



# Liquid Handling Station

Simply automate!

BRAND. For lab. For life.®

- + PCR, qPCR, DNA quantification – simply automate
- + Simple method creation within minutes.
- + Efficient: 8 workplaces in the smallest space



# Automatic pipetting made easy

## Applications for the Liquid Handling Station pipetting robot

Bridge the gap between manual single- and multi-channel pipettes and complex large devices. The Liquid Handling Station pipetting robot handles all your pipetting routines, leaving you more time for other work. Automation is worth it, even for small and mid-sized sample volumes.

From simple routine tasks to complex pipetting patterns: with the Liquid Handling Station, you will discover a new level of pipetting efficiency. Especially with monotonous and error-prone work steps, the robot really demonstrates its strengths. Once defined, the method can be reproduced over and over again with exact precision.



### PCR and qPCR

Accurately pipette even the small volumes for reproducible results.



### ELISA

No more manual dilution series: Conveniently change and save fluid classes.



## Typical applications

- Preparation of 'assay ready' plates
- Serial dilutions
- Replication of microtiter plates (96/96 and 384/384)
- Reformatting of plates (96/384 and 384/96)
- Cell cultures
- General liquid transfers in single vessels, strips, and plates in the ANSI/SLAS format
- Sample preparation for following analysis



### Enzyme assays

Quickly and accurately pipette, mix and define incubation times.



### Cherry-picking

Flexibility is the top priority: Quick positioning of individual wells.

- + **Intuitive:** Simplest possible method creation in minutes – intuitive software, no programming knowledge needed. Simulation, e-mail and sound notification ensure easy workflow.
- + **Versatile:** Seven freely configurable work positions accommodate anything from individual vessels up to 384-well plates, solving nearly any pipetting need.
- + **Compact:** Just 60 x 49 cm, full power in eight stations – at a height of just 53 cm!
- + **Quick:** You save up to 70% time compared with manual pipettes.

## Shaking and heating samples with the Teleshake 95

The Teleshake 95 heated shaker can be heated up to 90 °C, depending on the labware material, shake samples with rotation speeds from 100 rpm to 1,900 rpm.





# Simple, easy and efficient

## In detail: pipetting with the Liquid Handling Station

While the robot processes your pipetting jobs, you have time for other tasks. The Liquid Handling Station works quietly and can be easily adjusted to handle all applicable work steps. Using the intuitive software, you can define your methods quickly, with no programming knowledge required. If the data is already available in a spread-sheet, creating methods is even easier with the import function. Particularly for small and mid-sized sample volumes, the robot, which operates on the proven air-interface principle, is a cost effective introduction to laboratory automation.





### 1 Front door

The space-saving design of the front door allows it to be swung up easily and it is mechanically braked when closing.

### 2 Pipette modules (Liquid Ends)

The basis for the pipette modules are components from the familiar Transferpette® S. Three single-channel Liquid Ends (SC) and three 8-channel Liquid Ends (MC) are available. Manual changes are so easy a child can do them, and they take only a few seconds. No tools are needed.

### 3 Work table

The work table has eight work positions, seven of which use the ANSI/SLAS format and can be freely assigned.

### 4 Adapters

Different height adapters, tip adapters and racks ensure reliable aspiration and the same working height as the plates and vessels in use. This saves time while pipetting.

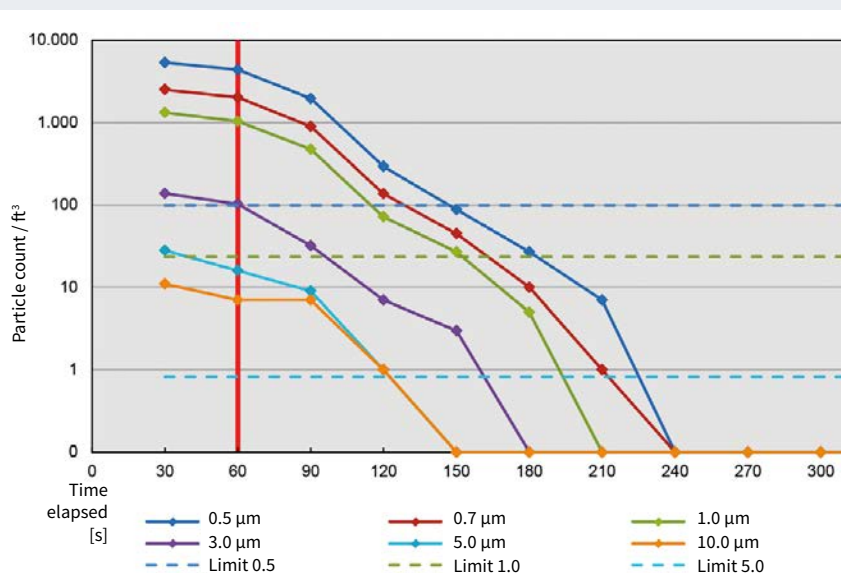
# Your compact clean room in the lab

## Liquid Handling Station *flow*

Do your samples have to be protected against exposure to particles and microorganisms? Then the Liquid Handling Station *flow* is the right pipetting robot for you. The FlowBox directs filtered air in a horizontal, laminar air stream through the work area, which prevents contamination.

