witeg
GERMANY

Liquid Handling Catalog

witeg GERMANY

20-200µl

ISD0046

LABmax premium
10ml
: 0.2
Ex 20°C
ISO 8655
DE-M 15

1000:1 B In 20°C

500:5 In 20°C ± 2.50 ml 500
450
400
350
300
150
100
50

100: B ± 1.0 In 20°C 10

500ml

100 ml

witeg GERMANY

AS 10 ml

AS 50 ml

NS 24/29 DURAN   ISO 1042 witeg A 20°C

DE-M Marked according to the German calibration law

www.witeg.de

witeg GERMANY - Home of Innovations

Witeg Labortechnik GmbH is one of the **leading manufacturers** and suppliers of **laboratory glassware, custom-built glassware, liquid handling articles, electronic Wisd 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

DEKRA

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, stock, packaging, 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. A12121229.

This certificate is valid from 2013-06-29 to 2016-06-28   Certificate registration no.: 50604803/3
Duplicate

DEKRA Certification GmbH
Stuttgart, 2013-05-21

Lack of fulfilment on conditions as set out in the Certification Agreement may render this certificate invalid.

DEKRA Certification GmbH * Handwerkstraße 15 * D-70565 Stuttgart * www.dekra-certification.de
page 1 of 1

Content

Due to constant technical improvements the actual product appearance might differ from the shown images.

witeg
GERMANY
Liquid Handling
made in Germany

LAB**max** premium

Premium Design - Premium Performance - Premium Quality

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

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

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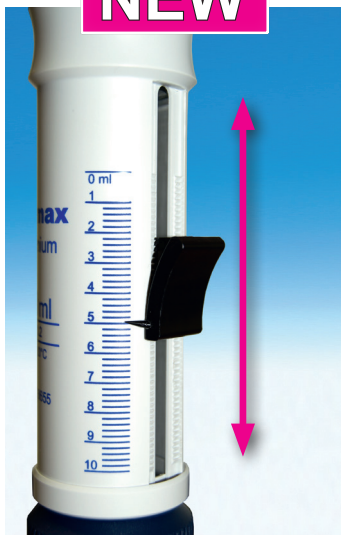**90°** Air-purging mechanism
180° Drip-free rest position
ZERO LOSS OF REAGENT

180°

90°

0°

360°

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

NEW

Quick and precise volume setting

Adjusting the volume of L⋀B**MAX premium** is now even simpler: just push the re-designed 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 or 3 times the dispenser is free of air and ready to use. This special feature not only helps to save residual reagent but also when accidentially setting the wrong volume!

NEW

90°
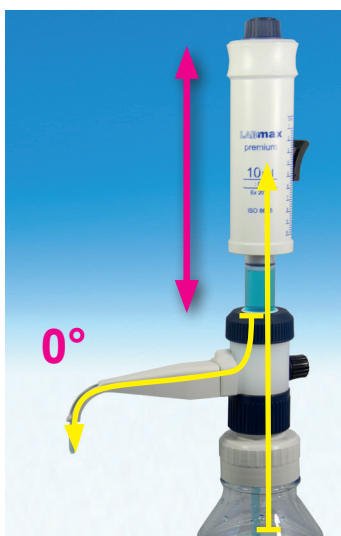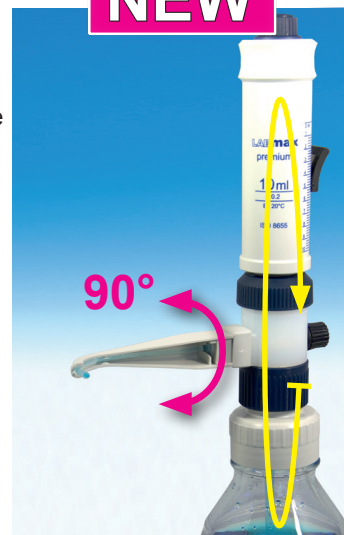
Easy and fatigue-proof dispensing

Turn the discharge tube into the dosing mode and enjoy dispensing with L⋀B**MAX premium**. The piston of L⋀B**MAX 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!

0°

100% drip-free system for your safety

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

180°

NEW

360°-turn for your added safety

No matter how much you tighten L⋀B**MAX 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.

360°

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

If you use L⋀B**MAX 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

Liquid flow   Moveable parts

LAB**max** premium

Bottle-Top Dispenser `NEW`

Your advantages at a glance:

- high-quality precision instrument, made in Germany
- best in its class performance, most competitive pricing
- all-purpose dispenser, universal chemical compatibility
- direct displacement piston system, ideal for crystalline solutions
- highest accuracy and precision, our error ranges are better than the DIN EN ISO 8655 requirements
- built-in recalibration mechanism `NEW`
- robust and stable, made of high quality materials e.g. platinum springs
- 0% loss of reagent by pumping in a closed circuit `NEW`
- 100% drip-free due to our unique anti-drip system
- 360 degree rotatable valve block for added safety `NEW`
- 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, valid from January 2015

LAB**max** premium

Volume	Division	Accuracy	Coefficient of variation	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	0.6	0.1	45	**5 370 906**

Scope of supply

Labmax premium, suction tube, discharge tube, instruction manual, individual certificate, serial number, thread adapter (2.5/5.0/10.0ml: A25, A28, A45, S40 | 25.0/50.0/100.0ml: 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

LAB**max** airless **HF**

The specialist for hydrofluoric acid with automatic air-purging*

LAB**MAX 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. LAB**MAX airless HF** is equipped with an automatic air-purging* system: your dispenser is ready to use after no more than two dosings.

Your advantages 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 requirements
- robust and stable, made of high quality materials e.g. platinum spring, ruby valve balls, PTFE
- 100% drip-free due to our unique anti-drip system
- 360 degree rotatable valve block for added safety **NEW**
- 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, valid from January 2015

LAB**max** airless **HF** suitable for hydrofluoric acid

Volume	Division	Accuracy	Coefficient of variation	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 (2.5/5.0/10.0ml: A25, A28, A45, S40 | 25.0/50.0/100.0ml: A25, A28, A45, 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, PTFE cylinder, PTFE piston

* more details about automatic air-purging on page 8

LAB**max** airless

The specialist for solvents with automatic air-purging

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

Automatic air-purging

To ensure accurate volume it is neccessary that the device is free from air before dispensing. All LAB**MAX 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.

NEW
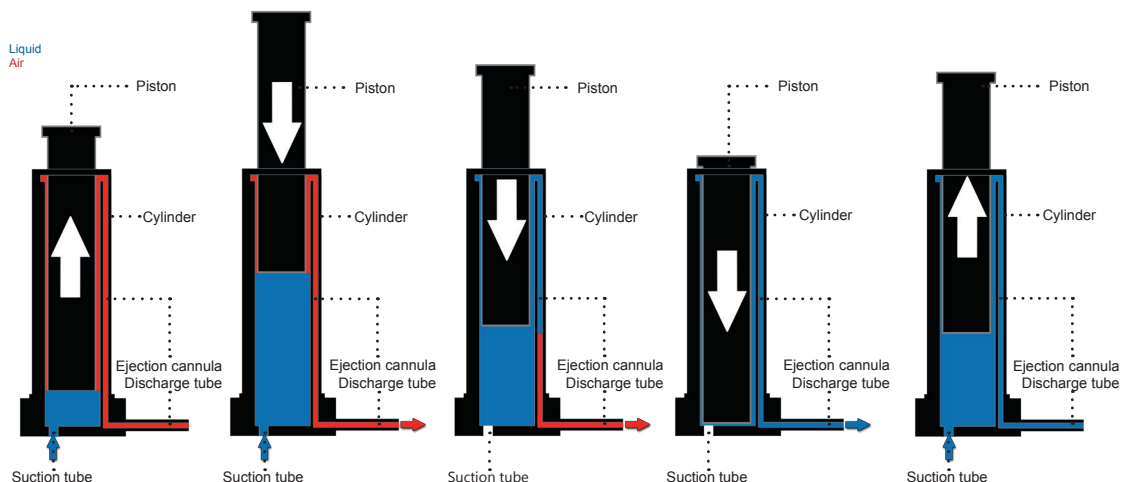
360°-turn for your added safety

No matter how much you tighten LAB**MAX 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. LAB**MAX airless** is completely closed and no accidental discharge can occur by inadvertently moving the piston.
There is absolutely no dripping possible!

Liquid flow   Moveable parts

Your advantages at a glance:

- high quality precision instrument, made in Germany

- all-purpose dispenser with automatic air-purging

- contactless piston system, ideal for PTFE swelling solvents

- highest accuracy and precision, our error ranges are better than the DIN EN ISO 8655 requirements

- robust and stable, made of high quality materials e.g. platinum springs

- 100% drip-free due to our unique anti-drip system

- 360 degree rotatable valve block for added safety **NEW**

- 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, valid from January 2015

LABmax airless

Volume	Division	Accuracy	Coefficient of variation	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	0.6	0.1	45	**5 370 806**

Scope of supply

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

LAB**max** eco

The economical and ecological way to dispense

Dispensing with LAB**MAX eco** is both economic and ecological friendly. This standard-dispenser is usable for nearly all applications of dispensing liquids in the lab and is especially ECOnomically priced. Use the "recycling mode" for an ECOlogical air-purging and draining without any loss of reagent!

Quick and precise volume setting

Adjusting the volume of LAB**MAX 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 or 3 times the dispenser is free of air and ready to use.
This special feature not only helps to save residual reagent but also when accidentially setting the wrong volume!

NEW

90°

360°-turn for your added safety

NEW

No matter how much you tighten LAB**MAX 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.

360°

100% drip-free system for your safety

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

180°

Liquid flow   Moveable parts

Your advantages at a glance:

- high quality precision instrument, made in Germany
- all-purpose dispenser, universal chemical compatibility
- most affordable price in its class
- direct displacement piston system, ideal for crystalline solutions
- highest accuracy and precision, our error ranges are better than the DIN EN ISO 8655 requirements
- robust and stable, made of high quality materials e.g. platinum springs
- 0% loss of reagent by pumping in a closed circuit **NEW**
- 100% drip-free due to our unique anti-drip system
- 360 degree rotatable valve block for added safety **NEW**
- 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, valid from January 2015

LABmax eco

Volume	Division	Accuracy	Coefficient of variation	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	0.6	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 (2.5/5.0/10.0ml: A25, A28, A45, S40 | 25.0/50.0/100.0/250.0 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

MINISPENSOR

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, there are no pipette tips required. There are four color-coded models available, with two definite volumes in a range of 50 µl to 2 000 µl. You can simply change the dispensing volume to 50% by turning the push button.

Volume setting

Every 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 cystalline solutions.

One handed dispensing

The MINISPENSOR can easly be used with just one hand.

Your advantages 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, our error ranges are better than the DIN EN ISO 8655 requirements

- direct displacement piston system

- comfortable handling for larger pipetting series

- four color-coded models available

- easy volume setting, two definite volumes each dispenser

- 100% drip-free by turning the discharge tube by 180°

- 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, valid from January 2015

MINISPENSOR

Volume	Accuracy	Coefficient of variation	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

TITREX

One instrument for all your titration and dosing applications

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. The memory function allows saving of up to 1000 values, which can be transferred to a PC and read using the included software.

Digital display

Handwheel

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

only available at fine adjusted version

Reset button / Calibration button

TIT-Button: Titration mode

DOS-Button: Dosing 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

180°

90°

360°

Parts in contact with reagent:

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

Bottle-Top Digital Burette

NEW

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 or 3 times the dispenser is free of air and ready to use. This special feature not only helps to save residual reagent but also when accidentially setting the wrong volume!

