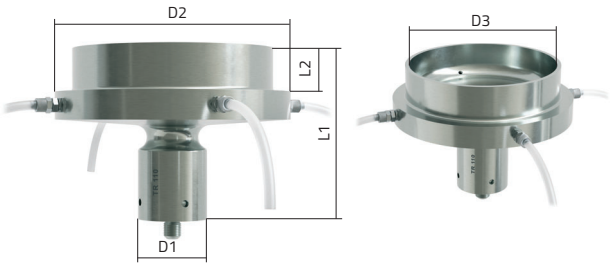
SONOPULS Product information
Supplementary instructions for use

BANDELIN
Ultraschall seit 1955

Cup booster

The cup booster TR 110 allows indirect, intensive sonication of the smallest sample quantities, such as bacteria in sample vessels (microtubes). Indirect sonication prevents both contamination of the samples through probe erosion as well as cross contamination. The ultrasound power is transmitted through a contact liquid, e.g. iced water, into the respective microtubes. In addition, the cup booster possesses inlet and outlet connections so that the samples can be tempered by the reservoir. For stationary operation, the inlet and outlet connections can be shorted with the help of a hose bend. The fill level must be kept constant. Used contact liquid must be replenished when needed. In cooling mode, the inlet and outlet are connected through suitable hoses to a hose pump with a low output or a cooling circuit.

Description	TR 110
Code No.	3902
Figure	
Length L1 [mm]	98.5
Length L2 [mm]	25
Diameter D1 [mm]	40
Diameter D2 [mm]	136
Inner diameter D3 [mm]	110
Torque [Nm]	70
Cup volumes [ml]	190 (stationary)
Compatible with UW	UW 2200/3200/200
Material	TiAl6V4 (3.7165)
Accessories kit	4 hose couplings with cap nut and sealing ring, 1 rubber ring for beaker holder 1 silicone hose 3.6 m long 2 sickle spanners HS 40/42, long

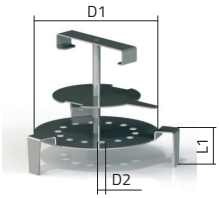
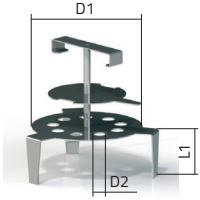
Cup booster

Assembly

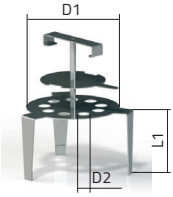
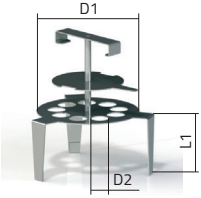
- Mount the cup booster onto the ultrasonic converter using suitable sickle spanners, see instructions for use.
- Affix the ultrasonic converter to a stand, e.g. SONOPULS HG 40, with mounted cup booster pointing upward.
- Place rubber ring on the cup booster frame and position the respective beaker holders on the rubber ring.
- If needed, position the assembly in a sound proof box, e.g. SONOPULS LS 40.

Accessories

The various beaker holders can hold up to 14 microtubes. Select from four different holders depending on container size. They are positioned on the edge of the cup booster using a curved handle. The microtubes must be submerged in the contact liquid inside the reservoir of the cup booster. The cover plate prevents the microtubes from floating during operation.

Description	HE 6	HE 12
Code No.	3903	3904
Figure		
Diameter D1 [mm]	94	94
Hole diameter D2 [mm]	6	11.5
Height foot L1 [mm]	33	39
Number of holes	14	9
Material	Stainless steel	Stainless steel

Cup booster

Description	HE 13	HE 17
Code No.	3905	3906
Figure		
Diameter D1 [mm]	94	94
Hole diameter D2 [mm]	13	17
Height foot L1 [mm]	65	55
Number of holes	9	9
Material	Stainless steel	Stainless steel

Notes

- Do not load the inlet or outlet of the cup booster during assembly
- A constant fill level in the reservoir of the cup booster enables reproducible results
- Microtubes must not come in touch with the oscillating bottom of the reservoir
- Do not allow any liquids to seep inside the ultrasonic converter housing

BANDELIN electronic GmbH & Co. KG
Heinrichstraße 3 – 4
12207 Berlin
Deutschland

www.bandelin.com
info@bandelin.com
☏ +49 30 768 80-0
🖷 +49 30 773 46 99