>1190</td> <td>1300</td> </td>	12" Oval Inlet <td rowspan="2">5 ft.</td> <td>CFM</td> <td>530</td> <td>640</td> <td>750</td> <td>860</td> <td>970</td> <td>1080</td> <td>1190</td> <td>1300</td>	5 ft.	CFM	530	640	750	860	970	1080	1190	1300
				Ps	.046	.068	.093	.122	.155	.192	.234	.279
Pt	.097	.141	.194	.255	.324	.402	.488	.583				
NC	-	20	26	30	34	37	40	42				
Throw	15-23-34	18-28-37	22-32-40	25-37-43	28-39-46	31-41-48	34-43-51	37-45-53				

**XG-AFL FORMATIONS PERFORMANCE DATA**  
**2 SLOT STANDARD BLADE HORIZONTAL THROW WITH PLENUM**

Two Slot — 3" Slot Width	Horizontal Throw	10" Oval Inlet	2 ft.	CFM	195	240	280	320	365	405	450	490	
				Ps	.027	.039	.054	.072	.092	.114	.139	.166	
				Pt	.038	.056	.078	.102	.131	.163	.199	.238	
				NC	-	16	21	25	29	33	35	38	
				Throw	6-10-20	8-12-23	10-15-25	11-17-26	13-19-28	14-21-30	16-22-31	17-23-33	
			4 ft.	CFM	390	475	560	645	730	810	895	980	
					Ps	.030	.044	.060	.080	.102	.127	.155	.185
					Pt	.075	.111	.154	.203	.260	.322	.392	.470
					NC	-	18	23	27	31	35	37	40
					Throw	8-14-29	12-18-32	14-21-35	16-24-37	18-27-40	20-30-42	22-31-44	24-33-46
			5 ft.	CFM	490	595	700	805	910	1015	1120	1225	
					Ps	.041	.061	.085	.112	.143	.178	.216	.259
					Pt	.113	.166	.230	.304	.389	.484	.589	.705
					NC	-	19	24	29	33	36	39	41
					Throw	11-19-32	15-24-36	18-28-39	21-32-42	24-36-44	27-40-47	30-42-49	32-44-51
Two Slot — 3" Slot Width	Horizontal Throw	12" Oval Inlet	2 ft.	CFM	195	240	280	320	365	405	450	490	
				Ps	.022	.032	.044	.058	.075	.093	.113	.135	
				Pt	.028	.042	.058	.077	.098	.122	.149	.178	
				NC	-	-	20	24	28	32	35	37	
			Throw	6-10-20	8-12-23	10-15-25	11-17-26	13-19-28	14-21-30	16-22-31	17-23-33		
			4 ft.	CFM	390	475	560	645	730	810	895	980	
				Ps	.024	.035	.049	.065	.083	.103	.125	.150	
				Pt	.051	.076	.105	.140	.179	.221	.269	.323	
				NC	-	17	22	26	30	34	37	39	
			Throw	8-14-29	12-18-32	14-21-35	16-24-37	18-27-40	20-30-42	22-31-44	24-33-46		
			5 ft.	CFM	490	595	700	805	910	1015	1120	1225	
				Ps	.026	.039	.054	.071	.091	.113	.138	.165	
				Pt	.070	.103	.142	.188	.240	.298	.363	.435	
				NC	-	18	23	28	32	35	38	41	
			Throw	11-19-32	15-24-36	18-28-39	21-32-42	24-36-44	27-40-47	30-42-49	32-44-51		

**LINEAR DIFFUSERS AND GRILLES**
**FORMATIONS LINEAR DIFFUSERS**
**XG-AFL**

## PERFORMANCE NOTES FOR XG-AFL FORMATIONS SERIES

All data is tested in accordance with ANSI/ASHRAE 70-2006.

### DEFINITION OF UNITS

CFM Cubic Feet per Minute (air)

CFM/LF Cubic Feet per Minute per Linear Foot (air)

Velocity Velocity of air stream in Feet per Minute

Ps Negative static pressure (inches of water column)

NC Noise criterion, sound pressure level NC ratings are based on sound power level (Lw) re:  $10^{-12}$  watts minus a 10dB room attenuation in all octave bands

1. All pressures are given in inches of water.
2. Isothermal throws are given for velocities of 150, 100 and 50 FPM.
3. Throw values are based on a 1-way discharge from the slot with the controller set at 0 discharge. For 2-way discharges, throw is based upon the number and size of the slots throwing in each direction, with the total supply air flow split equally between all slots in the unit.
4. Data was collected in accordance to ASHRAE Standard 70-2006 "Method of Testing for Rating the Performance of Air Outlets and Inlets"
5. Correction factor tables are only to be used with continuous pressurized ceiling plenum performance data.

Table 1. NC Correction For Length

Length (feet)	2	4	6	8	10
Supply	-2	+0	+2	+3	+5
Return	+0	+3	+5	+6	+8

Table 2. Throw Correction Multiplier For Length

Length (feet)	2	4	8	10	12
Throw Correction	0.72	0	1.5	1.7	1.8