

## DNA/RNA UV-Cleaner Boxes

### DESCRIPTION

DNA/RNA UV-cleaner boxes (**UVC/T-AR**, **UVC/T-M-AR**, **UVT-B-AR** and **UVT-S-AR**) are designed for clean operations with DNA samples. They provides protection against contamination.

All models are bench-top type, made of metal framework, glass (or plexiglas) walls and working surface painted with powder enamel or made of stainless steel (See the specifications table on the page 86).

UV-cleaner boxes are equipped with an open UV lamp installed in the upper hood. UV-radiation from the open lamps disinfects the working area inactivating DNA/RNA fragments during 15–30 min of exposure. A digital timer controls duration of the direct UV irradiation. A daylight lamp provides proper illumination of the working surface.

UV-cleaner box is equipped with a flow-type bactericidal **UV cleaner–recirculator AR**, which provides constant decontamination inside the box during operation. They are recommended for operations with DNA/RNA amplicons.

UV cleaner–recirculator AR consists of a UV lamp, a fan and dust filters organized in a special body so that a user working with a UV-cleaner box is protected against UV light. Recirculator increases the maximum density of UV light making it sufficiently effective for DNA/RNA inactivation. The UV–recirculator processes 100 UV-cleaner box volumes per hour, creating permanent aseptic conditions of operation inside the UV-cleaner box.

Specially assigned mobile table (with wheel locks) with a drawer is available on request. Two versions:

- A** T-4, for single size UV–Cabinets
- B** T-4L, for double size UV–Cabinets

Other optional furniture is featured on page 90.

### ADVANTAGES OF BIOSAN UV-CLEANER BOXES:

- Ozone free high density UV decontamination
- Long living UV lamps (9,000 hours average)
- Automatic switch off of UV-lamps when the protective screen is opened
- Bactericidal flow-type recirculator providing permanent decontamination inside UV-cleaner box during operation
- Shockproof glass walls
- Low noise, low energy consumption
- Tables for installation of UV-cleaner boxes
- UV-cleaner boxes with the bactericidal **UV cleaner–recirculator AR** is the patented Biosan solution

UVC/T-M-AR



UVC/T-AR



**A** UVT-B-AR on the table T-4





# DNA/RNA UV-Cleaner Boxes

**B** UVT-S-AR on the double size table T-4L



**Premium**  
Product Class

 Product video is available on the website

 Development and evaluation of DNA amplicon quantification video is available on the website

DNA/RNA UV-cleaner box UVT-S-AR with equipment for nucleic acid extraction



Table T-4L

LF-1, laboratory chest of drawers

Table T-4



See "Development and evaluation of DNA amplicon quantification" on page 139

See "Laboratory Furniture" on page 90

**ORDERING INFORMATION:**

	Cat. number 
<b>UVC/T-AR</b> with inlet	BS-040102-AAA
<b>UVT-B-AR</b> with internal socket	BS-040109-AAA
<b>UVT-B-AR</b> with inlet	BS-040109-A05
<b>UVC/T-M-AR</b> with inlet	BS-040104-AAA
<b>UVC/T-M-AR</b> with internal socket	BS-040104-A06
<b>UVT-S-AR</b> with internal sockets	BS-040107-AAA
<b>Laboratory Furniture:</b>	
<b>T-4</b> , table	BS-040101-BK
<b>T-4L</b> , table	BS-040107-BK
<b>T-4L-P</b> , table with shelves	BS-050101-CK
<b>LF-1</b> , laboratory chest of drawers	BS-050101-BK

