



# UNICLEAN SL

Washer Disinfector for Labs



Flexible solution aimed at productivity.  
Configurable accessories for optimal washing results....

BMT. Protecting human health.

Since 1954, the MMM Group globally operates as one of leading system suppliers of products in health service. Thanks to its complex offer of products and services, washing, sterilization and disinfection equipment for hospitals, scientific institutes, laboratories and pharmaceutical industry, the MMM established itself as an excellent quality and innovation provider in German and international markets.

BMT Medical Technology s.r.o. is an active member of the MMM Group with many years of tradition in the field of steam sterilizers manufacture. Our production plant in Brno manufactures devices and equipment for central sterilisation units according to requirements of our clients all over the world. We arrange extensive range of manufacture and simultaneously we meet high demands on quality in the field of health care and laboratory engineering.

At the present time, BMT extends the traditional and time-proved portfolio of steam sterilizers in the new line of washer disinfectors UNICLEAN sL designed for washing and disinfection of the wide range of laboratory glass. The current range of products can thereby address much wider range of clients like labs, mainly the work sites that need washing and decontamination of laboratory glass. The new washer disinfectors UNICLEAN sL represent an ideal option for preparation of laboratory glass in everyday use in labs and research centres, guaranteeing tested and stable quality of resulting washing. The field of devices use includes the complete range of laboratory glass used while using specially developed baskets and insertions developed to satisfy all the needs of our clients.

The company BMT Medical Technology s.r.o. is fully certified for quality management system according to EN ISO 9001 and EN ISO 13485. Devices of the line UNICLEAN sL meet all and any required technical and legislative regulations. They are designed and constructed in such a way so as to meet EN ISO 15883-1/2 and HTM 2030. The Certificate of Compliance has been issued for the devices.



laboratories



BSL 3 / BSL 4



pharmacy

biomodels



**MMM Group – perfection in laboratory and medical technique.**

# List of Disinfection Washers

BMT Medical Technology s.r.o. presents a new line of professional washing and disinfection automatic devices designed for machine preparation of laboratory glass.

## Characteristics

- external perfection
- innovative inner equipment
- exceptional washing skills
- perfect drying
- high speed
- easy and intuitive service

## Typical use

Laboratory glass washing:

- test tubes
- Petri dishes
- beakers
- Erlenmeyer flasks
- bottles
- Imhoff cones
- graduated vessels
- funnels
- pipettes and others

### UNICLEAN SL L 170

chamber volume	170 litres
basket volume	150 litres
max. load	20 kg

It is suitable mainly for placement in small premises for laboratories requiring small washing capacity of laboratory glass.



UNICLEAN SL L 170

### UNICLEAN SL L 200

chamber volume	200 litres
basket volume	170 litres
max. load	20 kg

Ideal for use in large laboratories with small volume of treated glass



UNICLEAN SL L 200

### UNICLEAN SL L 600

Chamber volume	600 litres
Basket volume	430 litres
Max. load	150 kg

Large capacity washing disinfector designed for large labs requiring high capacity of washing in everyday practice.



UNICLEAN SL L 600

# Basic characteristics

UNICLEAN SL L 170, UNICLEAN SL L 200, UNICLEAN SL L 600

## Design

- optional size of the device with chamber of 170, 200 or 600 l
- telescopic load-carrying rails allowing easy handling of treated glass
- in case of the large-volume washer UNICLEAN SL L 600: variable layout of chamber trays
- possibility of building into a stainless steel wall (except for UNICLEAN SL L170)
- optional heat source – own, external, combined (depending on type and specification by the client)
- wide range of optional equipment for minimisation of operation costs and increase of the device productivity (pre-heating tanks, increased heating performance...)
- possibility of specific accessories selection and options for improving the staff's comfort (lighting, USB, Ethernet...)

## Quality and Safety Guarantee

- polished stainless steel washing chamber, washing arms, pre-heating tanks and three-level system of water filtration
- the filters made of high-quality stainless steel AISI 316 L (DIN 1.4404)
- transparent door of the washing chamber allow continuous control of washing process by the staff (optional for the L 170 volume)
- electrically locked and blocked door
- auto diagnostics of the device controls functionality of all the important modules, sensors and in case of establishing any fault it records the fault, reports it and possibly it even stops the current washing program
- regulation and recording of temperature using two independent sensors PT1000
- pressure sensor for constant monitoring of the pump
- measuring of water conductivity in the course of final rinsing

- water regulation using minimal water level sensor and device overflowing sensor

## Economic Efficiency

- tanks for water pre-heating with controlled level reduce the cycle time
- three-level system of water filtration prolongs service life of the pump
- integrated system of water softening reduces the consumption of necessary detergents
- adjustable temperature and time of filtrated forced glass drying arranging optimal conditions

## Washing and Disinfection Processes

### Standard Washing Process

The washing process consists of individual phases separated by used water discharge from the previous cycle.

### Standard Washing Process

Standard washing process consists of:

- **PRE-WASHING** – a basic step for removal of rough impurities from the laboratory glass. There is used water up to 25 °C without any detergents. This is the fast phase, up to 2 min
- **MAIN WASHING** – there is used warm water of 50–60 °C with detergents (alkali or pH neutral)
- **NEUTRALIZATION** – it is necessary only in case of using the alkali detergent in the main washing phase. In such a case it is necessary to include the neutralisation step with alkali detergent into the cycle
- **RINSING** – it removes the residuals of the detergents used from the glass. Demi-water is recommended to be used in this phase

- **THERMO DISINFECTION** – this is the final phase of the washing process. The  $A_0$  parameter is measured and assessed here, indicating the level of disinfection reached
- **DRYING** – after successful completion of washing phases there follows the drying process, which removes residual water from the laboratory glass. The drying process is divided into two phases:
  - low air speed phase for the condensate removal
  - high air speed phase for perfect drying of the washed glass

So as to improve the drying results it is possible to add water drainage ease preparation to the final rinsing phase.

## Detergents

High and stable quality of detergents significantly affects the successful course of a cycle. Depending on character of washed means it is possible to use alkali or pH neutral preparations. We recommend the following manufacturers of washing and disinfection means:

- DR. WEIGERT (Germany)
- BORER CHEMIE (Switzerland)
- ECOLAB (USA)

So as to reach correct results it is necessary to use water of optimal hardness, suitable detergents in the right time and to maintain required temperature for specific time.

# UNICLEAN SL L 170

- chamber volume – 170 litres, basket volume – 150 litres, max. load – 20 kg
- washed glass – max. height 480 mm, max. diameter 450 mm

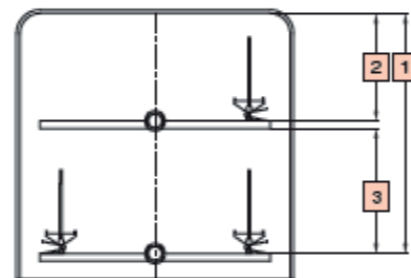
UNICLEAN SL L 170 is designed specifically for installation in limited space as a stand-alone device with front filling, suitable for placement under the desk plate. Simple installation with necessity of electric connection, cold water and sewerage connection can be used mainly in small private practices for thermal disinfection and washing of laboratory glass. After closing the manually open hinged door, the washing process is automatically performed. This small model includes built-in washing and air drying on two levels generally used at large devices. The device is ideal for reduction and elimination of professional risk caused by handling the infectious material.

## Structure

- stable, resistant stainless steel structure of the device and its outer shell of steel (AISI 304) is characterised by long service life
- chamber, washing arms and filter tanks of high-quality steel (AISI 316L)
- manually controlled hinged chamber door of steel
- inclined chamber bottom avoids water accumulation in the chamber and it speeds up drainage and drying
- rounded corners and edges of the chamber make washing easier and they avoid impurities sticking

## Charakteristika

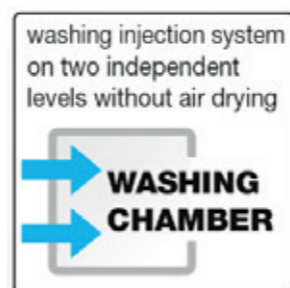
- small inner dimensions
- washing and drying on two levels
- built-in steam condenser
- integrated water softener
- two up to three dosing pumps
- output for external printer



[1]	480 mm	Height	490 mm
[2]	210 mm	Depth	470 mm
[3]	250 mm		

## Typical use

- all types of laboratory glass
- long glass – pipettes up to 300 mm
- max. height of vessel 400 mm
- max. number of nozzles per stage 36



or



## Control Panel

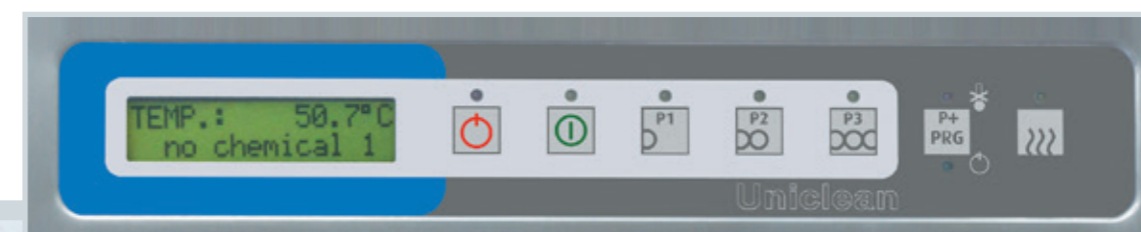
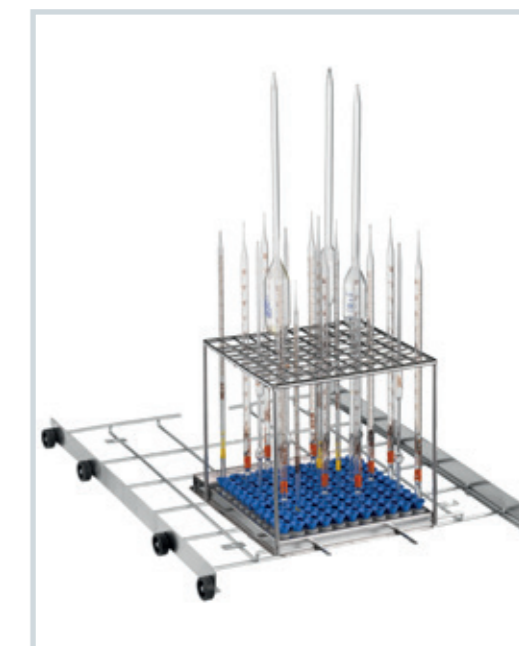
- built-in control systems management and control of all the programs of the device and their phases
- ergonomic control panel built in the device shell with black and white two-line LCD display, it shows the program phases, current date and time, control temperature and regulation temperature, required temperature of the phase, the  $A_0$  value – control and regulation, remaining time of the cycle and possible error messages of the device
- push buttons „Start“ and „Stop“ on the main panel of the device
- push button „Drying“ for drying phase omission in standard selected cycle
- every pressing of the control panel is indicated by a sound signal
- the current status of the device is indicated by eight functional LED diodes on the control panel
- access to the cycle parameters is protected by a password according to ISO 15883-1/2

## Programs, Batches Documentation

- 20 standard washing and disinfection programs and 20 others according to client's specification
- direct selection of the most frequently selected programs on the control panel:
  - P1 – short cycle, suitable for slightly polluted laboratory glass
  - P2 – standard cycles, suitable for commonly polluted laboratory glass
  - P3 – intensive cycle, suitable for heavily polluted laboratory glass
- access to other pre-set programs via the button P+
- programs developed specially for various types of treated products, types of pollution or types of washing (bottles, blood, oils and petrol, thermo-chemical disinfection, enzymatic cleaning)
- two short pre-set programs for simple rinsing of treated glass with cold water or for drying of treated glass
- batches documentation connection to a printer or PC (RS 232) or to the computer network (LAN)

## Optional Equipment – Baskets, Trays,...

Information on possibilities of optional equipment, baskets and trays, their combinations and methods of selection can be found on page 18-23.



# UNICLEAN SL L 200

- chamber volume – 200 litres, basket volume – 170 litres, max. load – 20 kg
- washed glass – max. height 480 mm, max. diameter 470 mm

UNICLEAN SL L 200 is a small model of washing and disinfection device by BMT designed for large laboratories not requiring high washing performance. It is designed specifically for installation in limited space as a stand-alone device with manually open door. This small model includes built-in washing and air drying on two levels generally used at large devices, as well as water softener and steam condenser.

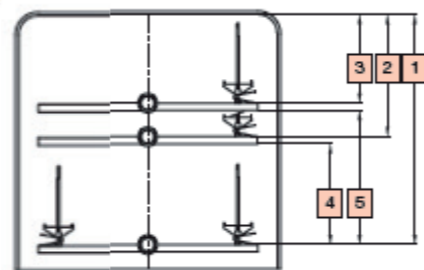


## Structure

- washing and drying on two optional stages
- stainless steel structure of the device and its outer shell (AISI 304)
- chamber, washing arms and filter tanks of high-quality steel (AISI 316L)
- manually controlled hinged chamber door of stainless steel with glass looking window for washing process monitoring
- inclined chamber bottom avoids water accumulation in the chamber and it speeds up drainage and drying
- rounded corners and edges of the chamber make washing easier and they avoid impurities sticking
- built-in lockable lower case for up to three five-litre detergent jars

## Characteristics

- small inner dimensions
- washing and drying on two levels
- two up to four dosing pumps
- cabinet for detergents
- built-in steam condenser
- integrated water softener
- output for external printer
- two-line mono chromatic LCD display



- |     |        |        |        |
|-----|--------|--------|--------|
| [1] | 480 mm | Height | 490 mm |
| [2] | 250 mm | Depth  | 470 mm |
| [3] | 180 mm |        |        |
| [4] | 210 mm |        |        |
| [5] | 280 mm |        |        |

## Typical use

- all types of laboratory glass
- long glass – pipettes up to 300 mm
- max. height of vessel 400 mm
- max. number of nozzles per stage 36

## Control Panel

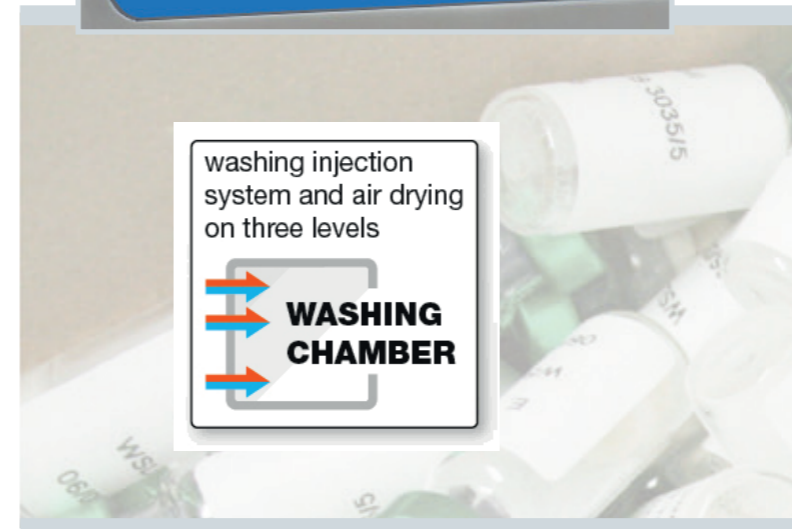
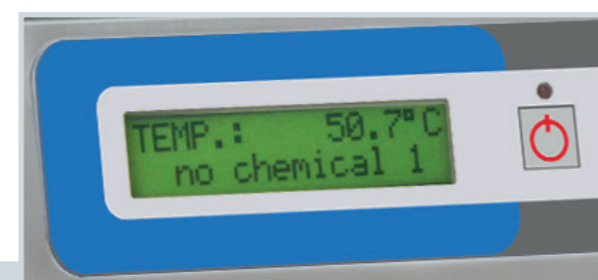
- built-in control systems management and control of all the programs of the device and their phases
- ergonomic control panel built in the device shell with black and white two-line LCD display, it shows the program phases, current date and time, control temperature and regulation temperature, required temperature of the phase, the A<sub>0</sub> value – control and regulation, remaining time of the cycle and possible error messages of the device
- push buttons „Start“ and „Stop“ on the main panel of the device
- push button „Drying“ for drying phase omission in standard selected cycle
- every pressing of the control panel is indicated by a sound signal
- the current status of the device is indicated by eight functional LED diodes on the control panel
- access to the cycle parameters is protected by a password according to ISO 15883-1/2

## Programs, Batches Documentation

- 20 standard washing and disinfection programs and 20 others according to client's specification
- direct selection of the most frequently selected programs on the control panel:
  - P1 – short cycle, suitable for slightly polluted laboratory glass
  - P2 – standard cycles, suitable for commonly polluted laboratory glass
  - P3 – intensive cycle, suitable for heavily polluted laboratory glass
- access to other pre-set programs via the button P+
- programs developed specially for various types of treated products, types of pollution or types of washing (bottles, blood, oils and petrol, thermo-chemical disinfection, enzymatic cleaning)
- two short pre-set programs for simple rinsing of treated glass with cold water or for drying of treated glass
- batches documentation connection to a printer or PC (RS 232) or to the computer network (LAN)

## Optional Equipment – Baskets, Trays,...

Information on possibilities of optional equipment, baskets and trays, their combinations and methods of selection can be found on page 18-23.



# UNICLEAN SL L 600

- chamber volume – 600 litres, basket volume – 430 litres, max. load – 150 kg
- washed glass – max. height 730 mm, max. diameter 585 mm

UNICLEAN SL L 600 is a large-capacity washing and disinfection automat designed for large laboratories requiring high capacities of laboratory glass washing in everyday practice. This is a large model of disinfection washer meeting current increase requirements pun on quality of used laboratory glass treatment. Simple installation allows building into a wall as well as use as a stand-alone device.



