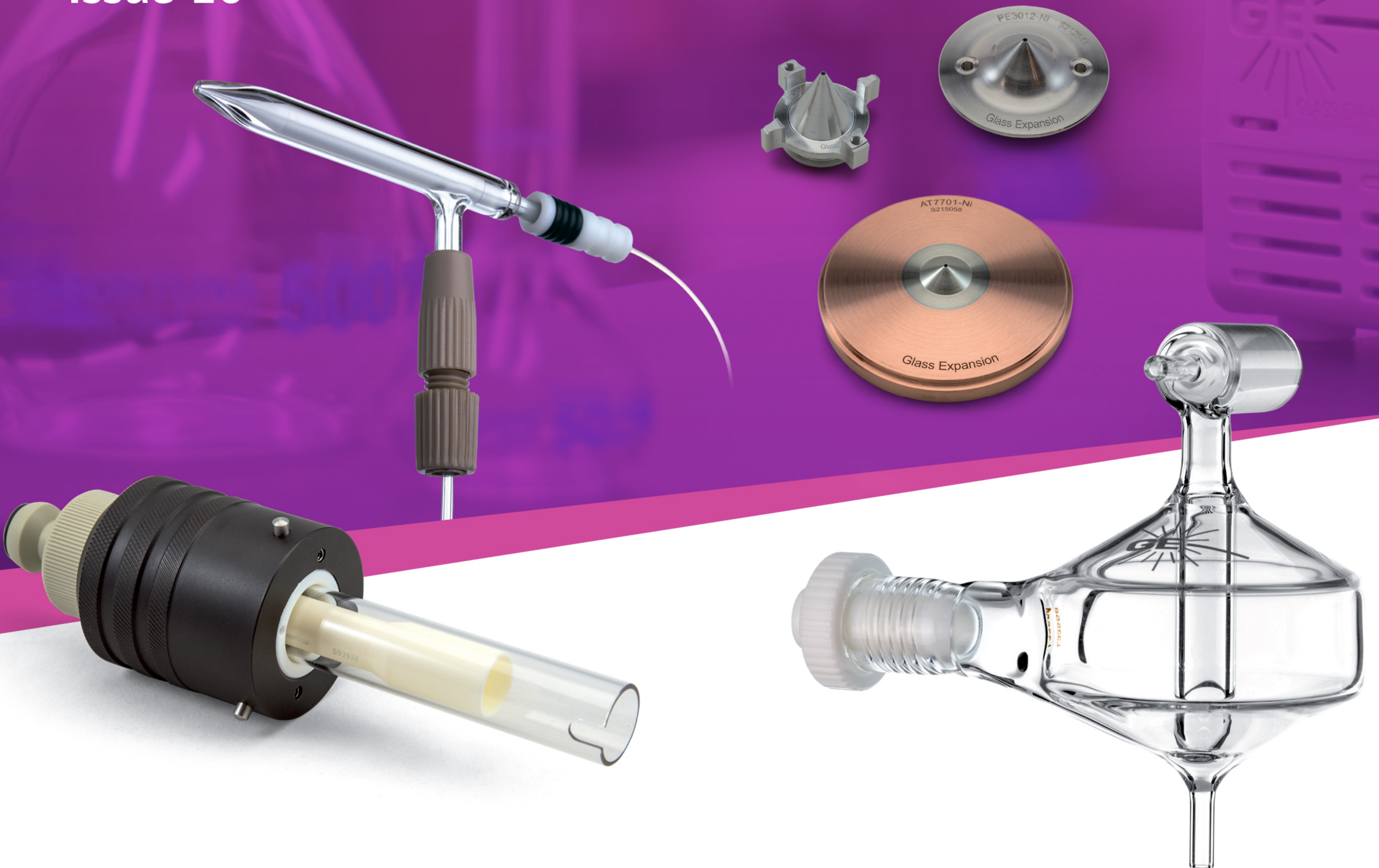




GLASS EXPANSION
Quality By Design

ICP-OES/ICP-MS Supplies & Accessories Catalogue

Issue 10



Nebulizers

Introduction to Glass Expansion Nebulizers	1
Nebulizer Types	1
Glass Expansion Nebulizer Part Numbers Explained	1
Learn about Glass Expansion Nebulizers	2
Nebulizer Selection Guide	3

Spray Chambers

Introduction to Glass Expansion Spray Chamber	4
Spray Chamber Types	4
Helix CT - Interface Between Nebulizer and Spray Chamber	4
Spray Chamber Selection Guide	5

Torches

.....	6
-------	---

RF Coils and ICP-MS Cones

.....	7
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Accessories

IsoMist XR Programmable Temperature Spray Chambers	8
Guardian In-Line Particle Filter	9
Guardian In-Line Non-Return Gas Filter	9
Eluo Nebulizer Cleaning Tool	10
Elegra Argon Humidifier	10
Trident In-Line Reagent Additions Kits	10
WindTunnel Autosampler Enclosure & Mobile Cart	11
Laser Ablation	11
Autosampler Probes	12

Agilent Technologies

7700/8800..... ICP-MS	13
7800	15
7900	17
8900	19
Agilent ICP-MS Cones	21
5100/5110 SVDV/VDV/RV	22
700-ES Axial	24
700-ES Radial	27

PerkinElmer

NexION 300/350	ICP-MS	30
NexION 1000/2000	ICP-MS	33
Avio 200/500	ICP-OES	35
Optima 4000/5000/7000 DV	ICP-OES	37
Optima 4000/5000/7000 V	ICP-OES	39
Optima 8000/8300 DV	ICP-OES	41

Shimadzu

2030	ICP-MS	43
7500/8100 and 9000/9800	ICPS/ICPE	45

Spectro

Arcos II EOP and Blue EOP/TI	ICP-OES	47
Arcos II SOP and Blue SOP	ICP-OES	49

Thermo Fisher

iCAP Q/RQ/TQ	ICP-MS	51
iCAP Duo	ICP-OES	52
iCAP Radial	ICP-OES	54

Fittings and Connectors

Nebulizer Fittings and Connectors	56
Spray Chamber/Torches Fittings and Connectors	57

Pump Tubing

Standard Peristaltic Pump Tubing	58
Contour Flared End Peristaltic Pump Tubing	61

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 newly released 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	TDS (%)	Particulates (µm)	HF	Precision	Purity	Material
SeaSpray	20	75	No	High	Good	Glass
MicroMist	15	40*	No	High	Good	Glass
Conikal	5	75	No	High	Good	Glass
Slurry	1	150	No	High	Good	Glass
OpalMist	15	75*	Yes	High	Excellent	PFA
DuraMist	30	75*	Yes	High	Good	PEEK
VeeSpray	30	300	Yes	Moderate	Good	Ceramic

* Varies with nebulizer uptake

Glass Expansion Nebulizer Part Numbers Explained

Glass DC Nebulizers

Conikal

1mL/min uptake

A13-07-UC1



A#-yy-**ZZ**nnn

- A** Gas pressure rating of 40 psi
- #** Gasline fitting type eg:
13 = Suitable for Agilent 5100/5110
- yy** The argon flow in L/min eg. 07=0.7L/min
- ZZ** Nebulizer model type:
 UC = Conikal U-Series nebulizer
 US = Slurry U-Series nebulizer
 USS = Seaspray U-Series nebulizer
 UM = MicroMist U-Series nebulizer
 CV = Ceramic VeeSpray v-groove nebulizer
 DM = DuraMist HF resistant nebulizer
 PFA = OpalMist PFA HF resistant nebulizer
- nnn** Aspirated uptake at nominal argon flow, in mL/min eg:
 UC1 = 1mL/min
 UM04 = 0.4mL/min
 PFA005 = 0.05mL/min

Learn About Glass Expansion Nebulizers

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

DC Nebulizer



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.

DC Nebulizer Benefits:

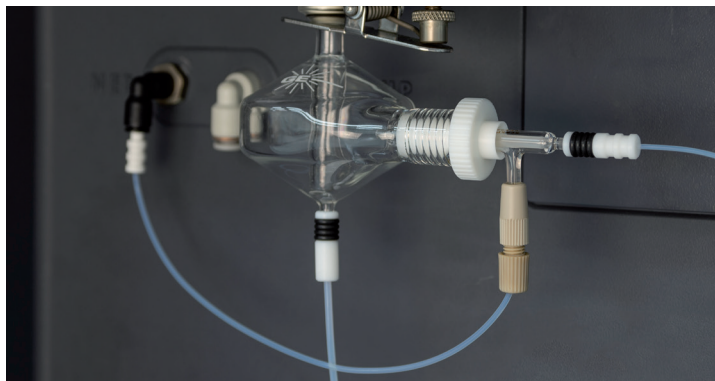
- Inert metal-free argon connector.
- Instrument-specific Direct Connect flexible argon line.
- Reliable ratchet fitting ensures leak-free gas connection.

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.

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 5100/5110 ICP-OES, so part number A13-07-USS2 is a SeaSpray nebulizer configured for direct connection to the Agilent 5100.

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: Since there is nowhere for sample to be trapped, the fastest possible washout and highest sample throughput is achieved.
- Simple to use: Our proprietary UniFit connector slides easily over the sample arm and creates an excellent seal.
- Full length VitriCone construction: With the VitriCone design, the sample channel is constructed from heavy glass capillary which is machined to very high tolerances.



DC Nebulizer Gas Fitting Connectors

Agilent Vista/700-ES	70-803-0969
Agilent MP-AES	70-803-0969
Agilent 4500/7500	70-803-1086
Agilent 7700/7800/7900/8800/8900	70-803-1105
Agilent 5100/5110	70-803-1105
Horiba Jobin Yvon (All models)	70-803-0911
Leeman (All models)	70-803-0969
PerkinElmer Optima	70-803-1070
PerkinElmer Elan/NexION 300/350	70-803-1049
PerkinElmer NexION 1000/2000	70-803-1449
Shimadzu 9000/9800	70-803-1311
Shimadzu 2030	70-803-1311
Spectro (All models)	70-803-1070
Thermo iCAP 6000/7000/Q & X-Series	70-803-1292
Thermo Neptune	70-803-1468
Analytik Jena ICP-MS	70-803-0969

U-Series Glass Concentric Nebulizers

SeaSpray, MicroMist, Conikal and Slurry U-Series nebulizers are available to suit all common models of ICP-OES and ICP-MS. Each U-Series nebulizer is supplied with a UniFit sample connector.

