

VTG Data Center Cleaning Specialist, we realize how important your data is to your business. Your demand continuous availability from your data center therefore it must be clean and free of any contaminates or debris that might lead to an interruption or outage. Our service to be insured your facility meets today's stringent standards for high density servers.

What we are compliance and submitted

➡ For the clean room or Data center, our service provides you with the cleaning procedures and air cleanliness classification by particle concentration test that comply with ISO14644-1, FED.Std.209

ISO Class Number	Maximum allowable concentrations (particles/m ³) for articles equal to and greater than the considered sizes shown below						FS209E Designation*
	0.1µm	0.2µm	0.3µm	0.5µm	1µm	5µm	
1	10	–	–	–	–	–	
2	100	24	10	–	–	–	
3	1000	237	102	35	–	–	Class 1
4	10000	2370	1020	352	83	–	Class 10
5	100000	23700	10200	3520	832	–	Class 100
6	1000000	237000	102000	35200	8320	293	Class 1000
7	n/a			352000	83200	2930	Class 10000
8				3520000	832000	29300	Class 100000
9				35200000	8320000	293000	

*FS209E Designations are near-equivalent and not exact

➔ **We verified to the ISO registered service by INTERCERT INC 2001, USA.**

Our long time experience in access floor and conductive floor work for clean room and data center many projects, we are the specialists to maintain them, repairing, adjusting, and renovating. Then we treat them more than clean, we make the quality standard work.



CERTIFICATE OF REGISTRATION

INTERCERT hereby certifies that the Clean Rooms Facilities of

Viatic Co., Ltd.

300 Soi Ladprao 130 (Mahadthai2) Ladprao Rd., Klongchan, Bangkok,
Bangkok 10240 Thailand

Has been successfully assessed as per the requirements of

ISO 14644-1:2015

For the scope of

Provision of Particle Counting Services for Cleanrooms and Controlled Environments.

Initial Certification Date	: March 07, 2023
Certificate Issue Date	: March 07, 2023
Surveillance Validity Date	: March 06, 2024
Recertification Date	: March 06, 2026

Registration Number: IC-CR-2303003



Issued on behalf of InterCert
Head - Certifications



The validity of this certificate can be verified at www.intercert.com or through email at info@intercert.com.
This certificate is the property of INTERCERT INC, 2001 Timberloch Place - Suite 500, The Woodlands, Texas 77380, United States and must be returned on request.

300 Soi Ladprao 130 (Mahadthai 2), Ladprao Rd., Klongchan, Bangkok, Bangkok , Thailand

Tel. (66)02-377-4184 Email: vat@viatic-th.com

➔ We have a team with a lot of knowledge and experience with a full set of tools and equipment.



Certificate of Calibration

Certificate No.: WK2001-200-1 Page 1 of 2

Customer : Viatic Co., Ltd. (Head Office)
300 Suk Ladprao 130 Mahabulabul Ladprao Rd.,
Klongkhen, Bangkok, Bangkok 10240

Instrument : Particle Counter
Manufacturer : TSI
Model : 9308-12
Serial No. : 9308143008
Identity No. : N/A
Range : 0.3 µm to 10.0 µm
Resolution : 1 count
Calibration Method : ISO 15020-4:2002

Reference standard instruments :
Instrument : Serial No. : Certificate No. : Due Date : Traceability to
Flow Calibrator : 148129-142 : A32104-230-001 : 29-Apr-23 : NIST
Particle Counter : 05050084 : 202301-04-001 : 17-Aug-24 : Lighthouse
Monitored Polymer : WK-PB-145 : PS30051-0225 : 2-May-23 : NIST

MIT: Mitutoyo International Technology Co., Ltd.
Lighthouse: Lighthouse Worldwide Solutions Ltd.
NIST: National Institute of Standards and Technology
This result certificate was found accurate as shown on date of calibration only
This certificate is traceability to the International System of Unit (SI)

The reported uncertainty of measurement was based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence approximately 95%

Calibrated by : Mr. Chaiyaporn Chaiyaporn
Approved by : Mr. Boonaporn Pichai
Authorized Signatory

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Calibration Results

Certificate No.: WK2001-200-1 Page 2 of 2

Calibration Result of the Accuracy

Function : Flow Rate Measurement Range : 2.83 L/min

Function	Nominal Value	STD Reading	Error	Uncertainty (± Limit)
Air Flow Rate	2.83	2.80	0.03	0.0045

