

# Liquid Handling catalog



Liquid Handling

 made  
in  
Germany

DIN EN ISO  
DE-M



Witeg Labortechnik GmbH is one of the leading manufacturers and suppliers of laboratory glassware, custom-built glassware, liquid handling articles, electronic witeg instruments and equipment.

Witeg Labortechnik GmbH was founded in the year 1960 to develop glass devices. Nowadays, we can offer beside glass articles almost everything for the laboratories. The products fulfil the very high demands in the chemical, pharmaceutical and medical sectors and are delivered to **more than 100 countries worldwide**. Our actual product range covers **more than 30.000 products** which are mostly **ex stock** available.



Our company's philosophy is preliminary **quality for the customer**. The **quality management system** of witeg Labortechnik has been officially **certified** already in 1994 by the **DIN EN ISO 9001** to guarantee the highest international quality standards. We permanently perform investment in qualified and engaged employees to reach the optimum level of quality. Furthermore, we emphasize to make use of latest computer-aided equipment and technique which is necessary to obtain best performance and utmost quality.

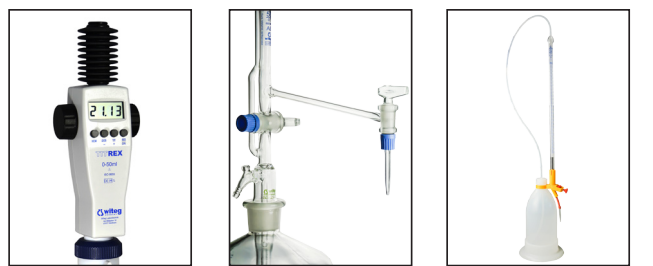


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## PIPETTING

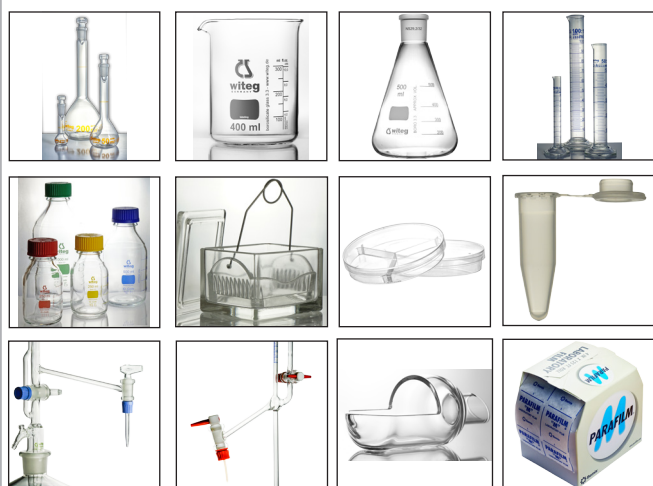
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# Bottle-top dispenser

Choose the right dispenser for your application

		LABmax premium	LABmax eco	LABmax airless	LABmax airless HF	MINISPENSOR	TITREX
Suitability	Aqueous solutions	X	X	X	X	X	X
	Crystalline solutions	X	X			X	X
	Solvents	X*	X*	X	X	X*	X*
	HF				X		
Volume setting	Quick-lock knob	X	X			X	
	Adjustment screw			X	X		
Special features	Air-purging	X	X	X	X		X
	180° drip-free system	X	X	X	X		X
	Zero loss of reagent	X	X				X
	360° safety turn	X	X	X	X		X
	Built-in recalibration	X					X
Autoclavable	at 121°C	X	X	X	X	X	X**
Dispensing system	Direct displacement	X	X			X	X
	Contactless piston			X	X		
Certifications	Individual certificate	X	X	X	X	X	X
	DE-M marked	X	X	X	X	X	X

\*For detailed information regarding the chemical resistance of the dispenser, please see page 16.

\*\*Only valve block autoclavable.



# LABmax premium

The universal dispenser **LABMAX premium** has a sophisticated system which allows air purging and draining without any loss of reagent! Due to the direct displacement system **LABMAX premium** is ideal for crystalline solutions. We improved the adjust knob for a quick and precise volume setting. In addition, we added the built-in recalibration mechanism.

Screw mechanism for easy recalibration of the piston

Quick-adjust knob for precise and fast volume setting

Piston with PTFE protected Viton O-ring completely displaces the liquid during dispensing

Glass cylinder with protective plastic coating for clear view of the liquid

Screw cap for complete disassembly and easy cleansing of the piston and cylinder

Rotatable discharge tube with protective sleeve

**0° Dosing mode**  
**90° Air-purging mechanism**  
**180° Drip-free rest position**  
**ZERO LOSS OF REAGENT**

Liquid Handling



360° rotatable valve block - the label of the reagent bottle is always visible



# Premium Design - Premium Performance - Premium Quality

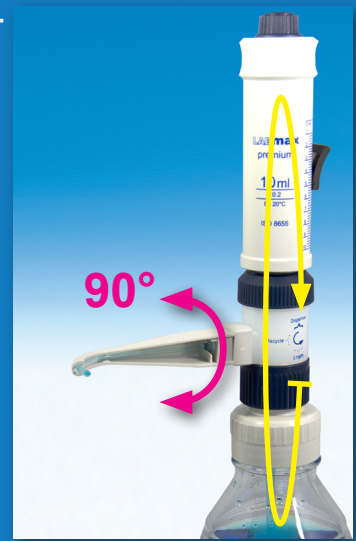


## Quick and precise volume setting

Adjusting the volume of **LABMAX premium** is now even simpler: Just push the re-designed quick-adjust knob – slide to the desired volume– release – that's all! Moreover, two scales are printed on the dispenser for adjustments in milliliter or ounces.

## Perfect air-purging mechanism for 0% reagent loss

Turn the discharge tube at 90°. Remove (purge) trapped air without reagent loss by pumping in a closed circuit: The reagent flows back into the bottle! After pumping 2 - 3 times the dispenser is free of air and ready to use. This special feature helps not only to save residual reagent but also when accidentally setting the wrong volume!



## Easy and fatigue-proof dispensing

Turn the discharge tube into the dosing mode and enjoy dispensing with **LABMAX premium**. The piston of **LABMAX premium** completely discharges the reagent with each stroke. The dispensing glass cylinder is protected with a transparent plastic coating which allows the user to view the liquid in the glass cylinder. The protective coating also reduces the risk of breakage!

## 100% drip-free system for your safety

By turning the discharge tube at 180° all liquid flows back into the bottle. **LABMAX premium** is completely closed and no accidental discharge can occur by inadvertently moving the piston. There is absolutely no dripping possible!



## 360°-turn for your added safety

No matter how much you tighten **LABMAX premium**, you can always redirect the discharge tube by simply turning the valve block to the desired position. This way the label of the bottle is always visible. This feature works for all our adapters. Adapters for different bottle threads can remain on the bottle.

## “Do-it-yourself” recalibration for a long life time

If you use **LABMAX premium** as a measuring device in conformity to ISO 9001 and GLP, you may also want to control and monitor its accuracy and reliability. The piston can easily be recalibrated by turning an internal screw!



Liquid Handling  
made  
in  
Germany**NEW****Built-in recalibration****Zero loss of reagent**

scale for ml and oz



## 6 sizes: 0.25-100ml

### Your advantage at a glance:

- high-quality precision instrument, made in Germany
- **best in its class performance, most competitive pricing**
- highest accuracy and precision, our error ranges are better than the DIN EN ISO 8655-5 requirements
- **all-purpose dispenser, universal chemical compatibility**
- direct displacement piston system, ideal for crystalline solutions
- **built-in recalibration mechanism including calibration tool**
- robust and stable, made of high quality materials e.g. platinum springs
- 0% loss of reagent by pumping in a closed circuit
- 100% drip-free due to our unique anti-drip system
- 360° rotatable valve block for added safety
- with 2 scales - for measurements in millilitre and ounces
- one handed operation
- flexible by using different bottle adapters
- easy to clean, completely autoclavable at 121°C
- telescopic suction tube included in scope of supply
- individual certificate and serial number
- DE-M marked according to the German calibration law

### LABmax premium

Volume ml	Division ml	Systematic errors ± ml	Random errors ≤ ml	Thread GL	Order number
0.25 - 2.5	0.05	0.012	0.002	32	5 370 901
0.5 - 5.0	0.10	0.03	0.005	32	5 370 902
1.0 - 10.0	0.20	0.06	0.01	32	5 370 903
2.5 - 25.0	0.50	0.15	0.025	45	5 370 904
5.0 - 50.0	1.00	0.3	0.05	45	5 370 905
10.0 - 100.0*	2.00	0.5	0.1	45	5 370 906

### Scope of supply

LABmax premium, telescopic suction tube, discharge tube, instruction manual, calibration tool, individual certificate, serial number, thread adapter (2.5/5.0/10.0 ml: A25, A28, A45, S40 | 25.0/50.0/100.0 ml: A25, A28, A32/45, S40)

### Parts in contact with reagent:

The components having direct contact with the reagent are made of chemical resistant materials: platinum spring, ceramic valve balls, PTFE piston, borosilicate glass 3.3 cylinder, borosilicate glass 3.3 valve

\* 100 ml version with adjustment screw for volume setting

# The economical and ecological way to dispense

Dispensing with **LABMAX eco** is both economic and ecologically friendly. This standard-dispenser is usable for nearly all liquid dispensing applications in the lab and is especially **ECO**nomically priced. Use the “recycling mode” for an **ECO**logical air-purging and draining without any loss of reagent!



## Quick and precise volume setting

Adjusting the volume of **LABMAX eco** is very simple: Just push the quick-adjust knob – slide to the desired volume– release – that’s all!

## Perfect air-purging mechanism for 0% reagent loss

Turn the discharge tube at 90°. Remove (purge) trapped air without reagent loss by pumping in a closed circuit: The reagent flows back into the bottle!

After pumping 2 - 3 times the dispenser is free of air and ready to use.

This special feature helps not only to save residual reagent but also when accidentally setting the wrong volume!



## 360°-turn for your added safety

No matter how much you tighten **LABMAX eco**, you can always redirect the discharge tube by simply turning the valve block to the desired position. This way the label of the bottle is always visible.

This feature works for all our adapters. Adapters for different bottle threads can remain on the bottle.

## 100% drip-free system for your safety

By turning the discharge tube at 180° all liquid flows back into the bottle. **LABMAX eco** is completely closed and no accidental discharge can occur by inadvertently moving the piston.

There is absolutely no dripping possible!





Liquid Handling  
made  
in  
Germany



Zero loss of reagent

## 7 sizes: 0.25-250ml

### Your advantage at a glance:

- high quality precision instrument, made in Germany
- **all-purpose dispenser, universal chemical compatibility**
- highest accuracy and precision, our error ranges are better than the DIN EN ISO 8655-5 requirements
- most affordable price in its class
- direct displacement piston system, ideal for crystalline solutions
- robust and stable, made of high quality materials e.g. platinum springs
- **0% loss of reagent by pumping in a closed circuit**
- **100% drip-free due to our unique anti-drip system**
- 360° rotatable valve block for added safety
- one handed operation
- flexible by using different bottle adapters
- easy to clean, completely autoclavable at 121°C
- 250ml dispenser available
- individual certificate and serial number
- DE-M marked according to the German calibration law

### LABmax eco

Volume ml	Division ml	Systematic errors ± ml	Random errors ≤ ml	Thread GL	Order number
0.25 - 2.5	0.05	0.012	0.002	32	5 370 001
0.5 - 5.0	0.10	0.03	0.005	32	5 370 002
1.0 - 10.0	0.20	0.06	0.01	32	5 370 003
2.5 - 25.0	0.50	0.15	0.025	45	5 370 004
5.0 - 50.0	1.00	0.3	0.05	45	5 370 005
10.0 - 100.0*	2.00	0.5	0.1	45	5 370 006
25.0 - 250.0**	5.00	1.2	0.25	45	5 370 007 OE

### Scope of supply

LABmax eco, suction tube, discharge tube, instruction manual, individual certificate, serial number, thread adapter (2.5/5.0/10.0 ml: A25, A28, A45, S40 | 25.0/50.0/100.0 ml: A25, A28, A32/45, S40 | 250 ml: A25, A28, A32/45, A38, S40)

### Parts in contact with reagent:

The components having direct contact with the reagent are made of chemical resistant materials: platinum spring, ceramic valve balls, PTFE piston, borosilicate glass 3.3 cylinder, borosilicate glass 3.3 valve

\* 100 ml version with adjustment screw

\*\* 250 ml version with adjustment screw and **no** air-purging mechanism

# The specialist for solvents with automatic air-purging

The universal-dispenser **LABMAX airless** is equipped with an automatic air-purging system: your dispenser is ready to use after no more than two dosings. The contact-less piston system allows smooth and easy dispensing and makes this dispenser ideal for solvents.



## 360°-turn for your added safety

No matter how much you tighten **LABMAX airless**, you can always redirect the discharge tube by simply turning the valve block to the desired position. This way the label of the bottle is always visible. This feature works for all our adapters. Adapters for different bottle threads can stay on the bottle!

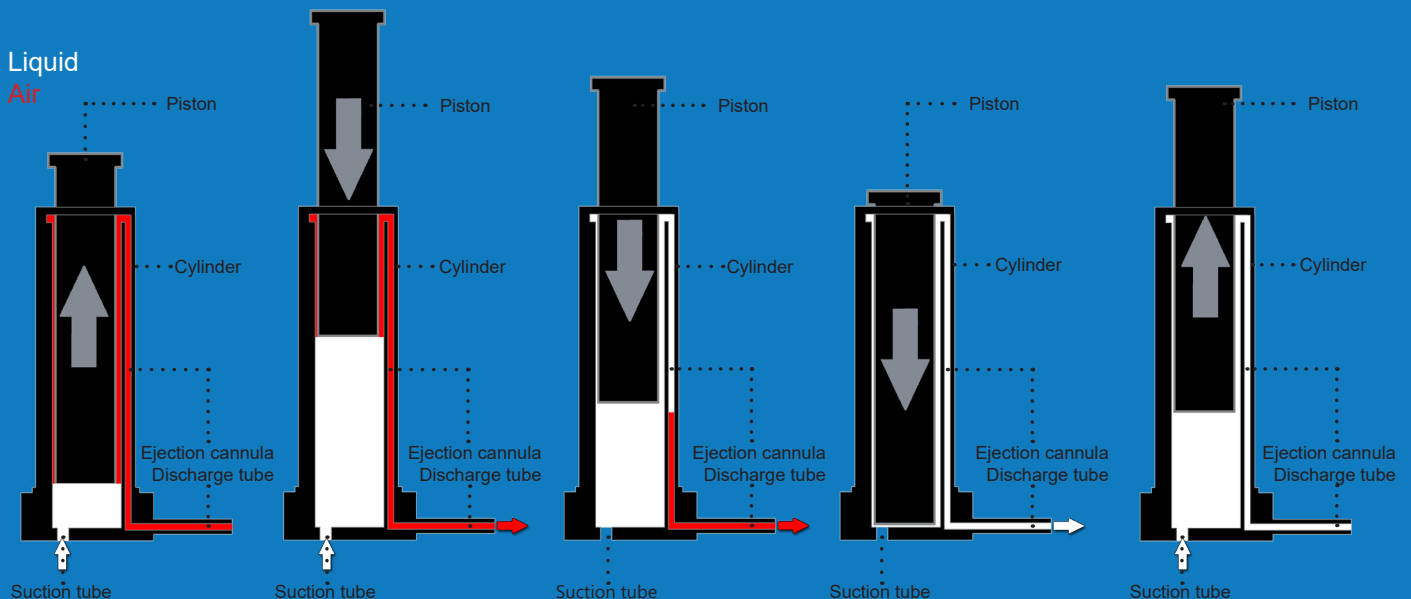
## 100% drip-free system for your safety

By turning the discharge tube at 180° all liquid flows back into the bottle. **LABMAX airless** is completely closed and no accidental discharge can occur by inadvertently moving the piston. There is absolutely no dripping possible!



## Automatic air-purging

To ensure accurate volume it is necessary that the device is free from air before dispensing. All **LABMAX airless** models have an automatic air purging system. Air, lighter than liquid, passes off the device automatically through the special ejection channel and discharge tube. A contamination of the bottle content is not possible.





Specialist for solvents



## 6 sizes: 0.25-100ml

### Your advantage at a glance:

- high quality precision instrument, made in Germany
- all-purpose dispenser with automatic air-purging, ideal for solvents
- **contactless piston system, ideal for PTFE swelling solvents**
- highest accuracy and precision, our error ranges are better than the DIN EN ISO 8655-5 requirements
- robust and stable, made of high quality materials e.g. platinum springs
- **100% drip-free due to our unique anti-drip system**
- 360° rotatable valve block for added safety
- one handed operation
- flexible by using different bottle adapters
- easy to clean, completely autoclavable at 121°C
- individual certificate and serial number
- DE-M marked according to the German calibration law

### LABmax airless

Volume ml	Division ml	Systematic errors ± ml	Random errors ≤ ml	Thread GL	Order number
0.25 - 2.5	0.05	0.012	0.002	32	5 370 801
0.5 - 5.0	0.10	0.03	0.005	32	5 370 802
1.0 - 10.0	0.20	0.06	0.01	32	5 370 803
2.5 - 25.0	0.50	0.15	0.025	45	5 370 804
5.0 - 50.0	1.00	0.3	0.05	45	5 370 805
10.0 - 100.0	2.00	0.5	0.1	45	5 370 806

### Scope of supply

LABmax airless, suction tube, discharge tube, instruction manual, individual certificate, serial number, thread adapter (2.5/5.0/10.0 ml: A25, A28, A45, S40 | 25.0/50.0/100.0 ml: A25, A28, A32/45, S40)

### Parts in contact with reagent:

The components having direct contact with the reagent are made of chemical resistant materials: platinum spring, ceramic valve balls, PTFE cylinder, borosilicate glass 3.3 piston, borosilicate glass 3.3 valve

# The specialist for hydrofluoric acid with automatic air-purging

**LABMAX airless HF** is a special dispenser for hydrofluoric acid (HF). The components which have direct contact with the acid are made of HF-resistant materials. **LABMAX airless HF** is equipped with an automatic air-purging system: Your dispenser is ready to use after no more than two dosings.



## 360°-turn for your added safety

No matter how much you tighten **LABMAX airless HF**, you can always redirect the discharge tube by simply turning the valve block to the desired position. This way the label of the bottle is always visible. This feature works for all our adapters. Adapters for different bottle threads can stay on the bottle!

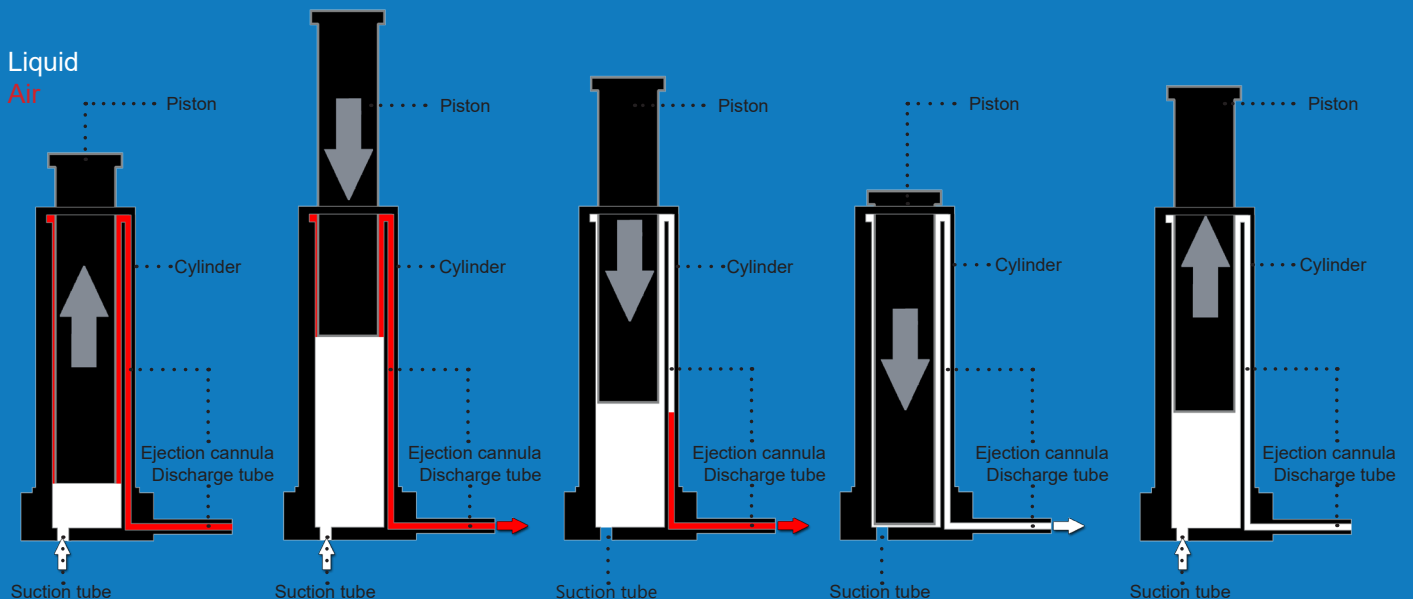
## 100% drip-free system for your safety

By turning the discharge tube at 180° all liquid flows back into the bottle. **LABMAX airless HF** is completely closed and no accidental discharge can occur by inadvertently moving the piston. There is absolutely no dripping possible!



## Automatic air-purging

To ensure accurate volume, it is necessary that the device is free from air before dispensing. All **LABMAX airless HF** models have an automatic air purging system. Air, lighter than liquid, passes off the device automatically through the special ejection channel and discharge tube. A contamination of the bottle content is not possible.





## 3 sizes: 1-50ml

### Your advantage at a glance:

- high quality precision instrument, made in Germany
- **special dispenser, ideal for hydrofluoric acid**
- highest accuracy and precision, our error ranges are better than the DIN EN ISO 8655-5 requirements
- **robust and stable, made of high quality materials e.g. platinum spring, ruby valve balls, sapphire valve, PTFE**
- 100% drip-free due to our unique anti-drip system
- 360° rotatable valve block for added safety
- one handed operation
- flexible by using different bottle adapters
- easy to clean, completely autoclavable at 121°C
- individual certificate and serial number
- DE-M marked according to the German calibration law

LABmax airless HF suitable for hydrofluoric acid

Volume ml	Division ml	Systematic errors ± ml	Random errors ≤ ml	Thread GL	Order number
1.0 - 10.0	0.20	0.06	0.01	32	5 370 823
2.5 - 25.0	0.50	0.15	0.025	45	5 370 824
5.0 - 50.0	1.00	0.3	0.05	45	5 370 825

### Scope of supply

LABmax airless HF, suction tube, discharge tube, instruction manual, individual certificate, serial number, thread adapter (10.0 ml: A25, A28, A45, S40 | 25.0/50.0 ml: A25, A28, A32/45, S40)

### Parts in contact with reagent:

The components having direct contact with the reagent are made of chemical resistant materials: platinum spring, ruby valve balls, sapphire valve, PTFE cylinder, PTFE piston

# The economical and ecological alternative to microliter pipettes

The **MINISPENSOR** is ideal for long pipetting series where you need a fixed micro-volume. In contrast to fixed volume microliter pipettes, no pipette tips are required. There are four color-coded models available, with two definite volumes in a range of 50  $\mu$ l to 2000  $\mu$ l. You can simply change the dispensing volume to 50% by turning the push button.

## Volume setting



Each **MINISPENSOR** is able to dispense two definite volumes. They are easy to set: Just push and turn the button at 180°.

## Dispensing system



The direct displacement system of the **MINISPENSOR** is for universal use and ideal for crystalline solutions.

## One handed dispensing



The **MINISPENSOR** can easily be used with just one hand.

