

**BIOHIT**

Innovating for Health

# The Promise of Lighter Liquid Handling



# *m*LINE

Mechanical Single and  
Multichannel Pipettes



# BIOHIT

Innovating for Health

# mLINE®

Effortless accuracy and precision

- Ergonomic finger support – no need to squeeze pipette during pipetting

- Fast and light stepless volume adjustment
- Fully autoclavable without disassembling
- Clear and easy-to-read display with big numbers & volume setting with small increments
- Volume locking button to prevent accidental volume change
- Volume range colour coding for easy selection of the right Biohit tip
- Safe-Cone Filter to prevent contamination of pipette and sample
- Unique filter ejector
- Individual piston / tip cone assemblies for easy maintenance

- Thermal insulation of the internal components ensures that the warmth of the hand does not affect the pipetting results after several hours of pipetting

- Optiload tip loading for perfect tip sealing and effortless tip ejection



CE

IVD



Fully autoclavable

1.



2.



3.



- 1. Set any volume without hassle**  
mLINE makes volume adjustment light and easy, and helps you avoid possible strain and wrist ache.
  - Stepless and light volume adjustment – just release volume lock and adjust volume using your fingertips only.
  - Patented locking mechanism – no accidental volume changes during pipetting.
  - Big and easy-to-read numbers on display.

- 2. Forget high force and leaking tips**  
All mLINE pipettes are equipped with unique spring loaded tip cones – the Optiload mechanism that
  - Allows tips to be loaded with constant force.
  - Enables even and safe tip sealing to the tip cone(s) with minimum force.
  - Makes tip ejection light and easy.
  - Optiload is an advantage in multichannel models, in particular, where even tip sealing is essential.

- 3. Protect your pipette and sample**  
You can prevent contamination of your pipette and sample by using replaceable Safe-Cone Filters. These unique filters
  - Act as a final barrier to prevent fluids and liquid vapours from reaching the internal components of the pipette.
  - Can be easily and safely removed by pressing the plunger button.
  - Are available for all models > 10 µl.
  - Safe-Cone Filters must be changed regularly and always in case of over-aspiration.



## Recommended by Health & Safety Officers

“The qualities that really convinced me to switch to Biohit mLINE are its light weight, the lowest pipetting and tip ejection forces, easy to read display, locking mechanism to prevent accidental volume changes and finally, its compatibility to tips currently used at our company.”

**Richard P. Roque**

Preclinical Development,  
a Seattle based biotechnology  
company, USA

### 4. Maintenance couldn't be easier

To keep your mLINE pipette in good operating condition, clean and calibrate it regularly.

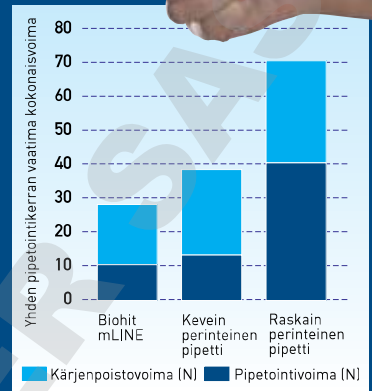
- No opening tools are needed.
- Only 3–4 parts must be cleaned.
- Autoclavable grease is included with each pipette.
- mLINE can be easily calibrated using the elegant calibration tool. The tool also acts as a PCR tube cap opener.
- Biohit offers complete maintenance, repair and calibration services for your pipette.

## Enjoy your work!

Did you know that pipetting over 300 h/year (1.5 h/day) exposes to Repetitive Strain Injury (RSI)? To fight this problem, Biohit mLINE pipette comes with a patented spring mechanism resulting in the lowest pipetting force on the market. This, together with light tip ejection force and ergonomic design of the handle, reduces the risk of RSI.

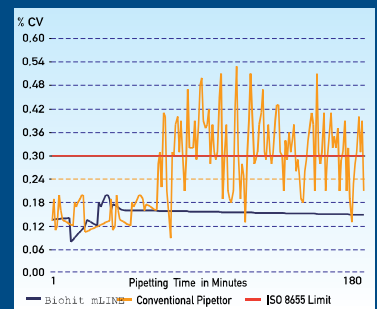
Enjoy your work. With mLINE you can.

Pipetting and tip ejection force comparison of mLINE and other mechanical pipettes. The mLINE provides significantly lighter pipetting and tip ejection forces than any other mechanical pipette, making the total force for one pipetting cycle (pipetting to tip ejection) the lightest on the market.



## Consistent results time after time

It is extremely difficult to get consistent results after several hours of pipetting with conventional mechanical pipettes due to heavy pipetting force. The light – and patented – spring mechanism of mLINE, however, allows high accuracy and consistent results even in long pipetting series, as hand doesn't get tired.

