



Protocol On-Site Test

Air Permeability



Test Object

Name:	Juntion Wall - Ducting
	Duct 12cm dia
	BlowerProof Liquid Brush
Test Date:	11-7-2014

Customer Information

Name:	Hevadex bvba
Address:	Smalle Heerweg 152 9080 Lochristi
Phone:	+32 475 73 85 46
Fax:	+32 9 270 33 44

Temperature, Barometric Pressure

Temperature Inside	23	°C
Temperature Outside	23	°C
Barometric Pressure	101325	Pa

Orifice Plate

Air Resistance Value c_d :	0,61	[-] (sharp-edged)
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Test

Orifice Diameter (cm)	Orifice Area (A_0) (cm ²)	Δp Wall/Box (Pa)	Δp Orifice (Pa)	Airflow through Orifice (m ³ /h)	Tolerance (%)	Airflow through Wall (m ³ /h)
—	Baseline $\Delta p \Rightarrow$		—			
1,50	1,77	-210,00	0,80	0,45	3,93	0,45
1,50	1,77	-180,00	0,30	0,28	-6,03	0,28
1,50	1,77	-140,00	0,10	0,16	2,39	0,16
—	Baseline $\Delta p \Rightarrow$	0,00	—			

Correlation Coefficient r :	0,995	Confidence interval	
$C_{Window/Door}$ [m ³ /(h Pa ^{0,5})]	0,000	max 21,91	min 0,00
$C_{Standard}$ [m ³ /(h Pa ^{0,5})]	0,000	max 22,25	min 0,00
n [-]	2,53	max 5,91	-min 0,85

Results

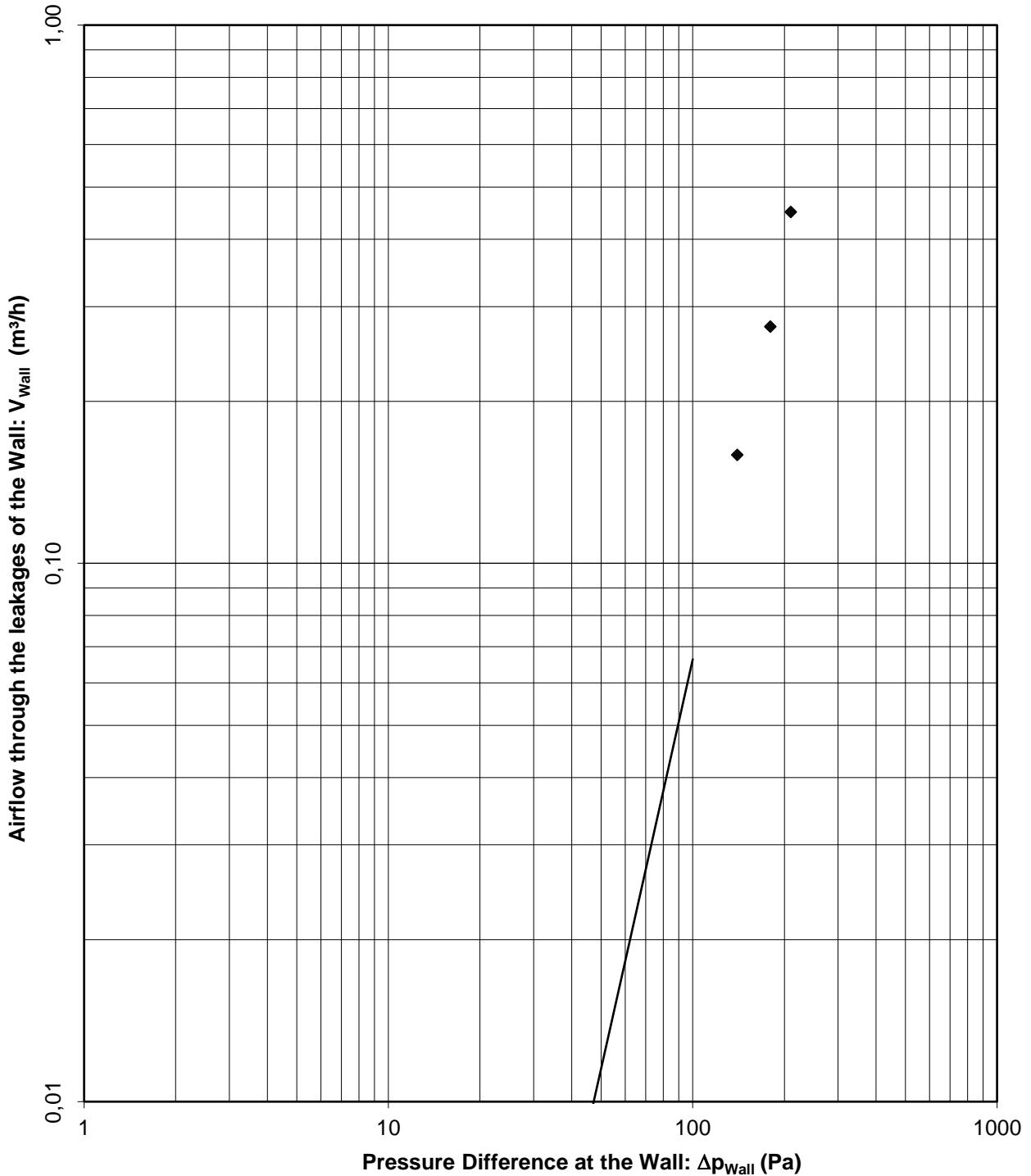
		Total Airflow
Pressure difference across the Wall (inside - outside):	50 Pascal	0,01 m ³ /hm ² +/- 10 %

Note: Airflow at Standard conditions (Temperature=20°C, barometric pressure=101325 Pa)

Business Info: Bruno Bailleul
BCB bvba
Edgard Tinelstraat 65
9040 Gent

sign

Graph: Juntion Wall - Ducting



◆ Airflow Depressurization (m³/h)

— Regression Line Depressurization (m³/h)

Test Object and Measurement System

Object: Juntion Wall - Ducting

Date: 11-7-2014

Basic formulas for the test

Formula:	$V = 0,36 * (2/\rho)^{0,5} * c_d * A_o * \Delta p^{0,5}$		
with:	ρ	Air Density	
	11-7-2014	Air Resistance value	
	A_o	Area of orifice	
	Δp	Pressure Difference at orifice	
Method:	Test of small airflows through round hole sharp edged		
	Source: Walther, Wilfried; 2003; 8, BlowerDoor Symposium		

Test object

Description:
 One passage of duct tubing of 12cm diameter was tested.
 One manual application of BlowerProof Liquid Brush.
 The leakages @ -50Pa were too small to measure.

The measurement took place at the Hevadex plant: Alfons Breakmanlaan - 9040 St-Amandsberg

Photo:



Measuring Equipment and Software

System:	Minneapolis BlowerDoor Model 4, DG-700		
Device Number:	Fan: <u>CE4255</u>	Pressure gauge: <u>62296</u>	Calibration: <u>1-11-2013</u>
Software:	<u>Teclog 2</u>		
