

witeg
GERMANY

Liquid Handling



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 Wits 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.

CERTIFICATE

ISO 9001:2008

DEKRA Certification GmbH hereby certifies that the company

witeg Labortechnik GmbH

Scope of certification:
Manufacturing and distribution of laboratory ware made of glass, plastic, instruments and liquid handling products

Certified location:
D-97877 Wertheim, Am Bildacker 16

Scope of certification:
Incoming of goods, storage, commissioning, manufacturing of solvent handling products, testing of instruments, dispatch

Certified location:
D-97877 Wertheim, Hüttenweg 3

has established and maintains a quality management system according to the above mentioned standard. The conformity was adduced with audit report no. A16021270.
This certificate is valid from 2016-06-20 to 2018-09-14
Certificate registration no.: 50604803/4

Lothar Wörleben
DEKRA Certification GmbH Stuttgart; 2016-06-08

DEKRA Certification GmbH * Handwerkstraße 15 * D-70565 Stuttgart * www.dekra-certification.de

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PIPETTING

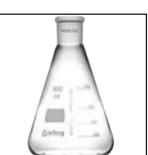
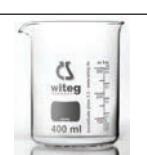
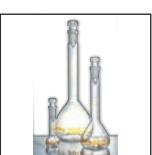
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Bottle-top dispenser

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
	Crystalline solutions	X	X		X	X
	Solvents	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**
Dispensing system	Direct displacement	X	X		X	X
	Contactless piston			X	X	
Certifications	Individual certificate	X	X	X	X	X
	DE-M marked	X	X	X	X	X

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

**Only valve block autoclavable.



Bottle-top dispenser

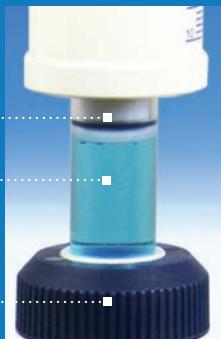
LABmax premium

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



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

Liquid Handling
made in Germany

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.



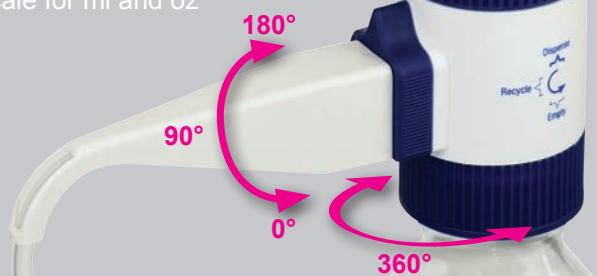
"Do-it-yourself" recalibration for a long life time

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!



NEW**Built-in recalibration****Zero loss of reagent**

scale for ml and oz

**LABmax premium**

Volume	Division	Systematic errors	Random errors	Thread	Order number
ml	ml	± ml	≤ ml	GL	
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

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

* 100 ml version with adjustment screw

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!





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	Division	Systematic errors	Random errors	Thread	Order number
ml	ml	± ml	≤ ml	GL	
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

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, GL 38 adapter 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!

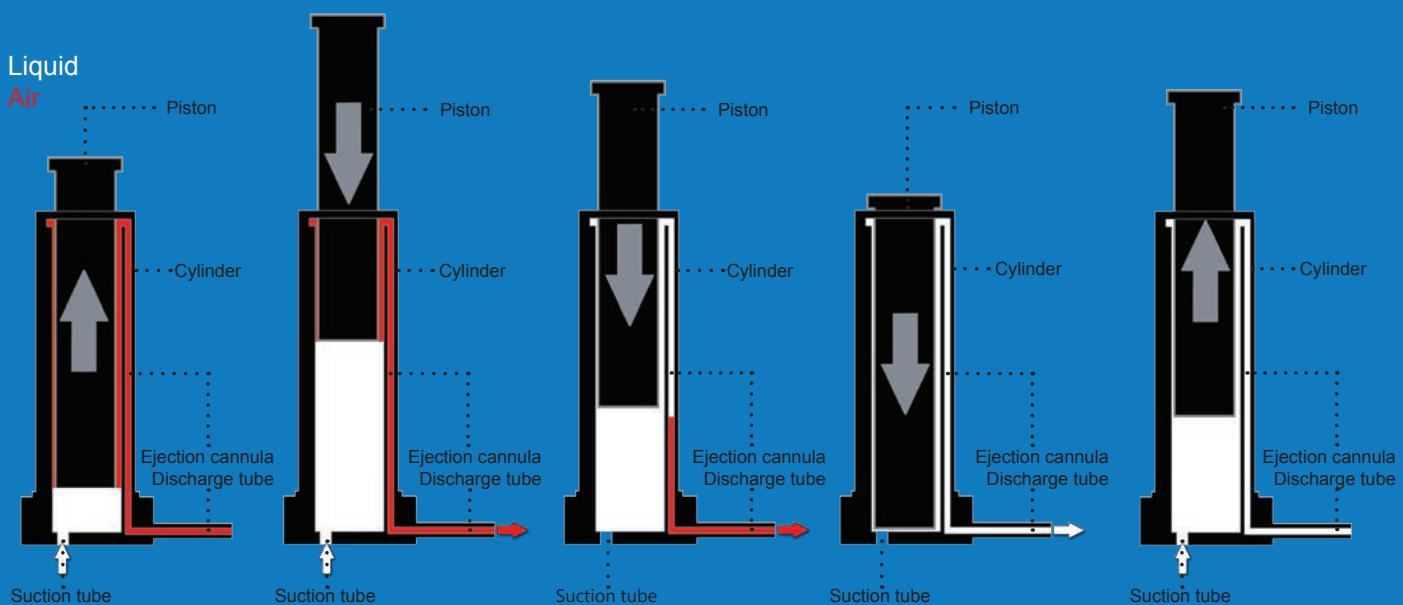
100% drip-free system for your safety

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	Division	Systematic errors	Random errors	Thread	Order number
ml	ml	± ml	≤ ml	GL	
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!

