

# HTL LIQUID HANDLING CATALOGUE



PZ HTL S.A. is a modern and dynamically growing enterprise which is part of an international group. We have our own construction and technology department and an experienced, highly-qualified personnel. We use established production and management standards to deliver products of the highest quality to the global market.

Throughout all manufacturing stages, we use well-tested quality control systems. Every product has a unique number to enable its full identification. Individual parameters for each pipette are provided on the certificate attached to the product. All pipettes and pipette controllers made by HTL are developed and manufactured in compliance with European Union standards and directives as well as marked with CE and IVD (In Vitro Diagnostic 98/79/EC), proved by declaration of conformity. PZ HTL S.A. has a certified Quality Management system, compliant with ISO 9001:2008 for designing, manufacturing and selling laboratory products. DEKRA Certification, part of the international DEKRA AG concern is the certifying authority.

HTL products, through an excellently organized sales network, reach over 145 distributors in 80 countries worldwide. In Poland, our home market, we have a countrywide distributor network.





Our company puts a major emphasis on issues related to environmental protection. The major tenet of the HTL environmental policy is to make its operations environmentally friendly. We meet our commitment by complying with the applicable legal provisions in force and environmental protection standards as well as by meeting the rules of conduct set in the corporate policy. Regularly conducted environmental audits are aimed to identify potential threats and incompliances and to take corrective measures.

On-going monitoring is provided to implement pro-environment measures in new areas and to improve Environmental Management System.

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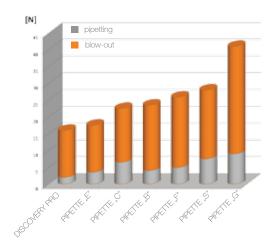
# DISCOVERY PRO pipette series

DISCOVERY PRO pipette series is uniquely dedicated to three key features: ergonomics, accuracy and precision. Lightweight construction, contoured shape of the handle and finger-hook guarantee correct grip reducing wrist strain and fatigue (RSI). The tip ejection force is reduced by more than 30%, in comparison with traditional pipette construction, thanks to the unique pushbutton-lever system.

Modern design & innovative construction guarantee thermal insulation of internal parts

- Eliminates the risk of heat transfer to the inner mechanism of the pipette
- Improves accuracy

### Ultra low pipetting forces





## Quality according to GLP standards

- Volume setting lock
- Colour codina





- 4-digit counter remains visible during work
  - Clear & easy to read numbers
  - Very fast counter rewinding

The use of the highest quality grade materials guarantees the best chemical and mechanical resistance possible and enables sterilization under UV light and by autoclaving.

Due to universal shafts and long ejector stroke DISCOVERY PRO pipettes are compatible with virtually all brands of tips.

DISCOVERY PRO pipette series bring ergonomics to the highest level. Comfortable pipetting and ejector pushbuttons, well-shaped handle and finger rest guarantee correct grip and "soft" spring system reduces wrist strain and fatigue.

Accuracy and precision according to ISO 8655.

Each pipette is individually calibrated and issued with a quality certificate.

Model	Cat. no.	Colour code	Volume (µI)	A(%)	P(%) F	Fit to tips
DP2*	6001	•	0.2 1.0 Max 2.0	± 12.0 ± 2.7 ± 1.5	± 6.0 ± 1.3 ± 0.7	10 µl
DP10	6002	•	Min 0.5 5.0 Max 10.0	± 4.0 ± 1.0 ± 0.5	± 2.8 ± 0.6 ± 0.4	το μι
DP20	6003	•	Min 2 10 Max 20	± 3.0 ± 1.0 ± 0.8	± 1.5 ± 0.5 ± 0.3	
DP100	6004	•	Min 10 50 Max 100	± 1.6 ± 0.8 ± 0.8	± 0.8 ± 0.24 ± 0.2	200 µl
DP200	6005	•	Min 20 100 Max 200	± 1.2 ± 0.8 ± 0.6	± 0.6 ± 0.25 ± 0.2	
DP1000	6006		Min 100 500 Max 1000	± 1.6 ± 0.7 ± 0.6	± 0.4 ± 0.2 ± 0.15	1000 µl

\*DP2 – minimum volume is 0.1µl.

