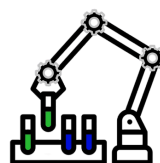
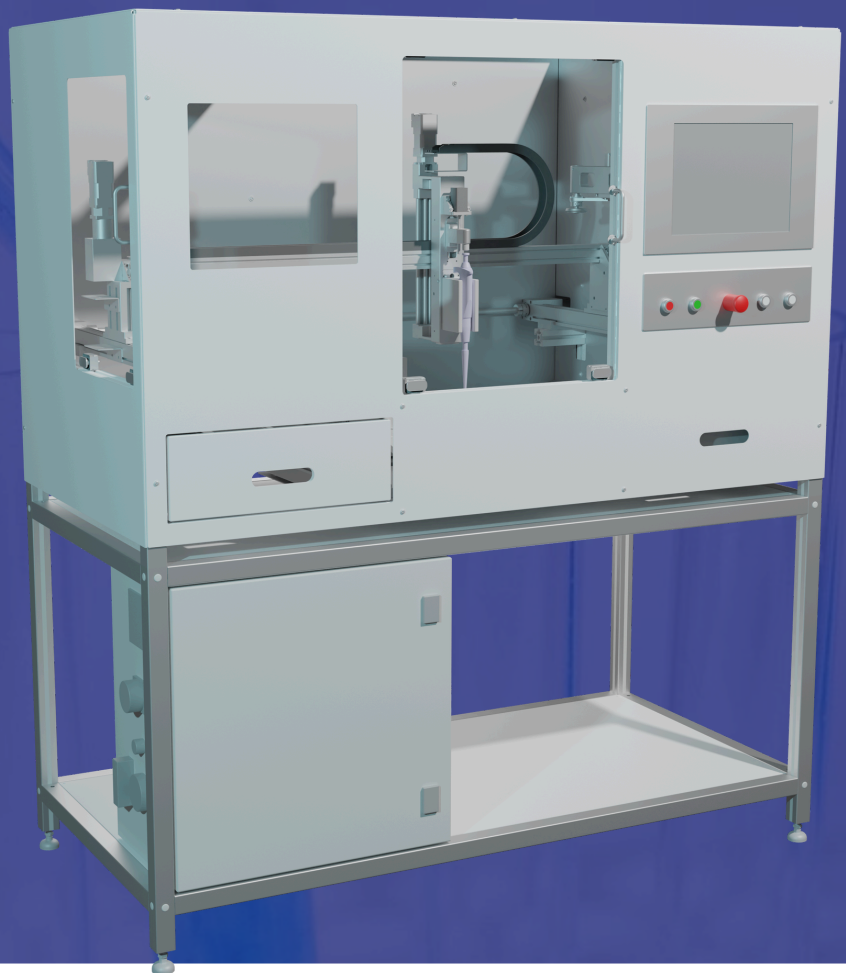


# MAXIMUS CP

FULLY AUTOMATIC PIPETTE CALIBRATOR

PRECISE AND STANDARD-COMPLIANT CALIBRATION  
OF LABORATORY PIPETTES

-FULLY AUTOMATED, HIGHLY REPRODUCIBLE  
AND ISO 8655 COMPLIANT



**LABVOLVE**

## **AUTOMATED PIPETTE CALIBRATION – PRECISION AND HIGH THROUGHPUT, REPLACING MANUAL LABOR**

OUR HIGH-THROUGHPUT AUTOMATED PIPETTE CALIBRATION SYSTEM OFFERS AN INNOVATIVE SOLUTION FOR MODERN CALIBRATION AND QUALITY CONTROL LABORATORIES. FOR THE FIRST TIME, THE SYSTEM ENABLES FULLY AUTOMATED CALIBRATION OF STANDARD LABORATORY PIPETTES – FROM PIPETTE FEEDING TO MEASUREMENT – WITHOUT MANUAL INTERVENTION AND WITHOUT THE USE OF ROBOTIC SYSTEMS.