90°

NEW
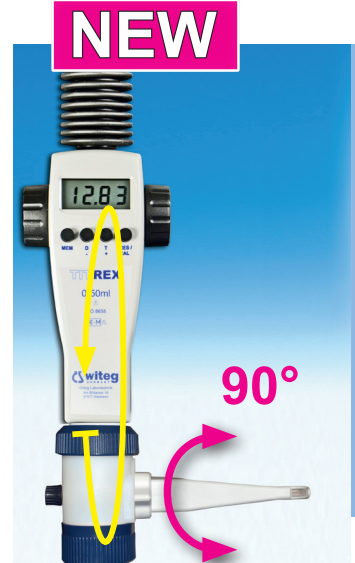
360°-turn for your added safety

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.

360°

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!

180°

"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.

TITREXSOFT   Included in scope of supply
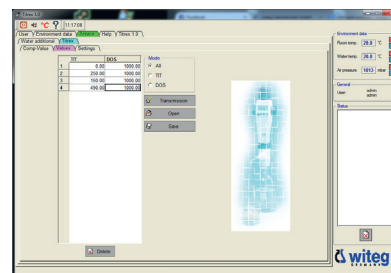
Store up to 1000 values by pressing the „MEM" button.
These stored values can be read with the provided software TITREXSOFT.
Dispensed and titrated values can be shown together or separated. Read values can be saved in a file and afterwards imported into any spreadsheet program.

Liquid flow

Moveable parts

TITREX

Bottle-Top Digital Burette

Your advantages 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 requirements
- resistant against most acids and alkalis
- exclusive instrument with 0% loss of reagent - air-purging and draining within a closed circuit **NEW**
- 360° rotatable valve block for your added safety **NEW**
- 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°
- data storage: up to 1000 values - transfer to PC possible due to RS232 interface
- 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
- individual certificate, CE label and serial number
- DE-M marked according to the German calibration law, valid from January 2015

TITREX inclusive software

Type	Volume	Accuracy	Coefficient of variation	Order number
	ml	± ml	≤ ml	
Standard	0-50	0.03	0.01	**5 497 050**
Fine adjustment	0-50	0.03	0.01	**5 497 150**

Scope of supply

Titrex, suction tube**,** discharge tube**,** instruction manual**,** individual certificate, serial number, battery charger, software TITREXSOFT**,** RS232 interface cord, thread adapter A25, A28, GL45/32, S40

Overview

Choose the right dispenser for your application

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

* limited feature: please contact us for detailed information regarding the chemical resistance of the dispenser.
** limited feature: only valve block autoclavable.

Accessories

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

Volume	Thread	Width x Height	suitable for	Order number
ml	GL	mm		
100	28	50x125	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	140x230	LABmax, TITREX	5 372 250

Standard joint adapters, made of borosilcate glass 3.3

Thread	Cone	suitable for	Order number
GL	ST		
32	19/26	LABmax, TITREX, MINISPENSOR	5 380 019
32	24/29	LABmax, TITREX, MINISPENSOR	5 380 024
32	29/32	LABmax, TITREX, MINISPENSOR	5 380 029
45	29/32	LABmax, TITREX, MINISPENSOR	5 380 129
45	45/40	LABmax, TITREX, MINISPENSOR	5 380 145

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
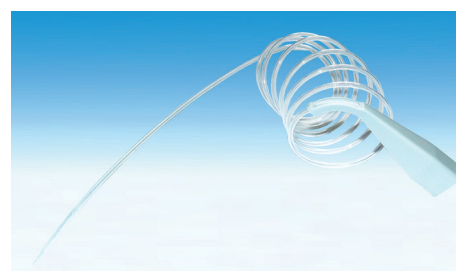
Discharge tube with protective sleeve, made of FEP / PP

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

Suction tubes made of FEP

Length x Ø	suitable for	Order number
mm		
Telescope **NEW**	LAB**max** 2.5-10 ml	5 375 000 TK
Telescope **NEW**	LAB**max** 25-100 ml, TIT**REX**	5 375 001 TK
310 x 5	LAB**max** 2.5-10 ml	5 375 000 N 310
390 x 7	LAB**max** 2.5-10 ml	5 375 000 N 390
310 x 5	LAB**max** 25-100 ml, TIT**REX**	5 375 001 310
390 x 7	LAB**max** 25-100 ml, TIT**REX**	5 375 001 390
	MINI**SPENSOR** 50-100 µl	5 375 004 M
	MINI**SPENSOR** 100-2000 µl	5 375 014

Thread adapters made of Polypropylene

Thread	suitable for	Order number
GL		
A22	LAB**max,** TIT**REX,** MINI**SPENSOR**	5 377 022
A25	LAB**max,** TIT**REX,** MINI**SPENSOR**	5 377 025
A28	LAB**max,** TIT**REX,** MINI**SPENSOR**	5 377 028
A30	LAB**max,** TIT**REX,** MINI**SPENSOR**	5 377 030
A32 / A28*	LAB**max,** TIT**REX,** MINI**SPENSOR**	5 377 032
A38	LAB**max,** TIT**REX,** MINI**SPENSOR**	5 377 038
A40	LAB**max,** TIT**REX,** MINI**SPENSOR**	5 377 040
A45 / A32**	LAB**max,** TIT**REX,** MINI**SPENSOR**	5 497 600
A45	LAB**max,** TIT**REX,** MINI**SPENSOR**	5 377 045

*from A28 to 32 (MINI**SPENSOR**)*
** *from A45 to A32 inverted*

Attachment for the ventilation channel

Type	suitable for	Order number
Check valve with plastic coating for fuming and smelling liquids	LAB**max** TIT**REX**	5 377 300
Calcium chloride tube with plastic coating against moisture from the outside	LAB**max** TIT**REX**	5 377 310
One-way filter made of PP, with membrane made of regenerated cellulose (dust and bacteria filter)	LAB**max** TIT**REX**	

Pore size	Filter Ø	Packaging size pieces	
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	10	8 212 004
0.45 µm	30 mm	50 individual steril packed	8 214 001
0.2 µm	30 mm	50 individual steril packed	8 214 002

WITOPET premium

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 ISO 8655.

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, thus reducing pipetting forces.

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.

Calibration mechanism
Adjusting WITOPET **premium** can be neccessary 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.

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

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

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

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

20-200µl

witeg
GERMANY

Single-Channel Microliter Pipette

Your advantages at a glance:

- highest quality, made in France
- best in its class performance, most competitive price
- extremely light weightiness, while the robustness still remains
- perfect ergonomics for highest comfort
- extremely low pipetting forces required for minimized risk of a cramp
- highest accuracy and precision, our error ranges are better than the DIN EN ISO 8655 requirements
- 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
- completely autoclavable at 121°C
- individual certificate and serial number
- DE-M marked according to the German calibration law, valid from January 2015

WITOPET premium Single-Channel

Volume	Maximum permissible errors					Color-code	Order number
	Vol. tested	witeg		ISO 8655			
		Accuracy	Coefficient of Variation	Accuracy	Coefficient of Variation		
µl	µl	± µl	≤ µl	± µl	≤ µl		
0.2 - 2.0	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	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	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	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	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	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	500 2500 5000	12 15 30	3 5 8	40 40 40	15 15 15	purple	5 402 950 P
1 - 10 ml	1000 5000 10000	30 40 60	6 10 16	60 60 60	30 30 30	pale blue	5 402 910 P

Pipette support for Witopet premium pipettes		5 406 107 P

WITOPET professional

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.

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.

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

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

Tip ejector
The tip ejector fits well into 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.

Single-Channel Microliter Pipette

Your advantages 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
- 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, valid from January 2015

WITOPET professional

Volumen	Color	Division	Volume tested	Accuracy	Coefficient of variation	Order number
µl		µl	µl	± µl	≤ µl	
0.2 - 2.0	red	0.1	0.2 0.5 1 2	0.08 0.08 0.08 0.08	0.04 0.04 0.04 0.04	5 402 002
0.5 - 10	red	0.1	1 5 10	0.12 0.12 0.12	0.08 0.08 0.08	5 402 010
2 - 20	yellow	0.1	2 10 20	0.20 0.20 0.20	0.10 0.10 0.10	5 402 020
10 - 100	yellow	1.0	10 50 100	0.80 0.80 0.80	0.30 0.30 0.30	5 402 100
20 - 200	yellow	1.0	20 100 200	1.60 1.60 1.60	0.60 0.60 0.60	5 402 200
100 - 1000	blue	10	100 500 1000	8 8 8	3 3 3	5 402 901
1000 - 5000	black	10	1000 2500 5000	40 40 40	15 15 15	5 402 950
Pipette support for Witopet professional pipettes						5 406 107

WITOPET economy

The most economical way for entry-level pipetting

Looking for the most economical way to start with pipetting applications? WITO**PET 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.

Pipetting button

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

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.

Piston

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

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.

Tip cone

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

Single-Channel Microliter Pipette

Your advantages at a glance:

- ideal for entry-level

- quality pipette, most economical price in its class

- simple and robust construction

- accuracy and precision according to DIN EN ISO 8655

- 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, valid from January 2015

WITOPET economy

Volume	Division	Volume tested	Accuracy	Coefficient of variation	Order number
µl	µl	µl	± µl	≤ µl	
0.1-2.5	0.05	0.2 0.5 1 2	0.08 0.08 0.08 0.08	0.04 0.04 0.04 0.04	5 402 002 D
0.5-10	0.1	1 5 10	0.12 0.12 0.12	0.08 0.08 0.08	5 402 010 D
2-20	0.5	2 10 20	0.20 0.20 0.20	0.10 0.10 0.10	5 402 020 D
10-100	1.0	10 50 100	0.80 0.80 0.80	0.30 0.30 0.30	5 402 100 D
20-200	1.0	20 100 200	1.60 1.60 1.60	0.60 0.60 0.60	5 402 200 D
100-1000	5.0	100 500 1000	8 8 8	3 3 3	5 402 901 D
1000-5000	50.0	500 2500 5000	40 40 40	15 15 15	5 402 950 D
Pipette support for Witopet economy pipettes					5 406 205

WITOPET premium NEW

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 ISO 8655. WITOPET **premium** is available as multi-channel model with 8 and 12 channels, covering the volume range from 0.5 to 300µl.

Push–button
The push-button is color coded.

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, thus reducing pipetting forces.

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.

Calibration mechanism
Adjusting WITOPET **premium** can be neccessary 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.

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 polypropylene, thus 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.

witeg
GERMANY

20-200µl

Your advantages at a glance:

- highest quality, made in France

- the best in its class performance, most competitive pricing

- extremely light weightiness, while the robustness still remains

- perfect ergonomic pipetting for highest comfort

- extremely low forces required for minimized risk of a cramp

- highest accuracy and precision, our error ranges are better than the DIN EN ISO 8655 requirements

- 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

- completely autoclavable at 121°C

- individual certificate and serial number

- DE-M marked according to the German calibration law, valid from January 2015

WITOPET premium Multi-Channel

Volume	Maximum permissible errors			Color-code	Channels	Order number
	witeg					
	Volume tested	Accuracy	Coefficient of Variation			
µl	µl	± µl	≤ µl			
0.5 - 10	0.5 10	0.09 0.22	0.04 0.11	red	8 12	5 403 101 P 5 403 201 P
2 - 20	2 20	0.11 0.40	0.09 0.17	pale yellow	8 12	5 403 102 P 5 403 202 P
20 - 200	20 200	0.55 2.2	0.28 0.55	yellow	8 12	5 403 120 P 5 403 220 P
20 - 300	20 300	1.1 3.3	0.39 1.10	green	8 12	5 403 130 P 5 403 230 P

Pipette support for Witopet premium pipettes		5 406 107 P

WITOPET economy

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.

Volumeter 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 turn around (360°) for increased flexibility.

Tip ejector

The tip ejector releases the used tip easily.

