

Testing components

in the lab
and
on site



Testing air permeability of window-wall connection



Photos: © ISOPROC

Testing air permeability of brickwork / masonry joints



Photos: © ISOPROC

Testing air permeability of component joints



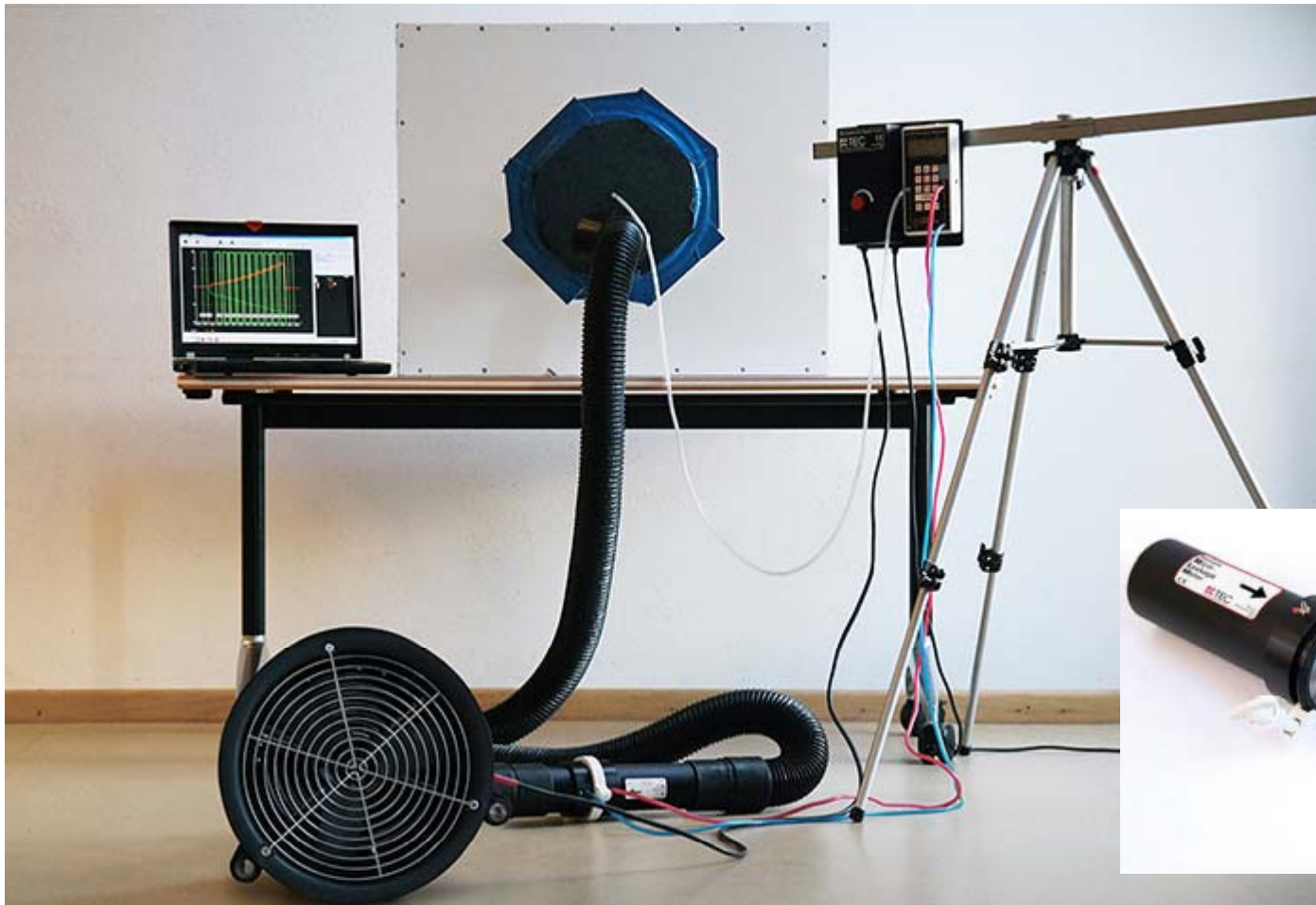
Photo: © ISOPROC

Testing air permeability of floor-wall connection