U-Series nebulizers can be identified by the letter 'U' in the part number, eg. ARG-07-USS2 or ARG-1-UM04.

All glass concentric nebulizers in this catalog are U-Series nebulizers.

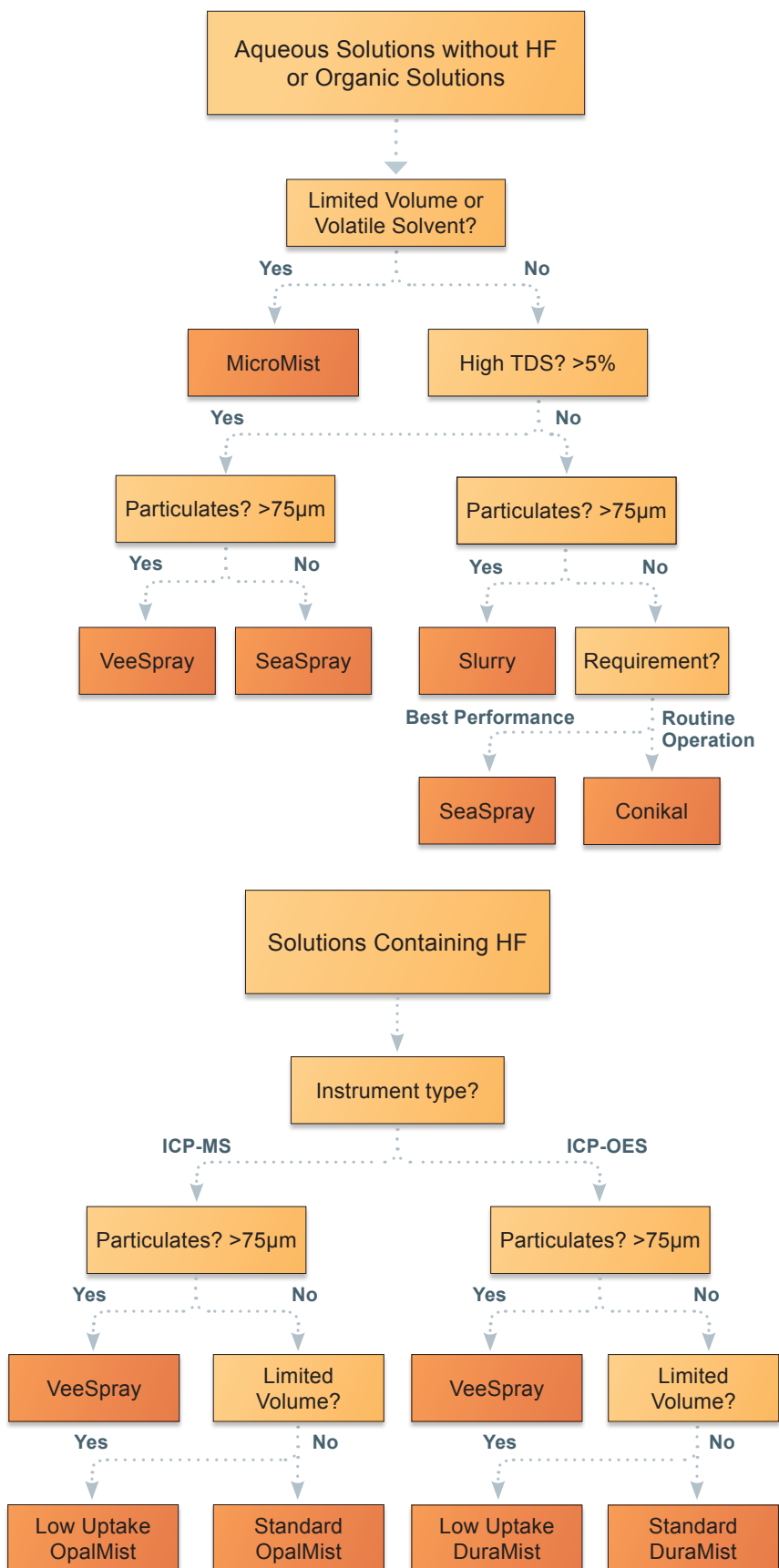
Nebulizer with EzyFit connector



The EzyFit is a sample connector which slides into the nebulizer sample arm. It provides lower dead volume and faster washout times than earlier designs but is not quite as effective as the newer U-Series.

The SeaSpray, MicroMist, Conikal and Slurry nebulizers are available with EzyFit connection. They can be identified by the letter "F" in the part number, eg. AR30-07-FSS2E or AR30-1-FM04E


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

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


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

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

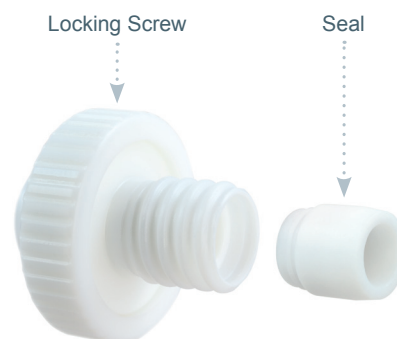
Twinnabar		Internal Volume, mL:	20
		Internal Baffle:	Yes
		HF-resistant:	No
		Precision:	Very Good
		Purity:	Good
		Material:	Glass

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

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

Tracey PFA44		Internal Volume, mL:	44
		Internal Baffle:	No
		HF-resistant:	Yes
		Precision:	Very Good
		Purity:	Excellent
		Material:	PFA

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:

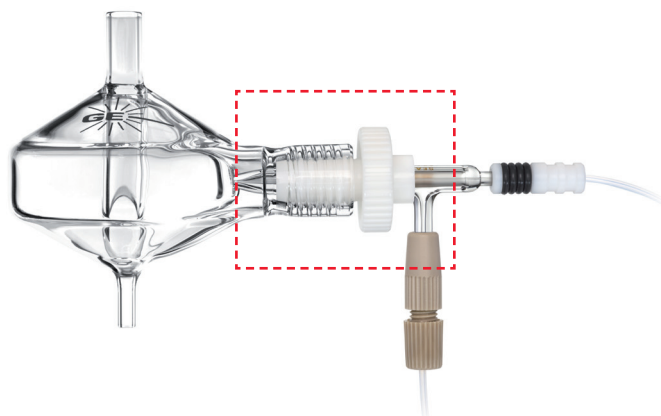
- Potential for contamination due to dead volume around the o-ring seal
- Chemical resistivity of strong acids and organic solvents
- The o-rings are difficult to replace, often requiring tools
- Bonding to the nebulizer can result in breakage

Glass Expansion is now pleased to introduce the new Helix CT spray chamber with ConstantTorque technology, which provides a constant, reproducible, inert, gas-tight seal between the nebulizer and spray chamber.

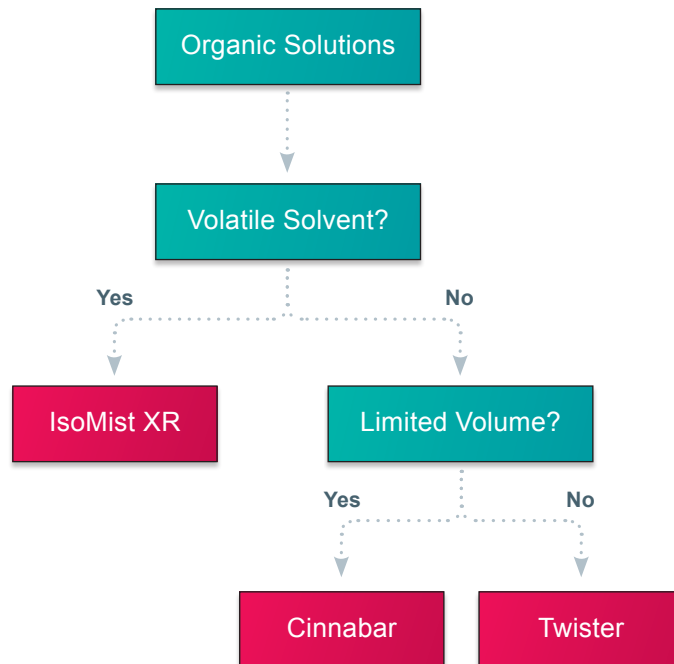
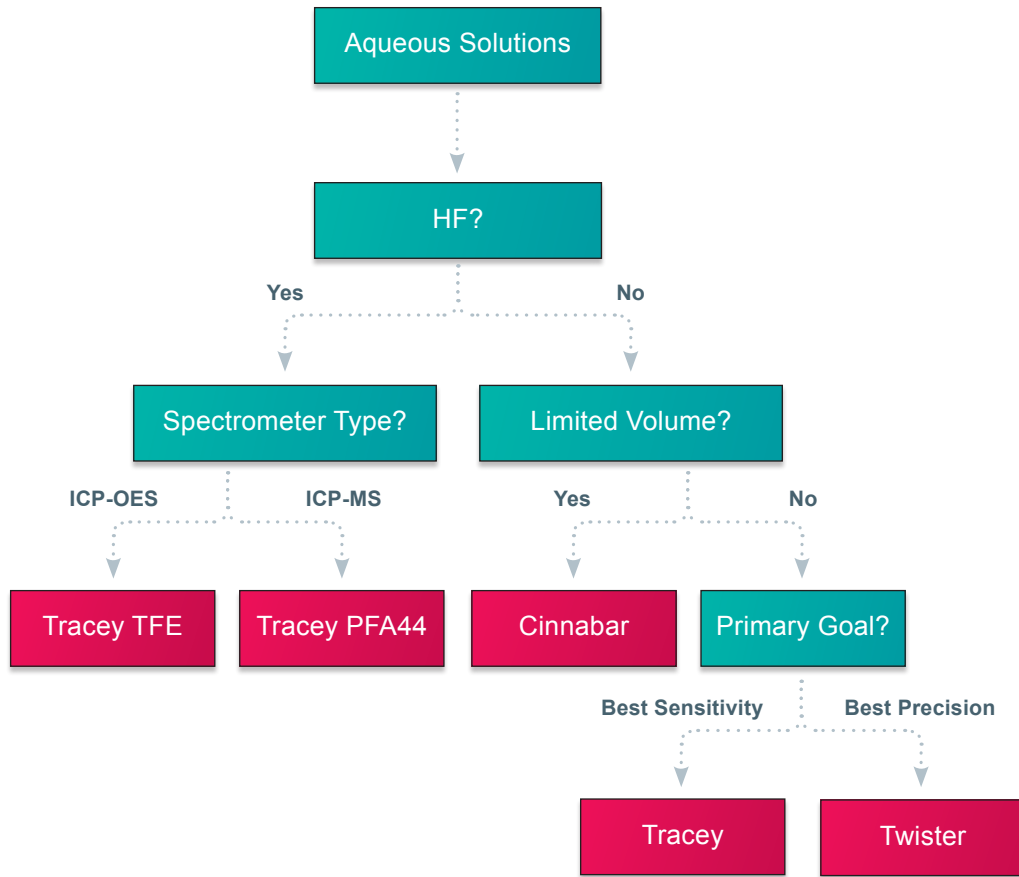
The main feature of the Helix CT spray chamber is a new Helix locking screw with built-in torque control mechanism that allows for a consistent seal of the PTFE ferrule against the nebulizer –making it impossible to overtighten or undertighten while ensuring a gas-tight seal each and every time.