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.
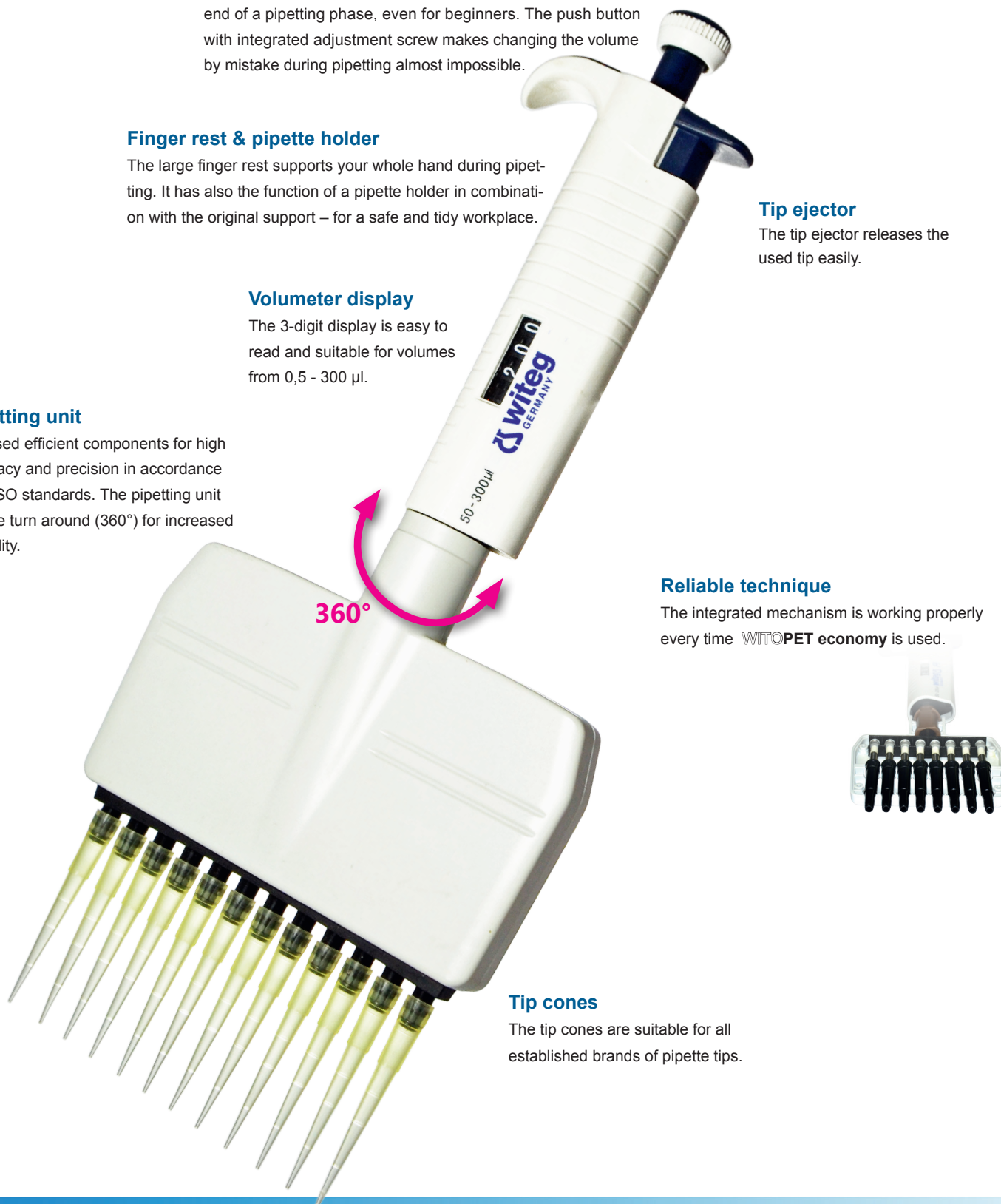
Your advantages at a glance:

- perfect 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
- 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, valid from January 2015

WITOPET economy (8 and 12)

Volume	Division	Volume tested	Accuracy	Coefficient of variation	Order number
µl	µl	µl	± µl	≤ µl	
8x 0.5-10	0.1	1 5 10	0.12	0.08	5 403 101
8x 5-50	0.5	5 25 50	0.5	0.2	5 403 105
8x 50-300	1.0	50 150 300	1.6	0.6	5 403 130
12x 0.5-10	0.1	1 5 10	0.12	0.08	5 403 201
12x 5-50	0.5	5 25 50	0.5	0.2	5 403 205
12x 50-300	1.0	50 150 300	1.6	0.6	5 403 230
Pipette support for Witopet economy pipettes					5 406 205

WITOPETTE plus

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!

Push button

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

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).

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.

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.

Stop lever

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

Your advantages 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 5 000 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, valid from January 2015

WITOPETTE PLUS 1-5000 µl

Type	Order number
Standard	**5 385 205**

WITIPS Tips for WITOPETTE PLUS

Volume		Packaging unit	Order number
ml		pieces	
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**

WITOPET EP

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 made by the user and it prevents the risk of a cramp after prolonged pipetting phases. WITOPET EP is available as single and multi channel pipette.

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

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

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

Tip ejector
The tip ejector releases the used tip easily.

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

360°

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

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

Digital Single- and Multi-Channel Microliter Pipette

Your advantages 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)
- lithium battery for prolonged use
- serial number and CE label
- individual certificate according to DIN EN ISO 8655
- DE-M marked according to the German calibration law, valid from January 2015

WITOPET EP digital single and multi-channel pipette

	Volume	Channels	Division	Volume tested	Accuracy	Coefficient of variation	Order number
	µl		µl	µl	± µl	≤ µl	
Single-Channel	**2-20**	1	0.1	2 10 20	0.08	0.04	**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	0.20	0.1	**5 402 402 S**
	10-200	8	1.0	20 100 200	1.6	0.6	**5 402 420 S**
Pipette support for Witopet EP							**5 406 105**

Accessories

WITO**PET** Filtertips (**sterile**) suitable for all WITO**PET** 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
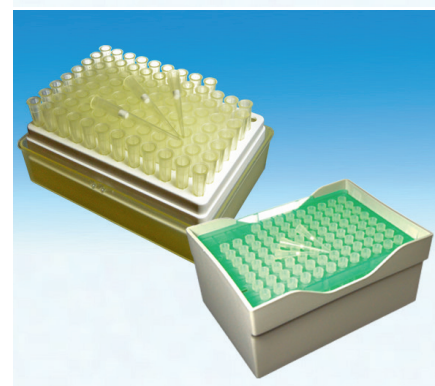
WITO**PET** pipette tips, 1000 pieces per plastic bag, conformity certified
fits for: WITO**PET**®, Eppendorf®, Gilson®, Brand®, Scorex®, Finnpipette®

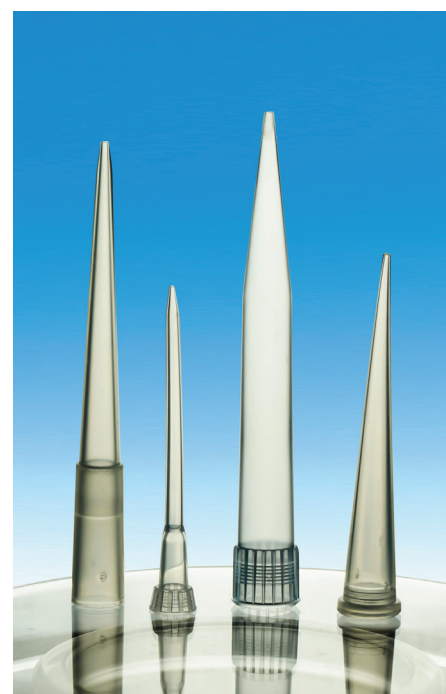| Volume	Color	Suitable for following brands	Order number
µl			
0.5-10	neutral	Gilson	5 408 005
0.5-20	neutral	universal	5 408 010
2-200	yellow	universal	5 408 200
2-200	yellow	Gilson	5 408 202
100-1000	blue	universal	5 410 000
100-1000	blue	universal	5 410 001
1000-5000	neutral	universal	5 412 100
1000	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

WITO**PET** pipette tips, 96 tips are packed on 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

Choose the right microliter pipette for your application

Single-Channel Microliter Pipettes

	WITO**PET** premium	WITO**PET** professional	WITO**PET** economy	WITO**PET** EP
0.1 - 2.5 µl			X	
0.2 - 2.0 µl	X	X		
0.5 - 10 µl		X	X	
1 - 10 µl	X			
2 - 20 µl		X	X	X
10 - 100 µl	X	X	X	
10 - 200 µl				X
20 - 200 µl	X	X	X	
100 - 1000 µl	X	X	X	X
500 - 5000 µl	X			
1000 - 5000 µl		X	X	
1000 - 10000 µl	X			
	mechanical			electrical

Multi-Channel Microliter Pipettes

	WITO**PET** premium	WITO**PET** economy	WITO**PET** EP
0.5 - 10 µl	X (8/12)	X (8/12)	
2 - 20 µl	X (8/12)		X (8)
5 - 50 µl		X (8/12)	
10 - 200 µl			X (8)
20 - 200 µl	X (8/12)		
20 - 300 µl	X (8/12)		
50 - 300 µl		X (8/12)	
100 - 1000 µl			X (8)
	mechanical		electrical

Stepper

1 - 5000 µl	WITO**PETTE** plus

WITOPED XP

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 accidentially releasing the nosepiece.

Removable stand

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

Nosepiece

The nosepiece is suitable for all kinds of pipettes. In case of contamination, the nosepiece can be easily removed in order to exchange the filter and the silicone adapter.
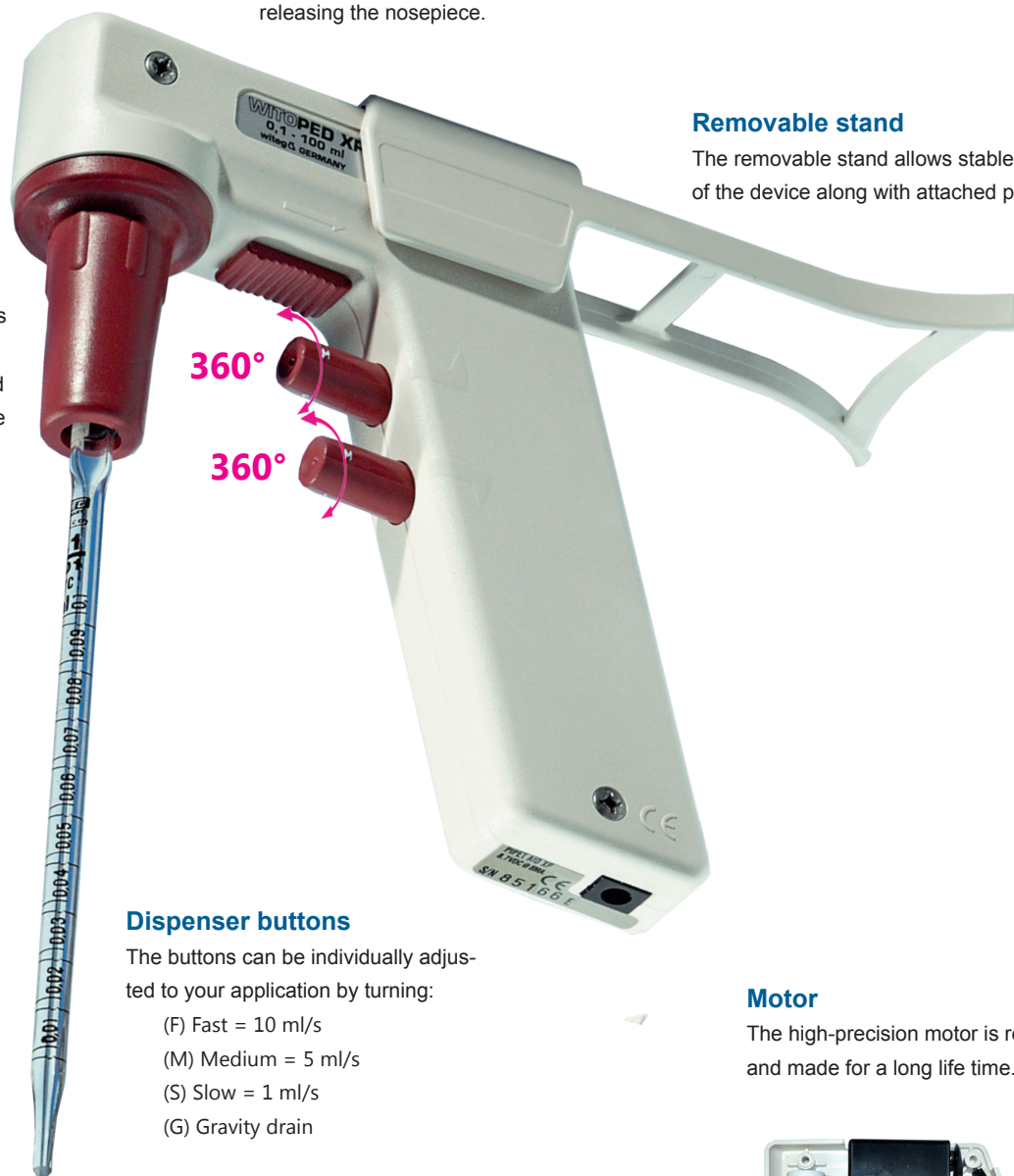
360°

