

TSP HIGH VOLUME AIR SAMPLER CALIBRATION REPORT

Customer	Envir Service Co.,Ltd.			Date	January 22, 2026
Address	42 Raminthra 14 Yeak 9, Tha Raeng, Bangkok 10230			Start Time	9:30 AM
Sampler Number	TSP No.3	Transfer Standard Type	Orifice	Stop Time	9:55 AM
Motor Serial Number	TSP No.3	Calibrator Model	25A	Person	Mr.Pasagorn Samol
Recorder Serial Number	-	Calibrator Serial Number	307N		

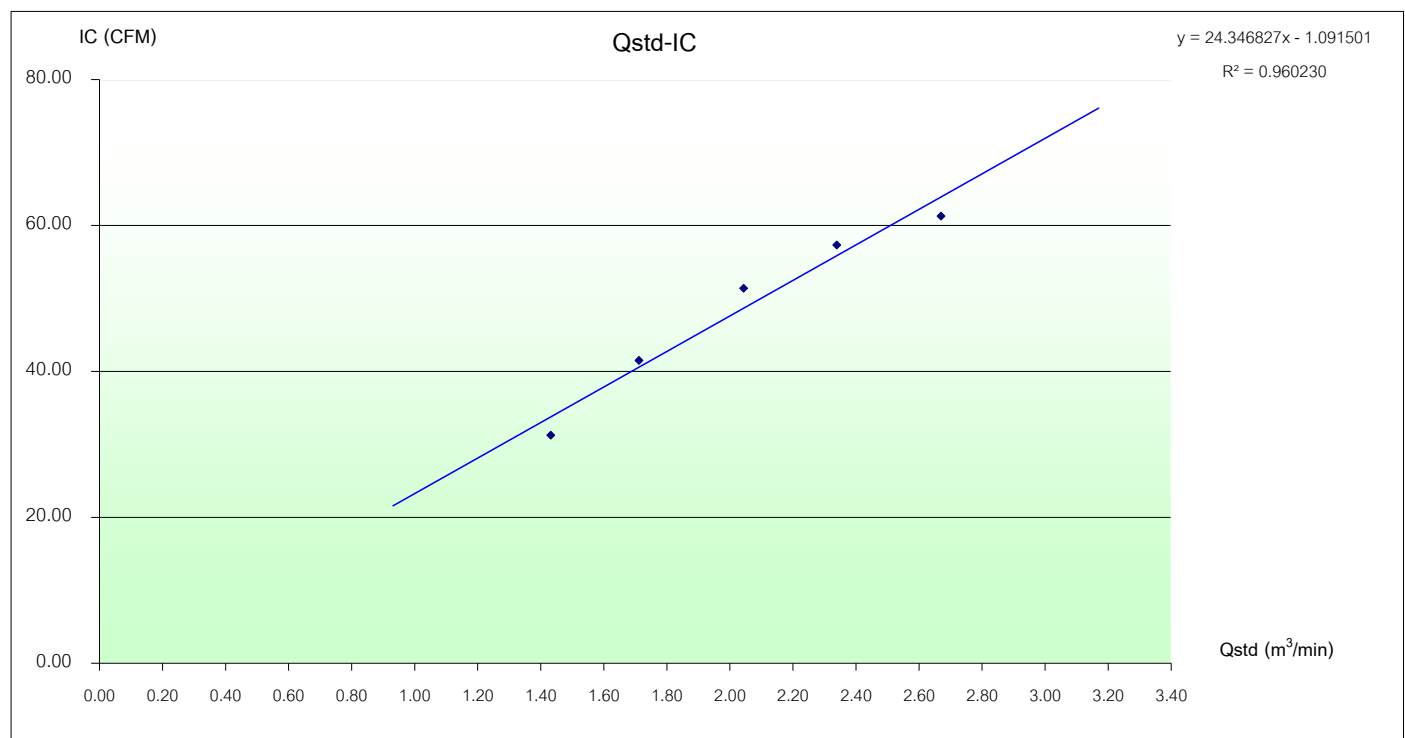
Calibration Orifice

Manufacture:	Graseby GMW	Qstd Slope:	1.29243
Model:	25A	Qstd Intercept:	-0.01962
Serial#:	307N	Calibration Date:	14-Dec-26

Plate No.	(Delta H)			(A)	(X)	(I)	(Y)	Temperature	Barometric Pressure	Start Meter	Stop Meter
	Positive	Negative	ΔH_2O	$[\Delta H_2O(Pa/P_{std})(T_{std}/T_a)]^{1/2}$	$Q_{std} = (1/m)[(A-b)]$ (m ³ /min)	Sample Flow Rate Indication (ft ³ /min)	$IC = I[(P_a/P_{std})(T_{std}/T_a)]^{1/2}$	(°C = °C+273)	(mmHg)		
5	1.9	1.8	8.7	2.92211	1.43134	32.0	31.26	305.0	760.0	10:40	-
7	2.8	2.7	12.5	3.50011	1.71145	42.0	41.51	305.1	760.0	-	-
10	4.0	3.9	17.9	4.18521	2.04345	52.0	51.39	305.0	760.0	-	-
13	5.3	5.2	23.5	4.79543	2.33917	58.0	57.32	305.1	760.0	-	-
18	6.4	6.3	30.7	5.47814	2.67001	62.0	61.28	305.1	760.0	-	10:35

