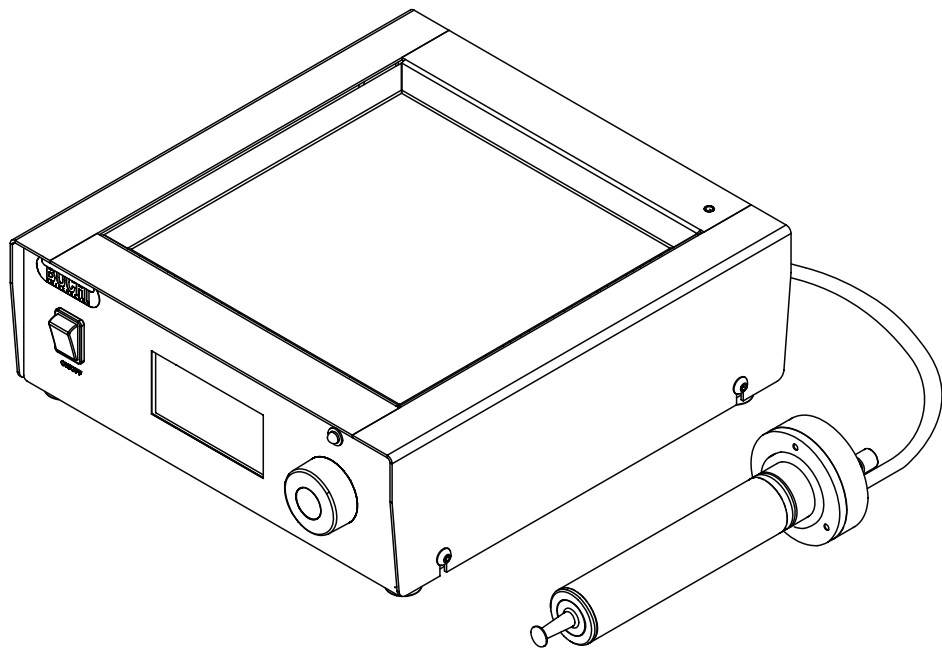




Ultrasonic package

Technical data sheet

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 B-290 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 built to be used as liquid atomizer in the spray drying process with the Mini Spray Dryer B-290 and its subsystems.

An ultrasonic atomizing nozzle is a device that 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 atomizer nozzle.

Three modes are available:

Mode	Solvent composition
Open mode	up to 20 % organic solvent
Closed mode with B-295 (Accessory Inertgas adapter necessary)	between 80 % - 100 % organic solvent
Closed mode with B-295 and B-296 (Accessory Inertgas adapter necessary)	between 20 % - 80 % organic solvent

Order Code

1 1 0 6 9 8 9 2 Ultrasonic Package

Scope of delivery

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

Technical data

Ultrasonic controller

Dimensions (W x D x H)	223 x 242 x 79 mm
Weight	1.8 kg
Connection voltage	100 - 240 ± 10 % VAC
Frequency	50 / 60 Hz
Power consumption	max. 50 W
IP Class	20

Ultrasonic nozzle

Maximum operating temperature of the nozzle	100 °C
Dimensions (W x D x H)	51 x 51 x 190 mm
Weight	0.54 kg
Connection voltage	23 - 25 ± 5 % VAC
Ultrasonic frequency	60 kHz

Ambient conditions

For indoor use only.

Max. altitude above sea level	2000 m
Ambient temperature	5 - 40°C (25°C)
Maximum relative humidity	80% for temperatures up to 31°C
Storage temperature	max. 45 °C

Spare parts and accessories

Accessories

	Order no.
Inertgas adapter	11060492

Spare parts

	Order no.
Y-piece	11060527
Ultrasonic controller	11069891
Ultrasonic nozzle with cable	11069893
Silicon tube D2/4	004138
Silicon cap	11060528