360°

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.
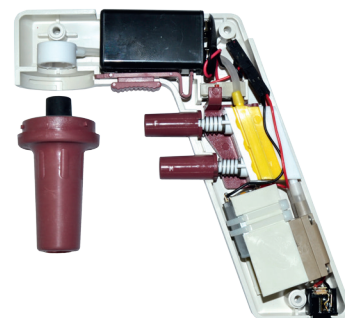
Your advantages at a glance:

- 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 rechargeable battery and wall bracket

- CE label

WITO**PED XP** Professional

Type	Order number
220 V	**5 380 001**
120 V	**5 380 002**

Scope of supply
WITO**PED XP**, battery charger, replacement filters, removable stand, instruction manual

Replacement one-way filter

Packaging unit	Order number
5	**5 380 006**

Replacement silicone adapter

	Order number
	5 380 004

WITOPED eco

The economic electric pipetting solution

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

Digital display and speed setting

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

Nosepiece

The nosepiece is suitable for all kinds of pipettes. In case of contamination, the noespiece 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).

Motor

The powerful motor ensures fast and reliable pipetting.

Your advantages 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

- CE label

WITO**PED** eco

Type	Order number
220 V	5 381 000

Scope of supply

WITO**PED eco,** battery charger, replacement filter, table stand

Replacement one-way filter

Packaging unit	Order number
5	5 380 006 E

Replacement silicone adapter

	Order number
	5 382 010

WITO pipette controller

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.

Pipetting lever

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

Nosepiece

The nosepiece is suitable for all pipettes up to 100ml. 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.
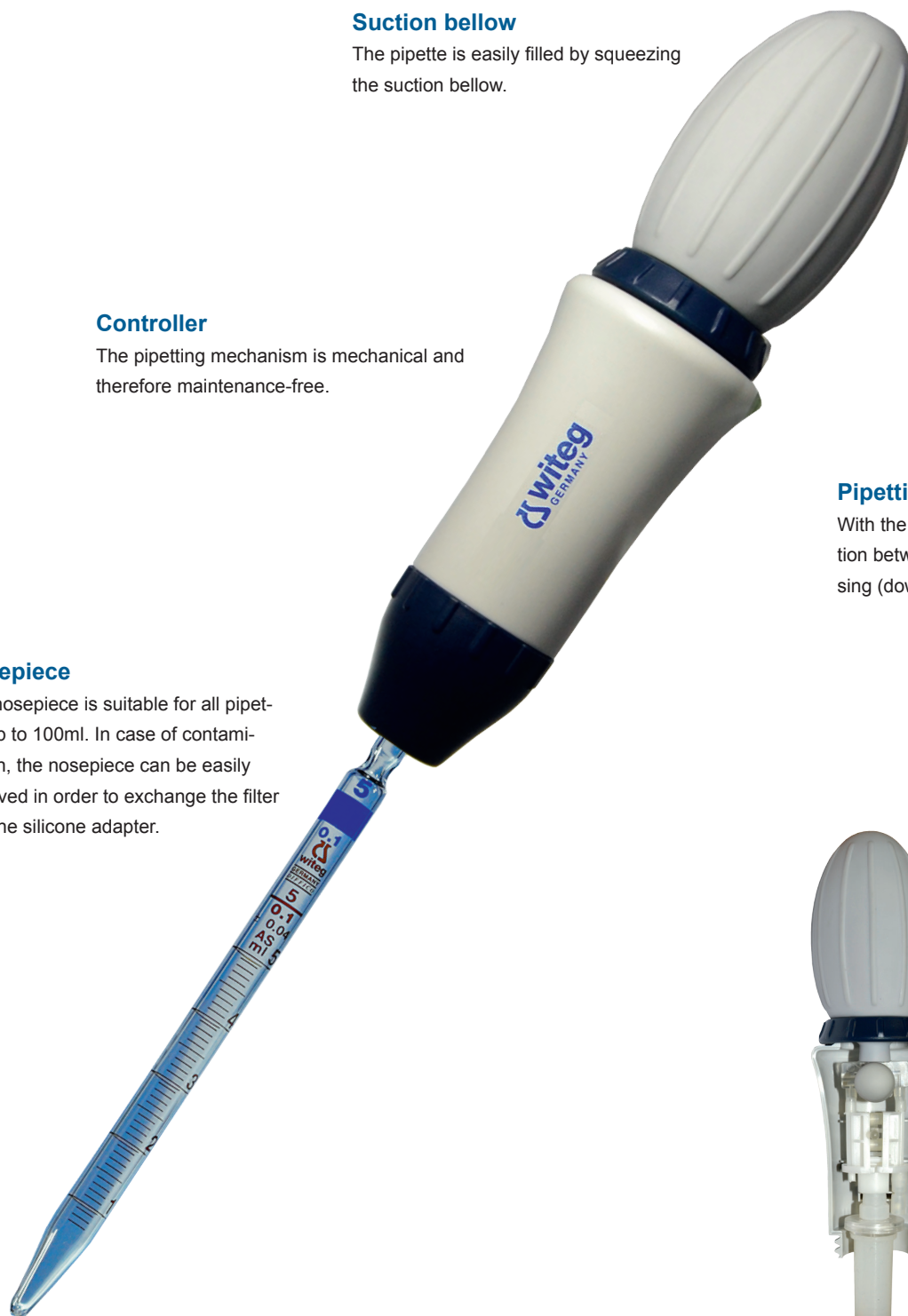
Your advantages at a glance:

- 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

	Order number
	5 382 020

WITO pipetting tools

Pipette filler with 3 valves
made of natural rubber, standard model for pipettes up to 100 ml, resistant to age and chemicals

	Order number
Standard up to 10ml	**3 965 000**
Universal with elongated cone up to 100ml	**3 966 000**

Pipette filler with 2 valves
easy to use, two pressure valves for suction and release of the liquid, 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

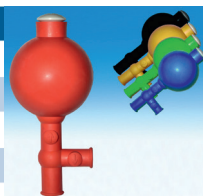| Size	Suction volume	Ball diameter	Order number
B oval	5 ml	25 mm	**3 597 001**
0	8 ml	30 mm	**3 597 002**
2	25 ml	42 mm	**3 597 003**
3	40 ml	48 mm	**3 597 004**
5	89 ml	62 mm	**3 597 005**
7	143 ml	72 mm	**3 597 006**
9	224 ml	84 mm	**3 597 007**
11	347 ml	94 mm	**3 597 008**
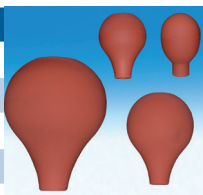
Suction bulbs for pipettes
in 6 different colors available

For capacity	Color	Pack size	Order number
approx. 2 ml	transparent	10 pcs.	**3 968 000**
1 ml	green	10 pcs.	**3 968 001**
2 ml	grey	10 pcs.	**3 968 002**
5 ml	yellow	10 pcs.	**3 968 005**
10 ml	blue	10 pcs.	**3 968 010**
15 ml	red	10 pcs.	**3 968 015**

Safety pipette filler Howorka ball
ultrasafe laboratory aid for universal use, specially designed opening for immediate sealing of all standard pipette diameters, suitable also for organic solvents and viscous liquids, easy to clean, autoclavable

For capacity	Order number
20 ml	**3 595 020**
50 ml	**3 595 050**

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-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**

Glass Measuring Devices

Graduated pipettes
Volumetric pipettes
Volumetric flasks
Graduated cylinder
Stoppers & Clips
Burettes

Glassware devices

...made by witeg GERMANY

Highest accuracy and precision

Permanent monitoring of the manufacturing process guarantees the production of high quality glassware devices. The accuracy and precision of class A/AS devices are according to the high requirements of ISO standard. Our devices of class B are characterized by accuracy and precision exceeding generally the requirements of ISO standards. With regard to our class B devices, the error ranges are even better that those required by ISO standard for class B.

Wide product range

Standard labware consumables
We have more than 30.000 articles available ex stock, including volumetric devices like pipettes, cylinders, burettes, flasks, beakers etc.

Custom-built products
We can produce glassware devices of special sizes (marked with * in this catalogue). We are flexible in producing special and small-lot production, so please feel free to contact us!

Comprehensive service

Glassware repairs
Looking for an expert in repairing glassware? Our glassblowing department would be glad to save your glass device and not least – the environment.

Plastic coating
Do you want to protect your glassware against shatter? We can coat glassware on request.

Amber staining
Looking for glassware with highest chemical resistance and light protection? Amber staining is the right procedure for your glassware.

Our service has nearly no limit. If you have any questions, please do not hesitate to contact us:

www.witeg.de
info@witeg.de
+49 9342 / 9301-0

Liquid Handling
made in Germany

Graduated pipettes

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, valid from January 2015
- calibrated to deliver (EX), 5 sec waiting time
- standard and special sizes available
- inclusive batch certificate

made in Germany

Capacity	Division	Tolerance	Color-Code		Order number	
ml	ml	ml			brown graduated	blue graduated
0,1	0,01	±0,006	white ⚪		3 510 011	3 510 011 BL
0,2	0,01	±0,006	black ⚫		3 510 021	3 510 021 BL
0,2*	0,002	±0,006	white x2 ⚪		3 510 022	3 510 022 BL
0,5	0,01	±0,006	yellow x2 🟡		3 510 051	3 510 051 BL
1	0,01	±0,007	yellow 🟡		3 510 101	3 510 101 BL
1	0,1	±0,007	red 🔴		3 510 110	3 510 110 BL
2*	0,01	±0,010	white x2 ⚪		3 510 201	3 510 201 BL
2	0,02	±0,010	black ⚫		3 510 202	3 510 202 BL
2	0,1	±0,010	green 🟢		3 510 210	3 510 210 BL
5	0,05	±0,030	red 🔴		3 510 505	3 510 505 BL
5	0,1	±0,030	blue 🔵		3 510 510	3 510 510 BL
10	0,1	±0,050	orange 🟠		3 510 710	3 510 710 BL
20	0,1	±0,100	yellow x2 🟡		3 510 810	3 510 810 BL
25	0,1	±0,100	white ⚪		3 510 910	3 510 910 BL
50*	0,2	±0,200	black ⚫		3 510 950	3 510 950 BL

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

Graduated pipettes

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 standard
- calibrated to deliver (EX)
- without waiting time
- standard and special sizes available

made
in
Germany

Capacity	Division	Tolerance	Color-Code		Order number	
ml	ml	ml			white graduated	brown graduated
0,1	0,01	±0,010	white ○		3 500 011 W	3 500 011
0,2	0,01	±0,010	black ●		3 500 021 W	3 500 021
0,2*	0,002	±0,010	white x2 ○		3 500 022 W	3 500 022
0,5	0,01	±0,010	yellow x2 ●		3 500 051 W	3 500 051
1	0,01	±0,010	yellow ●		3 500 101 W	3 500 101
1	0,1	±0,010	red ●		3 500 110 W	3 500 110
2*	0,01	±0,015	white x2 ○		3 500 201 W	3 500 201
2	0,02	±0,015	black ●		3 500 202 W	3 500 202
2	0,1	±0,015	green ●		3 500 210 W	3 500 210
5	0,05	±0,040	red ●		3 500 505 W	3 500 505
5	0,1	±0,040	blue ●		3 500 510 W	3 500 510
10	0,1	±0,080	orange ●		3 500 710 W	3 500 710
20	0,1	±0,150	yellow x2 ●		3 500 810 W	3 500 810
25	0,1	±0,200	white ○		3 500 910 W	3 500 910
50*	0,2	±0,400	black ●		3 500 950 W	3 500 950

