

Ultrasonic homogenizer VP-300N

Easy operation. High output is suitable for large volume samples. Used with the stand. Various horn options are also available.

Features

- High output type used with a stand, Standard throughput is 10 mL to 250 mL
- Easy tuning completed in about 5 seconds
- Oscillation function and various operation modes according to the chip used

Applications

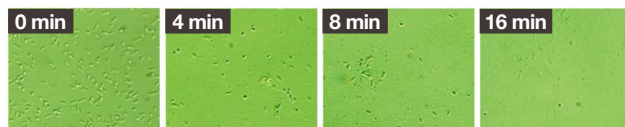
- Disruption and Solubilization of E. coli where protein is expressed
- Random fragmentation of Genomic DNA, Emulsification of samples



VP-300N with Optional stand

Oscillation and Operation mode

Optimal oscillation is done by setting the chip used on the screen. PWM operation mode automatically adjusts the output according to the viscosity change of the sample. POW operation mode performs stable oscillation when the sample viscosity and temp. SEN operation mode controls the output so that the value of oscillation sensor inside constantly. (Effective for Sonicating for a long time with optional continuous disruption cell)



Disruption of E. coli 35 mL (50 mL Centrifuge tube and ϕ 12 mm standard horn used)

Optional Make sure to read the next page for the combinations.

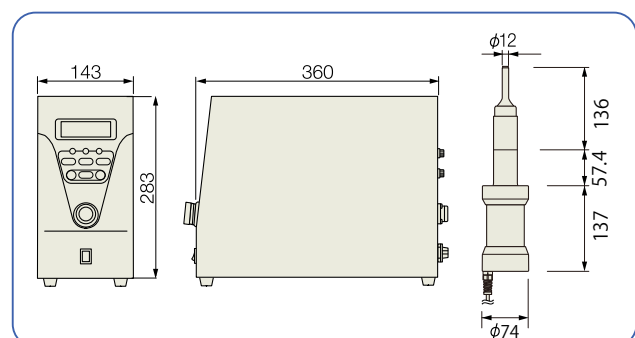
Product Name/Model	Remarks
Φ12 mm Standard horn VP-HN12 *standard accessory of VP-300N	For 10-250 mL sample (*) This product includes VP-ET12.
Φ20 mm Standard horn VP-HN20	For 25-500 mL sample (*) This product includes VP-ET20.
Φ12 mm Tip VP-ET12	For Replacement when consumed
Φ20 mm Tip VP-ET20	For Replacement when consumed
Φ12 mm Extender VP-EX12	L 100 mm version of VP-ET12
Φ20 mm Extender VP-EX20	L 100 mm version of VP-ET20
Φ3 mm Tapered Micro Tip VP-MT03	For 1-10 mL, Tip diameter ϕ 3.5 mm
Φ5 mm Tapered Micro Tip VP-MT05	For 2-10 mL, Tip diameter ϕ 5 mm
Φ6 mm Tapered Micro Tip VP-MT06	For 3-10 mL, Tip diameter ϕ 6.6 mm
Coupler VP-CP01	For connection with Stepped Micro Tip
Φ2 mm Stepped Micro Tip VP-MS02	For 0.1-10 mL, Tip diameter ϕ 2.2 mm
Φ3 mm Stepped Micro Tip VP-MS03	For 0.25-10 mL, Tip diameter ϕ 3 mm
Φ6 mm Stepped Micro Tip VP-MS06	For 2-10 mL, Tip diameter ϕ 6 mm
Dedicated stand VP-ST30	Almost required in VP-300N
Absorption silencer VP-SB01	No need to stand when use
Foot switch VP-FS01	Foot switch

(*) In E. coli, considering the efficiency, the throughput is ideally around the described median. When it reaches Max amount, processing takes time (approx. 15 min with about 35 mL for crushing of above 90% in ϕ 12 mm, approx. 40 min with 250 mL).

