

CATALOGUE

2015

LIQUID HANDLING PRODUCTS



ahn

biotechnologie GmbH

a division of **Harvard Bioscience, Inc.**

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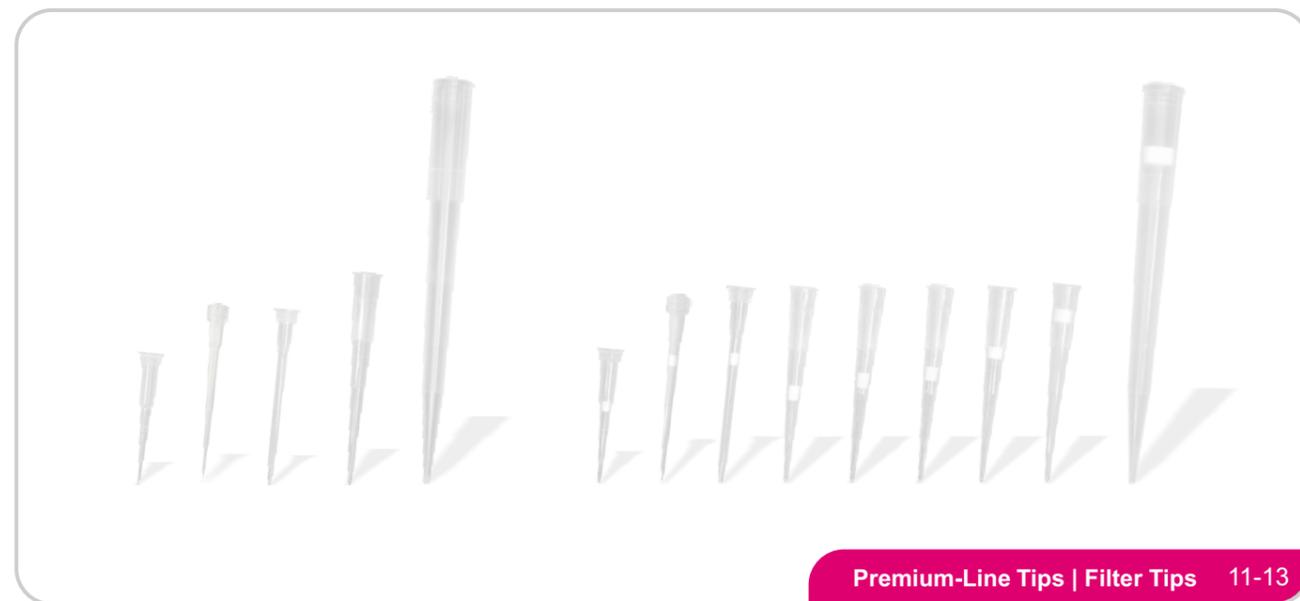
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First Edition, 2015

TIPS | FILTER TIPS



Top-Line Tips

Innovation for Science

Features



metal-free



- Secure fit and simple ejection of tip**
 Optimized cone geometry with wide sealing zone
- Quick and simple volume check**
 Graduation marks on tip
- Precise pipetting without loss of sample**
 Conical tip outlet prevents drop formation at the outlet opening of tip
- Elimination of risk of sample contamination**
 Tips manufactured from autoclavable, non-wettable, virgin polypropylene
- Maintain sample integrity**
 Available as sterilized version (by beta irradiation)
- Available in bags or rackboxes**



AHN Rackbox-System

Specifications Top-Line and Macro-Line Tips: according to

General requirements
CE-marking certificate

Sterility certificate
RoHS Compliance certificate
Environmental Management certificate
USP-Plastic Test, Class VI, certificate
Conformity testing certificate
GMP/GLP certificate

ISO Standard 8655
EU-Directive 98/79/EG, competent authority code DE/CA90
EN 552/ISO 11137 and DIN EN 556
EU Directive 2002/95/EC
ISO Standard 14000 and ISO Standard 14001
ISO Standard 10993
DIN Standard 12600
WHO Technical Report Series 908, 37. Report, Geneva2003

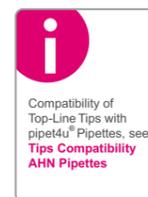


Top-Line Tips

Innovation for Science

Specifications | Order Information

Tip	Tip Length	Cat. No.	Pack Type	Sterilized	Sales Unit
 0.1-10 µl, clear Top-Line Tip	34.1 mm	1-000-60-0	Bag		2x1000
		1-000-81-0	Bag		20x1000
		1-000-96-0	96-Rack		10x96
		1-001-60-0	Bag	■	2x1000
		1-001-96-0	96-Rack	■	10x96
 0.1-10 µl XL, clear Top-Line Tip	45.2 mm	1-060-60-0	Bag		2x1000
		1-060-81-0	Bag		20x1000
		1-060-96-0	96-Rack		10x96
		1-061-60-0	Bag	■	2x1000
		1-061-96-0	96-Rack	■	10x96
 0.5-10/20 µl, clear Top-Line Tip	45.7 mm	1-050-60-0	Bag		2x1000
		1-050-81-0	Bag		20x1000
		1-050-96-0	96-Rack		10x96
		1-051-60-0	Bag	■	2x1000
		1-051-96-0	96-Rack	■	10x96
1-052-96-0***	96-Rack	■	10x96		
 1-200 µl, clear Top-Line Tip	50.8 mm	1-110-60-0	Bag		2x1000
		1-110-81-0	Bag		35x1000
		1-110-96-0	96-Rack		10x96
		1-111-60-0	Bag	■	2x1000
		1-111-96-0	96-Rack	■	10x96
 1-200 µl, yellow Top-Line	50.8 mm	1-110-60-1	Bag		2x1000
		1-110-81-1	Bag		35x1000
		1-110-96-1	96-Rack		10x96
 1-200 µl, clear Top-Line Gelloader Tip	67.0 mm	1-130-50-0	Bag		1x1000
		1-130-96-0	96-Rack		10x96
		1-131-50-0	Bag	■	1x1000
		1-131-96-0	96-Rack	■	10x96
 5-300 µl, clear Top-Line Tip	55.0 mm	1-103-60-0	Bag		2x1000
		1-103-81-0	Bag		20x1000
		1-103-96-0	96-Rack		10x96
		1-104-60-0	Bag	■	2x1000
1-104-96-0	96-Rack	■	10x96		
 100-1000 µl, short, clear blue Top-Line Tip	70.1 mm	1-207-06-2	60-Rack	■	10x60
		1-207-50-2	Bag	■	1x1000
		1-209-06-2	60-Rack		10x60
		1-209-50-2	Bag		1x1000
1-209-80-2	Bag		10x1000		
 100-1000 µl, long, clear Top-Line Tip	86.0 mm	1-200-50-0	Bag		2x500
		1-200-80-0	Bag		20x500
		1-200-96-0	96-Rack		10x96
		1-201-50-0	Bag	■	2x500
1-201-96-0	96-Rack	■	10x96		
 100-1000 µl, long, blue Top-Line	86.0 mm	1-200-50-2	Bag		2x500
		1-200-80-2	Bag		20x500
		1-200-96-2	96-Rack		10x96



metal-free

autoclavable
121° C | 20 min



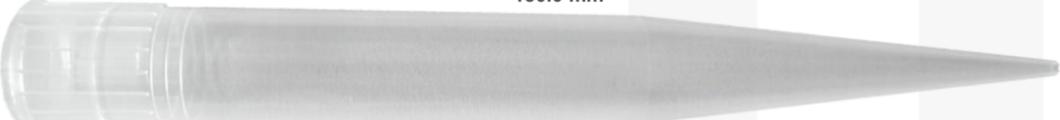
Tips Specifications | Order Information

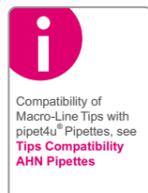
Information correct at time of printing.
*** different tip design.