* special size in addition to the ISO 835 range

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, valid from January 2015

- calibrated to deliver (EX), 5 sec waiting time

- inclusive batch certificate

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in
Germany

Capacity	Division	Tolerance	Color-Code		Order number
ml	ml	USP ml			brown graduated
1	0,01	±0,01	yellow ●		3 510 101 USP
2	0,02	±0,01	black ●		3 510 202 USP
5	0,05	±0,02	red ●		3 510 505 USP
10	0,1	±0,03	orange ●		3 510 710 USP

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, valid from January 2015
- calibrated to deliver (EX), 5 sec waiting time
- standard and special sizes available
- inclusive batch certificate

made in Germany

Capacity	Tolerance	Color-Code		Order number	
ml	ml			brown graduated	blue graduated
0,5	±0,005	black x2 ●		3 535 005	3 535 005 BL
1	±0,008	blue ●		3 535 010	3 535 010 BL
2	±0,010	orange ●		3 535 020	3 535 020 BL
5	±0,015	white ○		3 535 050	3 535 050 BL
10	±0,020	red ●		3 535 100	3 535 100 BL
20	±0,030	yellow ●		3 535 200	3 535 200 BL
25	±0,030	blue ●		3 535 250	3 535 250 BL
50	±0,050	red ●		3 535 500	3 535 500 BL
100	±0,080	yellow ●		3 535 900	3 535 900 BL

Class AS

- special size volumetric pipettes from 3 ml up to 250 ml
- tolerances on the basis of DIN EN ISO 648
- inclusive batch certificate

made in Germany

Capacity	Tolerance	Color-Code		Order number	
ml	ml			brown graduated	blue graduated
3	±0,010	black ●		3 535 030	3 535 030 BL
3,5	±0,010	-		3 535 035	3 535 035 BL
4	±0,015	red x2 ●		3 535 040	3 535 040 BL
4,5	±0,015	-		3 535 045	3 535 045 BL
5,5	±0,015	-		3 535 055	3 535 055 BL
5,85	±0,015	-		3 535 0585	3 535 0585 BL
6	±0,015	orange x2 ●		3 535 060	3 535 060 BL
7	±0,015	green x2 ●		3 535 070	3 535 070 BL
7,5	±0,015	-		3 535 075	3 535 075 BL
8	±0,020	blue ●		3 535 080	3 535 080 BL
9	±0,020	black ●		3 535 090	3 535 090 BL
11	±0,020	-		3 535 110	3 535 110 BL
12	±0,020	-		3 535 120	3 535 120 BL
12,5	±0,020	-		3 535 125	3 535 125 BL
13	±0,020	-		3 535 130	3 535 130 BL
14	±0,020	-		3 535 140	3 535 140 BL
15	±0,030	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	±0,080	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
- calibrated to deliver (EX), without waiting time
- standard and special sizes available

made in Germany

Capacity	Tolerance	Color-Code	Order number
ml	ml		brown graduated
0,5	±0,010	black x2 ●	3 530 005
1	±0,015	blue ●	3 530 010
2	±0,020	orange ●	3 530 020
3*	±0,015	black ●	3 530 030
5	±0,030	white ○	3 530 050
10	±0,040	red ●	3 530 100
15*	±0,050	green ●	3 530 150
20	±0,060	yellow ●	3 530 200
25	±0,060	blue ●	3 530 250
50	±0,100	red ●	3 530 500
100	±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, valid from January 2015
- calibrated to deliver (EX), 5 sec waiting time
- inclusive batch certificate

made in Germany

Capacity	Tolerance	Color-Code		Order number
ml	USP ml			brown graduated
0.5	±0,005	black x2	●	3 535 005 USP
1	±0,006	blue	●	3 535 010 USP
2	±0,006	orange	●	3 535 020 USP
3	±0,01	black	●	3 535 030 USP
4	±0,01	red x2	●	3 535 040 USP
5	±0,01	white	○	3 535 050 USP
6	±0,01	orange x2	●	3 535 060 USP
7	±0,01	green x2	●	3 535 070 USP
8	±0,02	blue	●	3 353 080 USP
9	±0,02	black	●	3 535 090 USP
10	±0,02	red	●	3 535 100 USP
12*	±0,03	▬		3 535 120 USP
15	±0,03	green	●	3 535 150 USP
20	±0,03	yellow	●	3 535 200 USP
25	±0,03	blue	●	3 535 250 USP
30	±0,03	black	●	3 535 300 USP
40	±0,05	white	○	3 535 400 USP
50	±0,06	red	●	3 535 500 USP
100	±0,08	yellow	●	3 535 900 USP

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

Volumetric flasks

Class A

- made of borosilicate glass 3.3
- standard clear glass, amber stain on request
- graduation: DIFFICO brown (standard), DIFFICO blue (on request)
- neck: screw thread or ground joint (with or without spout)
- also available with stopper made of PE or hollow glass
- tolerance according to DIN EN ISO 1042
- DE-M marked according to the German calibration law, valid from January 2015
- standard and special sizes available
- inclusive batch certificate

made in Germany

Standard volumetric flask with **screw threaded neck**

Capacity	Tolerance	Screw thread	Order number
ml	ml	GL	brown graduated
5	±0,025	14	3 642 000
10	±0,025	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

All volumetric flasks with ground joint neck can be ordered <u>with spout</u>.
Just add **„A"** at the end of the order number.
Example: „3 664 005 **A**" or „3 664 100 BL **A**"

All brown graduated volumetric flasks with ST-hollow glass stoppers can be ordered with <u>blue graduation</u>.
Just add **„BL"** at the end of the order number.
Example: „3 668 014 **BL**" or „3 668 500 **BL**"

Class A
Standard volumetric flask with **ground joint neck**

Capacity	Tolerance	Socket				Order number
ml	ml	ST	brown graduated	brown graduated with PE-stopper	blue graduated with PE-stopper	brown graduated with ST-hollow glass stopper
5	±0,025	7/16	3 662 000	3 664 000	3 664 000 BL	3 668 000
5	±0,040	10/19	3 662 015	3 664 015	3 664 015 BL	3 668 015
10	±0,025	7/16	3 662 001	3 664 001	3 664 001 BL	3 668 001
10	±0,040	10/19	3 662 012	3 664 012	3 664 012 BL	3 668 012
10*	±0,060	12/21	-	-	3 664 00114 BL	-
12*	±0,060	12/21	-	-	3 664 01212 BL	-
15*	±0,040	10/19	3 662 016	3 664 016	3 664 016 BL	3 668 016
20	±0,040	7/16	3 662 021	3 664 021	3 664 021 BL	3 668 021
20	±0,040	10/19	3 662 002	3 664 002	3 664 002 BL	3 668 002
20*	±0,060	12/21	3 662 013	3 664 013	3 664 013 BL	3 668 013
20*	±0,060	14/23	3 662 00214	3 664 00214	3 664 00214 BL	3 668 00214
25	±0,040	10/19	3 662 003	3 664 003	3 664 003 BL	3 668 003
25	±0,060	12/21	3 662 014	3 664 014	3 664 014 BL	3 668 014
25*	±0,060	14/23	3 662 00314	3 664 00314	3 664 00314 BL	3 668 00314
50	±0,060	12/21	3 662 005	3 664 005	3 664 005 BL	3 668 005
50	±0,100	14/23	3 662 006	3 664 006	3 664 006 BL	3 668 006
75*	±0,100	12/21	3 662 0075	3 664 0075	-	3 668 0075
100	±0,100	12/21	3 662 010	3 664 010	3 664 010 BL	3 668 010
100	±0,100	14/23	3 662 011	3 664 011	3 664 011 BL	3 668 011
100*	±0,150	19/26	3 662 135	3 664 135	-	3 668 135
150*	±0,150	14/23	3 662 150	3 664 150	-	3 668 150
192,2*	±0,150	14/23	3 662 192	3 664 192	3 664 192 BL	3 668 192
200	±0,150	14/23	3 662 020	3 664 020	3 664 020 BL	3 668 020
250	±0,150	14/23	3 662 025	3 664 025	3 664 025 BL	3 668 025
300*	±0,150	14/23	3 662 030	3 664 030	-	3 668 030
350*	±0,150	19/26	3 662 035	3 664 035	-	3 668 035
368,3*	±0,150	19/26	-	-	3 664 368 BL	-
400*	±0,250	19/26	3 662 040	3 664 040	-	3 668 040
500*	±0,250	14/23	3 662 049	3 664 049	-	3 668 049
500	±0,250	19/26	3 662 050	3 664 050	3 664 050 BL	3 668 050
600*	±0,400	24/29	3 662 060	3 664 060	-	3 668 060
800*	±0,400	24/29	3 662 080	3 664 080	-	3 668 080
900*	±0,400	24/29	3 662 090	3 664 090	-	3 668 090
1000	±0,400	24/29	3 662 100	3 664 100	3 664 100 BL	3 668 100
1000	±0,600	29/32	3 662 101	3 664 101	3 664 101 BL	3 668 101
3000*	±0,600	29/32	3 662 300	3 664 300	3 664 300 BL	3 668 300
2000	±0,800	29/32	3 662 200	3 664 200	3 664 200 BL	3 668 200
5000*	±1,200	29/32	3 662 499	3 664 499	-	3 668 499
5000	±1,200	34/35	3 662 500	3 664 500	3 664 500 BL	3 668 500

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

Volumetric flasks

Class A

Special volumetric flask with ground joint neck, **trapezodial shape**

Capacity	Tolerance	Socket	Order number	
ml	ml	ST	brown graduated	blue graduated
1	±0,025	7/16	3 669 000	3 669 000 BL
1	±0,025	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*	±0,025	10/19	-	3 669 00210 BL
4*	±0,025	7/16	3 669 0024	-
4*	±0,025	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

Class A
Special volumetric flask with ground joint neck, **amber-stained**

Capacity	Tolerance	Socket	white graduated with ST-hollow glass stopper	white graduated with PE-stopper
ml	ml	ST		Order number
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	±0,150	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

Volumetric flasks

USP

- made of borosilicate glass 3.3
- standard clear glass, amber stain by request
- also available with stopper made of PE or hollow glass
- tolerance according to ASTM E 288
- produced according to DIN EN ISO 1042
- DE-M marked according to the German calibration law, valid from January 2015
- inclusive batch certificate

made in Germany

Capacity	Tolerance	Socket	Order number	
ml	USP ml	ST	brown graduated with PE-stopper	brown graduated with ST-hollow glass stopper
5	±0,02	10/19	3 664 015 USP	3 668 015 USP
10	±0,02	10/19	3 664 012 USP	3 668 012 USP
20*	±0,02	10/19	3 664 002 USP	3 668 002 USP
25	±0,03	10/19	3 664 003 USP	3 668 003 USP
25	±0,03	12/21	3 664 014 USP	3 668 014 USP
50	±0,05	12/21	3 664 005 USP	3 668 005 USP
100	±0,08	12/21	3 664 010 USP	3 668 010 USP
200	±0,10	14/23	3 664 020 USP	3 668 020 USP
250	±0,12	14/23	3 664 025 USP	3 668 025 USP
500	±0,20	19/26	3 664 050 USP	3 668 050 USP
1000	±0,30	24/29	3 664 100 USP	3 668 100 USP
2000	±0,50	29/32	3 664 200 USP	3 668 200 USP