A new 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 new 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.



Spray Chamber Selection Guide



D-Torch (Demountable Torch)

The D-Torch is a revolutionary new 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

Our new D-Torch models suited for the Agilent 5100/5110, PerkinElmer Avio 200/500 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.

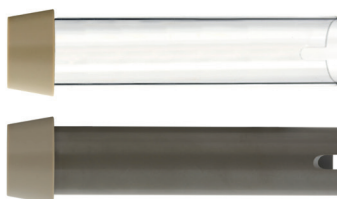
Complete D-Torch



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



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.
- Correct alignment of the RF Coil with respect to the torch body reduces devitrification of the outer tube.
- Reusable alignment tools ensure correct installation every time. Our Do-it-yourself instructions saves time.

Glass Expansion installation Kits for RF Coils

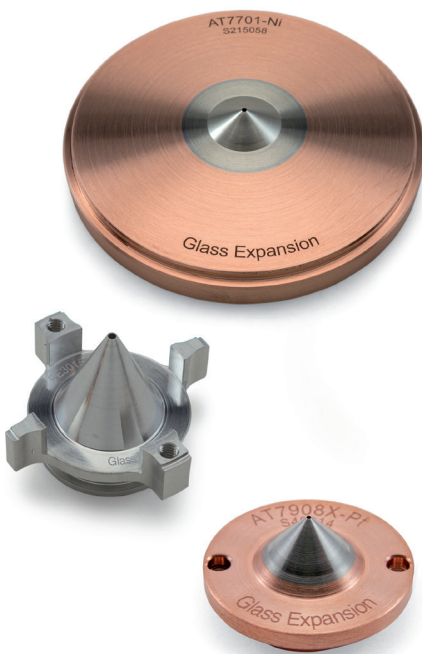
- Incorrect alignment of the torch in the coil will dramatically reduce torch life. The Glass Expansion Installation Kits help ensure correct alignment and maximum torch life.
- Correct alignment of the RF Coil with respect to the torch body reduces devitrification of the outer tube.
- Re-usable alignment 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.
- USB - 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 to provide cones of the 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.

No-risk guarantee:

As with all of our products, our cones are backed by our complete satisfaction guarantee.

Free refurbishment:

Extend the life of your platinum cones with our free refurbishment program. In many cases, a platinum cone can be refurbished multiple times and its lifetime greatly extended. As a customer service, Glass Expansion will refurbish your platinum cones free-of-charge.

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.

IsoMist XR Programmable Temperature Spray Chamber



The IsoMist XR 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.

IsoMist XR 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 XR, 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 XR 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 affects 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 XR 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 XR 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 XR 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 XR 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 XR Programmable Temperature Controlled Spray Chambers are compatible with virtually any ICP-OES or ICP-MS.

Guardian In-Line Sample Filter

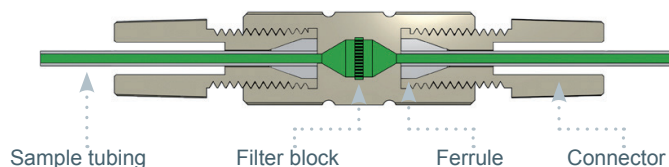


If there are particulates in your samples, there is a risk that they may get trapped in the narrow bore sample tubing or within the nebulizer. The Guardian In-Line Sample Filter provides a simple and effective way to eliminate this risk. This filter is easily inserted in the sample tubing between the 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

Guardian In-Line Non-Return Gas Filter



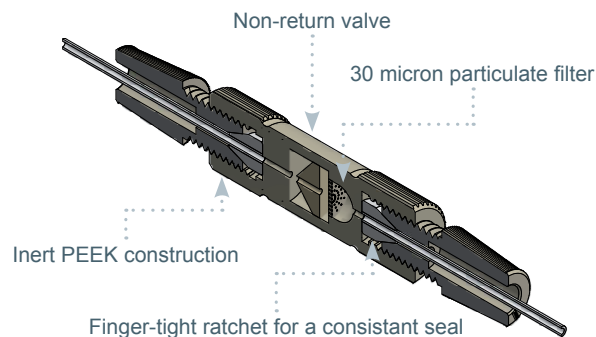
The new Guardian In-line Non-Return Gas Filter provides protection for your ICP system in two ways:

1. A non-return valve prevents acidified sample or rinse solution syphoning into the instrument gas box.
2. 30-micron 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 30-micron 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.

A real problem using an autosampler for unattended overnight runs, it is a silent, invisible killer of your ICP. Acidified solution in the instrument Argon control module can cause corrosion to electronic sensors in mass flow controllers and damage regulators that can result in expensive repairs to your ICP and un-planned down time.



Guardian In-Line Non-Return Gas Filter

Guardian In-Line Non-Return Gas Filter	70-803-1362
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Eluo Nebulizer Cleaning Tool



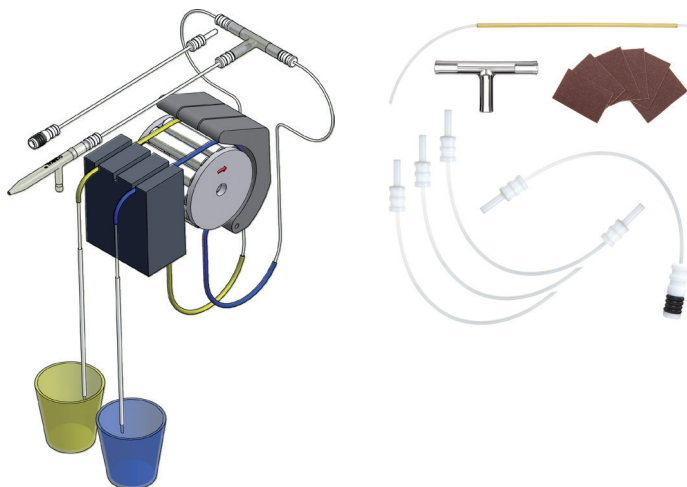
Particle build-up in a nebulizer capillary and tip causes sample flow to be constricted, reducing nebulizer efficiency and performance. Now, blocked nebulizers can be safely and easily restored to optimum performance with a revolutionary cleaning instrument – the Eluo.

The Eluo is designed to efficiently deliver a cleanser through the nebulizer capillary to dislodge particle build-up and thoroughly clean the nebulizer.

Eluo Nebulizer Cleaning Tool

Eluo for Glass concentric Nebulizers	70-ELUO
Eluo HF Nebulizer Cleaner	70-ELUO-OPD
Fluka RBS-25 concentrate	FLUKA25

Trident In-Line Reagent Additions Kits



Internal standards are often used to improve stability. The internal standardization process involves the addition of a known concentration of a particular element to every sample. This 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, thus saving considerable sample preparation time.

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

Trident Internal Standard Kit	60-808-1185
Trident Internal Standard Kit for HF	60-808-1150

Elegra Argon Humidifier



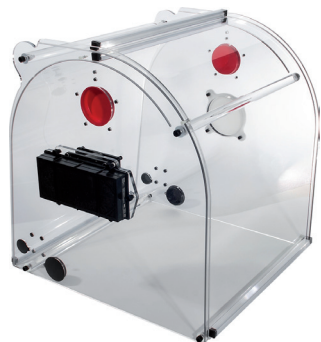
Elegra

Elegra Dual

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 two-channel configuration available for ICP-MS instruments using auxiliary argon.

WindTunnel Autosampler Enclosure and WindTunnel Mobile Cart



Autosampler Enclosure



Autosampler Enclosure XLR8

The WindTunnel autosampler enclosure will protect your samples against airborne contaminants and also protect analysts from fumes and odours. Its versatile configuration makes it suitable for the most common laboratory situations:

Filtered positive pressure enclosure. When fitted with the optional fan and HEPA filter, the WindTunnel provides a positive pressure enclosure.

Vented enclosure. The addition of the optional flange, allows the fumes to be removed through a laboratory exhaust system (not supplied).

Dust cover. The WindTunnel can be used without the fan and filter to function as a convenient dust cover.

- Suitable for the Cetac 130, 260, 280, 520, 520HS and 560 plus PerkinElmer AS93+ and S10, and Agilent SPS-3 autosamplers
- Shatter-proof polycarbonate construction
- Easy access through front and rear roll-up doors
- Optional fan maintains positive pressure
- Optional HEPA filter
- Optional exhaust port flange
- Multiple ports for tubing and power cords
- Larger model suitable for Cetac XLR8 and XLR-860 autosampler

The WindTunnel Mobile Cart frees up bench space and allows the autosampler to be placed in the most convenient position for your analysis.