Macro-Line Tips

Innovation for Science

Specifications | Order Information

Tip	Tip Length	Cat. No.	Pack Type	Sterilized	Sales Unit
	126.0 mm	1-211-84-0 1-215-84-0	Bag Bag	■	8x250 8x250
	126.0 mm	1-210-84-0 1-214-84-0	Bag Bag	■	8x250 8x250
	147.5 mm	1-212-84-0 1-216-84-0	Bag Bag	■	8x250 8x250
	150.0 mm	1-213-50-0 1-217-50-0	Bag Bag	■	10x100 10x100



Top-Line Filter Tips

Innovation for Science

Features



- Secure fit and simple ejection of tip**
 Optimized cone geometry with wide sealing zone
- Quick and simple volume check**
 Graduation marks on tip
- Precise pipetting without loss of sample**
 Conical tip outlet prevents drop formation at the outlet opening of tip
- Elimination of risk of sample contamination**
 Tips manufactured from autoclavable, non-wettable, virgin polypropylene
- Maintain sample integrity**
 Available as sterilized version (by beta irradiation)
- Available in bags or rackboxes**



- No sample contamination from filter**
 Use of virgin high quality hydrophobic polyethylene filters without additives
- No pipette contamination**
 Restrains aerosols and liquids (vaporous, radioactive, biohazardous or corrosive samples) through micropore filter technology (MPS technology, filter pore size 8-10 µm)



- Specifications Top-Line Filter Tips:**
 according to
- General requirements
 - CE-marking certificate
 - Sterility certificate
 - RoHS Compliance certificate
 - Environmental Management certificate
 - USP-Plastic Test, Class VI, certificate
 - Conformity testing certificate
 - GMP/GLP certificate

ISO Standard 8655
 EU-Directive 98/79/EG, competent authority code DE/CA90
 EN 552/ISO 11137 and DIN EN 556
 EU Directive 2002/95/EC
 ISO Standard 14000 and ISO Standard 14001
 ISO Standard 10993
 DIN Standard 12600
 WHO Technical Report Series 908, 37. Report, Geneva2003



Macro Tips Specifications | Order Information

Filter Tips Features

Information correct at time of printing.

Information correct at time of printing.

Top-Line Filter Tips

Specifications | Order Information

Innovation for Science

Filter Tip	Tip Length	Cat. No.	Pack Type	Sterilized	Sales Unit
 0.1-10 µl, clear Top-Line Filter Tip	34.1 mm	2-000-70-0	Bag		5 x 1000
		2-000-96-0	96-Rack		10 x 96
		2-001-70-0	Bag	■	5 x 1000
		2-001-96-0	96-Rack	■	10 x 96
 0.1-10 µl XL, clear Top-Line Filter Tip	45.2 mm	2-060-70-0	Bag		5 x 1000
		2-060-96-0	96-Rack		10 x 96
		2-061-70-0	Bag	■	5 x 1000
		2-061-96-0	96-Rack	■	10 x 96
 0.5-10/20 µl, cristal Top-Line Filter Tip	45.7 mm	2-050-70-0	Bag		5 x 1000
		2-050-96-0	96-Rack		10 x 96
		2-051-70-0	Bag	■	5 x 1000
		2-051-96-0	96-Rack	■	10 x 96
		2-052-70-0**	Bag	■	5 x 1000
		2-052-96-0**	96-Rack	■	10 x 96
 1-20/30 µl, clear Top-Line Filter Tip	50.8 mm	2-116-70-0	Bag	■	5 x 1000
		2-116-96-0	96-Rack	■	10 x 96
		2-126-70-0	Bag		5 x 1000
		2-126-96-0	96-Rack		10 x 96
 1-50 µl, clear Top-Line Filter Tip	50.8 mm	2-111-70-0	Bag	■	5 x 1000
		2-111-96-0	96-Rack	■	10 x 96
		2-121-70-0	Bag		5 x 1000
		2-121-96-0	96-Rack		10 x 96
 1-100 µl, clear Top-Line Filter Tip	50.8 mm	2-112-70-0	Bag	■	5 x 1000
		2-112-96-0	96-Rack	■	10 x 96
		2-122-70-0	Bag		5 x 1000
		2-122-96-0	96-Rack		10 x 96
 1-200 µl, clear Top-Line Filter Tip	50.8 mm	2-113-70-0	Bag	■	5 x 1000
		2-113-96-0	96-Rack	■	10 x 96
		2-123-70-0	Bag		5 x 1000
		2-123-96-0	96-Rack		10 x 96
 30 µl, clear Top-Line Gelloader Filter Tip	67.0 mm	2-130-96-0	96-Rack	■	10 x 96
		2-131-96-0	96-Rack		10 x 96
 100 µl, clear Top-Line Gelloader Filter Tip	67.0 mm	2-132-96-0	96-Rack	■	10 x 96
		2-133-96-0	96-Rack		10 x 96
 5-300 µl, clear Top-Line Filter Tip	55.0 mm	2-115-70-0	Bag	■	5 x 1000
		2-115-96-0	96-Rack	■	10 x 96
		2-125-70-0	Bag		5 x 1000
		2-125-96-0	96-Rack		10 x 96



Top-Line Filter Tips

Specifications | Order Information

Innovation for Science

Filter Tip	Tip Length	Cat. No.	Pack Type	Sterilized	Sales Unit
 100-1000 µl, short, clear blue Top-Line Filter Tip	70.1 mm	2-209-06-2	60-Rack	■	10 x 60
		2-209-70-2	Bag	■	10 x 500
		2-210-06-2	60-Rack		10 x 60
		2-210-70-2	Bag		10 x 500
 100-1000 µl, long, clear Top-Line Filter Tip	86.0 mm	2-201-70-0	Bag	■	10 x 500
		2-201-96-0	96-Rack	■	10 x 96
		2-211-70-0	Bag		10 x 500
		2-211-96-0	96-Rack		10 x 96



Premium-Line Tips | Filter Tips

Features

Low Retention



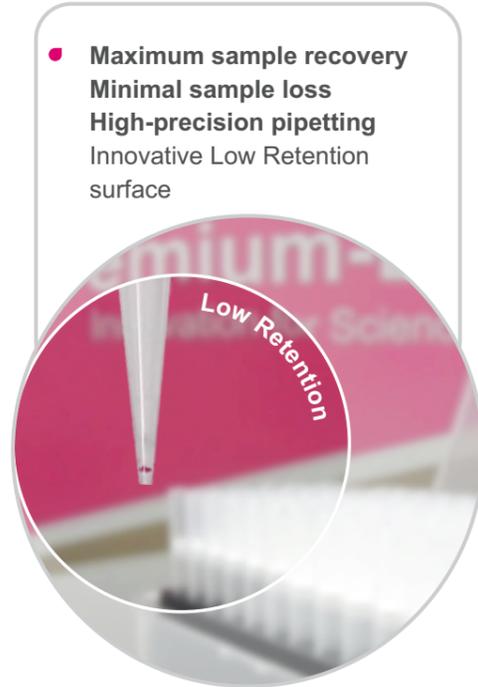
metal-free



- Secure fit and simple ejection of tip**
 Optimized cone geometry with wide sealing zone
- Quick and simple volume check**
 Graduation marks on tip
- Precise pipetting without loss of sample**
 Conical tip outlet prevents drop formation at the outlet opening of tip
- Elimination of risk of sample contamination**
 Tips manufactured from autoclavable, non-wettable, virgin polypropylene
- Maintain sample integrity**
 Available as sterilized version (by beta irradiation)
- Available in bags or rackboxes**



- No sample contamination from filter**
 Use of virgin high quality hydrophobic polyethylene filters without additives
- No pipette contamination**
 Restrains aerosols and liquids (vaporous, radioactive, biohazardous or corrosive samples) through micropore filter technology (MPS technology, filter pore size 8-10 µm)



- Maximum sample recovery**
Minimal sample loss
High-precision pipetting
 Innovative Low Retention surface

Specifications Premium-Line Tips | Filter Tips:

according to

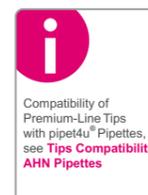
General requirements	ISO Standard 8655
CE-marking certificate	EU-Directive 98/79/EG, competent authority code DE/CA90
Sterility certificate	EN 552/ISO 11137 and DIN EN 556
RoHS Compliance certificate	EU Directive 2002/95/EC
Environmental Management certificate	ISO Standard 14000 and ISO Standard 14001
USP-Plastic Test, Class VI, certificate	ISO Standard 10993
Conformity testing certificate	DIN Standard 12600
GMP/GLP certificate	WHO Technical Report Series 908, 37. Report, Geneva2003

