

# Clab<sup>solute</sup>®



## Vials & Caps 2011



## More for you

We are happy to provide you with the new issue of our catalogue of Vials & Caps an again expanded and supplemented

Range of

- Bottles
- Micro-Cartridges
- Closures
- Septa
- Sealing tools



to present.

However it is only a fraction of our available program. Whenever you don't find a product, please aks for it.

Please contact one of the Th. Geyer sites which are mentioned on the backside of the catalogue.

We would be grateful if you give us your specifications (which system or what auto sampler is used etc.) or just send us a sample of required items.

We are looking forward to your requests and assure you about best quality, service and attractive offers.

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## Crimp Neck Vials ND8 and Seals



				
WC/7616829	WC/7622388	WC/7630552	WC/7615704	WC/7614045
				
WC/7622387	WC/7616830	WC/7631599	WC/7616831	WC/7616832

The vials are preferentially used on instruments of the following manufacturers:  
**Agilent, Beckman, Carlo Erba, CTC, Fisons, Perkin Elmer, Shimadzu, Thermo, VWR (Merck®)/Hitachi, etc.**  
 (Please have a look at the autosampler compatibility chart on pages 27 - 38 to see on which models they can be used)

### Crimp Neck Vials and Micro Vials ND8

Typ	Volume (ml)	Dimensions (mm)	Packaging Unit	Article No.
Clear glass, flat bottom	0,8	30x8,2	100	WC/7616829
Clear glass, flat bottom	0,7	40x7	10 x100	WC/7622388
Amber glass, flat bottom	0,7	40x7	10 x100	WC/7630552
Clear glass, round bottom	0,3	31,5x5,5	10 x100	WC/7615704
Clear glass, conical	0,3	31,5x5,5	10 x100	WC/7614045
Clear glass, flat bottom	1,2	40x8,2	100	WC/7622387
Amber glass, flat bottom	1,2	40x8,2	100	WC/7616830
Clear glass, conical	0,7	40x7	10 x100	WC/7631599
Amber glass, conical	0,7	40x7	10 x100	WC/7616831
Amber glass, conical	0,4	30x7	100	WC/7616832

## Crimp Neck Vials ND8 and Seals

### Aluminium Crimp Seals 8 mm, with Septum

#### Natural Rubber/TEF Seals

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Natural Rubber / TEF <b>(Agilent-Quality)</b>	1,0	60° shore A	100	WC/7630551
Natural Rubber red-orange/TEF transp.	1,0	60° shore A	100	WC/7619110

#### Silicone/PTFE Seals

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Silicone white / PTFE red <i>UltraClean</i>	1,3	45° shore A	100	WC/6205575
PTFE red / Silicone white / PTFE red	1,0	45° shore A	100	WC/7620889
Silicone white / PTFE red, slitted	1,3	45° shore A	100	WC/7616833

#### Other Aluminium Crimp Seals ND8

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
PTFE virginal	0,25	53° shore D	100	WC/7615706
Viton black	1,0	70° shore A	100	WC/7616834
Viton black	1,5	70° shore A	100	WC/7616835

### Other Combinations Seals for Crimp Neck ND8 **(NEW)**



- New Push On Cap (WC/7616836) with thinned penetration point made of Polyethylene for Crimp Neck Vials/Micro Vials ND8
- Inexpensive alternative to crimp caps for noncritical analyses, as it does contain any septa but only has a thinner penetration point.

Description of the Cap	Septa Material	Durometer	Packaging Unit	Article No.
PE Push On Cap, blue	with thinned penetration point		100	WC/7616836
PE Cap, transparent, 9 x 5,9 mm, 4 mm centre hole	Natural Rubber red-orange/TEF transparent	60° shore A	100	WC/7616837
PE Cap, transparent, 9 x 5,9 mm, 4 mm centre hole	Silicone white/PTFE red	45° shore A	100	WC/7616838

## Crimp Neck Vials ND11 and Seals



WC/7608141	WC/7608160	WC/7620828	WC/7616019	WC/7632401	WC/7620898	WC/7653831
WC/7631402 WC/7616109	WC/7616839 WC/7616932	WC/7615290 WC/7616933	WC/7620929	WC/7614088 WC/7615561	WC/6803175	

The vials are preferentially used on instruments of the following manufacturers:  
**Agilent, Carlo Erba, CTC, Dani, Fisons, Gerstel, Jasco, Perkin Elmer, Shimadzu, Spark, Thermo, Varian, etc.**  
 (Please have a look at the autosampler compatibility chart on pages 27 - 38 to see on which models they can be used)

### Crimp Neck Vials ND11 and Micro Inserts for Vials with wide opening

Typ	Volume (ml)	Dimensions (mm)	Packaging Unit	Article No.
Clear glass, wide opening	1,5	32x11,6	100	WC/7608141
Clear glass, wide opening plus label & filling lines	1,5	32x11,6	100	WC/7608160
Amber glass, wide opening u. label & filling lines	1,5	32x11,6	100	WC/7620828
Microliter Short Thread Vial, with 15 µl inner cone	1,1	32x11,6	100	WC/7616019
Crimp Neck Micro Vial, clear glass, conical	1,1	32x11,6	100	WC/7632401
Crimp Neck Vial with integrated Micro Insert plus label & filling lines	0,2	32x11,6	100	WC/7620898
Amber glass, with wide opening plus filling lines	1,5	32x11,6	100	WC/7653831
<b>TopSert™</b> TPX Snap Ring Vial, clear with integrated Glass Micro Insert (Silanized: WC/7616109)	0,2	32x11,6	100	WC/7631402
<b>TopSert™</b> TPX Snap Ring Vial, amber with integrated Glass Micro Insert (Silanized: WC/7616932)	0,2	32x11,6	100	WC/7616839

### Micro Inserts for Vials with wide opening (ND9/ND10/ND11)

Typ	Volume (ml)	Dimensions (mm)	Packaging Unit	Article No.
Clear glass, 15 mm conical tip (Silanized: WC/7616933)	0,1	31x6	10 x 100	WC/7615290
Clear glass, 12 mm conical tip	0,1	31x6	10 x 100	WC/7620929
Clear glass, with assembled plastic spring: (Silanized: WC/7615561)	0,1	29x5,7	10 x 100	WC/7614088
Clear glass, with flat bottom	0,2	31x6	10 x 100	WC/6803175

## Crimp Neck Vials ND11 and Seals

### Aluminium Crimp Seals 11 mm, with septum

#### Natural Rubber/TEF Seals

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Natural Rubber / TEF <i>(AGILENT-Quality)</i>	1,0	60° shore A	100	WC/7608142
Natural Rubber red-orange / TEF transp.	1,3	60° shore A	100	WC/7618902
Natural Rubber / Butyl / TEF	1,0	45° shore A	100	WC/7608161
Red Rubber / PTFE beige	1,0	45° shore A	100	WC/7618903

#### Silicone / PTFE Seals

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Silicone white / PTFE red <i>UltraClean</i>	1,3	45° shore A	100	WC/6205787
PTFE red / Silicone white / PTFE red	1,0	45° shore A	100	WC/6902301
Silicone white / PTFE blue, cross-slitted	1,5	55° shore A	100	WC/7616151

#### Other Aluminium Crimp Seals ND11

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
PTFE virginal	0,25	53° shore D	100	WC/7630452
Butyl red / PTFE grey	1,3	55° shore A	100	WC/7616840
PTFE grey / Butyl red / PTFE grey	1,3	55° shore A	100	WC/7615681

#### Magnetic Crimp Seals 11 mm, with septum (for CTC + TriPlus Autosampler)

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Silicone white / PTFE red <i>UltraClean</i>	1,3	45° shore A	100	WC/7616841
PTFE red / Silicone white / PTFE red	1,0	45° shore A	100	WC/7616842

### Other Combination Seals for Crimp Neck ND11



- Blue Push On Cap (WC/7616553) with thinned penetration point made of Polyethylene for Crimp Neck- and Snap Ring Vials ND11
- Inexpensive alternative to crimp caps for uncritical analyses, as it does not contain any septa, but only has a thinner penetration point.

Description of the Cap	Septa Material	Durometer	Packaging Unit	Article No.
PE Push On Cap, blue	with thinned penetration point		100	WC/7616553
PE Cap, transparent	Natural Rubber red- orange/ TEF transparent	60° shore A	100	WC/7616843
PE Cap, transparent	Silicone white/PTFE red <i>UltraClean</i>	55° shore A	100	WC/7616844

## Screw Neck Vials ND8 and Seals



WC/6401175	WC/7613087	WC/7615163	WC/7613388	WC/7631774

The vials are preferentially used on instruments of the following manufacturers:  
**Beckman, CTC, Gilson, Knauer, Shimadzu, Spark, Varian, VWR (Merck®)/Hitachi, etc.**  
 (Please have a look at the autosampler compatibility chart on pages 27 - 38 to see on which models they can be used)

### Screw Neck Vials ND8 (small opening)

Typ	Volume (ml)	Dimensions (mm)	Packaging Unit	Article No.
Clear glass	1,5	32x11,6	100	WC/6401175
Clear glass, with label & filling lines	1,5	32x11,6	100	WC/7613087
Amber glass	1,5	32x11,6	100	WC/7615163
Amber glass, with label & filling lines	1,5	32x11,6	100	WC/7613388
Screw Neck Micro Vial, clear glass, conical	1,1	32x11,6	100	WC/7631774

### Micro Inserts for Screw Neck Vials ND8 (small opening)



WC/7613389	WC/7616845	WC/7614073	WC/7616846	WC/7632176	WC/7632175

Typ	Volume (ml)	Dimensions (mm)	Packaging Unit	Article No.
Clear glass, 15 mm conical tip	0,1	31x5	10 x 100	WC/7613389
Clear glass, flat bottom	0,2	31x5	10 x 100	WC/7616845
Clear glass, with assembled plastic spring	0,1	29x5	10 x 100	WC/7614073
Clear glass, 9 mm conical tip	0,1	31x5	10 x 100	WC/7616846
Clear glass, small opening	0,05	27,5x4	10 x 100	WC/7632176
Metal spring			100	WC/7632175

## Screw Neck Vials ND8 and Seals

### PP Screw Caps ND8 (centre hole or closed top screw seals)

#### Natural Rubber / TEF and Butyl / PTFE Seals

Typ	Thickness (ml)	Durometer	Packaging Unit	Article No.
Natural Rubber / TEF, centre hole	1,3	60° shore A	100	WC/7612928
Butyl red / PTFE grey, centre hole	1,3	55° shore A	100	WC/7616773
Natural Rubber / TEF, closed top	1,3	60° shore A	100	WC/6802991
Butyl red / PTFE grey, closed top	1,3	55° shore A	100	WC/7616149
RedRubber / PTFE beige, centre hole	1,0	45° shore A	100	WC/7654401

#### Silicone / PTFE Seals

Typ	Thickness (ml)	Durometer	Packaging Unit	Article No.
Silicone white / PTFE red <i>UltraClean</i> , centre hole	1,3	45° shore A	100	WC/7604778
Silicone creme / PTFE red <i>UltraClean</i> , centre hole	1,5	55° shore A	100	WC/7630256
PTFE red / Silicone white / PTFE red, centre hole	1,0	45° shore A	100	WC/7630523
Silicone white / PTFE red <i>UltraClean</i> , closed top	1,3	45° shore A	100	WC/7621679

**Further Screw Seals ND8 with closed/open top are available upon request!**

#### Screw Caps 8 mm, without septum

Typ	Thickness (mm)	Material	Packaging Unit	Article No.
Black, with centre hole	-----	PP	100	WC/6051375
Black, closed top	-----	PP	100	WC/7621592

#### Septum for Screw Caps 8 mm

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Silicone white / PTFE blue, slitted <b>recommended by VWR (Merck®)/Hitachi (only unassembled)</b>	0,9	55° shore A	1000	WC/7615125
PTFE virginal <b>(only unassembled)</b>	0,25	53° shore D	1000	WC/7620438
Natural Rubber red-orange / TEF transparent	1,3	60° shore A	1000	WC/7620928
Butyl red / PTFE grey	1,3	55° shore A	1000	WC/7621194
Silicone white / PTFE red	1,3	45° shore A	1000	WC/7615160
Silicone creme / PTFE red	1,5	55° shore A	1000	WC/7615159
PTFE red / Silicone white / PTFE red	1,0	45° shore A	1000	WC/7616847
RedRubber / PTFE beige	1,0	45° shore A	100	WC/7654480

**Further septum on request!**

## Short Thread Vials ND9 and Seals



WC/7612960 WC/7630175	WC/6803174	WC/6088871 WC/7616003	WC/7616848	WC/7616849	WC/7636996
WC/7631401 WC/7616934	WC/7616850 WC/7616935	WC/6901955	WC/6205647	WC/7616851	WC/7618914

Due to their technical geometry the vials could be used for all common Autosamplers favoured are to be found by Agilent, HTA, Shimadzu, Thermo, Varian, Waters®, etc.