WindTunnel Autosampler Enclosure and Mobile Cart	
WindTunnel Autosampler Enclosure	70-803-1148
WindTunnel Autosampler Enclosure XLR8	70-803-1199
WindTunnel Mobile Cart	70-803-1390
WindTunnel Fan Aus	70-803-1149
WindTunnel Fan Eur	70-803-1150
WindTunnel Fan USA	70-803-1151
WindTunnel Filter	70-803-1152
WindTunnel Flange	70-803-1153
WindTunnel Base	70-803-1178
WindTunnel Base for XLR8 Enclosure	70-803-1205



WindTunnel Mobile Cart

Laser Ablation

Standard cup size of 13mm

P/N: 21-809-4309



P/N: 21-809-4140



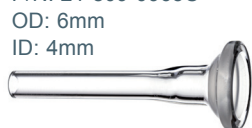
OD: 8mm

P/N: 31-808-3863
(Compatible with iCAP Q/RQ/TQ)



OD: 4mm
ID: 2mm

P/N: 21-809-0965C



OD: 6mm
ID: 4mm

P/N: 31-808-3045



ID: 4mm

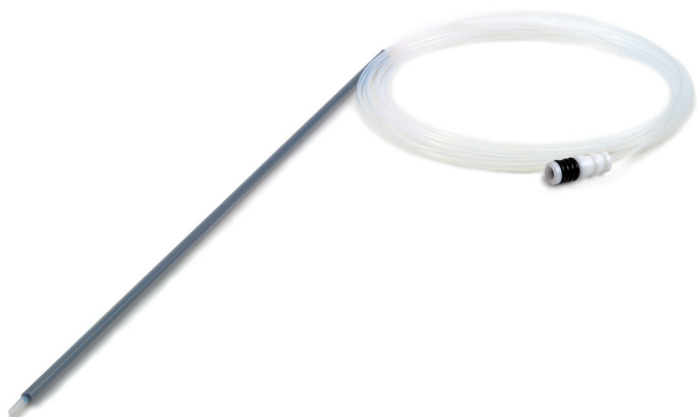
P/N: 31-800-1007



OD: 4mm
ID: 2mm



Autosampler Probes



For Cetac 260, 280, 520, 520HS, 560, 860 and XLR8

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 0.5mm 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	70-803-1443
PTFE Encapsulated Carbon Fibre Probe 1.0mm ID	70-803-0793

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 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 with UniFit	70-803-0991
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 Encapsulated Carbon Fibre Probe 0.3mm ID with UniFit, for Shimadzu ASC-6100F/9800	70-803-1200
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Glass DC Nebulizers

SeaSpray

400µL/min uptake A13-1-USS04X

MicroMist

400µL/min uptake A13-1-UM04X

200µL/min uptake A13-1-UM02X

100µL/min uptake A13-1-UM01Q

50µL/min uptake A13-1-UM005Q

Conikal

1mL/min uptake A13-1-UC1X



Spray Chambers

Twister

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

Cinnabar

20mL Cyclonic with Aux. 20-809-2575HE

Twinnabar

20mL Cyclonic with Aux. 20-809-2577HE



DC Nebulizers for HF

OpalMist

400µL/min uptake A13-1-PFA04X

200µL/min uptake A13-1-PFA02X

100µL/min uptake A13-1-PFA01Q

50µL/min uptake A13-1-PFA005Q



Spray Chambers for HF

Tracey PFA44

44ml Cyclonic with Aux. 20-809-2578



IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

Glass Spray Chamber KT-1103-XR

Quartz Spray Chamber KT-1103Q-XR

PFA Spray Chamber KT-1103P-XR



Torches

D-Torch

30-808-3305

Comprises:

Base and Inner Tube 31-808-3196

Quartz Outer Tube 31-808-3022

Injector Adaptor 31-808-3072

Injector Ferrule 31-808-2962

Quartz Connector 31-808-3303

D-Torch for HF

30-808-3467

Comprises:

Base and Inner Tube 31-808-3196

Quartz Outer Tube 31-808-3022

Injector Adaptor 31-808-3072

Injector Ferrule 31-808-2962

PFA Connector 31-808-3281

D-Torch Options:

PFA Connector with Dilution Port 31-808-3281

PFA Connector with 45° Dilution Port 31-808-3672

Gas Line for PFA Connector 31-808-3672 70-803-1290



Peltier Controlled Cyclonic Spray Chambers

Glass Spray Chamber KT-1116

Quartz Spray Chamber KT-1116Q

PFA Spray Chamber KT-1116P



Torches

Tapered Injectors for D-Torch

Quartz Injector 2.5mm	31-808-3302
Alumina Injector 2.4mm	31-808-3205



Sapphire Injectors for D-Torch

Sapphire Injector 2.4mm	31-808-3378
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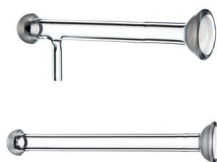
Quartz Torches

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



RF Coils

Copper	70-900-7700C
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Silver	70-900-7700S
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Gold	70-900-7700G
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RF Coil Installation Kit	70-900-7500T
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Common Accessories

Elegra Argon Humidifier

Elegra Dual Two-channel Argon Humidifier	70-803-1273
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Guardian In-Line Filters

Guardian in-line non-return gas filter	70-803-1362
Guardian in-line sample filter	70-803-1108



Trident Internal Standard Kit

Standard Kit	60-808-1185
Standard Kit for HF	60-808-1150



Autosampler Probes

(See page 12 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-520

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

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-USS04X

MicroMist

400µL/min uptake A13-1-UM04X
 200µL/min uptake A13-1-UM02X
 100µL/min uptake A13-1-UM01Q
 50µL/min uptake A13-1-UM005Q



Conikal

1mL/min uptake A13-1-UC1X

DC Nebulizers for HF

OpalMist

400µL/min uptake A13-1-PFA04X
 200µL/min uptake A13-1-PFA02X
 100µL/min uptake A13-1-PFA01Q
 50µL/min uptake A13-1-PFA005Q



IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

Glass Spray Chamber KT-1140-XR
 Quartz Spray Chamber KT-1140Q-XR
 PFA Spray Chamber KT-1140P-XR



Peltier Controlled Cyclonic Spray Chambers

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



Spray Chambers

Twister

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

Cinnabar

20mL Cyclonic with Aux. 20-809-2575HE

Twinnabar

20mL Cyclonic with Aux. 20-809-2577HE



Spray Chambers for HF

Tracey PFA44

44ml Cyclonic with Aux. 20-809-2578



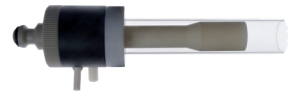
Torches

D-Torch

30-808-3305

Comprises:

Base and Inner Tube 31-808-3196
 Quartz Outer Tube 31-808-3022
 Injector Adaptor 31-808-3072
 Injector Ferrule 31-808-2962
 Quartz Connector 31-808-3303



D-Torchfor HF

30-808-3467

Comprises:

Base and Inner Tube 31-808-3196
 Quartz Outer Tube 31-808-3022
 Injector Adaptor 31-808-3072
 Injector Ferrule 31-808-2962
 PFA Connector 31-808-3281

D-Torch Options:

PFA Connector with Dilution Port 31-808-3281
 PFA Connector with 45° Dilution Port 31-808-3672
 Gas Line for PFA Connector 31-808-3672 70-803-1290



Torches

Tapered Injectors for D-Torch

Quartz Injector 2.5mm	31-808-3302
Alumina Injector 2.4mm	31-808-3205



Sapphire Injectors for D-Torch

Sapphire Injector 2.4mm	31-808-3378
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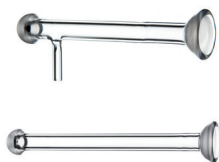
Quartz Torches

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



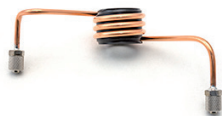
Torch Options

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



RF Coils

Copper	70-900-7800C
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Silver	70-900-7800S
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Gold	70-900-7800G
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RF Coil Installation Kit	70-900-7500T
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Common Accessories

Elegra Argon Humidifier

Elegra Dual Two-channel Argon Humidifier	70-803-1273
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Guardian In-Line Filters

Guardian in-line non-return gas filter	70-803-1362
Guardian in-line sample filter	70-803-1108



Trident Internal Standard Kit

Standard Kit	60-808-1185
Standard Kit for HF	60-808-1150



Autosampler Probes

(See page 12 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-520

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

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-USS04X

MicroMist

400µL/min uptake A13-1-UM04X
 200µL/min uptake A13-1-UM02X
 100µL/min uptake A13-1-UM01Q
 50µL/min uptake A13-1-UM005Q



Conikal

1mL/min uptake A13-1-UC1X

DC Nebulizers for HF

OpalMist

400µL/min uptake A13-1-PFA04X
 200µL/min uptake A13-1-PFA02X
 100µL/min uptake A13-1-PFA01Q
 50µL/min uptake A13-1-PFA005Q



IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

Glass Spray Chamber KT-1140-XR
 Quartz Spray Chamber KT-1140Q-XR
 PFA Spray Chamber KT-1140P-XR



Peltier Controlled Cyclonic Spray Chambers

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



Spray Chambers

Twister

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



Cinnabar

20mL Cyclonic with Aux. 20-809-2575HE

Twinnabar

20mL Cyclonic with Aux. 20-809-2577HE

Quartz Scott Style

For 7900 UHMI 20-809-4144

Spray Chambers for HF

Tracey PFA44

44ml Cyclonic with Aux. 20-809-2578



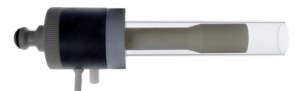
Torches

D-Torch

30-808-3305

Comprises:

Base and Inner Tube 31-808-3196
 Quartz Outer Tube 31-808-3022
 Injector Adaptor 31-808-3072
 Injector Ferrule 31-808-2962
 Quartz Connector 31-808-3303



D-Torch for HF

30-808-3467

Comprises:

Base and Inner Tube 31-808-3196
 Quartz Outer Tube 31-808-3022
 Injector Adaptor 31-808-3072
 Injector Ferrule 31-808-2962
 PFA Connector 31-808-3281