Premium-Line Tips

Specifications | Order Information

Low Retention

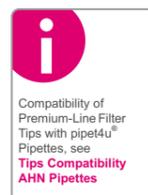
Tip	Tip Length	Cat. No.	Pack Type	Sterilized	Sales Unit
 0.1-10 µl, clear Premium-Line Tip	34.1 mm	4-000-60-0	Bag	■	2x1000
		4-000-81-0	Bag		20x1000
		4-000-96-0	96-Rack		10x96
		4-001-60-0	Bag		2x1000
		4-001-96-0	96-Rack		10x96
 0.1-10 µl XL, clear Premium-Line Tip	45.2 mm	4-060-60-0	Bag	■	2x1000
		4-060-81-0	Bag		20x1000
		4-060-96-0	96-Rack		10x96
		4-061-60-0	Bag		2x1000
4-061-96-0	96-Rack	10x96			
 0.5-10/20 µl, clear Premium-Line Tip	45.7 mm	4-050-60-0	Bag	■	2x1000
		4-050-81-0	Bag		20x1000
		4-050-96-0	96-Rack		10x96
		4-051-60-0	Bag		2x1000
4-051-96-0	96-Rack	10x96			
 1-200 µl, clear Premium-Line Tip	50.8 mm	4-110-60-0	Bag	■	2x1000
		4-110-81-0	Bag		35x1000
		4-110-96-0	96-Rack		10x96
		4-111-60-0	Bag		2x1000
4-111-96-0	96-Rack	10x96			
 100-1000 µl, long, clear Premium-Line Tip	86.0 mm	4-200-50-0	Bag	■	2x500
		4-200-80-0	Bag		20x500
		4-200-96-0	96-Rack		10x96
		4-201-50-0	Bag		2x500
		4-201-96-0	96-Rack		10x96



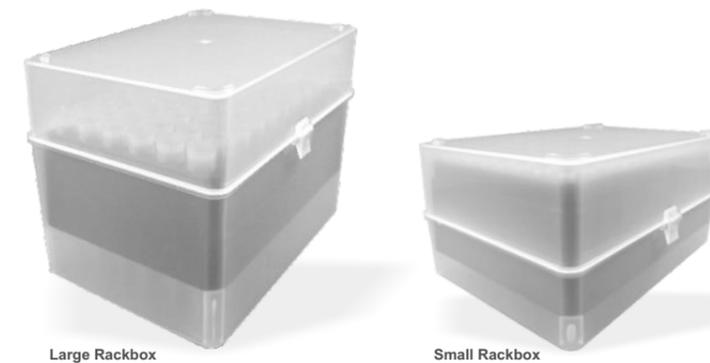
Premium-Line Filter Tips Specifications | Order Information

Low Retention

Filter Tip	Tip Length	Cat. No.	Pack Type	Sterilized	Sales Unit
 0.1-10 µl, clear Premium-Line Filter Tip	34.1 mm	5-001-70-0 5-001-96-0	Bag 96-Rack	■ ■	5 x 1000 10 x 96
 0.1-10 µl XL, clear Premium-Line Filter Tip	45.2 mm	5-061-70-0 5-061-96-0	Bag 96-Rack	■ ■	5 x 1000 10 x 96
 0.5-10/20 µl, cristal Premium-Line Filter Tip	45.7 mm	5-051-70-0 5-051-96-0	Bag 96-Rack	■ ■	5 x 1000 10 x 96
 1-20/30 µl, clear Premium-Line Filter Tip	50.8 mm	5-116-70-0 5-116-96-0	Bag 96-Rack	■ ■	5 x 1000 10 x 96
 1-50 µl, clear Premium-Line Filter Tip	50.8 mm	5-111-70-0 5-111-96-0	Bag 96-Rack	■ ■	5 x 1000 10 x 96
 1-100 µl, clear Premium-Line Filter Tip	50.8 mm	5-112-70-0 5-112-96-0	Bag 96-Rack	■ ■	5 x 1000 10 x 96
 1-200 µl, clear Premium-Line Filter Tip	50.8 mm	5-113-70-0 5-113-96-0	Bag 96-Rack	■ ■	5 x 1000 10 x 96
 100-1000 µl, long, clear Premium-Line Filter Tip	86.0 mm	5-201-70-0 5-201-96-0	Bag 96-Rack	■ ■	10 x 500 10 x 96



Rackbox-System Features | Specifications | Order Information



- **Effortless and secure working**
Easy opening and closing of rackbox with one hand
Strong rackbox closing system
Stackability of rackboxes for secure transportation and storage
- **Universal fit**
Racks are compatible with single channel and multi channel pipettes (9 mm spacing)
- **Sterile handling**
Autoclavability of rack and rackboxes
- **Rackboxes available in small and large size, Racks in 8x12 format and 6x10 format**

Rackbox	Colour	Cat. No.	Pack Type	Sterilized	Sales Unit
0.1 - 20 µl, 8x12	clear Box black Rack	4-500-00-0	Carton		1x10
200 µl, 8x12	clear Box black Rack	4-500-01-0	Carton		1x10
300 µl, 8x12	clear Box black Rack	4-501-00-0	Carton		1x10
1000 µl, long, 8x12	clear Box black Rack	4-502-00-0	Carton		1x10
1000 µl, short 6x10	clear Box black Rack	4-503-00-0	Carton		1x10

Liquid Handling

PIPETTES



pipet4u® Performance Manual Pipettes 17-20



pipet4u® Revolution Electronic Pipettes 21-22



pipet4u® Pipette Controller 23-24

pipet4u® Performance

High Performance Manual Pipettes

Features

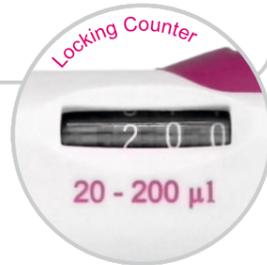


Accurate and reliable pipetting

Reverse pipetting option for accurate and precise aspirating and dispensing of viscous liquids

Innovative soft grip prevents transfer of heat to internal components ensuring accurate pipette operation

Lock counter mechanism² prevents volume changes



Comfortable and effortless pipetting

Light weight pipette design

Ergonomic design for easy operation

Ergonomic grip shape

Ergonomic pipetting button for easy volume setting and low strain pipetting (minimizes RSI¹)

Sterile handling

Fully autoclavable pipette

Easy and quick maintenance and adjustment

With the included tool

No loss of samples

Blow out system allows last drop dispensing

pipet4u® Performance

Single Channel fixed Volume Manual Pipettes

Specifications | Order Information

Volume	Test Volume	Increments	Inaccuracy*	Imprecision**	Cat. No.
5 µl	5 µl	-	1.3 %	1.1 %	8-001-00-9
10 µl	10 µl	-	0.8 %	0.6 %	8-002-00-9
20 µl	20 µl	-	0.6 %	0.3 %	8-003-00-9
25 µl	25 µl	-	0.6 %	0.3 %	8-004-00-9
50 µl	50 µl	-	0.6 %	0.3 %	8-007-00-9
100 µl	100 µl	-	0.5 %	0.2 %	8-008-00-9
200 µl	200 µl	-	0.5 %	0.2 %	8-009-00-9
250 µl	250 µl	-	0.5 %	0.2 %	8-010-00-9
500 µl	500 µl	-	0.5 %	0.2 %	8-011-00-9
1000 µl	1000 µl	-	0.5 %	0.2 %	8-012-00-9
2000 µl	2000 µl	-	0.5 %	0.2 %	8-013-00-9
2500 µl	2500 µl	-	0.5 %	0.2 %	8-014-00-9
5000 µl	5000 µl	-	0.5 %	0.2 %	8-015-00-9
10000 µl***	10000 µl	-	0.4 %	0.2 %	8-016-00-9

* Systematic error ** Random error *** Tip ejector function not available

Included Accessories

- Tool for calibration and disassembling
- O-rings (for 5000 µl | 10000 µl pipette)
- Sample bag with tips
- Grease
- Calibration report
- Instruction manual

pipet4u® Performance Manual Pipettes meet the following international standards: according to

International Organisation for Standardisation	ISO 8655, part 1-6
European Committee for Standardisation	CEN EN ISO 8655
German Institute for Standardisation	DIN 12650
Electrical and general safety in accordance with	IEC 61010-1
Electromagnetic compatibility in accordance with	IEC 61326-1
Marking and layout in accordance with	IEC 60073
Conformity testing in accordance with	DIN 12600
CE-Sign marked in accordance with	EU Directive 98/78 EG, Art. 10

i pipet4u® Pipette Racks are available, see pipet4u® Accessoires
Compatibility of pipet4u® Pipettes with Top-LineTips/Filter Tips, see Tips/Filter Tips Compatibility