* special size in addition to the ASTM E 288 range

amber stained version with white graduation on request

USP

Capacity	Tolerance	Socket			Order number
ml	USP ml	ST	amber stained white graduated without stopper	amber stained white graduated with PE-stopper	amber stained white graduated with ST-hollow glass stopper
5	±0,02	10/19	3 670 015 OS USP	3 670 015 P USP	3 670 015 USP
10	±0,02	10/19	3 670 012 OS USP	3 670 012 P USP	3 670 012 USP
20*	±0,02	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 (acc. to Kohlrausch)

- blue ring mark and inscription
- borosilicate glass 3.3

made in Germany

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

made in Germany

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

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

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

made in Germany

| Capacity	suitable for instruments of			Order number
ml	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
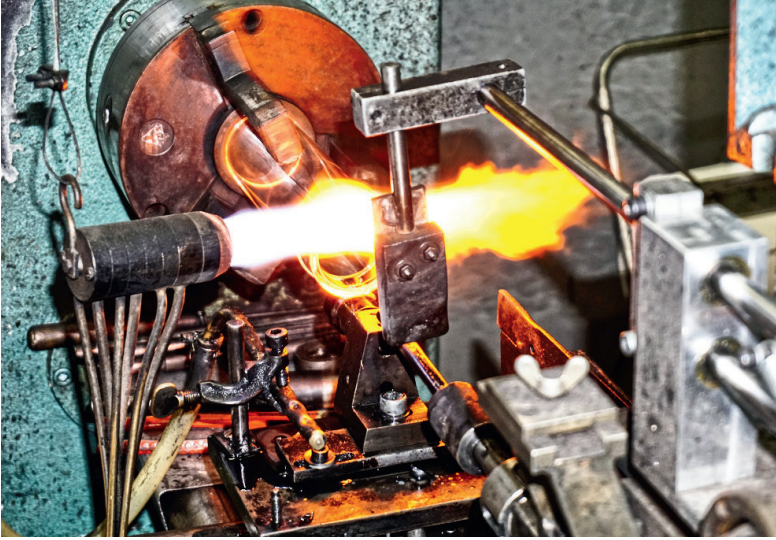
Glass blowing

Glass blowing department

Adjustment department
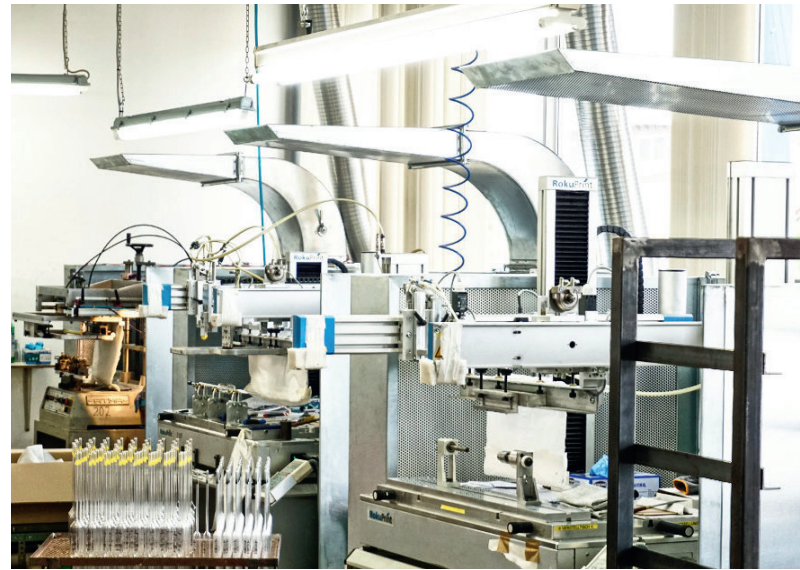
Printing department

Liquid Handling department

Stock and Dispatch department

Graduated cylinder

- made of borosilicate glass 3.3
- tall form (standard) or low form available
- standard with spout, also available with screw threaded neck or PE-stopper
- graduation: DIFFICO brown (standard), DIFFICO blue on request
- neck: with spout, screw thread or ground joint
- tolerance according to DIN EN ISO 4788
- DE-M marked according to the German calibration law, valid from January 2015
- inclusive batch certificate (only class A)

made in Germany

Class A

Capacity	Division	Tolerance		Order number	Socket		Order number
ml	ml	ml	brown graduated with spout	blue graduated with spout	ST	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

Class B
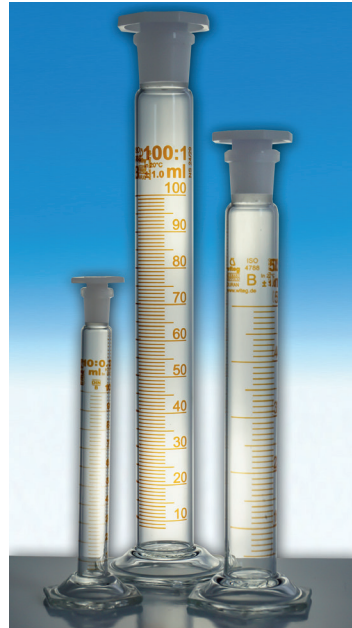
Capacity	Division	Tolerance	Order number		Socket	Order number	
ml	ml	ml	brown graduated with spout	blue graduated with spout	ST	brown graduated with PE-stopper	blue graduated with PE-stopper
5	0,1	±0,1	3 705 000	3 705 000 BL	10/19	3 752 000	3 752 000 BL
10	0,2	±0,2	3 705 001	3 705 001 BL	10/19	3 752 001	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

low form according to DIN EN ISO 4788

Capacity	Division	Tolerance	Order number
ml	ml	ml	low form with spout
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
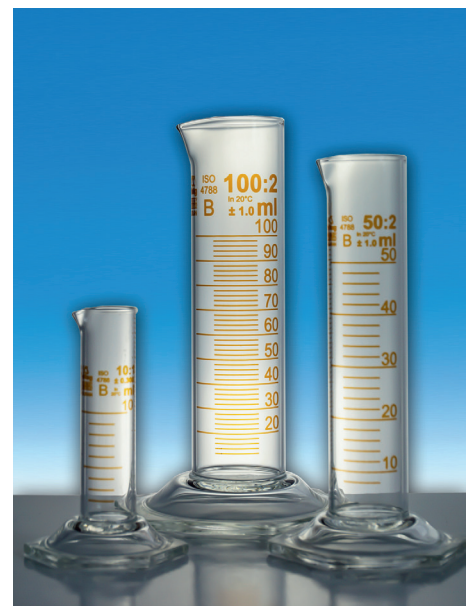
Graduated cylinder

Class B

Graduated cylinder with **plastic base**

Capacity	Division	Tolerance	with spout plastic base protection collar	ground joint neck plastic base PE-stopper
ml	**ml**	**ml**	**Order number**	**Order number**
5	0,1	±0,10	3 700 000	
10	0,2	±0,20	3 700 001	3 750 001
25	0,5	±0,50	3 700 003	3 750 003
50	1,0	±1,00	3 700 005	3 750 005
100	1,0	±1,00	3 700 010	3 750 010
250	2,0	±2,00	3 700 025	3 750 025
500	5,0	±5,00	3 700 050	3 750 050
1000	10,0	±10,00	3 700 100	3 750 100
2000	20,0	±20,00	3 700 200	3 750 200

Replacement hexagonal base made of PP

For capacity	Order number
ml	
5	3 701 000
10	3 701 001
25	3 701 003
50	3 701 005
100	3 701 010
250	3 701 025
500	3 701 050
1000	3 701 100

Replacement protection collar made of PP

For capacity	Order number
ml	
5	3 702 000
10	3 702 001
25	3 702 003
50	3 702 005
100	3 702 010
250	3 702 025
500	3 702 050
1000	3 702 100

Graduated cylinder with **thread and screw cap**

Capacity	Division	Tolerance	Thread	Order number
ml	ml	ml	GL	threaded with screw cap
10	1,0	± 0,2	14	3 751 001
25	1,0	± 0,5	18	3 751 003
50	2,0	± 1,00	25	3 751 005
100	2,0	± 1,00	32	3 751 010
250	5,0	± 2,00	45	3 751 025
500	10,0	± 5,00	45	3 751 050
1000	20,0	± 10,00	45	3 751 100
2000	50,0	± 20,00	45	3 751 200

USP
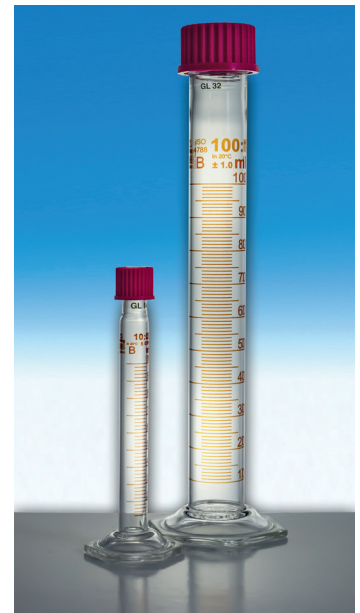
- made of borosilicate glass 3.3
- tall form (standard)
- standard with spout
- graduation: DIFFICO brown (standard)
- tolerance according to ASTM E 1272
- produced according to DIN EN ISO 4788
- DE-M marked according to the German calibration law, valid from January 2015
- inclusive batch certificate

made in Germany

Capacity	Division	Tolerance		brown graduated with spout
ml	ml	USP ml		
5	0,1	±0,05		3 715 000 USP
10	0,2	±0,10		3 715 001 USP
25	0,5	±0,17		3 715 003 USP
50	1,0	±0,25		3 715 005 USP
100	1,0	±0,50		3 715 010 USP
250	2,0	±1,00		3 715 025 USP
500	5,0	±2,00		3 715 050 USP
1000	10,0	±3,00		3 715 100 USP
2000	20,0	±6,00		3 715 200 USP

Accessories

Stoppers

ST-PE stopper

▪ DIN 12254
▪ octagonal plate

For socket	Order number
ST	
7/16	0 306 007
10/19	0 306 010
12/21	0 306 012
14/23	0 306 014
19/26	0 306 019
24/29	0 306 024
29/32	0 306 029
34/35	0 306 034
45/40	0 306 045

ST-hollow glass stopper

▪ DIN 12252
▪ borosilicate glass 3.3
▪ octagonal plate

For socket	Order number
ST	
7/16	0 302 007
10/19	0 302 010
12/21	0 302 012
14/23	0 302 014
19/26	0 302 019
24/29	0 302 024
29/32	0 302 029
34/35	0 302 034
45/40	0 302 045
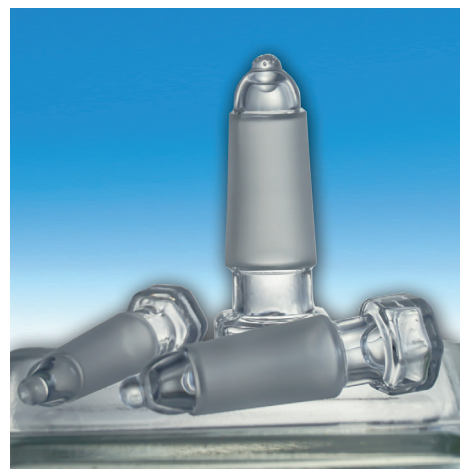
ST-hollow glass stopper - amber stained

▪ DIN 12252
▪ borosilicate glass 3.3
▪ octagonal plate

For socket	Order number
ST	
7/16	0 303 007
10/19	0 303 010
12/21	0 303 012
14/23	0 303 014
19/26	0 303 019
24/29	0 303 024
29/32	0 303 029
34/35	0 303 034
45/40	0 303 045

Clips

Schellbach clip

- white with blue line
- for all measuring instruments

Clip Ø	Length	For tube Ø		Order number
mm	mm	mm		
4,0	36	4,2 - 5,5		3 690 001
6,0	36	6,1 - 7,5		3 690 002
9,8	36	10,0 - 13,3		3 690 003
13,5	36	13,8 - 17,0		3 690 004
18,4	36	18,5 - 22,0		3 690 005
24,8	36	25,0 - 29,5		3 690 006
32,5	36	33,0 - 42,0		3 690 007

Contrast clip

- black mark
- for all measuring instruments

Clip Ø	Length	For tube Ø		Order number
mm	mm	mm		
4,0	36	4,2 - 5,5		3 691 001
6,0	36	6,1 - 7,5		3 691 002
9,8	36	10,0 - 13,3		3 691 003
13,5	36	13,8 - 17,0		3 691 004
18,4	36	18,5 - 22,0		3 691 005
24,8	36	25,0 - 29,5		3 691 006
32,5	36	33,0 - 42,0		3 691 007

Pipette stand

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.