## Structure

- washing and drying in five optional adjustable stages
- two washing pumps arranging efficient washing pressure in two separate washing circuits
- stable, resistant stainless steel structure of the device and its outer shell of steel (AISI 304) is characterised by long service life
- chamber, washing arms and filter tanks of high-quality steel (AISI 316L)
- manually controlled hinged chamber door of stainless steel with glass looking window for washing process monitoring
- inclined chamber bottom avoids water accumulation in the chamber and it speeds up drainage and drying
- rounded corners and edges of the chamber make washing easier and they avoid impurities sticking
- built-in lockable lower case for up to four five-litre detergent jars

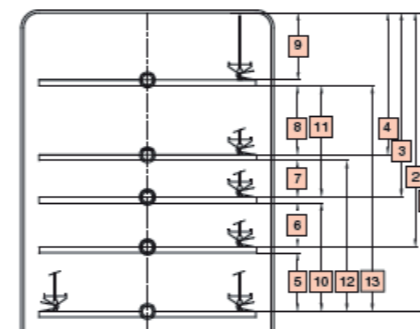
## Characteristics

- high washing performance
- washing and drying on five levels
- two up to four dosing pumps
- cabinet for four five-litre detergents
- placement of up to 10 l jars
- glass door of the chamber
- possibility of building in a printer
- optional steam condenser
- possibility of washing of up to 100 l bottles
- multi-function colour LCD display



## Typical use

- all types of laboratory glass
- long glass – pipettes up to 600 mm
- large-volume vessels (up to 100 litres)
- max. height of vessel 700 mm
- max. number of nozzles per stage 72



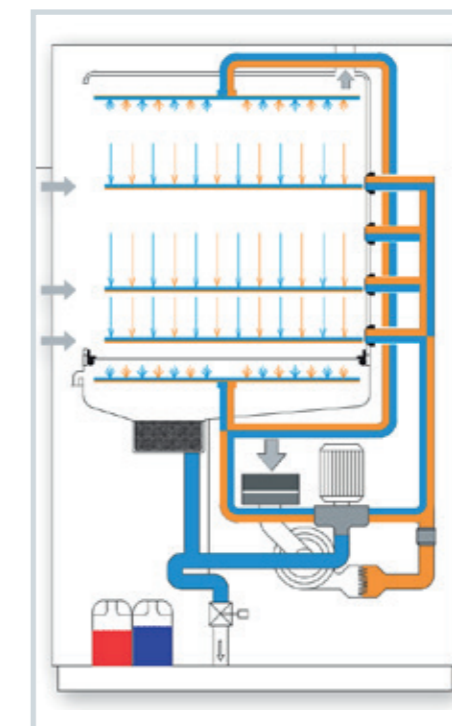
[1]	770 mm	[9]	170 mm
[2]	610 mm	[10]	280 mm
[3]	480 mm	[11]	290 mm
[4]	370 mm	[12]	390 mm
[5]	150 mm	[13]	580 mm
[6]	115 mm	Height	620 mm
[7]	90 mm	Depth	765 mm
[8]	180 mm		

## Control Panel

- built-in control systems management and control of all the programs of the device and their phases
- ergonomic control panel built in the device shell with black and white two-line LCD display, it shows the program phases, current date and time, control temperature and regulation temperature, required temperature of the phase, the  $A_0$  value - control and regulation, remaining time of the cycle and possible error messages of the device
- push buttons „Start“ and „Stop“ on the main panel of the device
- push button „Drying“ for drying phase omission in standard selected cycle
- every pressing of the control panel is indicated by a sound signal
- the current status of the device is indicated by eight functional LED diodes on the control panel
- access to the cycle parameters is protected by a password according to ISO 15883-1/2

## Programs, Batches Documentation

- 20 standard washing and disinfection programs and 20 others according to client's specification
- direct selection of the most frequently selected programs on the control panel:
  - P1 - short cycle, suitable for slightly polluted laboratory glass
  - P2 - standard cycles, suitable for commonly polluted laboratory glass
  - P3 - intensive cycle, suitable for heavily polluted laboratory glass
- access to other pre-set programs via the button PRG
- programs developed specially for various types of treated products, types of pollution or types of washing (bottles, blood, oils and petrol, thermo-chemical disinfection, enzymatic cleaning)
- two short pre-set programs for simple rinsing of treated glass with cold water or for drying of treated glass
- batches documentation connection to a printer or PC (RS 232) or to the computer network (LAN)



## Optional Equipment - Baskets, Trays,...



Information on possibilities of optional equipment, baskets and trays, their combinations and methods of selection can be found on page 18-23.



# UNICLEAN SL – optional equipment

NO.	UNICLEAN SL L	170	200	600
01-00	Method of heating			
01-01	Steam	x	0	0
02-00	Electric connection – must be specified at the moment of an order placement			
02-01	1 PE AC 200/210V, 50/60Hz	S	x	x
02-02	1 PE AC 220/240V, 50/60Hz	S	x	x
02-03	3 PE AC 200/210V, 50/60Hz	S	S	S
02-04	3 PE AC 220/240V, 50/60Hz	S	S	S
02-05	3 PE AC 380/415V, 50/60Hz	C	C	C
02-06	3 PE AC 440/480V, 50/60Hz	S	S	S
03-00	Output			
03-01	8000W – increased heating output with additional heating element, only for 3PE connection of the device	0	x	x
04-00	Device version – state the type			
04-01	UL or CSA components	S	S	S
05-00	Device design			
05-01	Door with window	0	C	C
05-02	Chamber lighting	0	0	0
06-00	Device connection – depending on model			
06-01	Drain cooling system controlled with an electromagnetic valve (* - depending on device model)	0*	0	0
06-02	ON-OFF main switch – depending on electric connection	0	0	C
06-03	Built-in auxiliary pump for demi water pressure increase – depending on electric connection	0	0	x
06-05	Drain pump – depending on electric connection	x	0	0
07-00	Hydraulic system			
07-01	18Lt boiler for demi water pre-heating (* - for 3-phase connection only, to a fully integrated side case or to the device stand) (** - state the method of heating, according to the device connection. It is not compatible with the storage space for detergents) (***) - 21Lt boiler for demi water pre-heating)	0*	0**	0***
07-02	Steam condenser connected to open water discharge, in case of an independently standing device a cover must be installed.	C	C	0
07-03	Built-in water softener	0	0	x
08-00	Drying system			
08-01	Air filtration system with HEPA H14 filter	0	0	0
08-02	Forced drying with electrically heated air cleaned using the F5 filter (according to EN 799) – according to the electric connection and model of the device	0	C	0
09-00	Dosage system			
09-01	Detergents dosing pump with level indicator – santoprene hoses (* - with flow meter)	0	0	0*
09-02	Polisher dosing pump with level indicator – silicon hoses	0	0	0
09-03	Flow meter for dosing pump of detergents	0	0	0
10-00	Process quality			
10-01	Measuring of pressure in the washing circuit	0	C	C
10-02	Analogue pressure sensor in the washing circuit	0	0	x
10-03	Water conductivity measuring (* - necessary version with integrated side case)	0*	0	0
10-04	Valve for taking samples of water	x	0	x

0 - optional  
x - non-applicable  
C - basic equipment  
S - according to specification

NO.	UNICLEAN SL L	170	200	600
11-00	Process documentation			
11-01	ST2 integrated printer (* - necessary version with integrated side case)	0*	0	0
11-02	ST1 external printer	0	0	0
11-03	Integrated feeding socket for the external printer	0	x	x
11-04	Ethernet kit for connection to the system of remote monitoring and process monitoring	0	0	0
11-05	Doubles temperature sensor for the process management and control	0	C	C
11-06	Other connecting contacts – feasibility and price according to a specific wish of the client	0	0	0
11-07	USB port	0	0	0
12-00	Others			
12-01	Stand of stainless steel mm 900x560x300	04	x	x
12-02	Stands of stainless steel – case mm 900x560x600	04	x	x
12-03	Stand of stainless steel mm 600x560x300	01	x	x
12-04	Stand of stainless steel – case mm 600x560x600 – mm 450 case, mm 150 open legs	01	x	x
12-05	Stand of stainless steel – case mm 600x560x600	01	x	x
12-06	Independent multi-purpose side case mm 300 with – water demineralization, detergents storage	02	x	x
12-07	Independent multi-purpose side case mm 300 with – pre-heating tank, water demineralization system, detergents storage, additional dosing pumps, conductivity measuring gauge	03	x	x
12-08	Independent 2-level side case for detergents	02	x	x
12-09	Water demineralization system – it is equipped with primary safety valve and conductivity check system. A side case is a must.	0	x	x
12-10	25Lt resin for the water demineralization system	0	x	x
12-11	Additional stainless steel lining (price per 1 m <sup>2</sup> )	x	0	0
12-12	Floor anchoring consoles	0	0	0
12-13	Stainless steel base for two devices	x	0	x
12-14	Stainless steel shell for steam condenser	x	x	0
12-15	Frame to the wall (one side)	x	x	0
13-00	Certificates			
13-01	Calibration certificates	0	0	0
13-02	Components certificates – material certificates for the washing chamber (according to chapter 3.1 of the standard EN 10204), technical specification of main components of the device	0	0	0
14-00	Documentation			
14-01	Validation: according to the installation type	0	0	0
14-02	IQ - OQ - FAT: see the reserved price list	0	0	0