Function : Count Particle Measurement 1 count

Test (Count)	Particle Size (µm)	Nominal Value (Count)	UUC Reading (Count)	Error Value (Count)
Zero Count	0.3	0	0	0
	0.5	0	0	0
	1.0	0	0	0
	3.0	0	0	0
	5.0	0	0	0
	10.0	0	0	0

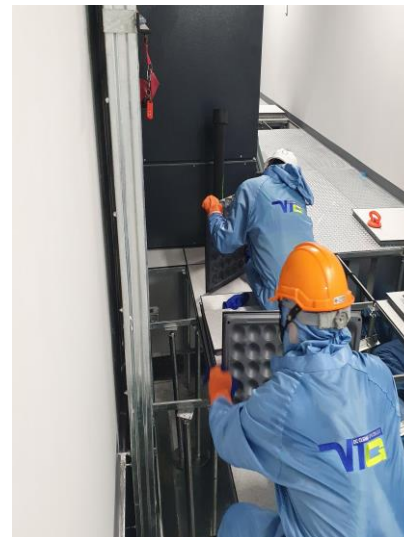
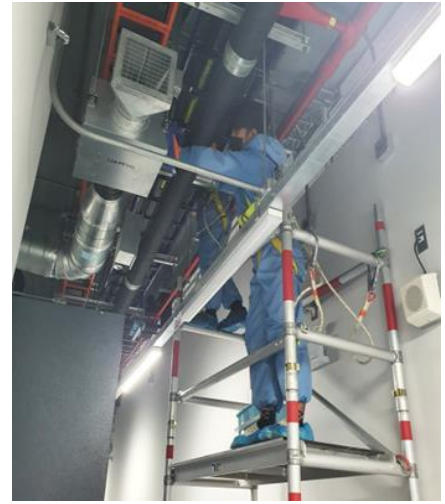
Function : Counting Efficiency 1 count

Particle Size (µm)	Error (%)	Uncertainty (%)
0.3	-6.4	2.9
0.5	5.9	2.9
1.0	5.7	2.9
3.0	-6.0	2.9
5.0	-6.2	3.4
10.0	-5.5	4.1

OO Without Adjustment () After Adjustment

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➡ **Work Review, Under-floor, Floor covering, over-head cleaning,
Air quality test.**



➔ we submitted the particle cumulative data report and Certificate after cleaning and Air cleanliness test.



Instrument Model: 9306-V2 Instrument Serial #: 93061445008 Application Version: 3.0.0.0 Last Calibrated: 23/04/2021 Calibration Due: WK2104-095-1.06/23 Firmware Version: 3.0 Ethernet IP: 0.0.0.0 USB IP: 169.254.223.77 Flow (L / Min): 2.83 Cut Point Sizes (µm): 0.5, 1.0, 5.0 micron					Particle Data Cumulative Report Project - xxxxxxxx Data hall - AAAA Status : Operational Airflow : Multi Directional Area : 632 Sqm. Page 1/3				
			Data Duration		3/10/2022				
Record #	Zone	Location No.	Time (Sec.)	Date and Time	0.5 micron (P/M ^3)	1.0 micron (P/M ^3)	5.0 micron (P/M ^3)		
AFTER CLEANING - FOLLOW UP TEST (1st/2022)									
1	HAC (Inside)	1	60	3/10/2022 09:54:51	933216	56537	3534		
2	HAC (Inside)	2	60	3/10/2022 09:56:24	908481	54064	4240		
3	HAC (Inside)	3	60	3/10/2022 09:57:54	880565	33569	1767		
4	HAC (Inside)	4	60	3/10/2022 09:59:41	828622	24028	0		
5	HAC (Inside)	5	60	3/10/2022 10:01:06	879505	31449	2473		
6	HAC (Inside)	6	60	3/10/2022 10:03:15	870671	27208	1413		
7	HAC (Inside)	7	60	3/10/2022 10:05:03	738163	22968	0		
8	HAC (Inside)	8	60	3/10/2022 10:07:21	735336	15901	707		
9	HAC (Inside)	9	60	3/10/2022 10:08:55	715194	16608	0		
10	HAC (Inside)	10	60	3/10/2022 10:10:36	816608	22261	707		
11	HAC (Inside)	11	60	3/10/2022 10:12:01	783392	23322	1060		
12	HAC (Inside)	12	60	3/10/2022 10:13:33	774558	18728	353		
13	HAC (Inside)	13	60	3/10/2022 10:15:04	791873	17314	0		
14	HAC (Inside)	14	60	3/10/2022 10:19:21	787986	17314	353		
15	HAC (Inside)	15	60	3/10/2022 10:21:21	732156	21201	0		
16	HAC (Inside)	16	60	3/10/2022 10:23:41	754770	19081	0		
17	HAC (Inside)	17	60	3/10/2022 10:25:12	722615	16608	1060		
18	HAC (Inside)	18	60	3/10/2022 10:26:53	912721	26148	707		
19	HAC (Inside)	19	60	3/10/2022 10:28:27	868905	43816	6007		
20	HAC (Inside)	20	60	3/10/2022 10:29:42	832156	22261	1060		
21	HAC (Inside)	21	60	3/10/2022 10:31:26	914488	31095	3180		
Maximum					933216	56537	6007		
Minimum					715194	15901	0		
Average					818190	26737	1363		
Standard ISO 14644-1-2015									
Selected airborne particulate cleanliness CLASS 8					3520000	832000	29300		
(Maximum concentration limits (particles/m3))									
Result					PASS	PASS	PASS		

