

**IMBALANCE @ CEC (Critical Exhaust Condition)  
for systems with spillage susceptible combustion appliances**

**W-3C  
line #**

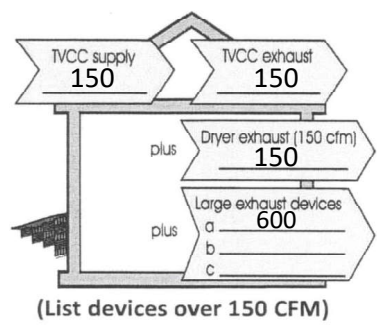
<b>1. FLOOR AREA</b>	Total Floor Area	4384	ft <sup>2</sup>	301
(total heated floor area including basement; count crawl space at 1/2 actual area)				

<b>2. ASSUMED AIR CHANGES PER HOUR AT 50 PASCAL'S</b>				
Tight R-2000	0.5 ACH	Typical R-2000	1.0 ACH	Prairies/North (new) 1.0 ACH
Atlantic (new)	1.5 ACH	Other provinces (new)	1.4 ACH	Older homes 2.5 ACH
or actual test _____				House ACH50 <u>1.4</u>

<b>3. COMBUSTION APPLIANCE DEPRESSURIZATION LIMIT</b>				
<u>OTHER LIMIT = flow factor</u>	If spillage susceptible = -5pa, flow factor = 0.022		Depressurization Limit @ CEC	320
-5 to -10pa	0.022			
-10 to -20pa	0.036	if "other" appliance, limit =		
-20 to -30pa	0.059	manufacturer's rating = _____ pa		
-30 to -40pa	0.080			
-40 to -50pa	0.101	for flow factor use chart at left		
-50 and over	0.143		Flow Factor <u>0.036</u>	321

<b>4. ALLOWABLE NET EXHAUST</b>				
Floor Area (301)	4384	ft <sup>2</sup> x ACH50 (302)	1.4	x Flow Factor(321) 0.036 =
				Allowable Net Exhaust @ CEC <u>221</u> cfm

<b>5. ACTUAL NET EXHAUST</b>				
			TVCC Exhaust	323
			150	cfm
			- minus	
			TVCC Supply	324
			150	cfm
			+ plus	
			Dryer Exhaust (default 150)	325
			150	cfm
			+ plus	
			Large Exhaust Device over 150 cfm (a)	325a
			600	cfm
			+ plus	
			Large Exhaust Device over 150 cfm (b)	325b
				cfm
			+ plus	
			Large Exhaust Device over 150 cfm (c)	325c
				cfm
			= equals	
			Actual Net Exhaust @ CEC	326
			750	cfm



<b>6. REQUIRED MAKE-UP AIR FLOW</b>				
			Actual Net Exhaust @ CEC (line 326)	327
			750	cfm
			- minus	
			Allowable Net Exhaust @ CEC (line 322)	328
			221	cfm
			= equals	
			Required Make-Up Airflow @ CEC	329
			529	cfm
			@ Depressurization Limit (line 320)	330
				pa

**Note:**  
If **Actual** Net Exhaust is **less** than **Allowable** Net Exhaust **no action** is required.

<b>7. DESCRIPTION OF MAKE-UP AIR SYSTEM</b>				
Electro Industries EM-MA10-240-1-10 625 cfm makeup air unit with 10kW electric backup				

<b>8. ON-SITE TEST DEPRESSURIZATION TEST</b>	<input type="checkbox"/> Required	<input checked="" type="checkbox"/> Not Required	328
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Prepared By: Efficient Home Design and Solutions	HRAI #:	Job Name:	
Signature:	Date:	Job #:	Official Use: