



Supplies and Accessories Catalogue | Issue 11 2024

Providing High Quality ICP-OES & ICP-MS Sample Introduction Solutions for Over 40 Years.



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Note: Clicking on the part numbers (PN) in this document will redirect you to our website for additional information.

Introduction to Glass Expansion Nebulizers

The nebulizer is a critical component of your ICP sample introduction system, so why not opt for the highest quality? Glass Expansion has been manufacturing ICP nebulizers since the early 1980s and continually updates nebulizer designs to improve performance and ease of use. Our proprietary designs include a thick walled VitriCone capillary, UniFit sample line connector and the Direct Connect (DC) product line.

Whether your ICP laboratory is analyzing clean aqueous samples, samples containing HF and/or high dissolved salts, or volatile organic solvents; Glass Expansion has a nebulizer to suit your needs. Learn about the performance advantages and overall difference in construction quality that a Glass Expansion nebulizer can provide your ICP laboratory.

Nebulizer Types

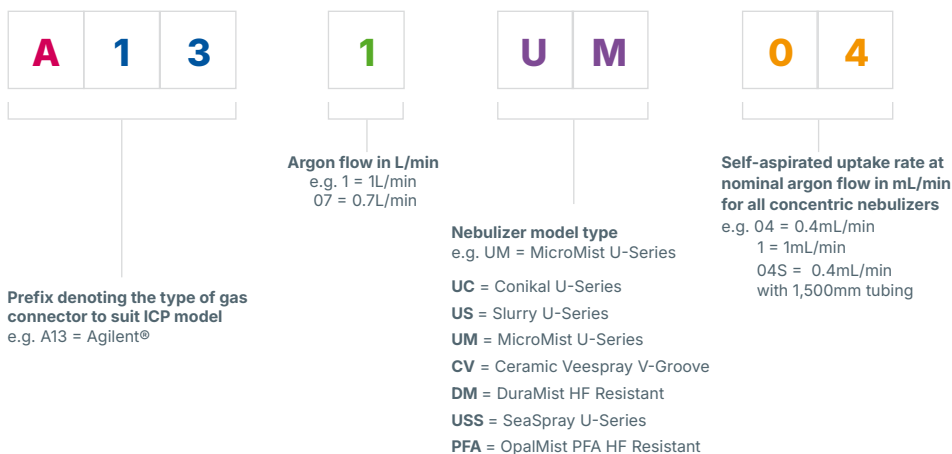
| Nebulizer | Dead Volume V_0 (μ L) | TDS (%) | Particulates (μ m) | HF | Precision | Purity | Material |
|------------------|------------------------------|---------|-------------------------|-----|-----------|-----------|----------|
| SeaSpray™ | 4 | 20 | *200 | No | High | Good | Glass |
| MicroMist™ | 1 | 15 | *100 | No | High | Good | Glass |
| Conikal™ | 5 | 5 | 210 | No | High | Good | Glass |
| Slurry™ | 11 | 1 | 280 | No | High | Good | Glass |
| Quartz SeaSpray™ | 5 | 20 | 210 | No | High | Excellent | Quartz |
| OpalMist™ | 4 | 15 | *200 | Yes | High | Excellent | PFA |
| DuraMist™ | 4 | 30 | *200 | Yes | High | Good | PEEK |
| VeeSpray™ | 100 | 30 | 550 | Yes | Moderate | Good | Ceramic |

*Particle Size Tolerance (μ m): 200 = USS1, USS2, DM2, PFA2; 140 = PFA1, DM1; 100 = USS04, PFA04, DM04; 90 = UM02, UM01, UM005; 70 = PFA005, PFA01, PFA02

Understanding Nebulizer Part Numbers

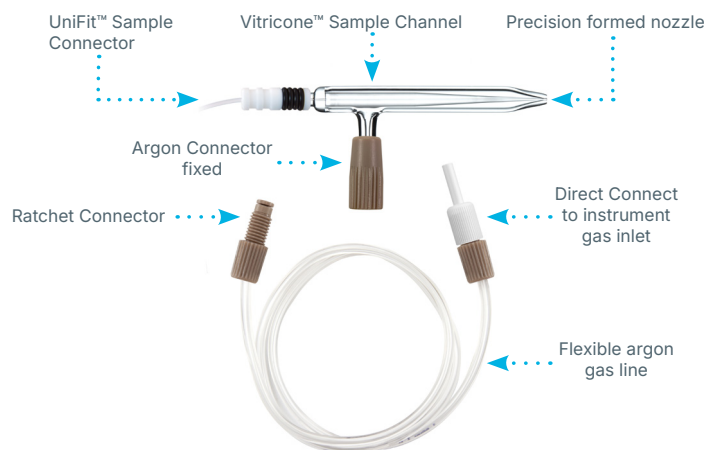


Example: MicroMist DC Nebulizer
0.4mL/min



DC Nebulizers

The DC (Direct Connection) nebulizer has a UniFit sample connector which slides easily over the sample arm and an argon connector configured to connect directly to your ICP.



Benefits:

- Made from constant bore thick walled tubing (VitriCone)
- Machined exterior provides proper aerodynamics
- Zero dead volume sample connection
- Inert metal-free argon connector
- ICP model specific Direct Connect (DC) argon line
- Ratchet fitting ensures leak-free gas connection
- Direct plug-in gas line connection to instrument
- Lowest internal dead volume for rapid washout

DC versions of the SeaSpray, MicroMist, Conikal, Slurry, DuraMist, OpalMist and VeeSpray nebulizers are available to suit the most common models of ICP-OES and ICP-MS.

The DC nebulizer part number has a prefix specific to each type of gas connector. For example, the prefix "A13-" denotes a connector for the Agilent® 5000 ICP-OES Series, so part number A13-07-USS2 is a SeaSpray nebulizer configured for direct connection to the Agilent® 5000 Series.

In addition to these unique benefits, the DC nebulizer shares the following benefits with the U-Series nebulizer:

- **Resists blockage:** The sample channel is uniform from the entry point to the tip, so there is nowhere for particulates to be trapped.
- **Fast washout:** Precision bore sample channel maintains lowest dead volume, providing the fastest possible washout.
- **Simple to use:** Our innovative UniFit connector slides easily over the sample arm and creates an excellent seal.
- **Full length VitriCone construction:** In the VitriCone design, the sample channel is formed from heavy-wall, precision-bore capillary machined to extremely tight tolerances, resulting in a uniform channel that resists clogging and provides high analytical precision.

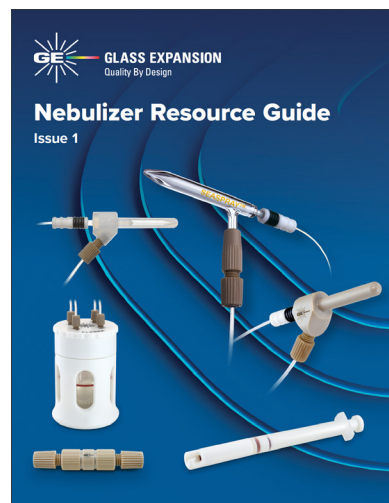
Quartz SeaSpray DC Nebulizer

The Quartz SeaSpray DC nebulizer is made from ultra pure quartz and offers outstanding nebulization efficiency for trace level analyses. It offers freedom from clogging while nebulizing solutions to the limit of solubility of most mineral salts, and conferring significant sensitivity gains. It is specifically designed for ultra trace level analysis.



Nebulizer Resource Guide

Whether your ICP laboratory is analyzing clean aqueous samples, samples containing HF and/or high dissolved salts, or volatile organic solvents, Glass Expansion has a nebulizer to suit your needs. Discover everything you need to know about nebulizers with our all-in-one comprehensive Nebulizer Resource Guide.



[Click here](#) to view the Nebulizer Resource Guide



DC Nebulizer Gas Fitting Connectors

| Manufacturer | Model | P/N Prefix | Gas Line Included | |
|-------------------------------|---|------------|-------------------|---|
| Agilent Technologies® | 4100/4200 | MP11- | 70-803-0969 |  |
| Agilent Technologies® | Vista/700-ES | A11- | 70-803-0969 |  |
| Agilent Technologies® | 7700/7800/7850/7900/8800/8900 | A13- | 70-803-1105 |  |
| Agilent Technologies® | 5000 Series | A13- | 70-803-1105 |  |
| Analytik Jena® | ICP-MS | A61- | 70-803-2002 |  |
| Analytik Jena® | ICP-OES | A13- | 70-803-1105 |  |
| Horiba® Jobin Yvon | All Models | A13- | 70-803-1105 |  |
| Nu Instruments | ICP-MS | A51- | 70-803-1858 |  |
| Nu Instruments | TOF-ICP-MS | A52- | 70-803-2044 |  |
| PerkinElmer® | ICP-OES | A21- | 70-803-1070 |  |
| PerkinElmer® | Elan/NexION 300/350 | A22- | 70-803-1049 |  |
| PerkinElmer® | NexION 1000, 1100, 2000, 2200, 5000 | A23- | 70-803-1449 |  |
| Shimadzu® | All Models | A41- | 70-803-1311 |  |
| Spectro™ | All Models | A21- | 70-803-1070 |  |
| Standard BioTools™ (Fluidigm) | Helios | A21- | 70-803-1070 |  |
| Thermo Scientific™ | PRO, 6000/7000, Q/RQ/TQ/RQ Plus, X-Series & Neoma | A31- | 70-803-1105 |  |
| Thermo Scientific™ | MX Series | A13- | 70-803-1105 |  |
| Thermo Scientific™ | Neptune | A11- | 70-803-0969 |  |

Learn About Glass Expansion Nebulizers

All Glass Expansion concentric nebulizers use the unique VitriCone™ construction delivering the best possible precision.

Benefits:

- Inert metal-free argon connector.
- Instrument-specific Direct Connect flexible argon line.
- Reliable ratchet fitting ensures leak-free gas connection.

DC versions of the SeaSpray, MicroMist, Conikal, Slurry, DuraMist, OpalMist and VeeSpray nebulizers are available to suit the most common models of ICP-OES and ICP-MS.



Nexus™ Universal Nebulizer Connection Kit

The Nexus™ Universal Connection Kit is a one-size-fits-all nebulizer connection kit which enables you to use any of Glass Expansion's industry-leading concentric nebulizers* with the sample introduction configuration of your choice, including switching valves, chromatographs (LC, HPLC, IC, etc.), and other high-performance accessories:

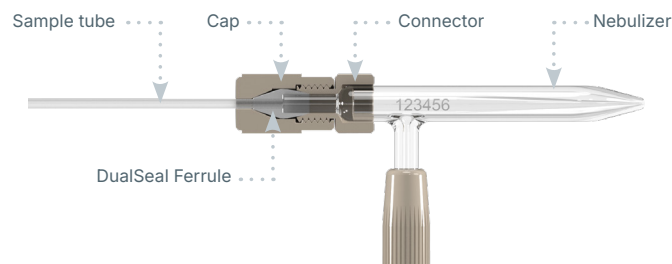
- **Switching Valves:** Simple and reliable custom-length connections to all high-throughput valve or syringe-drive systems.
- **Speciation Analysis:** Zero-dead-volume and secure, direct connection for hyphenated techniques, such as LC-ICP-MS, HPLC-ICP-MS, IC-ICP-MS, and FFF-ICP-MS.
- **High-Efficiency Sample Introduction System (HE-SIS):** Connect to Glass Expansion's HE-SIS, which provides up to 95% transport efficiency for a variety of applications.
- **High-Precision Analysis:** Create a high-pressure seal when performing self-aspiration for the most stable sample uptake and delivery.

These easy-to-install kits are completely inert and configured for 1.6 mm (1/16") OD tubing, with PTFE ferrules that reliably seal with all commonly used capillary tubing materials, such as PFA, PTFE, FEP and PEEK. They provide a secure, zero-dead-volume direct connection to the liquid interface of a Glass Expansion nebulizer.

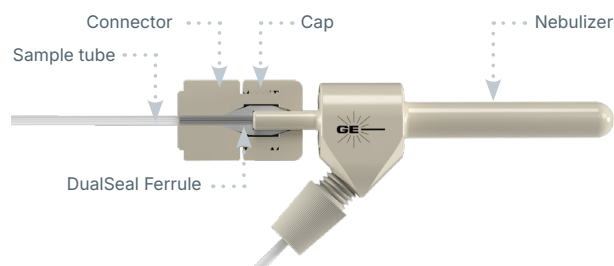
Nexus™ Universal Nebulizer Connection Kits

| | |
|--|-----------|
| Nexus™ Universal Connection Kit for all Glass Concentric U-Series or DC nebulizers | FT-16-8 |
| Nexus™ Universal Connection Kit for Inert nebulizers | FT-16-8-X |

P/N FT-16-8

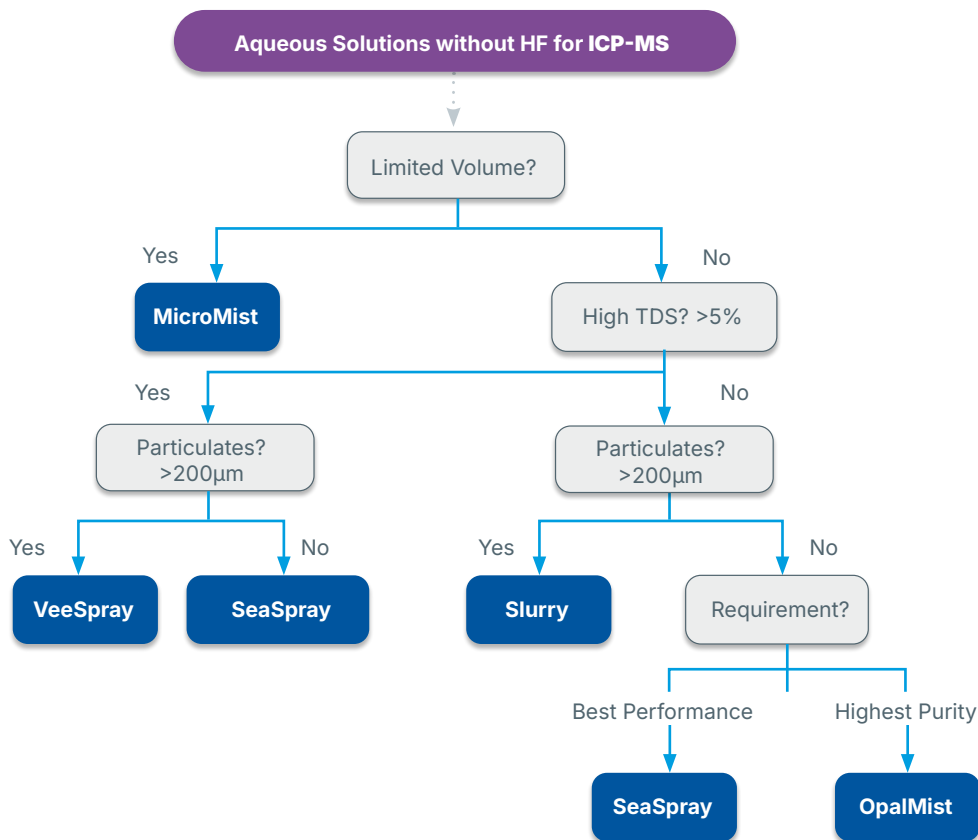
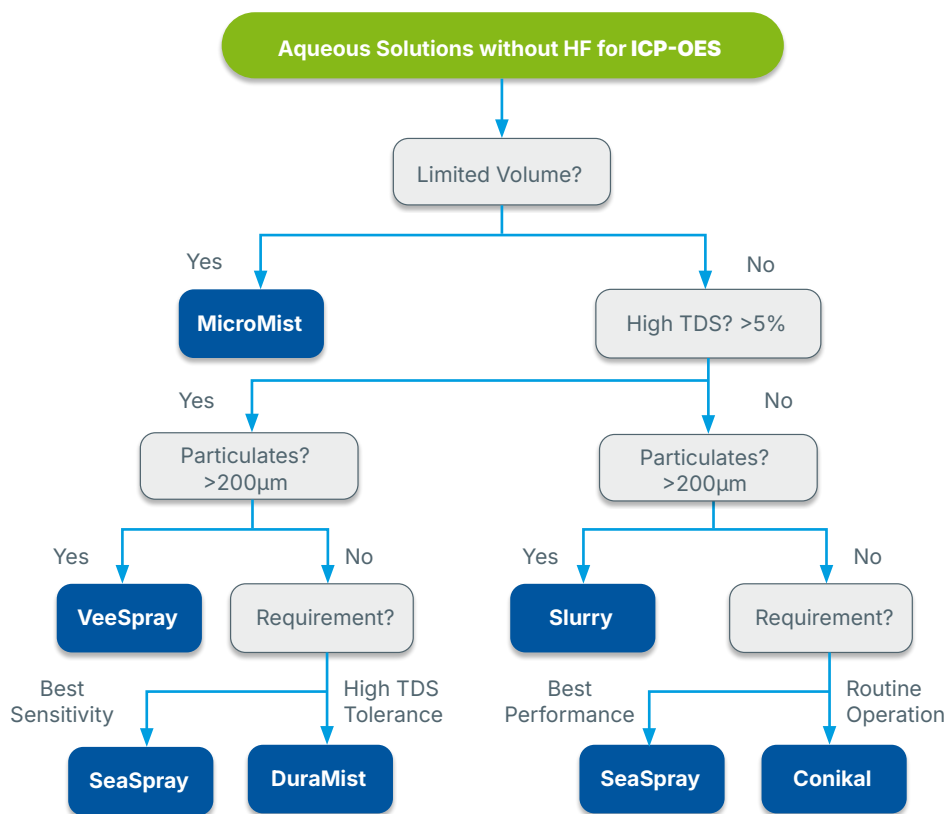


P/N FT-16-8-X

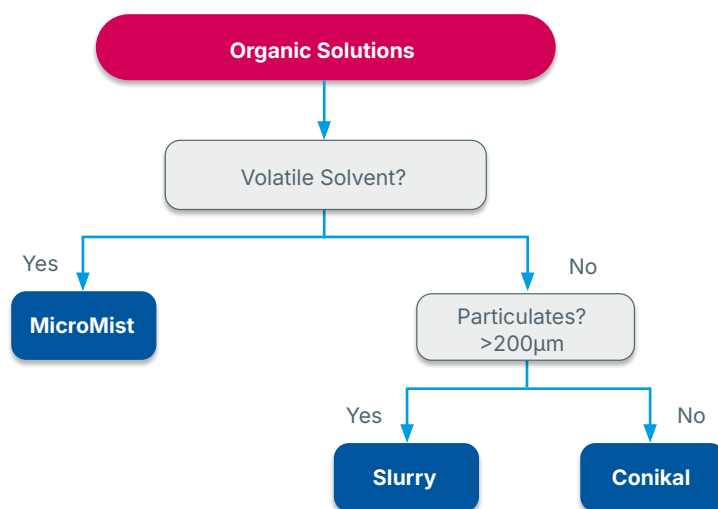
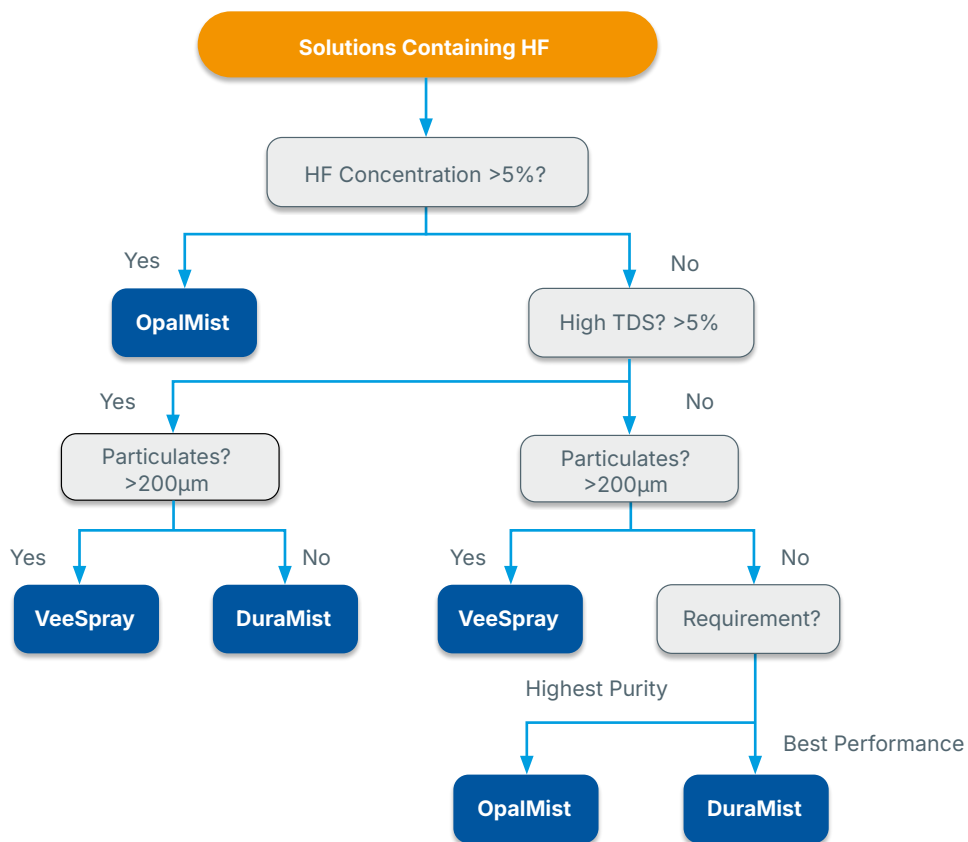


*The Nexus™ Universal Connection Kit is designed for U-Series (ARG) and DC (A##) nebulizers. It is not compatible with the older EzyFit (AR##) nebulizers.

Nebulizer Selection Guide



Nebulizer Selection Guide



Introduction to Glass Expansion Spray Chambers

The spray chamber is a crucial component of the ICP sample introduction system since it has a profound effect on transport efficiency, precision, and washout. Glass Expansion revolutionized the spray chamber design for the ICP industry with the Tracey and Twister cyclonic spray chamber, providing improved efficiency and reduced washout. Glass Expansion's unique Helix CT nebulizer interface, provides a zero dead volume seal that results in higher throughput compared to non-Glass Expansion designs.

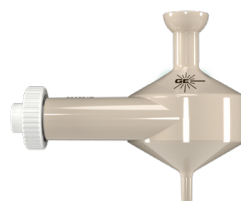
Spray Chamber Types

NEW Tracey™ BC



Internal Volume, mL: 30
 Internal Baffle: No
 HF-resistant: No
 Precision: Excellent
 Purity: Good
 Material: Glass

NEW Tracey™ BC PEEK



Internal Volume, mL: 30
 Internal Baffle: No
 HF-resistant: Yes
 Precision: Excellent
 Purity: Good
 Material: PEEK

Tracey™



Internal Volume, mL: 50
 Internal Baffle: No
 HF-resistant: No
 Precision: Very Good
 Purity: Good
 Material: Glass

Tracey™ TFE



Internal Volume, mL: 50
 Internal Baffle: No
 HF-resistant: Yes
 Precision: Good
 Purity: Good
 Material: PTFE

Twister™



Internal Volume, mL: 50
 Internal Baffle: Yes
 HF-resistant: No
 Precision: Excellent
 Purity: Good
 Material: Glass

Twister™ TFE



Internal Volume, mL: 50
 Internal Baffle: Yes
 HF-resistant: Yes
 Precision: Very Good
 Purity: Good
 Material: PTFE

Cinnabar™



Internal Volume, mL: 20
 Internal Baffle: No
 HF-resistant: No
 Precision: Very Good
 Purity: Good
 Material: Glass

Tracey™ PFA44



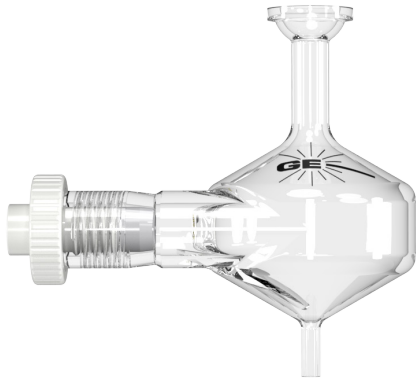
Internal Volume, mL: 44
 Internal Baffle: No
 HF-resistant: Yes
 Precision: Good
 Purity: Excellent
 Material: PFA

Twinnabar™

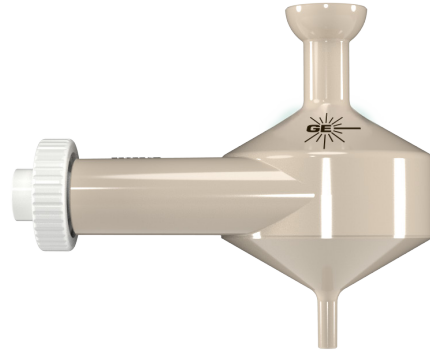


Internal Volume, mL: 20
 Internal Baffle: Yes
 HF-resistant: No
 Precision: Very Good
 Purity: Good
 Material: Glass

NEW High Efficiency Tracey™ BC Spray Chambers



Tracey™ BC Spray Chamber



Tracey™ BC PEEK Spray Chamber

The **High Efficiency Tracey™ BC Spray Chamber** is engineered to deliver exceptional analytical performance with simplified operation and long-term reliability. Its advanced cyclonic design and precision manufacturing ensure superior washout, excellent precision, and wide compatibility across a range of ICP-OES models.

Features of the Tracey™ BC Spray Chamber:

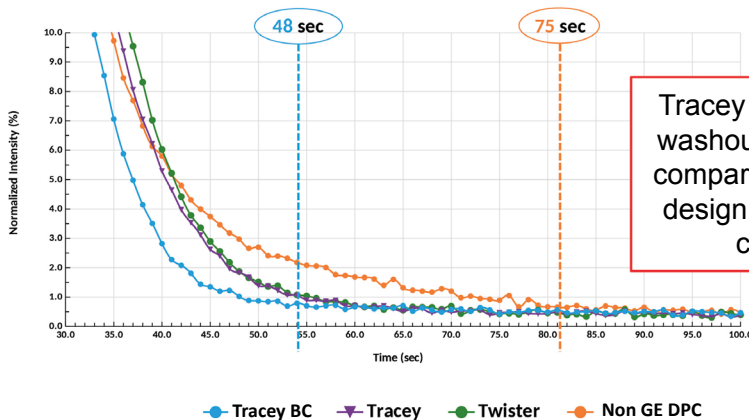
- **No O-Rings:** Reduces washout times and eliminates frequent replacements due to wear.
- **Excellent Precision:** Short-term noise on average 0.5% or better providing excellent repeatability and stability.
- **Cost-Effective Solution:** More affordable than traditional glass spray chambers, offering long-term savings without compromising quality.
- **Efficient Washout:** 30mL low-volume cyclonic chamber with Helix CT™ technology for improved performance.
- **Wide compatibility:** Fits most common ICP-OES models with E-Torch, D-Torch, and SDT/FDT. The Tracey BC spray chamber design is available in Glass, PEEK, PFA and Quartz.

The **Tracey BC™ PEEK Spray Chamber** combines the proven performance of the Tracey design with the durability and chemical resistance of PEEK construction. Engineered for demanding analytical environments, this spray chamber delivers outstanding HF resistance, superior wetting, and consistent precision without the need for internal surface treatments.

Features of the Tracey™ BC PEEK Spray Chamber:

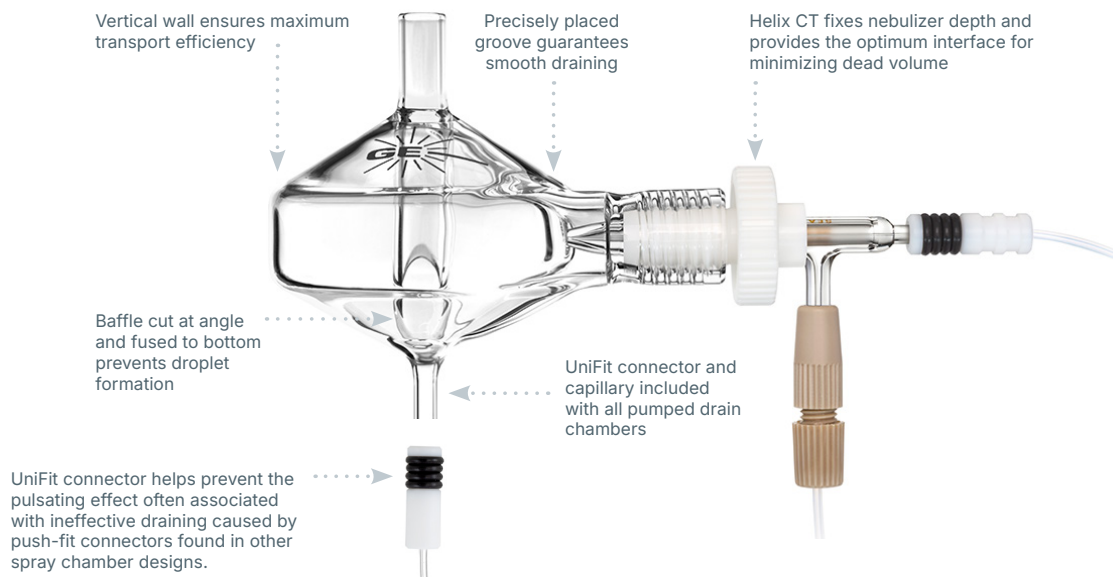
- **HF Resistance:** With resistance up to 5%
- **Superior Wetting:** PEEK material maintains excellent wetting properties with routine laboratory cleaning.
- **Elegant Design:** Lightweight and compact, eliminating the need for additional spray chamber brackets.
- **No Internal Surface Treatment:** Unlike PTFE or PFA, this spray chamber requires no internal surface treatment while maintaining excellent precision.

Washout Profiles for 1 ppm Hg:



Enhance your analytical workflow with a spray chamber designed for reliability, efficiency, and cost savings. Experience the benefits of **High Efficiency Tracey™ BC Spray Chamber!**

Helix CT™ - The Modern Interface Between Nebulizer and Spray Chamber



Traditionally, ICP-OES and ICP-MS sample introduction systems have relied on o-rings to form a gas-tight seal between the nebulizer and spray chamber. There are several drawbacks with an o-ring seal, such as:

- Potential for contamination due to dead volume around the o-ring seal.
- Chemical resistivity of strong acids and organic solvents.
- Even the most chemically resistant O-rings are prone to wear and tear and require regular replacement, which is time-consuming and often requires the use of tools.
- Bonding to the nebulizer can result in breakage.

Glass Expansion Helix CT spray chamber with ConstantTorque™ technology, provides a constant, reproducible, inert, gas-tight seal between the nebulizer and spray chamber.

The main feature of the Helix CT spray chamber is the **Helix locking screw with built-in torque control mechanism** that allows for a consistent seal of the PTFE ferrule against the nebulizer –making it impossible to overtighten or undertighten while ensuring a gas-tight seal each and every time.

A PressFit PTFE ferrule provides a chemically inert seal around the nebulizer, which is immune to strong acids and organic solvents routinely used in ICP sample preparation.

The Helix CT cyclonic spray chamber by Glass Expansion, therefore, eliminates all the drawbacks of the o-ring nebulizer seal, while improving user safety by preventing broken nebulizers.

Helix CT nebulizer interface is also simple to use:

- Fully insert the nebulizer into the Helix CT interface, until the nebulizer side-arm comes into contact with the molded-in positive stop.
- Hand-tighten the Helix CT locking screw until the ConstantTorque mechanism clicks, indicating a secure, gas-tight seal.

Glass Expansion equips all of its cyclonic spray chambers with the Helix CT interface as standard.

| Part Number | Description |
|-------------|----------------------------------|
| 70-803-1439 | Helix CT Locking Screw with Seal |
| 70-803-1456 | Helix CT Seal (PKT. 4) |



HydraMist™ Simultaneous Cold Vapor/Pneumatic Nebulization Spray Chamber

The Glass Expansion HydraMist is a sensitive, simple-to-use spray chamber for Inductively Coupled Plasma (ICP) that allows simultaneous operation of both conventional pneumatic nebulization and cold-vapor/hydride generation. Cold vapor generation can provide more than 10-fold improvement in sensitivity on ICP for cold vapor forming elements such as As, Sb, Se, and Hg. The generation of volatile species of these elements results in increased analyte loading of the analytical plasma giving lower detection limits.

The design of the HydraMist spray chamber is based upon Glass Expansion's industry-standard cyclonic spray chamber, giving excellent sensitivity and short-term analytical precision with fast washout. The HydraMist spray chamber features a secondary inlet port that mixes the aerosolized sample and liquid reductant inside the spray chamber for rapid conversion of the As, Sb, Se, and Hg analytes into volatile hydride species. The unique drain design ensures fast, complete removal of waste from the spray chamber, eliminating excess hydrogen build-up that causes sample reflux degrading analytical precision.

The HydraMist Spray Chamber Features:

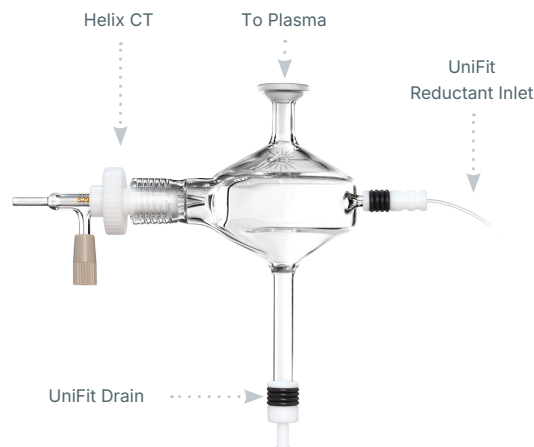
- The same outstanding short-term analytical precision and washout as other Glass Expansion cyclonic spray chambers
- Fast and complete vapor phase formation of volatile As, Se, Sb, and Hg species for the best detection limits in hydride generation mode
- A unique drain design to eliminate hydrogen build-up and sample reflux that degrades short-term precision
- Economic, just replace your current spray chamber and keep your existing nebulizer
- Improve productivity by analysing non-hydride forming elements and cold vapor elements simultaneously, avoiding system shutdowns to change over between the hydride generator accessory and conventional pneumatic nebulization

HydraMist Kit

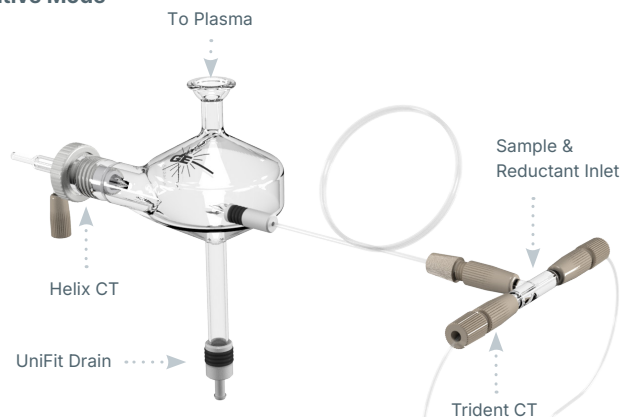
| | |
|--|---------|
| Agilent® 5000 ICP-OES Series | KT-1157 |
| Analytik Jena® PQ 9000 | KT-1157 |
| PerkinElmer® Avio 200/500 | KT-1157 |
| PerkinElmer® Avio with HTS system | KT-2742 |
| PerkinElmer® Optima 8000/8300 DV | KT-1162 |
| PerkinElmer® Optima 4000/5000/7000 DV | KT-1162 |
| Shimadzu® ICPE 9000/9800 | KT-1157 |
| Spectro™ Arcos II SOP/EOP and Blue EOP/SOP | KT-1160 |
| Thermo Scientific™ PRO | KT-1160 |
| Thermo Scientific™ Duo 7600 | KT-1156 |
| Thermo Scientific™ Duo 6000/7200/7400 | KT-1179 |

* Note: Nebulizer is not included in HydraMist Kit.

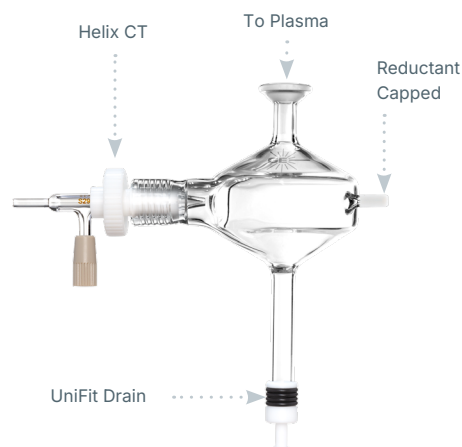
Simple Mode



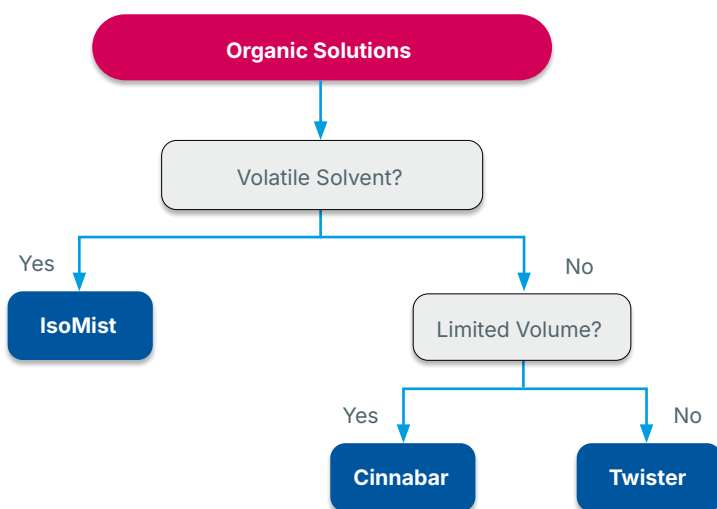
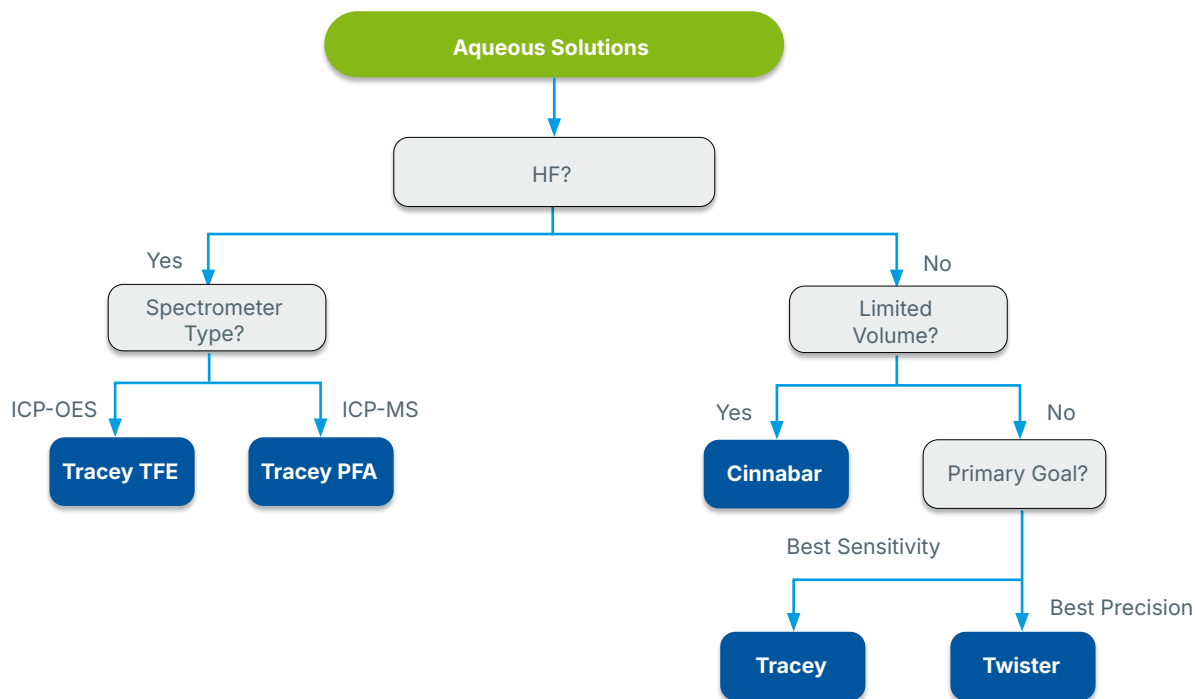
Sensitive Mode



Pneumatic Nebulization



Spray Chamber Selection Guide



D-Torch™ (Demountable Torch)

The D-Torch is a revolutionary demountable torch design. It provides the benefits of a fully demountable torch at a significantly lower cost. Interchangeable outer tubes made of quartz or ceramic are available. The quartz tube is ideal for most aqueous applications and, since the outer tube is usually the first to wear, you can make a significant saving by replacing just the outer tube rather than the whole torch.

The ceramic outer tube is of particular benefit for the analysis of samples with high salt content or wear metals in engine oils, where quartz outer tubes often suffer from short lifetime. The ceramic outer tube has a much longer lifetime, greatly reducing interruptions and downtime due to torch failure. The D-Torch uses the same mounting system as the standard fixed torch so there is no additional cost or complexity to install it.

- Demountable outer tube – why replace the entire torch when just the outer tube wears?
- Interchangeable quartz and ceramic outer tubes.
- Much lower cost than other demountable torches.
- Interchangeable injectors for aqueous, organics, high dissolved solids or HF applications.

* The D-Torch is covered by US Patent 8,232,500 B2

The D-Torch models suited for the Agilent® 5000 Series, PerkinElmer® Avio 200/500, Thermo Scientific™ PRO and Spectro™ Arcos II and Blue incorporates the same easy to use, self-aligning and locking features of the standard torch in a robust cost effective design.

Complete D-Torch



Injectors



Outer Tubes



Torch Body



Semi Demountable Torch



- Highly accurate construction
- Lower running cost than one-piece torches

Usually comprises a quartz torch body, a torch adaptor, an injector and GazFit connectors. All these parts are replaceable, making the semi demountable torch more cost effective than the fixed quartz torch. The design of the torch for standard analyses and HF analyses is the same, with only the injector material changing. For aqueous and organics analyses use a quartz injector, while for HF analyses use an alumina injector. Hence simply interchange between quartz and alumina injectors for appropriate analyses. Several internal diameters for both quartz and alumina injectors are also available.

Fixed Quartz Torches (One Piece)



- Precise quartz construction
- Wide range held in stock
- Simple to use
- Lowest initial cost

RF Coils – more efficient energy transfer

Glass Expansion Coils are produced from the highest quality raw materials and plated using prescribed methods to obtain maximum RF (Radio Frequency) transmission efficiency. There are numerous papers published on RF transmission with regard to conductor and coating resistance.

The torch box environment is highly corrosive, causing bare copper to corrode quickly and accumulate buildup, reducing coil conductivity and increasing resistance. Copper is used as the base material of all commercially available coils but different manufactures use different plating materials. Silver has the best conductance and gold the best corrosion resistance. Many platers use brighteners for a shiny finish, but high-purity silver and gold result in a dull appearance. Glass Expansion uses high-purity metals and polishes coils after plating for smoothness and reduced resistance, also enhancing visual appeal.

Why Change your RF Coil?

- Regular replacement of corroded coils reduces the load on the RF generating system.
- Changing corroded coils increases energy transfer, resulting in a more robust plasma and generally higher analytical line intensities.

Advantages of Glass Expansion RF Coils

- High quality and consistent plating of our coils promotes extended coil life.
- Each coil is supplied on a plastic former ensuring correct dimensions and easier installation.
- Each coil is supplied in a special protective container to ensure correct dimensions are maintained, and the coil arrives corrosion free.
- Optimal alignment of the RF coil mitigates outer tube devitrification.



Glass Expansion Installation Kits for RF Coils

- Incorrect alignment of the torch in the coil will dramatically reduce torch life. The Glass Expansion Installation Kits help ensure correct alignment and maximum torch life.
- Correct alignment of the RF Coil with respect to the torch body reduces devitrification of the outer tube.
- Re-usable alignment tools are available separately to ensure correct installation of the coil every time.
- Our easy to follow Do-It-Yourself installation instructions save you time, and the cost of a service call.

All kits contain:

- An Installation Kit – Aligns coil to torch mounting bracket.
- Required Spanner/s – Designed specifically for each instrument.
- Do-It-Yourself instructions.



ICP-MS Cones



Our ICP-MS interface cones are made from ultra-pure metals sourced from specialty smelters. Our highly experienced machinists use state-of-the-art CNC machines and electron beam welding, which offer precise control, deep penetration, and minimal heat-affected zones compared to other welding techniques, to provide cones with the finest tolerances for the highest quality.

We supply cones for all of the popular ICP-MS models and, to make sure you get all the support you need, we have a staff of technical experts and a fully equipped ICP-MS laboratory for testing and evaluation.

Satisfaction guarantee:

We guarantee our products to meet or exceed performance expectations.

Refurbishment:

Extend the life of your platinum cones with our refurbishment program. In many cases, a platinum cone can be refurbished multiple times and its lifetime greatly extended.

Platinum reclaim:

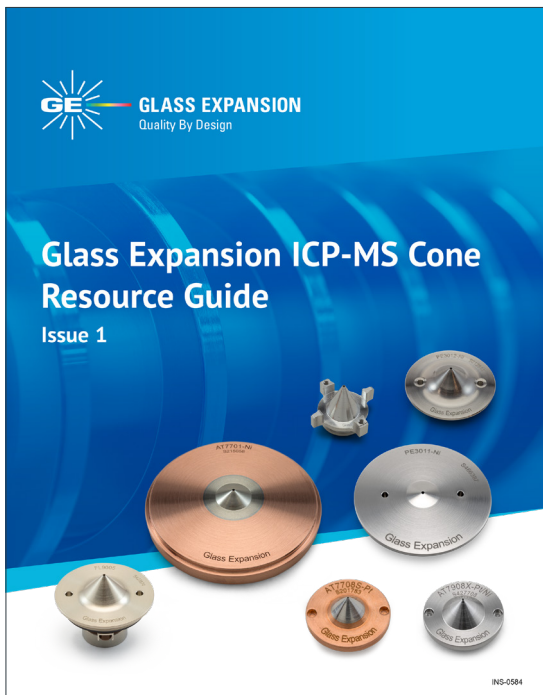
If your platinum cone cannot be refurbished, we will provide a rebate for the value of platinum in the cone.

ConeGuard

The ConeGuard Thread Protector protects the cone thread from corrosive cleaning solutions and greatly extends cone life.

ICP-MS Cone Resource Guide

Our ICP-MS Cone Resource Guide answers all the questions you ever had about cones. It includes the “why” and “how” of selecting the right cones, details on the advantages of different cone materials, and tips on care and maintenance.



Includes:

- About Glass Expansion ICP-MS Cones
- Platinum Cone Refurbishing
- Cone Material Guidelines
- Cones by ICP Model
- Cone Conditioning, Gasket & O-ring replacement guidelines
- Cone Maintenance

[Click here](#) to view the ICP-MS Cone Resource Guide.



IsoMist™ Programmable Temperature Spray Chamber



The IsoMist programmable temperature controlled cyclonic spray chamber now features an improved thermodynamic design providing an extended temperature range and faster cool-down, so your ICP is ready to go sooner.

The IsoMist is a compact, convenient and maintenance-free temperature controlled sample introduction system for all ICP's.

Improved Analytical Stability with Precise Temperature Control

On the IsoMist, the spray chamber temperature is accurately controlled through an improved thermodynamic design using a multi-stage peltier device. The spray chamber temperature is settable in 1°C increments from -25°C to 80°C guaranteeing optimum conditions can be used for any application.

Reduce Oxide Interferences in ICP-MS

Using the IsoMist spray chamber at sub-ambient temperatures on an ICP-MS, the sample is cooled, less water vapor is transferred to the plasma resulting in lower oxide formation and reduced polyatomic (ArO, ArOH) interferences. Less oxides in the plasma mean fewer interferences, improving accuracy and detection limits.

Perfect for Naphtha and Gasoline Analysis

For volatile solvents, a lower sample introduction temperature reduces nebulization efficiency avoiding quenching of the plasma from solvent over-loading. With a minimum operating temperature of -25°C, analyzing volatile organic solvents such as naphtha and gasoline by ICP is even easier.

Improve Analytical Stability with Constant Spray Chamber Temperature

Fluctuations in the lab temperature affect sample viscosity and nebulization efficiency. Maintaining the sample introduction system at a constant and stable temperature improves analytical reproducibility, enhances throughput and lowers operating costs by reducing the need to re-run samples when a check standard drifts outside the acceptable upper or lower limits.

Elevated Sample Introduction Temperatures Enhances Sensitivity

The sensitivity for many analyses can be enhanced by operating the spray chamber at elevated temperatures - especially important for limited sample volumes. Heating the spray chamber also helps with the analysis of viscous samples such as lubricants and edible oils.

A Spray Chamber Optimized for Analytical Performance

The IsoMist incorporates a proven cyclonic spray chamber design in glass, quartz and HF resistant PFA with Helix CT interface. Compared to a Scott type spray chamber, cyclonic spray chambers are more sensitive and have better washout. The IsoMist includes the Helix CT nebulizer interface, which eliminates sample contamination and ensures easy nebulizer removal for routine nebulizer cleaning. The Helix CT nebulizer interface also has zero dead volume, reducing carry-over and improving washout between samples. With a positive stop built-in, Helix CT ensures correct and reproducible nebulizer insertion depth for constant nebulizer performance.



Easy to Use Software

For maximum convenience, the IsoMist can be controlled from a PC via USB or Bluetooth wireless interface. The spray chamber temperature can be monitored during an analytical run with time vs temperature plot on your PC screen.

Elegant, Ergonomic and Compact

The IsoMist is an elegant, compact, stand-alone system manufactured from materials resistant to attack from acids and solvents commonly used in ICP analysis. By using a peltier to maintain the spray chamber temperature, the messy, noisy and high-maintenance refrigerated circulating baths used with jacketed spray chambers has been eliminated. The compact design means all IsoMist Programmable Temperature Controlled Spray Chambers are compatible with virtually any ICP-OES or ICP-MS.

Guardian™ In-Line Sample Filter

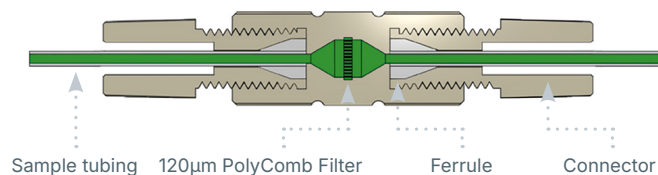


If there are particulates in your samples, there is a risk that they may get trapped in the narrow bore sample tubing or within the nebulizer. The Guardian In-Line Sample Filter provides a simple and effective way to eliminate this risk. This filter is easily inserted in the sample tubing between the autosampler probe and the nebulizer. It incorporates a 120 micron PolyComb filter and is suitable for use with 1/16 inch (1.6mm) OD or 1.3mm OD sample tubing.

The purpose-built clog-resistant design is ideal for ICP samples. Unlike sintered or frit style filters, the linear honeycomb structure makes the PolyComb filter resistant to clogging from particulates. Any particle build-up is easily removed by back-flushing using the Eluo Adaptor 70-803-1160. And the PEEK material is suitable for use with all of the most common ICP solutions.



Eluo Adaptor For In-Line Filter



Guardian In-Line Sample Filter

| | |
|---|-------------|
| In-Line Filter | 70-803-1108 |
| Eluo Adaptor for In-Line Filter | 70-803-1160 |
| Replacement Viton O-rings for Eluo Adaptor (PKT 10) | 70-V-009 |
| Fitting Seal 1/16 (PKT 10) | 70-803-0749 |
| Fitting Seal 1.3mm (PKT 10) | 70-803-0748 |
| Ratchet Connector | 70-803-1350 |

Guardian™ In-Line Non-Return Gas Filter



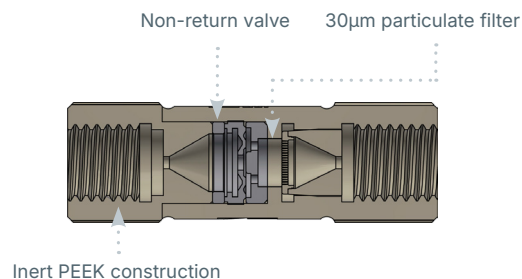
The new Guardian In-line Non-Return Gas Filter provides protection for your ICP system in two ways:

1. A non-return valve prevents acidified sample or rinse solution syphoning into the instrument gas box.
2. 30µm PolyComb filter protects the nebulizer from particulates in the instrument gas supply.

The Guardian In-line Non-Return Gas Filter is positioned between the Argon inlet on the Direct Connection nebulizer and the gas supply fitting on the instrument. The In-line Non-Return Filter has a one-way valve that allows argon to flow from the instrument into the nebulizer, but prevents liquid syphoning into the instrument. A unique PolyComb 30µm filter design protects the nebulizer from particulates from the gas supply or from worn or damaged fittings in the gas lines. Unlike Sintered or Frit style filters, the linear honeycomb structure makes PolyComb most resistant to particulate and dissolved solid clogging.

Syphoning of the sample or rinse solution into the nebulizer argon control module on your ICP can occur at the end of an analytical run when the nebulizer gas pressure is turned off and there is liquid in the sample flow path. It is made worse if the autosampler probe stays in the rinse position at the end of a run.

An overlooked issue when using an autosampler for unattended overnight runs is its potential to silently and invisibly damage your ICP instrument. Acidified solution in the instrument's argon control module can corrode electronic sensors in mass flow controllers and damage regulators, leading to costly repairs and unplanned downtime.



***The Guardian non-return valve is intended for use with gas lines only.**

Guardian In-Line Non-Return Gas Filter

| | |
|---|-------------|
| Guardian DC In-Line Non-Return Gas Filter | 70-803-1942 |
| Guardian In-Line Non-Return Gas Filter | 70-803-1362 |

*Choose P/N 70-803-1942 if using a DC nebulizer model.

Eluo™ Nebulizer Cleaning Tool

As easy as 1, 2, 3

1. Fill with solvent



2. Attach barrel and insert nebulizer



3. Clean nebulizer



Particle build-up in a nebulizer capillary and tip causes sample flow to be constricted, reducing nebulizer efficiency and performance. Now, blocked nebulizers can be safely and easily restored to optimum performance with a revolutionary cleaning instrument – the Eluo.

The Eluo is designed to efficiently deliver a cleanser through the nebulizer capillary to dislodge particle build-up and thoroughly clean the nebulizer. One simple action does it all. No more messy procedures or shattered nebulizers in ultrasonic baths. Use the Eluo regularly to maintain nebulizer performance and prolong nebulizer life. Every lab should have an Eluo.

The Eluo can also be conveniently used to clean the In-Line Particle Filter P/N 70-803-1108 with the addition of Adaptor P/N 70-803-1160.

We have found that using a dilute concentration of Fluka RBS-25 (manufactured by Sigma-Aldrich, and is available from most suppliers of laboratory chemicals) is the best cleaning solution. Stubborn clogs may require an overnight soak or additional cleaning with nitric acid.

Eluo Nebulizer Cleaning Tool

| | |
|---|-------------|
| Eluo for Glass concentric Nebulizers | 70-ELUO |
| Eluo HF for OpalMist or DuraMist | 70-ELUO-OPD |
| Eluo Barrel | 703-0058 |
| Eluo Plunger | 70-703-0070 |
| Eluo HF Nebulizer Holder | 70-803-0932 |
| Eluo Nebulizer Holder for Glass concentric Nebulizers | 70-703-0069 |
| Eluo Adaptor for In-Line Filter | 70-803-1160 |
| O-ring Kit for Eluo (2 sets) | 70-0806 |

Elegra™ Argon Humidifier

To Spectrometer gas port
 Gas Inlet
 To Nebulizer
 Gas Outlet



[Click here](#) to view the Elegra™ Landing page and ordering information.