## “Pipetting” without tips

Liquid Handling  
made  
in  
Germany



## 4x2 Fix-volumina

### Your advantage at a glance:

- high quality precision instrument, made in Germany
- **alternative to microliter pipettes - no tips required!**
- suitable for most liquids, ideal for crystalline solutions
- highest accuracy and precision according DIN EN ISO 8655-5 requirements
- direct displacement piston system
- comfortable handling for larger pipetting series
- four color-coded models available
- easy volume setting, two definite volumes each dispenser
- easy to clean, autoclavable at 121°C
- suitable for safe storage in a fridge
- automatic refilling, one handed operation
- individual certificate and serial number
- DE-M marked according to the German calibration law

### MINISPENSOR

Volume µl	Systematic errors ± µl	Random errors ≤ µl	Color	Thread GL	Order number
50 + 100	1.5	0.3	yellow	32	5 371 101
250 + 500	5	1	red	32	5 371 525
500 + 1000	6	2	blue	32	5 371 950
1000 + 2000	12	4	green	32	5 371 990

### Scope of supply

**MINISPENSOR**, 100ml bottle with safety coating (GL 28), instruction manual, individual certificate, serial number, thread adapter (GL 28/GL 32)

### Parts in contact with reagent:

The components having direct contact with the reagent are made of chemical resistant materials: ceramic valve balls, PTFE piston, borosilicate glass 3.3 cylinder, borosilicate glass 3.3 valve

# DISPENSER LABMAX

## Areas of application / chemical compatibility list

Reagent	Premium	Airless	ECO Minispensor
Acetaldehyde	X	X	X
Acetic acid 100%	X	X	X
Acetic acid 96%	X	X	X
Acetic anhydride	X	X	X
Acetone	X	X	X
Acetonitrile	X	X	X
Acetophenone		X	
Acetylacetone	X	X	X
Acetyl chloride		X	
Acrylic acid	X	X	X
Acrylonitrile	X	X	X
Adipic acid	X		X
Allyl alcohol	X	X	X
Aluminium chloride	X		X
Amino acids	X		X
Ammonia 20%	X	X	X
Ammonia 20-30%	X	X	X
Ammonium chloride	X		X
Ammonium fluoride	X		X
Ammonium sulfate	X		X
n-Amyl acetate	X	X	X
Amyl alcohol	X	X	X
Amyl chloride		X	
Aniline	X	X	X
Barium chloride	X		X
Benzaldehyde	X	X	X
Benzol	X	X	X
Benzene		X	
Benzoyl chloride	X	X	X
Benzyl alcohol	X	X	X
Benzylamine	X	X	X
Benzylchloride	X	X	X
Boric acid 10%	X		X
Bromobenzene	X	X	X
Bromonaphthalene	X	X	X
Butanediol	X	X	X
1-Butanol	X	X	X
n-Butyl acetate	X	X	X
Butyl methyl ether	X	X	X
Butylamine	X	X	X
Butyric acid	X	X	X
Calcium carbonate	X		X
Calcium chloride	X		X
Calcium hydroxide	X		X
Calcium hypochlorite	X		X
Carbon tetrachloride		X	
Chloro naphthalene	X	X	X
Chloroacetaldehyde 45%	X	X	X
Chloroacetic acid	X		X
Chloroacetone	X	X	X
Chlorobenzene	X	X	X
Chlorobutane	X	X	X
Chloroform		X	
Chlorosulfonic acid	X	X	X
Chromic acid 50%	X	X	X
Chromosulfuric acid	X	X	X
Copper sulfate	X		X
Cresol		X	
Cumene	X	X	X

Reagent	Premium	Airless	ECO Minispensor
Cyclohexane		X	
Cyclohexanone	X	X	X
Cyclopentane		X	
Decane	X	X	X
1-Decanol	X	X	X
Dibenzyl ether	X	X	X
Dichlorobenzene	X	X	X
Dichloromethane		X	
Dichloroacetic acid	X	X	X
Dichloroethane		X	
Dichloroethylene		X	
Diesel oil		X	
Diethanolamine	X	X	X
Diethyl ether		X	
Diethylamine	X	X	X
1,2-Diethylbenzene	X	X	X
Diethylene glycol	X	X	X
Dimethyl sulfoxide	X	X	X
Dimethylaniline	X		X
Dimethylformamide	X	X	X
1,4-Dioxane		X	
Diphenyl ether	X	X	X
Ethanolamine	X	X	X
Ethyl acetate	X	X	X
Ethyl alcohol	X	X	X
Ethylbenzene		X	
Ethylene chloride		X	
Fluoroacetic acid	X		X
Formaldehyde 40%	X		X
Formamide	X	X	X
Formic acid 100%	X	X	X
Glycerol	X	X	X
Glycol	X	X	X
Glycolic acid 50%	X		X
Heating oil		X	
Heptane		X	
Hexane		X	
Hexanoic acid	X	X	X
Hexanol	X	X	X
Hydroiodic acid 57%	X	X	X
Hydrobromic acid	X	X	X
Hydrochloric acid 20%	X	X	X
Hydrochloric acid 20-37%	X	X	X
Hydrogen peroxide 35%		X	
Isocane		X	
Isoamyl alcohol	X	X	X
Isobutanol	X	X	X
Isopropanol	X	X	X
Isopropyl ether	X	X	X
Lactic acid	X	X	X
Methoxybenzene	X	X	X
Methyl alcohol	X	X	X
Methyl benzoate	X	X	X
Methyl butyl ether	X	X	X
Methyl ethyl ketone	X	X	X
Methyl formate	X	X	X
Methyl propyl ketone	X	X	X
Methylene chloride		X	
Mineral oil	X	X	X

Reagent	Premium	Airless	ECO Minispensor
Monochloroacetic acid	X		X
Nitric acid 30%	X	X	X
Nitric acid 30-70%	X	X	X
Nitrobenzene	X	X	X
Oleic acid	X		X
Oxalic acid	X		X
n-Pentane		X	
Peracetic acid	X	X	X
Perchloric acid	X	X	X
Perchloroethylene		X	
Petroleum		X	
Petroleum ether		X	
Phenol	X	X	X
Phenylethanol	X	X	X
Phenylhydrazine	X	X	X
Phosphoric acid 85%	X		X
Phosphoric acid 85 % +Sulfuric acid 98 %, 1:1	X		X
Piperidine	X	X	X
Potassium chloride	X		X
Potassium dichromate	X		X
Potassium hydroxide	X		X
Potassium permanganate	X		X
Propionic acid	X	X	X
Propylene glycol	X	X	X
Pyridine	X	X	X
Pyruvic acid	X	X	X
Salicylaldehyde	X	X	X
Silver acetate	X		X
Silver nitrate	X		X
Sodium acetate	X		X
Sodium chloride	X		X
Sodium dichromate	X		X
Sodium fluoride	X		X
Sodium hydroxide 30%	X		X
Sodium hypochlorite	X		X
Sulfuric acid 98%	X	X	X
Tartaric acid	X		X
Tetrachloroethylene		X	
Tetrahydrofuran		X	
Tetramethylammonium hydroxide	X		X
Toluene		X	
Trichloroacetic acid	X		X
Trichlorobenzene		X	
Trichloroethane		X	
Trichloroethylene		X	
Trichlorofluoro ethane		X	
Triethanolamine	X	X	X
Triethylene glycol	X	X	X
Trifluoro ethane		X	
Trifluoroacetic acid	X	X	X
Turpentine		X	
Urea	X		X
Xylene		X	
Zinc chloride 10%	X		X
Zinc sulfate 10%	X		X

Only the Dispenser Labmax "HF" is specifically designed to dispense hydrofluoric acid (HF)

For your own safety, please observe the general regulations for handling chemicals (e.g. protective clothing and goggles). Read the manual of the dispenser carefully and follow the instructions. Use the dispenser only with regard to its chemical resistance according to this table (status 2017).



# Bottle-top digital burette CLASS A - PRECISION

# TITREX

The digital burette **TITREX** is ideal for a fast and sensitive titration “drop by drop”. One instrument simulates all volumes up to 99.99 ml. Moreover, titration is possible without any loss of reagent! From air-purging, necessary for a precise titration, to disassembly of the burette in the end of the titration – the reagent, that is not needed for the titration flows back into the bottle! **TITREX**’s accuracy and precision are of highest quality. Our error ranges are better than those required by ISO 8655-3. The memory function allows saving of up to 1000 values, which can be transferred to a PC and read using the included software.



Digital display

Handwheel

Fine adjustment - with an additional knob the desired amount can be easily titrated or dispensed more precisely



only available with fine adjusted version

Reset button / Calibration button

**TIT-Button: Titration mode**

**DOS-Button: Dosing / Dispensing mode**

**MEM-Button: Storage of data**

The displayed value can be stored in the internal memory. This memory can be readout with the provided software and interface cord (RS232).

Discharge tube with protective sleeve

- 0° dosing and titration mode
- 90° air-purging mechanism in a closed circuit
- 180° rest position 100% drip-free

Liquid Handling



# One instrument for all your titration and dosing applications CLASS A - PRECISION



## Quick and precise volume setting

The dispensing and titration volume can be set by turning the handwheels.

The mode can be changed by pressing „DOS“ respectively „TIT“.

The display shows the emitted volume („TIT“ mode) respectively the filled volume („DOS“ mode).

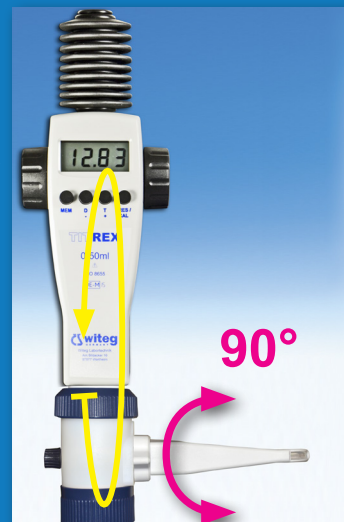
## Perfect air-purging mechanism for 0% reagent loss

Turn the discharge tube at 90°.

Remove (purge) trapped air in a closed circuit without reagent loss by turning the handwheels. The reagent flows back into the bottle!

After turning the handwheel 2 - 3 times the digital burette is free of air and ready to use.

This special feature helps not only to save residual reagent but also when accidentally setting the wrong volume!



## 360°-turn for your added safety

No matter how much you tighten TITREX, you can always redirect the discharge tube by simply turning the valve block to the desired position. This way the label of the bottle is always visible.

This feature works for all our adapters. Adapters for different bottle threads can remain on the bottle.

## 100% drip-free system for your safety

By turning the discharge tube at 180° all liquid flows back into the bottle. TITREX is completely closed and no accidental discharge can occur by inadvertently moving the handwheels.

There is absolutely no dripping possible!



## “Do-it-yourself” recalibration for a long life time

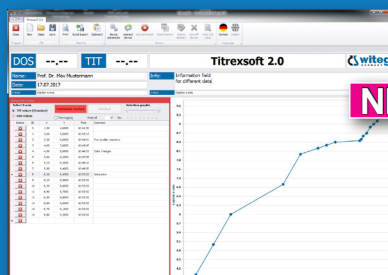
If you use TITREX as a measuring device in conformity to ISO 9001 and GLP, you need to control and monitor its accuracy and reliability. Therefore you can easily recalibrate the value by pressing „CAL“ until the display shows „CAL“. With the buttons „+“ and „-“ you can now adjust and correct the value.

TITREX can also be adjusted to liquids with other density and viscosity.

TITREX can also be recalibrated with the included TITREXSOFT.

## TITREXSOFT

Included in scope of supply



**NEW DEVELOPED**

Through the access to the TITREX' memory, all data can be transferred to a PC – no more transmission errors!

The completely new developed software helps to process the stored data. Saved values can be read-out in real-time during the titration process or afterwards. Via the protocol export function, the data together with the automatically created graph can be either printed or saved.





One instrument  
for all volumes

## Digital burette

### Your advantage at a glance:

- high quality precision instrument, made in Germany
- highest accuracy and precision, our error ranges are better than the DIN EN ISO 8655-3 requirements
- resistant against most acids and alkalis
- 0% loss of reagent - air-purging & draining in a closed circuit
- 360° rotatable valve block for your added safety
- two-in- one instrument: dosing & titration
- covers the complete volume range up to 50 ml when used as a dispenser and up to 99.99 ml when used as a burette
- easy and precise volume setting
- vertical valves: no sedimentation, no contamination
- 100% drip-free by turning the cannula at 180°
- no transcriptions errors due to automatic value storage and the possibility of transferring values to a PC via RS232 interface (USB adapter optional available)
- calibration: standard with water of 20°C
- software enables saving the next calibration date
- recalibration for liquids of different viscosities possible
- suitable for the determination of acid content in milk
- easy to dismantle & to clean, valve block autoclavable at 121°C
- automatic power-cut-off after three minutes
- including NiMH 1,2V 2100mAh battery
- individual certificate, CE label and serial number
- DE-M marked according to the German calibration law



Zero loss of reagent

Type	Volume ml	witeg		ISO 8655-3		Order number
		Systematic errors ± ml	Random errors ≤ ml	Systematic errors ± ml	Random errors ≤ ml	
TITREX eco*	0-50	0.10	0.05	0.1	0.05	5 497 050 E
TITREX premium	0-50	0.03	0.01	0.1	0.05	5 497 050
TITREX premium fine adjustment	0-50	0.03	0.01	0.1	0.05	5 497 150

### Scope of supply

TITREX, suction tube, discharge tube, instruction manual, individual certificate, serial number, battery charger with EU and US adapter, software TITREXSOFT\*, RS232 interface cord\*, thread adapter A25, A28, GL 32/45, S40

\* TITREXSOFT and RS232 interface cord not included in the scope of supply of TITREX economy

### Parts in contact with reagent:

The components having direct contact with the reagent are made of chemical resistant materials: platinum spring, ceramic valve balls, PTFE piston, borosilicate glass 3.3 cylinder, borosilicate glass 3.3 valve

Optional accessories for TITREX and general titration applications

Type	Order number
TITREXSOFT (in scope of supply of digital burette Titrex) supports all manual titration applications, automatic graph creation, protocol export function, access to digital burette Titrex memory	<b>NEW DEVELOPED</b> 5 497 900
RS232 to USB adapter To connect the RS232 interface cord with an USB port	5 497 920

# Spare parts & Accessories

Bottles made of amber soda-lime glass with thread and plastic coating

Volume ml	Thread GL	Width x Height mm	suitable for	Order number
100*	28	Ø51x100	MINISPENSOR	5 372 128
100	32	50x125	LABmax, TITREX	5 372 101
250	32	65x160	LABmax, TITREX	5 372 025
500	32	80x195	LABmax, TITREX	5 372 050
1000	45	95x230	LABmax, TITREX	5 372 100
2500	45	Ø140x230	LABmax, TITREX	5 372 250

\*100ml & 2500ml bottle with round shape

Bottle made of borosilicate glass 3.3 with threads, plastic coating and screw cap

- straight neck GL 45 (closed screw cap)
- lateral neck GL 18 (screw cap with bore 11mm)

Volume ml	Thread GL	Ø x Height mm	suitable for	Order number
2000	45	Ø136x265	LABmax, TITREX	5 372 300



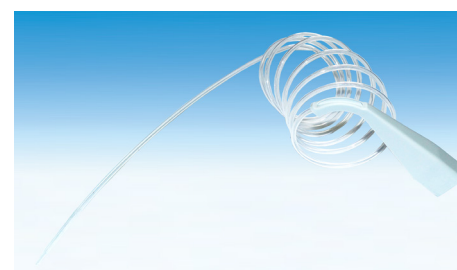
Standard joint adapters, made of borosilicate glass 3.3

Thread GL	Cone ST	suitable for	Order number
32	19/26	LABmax, TITREX, MINISPENSOR	0 550 029
32	24/29	LABmax, TITREX, MINISPENSOR	0 550 030
32	29/32	LABmax, TITREX, MINISPENSOR	0 550 031
45	29/32	LABmax, TITREX, MINISPENSOR	0 550 040
45	45/40	LABmax, TITREX, MINISPENSOR	0 550 041



Flexible discharge tube, coiled, with protective sleeve, made of FEP / PP

Length cm	Outer Ø mm	Inner Ø mm	suitable for	Order number
180	3.0	2.0	LABmax 2.5-10 ml	5 375 002
180	6	4	LABmax 25-100 ml, TITREX	5 375 012



Discharge tube with protective sleeve, made of FEP / PP

Length mm	Type	Nominal volume	suitable for	Order number
80	bent	2.5-10 ml	LABmax	5 375 003
120	bent	25-100 ml	LABmax	5 375 004
120	bent with fine tip	25-100 ml	TITREX	5 497 400
	bent with fine tip	100-2000 µl	MINISPENSOR	5 372 755



# Spare parts & Accessories

Filling tubes made of FEP

Length x Ø mm	suitable for	Order number
Telescopic 170-330 x 4	<b>NEW</b> LABmax 2.5-10 ml	5 375 000 TK
Telescopic 170-330 x 6	<b>NEW</b> LABmax 25-100 ml, TITREX	5 375 001 TK
310 x 5	LABmax 2.5-10 ml	5 375 000 N 310
390 x 5	LABmax 2.5-10 ml	5 375 000 N 390
310 x 7	LABmax 25-100 ml, TITREX	5 375 001 310
390 x 7	LABmax 25-100 ml, TITREX	5 375 001 390
	MINISPENSOR 50-100 µl	5 375 004 M
	MINISPENSOR 100-2000 µl	5 375 014



Thread adapters made of PP

Thread GL	suitable for	Order number
A22	LABmax, TITREX, MINISPENSOR	5 377 022
A25	LABmax, TITREX, MINISPENSOR	5 377 025
A28	LABmax, TITREX, MINISPENSOR	5 377 028
A30	LABmax, TITREX, MINISPENSOR	5 377 030
A32 / A28*	MINISPENSOR	5 377 032
A38	LABmax, TITREX, MINISPENSOR	5 377 038
A40	LABmax, TITREX, MINISPENSOR	5 377 040
A45 / A32**	LABmax, TITREX	5 497 600
A45	LABmax, TITREX, MINISPENSOR	5 377 045



\* from A28 to 32 (MINISPENSOR)  
\*\* from A45 to A32 inverted

## Additional accessories

Check valve with plastic coating

For fuming and smelling liquids like linoleum, bromine etc.

suitable for	Order number
LABmax, TITREX	5 377 300



Calcium chloride tube with plastic coating

Protection against moisture from the outside

suitable for	Order number
LABmax, TITREX	5 377 310*



One-way filter made of PP,

With membrane made of regenerated cellulose (dust and bacteria filter)

Pore size	Filter Ø	Pieces / packaging unit	suitable for	Order number
0.2 µm	13 mm	100	LABmax TITREX	8 212 001
0.2 µm	30 mm	100		8 212 002
0.45 µm	13 mm	100		8 212 003
0.45 µm	30 mm	100		8 212 004
0.45 µm	30 mm	50 individual sterile packed		8 214 001
0.2 µm	30 mm	50 individual sterile packed		8 214 002



\* delivered without calcium chloride

# Premium Design - Premium Performance - Premium Quality

Looking for the latest pipetting innovation at an attractive price? **WITOPET premium** is just the right pipette for you. The ergonomic designed pipette of optimal weightiness requires extremely low pipetting forces making even prolonged pipetting as comfortable as possible. Other innovative features are the adjustable tip ejector button and the built-in volume locking. Moreover, **WITOPET premium** is characterized by superior accuracy and precision. Our error ranges are better than those required by DIN EN ISO 8655-2.

## Push-button

The push-button is color coded.



## Volume locking

Once set, the desired volume is locked and cannot be accidentally changed. This useful feature allows accuracy and precision until the end of a pipetting phase.

## Tip ejector button\*

The tip ejector button is adjustable. It doesn't matter if you are right or left-handed, this innovative feature allows effort-saving, comfortable ejection of the used pipette tips.



## Body

The body of the innovative pipette is made of PP, giving the pipette light weightiness while the robustness still remains. In addition, the smooth, rounded body fits perfect in your hand: There is no sticking to or sliding off of the handle. The result is an extremely light pipette which fits naturally in your hand!

## Piston

Enjoy pipetting with **WITOPET premium**! The new piston allows extremely low pipetting forces. The result is smooth and fatigue-free pipetting and minimized risk of repetitive stress disorder.

## Tip ejector

The tip ejector fits securely into the body of **WITOPET premium** and helps avoid slipping over time. The new pipette has a stainless steel tip ejector.

## Tip cone

The tip cone is suitable for all established brands of pipette tips.

## Calibration mechanism

Adjusting **WITOPET premium** can be necessary for different solutions due to their density, viscosity, surface tension and / or vapor pressure, or when it is used at high altitudes or with special tips. **WITOPET premium** can be easily calibrated using the internal calibration tool.

## Finger rest

In addition to the light weight, the larger finger rest reduces tension and makes prolonged serial pipetting comfortable. Your thumb is closer to the push-button, reducing pipetting forces.



**WITOPET premium** pipette support  
5 406 107 P

**WARRANTY**  
**3**  
Years

**NEW**

# WITOPET premium

Microliter pipette

## Variable single-channel

### Your advantage at a glance:

- highest quality, made in France
- best in its class performance, most competitive price
- highest accuracy and precision, our error ranges are better than the DIN EN ISO 8655-2 requirements
- extremely light weightiness, while the robustness still remains
- perfect ergonomics for highest comfort
- extremely low pipetting forces for minimized risk of a cramp
- built-in volume locking for error-free results
- innovative tip ejector button, adjustable for right- and left-handed users
- secure tip ejection, made of stainless steel
- built-in recalibration mechanism (calibration tool inclusive)
- 8 color-coded models with soft-spring system
- UV resistant
- completely autoclavable 20 minutes at 121°C (DIN EN ISO 285)
- individual certificate and serial number
- DE-M marked according to the German calibration law



**Superior accuracy and precision**

### WITOPET premium single-channel

Volume	Numeric division	Increment	Maximum permissible errors					Color-code	Order number
			Vol. tested	witeg		ISO 8655			
				Systematic errors	Random errors	Systematic errors	Random errors		
µl	µl	µl	µl	± µl	≤ µl	± µl	≤ µl		
0.2 - 2.0	0.01	0.002	0.2	0.024	0.012	0.08	0.04	orange	5 402 002 P
			0.5	0.025	0.012	0.08	0.04		
			1	0.027	0.013	0.08	0.04		
			2	0.030	0.014	0.08	0.04		
1 - 10	0.1	0.02	1	0.025	0.012	0.12	0.08	red	5 402 010 P
			5	0.075	0.030	0.12	0.08		
			10	0.100	0.040	0.12	0.08		
2 - 20	0.1	0.02	2	0.10	0.03	0.20	0.10	pale yellow	5 402 020 P
			10	0.10	0.05	0.20	0.10		
			20	0.20	0.06	0.20	0.10		
10 - 100	1	0.2	10	0.35	0.10	0.80	0.30	salmon	5 402 100 P
			50	0.40	0.12	0.80	0.30		
			100	0.80	0.15	0.80	0.30		
20 - 200	1	0.2	20	0.50	0.20	1.60	0.60	yellow	5 402 200 P
			100	0.80	0.25	1.60	0.60		
			200	1.60	0.30	1.60	0.60		
100 - 1000	10	2	100	3	0.6	8	3	blue	5 402 901 P
			500	4	1.0	8	3		
			1000	8	1.5	8	3		
500 - 5000*	10	2	500	12	3	40	15	purple	5 402 950 P
			2500	15	5	40	15		
			5000	30	8	40	15		
1 - 10 ml*	100	20	1000	30	6	60	30	pale blue	5 402 910 P
			5000	40	10	60	30		
			10000	60	16	60	30		

**NEW** Starter Kit with 3 different pipettes and accessories (more information on page 26) **5 402 600 P**

Pipette support for WITOPET premium pipettes (suitable for single- and multi-channel pipettes) **5 406 107 P**

\* 500-5000µl and 1-10ml version without tip ejector

The mentioned results can only be achieved with matching original Gilson® Diamond Tips from page 27.

# Premium Design - Premium Performance - Premium Quality

Looking for the latest pipetting innovation at an attractive price? **WITOPET premium** is just the right pipette for you. The ergonomic designed pipette of optimal weightiness requires extremely low pipetting forces making even prolonged pipetting as comfortable as possible. Other innovative features are the adjustable tip ejector button and the built-in volume locking. Moreover, **WITOPET premium** is characterized by superior accuracy and precision. Our error ranges are better than those required by DIN EN ISO 8655-2. **WITOPET premium** is available as multi-channel model with 8 and 12 channels, covering the volume range from 0.5 to 300µl.

## Push-button

The push-button is color coded.