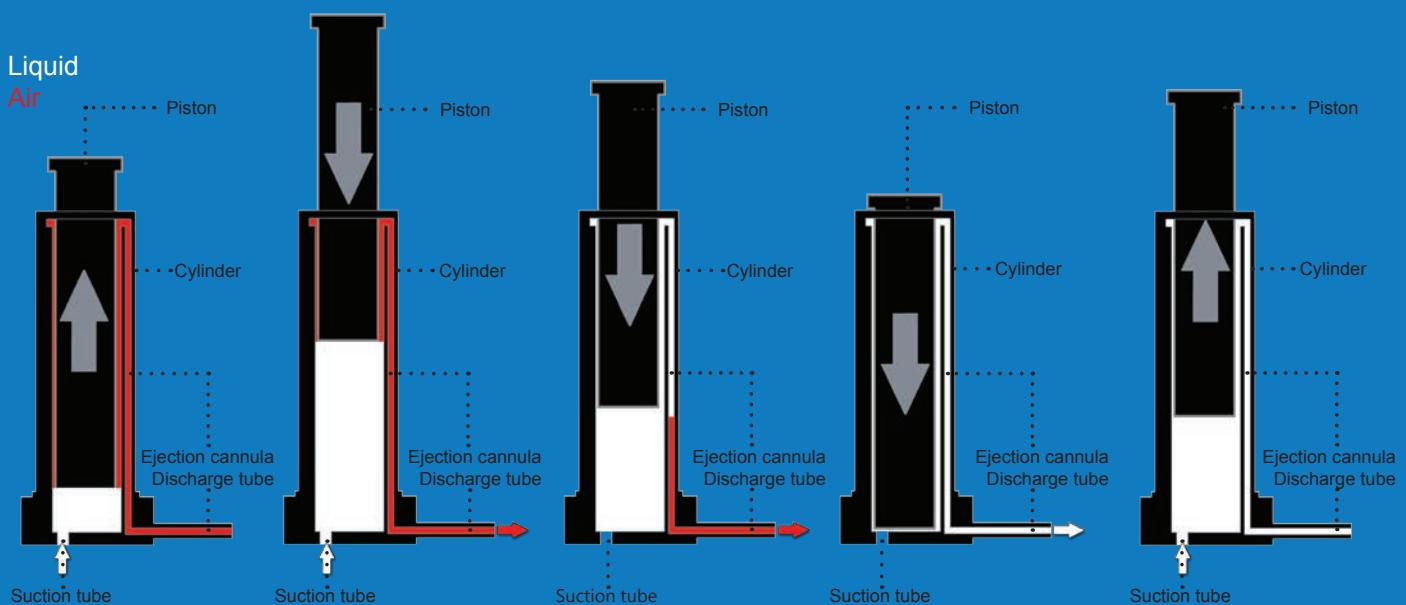
100% drip-free system for your safety

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

Scope of supply

MINISPENSOR, 100ml bottle, instruction manual, individual certificate, serial number, thread adapter (GL28/GL32)