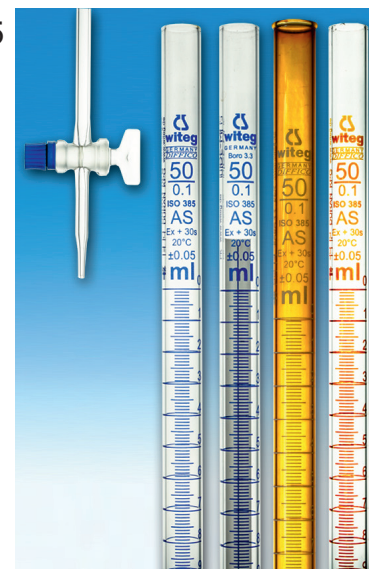| Order number |
|---|
| 7 081 001 |

Burettes

Class AS - <u>straight</u> stopcocks

- main point ring graduation
- DIN EN ISO 385
- DE-M marked according to the German calibration law, valid from January 2015
- made of borosilicate glass 3.3
- inclusive batch certificate

- with **solid ST-glass plug**

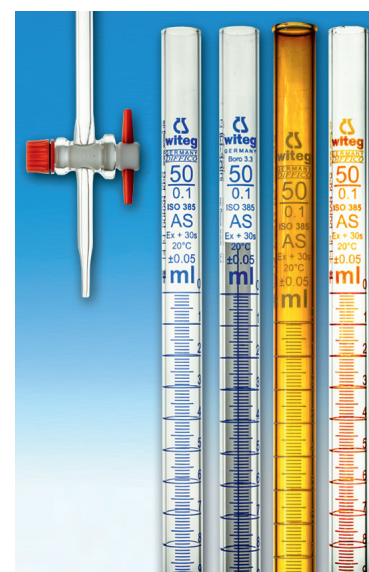| Capacity	Division	Tolerance	Order number		
ml	ml	ml	blue graduation	blue graduation Schellbach blue line	amber glass white graduation
5	0,02	±0,01	3 010 052	3 012 052	3 014 052
10	0,02	±0,02	3 010 102	3 012 102	3 014 102
25	0,05	±0,03	3 010 252	3 012 252	3 014 252
50	0,1	±0,05	3 010 502	3 012 502	3 014 502
100	0,2	±0,1	3 010 902	3 012 902	3 014 902

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

- with **ST-PTFE plug**

| Capacity	Division	Tolerance	Order number		
ml	ml	ml	blue graduation	blue graduation Schellbach blue line	amber glass white graduation
5	0,02	±0,01	3 010 053	3 012 053	3 014 053
10	0,02	±0,02	3 010 103	3 012 103	3 014 103
25	0,05	±0,03	3 010 253	3 012 253	3 014 253
50	0,1	±0,05	3 010 503	3 012 503	3 014 503
100	0,2	±0,1	3 010 903	3 012 903	3 014 903

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

- with **PTFE needle valve**

Capacity	Division	Tolerance	Order number		
ml	ml	ml	blue graduation	blue graduation Schellbach blue line	amber glass white graduation
5	0,02	±0,01	3 020 057	3 022 057	3 024 057
10	0,02	±0,02	3 020 107	3 022 107	3 024 107
25	0,05	±0,03	3 020 257	3 022 257	3 024 257
50	0,1	±0,05	3 020 507	3 022 507	3 024 507
100	0,2	±0,1	3 020 907	3 022 907	3 024 907

for brown graduation add „B" behind the order number (not available for amber glass)
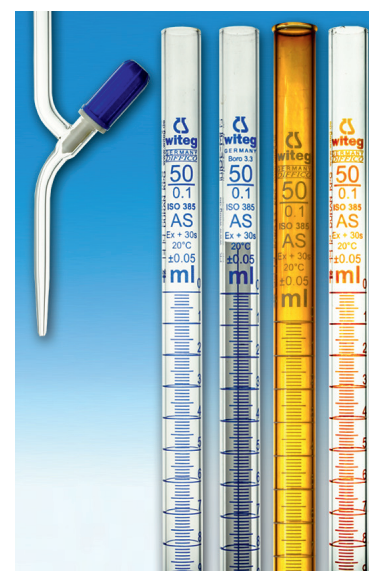
Class AS - <u>lateral</u> stopcocks

- main point ring graduation
- DIN EN ISO 385
- DE-M marked according to the German calibration law, valid from January 2015
- made of borosilicate glass 3.3
- inclusive batch certificate

- with **solid ST-glass plug**

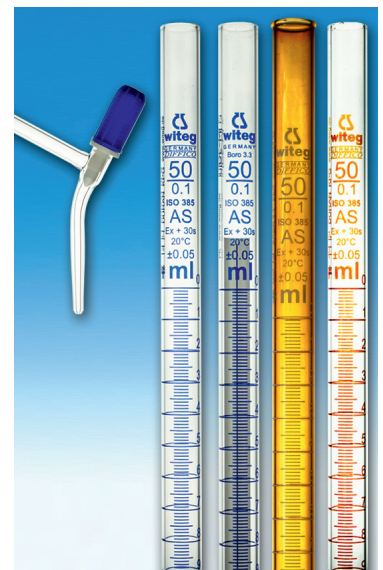| Capacity	Division	Tolerance	Order number		
ml	ml	ml	blue graduation	blue graduation Schellbach blue line	amber glass white graduation
5	0,02	±0,01	3 010 054	3 012 054	3 014 054
10	0,02	±0,02	3 010 104	3 012 104	3 014 104
25	0,05	±0,03	3 010 254	3 012 254	3 014 254
50	0,1	±0,05	3 010 504	3 012 504	3 014 504
100	0,2	±0,1	3 010 904	3 012 904	3 014 904

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

- with **PTFE needle valve**

Capacity	Division	Tolerance	Order number		
ml	ml	ml	blue graduation	blue graduation Schellbach blue line	amber glass white graduation
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)

Burettes

Class B - <u>straight</u> stopcocks

▪ short line graduation
▪ DIN EN ISO 385
▪ made of borosilicate glass 3.3

▪ with **solid ST-glass plug**

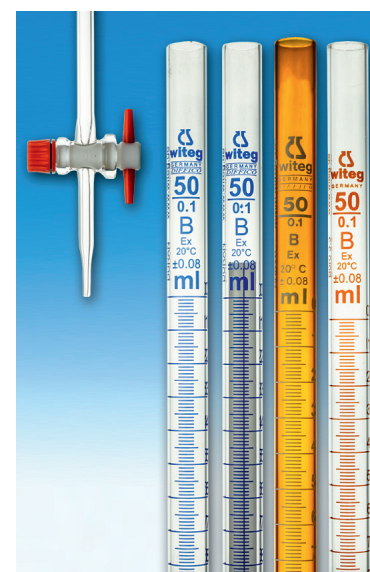| Capacity	Division	Tolerance			Order number
ml	ml	ml	blue graduation	blue graduation Schellbach blue line	amber glass white graduation
5	0,02	±0,02	3 000 052	3 002 052	3 004 052
10	0,02	±0,03	3 000 102	3 002 102	3 004 102
25	0,05	±0,04	3 000 252	3 002 252	3 004 252
50	0,1	±0,08	3 000 502	3 002 502	3 004 502
100	0,2	±0,2	3 000 902	3 002 902	3 004 902

for brown graduation add „B" behind the order number (not available for amber glass)
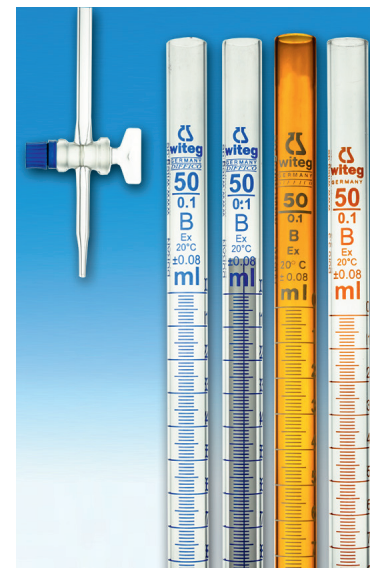
▪ with **ST-PTFE plug**

Capacity	Division	Tolerance			Order number
ml	ml	ml	blue graduation	blue graduation Schellbach blue line	amber glass white graduation
5	0,02	±0,02	3 000 053	3 002 053	3 004 053
10	0,02	±0,03	3 000 103	3 002 103	3 004 103
25	0,05	±0,04	3 000 253	3 002 253	3 004 253
50	0,1	±0,08	3 000 503	3 002 503	3 004 503
100	0,2	±0,2	3 000 903	3 002 903	3 004 903

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

▪ with **PTFE needle valve**

Capacity	Division	Tolerance			Order number
ml	ml	ml	blue graduation	blue graduation Schellbach blue line	amber glass white graduation
5	0,02	±0,02	3 000 057	3 002 057	3 004 057
10	0,02	±0,03	3 000 107	3 002 107	3 004 107
25	0,05	±0,04	3 000 257	3 002 257	3 004 257
50	0,1	±0,08	3 000 507	3 002 507	3 004 507
100	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)
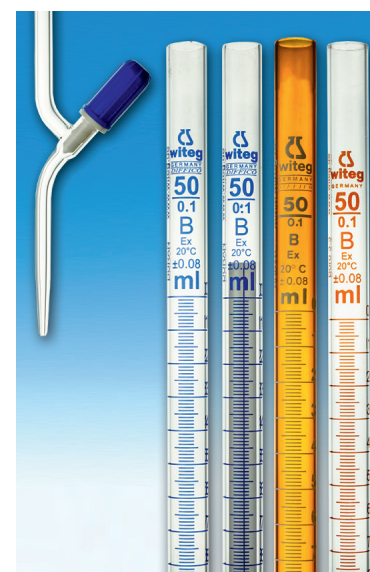
Class B - <u>lateral</u> stopcocks

- short line graduation
- DIN EN ISO 385
- made of borosilicate glass 3.3

made in Germany

- with **solid ST-glass plug**

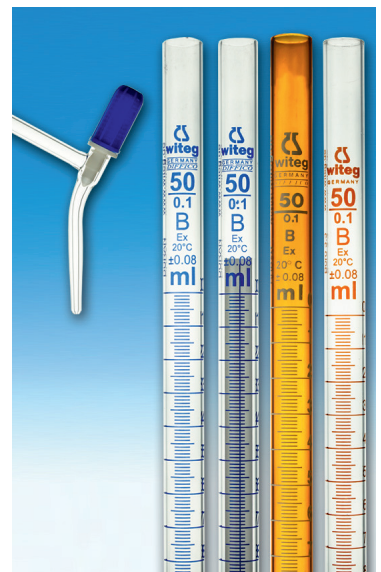| Capacity	Division	Tolerance	Order number		
ml	ml	ml	blue graduation	blue graduation Schellbach blue line	amber glass white graduation
5	0,02	±0,02	3 000 054	3 002 054	3 004 054
10	0,02	±0,03	3 000 104	3 002 104	3 004 104
25	0,05	±0,04	3 000 254	3 002 254	3 004 254
50	0,1	±0,08	3 000 504	3 002 504	3 004 504
100	0,2	±0,2	3 000 904	3 002 904	3 004 904

for brown graduation add „B" behind the order number (not available for amber glass)
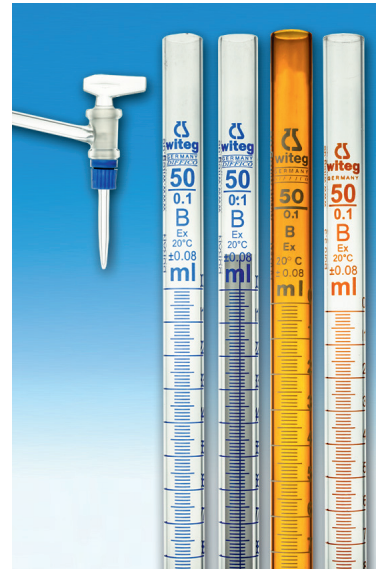
- with **PTFE needle valve**

| Capacity	Division	Tolerance	Order number		
ml	ml	ml	blue graduation	blue graduation Schellbach blue line	amber glass white graduation
5	0,02	±0,02	3 000 055	3 002 055	3 004 055
10	0,02	±0,03	3 000 105	3 002 105	3 004 105
25	0,05	±0,04	3 000 255	3 002 255	3 004 255
50	0,1	±0,08	3 000 505	3 002 505	3 004 505
100	0,2	±0,2	3 000 905	3 002 905	3 004 905