Options	Stand „01“		Cabinet (left or right side) „02“		900mm machine cabinet (on right side only) „03“			Stand + 900mm cabinet (on right side only) „04“	
	1	2	3	4	5	6	7	8	9
Combination	1	2	3	4	5	6	7	8	9
pre-heating tank	•	-	-	-	•	-	-	• <sup>A</sup>	• <sup>B</sup>
chemical storage	•	•	•	-	-	•	-	• <sup>B</sup>	• <sup>B</sup>
purification system	-	-	-	•	-	-	•	-	• <sup>A</sup>
4th dosing pump	-	-	-	-	-	•	-	-	• <sup>B</sup>
integrated printer	-	-	-	-	•	•	•	• <sup>A</sup>	• <sup>A</sup>

# Instructions for suitable basket equipment selection

## Selection Procedure

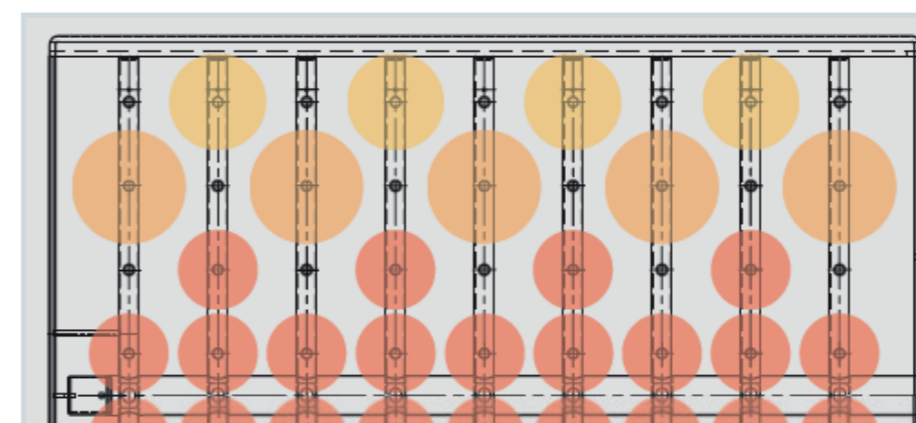
- Identify your laboratory glass (see the table on page 16-17)
  - so as to know how to wash, we need to know what will be washed
  - 1.1. Glass types
  - 1.2. Glass sizes
  - 1.3. Glass volumes
  - 1.4. Pollution type
- Decide on the washing method
  - according to the type of glass, its pollution and required quality select the washing method
  - 2.1. Washing using nozzles or injectors
  - 2.2. Washing using washing arms or by dipping
- Select the washers
  - select the type and number of washers depending on glass size and quantity
  - 3.1. Everything will be washed in one washer
  - 3.2. two or more washers will be used
- Select the wash baskets
  - after responding points 1-3, select or set-up the basket
  - 4.1. Select one of the configured baskets or ...
  - 4.2. Select an empty basket and ...
  - 4.3. Select suitable nozzles
- Check your configuration
  - combination of baskets and nozzles affects the utility height of the floor!
  - 5.1. Check the loading heights
  - 5.2. Check the capacity possibilities
- Apply for an offer for the selected washer and its equipment

UNICLEAN <sub>SLL</sub>	170	200	200	600	Units
number	1	1	2	1	
of floors	2	2	4	5	[Pcs]
max. height	480	480	480	770	[mm]
max. depth	450	470	470	585	[mm]
depth 65/height 100	72	84	168	288	[Pcs]
pipettes max. length	535	535	535	700	[mm]
number of pipettes	48	56	112	88	[Pcs]
pipettes min. length	135	135	135	300	[mm]
number of pipettes	121	121	242	88	[Pcs]
Loading limit	20	20	40	150	[kg]

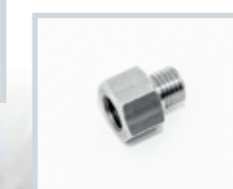
The empty frame of the basket provides the client with the possibility of full configuration of his specific requirements.



If necessary, the frame may be equipped with various nozzles or accessories according to client's request. Sample of client - configured basket for the washer UNICLEAN<sub>SLL</sub> 600 made on the basis of the frame 1414 for simultaneous washing of laboratory glass with diameter of 70 mm, 85 mm and 100 mm.



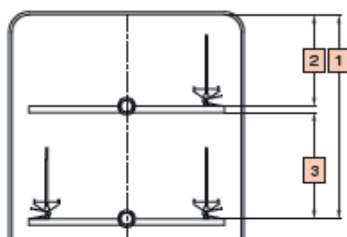
Screw 1057002 for plugging in the unused connections for nozzles.



Adaptor M6/8 1057013 for injection nozzle Ø 8mm

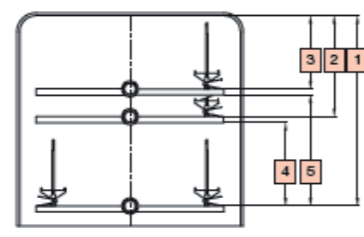
## Height Control

UNICLEAN<sub>SLL</sub> 170



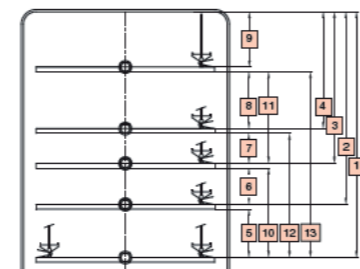
- [1] 480 mm
- [2] 210 mm
- [3] 250 mm

UNICLEAN<sub>SLL</sub> 200



- [1] 480 mm
- [2] 250 mm
- [3] 180 mm
- [4] 210 mm
- [5] 280 mm

UNICLEAN<sub>SLL</sub> 600




- [1] 770 mm
- [2] 610 mm
- [3] 480 mm
- [4] 370 mm
- [5] 150 mm
- [6] 115 mm
- [7] 90 mm
- [8] 180 mm
- [9] 170 mm
- [10] 280 mm
- [11] 290 mm
- [12] 390 mm
- [13] 580 mm

In case of the upper floor to be equipped with washing arms, the usable height below the given floor must be reduced:

- for UNICLEAN<sub>SLL</sub> 170 and UNICLEAN<sub>SLL</sub> 200 in approx. -40 mm
- for UNICLEAN<sub>SLL</sub> 600 in approx. -50 mm


On the other hand, we gain +15 mm extra above the given basket. In case of the glass being washed to be placed too near to the washing arms of nozzles, washing shades may appear with decreased washing efficiency.



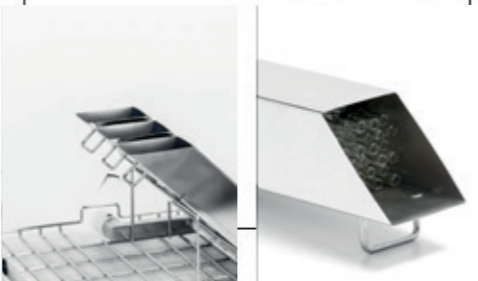


Bulb, graduated, Pasteur pipettes


**Washing by injection**



**Washing by dipping and rinsing\***




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Beakers Jugs Mugs Buckets Jars Weighing bottles Funnels Powder funnels Imhoff cones

**Washing by washing arms in a basket**




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Evaporating dishes Weighing dishes Petri dishes Basins Trays

**Washing by washing arms in an insert**




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Erlenmeyer flasks Bottles Beakers Weighing bottles Test tubes

**Washing by washing arms in an insert**





Test tubes and vials Low capacity volumetric flasks Centrifuge tubes

**Washing of narrow glassware by washing nozzles without support**



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Volumetric flasks narrow neck Graduated cylinders

**Washing of narrow glassware by washing nozzles without support**



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Wide neck bottles Erlenmeyer flasks wide neck

**Washing of wide glassware by nozzles with glass support**



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Erlenmeyer flasks narrow neck Flat or round bottom flask narrow neck Funnels Graduated cylinders

**Washing of wide glassware by nozzles with glass support**



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Erlenmeyer flasks wide neck Wide or narrow neck bottles weighing bottles Graduated cylinders Imhoff cones

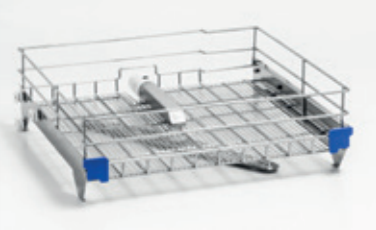
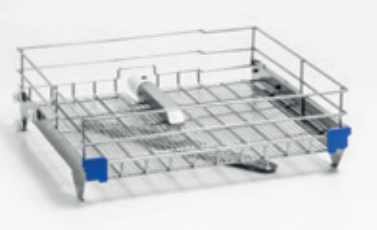
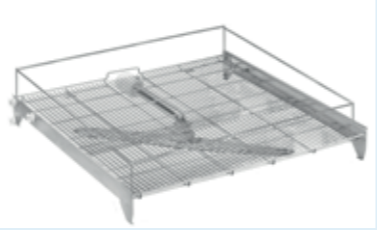
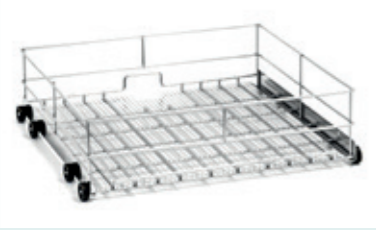