## Volume locking

Once set, the desired volume is locked and cannot be accidentally changed. This useful feature allows accuracy and precision until the end of a pipetting phase.

## Finger rest

In addition to the light weight, the larger finger rest reduces tension and makes prolonged serial pipetting comfortable. Your thumb is closer to the push-button, reducing pipetting forces.

## Tip ejector button

The tip ejector button is adjustable. It doesn't matter if you are right or left-handed, this innovative feature allows effort-saving, comfortable ejection of the used pipette tips.

## Calibration mechanism

Adjusting **WITOPET premium** can be necessary for different solutions due to their density, viscosity, surface tension and / or vapor pressure, or when it is used at high altitudes or with special tips. **WITOPET premium** can be easily calibrated using the internal calibration tool.

## Body

The body of **WITOPET premium** is made of PP, giving the pipette light weightiness while the robustness still remains. In addition, the smooth, rounded body fits perfect in your hand: There is no sticking to or sliding off of the handle. The result is an extremely light pipette which fits naturally in your hand!

## Pipetting unit

Enjoy pipetting with **WITOPET premium**! The new unit allows extremely low pipetting forces. The result is smooth and fatigue-free pipetting and minimized risk of repetitive stress disorder.

## Tip ejector

The tip ejector fits securely into the body of the pipette. In order to clean the device, the tip ejector can be removed easily by pressing the lock button.

## Tip cones

The tip cones are suitable for all established brands of pipette tips.





WARRANTY  
3  
Years

NEW

# WITOPET premium

Microliter pipette

## Variable multi-channel

### Your advantage at a glance:

- highest quality, made in France
- the best in its class performance, most competitive pricing
- highest accuracy and precision, our error ranges are better than the DIN EN ISO 8655-2 requirements
- extremely light weightiness, while the robustness still remains
- perfect ergonomic pipetting for highest comfort
- extremely low forces required for minimized risk of a cramp
- built-in volume locking for error-free results
- innovative tip ejector button, adjustable for right- and left-handed users
- secure tip ejection
- built-in recalibration mechanism (calibration tool inclusive)
- 4 color-coded models with soft-spring system
- UV resistant
- completely autoclavable 20 minutes at 121°C (DIN EN ISO 285)
- individual certificate and serial number
- DE-M marked according to the German calibration law



WITOPET premium pipette support  
5 406 107 P

Superior accuracy and precision

### WITOPET premium multi-channel

Volume	Division	Increment	Maximum permissible errors					Color-code	Channels	Order number
			Vol. tested	witeg		ISO				
				Systematic errors	Random errors	Systematic errors	Random errors			
µl	µl	µl	µl	± µl	≤ µl	± µl	≤ µl			
0.5 - 10	0.1	0.02	0.5	0.09	0.04	0.24	0.16	red	8	5 403 101 P
			10	0.22	0.11	0.24	0.16		12	5 403 201 P
2 - 20	0.1	0.02	2	0.11	0.09	0.40	0.20	pale yellow	8	5 403 102 P
			20	0.40	0.17	0.40	0.20		12	5 403 202 P
20 - 200	1	0.2	20	0.6	0.28	3.2	1.20	yellow	8	5 403 120 P
			200	2.2	0.55	3.2	1.20		12	5 403 220 P
20 - 300	1	0.2	20	1.1	0.39	8.0	3.00	green	8	5 403 130 P
			300	3.3	1.10	8.0	3.00		12	5 403 230 P

Pipette support for WITOPET premium pipettes (suitable for single- and multi-channel pipettes)

5 406 107 P

The mentioned results can only be achieved with matching original Gilson® Diamond Tips from page 27.

# WITOPET premium Starter Kit

## WITOPET premium Starter Kit

Scope of supply	Order number
<ul style="list-style-type: none"> <li>■ 1 WITOPET premium 20µl</li> <li>■ 1 WITOPET premium 200 µl</li> <li>■ 1 WITOPET premium 1000 µl</li> <li>■ 1 Gilson Diamond® pipette tips D1000, Tipack 100 - 1000 µl</li> <li>■ 1 Gilson Diamond® pipette tips D200, Tipack 2 - 200 µl</li> <li>■ 3 single pipette holders</li> <li>■ 1 calibration tool</li> <li>■ 1 „2-minute inspection“ poster</li> </ul>	<p>5 402 600 P</p>

More information about the WITOPET premium microliter pipettes can be found on page 23.

**NEW**

**WARRANTY**  
**3**  
 Years



**NEW**

# Gilson® Diamond Tips

Achieve highest pipetting performance with matching original Gilson Diamond® Tips

**TIPACK**, Gilson® Diamond Tip Rack for WITOPET premium, color-code, autoclavable up to 121°C

Product	Volume (µl)	Description	Packaging	Order number
Rack	0.1-10	Diamond Tips, D10, Tipack, 960 Tips	10 Tipacks à 96 Tips	<b>GIL-F171100</b>
	0.1-20	Diamond Tips, DL10, Tipack, 960 Tips	10 Tipacks à 96 Tips	<b>GIL-F171200</b>
	2-200	Diamond Tips, D200, Tipack, 960 Tips	10 Tipacks à 96 Tips	<b>GIL-F171300</b>
	20-300	Diamond Tips, D300, Tipack, 960 Tips	10 Tipacks à 96 Tips	<b>GIL-F171400</b>
	100-1000	Diamond Tips, D1000, Tipack, 960 Tips	10 Tipacks à 96 Tips	<b>GIL-F171500</b>
	100-1200	Diamond Tips, D1200, Tipack, 960 Tips	10 Tipacks à 96 Tips	<b>GIL-F171600</b>
	500-5000	Diamond Tips, D5000, Tipack, 600 Tips	12 Tipacks à 50 Tips	<b>GIL-F161370</b>
	1-10ml	Diamond Tips, D10ml, Tipack, 240 Tips	8 Tipacks à 30 Tips	<b>GIL-F161230</b>



**TIPACK ST**, Gilson® Diamond Tip Rack sterile for WITOPET premium, DNA, RNA, DNase, RNase, ATP, pyrogen-free

Product	Volume (µl)	Description	Packaging	Order number
Rack, sterile	0.1-10	Diamond Tips, D10ST, Tipack, 960 Tips	10 Tipacks à 96 Tips	<b>GIL-F171101</b>
	0.1-20	Diamond Tips, DL10ST, Tipack, 960 Tips	10 Tipacks à 96 Tips	<b>GIL-F171201</b>
	2-200	Diamond Tips, D200ST, Tipack, 960 Tips	10 Tipacks à 96 Tips	<b>GIL-F171301</b>
	20-300	Diamond Tips, D300ST, Tipack, 960 Tips	10 Tipacks à 96 Tips	<b>GIL-F171401</b>
	100-1000	Diamond Tips, D1000ST, Tipack, 960 Tips	10 Tipacks à 96 Tips	<b>GIL-F171501</b>
	100-1200	Diamond Tips, D1200ST, Tipack, 960 Tips	10 Tipacks à 96 Tips	<b>GIL-F171601</b>

**TIPACK FILTER ST**, Gilson® Diamond Filtertip Rack sterile for WITOPET premium, DNA, RNA, DNase, RNase, ATP, pyrogen-free

Product	Volume (µl)	Description	Length	Packaging	Order number
Rack, sterile Filtertips	0.1-10	Diamond Tips, DF10ST, Tipack, 960 Tips	31,2mm	10 Tipacks à 96 Tips	<b>GIL-F171103</b>
	0.1-10	Diamond Tips, DFL10ST, Tipack, 960 Tips	46,0mm	10 Tipacks à 96 Tips	<b>GIL-F171203</b>
	2-30	Diamond Tips, DF30ST, Tipack, 960 Tips	51,2mm	10 Tipacks à 96 Tips	<b>GIL-F171303</b>
	10-100	Diamond Tips, DF100ST, Tipack, 960 Tips	51,2mm	10 Tipacks à 96 Tips	<b>GIL-F171403</b>
	20-200	Diamond Tips, DF200ST, Tipack, 960 Tips	51,2mm	10 Tipacks à 96 Tips	<b>GIL-F171503</b>
	20-300	Diamond Tips, DF300ST, Tipack, 960 Tips	51,2mm	10 Tipacks à 96 Tips	<b>GIL-F171603</b>
	100-1000	Diamond Tips, DF1000ST, Tipack, 960 Tips	66,5mm	10 Tipacks à 96 Tips	<b>GIL-F171703</b>
	100-1200	Diamond Tips, DF1200ST, Tipack, 960 Tips	84,5mm	10 Tipacks à 96 Tips	<b>GIL-F171803</b>



**ECO PACK**, Gilson® Diamond Tip Bag for WITOPET premium, autoclavable up to 121°C

Product	Volume (µl)	Description	Packaging	Order number
Bagged	100-1200	Diamond Tips D1200, 10000 Tips	10 bags à 1000 Tips	<b>GIL-F161110</b>
	0.1-20	Diamond Tips DL10, 10000 Tips	10 bags à 1000 Tips	<b>GIL-F161450</b>
	0.1-10	Diamond Tips D10, 10000 Tips	10 bags à 1000 Tips	<b>GIL-F161630</b>
	100-1000	Diamond Tips D1000, 10000 Tips	10 bags à 1000 Tips	<b>GIL-F161670</b>
	20-300	Diamond Tips D300, 10000 Tips	10 bags à 1000 Tips	<b>GIL-F161730</b>
	2-200	Diamond Tips D200, 10000 Tips	10 bags à 1000 Tips	<b>GIL-F161930</b>



resealable



**STERIL PACK**, Gilson® Diamond Tips single packed sterile for WITOPET premium, DNA, RNA, DNase, RNase, ATP, pyrogen-free

Product	Volume (µl)	Description	Packaging	Order number
single packed sterile	2-200	Tips D200ST, sterile, 400 Tips	400 Tips single packed	<b>GIL-F161330</b>
	100-1000	Tips D1000ST, sterile, 400 Tips	400 Tips single packed	<b>GIL-F161340</b>

# The professional way for your pipetting applications

**WITOPET professional** single-channel is the classical microliter pipette, made for the daily use in the laboratory: accurate, robust and handy. The seven models available cover a volume range from 0.2 µl to 5 ml.

## Push-button

The push button is color-coded to avoid confusion and softly gliding for comfortable pipetting.

## Adjustment screw

The color-coded adjustment screw ensures easy and accurate volume setting.



## Color-Code

The push button, the adjustment thread and the tip ejector button are color coded and help to distinguish all pipettes at a single glance.



## Piston

The optimized piston allows fine adjustment of the pipetting forces, making the **WITOPET professional** perfect for precise laboratory applications like e.g. gel loading.



## Tip ejector

The tip ejector fits well onto the body of the pipette to avoid slipping over time. It is made of stainless steel for a long lifetime.



## Tip cone

The tip cone is suitable for all established brands of pipette tips.

## Pipette support

suitable for up to seven **WITOPET professional** pipettes  
5 406 107



# WITOPET professional



## Variable single-channel

### Your advantage at a glance:

- high quality pipette, made in Germany
- economical priced
- perfect for precise laboratory applications
- 7 color-coded single-channel models
- high accuracy and precision according to DIN EN ISO 8655-2
- ergonomic designed and low weighted
- optimized spring force for comfortable pipetting
- robust and stable construction
- tip ejector and piston made of stainless steel
- suitable for all established brands of pipette tips
- completely autoclavable at 121°C\*
- individual certificate and serial number
- DE-M marked according to the German calibration law



### WITOPET professional

Volume µl	Color	Division µl	Increment µl	Volume tested µl	Systematic errors ± µl	Random errors ≤ µl	Order number
0.2 - 2.0	red	0.01	0.002	0.2	0.08	0.04	5 402 002
				0.5	0.08	0.04	
				1	0.08	0.04	
				2	0.08	0.04	
0.5 - 10	red	0.1	0.02	1	0.12	0.08	5 402 010
				5	0.12	0.08	
				10	0.12	0.08	
2 - 20	yellow	0.1	0.02	2	0.20	0.10	5 402 020
				10	0.20	0.10	
				20	0.20	0.10	
10 - 100	yellow	1.0	0.2	10	0.80	0.30	5 402 100
				50	0.80	0.30	
				100	0.80	0.30	
20 - 200	yellow	1.0	0.2	20	1.60	0.60	5 402 200
				100	1.60	0.60	
				200	1.60	0.60	
100 - 1000	blue	10	2	100	8	3	5 402 901
				500	8	3	
				1000	8	3	
1000 - 5000*	black	50	10	1000	40	15	5 402 950
				2500	40	15	
				5000	40	15	

Pipette support for WITOPET professional pipettes

5 406 107

\*1000 - 5000 ml pipette filter only separately autoclavable

# The most economical way for entry-level pipetting

Looking for the most economical way to start with pipetting applications? **WITOPET economy** is a single-channel pipette ideal for beginners: robust, easy to handle and easy to clean. Moreover, it is almost impossible to change accidentally the set volume once adjusted.

## Finger rest & pipette holder

The large finger rest supports your whole hand during pipetting. It has also the function of a pipette holder in combination with the original support – for a safe and tidy workplace.

## Volume display

The 3-digit display is easy to read and suitable for volumes from 0.1 µl to 5 ml.

## Autoclavable

**WITOPET economy/WITOPET economy plus variable** completely autoclavable at 121°C.

**WITOPET economy fixed tip shaft** autoclavable at 121°C.

## Piston

We used efficient components for high accuracy and precision in accordance with ISO standards.

## Tip cone

The tip cone is suitable for all established brands of pipette tips.

## Tip ejector

The tip ejector releases the used tip easily.

## Pipetting button

The pipetting button guarantees perfect dosing results until the end of a pipetting phase, even for beginners. The push button with integrated adjustment screw makes changing the volume accidentally during pipetting almost impossible.

## Pipette support

suitable for **WITOPET economy** pipettes  
5 406 205



## Variable & fixed Single-Channel

### Your advantage at a glance:

- quality pipette, most economical price in its class
- simple and robust construction
- accuracy and precision according to DIN EN ISO 8655-2
- set volume almost impossible to change during pipetting
- suitable for all established brands of pipette tips
- easy release of the used tips
- easy cleaning and maintenance
- autoclavable at 121°C
- individual certificate and serial number
- DE-M marked according to the German calibration law

**Variable and fixed single-channel available**



# WITOPET economy

## Variable & fixed

WITOPET economy fixed single-channel, tip shaft autoclavable

Volume	Systematic errors	Random errors	Order number
$\mu\text{l}$	$\pm \mu\text{l}$	$\leq \mu\text{l}$	tip shaft autoclavable
5	0.125	0.075	5 401 005
10	0.12	0.08	5 401 010
20	0.2	0.1	5 401 020
25	0.2	0.1	5 401 025
50	0.5	0.2	5 401 050
100	0.8	0.3	5 401 100
200	1.6	0.6	5 401 200
250	1.6	0.6	5 401 250
500	4.0	1.5	5 401 500
1000	8.0	3.0	5 401 910
2000	16	6.0	5 401 920
5000	40	15	5 401 950

Description	Order number
Pipette support for WITOPET economy pipettes (single- and multi-channel pipettes)	5 406 205

WITOPET economy / WITOPET economy plus variable single-channel, fully autoclavable

Volume	Division	Volume tested	Systematic errors	Random errors	WITOPET economy plus
$\mu\text{l}$	$\mu\text{l}$	$\mu\text{l}$	$\pm \mu\text{l}$	$\leq \mu\text{l}$	Order number
0.1 - 2.5	0.05	0.2	0.08	0.04	5 402 002 D A
		0.5	0.08	0.04	
		1	0.08	0.04	
		2	0.08	0.04	
0.5 - 10	0.1	1	0.12	0.08	5 402 010 D A
		5	0.12	0.08	
		10	0.12	0.08	
2 - 20	0.5	2	0.20	0.10	5 402 020 D A
		10	0.20	0.10	
		20	0.20	0.10	
10 - 100	1.0	10	0.80	0.30	5 402 100 D A
		50	0.80	0.30	
		100	0.80	0.30	
20 - 200	1.0	20	1.60	0.60	5 402 200 D A
		100	1.60	0.60	
		200	1.60	0.60	
100 - 1000	5.0	100	8	3	5 402 901 D A
		500	8	3	
		1000	8	3	
1000 - 5000	50.0	1000	40	15	5 402 950 D A
		2500	40	15	
		5000	40	15	

Description	Order number
Pipette support for WITOPET economy pipettes (single- and multi-channel pipettes)	5 406 205

# The convenient way for your pipetting applications

**WITOPET economy** is the classical microliter pipette perfectly designed for rapid and comfortable pipetting in 96 well plates.

## Dosing button

The dosing button guarantees perfect dosing results until the end of a pipetting phase, even for beginners. The push button with integrated adjustment screw makes changing the volume by mistake during pipetting almost impossible.

## Finger rest & pipette holder

The large finger rest supports your whole hand during pipetting. It has also the function of a pipette holder in combination with the original support – for a safe and tidy workplace.

## Volumetric display

The 3-digit display is easy to read and suitable for volumes from 0.5 - 300 µl.

## Tip ejector

The tip ejector releases the used tip easily.

## Pipetting unit

We used efficient components for high accuracy and precision in accordance with ISO standards. The pipetting unit can be turned around (360°) for increased flexibility.

## Reliable technique

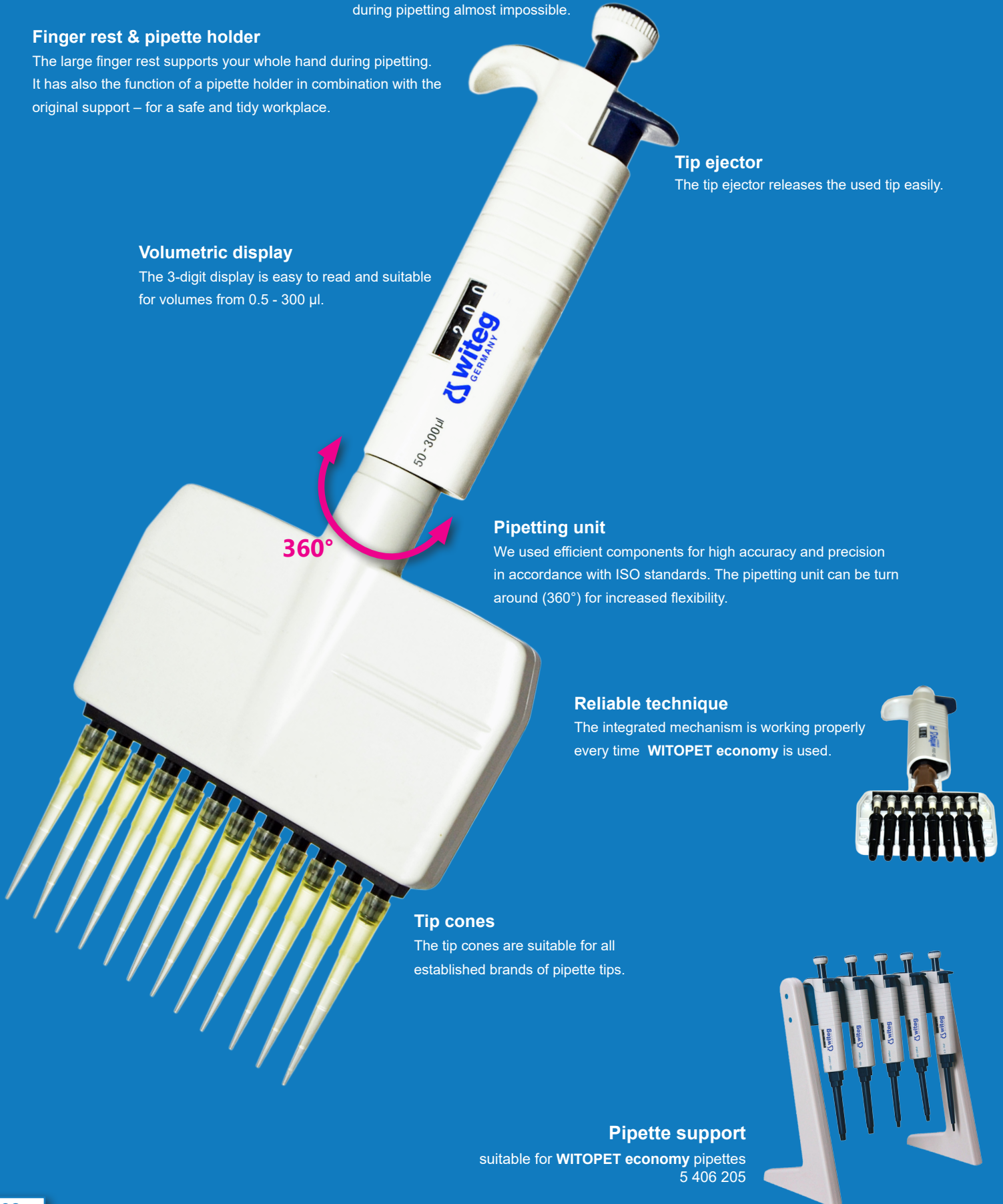
The integrated mechanism is working properly every time **WITOPET economy** is used.

## Tip cones

The tip cones are suitable for all established brands of pipette tips.

## Pipette support

suitable for **WITOPET economy** pipettes  
5 406 205





# WITOPET economy



## Multi-channel

### Your advantage at a glance:

- perfectly designed for 96 well plates
- quality pipette at a very competitive price
- available with 8 or 12 channels
- accuracy and precision according to DIN EN ISO 8655-2
- set volume almost impossible to change during pipetting
- 360° rotatable pipetting unit for more flexibility
- suitable for most brands of pipette tips
- easy release of the used tips
- easy cleaning and maintenance
- piston assembly autoclavable at 121°C
- individual certificate and serial number
- DE-M marked according to the German calibration law

### WITOPET economy multi-channel

Volume	Division	Maximum permissible errors			Channels	Order number
		witeg				
		Volume tested	Systematic errors	Random errors		
µl	µl	µl	± µl	≤ µl		
0.5 - 10	0.1	1	0.24	0.16	8	5 403 101
		5			12	5 403 201
		10				
5 - 50	0.5	5	1.0	0.4	8	5 403 105
		25			12	5 403 205
		50				
50 - 300	5.0	50	3.2	1.2	8	5 403 130
		150			12	5 403 230
		300				
Pipette support for WITOPET economy pipettes (single- and multi-channel pipettes)						5 406 205

# One instrument for serial dosing from 1 to 5000 $\mu\text{l}$

**WITOPETTE plus** is the ideal instrument for serial dosing: ergonomic designed, low weighted (only 100 g) but still robust and highly resistant due to the used high-quality materials. With purely mechanical, maintenance-free construction, **WITOPETTE plus** is the stepper pipette you can always count on!

## Viewing window

This window displays the dispensing volume according to the position of the adjusting wheel (from 1 to 10) and size of the dispensing tip (from 0,05 to 50 ml).

## Body

The ergonomic designed shape and the large finger rest make dosing with **WITOPETTE plus** comfortable and fatigue-proof.

## Universal tip holder

The tip holder of **WITOPETTE plus** is suitable for all established brands of dispensing tips.



## Push button

The ergonomically designed push button is large, smooth and rounded to provide best comfort for your thumb.

## Adjusting wheel

To set the desired volume, turn the adjusting wheel from program 1 to 10.

## Filling lever

Push up the filling lever to draw up the inserted tip with liquid.

## Stop lever

The stop lever ensures a firmly holding of the inserted tip: Just push it down and the tip is locked.



