

# GemCone and GemTip Nebulizers

## GemCone™ Low-Flow Nebulizer

Low-flow GemCones permit lower nebulizer gas flow rates, useful for spectral lines with high excitation energies and for providing a more robust plasma. GemCone Nebulizers require an end cap for use with Scott Spray Chambers.



| Description                | Part No.        |
|----------------------------|-----------------|
| GemCone Low-Flow Nebulizer | <b>N0770358</b> |

## GemCone High Dissolved Solids Nebulizer

High solids GemCones are for samples with high dissolved solids (up to 20%). This conespray nebulizer allows you to analyze samples with higher solids concentration than is possible with a Cross-Flow nebulizer. GemCone nebulizers require an end cap (Part No. **N0680343**) for use with Scott Spray Chambers.



| Description                             | Part No.        |
|---|-----------------|
| GemCone High Dissolved Solids Nebulizer | <b>N0690670</b> |

## GemCone Nebulizer Replacement Parts

| Description  | Part No.        |
|--|-----------------|
| GemCone Sample Capillary Adapter                   | <b>N0371505</b> |
| Scott Spray Chamber End Cap for GemCone Nebulizers | <b>N0680504</b> |
| Quick Disconnect Tubing with Swagelock             | <b>N0770336</b> |
| Quick Disconnect Tubing without Swagelock          | <b>N0770610</b> |
| Capillary Tubing (10 ft.)                          | <b>09908265</b> |
| PTFE Capillary Tubing (1 ft.)                      | <b>09985708</b> |

## Argon Flow Rates

| Nebulizer         | Typical Value | Operating Range |
|-------------------|---------------|-----------------|
| GemTip Cross-Flow | 0.6 L/min     | 0.4-1.3 L/min   |
| Low-Flow GemCone  | 0.6 L/min     | 0.4-0.95 L/min  |
| High Flow GemCone | 1.0 L/min     | 0.7-1.0 L/min   |



## GemTip Cross-Flow II Nebulizers

Excellent general purpose nebulizer for the analysis of strong mineral acids (including HF) and samples with less than 5% dissolved solids. It can routinely handle 50% (v/v) solutions of HCl, HNO<sub>3</sub>, H<sub>2</sub>SO<sub>4</sub>, H<sub>2</sub>PO<sub>4</sub>, 20% (v/v) HF and 30% (v/v) NaOH. Up to 20% NaCl can be aspirated by the nebulizer for 1 hour without clogging. Uses chemically resistant GemTips made of sapphire and ruby in a chemically resistant end cap.

| ICP Model                  | Part No.        |
|----------------------------|-----------------|
| Optima 8x00 / Avio 200/500 | <b>N0780546</b> |
| Optima 2x00/4x00/5x00/7x00 | <b>N0770546</b> |

## GemTip Nebulizer O-Ring Kit

| Description   | Part No.        |
|---|-----------------|
| GemTip™ Cross-Flow Nebulizer O-Ring Kit<br>Includes: <b>09902001</b> Qty. 2, <b>09902033</b> Qty. 2,<br><b>09902151</b> Qty. 3, <b>09921003</b> Qty. 1,<br>3 cm of PTFE Sample Tubing | <b>N9300067</b> |

## GemTip Cross-Flow II Nebulizer Tip Kits

The Tip Kit includes a clear sapphire sample tip and a red ruby argon tip. The tips are constructed of PEEK with the gem inserts noted for maximum corrosion resistance.



| ICP Model                  | Part No.        |
|----------------------------|-----------------|
| Optima 8x00 / Avio 200/500 | <b>N0780676</b> |
| Optima 2x00/4x00/5x00/7x00 | <b>N0690676</b> |

See next page for GemTip Crossflow II Nebulizer Replacement Parts