



**Models GEV, GIV
 Static Pressure Loss**

**MODELS GEV, GIV
 STATIC PRESSURE LOSS (Inches w.g.)(ducted system)**

Throat Velocity	100% (1:1 Ratio)	150% (1.5:1 Ratio)	175% (1.75:1 Ratio)	200% (2:1 Ratio)
	EXHAUST	EXHAUST	INTAKE	*INTAKE
300 FPM	.015	.005	.006	.005
400 FPM	.024	.011	.014	.013
500 FPM	.032	.013	.025	.021
600 FPM	.045	.020	.039	.034
700 FPM	.060	.035	.053	.051
800 FPM	.080	.047	.068	.066
900 FPM	.106	.065	.094	.086
1000 FPM	.133	.084	.118	.106
1100 FPM	.164	.103	.141	.129
1200 FPM	.198	.123	.166	.153

Note: add 78% to pressure loss if non-ducted for sudden expansion at throat.

Add to above *.03 - 18 mesh insect screen

*.02 - washable 1" filter (initial resistance)

*.04 - washable 2" filter (initial resistance)

Note: Intake ventilators "Hood velocity" should not exceed 600 FPM

NOTES:

(1) Given Hood Velocity (FPM)

- to Throat Velocity (FPM) x 1 = 100% Free Area
- x 1.5 = 150% Free Area
- x 1.75 = 175% Free Area
- x 2 = 200% Free Area

Example: 600 FPM Hood Velocity FPM x 2 (200%) = 1200 FPM Throat FPM

(Example): CFM Throat Velocity (Given)

- 9000 CFM
- 9000 CFM / 1000 Throat FPM = 9 Sq. Ft. Throat size required
- 9 Sq. Ft. = 36" x 36" Throat size

(2) Given Throat Velocity (FPM)

- to Hood Velocity (FPM) / 1 = 100% Free Area
- / 1.5 = 150% Free Area
- / 1.75 = 175% Free Area
- / 2 = 200% Free Area

Example: 1200 FPM Throat Velocity FPM / 2 (200%) = 600 FPM Hood FPM

(3) Throat Size

CFM / Throat Velocity (FPM) yields S.F. of Throat
 Example: 9000 CFM / 1000 Throat FPM = 9 Sq. Ft.

See above table for pressure loss
 1000 FPM (Throat Intake) 200% = .106 w.g. (ducted)

Job Name:	DRAWN BY: CLJ	DATE:	REV. DATE:
Location:			11-3-06
Architect:			
Engineer:	REV. NO. 6	APPROVED BY: BGT	DWG. NO.:
Contractor:			F-10