

# Engineering Data



## 659T/659TI/PFT/PFTI Series Performance

Average Face Velocity		300	400	500	600
659T Ak 2.440	CFM	730	975	1220	1465
	-Ps	.017	.030	.047	.067
PFT Ak 2.740	CFM	820	1095	1370	1645
	-Ps	.028	.050	.078	.113
659-TI w/12" collar Ak 2.230	CFM	670	890	1115	1340
	-Ps	.084	.147	.230	.330
w/14" collar Ak 2.260	CFM	680	905	1130	1355
	-Ps	.060	.105	.165	.240
w/16" collar Ak 2.320	CFM	695	930	1160	1390
	-Ps	.039	.068	.106	.155
PFTI w/12" collar Ak 2.320	CFM	770	1025	1280	1535
	-Ps	.098	.170	.265	.380
w/14" collar Ak 2.590	CFM	775	1035	1295	1555
	-Ps	.076	.125	.200	.283
w/16" collar Ak 2.630	CFM	790	1050	1315	1580
	-Ps	.055	.094	.145	.210

**Note:** Tested without filters. Typical capacity is 2 CFM per square inch of nominal filter area. Recommended face velocity is 300-450 FPM. Velocities higher will decrease filter performance, increase flow resistance, and possibly be of noise concern. Velocity measured 1" from face.

## 96AFBT/96AFBTI

Face Velocity		300	400	500	600	700
20 x 20 Ak 2.25	CFM	675	900	1125	1350	1575
	Static Pressure (in W.C.)	-0.024	-0.042	-0.065	-0.094	-0.128
Total Pressure (in W.C.)		-0.018	-0.032	-0.050	-0.072	-0.098

**Note:** Tested without filters. Typical capacity is 2 CFM per square inch of nominal filter area. Recommended face velocity is 300-450 FPM. Velocities higher will decrease filter performance, increase flow resistance, and possibly be of noise concern. Velocity measured 1" from face.

RE5T/RE5TI  
REF5T/REF5TI  
Rezzin Egg Crate  
RHF45T  
RH45T

Average Face Velocity		300	400	500	600	700	800	900	1000
RE5T/RE5TI 22 x 22 Ak 3.14	CFM	942	1256	1570	1884	2198	4464	5022	5320
	-Ps	.006	.001	.016	.022	.031			
46 x 22 Ak 6.68	CFM	2004	2672	3340	4008	4676			
	-Ps	.006	.001	.016	.022	.031			
RH45T 22 x 22 Ak 2.610	CFM	785	1045	1305	1565	1825			
	-Ps	.015	.030	.043	.062	.084			
46 x 22 Ak 5.460	CFM	1635	2180	2725	3270	3815			
	-Ps	.006	.001	.016	.022	.031			
REF5T*/REF5TI* 20 x 20 Ak 2.57	CF	771	1028	1285	1542	1799			
	-Ps	.003	.006	.010	.014	.019			
44 x 20 Ak 5.58	CFM	1674	2232	2790	3348	3906			
	-Ps	.003	.006	.009	.013	.018			
Rezzin Egg Crate 20 x 20 Ak 1.400	CFM	420	560	700	840	980			
	-Ps	.004	.008	.013	.018	.025			
RHF45T* 20 x 20 Ak 2.170	CFM	650	870	1085	1300	1520			
	-Ps	.015	.025	.040	.060	.080			
44 x 20 Ak 4.770	CFM	1430	1910	2385	2860	3340			
	-Ps	.015	.024	.039	.058	.078			

**Note:** Tested without filters. Typical capacity is 2 CFM per square inch of nominal filter area. Recommended face velocity is 300-450 FPM. Velocities higher will decrease filter performance, increase flow resistance, and possibly be of noise concern. Velocity measured 1" from face.