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	Reagent	Premium	Airless	ECO Minispensor	Reagent	Premium	Airless	ECO Minispensor
Acetaldehyde	*	*	*	Cyclohexane		*		Monochloroacetic acid	*		*
Acetic acid 100%	*	*	*	Cyclohexanone	*	*	*	Nitric acid 30%	*	*	*
Acetic acid 96%	*	*	*	Cyclopentane		*		Nitric acid 30-70%	*	*	*
Acetic anhydride	*	*	*	Decane	*	*	*	Nitrobenzene	*	*	*
Acetone	*	*	*	1-Decanol	*	*	*	Oleic acid	*		*
Acetonitrile	*	*	*	Dibenzyl ether	*	*	*	Oxalic acid	*		*
Acetophenone		*		Dichlorobenzene	*	*	*	n-Pentane		*	
Acetylacetone	*	*	*	Dichloromethane		*		Peracetic acid	*	*	*
Acetyl chloride		*		Dichloroacetic acid	*	*	*	Perchloric acid	*	*	*
Acrylic acid	*	*	*	Dichloroethane		*		Perchloroethylene		*	
Acrylonitrile	*	*	*	Dichloroethylene		*		Petroleum		*	
Adipic acid	*		*	Diesel oil		*		Petroleum ether		*	
Allyl alcohol	*	*	*	Diethanolamine	*	*	*	Phenol	*	*	*
Aluminium chloride	*		*	Diethyl ether		*		Phenylethanol	*	*	*
Amino acids	*		*	Diethylamine	*	*	*	Phenylhydrazine	*	*	*
Ammonia 20%	*	*	*	1,2 Diethylbenzene	*	*	*	Phosphoric acid 85%	*		*
Ammonia 20-30%	*	*	*	Diethylene glycol	*	*	*	Phosphoric acid 85 % +Sulfuric acid 98 %, 1:1	*		*
Ammonium chloride	*		*	Dimethyl sulfoxide	*	*	*	Piperidine	*	*	*
Ammonium fluoride	*		*	Dimethylaniline	*		*	Potassium chloride	*		*
Ammonium sulfate	*		*	Dimethylformamide	*	*	*	Potassium dichromate	*		*
n-Amyl acetate	*	*	*	1,4 Dioxane		*		Potassium hydroxide	*		*
Amyl alcohol	*	*	*	Diphenyl ether	*	*	*	Potassium permanganate	*		*
Amyl chloride				Ethanolamine	*	*	*	Propionic acid	*	*	*
Aniline	*	*	*	Ethyl acetate	*	*	*	Propylene glycol	*	*	*
Barium chloride	*		*	Ethyl alcohol	*	*	*	Pyridine	*	*	*
Benzaldehyde	*	*	*	Ethylbenzene		*		Pyruvic acid	*	*	*
Benzol	*	*	*	Ethylene chloride		*		Salicylaldehyde	*	*	*
Benzine		*		Fluoroacetic acid	*		*	Silver acetate	*		*
Benzoyl chloride	*	*	*	Formaldehyde 40%	*		*	Silver nitrate	*		*
Benzyl alcohol	*	*	*	Formamide		*	*	Sodium acetate	*		*
Benzylamine	*	*	*	Formic acid 100%	*	*	*	Sodium chloride	*		*
Benzylchloride	*	*	*	Glycerol	*	*	*	Sodium dichromate	*		*
Boric acid 10%	*		*	Glycol	*	*	*	Sodium fluoride	*		*
Bromobenzene	*	*	*	Glycolic acid 50%	*		*	Sodium hydroxide 30%	*		*
Bromonaphthalene	*	*	*	Heating oil		*		Sodium hypochlorite	*		*
Butanediol	*	*	*	Heptane		*		Sulfuric acid 98%	*	*	*
1-Butanol	*	*	*	Hexane		*		Tartaric acid	*		*
n-Butyl acetate	*	*	*	Hexanoic acid	*	*	*	Tetrachloroethylene		*	
Butyl methyl ether	*	*	*	Hexanol	*	*	*	Tetrahydrofuran		*	
Butylamine	*	*	*	Hydriodic acid 57%	*	*	*	Tetramethylammonium hydroxide	*		*
Butyric acid	*	*	*	Hydrobromic acid	*	*	*	Toluene		*	
Calcium carbonate	*		*	Hydrochloric acid 20%	*	*	*	Trichloroacetic acid	*		*
Calcium chloride	*		*	Hydrochloric acid 20-37%	*	*	*	Trichlorobenzene		*	
Calcium hydroxide	*		*	Hydrogen peroxide 35%		*		Trichloroethane		*	
Calcium hypochlorite	*		*	Isooctane		*		Trichloroethylene		*	
Carbon tetrachloride	*			Isoamyl alcohol	*	*	*	Trichlorotrifluoro ethane		*	
Chloro naphthalene	*	*	*	Isobutanol	*	*	*	Triethanolamine	*	*	*
Chloroacetaldehyde 45%	*	*	*	Isopropanol	*	*	*	Triethylene glycol	*	*	*
Chloroacetic acid	*		*	Isopropyl ether	*	*	*	Trifluoro ethane		*	
Chloroacetone	*	*	*	Lactic acid	*	*	*	Trifluoroacetic acid	*	*	*
Chlorobenzene	*	*	*	Methoxybenzene	*	*	*	Turpentine		*	
Chlorobutane	*	*	*	Methyl alcohol	*	*	*	Urea	*		*
Chloroform		*		Methyl benzoate	*	*	*	Xylene		*	
Chlorosulfonic acid	*	*	*	Methyl butyl ether	*	*	*	Zinc chloride 10%	*		*
Chromic acid 50%	*	*	*	Methyl ethyl ketone	*	*	*	Zinc sulfate 10%	*		*
Chromosulfuric acid	*	*	*	Methyl formate	*	*	*				
Copper sulfate	*		*	Methyl propyl ketone	*	*	*				
Cresol		*		Methylene chloride		*					
Cumene	*	*	*	Mineral oil	*	*	*				

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

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



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
made
in
Germany

One instrument for all your titration and dosing applications



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).

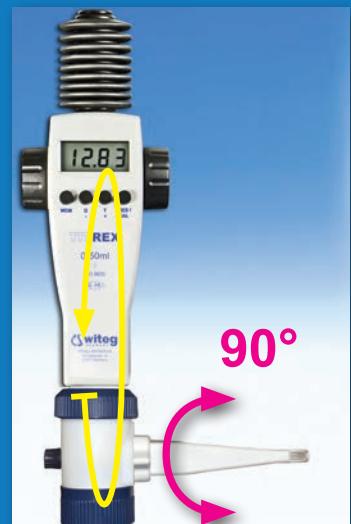
Perfect air-purging mechanism for 0% reagent loss

Turn the discharge tube at 90°.

Remove (purge) trapped air 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 **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 piston.

There is absolutely no dripping possible!



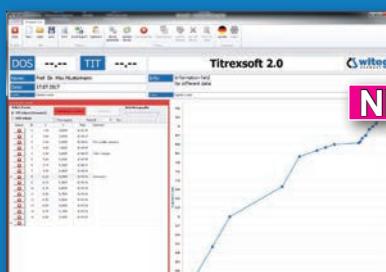
“Do-it-yourself” recalibration for a long life time

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.