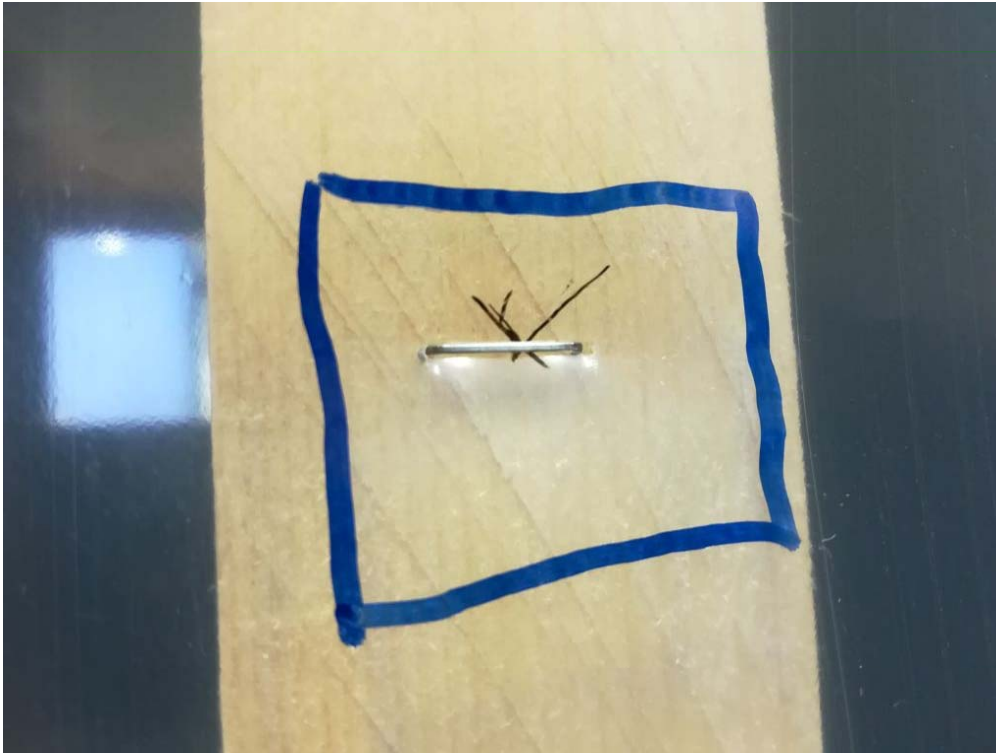


Photos: © ISOPROC

Testing of test objects in the laboratory

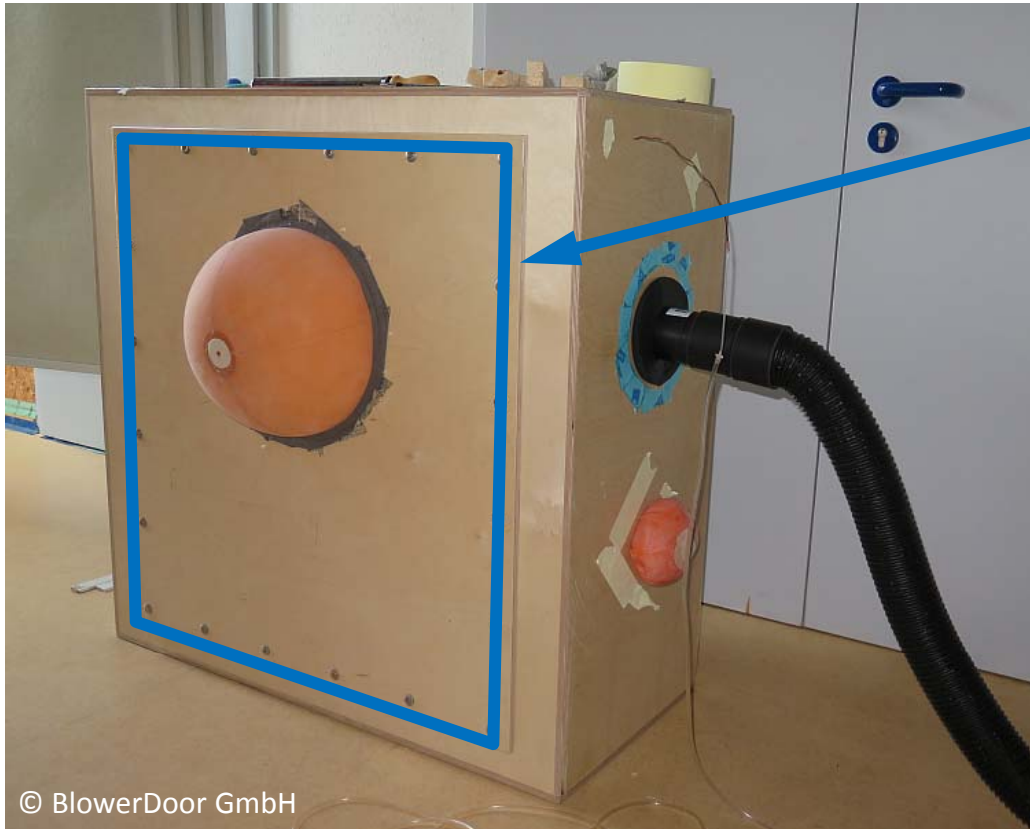


Measurement of individual leakages on the test bench



Photos: © Thomas Klingler, University of Innsbruck, Austria

Test chamber for testing with Micro Leakage Meter (MLM)