D-Torch Options:

PFA Connector with Dilution Port 31-808-3281
 PFA Connector with 45° Dilution Port 31-808-3672



Torches

Tapered Injectors for D-Torch

Quartz Injector 2.5mm	31-808-3302
Alumina Injector 2.4mm	31-808-3205



Sapphire Injectors for D-Torch

Sapphire Injector 2.4mm	31-808-3378
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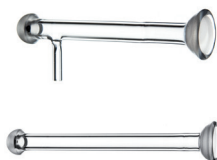
Quartz Torches

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



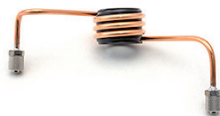
Torch Options

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



RF Coils

Copper	70-900-7800C
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Silver	70-900-7800S
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Gold	70-900-7800G
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RF Coil Installation Kit	70-900-7500T
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Common Accessories

Elegra Argon Humidifier

Elegra Dual Two-channel Argon Humidifier	70-803-1273
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Gaurdian In-Line Filters

Guardian in-line non-return gas filter	70-803-1362
Guardian in-line sample filter	70-803-1108



Trident Internal Standard Kit

Standard Kit	60-808-1185
Standard Kit for HF	60-808-1150



Autosampler Probes

(See page 12 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-520

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

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-USS04X

MicroMist

400µL/min uptake A13-1-UM04X
 200µL/min uptake A13-1-UM02X
 100µL/min uptake A13-1-UM01Q
 50µL/min uptake A13-1-UM005Q



Conikal

1mL/min uptake A13-1-UC1X

DC Nebulizers for HF

OpalMist

400µL/min uptake A13-1-PFA04X
 200µL/min uptake A13-1-PFA02X
 100µL/min uptake A13-1-PFA01Q
 50µL/min uptake A13-1-PFA005Q



IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

Glass spray chamber KT-1103-XR
 Quartz spray chamber KT-1103Q-XR
 PFA spray chamber KT-1103P-XR



Peltier Controlled Cyclonic Spray Chambers

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



Spray Chambers

Twister

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



Cinnabar

20mL Cyclonic with Aux. 20-809-2575HE

Twinnabar

20mL Cyclonic with Aux. 20-809-2577HE

Quartz Scott Style

For 7900 UHMI 20-809-4144

Spray Chambers for HF

Tracey PFA44

44ml Cyclonic with Aux. 20-809-2578



Torches

D-Torch

30-808-3305

Comprises:

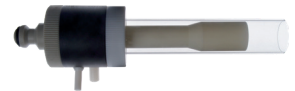
Base and Inner Tube 31-808-3196
 Quartz Outer Tube 31-808-3022
 Injector Adaptor 31-808-3072
 Injector Ferrule 31-808-2962
 Quartz Connector 31-808-3303

D-Torch for HF

30-808-3467


Comprises:

Base and Inner Tube 31-808-3196
 Quartz Outer Tube 31-808-3022
 Injector Adaptor 31-808-3072
 Injector Ferrule 31-808-2962
 PFA Connector 31-808-3281





Torches

D-Torch Options:

PFA Connector with Dilution Port	31-808-3281	
PFA Connector with 45° Dilution Port	31-808-3672	
Gas Line for PFA Connector 31-808-3672	70-803-1290	


Tapered Injectors for D-Torch

Quartz Injector 2.5mm	31-808-3302	
Alumina Injector 2.4mm	31-808-3205	



Sapphire Injectors for D-Torch

Sapphire Injector 2.4mm	31-808-3378	
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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	

RF Coils

Copper	70-900-7700C	
Silver	70-900-7700S	
Gold	70-900-7700G	


RF Coil Installation Kit

70-900-7500T




Common Accessories

Elegra Argon Humidifier

Elegra Dual Two-channel Argon Humidifier	70-803-1273	
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Gaurdian In-Line Filters

Guardian in-line non-return gas filter	70-803-1362	
Guardian in-line sample filter	70-803-1108	

Trident Internal Standard Kit

Standard Kit	60-808-1185	
Standard Kit for HF	60-808-1150	


Autosampler Probes

(See page 12 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-520

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

PTFE Encapsulated Carbon Fibre Probe 0.75mm ID	70-803-0908
PTFE Encapsulated Carbon Fibre Probe 1.0mm ID	70-803-0853

7700/7800/7900/8800/8900 - Sampler Cones

Sampler Cones




Nickel Sampler	AT7701-Ni	
Nickel Plated Sampler	AT7701-Ni/Ni	
Aluminium Sampler	AT7701-Al	
Platinum Sampler	AT7706-Pt	
Platinum Sampler (18mm insert)	AT7706A-Pt	
Platinum Sampler Boron free	AT7706-Pt-BF	
Nickel Plated Sampler	AT7706-Pt/NiP	
Platinum Sampler with Nickel Base	AT7706-Pt/Ni	
Platinum Sampler with Nickel Base (15mm insert)	AT7706B-Pt/Ni	

7700x/7800/8800 - Skimmer Cones

Skimmer Cones

Nickel Skimmer	AT7702X-Ni	
Aluminium Skimmer	AT7702X-Al	
Platinum Skimmer with Copper Base	AT7708X-Pt	
Platinum Skimmer Cone with Copper Base	AT7708X-Pt-BF	
Platinum Skimmer Cone with Nickel Base	AT7708X-Pt/Ni	

7700s - Skimmer Cones



Nickel Skimmer	AT7702S-Ni	
Platinum Skimmer Cone	AT7708S-Pt	
Platinum Skimmer Cone with Nickel Base	AT7708S-Pt/Ni	

7900/8900 - Skimmer Cones

Nickel Skimmer Cone	AT7902X-Ni	
Aluminium Skimmer Cone	AT7902X-Al	
Platinum Skimmer Cone with Copper Base	AT7908X-Pt	
Platinum Skimmer Cone with Nickel Base	AT7908X-Pt/Ni	

Cone Options

ConeGuard Thread Protectors

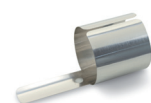
Skimmer Cone Guard For 7700s/7900	70-803-1004	
Skimmer Cone Guard For 7700x/7800/8800/8900	70-803-1008	

Retaining Ring AT7704
For 7700 Sampler Cone



Graphite Gasket (PKT 3) AT7703
For 7700/7900/8800/8900 Sampler Cone

Long Life Shield Plate AT5004
For 7700/7800/7900/8800/8900



Glass DC Nebulizers

SeaSpray

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

MicroMist

400µL/min uptake	A13-07-UM04
200µL/min uptake	A13-07-UM02

Conikal

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

Slurry

4mL/min uptake	A13-07-US6
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Spray Chambers

Twister

50mL Cyclonic	20-809-9199HE
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Tracey

50mL Cyclonic	20-808-8882HE
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DC Nebulizers for HF

DuraMist

1mL/min uptake	A13-07-DM1
400µL/min uptake	A13-07-DM04



OpalMist

2mL/min uptake	A13-07-PFA2
600µL/min uptake	A13-07-PFA06
200µL/min uptake	A13-07-PFA02
100µL/min uptake	A13-07-PFA01
50µL/min uptake	A13-07-PFA005



VeeSpray

0.6 - 3mL/min uptake	A13-07-CV6
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Spray Chambers for HF

Twister TFE Spray Chamber

50mL Cyclonic	20-809-3452
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Tracey TFE Spray Chamber

50mL Cyclonic	20-809-2507
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IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

Glass Spray Chamber	KT-1137-XR
Quartz Spray Chamber	KT-1137Q-XR
PFA Spray Chamber	KT-1137P-XR



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



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



Quartz Torch

SVDV/VDV 31-808-3557

RV 31-808-3556



Tapered Injectors

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 31-808-3727
 Alumina Injector 1.8mm 31-808-3585
 Alumina Injector 2.4mm 31-808-3722



RF Coils

Silver 70-900-5100S

Gold 70-900-5100G

Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier 70-803-1268



Gaurdian In-Line Filters

Guardian in-line non-return gas filter 70-803-1362

Guardian in-line sample filter 70-803-1108



Trident Internal Standard Kit

Standard Kit 60-808-1185

Standard Kit for HF 60-808-1150



Autosampler Probes

(See page 12 for complete list of probes)

For Cetac ASX-520

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

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	A11-07-USS2
400µL/min uptake	A11-07-USS04

MicroMist

400µL/min uptake	A11-07-UM04
200µL/min uptake	A11-07-UM02

Conikal

2mL/min uptake	A11-07-UC2
1mL/min uptake	A11-07-UC1

Slurry

4mL/min uptake	A11-07-US6
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DC Nebulizers for HF

DuraMist

1mL/min uptake	A11-07-DM1
400µL/min uptake	A11-07-DM04



OpalMist

2mL/min uptake	A11-07-PFA2
600µL/min uptake	A11-07-PFA06
200µL/min uptake	A11-07-PFA02
100µL/min uptake	A11-07-PFA01
50µL/min uptake	A11-07-PFA005



VeeSpray

0.6 - 3mL/min uptake	A11-07-CV6
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IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

Glass Spray Chamber	KT-1014-XR
PFA Spray Chamber	KT-1014P-XR
All Glass System	KT-1054-XR
PFA Spray Chamber includes Niagara bracket	KT-1020P-XR



Spray Chambers

Tracey

50mL Cyclonic	20-809-0600HE
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Twister

50mL Cyclonic	20-809-0285HE
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Cinnabar

20mL Cyclonic	20-809-0183HE
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Twinnabar

20mL Cyclonic	20-809-0448HE
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Spray Chambers for HF

Tracey TFE

50mL Cyclonic	20-809-9188
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Mounting Bracket for HF Spray Chamber

21-100-0364



PuraFlex Transfer Tube

21-809-2831

Connects spray chamber to torch. Requires adjustable mount 21-100-0215, or for HF, 21-100-0364.



