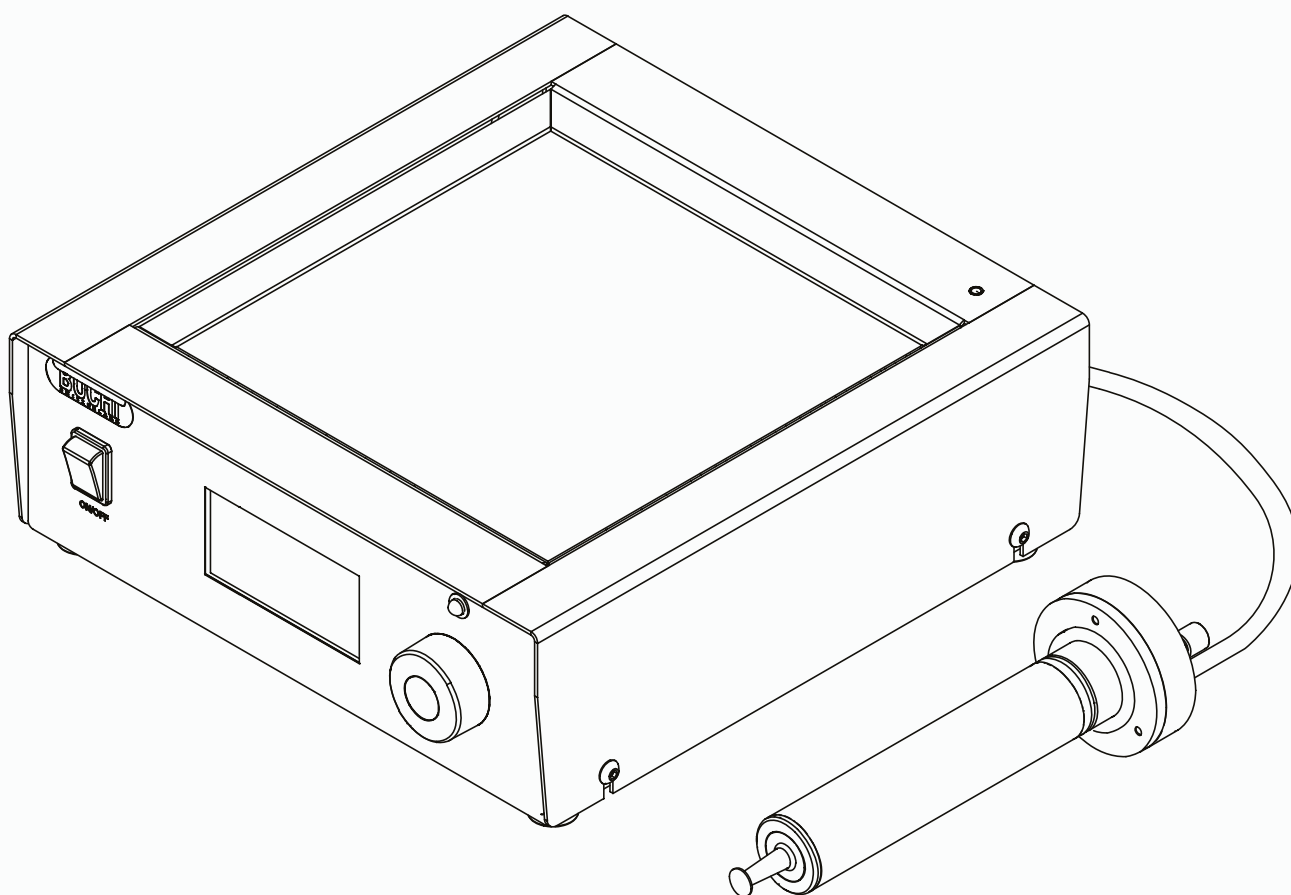




Technical data sheet

Ultrasonic Package

You want to investigate the maximum possible particle size that can be achieved by spray drying on a laboratory scale. With the proven Mini Spray Dryer S-300 in combination with the Ultrasonic Package, we offer the market-leading solution for maximum particle size on laboratory scale.

