

## HPLC and Laser Nebulizers

### PFA-LS Laser Ablation Nebulizer

Many laser ablation studies involve the introduction of a liquid standard aerosol for performing mass calibrations, ICP optimization etc.

The PFA-LS has been designed so that it produces a fine aerosol at low nebulizer gas flow rates (0.2—0.3L/min) allowing more sample gas to pass through the laser ablation chamber.



	i.d.	self-aspiration rate (@1L/m Ar)	
<b>ES-2020-2000</b>	PFA-20	20 µL/min	<span style="color: red;">■</span> (red)
<b>ES-2000-2000</b>	PFA-50	50 µL/min	<span style="color: purple;">■</span> (purple)
<b>ES-2002-2000</b>	PFA-100	100 µL/min	<span style="color: green;">■</span> (green)
<b>ES-2003-2000</b>	PFA-200	200 µL/min	<span style="color: yellow;">■</span> (yellow)
<b>ES-2005-2000</b>	PFA-400	400 µL/min	<span style="color: orange;">■</span> (orange)

### PFA-LC for Liquid Chromatography

The PFA-LC nebulizer has a smaller internal capillary than the standard ST type nebulizers. The small dead volume (<3µL) reduces band broadening effects, once a peak leaves the column.

Supplied with common HPLC fittings for zero dead volume connections to the HPLC system. Suitable for both micro and standard flow chromatography.



**ES-2050** PFA-LC Nebulizer

### Obstruction Removal Kit

Designed specifically for PFA-ST and PolyPro-ST nebulizers to remove clogs. Includes one guide, 10 pieces of fused silica and instructions. For use with ST type nebulizers only. Not necessary for High Solids nebulizers.



**ES-2046-0001** Obstruction removal kit

**ES-2046-0003** Replacement guide for obstruction removal kit

**ES-2046-0002** 10 piece fused silica refill for obstruction removal kit

**ES-2010** Silica, 50µm i.d. x 650mm

**ES-2012** Silica, 75µm i.d. x 650mm