## Stepper Pipette

### Your advantage at a glance:

- ideal instrument for serial dosing in microliter range
- up to 48 pipetting steps in intervals of 1 second
- mechanical volume setting, 120 dosing volumes possible
- ergonomic design and low weighted for fatigue-proof dosing
- precise and accurate dosing of volumes from 1 to 5000  $\mu\text{l}$
- suitable for all established brands of dispensing tips from 0.05 - 50 ml
- robust & stable construction for a long life time
- quality certificate and serial number
- DE-M marked according to the German calibration law

**WITOPETTE plus** 1-5000  $\mu\text{l}$

Type

Stepper Pipette

Order number

5 385 205

# WITIPS for WITOPETTE plus

## WITIPS evolution

- all nine Witip sizes have a color-coded adapter for fast identification
- easy and highly precise dosing, even in low volume applications. Smallest volume (from 1 µl) can be dispensed without using any additional pipet tip
- for viscous, infectious and volatile liquids through direct displacement method
- reliable and repeatable results through automated, individual tests of every tip
- each size is also available in single wrapped, sterile quality. This means sterilized, pyrogene-, ATP-, RNase- and DNA-free. The purity of the label sterile is certified by independent laboratories.
- certificate of every batch is available on request
- lot number on each box



Witips evolution, standard and sterile are suitable for: WITOPETTE plus, Ripette®, Ripette® pro, Ripette® genX, eLine™-

Dispenser, Multipette® 4780, Multipette® plus, Multipette® M4, Minilab 100, Minilab 101, Minilab 201, DISTRIMAN®,

StepMate, EasyStep, EasyStep electronic, RepeatOne®, Handrop, HandyStep®, HandyStep® electronic.

When using the following dispensers, no automatic identification of the tip possible: Multipette® M4, Multipette® plus.

## WITIPS

- the eight tip sizes are suited for dispensing volumes from 1 µl – 50,000 µl
- for viscous, infectious & volatile liquids through direct displacement method
- reliable and repeatable results through automated, individual tests of every tip
- each size is also available in single wrapped sterile quality. This means sterilized, pyrogene-, ATP-, RNase- and DNA-free. The purity of the sterile tips is certified by independent laboratories.
- certificate of every batch is available on request
- lot number on each box.



Witips, standard and sterile, are suitable for: WITOPETTE plus, Ripette®, Ripette® pro, Multipette® 4780, eLine™-Dis-

penser, Minilab 100, Minilab 101, Minilab 201, DISTRIMAN®, Repetman®, StepMate, EasyStep, EasyStep electronic,

RepeatOne®, Handrop.

## WITIPS Tips for WITOPETTE plus

Volume (ml)	Sterile	Packaging unit	Order number standard	Order number evolution
0,05		100	5 385 222	-
0,05	x	100	5 385 222 S	-
0,1		100	-	5 386 111
0,1	x	100	-	5 386 111 S
0,2		100	-	5 386 112
0,2	x	100	-	5 386 112 S
0,5		100	5 385 223	5 386 223
0,5	x	100	5 385 252	5 386 252
1,0		100	-	5 386 113
1,0	x	100	-	5 386 253
1,25		100	5 385 224	-
1,25	x	100	5 385 253	-
2,5		100	5 385 225	5 386 225
2,5	x	100	5 385 254	5 386 254
5,0		100	5 385 226	5 386 226
5,0	x	100	5 385 255	5 386 255
10,0		100	-	5 386 117
10,0	x	100	-	5 386 256
12,5		100	5 385 227	-
12,5	x	100	5 385 256	-
25,0		25	5 385 228	5 386 228
25,0	x	25	5 385 257	5 386 257
50,0		25	5 385 229	5 386 229
50,0	x	25	5 385 258	5 386 258

# Wiplate square wells

## Wiplate SW

### Your advantage at a glance:

- optimal use of capacity when it comes to sample storage
- standard SBS format, compatible to all common robotic systems
- form follows function: the construction of cavities is crucial for a maximum absorption of liquids; thin-walled and parallel cavities ensure a maximum of contamination-free sample storage per well
- with alphanumeric marking
- can be closed with respective cap mats, adhesive films or by heat-sealing
- manufactured out of pure polypropylene without lubricants for an immaculate and secure analysis, ideal for highly sensitive analytical methods, as e.g. chromatography
- towards comparable plates from other manufacturers, the relatively high volume allows closing of Wiplate with cap mats without any liquid displacement and cross contamination



for a maximum capacity utilization

Wiplate SW					
Capacity	Wells	Sterile	Material	Packaging Unit	Article number
2 ml	96		PP	20	5 427 001
2 ml	96		PP, black	on demand	5 427 002
2 ml	96	x	PP	10	5 427 003
5 ml	48		PP	20	5 427 004
5 ml	48	x	PP	10	5 427 005
10 ml	24		PP	20	5 427 006
10 ml	24	x	PP	10	5 427 007

Cap mat SW				
Suitable for:	Wells	Sterile	Packaging Unit	Article number
Wiplate SW 2 ml	96		20	5 427 011
Wiplate SW 2 ml	96	x	10	5 427 012
Wiplate SW 5 ml	48		20	5 427 013
Wiplate SW 5 ml	48	x	10	5 427 014
Wiplate SW 10 ml	24		20	5 427 015
Wiplate SW 10 ml	24	x	10	5 427 016

### Wiplate SW 2 ml 96 Wells

- Total volume: max. 2.5 ml/well
- Working volume 50 µl up to 2.4 ml
- well-shaped U-bottom
- including cap mat 96 for a leak-proof closure

### Wiplate SW 5 ml 48 Wells

- Total volume: max. 5.0 ml/well
- Working volume 50 µl up to 4.9 ml
- well-shaped V-bottom
- including cap mat 48 for a leak-proof closure

### Wiplate SW 10 ml 24 Wells

- Total volume: max. 10.0 ml/well
- Working volume 50 µl up to 9.9 ml
- well-shaped U-bottom
- including cap mat 24 for a leak-proof closure

# Wiplate round wells

## Wiplate RW

### Your advantage at a glance:

- deepwell plate – standard in multifunction
- standard SBS format, compatible to all common robotic systems
- raised wells reduce the risk of cross-contamination and increases the security of heat-sealing or sealing with adhesive films
- alphanumeric code
- the U-shaped well bottom reduces the death volume
- due to the high chemical resistance ideal for sensitive diagnostic applications
- available with capacity of 1 ml or 2 ml per well



Model	Capacity	Sterile	Material	Packaging Unit	Article number
Wiplate RW	1 ml		PS	20	5 427 020
Wiplate RW	1 ml		PP	20	5 427 021
Wiplate RW black	1 ml		PP	on demand	5 427 022
Wiplate RW plus	1 ml		PP	20	5 427 023
Wiplate RW black plus	1 ml		PP	on demand	5 427 024
Wiplate RW	1 ml	x	PS	10	5 427 025
Wiplate RW	1 ml	x	PP	20	5 427 026
Wiplate RW plus	1 ml	x	PP	10	5 427 027
Wiplate RW	2 ml		PP	20	5 427 028
Wiplate RW	2 ml	x	PP	10	5 427 029

### Cap mat RW

Suitable for:	Sterile	Packaging Unit	Article number
Wiplate RW 1 ml		100	5 427 120
Wiplate RW 1 ml	x	100	5 427 121

#### Wiplate RW 1 ml

- reinforced bottom, ideal for centrifugation

#### Wiplate RW 2 ml

- continuous shared round wells (no gaps between the wells) enables mixing and separating in two samples of 1 ml each
- low plate profile, can be used with most common storage systems

#### Wiplate RW plus 1 ml

- air escapes and raised rims for use in a thermocycler or for defrosting of samples in a hot water bath
- for applications with extreme temperature circumstances like freezing or defrosting in a microwave

# Wiplate medio

## Wiplate medio

### Your advantage at a glance:

- due to the tangency of Wiplate medio up to 50% stacking size is needed
- higher well rims allow an airtight closure or sealing of wiplate medio
- the alphanumeric marking allows the registration and identification of single samples
- new developed conical wells provide a good bioturbation



Saves 50% of storage capacity

Capacity	Sterile	Material	Packaging Unit	Article number
1.0 ml		PP	32	5 427 030
0.5 ml		PP	40	5 427 031
1.0 ml	x	PP	on demand	5 427 032
0.5 ml	x	PP	on demand	5 427 033

Cap mat square wells		
	Packaging Unit	Article number
Cap mat medio	100	5 427 034
Lid for Wiplate, clear	100	5 427 035

### Wiplate medio 1 ml

- height only 27.0 mm
- total volume 1.2 ml/well
- working volume 50 µl – 1000 µl/well

### Wiplate medio 0.5 ml

- height only 20.5 mm
- total volume 0.65ml/well
- working volume 20µl – 500 µl/well

# Vacuum aspiration system

integrated vacuum pump with vacuum control



Wide range of adapters fit with tube, micro plate and disk plate for various tasks and can be fully autoclaved.

## Vacmax

### Ideal for:

- designed for laboratory waste recovery and separation of liquid and solid
- can be widely used in cell culture, DNA extraction, micro plate waste removal, and any other liquid separation or recovery.

### Features:

- vacuum power can be set to different levels to achieve 1 ml/s to 15 ml/s aspiration speed (liquid 1 – 17 ml/s)
- sensitive level sensor to prevent liquid overflow during operation
- fully autoclavable waste collection bottle, tubing and handle.
- lid, tubing and handle are easy to disassemble, clean and autoclave
- wide range of adapters to fit tube, micro plate and disk plate for various tasks
- interchangeable hand operator – tip adapters make it suitable for various tasks from single channel to 8-channel based on the applications in tube, micro plate, disk plate, etc.
- including a hydrophobic filter 0.45 µm, Ø6 mm
- pump noise less than 65 dB (A)
- CE certified and unique serial number for tracing

Model	Vacmax
Vacuum range	0 - 600 mbar
Aspiration speed	air: 1 - 15 ml/S liquid: 1 - 17 ml/S
Autoclavable components	tube, waste bottle, operation handle
Dimensions (W x D x H)	180 x 240 x 450 mm
Weight	3 kg
Input voltage	100 - 240 VAC, 50/60 Hz
Bottle volume	4 l
Packaging size & gross weight	560 x 410 x 220 mm, 5 kg
Order number complete set	5 429 600

# The most comfortable way for all pipetting applications

Looking for the most comfortable way of pipetting? The electronic microliter pipette **WITOPET EP** is the right product for you. The motorized pipetting process has at least two major advantages compared with manual pipetting: it avoids pipetting errors user induced and it prevents the risk of a cramp after prolonged pipetting phases. **WITOPET EP** is available as single- and multi-channel pipette.

## Digital display

The user-friendly display indicates set volume, set function, pipetting step, battery status etc.



## Volume and function setting

The buttons for volume and function setting are color-coded to avoid confusion.



## Push-button

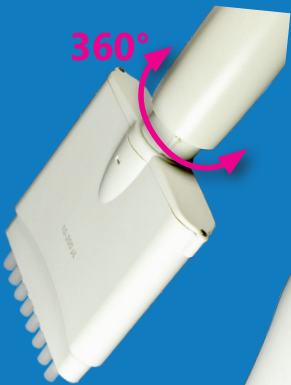
Draw up and release of the set volume occurs with minimal effort for highest user comfort.

## Tip ejector

The tip ejector releases the used tip easily.

## Pipetting unit

The pipetting unit can be turned around (360°) for increased flexibility.



## Body

A high precision stepping motor ensures absolute correct automatic pipetting without any mistake.

## Tip cone

The tip cone is suitable for all established brands of pipette tips.

## Pipette support

suitable for **WITOPET EP** pipettes  
5 406 105





## Electric Pipette

### Your advantage at a glance:

- ideal for prolonged pipetting
- minimal pipetting forces required
- automatic pipetting process for highest comfort and accuracy
- multiple functions (auto-pipetting, mixing, multiple dispensing, sequential aspirating / dispensing)
- 9 memory settings
- 5 speed settings for different viscosities
- user friendly digital display
- 360° rotatable pipetting unit for more flexibility (multi-channel only)
- including Li-ion 3,6V 1000mAh battery
- serial number and CE label
- individual certificate according to DIN EN ISO 8655-2
- DE-M marked according to the German calibration law



WITOPET EP digital single- and multi-channel pipette

	Volume	Channels	Division	Volume tested	Systematic errors	Random errors	Order number
	$\mu\text{l}$		$\mu\text{l}$	$\mu\text{l}$	$\pm \mu\text{l}$	$\leq \mu\text{l}$	
single-channel	2 - 20	1	0.1	2 10 20	0.2	0.1	5 402 302 S
	10 - 200	1	1.0	20 100 200	1.6	0.6	5 402 320 S
	100 - 1000	1	10.0	200 500 1000	8	3	5 402 390 S
multi-channel	2 - 20	8	0.1	2 10 20	0.4	0.2	5 402 402 S
	10 - 200	8	1.0	20 100 200	3.2	1.2	5 402 420 S
Pipette support for WITOPET EP							5 406 105

# WITOPET Mini



## Quick pipetting

### Your advantage at a glance:

- 6 fix-volumina from 5µl to 100µl
- compact size with an overall length of 130mm
- maximum accuracy
- feeling of a regular pipette
- two-stage plunger to ensure correct pipetting volumes
- smart tip cone design allows perfect fit for 200 µl as well as 20 µl tips
- fully autoclavable
- colour-code for better determination
- with quality certificate per batch

**The most competitive way of quick pipetting**

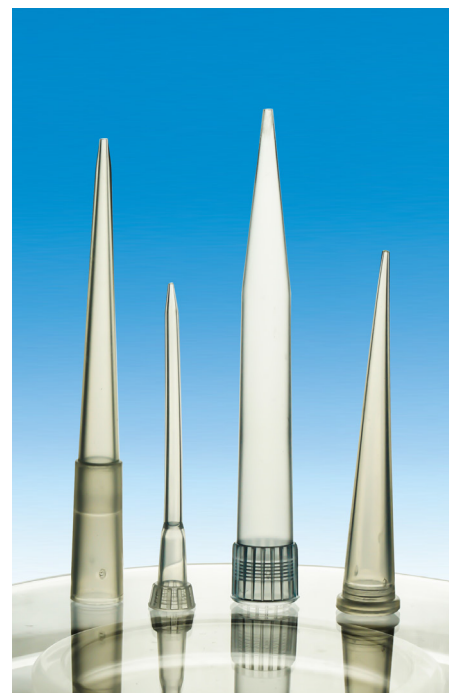
WITOPET Mini

Volume µl	Volume tested µl	Systematic errors ± %	Random errors ≤ %	Order number
5	5	4.0	2.5	5 405 005
10	10	3.2	1.4	5 405 010
20	20	3.0	0.5	5 405 020
25	25	1.5	1.1	5 405 025
50	50	1.5	0.4	5 405 050
100	100	1.5	0.3	5 405 090

# Pipette tips

WITOPET pipette tips, in a plastic bag, conformity certified  
fits for: WITOPET®, Eppendorf®, Gilson®, Brand®, Socorex®, Finnpiquette®

Volume µl	Color	Suitable for following brands	Packaging unit Pieces	Order number
0.5 - 10	neutral	Gilson	1000	5 408 005
0.5 - 10	neutral	universal	1000	5 408 010
2 - 200	yellow	universal	1000	5 408 200
2 - 200	yellow	Gilson	1000	5 408 202
100 - 1000	blue	universal	1000	5 410 000
100 - 1000	blue	universal	1000	5 410 001
1000 - 5000	neutral	universal	250	5 412 100
1000	neutral	Beckmann, Sherwood, Lancer	1000	5 412 110
2 - 200	neutral	MLA	1000	5 412 120
200 - 1000	neutral	MLA	1000	5 412 200
2 - 200	neutral	Oxford	1000	5 412 220
250 - 1000	green	Oxford	1000	5 412 250
2 - 200	neutral	Oxford slim line	1000	5 412 320
250 - 1000	blue	Oxford slim line	1000	5 412 325



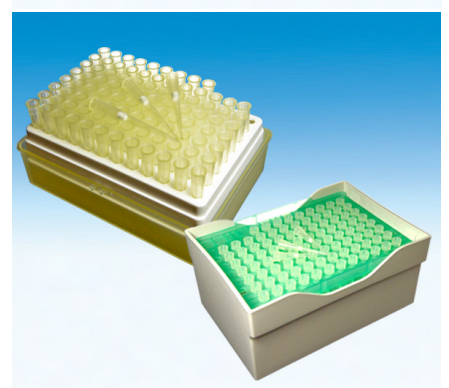
WITOPET pipette tips, in an autoclavable rack with cover, conformity certified

Volume µl	Color	Suitable for following brands	Packaging unit Pieces	Order number
0.5 - 10	neutral	universal	96	5 409 005
2 - 200	yellow	universal	96	5 409 200
100 - 1000	blue	universal	96	5 409 210
2 - 200	yellow	Gilson	96	5 409 220



WITOPET Filtertips (**sterile**) suitable for all WITOPET pipettes, autoclavable  
DNase, RNase, Cadmium and pyrogen free. The tips are sterilised by gamma radiation.

Volume µl	Color	Suitable for following brands	Packaging unit Pieces	Order number
5 - 20	neutral	witeg, Eppendorf, Biohit, Nichiryo, Gilson, Socorex, Brand	96	5 414 100 B
5 - 300	neutral	witeg, Eppendorf, Biohit, Gilson	96	5 414 300 B
101 - 1000	neutral	witeg, Eppendorf, Biohit, Nichiryo, Gilson, Socorex, Brand	96	5 414 000 B
100 - 1000	neutral	Eppendorf, Socorex, Gilson	96	5 414 001 B
1 - 30	neutral	Gilson P20	96	5 414 030 B
1 - 100	neutral	Gilson P20, P50, P100	96	5 414 101 B
1 - 150	neutral	Gilson P20, P50, P100, P200	96	5 414 150 B
0.5 - 10	neutral	witeg, Eppendorf cristal, Socorex	96	5 414 010 B
0.5 - 10	neutral	Gilson P2, P10	96	5 414 011 B



# The professional electric pipetting solution

**WITOPED XP** is a professional electric pipetting aid, suitable for all pipettes up to 100 ml. The special features like speed adjustable suction and dispensing buttons, the comfortable base which allows stable placing of the device inclusive attached pipette as well as the high-precision, long lasting motor make **WITOPED XP** an indispensable device in your laboratory.

## Nosepiece release

This button protects against accidentally releasing the nosepiece.

## Removable stand

The removable stand allows stable placing of the device along with attached pipette.

## Nosepiece

The nosepiece is suitable for all kinds of pipettes. In case of contamination, the nosepiece can be easily removed in order to exchange the filter and the silicone adapter.



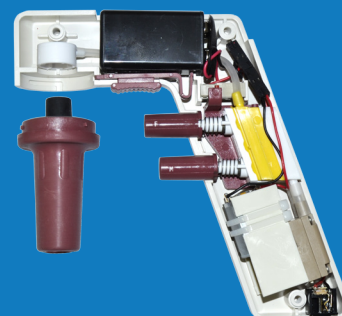
## Dispenser buttons

The buttons can be individually adjusted to your application by turning:

- (F) Fast = 10 ml/s
- (M) Medium = 5 ml/s
- (S) Slow = 1 ml/s
- (G) Gravity drain

## Motor

The high-precision motor is robust and made for a long life time.



## Pipetting aid

### Your advantage at a glance:



- high-quality instrument, most competitive price
- high-precision, durable motor
- individual adjustment of suction and dispensing speed
- three pipetting speeds selectable:
  - (F) Fast = 10 ml/s
  - (M) Medium = 5 ml/s
  - (S) Slow = 1 ml/s
- (G) Gravity drain
- gravity drain mode for draining out without using any motor
- suitable for all pipettes up to 100 ml
- handy and light weighted for fatigue-proof pipetting
- tight fit of any pipette into the pipette socket
- nosepiece with replaceable filter and silicone adapter
- nosepiece autoclavable at 121°C
- removable stand for stable holding of instrument along with attached pipette
- including wall bracket
- including NiMH 8,4V 200mAh battery
- CE label

### WITOPED XP Professional

Type	Order number
230V	5 380 001
120V	5 380 002

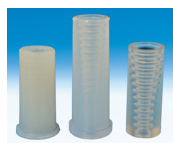
### Scope of supply

WITOPED XP, battery charger, replacement filters, removable stand, instruction manual



Replacement one-way filter

Packaging unit	Order number
5	5 380 006



Replacement silicone adapter

Order number
5 380 004

# The economic electric pipetting solution

**WITOPED eco** is an economically priced electric pipette aid, suitable for all pipettes up to 100 ml. The new model has an advanced digital display and faster suction performance: **25 ml in less than 5 seconds.**

**The new generation of our electric pipetting aid**

## Accessories

Our pipetting aid set includes a charger, a practical table stand that enables the device to be set down safely, a replacement filter and an adapter for wall mounting.

## Nosepiece

The nosepiece is suitable for all types of pipettes, as the inner cone is made of silicone and holds all known pipette suction tubes in place. If contaminated, the nosepiece can be easily removed in order to exchange the filter and the silicone adapter.



## Dispenser buttons

The **WITOPED eco** has two buttons on the handle. The upper button controls the filling process of the pipette. Its speed can be finely adjusted in 6 levels. When pressing the lower button, the pipette is emptied with the same speed mode from 1 to 6. Gravity drain mode (G) for draining out without using the motor is also possible. The speed can also be regulated by pressing the buttons carefully.

## Advanced digital display and speed setting

The LCD display indicates battery status and set speed. The pipetting speed can be adjusted in 6 levels, numbered from 1 to 6, and is easy to read. The new adjustment buttons "+/-" have been sensitively optimized. The charge level of the battery can be easily seen on the negative display in 5 block levels. In this way, you can charge your pipetting aid in time.



## Motor

The powerful motor of our pipetting aid **WITOPED eco** ensures fast and reliable pipetting with a long lifespan.

## Service

The pipette holder can be easily unscrewed releasing the silicone adapter and the filter above. In case of contamination, these individual parts can be easily removed, cleaned or replaced if necessary. The silicone adapter is autoclavable at 121°C.

The quality tests are conducted and confirmed in accordance with the ISO 8055 standard. The entire production of the pipetting aid is carried out in accordance with ISO 9001:2000 and ISO 13485.

## Pipetting aid

### Your advantage at a glance:

- suitable for all pipettes up to 100 ml and Pasteur pipettes
- most affordable price in its class
- digital negative display indicating battery status and selected speed
- fine adjustment of pipetting speed
- handy and light weighted for fatigue-free pipetting, only approximately 200 g
- simple but powerful motor for fast and reliable pipetting (25 ml in less than 5 seconds)
- gravity drain mode (G) for draining out without motor
- tight fit of any pipette into the pipette socket
- nosepiece with replaceable filter and silicone adapter
- silicone adapter autoclavable at 121°C
- efficient battery for a long runtime, Li-Ion 3.7 V 700 mAh
- battery life over 8 hours
- low battery alert, acoustic signal when the charge level is low
- rechargeable during use
- CE label



**Advanced model**

### WITOPED eco

Type	Order number
230V	5 381 000

### Scope of supply

WITOPED eco, battery charger, replacement filter, table stand, wall holder, instruction manual

Replacement one-way filter, 0.45 µm hydrophobic



Packaging unit	Order number
5	5 380 006 E

Replacement silicone adapter



Order number
5 382 010

# The simplest pipetting solution

WITO pipette controller is the classical pipetting aid, suitable for all pipettes up to 100 ml.

## Suction bellow

The pipette is easily filled by squeezing the suction bellow.

## Controller

The pipetting mechanism is mechanical and therefore maintenance-free.

## Nosepiece

The nosepiece is suitable for all pipettes up to 100 ml. In case of contamination, the nosepiece can be easily removed in order to exchange the filter and the silicone adapter.

## Pipetting lever

With the spring-loaded lever the selection between suction (up) and dispensing (down) can be easily made.

Above the WITO pipetting aids pipetting lever is a small rubber ball, which enables the liquid residues to be blown out at the end of the pipetting process. If you press the rubber ball, the residual liquid is precisely blown out and guarantees safe, accurate pipetting.



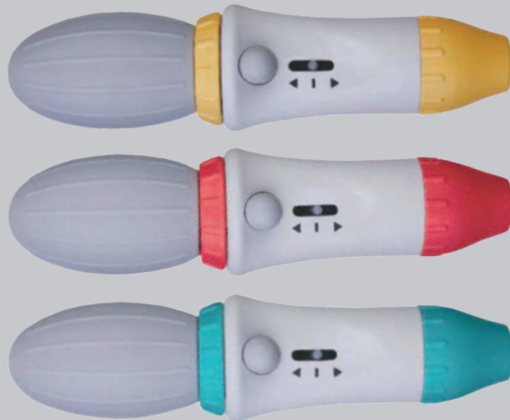
## Technique inside

WITO pipette controller delivers reliable results.



