

UV-Cabinets for PCR Operations

UV-Cabinets for PCR operations (**UVC/T-AR**, **UVC/T-M-AR**, **UVT-B-AR** and **UVT-S-AR**) are designed for clean operations with DNA samples. They provide 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 82).

UV-Cabinets 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-Cabinets are equipped with a flow-type bactericidal **UV cleaner-recirculator AR**, which provides constant decontamination inside the cabinet 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-Cabinet 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-Cabinet volumes per hour, creating permanent aseptic conditions of operation inside the UV-Cabinet.

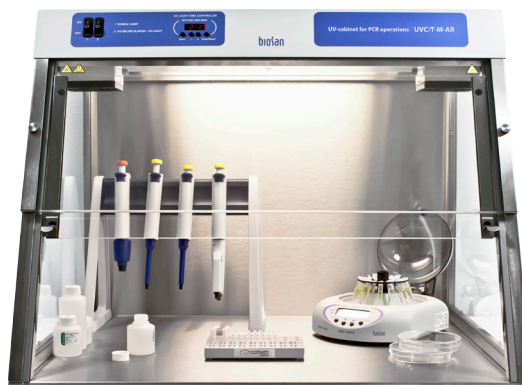
Specially assigned moving tables (with wheel locks) with a drawer are available on request. Two versions:

- A** T-4, for single size UV-Cabinets,
- B** T-4L, for double size UV-Cabinets (on page 81).

Advantages of Biosan UV-Cabinets:

- Ozone free high density UV decontamination
- Long living UV lamps (8,000 hours average)
- Automatic switch off of UV-lamps when the protective screen is opened
- Bactericidal flow-type recirculator providing permanent decontamination inside UV -cabinet during operation
- Shockproof glass walls
- Low noise, low energy consumption
- Tables for installation of UV-Cabinets
- UV-Cabinets 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



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



UVT-S-AR



*Product video
is available
on the website*



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

**See the Development and evaluation of DNA amplicon quantification. Case study:
UV-Cabinet with UV Air Recirculator UVC/T-M-AR and Class II Biological Safety
Cabinets on page 110 of the catalogue**


Catalogue number:

UVC/T-AR	BS-040102-AAA
UVT-B-AR	BS-040109-AAA
UVC/T-M-AR	BS-040104-AAA

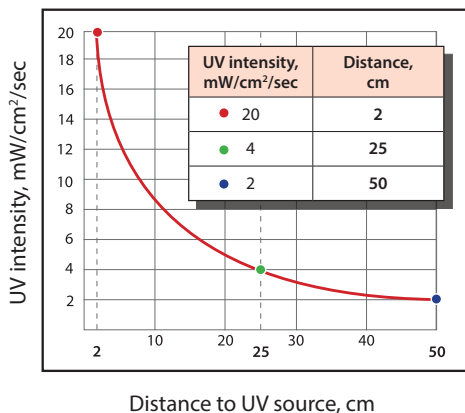
Catalogue number:

UVT-S-AR	BS-040107-AAA
T-4	BS-040101-BK
T-4L	BS-040107-BK

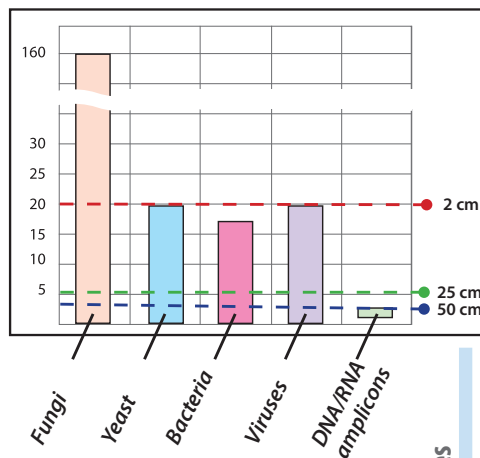
UV-Cabinets for PCR Operations Specifications

Specifications:				
				
Model	UVC/T-AR (compact)	UVC/T-M-AR (compact)	UVT-B-AR (compact)	UVT-S-AR (double size)
Walls material	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 chemicals resistant powder coating	Stainless steel		
Open UV-lamp	1 × 25W built-in bactericidal (Philips), TUV25WG13 UV-C			2 × 30W built-in bactericidal lamps (Philips), TUV30WG13 UV-C
UV radiation level	15 mW / cm ² / sec			
Radiation type	UV (λ = 253.7 nm), ozone-free			
Digital time setting of direct UV exposure	0–24 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 working 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	650 × 475 mm	650 × 475 mm	1200 × 520 mm
Safety features	Automatic open UV-lamp switch off when screen is open			
Power outlets inside the unit	Inlet for power cords		1 Built-in socket, max. 1,000 W	3 Built-in sockets max. 1,000 W
Nominal operating voltage	230 V, 50 Hz or 120 V, 60 Hz			
Power consumption (230 / 120 V)	253 VA (1.2 A) / 372 VA (2 A)			315 VA (1.4 A) / 530 VA (4.5 A)
Overall dimensions (W × D × H)	690 × 535 × 555 mm	690 × 535 × 555 mm	690 × 585 × 555 mm	1245 × 585 × 585 mm
Optional table	T-4 (W × D × H : 800 × 600 × 750 mm)			T-4L (W × D × H : 1290 × 600 × 770 mm)
Weight (net / gross)	23 / 33 kg	31 / 39 kg	32 / 42 kg	58 / 68.5 kg

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



per 1 second



Yeast

Saccharomyces cerevisiae
Brewer's yeast

Bacteria

Clostridium tetani
Mycobacterium tuberculosis
Salmonella
Dysentery bacilli
Staphylococcus aureus
Streptococcus hemolyticus

Viruses

Bacteriophage (E. coli)
Influenza

per 15-30 minutes

Average dosage for different surfaces

Surface	Dosage after 15 min	Dosage after 30 min
Working surface (40-60 cm)	1,800-2,700 mW/cm²	3,600-5,400 mW/cm²
Side walls (10-60 cm)	1,800-5,400 mW/cm²	3,600-9,000 mW/cm²
Front window (10-60 cm)	1,800-5,400 mW/cm²	3,600-9,000 mW/cm²

See the article on page 110 of the catalogue for full information

UVC/T-AR



UVC/T-M-AR