Model	Cat. no.	Colour code	Volume (µl)	A(%)	P(%) F	Fit to tips
DP8-10 DP12-10	4951 4955	•	Min 1 5 Max 10	± 8.0 ± 4.0 ± 2.0	± 6.0 ± 2.0 ± 1.2	10 µl
DP8-50 DP12-50	4952 4956	•	Min 5 25 Max 50	± 4.0 ± 3.0 ± 1.6	± 2.5 ± 1.2 ± 0.6	200 µl
DP8-200 DP12-200	4953 4957	•	Min 20 100 Max 200	± 3.0 ± 1.5 ± 1.0	± 1.5 ± 0.8 ± 0.6	200 μι
DP8-300 DP12-300	4954 4958	•	Min 50 150 Max 300	± 1.6 ± 1.2 ± 1.0	± 1.5 ± 1.0 ± 0.6	300 µl

## Starter DISCOVERY PRO 4 pack

Economy set of 4 pipettes and accessories.

Product	Cat. no.	Model	Accessories
DISCOVERY PRO STARTER 4 PACK	7903	DP10 DP20 DP200 DP1000	Plexi 4-position stand Tips 10 µl, 96 pcs Tips 200 µl, 96 pcs Tips 1200 µl, 96 pcs Calibration tool x 4 Pipette hanger x 4 Instruction manuals

## Intuitive way of the user calibration



Lock the volume setting knob. Remove the color cap using the calibration key. Set the calibration switch in its upper position.



Insert the calibration key into the ejector orifice. Turn the key so as the volume indicated by the counter is equal to the average calculated volume.



Remove the calibration key and set the calibration switch in its lower position. Place the cap on the ejector button.



## MULTICHANNEL PIPETTES

Multichannel DISCOVERY PRO pipette version provides all the benefits of the single channel pipette and more. Light weight, contoured shape of the handle, excellent accuracy and precision combined with revolutionary multichannel manifold set the new standard of working with micro plates. The pipettes available in a wide range of volumes in 8- & 12-channel version, make the daily life in many laboratories easier.

















- 4-digit counter
- Low pipetting forces eliminating fatigue and improve test results
- Highest accuracy & precision
- Robust design
- User friendly calibration system
- Sequential tip ejector tip ejection with minimum effort
- 360° manifold for optimal working comfort
- Tip loading mechanism for perfect tip sealing



# DISCOVERY COMFORT pipette series

DISCOVERY COMFORT pipettes combine the highest level of accuracy and precision with traditional design to make the pipetting experience comfortable and safe. The pipettes are available in single and multichannel version.

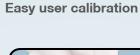
- Low pipetting forces and ergonomic design prevent RSI
- Smooth volume setting with volume locking
- Colour coding
- Excellent precision in long pipetting series



- Robust design
- Perfect tip sealing with minimum effort
- UV resistant & fully autoclavable
- 5 & 10 ml shafts protected by filter



- Sequential tip ejector tip ejection with minimum effort
- 360° manifold for optimal working comfort
- Tip loading mechanism for perfect tip sealing





Remove the pushbutton set.



Insert the calibration key and locate in the key slots. The calibration key is delivered with the pipette.



Turn the key to increase or decrease the display volume.



Replace the pushbutton set. The procedure is complete.