# WITO pipette controller

## Pipetting aid



### Your advantage at a glance:

- good quality for an affordable price
- simple, maintenance-free device
- robust and light weighted
- made for a long life time
- easy selection between suction and dispensing
- available in 3 colors
- silicone adapter autoclavable at 121°C



WITO pipette controller with integrated one way filter

Color	Order number
Blue	5 382 000
Yellow	5 382 001
Green	5 382 002

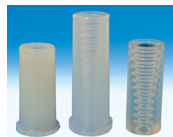
### Scope of supply

WITO pipette controller, replacement filter



Replacement one-way filter

Packaging unit	Order number
5	5 382 006



Replacement silicone adapter

Order number
5 382 020

# WITO pipetting tools

## Pipette filler with 3 valves

made of natural rubber, standard model for pipettes up to 100 ml, resistant to age and chemicals

	Color	Order number
Standard up to 10 ml	red	3 965 000
Standard up to 10 ml	black	3 965 001
Standard up to 10 ml	green	3 965 002
Standard up to 10 ml	blue	3 965 003
Universal with elongated cone up to 100ml	red	3 966 000
Universal with adapter up to 100ml	red	3 965 100

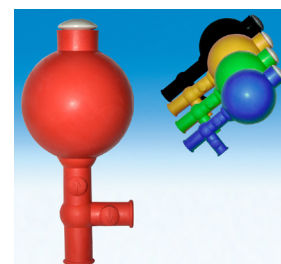
**NEW COLOURS**



## Flip-Pipette filler with 2 valves

easy to use, two pressure valves for suction and release of liquid up to 100 ml, one automatic air purge valve, effective cleaning by removing the automatic valve, in 5 different colors available

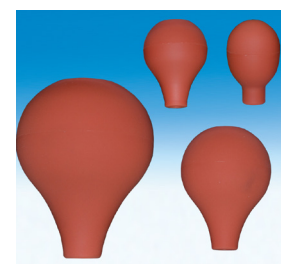
Color	Order number
red	3 967 000
black	3 967 001
yellow	3 967 002
blue	3 967 003
green	3 967 004



## Suction bulb

made of PVC, for pipettes with diameter of 6 mm

Size	Suction volume	Ball diameter	Order number
<b>B oval</b>	5 ml	25 mm	3 597 001
<b>0</b>	8 ml	30 mm	3 597 002
<b>2</b>	25 ml	42 mm	3 597 003
<b>3</b>	40 ml	48 mm	3 597 004
<b>5</b>	89 ml	62 mm	3 597 005
<b>7</b>	143 ml	72 mm	3 597 006
<b>9</b>	224 ml	84 mm	3 597 007
<b>11</b>	347 ml	94 mm	3 597 008



## Suction bulbs for pipettes 1 - 15 ml

For capacity	Material	Pack size	Order number
<b>approx. 2 ml</b>	rubber	10 pcs.	3 968 000
<b>1 ml</b>	silicone	10 pcs.	3 968 001 S
<b>3 ml</b>	silicone	10 pcs.	3 968 002 S
<b>5 ml</b>	silicone	10 pcs.	3 968 005 S
<b>10 ml</b>	silicone	10 pcs.	3 968 010 S



## Universal safety pipette bulb

red rubber and silicone pipette bulb for pipettes up to 25 ml  
made of synthetic rubber and silicone

**NEW**

For capacity	Order number
15 ml	3 595 000



## Pipette pump with fast release „pi-pump“

made of PP, suitable for pipettes up to 25 ml, suction and dispensing achieved by rotating the thumbwheel with exception of the 0.2 ml pi-pump, an additional lever releases vacuum to let liquid flow quickly

For capacity	Color-code	Order number
<b>0.2 ml</b>	yellow	7 032 001
<b>2 ml</b>	blue	7 032 002
<b>10 ml</b>	green	7 032 003
<b>25 ml</b>	red	7 032 004
Stand for „pi-pump“		7 032 111



# Laboratory glassware

Graduated pipettes  
Volumetric pipettes  
Volumetric flasks  
Graduated cylinder  
Burettes  
and many more...



## Class AS

- color-code to avoid confusion
- made of soda-lime glass
- zero point at the upper end of the scale
- main point ring graduation
- tolerance according to DIN EN ISO 835
- DE-M marked according to the German calibration law
- calibrated to deliver (EX), 5 sec waiting time
- standard and special sizes available
- inclusive batch certificate

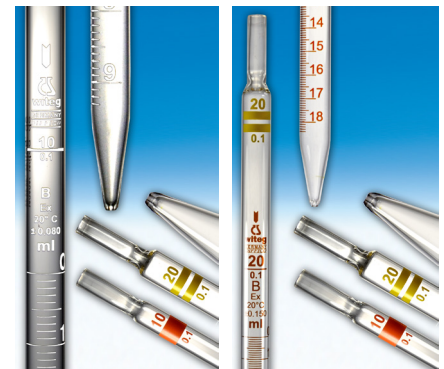


Capacity ml	Division ml	Tolerance ml	Color-Code	Delivery time seconds	Order number	
					brown graduated	blue graduated
0.1	0.01	±0.006	white	2 - 8	3 510 011	3 510 011 BL
0.2	0.01	±0.006	black	2 - 8	3 510 021	3 510 021 BL
0.2*	0.002	±0.006	white x2	2 - 8	3 510 022	3 510 022 BL
0.5	0.01	±0.006	yellow x2	4 - 10	3 510 051	3 510 051 BL
1	0.01	±0.007	yellow	4 - 10	3 510 101	3 510 101 BL
1	0.1	±0.007	red	4 - 10	3 510 110	3 510 110 BL
2*	0.01	±0.010	white x2	4 - 10	3 510 201	3 510 201 BL
2	0.02	±0.010	black	4 - 10	3 510 202	3 510 202 BL
2	0.1	±0.010	green	4 - 10	3 510 210	3 510 210 BL
5	0.05	±0.030	red	7 - 13	3 510 505	3 510 505 BL
5	0.1	±0.030	blue	7 - 13	3 510 510	3 510 510 BL
10	0.1	±0.050	orange	7 - 13	3 510 710	3 510 710 BL
20	0.1	±0.100	yellow x2	11 - 17	3 510 810	3 510 810 BL
25	0.1	±0.100	white	11 - 17	3 510 910	3 510 910 BL
50*	0.2	±0.200	black	-	3 510 950	3 510 950 BL

\* special size in addition to the ISO 835 range, without conformity certificate

## Class B

- color-coded to avoid confusion
- made of soda-lime glass
- zero point at the upper end of the scale
- short line graduation
- tolerance according to DIN EN ISO 835
- our error ranges are better than the DIN EN ISO 835 requirements
- calibrated to deliver (EX)
- without waiting time
- standard and special sizes available



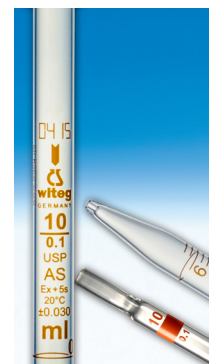
Capacity ml	Division ml	Tolerance		Color-Code	Delivery time seconds	Order number	
		witeg ml	ISO ml			white graduated	brown graduated
0.1	0.01	±0.010	±0.010	white	2 - 12	3 500 011 W	3 500 011
0.2	0.01	±0.010	±0.010	black	2 - 12	3 500 021 W	3 500 021
0.2*	0.002	±0.010	±0.010	white x2	2 - 12	3 500 022 W	3 500 022
0.5	0.01	±0.010	±0.010	yellow x2	2 - 12	3 500 051 W	3 500 051
1	0.01	±0.010	±0.010	yellow	2 - 12	3 500 101 W	3 500 101
1	0.1	±0.010	±0.010	red	2 - 12	3 500 110 W	3 500 110
2*	0.01	±0.015	±0.020	white x2	2 - 12	3 500 201 W	3 500 201
2	0.02	±0.015	±0.020	black	2 - 12	3 500 202 W	3 500 202
2	0.1	±0.015	±0.020	green	2 - 12	3 500 210 W	3 500 210
5	0.05	±0.040	±0.050	red	5 - 15	3 500 505 W	3 500 505
5	0.1	±0.040	±0.050	blue	5 - 15	3 500 510 W	3 500 510
10	0.1	±0.080	±0.100	orange	5 - 15	3 500 710 W	3 500 710
20	0.1	±0.150	±0.200	yellow x2	9 - 20	3 500 810 W	3 500 810
25	0.1	±0.200	±0.200	white	9 - 20	3 500 910 W	3 500 910
50*	0.2	±0.400	±0.400	black	-	3 500 950 W	3 500 950

\* special size in addition to the ISO 835 range

# Graduated pipettes

## USP

- color-code to avoid confusion
- made of soda-lime glass
- zero point at the upper end of the scale
- main point ring graduation
- tolerance according to ASTM E 1293
- produced according to DIN EN ISO 835
- DE-M marked according to the German calibration law
- calibrated to deliver (EX), 5 sec waiting time
- inclusive batch certificate



Capacity ml	Division ml	Tolerance USP ml	Color-Code	Order number	
				blue graduated	brown graduated
1	0.01	±0.01	yellow	3 510 101 BL USP	3 510 101 USP
2	0.02	±0.01	black	3 510 202 BL USP	3 510 202 USP
5	0.05	±0.02	red	3 510 505 BL USP	3 510 505 USP
5	0.1	±0.02	blue	3 510 510 BL USP	3 510 510 USP
10	0.1	±0.03	orange	3 510 710 BL USP	3 510 710 USP

## Class AS - enzymatic analysis

- color-coded to avoid confusion
- made of soda-lime glass
- zero point at the upper end of the scale
- main point ring graduation
- DE-M marked according to the German calibration law
- calibrated to deliver (EX)
- according to DIN 12699
- inclusive batch certificate



Capacity ml	Division ml	Tolerance ml	Color-Code	Delivery time seconds	Order number	
					blue graduated	brown graduated
0.1	0.001	0.003	green x3	2 - 8	3 517 011 BL	3 517 011
0.2	0.001	0.003	blue x3	2 - 8	3 517 021 BL	3 517 021
0.5	0.01	0.005	yellow x3	2 - 8	3 517 051 BL	3 517 051
1	0.01	0.006	yellow x2	2 - 8	3 517 101 BL	3 517 101
2	0.02	0.010	black x2	2 - 8	3 517 202 BL	3 517 202
5	0.05	0.030	red x2	5 - 11	3 517 505 BL	3 517 505
10	0.1	0.050	orange x2	5 - 11	3 517 710 BL	3 517 710

## Pipette stand, universal use, detachable

made of PP, for maximum of 94 pipettes, specially designed to prevent any damage to the pipette tip. Residual liquids are retained by reinforced rim.

Order number

7 081 001



# Volumetric pipettes

## Class AS

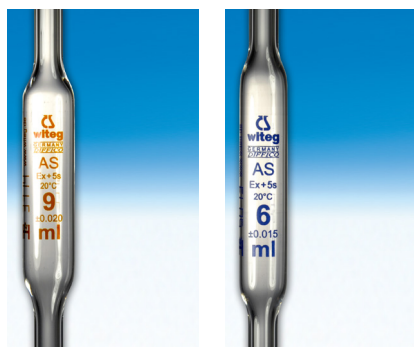
- color-code to avoid confusion
- made of soda-lime glass
- tolerance according to DIN EN ISO 648
- DE-M marked according to the German calibration law
- calibrated to deliver (EX), 5 sec waiting time
- inclusive batch certificate



Capacity ml	Tolerance ml	Color-Code	Order number	
			brown graduated	blue graduated
0.5	±0.005	black x2	3 535 005	3 535 005 BL
1	±0.008	blue	3 535 010	3 535 010 BL
2	±0.010	orange	3 535 020	3 535 020 BL
5	±0.015	white	3 535 050	3 535 050 BL
10	±0.020	red	3 535 100	3 535 100 BL
20	±0.030	yellow	3 535 200	3 535 200 BL
25	±0.030	blue	3 535 250	3 535 250 BL
50	±0.050	red	3 535 500	3 535 500 BL
100	±0.080	yellow	3 535 900	3 535 900 BL

## Class AS - special sizes

- color-code to avoid confusion
- made of soda-lime glass
- tolerance on basis of DIN EN ISO 648
- DE-M marked according to the German calibration law
- calibrated to deliver (EX), 5 sec waiting time
- inclusive batch certificate



Capacity ml	Tolerance ml	Color-Code	Order number	
			brown graduated	blue graduated
3	±0.010	black	3 535 030	3 535 030 BL
3.5	±0.010	-	3 535 035	3 535 035 BL
4	±0.015	red x2	3 535 040	3 535 040 BL
4.5	±0.015	-	3 535 045	3 535 045 BL
5.5	±0.015	-	3 535 055	3 535 055 BL
5.85	±0.015	-	3 535 0585	3 535 0585 BL
6	±0.015	orange x2	3 535 060	3 535 060 BL
7	±0.015	green x2	3 535 070	3 535 070 BL
7.5	±0.015	-	3 535 075	3 535 075 BL
8	±0.020	blue	3 535 080	3 535 080 BL
9	±0.020	black	3 535 090	3 535 090 BL
11	±0.020	-	3 535 110	3 535 110 BL
12	±0.020	-	3 535 120	3 535 120 BL
12.5	±0.020	-	3 535 125	3 535 125 BL
13	±0.020	-	3 535 130	3 535 130 BL
14	±0.020	-	3 535 140	3 535 140 BL
15	±0.020	green	3 535 150	3 535 150 BL
16	±0.030	-	3 535 160	3 535 160 BL
17	±0.030	-	3 535 170	3 535 170 BL
18	±0.030	-	3 535 180	3 535 180 BL
19	±0.030	-	3 535 190	3 535 190 BL
21	±0.030	-	3 535 210	3 535 210 BL
30	±0.030	black	3 535 300	3 535 300 BL
32	±0.030	-	3 535 320	3 535 320 BL
35	±0.030	-	3 535 350	3 535 350 BL
38.5	±0.050	-	3 535 038	3 535 038 BL
39.06	±0.050	-	3 535 039	3 535 039 BL
40	±0.050	white	3 535 400	3 535 400 BL
60	±0.050	-	3 535 600	3 535 600 BL
70	±0.050	-	3 535 700	3 535 700 BL
75	±0.050	green	3 535 750	3 535 750 BL
80	±0.080	-	3 535 800	3 535 800 BL
90	±0.080	-	3 535 901	3 535 901 BL
200	±0.120	blue	3 535 920	-
250	±0.120	-	3 535 925	3 535 925 BL

further sizes on request

# Volumetric pipettes

## Class B

- color-code to avoid confusion
- made of soda-lime glass
- tolerance according to DIN EN ISO 648
- our error ranges are better than the DIN EN ISO 648 requirements
- calibrated to deliver (EX), without waiting time
- standard and special sizes available



Capacity ml	Tolerance		Color-Code	Order number
	witeg ml	ISO ml		
0.5	±0.010	±0.010	black x2	3 530 005
1	±0.015	±0.015	blue	3 530 010
2	±0.015	±0.020	orange	3 530 020
3*	±0.015	-	black	3 530 030
5	±0.020	±0.030	white	3 530 050
10	±0.030	±0.040	red	3 530 100
15*	±0.040	-	green	3 530 150
20	±0.050	±0.060	yellow	3 530 200
25	±0.050	±0.060	blue	3 530 250
50	±0.080	±0.100	red	3 530 500
100	±0.120	±0.150	yellow	3 530 900

\* special size in addition to the ISO 648 range

## USP

- color-code to avoid confusion
- made of soda-lime glass
- tolerance according to ASTM E 969
- produced according to DIN EN ISO 648
- DE-M marked according to the German calibration law
- calibrated to deliver (EX), 5 sec waiting time
- inclusive batch certificate



Capacity ml	Tolerance USP ml	Color-Code	Order number	
			blue graduated	brown graduated
0.5	±0.006	black x2	3 535 005 BL USP	3 535 005 USP
1	±0.006	blue	3 535 010 BL USP	3 535 010 USP
2	±0.006	orange	3 535 020 BL USP	3 535 020 USP
3	±0.01	black	3 535 030 BL USP	3 535 030 USP
4	±0.01	red x2	3 535 040 BL USP	3 535 040 USP
5	±0.01	white	3 535 050 BL USP	3 535 050 USP
6	±0.01	orange x2	3 535 060 BL USP	3 535 060 USP
7	±0.01	green x2	3 535 070 BL USP	3 535 070 USP
8	±0.02	blue	3 353 080 BL USP	3 353 080 USP
9	±0.02	black	3 535 090 BL USP	3 535 090 USP
10	±0.02	red	3 535 100 BL USP	3 535 100 USP
12*	±0.03	-	3 535 120 BL USP	3 535 120 USP
15	±0.03	green	3 535 150 BL USP	3 535 150 USP
20	±0.03	yellow	3 535 200 BL USP	3 535 200 USP
25	±0.03	blue	3 535 250 BL USP	3 535 250 USP
30	±0.03	black	3 535 300 BL USP	3 535 300 USP
40	±0.05	white	3 535 400 BL USP	3 535 400 USP
50	±0.05	red	3 535 500 BL USP	3 535 500 USP
100	±0.08	yellow	3 535 900 BL USP	3 535 900 USP

\* special size in addition according to the ASTM E 969 range

# Volumetric flasks

## Volumetric flask with socket, class A



- made of DURAN® tubing
- tolerance according to DIN EN ISO 1042
- DE-M marked according to the German calibration law
- standard and special sizes available
- inclusive batch certificate

## Special sizes

Capacity	Tolerance	Socket	Order number		
ml	ml	ST	brown graduated with PE-stopper	blue graduated with PE-stopper	brown graduated with ST-hollow glass stopper
5	±0.025	7/16	3 664 000	3 664 000 BL	3 668 000
5	±0.040	10/19	3 664 015	3 664 015 BL	3 668 015
10	±0.025	7/16	3 664 001	3 664 001 BL	3 668 001
10	±0.040	10/19	3 664 012	3 664 012 BL	3 668 012
10*	±0.060	14/23	3 664 00114	3 664 00114 BL	3 668 00114
10*	±0.060	12/21	-	3 664 01212 BL	-
15*	±0.040	10/19	3 664 016	3 664 016 BL	3 668 016
20*	±0.040	7/16	3 664 021	3 664 021 BL	3 668 021
20	±0.040	10/19	3 664 002	3 664 002 BL	3 668 002
20	±0.060	12/21	3 664 013	3 664 013 BL	3 668 013
20*	±0.060	14/23	3 664 00214	3 664 00214 BL	3 668 00214
25	±0.040	10/19	3 664 003	3 664 003 BL	3 668 003
25	±0.060	12/21	3 664 014	3 664 014 BL	3 668 014
25*	±0.060	14/23	3 664 00314	3 664 00314 BL	3 668 00314
50	±0.060	12/21	3 664 005	3 664 005 BL	3 668 005
50	±0.100	14/23	3 664 006	3 664 006 BL	3 668 006
75*	±0.060	12/21	3 664 0075	-	3 668 0075
100	±0.100	12/21	3 664 010	3 664 010 BL	3 668 010
100	±0.100	14/23	3 664 011	3 664 011 BL	3 668 011
100*	±0.150	19/26	3 664 135	-	3 668 135
150*	±0.100	14/23	3 664 150	-	3 668 150
192.2*	±0.150	14/23	3 664 192	3 664 192 BL	3 668 192
200	±0.150	14/23	3 664 020	3 664 020 BL	3 668 020
250	±0.150	14/23	3 664 025	3 664 025 BL	3 668 025
300*	±0.150	14/23	3 664 030	-	3 668 030
350*	±0.150	19/26	3 664 035	-	3 668 035
368.3*	±0.150	19/26	-	3 664 368 BL	-
400*	±0.250	19/26	3 664 040	-	3 668 040
500*	±0.250	14/23	3 664 049	-	3 668 049
500	±0.250	19/26	3 664 050	3 664 050 BL	3 668 050
600*	±0.400	24/29	3 664 060	-	3 668 060
800*	±0.400	24/29	3 664 080	-	3 668 080
900*	±0.400	24/29	3 664 090	-	3 668 090
1000	±0.400	24/29	3 664 100	3 664 100 BL	3 668 100
1000	±0.600	29/32	3 664 101	3 664 101 BL	3 668 101
2000	±0.600	29/32	3 664 200	3 664 200 BL	3 668 200
3000*	±0.800	29/32	3 664 300	3 664 300 BL	3 668 300
5000*	±1.200	29/32	3 664 499	-	3 668 499
5000	±1.200	34/35	3 664 500	3 664 500 BL	3 668 500

\* special size in addition to the ISO 1042 range, with conformity certificate



### NEW

All volumetric flasks with ground joint neck can be ordered with spout.

Just add „A“ at the end of the order number.

**Example:** „3 664 005 A“ or „3 664 100 BL A“

### NEW

All brown graduated volumetric flasks with ST-hollow glass

stoppers can be ordered with blue graduation.

Just add „BL“ at the end of the order number.