¹ RSI - Repetitive Strain Injury
² Equipment of variable Volume Manual Pipettes

pipet4u® Performance Specifications | Order Information

Single Channel variable Volume Manual Pipettes

Volume Range	Test Volume	Increments	Inaccuracy*	Imprecision**	Cat. No.
0.1 - 2.5 µl	0.25 µl	0.01 µl	12.0 %	6.0 %	8-100-00-9
	1.25 µl		3.0 %	3.0 %	
	2.5 µl		2.5 %	2.0 %	
0.5 - 10 µl	1 µl	0.1 µl	2.5 %	1.5 %	8-101-00-9
	5 µl		1.5 %	0.8 %	
	10 µl		1.0 %	0.4 %	
2 - 20 µl	2 µl	0.5 µl	2.5 %	1.5 %	8-102-00-9
	10 µl		1.2 %	0.6 %	
	20 µl		1.0 %	0.3 %	
5 - 50 µl	5 µl	0.5 µl	2.0 %	1.5 %	8-103-00-9
	25 µl		1.2 %	0.8 %	
	50 µl		1.0 %	0.3 %	
10 - 100 µl	10 µl	0.5 µl	2.0 %	1.5 %	8-104-00-9
	50 µl		1.0 %	0.3 %	
	100 µl		0.8 %	0.2 %	
20 - 200 µl	20 µl	1.0 µl	2.5 %	0.7 %	8-105-00-9
	100 µl		1.0 %	0.3 %	
	200 µl		0.6 %	0.2 %	
50 - 200 µl	50 µl	1.0 µl	1.0 %	0.4 %	8-105-01-9
	100 µl		1.0 %	0.3 %	
	200 µl		0.6 %	0.2 %	
100 - 1000 µl	100 µl	5.0 µl	2.0 %	0.6 %	8-106-00-9
	500 µl		0.9 %	0.2 %	
	1000 µl		0.6 %	0.2 %	
200 - 1000 µl	200 µl	5.0 µl	0.9 %	0.3 %	8-106-01-9
	500 µl		0.9 %	0.2 %	
	1000 µl		0.6 %	0.2 %	
500 - 5000 µl	500 µl	50.0 µl	1.9 %	0.7 %	8-107-00-9
	2500 µl		1.0 %	0.5 %	
	5000 µl		0.6 %	0.3 %	
2000 - 10000 µl***	2000 µl	100.0 µl	3.0 %	0.6 %	8-108-00-9
	5000 µl		1.2 %	0.3 %	
	10000 µl		0.6 %	0.2 %	

* Systematic error ** Random error *** Tip ejector function not available

- Included Accessories**
- Tool for calibration and disassembling
 - O-rings (for 5000 µl | 10000 µl pipette)
 - Sample bag with tips
 - Grease
 - Calibration report
 - Instruction manual

pipet4u® Performance Manual Pipettes meet the following international standards: according to

International Organisation for Standardisation	ISO 8655, part 1-6
European Committee for Standardisation	CEN EN ISO 8655
German Institute for Standardisation	DIN 12650
Electrical and general safety in accordance with	IEC 61010-1
Electromagnetic compatibility in accordance with	IEC 61326-1
Marking and layout in accordance with	IEC 60073
Conformity testing in accordance with	DIN 12600
CE-Sign marked in accordance with	EU Directive 98/78 EG, Art. 10

i pipet4u® Pipette Racks are available, see pipet4u® Accessoires
Compatibility of pipet4u® Pipettes with Top-Line Tips/Filter Tips, see Tips/Filter Tips Compatibility



pipet4u® Performance Specifications | Order Information

Multi Channel variable Volume Manual Pipettes

Volume Range	Test Volume	Increments	Inaccuracy*	Imprecision**	Cat. No.
0.5 - 10 µl	0.50 µl	0.1 µl	2.0 %	2.0 %	8-201-00-9
	5 µl		1.6 %	1.6 %	
	10 µl		1.5 %	1.5 %	
5 - 50 µl	5 µl	0.5 µl	2.0 %	2.0 %	8-202-00-9
	25 µl		1.0 %	0.8 %	
	50 µl		0.6 %	0.5 %	
30 - 300 µl	30 µl	1.0 µl	2.5 %	0.9 %	8-203-00-9
	150 µl		1.2 %	0.5 %	
	300 µl		0.6 %	0.4 %	
0.5 - 10 µl	1 µl	0.1 µl	4.0 %	4.0 %	8-401-00-9
	5 µl		2.5 %	2.5 %	
	10 µl		1.5 %	1.5 %	
5 - 50 µl	5 µl	0.5 µl	3.0 %	2.0 %	8-402-00-9
	25 µl		1.5 %	1.0 %	
	50 µl		1.0 %	0.7 %	
30 - 300 µl	30 µl	1.0 µl	1.5 %	0.75 %	8-403-00-9
	150 µl		1.0 %	0.5 %	
	300 µl		0.8 %	0.25 %	

* Systematic error ** Random error

- Included Accessories**
- Tool for calibration and disassembling
 - O-rings
 - Sample bag with tips
 - Grease
 - Calibration report
 - Instruction manual

Spare Parts

pipet4u® Performance Single Channel Manual Pipette



Description	Volume	Sales Unit	Cat. No.
pipet4u® bottom assembly 1	0.1-2.5 µl	1 Set	8-190-00-9
pipet4u® bottom assembly 2	0.5-10 µl 2.5 µl	1 Set	8-190-01-9
pipet4u® bottom assembly 3	2-20 µl	1 Set	8-190-02-9
pipet4u® bottom assembly 4	5-50 µl 5 µl 10 µl 20 µl 25 µl 50 µl	1 Set	8-190-03-9
pipet4u® bottom assembly 5	10-100 µl 100 µl	1 Set	8-190-04-9
pipet4u® bottom assembly 6	20-200 µl 50-200 µl 200 µl	1 Set	8-190-05-9
pipet4u® bottom assembly 7	100-1000 µl 200-1000 µl 250 µl 500 µl 1000 µl	1 Set	8-190-06-9
pipet4u® bottom assembly 8	0.5-5 ml 1-5 ml 2 ml 2.5 ml 5 ml	1 Set	8-190-07-9
pipet4u® bottom assembly 9	0.5-10 ml 1-10 ml 2-10 ml 10 ml	1 Set	8-190-08-9

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Conformity testing in accordance with	DIN 12600
CE-Sign marked in accordance with	EU Directive 98/78 EG, Art. 10

i pipet4u® Pipette Racks are available, see pipet4u® Accessoires
Compatibility of pipet4u® Pipettes with Top-Line Tips/Filter Tips, see Tips/Filter Tips Compatibility



pipet4u[®] Revolution

Features

High Performance Electronic Pipettes



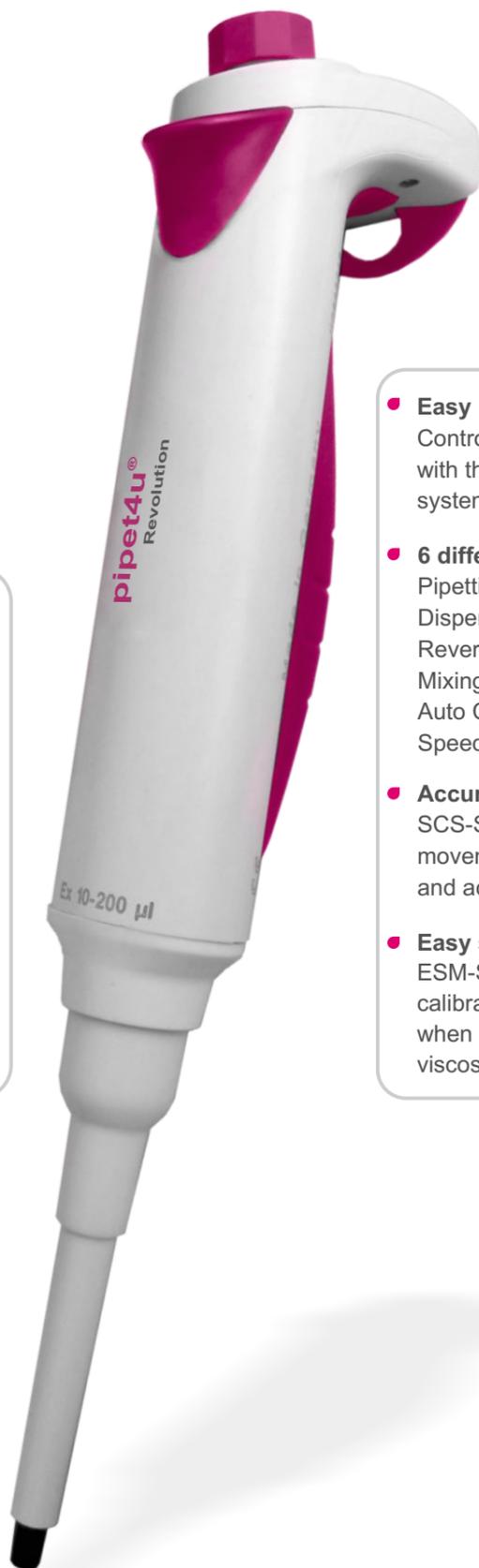
Comfortable and effortless pipetting

Ultra bright OLED display for extra clear visibility

Ergonomic grip shape

Ergonomic design for easy operation

Ergonomic pipetting button for easy operation setting and low strain pipetting (minimizes RSI³)