Liquid flow →

Moveable parts →

Bottle-top digital burette

Liquid Handling
made
in
GermanyOne instrument
for all volumes**Zero loss of reagent****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
- exclusive instrument with 0% loss of reagent - air-purging and draining within 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 e.g. determination of acid content in milk
- easy to dismantle and 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

TITREX inclusive software and RS232 interface cord

Type	Volume	witeg		ISO 8655-3		Order number
		Systematic errors	Random errors	Systematic errors	Random errors	
	ml	± ml	≤ ml	± ml	≤ ml	
Standard	0-50	0.03	0.01	0.1	0.05	5 497 050
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, GL32/45, S40

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	NEW DEVELOPED 5 497 900
RS232 to USB adapter To connect the RS232 interface cord with an USB port	5 497 920

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

Spare parts & Accessories

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

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



Standard joint adapters, made of borosilicate glass 3.3

Thread	Cone	suitable for	Order number
GL	ST		
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	Outer Ø	Inner Ø	suitable for	Order number
cm	mm	mm		
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	Type	Nominal volume	suitable for	Order number
mm				
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	NEW LABmax 2.5-10 ml	5 375 000 TK
Telescopic 170-330 x 6	NEW 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	Packaging size pieces	suitable for	Order number
0.2 µm	13 mm	100		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 weightness 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

Microliter pipette

WITOPET premium

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
- soft-spring system
- 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 0.5 1 2	0.024 0.025 0.027 0.030	0.012 0.012 0.013 0.014	0.08 0.08 0.08 0.08	0.04 0.04 0.04 0.04	orange	5 402 002 P		
1 - 10	0.1	0.02	1 5 10	0.025 0.075 0.100	0.012 0.030 0.040	0.12 0.12 0.12	0.08 0.08 0.08	red	5 402 010 P		
2 - 20	0.1	0.02	2 10 20	0.10 0.10 0.20	0.03 0.05 0.06	0.20 0.20 0.20	0.10 0.10 0.10	pale yellow	5 402 020 P		
10 - 100	1	0.2	10 50 100	0.35 0.40 0.80	0.10 0.12 0.15	0.80 0.80 0.80	0.30 0.30 0.30	salmon	5 402 100 P		
20 - 200	1	0.2	20 100 200	0.50 0.80 1.60	0.20 0.25 0.30	1.60 1.60 1.60	0.60 0.60 0.60	yellow	5 402 200 P		
100 - 1000	10	2	100 500 1000	3 4 8	0.6 1.0 1.5	8 8 8	3 3 3	blue	5 402 901 P		
500 - 5000*	10	2	500 2500 5000	12 15 30	3 5 8	40 40 40	15 15 15	purple	5 402 950 P		
1 - 10 ml*	100	20	1000 5000 10000	30 40 60	6 10 16	60 60 60	30 30 30	pale blue	5 402 910 P		

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 300 μ l.

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.



Push-button

The push-button is color coded.

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.

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.

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.

WARRANTY
3
Years

NEW

Microliter pipette

WITOPET premium

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)
- 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
- 4 color-coded models
- soft-spring system

WITOPET premium pipette support
5 406 107 P

Superior accuracy and precision



WITOPET premium multi-channel

Volume	Division	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						
0.5 - 10	0.1	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	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	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	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.

Microliter pipette

WITOPET premium Starter Kit

WITOPET premium Starter Kit

Scope of supply

- 1 WITOPET premium 20 µl
- 1 WITOPET premium 200 µl
- 1 WITOPET premium 1000 µl
- 1 Gilson Diamond® pipette tips D1000, Tipack 100-1000 µl
- 1 Gilson Diamond® pipette tips D200, Tipack 2-200 µl
- 3 single pipette holders
- 1 calibration tool
- 1 „2-minute inspection“ poster

Order number

5 402 600 P



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

NEW



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.

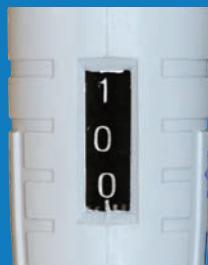
Push-button

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.



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.



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.



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

Liquid Handling
Made
in
Germany



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

Pipette support for WITOPET professional pipettes

5 406 107

*5000ml filter is not 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.

Tip shaft

The tip shaft is 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.



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
- tip shaft 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

Volume	Systematic errors	Random errors	Order number
µl	± µl	≤ µl	
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
Pipette support for WITOPET economy pipettes (single- and multi-channel pipettes)			5 406 205

WITOPET economy variable single-channel

Volume	Division	Volume tested	Systematic errors	Random errors	Order number
µl	µl	µl	± µl	≤ µl	
0.1 - 2.5	0.05	0.2	0.08	0.04	5 402 002 D
		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
		5	0.12	0.08	
		10	0.12	0.08	
2 - 20	0.5	2	0.20	0.10	5 402 020 D
		10	0.20	0.10	
		20	0.20	0.10	
10 - 100	1.0	10	0.80	0.30	5 402 100 D
		50	0.80	0.30	
		100	0.80	0.30	
20 - 200	1.0	20	1.60	0.60	5 402 200 D
		100	1.60	0.60	
		200	1.60	0.60	
100 - 1000	5.0	100	8	3	5 402 901 D
		500	8	3	
		1000	8	3	
1000 - 5000	50.0	1000	40	15	5 402 950 D
		2500	40	15	
		5000	40	15	
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.