CERTIFICATE OF COMPLIANCE

This certifies to

CUSTOMER NAME
PROJECT XXXX FOR DATA ROOM XXXX
LOCATION : XXXXXXXXX

Has compliance to the **ISO 14644-1 :2015 Class 8**
That is the classification of Air cleanliness by particle concentration.

Reference Standard Method & Instrument

Service Registration No.	IC-CR-2303003- INTERCERT INC 2001,USA	Issue date March 7,2023-2026
Test Method	Refer. Method ISO 14644-1 : 2015	Data Duration Feb 27, 2023
Instrument :	Particle counter machine	Specified in ISO 21501-4
Instrument Certificate:	WK-2301-2078-1	Certificate date Feb 3, 2023
Instrument Calibrated:	Refer. Method ISO 21501-4 :2007	Calibrated date Feb 3, 2023

Test Result

Standard ISO 14644-1-2015				
Particle cut point size		0.5 micron	1.0 micron	5.0 micron
Selected airborne particulate cleanliness CLASS 8				
(Maximum concentration limits (particles/m3))		3520000	832000	29300
ROOM XX	N SQM.	PASS	PASS	PASS
ROOM AA	N SQM.	PASS	PASS	PASS

Please find attached the particle concentration data report.

Remark This area is on AS BUILT status, the system work still on process. Then that is not a complete controlled environment.

Approved by :


(Yodwaluck trisunthon)
Authorized signature

➔ Data center cleaning work /Project Reference

ITEM	PROJECT	PRODUCT / SERVICE	LOCATION	TERM
1	TRUE INTERNET DATA CENTER	CLEANING	BANGNA	2019
2	JP MORGAN CHASE BANK	CLEANING	BKK	2019-2023
3	BLOOMBERG-BANGKOK	CLEANING	BKK	2019-2020
4	THE STOCK EXCHANGE OF THAILAND	AIR FLOW MANAGMENT	BKK	2018-2019
5	BANK OF AMERICA	CLEANING	BKK	2019
6	TCC TECHNOLOGY CO., LTD.	CLEANING	BANGNA	2018-2019
		AIR QUALITY TEST		2021-2023
7	INTER LINK	AIR QUALITY TEST	BKK	2019
8	TCC TECHNOLOGY CO., LTD.	CLEANING	SATHON	2020, 2022
		AIR QUALITY TEST		2020, 2022
9	KRUNGSRI AYUTTAYA BANK	AIR QUALITY TEST	BKK	2020
10	CIVIL AVIATION TRAINING CENTER TH	CLEANING	BKK	2020
		AIR QUALITY TEST		
11	EGAT	AIR QUALITY TEST	BKK	2020
12	MAXIM AMATA	CONTAINMENT	CHONBURI	2021
13	METROPOLITAN WATERWORK (MWA)	CLEANING	BKK	2021
14	CALCOM MICRO ELECTRONICS	CONTAINMENT	PETCHABURI	2021
15	TRUE INTERNET DATA CENTER	CLEANING	BKK	2021-2022
		AIR QUALITY TEST		
16	TOP GOLF ENTERTAINMENT CENTER	CLEANING	BKK	2021-2022 MID 2022
17	KRUNGSRI AYUTTAYA BANK (NEW DC)	CLEANING	RAMA3, BKK	MID 2022
18	TELEHOUSE (BKK)	CLEANING	RAMA9, BKK	2023