- **Easy handling with one button**
Control of all operating programs with the patented 1 button system

- **6 different operating programs:**
Pipetting Mode
Dispensing Mode
Reverse Pipetting Mode
Mixing Mode
Auto Calibration Mode
Speed Control

- **Accurate and reliable pipetting**
SCS-System² controls piston movement for highest precision and accuracy

- **Easy self-calibration of pipette**
ESM-System¹ allows user calibration of pipette, e.g. when using different sample viscosities

¹ ESM-System - Easy Selfcalibration Management System
It is a selfcalibration system where the user can calibrate his pipette for solutions of different viscosity. The system also controls permanently all functions and indicates all errors.
² SCS-System - Speed Control System
³ RSI - Repetitive Strain Injury

pipet4u[®] Revolution

Specifications | Order Information

Single | Multi Channel variable Volume Electronic Pipettes

Volume Range	Test Volume	Increments	Inaccuracy *	Imprecision **	Cat. No.	
0.2 - 10 µl	0.50 µl	0.01 µl	5.0 %	3.0 %	8-500-00-0	
	5 µl		2.5 %	1.5 %		
	10 µl		0.9 %	0.5 %		
5 - 100 µl	5 µl	0.1 µl	2.5 %	1.5 %	8-501-00-0	
	50 µl		0.9 %	0.3 %		
	100 µl		0.4 %	0.5 %		
10 - 200 µl	10 µl	0.1 µl	0.9 %	0.5 %	8-502-00-0	
	100 µl		0.4 %	0.5 %		
	200 µl		0.3 %	0.1 %		
50 - 1000 µl	100 µl	1.0 µl	0.4 %	0.5 %	8-503-00-0	
	500 µl		0.4 %	0.2 %		
	1000 µl		0.3 %	0.1 %		
100 - 5000 µl	500 µl	5.0 µl	0.4 %	0.5 %	8-505-00-0	
	2500 µl		0.1 %	0.1 %		
	5000 µl		0.1 %	0.1 %		
0.2 - 10 µl***	8 Channel	0.5 µl	0.01 µl	5.0 %	3.0 %	8-520-00-0
		5 µl		2.5 %	1.5 %	
		10 µl		0.9 %	0.5 %	
2.5 - 50 µl***	8 Channel	5 µl	0.10 µl	2.5 %	1.5 %	8-521-00-0
		25 µl		0.9 %	0.3 %	
		50 µl		0.4 %	0.5 %	
15 - 300 µl***	8 Channel	20 µl	0.50 µl	0.9 %	0.5 %	8-522-00-0
		150 µl		0.4 %	0.3 %	
		300 µl		0.3 %	0.1 %	
0.2 - 10 µl***	12 Channel	0.5 µl	0.01 µl	5.0 %	3.0 %	8-530-00-0
		5 µl		2.5 %	1.5 %	
		10 µl		0.9 %	0.5 %	
2.5 - 50 µl***	12 Channel	5 µl	0.10 µl	2.5 %	1.5 %	8-531-00-0
		25 µl		0.9 %	0.3 %	
		50 µl		0.4 %	0.5 %	
15 - 300 µl***	12 Channel	20 µl	0.50 µl	0.9 %	0.5 %	8-532-00-0
		150 µl		0.4 %	0.3 %	
		300 µl		0.3 %	0.1 %	

* Systematic error ** Random error



- Included Accessories**
- Battery (Li-Ion-battery)
 - Screw driver
 - Screw for hand grip
 - Charger (available with EU | UK | US Charger)
 - Sample bag with tips
 - Grease
 - Calibration report
 - Instruction manual

pipet4u[®] Revolution Electronic Pipettes meet the following international standards: according to

International Organisation for Standardisation	ISO 8655, part 1-6
European Committee for Standardisation	CEN EN ISO 8655
German Institute for Standardisation	DIN 12650
Electrical and general safety in accordance with	IEC 61010-1
Electromagnetic compatibility in accordance with	IEC 61326-1
Marking and layout in accordance with	IEC 60073
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i
Compatibility of pipet4u[®] Pipettes with Top-Line Tips[®] Filter Tips, see Tips/Filter Tips Compatibility



pipet4u[®] Oasis

Pipette Controller

Features



Secure handling

Replacable membrane filter to minimize risk of contamination

Pipetting speed control

Adapt pipetting speed depending on sample viscosity with 3 selectable speeds

Comfortable and effortless pipetting

- Light weight pipette design
- Smooth push buttons for precise pipetting control
- Ergonomic design for easy operation
- Cordless working (8 hours with no need to recharge)
- Silent high power motor

pipet4u[®] Oasis

Pipette Controller

Specifications | Order Information

Volume Range	Description	Sales Unit	Cat. No.
0.1 - 100 ml	pipet4u [®] Oasis Pipette Controller	Carton/1 Oasis	8-300-00-9

Included Accessories

- 2 x NiMH batteries
- Desktop stand
- Wall mount bracket
- Charger
- 2 x PTFE membrane filter
- Instruction manual

Spare Parts

pipet4u[®] Oasis Pipette Controller

Pore Size	Description	Sales Unit	Cat. No.
0.20 µm	pipet4u [®] Oasis PTFE membrane filters	Carton/5 filters	8-300-03-0
0.45 µm	pipet4u [®] Oasis PTFE membrane filters	Carton/5 filters	8-300-04-0
	pipet4u [®] Oasis silicone adapter	Carton/1 adapter	8-300-01-0
	pipet4u [®] Oasis pipette cone	Carton/1 cone	8-300-02-8



Serological Pipettes [Features](#) | [Specifications](#) | [Order Information](#)

for Pipette Controller



- Quick and simple volume check**
Glass-clear polystyrene (PS) with graduation marks
- Maintain sample integrity**
Sterile, individually packed
- Convenient identification**
Colour-coded cotton-wool plug, standard colour code
- Accurate, stable, minimal residual wetting**
Weldless made of one piece
- Additional capacity**
Availability of negative graduation
- Display of dispensed and residual volumes**
5, 10 and 25 ml pipettes provides reverse double scales

Serological Pipette	Length	Volume
	271.0 mm	1.0 ml
	271.0 mm	2.0 ml
	294.0 mm	5.0 ml
	294.0 mm	10.0 ml
	297.0 mm	25.0 ml

Positive Volume	Negative Volume	Colour Coding	Graduation	Cat. No.	Pack Type	Sterilized	Sales Unit
1.0 ml	0.3 ml	yellow	0.01 ml	8-840-00-0 8-840-00-1	Ind. wrapped 25/Bag	■	4x500 4x1000
2.0 ml	0.4 ml	green	0.02 ml	8-840-01-0 8-840-01-1	Ind. wrapped 25/Bag	■	4x500 4x1000
5.0 ml	3.0 ml	blue	0.10 ml	8-840-02-0 8-840-02-1	Ind. wrapped 25/Bag	■	4x250 4x375
10.0 ml	3.0 ml	orange	0.10 ml	8-840-03-0 8-840-03-1	Ind. wrapped 25/Bag	■	4x200 4x250
25.0 ml	2.6 ml	red	0.20 ml	8-840-04-0 8-840-04-1	Ind. wrapped 10/Bag	■	4x100 4x100

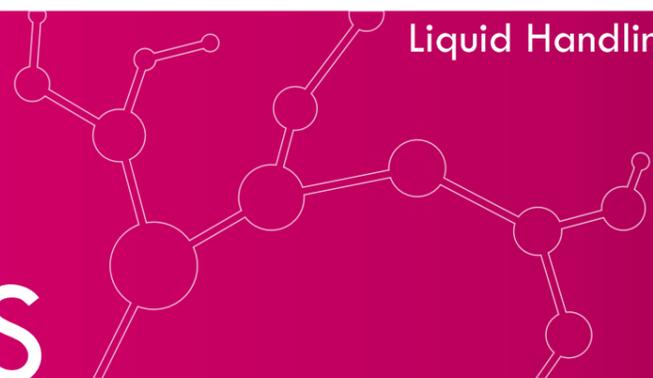
pipet4u® Accessoires [Specifications](#) | [Order Information](#)