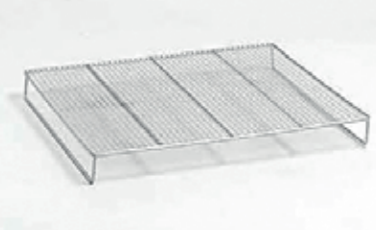
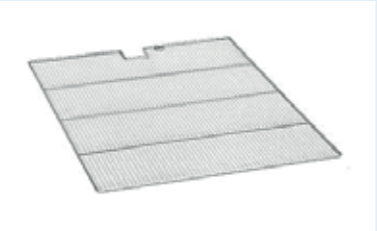




**Washing of wide glassware by nozzles with glass support**












First of all, select the way of washing depending on washed glass type – i.e. by washing arms, using injectors or by immersion and also the type of glass placement in the device, type of nozzles.



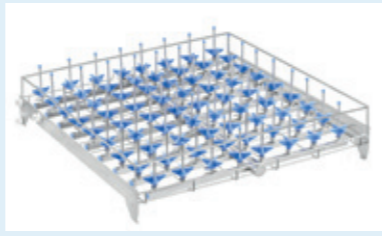


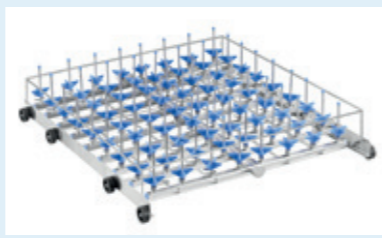
\* Washing by dipping and rinsing is suitable only for light pollution of washed glass and for easily removable deposits.

## Configured and Recommended Baskets





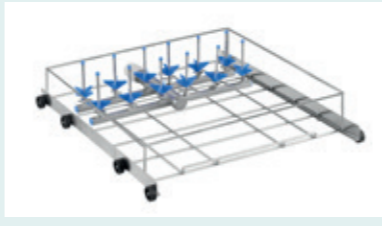

UNICLEAN SL L 170	UNICLEAN SL L 200	UNICLEAN SL L 600
<b>Configured baskets with storage area</b>		
<b>1721</b> – Upper basket with washing arms SIZE: 485x450 mm 	<b>1728</b> – Upper basket with washing arms SIZE: 485x525 mm 	<b>1420</b> – Upper basket with washing arms SIZE: 585x765 mm 
<b>152L</b> – Lower basket SIZE: 490x470 mm 	<b>1736</b> – Lower washing basket SIZE: 490x470 mm 	<b>1419</b> – Lower washing basket SIZE: 620x765 mm 
<b>Inserts</b>		
<b>1788</b> – Cover grid for upper basket with washing arms SIZE: 490x470 mm NOTE: It creates a plane surface, it decreases the usable height in 50 mm 		<b>1446</b> – Cover grid for baskets 1420 SIZE: 752x582 mm 
	<b>11150</b> – Adjustable cover grid for combined washing basket with 121 positions for vials SIZE: 365x365x255 mm 	<b>1447</b> – Cover grid to be placed above the light objects, used in 1420 SIZE: 752x582 mm 
Cover grid for combined washing basket with 121 positions for vials SIZE: 248x248x250* / 175** /45*** mm 		<b>11061</b> * <b>11086</b> ** <b>11105</b> *** 

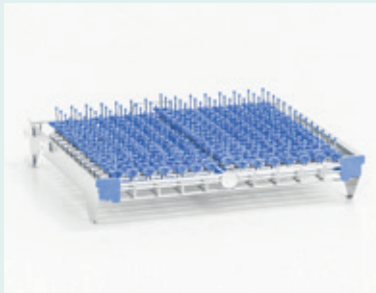





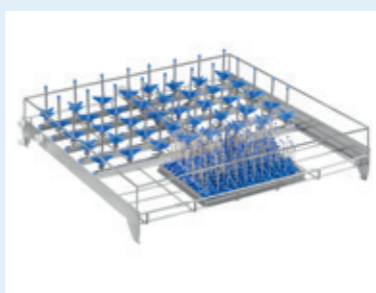
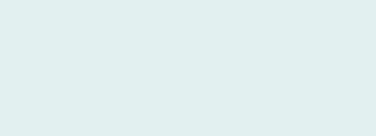
UNICLEAN SL L 170	UNICLEAN SL L 200	UNICLEAN SL L 600
<b>Configured baskets for pipettes</b>		
<b>1719</b> – Lower washing basket for pipettes CAPACITY: 121 pcs SIZE: 135 - 470 mm 	<b>1733</b> – Lower washing basket for pipettes CAPACITY: 121 pcs SIZE: 135 - 470 mm 	<b>1416</b> – Lower washing basket for pipettes CAPACITY: 88 pcs SIZE: 300 - 450**/700* mm 
<b>1759</b> – Lower washing basket for pipettes CAPACITY: 48 pcs SIZE: 250 - 535 mm 	<b>1989</b> – Lower washing basket for pipettes CAPACITY: 56 pcs SIZE: 250 - 535 mm 	<b>1417</b> – Lower washing basket with 2 cassettes for pipettes CAPACITY: 2 cassettes SIZE: max. 520 mm 
<b>1720</b> – Lower washing basket with 2 cassettes for pipettes CAPACITY: 2 cassettes SIZE: max. 290 mm 	<b>1734</b> – Lower washing basket with 2 cassettes for pipettes CAPACITY: 2 cassettes SIZE: max. 290 mm 	<b>1418</b> – Lower washing basket with 3 cassettes for pipettes CAPACITY: 3 cassettes SIZE: max. 520 mm 

Pipettes washed in cassettes must be completely immersed in the cassette and covered with water. Cartridge cleaning is only suitable for lower contamination and is recommended only for compounds that can be easily removed. In other cases, direct injection is recommended.





UNICLEAN SL L 170	UNICLEAN SL L 200	UNICLEAN SL L 600
Recommended layout of a basket for ordinary* laboratory glass washed by injection nozzles		
<p><b>1711E</b> frame + 36 nozzles 1054924 (4) Upper basket, recommended configuration CAPACITY: 36 pcs SIZE: max. Ø 74 mm, max. height 160 mm</p> 	<p><b>1724E</b> frame + 42 nozzles 1054924 (4) Upper basket, recommended configuration CAPACITY: 42 pcs SIZE: max. Ø 70 mm, max. height 160 mm</p> 	<p><b>1410E</b> frame + 72 nozzles 1054924 (4) Upper basket, recommended configuration CAPACITY: 72 pcs SIZE: max. Ø 65 mm, max. height 160 mm</p> 
	<p><b>1725E</b> frame + 20 nozzles 1054922 (4) Upper basket, recommended configuration CAPACITY: 20 pcs SIZE: max. Ø 100 mm, max. height 300 mm</p>	<p><b>1425E</b> frame + 48 nozzles 1054922 (4) Upper basket, recommended configuration CAPACITY: 48 pcs SIZE: max. Ø 90mm, max. height 230 mm</p>
	<p><b>1724E</b> frame + 10 nozzles 1054922 (4) + 32 nozzles 1054924 (4) Upper basket, recommended configuration - mixed nozzles CAPACITY: 42 pcs SIZE: approx. Ø 70 mm, max. height 200/300 mm</p>	<p><b>1410E</b> frame + 18 nozzles 1054922 (4) + 54 nozzles 1054924 (4) Upper basket, recommended configuration - mixed nozzles CAPACITY: 72 pcs SIZE: approx. Ø 65 mm, max. height 200/300 mm</p>
<p><b>1990E</b> frame + 39 nozzles 1054904 (4) Lower basket, recommended configuration CAPACITY: 39 pcs SIZE: max. Ø 70 mm, max. height 200 mm</p> 	<p><b>1729E</b> frame + 42 nozzles 1054904 (4) Lower basket, recommended configuration CAPACITY: 42 pcs SIZE: max. Ø 70 mm, max. height 230 mm</p> 	<p><b>1414E</b> frame + 72 nozzles 1054904 (4) Lower basket, recommended configuration CAPACITY: 72 pcs SIZE: max. Ø 75mm, max. height 230 mm</p> 
	<p><b>1730E</b> frame + 20 nozzles 1054905 (4) Lower basket, recommended configuration CAPACITY: 20 pcs SIZE: max. Ø 100 mm, max. height 300 mm</p>	<p><b>1424E</b> frame + 48 nozzles 1054905 (4) Lower basket, recommended configuration CAPACITY: 48 pcs SIZE: max. Ø 90 mm, max. height 300 mm</p>
<p><b>1990E</b> frame + 10 nozzles 1054905 (4) + 29 nozzles 1054904 (4) Lower basket, recommended configuration - mixed nozzles CAPACITY: 39 pcs SIZE: approx. Ø 70 mm, max. height 200/300 mm</p>	<p><b>1729E</b> frame + 10 nozzles 1054922 (4) + 32 nozzles 1054924 (4) Lower basket, recommended configuration - mixed nozzles CAPACITY: 42 pcs SIZE: approx. Ø 70 mm, max. height 200/300 mm</p>	<p><b>1414E</b> frame + 18 nozzles 1054922 (4) + 54 nozzles 1054924 (4) Lower basket, recommended configuration - mixed nozzles CAPACITY: 72 pcs SIZE: approx. Ø 75 mm, max. height 200/300 mm</p>
	<p><b>1729E</b> frame + 12 nozzles 1054948 (9) + 30 nozzles 1054947 (9) Lower basket, recommended configuration - mixed nozzles with a rest CAPACITY: 42 pcs SIZE: approx. Ø 70 mm, max. height 180/280 mm</p>	<p><b>1414E</b> frame + 18 nozzles 1054948 (9) + 54 nozzles 1054947 (9) Lower basket, recommended configuration - mixed nozzles with a rest CAPACITY: 72 pcs SIZE: approx. Ø 75 mm, max. height 180/280 mm</p>