Model	Cat. no.	Colour code	Volume (µI)	A(%)	P(%)	Fit to tips	
DV2* D2	4041 4051	•	0.2 1.0 Max 2.0	± 12.0 ± 2.7 ± 1.5	± 6.0 ± 1.3 ± 0.7		
DV10 D10	4042 4052	•	Min 0.5 5.0 Max 10.0	± 4.0 ± 1.0 ± 0.5	± 2.8 ± 0.6 ± 0.4	10 μΙ	June
DV20 D20	4043 4053	•	Min 2 10 Max 20	± 3.0 ± 1.0 ± 0.8	± 1.5 ± 0.5 ± 0.3		
DV50 D50	4047 4057	•	Min 5 25 Max 50	± 2.5 ± 1.0 ± 0.8	± 2.0 ± 0.6 ± 0.4		James
DV100 D100	4044 4054	•	Min 10 50 Max 100	± 1.6 ± 0.8 ± 0.8	± 0.8 ± 0.24 ± 0.2	200 μΙ	
DV200 D200	4045 4055	•	Min 20 100 Max 200	± 1.2 ± 0.8 ± 0.6	± 0.6 ± 0.25 ± 0.2		
DV250 D250	4040 4050		Min 50 125 Max 250	± 1.0 ± 0.8 ± 0.6	± 0.4 ± 0.3 ± 0.3	300 µl	Jan
DV1000 D1000	4046 4056	•	Min 100 500 Max 1000	± 1.6 ± 0.7 ± 0.6	± 0.4 ± 0.2 ± 0.15	1000 µl	
DV5000 D5000	4048 4058	0	Min 1000 2500 Max 5000	± 0.6 ± 0.6 ± 0.5	± 0.25 ± 0.2 ± 0.15	5000 µl	
DV10000 D10000	4049 4059	0	Min 1000 5000 Max 10000	± 2.5 ± 0.8 ± 0.5	± 0.6 ± 0.3 ± 0.2	10000 µl	

\*DV2/D2 – minimum volume is 0.1µl.

Model	Cat. no.	Colour code	Volur	Volume (µI)		P(%)	Fit to tips
DV8-10 DV12-10	5121 5125	•	Min Max	1 5 10	± 8.0 ± 4.0 ± 2.0	± 6.0 ± 2.0 ± 1.2	10 µl
DV8-50 DV12-50	5122 5126	•	Min Max	5 25 50	± 4.0 ± 3.0 ± 1.6	± 2.5 ± 1.2 ± 0.6	000 til
DV8-200 DV12-200	5123 5127	•	Min Max	20 100 200	± 3.0 ± 1.5 ± 1.0	± 1.5 ± 0.8 ± 0.6	200 µl
DV8-300 DV12-300	5124 5128	•	Min Max	50 150 300	± 1.6 ± 1.2 ± 1.0	± 1.5 ± 1.0 ± 0.6	300 µl





## **DISCOVERY COMFORT starter sets**

Economy set of 3 or 4 pipettes and accessories.

Product	Cat. no.	Model	Accessories
DISCOVERY Comfort STARTER PACK	7901	DV10 DV20 DV200 DV1000	Plexi 4-position stand Tips 10 µl, 96 pcs Tips 200 µl, 96 pcs Tips 1200 µl, 96 pcs Calibration tool x 4 Pipette hanger x 4 Instruction manuals
DISCOVERY STARTER KIT	7924 7926	DV20 DV200 DV1000 D20 D200 D1000	Tips 200 µl, 96 pcs Tips 1200 µl, 96 pcs Calibration tool x 3 Pipette hanger x 3 Instruction manuals
DISCOVERY STARTER KIT BIO	7923 7925	DV10 DV100 DV1000 D100 D100 D1000	Tips 10 µl, 96 pcs Tips 200 µl, 96 pcs Tips 1200 µl, 96 pcs Calibration tool x 3 Pipette hanger x 3 Instruction manuals

# LABMATE PRO pipette series

The LABMATE PRO pipette family offers a wide variety of volume models for different laboratory applications. Its durable, UV resistant and autoclavable body is coupled with high accuracy and precision performance to ensure many years of reliable service in laboratories all over the world.



- Contoured shape of the handle and light weight
- Proven accuracy and precision
- UV resistant & fully autoclavable
- 5 & 10 ml shaft protected by filter
- Available in 8- & 12-channel version
- Colour coded shafts for easy volume identification







The adjustable ejector height system – to accommodate virtually all brands of tips



Dual volume setting using the pushbutton or the thumbwheel



Soft spring system for smooth, effortless pipetting

Multichannel LABMATE PRO pipette version feature a revolutionary suspension system which allows the shafts to retract slightly when pressed against a row of pipette tips. Each shaft moves independently, resulting in an even sealing force being applied to all 8 or 12 tips. The suspension system not only ensures secure tip sealing but also eliminates the common incident of tips being jammed. The 360° manifold guarantees optimal working comfort.