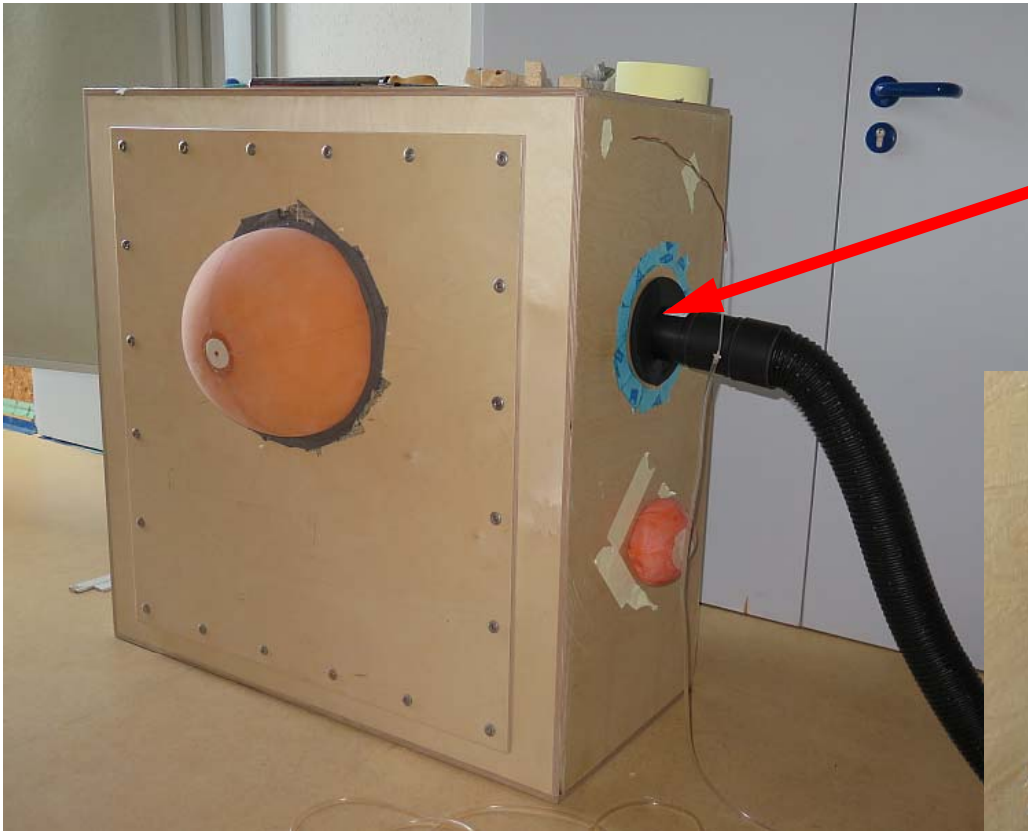


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Opening for
insertion of
different test
objects