Primary applications are those in which the liquids must be free of particles and microorganisms<sup>1)</sup>. The ambient air of the Liquid Handling Station *flow* is exchanged more than four times per minute. The exhaust air escapes through openings in the front door. This technology conforms with the requirements of ISO 14644-1 (Class 5) and GMP Annex 1 (Class A). The inner compartment is free of particles in less than 5 minutes.

<sup>1)</sup> Operation with FlowBox function not suitable for samples harboring a health risk when spread by the laminar air flow (e.g. Risk Group 2 (RG2)) and higher biological substances).

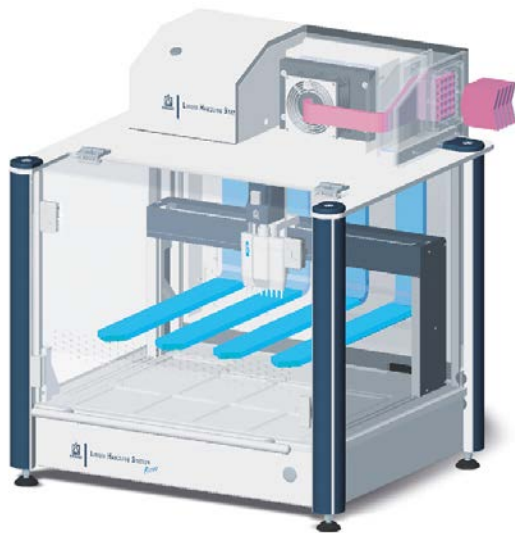


### Particle-free conditions in a matter of minutes

Four minutes after switching on the FlowBox, no particles of 0.5 µm, 0.7 µm, 1 µm, 3 µm and 5 µm are detectable inside<sup>2)</sup>.

<sup>2)</sup> Detection method: LIGHTHOUSE Handheld 5016 laser-type airborne particle counter, sample volume: 0.1 cf/min (2.83 l/min)





## Protect your samples

A microprocessor-controlled air stream cleans the entire work area of the Liquid Handling Station flow. The incoming air is filtered by an H14 HEPA filter with an efficiency rate of 99.995 %. This reliably protects your valuable samples against contamination.



# Pipetting, not programming

## The software of the Liquid Handling Station

With the Liquid Handling Station's intuitive software, defining your methods becomes easy and efficient. The graphical interface shows the work area of the pipetting robot, so you can quickly find your way around. Integrated instructions efficiently guide you through the creation of even the most complex methods.

This way the Liquid Handling Station can do what it was made for: quickly and conveniently automating repetitive pipetting tasks, so that you can concentrate on more important things.

### Standard workflow:

1. Define the name for the pipetting method
2. Set up the work table
3. Define the transfer commands
4. Start executing
5. Done!

### Functions:

- Professional user management
- Predefined liquid properties (liquid types) that can be changed or added at any time
- Disposable item (labware) database can be added to on a customer-specific basis
- Testing of inconsistencies by the software
- Automatic logging of procedures (customizable reports)
- Context-sensitive help function
- Data import/export
- E-mail and sound notifications
- Timeline
- 3D simulation of the programmed methods
- Localization / system language selectable: German, English, Chinese, Spanish, French

## Everything responds to your commands

Four main commands for your success:



### Transfer:

Specifies nearly all pipetting tasks; e.g. multidispensing, creating dilution series, pooling, etc.



### Wait:

Defines wait times, e.g. for incubation.



### Mix:

In order to efficiently mix samples.



### Break:

Interrupts the program sequence; e.g. in order to incubate samples externally.



### Auxiliary Device Commands:

A clear design allows you to easily start and control the FlowBox as well as the heating and shaking module.





# Ordering Data



## Liquid Handling Station

Included: motor control unit, operating manual, power cable, USB cable, documentation, ex. control software\*.

Pack of	Cat. No.
1	709400

## Liquid Handling Station flow

Included: motor control unit, FlowBox filtration unit, operating manual, power cable, USB cable, USB hub, documentation, ex. control software\*.

