

Date of Test: 31/03/2022 Test File: CombindResult

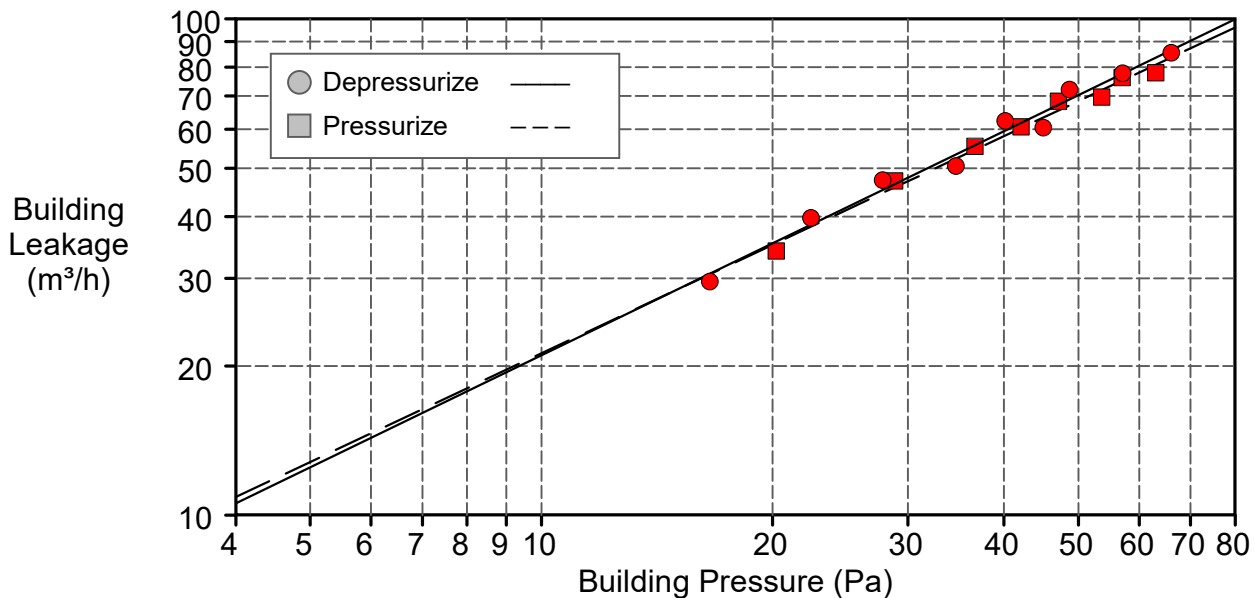
Technician: Sam Parish
 Project Number: 1909

Customer: Sanjay Thakur
 22 Fred Hollows Way
 Glenleith
 Dunedin, Otago 9010
 Phone:
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Building Address: Kanuka House
 22 Fred Hollows Way
 Glenleith
 Dunedin, Otago 9010

Test Results at 50 Pascals:	Depressurization	Pressurization	Average
q ₅₀ : m ³ /h (Airflow)	70 (+/- 4.8 %)	68 (+/- 3.3 %)	69
n ₅₀ : 1/h (Air Change Rate)	0.22	0.22	0.22
qF50 :			
qE50 : m ³ /(h·m ² Envelope Area)	0.28	0.27	0.28
Leakage Areas:			
ELA ₅₀ : m ²	0.0021 (+/- 3.3 %)	0.0021 (+/- 3.3 %)	0.0021
ELA _{F50} :			
ELA _{E50} : m ² /m ²	0.0000085	0.0000083	0.0000084
Building Leakage Curve:			
Air Flow Coefficient (C _{env}) m ³ /(h·Pa ⁿ)	3.7 (+/- 32.9 %)	4.0 (+/- 30.5 %)	
Air Leakage Coefficient (C _L) m ³ /(h·Pa ⁿ)	3.7 (+/- 32.9 %)	4.0 (+/- 30.5 %)	
Exponent (n)	0.750 (+/- 0.091)	0.727 (+/- 0.082)	
Coefficient of Determination (r ²)	0.98204	0.98751	