(Please have a look at the autosampler compatibility chart on pages 27-38)








### Short Thread Vials ND9 and Micro Inserts for Vials with wide opening

Typ	Volume (ml)	Dimensions (mm)	Packaging Unit	Article No.
Clear glass, wide opening (Silanized: WC/7630175)	1,5	32x11,6	100	WC/7612960
Clear glass, wide opening and label & filling lines	1,5	32x11,6	100	WC/6803174
Amber glass, wide opening and label & filling lines (Silanized: WC/7616003)	1,5	32x11,6	100	WC/6088871
Microliter Short Thread Vial, with 15 µl inner cone	1,1	32x11,6	100	WC/7616848
Short Thread Vial with integrated Micro Insert plus label & filling lines	0,2	32x11,6	100	WC/7616849
Short Thread Vial, amber, with integrated Micro Insert plus label & filling lines	1,5	32x11,6	100	WC/7636996
<b>TopSert™</b> TPX Short Thread Vial, transparent with integrated Glass Micro Insert (Silanized: WC/7616934)	0,2	32x11,6	100	WC/7631401
<b>TopSert™</b> TPX Short Thread Vial, amber with integrated Glass Micro Insert (Silanized: WC/7616935)	0,2	32x11,6	100	WC/7616850
PP Short Thread Micro Vial	0,3	32x11,6	100	WC/6901955
PP Short Thread Micro Vial, transparent	0,7	32x11,6	100	WC/7618914
PP Short Thread Vial, transparent	1,5	32x11,6	100	WC/6205647
PP Short Thread Vial, amber	1,5	32x11,6	100	WC/7616851

## Short Thread Vials ND9 and Seals

### Micro Inserts for Screw Neck Vials ND9 (wide opening)



			
WC/7615290 WC/7616933	WC/7620929	WC/7614088 WC/7615561	WC/6803175
			
06 19 2242	06 19 2240	06 19 2241	

Typ	Volume (ml)	Dimensions (mm)	Packaging Unit	Article No.
Clear glass, 15 mm conical tip (Silanized: WC/7616933)	0,1	31x6	10x100	WC/7615290
Clear glass, 12 mm conical tip	0,1	31x6	10x100	WC/7620929
Clear glass, with assembled plastic spring (Silanized: WC/7615561)	0,1	29x5,7	10x100	WC/7614088
Clear glass, flat bottom	0,2	31x6	10x100	WC/6803175
PP, 10 mm conical tip	0,1	29x6	10x100	WC/7654481
PP, 10 mm conical tip	0,1	29x6	10x100	WC/7654482
PP, flat bottom	0,2	31x6	10x100	WC/7654483

### PP Short Thread Seals ND9

With transparent cap:

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Natural Rubber / TEF	1,0	60° shore A	100	WC/6088872
RedRubber / PTFE beige	1,0	45° shore A	100	WC/7636712
Silicone white / PTFE red <i>UltraClean</i>	1,0	55° shore A	100	WC/7612027
PTFE red / Silicone white / PTFE red	1,0	45° shore A	100	WC/7630691
Silicone white / PTFE blue, slitted	1,0	55° shore A	100	WC/7615326
Silicone white / PTFE red, pre-cut (Y)	1,0	55° shore A	100	WC/7654493

With blue cap:

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Natural Rubber / TEF	1,0	60° shore A	100	WC/7621038
RedRubber / PTFE beige	1,0	45° shore A	100	WC/7623097
Silicone white / PTFE red <i>UltraClean</i>	1,0	55° shore A	100	WC/7615161
PTFE red / Silicone white / PTFE red	1,0	45° shore A	100	WC/7615823
Silicone white / PTFE blue, slitted	1,0	55° shore A	100	WC/7630950
Silicone white / PTFE red, pre-cut (Y)	1,0	55° shore A	100	WC/7654494

## Short Thread Vials ND9 and Seals

With red cap:

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Natural Rubber / TEF	1,0	60° shore A	100	WC/7621157
RedRubber / PTFE beige	1,0	45° shore A	100	WC/7636712
Silicone white / PTFE red <i>UltraClean</i>	1,0	55° shore A	100	WC/7630473
PTFE red / Silicone white / PTFE red	1,0	45° shore A	100	WC/7630477
Silicone white / PTFE blue, slitted	1,0	55° shore A	100	WC/7616852

With black cap:

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Natural Rubber / TEF	1,0	60° shore A	100	WC/7616538
RedRubber / PTFE beige	1,0	45° shore A	100	WC/7654495
Silicone white / PTFE red <i>UltraClean</i>	1,0	55° shore A	100	WC/7616539
PTFE red / Silicone white / PTFE red	1,0	45° shore A	100	WC/7616853
Silicone white / PTFE blue, slitted	1,0	55° shore A	100	WC/7616854

9 mm Short Thread Seals with a green or a yellow cap as well as a blue closed top version are available upon request!



### MS cap - 9mm Short Thread Cap - one component closure

one component seal for GC/MS and LC/MS uses

- Not bleeding one component seal
- LC/GC MS certified
- absolutely inert
- tight as a septum, to be penetrated as a septum

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
MS cap with thinned penetration point	---	---	100	WC/7618910

Each cap batch has been tested according to LC/MS and GC and a corresponding certificate will be attached.  
The certificate contains data of the instrument, the used column as well as to any other test conditions.

### UltraBond™ Seals ND9 - PP Short Thread Screw Caps

(Cap + Liner form an unseparable unit, so that the liner cannot be pushed into the vial even with a blunt needle during penetration process)

#### Enhanced Waters® Quality

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Silicone white / PTFE red, black cap	1,3	45° shore A	100	WC/7616855
Silicone beige / PTFE white, blue cap <b>enhanced Waters® Quality</b>	1,3	45° shore A	100	WC/7616856
Silicone beige / PTFE white, slitted, blue cap <b>enhanced Waters® Quality</b>	1,3	45° shore A	100	WC/7616857

### 9 mm blue Short Thread Screw Caps, closed

- for storage purposes
- available with different septums

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
PTFE virginal	0,2	53° shore A	100	WC/7618911
Natural Rubber red-orange / TEF transp.	1,0	60° shore A	100	WC/7618912
Silicone white / PTFE red	1,0	55° shore A	100	WC/7633658

## Short Thread Vials ND9 and Seals



### Magnetic 9 mm Short Thread Screw Caps, with assembled magnetic cap, gold

(for CTC PAL + Thermo TriPlus Autosampler)

- Easier and safer in handling as 11 mm magnetic Crimping Seals
- prepared Seal
- officially tested and approved by CTC

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
9 mm Short Thread Cap, blue with centre hole, with assembled magnetic cap, gold, Silicone white / PTFE red	1,0	55° shore A	100	WC/7618913

## PP Vials ND9 and PP Micro Vials ND9 + ND11

									
WC/6205647	WC/7616858	WC/7618897	WC/6901405	WC/7616859	WC/7616860	WC/7631798	WC/7616861	WC/7618914	WC/6901955

### Plastic Vials ND9 and Plastic Micro Vials ND9 + ND11

Typ	Volume (ml)	Dimensions (mm)	Packaging Unit	Article No.
PP Short Thread Vial ND9, transparent, leicht konkaver Boden	1,5	32x11,6	100	WC/6205647
PP Short Thread Vial ND9, amber, slightly concave shaped bottom	1,5	32x11,6	100	WC/7616858
PP Short Thread Micro Vial ND9, transparent	0,3	32x11,6	100	WC/7618897
PP Snap Ring Micro Vial ND11, transparent	0,3	32x11,6	100	WC/6901405
TPX Short Thread Micro Vial, ND9, crystal clear	0,3	32x11,6	100	WC/7616859
TPX Snap Ring Micro Vial, ND11, crystal clear	0,3	32x11,6	100	WC/7616860
PP Short Thread Micro Vial ND9, amber	0,3	32x11,6	100	WC/7631798
PP Snap Ring Micro Vial ND11, amber	0,3	32x11,6	100	WC/7616861
PP-Short Thread Micro Vial ND9, transparent	0,7	32x11,6	100	WC/7618914
PP-Snap Ring Micro Vial ND11, transparent	0,7	32x11,6	100	WC/6901955








Adapted Seals for the PP Vials ND9 and Plastic Micro Vials ND9 + ND11 please find on the following pages:

Seals for Short Thread Vials: page 11

Seals for Snap Ring Vials: page 15

## Screw Neck Vials ND10 and Seals



			
WC/7615291	WC/7615715	WC/7621171	
			
WC/7615290	WC/7620929	WC/7614088	WC/6803175

The vials are preferentially used on instruments of the following manufacturers:

Jasco, Perkin Elmer, Shimadzu, Varian, Waters®, etc.

(Please have a look at the autosampler compatibility chart on pages 27 - 38 to see on which models they can be used)

### Screw Neck Vials ND10 and Micro Inserts for Vials with wide opening

Typ	Volume (ml)	Dimensions (mm)	Packaging Unit	Article No.
Clear glass, wide opening	1,5	32x11,6	100	WC/7615291
Clear glass, wide opening and label & filling lines	1,5	32x11,6	100	WC/7615715
Amber glass, wide opening and label & filling lines	1,5	32x11,6	100	WC/7621171

### Micro Inserts for Screw Neck Vials ND10 (wide opening)

Typ	Volume (ml)	Dimensions (mm)	Packaging Unit	Article No.
Clear glass, 15 mm conical Tip (Silanized: WC/7616933)	0,1	31x6	10x100	WC/7615290
Clear glass, 12 mm conical Tip	0,1	31x6	10x100	WC/7620929
Clear glass, with assembled plastic spring (Silanized: WC/7615561)	0,1	29x5,7	10x100	WC/7614088
Clear glass, flat bottom	0,2	31x6	10x100	WC/6803175

### Screw Caps ND10, centre hole, with Septum

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Natural Rubber / TEF	1,3	60° shore A	100	WC/7615292
Silicone white / PTFE red <i>UltraClean</i>	1,3	45° shore A	100	WC/7631600
Silicone white / PTFE beige	1,5	45° shore A	100	WC/7621568
PTFE red / Silicone white / PTFE red	1,0	45° shore A	100	WC/7615766
Silicone white / PTFE blue, slitted	1,5	55° shore A	100	WC/7615716

### Screw Caps ND10, closed cap, with Septum

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Natural Rubber / TEF	1,3	60° shore A	100	WC/7618915

## Snap Ring Vials ND11 and Seals



						
WC/7608132	WC/7622228	WC/7613330	WC/7631402	WC/7616839	WC/6901405	WC/6901955

The vials are preferentially used on instruments of the following manufacturers:

**Agilent, CTC, Dani, Dionex, Jasco, Shimadzu, Spark, Thermo, Varian, VWR (Merck®)/Hitachi, Waters®, etc.**

(Please have a look at the autosampler compatibility chart on pages 27 - 38 to see on which models they can be used)

### Snap Ring Vials ND11 and Micro Inserts for Snap Ring Vials (wide opening)

Typ	Volume (ml)	Dimensions (mm)	Packaging Unit	Article No.
Clear glass, wide opening	1,5	32x11,6	100	WC/7608132
Clear glass, wide opening and label & filling lines	1,5	32x11,6	100	WC/7622228
Amber glass, wide opening and label & filling lines	1,5	32x11,6	100	WC/7613330
<b>TopSert™</b> TPX Snap Ring Vial transparent with integrated Glass Micro Insert (Silanized: WC/7616109)	0,2	32x11,6	100	WC/7631402
<b>TopSert™</b> Kunststoff-Flasche braun with integriertem Glas-Mikroinsert (Silanized: WC/7616932)	0,2	32x11,6	100	WC/7616839
PP Snap Ring Micro Vial	0,3	32x11,6	100	WC/6901405
PP Snap Ring Micro Vial, transparent	0,7	32x11,6	100	WC/6901955

### Micro Inserts for Snap Ring Vials ND11 (wide opening)

Typ	Volume (ml)	Dimensions (mm)	Packaging Unit	Article No.
Clear glass, 15 mm conicale Tip (Silanized: WC/7616933)	0,1	31x6	10x100	WC/7615290
Clear glass, 12 mm conicale Tip	0,1	31x6	10x100	WC/7620929
Clear glass, with assembled plastic spring (Silanized: WC/7615561)	0,1	29x5,7	10x100	WC/7614088
Clear glass, flat bottom	0,2	31x6	10x100	WC/6803175

### Snap Ring Seals 11 mm, with Septum

With transparent cap

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Natural Rubber / TEF	1,0	60° shore A	100	WC/7608133
Silicone white / PTFE red <i>UltraClean</i>	1,3	45° shore A	100	WC/7614940
PTFE red / Silicone white / PTFE red	1,0	45° shore A	100	WC/7630864
Silicone white / PTFE blue, cross-slitted	1,0	55° shore A	100	WC/7613331

## Snap Ring Vials ND11 and Seals

### With blue cap

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Natural Rubber / TEF	1,0	60° shore A	100	WC/7616862
RedRubber / PTFE beige	1,0	45° shore A	100	WC/7651442
Silicone white / PTFE red <i>UltraClean</i>	1,3	45° shore A	100	WC/7616863
PTFE red / Silicone white / PTFE red	1,0	45° shore A	100	WC/7616864
Silicone white / PTFE blue, cross-slitted	1,0	55° shore A	100	WC/7615797
Silicone white / PTFE red, pre-cut (Y)	1,3	45° shore A	100	WC/7654496

### With red cap

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Natural Rubber / TEF	1,0	60° shore D	100	WC/7616866
Silicone white / PTFE red <i>UltraClean</i>	1,3	45° shore A	100	WC/7616867
PTFE red / Silicone white / PTFE red	1,0	45° shore A	100	WC/7616868
Silicone white / PTFE blue, cross-slitted	1,0	55° shore A	100	WC/7616869
Silicone white / PTFE red, pre-cut (Y)	1,3	45° shore A	100	WC/7654497

11 mm Snap Ring Seals with a green or yellow cap are available upon special request.