Torches

D-Torch 30-808-2919

Comprises:

- Base and Inner Tube 31-808-2918
- Quartz Outer Tube 31-808-2685
- Retaining Ring for Outer Tube 31-808-2818
- Retaining Ring for Injector 31-808-2921



D-Torch Options:

- Ceramic Outer Tube 31-808-3027
- PuraFlex Transfer Tube with bend 21-809-3707



Tapered Injectors for D-Torch

- Quartz Injector 0.8mm 31-808-3364
- Quartz Injector 1.5mm 31-808-3591
- Quartz Injector 1.8mm 31-808-3640
- Quartz Injector 2.4mm 31-808-3043
- Quartz Injector 2.4mm with Ball Joint 31-808-3110



Alumina Injectors for D-Torch

- Alumina Injector 1.8mm 31-808-3325
- Alumina Injector 2.4mm 31-808-3133



Sapphire Injectors for D-Torch

- Sapphire Injector 2.0mm 31-808-3355



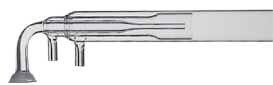
Fixed Torches

- Quartz Torch with 90° Bend and 2.3mm Injector 30-808-0478
- Quartz Torch (High Solids, short) with 90° Bend and 2.3mm Injector 30-808-9983
- Quartz Torch (High Solids, Full-Length) with 90° Bend and 2.3mm Injector 30-807-0528
- Quartz Torch with 90° Bend and 1.8mm Injector 30-808-3315
- Quartz Torch with 90° Bend and 0.8mm Injector 30-808-1346



Fixed Torches for All Glass System

- Quartz Torch with 2.3mm Injector and Right Angle Ball Joint 30-808-0540
- Quartz Torch with 1.8mm Capillary Injector - (for oil analysis) and Right Angle Ball Joint 30-808-0887
- Quartz Torch (High Solids) with 2.3mm Injector and Right Angle Ball Joint 30-808-1255
- Quartz Torch (organics) with 0.8mm Injector and Right Angle Ball Joint 30-808-8216



Torches

Semi Demountable Torch with Quartz Injector 30-808-0379

Comprises:

- Quartz Torch Body 31-808-0353
- Tapered Quartz Injector 2.4mm 31-808-0400
- Torch Adaptor 31-808-0863
- GazFit Connectors (PKT 4) - for 6mm OD side arms GAZ-06
- GazFit Connectors (PKT 2) - for 8mm torch adaptor GAZ-08



Semi Demountable Torch with Alumina Injector 30-808-0383

Comprises:

- Quartz Torch Body 31-808-0353
- Tapered Alumina Injector 2.4mm 31-808-0401
- Torch Adaptor 31-808-0863
- GazFit Connectors (PKT 4) - for 6mm OD side arms GAZ-06
- GazFit Connectors (PKT 2) - for 8mm torch adaptor GAZ-08



Semi Demountable Torch Options

- Quartz Torch Body - Short (for high solids) 31-808-0177

Tapered Injectors for Semi Demountable Torch

- Quartz Injector 1.0mm 31-808-0544
- Quartz Injector 1.5mm 31-808-0543
- Quartz Injector 1.8mm 31-808-0545
- Quartz Injector 2.4mm 31-808-0400
- Alumina Injector 1.8mm 31-808-0814
- Alumina Injector 2.4mm 31-808-0401



Sapphire Injectors for Semi Demountable Torch

- Sapphire Injector 2.4mm 31-808-1426

RF Coils

RF Coils for Vista Axial

Gold 70-900-1000G



Silver 70-900-1000S



Silver, Teflon Coated 70-900-1000ST



Installation kit 70-900-1000T



RF Coils for 700ES Axial

Gold 70-900-1004G



Silver 70-900-1004S



Silver, Teflon Coated 70-900-1004ST



Installation kit 70-900-1004T



Kits

Axial All Glass System KT-8045A

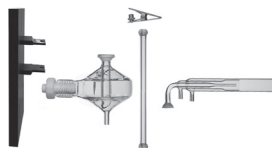
Kit Comprises:

Twister Spray Chamber 20-809-9199HE

Quartz Torch RA/FS13 & 2.3mm Injector 30-808-0540

Glass Transfer Tube-206, + JC-13 Clip 31-809-0274

Adjustable Mount 21-100-0215



Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier 70-803-1265



Gaurdian In-Line Filters

Guardian in-line non-return gas filter 70-803-1362

Guardian in-line sample filter 70-803-1108



Trident Internal Standard Kit

Standard Kit 60-808-1185

Standard Kit for HF 60-808-1150



Autosampler Probes

(See page 12 for complete list of probes)

For Cetac ASX-520

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

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 A11-07-USS2
 400µL/min uptake A11-07-USS04

MicroMist

400µL/min uptake A11-07-UM04
 200µL/min uptake A11-07-UM02

Conikal

2mL/min uptake A11-07-UC2
 1mL/min uptake A11-07-UC1

Slurry

4mL/min uptake A11-07-US6



DC Nebulizers for HF

DuraMist

1mL/min uptake A11-07-DM1
 400µL/min uptake A11-07-DM04



OpalMist

2mL/min uptake A11-07-PFA2
 600µL/min uptake A11-07-PFA06
 200µL/min uptake A11-07-PFA02
 100µL/min uptake A11-07-PFA01
 50µL/min uptake A11-07-PFA005



VeeSpray

0.6 - 3mL/min uptake A11-07-CV6



IsoMist

Programmable Temperature Cyclonic Spray Chamber

Quartz Spray Chamber KT-1022-XR
 PFA Spray Chamber KT-1022P-XR
 All Glass System KT-1055-XR



Spray Chambers

Tracey

50mL Cyclonic 20-809-0600HE



Twister

50mL Cyclonic 20-809-0285HE



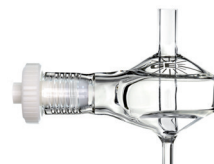
Cinnabar

20mL Cyclonic 20-809-0183HE



Twinnabar

20mL Cyclonic 20-809-0448HE



Spray Chambers for HF

Tracey TFE

50mL Cyclonic 20-809-9188



Mounting Bracket for HF Spray Chamber

21-809-2555



PuraFlex Transfer Tube 21-809-2735

Connects spray chamber to torch.
 Requires adjustable mount 21-100-0200,
 or for HF, 21-809-2555.



Torches

D-Torch 30-808-3052

Comprises:

Base and Inner Tube	31-808-3146
Quartz Outer Tube	31-808-3062
Retaining Ring for Outer Tube	31-808-2818
Retaining Ring for Injector	31-808-2921



D-Torch Options:

Ceramic Outer Tube	31-808-3092
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Tapered Injectors for D-Torch

Quartz Injector 0.8mm	31-808-3195
Quartz Injector 1.5mm	31-808-3058
Quartz Injector 1.5mm with Ball Joint	31-808-3150
Quartz Injector 2.4mm with Ball Joint	31-808-2925



Alumina Injectors for D-Torch

Alumina Injector 1.5mm	31-808-3230
Alumina Injector 1.8mm	31-808-3160



Sapphire Injectors for D-Torch

Sapphire Injector 2.0mm	31-808-3312
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Semi Demountable Torch with Quartz Injector 30-808-0542

Comprises:

Torch Body, Quartz	31-808-0541
Torch Adaptor 8/44	31-808-2638
Tapered Quartz Injector 1.5mm	31-808-0543
GazFit Connectors (PKT 4) for 6mm OD side arms	GAZ-06



Semi Demountable Torch HF with Alumina Injector 30-808-0942

Comprises:

Torch Body, Quartz	31-808-0541
Torch Adaptor 8/44	31-808-2638
Tapered Alumina Injector 1.8mm	31-808-0938
GazFit Connectors (PKT 4) for 6mm OD side arms	GAZ-06



Tapered Injectors for Semi Demountable Torch

Quartz Injector 1.0mm	31-808-0544
Quartz Injector 1.5mm	31-808-0543
Quartz Injector 1.8mm	31-808-0545
Quartz Injector 2.4mm	31-808-0400



Torches

Fixed Torches

Quartz Torch, 0.8mm Injector	30-807-0539
Quartz Torch, Low Flow, 1.5mm Injector	30-800-0015
Quartz Torch, High Solids, 1.8mm Injector	30-808-1182



Quartz Torch Bonnet 31-800-0003



RF Coils

RF Coils for Vista Radial

Gold	70-900-1001G
Silver	70-900-1001S
Silver, Teflon Coated	70-900-1001ST



Installation kit 70-900-1001T



RF Coils for 700ES Radial

Gold	70-900-1005G
Silver	70-900-1005S
Silver, Teflon Coated	70-900-1005ST



Installation kit 70-900-1005T



Kits

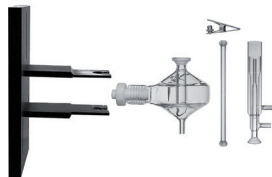
Radial All Glass System Kit KT-8046A

Kit Comprises:

Twister Spray Chamber	20-809-9199HE
Radial Torch with Ball Joint and 1.5mm Injector	30-808-0875
Glass Transfer Tube-160, + JC-13 Clip	31-809-0549
Adjustable Mount	21-100-0200

All Glass System Options

Jacketed Spray Chamber	
Adjustable Mount	21-100-0217
Quartz Torch with Ball Joint and 1.8mm Injector High Solids	30-807-0536
Quartz Torch with Ball Joint and 2.4mm Injector High Solids	30-807-0569



Autosampler Probes

(See page 12 for complete list of probes)

For Cetac ASX-520

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

PTFE Encapsulated Carbon Fibre Probe	
0.75mm ID	70-803-0908
PTFE Encapsulated Carbon Fibre Probe	
1.0mm ID	70-803-0853



Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier	70-803-1265
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Guardian In-Line Filters

Guardian in-line non-return gas filter	70-803-1362
Guardian in-line sample filter	70-803-1108



Trident Internal Standard Kit

Standard Kit	60-808-1185
Standard Kit for HF	60-808-1150



Glass DC Nebulizers

SeaSpray

1mL/min uptake	A22-1-USS1
400µL/min uptake	A22-1-USS04

MicroMist

400µL/min uptake	A22-1-UM04
200µL/min uptake	A22-1-UM02
100µL/min uptake	A22-1-UM01
50µL/min uptake	A22-1-UM005