Pack of	Cat. No.
1	709402



\*The control software can be ordered separately.

## Specifications

	Liquid Handling Station	Liquid Handling Station flow
<b>Liquid Ends</b>	1-channel Liquid Ends (SC), 8-channel Liquid Ends (MC)	1-channel Liquid Ends (SC), 8-channel Liquid Ends (MC)
<b>Volume ranges</b>	1-channel Liquid Ends: 1 – 50 µl, 10 – 200 µl, 40 – 1000 µl 8-channel Liquid Ends: 1 – 50 µl, 20 – 300 µl, 40 – 1000 µl	1-channel Liquid Ends: 1 – 50 µl, 10 – 200 µl, 40 – 1000 µl 8-channel Liquid Ends: 1 – 50 µl, 20 – 300 µl, 40 – 1000 µl
<b>Working positions</b>	8 working positions: P2 – P8, P1 for waste box	8 working positions: P2 – P8, P1 for waste box
<b>Weight</b>	approx. 25 kg	approx. 35 kg (pipetting robot incl. FlowBox)
<b>Dimensions</b>	H 530 x W 595 x D 485 mm (closed) H 690 x W 595 x D 485 mm (open)	H 662 x W 595 x D 515 mm (closed) H 690 x W 595 x D 515 mm (open)
<b>Operating temperature</b>	+15 °C to +35 °C	+15 °C to +35 °C
<b>Transport temperature</b>	-20 °C to +65 °C	-20 °C to +65 °C
<b>Supply voltage</b>	100 – 240 V, 50/60 Hz	100 – 240 V, 50/60 Hz
<b>Fuse</b>	2 x T 2.5A H 250V	2 x T 2.5A H 250V
<b>Interfaces</b>	1 USB	2 USB
<b>Power consumption</b>	max. 150 W	max. 150 W
<b>Protection class</b>	Protection class I	Protection class I
<b>Housing</b>	Protection class IP20	Protection class IP20
<b>Safety standards</b>	IEC 61 010-1	IEC 61 010-1
<b>EMC compatibility</b>	Radio interference and interference resistance compliant with DIN EN 61 326-1	Radio interference and interference resistance com- pliant with DIN EN 61 326-1
<b>Noise level</b>	46 dB	46 dB

## Specifications FlowBox

	Door closed	Door open
<b>Noise level</b>	60 dBA	67 dBA
<b>Speed of air</b>	0.4 m/s	0.5 m/s
<b>Volumetric flow</b>	22 m³/h	29 m³/h
<b>Air exchange</b>	260-way	330-way
<b>Filter</b>	HEPA 14 acc. to DIN EN 1822	

## Liquid Handling Station control software

Description	Cat. No.
Software licence	709490
Software upgrade	709492

# Accessories



## Liquid Ends (Liquid Ends)

The basis for the pipette modules are components from the familiar Transferpette® S. Three single-channel Liquid Ends (SC) and three 8-channel Liquid Ends (MC) are available for contact-free liquid delivery. The volume testing of the pipette modules is carried out according to ISO 8655 part 6. Autoclavable at 121 °C, 20 minutes. Pack of 1.

Liquid End	Volume range μl	Volume step μl	A <sup>1)</sup> ≤ ± %	CV <sup>1)</sup> ≤ %	Cat. No.
1-channel	1 – 50	50	1.5	0.5	709410
		25	2.0	0.8	
		5	6.0	3.0	
	10 – 200	200	1.0	0.3	709413
		100	1.5	0.4	
		20	4.0	1.5	
8-channel	1 – 50	50	1.5	0.6	709420
		25	2.0	1.0	
		5	8.0	4.0	
	20 – 300	300	1.2	0.4	709423
		150	1.6	0.6	
		30	5.0	2.5	
8-channel	40 – 1000	1000	1.2	0.3	709426
		500	1.6	0.5	
		100	4.0	2.0	

<sup>1)</sup> Final test values related to the nominal capacity (maximum volume) or the indicated volume steps indicated on the Liquid End, obtained when Liquid End and distilled water are equilibrated at ambient temperature within the Liquid Handling Station (20 °C/68 °F), according to DIN EN ISO 8655.

A = Accuracy, CV = Coefficient of variation



## Holder for Liquid Ends

Without Liquid Ends. Pack of 1.

Description	Cat. No.
for 3 Liquid Ends	709463
for 5 Liquid Ends	709465



## Racks for single tubes, plates and cuvettes

Different adapters and racks ensure stable support and an even working height for the plates and vessels used. Pack of 1.