Model	Cat. no.	Colour code	Volume (µI)	A(%)	P(%)	Fit to tips
LMP2*	5661		Min 0.1 1.0 Max 2.0	± 12.0 ± 2.7 ± 1.5	± 6.0 ± 1.3 ± 0.7	10 µl
LMP10	5562		Min 0.5 5.0 Max 10.0	± 4.0 ± 1.0 ± 0.5	± 2.8 ± 0.6 ± 0.4	то рг
LMP20	5563	•	Min 2 10 Max 20	± 3.0 ± 1.0 ± 0.8	± 1.5 ± 0.5 ± 0.3	
LMP50	5567	•	Min 5 25 Max 50	± 2.5 ± 1.0 ± 0.8	± 2.0 ± 0.6 ± 0.4	
LMP100	5564	•	Min 10 50 Max 100	± 1.6 ± 0.8 ± 0.8	± 0.80 ± 0.24 ± 0.20	200 µl
LMP200	5565	•	Min 20 100 Max 200	± 1.2 ± 0.8 ± 0.6	± 0.60 ± 0.25 ± 0.20	
LMP250	5660	•	Min 50 125 Max 250	± 1.0 ± 0.8 ± 0.6	± 0.4 ± 0.3 ± 0.3	300 µl
LMP1000	5666		Min 100 500 Max 1000	± 1.6 ± 0.7 ± 0.6	± 0.40 ± 0.20 ± 0.15	1000 µl
LMP5000	5668	0	Min 1000 2500 Max 5000	± 0.6 ± 0.6 ± 0.5	± 0.25 ± 0.20 ± 0.15	5000 µl
LMP10000	5669	0	Min 1000 5000 Max 10000	± 2.5 ± 0.8 ± 0.5	± 0.6 ± 0.3 ± 0.2	10000 µl
*LMP – minimum vo	lume is 0.1µl.		ı I	ı	ı	
Model	Cat. no.	Colour	Volume (µI)	A(%)	P(%)	Fit to tips

Model	Cat. no.	Colour code	Volume (p	ul) <i>F</i>	٨(%)	P(°	%)	Fit to tips	
LMP8-10 LMP12-10	6281 6285	•	Min Max 1	1 5 0	± 10 ± 4.0 ± 2.0	± ± ±	8.0 2.0 1.2	10 µl	21
LMP8-50 LMP12-50	6282 6286	•	Min 2 Max 5	5 5 0	± 4.0 ± 3.0 ± 1.6	± ± ±	2.5 1.2 0.6	000 4	
LMP8-200 LMP12-200	6283 6287	•	Min 2 10 Max 20	20	± 3.0 ± 1.5 ± 1.0	± ±	1.5 0.8 0.6	200 µl	
LMP8-300 LMP12-300	6284 6288	•	Min & 18 Max 30	50 50 50	± 1.6 ± 1.2 ± 1.0	± ± ±	1.5 1.0 0.6	300 µl	
	5	484			5449			5480	5479
	rousel tand		Multip stand					Plexi 4-position stand	Plexi 1-position stand

# CLINIPET+ pipette series

CLINIPET+ fixed volume pipettes are available in 33 models from 2  $\mu$ I up to 1000  $\mu$ I. The handle and mechanism have been especially designed for fixed volume pipettes. The pipette features reduced pipetting forces and excellent accuracy and precision combined with highly durable, UV resistant and fully autoclavable body.