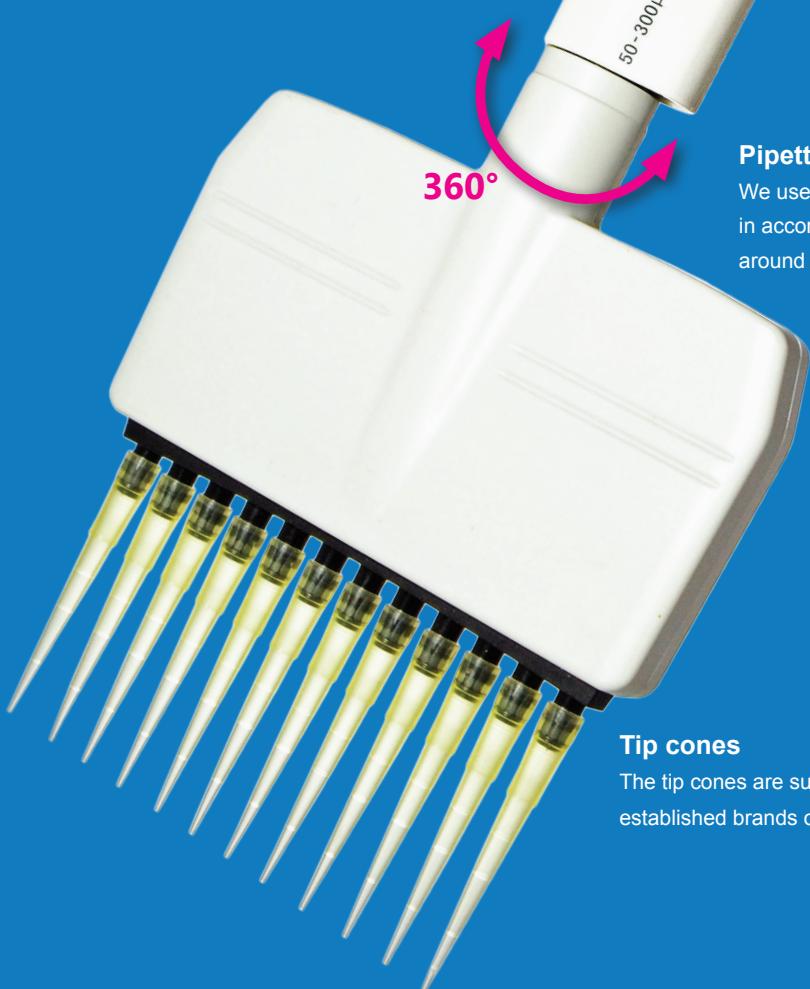


Tip ejector

The tip ejector releases the used tip easily.

Volumetric display

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



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
- pipetting unit autoclavable at 121°C
- individual certificate and serial number
- DE-M marked according to the German calibration law

WITOPET economy multi-channel

Volume µl	Division µl	Maximum permissible errors			Channels	Order number		
		witeg						
		Volume tested µl	Systematic errors ± µl	Random errors ≤ µl				
0.5 - 10	0.1	1			8	5 403 101		
		5	0.24	0.16	12	5 403 201		
		10						
5 - 50	0.5	5			8	5 403 105		
		25			12	5 403 205		
		50						
50 - 300	1.0	50			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 µl

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.



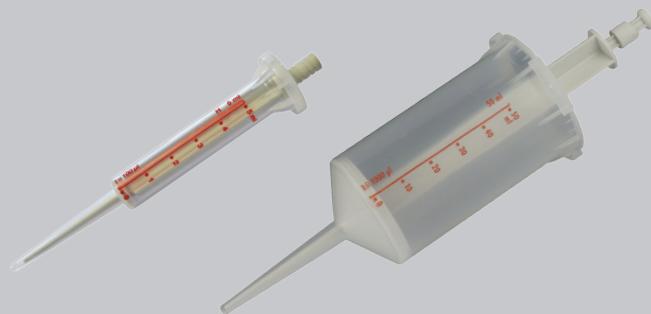
WITOPETTE plus



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 µl
- 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 µl

Type		Order number
Stepper Pipette		5 385 205

WITIPS Tips for WITOPETTE plus

Volume (ml)		Packaging unit	Order number
0.05		100	5 385 222
0.1		100	5 385 111
0.2		100	5 385 112
0.5		100	5 385 223
0.5	sterile	100	5 385 252
1.0		100	5 385 113
1.0	sterile	100	5 385 243
1.25		100	5 385 224
1.25	sterile	100	5 385 253
2.5		100	5 385 225
2.5	sterile	100	5 385 254
5.0		100	5 385 226
5.0	sterile	100	5 385 255
10.0		100	5 385 117
10.0	sterile	100	5 385 245
12.5		100	5 385 227
12.5	sterile	100	5 385 256
25.0		25	5 385 228
25.0	sterile	25	5 385 257
50.0		25	5 385 229
50.0	sterile	25	5 385 258

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.

Pipetting unit

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



Tip cone

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

Body

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

Tip ejector

The tip ejector releases the used tip easily.