# DNA/RNA UV-Cleaner Boxes: Specifications

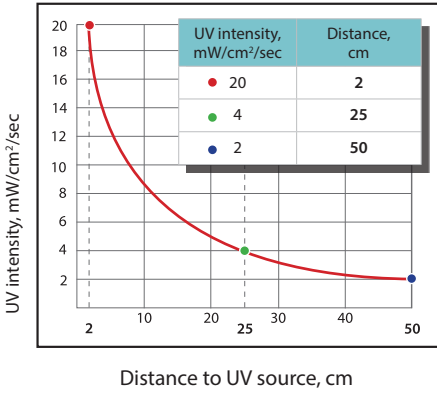


## SPECIFICATIONS

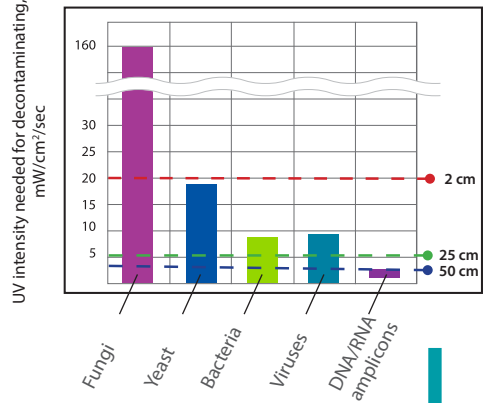
Model	UVC/T-AR (compact)	UVC/T-M-AR (compact)	UVT-B-AR (compact)	UVT-S-AR (double size)
Wall materials	Plexiglas: Polymethyl methacrylate (ALTUGLAS EX)	Rear: stainless steel Sides and front: glass (EUROGLASS, Germany)	Rear: stainless steel, Sides: steel with chemical resistant powder coating Front: glass (EUROGLASS, Germany)	Rear: stainless steel Sides and front: glass (EUROGLASS, Germany)
Working surface material	Steel with chemical resistant powder coating	Stainless steel		
Open UV-lamp	1 × 25W built-in bactericidal, TUV25WG13 UV-C			2 × 30W built-in bactericidal lamp, TUV30WG13 UV-C
UV radiation level	15 mW/cm <sup>2</sup> /sec			
Radiation type	UV (λ = 253.7 nm), ozone-free			
Digital time setting of direct UV exposure	1 min–24 hrs/non-stop (increment 1 min)			
UV–recirculator	1 × 25 W (efficiency >99% per 1 hour)			1 × 30 W (efficiency >99% per 1 hour)
Daylight lamp (for work- ing area illumination)	1 × TLD-15W			1 × TLD-30W
Thickness of side panels	4 mm	4 mm	2 mm	4 mm
Thickness of upper front panel	8 mm			
Thickness of the front protective screen	8 mm	4 mm	4 mm	5 mm
Optical transmission	92%	95%		
UV protection	>99.90% Polymethyl methacrylate ALTUGLAS EX	>96% UV-protection film, type 4 mil, clear		
Working area dimensions	650 × 475 mm			1,200 × 520 mm
Safety features	Automatic open UV-lamp switch off when screen is open			
Power outlets inside the unit (230/120 V)	Inlet for power cords	Inlet for power cords or 1 built-in socket, max. 1,000 W/600 W		3 built-in sockets max. 1,000 W/600 W, Inlet for power cords
Nominal operating voltage	100–240 V, 50/60 Hz			
Power consumption	67 W			135 W
Overall dimensions (W × D × H)	690 × 535 × 555 mm		690 × 585 × 555 mm	1,245 × 585 × 585 mm
Weight (net / gross)	23/33 kg	28.8/39 kg	31.2/42 kg	58/68.5 kg
Optional table (see lab. furniture on page 90)	<b>T-4</b> (W × D × H : 800 × 600 × 745 mm)			<b>T-4L</b> (W × D × H : 1,290 × 600 × 770 mm)

# DNA/RNA UV-Cleaner Boxes

Germicidal, shortwave (254 nm) ultraviolet energy is used for complete destruction of various biological agents



per 1 second



per 15-30 minutes

### Yeast

- Saccharomyces cerevisiae
- Brewer's yeast

### Bacteria

- Clostridium tetani
- Mycobacterium tuberculosis
- Salmonella
- Dysentery bacilli
- Staphylococcus aureus
- Streptococcus hemolyticus

### Viruses

- Bacteriophage (E. coli)
- Influenza

### Average dosage for different surfaces

Surface	Dosage after 15 min	Dosage after 30 min
Working surface (40-60 cm)	1,800-2,700 mW/cm <sup>2</sup>	3,600-5,400 mW/cm <sup>2</sup>
Side walls (10-60 cm)	1,800-5,400 mW/cm <sup>2</sup>	3,600-9,000 mW/cm <sup>2</sup>
Front window (10-60 cm)	1,800-5,400 mW/cm <sup>2</sup>	3,600-9,000 mW/cm <sup>2</sup>

See the article on page 139 for full information

UVC/T-AR



UVC/T-M-AR