 Recalibration system allows for quick and accurate pipettes calibration



- Low pipetting forces prevents RSI
- Highly durable, made from PVDF shafts guarantee highest mechanical and chemical resistance





Unique tip sealing system

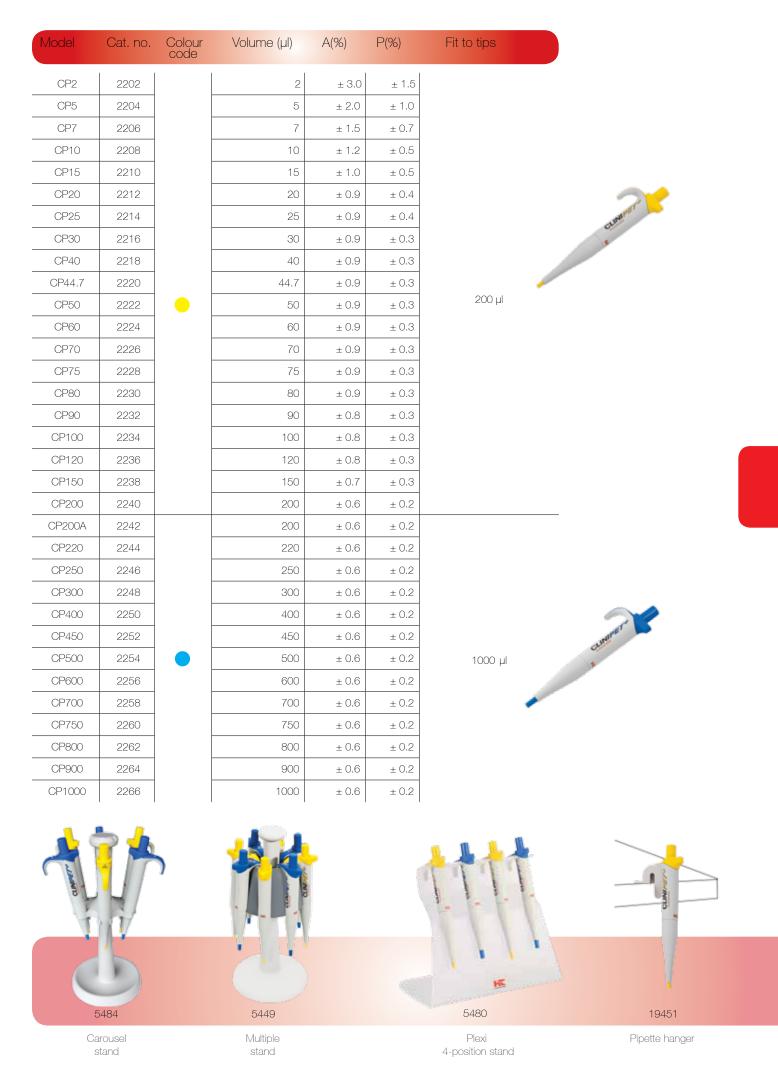




Sliding tip ejector button – perfect for right & left handed people. Its unique construction reduces tip ejection forces



Easy removable tip ejector allows working with narrow tubes



# Pipette tips - standard & filtered

Pipette tips are integral components of the pipetting system. Their shape, material properties and purity have influence on pipetting results. HTL pipette tips are manufactured from the virgin polypropylene in clean room conditions and are certified to be free from bio-contaminants. HTL offer includes standard, sterile and filtered version in all popular packaging formats:

#### **Bulks**

Pipette tips are available in bulks – resealable plastic bags – keeping them safe from contamination. One bulk contains 200, 250 or 1000 pieces of tips depending on the tip volume.



#### **Racks**

Tip racked in durable polypropylene box providing good stability on the lab bench. One rack contains 96 or 100 pieces of tips depending on the tip volume.



#### Stack racks

Stack racks secure the tips and save valuable space. One stack rack contains 5 trays with 96 tips. Available only for 10 µl and 200 µl tips. Can be used to refill standard racks.



### Refill system

One refill contains 10 trays with 96 tips each plus an empty rack box. Available only for 10 µl and 200 µl tips with graduation marks.









