

## ***BGI Collison Nebulizers (1,3,6,24 and NSF Collisons)***



1,3 or 6 Jet  
Collison Nebulizer



6 Jet NSF  
Collison Nebulizer



24 Jet Collison Nebulizer

The Collison Nebulizer has long been the recognized technique for the efficient aerosolization of various liquids.<sup>1,2</sup> Over the years various configurations have been developed to meet specific requirements. BGI manufactures all of the currently used types and has performed extensive tests to determine the performance characteristics.

It has previously been demonstrated that the 3-jet version<sup>2</sup> will produce the same mass median diameter with one-half the air flow and liquid generation rate of the 6-jet version. Similarly, the short form has been shown to produce the same mass median diameter as the standard height unit<sup>2</sup>.

The modified MRE-type is a flat bottomed version of the design used by the Microbiological Research Establishment at Porton, U.K. It is available in either 3 or 6-jet configuration. All metal components are fabricated from 316 stainless steel. This design has been the subject of developmental testing and was the principle source of the data presented below. It should be noted that the "T" formation at the top of the unit provides for the air inlet and the attachment of a pressure gauge. This BGI innovation eliminates the frequently encountered error involved when the pressure is measured at some remote source.

The modified MRE-type short form was specifically developed to meet the needs of the National Sanitation Foundation. Their requirement for testing Biological Hazard Enclosures involved limited space requirements resulting in the shorter configuration. This unit has been the subject of extensive testing with spores. The unit is fitted with the 6-jet nozzle and is fabricated from electroless nickel plated brass.

**24 Jet Collison.** Over the past two decades, BGI has been frequently asked to manufacture Collison Nebulizers with more than 3 or 6 jets. This has previously been carried out on a custom basis. The now-standardized 24 Jet Collison is a carefully scaled up version of the 6 Jet, MRE type collison. A 32 oz., clear pre-coated jar is utilized to maintain the identical wall to plate spacing of the three and six jet nebulizer. Thus the new unit produces the same characteristic aerosol as the six jet with four times the output, except that the maximum pressure limit is 30 PSIG.





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## Applications

- Aerobiology
- Aerosol Research
- Biohazard Enclosure Testing
- Filter Evaluation

## Features

- Reproducible Standardized Performance Characteristics
- All Units are Manufactured to Gauge

## Specifications

<i>MRE Standard Collison</i>	
Max. width	3.25 in (8.25 cm)
Max. height	8.5 in (21.60 cm)
Jar Diameter	2.25 in (5.72 cm)
Nominal outlet dimensions	0.625 in (1.59 cm) O.D. 0.555 in (1.41 cm) I.D.
Weight	11.62 oz (0.33 kg)
<i>24 Jet Collison</i>	
Max width	5.00 in (12.7 cm)
Max height	11.0 in (27.94 cm)
Jar diameter	3.50 in (8.89 cm)
Nominal outlet dimensions	1.0 in (2.54 cm) O.D. 0.9 in (2.29 cm) I.D.
Weight	43.2 oz (1.23 kg)

## Ordering Information

Part#	Description
CN241	1-jet Modified MRE type
CN24	3-jet Modified MRE type
CN25	6-jet Modified MRE type
CN311	NSF Collison
CN60	24-jet Collison
Optional Items	
CN40	Glass Precious Fluids Bottle
CN41	Precious Fluid Extension Sleeve
CN42	External Fill Adapter
CN70	Polycarbonate Precious Fluids Bottle
CN27SS	316 Stainless Steel Jar