DC Nebulizers for HF

OpalMist

400µL/min uptake	A22-1-PFA04
200µL/min uptake	A22-1-PFA02
100µL/min uptake	A22-1-PFA01
50µL/min uptake	A22-1-PFA005



IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

Glass Spray chamber	KT-1096-XR
Quartz spray chamber	KT-1096Q-XR
PFA spray chamber	KT-1096P-XR
Twinnabar spray chamber	KT-1096T-XR



Spray Chambers

Twister

50mL Cyclonic (Aux. Port)	20-809-3594HE
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Twister

50mL Cyclonic (2.4mm Aux. Port)	
Inline Screw Mount	20-809-3841HE

Twister

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

Twister

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

Twinnabar

20mL Cyclonic	20-809-3650HE
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Cinnabar

20mL Cyclonic	20-809-3709HE
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Spray Chambers for HF

Tracey PFA44

44mL Cyclonic	20-809-3713
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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



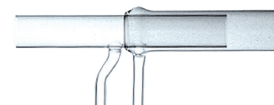
D-Torch Options:

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



Quartz Torch

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



Torches

Quartz Injectors (non DRC)

- Tapered Quartz Injector 1.0mm 31-808-0370
- Tapered Quartz Injector 1.2mm 31-808-0789
- 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 1.5mm 31-807-0044
- Tapered Alumina Injector 1.8mm 31-807-0045
- Tapered Alumina Injector 2.0mm 31-807-0060
- Sapphire Injector 2.0mm 31-808-2803
- Platinum Injector 2.0mm 31-808-2972

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



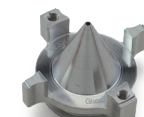
- Platinum Sampler Boron free PE3013-Pt-BF

Skimmer Cones

- Nickel Skimmer PE3012-Ni
- Aluminium Skimmer PE3012-Al
- Platinum Skimmer PE3014-Pt



- Platinum Skimmer Boron free PE3014-Pt-BF
- Hyper Skimmer PE3015-Al

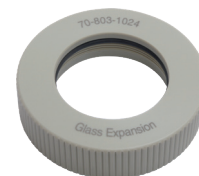


- O-ring for NexION Hyper Skimmer Cone (pack of 5) PE5115

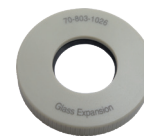
- Screw for NexION Hyper Skimmer Cone (pack of 2) PE5116

ConeGuard Thread Protectors

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



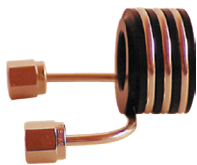
- Skimmer Cone Guard For NexION 300/350 70-803-1026



- Gasket for Sampler Cone PE5111

RF Coils

Copper 70-900-2006C



RF Coil Installation Kit 70-900-2006T



Common Accessories

Elegra Argon Humidifier

Elegra Dual Two-channel Argon Humidifier 70-803-1274



Gaurdian In-Line Filters

Guardian in-line non-return gas filter 70-803-1362

Guardian in-line sample filter 70-803-1108



Trident Internal Standard Kit

Standard Kit 60-808-1185

Standard Kit for HF solutions 60-808-1150



Autosampler Probes

(See page 12 for complete list of probes)

Suitable for Cetac ASX-520

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

Suitable for PE 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



Glass DC Nebulizers

SeaSpray

2mL/min uptake	A23-1-USS2
400µL/min uptake	A23-1-USS04

MicroMist

400µL/min uptake	A23-1-UM04
200µL/min uptake	A23-1-UM02
100µL/min uptake	A23-1-UM01
50µL/min uptake	A23-1-UM005



DC Nebulizers for HF

OpalMist

400µL/min uptake	A23-1-PFA04
200µL/min uptake	A23-1-PFA02
100µL/min uptake	A23-1-PFA01
50µL/min uptake	A23-1-PFA005



Cones

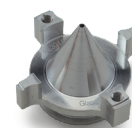
Sampler Cones

Nickel Sampler	PE3011-Ni
Aluminium Sampler	PE3011-Al
Platinum Sampler	PE3013-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
Hyper Skimmer	PE3015-Al



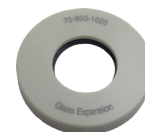
**O-ring for NexION Hyper
Skimmer Cone (pack of 5)** PE5115

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

ConeGuard Thread Protectors

Sampler Cone Guard 70-803-1024
For NexION 1000/2000

Skimmer Cone Guard 70-803-1026
For NexION 1000/2000



**Gasket for
Sampler Cone** PE5111

Common Accessories

Elegra Argon Humidifier

Elegra Dual Two-channel
Argon Humidifier 70-803-1473



Gaurdian In-Line Filters

Guardian in-line non-return
gas filter 70-803-1362

Guardian in-line sample filter 70-803-1108



Trident Internal Standard Kit

Standard Kit 60-808-1185

Standard Kit for HF 60-808-1150



Autosampler Probes

(See page 12 for complete list of probes)

Suitable for Cetac ASX-520

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

Suitable for PE 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



Glass DC Nebulizers

SeaSpray

2mL/min uptake	A21-07-USS2
400µL/min uptake	A21-07-USS04

MicroMist

600µL/min uptake	A21-07-UM06
200µL/min uptake	A21-07-UM02
100µL/min uptake	A21-07-UM01
50µL/min uptake	A21-07-UM005

**Slurry**

4mL/min uptake	A21-07-US6
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Conikal

2mL/min uptake	A21-07-UC2
1mL/min uptake	A21-07-UC1

DC Nebulizers for HF

DuraMist

1mL/min uptake	A21-07-DM1
400µL/min uptake	A21-07-DM04

**OpalMist**

2mL/min uptake	A21-07-PFA2
600µL/min uptake	A21-07-PFA06
200µL/min uptake	A21-07-PFA02
100µL/min uptake	A21-07-PFA01
50µL/min uptake	A21-07-PFA005

**VeeSpray**

0.6-3mL/min uptake	A21-07-CV6
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IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

Glass Spray Chamber	KT-1147-XR
Quartz Spray Chamber	KT-1147Q-XR
PFA Spray Chamber	KT-1147P-XR



Spray Chambers

Twister

50mL Cyclonic	20-809-0495HE
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**Tracey**

50mL Cyclonic	20-808-8882HE
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**Cinnabar**

20mL Cyclonic	20-809-0164HE
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**Twinnabar**

20mL Cyclonic	20-809-0498HE
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Spray Chambers for HF

Twister TFE

50mL Cyclonic	20-809-3452
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**Tracey TFE**

50mL Cyclonic	20-809-2507
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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

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



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

Quartz Injector 3.0mm 31-808-3790

Alumina Injector 1.25mm 31-808-3799



Capillary Injectors for D-Torch

Quartz Injector 1.2mm 31-808-3787

Sapphire Injector 2.0mm 31-808-3784

Fixed Torch for Avio 200/500

Quartz Torch with single slot 31-808-3776

Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier 70-803-1269



Gaurdian In-Line Filters

Guardian in-line non-return gas filter 70-803-1362

Guardian in-line sample filter 70-803-1108



Trident Internal Standard Kit

Standard Kit 60-808-1185

Standard Kit for HF 60-808-1150



Autosampler Probes

(See page 12 for complete list of probes)

Suitable for Cetac ASX-520

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

Suitable for PE 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



Glass DC Nebulizers

SeaSpray

2mL/min uptake	A21-07-USS2
400µL/min uptake	A21-07-USS04

MicroMist

600µL/min uptake	A21-07-UM06
200µL/min uptake	A21-07-UM02
100µL/min uptake	A21-07-UM01
50µL/min uptake	A21-07-UM005



Conikal

2mL/min uptake	A21-07-UC2
1mL/min uptake	A21-07-UC1

Slurry

4mL/min uptake	A21-07-US6
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DC Nebulizers for HF

DuraMist

1mL/min uptake	A21-07-DM1
400µL/min uptake	A21-07-DM04



OpalMist

2mL/min uptake	A21-07-PFA2
600µL/min uptake	A21-07-PFA06
200µL/min uptake	A21-07-PFA02
100µL/min uptake	A21-07-PFA01
50µL/min uptake	A21-07-PFA005



VeeSpray

0.6 - 3mL/min uptake	A21-07-CV6
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IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

Glass Spray Chamber	KT-1012-XR
Quartz Spray Chamber	KT-1012Q-XR
PFA Spray Chamber	KT-1012P-XR



Spray Chambers

Tracey

50mL Cyclonic	20-809-0434HE
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Twister

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

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

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

20mL Cyclonic	20-809-9121HE
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Twinnabar

20mL Cyclonic	20-809-2120HE
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Spray Chambers for HF

Tracey TFE

50mL Cyclonic	20-809-2510
Plugs directly into cassette mount	



Torches

D-Torch 30-808-2926

Comprises:

- Base and Inner Tube 31-808-2981
- Quartz Outer Tube 31-808-2986
- Retaining Ring 31-808-2818



D-Torch Options:

- Ceramic Outer Tube 31-808-3365
- Quartz Outer Tube (3 slots) 31-808-3436
- Copper Foils (PKT 12) for Ceramic Outer Tube 31-808-3377



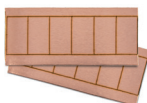
Quartz Torches

- JAZ with single slot 30-808-0845
- Short, without slot 30-808-0845S
- Without slot 30-808-1122
- With 3 slots 30-808-1470



Quartz Torch Options:

- Copper Foils (PKT 12) for D-Torch Outer Tube and Quartz Torch 31-808-2645



Tapered Injectors

- Quartz Injector 1.2mm 31-808-1154
- Quartz Injector 2.0mm 31-807-0075
- Quartz Injector 3.0mm 31-808-2506
- Alumina Injector 2.0mm 31-808-1210
- Alumina Injector 2.4mm 31-808-2771
- Sapphire Injector 2.0mm 31-808-2774