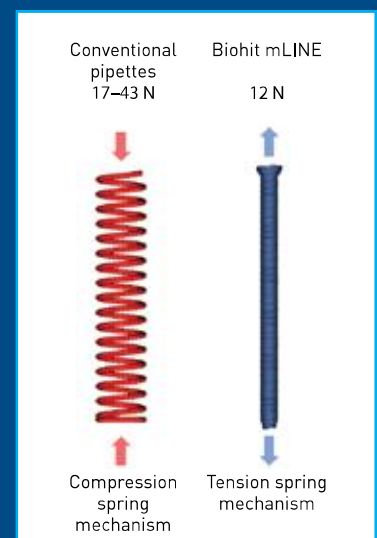


Performance test of Biohit mLINE (blue line) and a conventional pipette (orange line). Pipettes were tested over a 5-hour period with sets of 5 repeat weighings of 500 microlitres 180 times by the same trained operator. As shown, it is very hard to meet the specifications (red line, ISO 8655-2) with a force demanding pipette after prolonged pipetting hours, whereas the light action of mLINE allows the same reproducibility over the whole period.

## Unique spring mechanism for lighter pipetting

Benefits of the tension spring mechanism used in Biohit mLINE pipettes

- Light pipetting forces
- Starting force is always constant regardless of the volume
- Almost 4-fold difference in comparison to conventional technologies





# mLINE Single and Multichannel Performance Specifications and Ordering Details

New volume!



Cat. No.	Channels	Volume Range (µl)	Increment (µl)	Test Volume (µl)	Inacc. (%)	Impr. (%)	Safe-Cone Filters		Tip (µl)
							Standard	Plus	
725010	1	0.1-3 µl	0.002	3 1.5 0.3	1.30 % 2.40 % 10.00 %	0.80 % 1.60 % 6.00 %	-	-	10
725020	1	0.5-10 µl	0.01	10 5 1 0.5	1.00 % 1.50 % 2.50 % 5.00 %	0.60 % 1.00 % 1.50 % 4.00 %	-	-	10
725030	1	2-20 µl	0.02	20 10 2	0.90 % 1.20 % 3.00 %	0.40 % 1.00 % 2.00 %	721014	-	300
725050	1	10-100 µl	0.10	100 50 10	0.80 % 1.00 % 2.00 %	0.15 % 0.40 % 1.00 %	721008	721018	300, 350
725060	1	20-200 µl	0.20	200 100 20	0.60 % 0.80 % 2.00 %	0.15 % 0.30 % 0.80 %	721007	721017	300, 350
725070	1	100-1000 µl	1.00	1000 500 100	0.60 % 0.60 % 1.00 %	0.20 % 0.20 % 0.40 %	721006	721016	1000
725080	1	500-5000 µl	10.0	5000 2500 500	0.50 % 0.60 % 2.00 %	0.20 % 0.30 % 0.60 %	721005	721015	5000
725120	8	0.5-10 µl	0.01	10 5 1	1.50 % 2.50 % 4.00 %	1.00 % 2.50 % 4.00 %	-	-	10
725130	8	5-100 µl	0.10	100 50 10	0.70 % 1.00 % 3.00 %	0.25 % 0.70 % 1.50 %	721008	721018	300, 350
725140	8	30-300 µl	0.20	300 150 30	0.60 % 1.00 % 2.00 %	0.25 % 0.50 % 1.00 %	721007	721017	350
725220	12	0.5-10 µl	0.01	10 5 1	1.50 % 2.50 % 4.00 %	1.00 % 2.50 % 4.00 %	-	-	10
725230	12	5-100 µl	0.10	100 50 10	0.70 % 1.00 % 3.00 %	0.25 % 0.70 % 1.50 %	721008	721018	300, 350
725240	12	30-300 µl	0.20	300 150 30	0.60 % 1.00 % 2.00 %	0.25 % 0.50 % 1.00 %	721007	721017	350

The specifications are type test specifications achieved under strictly controlled conditions (ISO 8655). Due to Biohit's continuous R&D, specifications may change without prior notice.

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## Biohit Tips

Volume Range (µl)	Packaging	Qty/Unit	Cat. No.
0.1-10 µl	Single Tray	10 x 96 Tips	790010
	Refill Tower	10 x 96 Tips	790012
0.5-300 µl	Single Tray	10 x 96 Tips	790300
	Refill Tower	10 x 96 Tips	790302
5-350 µl	Single Tray	10 x 96 Tips	790350
	Refill Tower	10 x 96 Tips	790352
10-1000 µl	Single Tray	10 x 96 Tips	791000
	Refill Pack	10 x 96 Tips	791002
50-1200 µl	Single Tray	10 x 96 Tips	791200
	Refill Pack	10 x 96 Tips	791202
100-5000 µl	Single Tray	50 Tips	780304

Read more about other Biohit tip packaging options at [www.biohit.com](http://www.biohit.com).

All Biohit Single Tray Tips are certified for CE/IVD and RNase, DNase and endotoxin free.

## Biohit mLINE Starter Kits

Cat. No.	Item
725651	<b>mLINE Starter Kit 1</b> 0.5-10 µl, 10-100 µl, and 100-1000 µl 1-ch. pipettes, 3x Single Tray Tips, accessories, literature and bag
725652	<b>mLINE Starter Kit 2</b> 2-20 µl, 20-200 µl, and 100-1000 µl 1-ch. pipettes, 3x Single Tray Tips, accessories, literature and bag

## Stands & Accessories

Cat. No.	Item
725600	mLINE Carousel Stand for 6 pipettes
725610	mLINE Pipette Holder for one pipette
725620	Linear Stand for all Biohit pipettes
726203	Calibration tool/Tube opener

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