### Snap Ring Seals 11 mm, with Septum in soft PE cap quality

#### With transparent cap

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Natural Rubber / TEF	1,0	60° shore A	100	WC/7618921
Silicone white / PTFE red <i>UltraClean</i>	1,3	45° shore A	100	WC/7618922
PTFE red / Silicone white / PTFE red	1,0	45° shore A	100	WC/7618923
Silicone white / PTFE blue, cross-slitted	1,0	55° shore A	100	WC/7618924

#### With blue cap

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Natural Rubber / TEF	1,0	60° shore A	100	WC/7618920
Red Rubber / PTFE beige	1,0	45° shore A	100	WC/7618916
Silicone white / PTFE red <i>UltraClean</i>	1,3	45° shore A	100	WC/7618917
PTFE red / Silicone white / PTFE red	1,0	45° shore A	100	WC/7618918
Silicone white / PTFE blue, cross-slitted	1,0	55° shore A	100	WC/7618919
Silicone white / PTFE red, pre-cut (Y)	1,3	45° shore A	100	WC/7654497

### Other Combination Seals for Snap Ring Vials ND11



- Blue Push-On-Cap (WC/7616553) with thinned penetration point from Polyethylene for Snap Ring- and Crimp Neck Vials ND11
- Inexpensive alternative to crimp caps for uncritical analyses, as it does not contain any septum, but only has a thinner penetration point
- Push-On-Caps can be used as an alternative to Snap-Ring-Caps with PTFE liner

Description of the Cap	Septa Material	Durometer	Packaging Unit	Article No.
PE Push On Cap, blue	with thinned penetration point		100	WC/7616553

## Screw Neck Vials ND13 and Seals



			
WC/7613421	WC/7616808	WC/7603252	WC/7616870

The vials are preferentially used on instruments of the following manufacturers:  
**Dionex, Shimadzu, Spark, Varian, VWR (MERCK®)/HITACHI, Waters® (Wisp 48 Positionen Karussell), etc.**  
 (Please have a look at the autosampler compatibility chart on pages 27 - 34 to see on which models they can be used)

### Screw Neck Vials ND13 and Micro Inserts for Screw Neck Vials ND13

Typ	Volume (ml)	Dimensions (mm)	Packaging Unit	Article No.
Clear glass	4	45x14,7	100	WC/7613421
Clear glass with labels and filling lines	4	45x14,7	100	WC/7616808
Amber glass	4	45x14,7	100	WC/7603252
Amber glass with labels and filling lines	4	45x14,7	100	WC/7616870

### Micro Insert for 4 ml Vials

Typ	Volume (ml)	Dimensions (mm)	Packaging Unit	Article No.
Clear glass, conical Tip, spring required	0,3	40x6	10x100	WC/7621750
Metal spring for Micro Insert WC/7621750		50x7,5	100	WC/7621748

### Screw Caps 13 mm, with Septum

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Natural Rubber / TEF	1,3	60° shore A	100	WC/7621159
Butyl red / PTFE grey	1,3	55° shore A	100	WC/7616871
Silicone creme / PTFE red	1,5	55° shore A	100	WC/7621158
PTFE red / Silicone white / PTFE red	1,0	45° shore A	100	WC/7616872
Silicone white / PTFE blue, cross-slitted	1,5	55° shore A	100	WC/7616873

### Screw Caps 13 mm, without Septum

Typ	Thickness (mm)	Material	Packaging Unit	Article No.
Black, with centre hole	-----	PP	100	WC/7615951
Black, closed top	-----	PP	100	WC/6204817

### Septum for Screw Caps 13 mm

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
PTFE virginal (only unassembled)	0,25	53° shore D	1000	WC/7613332
Natural Rubber / TEF	1,3	60° shore A	1000	WC/7616874
Butyl red / PTFE grey	1,3	55° shore A	1000	WC/7616875
Silicone creme / PTFE red	1,5	55° shore A	1000	WC/6204825
PTFE red / Silicone white / PTFE red	1,0	45° shore A	1000	WC/7616876
Silicone white / PTFE blue, cross-slitted	1,5	55° shore A	1000	WC/7616877

## Shell Vials 1 ml, 2 ml and 4 ml



WC/7612017	WC/7620436	WC/7616878	WC/7621467	WC/7616879	WC/7632226	WC/7616880
for Alcott	for Waters® Wisp 96 Pos. Karussell	for Waters® Wisp 96 Pos. Karussell	for diverse Instrumente	for diverse Instrumente	for Waters® Wisp 48 Pos. Karussell	for Waters® Wisp 48 Pos. Karussell

The vials are preferentially used on instruments of the following manufacturers:

**Alcott, Gilson, Shimadzu, Waters® (Wisp 96 bzw. 48 Positionen Karussell)**

(Please have a look at the autosampler compatibility chart on pages 27 - 34 to see on which models they can be used)

### Shell Vials with PE-Plug

Typ	Volume (ml)	Dimensions (mm)	Packaging Unit	Article No.
Clear glass with PE-Plug, transparent	1	35x7,8	100	WC/7612017
Clear glass with PE-Plug, transparent	1	40x8,2	100	WC/7620436
Clear glass with PE-Plug, transparent (PE-Plug without Insertion barrier for the Micro Insert + thinned penetration point)	1	40x8,2	100	WC/7617518
Amber glass with PE-Plug, transparent	1	40x8,2	100	WC/7616878
Amber glass m. PE-Plug, transparent (PE-Plug without Insertion barrier for the Micro Insert + thinned penetration point)	1	40x8,2	100	WC/7618925
Clear glass with PE-Plug, transparent	2	31,5x11,6	100	WC/7621467
Amber glass with PE-Plug, transparent	2	31,5x11,6	100	WC/7616879
Clear glass with PE-Plug, transparent	4	44,6x14,65	100	WC/7632226
Amber glass with PE-Plug, transparent	4	44,6x14,65	100	WC/7616880
PP with PE-Plug, transparent	1	40x8	100	WC/7654498
PP with PE-Plug, transparent	4	44,6x14,65	100	WC/7654504
PP with PE-Plug, transparent with inner cone	3	44,6x14,65	100	WC/7654505

### Micro Inserts for Shell Vials

Typ	Volume (ml)	Dimensions (mm)	Packaging Unit	Article No.
Clear glass, conical Tip (for 1 ml Shell Vial)	0,1	34x5	10x100	WC/7616881
Clear glass, conical Tip (for 2 ml Shell Vial) (Silanized: WC/7616933)	0,1	31x6	10x100	WC/7615290
Clear glass, conical Tip (for 4 ml Shell Vial)	0,3	43,45x6	10x100	WC/7616882

## Headspace-Vials ND20/ND18 and Seals



			
WC/7615908	WC/7615808 WC/7616883	WC/7621813	WC/7620798 WC/7613394

						
WC/7613328	WC/6204710	WC/7612926 WC/7616552	WC/7620148	WC/7620147	WC/7612175	WC/7616139

### Headspace-Vials / Crimp Neck Vials ND20

Typ	Volume (ml)	Dimensions (mm)	Packaging Unit	Article No.
Clear glass, HS-Border, rounded bottom (Perkin Elmer)	5	38,2x22	100	WC/7615908
Clear glass, DIN Crimp Neck, rounded bottom (Carlo Erba, CTC, Fisons, Varian (CP))	10	46x22,5	100	WC/7615808
Amber glass, DIN Crimp Neck, rounded bottom (Carlo Erba, CTC, Fisons, Varian (CP))	10	46x22,5	100	WC/7616883
Clear glass, DIN Crimp Neck, flat bottom, long neck (Carlo Erba, Dani, Fisons, Agilent)	10	46x22,5	100	WC/7621813
Clear glass, HS-Border, rounded bottom (Perkin Elmer, Tekmar)	20	75,5x23	100	WC/7620798
Amber glass, HS-Border, rounded bottom (Perkin Elmer, Tekmar)	20	75,5x23	100	WC/7613394
Clear glass, HS-Border, rounded bottom, with labels and filling lines (Perkin Elmer, Tekmar)	20	75,5x23	100	WC/7613328
Clear glass, DIN Crimp Neck, flat bottom, long neck (Carlo Erba, Dani, Fisons, Agilent)	20	75,5x22,5	100	WC/6204710
Clear glass, DIN Crimp Neck, rounded bottom, long neck (CTC PAL (Varian, Gerstel, Atas, Shimadzu) + TriPlusHS)	20	75,5x22,5	100	WC/7612926
Clear glass, Crimp Neck, flat bottom (Varian)	5	38x20	100	WC/7620148
Clear glass, Crimp Neck, flat bottom (Varian)	10	54,5x20	100	WC/7620147
Clear glass, Crimp Neck, flat bottom	50	101x31	100	WC/7612175
Clear glass, rounded bottom – Screw caps ND18 (Perkin Elmer)	20	75,5x23	100	WC/7616139

## Headspace-Vials ND20/ND18 and Seals

### Crimp Seals 20 mm, with Septum

Aluminium Centre hole seals:

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Butyl / PTFE, grey	3,0	50° shore A	100	WC/7615320
Pharma-Fix-Septum Butyl / PTFE	3,0	50° shore A	100	WC/7614955
Silicone blue transparent / PTFE transp. <i>UltraClean</i>	3,0	45° shore A	100	WC/6204709

Headspace-Caps (Overpressure Closings):

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Butyl / PTFE, grey	3,0	50° shore A	100	WC/7613446
Pharma-Fix-Septum Butyl / PTFE	3,0	50° shore A	100	WC/7621340
Silicone blue transparent / PTFE transp. <i>UltraClean</i>	3,0	45° shore A	100	WC/7615893
Silicone white / Aluminium foil silber	3,0	50° shore A	100	WC/7615848

Sonstige:

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Alu Crimp Cap, 20 mm, centre hole and Butyl-PE-Plug, grey			1000 + 10x100	WC/7615550 WC/7615551

Other seals also with center tear- or complete tear off caps rather coloured centre hole caps on request!

Magnetic Crimp Seals 20 mm – 8 mm centre hole, with Septum (for CTC, Varian)

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Butyl / PTFE, grey	3,0	50° shore A	100	WC/7612927
Pharma-Fix-Septum Butyl / PTFE	3,0	50° shore A	100	WC/7613329
Silicone blue transparent / PTFE transp. <i>UltraClean</i>	3,0	45° shore A	100	WC/7615866

Magnetic Bimetal cap 20 mm – 8 mm centre hole, with Septum (for CTC, Varian)

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Silicone blue transparent / PTFE transp. <i>UltraClean</i>	3,0	45° shore A	100	WC/7616884

PP Screw Caps ND18 for WC/7616139

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Butyl red / PTFE grey, 12 mm centre hole	1,6	55° shore A	100	WC/7616885
Butyl red / PTFE grey, closed cap	1,6	55° shore A	100	WC/7616140
Silicone blue transparent / PTFE white, 12 mm centre hole	1,7	45° shore A	100	WC/7616886
Silicone blue transparent / PTFE white, closed cap	1,7	45° shore A	100	WC/7616887

PE Cap 22 mm, cap height 9,2 mm, with Septum (for Crimp Neck Vials with DIN Crimp Neck)

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Natural Rubber / TEF	1,3	60° shore A	100	WC/7616888
Butyl red / PTFE grey	1,3	55° shore A	100	WC/7616889
Silicone blue transparent / PTFE white	1,3	45° shore A	100	WC/7616890

Other PE Cap Seals with a cap height of 8,4mm with septa for Headspace Vials with HS border are available on request!

## Headspace-Vials ND20/ND18 and Seals

### Septum / Stoppers for 20 mm Crimp Caps

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Moulded septum Butyl, dark grey	3,0	50° shore A	1000	WC/7616891
Moulded septum Butyl / PTFE, grey	3,0	50° shore A	1000	WC/7616892
Pharma-Fix-Septa (Butyl/PTFE)	3,0	50° shore A	1000	WC/7621812
Silicone blue transp. / PTFE transp. <i>UltraClean</i>	3,0	45° shore A	1000	WC/7616893
Silicone white / PTFE beige ( <b>AGILENT HT-Quality</b> )	3,25	45° shore A	1000	WC/7616894
20 mm Butyl-Injection Stopper, grey ( <i>Empf. v. Perkin Elmer</i> )			1000	WC/7615551

Further 20 mm Septum available upon request!

## Precision Thread Headspace Vials & Seals ND18 for CTC Combi PAL+ TriPlus HS



Approved by CTC Analytics!

**Magnetic Crimp Caps** are difficult to crimp. Because of that the Screw Thread Vials (10ml + 20ml) with magnetic screw caps had been developed for CTC Autosamplers. The vial has a fine thread with many thread pitches which press the septum against the edge of the glass to close the vial gas tight. Due to the thickness of the hole the cap can be used for SPME and for Headspace employments but offers enough surface for the magnet to transport a completely filled vial.

When screwing it is secured that the cap has a plane surface so the vial cannot break away from the magnet. For the disposal of the vials the disconnection between vial and seal after the analysis is essential.

### Precision Thread Headspace Vials ND18

Typ	Volume (ml)	Dimensions (mm)	Packaging Unit	Article No.
Precision Thread Headspace Vial ND18, Clear glass	10	46x22,50	100	WC/7620815
Precision Thread Headspace Vial ND18, Amber glass	10	46x22,50	100	WC/7616895
Precision Thread Headspace Vial ND18, Clear glass	20	75,5x22,50	100	WC/7630303
Precision Thread Headspace Vial ND18, Amber glass	20	75,5x22,50	100	WC/7621127

### Magnetic Universal Screw Seals ND18 (8 mm centre hole)

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Silicone white / PTFE blue <i>UltraClean</i>	1,5	55° shore A	100	WC/7621125
Silicone blue transparent / PTFE white <i>UltraClean</i>	1,3	45° shore A	100	WC/7630304
Silicone white / PTFE red <i>UltraClean</i>	1,3	45° shore A		WC/7621126
Butyl red / PTFE grey	1,6	55° shore A		WC/7615717

### Universal Screw Seals ND18 (closed top)

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Silicone white / PTFE red <i>UltraClean</i>	1,3	45° shore A	100	WC/7616897
Butyl red / PTFE grey	1,6	55° shore A	100	WC/7622171

## Crimping Tools



Due to the different crimp neck designs and the thickness of the septa it is absolutely necessary that a crimper is adjustable in crimp compression as well as in crimp height. Additionally 11mm, 13mm and 20mm crimpers are adjustable in crimping height by screwing up or down the pressure block in the crimping head with a hexagon key. Hold the crimp head close in your hand and put the hexagon key in the provided socket. By rotation right wards the crimp head goes up and the crimping is going loose. When rotating the hexagon key left wards the crimpings goes firmer. Our crimpers are marked to a chemical resistant surface painting which is especially tuned for using in laboratories. Hardened crimping jaws made of a special alloy guarantee long life.

### Handheld Crimpers

Typ	Packaging Unit	Article No.
Crimper for 8 mm Crimp Seals	1	GY/9003470
Crimper for 11 mm Crimp Seals	1	GY/9003471
Crimper for 13 mm Crimp Seals	1	GY/9003473
Crimper for 20 mm Crimp Seals	1	GY/9003475
Decapper for 8 mm Crimp Seals	1	GY/9003511
Decapper for 11 mm Crimp Seals	1	GY/9003367
Decapper for 13 mm Crimp Seals	1	GY/9003368
Decapper for 20 mm Crimp Seals	1	GY/9003369



Crimping tools for the cleanroom are fully stainless steel made to maximum resistance to steam sterilization and autoclaving to ensure.