An Argon Humidifier is commonly used in ICP analyses involving samples with high concentrations of dissolved solids. It helps to alleviate salt deposits in the nebulizer and torch injector, allowing uninterrupted and maintenance-free operation.

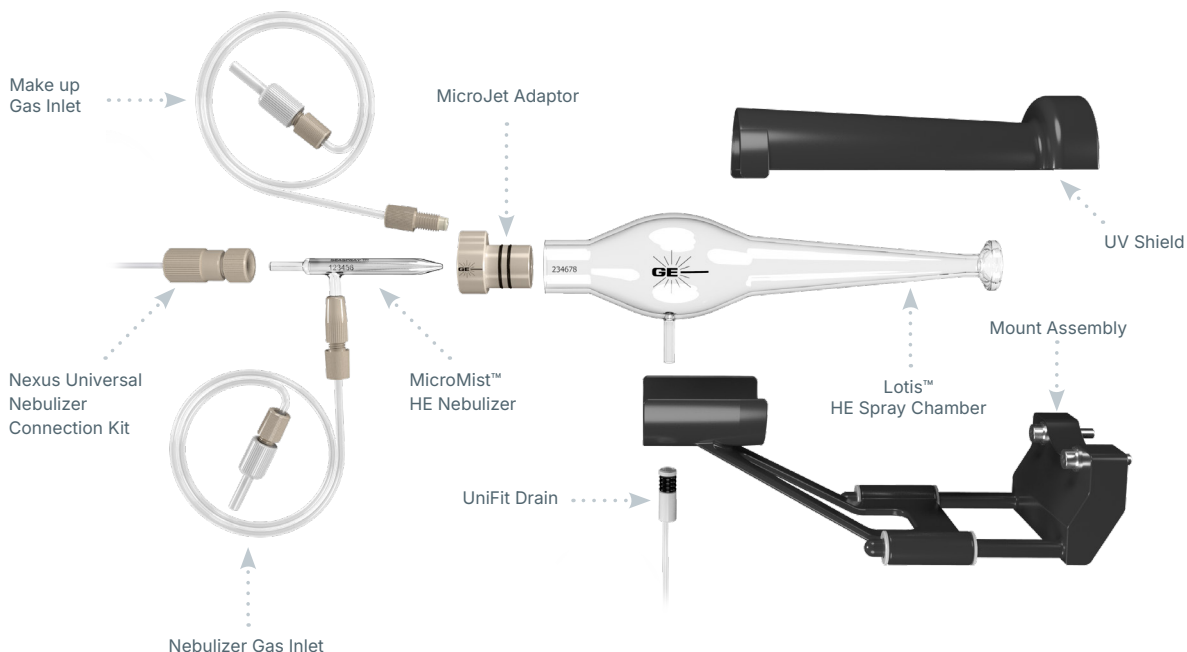
- Compact, cost-effective design.
- No heating or electric power required.
- Non-pressurized water reservoir.
- An easy-to-use bypass switch allows you to take the Elegra off-line without disconnecting argon lines. (Not available with Elegra Dual)
- Highly efficient membrane humidification technology.
- Improved signal stability for samples with high TDS.
- Simple to install, use and maintain.
- Improves productivity by reducing down-time for cleaning.
- Inert metal-free construction eliminates contamination.
- Maximum and minimum fill marks ensure that you are always operating under optimum conditions.
- Compatible with all ICP-OES and ICP-MS models. Direct connection to argon outlet provided for most models.
- Elegra Dual configuration available for ICP-MS instruments using auxiliary argon.

Elegra Argon Humidifier

| | |
|--|-------------|
| O-ring for Capricorn or Elegra Cap (PKT 3) | 70-V-225 |
| Elegra Stand | 70-803-1581 |
| Elegra Membrane | 70-803-1286 |
| Elegra Reservoir | 70-803-1257 |

High Efficiency Sample Introduction System (HE-SIS)

Originally designed as a highly efficient single-cell sample introduction system, Glass Expansion's HE-SIS has been redesigned to provide superior performance across a wide variety of applications, including single-cell, single particle, nanoparticle, and low-volume sample studies, with up to 95% transport efficiency.



Key HE-SIS Components

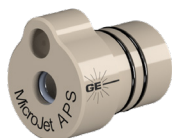
MicroMist™ High Efficiency (HE) Nebulizer

This specially designed concentric glass nebulizer is based on our popular MicroMist design, capable of efficiently nebulizing limited sample volumes at low sample and argon gas flow rates.



Patent-pending MicroJet™ Gas Adaptor

Our patent-pending MicroJet gas adaptor shapes the nebulizer aerosol plume to reduce sample deposition on the spray chamber walls and enhance transport efficiency.



Lotis™ High Efficiency (HE) Spray Chamber

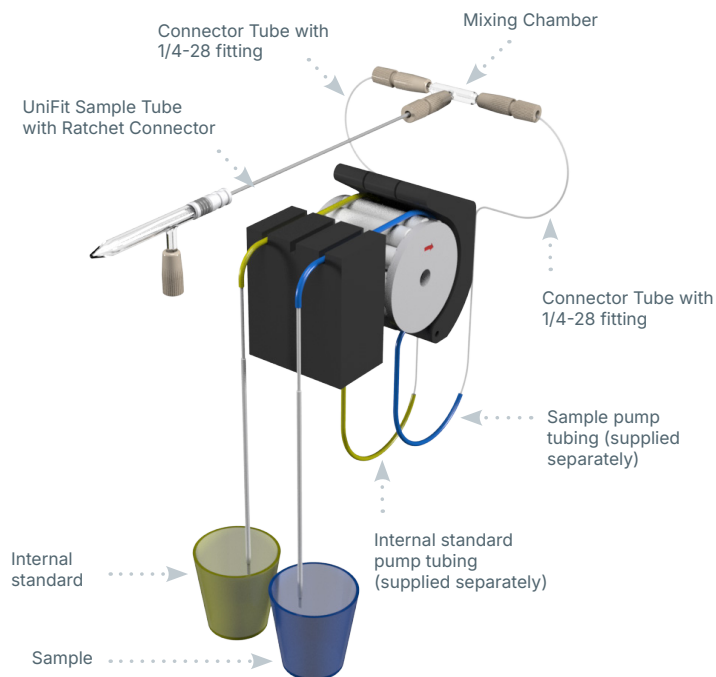
The Lotis HE spray chamber directly couples to the ICP-MS torch, providing the highest transport efficiency and excellent washout between samples.



High Efficiency Sample Introduction System

| | |
|---|---------|
| Agilent® ICP-MS | KT-1155 |
| Analytik Jena® PlasmaQuant MS | KT-2747 |
| PerkinElmer® NexION 1000/2000/2200/5000 | KT-1184 |
| PerkinElmer® NexION 300/350 | KT-1204 |
| Thermo Scientific™ Q/RQ/TQ ICP-MS | KT-1172 |
| Thermo Scientific™ Neoma MC-ICP-MS | KT-1172 |
| Thermo Scientific™ X Series | KT-1213 |
| Thermo Scientific™ Neptune/Element | KT-1215 |
| TOFWERK icpTOF | KT-1172 |
| Nu ATTOM | KT-1205 |
| Nu Instruments® Vitesse TOF-ICP-MS | KT-1219 |

Trident CT™ In-Line Reagent Additions Kits

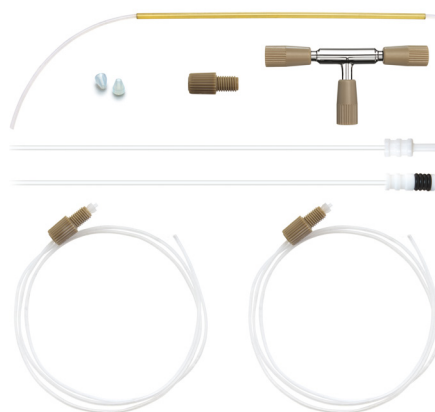


Internal standards are often used in ICP Spectrometry to improve stability. The internal standardization process involves the addition of a known concentration of a particular element to every sample and can be a very time-consuming procedure. The Glass Expansion Trident Kits allow the internal standard to be automatically mixed with each sample during sample introduction, saving considerable sample preparation time.

The Trident CT mixing chamber is based on the industry-proven design of the Trident, but with the addition of Glass Expansion's ConstantTorque (CT) to provide a simple-to-use, leak-free connection for both the internal standard and sample, every time.

The heart of the kit is the mixing chamber, designed with zero dead volume CT fittings. With other mixing chambers, worn or improperly fitted connections leak, inject a stream of air bubbles into the nebulizer flow, degrading short-term analytical precision (%RSD). By using CT ratchet-style fittings, the Trident CT eliminates air leaks, optimizing analytical performance.

Trident CT In-Line Reagent Additions Kit for non-HF solutions:



The Trident CT features:

- Compact, efficient mixing chamber ensures complete mixing of the sample and reagent.
- CT fittings for a durable, leak-free seal on all connections.
- Zero dead volume connections.
- Completely modular so that damaged or lost components can easily be replaced.

Check the Trident Dilution Factor Calculator on our website to find out the sample and internal standard dilution factors for selected combinations of pump tubing.

The peristaltic pump tubing is not supplied as part of the Internal Standard Kit but can be ordered separately.

Trident Internal Standard Kit for HF solutions:



In-Line Reagent Additions Kits

Trident CT In-Line Reagent Additions Kit 60-703-1179

Trident Internal Standard Kit for HF (original design) 60-808-1150

[Click here](#) to view the consumables for the Trident CT™ In-Line Reagent Additions Kits.



Laser Ablation

P/N: 21-809-4309



P/N: 70-803-1600



P/N: 31-808-4034



P/N: 20-809-4550



P/N: 21-809-2801



P/N: 31-808-4289



P/N: 31-808-4107



P/N: 31-808-3863
OD: 4mm
ID: 2mm



S13 (13 mm) cup Adaptors

P/N: 31-800-1007
ID: 4mm



P/N: 21-809-4140



P/N: 21-809-0965C
OD: 6mm
ID: 4mm



P/N: 31-808-3045
OD: 4mm
ID: 2mm



GazFit Connectors



GazFit Union Connectors (for rigid walled tubing)

| | |
|--------------------------|---------|
| GazFit Union 4mm (PKT.2) | GAZ-04U |
| GazFit Union 6mm (PKT.2) | GAZ-06U |
| GazFit Union 8mm (PKT.2) | GAZ-08U |



Standard GazFit Connectors (for soft walled tubing)

| | |
|---|-------------|
| GazFit Connectors for 4mm OD side arm (PKT.4) | GAZ-04 |
| GazFit Connectors for 5mm OD side arm (PKT.4) | GAZ-05 |
| GazFit Connectors for 6mm OD side arm (PKT.4) | GAZ-06 |
| GazFit Connectors for 8mm OD arm (PKT.2) | GAZ-08 |
| GazFit Connectors, 2 for 6mm OD side arms, 2 for 4mm OD side arms (PKT.4) | GAZ-0604 |
| GazFit Connectors for 6mm OD side arm with connection for 1/8inch ID tubing (PKT.4) | GAZ-06-3.2B |

Guardian™ Autosampler Probes

The unique design of the robust tip—which combines drip-resistance and built-in particle filtering—helps to prevent cross-contamination during probe movement and blockages in your nebulizer and capillary tubing. Constructed entirely from Ceramic, PEEK and PTFE, the Guardian autosampler probe also provides exceptional resistance to strong acids and solvents. The Guardian probe has an ID of 1.0mm, with interchangeable UniFit sample capillaries that are available in IDs of 0.3, 0.5, 0.75 and 1.0mm.



Benefits:

- Proprietary mechanical finish provides superior wetting characteristics.
- Robust tip design prevents crushed and damaged tips due to misalignment.
- Drip-resistance prevents cross contamination of samples, especially with oils.
- Built-in particle filtering holds back particulates from blocking the line.
- Completely inert design, Ceramic, PEEK and PTFE construction.
- Interchangeable UniFit™ sample lines available in various IDs (e.g. 0.3, 0.5, 0.75 & 1.0mm)
- Designed to suit Teledyne Cetac®, Agilent®, PerkinElmer®, Shimadzu®, Aim Lab and Thermo Fisher Scientific™ Autosamplers.

Guardian Probe with Connecting Line (Red)

| | |
|---|-------------|
| Guardian Probe for SPS3/SPS4/AIMS, 0.75mm | 70-803-1957 |
| Guardian Probe Cetac ASX-200/500/800, 0.75mm | 70-803-1803 |
| Guardian Probe Cetac ASX-7400, 7600 Series, 0.75mm | 70-803-2940 |
| Guardian Probe for PerkinElmer S20 Series, 0.75mm | 70-803-2097 |
| Guardian Probe for PerkinElmer S10, 0.75mm | 70-803-2851 |
| Guardian Probe for PerkinElmer AS93, 0.75mm | 70-803-2836 |
| Guardian Probe for Shimadzu AS-10 & AS-20 with Arm Assembly, 0.75mm | 70-803-2872 |
| Guardian Probe for Thermo iSC-65, 0.75mm | 70-803-2106 |

Probe Connecting Lines for all Autosamplers (excluding ASX-112FR)

| | |
|--|-------------|
| Probe Connecting line 1.0mm ID (Green) | 70-803-1721 |
| Probe Connecting Line 0.75mm ID (Red) | 70-803-1714 |
| Probe Connecting Line 0.5mm ID (Blue) | 70-803-1852 |
| Probe Connecting Line 0.3mm ID (Black) | 70-803-1853 |

Guardian Probe only

| | |
|---|-------------|
| Guardian Probe for SPS3/SPS4/AIMS | 70-803-2008 |
| Guardian Probe for Cetac ASX-200/500/800 Series | 70-803-1787 |
| Guardian Probe for Cetac ASX-7400, 7600 Series | 70-803-2937 |
| Guardian Probe for Cetac ASX-112FR | 70-803-2029 |
| Guardian Probe for PerkinElmer S20 Series | 70-803-2754 |
| Guardian Probe for PerkinElmer S10 | 70-803-2849 |
| Guardian Probe for PerkinElmer AS93 | 70-803-2819 |
| Guardian Probe for Shimadzu AS-10 & AS-20 | 70-803-2860 |
| Guardian Probe for Thermo iSC-65 | 70-803-2837 |

Probe Connecting Lines for ASX-112FR

| | |
|---|-------------|
| Probe Connecting Line 0.18mm ID (Black) | 70-803-2030 |
| Probe Connecting Line 0.18mm ID with EzyFit (Green/Black) | 70-803-2085 |

[Click here](#) to view the Guardian™ Autosampler Probe landing page, ordering information, and comparison videos.



Autosampler Probes



Suitable for Cetac ASX-200/500/800 Series and PerkinElmer S20 Series

| | |
|---|--------------|
| PTFE Encapsulated Carbon Fibre Probe 0.25mm ID with EzyFit | 70-803-1088 |
| Polyimide sheathed Autosampler Probe 0.5mm ID | 60-808-1186L |
| PTFE Encapsulated Carbon Fibre Probe 0.25mm ID | 70-803-1523 |
| PTFE Encapsulated Carbon Fibre Probe 0.5mm ID | 70-803-0784 |
| PTFE Encapsulated Carbon Fibre Probe 0.5mm ID with UniFit | 70-803-1380 |
| PTFE Encapsulated Carbon Fibre Probe 0.75mm ID with ratchet fitting | 70-803-1443 |
| PTFE Encapsulated Carbon Fibre Probe 0.75mm ID | 70-803-1880 |
| PTFE Encapsulated Carbon Fibre Probe 1.0mm ID with ratchet fitting | 70-803-0793 |
| PTFE Encapsulated Carbon Fibre Probe 1.0mm ID | 70-803-1879 |

For Cetac ASX 110

| | |
|---|-------------|
| PFA sheathed Autosampler Probe 0.25mm ID with EzyFit | 70-803-1072 |
| PFA sheathed Autosampler Probe 0.25mm ID with UniFit | 70-803-1073 |
| PTFE Sheathed Carbon Fibre Probe 0.18mm ID with UniFit | 70-803-1684 |
| PTFE Encapsulated Carbon Fibre Probe 0.3mm ID with UniFit | 70-803-1191 |
| PTFE Encapsulated Carbon Fibre Probe 1.0mm ID | 70-803-1182 |

For Agilent® SPS 3/SPS 4

| | |
|--|-------------|
| PTFE Encapsulated Carbon Fibre Probe 0.25mm ID | 70-803-0910 |
| PTFE Encapsulated Carbon Fibre Probe 0.50mm ID | 70-803-0909 |
| PTFE Encapsulated Carbon Fibre Probe 0.75mm ID | 70-803-0908 |
| PTFE Encapsulated Carbon Fibre Probe 1.0mm ID | 70-803-0853 |

For Agilent® I-AS

| | |
|---|-------------|
| PTFE Encapsulated Carbon Fibre Probe 0.25mm ID with UniFit, 1100mm total length | 60-703-1010 |
| PTFE Encapsulated Carbon Fibre Probe 0.3mm ID with UniFit, 686 mm total length | 60-703-1009 |
| PTFE Encapsulated Carbon Fibre Probe 1.0mm ID | 60-703-0533 |

For PerkinElmer® S10 or AS93+

| | |
|--|-------------|
| PTFE Encapsulated Carbon Fibre Probe 0.25mm ID | 70-803-1071 |
| PTFE Encapsulated Carbon Fibre Probe 0.5mm ID | 70-803-1440 |
| PTFE Encapsulated Carbon Fibre Probe 1.0mm ID | 70-803-0816 |

For Shimadzu®

| | |
|---|-------------|
| PTFE Sheathed Carbon Fibre Probe 0.75mm ID with UniFit, for Shimadzu® AS-10 | 70-803-1477 |
|---|-------------|

Glass DC Nebulizers

SeaSpray

400µL/min uptake A13-1-USS04

MicroMist

400µL/min uptake A13-1-UM04

Conikal

1mL/min uptake A13-1-UC1



Quartz DC Nebulizers

SeaSpray

1mL/min uptake A13-1-QSS1



DC Nebulizers for HF

DuraMist

400µL/min uptake A13-1-DM04



OpalMist

400µL/min uptake A13-1-PFA04



Peltier Controlled Cyclonic Spray Chambers

Glass Spray Chamber KT-1116

Quartz Spray Chamber KT-1116Q

PFA Spray Chamber KT-1116P



Spray Chambers

High Efficiency Sample Introduction System

HE-SIS for Agilent ICP-MS KT-1155



*Twister

50mL Cyclonic with Aux. 20-809-2574HE



*Requires adaptor KT-1104.

Quartz Scott Style

For 7900 UHMI 20-809-4144



Spray Chambers for HF

*Tracey PFA44

44ml Cyclonic with Aux. 20-809-2578

Spray Chamber Adaptor KT-1104



*Requires adaptor KT-1104.

Torches

Quartz Torches

with 1.0mm Injector 30-807-0558

with 1.5mm Injector 30-807-0557

with 2.0mm Injector 30-807-3608

with 2.5mm Injector 30-807-0556



Torch Options

Quartz Torch Bonnet 31-808-2577

Quartz Connector with Dilution Port 31-808-3217

Quartz Connector with 45deg Dilution Port 31-808-3280

Straight Quartz Connector 31-808-3288

Clamp (PKT 2) 70-803-0846



Torches

(continued)

Semi-Demountable Torch

with 2.4mm Quartz Injector 30-808-3853



Torch Options

Semi-Demountable Torch body 31-808-3857



1.0mm Tapered Quartz Injector 31-808-4172

1.5mm Tapered Quartz Injector 31-808-4173



2.4mm Tapered Quartz Injector 31-808-4168

1.0 mm Tapered Alumina Injector 31-808-4169



1.5 mm Tapered Alumina Injector 31-808-4170

2.4mm Tapered Alumina Injector 31-808-3855

2.4mm Sapphire Capillary Injector 31-808-4159



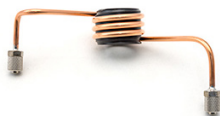
PEEK Injector Adaptor 31-808-4478

Viton O-rings for FDT/SDT ball joints (PKT 10) 70-V-011



RF Coils

Copper 70-900-7800C



Silver 70-900-7800S



Gold 70-900-7800G



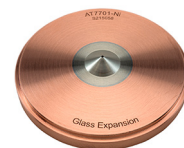
RF Coil Installation Kit 70-900-7500T



Cones

Sampler Cones

Nickel Sampler AT7701-Ni



Nickel Sampler with Nickel plated base AT7701-Ni/Ni



Aluminium Sampler AT7701-Al



Platinum Sampler AT7706-Pt

Platinum Sampler (18 mm Insert) AT7706A-Pt

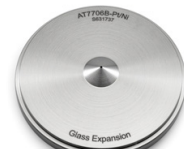


Platinum Sampler with Nickel plated base AT7706-Pt/NiP



Platinum Sampler with solid Nickel base AT7706-Pt/Ni

Platinum Sampler (15mm insert) with Nickel base AT7706B-Pt/Ni



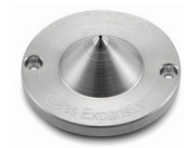
Platinum Sampler with Nickel plated base (Extended Life) AT7706L-Pt/NiP

Skimmer Cones

Nickel Skimmer for x-lens AT7902X-Ni



Aluminium Skimmer for x-lens AT7902X-Al



Platinum Skimmer for x-lens AT7908X-Pt



Cones

(continued)

Skimmer Cones (continued)

Platinum Skimmer with Nickel base for x-lens AT7908X-Pt/Ni



Nickel Skimmer for s-lens AT7702S-Ni

Copper Skimmer for s-lens AT7702S-Cu

Platinum Skimmer for s-lens AT7708S-Pt



Platinum Skimmer with Nickel base for s-lens AT7708S-Pt/Ni

Platinum Skimmer with Nickel base for m-lens AT8908M-Pt/Ni



Cone Options

Skimmer Cone Guard 70-803-1004

Long Life Pt Shield Plate AT5004

Graphite Gasket (PKT 3) AT7703

Retaining Ring AT7704

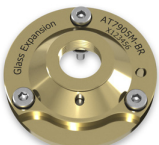


Brass Skimmer Adaptor base for m lens AT7905M-BR

Brass Skimmer Adaptor base for x lens AT7905X-BR

Stainless Steel Skimmer Adaptor base for x lens AT7905X-SS

Captive Screw M4 for Skimmer Base (PKT 3) 70-803-2061



Common Accessories

Elegra Argon Humidifier

Elegra Dual Argon Humidifier 70-803-1273



Elegra Stand 70-803-1581



Common Accessories

(continued)

Guardian In-Line Filters

Guardian DC in-line non-return gas filter 70-803-1942

Guardian in-line sample filter 70-803-1108

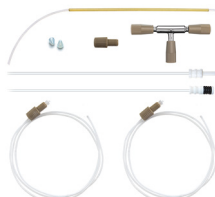
Eluo Adaptor for Inline Filter 70-803-1160



Trident Internal Standard Kits

Trident CT Standard Kit 60-703-1179

Standard Kit for HF 60-808-1150



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

For Agilent I-AS

PTFE Encapsulated Carbon Fibre Probe 0.25mm ID 60-703-1010

PTFE Encapsulated Carbon Fibre Probe 0.3mm ID 60-703-1009



For Cetac ASX-200/500/800 Series

Guardian Probe 0.75mm Probe Connecting Line (Red) 70-803-1803

Polyimide sheathed Autosampler Probe 0.5mm ID 60-808-1186L

PTFE Encapsulated Carbon Fibre Probe 0.5mm ID 70-803-0784

PTFE Encapsulated Carbon Fibre Probe 0.75mm ID 70-803-1443

PTFE Encapsulated Carbon Fibre Probe 1.0mm ID 70-803-0793



For SPS 3/SPS 4

Guardian Probe 0.75mm Probe Connecting Line (Red) 70-803-1957

PTFE Encapsulated Carbon Fibre Probe 0.75mm ID 70-803-0908

PTFE Encapsulated Carbon Fibre Probe 1.0mm ID 70-803-0853



Glass DC Nebulizers

SeaSpray

400µL/min uptake A13-1-USS04

MicroMist

400µL/min uptake A13-1-UM04

Conikal

1mL/min uptake A13-1-UC1



Quartz DC Nebulizers

SeaSpray

1mL/min uptake A13-1-QSS1



DC Nebulizers for HF

DuraMist

400µL/min uptake A13-1-DM04



OpalMist

400µL/min uptake A13-1-PFA04



Peltier Controlled Cyclonic Spray Chambers

Glass Spray Chamber KT-1116
 Quartz Spray Chamber KT-1116Q
 PFA Spray Chamber KT-1116P



Spray Chambers

High Efficiency Sample Introduction System

HE-SIS for Agilent ICP-MS KT-1155



***Twister**

50mL Cyclonic with Aux. 20-809-2574HE

*Requires adaptor KT-1104.



Quartz Scott Style

For 7900 UHMI 20-809-4144



Spray Chambers for HF

***Tracey PFA44**

44ml Cyclonic with Aux. 20-809-2578
 Spray Chamber Adaptor KT-1104

*Requires adaptor KT-1104.