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
	µl		µl	µl	± µl	≤ µl	
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 (individual certificate on request)

**The most competitive
way of quick pipetting**

WITOPET Mini

Volume	Volume tested	Systematic errors	Random errors	Order number
µl	µl	± %	≤ %	
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	5 405 100

Pipette tips

WITOPET pipette tips, 1000 pieces per plastic bag, conformity certified
fits for: **WITOPET®**, Eppendorf®, Gilson®, Brand®, Socorex®, Finnpipette®

Volume	Color	Suitable for following brands	Order number
µl			
0.5 - 10	neutral	Gilson	5 408 005
0.5 - 20	neutral	universal	5 408 010
2 - 200	yellow	universal	5 408 200
2 - 200	yellow	Gilson	5 408 202
100 - 1000	blue	universal	5 410 000
100 - 1000	blue	universal	5 410 001
1000 - 5000	neutral	universal	5 412 100
1000	neutral	Beckmann, Sherwood, Lancer	5 412 110
2 - 200	neutral	MLA	5 412 120
200 - 1000	neutral	MLA	5 412 200
2 - 200	neutral	Oxford	5 412 220
250 - 1000	green	Oxford	5 412 250
2 - 200	neutral	Oxford slim line	5 412 320
250 - 1000	blue	Oxford slim line	5 412 325



WITOPET pipette tips, 96 tips packed in an autoclavable rack with cover, conformity certified

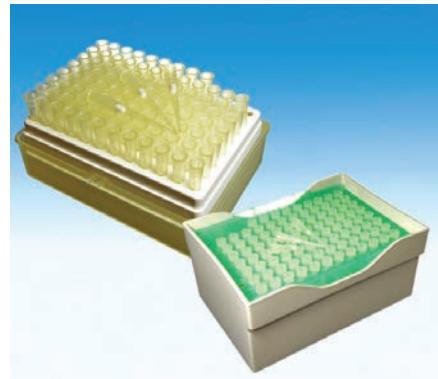
Volume	Color	Suitable for following brands	Order number
µl			
0.5 - 10	neutral	universal	5 409 005
2 - 200	yellow	universal	5 409 200
100 - 1000	blue	universal	5 409 210
2 - 200	yellow	Gilson	5 409 220



WITOPET Filtertips (**sterile**) suitable for all **WITOPET** pipettes, autoclavable

DNase, RNase, Cadmium and pyrogen free. The tips are sterilised by gamma radiation.

Volume	Color	Suitable for following brands	Packaging unit	Order number
µl			Pieces	
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.



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.

Removable stand

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

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
- 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
220 V	5 380 001
120 V	5 380 002

Scope of supply

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



Replacement one-way filter

Packaging unit

5



Replacement silicone adapter

Order number

5 380 006

Order number

5 380 004

The economic electric pipetting solution

WITOPED eco is an economically priced electrical pipette aid, suitable for all pipettes up to 100 ml.

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 **WITOPED eco** has two buttons, one for aspirating the liquid (up), one for releasing the liquid (down).

Digital display and speed setting

The LCD display indicates battery status and set speed. The pipetting speed can be adjusted by pushing the “+/-” buttons.



Motor

The powerful motor ensures fast and reliable pipetting.





Pipetting aid

Your advantage at a glance:

- suitable for all pipettes up to 100 ml
- most affordable price in its class
- digital display indicating battery status and selected speed
- efficient battery for a long runtime, low battery alert
- fine adjustment of pipetting speed
- tight fit of any pipette into the pipette socket
- handy and light weighted for fatigue-free pipetting
- simple but powerful motor for fast and reliable pipetting
- gravity drain mode for draining out without using any motor
- nosepiece with replaceable filter and silicone adapter
- silicone adapter autoclavable at 121°C
- including Li-ion 3,7V 1100mAh battery
- CE label

WITOPED eco

Type	Order number
220 V	5 381 000

Scope of supply

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



Replacement one-way filter

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.



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 5 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
Pink	5 382 003
Red	5 382 004

Scope of supply

WITO pipette controller, replacement filter



Replacement one-way filter

Packaging unit	Order number
5	5 382 006
Replacement silicone adapter	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

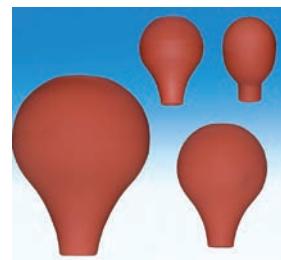
Color	Order number
red	3 967 000
black	3 967 001
yellow	3 967 002
blue	3 967 003
green	3 967 004



Suction bulb

made of PVC, for pipettes with diameter of 6 mm

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



Suction bulbs for pipettes 1 - 15 ml

made of silicone

For capacity	Color	Pack size	Order number
approx. 2 ml	transparent	10 pcs.	3 968 000 S
1 ml	neutral	10 pcs.	3 968 001 S
3 ml	neutral	10 pcs.	3 968 002 S
5 ml	neutral	10 pcs.	3 968 005 S
10 ml	neutral	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
25 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
0.2 ml	yellow	7 032 001
2 ml	blue	7 032 002
10 ml	green	7 032 003
25 ml	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...



