

# HF Resistant Sample Introduction for ICP-MS & ICP-AES

Nebulizers, Spray Chambers, Injectors and Torches



## MicroFlow PFA Nebulizers

Elemental Scientific offers three basic types of PFA nebulizers: the integrated capillary PFA series, the removable capillary PFA series, and the integrated autosampler probe series. All these nebulizers offer the same characteristics:



- All-Teflon® construction
- Chemically resistant – ideal for strong acids, alkalis, organics
- Resistant to clogging – reliably self-aspirated or pumped
- Low, spike-free background for important elements such as Fe and Ca
- Produces a fine aerosol for high transport efficiency and high sensitivity
- Analyze all sample types with a single introduction system
- Direct analysis of volatile and non-volatile organic solvents
- Directly replace any 6 mm (Meinhard) type nebulizer

## PolyPro Nebulizers

The PolyPro nebulizer is a low-cost HF resistant alternative to the MicroFlow PFA nebulizer. The PolyPro has lower chemical resistance and slightly higher background levels than the MicroFlow PFA nebulizer, but is a robust nebulizer for many applications where the ultimate detection limits are not critical, including ICP-AES.

- Polypropylene and Teflon® construction
- High performance
- Longer lifetime than glass or quartz nebulizers
- Chemically resistant to most samples including HF
- Self-aspiration with exchangeable capillaries
- 0-5 ml/min sample flow rate with peristaltic pumping
- Resistant to clogging and accidental breakage
- Anti-clog tool for easy maintenance is available





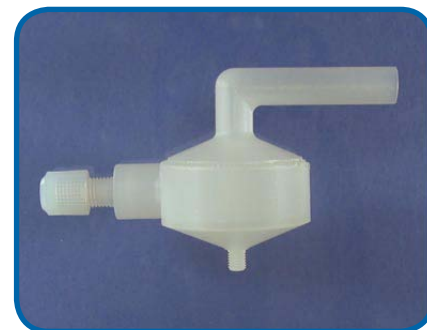
## PFA PureChamber Spray Chamber and PFA PureCap Endcap

- PFA Teflon® construction
  - Low contamination
  - Chemically inert
  - Ideal for dilute-and-shoot analyses
- O-ring-free seal
  - Reduces contamination
  - Easy to clean
  - Low maintenance
- High transmission and selectivity
  - Excellent short- and long-term stability
  - High sensitivity
  - Fast rinse-out

## PolyPro Cyclonic Spray Chambers

The PolyPro cyclonic spray chamber is suitable for high through-put applications. It is entirely constructed of inert polypropylene and PFA Teflon® materials and is completely o-ring free.

- All polypropylene and PFA Teflon® construction
- Resistant to hydrofluoric acid
- O-ring free connections to the nebulizer and injector
- Low internal volume
- Fast rinse-out vs. Scott-type spray chamber
- Fits any 6 mm nebulizer including: MicroFlow PFA Nebulizer, PolyPro Nebulizer
- Secure, leak-free threaded drain port
- Available either with or without internal baffle
- Optional threaded auxiliary port for addition gas
- All ESI PolyPro spray chambers may be used alone or with the PC<sup>3</sup> Peltier Cooler for temperature control



## Injectors & Torches

- O-ring free Injectors and Precision Quartz Torches
- O-ring-free seal
  - reduces contamination
  - easy to clean
  - easy to insert
- Precision alignment of torch and injector
- Stronger, reinforced torch base helps prevent accidental breakage during maintenance
- Sapphire Injector
  - This HF resistant injector is ideal for most high purity and low background applications
- Platinum Injector
  - This HF resistant injector is recommended for improved performance for sub to low ppt Al determinations