\* Ordinary laboratory glass:  
- glass washed with injection nozzles of the bulb type with a narrow neck, graduated cylinders (necessity of glass support must be considered)  
- glass with the diameter up to 100 mm and height up to 300 mm (depending on a concrete type of basket and its placement or use)

UNICLEAN SL L 170	UNICLEAN SL L 200	UNICLEAN SL L 600
Configured multi-purpose baskets		
<p><b>11511</b> - Multi-purpose washing basket for laboratory glass and pipettes with storage area PIPETY CAPACITY: 5 pcs SIZE: 250-535 mm LABORATORY GLASS CAPACITY: 2*+4**+3*** SIZE: * Ø max. 130 mm , max. height 220 mm ** Ø max. 98 mm, max. height 220 mm *** Ø max. 60 mm, max. height 175 mm (1054922) SURFACE: 260x230 mm</p> 		
Recommended layout of the basket for laboratory glass, medium size		
<p><b>11197E</b> frame + 9 nozzles 1054905 (4) + 9 nozzles 1054904 (4) Lower basket, recommended configuration - mixed nozzles CAPACITY: 18 pcs SIZE: approx. Ø 62 mm, max. height 200/300 mm SURFACE: 250x490 mm</p> 	<p><b>1731E</b> frame + 12 nozzles 1054905 (4) + 12 nozzles 1054904 (4) Lower basket, recommended configuration - mixed nozzles CAPACITY: 24 pcs SIZE: approx. Ø 70 mm, max. height 200/300 mm SURFACE: 230x490 mm</p> 	<p><b>1413E</b> frame + 21 nozzles 1054905 (4) Upper basket, recommended configuration CAPACITY: 21 pcs SIZE: max. Ø 85 mm, max. height 300 mm SURFACE: 480x585 mm</p> 
<p><b>1717E</b> frame + 6 nozzles 1054948 (9) + 6 nozzles 1054947 (9) Lower basket, recommended configuration - mixed nozzles with a rest CAPACITY: 12 pcs SIZE: approx. Ø 70 mm, max. height 180/280 mm SURFACE: 290x490 mm</p> 	<p><b>1732E</b> frame + 6 nozzles 1054948 (9) + 6 nozzles 1054947 (9) Lower basket, recommended configuration - mixed nozzles with a rest CAPACITY: 12 pcs SIZE: approx. Ø 100 mm, max. height 180/280 mm SURFACE: 220x490 mm</p> 	

UNICLEAN SL L 170	UNICLEAN SL L 200	UNICLEAN SL L 600
<b>Recommended layout of a basket for vials</b>		
<p><b>11342E</b> frame + 210 nozzles 1054953 (3) Upper basket, recommended configuration CAPACITY: 210 pcs SIZE: max. Ø 30 mm, max. height 35/65 mm</p> 	<p><b>11148E</b> frame + 121 nozzles 1054953* (3) Upper basket, recommended configuration CAPACITY: 121 pcs SIZE: max. Ø 25 mm, max. height 90 mm</p> 	
<p><b>11341E</b> frame + 210 nozzles 1054953 (3) Lower basket, recommended configuration CAPACITY: 210 pcs SIZE: max. Ø 30 mm, max. height 35/65 mm</p> 	<p><b>11149E</b> frame + 121 nozzles 1054953* (3) Lower basket, recommended configuration CAPACITY: 121 pcs SIZE: max. Ø 25 mm, max. height 90 mm NOTE: see insert 11150*</p> 	
<b>Recommended layout of a basket for vials with nozzles</b>		
<p><b>1723E</b> frame + 121 nozzles 1054903* (3) + 18 nozzles 1054924** (4) Upper basket, recommended configuration CAPACITY: 121+18 pcs SIZE: *max. Ø 20 mm, max. height 160 mm       ** max. Ø 70 mm, max. height 160 mm NOTE: see inserts 11061, 11086 and 11105</p> 	<p><b>1746E</b> + 121 nozzles 1054903* (3) + 24 nozzles 1054924** (4) Upper basket, recommended configuration CAPACITY: 121+24 pcs SIZE: *max. Ø 20 mm, max. height 160 mm       ** max. Ø 75 mm, max. height 160 mm NOTE: see inserts 11061, 11086 and 11105</p> 	<p><b>1421E</b> frame + 121 nozzles 1054903* (3) + 40 nozzles 1054904** (4) Upper basket, recommended configuration CAPACITY: 121+40 pcs SIZE: *max. Ø 20 mm, max. height 160 mm       ** max. Ø 75 mm, max. height 230 mm NOTE: see inserts 11061, 11086 and 11105</p> 
<p><b>1836E</b> + 121 nozzles 1054903* (3) + 24 nozzles 1054905** (4) Lower basket, recommended configuration CAPACITY: 121+24 pcs SIZE: *max. Ø 20 mm, max. height 160 mm       ** max. Ø 75 mm, max. height 300 mm NOTE: see inserts 11061, 11086 and 11105</p> 		

UNICLEAN SL L 170
<p style="text-align: center;"><b>Configured baskets for vials with storage area</b></p> <p><b>1858</b> - Upper washing basket for vials CAPACITY: 224 pcs SIZE: max. Ø 12 mm, max. height 19 mm SURFACE: 270x500 mm</p> 
<p><b>1859</b> - Lower washing basket for vials CAPACITY: 224 pcs SIZE: approx. Ø 12 mm, max. height 19 mm SURFACE: 270x500 mm</p> 


UNICLEAN SL L 200
<p style="text-align: center;"><b>Configured baskets for laboratory glass, large size</b></p> <p><b>11039</b> - Lower basket for 5l and 10l bottles and large-volume Erlanmeyer bulbs CAPACITY: 4*/5** pcs SIZE: *max. Ø 240 mm, max. height 440 mm       **max. Ø 190 mm, max. height 440 mm</p> 
<p><b>11040</b> - Lower basket for 20l bottles and large-volume Erlanmeyer bulbs CAPACITY: 2 pcs SIZE: max. Ø 280 mm, max. height 440 mm</p> 
<b>Transport carts</b>
<p><b>1281</b> - Height-adjustable transport cart</p> 
<p><b>1252</b> - Transport cart</p> 

UNICLEAN SL L 600
<p><b>11360</b> - Lower basket for large laboratory glass CAPACITY: 4*/1** pcs SIZE: *max. Ø 240 mm, max. height 730 mm       **max. Ø 315 mm, max. height 730 mm</p> 
<p><b>11177</b> - Lower washing basket for 10-15l bottles CAPACITY: 4 pcs SIZE: max. Ø 300 mm, max. height 730 mm</p> 
<p><b>11178</b> - Lower basket for 50 l vessels CAPACITY: 2 pcs SIZE: max. Ø 400 mm, max. height 730 mm</p> 
<b>Transport carts</b>
<p><b>1272</b> - Transport cart</p> 

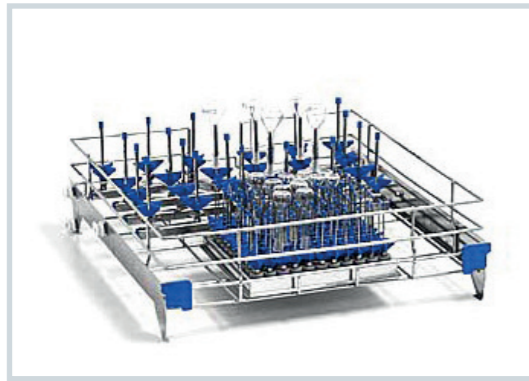
## Selection of frame type for client's configuration according to the nozzles configuration



Pic. Type 1 – Basket fully equipped with washing nozzles



Pic. Type 2 – Basket with sufficient free space



Pic. Type 3 – Mixed basket with washing nozzles and possibility of test tubes washing