Linear Regression Y ON X : Y= mX + b

1	Slope (m)	2.0635	Linear Equation		Average	305.1	760.0		
2	Intercept(b)	-0.03151	Set Point Flow Rate (X) (m ³ /min)		r ²	0.982631	0.982631	Pstd(mmHg)	760.0
3	Correlation Coefficient (r)	0.99993	Final Set Flow Rate = (I)		r	0.99127746	T _{NTP}		298.0
Result					0	(Pa/Pstd)*(Tstd/Ta)			0.976857012
						C=(Pa/Pstd)*(Tstd/Ta)^0.5			0.98836077



Calibrate By

PM10 HIGH VOLUME AIR SAMPLER CALIBRATION REPORT

Customer	ENVIR SERVICE CO., LTD.			Date	January 21, 2026
Address	42 Ramintra 14 Yeak 9, Tha Raeng, Bang Khen, Bangkok 10230			Start Time	10:00 AM
Sampler Number	PM10 No.3	Transfer Standard Type	Orifice	Stop Time	10:25 AM
Motor Serial Number	PM10 No.3	Calibrator Model	25A	Person	Mr.Pasagorn Samol
Recorder Serial Number	-	Calibrator Serial Number	307N		

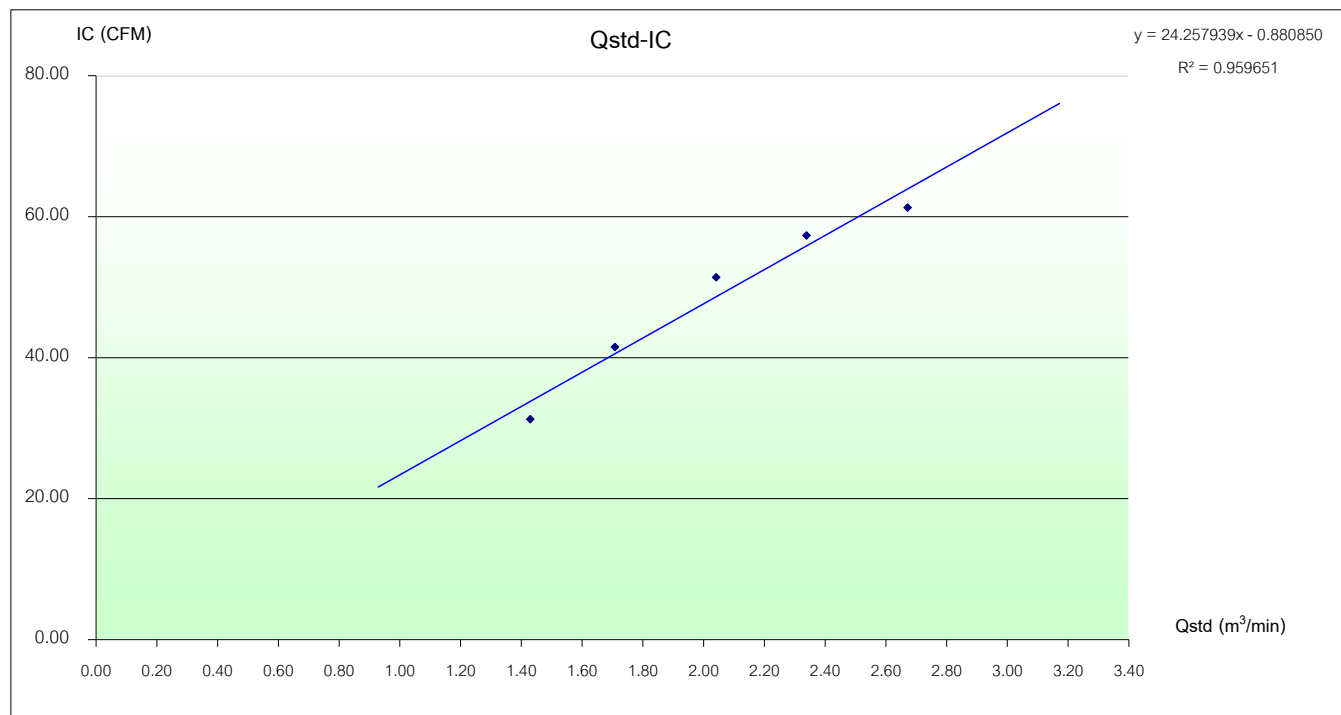
Calibration Orifice

Manufacture:	Graseby GMW	Qstd Slope:	1.29243
Model:	25A	Qstd Intercept:	-0.01962
Serial#:	307N	Calibration Date:	14-Dec-26