Description	Position	Cat. No.
Microtube Rack 1.5	24	709450
Microtube Rack 1.5	16	709451
Microtube Rack 0.5	24	709452
Microtube Rack 5.0	9	709453
96-well PCR	–	709446
384-well PCR <sup>2)</sup>	–	709448
384-well PCR universal adapter		709449
12 x 75 mm TubeRack	24	709455
Cuvettes	16	709436
Reservoir rack for Liquid Handling Station for four 40 ml reservoirs (701460, 701462, 701464), aluminum		709443

<sup>2)</sup> optimized for BRAND PCR plates

Additional adapters on request.

## Adapter

for plates and tips



Description	Pack of	Cat. No.
Height adapter 60 mm	1	709430
Height adapter 30 mm	1	709432
Tip adapter	1	709434



## Waste box

for Liquid Handling Station

Pack of	Cat. No.
5	709458



## PCR cooler

96-well, indirect cooling.

Pack of	Cat. No.
2	709456



### Teleshake 95

Used for incubation from 20 °C up to 90 °C, and also to shake samples with rotation speeds from 100 rpm to 1,900 rpm.  
Items supplied: Heating/shaking module with centering plate, incl. universal flat-bottom adapter plate.

Description	Pack of	Cat. No.
Teleshake 95	1	709470

### Adapter plate for the Teleshake 95

For optimum heat transfer and secure hold in the Teleshake 95. Pack of 1.

Description	Cat. No.
Universal adapter for 96-well PCR plates low profile	709477
Universal adapter for 96-well PCR plates standard	709478
Universal adapter for 384-well PCR plates standard	709479
Adapter for 96-well BRANDplates F- and C-bottom	709480
Adapter for 96-well BRANDplates V-bottom	709481
Adapter for 96-well BRANDplates U-bottom	709482

Additional adapters on request.



### TipRack robotic tips

Up to 1000 µl free of DNA (< 40 fg), RNase (< 8.6 fg), endotoxins (< 1 pg), and ATP (< 1 fg),  
BIO-CERT® LIQUID HANDLING QUALITY.



Volume µl	Pack of	non-sterile Cat. No.	sterile Cat. No.
1 – 50	10 TipRacks, 96 each	733146	733166
10 – 200	10 TipRacks, 96 each	734148	734168
10 – 300	10 TipRacks, 96 each	734150	734170
40 – 1000	10 TipRacks, 96 each	734152	734172

### TipRack robotic filter tips

Up to 1000 µl free of DNA (< 40 fg), RNase (< 8.6 fg), endotoxins (< 1 pg), and ATP (< 1 fg),  
BIO-CERT® LIQUID HANDLING QUALITY.



Volume µl	Pack of	non-sterile Cat. No.	sterile Cat. No.
1 – 20	10 TipRacks, 96 each	733646	733666
10 – 100	10 TipRacks, 96 each	734650	734670
10 – 200	10 TipRacks, 96 each	734652	734672
40 – 1000	10 TipRacks, 96 each	734654	734674

### Controller for power supply of the Teleshake 95

Pack of 1.

Description	Cat. No.
Single TEC Control (1 black slot module)	709472
Multi TEC Control (2 black slot modules)	709474



### BRAND Cooling blocks<sup>3)</sup>

Passive cooler, for even cooling of the samples for up to 3 hours - regardless of the well position.

Description	Pack of	Cat. No.
for Microtube Rack 0.5	1	709510
for Microtube Rack 1.5	1	709511
for Microtube Rack 5.0	1	709512
for 96-well PCR	1	709513
for 384-well PCR	1	709514

<sup>3)</sup> patented and patent pending



### Reagent reservoirs

Pyramid bottom, PP,  
BIO-CERT® CERTIFIED QUALITY.



Description	Volume <sup>4)</sup> per column	Bottom style	Pack of	Cat. No.
1-column	150 ml	pyramid bottom, 96-well	10	701440
12-column, low profile	12 ml	pyramid bottom	10	701442

<sup>4)</sup> The indicated volume applies to the use with automated systems.



### Reagent reservoirs

V-bottom, PP, CERTIFIED LIFESCIENCE QUALITY.



Description	Volume <sup>4)</sup> per column	Bottom style	Pack of	Cat. No.
Reservoir, with cover <sup>5)</sup>	40 ml	V-bottom, low dead volume	24	701460
Reservoir, sterile, with cover <sup>5)</sup>	40 ml	V-bottom, low dead volume	24	701462
Reservoir, with cover <sup>6)</sup>	40 ml	V-bottom, low dead volume	24	701464

<sup>4)</sup> The indicated volume applies to the use with automated systems.

<sup>5)</sup> graduated, 4 reservoirs per blister

<sup>6)</sup> graduated, 24 reservoirs and cover, bulk packed



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