Test Standard: ISO 9972
 Test Mode: Depressurization and Pressurization
 Type of Test Method: Method 2 - Test of Building Envelope
 Purpose of Test: Prelining Test n₅₀ ≤ 0.6 1/h



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Building Information

Internal Volume, V (m³) (according to ISO)	317
Net Floor Area, A_F (m²) (according to ISO)	
Envelope Area, A_E (m²) (according to ISO)	251.7
Height (m)	
Uncertainty of Dimensions (%)	
Year of Construction	2022
Type of Heating	Heat Pump
Type of Air Conditioning	Heat Pump
Type of Ventilation	Balanced Heat Recovery
Building Wind Exposure	Highly Exposed Building
Wind Class	Calm

Equipment Information

Type	Manufacturer	Model	Serial Number	Custom Calibration Date
Fan	Energy Conservatory	Model 4 (230V)	CE5259	-
Micromanometer	Energy Conservatory	DG1000	674	15/10/2019

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Depressurization Test 1:

Environmental Data

Indoor Temperature (°C)	Outdoor Temperature (°C)	Barometric Pressure (Pa)
20.2	14.2	101325.0

Pre-Test

Baseline Pressure Data

Post-Test

Δp _{0,1-}	Δp _{0,1+}	Δp _{0,1}	Δp _{0,2-}	Δp _{0,2+}	Δp _{0,2}
-0.6	0.5	-0.4	-1.0	0.5	-0.5

Data Points - Semi-Automated Test (TTE 5.0.8.4)

Nominal Building Pressure (Pa)	Baseline adjusted Building Pressure (Pa)	Fan Pressure (Pa)	Nominal Flow q _r (m ³ /h)	Adjusted Flow q _{env} (m ³ /h)	Adjusted Flow q _L (m ³ /h)	% Error	Fan Configuration
-0.4	n/a	n/a					
-66.5	-66.1	48.8	87	85	86	-1.1	Ring D
-57.6	-57.1	40.4	79	77	78	0.2	Ring D
-49.1	-48.7	34.6	73	72	72	4.7	Ring D
-45.5	-45.0	24.5	61	60	60	-6.9	Ring D
-40.6	-40.1	26.0	63	62	62	4.7	Ring D
-35.1	-34.7	17.2	51	50	51	-5.2	Ring D
-28.2	-27.8	15.1	48	47	47	4.8	Ring D
-22.9	-22.4	62.7	40	40	40	3.2	Ring E
-17.0	-16.6	35.4	30	29	30	-3.5	Ring E
-0.5	n/a	n/a					

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Pressurization Test 1:

Environmental Data

Indoor Temperature (°C)	Outdoor Temperature (°C)	Barometric Pressure (Pa)
21.1	14.0	101325.0

Pre-Test

Baseline Pressure Data

Post-Test

Δp _{0,1-}	Δp _{0,1+}	Δp _{0,1}	Δp _{0,2-}	Δp _{0,2+}	Δp _{0,2}
-0.8	1.3	0.2	-0.8	1.1	-0.1

Data Points - Semi-Automated Test (TTE 5.0.8.4)

Nominal Building Pressure (Pa)	Baseline adjusted Building Pressure (Pa)	Fan Pressure (Pa)	Nominal Flow q _r (m ³ /h)	Adjusted Flow q _{env} (m ³ /h)	Adjusted Flow q _L (m ³ /h)	% Error	Fan Configuration
0.2	n/a	n/a					
63.2	63.1	218.3	77	78	78	-3.6	Ring E
57.2	57.1	208.8	75	76	76	1.3	Ring E
53.7	53.7	175.5	69	70	70	-3.1	Ring E
47.2	47.1	168.8	67	68	68	4.3	Ring E
42.2	42.1	134.2	60	61	61	0.5	Ring E
36.8	36.7	112.7	55	55	55	1.6	Ring E
28.9	28.8	82.5	47	47	47	3.0	Ring E
20.3	20.2	44.3	34	34	34	-3.6	Ring E
-0.1	n/a	n/a					

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Comments

Area based on TSL1. Volume based on TSL4.
Fan located in ground floor entrance door with external tube positioned around corner
away
from garage. No ventilation installed. All drainage sealed with tape, windows closed.