Torches

Quartz Torches

with 1.0mm Injector 30-807-0558
 with 1.5mm Injector 30-807-0557
 with 2.0mm Injector 30-807-3608
 with 2.5mm Injector 30-807-0556



Torch Options

Quartz Torch Bonnet 31-808-2577
 Quartz Connector with Dilution Port 31-808-3217
 Quartz Connector with 45deg Dilution Port 31-808-3280
 Straight Quartz Connector 31-808-3288
 Clamp (PKT 2) 70-803-0846



Torches

(continued)

Semi-Demountable Torch

with 2.4mm Quartz Injector 30-808-3853



Torch Options

Semi-Demountable Torch body 31-808-3857



1.0mm Tapered Quartz Injector 31-808-4172



1.5mm Tapered Quartz Injector 31-808-4173

2.4mm Tapered Quartz Injector 31-808-4168

1.0 mm Tapered Alumina Injector 31-808-4169



1.5 mm Tapered Alumina Injector 31-808-4170

2.4mm Tapered Alumina Injector 31-808-3855

2.4mm Sapphire Capillary Injector 31-808-4159



PEEK Injector Adaptor 31-808-4478

Viton O-rings for FDT/SDT ball joints (PKT 10) 70-V-011



RF Coils

Copper 70-900-7800C



Silver 70-900-7800S



Gold 70-900-7800G



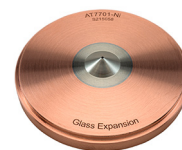
RF Coil Installation Kit 70-900-7500T



Cones

Sampler Cones

Nickel Sampler AT7701-Ni



Nickel Sampler with Nickel plated base AT7701-Ni/Ni



Aluminium Sampler AT7701-Al



Platinum Sampler AT7706-Pt

Platinum Sampler (18 mm Insert) AT7706A-Pt



Platinum Sampler with Nickel plated base AT7706-Pt/NiP



Platinum Sampler with solid Nickel base AT7706-Pt/Ni

Platinum Sampler (15mm insert) with Nickel base AT7706B-Pt/Ni



Platinum Sampler with Nickel plated base (Extended Life) AT7706L-Pt/NiP

Skimmer Cones

Nickel Skimmer for x-lens AT7902X-Ni



Aluminium Skimmer for x-lens AT7902X-Al



Platinum Skimmer for x-lens AT7908X-Pt

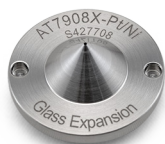


Cones

(continued)

Skimmer Cones (continued)

Platinum Skimmer with Nickel base for x-lens AT7908X-Pt/Ni



Nickel Skimmer for s-lens AT8902S-Ni



Copper Skimmer for s-lens AT8902S-Cu

Platinum Skimmer for s-lens AT8908S-Pt/Cu

Platinum Skimmer with Nickel base for s-lens AT8908S-Pt/Ni

Platinum Skimmer with Nickel base for m-lens AT8908M-Pt/Ni



Cone Options

Skimmer Cone Guard 70-803-1004
 Long Life Pt Shield Plate AT5004
 Graphite Gasket (PKT 3) AT7703
 Retaining Ring AT7704



Brass Skimmer Adaptor base for x lens AT8905X-BR
 Stainless Steel Skimmer Adaptor base for x lens AT8905X-SS



Common Accessories

Elegra Argon Humidifier

Elegra Dual Argon Humidifier 70-803-1273



Elegra Stand 70-803-1581



Guardian In-Line Filters

Guardian DC in-line non-return gas filter 70-803-1942
 Guardian in-line sample filter 70-803-1108
 Eluo Adaptor for Inline Filter 70-803-1160

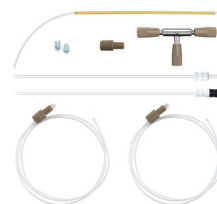


Common Accessories

(continued)

Trident Internal Standard Kits

Trident CT Standard Kit 60-703-1179
 Standard Kit for HF 60-808-1150



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

For Agilent I-AS

PTFE Encapsulated Carbon Fibre Probe 0.25mm ID 60-703-1010
 PTFE Encapsulated Carbon Fibre Probe 0.3mm ID 60-703-1009



For Cetac ASX-200/500/800 Series

Guardian Probe 0.75mm Probe Connecting Line (Red) 70-803-1803
 Polyimide sheathed Autosampler Probe 0.5mm ID 60-808-1186L
 PTFE Encapsulated Carbon Fibre Probe 0.5mm ID 70-803-0784
 PTFE Encapsulated Carbon Fibre Probe 0.75mm ID 70-803-1443
 PTFE Encapsulated Carbon Fibre Probe 1.0mm ID 70-803-0793



For SPS 3/SPS 4

Guardian Probe 0.75mm Probe Connecting Line (Red) 70-803-1957
 PTFE Encapsulated Carbon Fibre Probe 0.75mm ID 70-803-0908
 PTFE Encapsulated Carbon Fibre Probe 1.0mm ID 70-803-0853



Glass DC Nebulizers

SeaSpray

400µL/min uptake A13-1-USS04

MicroMist

400µL/min uptake A13-1-UM04

Conikal

1mL/min uptake A13-1-UC1



Quartz DC Nebulizers

SeaSpray

1mL/min uptake A13-1-QSS1



DC Nebulizers for HF

DuraMist

400µL/min uptake A13-1-DM04



OpalMist

400µL/min uptake A13-1-PFA04



IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

IsoMist XR Kit KT-1103-XR

Comprises:

Glass Twister Spray Chamber 21-809-3186

Assembly (ROL) 20-809-5176

Mount 21-809-3765

Make-up Gas Adaptor 21-809-4024

Metal Ball Joint Clip JC-13

UniFit Connector (PKT. 3) UFT-2-86



Peltier Controlled Cyclonic Spray Chambers

For Agilent 7800

Glass Spray Chamber KT-1206

Quartz Spray Chamber KT-1206Q

PFA Spray Chamber KT-1206P



For Agilent 7850

Glass Spray Chamber KT-1116

Quartz Spray Chamber KT-1116Q

PFA Spray Chamber KT-1116P



Spray Chambers

High Efficiency Sample Introduction System

HE-SIS for Agilent ICP-MS KT-1155



*Twister

20mL Cyclonic with Aux. 20-809-2574HE

*Requires adaptor KT-1104.



Spray Chambers for HF

*Tracey PFA44

44ml Cyclonic with Aux. 20-809-2578

Spray Chamber Adaptor KT-1104

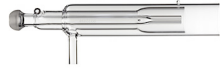
*Requires adaptor KT-1104.



Torches

Quartz Torches

| | |
|---------------------|-------------|
| with 1.0mm Injector | 30-807-0558 |
| with 1.5mm Injector | 30-807-0557 |
| with 2.0mm Injector | 30-807-3608 |
| with 2.5mm Injector | 30-807-0556 |



Torch Options

| | |
|---|-------------|
| Quartz Torch Bonnet | 31-808-2577 |
| Quartz Connector with Dilution Port | 31-808-3217 |
| Quartz Connector with 45deg Dilution Port | 31-808-3280 |
| Straight Quartz Connector | 31-808-3288 |
| Clamp (PKT 2) | 70-803-0846 |



Semi-Demountable Torch

| | |
|----------------------------|-------------|
| with 2.4mm Quartz Injector | 30-808-3853 |
|----------------------------|-------------|



Torch Options

| | |
|-----------------------------------|-------------|
| Semi-Demountable Torch body | 31-808-3857 |
| 1.0mm Tapered Quartz Injector | 31-808-4172 |
| 1.5mm Tapered Quartz Injector | 31-808-4173 |
| 2.4mm Tapered Quartz Injector | 31-808-4168 |
| 1.0 mm Tapered Alumina Injector | 31-808-4169 |
| 1.5 mm Tapered Alumina Injector | 31-808-4170 |
| 2.4mm Tapered Alumina Injector | 31-808-3855 |
| 2.4mm Sapphire Capillary Injector | 31-808-4159 |
| PEEK Injector Adaptor | 31-808-4478 |



| | |
|--|----------|
| Viton O-rings for FDT/SDT ball joints (PKT 10) | 70-V-011 |
|--|----------|



RF Coils

| | |
|--------|--------------|
| Copper | 70-900-7800C |
|--------|--------------|



| | |
|--------|--------------|
| Silver | 70-900-7800S |
|--------|--------------|



| | |
|------|--------------|
| Gold | 70-900-7800G |
|------|--------------|



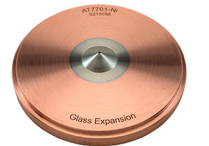
| | |
|--------------------------|--------------|
| RF Coil Installation Kit | 70-900-7500T |
|--------------------------|--------------|



Cones

Sampler Cones

| | |
|----------------|-----------|
| Nickel Sampler | AT7701-Ni |
|----------------|-----------|



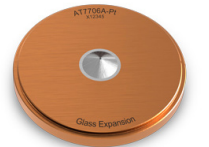
| | |
|--|--------------|
| Nickel Sampler with Nickel plated base | AT7701-Ni/Ni |
|--|--------------|



| | |
|-------------------|-----------|
| Aluminium Sampler | AT7701-Al |
|-------------------|-----------|



| | |
|------------------|-----------|
| Platinum Sampler | AT7706-Pt |
|------------------|-----------|



| | |
|---------------------------------|------------|
| Platinum Sampler (18 mm Insert) | AT7706A-Pt |
|---------------------------------|------------|



| | |
|--|---------------|
| Platinum Sampler with Nickel plated base | AT7706-Pt/NiP |
|--|---------------|

Cones

(continued)

Sampler Cones (continued)

| | |
|--|----------------|
| Platinum Sampler with solid Nickel base | AT7706-Pt/Ni |
| Platinum Sampler (15mm insert) with Nickel base | AT7706B-Pt/Ni |
| Platinum Sampler with Nickel plated base (Extended Life) | AT7706L-Pt/NiP |



Skimmer Cones

| | |
|------------------------------|------------|
| Nickel Skimmer for x-lens | AT7702X-Ni |
| Aluminium Skimmer for x-lens | AT7702X-Al |



| | |
|-----------------------------|------------|
| Platinum Skimmer for x-lens | AT7708X-Pt |
|-----------------------------|------------|



| | |
|--|---------------|
| Platinum Skimmer with Nickel base for x-lens | AT7708X-Pt/Ni |
|--|---------------|



Cone Options

| | |
|---------------------------|-------------|
| Skimmer Cone Guard | 70-803-1008 |
| Long Life Pt Shield Plate | AT5004 |
| Graphite Gasket (PKT 3) | AT7703 |
| Retaining Ring | AT7704 |



Common Accessories

Elegra Argon Humidifier

| | |
|------------------------------|-------------|
| Elegra Dual Argon Humidifier | 70-803-1273 |
| Elegra Stand | 70-803-1581 |



Guardian In-Line Filters

| | |
|---|-------------|
| Guardian DC in-line non-return gas filter | 70-803-1942 |
| Guardian in-line sample filter | 70-803-1108 |
| Eluo Adaptor for Inline Filter | 70-803-1160 |

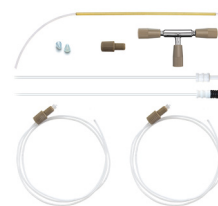


Common Accessories

(continued)

Trident Internal Standard Kits

| | |
|-------------------------|-------------|
| Trident CT Standard Kit | 60-703-1179 |
| Standard Kit for HF | 60-808-1150 |



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

For Agilent I-AS

| | |
|--|-------------|
| PTFE Encapsulated Carbon Fibre Probe 0.25mm ID | 60-703-1010 |
| PTFE Encapsulated Carbon Fibre Probe 0.3mm ID | 60-703-1009 |



For Cetac ASX-200/500/800 Series

| | |
|--|--------------|
| Guardian Probe 0.75mm | |
| Probe Connecting Line (Red) | 70-803-1803 |
| Polyimide sheathed Autosampler Probe 0.5mm ID | 60-808-1186L |
| PTFE Encapsulated Carbon Fibre Probe 0.5mm ID | 70-803-0784 |
| PTFE Encapsulated Carbon Fibre Probe 0.75mm ID | 70-803-1443 |
| PTFE Encapsulated Carbon Fibre Probe 1.0mm ID | 70-803-0793 |



For SPS 3/SPS 4

| | |
|--|-------------|
| Guardian Probe 0.75mm | |
| Probe Connecting Line (Red) | 70-803-1957 |
| PTFE Encapsulated Carbon Fibre Probe 0.75mm ID | 70-803-0908 |
| PTFE Encapsulated Carbon Fibre Probe 1.0mm ID | 70-803-0853 |



Glass DC Nebulizers

SeaSpray

400µL/min uptake A13-1-USS04

MicroMist

400µL/min uptake A13-1-UM04

Conikal

1mL/min uptake A13-1-UC1



Quartz DC Nebulizers

SeaSpray

1mL/min uptake A13-1-QSS1



DC Nebulizers for HF

DuraMist

400µL/min uptake A13-1-DM04



OpalMist

400µL/min uptake A13-1-PFA04



IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

IsoMist XR Kit KT-1103-XR

Comprises:

Glass Twister Spray Chamber 21-809-3186

Assembly (ROL) 20-809-5176

Mount 21-809-3765

Make-up Gas Adaptor 21-809-4024

Metal Ball Joint Clip JC-13

UniFit Connector (PKT. 3) UFT-2-86



Peltier Controlled Cyclonic Spray Chambers

Glass Spray Chamber KT-1206

Quartz Spray Chamber KT-1206Q

PFA Spray Chamber KT-1206P



Spray Chambers

High Efficiency Sample Introduction System

HE-SIS for Agilent ICP-MS KT-1155



*Twister

50mL Cyclonic with Aux. 20-809-2574HE



*Requires adaptor KT-1104.

Spray Chambers for HF

*Tracey PFA44

44ml Cyclonic with Aux. 20-809-2578

Spray Chamber Adaptor KT-1104

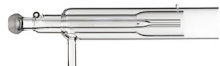


*Requires adaptor KT-1104.

Torches

Quartz Torches

| | |
|---------------------|-------------|
| with 1.0mm Injector | 30-807-0558 |
| with 1.5mm Injector | 30-807-0557 |
| with 2.0mm Injector | 30-807-3608 |
| with 2.5mm Injector | 30-807-0556 |



Torch Options

| | |
|---|-------------|
| Quartz Torch Bonnet | 31-808-2577 |
| Quartz Connector with Dilution Port | 31-808-3217 |
| Quartz Connector with 45deg Dilution Port | 31-808-3280 |
| Straight Quartz Connector | 31-808-3288 |
| Clamp (PKT 2) | 70-803-0846 |



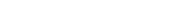
Semi-Demountable Torch

| | |
|----------------------------|-------------|
| with 2.4mm Quartz Injector | 30-808-3853 |
|----------------------------|-------------|



Torch Options

| | |
|-----------------------------------|-------------|
| Semi-Demountable Torch body | 31-808-3857 |
| 1.0mm Tapered Quartz Injector | 31-808-4172 |
| 1.5mm Tapered Quartz Injector | 31-808-4173 |
| 2.4mm Tapered Quartz Injector | 31-808-4168 |
| 1.0 mm Tapered Alumina Injector | 31-808-4169 |
| 1.5 mm Tapered Alumina Injector | 31-808-4170 |
| 2.4mm Tapered Alumina Injector | 31-808-3855 |
| 2.4mm Sapphire Capillary Injector | 31-808-4159 |
| PEEK Injector Adaptor | 31-808-4478 |



| | |
|--|----------|
| Viton O-rings for FDT/SDT ball joints (PKT 10) | 70-V-011 |
|--|----------|



RF Coils

| | |
|--------|--------------|
| Copper | 70-900-7700C |
|--------|--------------|



| | |
|--------|--------------|
| Silver | 70-900-7700S |
|--------|--------------|



| | |
|------|--------------|
| Gold | 70-900-7700G |
|------|--------------|



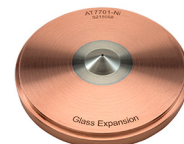
| | |
|--------------------------|--------------|
| RF Coil Installation Kit | 70-900-7500T |
|--------------------------|--------------|



Cones

Sampler Cones

| | |
|----------------|-----------|
| Nickel Sampler | AT7701-Ni |
|----------------|-----------|



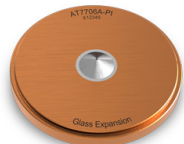
| | |
|--|--------------|
| Nickel Sampler with Nickel plated base | AT7701-Ni/Ni |
|--|--------------|



| | |
|-------------------|-----------|
| Aluminium Sampler | AT7701-Al |
|-------------------|-----------|



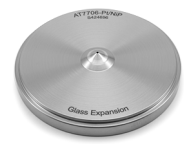
| | |
|------------------|-----------|
| Platinum Sampler | AT7706-Pt |
|------------------|-----------|



| | |
|---------------------------------|------------|
| Platinum Sampler (18 mm Insert) | AT7706A-Pt |
|---------------------------------|------------|



| | |
|--|---------------|
| Platinum Sampler with Nickel plated base | AT7706-Pt/NiP |
|--|---------------|



Cones

(continued)

Sampler Cones (continued)

| | |
|--|----------------|
| Platinum Sampler with solid Nickel base | AT7706-Pt/Ni |
| Platinum Sampler (15mm insert) with Nickel base | AT7706B-Pt/Ni |
| Platinum Sampler with Nickel plated base (Extended Life) | AT7706L-Pt/NiP |



Skimmer Cones

| | |
|------------------------------|------------|
| Nickel Skimmer for x-lens | AT7702X-Ni |
| Aluminium Skimmer for x-lens | AT7702X-Al |



| | |
|-----------------------------|------------|
| Platinum Skimmer for x-lens | AT7708X-Pt |
|-----------------------------|------------|



| | |
|--|---------------|
| Platinum Skimmer with Nickel base for x-lens | AT7708X-Pt/Ni |
|--|---------------|

| | |
|---------------------------|------------|
| Nickel Skimmer for s-lens | AT7702S-Ni |
|---------------------------|------------|

| | |
|-----------------------------|------------|
| Platinum Skimmer for s-lens | AT7708S-Pt |
|-----------------------------|------------|

| | |
|--|---------------|
| Platinum Skimmer with Nickel base for s-lens | AT7708S-Pt/Ni |
|--|---------------|



Cone Options

| | |
|-------------------------------|-------------|
| Skimmer Cone Guard for x-lens | 70-803-1008 |
| Skimmer Cone Guard for s-lens | 70-803-1004 |
| Long Life Pt Shield Plate | AT5004 |
| Retaining Ring | AT7704 |
| Graphite Gasket (PKT 3) | AT7703 |



Common Accessories

Elegra Argon Humidifier

| | |
|------------------------------|-------------|
| Elegra Dual Argon Humidifier | 70-803-1273 |
| Elegra Stand | 70-803-1581 |



Common Accessories

(continued)

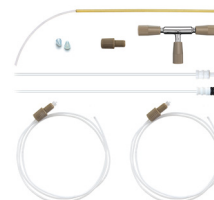
Guardian In-Line Filters

| | |
|---|-------------|
| Guardian DC in-line non-return gas filter | 70-803-1942 |
| Guardian in-line sample filter | 70-803-1108 |
| Eluo Adaptor for Inline Filter | 70-803-1160 |



Trident Internal Standard Kits

| | |
|-------------------------|-------------|
| Trident CT Standard Kit | 60-703-1179 |
| Standard Kit for HF | 60-808-1150 |



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

For Agilent I-AS

| | |
|--|-------------|
| PTFE Encapsulated Carbon Fibre Probe 0.25mm ID | 60-703-1010 |
| PTFE Encapsulated Carbon Fibre Probe 0.3mm ID | 60-703-1009 |



For Cetac ASX-200/500/800 Series

| | |
|---|--------------|
| Guardian Probe 0.75mm Probe Connecting Line (Red) | 70-803-1803 |
| Polyimide sheathed Autosampler Probe 0.5mm ID | 60-808-1186L |
| PTFE Encapsulated Carbon Fibre Probe 0.5mm ID | 70-803-0784 |
| PTFE Encapsulated Carbon Fibre Probe 0.75mm ID | 70-803-1443 |
| PTFE Encapsulated Carbon Fibre Probe 1.0mm ID | 70-803-0793 |



For SPS 3/SPS 4

| | |
|---|-------------|
| Guardian Probe 0.75mm Probe Connecting Line (Red) | 70-803-1957 |
| PTFE Encapsulated Carbon Fibre Probe 0.75mm ID | 70-803-0908 |
| PTFE Encapsulated Carbon Fibre Probe 1.0mm ID | 70-803-0853 |



Glass DC Nebulizers

SeaSpray

| | |
|------------------|--------------|
| 2mL/min uptake | A13-07-USS2 |
| 400µL/min uptake | A13-07-USS04 |

Conikal

| | |
|----------------|------------|
| 2mL/min uptake | A13-07-UC2 |
| 1mL/min uptake | A13-07-UC1 |

Slurry

| | |
|----------------|------------|
| 4mL/min uptake | A13-07-US6 |
|----------------|------------|



DC Nebulizers for HF

DuraMist

| | |
|----------------|------------|
| 1mL/min uptake | A13-07-DM1 |
|----------------|------------|

OpalMist

| | |
|----------------|-------------|
| 2mL/min uptake | A13-07-PFA2 |
|----------------|-------------|

VeeSpray

| | |
|----------------------|------------|
| 0.6 - 3mL/min uptake | A13-07-CV6 |
|----------------------|------------|



IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

| | |
|----------------|------------|
| IsoMist XR Kit | KT-1137-XR |
|----------------|------------|

Comprises:

| | |
|--|-------------|
| Glass Twister Spray Chamber | 21-809-3186 |
| Assembly (ROL) | 20-809-5176 |
| PuraFlex Transfer Tube | 21-809-4038 |
| Metal Ball Joint Clip | JC-13 |
| UniFit Right Angle Connector 2.0mm (PKT 3) | GAZ-04-2-90 |



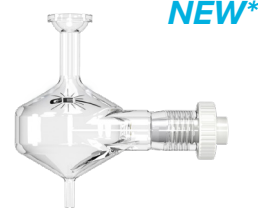
BC Spray Chambers

Tracey BC

| | |
|--|-------------|
| 30mL Cyclonic | 20-809-5316 |
| * Direct replacement for 20-808-8882HE | |

Tracey BC PEEK

| | |
|--------------------------------------|-------------|
| 30mL Cyclonic | 20-809-4795 |
| * Direct replacement for 20-809-2507 | |
| * No internal resurfacing required | |



NEW*



NEW*

Spray Chambers

Twister

| | |
|---------------|---------------|
| 50mL Cyclonic | 20-809-9199HE |
|---------------|---------------|

Tracey

| | |
|---------------|---------------|
| 50mL Cyclonic | 20-808-8882HE |
|---------------|---------------|



HydraMist Simultaneous Cold Vapor/ Pneumatic Nebulization Spray Chamber

| | |
|-------------|---------|
| Hydride Kit | KT-1157 |
|-------------|---------|



Spray Chambers for HF

Twister TFE Spray Chamber

| | |
|---------------|-------------|
| 50mL Cyclonic | 20-809-3452 |
|---------------|-------------|

Tracey TFE Spray Chamber

| | |
|---------------|-------------|
| 50mL Cyclonic | 20-809-2507 |
|---------------|-------------|




Torches

D-Torch

SVDV/VDV 30-808-3560 


Comprises:

Base and Inner Tube 31-808-3568
 Quartz Outer Tube 31-808-3570
 Retaining Ring 31-808-3566
 Injector Ferrule 31-808-2962
 Injector Adaptor 31-808-3578 



D-Torch

RV 30-808-3590

Comprises:

Base and Inner Tube 31-808-3568 
 Quartz Outer Tube 31-808-3582
 Retaining Ring 31-808-3566
 Injector Ferrule 31-808-2962
 Injector Adaptor 31-808-3578

D-Torch Options:

Ceramic Outer Tube for SVDV/VDV 31-808-3580 
 Ceramic Outer Tube for RV 31-808-3586
 Quartz Outer Tube for SVDV/VDV 31-808-3570 
 Quartz Outer Tube for RV 31-808-3582
 O-ring Kit 70-803-1500
 Ignition Enhancer 31-808-4020



Quartz Torch

SVDV/VDV 31-808-3557 
 RV 31-808-3556
 Retaining Ring 31-808-3563 
 Pre-Optic Window Axial 70-803-1968
 Pre-Optic Window Radial 70-803-1969
 O-ring for Window Axial (PKT 5) 70-803-2794 
 Pre-optics cone 70-803-2751



Torches

(continued)

D-Torch Injector Options

Quartz Injector 0.8mm 31-808-3738 
 Quartz Injector 1.4mm 31-808-3583
 Quartz Injector 1.8mm 31-808-3576
 Quartz Injector 2.4mm 31-808-3584
 Alumina Injector 1.5mm 31-808-3725 
 Alumina Injector 1.8mm 31-808-3585
 Alumina Injector 2.4mm 31-808-3722

Injectors for Agilent FDT

Quartz Injector 0.8mm 31-808-4357
 Quartz Injector 1.4mm 31-808-4354 
 Quartz Injector 1.8mm 31-808-4355
 Quartz Injector 2.4mm 31-808-4356
 Alumina Injector 0.8mm 31-808-4530
 Alumina Injector 1.4mm 31-808-4532
 Alumina Injector 1.8mm 31-808-4358 
 Alumina Injector 2.4mm 31-808-4534

RF Coils

Silver 70-900-5100S
 Gold 70-900-5100G 
 Copper 70-900-5100C
 RF Coil Installation Kit 70-900-5100T

RotaValve

RotaValve 70-803-1738 

Valve Tubing Kit 70-803-1869 

Sample Loop 1.0mL 70-803-1860 

Nebulizer Connector UniFit - 1/4-28 Flangless 70-803-1888 

Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier 70-803-1268



Guardian In-Line Filters

Guardian DC in-line non-return gas filter 70-803-1942

Guardian in-line sample filter 70-803-1108

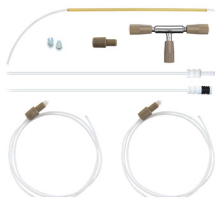
Eluo Adaptor for Inline Filter 70-803-1160



Trident Internal Standard Kits

Trident CT Standard Kit 60-703-1179

Standard Kit for HF 60-808-1150



Magnifier Inspection Tool 70-803-1923



Autosampler Probes

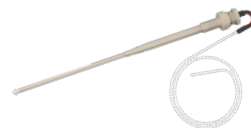
(continued)

For SPS 3/SPS 4

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-1957

PTFE Encapsulated Carbon Fibre Probe
0.75mm ID 70-803-0908

PTFE Encapsulated Carbon Fibre Probe
1.0mm ID 70-803-0853



Autosampler Probes (See page 22-23 for complete list of probes)

For Cetac ASX-200/500/800 Series

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-1803

Polyimide sheathed Autosampler Probe
0.5mm ID 60-808-1186L

PTFE Encapsulated Carbon Fibre Probe
0.5mm ID 70-803-0784

PTFE Encapsulated Carbon Fibre Probe
0.75mm ID 70-803-1443

PTFE Encapsulated Carbon Fibre Probe
1.0mm ID 70-803-0793



For Cetac ASX-7400, 7600 Series

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-2940



Glass DC Nebulizers

SeaSpray

2mL/min uptake A13-07-USS2

MicroMist

400µL/min uptake A13-05-UM04

Conikal

1mL/min uptake A13-05-UC1



DC Nebulizers for HF

DuraMist

1mL/min uptake A13-05-DM1

OpalMist

1mL/min uptake A13-05-PFA1



IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

IsoMist XR Kit KT-1135-XR

Comprises:

Glass Twister Spray Chamber 21-809-3185

Assembly (LOL) 20-809-5175

PuraFlex Transfer Tube (PQ9200) 21-809-5273

PuraFlex Transfer Tube 21-809-2962

Metal Ball Joint Clip JC-13

UniFit Right Angle Connector (PKT 3) GAZ-04-90



BC Spray Chambers

Tracey BC

30mL Cyclonic 20-809-5318

* Direct replacement for 20-808-8882HE

NEW*



Tracey BC PEEK

30mL Cyclonic 20-809-5300

* Direct replacement for 20-809-2506

* No internal resurfacing required

NEW*



Spray Chambers

HydraMist Simultaneous Cold Vapor/ Pneumatic Nebulization Spray Chamber

Hydride Kit KT-1157



Twister

50mL Cyclonic 20-809-0222HE



Tracey

50mL Cyclonic 20-808-8882HE



Cinnabar

20mL Cyclonic 20-809-0164HE



Spray Chambers for HF

Tracey TFE Spray Chamber

50mL Cyclonic 20-809-2506



Torches

Fully Demountable Torch

Torch Body 31-808-8896



Fully Demountable Torch Options:

Quartz Outer Tube 31-808-8020



Syalon Outer Tube 31-808-0023

Quartz Inner Tube 31-808-8145



Alumina Inner Tube 31-808-0017

Ball Joint Adaptor 31-807-0018

Torch Bonnet - Large 31-808-3607

Radial Purge Window 31-808-8098

O-rings for Glass Body (PKT 10) 70-4X2.5V75

Viton O-rings for FDT/SDT Ball Joints (PKT 10) 70-V-011

PTFE Coated Viton O-rings for Cyclonics/Nebulizer Seal (PKT 10) VT-009

EzyGlide Cloth 70-EZG-CLOTH



Tapered Injectors

Quartz Injector 1.0mm 31-808-0009



Quartz Injector 2.0mm 31-808-0008

Alumina Injector 2.0mm 31-808-0027



Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier 70-803-1266



Guardian In-Line Filters

Guardian in-line sample filter 70-803-1108

Eluo Adaptor for Inline Filter 70-803-1160



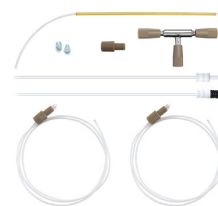
Common Accessories

(continued)