Graduated pipettes

Selected pipettes from our **GENERAL CATALOGUE**

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

* 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	Division	Tolerance		Color-Code	Delivery time			Order number
		witeg	ISO			seconds	white graduated	
ml	ml	ml	ml	ml	ml	seconds	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

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	Division	Tolerance USP	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
- tolerance according to DIN EN ISO 835 standard
- DE-M marked according to the German calibration law
- calibrated to deliver (EX)
- according to DIN 12699
- inclusive batch certificate



Capacity	Division	Tolerance	Color-Code	Delivery time	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	Tolerance	Color-Code	brown graduated	Order number
ml	ml			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	Tolerance	Color-Code	brown graduated	Order number
ml	ml			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	3 535 920 BL
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	Tolerance		Color-Code		Order number
	witeg	ISO			
ml	ml	ml			brown graduated
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	Tolerance USP	Color-Code		Order number	
				blue graduated	brown graduated
ml	ml				
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		3 535 080 BL USP	3 535 080 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

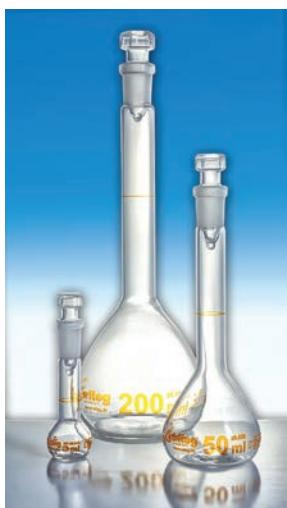


- made of DURAN® tubing
- tolerance according to DIN EN ISO 1042
- DE-M marked according to the German calibration law
- standard and special sizes available
- inclusive batch certificate

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 00014
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 1024
- 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

USP



- made of amber glass
- tolerance according to ASTM E 288, produced according to DIN EN ISO 1024
- 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 with PE-stopper	amber stained white graduated with PE-stopper	Order number 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 63

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



NEW



Graduated cylinder - Class B - low form - with spout

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



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



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



Capacity	Division	Tolerance	with spout	Ground joint neck and PE-Stopper brown graduated	thread and screw cap (GL) brown graduated	Order number
ml	ml	ml				
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

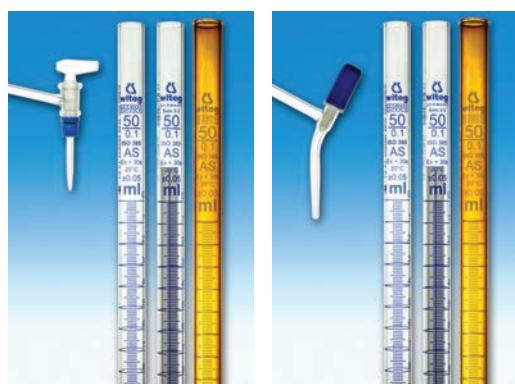


Capacity ml	Division ml	Tolerance ml	Plug	Order number	
				blue graduation	blue graduation Schellbach blue line
5	0.02	±0.01	solid ST-glass	3 010 052	3 012 052
10	0.02	±0.02		3 010 102	3 012 102
25	0.05	±0.03		3 010 252	3 012 252
50	0.1	±0.05		3 010 502	3 012 502
100	0.2	±0.1		3 010 902	3 012 902
5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

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 white 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		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	Division	Tolerance		Plug	Order number		
		witeg	ISO		blue graduation	blue graduation Schellbach blue line	amber glass white graduation
		ml	ml				
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		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	Division	Tolerance		Plug	Order number		
		witeg	ISO		blue graduation	blue graduation Schellbach blue line	amber glass white graduation
		ml	ml				
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		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	Division	Tolerance	Stopcocks	Order number	
				ml	ml
10	0.02	±0.02	intermediate: ST-glass plug	3 122 106	3 124 106
25	0.05	±0.03	lateral: solid ST-glass plug	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	3 122 107	3 124 107
25	0.05	±0.03	lateral: PTFE needle valve	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	3 122 108	3 124 108
25	0.05	±0.03	lateral: PTFE needle valve	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	Division	Tolerance	Stopcock	Order number	
				ml	ml
10	0.02	±0.02		3 122 104	3 124 104
25	0.05	±0.03	lateral: solid ST-glass plug	3 122 254	3 124 254
50	0.1	±0.05		3 122 504	3 124 504
10	0.02	±0.02		3 122 105	3 124 105
25	0.05	±0.03	lateral: PTFE needle valve	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

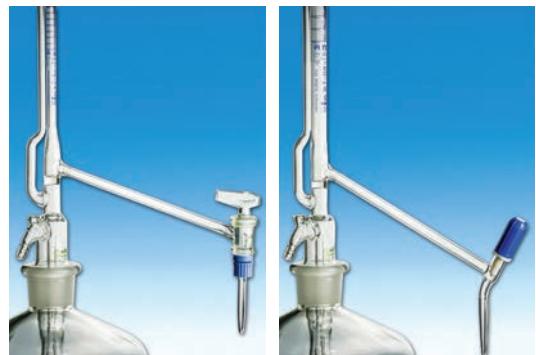


Capacity ml	Division ml	Tolerance		Stopcocks	Order number	
		witeg ml	ISO ml		blue graduation Schellbach blue line	amber glass white graduation
		ml	ml			
10	0.02	±0.03	±0.05	intermediate: ST-glass plug lateral: solid ST-glass plug	3 112 106	3 114 106
25	0.05	±0.03	±0.05		3 112 256	3 114 256
50	0.1	±0.08	±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		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
		ml	ml			
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		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