THANKS TO THE MAGAZINE-BASED PIPETTE FEEDING, PIPETTES ARE AUTOMATICALLY TRANSFERRED, POSITIONED, AND MEASURED WITHIN THE CALIBRATION SYSTEM. THIS ALLOWS THE ENTIRE PROCESS TO RUN UNATTENDED AND CONTINUOUSLY, SIGNIFICANTLY REDUCING MANUAL WORKLOAD WHILE INCREASING PROCESS RELIABILITY.

THE SYSTEM IS SPECIFICALLY DESIGNED FOR HIGH-THROUGHPUT APPLICATIONS. LABORATORIES CAN FLEXIBLY SCALE THEIR CAPACITY FROM APPROXIMATELY 200 PIPETTES PER DAY TO MUCH HIGHER VOLUMES SIMPLY BY ADDING ADDITIONAL MAGAZINES.

THE FULLY AUTOMATED PIPETTE CALIBRATOR ENSURES STANDARD-COMPLIANT AND REPRODUCIBLE CALIBRATION OF COMMERCIALY AVAILABLE LABORATORY PIPETTES, DELIVERING THE HIGHEST MEASUREMENT ACCURACY WITH MINIMAL OPERATOR INVOLVEMENT.

WITH ITS ROBUST DESIGN FOR CONTINUOUS OPERATION, INTUITIVE USER INTERFACE, AND WELL-ENGINEERED AUTOMATION ARCHITECTURE, THE SYSTEM PROVIDES A COST-EFFECTIVE ALTERNATIVE TO MANUAL PIPETTE CALIBRATION, WHILE SIMULTANEOUSLY REDUCING OPERATOR ERRORS, STANDARDIZING PROCESSES, AND SUSTAINABLY INCREASING LABORATORY EFFICIENCY.



## YOUR BENEFITS AT A GLANCE



**FULLY AUTOMATED, STANDARDS-COMPLIANT CALIBRATION OF LABORATORY PIPETTES**



**HIGHER ACCURACY THROUGH AUTOMATED TESTING PROCESSES**



**REPLACES REPETITIVE MANUAL TASKS – SAVING TIME AND LABOR COSTS**



**ROBUST DESIGN FOR CONTINUOUS OPERATION**



**CLEAR, INTUITIVE USER INTERFACE FOR ERROR-FREE OPERATION**



**HIGH THROUGHPUT FOR MAXIMUM EFFICIENCY – UP TO 240 PIPETTES PER DAY  
(DEPENDING ON CALIBRATION TYPE AND PIPETTE SIZE)**



**LOW OPERATING AND MAINTENANCE COSTS**



**COMPACT DESIGN – MINIMAL FOOTPRINT AND EASY TO TRANSPORT**

## COMPATIBILITY

COMPATIBLE WITH PIPETTES FROM ALL MAJOR MANUFACTURERS, E.G.:

- BRAND
- EPPENDORF
- GILSON
- AND OTHER COMMONLY USED MODELS

## EASY OPERATION

CALIBRATION IS COMPLETED IN JUST A FEW SIMPLE STEPS:

- OPEN THE SLIDING DOOR
- INSERT THE PIPETTE (OPTIONAL IF A MAGAZINE FOR 50–100 PIPETTES IS NOT USED)
- CLOSE THE SLIDING DOOR AND PRESS START
- THE AUTOMATIC CALIBRATION CYCLE BEGINS
- AFTER APPROXIMATELY 5 MINUTES, CALIBRATION IS COMPLETE
- MEASUREMENT RESULTS ARE DISPLAYED – REMOVE THE PIPETTE

## AUTOMATIC CALIBRATION

THE PIPETTE CALIBRATION SYSTEM PERFORMS THE ENTIRE PROCESS FULLY AUTOMATICALLY::

- THE SYSTEM RECOGNIZES THE PIPETTE'S SERIAL NUMBER VIA THE ATTACHED BARCODE
- TEST PARAMETERS ARE READ FROM THE CONNECTED DATABASE
- A CAMERA DETECTS THE ADJUSTMENT SCALE AND AUTOMATICALLY SETS THE FIRST VOLUME
- THE SYSTEM SELECTS THE APPROPRIATE TIP FROM THE TIP MAGAZINE AND ATTACHES IT TO THE PIPETTE
- WATER IS DRAWN FROM THE RESERVOIR, DISPENSED INTO THE TEST CONTAINER, AND MEASURED ON THE BALANCE
- THE TIP IS DISCARDED – THE PROCESS IS REPEATED
- VOLUMES ARE ADJUSTED MULTIPLE TIMES ACCORDING TO THE PRE-PROGRAMMED TEST SEQUENCE
- USED TIPS ARE AUTOMATICALLY EJECTED INTO THE COLLECTION CONTAINER
- MEASUREMENT RESULTS ARE AUTOMATICALLY SAVED IN THE DATABASE