Trident Internal Standard Kits

Trident CT Standard Kit 60-703-1179

Standard Kit for HF 60-808-1150



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

For Cetac ASX-200/500/800 Series

Guardian Probe 0.75mm

Probe Connecting Line (Red) 70-803-1803

Polyimide sheathed Autosampler Probe 0.5mm ID 60-808-1186L

PTFE Encapsulated Carbon Fibre Probe 0.5mm ID 70-803-0784

PTFE Encapsulated Carbon Fibre Probe 0.75mm ID 70-803-1443

PTFE Encapsulated Carbon Fibre Probe 1.0mm ID 70-803-0793



For Cetac ASX-7400, 7600 Series

Guardian Probe 0.75mm

Probe Connecting Line (Red) 70-803-2940



For SPS 3/SPS 4

Guardian Probe 0.75mm

Probe Connecting Line (Red) 70-803-1957

PTFE Encapsulated Carbon Fibre Probe 0.75mm ID 70-803-0908

PTFE Encapsulated Carbon Fibre Probe 1.0mm ID 70-803-0853



Glass DC Nebulizers

SeaSpray

400µL/min uptake A52-1-USS04



MicroMist

400µL/min uptake A52-1-UM04

Spray Chambers

High Efficiency Sample Introduction System

HE-SIS for Nu Vitesse KT-1219



Twister

50mL Cyclonic 20-809-0495HE



Torches

Quartz Torch

with 1.5mm Injector 30-807-0560



Viton O-rings for FDT/SDT

ball joints (PKT 10) 70-V-011



Cones

Sampler Cones

Nickel Sampler NU1011A-Ni
Version A, Wet Plasma



Nickel Dry Sampler NU1011B-Ni
with Copper Core



Skimmer Cones

Nickel Skimmer NU1004A-Ni
Version A, Wet Plasma



Nickel Dry Skimmer NU1014B-Ni



Common Accessories

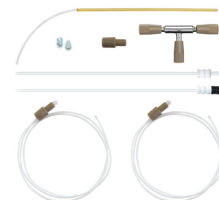
Guardian In-Line Filters

Guardian DC in-line non-return 70-803-1942
gas filter



Trident Internal Standard Kits

Trident CT Standard Kit 60-703-1179
Standard Kit for HF 60-808-1150



Magnifier Inspection Tool 70-803-1923



Glass DC Nebulizers

SeaSpray

400µL/min uptake A23-1-USS04

MicroMist

400µL/min uptake A23-1-UM04

Conikal

1mL/min uptake A23-1-UC1



Quartz DC Nebulizers

SeaSpray

1mL/min uptake A23-1-QSS1



DC Nebulizers for HF

DuraMist

400µL/min uptake A23-1-DM04



OpalMist

400µL/min uptake A23-1-PFA04



Spray Chambers

Twister

50mL Cyclonic 20-809-4417HE

50mL Cyclonic 20-809-4560

With Matrix Port



Tracey

50mL Cyclonic 20-809-4419HE



Spray Chambers

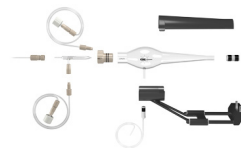
Cinnabar

20mL Cyclonic 20-809-4480HE



High Efficiency Sample Introduction System

HE-SIS for PerkinElmer NexION KT-1184



Torches

D-Torch

30-808-3927

Comprises:

| | |
|------------------------------------|-------------|
| Base and Inner Tube | 31-808-3928 |
| Quartz Outer Tube | 31-808-3942 |
| Retaining Ring | 31-808-2818 |
| Injector Adaptor | 31-808-3980 |
| Injector Ferrule | 31-808-2962 |
| Fastener Assembly | 31-808-4130 |
| Viton O-rings (PKT 10) | 70-V-011 |
| PTFE Coated Viton O-rings (PKT 10) | 70-VT-012 |



Quartz Injectors

Tapered 1.0mm 31-808-3423

Tapered 1.8mm 31-808-4005

Tapered 2.0mm 31-808-4006

Tapered 2.5mm 31-808-3302



HF Resistant Injectors

Tapered Alumina 2.4mm 31-808-3205

Sapphire 2.4mm 31-808-3378



Cones

Sampler Cones

Nickel Sampler PE3011-Ni



Platinum Sampler PE3013-Pt

Platinum Sampler (18mm) PE3013A-Pt

Platinum Sampler (12mm) PE3013C-Pt

Platinum Sampler PE3013-Pt

Boron Free PE3013-Pt-BF



Skimmer Cones

Nickel Skimmer PE4212-Ni

Platinum Skimmer PE4214-Pt

Nickel Hyper Skimmer PE4015-Ni

All Nickel Hyper Skimmer PE4016-Ni



O-ring for NexION Hyper Skimmer Cone (pack of 5)

PE5125



ConeGuard Thread Protectors

Sampler Cone Guard 70-803-1024
For NexION



Gasket for Sampler Cone (pack of 5)

PE5111



Common Accessories

Elegra Argon Humidifier

Elegra Dual Argon Humidifier 70-803-1473



Guardian In-Line Filters

Guardian DC in-line non-return gas filter 70-803-1942

Guardian in-line sample filter 70-803-1108

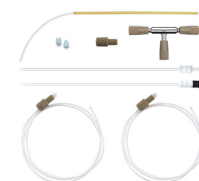
Eluo Adaptor for Inline Filter 70-803-1160



Trident Internal Standard Kits

Trident CT Standard Kit 60-703-1179

Standard Kit for HF 60-808-1150



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

For PerkinElmer S20 Series

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-2097



For Cetac ASX-200/500/800 Series

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-1803

Polyimide sheathed Autosampler
Probe 0.5mm ID 60-808-1186L

PTFE Encapsulated Carbon Fibre
Probe 0.5mm ID 70-803-0784

PTFE Encapsulated Carbon Fibre
Probe 0.75mm ID 70-803-1443

PTFE Encapsulated Carbon Fibre
Probe 1.0mm ID 70-803-0793



Glass DC Nebulizers

SeaSpray

400µL/min uptake A23-1-USS04

MicroMist

400µL/min uptake A23-1-UM04

Conikal

1mL/min uptake A23-1-UC1



Quartz DC Nebulizers

SeaSpray

1mL/min uptake A23-1-QSS1



DC Nebulizers for HF

DuraMist

400µL/min uptake A23-1-DM04



OpalMist

400µL/min uptake A23-1-PFA04



Spray Chambers

Twister

50mL Cyclonic 20-809-4417HE

50mL Cyclonic 20-809-4560

With Matrix Port



Tracey

50mL Cyclonic 20-809-4419HE



Spray Chambers

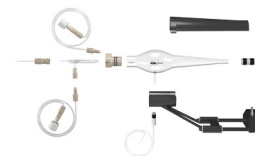
Cinnabar

20mL Cyclonic 20-809-4480HE



High Efficiency Sample Introduction System

HE-SIS for PerkinElmer NexION KT-1184



Torches

D-Torch

30-808-3927

Comprises:

Base and Inner Tube 31-808-3928

Quartz Outer Tube 31-808-3942

Retaining Ring 31-808-2818

Injector Adaptor 31-808-3980

Injector Ferrule 31-808-2962

Fastener Assembly 31-808-4130

Viton O-rings (PKT 10) 70-V-011

PTFE Coated Viton O-rings (PKT 10) 70-VT-012



Quartz Injectors

Tapered 1.0mm 31-808-3423

Tapered 1.8mm 31-808-4005

Tapered 2.0mm 31-808-4006

Tapered 2.5mm 31-808-3302



HF Resistant Injectors

Tapered Alumina 2.4mm 31-808-3205

Sapphire 2.4mm 31-808-3378



Cones

Sampler Cones

Nickel Sampler PE3011-Ni



Platinum Sampler PE3013-Pt

Platinum Sampler (18mm) PE3013A-Pt

Platinum Sampler (12mm) PE3013C-Pt

Platinum Sampler Boron Free PE3013-Pt-BF



Skimmer Cones

Nickel Skimmer PE4012-Ni

Platinum Skimmer PE4014-Pt

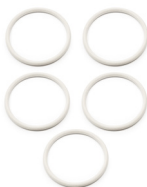
Nickel Hyper Skimmer PE4015-Ni

All Nickel Hyper Skimmer PE4016-Ni



O-ring for NexION Hyper Skimmer Cone (pack of 5)

PE5125



ConeGuard Thread Protectors

Sampler Cone Guard For NexION 70-803-1024



Gasket for Sampler Cone (pack of 5)

PE5111



Common Accessories

Elegra Argon Humidifier

Elegra Dual Argon Humidifier 70-803-1473



Guardian In-Line Filters

Guardian DC in-line non-return gas filter 70-803-1942

Guardian in-line sample filter 70-803-1108

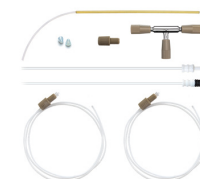
Eluo Adaptor for Inline Filter 70-803-1160



Trident Internal Standard Kits

Trident CT Standard Kit 60-703-1179

Standard Kit for HF 60-808-1150



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

For PerkinElmer S20 Series

Guardian Probe 0.75mm Probe Connecting Line (Red) 70-803-2097



For Cetac ASX-200/500/800 Series

Guardian Probe 0.75mm Probe Connecting Line (Red) 70-803-1803

Polyimide sheathed Autosampler Probe 0.5mm ID 60-808-1186L

PTFE Encapsulated Carbon Fibre Probe 0.5mm ID 70-803-0784

PTFE Encapsulated Carbon Fibre Probe 0.75mm ID 70-803-1443

PTFE Encapsulated Carbon Fibre Probe 1.0mm ID 70-803-0793



Glass DC Nebulizers

SeaSpray

400µL/min uptake A23-1-USS04

MicroMist

400µL/min uptake A23-1-UM04

Conikal

1mL/min uptake A23-1-UC1



Quartz DC Nebulizers

SeaSpray

1mL/min uptake A23-1-QSS1



DC Nebulizers for HF

DuraMist

400µL/min uptake A23-1-DM04



OpalMist

400µL/min uptake A23-1-PFA04



Spray Chambers

Twister

50mL Cyclonic 20-809-4417HE

50mL Cyclonic 20-809-4560

With Matrix Port



Tracey

50mL Cyclonic 20-809-4419HE



Spray Chambers

Cinnabar

20mL Cyclonic 20-809-4480HE



High Efficiency Sample Introduction System

HE-SIS for PerkinElmer NexION KT-1184



Torches

D-Torch

30-808-3927



Comprises:

| | |
|------------------------------------|-------------|
| Base and Inner Tube | 31-808-3928 |
| Quartz Outer Tube | 31-808-3942 |
| Retaining Ring | 31-808-2818 |
| Injector Adaptor | 31-808-3980 |
| Injector Ferrule | 31-808-2962 |
| Fastener Assembly | 31-808-4130 |
| Viton O-rings (PKT 10) | 70-V-011 |
| PTFE Coated Viton O-rings (PKT 10) | 70-VT-012 |

Quartz Injectors

Tapered 1.0mm 31-808-3423

Tapered 1.8mm 31-808-4005

Tapered 2.0mm 31-808-4006

Tapered 2.5mm 31-808-3302



HF Resistant Injectors

Tapered Alumina 2.4mm 31-808-3205

Sapphire 2.4mm 31-808-3378



Cones

Sampler Cones

Nickel Sampler PE3011-Ni



Aluminium Sampler PE3011-Al

Platinum Sampler PE3013-Pt

Platinum Sampler (18mm) PE3013A-Pt

Platinum Sampler (18mm) PE3013C-Pt

Platinum Sampler Boron Free PE3013-Pt-BF



Skimmer Cones

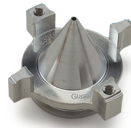
Nickel Skimmer PE3012-Ni



Aluminium Skimmer PE3012-Al

Platinum Skimmer PE3014-Pt

Platinum Skimmer Boron Free PE3014-Pt-BF



Aluminium Hyper Skimmer PE3015-Al

Nickel Hyper Skimmer PE3015-Ni

Platinum Hyper Skimmer PE3015-Pt/Ni

O-ring for NexION Hyper Skimmer Cone (pack of 5) PE5115

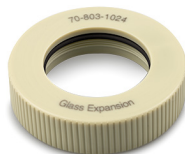


Screw for NexION Hyper Skimmer Cone (pack of 2) PE5116

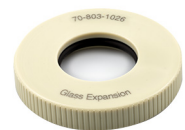


ConeGuard Thread Protectors

Sampler Cone Guard For NexION 70-803-1024



Skimmer Cone Guard For NexION 70-803-1026



Gasket for Sampler Cone (pack of 5) PE5111



Common Accessories

Elegra Argon Humidifier

Elegra Dual Argon Humidifier 70-803-1473



Guardian In-Line Filters

Guardian DC in-line non-return gas filter 70-803-1942

Guardian in-line sample filter 70-803-1108

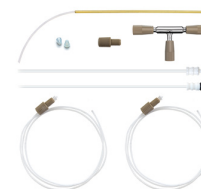
Eluo Adaptor for Inline Filter 70-803-1160



Trident Internal Standard Kits

Trident CT Standard Kit 60-703-1179

Standard Kit for HF 60-808-1150



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

For PerkinElmer S20 Series

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-2097



For Cetac ASX-200/500/800 Series

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-1803

Polyimide sheathed Autosampler
Probe 0.5mm ID 60-808-1186L

PTFE Encapsulated Carbon Fibre
Probe 0.5mm ID 70-803-0784

PTFE Encapsulated Carbon Fibre
Probe 0.75mm ID 70-803-1443

PTFE Encapsulated Carbon Fibre
Probe 1.0mm ID 70-803-0793



Glass DC Nebulizers

SeaSpray

400µL/min uptake A22-1-USS04

MicroMist

400µL/min uptake A22-1-UM04

Conikal

1mL/min uptake A22-1-UC1



Quartz DC Nebulizers

SeaSpray

1mL/min uptake A22-1-QSS1



DC Nebulizers for HF

DuraMist

400µL/min uptake A22-1-DM04



OpalMist

400µL/min uptake A22-1-PFA04



Spray Chambers

Twister

50mL Cyclonic
(2.4mm Aux. Port)
90deg Screw Mount 20-809-3854HE



Twister

50mL Cyclonic
with Screw Mount 20-809-3892HE



Spray Chambers for HF

Tracey PFA44

44mL Cyclonic 20-809-3713



High Efficiency Sample Introduction System

HE-SIS for PerkinElmer NexION
300/350 KT-1204



Torches

D-Torch

30-807-0540

Comprises:

Base and Inner Tube 31-808-2847
Quartz Outer Tube 31-808-2848
Retaining Ring 31-808-2818



D-Torch for HF

30-808-2937

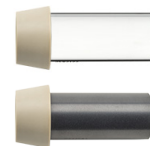
Comprises:

Base and Inner Tube 31-808-2847
Ceramic Outer Tube 31-808-2849
Retaining Ring 31-808-2818



D-Torch Options:

Quartz Outer Tube 31-808-2848
Ceramic Outer Tube 31-808-2849



Torches

(continued)

Quartz Torch

| | |
|------------------------------|-------------|
| Standard Quartz Torch | 30-808-8107 |
| High Efficiency Quartz Torch | 31-808-2784 |



Quartz Injectors (non DRC)

| | |
|----------------------------------|-------------|
| Tapered Quartz Injector 1.5mm | 31-807-0006 |
| Tapered Quartz Injector 1.8mm | 31-807-0005 |
| Tapered Quartz Injector 2.0mm | 31-807-0004 |



These injectors are compatible with both D-Torch and standard torch. They are suitable for torch adaptor 31-808-2825.

Quartz Injectors (DRC Versions)

| | |
|--|-------------|
| Tapered Quartz Injector with Ball Joint, 0.85mm | 31-808-3125 |
| Tapered Quartz Injector with Ball Joint, 1.5mm | 31-808-0851 |
| Tapered Quartz Injector with Ball Joint, 2.0mm | 31-808-0806 |
| Tapered Quartz Injector with Ball Joint, 2.5mm | 31-808-3463 |



These injectors are compatible with both D-Torch and standard torch. They are suitable for torch adaptor 31-808-2824.

HF Resistant Injectors

| | |
|-----------------------------------|-------------|
| Tapered Alumina Injector 2.0mm | 31-807-0060 |
| Sapphire Injector 2.0mm | 31-808-2803 |



These injectors are compatible with both D-Torch and standard torch. They are suitable for torch adaptor 31-808-2825.

Torch Adaptor

| | |
|---|-------------|
| Cassette Mount Adaptor for Ball Joint Injector | 31-808-2824 |
|---|-------------|

This adaptor is suitable for injectors with a ball joint.



Torch Adaptor

| | |
|----------------------------|-------------|
| PFA Cassette Mount Adaptor | 31-808-2825 |
|----------------------------|-------------|

This adaptor is suitable for injectors without a ball joint.



Cones

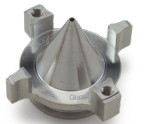
Sampler Cones

| | |
|--------------------------------|--------------|
| Nickel Sampler | PE3011-Ni |
| Aluminium Sampler | PE3011-Al |
| Platinum Sampler | PE3013-Pt |
| Platinum Sampler (18mm) | PE3013A-Pt |
| Platinum Sampler (12mm) | PE3013C-Pt |
| Platinum Sampler Boron free | PE3013-Pt-BF |



Skimmer Cones

| | |
|--------------------------------|--------------|
| Nickel Skimmer | PE3012-Ni |
| Aluminium Skimmer | PE3012-Al |
| Platinum Skimmer | PE3014-Pt |
| Platinum Skimmer Boron free | PE3014-Pt-BF |
| Aluminium Hyper Skimmer | PE3015-Al |
| Nickel Hyper Skimmer | PE3015-Ni |
| Platinum Hyper Skimmer | PE3015-Pt/Ni |



| | |
|---|--------|
| O-ring for NexION Hyper Skimmer Cone (pack of 5) | PE5115 |
|---|--------|

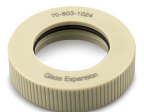


| | |
|--|--------|
| Screw for NexION Hyper Skimmer Cone (pack of 2) | PE5116 |
|--|--------|



ConeGuard Thread Protectors

| | |
|--|-------------|
| Sampler Cone Guard For NexION 300/350 | 70-803-1024 |
| Skimmer Cone Guard For NexION 300/350 | 70-803-1026 |



| | |
|--|--------|
| Gasket for Sampler Cone (pack of 5) | PE5111 |
|--|--------|



RF Coils

Copper 70-900-2006C



RF Coil Installation Kit 70-900-2006T



Common Accessories

Elegra Argon Humidifier

Elegra Dual Argon Humidifier 70-803-1274



Guardian In-Line Filters

Guardian DC in-line non-return gas filter 70-803-1942

Guardian in-line sample filter 70-803-1108

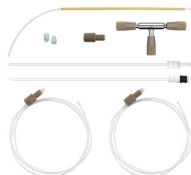
Eluo Adaptor for Inline Filter 70-803-1160



Trident Internal Standard Kits

Trident CT Standard Kit 60-703-1179

Standard Kit for HF solutions 60-808-1150



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

For PerkinElmer S20 Series

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-2097



Suitable for PE S10 or AS93+

Guardian Probe 0.75mm
Probe Connecting Line (Red) (*for PE S10 only) 70-803-2851



Guardian Probe 0.75mm
Probe Connecting Line (Red) (*for AS93+ only) 70-803-2836



PTFE Encapsulated Carbon Fibre Probe 0.25mm ID 70-803-1071

PTFE Encapsulated Carbon Fibre Probe 0.5mm ID 70-803-1440



PTFE Encapsulated Carbon Fibre Probe 1.0mm ID 70-803-0816

For Cetac ASX-200/500/800 Series

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-1803

Polyimide sheathed Autosampler Probe 0.5mm ID 60-808-1186L

PTFE Encapsulated Carbon Fibre Probe 0.5mm ID 70-803-0784

PTFE Encapsulated Carbon Fibre Probe 0.75mm ID 70-803-1443

PTFE Encapsulated Carbon Fibre Probe 1.0mm ID 70-803-0793



Glass DC Nebulizers

| | |
|------------------|-------------|
| SeaSpray | |
| 2mL/min uptake | A21-07-USS2 |
| MicroMist | |
| 600µL/min uptake | A21-07-UM06 |
| Slurry | |
| 4mL/min uptake | A21-07-US6 |
| Conikal | |
| 2mL/min uptake | A21-07-UC2 |



Quartz DC Nebulizers

| | |
|-----------------|-------------|
| SeaSpray | |
| 1mL/min uptake | A21-07-QSS1 |



DC Nebulizers for HF

| | |
|-----------------|-------------|
| DuraMist | |
| 1mL/min uptake | A21-07-DM1 |
| OpalMist | |
| 2mL/min uptake | A21-07-PFA2 |



IsoMist XR

| | |
|--|-------------|
| Programmable Temperature Cyclonic Spray Chamber | |
| IsoMist XR Kit | KT-1147-XR |
| Comprises: | |
| Glass Twister Spray Chamber | 21-809-4347 |
| Assembly (LOL) | 20-809-5175 |
| PuraFlex Transfer Tube | 21-809-4350 |
| Metal Ball Joint Clip | JC-13 |
| UniFit Right Angle Connector (PKT 3) | GAZ-04-90 |



BC Spray Chambers

| | |
|--|-------------|
| Tracey BC | |
| 30mL Cyclonic | 20-809-5318 |
| * Direct replacement for 20-808-8882HE | |



| | |
|--------------------------------------|-------------|
| Tracey BC PEEK | |
| 30mL Cyclonic | 20-809-5300 |
| * Direct replacement for 20-809-2507 | |
| * No internal resurfacing required | |



Spray Chambers

| | |
|--------------------------------|---------------|
| Twister | |
| 50mL Cyclonic | 20-809-0495HE |
| 50mL Cyclonic with Oxygen Port | 20-809-4165 |



| | |
|---------------|---------------|
| Tracey | |
| 50mL Cyclonic | 20-808-8882HE |



| | |
|-----------------|---------------|
| Cinnabar | |
| 20mL Cyclonic | 20-809-0164HE |



| | |
|------------------|---------------|
| Twinnabar | |
| 20mL Cyclonic | 20-809-0498HE |



| | |
|--|---------|
| HydraMist Simultaneous Cold Vapor/ Pneumatic Nebulization Spray Chamber | |
| Hydride Kit | KT-1157 |
| Hydride Kit for Avio with HTS system | KT-2742 |



Spray Chambers for HF

Twister TFE

50mL Cyclonic 20-809-3452



Tracey TFE

50mL Cyclonic 20-809-2507



Torches

D-Torch for Avio 200

D-Torch 30-808-3800



Comprises:

Base and Inner Tube 31-808-3802

Quartz Outer Tube 31-808-3792

Retaining Ring 31-808-2818



D-Torch Options:

Ceramic Outer Tube 31-808-3820

Injector Adapter 31-808-3782

Viton O-Rings (Pkt 10) 70-803-1576



D-Torch for Avio 500

D-Torch 30-808-3882



Comprises:

Base and Inner Tube 31-808-3883

Quartz Outer Tube 31-808-3792

Retaining Ring 31-808-2818



D-Torch Options:

Ceramic Outer Tube 31-808-3894

Injector Adapter 31-808-3782

Viton O-Rings (Pkt 10) 70-803-1576



Tapered Injectors for D-Torch

Quartz Injector 0.8mm 31-808-3785

Quartz Injector 1.2mm 31-808-3786

Quartz Injector 1.6mm 31-808-3788

Quartz Injector 2.0mm 31-808-3789

Alumina Injector 1.25mm 31-808-3799

Alumina Injector 2.0mm 31-808-3783



Torches

(continued)

Capillary Injectors for D-Torch

Sapphire Injector 1.5mm 31-808-4296

Sapphire Injector 2.0mm 31-808-3784



Fixed Torch for Avio 200/500

Quartz Torch with single slot 31-808-3776

Quartz Torch with 3 slots 31-808-4231



Purge Windows for Avio 500

Optical Kit 70-803-1634

Radial Purge Extension 70-803-2033

Axial Purge Window 31-808-2649

Optical Oring Kit 70-803-2802



Purge Windows for Avio 200

Axial Purge Window 31-808-2649

Radial Purge Window, Short (32 mm) 31-808-8098

Avio 200 Optical Kit 70-803-1633



Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier 70-803-1269



Guardian In-Line Filters

Guardian DC in-line non-return gas filter 70-803-1942

Guardian in-line sample filter 70-803-1108

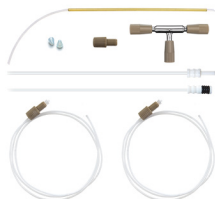
Eluo Adaptor for Inline Filter 70-803-1160



Trident Internal Standard Kits

Trident CT Standard Kit 60-703-1179

Standard Kit for HF 60-808-1150



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

For PerkinElmer S20 Series

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-2097



Suitable for PE S10 or AS93+

Guardian Probe 0.75mm
Probe Connecting Line (Red) (*for PE S10 only) 70-803-2851



Guardian Probe 0.75mm
Probe Connecting Line (Red) (*for AS93+ only) 70-803-2836



PTFE Encapsulated Carbon
Fibre Probe 0.25mm ID 70-803-1071

PTFE Encapsulated Carbon
Fibre Probe 0.5mm ID 70-803-1440

PTFE Encapsulated Carbon
Fibre Probe 1.0mm ID 70-803-0816



Suitable for Cetac ASX-200/500/800 Series

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-1803

Polyimide sheathed Autosampler
Probe 0.5mm ID 60-808-1186L

PTFE Encapsulated Carbon
Fibre Probe 0.5mm ID 70-803-0784

PTFE Encapsulated Carbon
Fibre Probe 0.75mm ID 70-803-1443

PTFE Encapsulated Carbon
Fibre Probe 1.0mm ID 70-803-0793



For Cetac ASX-7400, 7600 Series

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-2940



Glass DC Nebulizers

SeaSpray

2mL/min uptake A21-07-USS2

MicroMist

600µL/min uptake A21-07-UM06

Slurry

4mL/min uptake A21-07-US6

Conikal

2mL/min uptake A21-07-UC2



Quartz DC Nebulizers

SeaSpray

1mL/min uptake A21-07-QSS1



DC Nebulizers for HF

DuraMist

1mL/min uptake A21-07-DM1



OpalMist

2mL/min uptake A21-07-PFA2



IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

IsoMist XR Kit KT-1012-XR

Comprises:

Glass Twister Spray Chamber 21-809-3185

Assembly (LOL) 20-809-5175

IsoMist Mount 21-809-2773

Adaptor GAZ08-12 90deg 21-809-2871

Clamping Screw 21-808-0953

UniFit Right Angle Connector (PKT 3) GAZ-04-90



Spray Chambers

Tracey

50mL Cyclonic 20-809-0434HE



Twister

50mL Cyclonic (Aqueous) 20-809-0208HE
With 7mm baffle



Twister

50mL Cyclonic (Organics) 20-809-0446HE
With 4mm baffle



Twister

50mL Cyclonic (Aux. Port) 20-809-0004HE



Cinnabar

20mL Cyclonic 20-809-9121HE



HydraMist Simultaneous Cold Vapor/ Pneumatic Nebulization Spray Chamber

HydraMist Kit KT-1162



Spray Chambers for HF

Tracey TFE

50mL Cyclonic 20-809-2510

Plugs directly into cassette mount




Torches

D-Torch 30-808-3300 

Comprises:

- Base and Inner Tube 31-808-3292
- Quartz Outer Tube 31-808-3294
- Retaining Ring 31-808-2818

D-Torch Options

- Ceramic Outer Tube 31-808-2990 
- Copper Foils (PKT 12) for Cermic Outer Tube 31-808-3356
- O-Ring Kit 70-803-0762

Quartz Torch

- Without slots 31-808-3254 
- With single slot 31-808-3255
- With 3 slots 31-808-3256

Quartz Torch Options:

- Copper Foil for Quartz Torch or D-Torch Quartz Outer Tube (pack of 12) 31-808-3289

Tapered Quartz Injectors

- Quartz Injector 0.8mm 31-808-3257 
- Quartz Injector 2.0mm 31-808-3258
- Alumina Injector 1.2mm 31-808-3287
- Alumina Injector 2.0mm 31-808-3286 

Sapphire Injectors

- Sapphire Injector 2mm 31-808-3528

Purge Windows

- Axial 17mm disk 31-808-0551 
- Axial 32mm disk 31-808-2649
- Radial (Post Nov. 2004) 31-808-2788

Common Accessories


Elegra Argon Humidifier

- Elegra Argon Humidifier 70-803-1269 



Common Accessories

(continued)