Model	VP-300N
High frequency output	Maximum 300 W
Transducer normal output	50 to 200 W (*)
Oscillation frequency range	19 to 21 kHz
Turning	Automatically
Operation mode	PWM operation: Automatic output adjustment according to viscosity change of sample POW operation: Stable oscillation when change in viscosity or temp are small SEN operation: Controls the output so the value of oscillation sensor inside is constant
Other functions	Timer operation (1 sec to 120 min) Programmed interval operation (ON: 3 to 60 sec, OFF: 1 to 60 sec)
Display	Real time output value %, Output value setting %, Oscillation frequency, The tip used, Operation mode
Configuration	Main unit, Converter, ϕ 12 mm Standard horn (Pre-installed Tip)
Oscillation switch	Equipped in Main unit (Optional foot switch can be used)
Dimensions (WxDxH)/Weight	143 x 360 x 283 mm, Approx. 6.7 kg
Standard accessories	Standard horn (ϕ 12 mm: VP-HN12), Tip (ϕ 12 mm: VP-ET12)
Power supply	AC100V/5A (Need a step-down transformer)

(*) The upper limit varies depending on the horn and the tip used.

Dimensions



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NEW

Constant temperature incubator/shaker
OD Monitor

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Shaker

Mixer
Rotator
Stirrer

Bead beater
Ultrasonic homogenizer

Aluminum block Bath
Mini-size Bath

Water bath
Shaking Water bath
Immersion cooler

Hybridization
Incubator
Constant temperature Chambers

Centrifugal Concentrators
Cold Trap

Freeze dryers

Substrate Electrophoresis apparatus
Blotting device for hybridization

Constant-temperature water circulating system (Chilled)

Appendix

Optional accessories for Ultrasonic homogenizer VP-300N

Variety of options such as the Chip, Cell combined with Standard horn, and Stepped Micro Tip (Compatible with that for VP-050N) combined with Couplers for are available in VP-300N. Current Chips for VP-300N can be used with the previous model VP-15S/30S. (Except for Couplers and stepped Micro Tip)

Stepped Micro Tip for VP-050N combined with Couplers can be attached to the converter for VP-300N.

Use it when a chip that is thinner than Tapered Micro Tip is required. It is consumed gradually by use.



**Stepped Micro Tip
VP-MS02/03/06**



**Coupler
VP-CP01**
(Attach by removing the standard horn)



Various optional accessories can be chosen according to samples and vessels in VP-300N.

VP-300N with Converter



**Standard horn
VP-HN12/20**
(Attach any of the following)



**Tip
VP-ET12/20**
(Comes with Standard horn)

This is attached on the Tip of the Standard horn and will be gradually consumed by use so it should be replaced regularly. (Comes in Standard horn)



**Extender
VP-EX12/20**

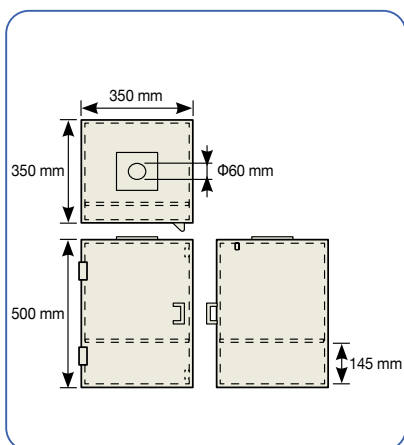
This is used when processing the sample in deep vessels (e.g. Separatory funnel) that the Standard horn/chip cannot reach the sample. Attach it on the Standard horn. It will be consumed gradually by use.
* It cannot be immersed deeply in liquid. The immersible part is up to 2 cm to 3 cm from the chip (Total length 10 cm).



**Tapered Micro Tip
VP-MT03/05/06**
(Only VP-HN12 can be attached)

This is used to process samples in thin and deep vessels that the sample cannot be put inside it. It is attached to the Standard horn and will be consumed gradually by use.

Absorption silencer Dimensions



Absorption silencer VP-SB01

The converter is fixed to the top surface for crushing process internally to make the offensive resonance noise lower during ultrasonic oscillation.

* It cannot be used with Continuous crushing cell and/or the Cup horn that we have sold in the past.



**Dedicated stand VP-ST30
(with Converter)**

This is used to fix the converter (Absorption silencer and Stand required in VP-300N). Prepare a telescopic table, etc. on that the sample vessels being placed if necessary.