Connection MLM hose



Opening for
MLM hose
connection

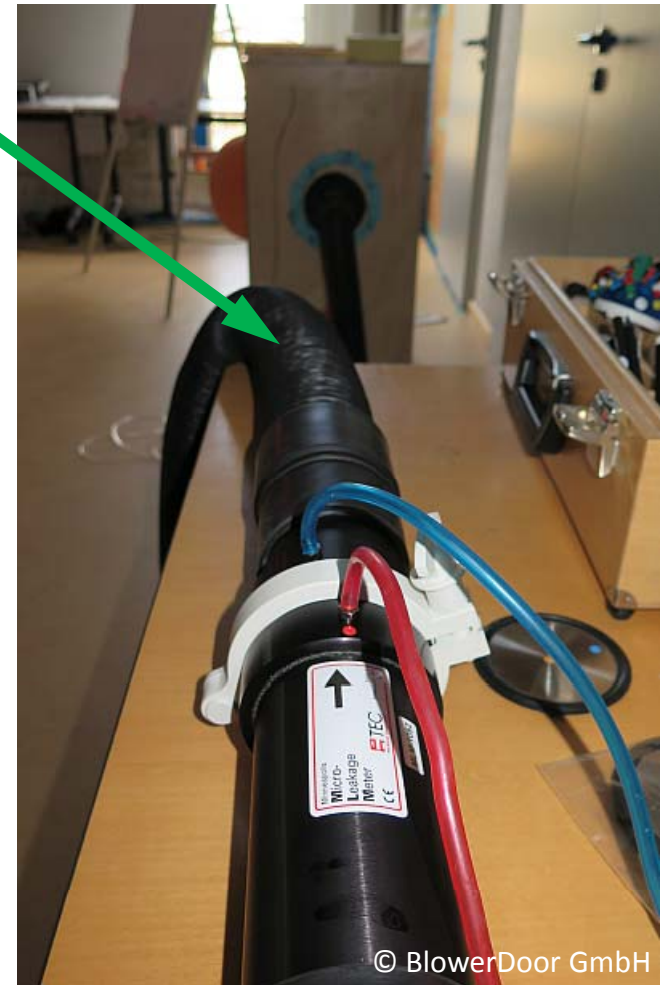
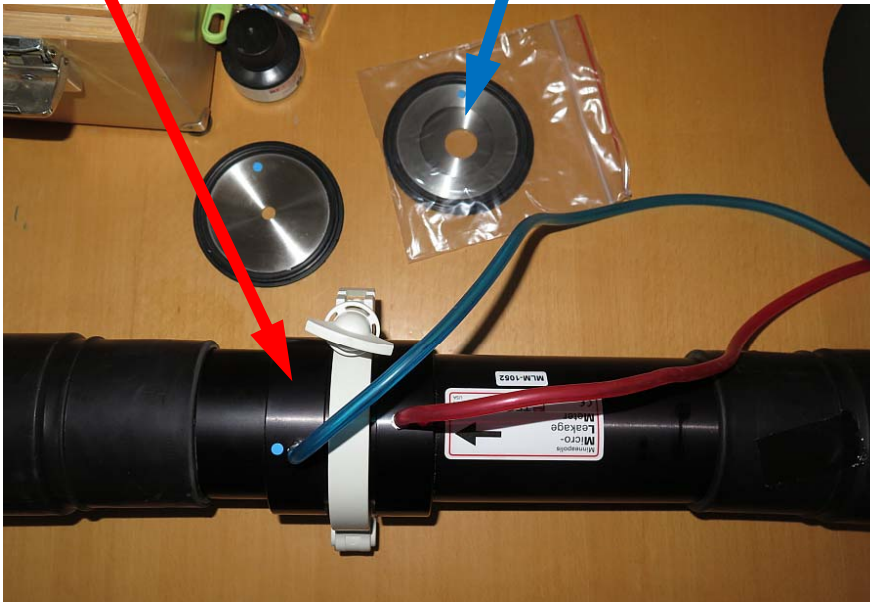