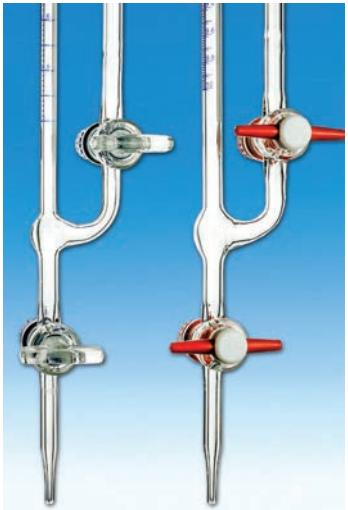
Class AS

- 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



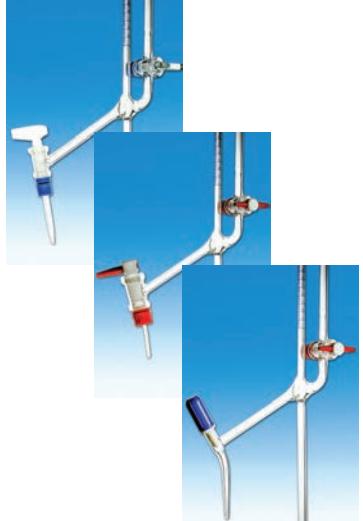
▪ two straight stopcocks

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



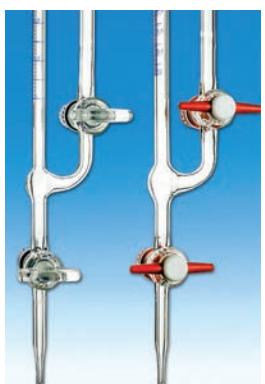
Class B

- 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		
ml	ml	ml	ml	ST-glass plugs	ST-PTFE plugs
1	0.01	±0.01	±0.01	3 352 012	3 352 013
2	0.01	±0.02	±0.02	3 352 022	3 353 023
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		
ml	ml	ml	ml	ST-glass plugs	ST-PTFE plugs
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		Order number	
		witeg ml	ISO ml	blue graduation	amber stained white graduation
		±0.04	±0.04		
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	3 685 197
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



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
ml		
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

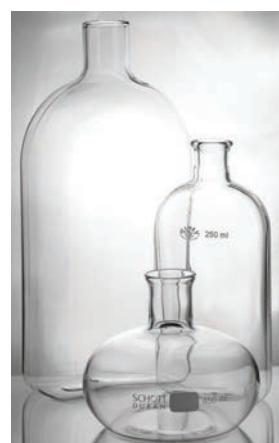


Culture flasks - different types

- 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 GL45	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	DURAN® DURAN® logo	Borosilicate 3.3 witeg logo	Order number
ml	mm	mm			
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	DURAN® DURAN® logo	Borosilicate 3.3 witeg logo	Order number
ml	mm	mm			
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	DURAN® DURAN® logo	Order number
ml	mm	mm		
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

Description		Order number
	Soda glass	Borosilicate 5.1
Complete	4 640 000	4 640 000 B
Spare tray (slide frame)	4 640 001	4 640 001 B
Spare wire holder	4 640 002	4 640 002 B
Spare glass box and cover	4 640 003	4 640 003 B



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	4 631 001 B
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

Description	Dimension	Order number	
		Soda glass	Borosilicate 5.1
Standard with glass cover	115 x 68 mm	4 650 000	4 650 000 B
Standard with PP screw cap	113 x 68 mm	4 651 000	4 651 000 B
Low form with PP screw cap	98 x 68 mm	4 652 000	4 652 000 B



NEW

Staining jar acc. to Schiefferdecker

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

Description		Order number
	Soda glass	Borosilicate 5.1
Complete	4 660 000	4 660 000 B



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
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	
82	2 880 101
95	2 880 102
137	2 880 103



Plane weighing glass

- acc. to Heidbrink



Order number	2 873 902
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Tubes

Test tubes Fiolax

- made of Fiolax borosilicate glass 3.3
 - with rim
 - round bottom
- pack = 100 pcs.



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



Disposable culture tubes

- made of AR-glass
 - plain top
 - round bottom
- pack = 250 pcs.



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

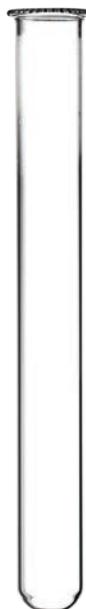


Culture tubes with rim

- made of borosilicate glass 3.3
 - DIN12395
 - 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
- pack = 100 pcs.



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



Laboratory accessories

Tubes

Test tubes

pack = 1000 pcs.

- made of clear PS or translucent PP

Volume	ØxH	Material	Bottom	Order number	pack
ml	mm				
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	Length	Outer Ø	Order number
ml	mm	mm	
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°

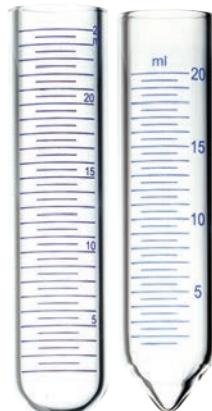


Centrifuge tubes graduated - heavy wall ~1.8mm



- made of borosilicate glass 3.3

Capacity	Length	Outer Ø	Bottom	Graduation	Order number
ml	mm	mm			
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)

Racks for test tubes, culture tubes and reaction vessels

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

Holes	Hole Ø	Dimensions	Order number			
			white	blue	yellow	red
mm	mm	mm				
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	Dimensions	Order number
mm	mm	mm	
10	19	250 x 50 x 75	7 068 001
24	21	375 x 65 x 85	7 068 002
12	21	190 x 60 x 80	7 069 002



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