FAN POWER CONSUMPTION — MECH-4C

PROJECT NAME:	DATE:

NOTE: *Provide one copy of this worksheet for each fan system with a total fan system horsepower greater than 25 hp for Constant Air Volume (CAV) Fan Systems or Variable Air Volume (VAV) Systems when using the Prescriptive Approach. See* ***Power Consumption of fans§144(c).***

A	B	C	D	E	F
FAN DESCRIPTION	**DESIGN BRAKE HP**	**EFFICIENCY**		**NUMBER OF FANS**	**PEAK WATTS** B x E x 746 / (C x D)
		MOTOR	**DRIVE**		

Totals and Adjustments

FILTER PRESSURE ADJUSTMENT Equation 144-A in §144(c) of the Energy Standards.	1) TOTAL FAN SYSTEM POWER (WATTS, SUM COLUMN F)	
A) If filter pressure drop (SP_a) is greater than 1 inch W. C. or 245 Pascal then enter SP_a on line 4. Enter Total Fan pressure drop across the fan (SP_f) on Line 5.	2) SUPPLY DESIGN AIRFLOW (CFM)	
	3) TOTAL FAN SYSTEM POWER INDEX (Row 1 / Row 2)[1]	W/CFM
	4) SP_a	
B) Calculate Fan Adjustment and enter on line 6.	5) SP_f	
C) Calculate Adjusted Fan Power Index and enter on Row 7	6) Fan Adjustment = $1-(SP_a - 1)/SP_f$	
	7) ADJUSTED FAN POWER INDEX (Line 3 x Line 6)[1]	W/CFM

1. TOTAL FAN SYSTEM POWER INDEX or ADJUSTED FAN POWER INDEX must not exceed 0.8 w/cfm for Constant Volume systems or 1.25 w/cfm for VAV systems.