- Beading / unloading curling mechanism is corrosion and heat resistant. By the stainless steel construction requires no protective coating in the handle and overseal head.
- Repeated sterilization of for clean room applications cause injury of the tool.
- Available in sizes 11 mm, 13 mm and 20 mm.
- Crimping tools are adjustable in flare pressure and height for optimal edging results to achieve different types of bottle.

### STAINLESS STEEL Handheld Crimpers for Clean Rooms (NEW)

Typ	Packaging Unit	Article No.
Crimper Stainless Steel for 11 mm Crimp Seals	1	WC/7654510
Crimper Stainless Steel for 13 mm Crimp Seals	1	WC/7654511
Crimper Stainless Steel for 20 mm Crimp Seals	1	WC/7654512
Decapper Stainless Steel for 11 mm Crimp Seals	1	WC/7654513
Decapper Stainless Steel for 13 mm Crimp Seals	1	WC/7654514
Decapper Stainless Steel for 20 mm Crimp Seals	1	WC/7654515

## Crimping Tools

### Pneumatic Handheld Crimping tool



- Crimping and decapping tool, operated by compressed air (6.2bar = 90psi minimum)
- Easy handling; just by pushing the button the vial is crimped or decapped
- Interchangeable "K" Heads for crimping and decapping in various dimensions
- Adjustable and constant crimping pressure
- Space-saving installation with a balancer above the working bench
- Ergonomically handling as the balancer compensates the weight of the pneumatic crimper and facilitates steady and precise crimping
- Air supply connector should have "N.P.T." thread

Upon request the pneumatic crimping tool can be delivered with a stainless steel coated hose instead of the flexible Polyurethane hose.

Typ	Packaging Unit	Article No.
Basic Pneumatic Crimping Tool, including pressure regulator, safety valve and teflon hose coated with stainless steel	1	WC/7618927
Hanging device with balancer	1	WC/7618928
8 mm Crimping Head	1	WC/7618929
8 mm Decapping Head	1	WC/7618930
11 mm Crimping Head	1	WC/7618933
11 mm Decapping Head	1	WC/7618931
20 mm Crimping Head	1	WC/7621742
20 mm Decapping Head	1	WC/7618932

## Screw Neck Vials ND24 (EPA) and Seals



WC/7609926 WC/7631988	WC/7615411 WC/7632370	WC/7612150 WC/7632371	WC/7616901 WC/7616902

### Screw Neck Vials ND24 (EPA)

Typ	Volume (ml)	Dimensions (mm)	Packaging Unit	Article No.
Clear glass	20	57x27,5	100	WC/7609926
Amber glass	20	57x27,5	100	WC/7631988
Clear glass	30	72,5x27,5	100	WC/7615411
Amber glass	30	72,5x27,5	100	WC/7632370
Clear glass	40	95x27,5	100	WC/7612150
Amber glass	40	95x27,5	100	WC/7632371
Clear glass	60	140x27,5	100	WC/7616901
Amber glass	60	140x27,5	100	WC/7616902

### UltraBond™ Seals ND24

(Cap + seals form an inseparable unity so that may not fall out of the septum)

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Silicone nature / PTFE beige, centre hole (EPA-Quality)	3,2	45° shore A	100	WC/7612151
Silicone nature / PTFE beige, closed top Screw Cap (EPA-Quality)	3,2	45° shore A	100	WC/7616000

### PP Screw Caps ND 24 (assembled)

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Silicone nature / PTFE beige (EPA-Quality), centre hole	3,2	45° shore A	100	WC/7632010
Silicone nature / PTFE beige (EPA-Quality), closed	3,2	45° shore A	100	WC/7632011
Butyl red / PTFE grey, centre hole	2,5	55° shore A	100	WC/7631987
Butyl red / PTFE grey, closed	2,5	55° shore A	100	WC/7615156

### Screw Caps 24 mm, without Septum

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
White, with centre hole	----	PP	100	WC/7609928
White, closed	----	PP	100	WC/7615412

### Septum for Screw Caps 24 mm

Typ	Thickness (mm)	Durometer	Packaging Unit	Article No.
Silicone nature / PTFE beige (EPA-Quality)	3,2	45° shore A	1000	WC/7609927
Butyl red / PTFE grey	2,5	55° shore A	1000	WC/6207230

## Screw Neck Vials for sample storage purposes



**Screw Neck Vials for storage purposes made of glass of the 1<sup>st</sup> hydrol. class**

**Vials of different volumes are available**

**Amber vials partially upon request**

**Upon request seals with different septa material are also available**

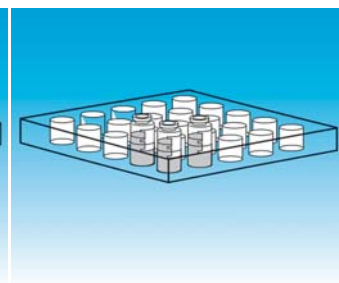
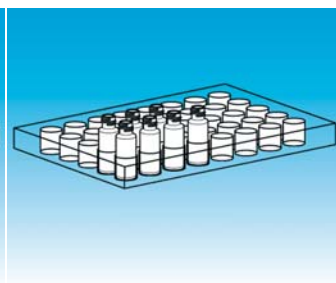
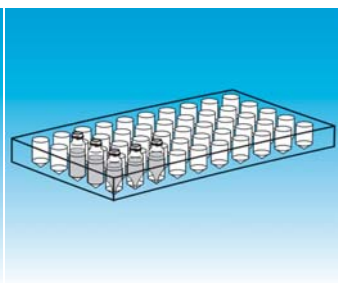
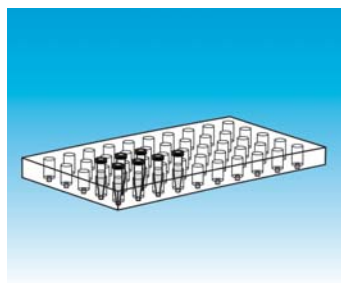
### Screw Neck Vials for sample storage purposes and Screw Caps

Typ	Volume (ml)/Thickness	Dimensions (mm)/Shore A	Packaging Unit	Article No.
Clear glass Amber glass	1,5	32x11,6	100	WC/6401175 WC/7615163
Butyl red / PTFE grey, closed top	1,3	55° shore A	100	WC/7616149
Clear glass Amber glass	4	45x14,7	100	WC/7613421 WC/7603252
Butyl red / PTFE grey, closed top	1,3	55° shore A	100	WC/7616209
Clear glass	8	61x6,6	100	WC/7616898
Amber glass	8	61x6,6	100	WC/7618935
Clear glass	12	66x18,5	100	WC/7616655
Amber glass	12	66x18,5	100	WC/7618936
Butyl red / PTFE grey	1,6	55° shore A	100	WC/7616653
Clear glass	16	71x20,6	100	WC/7616899
Butyl red / PTFE grey	1,3	55° shore A	100	WC/7616900
Clear glass	20	86x22,7	100	WC/7622430
Butyl red / PTFE grey	1,3	55° shore A	100	WC/7617933
Clear glass	20	57x27,5	100	WC/7609926
Amber glass	20	57x27,5	100	WC/7631988
Clear glass	30	72,5x27,5	100	WC/7615411
Amber glass	30	72,5x27,5	100	WC/7632370
Clear glass	40	95x27,5	100	WC/7612150
Amber glass	40	95x27,5	100	WC/7632371
Clear glass	60	140x27,5	100	WC/7616901
Amber glass	60	140x27,5	100	WC/7616902
Butyl red / PTFE grey, closed top (ND24)	2,5	55° shore A	100	WC/7615156

## Vial Racks



- Easy handling and transportation of sample vials
- Filling visible because of transparent Acrylic material
- Stable standing position because of solid construction
- Stack stability because of silicone base
- Vial Racks for 8 mm/11 mm vials can store conical vials
- Tailor-made vial racks can be manufactured according to customer's specifications.



WC/7621486	WC/7620863	WC/7616896	WC/7620864
Vial Rack, Acrylic 173x95x20 mm 50 cavities à 8,5/3 mm Diameter	Vial Rack, Acrylic 173x95x20 mm 50 cavities à 12 mm Diameter	Vial Rack, Acrylic 175,8x115,5x20 mm 40 cavities à 15,1 mm Diameter	Vial Rack, Acrylic 160x160x330 mm 25 cavities à 24 mm Diameter
1 piece	1 piece	1 piece	1 piece
e.g. suitable for: WC/7616831, WC/7616829, WC/7631599 WC/7614045, WC/7622387, WC/7616830 WC/7616832, WC/7620436, WC/7616878 WC/7612017, WC/7621750	e.g. suitable for: WC/7615291, WC/7615715, WC/7621171 WC/6401175, WC/7615163, WC/7608131 WC/7613388, WC/7632401, WC/7631774 WC/7613087, WC/7608160, WC/7620828 WC/7612960, WC/6803174, WC/6088871 WC/7616019, WC/7616848, WC/7608132 WC/7622228, WC/7613330, WC/7620898 WC/7616849, WC/7630175, WC/7616003 WC/7621467, WC/7616879, WC/7631401 WC/7631402, WC/7616850, WC/7616839 WC/6901955, WC/6901405, WC/7616859 WC/7616860, WC/6205647, WC/7616858	e.g. suitable for: WC/7613421, WC/7603252, WC/7616808 WC/7616870, WC/7632226, WC/7616880	e.g. suitable for: WC/7616139, WC/7621182, WC/7620831 WC/7620815, WC/7630303, WC/7616895 WC/7621127, WC/7620798, WC/7615908 WC/7613328, WC/7621813, WC/6204710 WC/7620148, WC/7620147, WC/7612926 WC/7632402, WC/7613394, WC/7615808 WC/7616552, WC/7616883



### POLYPROPYLENE Vial Rack (NEW)

Typ	Packaging Unit	Article No.
Vial Rack, Polypropylene, 200 x 105 x 17 mm, 50 cavities for 1,5 ml vials, with edge label printing, stackable	5	WC/7654509

# Autosampler Compatibility Chart

		Crimp Neck ND8	Crimp Neck ND8	Crimp Neck ND8	Crimp Neck ND8	Crimp Neck ND8	Crimp Neck ND8	Screw Thread ND8	Screw Thread ND8	Short Thread ND9	Screw Thread ND10	Crimp Neck ND11	Crimp Neck ND11
		WC/7622388 WC/7630552	WC/7616829	WC/7622387 WC/7616830	WC/7615704 WC/7614045	WC/7616831 WC/7631599	WC/7616832	WC/6401175 WC/7615163 WC/7613388 WC/7613087	WC/7631774	WC/7612960 WC/6803174 WC/6088871 WC/7630175 WC/7616003 WC/7616849 WC/7636996 WC/7616848 WC/7631401 WC/7616934 WC/7616850 WC/7616859 WC/6205647 WC/7616851 WC/7631798 WC/7618914 WC/7618897	WC/7615291 WC/7615715 WC/7621171	WC/7608141 WC/7608160 WC/7620828 WC/7620898 WC/7616019 WC/7653831	WC/7632401
Page		4	4	4	4	4	4	8	8	10	14	6	6
Agilent	1050									X		X	
Agilent	1050 (34 Pos. Tray)				X								
Agilent	1090									X		X	
Agilent	1090 (34 Pos. Tray)				X								
Agilent	1100									X		X	
Agilent	1200									X		X	
Agilent	G1888A												
Agilent	7673A				X					X		X	
Agilent	7683A				X		X			X		X	
Agilent	HS7694												
Agilent	7695A												
Agilent	79855(A)									X		X	
Agilent	5880									X		X	
Agilent	5890									X		X	
Agilent	6850 (27 Pos. Tray)									X		X	
Agilent	6850 (22 Pos. Tray)									X		X	
Agilent	6890									X		X	
Agilent	CTC HTS + HTC PAL	X			X	X				X		X	
Agilent	CTC GC PAL	X			X	X				X		X	
Agilent	CTC Combi PAL												
Agilent	Tekmar SOLATEk72												
Agilent	AQUATEk 70												
AI	42 vial tray							X	X	X		X	
AI	60 vial tray		X	X	X			X		X		X	
AI	CTC A200S	X				X		X		X		X	
AI	Headspace												
AIM	CPS-100							X		X		X	
AIM	CPS-200							X		X		X	
Alcott	708 AL												
Alcott	728												
Alcott	738							X		X	X	X	
Alcott	719 AL							X		X	X	X	
Alcott	719 D/ D-PCS							X		X	X	X	
Analytik Jena	multi N/C 3000 (TOC)												
Antec Leyden	AS 100							X		X	X	X	
Antek	736 Unisampler							X		X	X	X	
Antek	738							X		X	X	X	
Beckman	501				X			X		X	X	X	
Beckman	502/502e				X			X		X	X	X	
Beckman	504	X				X				X	X	X	
Beckman	507/507e				X			X	X	X	X	X	
Beckman	508 (System Gold)							X	X	X	X	X	
Beckman	Marathon							X	X	X	X	X	
Beckman	Promis							X	X	X	X	X	
Beckman	Triathlon Standard Tray							X	X	X	X	X	
Beckman	Triathlon LSV Tray				X								
Beckman	Triathlon Super-LSV Tray												
Beckman	Triathlon Micro-Tray	X				X							
Bruker	LCS1												
Cambridge Scientific Instruments	205 Series							X		X	X	X	
Cambridge Scientific Instruments	300 Series							X		X	X	X	
Carlo Erba	AS100	X			X	X		X	X	X	X	X	
Carlo Erba	AS200	X				X		X		X	X	X	
Carlo Erba	A200LC	X				X		X	X	X	X	X	
Carlo Erba	AS200S	X				X		X	X	X	X	X	
Carlo Erba	AS300	X			X	X		X	X	X	X	X	
Carlo Erba	AS800, 42 vial tray							X	X	X	X	X	
Carlo Erba	AS800, 60 vial tray		X	X	X			X		X	X	X	
Carlo Erba	HS250												
Carlo Erba	HS500												
Carlo Erba	HS800												
Carlo Erba	HS850												
Cecil Instruments	CE4800							X		X	X	X	
CTC (LEAP)	LC PAL (216 Pos.)							X	X	X	X	X	
CTC (LEAP)	HTX PAL, HTC PAL, HTS PAL (200 Pos. Tray)	X											
CTC (LEAP)	HTX PAL, HTC PAL, HTS PAL (54/98 Pos. Tray)				X			X	X	X	X	X	
CTC (LEAP)	HTX PAL, HTC PAL, HTS PAL (32 Pos. Tray)												