## TECHNISCHE DETAILS

Testing time	5 - 6 minutes
Volume range	0,1 µL to 10 mL pipettes
Compact design	approx. 800 x 1600 mm
Magazine/holder for pipette tips	for 8 Racks

- VALIDATED PROCESS
- 3-AXIS PORTAL WITH POSITION MEASUREMENT
- SENSITIVE LINEAR ACTUATOR FOR PRECISE PISTON MOVEMENT
- ACCURATE ROTARY DRIVE FOR VOLUME ADJUSTMENT
- BARCODE SCANNER FOR SERIAL NUMBER RECOGNITION
- CAMERA FOR DETECTING THE ADJUSTMENT SCALE
- TIP MAGAZINE: HOLDS UP TO 8 RACKS
- CLOSED, CLIMATE-CONTROLLED TESTING CHAMBER
- MONITORING OF ENVIRONMENTAL CONDITIONS WITHIN THE TEST CHAMBER
- COMPACT FOOTPRINT: APPROX. 800 X 1600 MM
- EASY TO TRANSPORT
- LOCAL DATABASE FOR MANAGING PIPETTES AND CALIBRATION PROTOCOLS

## QUALITY CONTROL & DOCUMENTATION

FOR MAXIMUM TRACEABILITY AND AUDIT-READY DOCUMENTATION::

- SET VALUES ARE CAPTURED AND SAVED VIA IMAGE DETECTION
- TEST RESULTS, INCLUDING INTERMEDIATE MEASUREMENTS, ARE AUTOMATICALLY DOCUMENTED
- ERRORS FROM MANUAL HANDLING ARE ELIMINATED
- MEASUREMENT DATA AND PROTOCOLS ARE SECURELY STORED IN THE DATABASE



## OPTIONS & EXTENSIONS

FOR HIGHER AUTOMATION AND SEAMLESS INTEGRATION:

- AUTOMATIC PIPETTE CHANGER
- MODULAR PIPETTE MAGAZINE FOR FULLY UNATTENDED OPERATION
- DATA EXCHANGE WITH COMMON PIPETTE MANAGEMENT DATABASES

## IDEAL FOR THE FOLLOWING INDUSTRIES AND APPLICATIONS:

- CALIBRATION AND QUALITY MANAGEMENT LABORATORIES  
(E.G., INTERNAL AND EXTERNAL CALIBRATION SERVICE PROVIDERS IN ACCORDANCE WITH ISO 8655)
- PHARMACEUTICAL, BIOTECHNOLOGY, AND MEDICAL TECHNOLOGY COMPANIES
- RESEARCH AND DEVELOPMENT INSTITUTIONS (BOTH INDUSTRIAL AND ACADEMIC)
- PRODUCTION, TESTING, AND CONTROL LABORATORIES WITH REGULAR CALIBRATION REQUIREMENTS
- COMPANIES WITH HIGH PIPETTE THROUGHPUT REQUIRING AUTOMATED, STANDARDIZED PROCESSES
- CENTRAL LABORATORY SERVICE PROVIDERS AND SHARED SERVICE LABS WITH HIGH SAMPLE AND INSTRUMENT VOLUMES

## MAXIMUM EFFICIENCY, HIGHEST PRECISION, AND FULLY AUTOMATED DOCUMENTATION.

WITH THE FULLY AUTOMATED PIPETTE CALIBRATION SYSTEM, YOU CAN INCREASE PROCESS RELIABILITY, REDUCE COSTS, AND IMPROVE CALIBRATION QUALITY – CONSISTENTLY, FULLY ISO 8655-COMPLIANT, AND STANDARDS-CONFORMANT.



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