Racks for Single Channel and Multi Channel Manual Pipettes

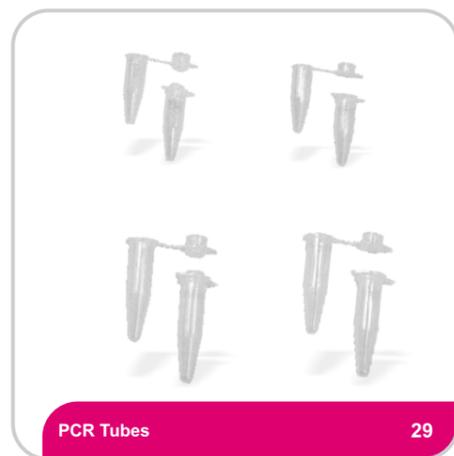
Rack	Description	Sales Unit	Cat. No.
	pipet4u® single rack for 8 channel pipette, black	Carton/1 rack	8-130-02-7
	pipet4u® single rack for 8 channel pipette, white	Carton/1 rack	8-130-02-9
	pipet4u® rack for 4 single channel pipettes, white	Carton/1 rack	8-130-00-9
	pipet4u® rack for 6 single channel pipettes, white	Carton/1 rack	8-131-00-9



TUBES

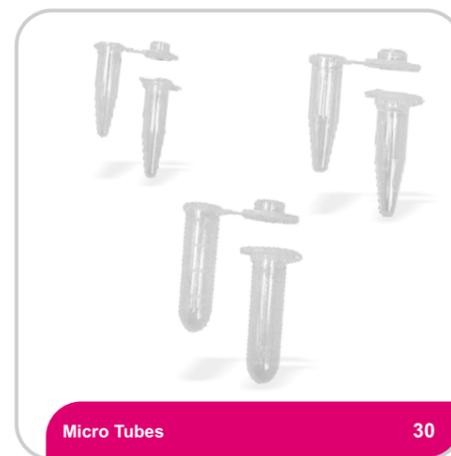


Liquid Handling



PCR Tubes

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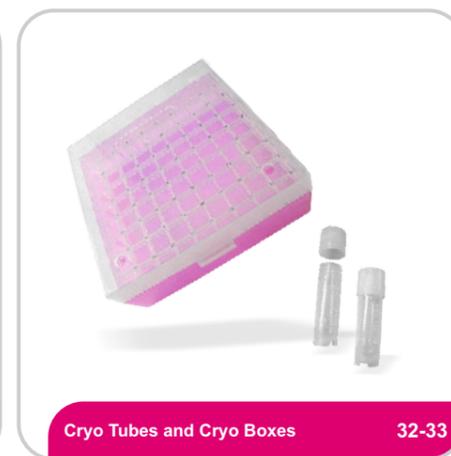
Micro Tubes

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Centrifuge Tubes

31



Cryo Tubes and Cryo Boxes

32-33

PCR Tubes

Features | Specifications | Order Information

0.2 ml | 0.5 ml flat and domed cap



autoclavable
(opened)
121° C | 250° F
1.05 bar | 15 psig (Pounds)
20 min



metal-free



Cycle time reduction and optimal heat transfer

Guaranteed by extra thin, uniform wall thickness of tube

Available with flat and domed cap

Effortless and secure working

Ergonomic cap design for easy and secure opening and closing of tube with one hand

Elimination of risk of sample contamination and loss of sample

High quality raw material (polymer) meets standards of purity and is highly resistant to extreme mechanical strain and demonstrates excellent chemical resistance

Centrifuge specifications:
up to 25.000 x g - fixed-angle rotor
up to 70.000 x g - swing out rotor

Maintain sample integrity

Available as sterilized version (by beta irradiation)

Optical measurement and control

Highly transparent tube

Sterile handling

Fully autoclavable tube

PCR Tube	Colour	Cat. No.	Pack Type	Sterilized	Sales Unit
0.2 ml, flat cap PCR Tube	clear	3-010-50-0	Bag	■	1 x 1000
		3-010-80-0	Bag		10 x 1000
		3-011-50-0	Bag		1 x 1000
0.2 ml, domed cap PCR Tube	clear	3-020-50-0	Bag	■	1 x 1000
		3-020-80-0	Bag		10 x 1000
		3-021-50-0	Bag		1 x 1000
0.5 ml, flat cap PCR Tube	clear	3-110-50-0	Bag	■	1 x 1000
		3-110-80-0	Bag		25 x 1000
		3-111-50-0	Bag		1 x 1000
0.5 ml, domed cap PCR Tube	clear	3-120-50-0	Bag	■	1 x 1000
		3-120-80-0	Bag		25 x 1000
		3-121-50-0	Bag		1 x 1000

Micro Tubes

Features | Specifications | Order Information

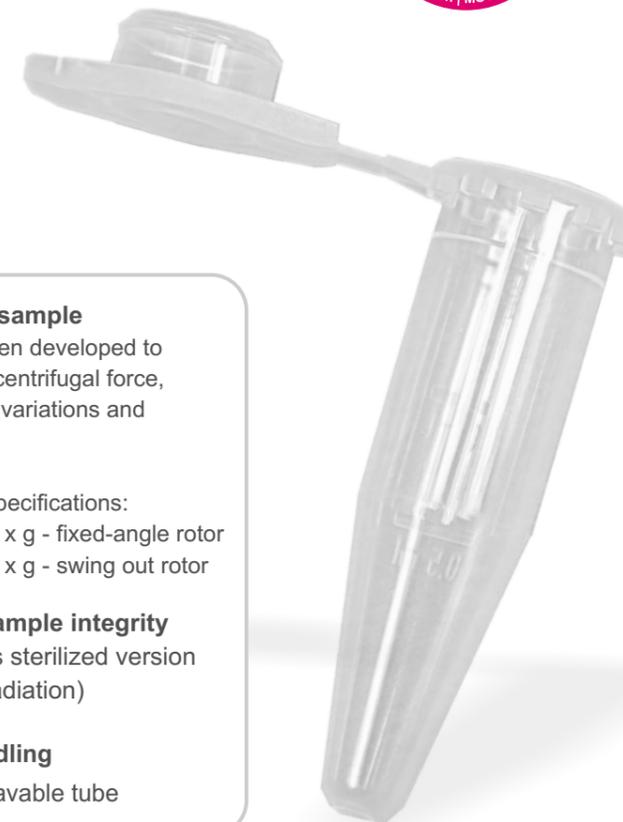
0.5 ml | 1.5 ml | 2.0 ml



autoclavable
(opened)
121° C | 250° F
1.05 bar | 15 psig (Pounds)
20 min



metal-free



No loss of sample

Tube has been developed to resist high centrifugal force, temperature variations and chemicals

Centrifuge specifications:
up to 25.000 x g - fixed-angle rotor
up to 70.000 x g - swing out rotor

Maintain sample integrity

Available as sterilized version (by beta irradiation)

Sterile handling

Fully autoclavable tube

Effortless and secure working

Ergonomic cap design for easy and secure opening and closing of tube with one hand

Easy sample identification

Frosted tube cap and surface on body of tube for labeling option

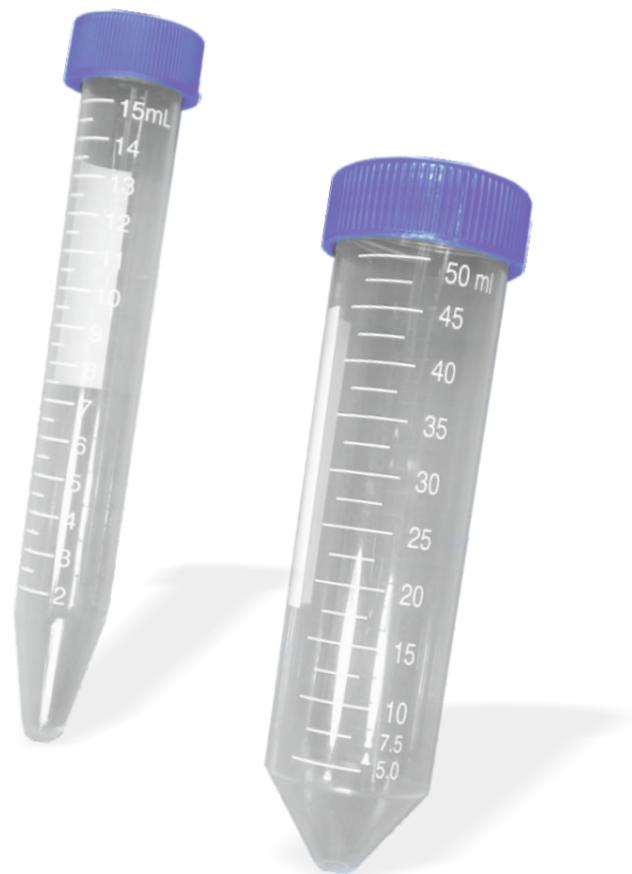
Quick and simple volume check

Graduation marks on tube (1.5 ml and 2.0 ml)