- Perfect fitting and sealing with HTL pipettes secures the best possible accuracy and precision
- Compatible with most other pipettes on the market
- Strict quality standards, ISO 9001 and ISO 13485, followed from R&D to production and delivery
- The highest quality virgin polypropylene used as raw material

Volume of the tip [µl]	Pipette volume range	Cat. no.	Sterile	Packaging
		30011	no	1000 tips / bag
		30012	no	96 tips / box x 10 boxes
0.5 - 10 short	0.1 - 2 0.5 - 10	30013	yes	96 tips / box x 10 boxes
		30014	no	5 trays of 96 tips in a stack
		30015	no	10 removable trays of 96 tips*
		34011	no	1000 tips / bag
0.5 - 10 extended	0.1 - 2 0.5 - 10	34012	no	96 tips / box x 10
		34013	yes	96 tips / box x 10
4 000	2 - 20	30201	no	1000 tips / bag
1 - 200 without graduation	5 - 50 10 - 100	30202	no	96 tips / box x 10
marks	20 - 200	30203	yes	96 tips / box x 10
	2 - 20	30221	no	1000 tips / bag
1 - 200		30222	no	96 tips / box x 10
graduation marks at 10, 50 and	5 - 50 10 - 100	30223	yes	96 tips / box x 10
100 µl	20 - 200	30224	no	5 trays of 96 tips in a stack
		30225	no	10 removable trays of 96 tips*
		30301	no	1000 tips / bag
1 - 300 fine-point	50 - 250 50 - 300	30302	no	96 tips / box x 10
'		30303	yes	96 tips / box x 10
		31001	no	1000 tips / bag
100 - 1000 bevelled	100 - 1000	31002	no	100 tips / box x 10
Bovolica		31003	yes	100 tips / box x 10
100 - 1200	100 1005	31201	no	1000 tips / bag
bevelled	100 - 1000	31202	no	96 tips / box x 12
1000 - 5000 macrovolume	1000 - 5000	35001	no	250 tips / bag
1000 - 10000 macrovolume	1000 - 10000	36001	no	200 tips / bag

* Refill o	contains	10	trays	with	tips	plus	2 racks

Volume of the tip [µl]	Pipette volume range	Cat. no.	Sterile	Packaging
0.5 -10 short	0.1 - 2 0.5 - 10	30016	yes	96 tips / box x 10
0.5 - 10 extended	0.1 - 2 0.5 - 10	34016	yes	96 tips / box x 10
0.5 - 20 graduation marks	2 - 20	30026	yes	96 tips / box x 10
0.5 - 50 graduation marks	5 - 50	30056	yes	96 tips / box x 10
1 - 100 graduation marks	10 - 100	30106	yes	96 tips / box x 10
1 - 200 graduation marks	20 - 200	30206	yes	96 tips / box x 10
1 - 300 fine-point	50 - 250 50 - 300	30306	yes	96 tips / box x 10
100 - 1000 bevelled	100 - 1000	31006	yes	100 tips / box x 10
100 - 1100 bevelled	100 - 1000	31206	yes	96 tips / box x 12



# Pipette stands & accessories

HTL offers a wide range of high quality accessories for pipette storage, protection and identification.

Product	Cat. no.	For pipettes
Carousel stand	5484	Single channel pipettes: D/DV2-D/DV1000, LMP2-LMP1000, CP
Multiple stand	5449	Single and multichannel pipettes: DP, D/DV, LMP, CP
Plexi 1-position stand	5479	Single and multichannel pipettes: DP, D/DV, LMP,CP
Plexi 4-position stand	5480	Single and multichannel pipettes: DP, D/DV, LMP, CP
Pipette hanger	19483	Single and multichannel pipettes: DP, LMP
Pipette hanger	19451	Single and multichannel pipettes: D/DV, CP
Colour-coded rings	19630	Single channel pipettes: D/DV, LMP
Protective filter for pipettes 5 and 10 ml set of 50 pcs	19477	Single channel pipettes: D/DV, LMP

## HTI Service

HTL is committed to providing our customers with innovative, high-quality products, factory-authorized repair and calibration services. All HTL products are designed and operate under ISO 8655 standard. Each pipette is calibrated and delivered with a unique individual certificate of accuracy and precision to guarantee the standard.