## 441 & 445

Neck Velocity		250	350	450	550	650	750	850	1000	1200
6" Diameter Ak .370 Ak .430	CFM	50	70	90	110	130	145	165	195	235
	Pc	.004	.009	.014	.021	.029	.036	.046	.065	.092
	NC	<20	<20	<20	<20	<20	22	26	33	36
8" Diameter Ak .450 Ak .530	CFM	85	120	155	190	225	260	295	350	420
	Pc	.006	.011	.018	.027	.037	.050	.064	.090	.127
	NC	<20	<20	<20	<20	22	27	33	35	38
10" Diameter Ak .530 Ak .620	CFM	135	190	245	300	355	410	465	545	655
	Pc	.009	.018	.030	.044	.062	.082	.105	.145	.212
	NC	<20	<20	<20	24	31	34	37	42	44
12" Diameter Ak .590 Ak .700	CFM	195	275	355	430	510	590	670	785	940
	Pc	.013	.026	.044	.064	.090	.120	.155	.215	.300
	NC	<20	<20	26	33	38	42	44	46	48
14" Diameter Ak .640 Ak .750	CFM	265	375	480	590	695	800	910	1070	1285
	Pc	.018	.036	.059	.089	.125	.165	.210	.295	.410
	NC	<20	22	29	36	42	>45	>45	>45	>45
16" Diameter Ak .750	CFM	350	500	650	800	950	1100	1250	1450	1700
	Pc	.024	.048	.072	.108	.144	.190	.240	.310	.410
	NC	<20	22	29	36	42	>45	>45	>45	>45

**Note:** The use of a balancing hood is recommended to balance the system.

NC is based on 10dB room attenuation (Re: 10<sup>-12</sup> watts) ASHRAE 36-72.  
Terminal Velocity of 75 FPM

## 442, 443 & 444 SurfAire®

Neck Velocity		250	350	450	550	650	750	850	1000	1200
6" Diameter Ak .430 Ak .430 Ak .430	CFM	50	70	90	110	130	145	165	195	235
	Pc	.004	.009	.014	.021	.029	.036	.046	.065	.094
	NC	<20	<20	<20	<20	<20	23	27	31	35
8" Diameter Ak .530 Ak .530 Ak .530	CFM	85	120	155	190	225	260	295	350	420
	Pc	.006	.012	.019	.029	.040	.054	.070	.098	.140
	NC	<20	<20	<20	<20	21	26	31	34	37
10" Diameter Ak .620 Ak .620 Ak .620	CFM	135	190	245	300	355	410	465	545	655
	Pc	.009	.017	.028	.043	.061	.082	.105	.145	.212
	NC	<20	<20	<20	22	29	35	38	42	46
12" Diameter Ak .700 Ak .700 Ak .700	CFM	195	275	355	430	510	590	670	785	940
	Pc	.013	.026	.044	.064	.090	.120	.155	.215	.300
	NC	<20	<20	<20	22	29	35	38	42	46
14" Diameter Ak .750 Ak .750 Ak .750	CFM	265	375	480	590	695	800	910	1070	1285
	Pc	.018	.036	.059	.089	.125	.165	.210	.295	.410
	NC	<20	22	29	36	42	>45	>45	>45	>45

**Note:** The use of a balancing hood is recommended to balance the system.  
NC is based on 10dB room attenuation (Re: 10<sup>-12</sup> watts) ASHRAE 36-72.  
Terminal Velocity of 75 FPM

\*443 throw S/L



## 673T, 673TI, 673TPI R6

6" Diameter Inlet Ak .730	CFM	100	150	200	225	250	275	300
	NC	<20	<20	21	24	27	30	32
	Static Pressure	-.057	-.127	-.226	-.287	-.354	-.428	-.509
8" Diameter Inlet Ak .795	CFM	150	200	250	300	400	500	550
	NC	<20	<20	<20	<20	25	31	36
	Static Pressure	-.040	-.072	-.112	-.161	-.287	-.448	-.542
10" Diameter Inlet Ak .880	CFM	300	400	500	600	700	800	850
	NC	<20	<20	<20	24	28	33	35
	Static Pressure	-.066	-.117	-.183	-.264	-.359	-.469	-.530
12" Diameter Inlet Ak .980	CFM	400	500	600	700	800	1000	1200
	NC	<20	<20	<20	<20	22	28	34
	Static Pressure	-.057	-.088	-.127	-.173	-.226	-.354	-.509
14" Diameter Inlet Ak 1.105	CFM	600	700	800	1000	1200	1400	1600
	NC	<20	<20	<20	20	24	28	34
	Static Pressure	-.069	-.094	-.122	-.191	-.275	-.374	-.489
16" Diameter Inlet Ak 1.240	CFM	800	1000	1200	1600	1800	2000	2200
	NC	<20	<20	<20	25	28	31	36
	Static Pressure	-.072	-.112	-.161	-.287	-.363	-.448	-.542