Micro Tube	Colour	Cat. No.	Pack Type	Sterilized	Sales Unit
0.5 ml, Micro Tube	clear	3-115-50-0	Bag	■	1 x 1000
		3-115-80-0	Bag		25 x 1000
		3-116-50-0	Bag		1 x 1000
1.5 ml, Micro Tube	clear	3-205-50-0	Bag	■	1 x 1000
		3-205-85-0	Bag		8 x 1000
		3-207-50-0	Bag		1 x 1000
LIGHT resistant	black	3-205-50-7	Bag	■	1 x 1000
		3-205-85-7	Bag		8 x 1000
2.0 ml, Micro Tube	clear	3-204-50-0	Bag	■	1 x 1000
		3-204-85-0	Bag		8 x 1000
		3-208-50-0	Bag		1 x 1000



- **Conical bottom design with screw cap**
 - **Easy sample identification**
Large writing surface on tube
 - **Quick and simple volume check**
Graduation marks on tube
 - **No loss of sample**
Tube has been developed to resist high centrifugal force and temperature variations
- Centrifuge specifications:
up to 12.000 x g - 15 ml Centrifuge Tube
up to 9.500 x g - 50 ml Centrifuge Tube
- **Secure long term storage and preservation**
Safe usage in a temperature range from - 80 °C to + 121 °C
 - **Sterile handling**
Fully autoclavable tube



Centrifuge Tube	Tube Height	Cat. No.	Pack Type	Sterilized	Sales Unit
15 ml, Centrifuge Tube, clear, blue screw cap	121.0 mm	3-252-25-0	Bag	■	1x25
		3-262-25-0	Bag		1x25
50 ml, Centrifuge Tube, clear, blue screw cap	118.0 mm	3-253-25-0	Bag	■	1x25
		3-263-25-0	Bag		1x25

1.8 ml



- **Easy sample identification**
Unique barcode printing directly on tube
Large writing surface on tube

- **Secure long term storage and preservation**
Tube can be stored to -196 °C
- **No loss of sample**
Tested to specific pressure to guarantee no leaking from tube



- **No contamination during storage**
O-ring injected directly into cap to minimize risk of leaking
- **Quick and simple volume check**
Clear printed graduation marks
- **Preserved viability of samples**
Manufactured from proven non-toxic materials
- **Sterile handling**
Autoclavable tube
- **Maintain sample integrity**
Sterilized by beta irradiation

Cryo Tube	Tube Height	Cat. No.	Pack Type	Sterilized	Sales Unit
1.8 ml, Cryo Tube, clear	44.5 mm	3-251-49-0	Bag	■	10 x 50
		3-251-10-0	Bag		2 x 50

self stand
external thread
barcode

Accessories	Colour	Cat. No.	Pack Type	Sterilized	Sales Unit
Capdiscs colour coding of samples snap into screw-top cap	white	3-252-10-0	Bag	■	1 x 100
	yellow	3-252-50-0	Bag		1 x 1000
	light blue	3-252-10-1	Bag		1 x 100
	red	3-252-50-1	Bag		1 x 1000
	green	3-252-10-2	Bag		1 x 100
	magenta	3-252-50-2	Bag		1 x 1000
		3-252-10-3	Bag		1 x 100
		3-252-50-3	Bag		1 x 1000
		3-252-10-4	Bag		1 x 100
		3-252-50-4	Bag		1 x 1000

Cryo Box

81-place

Features | Specifications | Order Information

- **Effortless and secure working**

Easy opening and closing of box with one hand

Robust hinge with safe snap-on lid

Drain openings for dew liquids on the bottom

- **Secure long term storage and preservation**

Box can be stored between -90 °C and + 121 °C

- **Secure transportation and storage**

Stackability of box

- **Universal fit**

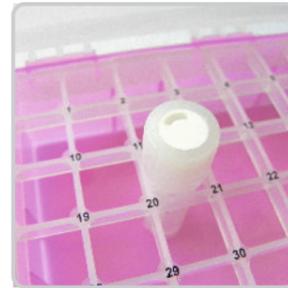
Suitable for all standard cryo tubes 1.2 - 2 ml

- **Sterile handling**

Autoclavable box

- **Storage of light sensitive samples**

Available with bottom and lid in black



- **Easy sample identification**

Removable grid insert with numeric coding on each position



autoclavable

(opened)
121° C | 250° F
1.05 bar | 15 psig (Pounds)
20 min

Cryo Box	Colour	Cat. Nr.	Pack Type	Sterile	Sales Unit
81-place Cryo- and Storage Box	black	3-630-05-7	Pack		1 Pack/ 5 Boxes
		3-630-99-7	Pack		12 Packs/ 60 Boxes
dimensions: 133 mm (W) x 133 mm (D) x 52 mm (H) 9 x 9 matrix, numeric code, for tube diameter 12,8 mm light protection					
81-place Cryo- and Storage Box	magenta	3-630-05-8	Pack		1 Pack/ 5 Boxes
		3-630-99-8	Pack		12 Packs/ 60 Boxes
dimensions: 133 mm (W) x 133 mm (D) x 52 mm (H) 9 x 9 matrix, numeric code, for tube diameter 12,8 mm					

Liquid Handling



Mini Spin Column Systems

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Filtration System

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FILTRATION | ULTRA FILTRATION | DNA PURIFICATION

Mini Spin Column Systems

Features | Specifications | Order Information



CUSTOMISED SOLUTIONS FOR

FILTRATION
ULTRA FILTRATION
DNA | RNA PURIFICATION



Mini Spin Column
round bottom
without lid



Mini Spin Column
straight bottom
with lid

- Developed for the use in purification, isolation and separation of biomolecules, particularly DNA/RNA
- Filter tubes can be delivered with various membrane filters (e.g. CA|RC|GF|PVDF|PE|PTFE|Nylon) depending on customer specific applications*
- Available with 1.5 ml or 2.0 ml receiver tubes

i * For further information or product specific inquiries contact us info@ahn-bio.de

Spin Column Single Parts without filter

Spin Column Single Parts without filter	Cat. No.	Pack Type	Sterilized	Sales Unit
0.8 ml, Spin Column Filter Tube, clear	3-330-50-0	Bag		1x1000
0.8 ml, Spin Column Filter Tube, clear, with filtering	3-331-50-0	Bag		1x1000
0.8 ml, Spin Column Filter Tube, clear, with cap	3-336-50-0	Bag		1x1000
1.5 ml, Receiver Tube, clear	3-200-50-0	Bag		1x1000
	3-200-80-0	Bag		10x1000
2.0 ml, Receiver Tube, clear	3-202-50-0	Bag		1x1000
	3-202-80-0	Bag		10x1000

Filtration System

Features | Specifications | Order Information



- **Elimination of risk of sample contamination**
Manufactured from absolutely clear high-quality virgin polystyrene
- U-bottom design with 1.0 ml capacity perfectly fits together with the most robotic systems in SBS-Standard
- **Available in 8x12 matrix with 96 individual wells**

Deep Well Microplate



- **Elimination of risk of sample contamination**
Manufactured from absolutely clear high-quality virgin polystyrene
- **Available in 8x12 matrix with 96 individual drip directors in accordance with SBS-Standard**
- **Microfilterplate can be delivered with standard or customised* filters (e.g. CA|RC|GF|PVDF|PE|PTFE|Nylon) depending on customer specific applications**

Microfilterplate

i * For further product information contact us info@ahn-bio.de

- **Elimination of risk of sample contamination**
Manufactured from high-quality clear acrylic for medical applications
- **Material of individual components:**
Annealed, transparent acrylic
Connection sleeve - PTFE
Rubber seal - synthetic caoutchouc
- **Designed for all usual filterplates according to SBS standard**

Vacuum Manifold



Filtration System

Filtration System	Cat. No.	Pack Type	Sterilized	Sales Unit
1.0 ml, Deep Well Microplate, 96 Wells, SBS, clear	3-211-25-0	Carton		1 Carton/ 25 Plates
Vacuum Manifold, manual, clear bottom part - height 50 mm upper part - height 20 mm spacer - height 22 mm	3-401-01-0	Carton		1 Carton/ 1 Manifold

1. General

All deliveries and services are based on the following Terms and Conditions. Deviating conditions issued by the buyer are not binding, even if they are not explicitly contradicted. The buyer accepts the General Terms and Conditions of the AHN Biotechnologie GmbH as legally binding by order placement or/and acceptance of the goods. In case of entrepreneurs, this also applies to pending and all further deliveries and services. The current issue of the General Terms and Conditions of the AHN Biotechnologie GmbH shall be valid as from 01 January 2013.