Pic. Type 4 – Basket designed for test tubes washing

## Selection of basket frame for client solution according to the device, stage and glass diameter UNICLEAN SL L 170

Empty basket number	max. diameter of washed glass Ø mm	Number of nozzles	Basket type according to fig. 1-4	Basket position U - upper	Note
11342E	30	210	1	U	only for nozzles Ø 2,5 mm
11235E	25	156	1	U	only for nozzles Ø 2,5 mm
11132E	40	110	1	U	only for nozzles Ø 2,5 mm
1809E	50	64	1	U	only for nozzles Ø 2,5 mm
1815E	57	56	1	U	only for nozzles Ø 2,5 mm
1711E	74	36	1	U	
1712E	90	25	1	U	
1953E	105	18	1	U	
1723E	70	18+121	3	U	see optionals 11086, 11061, 11105

Empty basket number	max. diameter of washed glass Ø mm	Number of nozzles	Basket type according to fig. 1-4	Basket position L - lower	Note
11341E	30	210	1	L	only for nozzles Ø 2,5 mm
11133E	40	110	1	L	only for nozzles Ø 2,5 mm
1810E	50	64	1	L	only for nozzles Ø 2,5 mm
1816E	56	56	1	L	only for nozzles Ø 2,5-4 mm
1990E	70	39	1	L	
1716E	89	25	1	L	
1954E	105	18	1	L	
11079E	110	16	1	L	
1901E	150	9	1	L	
11197E	62	18	2	L	free space 250x490 mm
1717E	70	12	2	L	free space 290x490 mm
1718E	89	10	2	L	free space 265x490 mm
1804E	89	10+121	3	L	see optionals 11086, 11061, 11105

## UNICLEAN SL L 200

Empty basket number	max. diameter of washed glass Ø mm	Number of nozzles	Basket type according to fig. 1-4	Basket position U - upper	Note
11092E	32	156	1	U	only for nozzles Ø 2,5 mm
11192E	40	110	1	U	only for nozzles Ø 2,5 mm
1837E	35	84	1	U	only for nozzles Ø 2,5 mm
1724E	70	42	1	U	
1603E	80	36	1	U	
1725E	100	20	1	U	
1838E	110	16	1	U	
1443E	75	27	1	U	
1991E	20	121	2	U	free space 200x490 mm
1746E	75	24+121	3	U	see optionals 11086, 11061, 11105
11148E	25	121	4	U	only for nozzles Ø 2,5 mm

Empty basket number	max. diameter of washed glass Ø mm	Number of nozzles	Basket type according to fig. 1-4	Basket position L - lower	Note
11093E	40	110	1	L	only for nozzles Ø 2,5 mm
11570E	52	70	1	L	only for nozzles Ø 2,5 mm
11127E	60	56	1	L	only for nozzles Ø 2,5-4 mm
1729E	70	42	1	L	
1604E	80	36	1	L	
1730E	100	20	1	L	
1839E	110	16	1	L	
11442E	75	27	1	L	
1885E	130	12	1	L	
11571E	160	9	1	L	
1731E	70	24	2	L	free space 230x490 mm
1732E	100	12	2	L	free space 220x490 mm
1836E	75	24+121	3	L	see optionals 11086, 11061, 11105
11149E	25	121	4	L	only for nozzles Ø 2,5 mm

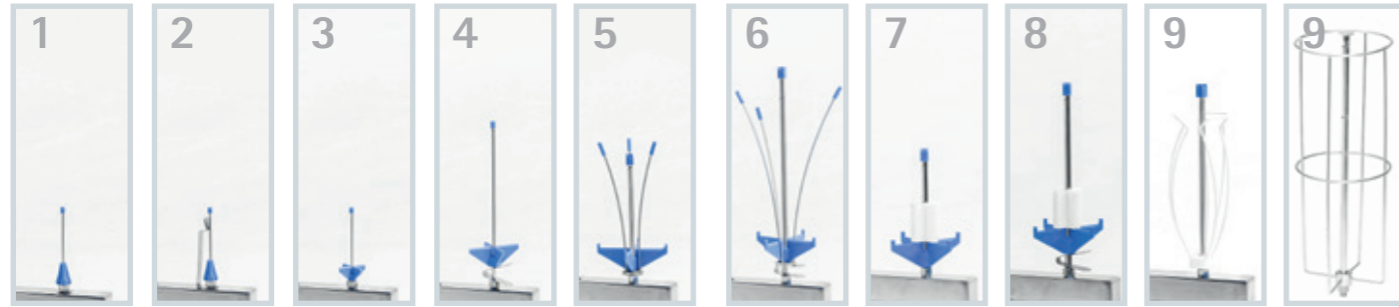
## UNICLEAN SL L 600

Empty basket number	max. diameter of washed glass Ø mm	Number of nozzles	Basket type according to fig. 1-4	Basket position U - upper	Note
1423E	25	330	1	U	only for nozzles Ø 2,5 mm
1410E	65	72	1	U	
1411E	84	56	1	U	
1425E	90	48	1	U	
11238E	105	35	1	U	
1444E	150	18	1	U	
1413E	85	21	2	U	free space 480x585 mm
1421E	75	40+121	3	U	see optionals 11086, 11061, 11105

Empty basket number	max. diameter of washed glass Ø mm	Number of nozzles	Basket type according to fig. 1-4	Basket position L - lower	Note
1414E	75	72	1	L	
1415E	85	56	1	L	
1424E	90	48	1	L	
11239E	105	35	1	L	
1443E	150	18	1	L	
1426E	190	10	1	L	
1427E	250	6	1	L	

1. Select the washer
2. Now select the upper or the lower basket
3. Select the basket configuration (type 1-4)
4. Select the basket according to maximal diameter of washed glass
5. Now select the suitable nozzles

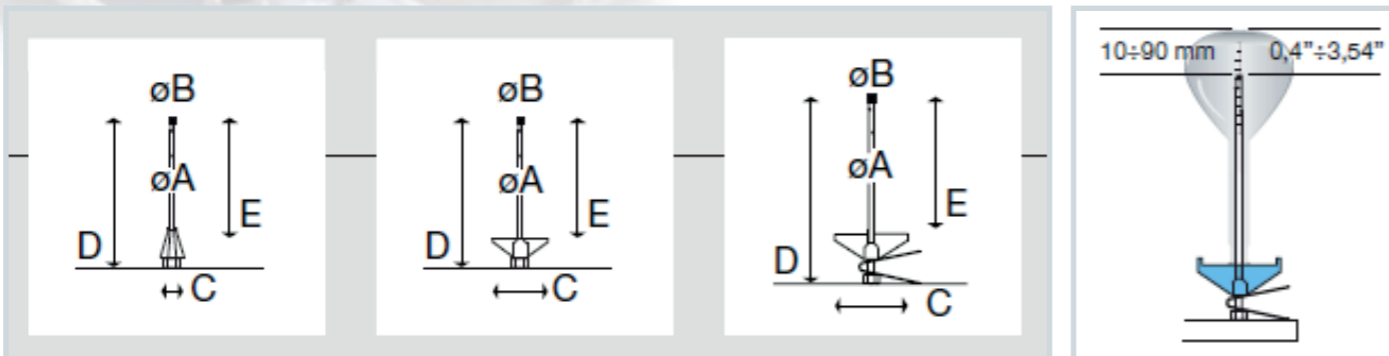
## Nozzle Type and Height Selection



### Nozzles Classification

- suitable for different heights of washed glass 4, 6, 8
- suitable for wide glass (bulbs) 5, 6
- suitable for necks with  $\varnothing$  28 mm (bottles) 7, 8
- suitable for low and narrow glass (vials) 1, 2
- suitable for small glass (small bulbs and graduated cylinders) 3
- suitable for high and narrow glass (graduated cylinders) 9

NOZZLE	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	TYPE
1054906	2,50	4,00	15,00	80,00	75,00	1
1054914	2,50	4,00	15,00	80,00	75,00	2
1054953	2,50	4,00	32,00	50,00	30,00	3
1054903	2,50	4,00	32,00	80,00	60,00	3
1054943	2,50	4,00	32,00	155,00	135,00	3
1054930	4,00	5,00	54,00	75,00	50,00	3
1054924	4,00	5,00	54,00	110,00	80,00	4
1054904	4,00	5,00	54,00	175,00	130,00	4
1054921	6,00	10,00	75,00	115,00	85,00	3
1054910	6,00	10,00	75,00	135,00	95,00	4
1054922	6,00	10,00	75,00	175,00	130,00	4
1054905	6,00	10,00	75,00	225,00	185,00	4
1054959	6,00	10,00	75,00	275,00	235,00	4
1054908	6,00	10,00	75,00	135,00	105,00	5
1054911	6,00	10,00	75,00	225,00	185,00	6
1054960	6,00	10,00	75,00	275,00	235,00	6
1054949	6,00	10,00	75,00	115,00	85,00	7
1054950	6,00	10,00	75,00	135,00	95,00	8
1054951	6,00	10,00	75,00	175,00	130,00	8
1054952	6,00	10,00	75,00	225,00	185,00	8
1054961	6,00	10,00	75,00	275,00	235,00	8
1054947	6,00	10,00	flex	175,00	-	9
1054948	6,00	10,00	flex	225,00	-	9
1054962	6,00	10,00	flex	275,00	-	9
1057911	8,00	17,00	-	255,00	-	3
1057912	8,00	17,00	-	320,00	-	3
1057913	8,00	17,00	-	320,00	320,00	7
1057914	8,00	17,00	-	445,00	-	9




