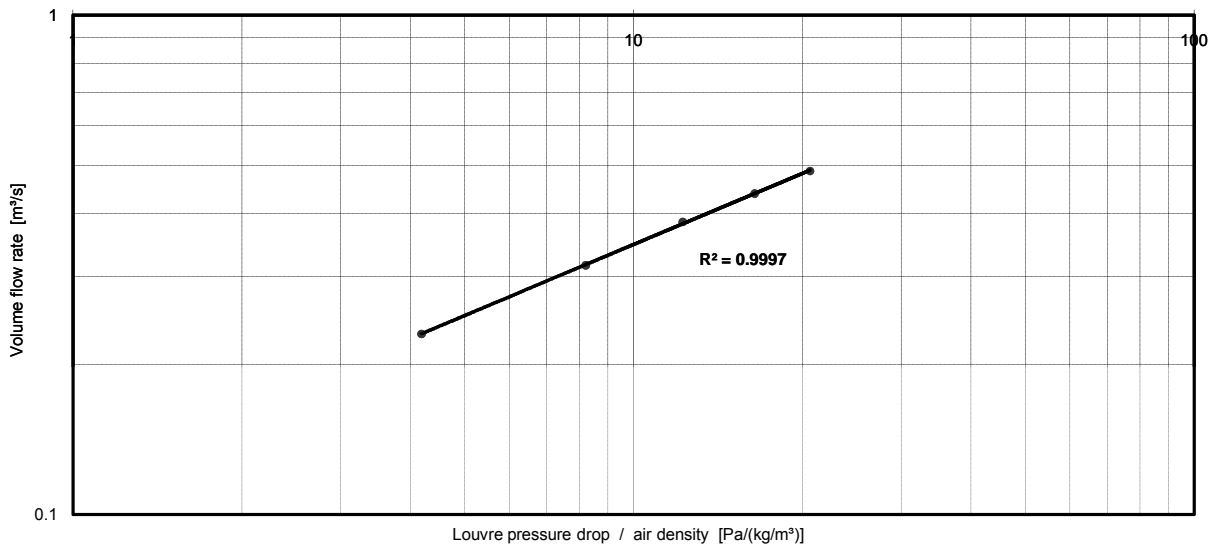


Louvre description	Møre Trafo transformator rist (uten filter)	Measured by: TER
Louvre core area	0.4794 [m ²]	Date: 16.okt.2009
Is the louvre symmetrical?	yes	Korrigert av PGS: 29.sep.2010
Entry or discharge test	entry	
Manometer for ISO orifice	DPM TT 570SV instr. # 5784, kalibrert	
Manometer for louvre	Swema 3000 instr. # 675919, kalibrert	
Flow area behind louvre	1 [m ²]	
Duct internal diameter (D)	300 [mm]	
ISO orifice tapping type	Corner [-]	
Dry bulb air temperature	21.2 [°C]	Humidity ratio
Relative humidity	28 [%]	Air density
Barometric pressure	1004.9 [mbar]	Dyn. viscosity
		0.00439539 [kg/kg]
		1.18615126 [kg/m ³]
		1.7968E-05 [Pa·m]

ISO orifice diameter (d)	ISO-orifice Δp_s	Calibration-corrected pressure (Δp_s)	Louvre static pressure drop (Δp_s)	Calibration-corrected pressure (Δp_s)	Corrected local static pressure loss (Δp_s)	True volume flowrate (q_v)	Louvre face velocity	Discharge coefficient	Variance from mean C_D	Entry loss coefficient	Variance from mean C_E
[mm]	[Pa]	[Pa]	[Pa]	[Pa]	[Pa]	[m ³ /s]	[m/s]	(C_D)	[%]	(C_E)	[%]
160	192	192	5.1	5.1	4.9636332	0.22987795	0.47951179	0.164	2.5 %	0.166	2.5 %
160	363	363	10.0	10.0	9.74325488	0.31542353	0.6579548	0.160	0.4 %	0.162	0.4 %
160	543	543	14.9	14.9	14.5169974	0.38525109	0.80361095	0.160	0.5 %	0.162	0.5 %
160	706	706	20.0	20.0	19.5029902	0.43885946	0.91543483	0.158	-1.2 %	0.160	-1.2 %
160	871	871	25.1	25.1	24.4878664	0.48704165	1.01594002	0.156	-2.1 %	0.158	-2.2 %



Summary

<p>Discharge coefficient</p> <p align="center">$C_D = 0.160$ EN 13030 Class = 4</p> <p>Equations:</p> $\frac{q_v}{A} = v = C_D \sqrt{\frac{2 \cdot \Delta p_t}{\rho}} \Leftrightarrow \Delta p_t = \frac{1}{C_D^2} \cdot \left(\frac{1}{2} \rho \cdot v^2 \right)$ <p>Examples:</p>	<p>Entry loss coefficient</p> <p align="center">$C_E = 0.162$ EN 13030 Class = 4</p> <p>Equations:</p> $\frac{q_v}{A} = v = C_E \sqrt{\frac{2 \cdot \Delta p_t}{\rho}} \Leftrightarrow \Delta p_t = \frac{1}{C_E^2} \cdot \left(\frac{1}{2} \rho \cdot v^2 \right)$ <p>Examples:</p>
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Nomenclature:

- q_v = Volume flow rate [m³/s]
- A = Core area of louvre [m²]
- v = Nominal velocity at face of louvre [m/s]
- Δp_t = Total pressure drop through louvre [Pa]
- ρ = Air density ≈ 1.2 [kg/m³]