Guardian In-Line Filters

- Guardian DC in-line non-return gas filter 70-803-1942 
- Guardian in-line sample filter 70-803-1108
- Eluo Adaptor for Inline Filter 70-803-1160




Trident Internal Standard Kits

- Trident CT Standard Kit 60-703-1179 
- Standard Kit for HF solutions 60-808-1150 



Magnifier Inspection Tool 70-803-1923 

Autosampler Probes (See page 22-23 for complete list of probes)


Suitable for PE S10 or AS93+

- Guardian Probe 0.75mm Probe Connecting Line (Red) (*for PE S10 only) 70-803-2851 
- Guardian Probe 0.75mm Probe Connecting Line (Red) (*for AS93+ only) 70-803-2836 
- PTFE Encapsulated Carbon Fibre Probe 0.25mm ID 70-803-1071
- PTFE Encapsulated Carbon Fibre Probe 0.5mm ID 70-803-1440 
- PTFE Encapsulated Carbon Fibre Probe 1.0mm ID 70-803-0816

Suitable for Cetac ASX-200/500/800 Series

- Guardian Probe 0.75mm Probe Connecting Line (Red) 70-803-1803 
- Polyimide sheathed Autosampler Probe 0.5mm ID 60-808-1186L
- PTFE Encapsulated Carbon Fibre Probe 0.5mm ID 70-803-0784
- PTFE Encapsulated Carbon Fibre Probe 0.75mm ID 70-803-1443 
- PTFE Encapsulated Carbon Fibre Probe 1.0mm ID 70-803-0793

For Cetac ASX-7400, 7600 Series

- Guardian Probe 0.75mm Probe Connecting Line (Red) 70-803-2940 

Glass DC Nebulizers

SeaSpray

400µL/min uptake

A41-07-USS04S



MicroMist

400µL/min uptake

A41-07-UM04

DC Nebulizers Compatible with HF

OpalMist

400µL/min uptake

A41-07-PFA04



DuraMist

400µL/min uptake

A41-07-DM04S



Spray Chambers

Glass

50mL Cyclonic

20-809-5042

With B14 gravity drain



Quartz

50mL Cyclonic

20-809-5044

With B14 gravity drain



Drain Device

21-809-4197



Extention Pipe

with Aux Gas Port

70-803-2134



Dilution Gas Tube

800mm

70-803-1766



Spray Chambers Compatible with HF

PFA

50mL Cyclonic

20-809-5043

HF Drain Device

21-809-2540



Extention Pipe

with Aux Gas Port

21-809-4857



Torches

Quartz Mini Torches

| | |
|---------------------------|-------------|
| Torch with 1.5mm Injector | 30-808-4258 |
| Torch with 1.8mm Injector | 30-808-4265 |

Demountable Torch for HF

| | |
|----------------|-------------|
| Mini Torch Kit | 30-808-4282 |
|----------------|-------------|

Comprises:

| | |
|------------------------|-------------|
| Quartz Torch Body | 31-808-4283 |
| Alumina Injector 1.5mm | 31-808-0774 |
| PEEK Injector Adaptor | 31-808-4478 |



Cones

Sampler Cones

| | |
|----------------|------------|
| Nickel Sampler | SZ7011-NiP |
|----------------|------------|



| | |
|------------------|------------|
| Platinum Sampler | SZ7013-PtP |
|------------------|------------|



| | |
|---------------------------------|--------|
| Gasket for Sampler Cone (PKT 3) | SZ5001 |
|---------------------------------|--------|

| | |
|------------------------------------|--------|
| Screw Kit for Sampler Cone (PKT 4) | SZ5004 |
|------------------------------------|--------|



Skimmer Cones

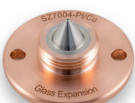
| | |
|----------------|-----------|
| Copper Skimmer | SZ7002-Cu |
|----------------|-----------|



| | |
|----------------------|-----------|
| Nickel Skimmer Small | SZ7022-Ni |
|----------------------|-----------|

| | |
|--------------------------|--------|
| Spacer for Skimmer Small | SZ5005 |
|--------------------------|--------|

| | |
|------------------|--------------|
| Platinum Skimmer | SZ7004-Pt/Cu |
|------------------|--------------|



| | |
|------------------------------------|--------|
| Screw Kit for Skimmer Cone (PKT 2) | SZ5002 |
|------------------------------------|--------|

| | |
|----------------------|-------------|
| Cone Extraction Tool | 70-803-1573 |
|----------------------|-------------|



Common Accessories

Elegra Argon Humidifier

| | |
|--------------------------------------|-------------|
| Elegra Argon Humidifier | 70-803-1312 |
| Elegra Dual-Channel Argon Humidifier | 70-803-1473 |
| Dilution Gas Tube | 70-803-2764 |



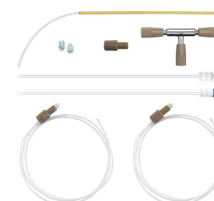
Guardian In-Line Filters

| | |
|---|-------------|
| Guardian DC in-line non-return gas filter | 70-803-1942 |
| Guardian in-line sample filter | 70-803-1108 |
| Eluo Adaptor for Inline Filter | 70-803-1160 |



Trident Internal Standard Kits

| | |
|-------------------------|-------------|
| Trident CT Standard Kit | 60-703-1179 |
| Standard Kit for HF | 60-808-1150 |



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

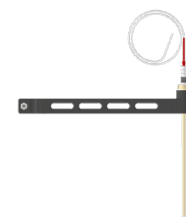
For Cetac ASX-200/500/800 Series

| | |
|--|--------------|
| Guardian Probe 0.75mm | |
| Probe Connecting Line (Red) | 70-803-1803 |
| Polyimide sheathed Autosampler Probe 0.5mm ID | 60-808-1186L |
| PTFE Encapsulated Carbon Fibre Probe 0.5mm ID | 70-803-0784 |
| PTFE Encapsulated Carbon Fibre Probe 0.75mm ID | 70-803-1443 |
| PTFE Encapsulated Carbon Fibre Probe 1.0mm ID | 70-803-0793 |



For Shimadzu AS-10 & AS-20

| | |
|--|-------------|
| Guardian Probe 0.75mm | |
| Probe Connecting Line (Red) | 70-803-2872 |
| PTFE Sheathed Carbon Fibre Probe 0.75mm ID with UniFit | 70-803-1477 |



Glass DC Nebulizers

SeaSpray

400µL/min uptake A41-1-USS04



MicroMist

600µL/min uptake A41-07-UM06S

DC Nebulizers Compatible with HF

OpalMist

600µL/min uptake A41-07-PFA06S



Spray Chambers

Glass

50mL Cyclonic 21-809-3994
With B14 gravity drain



Quartz

50mL Cyclonic 21-809-3992
With B14 gravity drain



Drain Device

21-808-8214



Extention Pipe

Quartz Transfer Tube 31-808-3920



Spray Chambers Compatible with HF

PFA

50mL Cyclonic 21-809-3991



HF Drain Device

21-809-2540



Extention Pipe

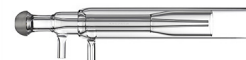
PFA Extention w/ right angle 21-809-4081



Torches

Quartz Torches

Quartz Mini Torch 30-807-0567
(Suitable for ICP-MS 2030)



Quartz Sleeve for Mini Torch 31-808-4214
(Suitable for ICP-MS 2030)

Demountable Torch for HF

Mini Torch Kit 30-808-4401



Comprises:




Quartz Torch Body 31-808-4283

Alumina Injector 1.2mm 31-808-4353


PEEK Injector Adaptor 31-808-4478














RF Coils

| | | |
|--------|--------------|---|
| Copper | 70-900-6000C |  |
| Silver | 70-900-6000S |  |
| Gold | 70-900-6000G |  |

RF Coil Installation Kit

| | | |
|--------------------------|--------------|---|
| RF Coil Installation Kit | 70-900-6000T |  |
|--------------------------|--------------|---|

Cones

| | | |
|------------------------------------|--------------|---|
| Sampler Cones | | |
| Copper Sampler | SZ7001-Cu |  |
| Nickel Sampler | SZ7001-Ni |  |
| Nickel Sampler with Copper Base | SZ7001-Ni/Cu |  |
| Platinum Sampler (10mm Insert) | SZ7003-Pt/Cu |  |
| Gasket for Sampler Cone (PKT 3) | SZ5001 |  |
| Screw Kit for Sampler Cone (PKT 4) | SZ5004 |  |
| O-Ring Kit | 70-803-1908 |  |
| Skimmer Cones | | |
| Copper Skimmer | SZ7002-Cu |  |
| Nickel Skimmer | SZ7002-Ni |  |
| Nickel Skimmer with Copper Base | SZ7002-Ni/Cu |  |
| Platinum Skimmer | SZ7004-Pt/Cu |  |
| Screw Kit for Skimmer Cone (PKT 2) | SZ5002 | |
| Cone Extraction Tool | 70-803-1573 | |

Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier 70-803-1312



Guardian In-Line Filters

Guardian DC in-line non-return gas filter 70-803-1942

Guardian in-line sample filter 70-803-1108

Eluo Adaptor for Inline Filter 70-803-1160



Trident Internal Standard Kits

Trident CT Standard Kit 60-703-1179

Standard Kit for HF 60-808-1150



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

For Cetac ASX-200/500/800 Series

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-1803

Polyimide sheathed Autosampler Probe
0.5mm ID 60-808-1186L

PTFE Encapsulated Carbon Fibre Probe
0.5mm ID 70-803-0784

PTFE Encapsulated Carbon Fibre Probe
0.75mm ID 70-803-1443

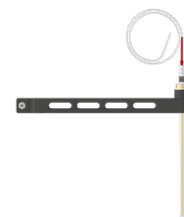
PTFE Encapsulated Carbon Fibre Probe
1.0mm ID 70-803-0793



For Shimadzu AS-10 & AS-20

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-2872

PTFE Sheathed Carbon Fibre Probe
0.75mm ID with UniFit 70-803-1477



Glass DC Nebulizers

| | |
|-----------------|-------------|
| Conikal | |
| 1mL/min uptake | A41-1-UC1S |
| SeaSpray | |
| 2mL/min uptake | A41-1-USS2S |
| Slurry | |
| 4mL/min uptake | A41-1-US6S |



DC Nebulizers for HF

| | |
|-----------------|-------------|
| OpalMist | |
| 1mL/min uptake | A41-1-PFA1S |
| DuraMist | |
| 1mL/min uptake | A41-1-DM1S |



IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

| | |
|--|-------------|
| IsoMist XR Kit | KT-1067-XR |
| Comprises: | |
| Glass Twister Spray Chamber With B14 drain | 21-809-3270 |
| Assembly B14 (LOL) | 20-809-5187 |
| Adaptor | 21-809-3998 |
| Adjustable Stand | 70-803-2798 |
| Metal Ball Joint Clip | JC-13 |
| Drain Device | 21-808-8214 |



Programmable Temperature Cyclonic Spray Chamber

| | |
|-----------------------------|-------------|
| IsoMist XR Kit | KT-2749-XR |
| Requires peristaltic pump | |
| Comprises: | |
| Glass Twister Spray Chamber | 21-809-3186 |
| Assembly (ROL) | 20-809-5176 |
| Adaptor | 21-809-3998 |
| Adjustable Stand | 21-809-4911 |
| Metal Ball Joint Clip | JC-13 |
| UniFit Drain (PKT 3) | UFT-16-75 |



Spray Chambers

| | |
|------------------------|---------------|
| Tracey | |
| 50mL Cyclonic | 20-808-8881HE |
| With B14 gravity drain | |



| | |
|------------------------|---------------|
| Twister | |
| 50mL Cyclonic | 20-809-9119HE |
| With B14 gravity drain | |



| | |
|----------------|---------------|
| Twister | |
| 50mL Cyclonic | 20-809-0222HE |



| | |
|-----------------|---------------|
| Cinnabar | |
| 20mL Cyclonic | 20-809-0164HE |



HydraMist Simultaneous Cold Vapor/ Pneumatic Nebulization Spray Chamber

| | |
|-------------|---------|
| Hydride Kit | KT-1157 |
|-------------|---------|



Spray Chambers

(continued)

Drain Device 21-808-8214



Transfer Tube, Spray Chamber to ICPE-9000/9800 Torch

Glass Transfer Tube 86mm 21-809-2846



Spray Chambers for HF

Tracey TFE

50mL Cyclonic 20-809-2508

With B14 gravity drain
Suitable for use with HF



HF Drain Device 21-809-2540



Mounting bracket for HF Spray Chamber 21-809-2839



Transfer Tube, Spray Chamber to ICPE-9000/9800 Torch

PFA Transfer Tube 82.5mm 31-808-3071



Torches

Semi Demountable Torch (HF)

30-808-4335

Suitable for ICPS-7500/8100 and ICPE-9000/9800

Comprises:

Torch Body 31-808-4341

PEEK Injector Adaptor 31-808-4478

Tapered Alumina Injector 1.5mm 31-808-3202

Torch Options:

Tapered Quartz Injector 1.0mm 31-808-3423

Tapered Quartz Injector 1.8mm 31-808-4005

Tapered Quartz Injector 2.0mm 31-808-4006

Tapered Quartz Injector 2.5mm 31-808-3302

Tapered Alumina Injector 2.4mm 31-808-3205

Sapphire Injector 2.4mm 31-808-3378



Viton O-rings for FDT/SDT ball joints (PKT 10) 70-V-011

GazFit Connectors (PKT 4) for 4mm OD side arms GAZ-04



Quartz Torches

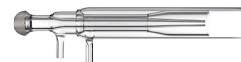
Quartz Torch Standard 1.5mm Injector (Suitable for 7500/8100) 30-808-1179

Quartz Torch for Organics, 1.0mm Injector (Suitable for 7500/8100/9000/9800) 30-807-0519

Quartz Torch for High TDS, 1.8mm Injector (Suitable for 7500/8100/9000/9800) 30-807-0518

Quartz Torch for High TDS, 2.0mm Injector (Suitable for 7500/8100/9000/9800) 30-807-0564

Quartz Mini Torch 1.5mm Injector (Suitable for ICPE-9000/9800) 30-807-0534



RF Coils

| | |
|--------|--------------|
| Copper | 70-900-6100C |
| Silver | 70-900-6100S |
| Gold | 70-900-6100G |



RF Coil Installation Kit 70-900-6100T



Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier 70-803-1312



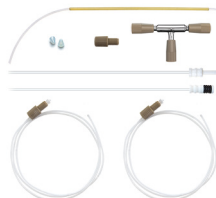
Guardian In-Line Filters

| | |
|---|-------------|
| Guardian DC in-line non-return gas filter | 70-803-1942 |
| Guardian in-line sample filter | 70-803-1108 |
| Eluo Adaptor for Inline Filter | 70-803-1160 |



Trident Internal Standard Kits

| | |
|-------------------------|-------------|
| Trident CT Standard Kit | 60-703-1179 |
| Standard Kit for HF | 60-808-1150 |



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

For Cetac ASX-200/500/800 Series

| | |
|--------------------------------------|--------------|
| Guardian Probe 0.75mm | |
| Probe Connecting Line (Red) | 70-803-1803 |
| Polyimide sheathed Autosampler Probe | |
| 0.5mm ID | 60-808-1186L |
| PTFE Encapsulated Carbon Fibre Probe | |
| 0.5mm ID | 70-803-0784 |
| PTFE Encapsulated Carbon Fibre Probe | |
| 0.75mm ID | 70-803-1443 |
| PTFE Encapsulated Carbon Fibre Probe | |
| 1.0mm ID | 70-803-0793 |



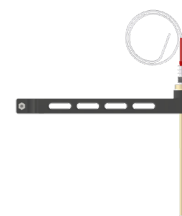
For Cetac ASX-7400, 7600 Series

| | |
|-----------------------------|-------------|
| Guardian Probe 0.75mm | |
| Probe Connecting Line (Red) | 70-803-2940 |



For Shimadzu AS-10 & AS-20

| | |
|----------------------------------|-------------|
| Guardian Probe 0.75mm | |
| Probe Connecting Line (Red) | 70-803-2872 |
| PTFE Sheathed Carbon Fibre Probe | |
| 0.75mm ID with UniFit | 70-803-1477 |



Glass DC Nebulizers

SeaSpray

2mL/min uptake A21-1-USS2

MicroMist

400µL/min uptake A21-1-UM04

Slurry

4mL/min uptake A21-1-US6

Conikal

2mL/min uptake A21-1-UC2



Spray Chambers

Tracey

50mL Cyclonic 20-809-2665HE

Twister

50mL Cyclonic 20-809-2951HE

Scott Spray Chamber

20-809-4053



DC Nebulizers for HF

DuraMist

1mL/min uptake A21-1-DM1



HydraMist Simultaneous Cold Vapor/ Pneumatic Nebulization Spray Chamber

Hydride Kit KT-1160



IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

IsoMist XR Kit KT-1141-XR

Comprises:

Glass Twister Spray Chamber 21-809-3185

Assembly (LOL) 20-809-5175

Adaptor 12/8 for SpectroBlue 31-808-3489

Glass Ball Cup Adaptor S19 21-809-4101

Tygon Tubing 1/4 inch x 1m 1921-1M

Metal Ball Joint Clip JC-19

GazFit Connectors for 8mm
OD arm (PKT 2) GAZ-08

UniFit Right Angle Connector
(PKT 3) GAZ-04-90



Quartz Adaptor

21-809-3772



Quartz Adaptor with Aux Port

21-809-3771



Spray Chambers for HF

Tracey TFE

50mL Cyclonic 20-809-3717

Suitable for use with HF.
Requires Transfer Tube 21-809-3726.



PuraFlex Transfer Tube

21-809-3726



Torches

Quartz Torch

| | |
|-----------------|-------------|
| SpectroBlue EOP | 31-808-3394 |
| SpectroBlue TI | 31-808-3468 |



Injectors for Quartz Torch

| | |
|------------------------|-------------|
| Quartz Injector 1.2mm | 31-808-3410 |
| Quartz Injector 1.8mm | 31-808-3391 |
| Quartz Injector 2.0mm | 31-808-3411 |
| Quartz Injector 3.0mm | 31-808-3412 |
| Alumina Injector 1.8mm | 31-808-3409 |
| Alumina Injector 2.5mm | 31-808-3390 |



Common Accessories

Elegra Argon Humidifier

| | |
|-------------------------|-------------|
| Elegra Argon Humidifier | 70-803-1269 |
| Elegra Stand | 70-803-1581 |



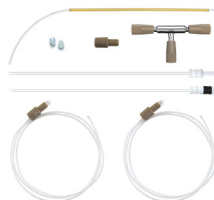
Guardian In-Line Filters

| | |
|---|-------------|
| Guardian DC in-line non-return gas filter | 70-803-1942 |
| Guardian in-line sample filter | 70-803-1108 |
| Eluo Adaptor for Inline Filter | 70-803-1160 |



Trident Internal Standard Kits

| | |
|-------------------------|-------------|
| Trident CT Standard Kit | 60-703-1179 |
| Standard Kit for HF | 60-808-1150 |



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

For Cetac ASX-200/500/800 Series

| | |
|--------------------------------------|--------------|
| Guardian Probe 0.75mm | |
| Probe Connecting Line (Red) | 70-803-1803 |
| Polyimide sheathed Autosampler Probe | |
| 0.5mm ID | 60-808-1186L |
| PTFE Encapsulated Carbon Fibre Probe | |
| 0.5mm ID | 70-803-0784 |
| PTFE Encapsulated Carbon Fibre Probe | |
| 0.75mm ID | 70-803-1443 |
| PTFE Encapsulated Carbon Fibre Probe | |
| 1.0mm ID | 70-803-0793 |



For Cetac ASX-7400, 7600 Series

| | |
|-----------------------------|-------------|
| Guardian Probe 0.75mm | |
| Probe Connecting Line (Red) | 70-803-2940 |



Glass DC Nebulizers

| | |
|------------------|------------|
| SeaSpray | |
| 2mL/min uptake | A21-1-USS2 |
| MicroMist | |
| 400µL/min uptake | A21-1-UM04 |
| Slurry | |
| 4mL/min uptake | A21-1-US6 |
| Conikal | |
| 2mL/min uptake | A21-1-UC2 |



DC Nebulizers for HF

| | |
|-----------------|-----------|
| DuraMist | |
| 1mL/min uptake | A21-1-DM1 |



IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

| | |
|----------------|------------|
| IsoMist XR Kit | KT-1141-XR |
|----------------|------------|

Comprises:

| | |
|--|-------------|
| Glass Twister Spray Chamber Assembly (LOL) | 21-809-3185 |
| Adaptor 12/8 for SpectroBlue | 20-809-5175 |
| Glass Ball Cup Adaptor S19 | 31-808-3489 |
| Tygon Tubing 1/4 inch x 1m | 21-809-4101 |
| Metal Ball Joint Clip | 1921-1M |
| GazFit Connectors for 8mm OD arm (PKT 2) | JC-19 |
| UniFit Right Angle Connector (PKT 3) | GAZ-08 |
| | GAZ-04-90 |



Spray Chambers

| | |
|----------------|---------------|
| Tracey | |
| 50mL Cyclonic | 20-809-2665HE |
| Twister | |
| 50mL Cyclonic | 20-809-2951HE |



HydraMist Simultaneous Cold Vapor/Pneumatic Nebulization Spray Chamber

| | |
|-------------|---------|
| Hydride Kit | KT-1160 |
|-------------|---------|



| | |
|--------------------------------|-------------|
| Straight Quartz Adaptor | 21-809-3773 |
|--------------------------------|-------------|



| | |
|--|-------------|
| Straight Quartz Adaptor with Aux Port | 21-809-3804 |
|--|-------------|



| | |
|---------------------------|-------------|
| Sheath Gas Adaptor | 21-809-4083 |
|---------------------------|-------------|



Spray Chambers for HF

| | |
|--|-------------|
| Tracey TFE | |
| 50mL Cyclonic | 20-809-3717 |
| Suitable for use with HF. Requires Transfer Tube | 21-809-3727 |



| | |
|--------------------------------------|-------------|
| Straight HF Resistant Adaptor | 21-809-3727 |
|--------------------------------------|-------------|



Torches

Quartz Torch

SpectroBlue SOP 31-808-3405



Injectors for Quartz Torch

Quartz Injector 1.0mm 31-808-4148

Quartz Injector 1.2mm 31-808-3410

Quartz Injector 1.5mm 31-808-4234

Quartz Injector 1.8mm 31-808-3391

Quartz Injector 2.0mm 31-808-3411

Quartz Injector 2.5mm 31-808-4235

Quartz Injector 3.0mm 31-808-3412

Alumina Injector 1.8mm 31-808-3409

Alumina Injector 2.5mm 31-808-3390



Fixed Quartz Torch

Quartz Torch 1.8mm injector S19, SOP 30-808-4264



Fixed Quartz Torch

Quartz Torch 2.0mm injector S19, SOP 30-808-4403



Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier 70-803-1269



Elegra Stand 70-803-1581



Guardian In-Line Filters

Guardian DC in-line non-return gas filter 70-803-1942

Guardian in-line sample filter 70-803-1108

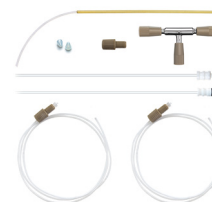
Eluo Adaptor for Inline Filter 70-803-1160



Trident Internal Standard Kits

Trident CT Standard Kit 60-703-1179

Standard Kit for HF 60-808-1150



Magnifier Inspection Tool 70-803-1923

Autosampler Probes (See page 22-23 for complete list of probes)

For Cetac ASX-200/500/800 Series

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-1803

Polyimide sheathed Autosampler Probe
0.5mm ID 60-808-1186L

PTFE Encapsulated Carbon Fibre Probe
0.5mm ID 70-803-0784

PTFE Encapsulated Carbon Fibre Probe
0.75mm ID 70-803-1443

PTFE Encapsulated Carbon Fibre Probe
1.0mm ID 70-803-0793



For Cetac ASX-7400, 7600 Series

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-2940



Glass DC Nebulizers

SeaSpray

400µL/min uptake

A13-1-USS04



MicroMist

400µL/min uptake

A13-1-UM04

Quartz DC Nebulizers

SeaSpray

1mL/min uptake

A13-1-QSS1



DC Nebulizers for HF

OpalMist

400µL/min uptake

A13-1-PFA04

100µL/min uptake

A13-1-PFA01

50µL/min uptake

A13-1-PFA005



Spray Chambers

High Efficiency Sample Introduction System

HE-SIS for Thermo ICP-MS

KT-1172



Torches

Quartz Torch

Base for Q Torch

31-808-3494



Quartz Tube Set

31-808-3357



Ceramic Torch

Ceramic Outer Tube Set

31-808-4048



Torch Options:

Quartz Injector 1.0mm

31-808-3440

Quartz Injector 2.0mm

31-808-3898

Quartz Injector 2.5mm

31-808-3428

Sapphire Injector 2.0mm

31-808-4014

Tapered Alumina Injector
2.0mm

31-808-4012



O-ring Kit for Q Torch base
(31-808-3494)

70-803-1535

O-ring Kit for Thermo
Q Torch base

70-803-1611



Cones

Sampler Cones

Nickel Sampler
with Copper Core

TG1021-Ni/Cu

Platinum Sampler
with Copper Core

TG1026A-Pt/Cu



Skimmer Cones

Nickel Skimmer

TG1054-Ni

Platinum Skimmer

TG1058-Pt

Cone Extraction Tool

70-803-2050

Graphite Sampler Cone
Gasket

TG5001



Common Accessories

Elegra Argon Humidifier

- Elegra Argon Humidifier 70-803-1268
- Elegra Dual Channel Argon Humidifier 70-803-2827



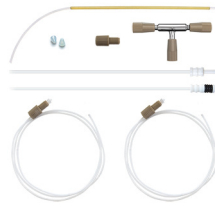
Guardian In-Line Filters

- Guardian DC in-line non-return gas filter 70-803-1942
- Guardian in-line sample filter 70-803-1108
- Eluo Adaptor for Inline Filter 70-803-1160



Trident Internal Standard Kits

- Trident CT Standard Kit 60-703-1179
- Standard Kit for HF 60-808-1150



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

For Cetac ASX-200/500/800 Series

- Guardian Probe 0.75mm Probe Connecting Line (Red) 70-803-1803
- Guardian Probe iSC-65 0.75mm Probe Connecting Line (Red) 70-803-2106
- PTFE Encapsulated Carbon Fibre Probe 0.5mm ID 70-803-0784
- PTFE Encapsulated Carbon Fibre Probe 0.75mm ID 70-803-1443
- PTFE Encapsulated Carbon Fibre Probe 1.0mm ID 70-803-0793



For Thermo iSC-65

- Guardian Probe 0.75mm Probe Connecting Line (Red) 70-803-2106



Glass DC Nebulizers

SeaSpray

400µL/min uptake A31-1-USS04



MicroMist

400µL/min uptake A31-1-UM04

Quartz DC Nebulizers

SeaSpray

1mL/min uptake A31-1-QSS1



DC Nebulizers for HF

OpalMist

400µL/min uptake A31-1-PFA04
 100µL/min uptake A31-1-PFA01
 50µL/min uptake A31-1-PFA005Q



DuraMist

400µL/min uptake A31-1-DM04



Spray Chambers

High Efficiency Sample Introduction System

HE-SIS for Thermo Q/RQ/TQ ICP-MS KT-1172



Torches

Quartz Torch

Base for Q Torch 31-808-3494



Quartz Tube Set 31-808-3357



Ceramic Torch

Ceramic Outer Tube Set 31-808-4048



Torch Options:

Quartz Injector 1.0mm 31-808-3440

Quartz Injector 2.0mm 31-808-3898

Quartz Injector 2.5mm 31-808-3428

Sapphire Injector 2.0mm 31-808-4014

Tapered Alumina Injector 2.0mm 31-808-4012

O-ring Kit for Q Torch base (31-808-3494) 70-803-1535



Cones

Sampler Cones

| | |
|-----------------------------------|---------------|
| Nickel Sampler with Copper Core | TG1021-Ni/Cu |
| Aluminium Sampler | TG1021-Al |
| Platinum Sampler with Copper Core | TG1026A-Pt/Cu |