Description of function

The Ultrasonic Nozzle with the Ultrasonic Controller are to be used as liquid atomizers in the spray drying process with the Mini Spray Dryer S-300 and its subsystems.

An ultrasonic atomizing nozzle vibrates at frequencies beyond human hearing (>20 kHz). The vibration on the atomizing surface of the nozzle produces a low velocity spray by breaking up a liquid feed into a spray of droplets. This phenomenon is the result of the decay of an unstable capillary wave that develops in the liquid. The spray velocity is typically low with 18–36 cm/s as compared to 10–20 m/s for pressure atomizing nozzles. The Ultrasonic Controller provides the high frequency electrical energy required to operate the Ultrasonic Nozzle.

Three modes are available:

Mode	Solvent composition
Open mode	up to 20% organic solvent
Closed mode with S-395 (Accessory inert gas adapter necessary)	between 90%–100% organic solvent
Closed mode with S-395 and S-396 (Accessory inert gas adapter necessary)	between 21%–90% organic solvent

Scope of delivery

All configurations are supplied ready to use.



NOTE

The scope of delivery depends on the configuration of the purchase order.

Accessories are delivered as per the purchase order, order confirmation, and delivery note.

Components	Qty
Ultrasonic Controller	1
Ultrasonic Nozzle	1
Y-piece	3
Damper	3
Silicon hose SIR ø 2 x 4 mm	2
Power supply	1

Order code

1	1	0	7	5	5	7	7	Ultrasonic Package UL with Inert Gas Adapter for S-300
1	1	0	7	5	5	7	6	Ultrasonic Package UL with Inert Gas Adapter for B-290
1	1	0	8	6	6	0	0	Ultrasonic Package UL without Inert Gas Adapter

Technical data

Ultrasonic Controller

Specification	Value
Dimensions (W x D x H)	223 x 242 x 79 mm
Weight	1.8 kg
Connection voltage	100–240 VAC $\pm$ 10%
Frequency	50/60 Hz
Power consumption	max. 50 W
Maximum viscosity	70 cps
Minimum feed flow rate	1 mL/min
Maximum feed flow rate	9 mL/min
Mean particle diameter	80% (20–60 μ m)
Maximum cooling gas flow rate	200–800 L/h (at 5–7 bar)
Yield	Up to 85%, by default 40–70%
IP Class	20
Pollution degree	2
Overvoltage category	II

Occurring overvoltages do not influence the safety of the instrument.

Ultrasonic Nozzle

Specification	Value
Maximum operating temperature	100 °C
Dimensions (W x D x H)	51 x 51 x 190 mm
Weight	0.54 kg
Connection voltage	23–25 VAC $\pm$ 5 %
Ultrasonic frequency	60 kHz
Power output	1–15 W

Ambient conditions

For indoor use only.

Specification	Value
Max. altitude above sea level	2,000 m
Ambient and storage temperature	5–40 °C
Max. relative humidity	80% for temperatures up to 31 °C decreasing linearly to 50% relative humidity at 40 °C

Spare parts and accessories

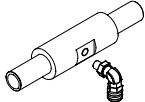
Use only genuine BUCHI consumables and spare parts in order to ensure correct, safe and reliable operation of the system.



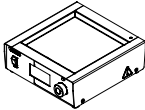
NOTE

Any modifications of spare parts or assemblies are only allowed with the prior written permission of BUCHI.

Accessories

	Order no.	Image
Inert gas adapter for B-290 US UL	11060492	
Inert gas adapter for S-300 US UL	11073782	

Spare parts

	Order no.	Image
Silicon tube D2/4 (per m)	004138	
Y-piece	11060527	
Silicon cap	11060528	
Ultrasonic Controller	11069891	
Ultrasonic Nozzle with cable	11060053	



11594127C en Ultrasonic Package 07.2026
Technical data are subject to change without notice
Quality Systems ISO 9001

We are represented by more than 100 distribution partners worldwide.
Find your local representative at:

www.buchi.com

Quality in your hands



11594127C en Ultrasonic Package 07.2026
Technical data are subject to change without notice
Quality Systems ISO 9001

We are represented by more than 100 distribution partners worldwide.
Find your local representative at:

www.buchi.com

Quality in your hands