**Example:** „3 668 014 BL“ or „3 668 500 BL“





# Volumetric flasks

## Volumetric flask with socket amber-stained, class A



- made of borosilicate glass 3.3
- tolerance according to DIN EN ISO 1042
- DE-M marked according to the German calibration law
- standard and special sizes available
- inclusive batch certificate

Capacity	Tolerance	Socket	Order number	
ml	ml	ST	white graduated with ST-hollow glass stopper	white graduated with PE-stopper
2	±0.040	10/19	3 670 022	3 670 022 P
5	±0.025	7/16	3 670 000	3 670 000 P
5	±0.040	10/19	3 670 015	3 670 015 P
10	±0.025	7/16	3 670 001	3 670 001 P
10	±0.040	10/19	3 670 012	3 670 012 P
10*	±0.060	14/23	3 670 00114	3 670 00114 P
15*	±0.040	10/19	3 670 016	3 670 016 P
15*	±0.060	12/21	3 670 0016	3 670 0016 P
20*	±0.040	7/16	3 670 013 7	3 670 013 7 P
20	±0.040	10/19	3 670 002	3 670 002 P
20	±0.060	12/21	3 670 013	3 670 013 P
20*	±0.060	14/23	3 670 017	3 670 017 P
25	±0.040	10/19	3 670 003	3 670 003 P
25	±0.060	12/21	3 670 014	3 670 014 P
25*	±0.060	14/23	3 670 018	3 670 018 P
50	±0.060	12/21	3 670 005	3 670 005 P
50	±0.100	14/23	3 670 006	3 670 006 P
100	±0.100	12/21	3 670 010	3 670 010 P
100	±0.100	14/23	3 670 011	3 670 011 P
125*	±0.100	14/23	3 670 125	3 670 125 P
150*	±0.100	14/23	3 670 150	3 670 150 P
200	±0.150	14/23	3 670 020	3 670 020 P
250	±0.150	14/23	3 670 025	3 670 025 P
250*	±0.400	29/32	3 670 025 29	3 670 025 29 P
300*	±0.150	14/23	3 670 030	3 670 030 P
500*	±0.250	14/23	3 670 049	3 670 049 P
500	±0.250	19/26	3 670 050	3 670 050 P
500*	±0.400	29/32	3 670 051	3 670 051 P
1000	±0.400	24/29	3 670 100	3 670 100 P
1000	±0.600	29/32	3 670 101	3 670 101 P
2000	±0.600	29/32	3 670 200	3 670 200 P
5000	±1.200	34/35	3 670 500	3 670 500 P

\* special size in addition to the ISO 1042 range, with conformity certificate

## Volumetric flask with screw cap, class A



- made of DURAN® tubing
- tolerance according to DIN EN ISO 1042
- DE-M marked according to the German calibration law
- inclusive batch certificate

Capacity	Tolerance	Screw thread	Order number	
ml	ml	GL	brown graduated with screw cap	
5	±0.040	14		3 642 000
10	±0.040	14		3 642 001
20	±0.040	14		3 642 002
25	±0.040	14		3 642 003
50	±0.060	18		3 642 005
100	±0.100	18		3 642 010
200	±0.150	18		3 642 020
250	±0.150	18		3 642 025
500	±0.250	25		3 642 050
1000	±0.400	32		3 642 100
2000	±0.600	32		3 642 200
5000	±1.200	32		3 642 500



# Volumetric flasks

## Volumetric flask trapezoidal with socket class A

- made of DURAN® tubing
- tolerance according to DIN EN ISO 1042
- DE-M marked according to the German calibration law
- standard and special sizes available
- inclusive batch certificate



Capacity ml	Tolerance ml	Socket ST	Order number	
			brown graduated with PE-stopper	blue graduated with PE-stopper
1	±0.025	7/16	3 669 000	3 669 000 BL
1	±0.040	10/19	3 669 00010	3 669 00010 BL
2	±0.025	7/16	3 669 001	3 669 001 BL
3*	±0.025	7/16	3 669 002	3 669 002 BL
3*	±0.040	10/19	-	3 669 00210 BL
4*	±0.025	7/16	3 669 0024	-
4*	±0.040	10/19	3 669 035	3 669 035 BL
5	±0.025	7/19	3 669 003	3 669 003 BL
5	±0.040	10/19	3 669 015	3 669 015 BL
10	±0.025	7/16	3 669 005	3 669 005 BL
10	±0.040	10/19	3 669 010	3 669 010 BL
20	±0.040	10/19	3 669 020	3 669 020 BL
25	±0.040	10/19	3 669 025	3 669 025 BL
25	±0.060	12/21	3 669 014	3 669 014 BL
50	±0.060	12/21	3 669 050	3 669 050 BL
50	±0.100	14/23	3 669 100	3 669 100 BL
100*	±0.100	12/21	3 669 200	3 669 200 BL
100*	±0.100	14/23	3 669 500	3 669 500 BL

\* special size in addition to the ISO 1042 range, with conformity certificate



## Volumetric flask with socket, USP

- made of DURAN® tubing
- tolerance according to ASTM E 288, produced according to DIN EN ISO 1042
- DE-M marked according to the German calibration law
- standard and special sizes available
- inclusive batch certificate



Capacity ml	Tolerance USP ml	Socket ST	Order number			
			blue graduated with PE-stopper	blue graduated with ST-hollow glass stopper	brown graduated with PE-stopper	brown graduated with ST-hollow glass stopper
5	±0.02	10/19	3 664 015 BL USP	3 668 015 BL USP	3 664 015 USP	3 668 015 USP
10	±0.02	10/19	3 664 012 BL USP	3 668 012 BL USP	3 664 012 USP	3 668 012 USP
20*	±0.03	10/19	3 664 002 BL USP	3 668 002 BL USP	3 664 002 USP	3 668 002 USP
25	±0.03	10/19	3 664 003 BL USP	3 668 003 BL USP	3 664 003 USP	3 668 003 USP
25	±0.08	12/21	3 664 014 BL USP	3 668 014 BL USP	3 664 014 USP	3 668 014 USP
50	±0.05	12/21	3 664 005 BL USP	3 668 005 BL USP	3 664 005 USP	3 668 005 USP
100	±0.08	12/21	3 664 010 BL USP	3 668 010 BL USP	3 664 010 USP	3 668 010 USP
200	±0.10	14/23	3 664 020 BL USP	3 668 020 BL USP	3 664 020 USP	3 668 020 USP
250	±0.12	14/23	3 664 025 BL USP	3 668 025 BL USP	3 664 025 USP	3 668 025 USP
500	±0.20	19/26	3 664 050 BL USP	3 668 050 BL USP	3 664 050 USP	3 668 050 USP
1000	±0.30	24/29	3 664 100 BL USP	3 668 100 BL USP	3 664 100 USP	3 668 100 USP
2000	±0.50	29/32	3 664 200 BL USP	3 668 200 BL USP	3 664 200 USP	3 668 200 USP

\* special size in addition to the ASTM E 288 range



# Volumetric flasks

## Volumetric flask with socket amber stained , USP

- made of amber glass
- tolerance according to ASTM E 288, produced according to DIN EN ISO 1042
- DE-M marked according to the German calibration law
- standard and special sizes available
- inclusive batch certificate



Capacity	Tolerance	Socket	Order number		
ml	USP ml	ST	amber stained white graduated without PE-stopper	amber stained white graduated with PE-stopper	amber stained white graduated with ST-hollow glass stopper
5	±0.02	10/19	3 670 015 OS USP	3 670 015 P USP	3 670 015 USP
10	±0.02	10/19	3 670 012 OS USP	3 670 012 P USP	3 670 012 USP
20*	±0.03	10/19	3 670 002 OS USP	3 670 002 P USP	3 670 002 USP
25	±0.03	10/19	3 670 003 OS USP	3 670 003 P USP	3 670 003 USP
50	±0.05	12/21	3 670 005 OS USP	3 670 005 P USP	3 670 005 USP
100	±0.08	12/21	3 670 010 OS USP	3 670 010 P USP	3 670 010 USP
200	±0.10	14/23	3 670 020 OS USP	3 670 020 P USP	3 670 020 USP
250	±0.12	14/23	3 670 025 OS USP	3 670 025 P USP	3 670 025 USP
500	±0.20	19/26	3 670 050 OS USP	3 670 050 P USP	3 670 050 USP
1000	±0.30	24/29	3 670 100 OS USP	3 670 100 P USP	3 670 100 USP
2000	±0.50	29/32	3 670 200 OS USP	3 670 200 P USP	3 670 200 USP

\* special size in addition to the ASTM E 288 range



## Volumetric flask for sugar analysis

- blue ring mark and inscription
- borosilicate glass 3.3



Capacity	Order number
ml	
100	3 671 100
200	3 671 200



## Volumetric flask for sugar analysis

- 2x blue ring marks and inscription
- borosilicate glass 3.3



Capacity	Order number
ml	
50/55	3 672 050
100/110	3 672 100
200/220	3 672 200



For over-flow flasks for water treatment - see page 67

# Graduated cylinder



## Graduated cylinder - Class A - tall form - with spout or socket

- made of borosilicate glass 3.3 / DURAN® components
- tolerance according to DIN ISO 4788
- DE-M marked according to the German calibration law
- inclusive batch certificate



Capacity ml	Division ml	Tolerance ml	Order number		Socket ST	Order number	
			brown graduated with spout	blue graduated with spout		brown graduated with PE-stopper	blue graduated with PE-stopper
5	0.1	±0.05	3 715 000	3 715 000 BL	10/19	3 754 000	3 754 000 BL
10	0.2	±0.10	3 715 001	3 715 001 BL	10/19	3 754 001	3 754 001 BL
25	0.5	±0.25	3 715 003	3 715 003 BL	14/23	3 754 003	3 754 003 BL
50	1.0	±0.50	3 715 005	3 715 005 BL	19/26	3 754 005	3 754 005 BL
100	1.0	±0.50	3 715 010	3 715 010 BL	24/29	3 754 010	3 754 010 BL
250	2.0	±1.00	3 715 025	3 715 025 BL	29/32	3 754 025	3 754 025 BL
500	5.0	±2.50	3 715 050	3 715 050 BL	34/35	3 754 050	3 754 050 BL
1000	10.0	±5.00	3 715 100	3 715 100 BL	45/40	3 754 100	3 754 100 BL
2000	20.0	±10.00	3 715 200	3 715 200 BL	45/40	3 754 200	3 754 200 BL

## Graduated cylinder - Class B - tall form - with spout or socket (mixing cylinders)

- made of borosilicate glass 3.3 / DURAN® components
- tolerance according to DIN ISO 4788



Capacity ml	Division ml	Tolerance ml	Order number		Socket ST	Order number	
			brown graduated with spout	blue graduated with spout		brown graduated with PE-stopper	blue graduated with PE-stopper
5	0.1	±0.1	3 705 000	3 705 000 BL	10/19	3 752 000	3 752 000 BL
10	0.2	±0.2	3 705 001	3 705 001 BL	10/19	3 752 001	3 752 001 BL
25	0.5	±0.5	3 705 003	3 705 003 BL	14/23	3 752 003	3 752 003 BL
50	1.0	±1	3 705 005	3 705 005 BL	19/26	3 752 005	3 752 005 BL
100	1.0	±1	3 705 010	3 705 010 BL	24/29	3 752 010	3 752 010 BL
250	2.0	±2	3 705 025	3 705 025 BL	29/32	3 752 025	3 752 025 BL
500	5.0	±5	3 705 050	3 705 050 BL	34/35	3 752 050	3 752 050 BL
1000	10.0	±10	3 705 100	3 705 100 BL	45/40	3 752 100	3 752 100 BL
2000	20.0	±20	3 705 200	3 705 200 BL	45/40	3 752 200	3 752 200 BL

# Graduated cylinder

## Graduated cylinder - USP - tall form - with spout

- made of borosilicate glass 3.3 / DURAN® components
- tolerance according to ASTM E 1272
- produced according to DIN ISO 4788
- DE-M marked according to the German calibration law
- inclusive batch certificate

**USP**

made in Germany

**NEW**

Capacity	Division	Tolerance	Order number	
ml	ml	USP ml	blue graduated with spout	brown graduated with spout
5	0.1	±0.05	3 715 000 BL USP	3 715 000 USP
10	0.2	±0.10	3 715 001 BL USP	3 715 001 USP
25	0.5	±0.17	3 715 003 BL USP	3 715 003 USP
50	1.0	±0.25	3 715 005 BL USP	3 715 005 USP
100	1.0	±0.50	3 715 010 BL USP	3 715 010 USP
250	2.0	±1.00	3 715 025 BL USP	3 715 025 USP
500	5.0	±2.00	3 715 050 BL USP	3 715 050 USP
1000	10.0	±3.00	3 715 100 BL USP	3 715 100 USP
2000	20.0	±6.00	3 715 200 BL USP	3 715 200 USP



## Graduated cylinder - Class B - low form - with spout

- made of borosilicate glass 3.3 / DURAN® components
- tolerance according to DIN ISO 4788

made in Germany

Capacity	Division	Tolerance	Order number
ml	ml	ml	brown graduated
5	0.5	±0.20	3 707 000
10	1.0	±0.30	3 707 001
25	1.0	±0.50	3 707 003
50	2.0	±1.00	3 707 005
100	2.0	±1.00	3 707 010
250	5.0	±2.00	3 707 025
500	10.0	±5.00	3 707 050
1000	20.0	±10.00	3 707 100
2000	50.0	±20.00	3 707 200

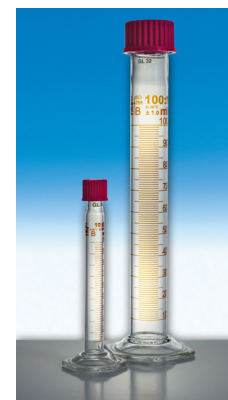


## Graduated cylinder - Class B - tall form - with screw cap

- made of borosilicate glass 3.3 / DURAN® components
- tolerance according to DIN ISO 4788

made in Germany

Capacity	Division	Tolerance	Thread	Order number
ml	ml	ml	GL	brown graduated
10	0.2	±0.2	14	3 751 001
25	0.5	±0.5	18	3 751 003
50	1.0	±1	25	3 751 005
100	1.0	±1	32	3 751 010
250	2.0	±2	45	3 751 025
500	5.0	±5	45	3 751 050
1000	10.0	±10	45	3 751 100
2000	20.0	±20	45	3 751 200



## Graduated cylinder - Class B - tall form - with plastic base

- made of borosilicate glass 3.3 / DURAN® components
- tolerance according to DIN ISO 4788

made in Germany

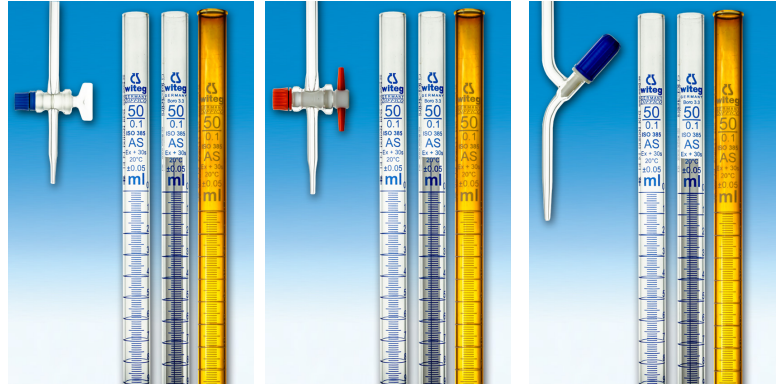
Capacity	Division	Tolerance	Order number			
ml	ml	ml	with spout	Ground joint neck and PE-Stopper brown graduated	thread and screw cap (GL) brown graduated	
5	0.1	±0.1	3 700 000	-	-	-
10	0.2	±0.2	3 700 001	10/19	3 750 001	14
25	0.5	±0.5	3 700 003	14/23	3 750 003	18
50	1.0	±1	3 700 005	19/26	3 750 005	25
100	1.0	±1	3 700 010	24/29	3 750 010	32
250	2.0	±2	3 700 025	29/32	3 750 025	45
500	5.0	±5	3 700 050	34/35	3 750 050	45
1000	10.0	±10	3 700 100	45/40	3 750 100	45
2000	20.0	±20	3 700 200	45/40	3 750 200	45



# Burettes

## Class AS - straight stopcocks

- main point ring graduation
- DIN EN ISO 385
- DE-M marked according to the German calibration law
- made of borosilicate glass 3.3
- inclusive batch certificate

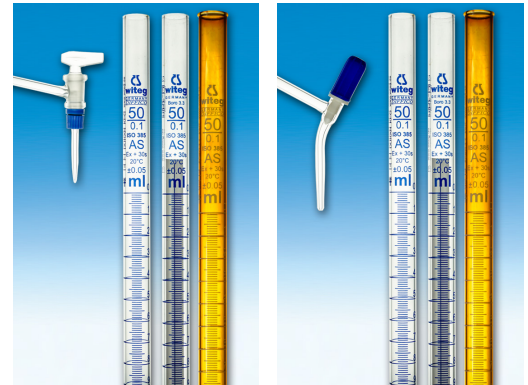


Capacity ml	Division ml	Tolerance ml	Plug	Order number		
				blue graduation	blue graduation Schellbach blue line	amber glass blue graduation
5	0.02	±0.01	solid ST-glass	3 010 052	3 012 052	3 014 052
10	0.02	±0.02		3 010 102	3 012 102	3 014 102
25	0.05	±0.03		3 010 252	3 012 252	3 014 252
50	0.1	±0.05		3 010 502	3 012 502	3 014 502
100	0.2	±0.1		3 010 902	3 012 902	3 014 902
5	0.02	±0.01	ST-PTFE	3 010 053	3 012 053	3 014 053
10	0.02	±0.02		3 010 103	3 012 103	3 014 103
25	0.05	±0.03		3 010 253	3 012 253	3 014 253
50	0.1	±0.05		3 010 503	3 012 503	3 014 503
100	0.2	±0.1		3 010 903	3 012 903	3 014 903
5	0.02	±0.01	PTFE needle valve	3 020 057	3 022 057	3 024 057
10	0.02	±0.02		3 020 107	3 022 107	3 024 107
25	0.05	±0.03		3 020 257	3 022 257	3 024 257
50	0.1	±0.05		3 020 507	3 022 507	3 024 507
100	0.2	±0.1		3 020 907	3 022 907	3 024 907

for brown graduation add „B“ behind the order number (not available for amber glass)

## Class AS - lateral stopcocks

- main point ring graduation
- DIN EN ISO 385
- DE-M marked according to the German calibration law
- made of borosilicate glass 3.3
- inclusive batch certificate

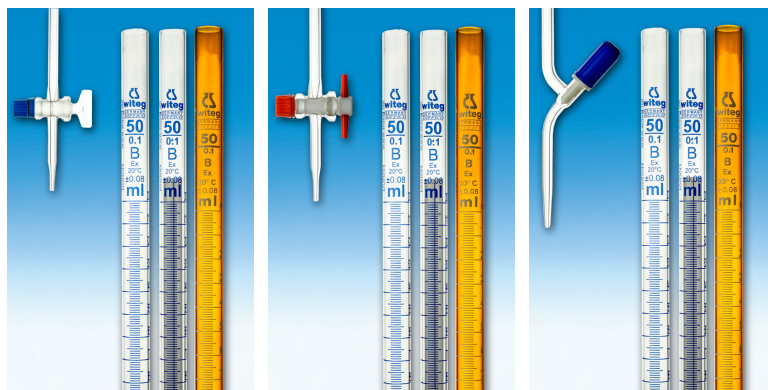


Capacity ml	Division ml	Tolerance ml	Plug	Order number		
				blue graduation	blue graduation Schellbach blue line	amber glass blue graduation
5	0.02	±0.01	solid ST-glass	3 010 054	3 012 054	3 014 054
10	0.02	±0.02		3 010 104	3 012 104	3 014 104
25	0.05	±0.03		3 010 254	3 012 254	3 014 254
50	0.1	±0.05		3 010 504	3 012 504	3 014 504
100	0.2	±0.1		3 010 904	3 012 904	3 014 904
5	0.02	±0.01	PTFE needle valve	3 010 055	3 012 055	3 014 055
10	0.02	±0.02		3 010 105	3 012 105	3 014 105
25	0.05	±0.03		3 010 255	3 012 255	3 014 255
50	0.1	±0.05		3 010 505	3 012 505	3 014 505
100	0.2	±0.1		3 010 905	3 012 905	3 014 905

for brown graduation add „B“ behind the order number (not available for amber glass)

## Class B - straight stopcocks

- short line graduation
- DIN EN ISO 385
- error ranges are better than the DIN EN ISO 385 requirements
- made of borosilicate glass 3.3

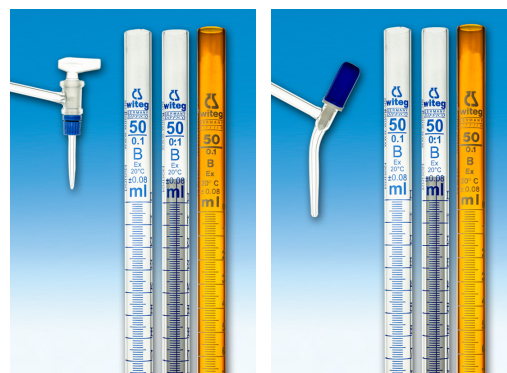


Capacity ml	Division ml	Tolerance		Plug	Order number		
		witeg ml	ISO ml		blue graduation	blue graduation Schellbach blue line	amber glass blue graduation
5	0.02	±0.02	±0.02	solid ST-glass	3 000 052	3 002 052	3 004 052
10	0.02	±0.03	±0.05		3 000 102	3 002 102	3 004 102
25	0.05	±0.04	±0.05		3 000 252	3 002 252	3 004 252
50	0.1	±0.08	±0.1		3 000 502	3 002 502	3 004 502
100	0.2	±0.2	±0.2		3 000 902	3 002 902	3 004 902
5	0.02	±0.02	±0.02	ST-PTFE	3 000 053	3 002 053	3 004 053
10	0.02	±0.03	±0.05		3 000 103	3 002 103	3 004 103
25	0.05	±0.04	±0.05		3 000 253	3 002 253	3 004 253
50	0.1	±0.08	±0.1		3 000 503	3 002 503	3 004 503
100	0.2	±0.2	±0.2		3 000 903	3 002 903	3 004 903
5	0.02	±0.02	±0.02	PTFE needle valve	3 000 057	3 002 057	3 004 057
10	0.02	±0.03	±0.05		3 000 107	3 002 107	3 004 107
25	0.05	±0.04	±0.05		3 000 257	3 002 257	3 004 257
50	0.1	±0.08	±0.1		3 000 507	3 002 507	3 004 507
100	0.2	±0.2	±0.2		3 000 907	3 002 907	3 004 907

for brown graduation add „B“ behind the order number (not available for amber glass)

## Class B - lateral stopcocks

- short line graduation
- DIN EN ISO 385
- error ranges are better than the DIN EN ISO 385 requirements
- made of borosilicate glass 3.3



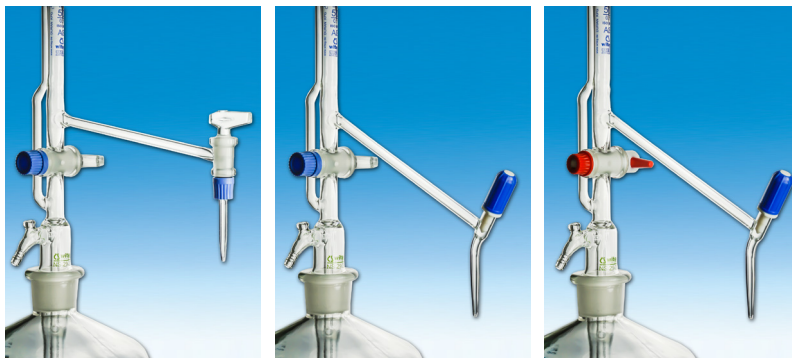
Capacity ml	Division ml	Tolerance		Plug	Order number		
		witeg ml	ISO ml		blue graduation	blue graduation Schellbach blue line	amber glass blue graduation
5	0.02	±0.02	±0.02	solid ST-glass	3 000 054	3 002 054	3 004 054
10	0.02	±0.03	±0.05		3 000 104	3 002 104	3 004 104
25	0.05	±0.04	±0.05		3 000 254	3 002 254	3 004 254
50	0.1	±0.08	±0.1		3 000 504	3 002 504	3 004 504
100	0.2	±0.2	±0.2		3 000 904	3 002 904	3 004 904
5	0.02	±0.02	±0.02	PTFE needle valve	3 000 055	3 002 055	3 004 055
10	0.02	±0.03	±0.05		3 000 105	3 002 105	3 004 105
25	0.05	±0.04	±0.05		3 000 255	3 002 255	3 004 255
50	0.1	±0.08	±0.1		3 000 505	3 002 505	3 004 505
100	0.2	±0.2	±0.2		3 000 905	3 002 905	3 004 905
5	0.02	±0.02	±0.02	ST-glass two-way stopcock	3 000 056	3 002 056	3 004 056
10	0.02	±0.03	±0.05		3 000 106	3 002 106	3 004 106
25	0.05	±0.04	±0.05		3 000 256	3 002 256	3 004 256
50	0.1	±0.08	±0.1		3 000 506	3 002 506	3 004 506
100	0.2	±0.2	±0.2		3 000 906	3 002 906	3 004 906

for brown graduation add „B“ behind the order number (not available for amber glass)

# Automatic burettes Pellet

## Class AS - with intermediate stopcock

- main point ring graduation
- DIN EN ISO 385
- DE-M marked according to the German calibration law
- lateral and intermediate stopcock
- made of borosilicate glass 3.3
- inclusive batch certificate
- 2L reservoir bottle

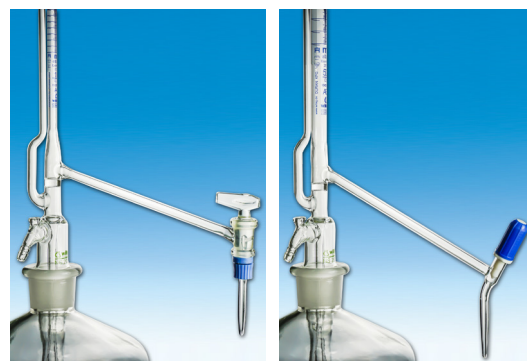


Capacity ml	Division ml	Tolerance ml	Stopcocks	Order number	
				blue graduation Schellbach blue line	amber glass white graduation
10	0.02	±0.02	intermediate: ST-glass plug lateral: solid ST-glass plug	3 122 106	3 124 106
25	0.05	±0.03		3 122 256	3 124 256
50	0.1	±0.05		3 122 506	3 124 506
10	0.02	±0.02	intermediate: ST-glass plug lateral: PTFE needle valve	3 122 107	3 124 107
25	0.05	±0.03		3 122 257	3 124 257
50	0.1	±0.05		3 122 507	3 124 507
10	0.02	±0.02	intermediate: ST-PTFE plug lateral: PTFE needle valve	3 122 108	3 124 108
25	0.05	±0.03		3 122 258	3 124 258
50	0.1	±0.05		3 122 508	3 124 508

for brown graduation add „B“ behind the order number (not available for amber glass)

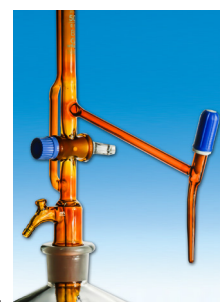
## Class AS

- main point ring graduation
- without intermediate stopcock
- DIN EN ISO 385
- DE-M marked according to the German calibration law
- lateral stopcock
- made of borosilicate glass 3.3
- inclusive batch certificate
- 2L reservoir bottle



Capacity ml	Division ml	Tolerance ml	Stopcock	Order number	
				blue graduation Schellbach blue line	amber glass white graduation
10	0.02	±0.02	lateral: solid ST-glass plug	3 122 104	3 124 104
25	0.05	±0.03		3 122 254	3 124 254
50	0.1	±0.05		3 122 504	3 124 504
10	0.02	±0.02	lateral: PTFE needle valve	3 122 105	3 124 105
25	0.05	±0.03		3 122 255	3 124 255
50	0.1	±0.05		3 122 505	3 124 505

for brown graduation add „B“ behind the order number (not available for amber glass)



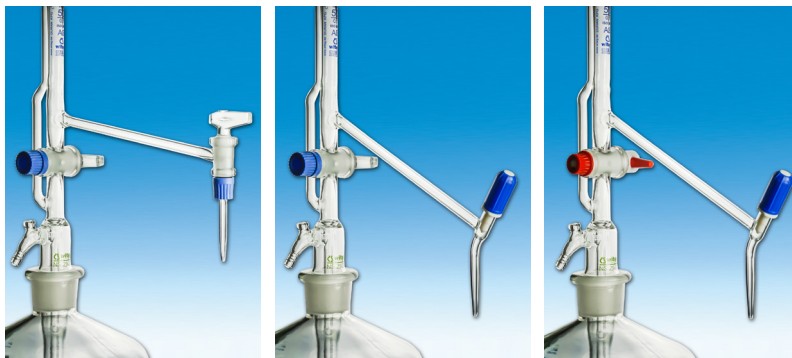
All automatic burettes Pellet are available with amber glass and white graduation.