Skimmer Cones

| | |
|--------------------------------------|-----------|
| Nickel Skimmer Hot and Cold Plasma | TG1035-Ni |
| Platinum Skimmer Hot and Cold Plasma | TG1039-Pt |



| | |
|--------------------------------|-----------|
| Nickel Skimmer (Robust Plasma) | TG1045-Ni |
|--------------------------------|-----------|

Eliminates need for insert.



| | |
|------------------------------|-----------|
| Nickel Skimmer (High Matrix) | TG1044-Ni |
|------------------------------|-----------|

Eliminates need for insert.



| | |
|--------------------------------|-----------|
| Platinum Skimmer (High Matrix) | TG1048-Pt |
|--------------------------------|-----------|

Eliminates need for insert.

| | |
|----------------------|-------------|
| Cone Extraction Tool | 70-803-2050 |
|----------------------|-------------|

| | |
|--------------------|-------------|
| Skimmer Cone Guard | 70-803-1028 |
|--------------------|-------------|

| | |
|------------------------------|--------|
| Graphite Sampler Cone Gasket | TG5001 |
|------------------------------|--------|

| | |
|----------------------|-------------|
| Cone Extraction Tool | 70-803-2050 |
|----------------------|-------------|

Common Accessories

Elegra Argon Humidifier

| | |
|-------------------------|-------------|
| Elegra Argon Humidifier | 70-803-1268 |
|-------------------------|-------------|



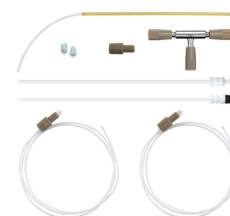
Guardian In-Line Filters

| | |
|---|-------------|
| Guardian DC in-line non-return gas filter | 70-803-1942 |
| Guardian in-line sample filter | 70-803-1108 |
| Eluo Adaptor for Inline Filter | 70-803-1160 |



Trident Internal Standard Kits

| | |
|-------------------------|-------------|
| Trident CT Standard Kit | 60-703-1179 |
| Standard Kit for HF | 60-808-1150 |



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

For Cetac ASX-200/500/800 Series

| | |
|--|--------------|
| Guardian Probe 0.75mm | |
| Probe Connecting Line (Red) | 70-803-1803 |
| Polyimide sheathed Autosampler Probe 0.5mm ID | 60-808-1186L |
| PTFE Encapsulated Carbon Fibre Probe 0.5mm ID | 70-803-0784 |
| PTFE Encapsulated Carbon Fibre Probe 0.75mm ID | 70-803-1443 |
| PTFE Encapsulated Carbon Fibre Probe 1.0mm ID | 70-803-0793 |



Glass DC Nebulizers

MicroMist

100µL/min uptake

A31-1-UM01

50µL/min uptake

A31-1-UM005



DC Nebulizers for HF

OpalMist

100µL/min uptake

A31-1-PFA01

50µL/min uptake

A31-1-PFA005Q



Spray Chambers

High Efficiency Sample Introduction System

HE-SIS for Thermo Neoma MC-ICP-MS

KT-1172



Torches

Quartz Torch

Base for Q Torch

31-808-3494



Quartz Tube Set

31-808-3357



Ceramic Torch

Ceramic Tube Set

31-808-4048



Torch Options:

Quartz Injector 1.0mm

31-808-3440

Quartz Injector 2.0mm

31-808-3898

Quartz Injector 2.5mm

31-808-3428

Sapphire Injector 2.0mm

31-808-4014

Tapered Alumina Injector 2.0mm

31-808-4012

O-ring Kit for Q Torch base (31-808-3494)

70-803-1535



Cones

Sampler Cones

Nickel Jet Sampler

TF1005-Ni

Nickel Sampler with Copper Core

TF1001-Ni/Cu

Platinum Sampler with Copper Core

TF1006-Pt/Cu



Skimmer Cones

Nickel Skimmer

TF1002A-Ni

Nickel X Skimmer with Copper Core

TF1002X-Ni

Platinum Skimmer (H, boron-free)

TF1008-Pt



Graphite Sampler Cone Gasket

TG5001



Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier 70-803-1268



Guardian In-Line Filters

Guardian DC in-line non-return gas filter 70-803-1942

Guardian in-line sample filter 70-803-1108

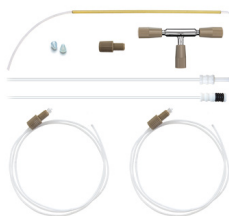
Eluo Adaptor for Inline Filter 70-803-1160



Trident Internal Standard Kits

Trident CT Standard Kit 60-703-1179

Standard Kit for HF 60-808-1150



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

For Cetac ASX-112FR

Guardian Probe ASX-112FR 70-803-2029



For Cetac ASX-200/500/800 Series

Guardian Probe 0.75mm Probe Connecting Line (Red) 70-803-1803

Polyimide sheathed Autosampler Probe 0.5mm ID 60-808-1186L

PTFE Encapsulated Carbon Fibre Probe 0.5mm ID 70-803-0784

PTFE Encapsulated Carbon Fibre Probe 0.75mm ID 70-803-1443

PTFE Encapsulated Carbon Fibre Probe 1.0mm ID 70-803-0793



Glass DC Nebulizers

SeaSpray

2mL/min uptake A31-07-USS2

MicroMist

600µL/min uptake A31-07-UM06

Conikal

2mL/min uptake A31-07-UC2

Slurry

4mL/min uptake A31-07-US6



DC Nebulizers for HF

DuraMist

1mL/min uptake A31-07-DM1



OpalMist

2mL/min uptake A31-07-PFA2



IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

IsoMist XR Kit KT-1166-XR

Comprises:

Glass Twister Spray Chamber 21-809-3185

Assembly (LOL) 20-809-5175

PuraFlex Transfer Tube 21-809-4426

UniFit Right Angle Connector (PKT 3) GAZ-04-90



Spray Chambers

Tracey

50mL Cyclonic 20-809-2665HE



Twister

50mL Cyclonic 20-809-2951HE



Straight Ball Joint Adaptor

21-809-2723



Sheath Gas Adaptor

31-808-3891



HydraMist Simultaneous Cold Vapor/Pneumatic Nebulization Spray Chamber

Hydride Kit KT-1160



Spray Chambers for HF

Tracey TFE

50mL Cyclonic 20-809-9198



Torches

E-Torch

30-808-4388

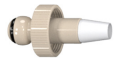


Comprises:

- Body 31-808-4425
- Quartz Tube Set 31-808-4390
- Injector Adaptor 31-808-4582
- Retaining Ring 31-808-4498

D-Torch Options:

- Ceramic Tube Set 31-808-4502
- FKM O-Rings (PKT 10) 31-808-4381
- Silicone O-rings 22X1.8S70 (PKT 10) 70-803-6475
- Viton O-rings for FDT/SDT ball joints (PKT 10) 70-V-011



Tapered Injectors for E-Torch

- Quartz Injector 0.75mm 31-808-3511
- Quartz Injector 1.0mm 31-808-2833
- Quartz Injector 1.5mm 31-808-2834



Capillary Injectors for E-Torch

- Quartz Injector 1.0mm 31-808-3510
- Quartz Injector 2.0mm 31-808-2836
- Quartz Injector 2.5mm 31-808-3246
- Quartz Injector 3.0mm 31-808-3247
- Alumina Injector 1.0mm 31-808-3279
- Alumina Injector 2.0mm 31-808-2835
- Sapphire Injector 2.0mm 31-808-2977



Torches

(continued)

D-Torch

30-808-4150



Comprises:

- Base and Inner Tube 31-808-4255
- Quartz Outer Tube with slot 31-808-4152



D-Torch Options:

- Ceramic Outer Tube with slot 31-808-3996



- Retaining Ring 31-808-2707
- Injector Adaptor 31-808-2895
- Injector Ferrule 31-808-2897



D-Torch

D-Torch Options:

- PTFE Coated Viton O-rings (PKT 10) VT-007



- O-ring kit for Thermo 6000/7000/PRO D-Torch 70-803-1921
- O-ring and Seal kit for Thermo Torch & Windows 70-803-1550



Quartz Torch

- EMT Design 31-808-4158



Tapered Injectors for D-Torch & EMT Torch

- Quartz Injector 0.75mm 31-808-3511
- Quartz Injector 1.0mm 31-808-2833
- Quartz Injector 1.5mm 31-808-2834



Capillary Injectors for D-Torch & EMT Torch

- Quartz Injector 1.0mm 31-808-3510
- Quartz Injector 2.0mm 31-808-2836
- Quartz Injector 2.5mm 31-808-3246
- Quartz Injector 3.0mm 31-808-3247
- Alumina Injector 1.0mm 31-808-3279
- Alumina Injector 2.0mm 31-808-2835
- Sapphire Injector 2.0mm 31-808-2977



RF Coils

RF Coil for PRO

Silver 70-900-4006S



Gold 70-900-4006G



RF Coil Installation Kit 70-900-4006T



Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier 70-803-1268



Guardian In-Line Filters

Guardian DC in-line non-return gas filter 70-803-1942

Guardian in-line sample filter 70-803-1108

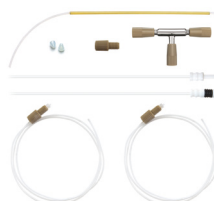
Eluo Adaptor for Inline Filter 70-803-1160



Trident Internal Standard Kits

Trident CT Standard Kit 60-703-1179

Standard Kit for HF 60-808-1150



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

For Cetac ASX-200/500/800 Series

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-1803

Polyimide sheathed Autosampler
Probe 0.5mm ID 60-808-1186L

PTFE Encapsulated Carbon
Fibre Probe 0.5mm ID 70-803-0784

PTFE Encapsulated Carbon
Fibre Probe 0.75mm ID 70-803-1443

PTFE Encapsulated Carbon
Fibre Probe 1.0mm ID 70-803-0793



For Cetac ASX-7400, 7600 Series

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-2940



Glass DC Nebulizers

SeaSpray

2mL/min uptake A31-07-USS2

MicroMist

600µL/min uptake A31-07-UM06

Conikal

2mL/min uptake A31-07-UC2

Slurry

4mL/min uptake A31-07-US6



Spray Chambers

Tracey

50mL Cyclonic 20-809-2665HE



Twister

50mL Cyclonic 20-809-2951HE



Straight Ball Joint Adaptor

21-809-2723



Sheath Gas Adaptor

31-808-3891



**HydraMist Simultaneous Cold Vapor/
Pneumatic Nebulization Spray Chamber**

Hydride Kit KT-1160



DC Nebulizers for HF

DuraMist

1mL/min uptake A31-07-DM1



OpalMist

2mL/min uptake A31-07-PFA2



IsoMist XR

**Programmable Temperature Cyclonic
Spray Chamber**

IsoMist XR Kit KT-1166-XR

Comprises:

Glass Twister Spray Chamber 21-809-3185

Assembly (LOL) 20-809-5175

PuraFlex Transfer Tube 21-809-4426

UniFit Right Angle Connector (PKT 3) GAZ-04-90



Spray Chambers for HF

Tracey TFE

50mL Cyclonic 20-809-9198



Torches

E-Torch 30-808-5163

Comprises:

- Body 31-808-4425
- Quartz Tube Set 31-808-5164
- Injector Adaptor 31-808-4582
- Retaining Ring 31-808-4498



D-Torch Options:

- Ceramic Tube Set 31-808-5165
- FKM O-Rings (PKT 10) 31-808-4381
- Silicone O-rings 22X1.8S70 (PKT 10) 70-803-6475



- Viton O-rings for FDT/SDT ball joints (PKT 10) 70-V-011

- Injector Adaptor S19 31-808-5181



Tapered Injectors for E-Torch

- Quartz Injector 0.75mm 31-808-3511
- Quartz Injector 1.0mm 31-808-2833
- Quartz Injector 1.5mm 31-808-2834



Capillary Injectors for E-Torch

- Quartz Injector 1.0mm 31-808-3510
- Quartz Injector 2.0mm 31-808-2836
- Quartz Injector 2.5mm 31-808-3246
- Quartz Injector 3.0mm 31-808-3247
- Alumina Injector 1.0mm 31-808-3279
- Alumina Injector 2.0mm 31-808-2835
- Sapphire Injector 2.0mm 31-808-2977



Torches

(continued)

D-Torch 30-808-2877

Comprises:

- Base and Inner Tube 31-808-2932
- Quartz Outer Tube 31-808-2878



D-Torch Options:

- Ceramic Outer Tube 31-808-3836
- PTFE Coated
- Viton O-rings (PKT 10) VT-007
- Viton O-rings (PKT 10) V-026



- O-ring kit for Thermo 6000/7000/PRO D-Torch 70-803-1921



- O-ring and Seal kit for Thermo Torch & Windows 70-803-1550

- Retaining Ring 31-808-2707

- Injector Adaptor 31-808-2895

- Injector Ferrule 31-808-2897



Quartz Torch

- EMT Design 31-808-2810



Tapered Injectors for D-Torch & EMT Torch

- Quartz Injector 0.75mm 31-808-3511
- Quartz Injector 1.0mm 31-808-2833
- Quartz Injector 1.5mm 31-808-2834



Capillary Injectors for D-Torch & EMT Torch

- Quartz Injector 1.0mm 31-808-3510
- Quartz Injector 2.0mm 31-808-2836
- Quartz Injector 2.5mm 31-808-3246
- Quartz Injector 3.0mm 31-808-3247
- Alumina Injector 1.0mm 31-808-3279
- Alumina Injector 2.0mm 31-808-2835
- Sapphire Injector 2.0mm 31-808-2977



RF Coils

RF Coil for PRO

Silver 70-900-4006S



Gold 70-900-4006G



RF Coil Installation Kit 70-900-4006T



Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier 70-803-1268



Guardian In-Line Filters

Guardian DC in-line non-return gas filter 70-803-1942

Guardian in-line sample filter 70-803-1108

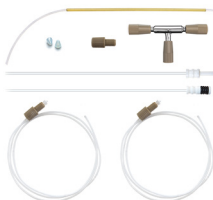
Eluo Adaptor for Inline Filter 70-803-1160



Trident Internal Standard Kits

Trident CT Standard Kit 60-703-1179

Standard Kit for HF 60-808-1150



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

For Cetac ASX-200/500/800 Series

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-1803

Polyimide sheathed Autosampler
Probe 0.5mm ID 60-808-1186L

PTFE Encapsulated Carbon
Fibre Probe 0.5mm ID 70-803-0784

PTFE Encapsulated Carbon
Fibre Probe 0.75mm ID 70-803-1443

PTFE Encapsulated Carbon
Fibre Probe 1.0mm ID 70-803-0793



For Cetac ASX-7400, 7600 Series

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-2940

Glass DC Nebulizers

SeaSpray

2mL/min uptake A31-07-USS2

MicroMist

600µL/min uptake A31-07-UM06

Conikal

2mL/min uptake A31-07-UC2

Slurry

4mL/min uptake A31-07-US6



DC Nebulizers for HF

DuraMist

1mL/min uptake A31-07-DM1



OpalMist

2mL/min uptake A31-07-PFA2



IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

IsoMist XR Kit KT-1015-XR

Comprises:

Glass Spray Chamber 21-809-3186

Assembly (ROL) 20-809-5176

PuraFlex Transfer Tube 21-809-3455

UniFit Right Angle Connector (PKT 3) GAZ-04-90



Spray Chambers

Tracey

50mL Cyclonic 20-809-2665HE



Twister

50mL Cyclonic 20-809-2951HE



Adaptor

Right Angle With Ball Joint 21-809-2761

Right Angle With Ball Joint (105mm long) 21-809-4237



HydraMist Simultaneous Cold Vapor/Pneumatic Nebulization Spray Chamber

Thermo Duo 7600 Hydride Kit KT-1156

Thermo Duo 6000/7200/7400 Hydride Kit KT-1179











Spray Chambers for HF

Tracey TFE

50mL Cyclonic 20-809-3469








Torches




| | | |
|---|-------------|---|
| D-Torch | 30-808-2844 |  |
| Comprises: | | |
| Base and Inner Tube | 31-808-2932 |  |
| Quartz Outer Tube | 31-808-2840 |  |
| D-Torch Options: | | |
| Ceramic Outer Tube | 31-808-3834 | |
| Optic Fibre 170mm | 31-808-2933 | |
| Optic Fibre 450mm | 31-808-3117 | |
| Retaining Ring | 31-808-2707 | |
| Injector Adaptor | 31-808-2895 | |
| Injector Ferrule | 31-808-2897 | |
| PTFE Coated Viton O-rings (PKT 10) | VT-007 |  |
| Viton O-rings (PKT 10) | V-026 | |
| O-ring kit for Thermo 6000/7000/PRO D-Torch | 70-803-1921 |  |
| O-ring and Seal kit for Thermo Torch & Windows | 70-803-1550 | |
| | | |
| Ceramic Outer Tube and Optic Fibre for D-Torch | 31-808-3079 |  |
| Comprises: | | |
| Ceramic Outer Tube | 31-808-3834 | |
| Optic Fibre 170mm | 31-808-2933 | |
| Optic Fibre 450mm | 31-808-3117 | |
| | | |
| Quartz Torch | | |
| EMT Design | 31-808-2811 |  |
| | | |
| Tapered Injectors for D-Torch & EMT Torch | | |
| Quartz Injector 1.0mm | 31-808-2833 |  |
| Quartz Injector 1.5mm | 31-808-2834 | |

Torches

(continued)

| | | |
|--|-------------|---|
| Capillary Injectors for D-Torch & EMT Torch | | |
| Quartz Injector 2.0mm | 31-808-2836 |  |
| Quartz Injector 2.5mm | 31-808-3246 | |
| Quartz Injector 3.0mm | 31-808-3247 | |
| Alumina Injector 1.0mm | 31-808-3279 |  |
| Alumina Injector 2.0mm | 31-808-2835 | |
| Sapphire Injector 2.0mm | 31-808-2977 | |
| | | |
| Duo Periscope Window | 31-808-2677 |  |
| O-ring for Periscope Window (PKT 10) | 70-803-1603 | |
| | | |
| Quartz Window | 70-803-1116 |  |
| | | |
| Purged Optical Path (POP) Assembly | 70-803-1571 | |
| Window & O-Ring for Purged Optical Path (POP) | 70-803-1892 |  |
| O-ring for Thermo ICP Duo Periscope Window, (PKT 10) | 70-803-1603 | |

RF Coils

| | | |
|--------------------------------------|--------------|---|
| RF Coil for 6000 | | |
| Silver, Teflon Coated | 70-900-4002S |  |
| Gold, Teflon Coated | 70-900-4002G | |
| | | |
| RF Coil for 7000/6000 Mark II | | |
| Silver, Teflon Coated | 70-900-4005S |  |
| Gold, Teflon Coated | 70-900-4005G | |
| | | |
| RF Coil Installation Kit | 70-900-4002T |  |

Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier 70-803-1268



Guardian In-Line Filters

Guardian DC in-line non-return gas filter 70-803-1942

Guardian in-line sample filter 70-803-1108

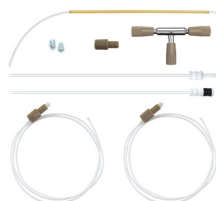
Eluo Adaptor for Inline Filter 70-803-1160



Trident Internal Standard Kits

Trident CT Standard Kit 60-703-1179

Standard Kit for HF 60-808-1150



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

For Cetac ASX-200/500/800 Series

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-1803

Polyimide sheathed Autosampler
Probe 0.5mm ID 60-808-1186L

PTFE Encapsulated Carbon
Fibre Probe 0.5mm ID 70-803-0784

PTFE Encapsulated Carbon
Fibre Probe 0.75mm ID 70-803-1443

PTFE Encapsulated Carbon
Fibre Probe 1.0mm ID 70-803-0793



For Cetac ASX-7400, 7600 Series

Guardian Probe 0.75mm
Probe Connecting Line (Red) 70-803-2940



Glass DC Nebulizers

SeaSpray

2mL/min uptake A31-07-USS2

MicroMist

600µL/min uptake A31-07-UM06

Conikal

2mL/min uptake A31-07-UC2

Slurry

4mL/min uptake A31-07-US6



Spray Chambers

Tracey

50mL Cyclonic 20-809-2665HE



Twister

50mL Cyclonic 20-809-2951HE



Straight Ball Joint Adaptor

21-809-2723



Sheath Gas Adaptor

31-808-3891



DC Nebulizers for HF

DuraMist

1mL/min uptake A31-07-DM1



OpalMist

2mL/min uptake A31-07-PFA2



Spray Chambers for HF

IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

IsoMist XR Kit KT-1021-XR

Comprises:

Glass Twister Spray Chamber 21-809-3185

Assembly (LOL) 20-809-5175

PuraFlex Transfer Tube 21-809-3348

Glass Adaptor MB13-32 31-808-2790

Metal Ball Joint Clip JC-13

UniFit Right Angle Connector (PKT 3) GAZ-04-90



Tracey TFE

50mL Cyclonic 20-809-9198



Torches

D-Torch 30-808-2877

Comprises:

- Base and Inner Tube 31-808-2932
- Quartz Outer Tube 31-808-2878
- Retaining Ring 31-808-2707
- Injector Adaptor 31-808-2895
- Injector Ferrule 31-808-2897



D-Torch Options:

- Ceramic Outer Tube 31-808-3836
- PTFE Coated
- Viton O-rings (PKT 10) VT-007
- Viton O-rings (PKT 10) V-026
- O-ring kit for Thermo 6000/7000/PRO D-Torch 70-803-1921
- O-ring and Seal kit for Thermo Torch & Windows 70-803-1550



Quartz Torch

EMT Design 31-808-2810



Tapered Injectors for D-Torch & EMT Torch

- Quartz Injector 1.0mm 31-808-2833
- Quartz Injector 1.5mm 31-808-2834



Capillary Injectors for D-Torch & EMT Torch

- Quartz Injector 2.0mm 31-808-2836
- Alumina Injector 1.0mm 31-808-3279
- Alumina Injector 2.0mm 31-808-2835
- Sapphire Injector 2.0mm 31-808-2977



RF Coils

RF Coil for 6000 Mark I

- Silver, Teflon Coated 70-900-4002S
- Gold, Teflon Coated 70-900-4002G



RF Coil for 7000/6000 Mark II

- Silver, Teflon Coated 70-900-4005S
- Gold, Teflon Coated 70-900-4005G



RF Coil Installation Kit 70-900-4002T



Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier 70-803-1268



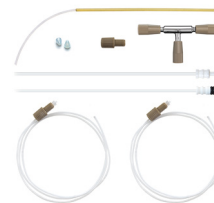
Guardian In-Line Filters

- Guardian DC in-line non-return gas filter 70-803-1942
- Guardian in-line sample filter 70-803-1108
- Eluo Adaptor for Inline Filter 70-803-1160



Trident Internal Standard Kits

- Trident CT Standard Kit 60-703-1179
- Standard Kit for HF 60-808-1150



Magnifier Inspection Tool 70-803-1923



Autosampler Probes (See page 22-23 for complete list of probes)

For Cetac ASX-200/500/800 Series

- Guardian Probe 0.75mm
- Probe Connecting Line (Red) 70-803-1803
- Polyimide sheathed Autosampler Probe 0.5mm ID 60-808-1186L
- PTFE Encapsulated Carbon Fibre Probe 0.5mm ID 70-803-0784
- PTFE Encapsulated Carbon Fibre Probe 0.75mm ID 70-803-1443
- PTFE Encapsulated Carbon Fibre Probe 1.0mm ID 70-803-0793



For Cetac ASX-7400, 7600 Series

- Guardian Probe 0.75mm
- Probe Connecting Line (Red) 70-803-2940



DC Nebulizer Gas Fitting Connectors

| | |
|--|-------------|
| Agilent® 4100/4200 | 70-803-0969 |
| Agilent® Vista/700-ES | 70-803-0969 |
| Agilent® 7700/7800/7900/8800/8900 | 70-803-1105 |
| Agilent® 5100/5110/5800/5900 | 70-803-1105 |
| Analytik Jena® ICP-MS | 70-803-2002 |
| Analytik Jena® ICP-OES | 70-803-1105 |
| Horiba® Jobin Yvon (All models) | 70-803-1105 |
| Nu Instruments ICP-MS | 70-803-1858 |
| Nu Instruments TOF-ICP-MS | 70-803-2044 |
| PerkinElmer® Optima and Avio | 70-803-1070 |
| PerkinElmer® Elan/NexION 300/350 | 70-803-1049 |
| PerkinElmer® NexION 1000, 1100, 2000, 2200, 5000 | 70-803-1449 |
| Shimadzu® (All models) | 70-803-1311 |
| Spectro™ (All models) | 70-803-1070 |
| Standard BioTools™ Helios | 70-803-1070 |
| Thermo Scientific™ PRO, 6000/7000, Q/RQ/TQ, X-Series & Neoma | 70-803-1105 |
| Thermo Scientific™ MX Series | 70-803-1105 |
| Thermo Scientific™ Neptune | 70-803-0969 |
| Elegra to DC Nebulizer | 70-803-1278 |
| ICP Gas Inlet Fitting Type 11/61 | 70-803-1934 |
| ICP Gas Inlet Fitting Type 13/31 | 70-803-1504 |
| ICP Gas Inlet Fitting Type 21 | 70-803-1069 |
| ICP Gas Inlet Fitting Type 22 | 70-803-2110 |
| ICP Gas Inlet Fitting Type 23 | 70-803-2111 |
| ICP Gas Inlet Fitting Type 41 | 70-803-1562 |
| ICP Gas Inlet Fitting Type 51 | 70-803-1857 |
| ICP Gas Inlet Fitting Type 52 | 70-803-2048 |
| ICP Gas Inlet Fitting Type 70 | 70-803-2084 |

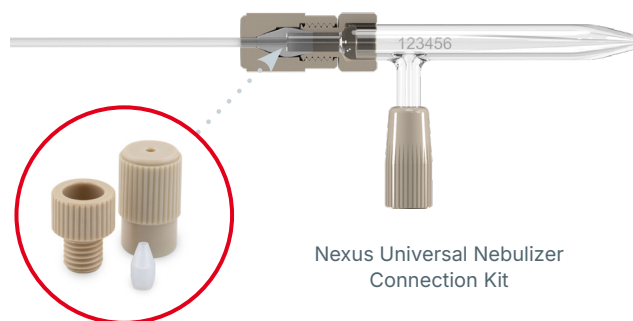


DC Nebulizer Gas Fitting

Nexus Universal Nebulizer Connection Kit

The Nexus Universal Nebulizer Connection Kit is a quick and easy way to ensure a leak tight connection of 1/16" or 1.3mm OD sample capillary to a Glass Expansion concentric nebulizer such as the SeaSpray, Conikal, MicroMist, DuraMist or OpalMist nebulizers. If you need to make a leak tight seal to your nebulizer - whether it is to a HPLC for speciation or a high throughput switching valve use this kit.

| | |
|---|-----------|
| Nexus Universal Nebulizer Connection Kit (Suitable for DuraMist, OpalMist and glass concentric nebulizers) | FT-16-8-X |
| Nexus Universal Nebulizer Connection Kit (Suitable for all glass concentric nebulizers) | FT-16-8 |



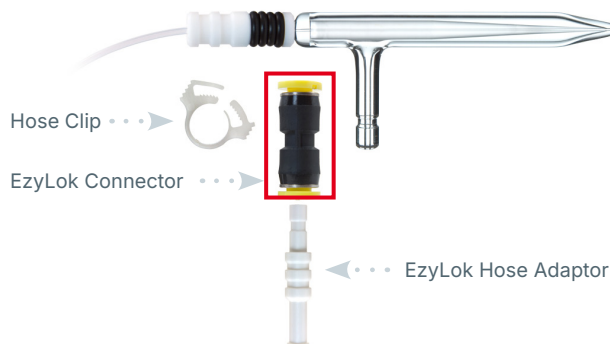
Nexus Universal Nebulizer Connection Kit