**Autosampler  
Compatibility  
Chart**

		<i>Crimp Neck ND8</i>	<i>Crimp Neck ND8</i>	<i>Crimp Neck ND8</i>	<i>Crimp Neck ND8</i>	<i>Crimp Neck ND8</i>	<i>Crimp Neck ND8</i>	<i>Screw Thread ND8</i>	<i>Screw Thread ND8</i>	<i>Short Thread ND9</i>	<i>Screw Thread ND10</i>	<i>Crimp Neck ND11</i>	<i>Crimp Neck ND11</i>
		WC/7622388 WC/7630552	WC/7616829	WC/7622387 WC/7616830	WC/7615704 WC/7614045	WC/7616831 WC/7631599	WC/7616832	WC/6401175 WC/7615163 WC/7613388 WC/7613087	WC/7631774	WC/7612960 WC/6803174 WC/6088871 WC/7630175 WC/7616003 WC/7616849 WC/7636996 WC/7616848 WC/7631401 WC/7616934 WC/7616850 WC/7616859 WC/6205647 WC/7616851 WC/7631798 WC/7618914 WC/7618897	WC/7615291 WC/7615715 WC/7621171	WC/7608141 WC/7608160 WC/7620828 WC/7620898 WC/7616019 WC/7653831	WC/7632401
<b>Page</b>		<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>8</b>	<b>8</b>	<b>10</b>	<b>14</b>	<b>6</b>	<b>6</b>
CTC (LEAP)	Combi PAL (200 Pos. Tray), GC PAL (200 Pos. Tray)	X											
CTC (LEAP)	Combi PAL (98 Pos. Tray), GC PAL (98 Pos. Tray)				X					X		X	
CTC (LEAP)	Combi PAL SPME Mode (98 Pos. Tray)									X		X	
CTC (LEAP)	Combi PAL (32 Pos. Tray), GC PAL (32 Pos. Tray)												
CTC (LEAP)	Combi PAL SPME Mode (32 Pos. Tray)												
CTC	A200S	X				X		X		X	X	X	
CTC	A200 LC	X				X		X	X	X	X	X	
CTC	HS 500												
DANI	ALS 39.80									X		X	
DANI	ALS 86.80									X		X	
DANI	ALS 1000									X		X	
DANI	HS39.50												
DANI	HS86.50												
DANI	Master AS									X		X	
Dimatec	Dimatoc 2000												
Dionex	Gina 50			X						X		X	
Dionex	AS 50				X			X		X	X		
Dionex	Summit ASI 100, Micro-Tray (192 Pos.)			X									
Dionex	Summit ASI 100, Analytical-Tray (117 Pos.)							X		X		X	
Dionex	Summit ASI 100, Semiprep.-Tray (63 Pos.)												
Dionex	Famos (LC Packings/Dionex)							X		X	X	X	
Dionex	UHiMate Analytical, cylindrical, WPS-3000 SL, 120 Pos. Rack (2ml)							X		X	X	X	
Dionex	UHiMate Analytical, conical, WPS-3000 SL, 120 (3x40) Pos. Rack (1.1ml=2ml w. Inserts)												
Dionex	UHiMate Micro, conical, WPS-3000 SL, 120 (3x40) Pos. Rack (250µl)				X								
Dionex	UHiMate Semipreparative, WPS-3000 SL, 66 (3x22) Pos. Rack (4ml)												
Dionex	UHiMate Nano/Cap/Micro, WPS-3000 SL, 216 (3x72) Pos. Rack (1.2ml)			X									
Dionex	ASE 200												
Dimatec	Dimatoc 200												
Dimatec	Dimatoc 300												
Dimatec	Dimatoc 400												
D-Star	DAS 10							X					X
Dynatech	42 vial tray							X	X	X			X
Dynatech	60 vial tray		X	X	X			X		X			X
Dynatech	LC2000			X									
Dynatech	GC111		X					X					X
Dynatech	GC311		X					X					X
EST Analytical	Cobra L/S GC Autosampler, 120 vial tray							X		X	X	X	
EST Analytical	Cobra L/S GC Autosampler, 60 vial tray												
EST Analytical	Markelov HS9000												
EST Analytical	Archon P/T												
EST Analytical	Centurion 100												
Finnigan	A200S	X				X		X		X		X	
Fisons	AS100	X			X	X		X	X	X		X	
Fisons	AS200	X			X	X		X	X	X		X	
Fisons	A200LC	X			X	X		X	X	X		X	
Fisons	AS200S	X			X	X		X	X	X		X	
Fisons	AS300	X			X	X		X	X	X		X	
Fisons	AS800, 42 vial tray							X		X		X	
Fisons	AS800, 60 vial tray		X	X	X			X		X		X	
Fisons	HS250												
Fisons	HS500												
Fisons	HS800												
Fisons	HS850												



## Autosampler Compatibility Chart

		<i>Crimp Neck ND8</i>	<i>Crimp Neck ND8</i>	<i>Crimp Neck ND8</i>	<i>Crimp Neck ND8</i>	<i>Crimp Neck ND8</i>	<i>Crimp Neck ND8</i>	<i>Screw Thread ND8</i>	<i>Screw Thread ND8</i>	<i>Short Thread ND9</i>	<i>Screw Thread ND10</i>	<i>Crimp Neck ND11</i>	<i>Crimp Neck ND11</i>
		WC/7622388 WC/7630552	WC/7616829	WC/7622387 WC/7616830	WC/7615704 WC/7614045	WC/7616831 WC/7631599	WC/7616832	WC/6401175 WC/7615163 WC/7613388 WC/7613087	WC/7631774	WC/7612960 WC/6803174 WC/6088871 WC/7630175 WC/7616003 WC/7616849 WC/7636996 WC/7616848 WC/7631401 WC/7616934 WC/7616850 WC/7616859 WC/6205647 WC/7616851 WC/7631798 WC/7618914 WC/7618897	WC/7615291 WC/7615715 WC/7621171	WC/7608141 WC/7608160 WC/7620828 WC/7620898 WC/7616019 WC/7653831	WC/7632401
<b>Page</b>		4	4	4	4	4	4	8	8	10	14	6	6
PerkinElmer	ISS-225, 100 vial tray + 80 vial tray										X	X	
PerkinElmer	ISS-225, 85 vial tray										X	X	
PerkinElmer	ISS-225, 25 vial tray												
PerkinElmer	LC 600, 42 vial tray		X										
PerkinElmer	LC 600, 60 vial tray										X	X	
PerkinElmer	Clarus 400, 500, 600												X
Pharmacia	LKB 2157-010							X		X			X
Pharmacia	LKB 2157-020	X				X					X		X
Polymer Laboratories	PL-AS RT							X		X	X		X
Quama Elektronik	QHSS-40												
Sedere										X			X
SGE	LS-3200	X				X							
Shimadzu	AOC-5000	X			X	X				X			X
Shimadzu	AOC-14/1400							X	X	X	X		X
Shimadzu	AOC-17							X	X	X	X		X
Shimadzu	AOC-20/20i/20s 150 Pos. Tray							X	X	X	X		X
Shimadzu	AOC-20/20i/20s 96 Pos. Tray												
Shimadzu	LC-20A							X	X	X	X		X
Shimadzu	SIL-2AS				X			X	X	X	X		X
Shimadzu	SIL-6A				X			X	X	X	X		X
Shimadzu	SIL-6B/SIL-7A/SIL-8A/SIL-9A							X	X	X	X		X
Shimadzu	SIL-10A/SIL-10AF/SIL-10AP/ SIL-10Ai/SIL-10AxL/Rack S 100 Pos.				X			X	X	X	X		X
Shimadzu	SIL-10A/SIL-10AF/SIL-10AP/SIL- 10Ai/SIL-10AxL/Rack L 80 Pos.												
Shimadzu	SIL-10A/SIL-10AF/SIL-10AP/ SIL-10Ai/SIL-10AxL/Rack MTP2 192 Pos.												
Shimadzu	SIL-10HTA/SIL-10HTC 350 pos. Tray												
Shimadzu	SIL-10HTA/SIL-10HTC 140 Pos. Tray							X		X	X		X
Shimadzu	SIL-10HTA/SIL-10HTC 100 Pos. Tray												
Shimadzu	SIL-10ADvp							X	X	X	X		X
Shimadzu	HTA 200 H												
Shimadzu	SIL-20A (Prominence) 105 vial tray/SIL-20AC (Prominence) 70 vial tray				X			X	X	X	X		X
Shimadzu	SIL-20A/SIL-20AC (Prominence) 175 vial tray												
Shimadzu	SIL-20A/SIL-20AC (Prominence) 50 vial tray												
Shimadzu	LC2010C + LC2010A 350 Pos. Tray												
Shimadzu	LC2010C + LC2010A 140 Pos. Tray							X		X	X		X
Shimadzu	LC2010C + LC2010A 100 Pos. Tray												
Shimadzu	ASI-V												
Sievers (GE Instruments)	Sievers® 900												
Spark	Marathon Basic, Standard 96 Pos. Tray							X	X	X			X
Spark	Marathon Basic Präp King Size 48 Pos. Tray												
Spark	Midas, Standard 84 Pos. Tray							X	X	X			X
Spark	Midas, Large Capacity 96 Pos. Tray							X	X	X			X
Spark	Midas, Large Volume 24 Pos. Tray												
Spark	Alias							X	X	X			X
Spark	Promis							X	X	X			X
Spark	SPH 125								X	X			X
Spark	Triathlon, Standard 96 Tray								X	X			X
Spark	Triathlon, LSV 72 Pos. Tray												
Spark	Triathlon, Super-LSV 32 Pos. Tray												
Spark	Triathlon, Micro 160 Pos. Tray	X				X							
Spark	Endurance 48 Pos. Tray							X	X	X			X
Spark	Reliance 48 Pos. Tray							X	X	X			X

# Autosampler Compatibility Chart

		Crimp Neck ND8	Crimp Neck ND8	Crimp Neck ND8	Crimp Neck ND8	Crimp Neck ND8	Crimp Neck ND8	Screw Thread ND8	Screw Thread ND8	Short Thread ND9	Screw Thread ND10	Crimp Neck ND11	Crimp Neck ND11
		WC/7622388 WC/7630552	WC/7616829	WC/7622387 WC/7616830	WC/7615704 WC/7614045	WC/7616831 WC/7631599	WC/7616832	WC/6401175 WC/7615163 WC/7613388 WC/7613087	WC/7631774	WC/7612960 WC/6803174 WC/6088871 WC/7630175 WC/7616003 WC/7616849 WC/7636996 WC/7616848 WC/7631401 WC/7616934 WC/7616850 WC/7616859 WC/6205647 WC/7616851 WC/7631798 WC/7618914 WC/7618897	WC/7615291 WC/7615715 WC/7621171	WC/7608141 WC/7608160 WC/7620828 WC/7620898 WC/7616019 WC/7653831	WC/7632401
Page		4	4	4	4	4	4	8	8	10	14	6	6
Spectra-Physics	8875							X		X		X	
Spectra-Physics	8880							X		X		X	
Spectra-Physics	SpectraSYSTEM AS1000	X			X	X		X		X		X	
Spectra-Physics	SpectraSYSTEM AS 3000	X		X	X	X		X		X		X	
Spectra-Physics	SpectraSYSTEM AS 3500	X			X	X		X		X		X	
Sykam	S 5200									X			
Talbot										X		X	
Teledyne Tekmar	7000/7000HT/7050												
Teledyne Tekmar	AQUATEK 70/SOLATEK 72TM												
Teledyne Tekmar	STS 8000 TOC												
Teledyne Tekmar	HT3												
Thermo Scientific	AS1000 (Trace GC)	X			X	X		X		X		X	
Thermo Scientific	AS200	X				X		X	X	X		X	
Thermo Scientific	AS300	X			X	X		X	X	X		X	
Thermo Scientific	AS2000 30 vial tray												
Thermo Scientific	AS2000 90 vial tray (Trace GC)			X				X	X	X		X	
Thermo Scientific	AI3000 (II)/AS3000 (II) AS3500 (Trace GC + Focus GC)	X			X	X				X		X	
Thermo Scientific	A200LC	X				X		X	X	X		X	
Thermo Scientific	SpectraSYSTEM AS 1000	X			X	X		X		X		X	
Thermo Scientific	SpectraSYSTEM AS 3000	X		X	X	X		X		X		X	
Thermo Scientific	SpectraSYSTEM AS 3500	X			X	X		X		X		X	
Thermo Scientific	A200S	X				X		X	X	X		X	
Thermo Scientific	AS100	X			X	X		X	X	X		X	
Thermo Scientific	AS800, 42 vial tray							X		X		X	
Thermo Scientific	AS800, 60 vial tray		X	X	X			X		X		X	
Thermo Scientific	HS250												
Thermo Scientific	HS500												
Thermo Scientific	HS800												
Thermo Scientific	HS850												
Thermo Scientific	HS2000												
Thermo Scientific	TriPlus (= GC PAL) (AS + Duo)	X		X	X	X		X		X		X	
Thermo Scientific	TriPlus HS												
Thermo Scientific	TriPlus SPME												
Thermo Scientific	HiPerTOC												
Thermo Scientific	Surveyor (Surveyor Plus)	X			X	X		X		X		X	
Thermo Scientific	Accela High Speed LC Autosampler (200 Pos.)	X			X	X		X		X		X	
Tosoh	AS-8010									X		X	
Tosoh	TSK-6080									X		X	
Tracor	770/771/772							X		X		X	
TSP	8875							X		X		X	
TSP	8880							X		X		X	
Unicom	4247							X		X		X	
Unicom	4710							X		X		X	
Unicom	4700 (GC)	X				X							
Unicom	4700 (LC)	X				X		X	X	X			
Unicom	LC-XP							X	X	X		X	
Unicom	S4/S8	X				X							
Varian	ProStar 400, Standard 96 Pos. Tray							X	X	X	X	X	
Varian	ProStar 400, King Size 48 Pos. Tray												
Varian	ProStar 410, Standard 84 Pos. Tray							X	X	X	X	X	
Varian	ProStar 410, Large Capacity 96 Pos. Tray							X	X	X	X	X	
Varian	ProStar 410, Large Volume 24 Pos. Tray												
Varian	ProStar 420, Standard 96 Pos. Tray							X	X	X	X	X	
Varian	ProStar 420, LSV 72 Pos. Tray				X								
Varian	ProStar 420, Super-LSV 32 Pos. Tray												
Varian	ProStar 420, Micro 160 Pos. Tray	X				X							
Varian	ProStar 430, 48 Pos. Tray							X	X	X		X	
Varian	8035							X	X	X		X	
Varian	8000							X		X		X	
Varian	8400 (100 Pos.)							X		X		X	
Varian	8410-Autoinjector (10 x 2ml; 6 x 5ml; 5 x 10ml)							X		X		X	