Micro Leakage Meter (MLM) with 4 disks

Micro Leakage
Meter (MLM)

4 discs with
different
measuring
ranges

Long
hose for
connection
MLM with
test box



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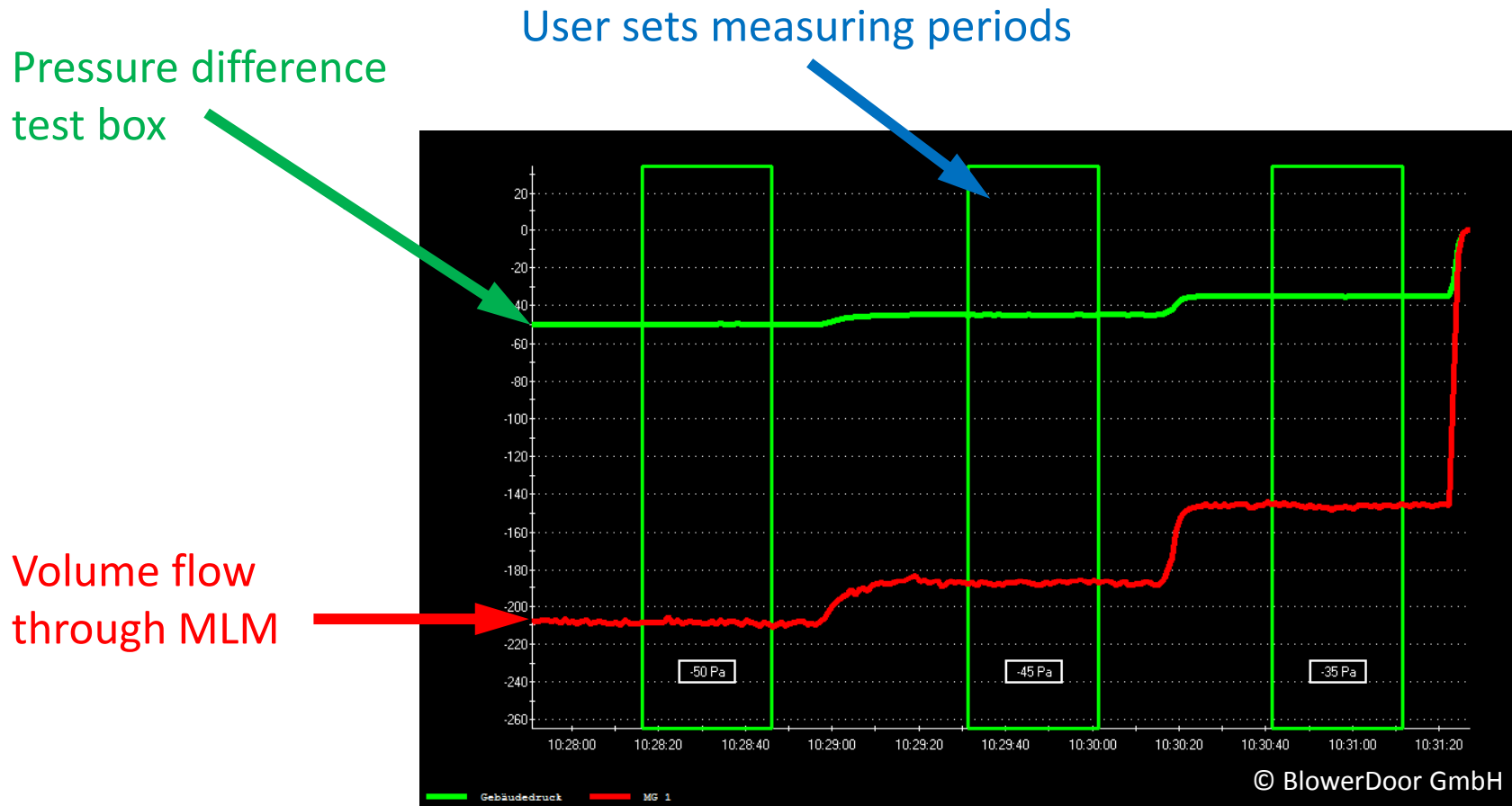
DG-1000 gauge and DuctBlaster B fan