EzyLok Kit for Nebulizer Gas Side Arm

| | |
|------------|------|
| EzyLok Kit | EL-1 |
|------------|------|

Comprises:

| | |
|---------------------------------|-------------|
| EzyLok Connector for 4mm Tubing | QSM-4 |
| EzyLok 6mm Hose Adaptor | 70-808-0735 |
| Hose Clip, 6mm | SNP-1 |



Tubing Connector

1.3mm to 1/16 inch
1/16 inch to 1/16 inch

FT-16-1.3
FT-16-1.6



Tubing Connector 1.3mm to 1/16 inch

PTFE Sample Tubing

| | |
|---------------------------------|------------|
| 0.25mm ID x 1/16" OD x 10m long | STT-16-25 |
| 0.50mm ID x 1/16" OD x 10m long | STT-16-50 |
| 0.75mm ID x 1/16" OD x 10m long | STT-16-75 |
| 1.0mm ID x 1/16" OD x 10m long | STT-16-100 |
| 0.07mm ID x 1/16" OD x 10m long | PFT-16-07 |
| 0.13mm ID x 1/16" OD x 10m long | PFT-16-13 |
| 0.18mm ID x 1/16" OD x 10m long | PFT-16-18 |
| 1/8" ID x 1/4" OD x 1m long | 1/4PFA-HW |

UniFit Connectors (PKT 10)

| | |
|------------------------------------|------------|
| 0.07mm ID x 1/16" OD x 700mm long | NFT-16-07 |
| 0.13mm ID x 1/16" OD x 700mm long | NFT-16-13 |
| 0.18mm ID x 1/16" OD x 700mm long | NFT-16-18 |
| 0.25mm ID x 1/16" OD x 700mm long | NFT-16-25 |
| 0.25mm ID x 1/16" OD x 1500mm long | NFTS-16-25 |
| 0.75mm ID x 1/16" OD x 700mm long | NFT-16-75 |
| 0.75mm ID x 1/16" OD x 1500mm long | NFTS-16-75 |



UniFit
with sample tube

Other Tubing

| | |
|--|-------------|
| Reagent tube 1.6mm OD x 1.0mm ID x 1400mm long with PTFE Sinkers (PKT. 3) | 70-803-0752 |
|--|-------------|



Reagent tube with
PTFE Sinkers

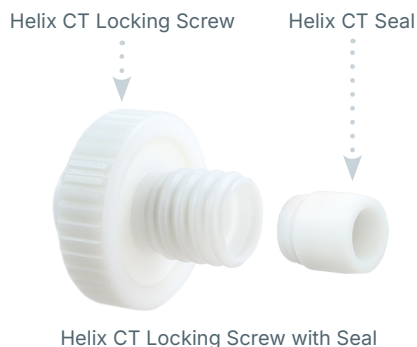
Helix & Helix CT Spray Chambers

Helix CT:

| | |
|---|-------------|
| Helix CT Locking Screw with Seal | 70-803-1439 |
| Helix CT Locking Screw with Seal for MiraMist | 70-803-1470 |
| Helix CT Seal (PKT 4) | 70-803-1456 |

Helix:

| | |
|---------------------|-------------|
| Helix Locking Screw | 70-100-0152 |
| Helix Seal (PKT 4) | 70-100-0237 |



O-Rings Spray Chambers

| | |
|---|-------------|
| O-ring set for Large Adaptor (Tracey, Twister) | 70-808-0501 |
| O-ring set for Small Adaptor (Cinnabar, Twinnabar) | 21-808-0818 |
| Teflon coated Viton O-Rings for spray chamber, nebulizer seal (PKT 10) | VT-009 |
| Teflon coated Viton O-Rings for spray chamber, 16mm large adaptor seal (PKT 10) | VT-10/2 |
| Silicon o-rings for spray chamber, nebulizer seal (PKT 10) | S-009 |

GazFit Connectors for Torches

| | |
|---|----------|
| GazFit Connectors (PKT 2), for 8mm OD arm | GAZ-08 |
| GazFit Connectors (PKT 4), for 6mm OD torch side arms | GAZ-06 |
| GazFit Connectors (PKT 4), 2 for 6mm OD torch side arms, 2 for 4mm OD torch side arms | GAZ-0604 |
| GazFit Connectors (PKT 4), for 5mm OD torch side arms | GAZ-05 |
| GazFit Connectors (PKT 4), for 4mm OD torch side arms | GAZ-04 |

GazFit connectors are only suitable for torches with tolerances of no more than +/- 0.15mm on the diameter of the side arms.

All Glass Expansion torches meet this specification.



Clips & Connectors for Spray Chambers

| | |
|--|-------------|
| Metal Ball Joint Clip (to connect spray chamber and torch) | JC-13 |
| Metal Ball Joint Clip (to connect spray chamber and torch with S19) | JC-19 |
| Nickel Joint Clip B14 (to connect spray chamber and drain adaptors) | KCM-14 |
| UniFit Connector with sample tube, 0.75mm ID x 1/16" OD x 700mm long (PKT 3) | UFT-16-75 |
| UniFit Connector with sample tube, 0.75mm ID x 1.3mm OD x 700mm long (PKT 3) | UFT-075 |
| UniFit Connector with sample tube, 0.86mm ID x 2mm OD x 480mm long (PKT 3) | UFT-2-86 |
| UniFit Connector with sample tube, 0.86mm ID x 2mm OD x 700mm long (PKT 3) | UFT-2-700 |
| Connector Assembly for Agilent® Scott Spray Chamber | 70-803-1476 |
| HydraMist Drain (PKT 4) | GAZ-08-4 |



O-Rings for Torches

Viton O-Rings for demountable torch ball joint connectors (PKT 10) 70-V-011



PVC Peristaltic Pump Tubing

All tubes made from Tygon R3603/R3607 or equivalent. Supplied in packs of 12 tubes.

Special Properties:

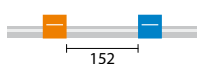
Inexpensive all-round tubing for general laboratory applications.

Advantages:

- Resistant to almost all inorganic materials.
- Does not age.
- Low gas permeability.
- Smooth inner surface.

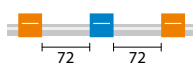
Limitations:

- Potential leaching of plasticizers.



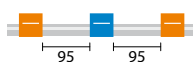
PVC, 2 Bridged, 152mm
(152mm between tags)

| Tag Colours | ID (mm) | P/N |
|---------------|---------|-----------|
| orange/black | 0.13 | 0.13-OBLK |
| orange/red | 0.19 | 0.19-OR |
| orange/blue | 0.25 | 0.25-OB |
| orange/green | 0.38 | 0.38-OG |
| green/yellow | 0.44 | 0.44-GY |
| orange/yellow | 0.51 | 0.51-OY |
| white/yellow | 0.57 | 0.57-WY |
| orange/white | 0.64 | 0.64-OW |
| black/black | 0.76 | 0.76-BLK |
| orange/orange | 0.89 | 0.89-ORG |
| white/black | 0.95 | 0.95-WBLK |
| white/white | 1.02 | 1.02-WHT |
| white/red | 1.09 | 1.09-WR |
| red/red | 1.14 | 1.14-RED |
| red/grey | 1.22 | 1.22-RGRY |
| grey/grey | 1.30 | 1.30-GRY |
| yellow/yellow | 1.42 | 1.42-YLW |
| yellow/blue | 1.52 | 1.52-YB |
| blue/blue | 1.65 | 1.65-BLU |
| blue/green | 1.75 | 1.75-BG |
| green/green | 1.85 | 1.85-GRN |
| purple/purple | 2.06 | 2.06-PUR |
| purple/black | 2.29 | 2.29-PBLK |
| purple/orange | 2.54 | 2.54-PO |
| purple/white | 2.79 | 2.79-PW |
| black/white | 3.17 | 3.17-BLKW |



PVC, 3 Bridged, 72mm
(72mm between tags)

| Tag Colours | ID (mm) | P/N |
|---------------|---------|-------------|
| orange/black | 0.13 | 0.13-OBLK3B |
| orange/red | 0.19 | 0.19-OR3B |
| orange/blue | 0.25 | 0.25-OB3B |
| orange/green | 0.38 | 0.38-OG3B |
| green/yellow | 0.44 | 0.44-GY3B |
| orange/yellow | 0.51 | 0.51-OY3B |
| white/yellow | 0.57 | 0.57-WY3B |
| orange/white | 0.64 | 0.64-OW3B |
| black/black | 0.76 | 0.76-BLK3B |
| orange/orange | 0.89 | 0.89-ORG3B |
| white/black | 0.95 | 0.95-WBLK3B |
| white/white | 1.02 | 1.02-WHT3B |
| white/red | 1.09 | 1.09-WR3B |
| red/red | 1.14 | 1.14-RED3B |
| red/grey | 1.22 | 1.22-RGRY3B |
| grey/grey | 1.30 | 1.30-GRY3B |
| yellow/yellow | 1.42 | 1.42-YLW3B |
| yellow/blue | 1.52 | 1.52-YB3B |
| blue/blue | 1.65 | 1.65-BLU3B |
| green/green | 1.85 | 1.85-GRN3B |
| purple/purple | 2.06 | 2.06-PUR3B |
| purple/black | 2.29 | 2.29-PBLK3B |
| purple/orange | 2.54 | 2.54-PO3B |
| purple/white | 2.79 | 2.79-PW3B |
| black/white | 3.17 | 3.17-BLKW3B |



PVC, 3 Bridged, 95mm
(95mm between tags)

| Tag Colours | ID (mm) | P/N |
|---------------|---------|---------------|
| orange/blue | 0.25 | 0.25-OB3B-95 |
| orange/green | 0.38 | 0.38-OG3B-95 |
| orange/yellow | 0.51 | 0.51-OY3B-95 |
| orange/white | 0.64 | 0.64-OW3B-95 |
| black/black | 0.76 | 0.76-BLK3B-95 |
| orange/orange | 0.89 | 0.89-ORG3B-95 |
| white/white | 1.02 | 1.02-WHT3B-95 |
| grey/grey | 1.30 | 1.30-GRY3B-95 |
| yellow/blue | 1.52 | 1.52-YB3B-95 |
| green/green | 1.85 | 1.85-GRN3B-95 |
| purple/white | 2.79 | 2.79-PW3B-95 |

Solva Peristaltic Pump Tubing

All tubes made from Tygon 4040 or equivalent. Supplied in packs of 12 tubes.

Special Properties:

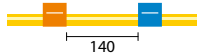
Special tubing for hydrocarbons, petroleum products and distillates.

Advantages:

- Specially formulated to transport hydrocarbons, petroleum products and distillates.
- Ideal for gasoline, kerosene, heating oils, cutting liquids and coolants based on glycols.
- Low gas permeability.

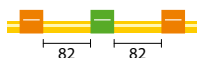
Limitations:

- Not recommended for strong acids and alkalis, foodstuffs, beverages and medicines.
- Potential leaching of plasticizers.



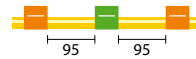
Solva, 2 Bridged, 140mm
(140mm between tags)

| Tag Colours | ID (mm) | P/N |
|---------------|---------|--------------|
| orange/blue | 0.25 | 0.25-OB-SF |
| orange/green | 0.38 | 0.38-OG-SF |
| orange/yellow | 0.51 | 0.51-OY-SF |
| orange/white | 0.64 | 0.64-OW-SF |
| black/black | 0.76 | 0.76-BLK-SF |
| orange/orange | 0.89 | 0.89-ORG-SF |
| white/white | 1.02 | 1.02-WHT-SF |
| red/red | 1.14 | 1.14-RED-SF |
| grey/grey | 1.30 | 1.30-GRY-SF |
| yellow/yellow | 1.42 | 1.42-YLW-SF |
| yellow/blue | 1.52 | 1.52-YB-SF |
| blue/blue | 1.65 | 1.65-BLU-SF |
| green/green | 1.85 | 1.85-GRN-SF |
| purple/purple | 2.06 | 2.06-PUR-SF |
| purple/black | 2.29 | 2.29-PBLK-SF |
| purple/orange | 2.54 | 2.54-PO-SF |
| purple/white | 2.79 | 2.79-PW-SF |



Solva, 3 Bridged, 82mm
(82mm between tags)

| Tag Colours | ID (mm) | P/N |
|---------------|---------|---------------|
| orange/green | 0.38 | 0.38-OG3B-SF |
| black/black | 0.76 | 0.76-BLK3B-SF |
| orange/orange | 0.89 | 0.89-ORG3B-SF |
| white/white | 1.02 | 1.02-WHT3B-SF |
| red/red | 1.14 | 1.14-RED3B-SF |
| grey/grey | 1.30 | 1.30-GRY3B-SF |



Solva, 3 Bridged, 95mm
(95mm between tags)

| Tag Colours | ID (mm) | P/N |
|---------------|---------|------------------|
| orange/green | 0.38 | 0.38-OG3B-95-SF |
| orange/yellow | 0.51 | 0.51-OY3B-95-SF |
| black/black | 0.76 | 0.76-BLK3B-95-SF |
| orange/orange | 0.89 | 0.89-ORG3B-95-SF |
| white/white | 1.02 | 1.02-WHT3B-95-SF |
| yellow/blue | 1.52 | 1.52-YB3B-95-SF |

Viton® Peristaltic Pump Tubing

All tubes made from Fluran HC F-5500-A or equivalent.

Special Properties:

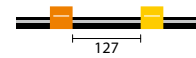
Special tubing for concentrated acids and corrosive solvents.

Advantages:

- High chemical resistance.
- Low gas permeability.
- Wide temperature range.

Limitations:

- Limited service life.



Viton®, 2 Bridged, 127mm
(127mm between tags)

| Tag Colours | ID (mm) | P/N |
|---------------|---------|-------------|
| orange/yellow | 0.51 | VS0.51-OY |
| orange/white | 0.64 | VS0.64-OW |
| black/black | 0.76 | VS0.76-BLK |
| orange/orange | 0.89 | VS0.89-ORG |
| white/white | 1.02 | VS1.02-WHT |
| red/red | 1.14 | VS1.14-RED |
| grey/grey | 1.30 | VS1.30-GRY |
| yellow/yellow | 1.42 | VS1.42-YLW |
| yellow/blue | 1.52 | VS1.52-YB |
| blue/blue | 1.65 | VS1.65-BLU |
| green/green | 1.85 | VS1.85-GRN |
| purple/purple | 2.06 | VS2.06-PUR |
| purple/black | 2.29 | VS2.29-PBLK |
| purple/orange | 2.54 | VS2.54-PO |
| purple/white | 2.79 | VS2.79-PW |

Supplied in packs of 12 tubes

Tygon® MH Peristaltic Pump Tubing

All tubes made from Tygon MHSL 2001.

Special Properties:

- Environmental-friendly tubing especially designed for solvents.
- Suitable for MIBK.

Advantages:

- High chemical resistance.
- Low gas permeability.
- Wide temperature range.

Limitations:

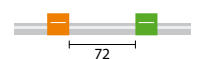
Limited service life.



Tygon® MH , 2 Bridged, 152mm
(152mm between tags)

| Tag Colours | ID (mm) | P/N |
|-------------|---------|-------------|
| | 0.38 | 0.38-OG-MH |
| | 0.64 | 0.64-OW-MH |
| | 1.02 | 1.02-WHT-MH |
| | 1.52 | 1.52-YB-MH |
| | 2.06 | 2.06-PUR-MH |
| | 2.79 | 2.79-PW-MH |

Supplied in packs of 6 tubes



Tygon® MH , 2 Bridged, 72mm
(72mm between tags)

| Tag Colours | ID (mm) | P/N |
|-------------|---------|--------------|
| | 0.38 | 0.38-OG-MH3 |
| | 0.64 | 0.64-OW-MH3 |
| | 1.02 | 1.02-WHT-MH3 |
| | 1.52 | 1.52-YB-MH3 |
| | 2.06 | 2.06-PUR-MH3 |
| | 2.79 | 2.79-PW-MH3 |

Supplied in packs of 6 tubes

It can be quite difficult to insert the sample tubing into the peristaltic pump tubes. This is particularly so for pump tubing with a small ID. To facilitate this connection, Glass Expansion supplies Contour flared-end pump tubing. The flared end of this pump tubing allows the larger capillary tubing to be inserted into the smaller pump tubing.

Any of the pump tubing that we normally supply can be supplied with flared end. Simply add "-F" to the end of the part number (eg. 0.38-OG-F). The flared-end tubing is supplied in packs of 6.

Contour Flared-end PVC Peristaltic Pump Tubing

All tubes made from Tygon R3603/R3607 or equivalent. Supplied in packs of 6 tubes.

Special Properties:

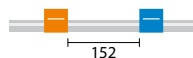
Inexpensive all-round tubing for general laboratory applications.

Advantages:

- Transparent.
- Resistant to almost all inorganic materials.
- Does not age.
- Low gas permeability.
- Smooth inner surface.

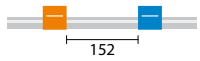
Limitations:

- Potential leaching of plasticizers.



PVC, 2 Bridged, 152mm
(152mm between tags)

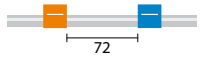
| Tag Colours | ID (mm) | P/N |
|-------------|---------|-------------|
| | 0.13 | 0.13-OBLK-F |
| | 0.19 | 0.19-OR-F |
| | 0.25 | 0.25-OB-F |
| | 0.38 | 0.38-OG-F |
| | 0.44 | 0.44-GY-F |
| | 0.51 | 0.51-OY-F |
| | 0.57 | 0.57-WY-F |
| | 0.64 | 0.64-OW-F |
| | 0.76 | 0.76-BLK-F |
| | 0.89 | 0.89-ORG-F |
| | 0.95 | 0.95-WBLK-F |
| | 1.02 | 1.02-WHT-F |
| | 1.09 | 1.09-WR-F |
| | 1.14 | 1.14-RED-F |
| | 1.22 | 1.22-RGRY-F |
| | 1.30 | 1.30-GRY-F |
| | 1.42 | 1.42-YLW-F |
| | 1.52 | 1.52-YB-F |



PVC, 2 Bridged, 152mm
(152mm between tags)

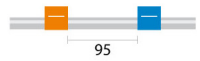
(continued)

| Tag Colours | ID (mm) | P/N |
|-------------|---------|-------------|
| | 1.65 | 1.65-BLU-F |
| | 1.75 | 1.75-BG-F |
| | 1.85 | 1.85-GRN-F |
| | 2.06 | 2.06-PUR-F |
| | 2.29 | 2.29-PBLK-F |
| | 2.54 | 2.54-PO-F |
| | 2.79 | 2.79-PW-F |
| | 3.17 | 3.17-BLKW-F |



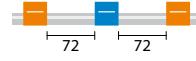
PVC, 2 Bridged, 72mm
(72mm between tags)

| Tag Colours | ID (mm) | P/N |
|-------------|---------|--------------|
| | 0.19 | 0.19-OR-F-S |
| | 0.25 | 0.25-OB-F-S |
| | 0.76 | 0.76-BLK-F-S |
| | 0.89 | 0.89-ORG-F-S |
| | 1.02 | 1.02-WHT-F-S |



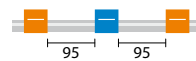
PVC, 2 Bridged, 95mm
(95mm between tags)

| Tag Colours | ID (mm) | P/N |
|-------------|---------|-----------------|
| | 0.19 | 0.19-OR-95-F-S |
| | 0.25 | 0.25-OB-95-F-S |
| | 0.38 | 0.38-OG-95-F-S |
| | 0.44 | 0.44-GY-95-F-S |
| | 0.51 | 0.51-OY-95-F-S |
| | 0.64 | 0.64-OW-95-F-S |
| | 0.76 | 0.76-BLK-95-F-S |
| | 1.30 | 1.30-GRY-95-F-S |



PVC, 3 Bridged, 72mm
(72mm between tags)

| Tag Colours | ID (mm) | P/N |
|-------------|---------|---------------|
| | 0.13 | 0.13-OBK3B-F |
| | 0.19 | 0.19-OR3B-F |
| | 0.25 | 0.25-OB3B-F |
| | 0.38 | 0.38-OG3B-F |
| | 0.44 | 0.44-GY3B-F |
| | 0.51 | 0.51-OY3B-F |
| | 0.57 | 0.57-WY3B-F |
| | 0.64 | 0.64-OW3B-F |
| | 0.76 | 0.76-BLK3B-F |
| | 0.89 | 0.89-ORG3B-F |
| | 0.95 | 0.95-WBLK3B-F |
| | 1.02 | 1.02-WHT3B-F |
| | 1.09 | 1.09-WR3B-F |
| | 1.14 | 1.14-RED3B-F |
| | 1.22 | 1.22-RGRY3B-F |
| | 1.30 | 1.30-GRY3B-F |
| | 1.42 | 1.42-YLW3B-F |
| | 1.52 | 1.52-YB3B-F |
| | 1.65 | 1.65-BLU3B-F |
| | 1.85 | 1.85-GRN3B-F |
| | 2.06 | 2.06-PUR3B-F |
| | 2.29 | 2.29-PBLK3B-F |
| | 2.54 | 2.54-PO3B-F |
| | 2.79 | 2.79-PW3B-F |
| | 3.17 | 3.17-BLKW3B-F |



PVC, 3 Bridged, 95mm
(95mm between tags)

| Tag Colours | ID (mm) | P/N |
|-------------|---------|-----------------|
| | 0.25 | 0.25-OB3B-95-F |
| | 0.38 | 0.38-OG3B-95-F |
| | 0.51 | 0.51-OY3B-95-F |
| | 0.76 | 0.76-BLK3B-95-F |
| | 0.89 | 0.89-ORG3B-95-F |
| | 1.02 | 1.02-WHT3B-95-F |
| | 1.30 | 1.30-GRY3B-95-F |
| | 1.52 | 1.52-YB3B-95-F |
| | 1.85 | 1.85-GRN3B-95-F |
| | 2.79 | 2.79-PW3B-95-F |

Contour Flared-end Solva Peristaltic Pump Tubing

All tubes made from Tygon 4040 or equivalent. Supplied in packs of 6 tubes.

Special Properties:

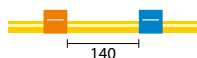
Special tubing for hydrocarbons, petroleum products and distillates.

Advantages:

- Specially formulated to transport hydrocarbons, petroleum products and distillates.
- Ideal for gasoline, kerosene, heating oils, cutting liquids and coolants based on glycols.
- Low gas permeability.

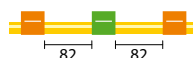
Limitations:

- Not recommended for strong acids and alkalies, foodstuffs, beverages and medicines.
- Potential leaching of plasticizers.



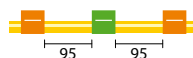
Solva, 2 Bridged, 140mm
(140mm between tags)

| Tag Colours | ID (mm) | P/N |
|---------------|---------|----------------|
| orange/blue | 0.25 | 0.25-OB-SF-F |
| orange/green | 0.38 | 0.38-OG-SF-F |
| orange/yellow | 0.51 | 0.51-OY-SF-F |
| orange/white | 0.64 | 0.64-OW-SF-F |
| black/black | 0.76 | 0.76-BLK-SF-F |
| orange/orange | 0.89 | 0.89-ORG-SF-F |
| white/white | 1.02 | 1.02-WHT-SF-F |
| red/red | 1.14 | 1.14-RED-SF-F |
| grey/grey | 1.30 | 1.30-GRY-SF-F |
| yellow/yellow | 1.42 | 1.42-YLW-SF-F |
| yellow/blue | 1.52 | 1.52-YB-SF-F |
| blue/blue | 1.65 | 1.65-BLU-SF-F |
| green/green | 1.85 | 1.85-GRN-SF-F |
| purple/purple | 2.06 | 2.06-PUR-SF-F |
| purple/black | 2.29 | 2.29-PBLK-SF-F |
| purple/orange | 2.54 | 2.54-PO-SF-F |
| purple/white | 2.79 | 2.79-PW-SF-F |



Solva, 3 Bridged, 82mm
(82mm between tags)

| Tag Colours | ID (mm) | P/N |
|---------------|---------|-----------------|
| orange/green | 0.38 | 0.38-OG3B-SF-F |
| black/black | 0.76 | 0.76-BLK3B-SF-F |
| orange/orange | 0.89 | 0.89-ORG3B-SF-F |
| red/red | 1.14 | 1.14-RED3B-SF-F |
| grey/grey | 1.30 | 1.30-GRY3B-SF-F |



Solva, 3 Bridged, 95mm
(95mm between tags)

| Tag Colours | ID (mm) | P/N |
|---------------|---------|--------------------|
| orange/green | 0.38 | 0.38-OG3B-95-SF-F |
| orange/yellow | 0.51 | 0.51-OY3B-95-SF-F |
| black/black | 0.76 | 0.76-BLK3B-95-SF-F |
| orange/orange | 0.89 | 0.89-ORG3B-95-SF-F |
| white/white | 1.02 | 1.02-WHT3B-95-SF-F |
| yellow/blue | 1.52 | 1.52-YB3B-95-SF-F |

Contour Flared-end Viton® Peristaltic Pump Tubing

All tubes made from Fluran HC F-5500-A or equivalent.

Special Properties:

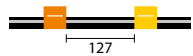
Special tubing for concentrated acids and corrosive solvents.

Advantages:

- High chemical resistance.
- Low gas permeability.
- Wide temperature range.

Limitations:

Limited service life.



Viton®, 2 Bridged, 127mm
(127mm between tags)

| Tag Colours | ID (mm) | P/N |
|-------------|---------|---------------|
| | 0.51 | VS0.51-OY-F |
| | 0.64 | VS0.64-OW-F |
| | 0.76 | VS0.76-BLK-F |
| | 0.89 | VS0.89-ORG-F |
| | 1.02 | VS1.02-WHT-F |
| | 1.14 | VS1.14-RED-F |
| | 1.30 | VS1.30-GRY-F |
| | 1.42 | VS1.42-YLW-F |
| | 1.52 | VS1.52-YB-F |
| | 1.65 | VS1.65-BLU-F |
| | 1.85 | VS1.85-GRN-F |
| | 2.06 | VS2.06-PUR-F |
| | 2.29 | VS2.29-PBLK-F |
| | 2.54 | VS2.54-PO-F |
| | 2.79 | VS2.79-PW-F |

Supplied in packs of 6 tubes

Contour Flared-end Tygon® MH Peristaltic Pump Tubing

All tubes made from Tygon MHS� 2001.

Special Properties

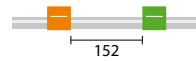
- Environmental-friendly tubing especially designed for solvents.
- Suitable for MIBK.

Advantages:

- High chemical resistance.
- Low gas permeability.
- Wide temperature range.

Limitations:

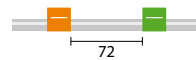
Limited service life.



Tygon® MH, 2 Bridged, 152mm
(152mm between tags)

| Tag Colours | ID (mm) | P/N |
|-------------|---------|---------------|
| | 0.38 | 0.38-OG-MH-F |
| | 0.64 | 0.64-OW-MH-F |
| | 1.02 | 1.02-WHT-MH-F |
| | 1.52 | 1.52-YB-MH-F |
| | 2.06 | 2.06-PUR-MH-F |
| | 2.79 | 2.79-PW-MH-F |

Supplied in packs of 6 tubes



Tygon® MH, 2 Bridged, 72mm
(72mm between tags)

| Tag Colours | ID (mm) | P/N |
|-------------|---------|----------------|
| | 0.38 | 0.38-OG-MH3-F |
| | 0.64 | 0.64-OW-MH3-F |
| | 1.02 | 1.02-WHT-MH3-F |
| | 1.52 | 1.52-YB-MH3-F |
| | 2.06 | 2.06-PUR-MH3-F |
| | 2.79 | 2.79-PW-MH3-F |

Supplied in packs of 6 tubes



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