**Autosampler  
Compatibility  
Chart**

	<i>Crimp Neck ND8</i>	<i>Crimp Neck ND8</i>	<i>Crimp Neck ND8</i>	<i>Crimp Neck ND8</i>	<i>Crimp Neck ND8</i>	<i>Crimp Neck ND8</i>	<i>Screw Thread ND8</i>	<i>Screw Thread ND8</i>	<i>Short Thread ND9</i>	<i>Screw Thread ND10</i>	<i>Crimp Neck ND11</i>	<i>Crimp Neck ND11</i>
	WC/7622388 WC/7630552	WC/7616829	WC/7622387 WC/7616830	WC/7615704 WC/7614045	WC/7616831 WC/7631599	WC/7616832	WC/6401175 WC/7615163 WC/7613388 WC/7613087	WC/7631774	WC/7612960 WC/6803174 WC/6088871 WC/7630175 WC/7616003 WC/7616849 WC/7636996 WC/7616848 WC/7631401 WC/7616934 WC/7616850 WC/7616859 WC/6205647 WC/7616851 WC/7631798 WC/7618914 WC/7618897	WC/7615291 WC/7615715 WC/7621171	WC/7608141 WC/7608160 WC/7620828 WC/7620898 WC/7616019 WC/7653831	WC/7632401
<b>Page</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>8</b>	<b>8</b>	<b>10</b>	<b>14</b>	<b>6</b>	<b>6</b>
Varian 8100							X		X		X	
Varian 8200							X		X	X	X	
Varian CP-910, 911, 912							X		X		X	
Varian CP-940, 941											X	
Varian LC 9100/LC 9095/LC 9090									X		X	
Varian Archon												
Varian COMBI PAL (200 Pos. Tray) GC PAL (200 pos. Tray)	X				X							
Varian COMBI PAL (98 Pos. Tray) GC PAL (98 Pos. Tray)				X					X		X	
Varian COMBI PAL SPME mode (98 Pos. Tray)									X		X	
Varian COMBI PAL (32 Pos. Tray) GC PAL (32 Pos. Tray)												
Varian COMBI PAL SPME mode (32 Pos. Tray)												
Varian Genesis												
Varian Marathon Basic, Standard 96 Pos. Tray							X	X	X		X	
Varian Marathon Basic, Präp, King Size 48 Pos. Tray												
Varian Vista							X		X			
Varian CP-9020/CP-9025												
Varian CP-9060												
Varian CP-9010							X		X		X	
Viscotek VortexTM												
Viscotek GPC Autosampler							X		X	X		
VWR(Merck®)/Hitachi L2200 (LaChrom Elite)/L2200-U (LaChrom Ultra) (200 Pos. Tray)							X		X			
VWR(Merck®)/Hitachi L2200 (LaChrom Elite) (128 Pos. Tray)												
VWR(Merck®)/Hitachi L7200 (LaChrom) (80 Pos. Tray)/ L7250 (LaChrom) (120 Pos. Tray)							X		X			
VWR(Merck®)/Hitachi L7250 (LaChrom) (Rack Holder for combination Racks)				X			X		X			
VWR(Merck®)/Hitachi 655-A40 (108 Pos. Tray)							X		X			
VWR(Merck®)/Hitachi L-9100							X		X			
VWR(Merck®)/Hitachi AS 2000 (50 Pos. Tray)							X		X		X	
VWR(Merck®)/Hitachi AS 4000 (150 Pos. Tray)							X		X		X	
VWR(Merck®)/Hitachi AS 4000 (198 Pos. Tray)				X								
VWR(Merck®)/Hitachi AS 6000				X			X		X			
Waters® ACQUITY™ UPLC Systeme									X			
Waters® Wisp 48 position												
Waters® Wisp 96 position												
Waters® 717, 96 Position Carousel												
Waters® 717, 48 Position Carousel												
Waters® Alliance®									X	X	X	
Waters® Alliance® GPC 2000												
Waters® Alliance® HT Syst.									X	X	X	
Waters® Alliance® 2790/2795									X	X	X	
Waters® Alliance® 2690/2695									X (n. for WC/7616848)	X	X	

# Autosampler Compatibility Chart

Autosampler	WC Part Number	WC Part Number	WC Part Number	WC Part Number	WC Part Number	WC Part Number	WC Part Number	WC Part Number	WC Part Number	WC Part Number	WC Part Number	WC Part Number	WC Part Number	WC Part Number
	WC/7608132	WC/7613421	WC/7612017	WC/7620436	WC/7621467	WC/7632226	WC/7615908	WC/7615808	WC/7620798	WC/7621813	WC/7612926	WC/7620148	WC/7620147	WC/7609926
	WC/7622228	WC/7616808		WC/7616878	WC/7616880	WC/7616879		WC/7616883	WC/7613394	WC/76204710	WC/7616552			WC/7631988
	WC/7613330	WC/7603252							WC/7613328		WC/7620815			WC/7615411
	WC/7631402	WC/7616870							WC/7616139		WC/7616895			WC/7632370
	WC/7616839										WC/7630303			WC/7612150
	WC/7616932										WC/7621127			WC/7632371
	WC/6901405													WC/7616901
	WC/7616860													WC/7616902
	WC/7616861													

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Agilent	1050	X												
Agilent	1050 (34 Pos. Tray)													
Agilent	1090	X												
Agilent	1090 (34 Pos. Tray)													
Agilent	1100	X												
Agilent	1200	X												
Agilent	G1888A		X							X				
Agilent	7673A													
Agilent	7683A													
Agilent	H57694		X							X				
Agilent	7695A													X
Agilent	79855(A)	X												
Agilent	5880													
Agilent	5890													
Agilent	6850 (27 Pos. Tray)													
Agilent	6850 (22 Pos. Tray)		X											
Agilent	6890													
Agilent	CTC HTS + HTC PAL	X												
Agilent	CTC GC PAL													
Agilent	CTC Combi PAL							X			X			
Agilent	Tekmar SOLATEk72													X
Agilent	AQUATEk 70													X
AI	42 vial tray													
AI	60 vial tray													
AI	CTC A200S													
AI	Headspace							X			X			
AIM	CPS-100													
AIM	CPS-200													
Alcott	708 AL			X										
Alcott	728			X										
Alcott	738	X				X								
Alcott	719 AL	X	X					X						
Alcott	719 D/ D-PCS	X												
Analytik Jena	multi N/C 3000 (TOC)													X
Antec Leyden	AS 100	X												
Antek	736 Unisampler	X												
Antek	738	X												
Beckman	501	X												
Beckman	502/502e	X												
Beckman	504													
Beckman	507/507e	X												
Beckman	508 (System Gold)							X						
Beckman	Marathon	X												
Beckman	Promis	X												
Beckman	Triathlon, Standard Tray	X					X	X						
Beckman	Triathlon, LSV Tray		X											
Beckman	Triathlon, Super-LSV Tray							X						
Beckman	Triathlon, Micro-Tray													
Bruker	LC51		X											
Cambridge Scientific Instruments	205 Series		X											
Cambridge Scientific Instruments	300 Series		X											
Carlo Erba	AS100	X				X								
Carlo Erba	AS200													
Carlo Erba	A200LC	X				X								
Carlo Erba	AS200S													
Carlo Erba	AS300	X				X								
Carlo Erba	AS800, 42 vial tray													
Carlo Erba	AS800, 60 vial tray													
Carlo Erba	HS250							X						
Carlo Erba	HS500							X						
Carlo Erba	HS800							X		X				
Carlo Erba	HS850							X		X				
Cecil Instruments	CE4800	X												
CTC (LEAP)	LC PAL (216 Pos.)	X						X						
CTC (LEAP)	HTX PAL, HTC PAL, HTS PAL (200 Pos. Tray)													
CTC (LEAP)	HTX PAL, HTC PAL, HTS PAL (54/98 Pos. Tray)	X						X						
CTC (LEAP)	HTX PAL, HTC PAL, HTS PAL (32 Pos. Tray)									X				
CTC (LEAP)	Combi PAL (200 Pos. Tray), GC PAL (200 Pos. Tray)													

## Autosampler Compatibility Chart

	Snap Ring ND11	Screw Thread ND13	Shell Vials	Shell Vials	Shell Vials	Shell Vials	Shell Vials	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Screw Neck Vials ND24 (EPA)
	WC/7608132 WC/7622228 WC/7613330 WC/7631402 WC/7616839 WC/7616932 WC/6901405 WC/7616860 WC/7616861	WC/7613421 WC/7616808 WC/7603252 WC/7616870	WC/7612017	WC/7620436 WC/7616878	WC/7621467 WC/7616879	WC/7632226 WC/7616880	WC/7615908	WC/7615808 WC/7616883	WC/7620798 WC/7613394 WC/7613328 WC/7616139	WC/7621813 WC/6204710	WC/7612926 WC/7616552 WC/7620815 WC/7616895 WC/7630303 WC/7621127	WC/7620148	WC/7620147	WC/7609926 WC/7631988 WC/7615411 WC/7632370 WC/7612150 WC/7632371 WC/7616901 WC/7616902	
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CTC (LEAP)	Combi PAL (98 Pos. Tray), GC PAL (98 Pos. Tray)														
CTC (LEAP)	Combi PAL SPME Mode (98 Pos. Tray)														
CTC (LEAP)	Combi PAL (32 Pos. Tray), GC PAL (32 Pos. Tray)							X			X				
CTC (LEAP)	Combi PAL SPME Mode (32 Pos. Tray)										X				
CTC	A200S														
CTC	A200 LC	X							X						
CTC	HS 500								X						
DANI	ALS 39.80	X													
DANI	ALS 86.80	X													
DANI	ALS 1000	X													
DANI	HS39.50										X				
DANI	HS86.50										X				
DANI	Master AS	X									X				
Dimatec	Dimatoc 2000														X
Dionex	Gina 50	X	X												
Dionex	AS 50	X													
Dionex	Summit ASI 100, Micro-Tray (192 Pos.)														
Dionex	Summit ASI 100, Analytical-Tray (117 Pos.)	X													
Dionex	Summit ASI 100, Semiprep.-Tray (63 Pos.)		X												
Dionex	Famos (LC Packings/Dionex)	X							X						
Dionex	UltiMate Analytical, cylindrical, WPS-3000 SL, 120 Pos. Rack (2ml)	X							X						
Dionex	UltiMate Analytical, conical, WPS-3000 SL, 120 (3x40) Pos. Rack (1.1ml=2ml w. Inserts)								X						
Dionex	UltiMate Micro, conical, WPS-3000 SL, 120 (3x40) Pos. Rack (250µl)								X						
Dionex	UltiMate Semipreparative, WPS-3000 SL, 66 (3x22) Pos. Rack (4ml)		X						X						
Dionex	UltiMate Nano/Cap/Micro, WPS-3000 SL, 216 (3x72) Pos. Rack (1.2ml)								X						
Dionex	ASE 200														X
Dimatec	Dimatoc 200														X
Dimatec	Dimatoc 300														X
Dimatec	Dimatoc 400														X
D-Star	DAS 10														
Dynatech	42 vial tray														
Dynatech	60 vial tray														
Dynatech	LC2000														
Dynatech	GC111														
Dynatech	GC311														
EST Analytical	Cobra L/S GC Autosampler; 120 vial tray														
EST Analytical	Cobra L/S GC Autosampler; 60 vial tray								X						
EST Analytical	Markelov HS9000										X				
EST Analytical	Archon P/T														X
EST Analytical	Centurion 100														X
Finnigan	A200S														
Fisons	AS100	X				X									
Fisons	AS200														
Fisons	A200LC	X				X									
Fisons	AS200S														
Fisons	AS300	X				X									
Fisons	AS800, 42 vial tray														
Fisons	AS800, 60 vial tray														
Fisons	HS250								X						
Fisons	HS500								X						
Fisons	HS800								X		X				
Fisons	HS850								X		X				
GBC	Avanta Ultra Z	X													
GE Instruments	Sievers® 900					X									X
Gerstel	MPS2								X			X			