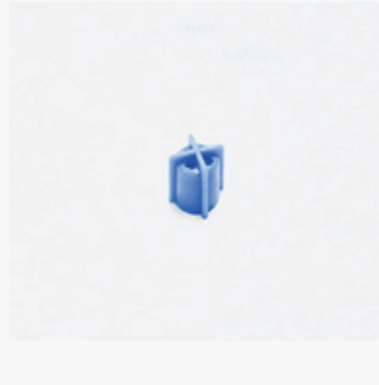
Select the washing nozzle according to treated glass type and variability. Select the given specific nozzle according to the nozzle type and glass height, in consideration of neck diameter and maximal glass diameter. That means that D and E dimensions are the most important dimensions. So as to guarantee the quality of glass treatment by the given nozzle, it is necessary to meet the minimal and maximal distance of the nozzle end from the glass bottom.

## Inserts to Baskets

Mesh bowls	Bowl for vials	Special inserts
<b>162 - Mesh bowl 1/1</b> 	<b>168, 169, 170 - Mesh bowl 1/4 mm 100/130/200</b> 	<b>197 - Insert for 30 Petri dishes</b> 
<b>162, 166 - Mesh bowl 1/2</b> 	<b>177 - Mesh bowl lid 1/4</b> 	<b>161 - Insert with 28 flexible hooks for laboratory glass</b> 
<b>107 - Mesh bowl 1/1 with handles</b> 	<b>186 - Mesh separator for a 1/4 bowl</b> 	
<b>163, 164 - Mesh bowl / Mesh bowl lid 120x120x120</b> 		

<p><b>Glass support</b></p> <p><b>1054915/1054916</b> - Inner support for a nozzle <math>\varnothing</math> 6 mm H. 200/130 mm</p> 
<p><b>1054925/1054926</b> - Support for the injection nozzle <math>\varnothing</math> 6 mm / H. 140/186 mm</p> 
<p><b>1054946</b> - External support for graduated cylinders for the nozzle <math>\varnothing</math> 8 mm with <math>\varnothing</math> 105 mm s H. 290 mm</p> 
<p><b>1054037, 1054038, 1054040</b> - Support of bottles for nozzles <math>\varnothing</math> 6 mm for the necks with <math>\varnothing</math> 28 / 33 / 45 mm</p> 

<p><b>Glass support</b></p> <p><b>1054008/1054009/1402001</b> - Plastic cross of the support <math>\varnothing</math> 32/54/75 mm for the nozzle <math>\varnothing</math> 2,5/4,0/6,0 mm</p> 
<p><b>1054963</b> - Stainless steel support cross <math>\varnothing</math> 87 mm for the nozzle <math>\varnothing</math> 8,0 mm</p> 
<p><b>1057007</b> - Plastic contact cone of the nozzle</p> 

<p><b>Nozzle ending</b></p> <p><b>1054006/1054005</b> - Cap of the nozzle <math>\varnothing</math> 4,0/5,0 mm for nozzles <math>\varnothing</math> 2,5/4,0 mm</p> 
<p><b>1054007</b> - Cap of the nozzle <math>\varnothing</math> 10,0 mm for the nozzles <math>\varnothing</math> 6,0 mm</p> 

<p><b>Pipettes supports</b></p> <p><b>1056005</b> - Sealing for cone of pipettes max. <math>\varnothing</math> 14mm, <math>\varnothing</math> 20 mm / H 21 mm</p> 
<p><b>1056004</b> - Sealing support for nozzles <math>\varnothing</math> 2,5 mm <math>\varnothing</math> 25 mm / H 40 mm</p> 
<p><b>1058902</b> - Silicon cover of protective support for pipettes max. <math>\varnothing</math> 11 mm</p> 

<p><b>Reducers and plugs</b></p> <p><b>1057013</b> - Reducer M6/8 for an injection nozzle of <math>\varnothing</math> 8 mm</p> 
<p><b>1057002</b> - Screw for stopping the unused connections for nozzles</p> 
<p><b>1056001</b> - Cap for closing unused nozzle holes</p> 



## Client Service Arrangement

Together with classic supplies of engineering we offer further range of services. Service and support of the clients are arranged in full by a global network of contractual organisations of BMT Medical Technology s.r.o. We have an extensive network of brand service shops connected to HOT-LINE service providing fast reaction to clients' questions and requirements. A special auto-diagnostics program has been developed for arrangement of user's comfort and possibility of fast and high-quality service intervention. Supplies of spare parts are arranged in parallel with final products manufacture and they are a part of the service operations management system. All these features guarantee low operation costs and long service life of the device.

## Environmental Awareness

The device meets all and any current environmental requirements. Do not burden work and life environment. Only high-quality materials guaranteeing long service life of the device have been used in manufacture. The device does not produce any harmful waste. Even in the workshop manufacture there are used environment – friendly methods of processing. All the significant parts of the device and the package are recyclable. The device consists of 95% of steel, 4% of other materials, 1% of electro material and plastics. Environment – friendly liquidation is performed after dismantling by an authorised person in compliance with the EU regulations corresponding with the WEEE regulation (Waste Electric and Electronic Equipment).

## TECHNICAL PARAMETERS UNICLEAN SL L



Model UNICLEAN SL	Dimension [mm]						Weight [kg]			Volume [l]		Electric connection			
	Washing chamber dimensions			External dimensions			Net weight	Gross weight	SC Net w.	Chamber volume	Basket volume	Power [kW]		Fuses [A]	
	WIDTH	DEPTH	HEIGHT	WIDTH	DEPTH	HEIGHT						ED	FD	ED	FD
SL L 170-1	540	500	540	600	630	850	65	70	C	170	150	5,6/8	x	15/21	x
SL L 200-1	540	580	600	650	660	1685	179	188	C	200	170	8,3	4,9	21	7,5
SL L 600-1	710	810	1060	1140	930	1975	400	450	510	600	430	20	10	32	15,5

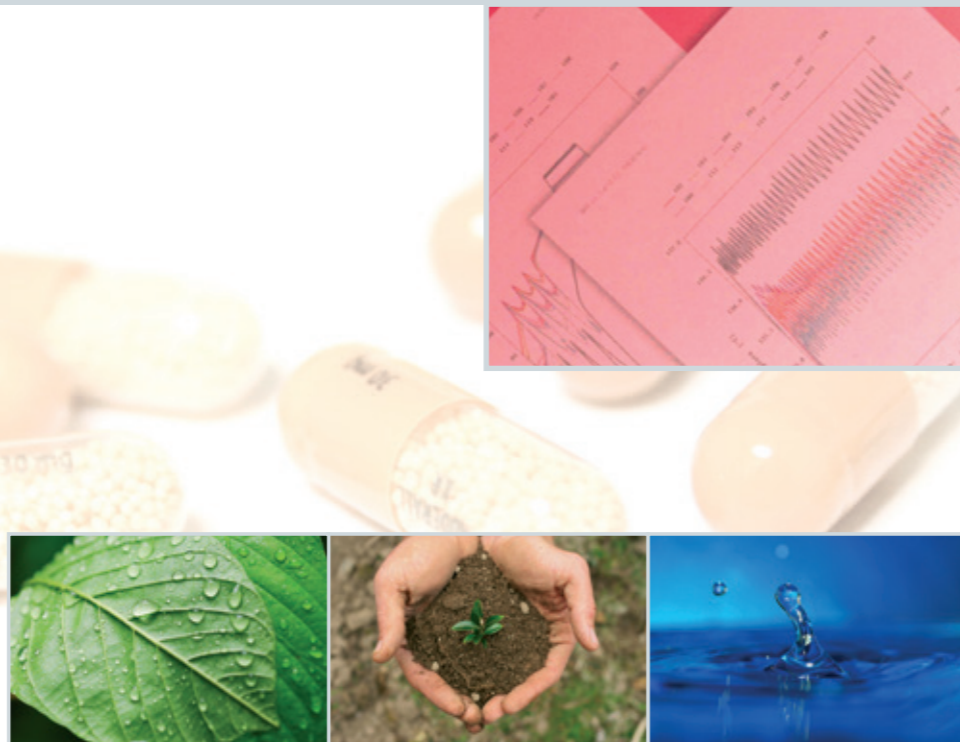
Standard electric connection 3 PE AC 400/50/60/Hz  
Noise level max 59 dB  
X = non applicable  
C = included in base

ED = electric water heating  
FD = steam water heating  
KP = steam condenser

Changes in the design and make reserved. The values may differ depending on specific charge and media parameters.



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