DG-1000 for
measuring the
pressure difference
in the test box and
for measuring the
volume flow rate

Auxiliary fan (MiniFan DuctBlaster B)
for generating a volume flow



TECLOG 4 software for recording measuring values



TECLOG 4 software for evaluation

Airflow at 4, 10, 25, 50, 75, 100, 200 and 300 Pa

Leakage graph

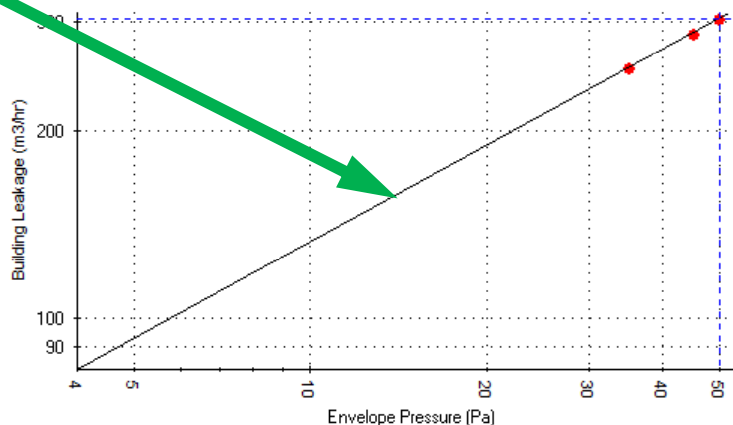


Table with measuring values

Label	Base?	start	end	nobs	Nominal Avg Pressure	Nominal Total Flow
nat Druck	True	364	393	30	0,02	0
-50 Pa	False	704	731	28	-49,85	303,1
-45 Pa	False	774	803	30	-45,01	286,8
-35 Pa	False	843	872	30	-35,01	252,5
nat nach	True	916	944	29	-0,15	0

Reporting Pressure (Pa)

Test to View

Test 1: Depressurization

Airflow at 50 Pascals
303 m3/h +/- 2,1 %
Range: 297 to 310
---- m3/h @50/sq ft

Leakage Areas
EqLA (10 Pa) = 148,0 cm2 +/- 14,3 %
ELA (4 Pa) = 89,2 cm2 +/- 23,2 %

Building Leakage Curve
Coef. (C) = 40,6 m3/h/Pa^n +/- 36,7 %
Exponent (n) = ,514 +/- 0,098
Correlation Coef. (r) = ,99989
Corr Coef Squared (r^2) = ,99978

Literature

- Due, Lars: The Blower Door measuring method "Bestimmung der Fugendurchlässigkeit von Fenstern und Fugen" used for decision of large buildings air tightness, BuildAir Symposium 2012
- Further presentations in the context of "30 years - 30 Applications and Testing Methods":