#### Calibration and pipette service

HTL Liquid Handling products are very precise measurement devices and they may be subject to various unnoticed improper interactions, even under ideal laboratory conditions. It is strongly recommended for the laboratory equipment to be inspected and maintained at least once a year by authorized service. This will ensure its correct and precise work during the life of the product. HTL offers services including maintenance, calibration and repairs. All available to a wide range of HTL products manufactured at present and in the past.

Procedure \ Service*	Basic calibration	Advanced calibration	Repair	Additional description of the procedure
Preliminary assessment of the product	+	+	+	Mechanical work, leaks
Cleaning / Decontamination	+	+	+	The customer is obliged to provide a Decontamination Form with the product
Disassembling and checking	+	+	+	Evaluation of the parts wear
Sealing parts replacement	**	+	+	Replacement of parts which are the subject of wear
Parts lubrication	+	+	+	Cleansing and moisturizing the piston surface
Replacement of the damaged parts			+	Based on evaluation
Pipettes modernization		**	**	Installation of the most up-to-date parts
2-point calibration	+		+	Gravimetric test based to ISO 8655
3-point calibration		+	**	Gravimetric test according to ISO 8655

<sup>\*</sup>above information applicable for HTL factory service unit; depending on the region selected an alternative services may be offered - please contact your distributor for details PZ HTL S.A. reserves the right to change the offer without prior notice.

\*\* if required / requested by the user

### Pipette maintenance

HTL pipette design provides the highest work standard. The combination of the high quality product and a regular maintenance and calibration is your guarantee of long and reliable operation. To ensure a troublefree maintenace, every pipette is supported with a set of accessories, including a calibration key and a piston lubricant. All necessary maintenace instructions can be found in the user manual, for more detailed information please check our website www.htl.com.pl.

# SWIFTPET PRO pipette controller

Pipetting using glass and plastic volumetric pipettes has never been so easy as with SWIFTPET PRO pipette controller. Ergonomically shaped handle, together with well-located, smooth pushbuttons and switches guarantee effortless pipetting even during extensive use. Convenient charging stand helps to store the pipette controller while not in use. Easily accessible switches on the SWIFTPET PRO allow choosing different operation modes depending on the volume of pipette and viscosity of liquid. The SWIFTPET PRO is an excellent tool for pipetting in tissue culture laboratories, water treatment facilities, academic labs, and more.

#### Safe and efficient work

- Protected by a PTFE filter blocking any liquid from entering the unit
- Autoclavable filter, the pipette holder and the nosepiece
- UV resistant body for safe sterilization
- Powerful, environmentally friendly 3 Ni-MH batteries enables many hours of continuous work
- LCD display showing battery charge level



### Speed and working mode adjustment

Function buttons for SPEED and working MODE control in a reach of a thumb

Additional adjustment by the pressure applied to the trigger buttons





- Suitable for glass & plastic volumetric pipettes 0,5-100 ml
- Ergonomically shaped handle
- Well located function buttons
- Convenient charging stand for bench/wall mounting
- Easy access to the batteries











Product	Cat. no.
SWIFTPET PRO with charging stand	0390
Charging stand	29056
Pipette holder	29054
Hanger	9029
Nosepiece	29053
Micro filter 0.20 µl	9023
Micro filter 0.45 μl	9024
Universal charger 9V type: EU, US, UK, AU	9010



# Serological pipettes

Designed for easy and accurate dispensing, polystyrene serological pipettes are perfect for a wide range of applications. Bold clear graduation with easy to read numbers guarantees best tests results possible and the negative graduations increase pipette capacity. Colour coded plug helps identify nominal volume. All pipettes are free from bio contaminants and the sterile version offers sterility assurance level SAL of 10-6.