2. Offers and Orders

Prepared offers are always not binding. If the offer has been accepted by the orderer, the terms of sale shall be considered as accepted in their entirety. AHN Biotechnologie GmbH shall immediately respond to received offers. If the AHN Biotechnologie GmbH does not immediately oppose received offers, the offer will be seen as accepted. Therefore, deviating terms of sale and delivery issued by the orderer shall not be binding for the AHN Biotechnologie GmbH. Orders as well as any verbal side agreements require written confirmation. The exceptions to this are subsequently made verbal agreements.

3. Prices

The final calculation will be carried out on the basis of the prices applicable on the date of the delivery plus VAT. In this respect, the quotations, provided in the offer and the confirmation, are not binding. Price changes are allowed when more than four months are between the conclusion of the contract and the agreed date of delivery. In case, wages, material costs, or the market-related cost prices increase after that period and before the completion date of the delivery, the AHN Biotechnologie GmbH shall be entitled to reasonably increase the price owing to the increase in costs. The orderer is only entitled to withdraw when the increase of the price does not only insignificantly exceed the increase of the general living costs within the period of order and delivery. If the orderer is a businessman, a corporate body under public law, or a special fund under public law, the price changes will be possible according to the before mentioned regulations provided that more than six weeks are between the conclusion of the contract and the agreed date of delivery. The prices shall apply, unless otherwise agreed, ex-works, excluding freight, custom duties, insurance and packaging. In case of delivery values below 250.00 euros, a processing charge of 25.00 euros will be charged. If unexpected changes of the goods and/or of the incidental expenses of the goods occur after the acceptance of a contract that make the fulfilment of the contract unacceptable, the contract shall be adapted to the changed conditions. The contract adaptation and the Vendor's possibility of cancellation must be reasonable for the Buyer. If no agreement will be achieved thereby, the AHN Biotechnologie GmbH will be released from the contractual obligation without the Buyer's possibility to make compensation or liability claims. The exceptions to this are compensation or liability claims due to injury to life, body, or health with intent and gross fault.

4. Delivery and Shipment

The delivery is ex-works. In case of contracts and with deliveries to entrepreneurs, the goods are generally delivered on account and at the Buyer's risk. The Buyer also bears the risk if the freight is prepaid. If requested, we are willing to cover transport insurances only by invoicing the insurance rate and do not accept assume the obligation to obtain insurance. The AHN Biotechnologie GmbH is entitled to name itself as beneficiary. The vendor shall not be responsible for delays in delivery or services due to force majeure and due to events which considerably complicate the delivery or indeed render it impossible - this includes in particular strikes, lockouts, official directives etc. - also when these events occur at the sites of the vendor's suppliers or their subcontractors - even in case the vendor is bound by agreed terms and dates. They shall entitle the vendor to defer the deliveries or services for the period of hindrance plus an appropriate start-up time, and completely or in part, to withdraw from the contract due to unfulfilled terms of contract. The user will be entitled to withdraw if the performance is not available. The user explicitly undertakes to inform the contractual party immediately about the non-availability and to reimburse the counter-performance. Immediately after the completion or if the goods are ready for delivery, the orderer shall take over the goods. In case of default in taking delivery, the costs and the risk of storage shall pass to the orderer. The same applies to closing of railway lines and other transport possibilities that make the shipment impossible.

5. Date of delivery

The delivery time stated in the order confirmation is an approximate date and is determined under consideration of the known facts. If these facts change until the end of delivery period through no fault of our own, or other events which cannot be accounted for by us obstruct the delivery in due time, the delivery deadline will be extended reasonably. Delivery delays due to operating disruptions, regulatory actions or force majeure cause a reasonable extension of the delivery deadline. Force majeure is also to be understood to include industrial action including strikes and legitimate lockouts at the AHN Biotechnologie GmbH or our subcontractors' sites. In this case, our customers' right to claim for damages shall be excluded. With this, partial deliveries shall be eligible provided that the reasonable minimum quantity is not undercut.

6. Payment

The purchase price is payable net (for entrepreneurs) or gross (for consumers) on delivery of goods if not otherwise agreed. If the period of payment is exceeded, the AHN Biotechnologie GmbH shall be entitled to charge interest counted from the due date which refers to the value of the rate that we had to pay for the used bank loan, at least, however, of 5 % above the current bank rate of the Deutschen Bundesbank and to refuse the further fulfilment of the contract. Expenses for debt recovery and reminding shall be on the buyer's account. With this, payments shall be paid directly. The buyer is not allowed to set off any payments, insofar not undisputed or legally effective claims, or counterclaims which are ready for a decision and counterclaims arising

from the synallagmatic relation are affected.

7. Reservation of ownership

Until the full payment of the delivery and the regulation of all accounts payable from the business relation including interest, expenses as well as until the coverage of possible current account balance, AHN Biotechnologie GmbH reserves the property right for the delivered goods as well as in the commercial legal relations for the goods that have been manufactured using our goods. In this case, the goods will be reclaimed from the buyer without setting a final deadline or a letter of resignation if the Buyer does not meet its obligations despite of dunning notice. In the commercial legal relations, with this, the property includes the products that are produced by processing of the goods subject to retention of title or their mixtures to their full value. If the property right of third parties in the goods that are processed or mixed remains in force, we shall acquire co-property (§§ 947, 948 BGB) proportional to the invoice values of the goods to be processed. The buyer is obliged to keep the goods that are subject to retention of title safe and free of charge. As long as the buyer duly fulfils its liabilities against the AHN Biotechnologie GmbH, it shall be revocably entitled to have the goods that are subject to retention of title at its disposal in an ordinary business routine.

It shall not be authorized to pledging and assignment as security or other encumbrances. If the buyer is an entrepreneur, with this, it already assigns its claims from the resale of the goods owned or partially owned by the AHN Biotechnologie GmbH (§ 947 subparagraph 1, § 948 BGB) to the AHN Biotechnologie GmbH as a precaution. If the settlement of the claims is at risk, the buyer has to inform its customers about the assignment on request and has to pass all required information and documents to the AHN Biotechnologie GmbH. The buyer must immediately report about third parties' access to the goods that are subject to retention of title and assigned claims.

8. Notifications of defects, guarantee

The buyer is explicitly responsible for application, use, and processing of the ordered goods. In the commercial legal relations, the buyer is obliged to check the goods immediately when delivered and to confirm the delivery note. Is this examination neglected, it will not be possible to claim for defective goods or the delivery of goods which do not refer to the ordered goods afterwards. Complaints concerning obvious defects can only be considered when they are made within 5 days after the goods arrived at the place of destination. If the goods are sold per FOB, complaints shall be made in a timely manner so that the shipment of obviously wrong or defective goods can be avoided. If the goods are sold per CIF- or C&F, the limitation period for filing a complaint will be 14 days after the arrival of the goods in the port of entry. A notice of defects does not release from the obligation to pay. In case the goods have been delivered on time and the suppliers have accepted the complaints, the orderer shall only be entitled for rescission of sale but not for price changes. The AHN Biotechnologie GmbH reserves the right to deliver replacement goods for the complained and returned

goods. In case the subsequent delivery fails again, the buyer shall be entitled to have the legal rights to withdraw from the contract. The above-mentioned paragraphs finally include the warranty for the product and exclude other warranty claims of any kind. Complaints on latent/not obvious defects have to be brought to notice immediately after they have become recognizable, however, in commercial legal relations, this has to be within 6 months after the receipt of the goods and in case of contracts with consumers, this has to be within the statutory warranty period. Warranty services are only possible under the corresponding conditions of the individual suppliers.

9. Applicable law, place of jurisdiction, partial nullity

The Law of the Federal Republic of Germany shall be applicable for these terms of business and the entire legal relationship between the vendor and the buyer excluding the United Nations Convention on Contracts for the International Sale of Goods (CISG) as well as possible inter-governmental agreements. This also applies if the Buyer's place of business is abroad or the delivery shall be sent from or to abroad.

If the buyer is a merchant within the meaning of the Commercial Code, a legal entity under public law, or public/statutory special funds, the place of business of the AHN Biotechnologie GmbH shall be the exclusive place of jurisdiction for all disputes arising directly or indirectly from this contractual relation. Should any provision of these terms of business or a provision within the scope of any other agreements be or become ineffective, this shall not affect the validity of any other provisions or agreements.

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ahn

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