## Autosampler Compatibility Chart

		Snap Ring ND11	Screw Thread ND13	Shell Vials	Shell Vials	Shell Vials	Shell Vials	Shell Vials	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Screw Neck Vials ND24 (EPA)
		WC/7608132 WC/7622228 WC/7613330 WC/7631402 WC/7616839 WC/7616932 WC/6901405 WC/7616860 WC/7616861	WC/7613421 WC/7616808 WC/7603252 WC/7616870	WC/7612017	WC/7620436 WC/7616878	WC/7621467 WC/7616879	WC/7632226 WC/7616880	WC/7615908	WC/7615808 WC/7616883	WC/7620798 WC/7613394 WC/7613328 WC/7616139	WC/7621813 WC/6204710	WC/7612926 WC/7616552 WC/7620815 WC/7616895 WC/7630303 WC/7621127	WC/7620148	WC/7620147	WC/7609926 WC/7631988 WC/7615411 WC/7632370 WC/7612150 WC/7632371 WC/7616901 WC/7616902	
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PerkinElmer	ISS-225, 100 vial tray + 80 vial tray															
PerkinElmer	ISS-225, 85 vial tray							X								
PerkinElmer	ISS-225, 25 vial tray							X								
PerkinElmer	LC 600, 42 vial tray															
PerkinElmer	LC 600, 60 vial tray															
PerkinElmer	Clarus 400, 500, 600															
Pharmacia	LKB 2157-010	X														
Pharmacia	LKB 2157-020															
Polymer Laboratories	PL-AS RT	X	X													
Quana Elektronik	QHSS-40											X				
Sedere		X														
SGE	LS-3200															
Shimadzu	AOC-5000								X			X				
Shimadzu	AOC-14/1400	X	X						X							
Shimadzu	AOC-17	X	X													
Shimadzu	AOC-20/20i/20s 150 Pos. Tray		X													
Shimadzu	AOC-20/20i/20s 96 Pos. Tray		X													
Shimadzu	LC-20A	X	X													
Shimadzu	SIL-2AS	X	X				X									
Shimadzu	SIL-6A	X	X				X									
Shimadzu	SIL-6B/SIL-7A/SIL-8A/SIL-9A	X	X			X	X									
Shimadzu	SIL-10A/SIL-10AF/SIL-10AP/SIL-10Ai/SIL-10AxL/Rack S 100 Pos.	X				X										
Shimadzu	SIL-10A/SIL-10AF/SIL-10AP/SIL-10Ai/SIL-10AxL/Rack L 80 Pos.		X				X									
Shimadzu	SIL-10A/SIL-10AF/SIL-10AP/SIL-10Ai/SIL-10AxL/Rack MTP2 192 Pos.				X											
Shimadzu	SIL-10HTA/SIL-10HTC 350 pos. Tray				X											
Shimadzu	SIL-10HTA/SIL-10HTC 140 Pos. Tray	X				X										
Shimadzu	SIL-10HTA/SIL-10HTC 100 Pos. Tray		X				X									
Shimadzu	SIL-10ADvp	X	X		X	X	X									
Shimadzu	HTA 200 H										X	X				
Shimadzu	SIL-20A (Prominence) 105 vial tray/SIL-20AC (Prominence) 70 vial tray	X														
Shimadzu	SIL-20A/Sil-20AC (Prominence) 175 vial tray				X											
Shimadzu	SIL-20A/Sil-20AC (Prominence) 50 vial tray		X				X									
Shimadzu	LC2010C + LC2010A 350 Pos. Tray				X											
Shimadzu	LC2010C + LC2010A 140 Pos. Tray	X				X										
Shimadzu	LC2010C + LC2010A 100 Pos. Tray		X				X									
Shimadzu	ASI-V															X
Sievers (GE Instruments)	Sievers® 900															X
Spark	Marathon Basic, Standard 96 Pos. Tray	X														
Spark	Marathon Basic Präp King Size 48 Pos. Tray							X								
Spark	Midas, Standard 84 Pos. Tray	X							X							
Spark	Midas, Large Capacity 96 Pos. Tray	X														
Spark	Midas, Large Volume 24 Pos. Tray								X							
Spark	Alias	X								X						
Spark	Pramis	X														
Spark	SPH 125	X														
Spark	Triathlon, Standard 96 Tray	X				X										
Spark	Triathlon, LSV 72 Pos. Tray		X													
Spark	Triathlon, Super-LSV 32 Pos. Tray								X							
Spark	Triathlon, Micro 160 Pos. Tray															
Spark	Endurance 48 Pos. Tray	X														
Spark	Reliance 48 Pos. Tray	X														

# Autosampler Compatibility Chart

	Snap Ring ND11	Screw Thread ND13	Shell Vials	Shell Vials	Shell Vials	Shell Vials	Shell Vials	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Screw Neck Vials ND24 (EPA)
	WC/7608132 WC/7622228 WC/7613330 WC/7631402 WC/7616839 WC/7616932 WC/6901405 WC/7616860 WC/7616861	WC/7613421 WC/7616808 WC/7603252 WC/7616870	WC/7612017	WC/7620436 WC/7616878	WC/7621467 WC/7616879	WC/7632226 WC/7616880	WC/7615908	WC/7615808 WC/7616883	WC/7620798 WC/7613394 WC/7613328 WC/7616139	WC/7621813 WC/6204710	WC/7612926 WC/7616552 WC/7620815 WC/7616895 WC/7630303 WC/7621127	WC/7620148	WC/7620147	WC/7609926 WC/7631988 WC/7615411 WC/7632370 WC/7612150 WC/7632371 WC/7616901 WC/7616902	

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Spectra-Physics	8875	X												
Spectra-Physics	8880	X												
Spectra-Physics	SpectraSYSTEM AS1000	X			X									
Spectra-Physics	SpectraSYSTEM AS 3000	X			X									
Spectra-Physics	SpectraSYSTEM AS 3500	X			X									
Sykam	S 5200	X												
Talbot		X												
Teledyne Tekmar	7000/7000HT/7050							X						
Teledyne Tekmar	AQUATEK 70/SOLATEK 72TM													X
Teledyne Tekmar	STS 8000 TOC													X
Teledyne Tekmar	HT3							X		X				
Thermo Scientific	AS1000 (Trace GC)													
Thermo Scientific	AS200													
Thermo Scientific	AS300	X			X									
Thermo Scientific	AS2000 30 vial tray							X						
Thermo Scientific	AS2000 90 vial tray (Trace GC)													
Thermo Scientific	A13000 (II)/AS3000 (II) AS3500 (Trace GC + Focus GC)							X						
Thermo Scientific	A200LC	X			X									
Thermo Scientific	SpectraSYSTEM AS 1000	X			X									
Thermo Scientific	SpectraSYSTEM AS 3000	X			X									
Thermo Scientific	SpectraSYSTEM AS 3500	X			X									
Thermo Scientific	A200S													
Thermo Scientific	AS100	X			X									
Thermo Scientific	AS800, 42 vial tray													
Thermo Scientific	AS800, 60 vial tray													
Thermo Scientific	HS250							X						
Thermo Scientific	HS500							X						
Thermo Scientific	HS800							X		X				
Thermo Scientific	HS850							X		X				
Thermo Scientific	HS2000							X		X				
Thermo Scientific	TriPlus (= GC PAL) (AS + Duo)							X		X				
Thermo Scientific	TriPlus HS							X		X				
Thermo Scientific	TriPlus SPME							X		X				
Thermo Scientific	HiPerTOC													X
Thermo Scientific	Surveyor (Surveyor Plus)	X			X			X						
Thermo Scientific	Accela High Speed LC Autosampler (200 Pos.)	X												
Tosoh	AS-8010	X												
Tosoh	TSK-6080	X	X											
Tracor	770/771/772													
TSP	8875	X												
TSP	8880	X												
Unicam	4247													
Unicam	4710													
Unicam	4700 (GC)													
Unicam	4700 (LC)													
Unicam	LC-XP		X											
Unicam	S4/S8													
Varian	ProStar 400, Standard 96 Pos. Tray	X												
Varian	ProStar 400, King Size 48 Pos. Tray						X							
Varian	ProStar 410, Standard 84 Pos. Tray	X						X						
Varian	ProStar 410, Large Capacity 96 Pos. Tray	X												
Varian	ProStar 410, Large Volume 24 Pos. Tray							X						
Varian	ProStar 420, Standard 96 Pos. Tray	X			X									
Varian	ProStar 420, LSV 72 Pos. Tray		X											
Varian	ProStar 420, Super-LSV 32 Pos. Tray						X	X						
Varian	ProStar 420, Micro 160 Pos. Tray													
Varian	ProStar 430, 48 Pos. Tray	X												
Varian	8035													
Varian	8000													
Varian	8400 (100 Pos.)												X	
Varian	8410-Autoinjector (10 x 2ml; 6 x 5ml; 5 x 10ml)											X	X	
Varian	8100													

## Autosampler Compatibility Chart

	Snap Ring ND11	Screw Thread ND13	Shell Vials	Shell Vials	Shell Vials	Shell Vials	Shell Vials	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Headspace ND20 (ND18)	Screw Neck Vials ND24 (EPA)
	WC/7608132 WC/7622228 WC/7613330 WC/7631402 WC/7616839 WC/7616932 WC/6907405 WC/7616860 WC/7616861	WC/7613421 WC/7616808 WC/7603252 WC/7616870	WC/7612017	WC/7620436 WC/7616878	WC/7621467 WC/7616879	WC/7632226 WC/7616880	WC/7615908	WC/7615808 WC/7616883	WC/7620798 WC/7613394 WC/7613328 WC/7616139	WC/7621813 WC/6204710	WC/7612926 WC/7616552 WC/7620815 WC/7616895 WC/7630303 WC/7621127	WC/7620148	WC/7620147	WC/7609926 WC/7631988 WC/7615411 WC/7632370 WC/7612150 WC/7632371 WC/7616901 WC/7616902	
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Varian	8200														
Varian	CP-910, 911, 912														
Varian	CP-940, 941														
Varian	LC 9100/LC 9095/LC 9090	X													
Varian	Archon														X
Varian	COMBI PAL (200 Pos. Tray) GC PAL (200 pos. Tray)							X							
Varian	COMBI PAL (98 Pos. Tray) GC PAL (98 Pos. Tray)							X							
Varian	COMBI PAL SPME mode (98 Pos. Tray)							X							
Varian	COMBI PAL (32 Pos. Tray) GC PAL (32 Pos. Tray)							X			X				
Varian	COMBI PAL SPME mode (32 Pos. Tray)							X			X				
Varian	Genesis									X					
Varian	Marathon Basic, Standard 96 Pos. Tray	X													
Varian	Marathon Basic, Präp, King Size 48 Pos. Tray						X								
Varian	Vista														
Varian	CP-9020/CP-9025							X							
Varian	CP-9060							X							
Varian	CP-9010														
Viscotek	Vortex™														X
Viscotek	GPC Autosampler														
VWR(Merck®)/Hitachi	L2200 (LaChrom Elite)/L2200-U (LaChrom Ultra) (200 Pos. Tray)	X													
VWR(Merck®)/Hitachi	L2200 (LaChrom Elite) (128 Pos. Tray)		X												
VWR(Merck®)/Hitachi	L7200 (LaChrom) (80 Pos. Tray)/L7250(LaChrom) (120 Pos. Tray)	X													
VWR(Merck®)/Hitachi	L7250 (LaChrom) (Rack Holder for combination Racks)	X	X												X
VWR(Merck®)/Hitachi	655-A40 (108 Pos. Tray)	X													
VWR(Merck®)/Hitachi	L-9100	X													
VWR(Merck®)/Hitachi	AS 2000 (50 Pos. Tray)	X													
VWR(Merck®)/Hitachi	AS 4000 (150 Pos. Tray)	X													
VWR(Merck®)/Hitachi	AS 4000 (198 Pos. Tray)	X													
VWR(Merck®)/Hitachi	AS 6000	X													
Waters®	ACQUITY™ UPLC Systeme		X (for 24 Position Plate)												
Waters®	Wisp 48 position		X				X								
Waters®	Wisp 96 position				X										
Waters®	717, 96 Position Carousel				X										
Waters®	717, 48 Position Carousel		X				X								
Waters®	Alliance®	X													
Waters®	Alliance® GPC 2000		X					X							
Waters®	Alliance® HT Syst.	X													
Waters®	Alliance® 2790/2795	X													
Waters®	Alliance® 2690/2695	X													

## Abbreviations

EPA	Environmental Protection Association (American regulatory authority that sets up certain standards and regulations for environmental analysis)
HPLC	High Performance Liquid Chromatography
HS	Headspace
ND	Nominal Diameter
PE	Polyethylene
PP	Polypropylene
PTFE	Poly Tetra Fluoro Ethylene
SPME	Solid Phase Micro Extraction
TEF	Tefzel (special type of PTFE which is a very thin casted Teflon)
TPX	TPX (Brand name of a Methylpentene Copolymers)

## Explanatory Notes

### Headspace Cap

A Headspace Cap is a safety cap for Headspace analysis which should avoid explosion of the vial in case of too much internal pressure. The Headspace Cap has special score lines with bridges that open at an inner pressure of  $3.0 \pm 0.5$  bar. Thus the over pressure escapes and the risk of vial explosion is avoided.

### Micro insert

A Micro Insert in contrast to a Micro Vial cannot be sealed on its own. It is neckless and always has to be used within a vial. The diameter of the Micro Insert is depending on the size of the vial opening. A Micro Insert reduces the volume so that a needle is capable of picking up even smallest sample quantities. The longer the top of an Insert the more the volume can be reduced.

### Durometer

Durometer marked the hardness of a liner and is defined in ° shore. The higher the grade the harder the liner. The lower the grade the softer the liner. The softest liner is 45° shore A and the hardest 70° shore A. Besides the thickness of a liner the hardness is an essential indication for the decision which liner is suitable for the penetration of a certain type of needle (fragile needles, thin or thick needles, sharp or dull needles, etc.)

### Headspace Neck (bevelled top)

A Headspace Neck or Headspace Vial with bevelled top has a crimp neck whose outer edges are bevelled. In contrast to a flat DIN crimp neck the liner only has a very small surface contact which is a disadvantage regarding tightness. Headspace Necks or bevelled crimp necks are only necessary when using the patented PERKIN ELMER Pressure Release Seal consisting of an Aluminium Cap with a slit, a metal star washer plate and a liner with ears. This system only releases over pressure reliably when using a vial with such a top.

### Micro Vial

Micro Vials can be sealed but often need an adapter to run in the autosampler. In case they have a conical bottom, they cannot stand by themselves.

### Silanized

Silanized vials are used to reduce the adsorption of polar compounds onto the surface of the glass container. Some compounds like amines, proteins or phenols tend to react with the glass, even if – as it is common for chromatography – 1st hydrolytic class glass is used. Through the silanization process the glass surface is deactivated and so possible reactions between the polar compounds and the glass are eliminated.