Pipette type	Description	Plug colour	Vol. [ml]	Packaging format	Cat. no.	Sterile
	General applications: tissue culture,	•	1	1	41011	yes
			'	25	41012	yes
			2	1	41021	yes
				25	41022	yes
			5	1	41031	yes
Standard tip				25	41032	yes
	microbiology		10	1	41041	yes
			10	25	41042	yes
			0.5	1	41051	yes
			25	10	41050	yes
			50	1	41061	yes
Short	For applications		5	1	42031	yes
(220 mm)	under hoods		10	1	42041	yes
			_	1	43031	yes
Wide	For viscous solutions,		5	25	43032	yes
tip	food testing and life science applications			1	43041	yes
			10	25	43042	yes
Open end	For very viscous solutions & suspensions			1	44011	yes
			1	25	44012	yes
				1	44021	yes
			2	25	44022	yes
				1	44031	yes
			5	25	44032	yes
				1	44041	yes
			10	25	44042	yes
	For dairy applications	•		1	45071	yes
Milk & Bacteriological			1.1	25	45072	yes
Will a Bastonologisal				1	45081	yes
			2.2	25	45082	yes
	Non plugged, non graduated	no -	2	1	46021	yes
Aspiration			10	1	46041	yes
Standard tip	Economic for all	no	1		47013	no
			2		47023	no
	non- sterile		5	Bag	47033	no
	applications		10		47043	no
			25		47053	no







# MINILAB 201 dispenser

MINILAB 201 dispenser was engineered to revolutionize repetitive pipetting work. Its positive displacement principle guarantees superior accuracy and precision of the dispenser, no matter how dense or viscid substances are dispensed. Its precise stepping mechanism ensures repeatability of dispensed doses. The MINILAB 201 dispenser offers as many as 48 dispensing steps from single syringe filling. Samples can be dosed at intervals as fast as one second. Disposable syringes applied in the MINILAB 201 dispenser prevent dispensing samples cross contamination and speed up repetitive pipetting work.



### Easy long series dispensing

- Lightweight 100 g
- Maintenance free
- Ideal for viscous solutions
- Compatible with most syringes available on the market
- Supplied with adapter for 25 ml and 50 ml syringes

### **Syringes**

The MINILAB 201 dispenser works with eight sizes of disposable, pure polypropylene syringes from 0,05 ml to 50 ml. HTL syringes provide most accurate pipetting when used with the MINILAB 201 dispenser. Each syringe is marked to indicate the total capacity and the repetitive volumes it can dispense. Volumes from 1  $\mu$ I to 5 ml can be dispensed, depending upon the volume selected.

Syringe selection is shown in the table below:

Dial setting	1	2	3	4	5	A0/	Do/
Number of doses	48	23	15	11	8	- A%	P%
Syringe volume* (ml)	Sample volume (µI)						
0.05	1	2	3	4	5	± 6.0	± 9.0
0.50	10	20	30	40	50	± 1.0	± 1.5
1.25	25	50	75	100	125	± 0.9	± 0.9
2.50	50	100	150	200	250	± 0.7	± 0.9
5.0	100	200	300	400	500	± 0.3	±0.8
12.50	250	500	750	1000	1250	± 0.3	± 0.7
25.00	500	1000	1500	2000	2500	± 0.5	± 0.6
50.00	1000	2000	3000	4000	5000	± 0.5	± 0.6

<sup>\*</sup>Please use the syringe 0.05 ml with an attached pipette tip (10 µl). Values for a syringe 0.5ml, 1.25 ml and 2.5 ml were measured with an attached 200 µl pipette tip, values for a syringe 0.05 ml were measured with an attached 10 µl pipette tip.

Product	Cat. no.
MINILAB 201 with adapter for 25 and 50 ml syringes	0020
Adapter for syringes 25 and 50 ml	5709
Plexi 1-position stand	5479

The syringes are compatible with dispensers\*\*:

- ripette®
- Multipette® 4780
- Minilab 100/101
- Distriman® EasyStep
- HandyStep®
- HandyStep® electronic

Syringe	Cat. no. No Sterile	Cat. no. Sterile	Pcs / pack
0.05 ml	5701	-	100
0.50 ml	5702	5752	100
1.25 ml	5703	5753	100
2.50 ml	5704	5754	100
5.00 ml	5705	5755	100
12.50 ml	5706	5756	100
25.00 ml	5707	5757	25
50.00 ml	5708	5758	25



