

ARTEL



PCS[®]

Pipette Calibration System

Ensure pipettes are performing properly and operator skills are standardized.

ADVANCED
INSTRUMENTS

Check pipette performance with Artel PCS[®] and ArtelWare[®] Software

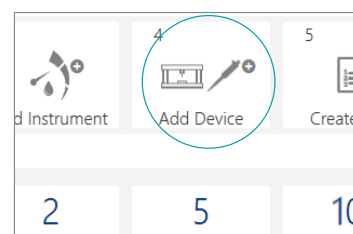
Pipettes are the most frequently used instruments in the laboratory. Their performance is key to every sample dispense and dilution, and is critical for generating reliable data. The PCS provides confidence in data integrity with scheduled pipette calibrations, interim performance verifications, complete documentation and pipette inventory management, and it's an ideal tool for standardizing pipetting technique and assessing operator competency.



Ideal for:

- Verifying the accuracy and precision of handheld pipettes
- Assessing and documenting operator competency
- Managing pipette QC and inventory
- Complying with regulatory requirements
- Uploading calibration certificates and repair documentation, as well as summary statistics for pipettes calibrated outside of ArtelWare

Easy verification with documentation in less than 3 minutes



1. Identify pipette



2. Scan pipette



3. Scan calibration solutions



4. Dispense samples

Artel Pipette Calibration Report						
Pipette	ART-101			Result PASSED		
Model	Gilson Pipetman P20			Completed	6/28/2016 1:41:57 PM	
Serial Number				Method	Example Plan, Version 1	
Nominal Volume	20.0000 µL			Calibration ID	20160628134038ART101	
Owner	Artel Marketing (Artel)					
Location	Sample Location					
Volume	Mean	Uncertainty	Inaccuracy	Tolerance	Imprecision	
20.00 µL	20.034 µL	1.45 %	0.17 %	5.00 %	1.61 %	

5. Obtain report

Ensure your pipettes and their operators are working together to generate accurate and reproducible results



System Capabilities:

- Calibrates single channel pipettes from 0.1 μL to 5,000 μL , in less than three minutes
- Allows scheduling of operator competency assessments
- Intuitive dashboard provides immediate overview of due calibrations and operator assessments
- Offers digital review and approval workflow
- Provides comprehensive reporting, including audit trail and printing of calibration labels
- Compact and portable design enables use in any laboratory
- Performs to the same tight specifications under various laboratory conditions; no special environmental controls required
- Generates measurement results traceable to the International System of Units (SI) via standards maintained by NIST

Key Applications:

- Calibrate pipettes in the lab in which they are used
- Standardize pipetting technique with scheduled and documented operator competency assessments
- Conduct interim performance verifications to supplement full calibration programs
- Verify pipette performance before and after maintenance, or following outsourced service
- Upload calibration and repair certificates and input summary statistics for pipettes calibrated outside of ArtelWare, including Artel Data Manager, Artel Pipette Tracker and third party or manufacturer services.
- Perform "quick checks" when pipetting performance or operator technique is in question

Compliance:

The PCS conforms to the Dual-Dye Ratiometric Photometric Method described in ISO 8655-7:2022 and facilitates conformity to the Photometric Reference Measurement Procedure described in ISO 8655-8:2022. The PCS can be used to fulfill test and calibration requirements according to CLSI QMS23:2019, ISO 17025:2017, cGMP, and cGLP. PCS Software can be used in laboratories compliant to 21 CFR Part 11.

"The Artel PCS ensures that our laboratory upholds the high standards required in today's demanding environment. Having a system that is accurate and precise supports our mission of maintaining excellence in laboratory testing."



Parts and Supplies

Artel PCS Instrument	
Size	(W x L x H): 22.4 cm x 33.0 cm x 14.7 cm (8.8" x 13.0" x 5.8")
Weight	5.7 kg (12.5 lbs.)
COM port	USB
Built in Scanner	Reads 2D reagent barcodes
Operational Ambient Specifications Temperature:	15 °C to 30 °C
Relative Humidity	10% to 90%, non-condensing
Wavelength Selection	520 nm and 730 nm
Electrical Power Requirements	Voltage 90 – 260 VAC
Frequency	50 – 60Hz
Current	2 A maximum
Warranty	1 year

QualAssure Solutions	Volume range
QualAssure 1 PCS-221	200 – 5000 µL
QualAssure 2 PCS-222	50 – 199.9 µL
QualAssure 3 PCS-223	10 – 49.9 µL
QualAssure 4 PCS-224	2 – 9.9 µL
QualAssure 5 PCS-225	0.5 – 1.9 µL
QualAssure 6 PCS-226	0.1 – 0.49 µL

Specifications

Time Requirements	10 data points < 3 minutes
Volume Range	0.1 µL to 5000 µL
Uncertainty (Inaccuracy)	0.6%
Random Error (Imprecision)	0.3%

Patents

The PCS and its components are covered by patents listed at artel.co/patents.

Saving time and boosting quality starts with robust pipette management

Pipetting Proficiency Certification

Pipetting accurately and precisely is more involved than simply pressing a button. Improve data quality and standardize liquid handling in your lab with this one-day, hands-on pipetting technique seminar with proficiency evaluation.



Pipette Quality Management Certification

Whether you have been working in the lab for years or are just starting out in the laboratory, this two-day, hands-on training will strengthen your professional capabilities. You will learn how to improve overall data quality by establishing a robust QA/QC program for your lab's pipettes, pipette users, and liquid handling process.



[Learn More](#)



25 Bradley Drive, Westbrook, Maine 04092 USA | 888-406-3463 | aicompanies.com
Global Headquarters: Two Technology Way | Norwood, Massachusetts 02062, USA
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