# Automatic burettes Pellet

## Class B - with intermediate stopcock

- short line graduation
- DIN EN ISO 385
- error ranges are better than the DIN EN ISO 385 requirements
- lateral and intermediate stopcock
- made of borosilicate glass 3.3
- 2L reservoir bottle

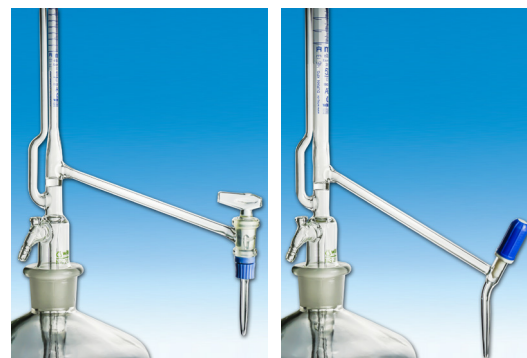


Capacity ml	Division ml	Tolerance		Stopcocks	Order number	
		witeg ml	ISO ml		blue graduation Schellbach blue line	amber glass white graduation
10	0.02	±0.03	±0.05	intermediate: ST-glass plug lateral: solid ST-glass plug	3 112 106	3 114 106
25	0.05	±0.03	±0.05		3 112 256	3 114 256
50	0.1	±0.08	±0.1		3 112 506	3 114 506
100	0.2	±0.2	±0.2		3 112 906	3 114 906
10	0.02	±0.03	±0.05	intermediate: ST-glass plug lateral: PTFE needle valve	3 112 107	3 114 107
25	0.05	±0.03	±0.05		3 112 257	3 114 257
50	0.1	±0.08	±0.1		3 112 507	3 114 507
100	0.2	±0.2	±0.2		3 112 907	3 114 907
10	0.02	±0.03	±0.05	intermediate: ST-PTFE plug lateral: PTFE needle valve	3 112 108	3 114 108
25	0.05	±0.03	±0.05		3 112 258	3 114 258
50	0.1	±0.08	±0.1		3 112 508	3 114 508
100	0.2	±0.2	±0.2		3 112 908	3 114 908

for brown graduation add „B“ behind the order number (not available for amber glass)

## Class B

- short line graduation
- without intermediate stopcock
- DIN EN ISO 385
- error ranges are better than the DIN EN ISO 385 requirements
- lateral stopcock
- made of borosilicate glass 3.3
- 2L reservoir bottle



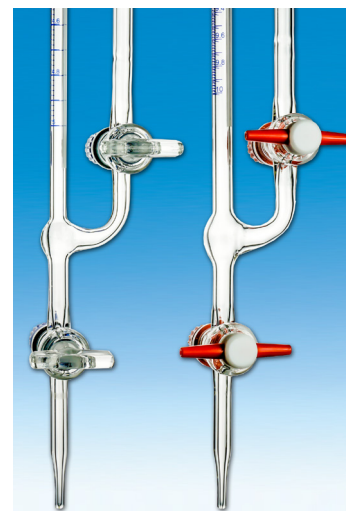
Capacity ml	Division ml	Tolerance		Stopcock	Order number	
		witeg ml	ISO ml		blue graduation Schellbach blue line	amber glass white graduation
10	0.02	±0.03	±0.05	lateral: solid ST-glass plug	3 102 104	3 104 104
25	0.05	±0.04	±0.05		3 102 254	3 104 254
50	0.1	±0.08	±0.1		3 102 504	3 104 504
100	0.2	±0.2	±0.2		3 102 904	3 104 904
10	0.02	±0.03	±0.05	lateral: PTFE needle valve	3 102 105	3 104 105
25	0.05	±0.04	±0.05		3 102 255	3 104 255
50	0.1	±0.08	±0.1		3 102 505	3 104 505
100	0.2	±0.2	±0.2		3 102 905	3 104 905

for brown graduation add „B“ behind the order number (not available for amber glass)

# Micro burettes Bang

## Class AS

- main point ring graduation
- blue graduation
- with Schellbach blue line
- DIN EN ISO 385
- DE-M marked according to the German calibration law
- inclusive batch certificate
- made of borosilicate glass 3.3

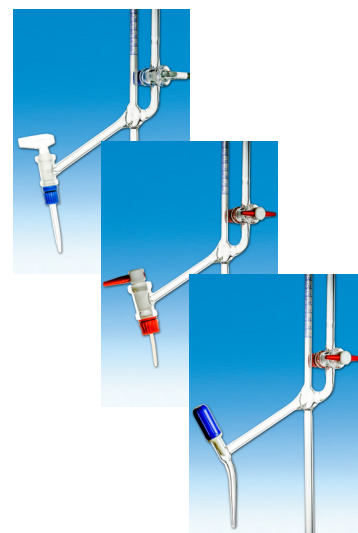


### ▪ two straight stopcocks

Capacity	Division	Tolerance	Order number	
ml	ml	ml	ST-glass plugs	ST-PTFE plugs
1	0.01	±0.006	3 372 012	3 372 013
2	0.01	±0.01	3 372 022	3 372 023
5	0.02	±0.01	3 372 052	3 372 053
10	0.02	±0.02	3 372 102	3 372 103

### ▪ one lateral stopcock, one straight stopcock

Capacity	Division	Tolerance	Order number		
ml	ml	ml	ST-glass plugs	ST-PTFE plugs	lateral PTFE needle valve straight ST-PTFE plug
1	0.01	±0.006	3 383 012	3 383 013	-
2	0.01	±0.01	3 383 022	-	3 383 025
5	0.02	±0.01	3 383 052	3 383 053	3 383 055
10	0.02	±0.02	3 383 102	3 383 103	3 383 105



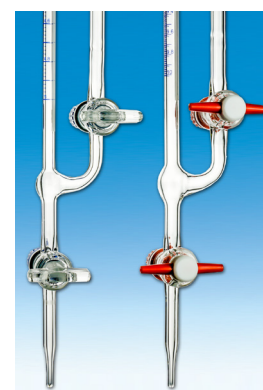
## Class B

- short line graduation
- blue graduation
- with Schellbach blue line
- DIN EN ISO 385
- error ranges are better than the DIN EN ISO 385 requirements
- made of borosilicate glass 3.3



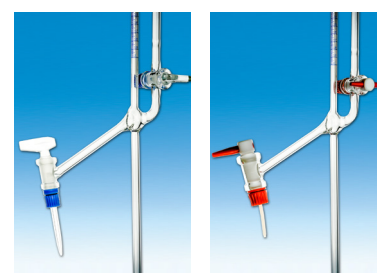
### ▪ two straight stopcocks

Capacity	Division	Tolerance		Order number	
		witeg	ISO	ST-glass plugs	ST-PTFE plugs
ml	ml	ml	ml		
1	0.01	±0.01	±0.01	3 352 012	3 352 013
2	0.01	±0.02	±0.02	3 352 022	3 352 023
5	0.02	±0.02	±0.02	3 352 052	3 352 053
10	0.02	±0.03	±0.05	3 352 102	3 352 103



### ▪ one lateral stopcock, one straight stopcock

Capacity	Division	Tolerance		Order number	
		witeg	ISO	ST-glass plugs	ST-PTFE plugs
ml	ml	ml	ml		
1	0.01	±0.01	±0.01	3 363 012	3 363 013
2	0.01	±0.02	±0.02	3 363 022	3 363 023
5	0.02	±0.02	±0.02	3 363 052	3 363 053
10	0.02	±0.03	±0.05	3 363 102	3 363 103



# Flasks & automatic burette Schilling

## Automatic burette Schilling

- Class B
- short line graduation
- DIN EN ISO 385
- error ranges are better than the DIN EN ISO 385 requirements
- with PE reservoir and stable base
- push button for precise titration
- automatic zero point
- made of borosilicate glass 3.3

Capacity ml	Division ml	Tolerance		blue graduation	Order number amber stained white graduation
		witeg ml	ISO ml		
5	0.02	±0.04	±0.04	3 312 005	3 312 005 BR
10	0.05	±0.05	±0.05	3 312 010	3 312 010 BR
15	0.1	±0.1	±0.1	3 312 015	3 312 015 BR
25	0.1	±0.1	±0.1	3 312 025	3 312 025 BR
50	0.1	±0.08	±0.1	3 312 050	3 312 050 BR



## Over-flow flask for water treatment - Class B

- cut and grounded exactly at the volume-mark
- borosilicate glass 3.3



Capacity ml	suitable for instruments of			Order number
	HACH	H&V	WTW	
21.7	X			3 685 021
22.7			X	3 685 022
43.5			X	3 685 044
56.0	X	X		3 685 056
94.0	X	X		3 685 094
97.0			X	3 685 097
100.0	X	X	X	3 685 100
110.0	X	X	X	3 685 110
150.0	X	X	X	3 685 150
157.0	X	X		3 685 157
164.0			X	3 685 164
200.0	X	X	X	3 685 200
244.0	X	X		3 685 244
250.0			X	3 685 250
275.0	X	X	X	3 685 275
285.0	X	X	X	3 685 285
300.0	X	X	X	3 685 300
360.0	X	X		3 685 360
365.0			X	3 685 365
428.0	X		X	3 685 428
432.0			X	3 685 432
450.0	X	X	X	3 685 450
650.0	X	X	X	3 685 650
700.0	X	X	X	3 685 700
740.0	X	X	X	3 685 740



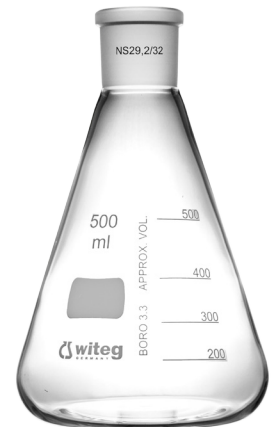
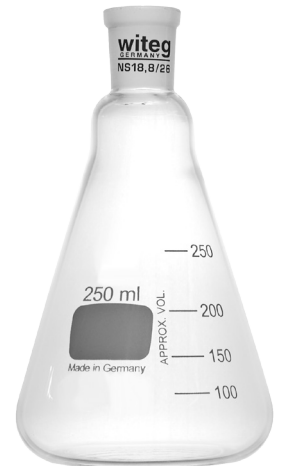
## Erlenmeyer flask with socket (conical flask)

- made of borosilicate glass 3.3
- with graduation
- clear glass, amber stained or economy
- according to DIN 12387

delivered without stopper!

Capacity	Socket	Outer Ø	Height	Order number		
ml	ST	mm	mm	clear glass	amber stained	clear glass economy
5*	14/23	30	45	0 619 005	0 619 005 BR	0 619 005 E
10*		33	60	0 619 010	0 619 010 BR	0 619 010 E
25		42	70	0 619 025	0 619 025 BR	0 619 025 E
50		51	80	0 619 050	0 619 050 BR	0 619 050 E
100		64	100	0 619 100	0 619 100 BR	0 619 100 E
25	19/26	42	70	0 620 025	0 620 025 BR	0 620 025 E
50		51	80	0 620 050	0 620 050 BR	0 620 050 E
100		64	100	0 620 100	0 620 100 BR	0 620 100 E
200*		79	130	0 620 200	0 620 200 BR	-
250*		85	140	0 620 250	0 620 250 BR	0 620 250 E
50*	24/29	51	80	0 621 050	0 621 050 BR	0 621 050 E
100		64	100	0 621 100	0 621 100 BR	0 621 100 E
200*		79	130	0 621 200	0 621 200 BR	0 621 200 E
250*		85	140	0 621 250	0 621 250 BR	0 621 250 E
300*		87	150	0 621 300	0 621 300 BR	0 621 300 E
500*	29/32	105	170	0 621 500	0 621 500 BR	0 621 500 E
1000*		131	220	0 621 001	0 621 001 BR	0 621 001 E
50		51	80	0 622 050	0 622 050 BR	0 622 050 E
100		64	100	0 622 100	0 622 100 BR	0 622 100 E
200*		79	130	0 622 200	0 622 200 BR	0 622 200 E
250	45/40	85	140	0 622 250	0 622 250 BR	0 622 250 E
300*		87	150	0 622 300	0 622 300 BR	0 622 300 E
500		105	170	0 622 500	0 622 500 BR	0 622 500 E
1000		131	220	0 622 001	0 622 001 BR	0 622 001 E
2000*		166	280	0 622 002	-	-
200*	45/40	79	130	0 624 200	0 624 200 BR	-
250		85	140	0 624 250	0 624 250 BR	0 624 250 E
300*		87	150	0 624 300	0 624 300 BR	0 624 300 E
500		105	170	0 624 500	0 624 500 BR	0 624 500 E
1000		131	220	0 624 001	0 624 001 BR	0 624 001 E
2000*		166	280	0 624 002	0 624 002 BR	0 624 002 E
3000		187	310	0 624 003	0 624 003 BR	-
5000	220	365	0 624 005	0 624 005 BR	-	

\* special size in addition to DIN 12387



## Stopper - hexagonal plate

- according to DIN 12254 / DIN 12252



For socket	Order number		
ST	PE-stopper	Borosilicate 3.3 ST-hollow glass stopper	Borosilicate 3.3 ST-hollow glass stopper amber stained
14/23	0 306 014	0 302 014	0 303 014
19/26	0 306 019	0 302 019	0 303 019
24/29	0 306 024	0 302 024	0 303 024
29/32	0 306 029	0 302 029	0 303 029
45/40	0 306 045	0 302 045	0 303 045



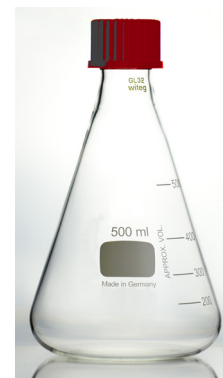
# Erlenmeyer flasks

## Erlenmeyer flask with screw cap

- made of borosilicate glass 3.3
- with graduation



Capacity	Thread	Max. Ø	Height	Order number
ml	GL	mm	mm	
25	18	42	70	5 507 001
50	25	51	85	5 507 002
100	25	64	105	5 507 003
250	32	85	140	5 507 004
500	32	105	175	5 507 005
1000	32	131	220	5 507 006
2000	45	166	280	5 507 007
3000	45	187	310	5 507 008
5000	45	220	365	5 507 009



## Erlenmeyer flask with safety pouring ring

- made of borosilicate glass 3.3
- with graduation, pouring ring made of PP (up to 140° heat-resistant), changeable



Capacity	Neck Ø	Max. Ø	Height	Order number
ml	mm	mm	mm	DURAN®-tubing DURAN® icon
50	22	51	85	5 507 505
100	22	64	105	5 507 510
200	34	79	131	5 507 520
250	34	85	140	5 507 525
300	34	87	156	5 507 530
500	34	105	175	5 507 550



## Erlenmeyer flask narrow neck with rim

- made of DURAN® tubing / borosilicate glass 3.3
- with graduation
- according to DIN 12387, ISO 1773



Capacity	Neck Ø	Max. Ø	Height	Order number		
				DURAN®-tubing DURAN® logo	Borosilicate 3.3 witeg logo	Borosilicate 3.3 neutral
25	22	42	70	5 506 025	-	5 506 025 S
50	22	51	85	5 506 050	5 506 050 B	5 506 050 S
100	22	64	105	5 506 100	5 506 100 B	5 506 100 S
200	34	79	131	5 506 200	-	5 506 200 S
250	34	85	140	5 506 250	5 506 250 B	5 506 250 S
300	34	87	156	5 506 300	-	-
500	34	105	175	5 506 500	5 506 500 B	5 506 500 S
1000	42	131	220	5 506 001	5 506 001 B	5 506 001 S
2000	50	166	280	5 506 002	-	5 506 002 S
3000	50	187	310	5 506 003	-	5 506 003 S
5000	48	220	365	5 506 005	-	5 506 005 S



## Erlenmeyer flask wide neck with rim

- made of DURAN® tubing / borosilicate glass 3.3
- with graduation
- according to DIN 12387, ISO 1773



Capacity	Neck Ø	Max. Ø	Height	Order number		
				DURAN®-tubing DURAN® logo	Borosilicate 3.3 witeg logo	Borosilicate 3.3 neutral
25	31	43	70	5 508 025	-	5 508 025 S
50	34	51	85	5 508 050	5 508 050 B	5 508 050 S
100	34	64	105	5 508 100	5 508 100 B	5 508 100 S
200	50	79	131	5 508 200	5 508 200 B	5 508 200 S
250	50	85	140	5 508 250	5 508 250 B	5 508 250 S
300	50	87	156	5 508 300	-	-
500	50	105	175	5 508 500	-	5 508 500 S
1000	50	131	220	5 508 001	-	5 508 001 S
2000	70	153	275	5 508 002	-	5 508 002 S



# Bottles

## Laboratory bottles - round - screw cap and pouring ring (PP) - graduated

- made of DURAN® tubing / borosilicate glass 3.3

Capacity ml	Thread GL	Diameter mm	Height mm	Order number		
				DURAN®	witeg logo*	neutral
25	25	36	74	5 526 025	-	-
50	32	46	91	5 526 050	5 526 050 B	5 526 050 S
100	45	56	105	5 526 100	5 526 100 B	5 526 100 S
250	45	70	143	5 526 250	5 526 250 B	5 526 250 S
500	45	86	181	5 526 500	5 526 500 B	5 526 500 S
1000	45	101	230	5 526 001	5 526 001 B	5 526 001 S
2000	45	136	265	5 526 002	5 526 002 B	5 526 002 S
5000	45	182	335	5 526 005	5 526 005 B	5 526 005 S
10000	45	227	415	5 526 010	5 526 010 B	5 526 010 S
15000	45	268	450	5 526 015	-	-
20000	45	288	510	5 526 020	5 526 020 B	5 526 020 S

\* with I.D. code



## Laboratory bottles - round - color coded - screw cap and pouring ring (PP) - graduated

- made of borosilicate glass (witeg logo)
- with I.D. code

Capacity ml	Thread GL	Diameter mm	Height mm	Order number			
				blue	yellow	green	red
100	45	56	105	5 526 100 BL	5 526 100 GE	5 526 100 GR	5 526 100 RO
250	45	70	143	5 526 250 BL	5 526 250 GE	5 526 250 GR	5 526 250 RO
500	45	86	181	5 526 500 BL	5 526 500 GE	5 526 500 GR	5 526 500 RO
1000	45	101	230	5 526 001 BL	5 526 001 GE	5 526 001 GR	5 526 001 RO
2000	45	136	265	5 526 002 BL	5 526 002 GE	5 526 002 GR	5 526 002 RO



## Laboratory bottles - round - screw thread - graduated

- made of DURAN® tubing / borosilicate glass 3.3
- clear glass or amber stained
- suitable screw caps and pouring rings: see next page

Capacity ml	Thread GL	Diameter mm	Height mm	Order number				
				DURAN®		witeg logo*		
				clear glass	amber stained	clear glass	amber stained	
25	25	36	70	5 527 025	5 528 025	-	-	
50	32	46	87	5 527 050	5 528 050	5 527 050 B	5 528 050 B	
100	45	56	100	5 527 100	5 528 100	5 527 100 B	5 528 100 B	
250		70	138	5 527 250	5 528 250	5 527 250 B	5 528 250 B	
500		86	176	5 527 500	5 528 500	5 527 500 B	5 528 500 B	
1000		101	225	5 527 001	5 528 001	5 527 001 B	5 528 001 B	
2000		136	260	5 527 002	5 528 002	5 527 002 B	5 528 002 B	
5000		182	330	5 527 005	5 528 005	5 527 005 B	5 528 005 B	
10000		227	410	5 527 010	5 528 010	5 527 010 B	5 528 010 B	
15000		268	445	5 527 015	5 528 015	-	-	
20000		288	505	5 527 020	5 528 020	5 527 020 B	5 528 020 B	
500		80	101	152	5 527 600	5 528 600	5 527 600 B	5 528 600 B
1000	101		222	5 527 601	5 528 601	5 527 601 B	5 528 601 B	
2000	136		252	5 527 602	5 528 602	5 527 602 B	5 528 602 B	
5000	182		314	5 527 605	5 528 605	5 527 605 B	5 528 605 B	
10000	227		389	5 527 610	5 528 610	5 527 610 B	5 528 610 B	
15000	268		465	5 527 615	5 528 615	-	-	
20000	228		484	5 527 620	5 528 620	5 527 620 B	5 528 620 B	
1000	100		101	225	5 527 701	5 528 701	5 527 701 B	5 528 701 B
2000			136	255	5 527 702	5 528 702	5 527 702 B	5 528 702 B
5000			182	317	5 527 705	5 528 705	5 527 705 B	5 528 705 B
10000		227	393	5 527 710	5 528 710	5 527 710 B	5 528 710 B	
15000		268	465	5 527 715	5 528 715	-	-	
20000		228	488	5 527 720	5 528 720	5 527 720 B	5 528 720 B	

\* with I.D. code



## Reagent bottles - round - screw cap - made of soda glass

- narrow or wide neck
- with screw cap (PP)
- clear glass or amber glass

Capacity ml	Order number			
	narrow neck		wide neck	
	clear glass	amber glass	clear glass	amber glass
25	-	-	5 894 025	5 895 025
30	5 888 030	5 889 030	5 894 030	5 895 030
50	5 888 050	5 889 050	5 894 050	5 895 050
75	-	-	-	5 895 075
100	5 888 100	5 889 100	5 894 100	5 895 100
125	-	-	5 894 125	5 895 125
150	-	5 889 150	5 894 150	5 895 150
200	-	5 889 200	5 894 200	5 895 200
250	5 888 250	5 889 250	5 894 250	5 895 250
300	-	-	5 894 300	5 895 300
500	5 888 500	5 889 500	5 894 500	5 895 500
1000	5 888 001	5 889 001	5 894 001	5 895 001
2000	-	-	-	5 895 002



## Laboratory bottles - square - screw thread - graduated

- with screw cap and pouring ring (PP) (only clear glass version)
- clear glass or amber stained
- made of DURAN® tubing

Capacity ml	Thread GL	Diameter mm	Height mm	Order number	
				clear glass	amber stained*
100	32	50	109	5 523 311	-
100	45	50	109	-	5 523 331
250	45	64	143	5 523 312	5 523 332
500	45	78	181	5 523 313	5 523 333
1000	45	94	222	5 523 314	5 523 334