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

- **ST-glass plug**
- with **two-way stopcock**

Capacity	Division	Tolerance	Order number		
ml	ml	ml	blue graduation	blue graduation Schellbach blue line	amber glass white graduation
5	0,02	±0,02	3 000 056	3 002 056	3 004 056
10	0,02	±0,03	3 000 106	3 002 106	3 004 106
25	0,05	±0,04	3 000 256	3 002 256	3 004 256
50	0,1	±0,08	3 000 506	3 002 506	3 004 506
100	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)
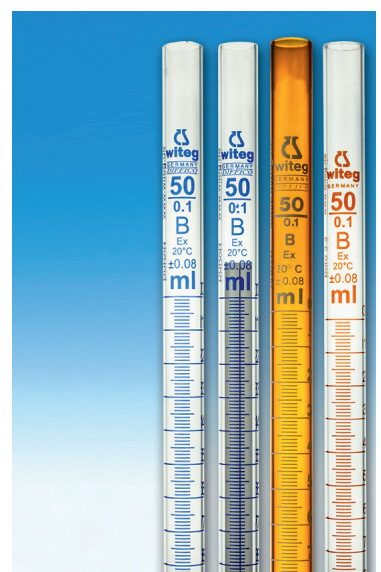
Automatic burettes Pellet

Class AS - <u>with</u> intermediate stopcock

- main point ring graduation
- DIN EN ISO 385
- DE-M marked according to the German calibration law, valid from January 2015
- lateral stopcock
- made of borosilicate glass 3.3
- inclusive batch certificate
- 2L reservoir bottle

made in Germany

- **intermediate stopcock with ST-glass plug**
- **lateral stopcock with solid ST-glass plug**

Capacity	Division	Tolerance	Order number	
ml	ml	ml	blue graduation Schellbach blue line	amber glass white graduation
10	0,02	±0,02	3 122 106	3 124 106
25	0,05	±0,03	3 122 256	3 124 256
50	0,1	±0,05	3 122 506	3 124 506

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

- **intermediate stopcock with ST-glass plug**
- **lateral stopcock with PTFE needle valve**

Capacity	Division	Tolerance	Order number	
ml	ml	ml	blue graduation Schellbach blue line	amber glass white graduation
10	0,02	±0,02	3 122 107	3 124 107
25	0,05	±0,03	3 122 257	3 124 257
50	0,1	±0,05	3 122 507	3 124 507

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

- **intermediate stopcock with ST-PTFE plug**
- **lateral stopcock with PTFE needle valve**

Capacity	Division	Tolerance	Order number	
ml	ml	ml	blue graduation Schellbach blue line	amber glass white graduation
10	0,02	±0,02	3 122 108	3 124 108
25	0,05	±0,03	3 122 258	3 124 258
50	0,1	±0,05	3 122 508	3 124 508

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

Class AS - <u>without</u> intermediate stopcock

- ▪ main point ring graduation
- ▪ DIN EN ISO 385
- ▪ DE-M marked according to the German calibration law, valid from January 2015
- ▪ lateral stopcock
- ▪ made of borosilicate glass 3.3
- ▪ inclusive batch certificate
- ▪ 2L reservoir bottle

▪ **lateral stopcock with solid ST-glass plug**

Capacity	Division	Tolerance	Order number	
ml	ml	ml	blue graduation Schellbach blue line	amber glass white graduation
10	0,02	±0,02	3 122 104	3 124 104
25	0,05	±0,03	3 122 254	3 124 254
50	0,1	±0,05	3 122 504	3 124 504

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

▪ **lateral stopcock with PTFE needle valve**

Capacity	Division	Tolerance	Order number	
ml	ml	ml	blue graduation Schellbach blue line	amber glass white graduation
10	0,02	±0,02	3 122 105	3 124 105
25	0,05	±0,03	3 122 255	3 124 255
50	0,1	±0,05	3 122 505	3 124 505

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

**all Automatic burettes Pellet are available
with amber glass and white graduation.**

Automatic burettes Pellet

Class B - <u>with</u> intermediate stopcock

- short line graduation
- DIN EN ISO 385
- lateral stopcock
- made of borosilicate glass 3.3
- inclusive 2L reservoir bottle

made in Germany

- **intermediate stopcock with ST-glass plug**
- **lateral stopcock with solid ST-glass plug**

Capacity	Division	Tolerance	Order number	
ml	ml	ml	blue graduation Schellbach blue line	amber glass white graduation
10	0,02	±0,03	3 102 106	3 104 106
25	0,05	±0,05	3 102 256	3 104 256
50	0,1	±0,08	3 102 506	3 104 506
100	0,2	±0,2	3 102 906	3 104 906

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

- **intermediate stopcock with ST-glass plug**
- **lateral stopcock with PTFE needle valve**

Capacity	Division	Tolerance	Order number	
ml	ml	ml	blue graduation Schellbach blue line	amber glass white graduation
10	0,02	±0,03	3 102 107	3 104 107
25	0,05	±0,05	3 102 257	3 104 257
50	0,1	±0,08	3 102 507	3 104 507
100	0,2	±0,2	3 102 907	3 104 907

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

- **intermediate stopcock with ST-PTFE plug**
- **lateral stopcock with PTFE needle valve**

Capacity	Division	Tolerance	Order number	
ml	ml	ml	blue graduation Schellbach blue line	amber glass white graduation
10	0,02	±0,03	3 102 108	3 104 108
25	0,05	±0,05	3 102 258	3 104 258
50	0,1	±0,08	3 102 508	3 104 508
100	0,2	±0,2	3 102 908	3 104 908

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

Class B - <u>without</u> intermediate stopcock

- short line graduation
- DIN EN ISO 385
- lateral stopcock
- made of borosilicate glass 3.3
- inclusive 2L reservoir bottle

made
in
Germany

- **lateral stopcock with solid ST-glass plug**

Capacity	Division	Tolerance	Order number	
ml	ml	ml	blue graduation Schellbach blue line	amber glass white graduation
10	0,02	±0,03	3 102 104	3 104 104
25	0,05	±0,04	3 102 254	3 104 254
50	0,1	±0,08	3 102 504	3 104 504
100	0,2	±0,2	3 102 904	3 104 904

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

- **lateral stopcock with PTFE needle valve**

Capacity	Division	Tolerance	Order number	
ml	ml	ml	blue graduation Schellbach blue line	amber glass white graduation
10	0,02	±0,03	3 102 105	3 104 105
25	0,05	±0,04	3 102 255	3 104 255
50	0,1	±0,08	3 102 505	3 104 505
100	0,2	±0,2	3 102 905	3 104 905

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

Automatic burette Schilling

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

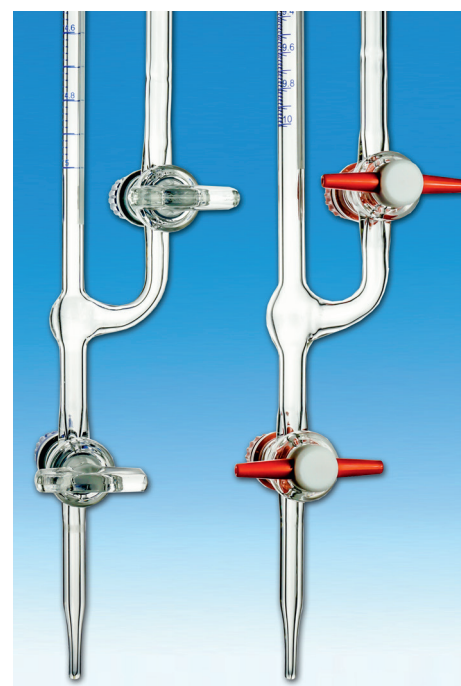| Capacity	Division	Tolerance	Order number	
ml	ml	ml	blue graduation	amber stained white graduation
5	0,02	±0,04	3 312 005	3 312 005 BR
10	0,05	±0,05	3 312 010	3 312 010 BR
15	0,1	±0,1	3 312 015	3 312 015 BR
25	0,1	±0,1	3 312 025	3 312 025 BR
50	0,1	±0,1	3 312 050	3 312 050 BR

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, valid from January 2015
- inclusive batch certificate
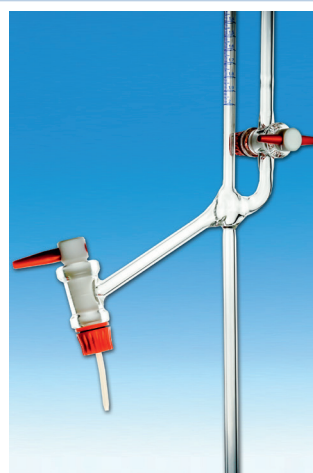- made of borosilicate glass 3.3

- **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	3 383 023	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

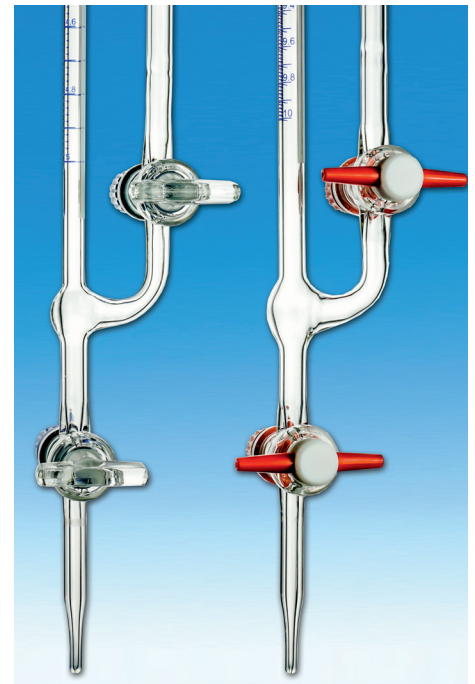## Class B

- short line graduation
- blue graduation
- with Schellbach blue line
- DIN EN ISO 385
- made of borosilicate glass 3.3

made in Germany

- **two straight stopcocks**

Capacity	Division	Tolerance	Order number	
ml	ml	ml	ST-glass plugs	ST-PTFE plugs
1	0,01	±0,01	3 352 012	3 352 013
2	0,01	±0,02	3 352 022	3 352 023
5	0,02	±0,02	3 352 052	3 352 053
10	0,02	±0,03	3 352 102	3 352 103

- **one lateral stopcock, one straight stopcock**

Capacity	Division	Tolerance	Order number	
ml	ml	ml	ST-glass plugs	ST-PTFE plugs
1	0,01	±0,01	3 363 012	-
2	0,01	±0,02	3 363 022	3 363 023
5	0,02	±0,02	3 363 052	3 363 053
10	0,02	±0,03	3 363 102	3 363 103

Liquid Handling Catalog

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