### Seal

A Seal is an already assembled closure consisting of a cap and a liner.

### Virginal (PTFE)

Untreated PTFE

All informations of this catalogue are subject to technical changes!

All details referring to metrics and volume are approximately.

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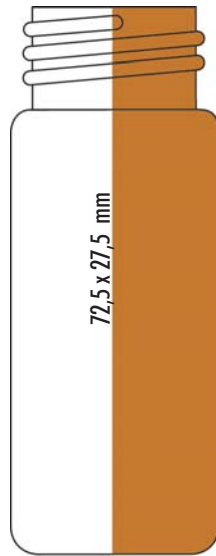
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On the following pages you will find full-scale drawings of all standard glass products

EPA-Vials ND24



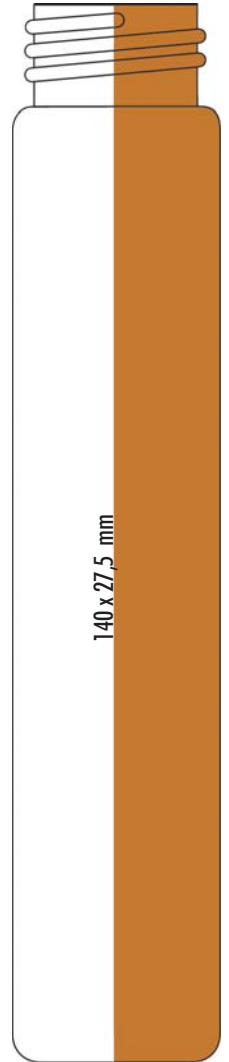
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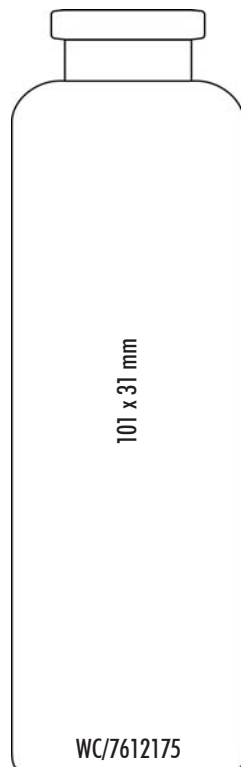


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Crimp Neck ND20

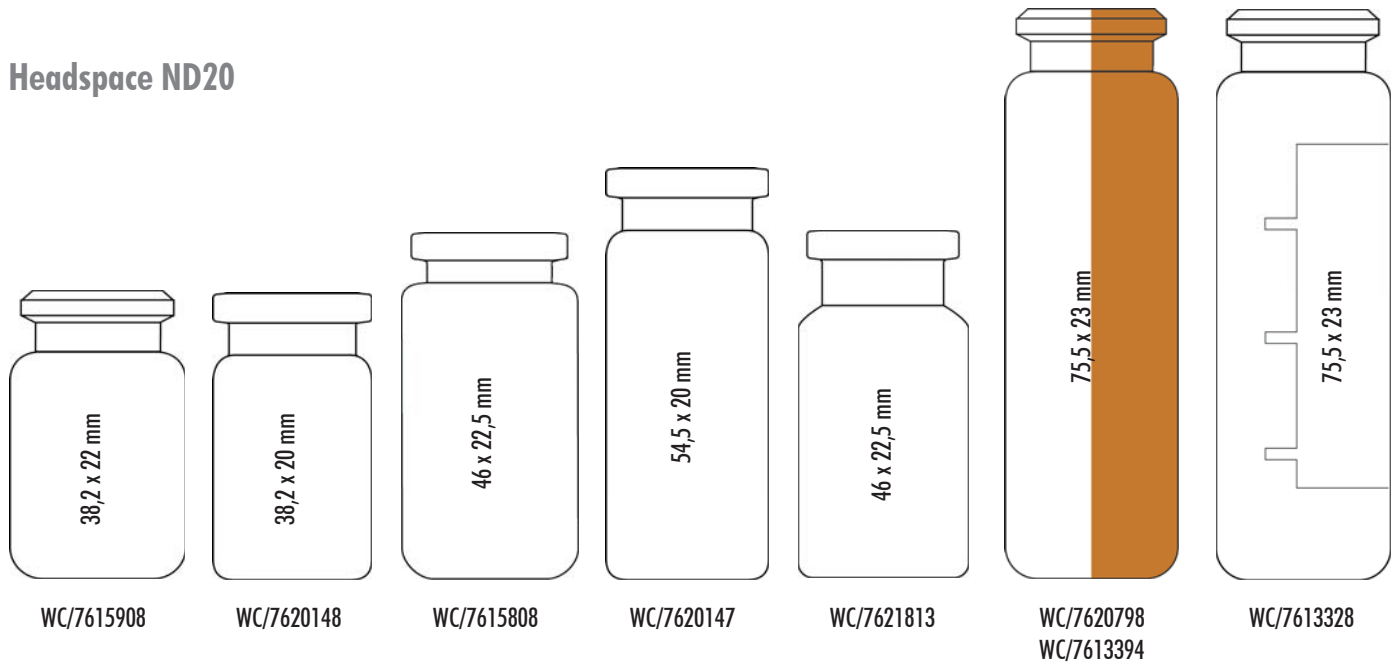


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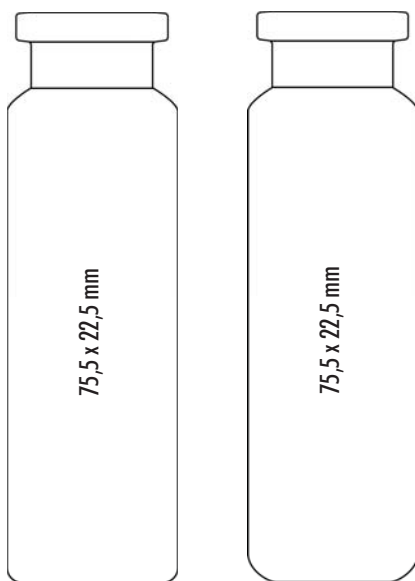
We like to advice you. Please visit us on our website.

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### Headspace ND20



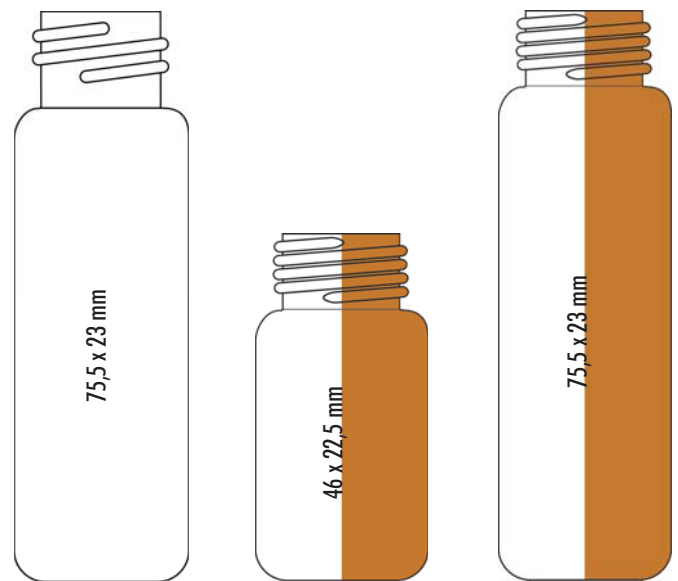
### Headspace ND20



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### Headspace ND18



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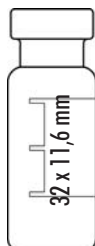
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Figures in original size

**Crimp Neck ND11**



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WC/7608160



WC/7620828



WC/7632401



WC/7616019



WC/7620898

**Snap Ring ND11**



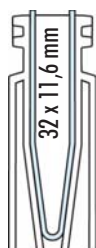
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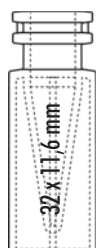
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**Shell Vials, 2 ml**

**Short Thread ND9**



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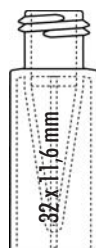
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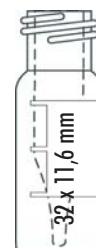
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WC/7616848



WC/7616849

**Screw Thread, ND8, small opening**



WC/6401175



WC/7615163



WC/7613087



WC/7613388



WC/7631774

**Screw Thread, ND10, wide opening**



WC/7615291



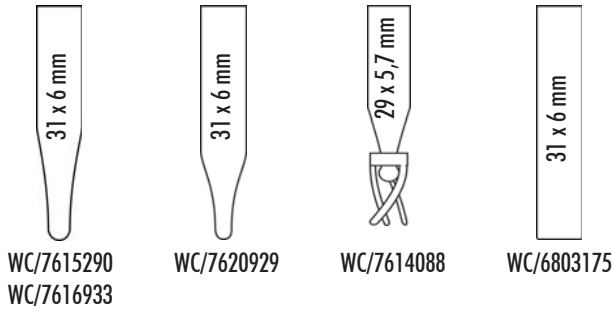
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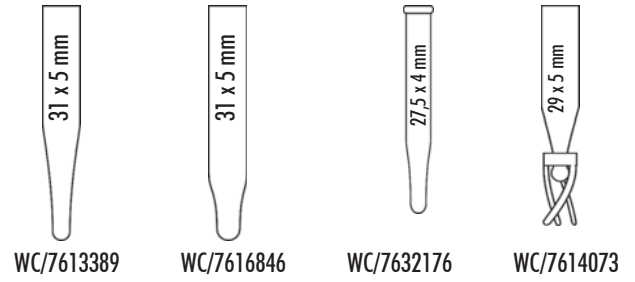
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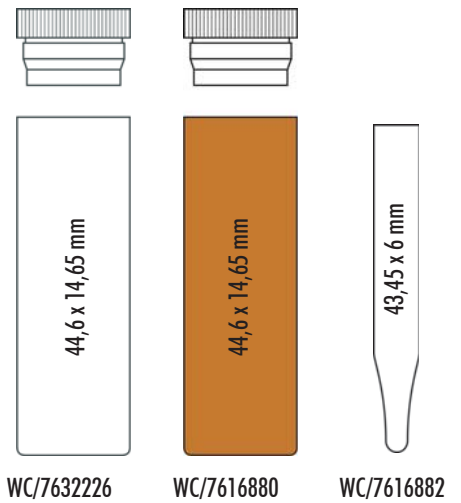
### Micro Inserts for wide opening



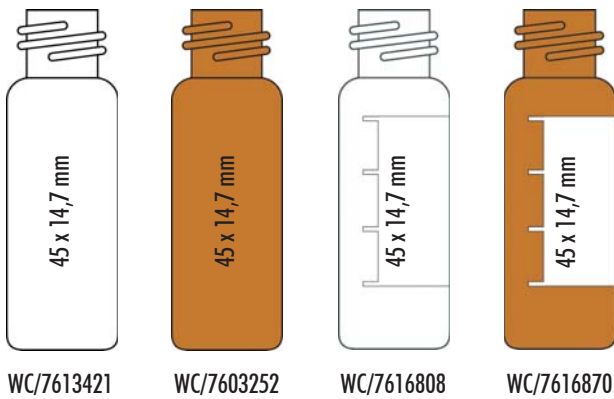
### Micro Inserts for small opening



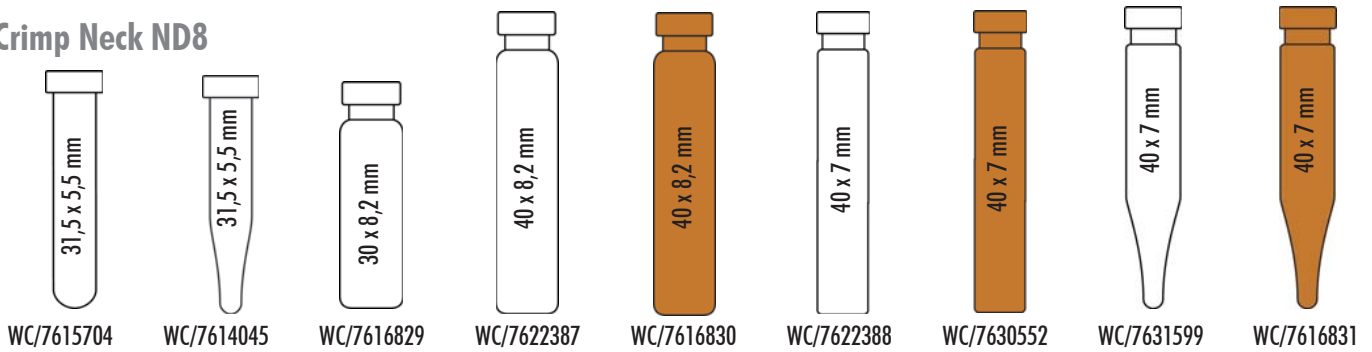
### Shell Vials, 4 ml (Einsatz)



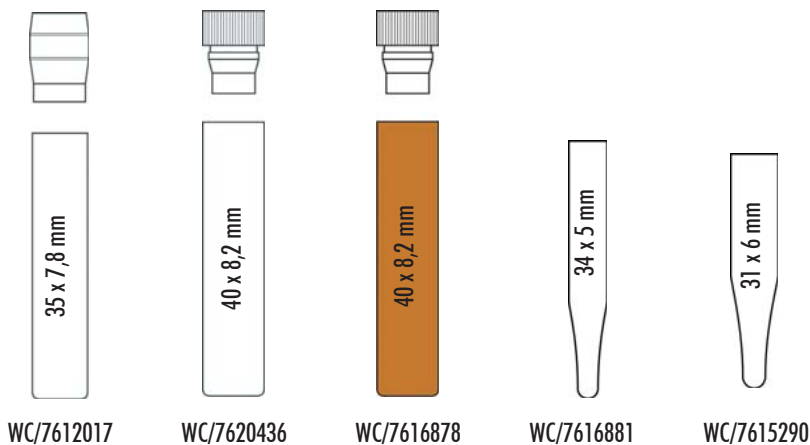
### Screw Thread ND13



### Crimp Neck ND8



### Shell Vials, 1 ml (Liner)



Figures in original size

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