Plate No.	(Delta H)			(A)	(X)	(I)	(Y)	Temperature	Barometric Pressure	Start Meter	Stop Meter
	Positive	Negative	ΔH_2O	$[\Delta H_2O(Pa/P_{std})(T_{std}/T_a)]^{1/2}$	Qstd = $(I/m)[(A-b)]$ (m ³ /min)	Sample Flow Rate Indication (ft ³ /min)	$IC = I[[(P_a/P_{std})(T_{std}/T_a)]^{1/2}]$	(°K = °C+273)	(mmHg)		
5	1.9	1.8	8.7	2.91733	1.42903	32.0	31.26	305.0	760.0	9:30	-
7	2.8	2.7	12.5	3.49357	1.70828	42.0	41.51	305.1	760.0	-	-
10	4.0	3.9	17.9	4.18099	2.04141	52.0	51.39	305.0	760.0	-	-
13	5.3	5.2	23.5	4.79477	2.33885	58.0	57.32	305.1	760.0	-	-
18	6.4	6.3	30.8	5.48108	2.67144	62.0	61.28	305.2	760.0	-	9:55

Linear Regression Y ON X : Y= mX + b

1	Slope (m)	2.0635	Linear Equation		r^2	0.982631	Pstd(mmHg)	760.0
2	Intercept(b)	-0.03151	Set Point Flow Rrate (X) (m ³ /min)	1.133	r	0.99127746	T _{NTP}	298.0
3	Correlation Coefficient (r)	0.99993	Final Set Flow Rate = (I)	0	(Pa/Pstd)*(Tstd/Ta)		0.976792972	
Result						C=(Pa/Pstd)*(Tstd/Ta)^0.5		0.988328373



Analyzer Performance Test

Calibrated Date: 15 January 2026

Instruments Information

Analyzer Type : CO Analyzer

Model : 300

Manufacturer : API

Serial Number : 1461

Calibrator Unit

Dilutor Model : Dasibi Model 5008

Serial Number : 705

ZERO AIR Generator : API MODEL 701

Serial Number : 1924

Standard Gas Concentration

Nitric Oxide (NO) 55.47 PPM

Sulphur Dioxide (SO₂) 55.11 PPM

Carbon Monoxide (CO) 4,535 PPM

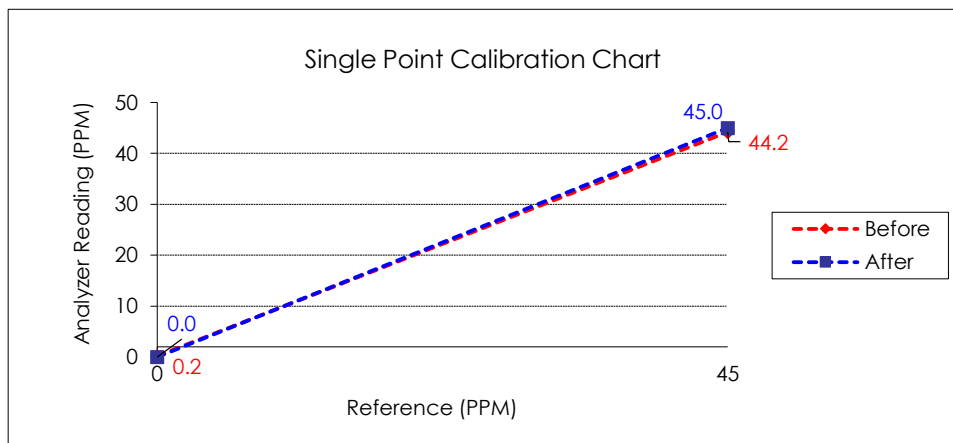
Cylinder number EB0129027

Expire Date: 29 Oct. 2027

Environment : Temperature 25.5 °C Humidity: 51 %RH

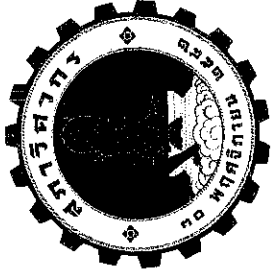
Calibration Report

	Zero			Span		
	Reference (PPM)	Reading (PPM)	Drift (PPM)	Reference (PPM)	Reading (PPM)	Drift%
Before	0.0	0.2	0.2	45.0	44.2	-1.8
After	0.0	0.0	0.0	45.0	45.0	0.0



Calibrate By





สภาวิศวกร

ตามพระราชบัญญัติวิศวกร พ.ศ. ๒๕๕๒
ออกโดยอนุบัญญัติไว้เพื่อแสดงว่า

บริษัท กรีน เอ็นไว เอนจิเนียริง จำกัด

ได้รับอนุญาตประกอบวิชาชีพวิศวกรรมควบคุม

เลขทะเบียน ๑๕๖๕/๖๒

ตั้งแต่วันที่ ๑๖ สิงหาคม ๒๕๖๗ ถึงวันที่ ๑๕ สิงหาคม ๒๕๗๐