\* delivered without cap and pouring ring



## Screw caps for bottles with thread

- made of PBTP or PP
- top closed or with bore

Thread	Bore	Material	Color	Seal	Order number
GL					
25	-	PBTP	red	PTFE liner	0 175 025*
32	-	PBTP	red	PTFE liner	0 175 032*
45	-	PBTP	red	PTFE liner	0 175 045*
50	-	PP	neutral	PTFE liner	0 175 050**
80	-	PP	neutral	PTFE liner	0 175 080**
100	-	PP	neutral	PTFE liner	0 175 099**
25	-	PP	blue	lip seal	0 175 125**
32	-	PP	blue	lip seal	0 175 132**
45	-	PP	blue	lip seal	0 175 145**
45	-	PP	lemon yellow	-	5 526 066**
45	-	PP	green	-	5 526 077**
45	-	PP	red	-	5 526 088**
45	-	PP	neutral	-	5 526 099**
GLS 80	-	PP	blue	lip seal	5 527 680**
GLS 100	-	PP	blue	lip seal	5 527 690**
25	Ø 15mm	PBTP	red	-	0 176 025*
32	Ø 20mm	PBTP	red	-	0 176 032*
45	Ø 34mm	PBTP	red	-	0 176 045*
50	Ø 38mm	PP	neutral	-	0 176 050**
80	Ø 68mm	PP	neutral	-	0 176 080**
100	Ø 85mm	PP	neutral	-	0 176 100**



## Pouring rings for bottles

- made of PP or ETFE
- different colors
- autoclavable



Thread	5 526 166	Material	Order number
GL			
32	blue	PP	0 175 201**
45	blue	PP	0 175 202**
45	lemon yellow	PP	5 526 166**
45	green	PP	5 526 177**
45	red	PP	5 526 188**
45	white	PP	5 526 199**
32	red	ETFE	0 175 301*
45	red	ETFE	0 175 302*

# Bottles

## Reagent bottles - round - stopper - made of soda glass

- conical shoulder
- narrow or wide neck
- with glass or PE-stopper
- clear glass or amber glass

Capacity ml	Socket ST	Neck	Order number			
			Glass stopper		PE-stopper	
			clear glass	amber stained	clear glass	amber glass
50	14/15	narrow	5 868 050	5 869 050	5 870 050	5 871 050
100	14/23	narrow	5 868 100	5 869 100	5 870 100	5 871 100
250	19/26	narrow	5 868 250	5 869 250	5 870 250	5 871 250
500	24/29	narrow	5 868 500	5 869 500	5 870 500	5 871 500
1000	29/32	narrow	5 868 001	5 869 001	5 870 001	5 871 001
2000	29/32	narrow	5 868 002	5 869 002	5 870 002	5 871 002
50	24/20	wide	5 873 050	5 874 050	5 875 050	5 876 050
100	29/22	wide	5 873 100	5 874 100	5 875 100	5 876 100
250	34/24	wide	5 873 250	5 874 250	5 875 250	5 876 250
500	45/27	wide	5 873 500	5 874 500	5 875 500	5 876 500
1000	60/64	wide	-	5 874 001	5 875 001	5 876 001



## Bottles - square - screw thread - narrow neck - made of soda glass

- with or without PE-coating **NEW**
- clear glass or amber glass
- suitable tamper-proof caps: 5 897 032, 5 897 045

Capacity ml	Thread GL	Diameter mm	Height mm	Order number		
				clear glass	clear glass PE-coating*	amber glass*
100	32	49	119	5 896 100	5 897 400	5 897 100
250	32	64	155	5 896 250	5 897 450	5 897 250
500	32	77	186	5 896 500	5 897 600	5 897 500
1000	45	97	223	5 896 001	5 897 701	5 897 001

\* with pouring ring

## Bottles - square - screw thread - wide neck - made of soda glass

- with or without PE-coating
- clear glass or amber glass
- suitable tamper-evident caps: 5 899 032, 5 899 045, 5 899 054, 5 899 060

Capacity ml	Thread GL	Diameter mm	Height mm	Order number		
				clear glass	clear glass PE-coating	amber glass
100	32	49	111	5 898 100	5 899 110	5 899 100
250	45	64	146	5 898 250	5 899 260	5 899 250
500	54	76	173	5 898 500	5 899 510	5 899 500
1000	60	98	213	5 898 001	5 899 011	5 899 001



## Tamper-evident caps for square bottles

- made of PP
- blue

Thread GL	Suitable for	Order number	
		narrow neck	wide neck
32	narrow neck: 100 ml, 250 ml, 500 ml wide neck: 100ml	5 897 032	5 899 032
45	narrow neck: 1000ml wide neck: 250ml	5 897 045	5 899 045
54	wide neck: 500ml	-	5 899 054
60	wide neck: 1000ml	-	5 899 060





## B.O.D. bottles - Karlsruher bottles

- with funnel neck
- made of borosilicate glass

Capacity	Socket	Order number
ml	ST	
50	14/23	2 436 050
100	14/23	2 436 100
300	19/26	2 436 300

Suitable ST hollow glass stopper with extra long stem made of borosilicate glass

Socket	Order number
ST	
14/23	2 436 000
19/26	2 436 001



## Winkler bottles for B.O.D. determination

- accurately adjusted
- with glass stopper and label
- made of clear glass

Capacity	Diameter	Height	Order number
ml	mm	mm	
100 - 150	53	103	2 911 100
250 - 300	70	130	2 911 250
500 - 600	87	170	2 911 500



## Culture bottles (Meplat bottles)

- with screw thread and screw cap
- made of soda glass
- clear glass or amber glass

Capacity	Order number	
	clear glass	amber glass
50	5 890 050	5 891 050
100	5 890 100	5 891 100
125	5 890 125	5 891 125
150	-	5 891 150
200	-	5 891 200
250	5 890 250	5 891 250
500	-	5 891 500
1000	-	5 891 001

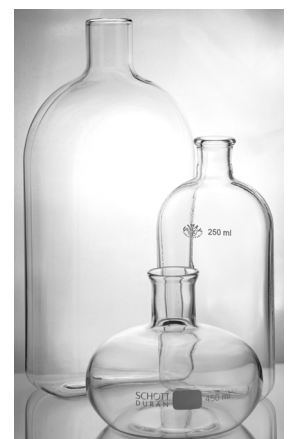


## Culture flasks - different types

- made of borosilicate glass 3.3

Type	Capacity	Outer	Height	Neck Ø	Order number
	ml	mm	mm	mm	
Fernbach, bulgy shape	450	117	100		5 576 000
Roux, centric	1200	260	56	32	5 580 000
Roux, with screw cap GL 45	1200	260	56		5 581 800
Roux, conical neck, eccentric	1200				5 594 001

**NEW**

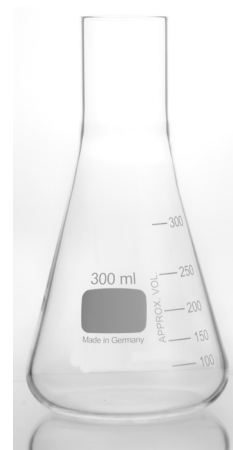


# Flasks & bottles

## Culture flasks (BIOGEN)

- Erlenmeyer shaped
- straight neck for metal caps, Ø 38mm
- made of borosilicate glass 3.3

Capacity	Flask Ø	Height	Order number
ml	mm	mm	
50	51	85	5 560 050
100	64	112	5 560 100
200	79	136	5 560 200
250	85	145	5 560 250
300	87	161	5 560 300
500	105	183	5 560 500
1000	131	232	5 560 001
2000	166	305	5 560 002
3000	187	310	5 560 003
5000	220	365	5 560 005



## Culture bottles (BIOGEN)

- straight neck for metal caps, Ø 38mm
- made from DURAN® tubing



Capacity	Flask Ø	Height	Order number
ml	mm	mm	
100	50	125	5 562 100
300	71	170	5 562 300
500	83	208	5 562 500
1000	105	240	5 562 001



## Culture flasks (Fernbach)

- Fernbach type (regular or quad battled)
- straight neck for metal caps, Ø 38mm
- made of borosilicate glass 3.3

Capacity	Flask Ø	Height	Type	Order number
ml	mm	mm		
1800	200	155	regular	5 568 050
1800	200	155	quad battled	5 568 100



## Caps and stopper for culture flasks with neck Ø 38mm

- for neck Ø 38mm
- metal caps made of stainless steel or aluminium
- cap stopper made of plated anodised coloured aluminium with internal spring in nickel-chromed steel

Type	Material	Color	for neck Ø	Order number
			mm	
Metal cap	stainless steel	grey	38	5 570 001
	aluminium	grey	38	5 570 002
Cap stopper	plated anodised aluminium with internal spring	silver	37 - 39	5 570 011
		blue	37 - 39	5 570 012
		red	37 - 39	5 570 013



## Beaker low form with spout

- made of DURAN® tubing, borosilicate glass 3.3
- according to DIN 12331, ISO 3819
- with graduation (5 ml and 10 ml only at maximal capacity)

Capacity	Outer Ø	Height	Order number		
ml	mm	mm	DURAN® DURAN® logo	Borosilicate 3.3 witeg logo	Borosilicate 3.3 neutral
5	22	30	5 500 005	5 500 005 B	5 500 005 S
10	26	35	5 500 010	5 500 010 B	5 500 010 S
25	32	48	5 500 025	5 500 025 B	5 500 025 S
50	39	55	5 500 050	5 500 050 B	5 500 050 S
100	51	71	5 500 100	5 500 100 B	5 500 100 S
150	55	81	5 500 150	5 500 150 B	5 500 150 S
250	69	95	5 500 250	5 500 250 B	5 500 250 S
400	82	100	5 500 400	5 500 400 B	5 500 400 S
600	92	115	5 500 600	5 500 600 B	5 500 600 S
800	98	136	5 500 800	-	5 500 800 S
1000	106	145	5 500 001	-	5 500 001 S
2000	132	185	5 500 002	-	5 500 002 S
3000	153	210	5 500 003	-	5 500 003 S
5000	170	270	5 500 005	-	5 500 005 S
10000	217	350	5 500 110	-	5 500 110 S

## Set of beakers low form with spout

Content	Order number
Midi: 2x 50 ml, 2x 100 ml, 2x 150 ml, 4x 250 ml	5 500 525
Maxi: 2x 400 ml, 4x 600 ml, 4x 1000 ml	5 500 599

## Beaker tall form with spout

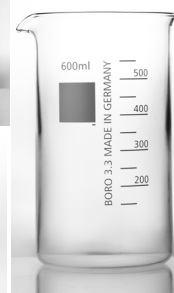
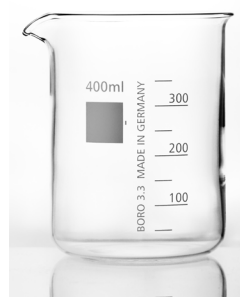
- made of DURAN® tubing, borosilicate glass 3.3
- according to DIN 12331, ISO 3819
- with graduation

Capacity	Outer Ø	Height	Order number		
ml	mm	mm	DURAN® DURAN® logo	Borosilicate 3.3 witeg logo	Borosilicate 3.3 neutral
50	38	66	5 502 050	5 502 050 B	5 502 050 S
100	48	80	5 502 100	5 502 100 B	5 502 100 S
150	53	96	5 502 150	5 502 150 B	5 502 150 S
250	61	117	5 502 250	5 502 250 B	5 502 250 S
400	70	130	5 502 400	-	5 502 400 S
600	82	143	5 502 600	-	5 502 600 S
800	89	171	5 502 800	-	5 502 800 S
1000	95	185	5 502 001	-	5 502 001 S
2000	118	236	5 502 002	-	5 502 002 S
3000	135	280	5 502 003	-	5 502 003 S

## Beaker tall form

- made of DURAN® tubing
- according to DIN 12331, ISO 3819
- with graduation

Capacity	Outer Ø	Height	Order number
ml	mm	mm	DURAN® DURAN® logo
50	38	66	5 504 050
100	47	80	5 504 100
150	53	96	5 504 150
250	61	117	5 504 250
400	70	130	5 504 400
600	82	143	5 504 600
800	89	171	5 504 800
1000	95	185	5 504 001



# Staining jars

## Staining jar complete

- with glass box, cover, slide frame and wire holder
- for 10 slides 76 x 26 mm
- made from soda glass

Description	Order number
<b>Complete</b>	<b>4 640 000</b>
Spare tray (slide frame)	4 640 001
Spare wire holder	4 640 002
Spare glass box and cover	4 640 003



## Staining jar acc. to Hellendahl

- with glass box and cover
- standard and with enlargement
- for 16 slides 76 x 26 mm

Description	Order number	
	Soda glass	Borosilicate 5.1
Standard	4 631 001	-
With enlargement	4 630 000	4 630 000 B



## Staining jar acc. to Coplin

- with glass box and cover (glass or PP)
- for 10 slides 76 x 26 mm
- very tight, recommended for mailing
- made from soda glass

Description	Dimension	Order number
Standard with glass cover	115 x 68 mm	4 650 000
Standard with PP screw cap	113 x 68 mm	4 651 000
Low form with PP screw cap	98 x 68 mm	4 652 000



**NEW**

## Staining jar acc. to Schiefferdecker

- with glass box and cover
- for 10 slides 76 x 26 mm
- made from soda glass

Description	Order number
Complete	4 660 000

Description	Order number
Screw cap PP 55mm	4 652 100



## Petri dish

- made of soda glass or heat-resistant borosilicate glass 3.3
- for highest requirements, free from bubbles and imperfections
- bottom and lid (inside / outside) absolutely plane

Height mm	Outer Ø mm	Order number		Order number	
		Pack	Soda glass	Pack	Borosilicate 3.3
12	40		5 830 001		-
12	50	18	5 830 012		-
15	60	18	5 830 002		-
15	80	18	5 830 003	24	5 830 003 B
15	100	18	5 830 004	36	5 830 004 B
20	100	18	5 830 005	36	5 830 005 B
20	120	18	5 830 006		-
25	150	18	5 830 007	36	5 830 007 B
30	180	9	5 830 008		-
30	200	10	5 830 009		-
50	200	10	5 830 010		-

**NEW**

## Petri dish bacteriological

- made of clear PS
- packed in PE bags
- machine sterile or gamma radiated

Outer Ø mm	Machine sterile	Gamma radiation	with vents	Quantity in bag	Order number
55	X			15	5 488 001
55	X		X	15	5 488 002
55		X		15	5 488 003
55		X	X	15	5 488 004
90	X			20	5 488 011
90	X		X	33	5 488 012
90		X		20	5 488 013
90		X	X	33	5 488 014
100	X			11	5 488 031
100		X		11	5 488 032



# Weighing accessories

## Weighing bottle tall form

- made of borosilicate glass 3.3
- ST cover with knob



Capacity	Outer Ø	Height	Order number
ml	mm	mm	
10	25	40	2 870 005
15	30	40	2 870 006
20	30	50	2 870 007
30	35	50	2 870 008
40	40	50	2 870 009
45	40	60	2 870 010
45	40	65	2 870 011
45	35	70	2 870 012
70	40	80	2 870 013
120	50	80	2 870 014

## Weighing bottle low form

- made of borosilicate glass 3.3
- ST cover with knob



Capacity	Outer Ø	Height	Order number
ml	mm	mm	
6	25	25	2 872 001
7	30	30	2 872 003
10	35	30	2 872 004
15	40	30	2 872 002
30	50	30	2 872 005
45	60	30	2 872 006
80	80	30	2 872 008
35	40	40	2 872 009

## Weighing bottle

- made of PP
- autoclavable, re-usable
- airtight

Capacity	Outer Ø	Height	Tare	Order number
ml	mm	mm	g	
23	30	48	8	7 064 001
20	40	29	8	7 064 002
60	40	69	14	7 064 003
30	49	29	10	7 064 004
50	59	34	18	7 064 005
190	59	88	28	7 064 006
360	70	118	40	7 064 007



## Weighing funnel

- made of borosilicate glass 3.3
- for weighing of chemicals and powder



Capacity	Outer Ø	Length	Order number
ml	mm	mm	
1	12	35	2 880 000
1,5	22	45	2 880 015
3	22	65	2 880 001
6	28	70	2 880 002
10	32	80	2 880 003
30	40	110	2 880 004
60	50	135	2 880 005
170	65	200	2 880 006



## Glass scoop

- round with ground edges
- made of borosilicate glass 3.3



Length	Order number
mm	
60	2 880 100
82	2 880 101
95	2 880 102
137	2 880 103



## Plane weighing glass

- acc. to Heidbrink



Order number

2 873 902



# Tubes

## Test tubes FIOLAX

- made of FIOLAX borosilicate glass 3.3
- with rim
- round bottom



pack = 100 pcs.

Length	Outer Ø	Pack	Order number
mm	mm	pcs.	pack
70	8	100	4 902 001
100	10	100	4 902 002
100	12	100	4 902 003
100	16	100	4 902 004
130	14	100	4 902 005
160	16	100	4 902 006
180	18	100	4 902 007
180	20	100	4 902 008
200	25	50	4 902 009
200	30	50	4 902 010



## Disposable culture tubes

- made of AR-glass
- plain top
- round bottom



Length	Outer Ø	Pack	Order number
mm	mm	pcs.	pack
70	10	250	4 925 001
75	12	250	4 925 002
100	12	250	4 925 003
100	16	100	4 925 004
125	16	250	4 925 005
130	13	448	4 925 008
160	16	250	4 925 006
180	18	100	4 925 007



## Culture tubes with rim

- made of borosilicate glass 3.3
- DIN 12395
- round bottom



pack = 100 pcs.

Length	Outer Ø	Wall	Order number
mm	mm	mm	pack
70*	8	0.8-1.0	4 903 100
75	12	0.8-1.0	4 903 101
100	12	0.8-1.0	4 903 102
130	16	1.0-1.2	4 903 103
160	16	1.0-1.2	4 903 104
180	18	1.0-1.2	4 903 105
150	20	1.0-1.2	4 903 106
150*	25	1.0-1.2	4 903 108
200	25	1.0-1.2	4 903 109
200	30	1.0-1.4	4 903 110
100	10	0.8-1.0	4 903 113
130	14	0.8-1.0	4 903 114
180	18	1.0-1.2	4 903 120



## Test tubes with heavy wall (~1mm)

- made of AR-glass
- plain top
- round bottom



Length	Outer Ø	Pack	Order number
mm	mm	pcs.	pack
40	8	200	4 904 002
70	10	100	4 904 003
75	12	100	4 904 004
85	15	100	4 904 006
100	10	100	4 904 007
100	12	100	4 904 008
100	14	100	4 904 009
100	16	100	4 904 010
130	14	100	4 904 012
160	16	100	4 904 014
180	18	100	4 904 015



\* not according to DIN 12395

## Reaction vessels

- made of PP or PE
- with and without affixed lid (perforated)
- transparent

dustfree pack = 1000 pcs.

Volume	Lid	Material	Order number
ml			pack
0.25	Yes	PE	5 420 025
0.4		PE	5 420 000
0.7		PP	5 419 000
1.5		PP	5 417 000
1.9		PP	5 417 019
2.2		PP	5 417 022
1.5	-	PP	5 418 000
2.2		PP	5 418 022



## Cryovials

- made of PP
- sterilized by radiation
- for deep freezing -20°C up to 196°C
- screw cap with seal joint
- white marking area

pack = 100 pcs.

Volume	Bottom	Order number
ml		pack
1.2	conical	5 485 001
2	round - self standing	5 485 002
4	round - self standing	5 485 003
5	round	5 485 004
2	round	5 485 005



## Test tubes

pack = 1000 pcs.

- made of clear PS or translucent PP

Volume ml	ØxH mm	Material	Bottom	Order number pack
4	11 x 70	PS	round	5 449 001
4	12 x 55	PS	round	5 449 002
5	12 x 75	PS	round	5 449 003
5	12 x 75	PP	round	5 449 004
4.5	12 x 75	PS	conical	5 449 005
12	16 x 100	PS	round	5 449 006
12	16 x 100	PP	round	5 449 007
12	17 x 103	PS	conical	5 449 009
12	18 x 115	PS	conical	5 449 010
12	18 x 115	PS	round	5 449 011



## Centrifuge tubes - conical bottom 60° - heavy wall

- made of borosilicate glass 3.3

Capacity ml	Length mm	Outer Ø mm	Order number
15*	100	16	4 945 001
25	100	24	4 945 002
50	100	34	4 945 003
80	100	44	4 945 004
85	115	40	4 945 005

\* conical bottom 30°



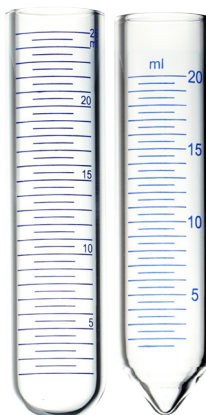
## Centrifuge tubes graduated - heavy wall ~1.8mm

- made of borosilicate glass 3.3



Capacity ml	Length mm	Outer Ø mm	Bottom	Graduation	Order number
15*	100	16	round	10ml:0.1	4 940 102
25*	100	24		20ml:0.1	4 940 103
50*	100	34		45ml:0.1	4 940 104
100*	100	44		85ml:0.1	4 940 105
250*	147	56		200ml:5	4 940 107
15	98	16	conical	10ml:0.1	4 945 101
25	98	24		20ml:0.1	4 945 102
50	98	34		45ml:0.1	4 945 103
100	98	44		85ml:0.1	4 945 104

\* according to DIN 58970 (Part 2)



## Parafilm „M“

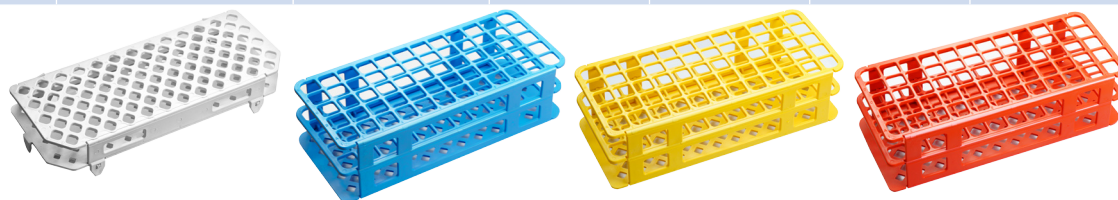
- roll in dispenser box

Length m	Width mm	Order number
75	50	7 148 001
75	100	7 148 002
38	100	7 148 003

## Racks for test tubes, culture tubes and reaction vessels

- made of PP
- different colors available
- autoclavable up to 121°C
- detachable

Holes	Hole Ø mm	Dimensions mm	Order number			
			white	blue	yellow	red
100	micro tubes 1.5/2.0ml	262 x 108 x 45	7 073 102	7 073 102 BL	7 073 102 G	7 073 102 R
90	13	247 x 104 x 60	7 073 103	7 073 103 BL	7 073 103 G	7 073 103 R
60	16	247 x 104 x 70	7 073 104	7 073 104 BL	7 073 104 G	7 073 104 R
40	20	247 x 104 x 70	7 073 105	7 073 105 BL	7 073 105 G	7 073 105 R
40	25	297 x 124 x 85	7 073 106	7 073 106 BL	7 073 106 G	7 073 106 R
24	30	301 x 111 x 85	7 073 107	7 073 107 BL	7 073 107 G	7 073 107 R

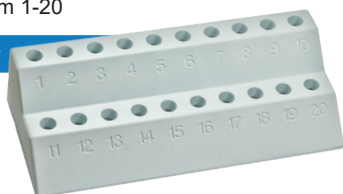


## Tray for reaction vessels

- made of PP
- 20 places for 1.5ml vessels
- numeration from 1-20

Order number

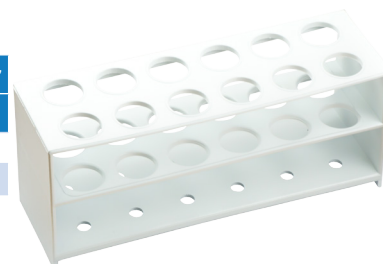
5 416 000



## Racks for test tubes

- made of PP

Holes	Hole Ø mm	Dimensions mm	Order number
			10
24	21	375 x 65 x 85	7 068 002
12	21	190 x 60 x 80	7 069 002



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Liquid Handling



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Am Bildacker 16

D-97877 Wertheim

Phone:

+49 (0)9342 / 9301-0

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+49 (0)9342 / 9301-77

Internet:

[www.witeg.de](http://www.witeg.de)

E-Mail:

[info@witeg.de](mailto:info@witeg.de)