

## Oil Droplet Generators Models 9307 and 9307-6



9307-6



9307

TSI's Model 9307 and 9307-6 Oil Droplet Generators produce large quantities of oil droplets for seeding flows when making PIV or LDV measurements. They are ideal for seeding high-speed flows during PIV measurements when large numbers of seed particles are required. Both atomizers work best with olive oil.

The Oil Droplet Generator is a general-purpose atomizer that utilizes a Laskin nozzle to generate droplets for flow seeding. Pressurized air atomizes oil in the generator reservoir to produce the droplets. An internal impactor plate blocks large droplets from getting into the droplet stream exiting the device, allowing it to generate particles with a reasonably narrow size distribution.

Generally, a larger particle output volume can be obtained without seriously affecting the droplet size range by increasing the inlet pressure. A lockable regulator with pressure gauge provides an easy way to control the inlet air pressure. Both models are equipped with an external gauge which indicates the oil level in the atomizer chamber.

## Specifications

### Models 9307 and 9307-6 Oil Droplet Generators

#### Supply Air Pressure

Minimum	170 kPa (25 PSI)
Maximum	2720 kPa (400 PSI)

#### Supply Air Temperature

Normal Operation	20°C (70°F)
Maximum	65°C (150°F)

#### Inlet Air (operating) Pressure

Normal Operation	170 kPa (25 PSI)
Maximum	550 kPa (80 PSI)

Maximum Back Pressure 10 kPa (1.5 PSI)

#### Air Supply Line

Length	1.2 m (4 ft)
Connector	Quick-coupler
Type	Parker 1/4 in. H2C Male

	9307	9307-6
Aerosol Flow Rate	30 l/min (normal operation)	1000 l/min (normal operation)
Mean Droplet Size	1 micron for olive oil (typical)	1 micron for olive oil (typical)
Aerosol Outlet Pipe		
Outside Diameter	1.59 cm (0.625 in.)	2.5 cm (1 in.)
Inside Diameter	0.95 cm (0.375 in.)	2.4 cm (0.93 in.)
Dimensions		
Height	39.5 cm (15.5 in.)	48 cm (18.9 in.)
Diameter	15 cm (5.9 in.)*	23 cm (9 in.)**
Weight	3.9 kg (8.5 lb)	13.2 kg (29 lb)

\* Add 2.9 cm (1.1 in.) for sight glass.

\*\*Add 8.5 cm (3.35 in.) for regulator.

Specifications are subject to change without notice.

## To Order

Model 9307-1	System with single jet
Model 9307-6	System with six jets



#### TSI Incorporated

Corporate Headquarters—Tel: 651 490 2811 Toll Free: 1 800 874 2811 Fax: 651 490 3824 E-mail: fluid@tsi.com

TSI China—Tel: +86 10 8260 1595 Fax: +86 10 8260 1597 E-mail: tsibeijing@tsi.com

Contact TSI or visit [www.tsi.com](http://www.tsi.com) for information on specific office locations worldwide.