Capillary Injectors

- Quartz Injector 1.0mm 31-808-0939
- Quartz Injector 1.8mm 31-808-0794



Torch Bonnet 31-800-0018

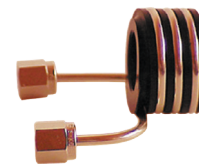


Purge Windows

- Axial 17mm disk for 4000/5000 7000/8000DV 31-808-0551
- Axial 32mm disk for 7000DV 31-808-2649
- Radial for 5000/7000DV (Post Nov. 2004) 31-808-2788

RF Coils

- Silver 70-900-2003S
- Gold 70-900-2003G



RF Coil Installation Kit 70-900-2003T



Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier 70-803-1269



Gaurdian In-Line Filters

- Guardian in-line non-return gas filter 70-803-1362
- Guardian in-line sample filter 70-803-1108



Trident Internal Standard Kit

- Standard Kit 60-808-1185
- Standard Kit for HF solutions 60-808-1150



Autosampler Probes

(See page 12 for complete list of probes)

Suitable for Cetac ASX-520

- 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

Suitable for PE 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



Glass DC Nebulizers

SeaSpray

2mL/min uptake	A21-07-USS2
400µL/min uptake	A21-07-USS04

MicroMist

600µL/min uptake	A21-07-UM06
200µL/min uptake	A21-07-UM02
100µL/min uptake	A21-07-UM01
50µL/min uptake	A21-07-UM005



Conikal

2mL/min uptake	A21-07-UC2
1mL/min uptake	A21-07-UC1

Slurry

4mL/min uptake	A21-07-US6
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DC Nebulizers for HF

DuraMist

1mL/min uptake	A21-07-DM1
400µL/min uptake	A21-07-DM04



OpalMist

2mL/min uptake	A21-07-PFA2
600µL/min uptake	A21-07-PFA06
200µL/min uptake	A21-07-PFA02
100µL/min uptake	A21-07-PFA01
50µL/min uptake	A21-07-PFA005



VeeSpray

0.6 - 3mL/min uptake	A21-07-CV6
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IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

Glass Spray Chamber	KT-1011-XR
Quartz Spray Chamber	KT-1011Q-XR
PFA Spray Chamber	KT-1011P-XR



Spray Chambers

Twister

50mL Cyclonic	20-809-0495HE
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Spray Chambers for HF

Tracey TFE

50mL Cyclonic	20-809-2507
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Torches

D-Torch

30-808-2832

Comprises:

Base and Inner Tube	31-808-2809
Quartz Outer Tube	31-808-2821
Retaining Ring	31-808-2818



D-Torch Options:

Ceramic Outer Tube	31-808-2815
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Quartz Torch

With 3 slots	30-807-0064
With 3 slots (Long life)	30-808-3593



Tapered Quartz Injectors

Quartz Injector 1.0mm	31-808-0119
Quartz Injector 1.5mm	31-808-0124
Quartz Injector 1.8mm	31-807-0008
Quartz Injector 2.0mm	31-807-0050



Tapered Alumina Injectors

Alumina Injector 1.5mm	31-807-0051
Alumina Injector 1.8mm	31-807-0052
Alumina Injector 2.0mm	31-808-1352



Capillary Alumina Injectors

Alumina Injector 2.0mm	31-808-2625
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Torches

Torch Bonnet 31-800-0018



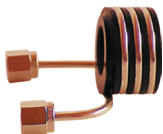
Purge Extension Window for 4300/5300/7300V 31-808-1345



RF Coils

Silver 70-900-2003S

Gold 70-900-2003G



RF Coil Installation Kit 70-900-2003T



Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier 70-803-1269



Gaurdian In-Line Filters

Guardian in-line non-return gas filter 70-803-1362

Guardian in-line sample filter 70-803-1108



Autosampler Probes

(See page 12 for complete list of probes)

Suitable for Cetac ASX-520

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

Suitable for PE 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



Trident Internal Standard Kit

Standard Kit 60-808-1185

Standard Kit for HF solutions 60-808-1150



Glass DC Nebulizers

SeaSpray

2mL/min uptake	A21-07-USS2
400µL/min uptake	A21-07-USS04

MicroMist

600µL/min uptake	A21-07-UM06
200µL/min uptake	A21-07-UM02
100µL/min uptake	A21-07-UM01
50µL/min uptake	A21-07-UM005



Conikal

2mL/min uptake	A21-07-UC2
1mL/min uptake	A21-07-UC1

Slurry

4mL/min uptake	A21-07-US6
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DC Nebulizers for HF

DuraMist

1mL/min uptake	A21-07-DM1
400µL/min uptake	A21-07-DM04



OpalMist

2mL/min uptake	A21-07-PFA2
600µL/min uptake	A21-07-PFA06
200µL/min uptake	A21-07-PFA02
100µL/min uptake	A21-07-PFA01
50µL/min uptake	A21-07-PFA005



VeeSpray

0.6 - 3mL/min uptake	A21-07-CV6
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IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

Glass spray chamber	KT-1012-XR
Quartz Spray Chamber	KT-1021Q-XR
PFA spray chamber	KT-1012P-XR



Spray Chambers

Tracey

50mL Cyclonic	20-809-0434HE
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Twister

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

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

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

20mL Cyclonic	20-809-9121HE
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Twinnabar

20mL Cyclonic	20-809-9120HE
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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
- Quartz Outer Tube (No Slot) 31-808-3407
- Copper Foils (PKT 12) for Ceramic Outer Tube 31-808-3356



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
- Quartz Injector 2.5mm 31-808-3730
- Quartz Injector 3.0mm 31-808-3259
- 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



Gaurdian In-Line Filters

- Guardian in-line non-return gas filter 70-803-1362
- Guardian in-line sample filter 70-803-1108



Trident Internal Standard Kit

- Standard Kit 60-808-1185
- Standard Kit for HF solutions 60-808-1150



Autosampler Probes

(See page 12 for complete list of probes)

Suitable for Cetac ASX-520

- 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

Suitable for PE 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



Glass DC Nebulizers

Conikal
1mL/min uptake A41-1-UC1S

SeaSpray
400µL/min uptake A41-07-USS04

Slurry
4mL/min uptake A41-1-US6

MicroMist
600µL/min uptake A41-07-UM06S
200µL/min uptake A41-07-UM02
100µL/min uptake A41-07-UM01
50µL/min uptake A41-07-UM005



DC Nebulizers Compatible with HF

OpalMist
1mL/min uptake A41-1-PFA1S
400µL/min uptake A41-07-PFA04
200µL/min uptake A41-07-PFA02
100µL/min uptake A41-07-PFA01
50µL/min uptake A41-07-PFA005



DuraMist
1mL/min uptake A41-1-DM1S
400µL/min uptake A41-07-DM04



VeeSpray
0.6 - 3mL/min uptake A41-1-CV6



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
Glass Extention w/ right angle 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 (Suitable for ICP-MS 2030)	30-807-0567
Torch with 1.2mm Injector (Suitable for ICP-MS 8500)	30-808-9986
Torch with 1.5mm Injector (Suitable for ICP-MS 8500)	30-808-1090



RF Coils

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

RF Coil Installation Kit

RF Coil Installation Kit	70-900-6100T
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Cones

Sampler Cones

Nickel Sampler	SZ7001-Ni
Copper Sampler	SZ7001-Cu
Platinum Sampler	SZ7003-Pt/Cu

Skimmer Cones

Copper Skimmer	SZ7002-Cu
Nickel Skimmer	SZ7002-Ni
Platinum Skimmer	SZ7004-Pt/Cu

Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier	70-803-1312
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Gaurdian In-Line Filters

Guardian in-line non-return gas filter	70-803-1362
Guardian in-line sample filter	70-803-1108



Trident Internal Standard Kit

Standard Kit	60-808-1185
Standard Kit for HF	60-808-1150



Autosampler Probes

(See page 12 for complete list of probes)

Autosampler Probe for Shimadzu ASC-6100F/9800	70-803-1200
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Glass DC Nebulizers

Conikal
1mL/min uptake A41-1-UC1S

SeaSpray
2mL/min uptake A41-1-USS2S

Slurry
4mL/min uptake A41-1-US6

MicroMist
600µL/min uptake A41-07-UM06S
200µL/min uptake A41-07-UM02
100µL/min uptake A41-07-UM01
50µL/min uptake A41-07-UM005



DC Nebulizers for HF

OpalMist
1mL/min uptake A41-07-PFA1S
600µL/min uptake A41-07-PFA06S
200µL/min uptake A41-07-PFA02
100µL/min uptake A41-07-PFA01
50µL/min uptake A41-07-PFA005



DuraMist
1mL/min uptake A41-07-DM1S
400µL/min uptake A41-07-DM04



VeeSpray
0.6 - 3mL/min uptake A41-1-CV6



IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

Glass spray chamber KT-1067-XR
Quartz spray chamber KT-1067Q-XR
PFA spray chamber KT-1067P-XR

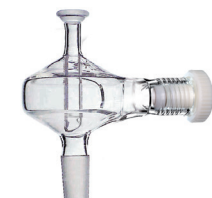


Spray Chambers

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



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)

30-808-8039

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

Comprises:

Torch Body 31-808-1258
 Torch Adaptor 31-808-1260
 Tapered Alumina Injector 1.5mm 31-808-0013
 Joint Clip B14-Nickel KCM-14
 GazFit Connectors (PKT 4) for 4mm OD side arms GAZ-04



Tapered Injectors

Alumina Injector 1.0mm 31-808-0835
 Alumina Injector 1.5mm 31-808-0013
 Alumina Injector 1.8mm 31-808-0015
 Alumina Injector 2.0mm 31-808-0027
 Alumina Injector 2.4mm 31-808-0385



Torches

Capillary Injectors

Sapphire Injector 2.0mm 31-808-3001

Quartz Torches

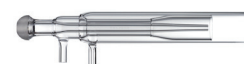
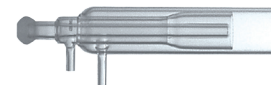
Quartz Torch Standard 1.5mm Injector (Suitable for 7500/8100) 30-808-1179

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

RF Coil Installation Kit 70-900-6000T

Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier 70-803-1312



Gaurdian In-Line Filters

Guardian in-line non-return gas filter 70-803-1362
 Guardian in-line sample filter 70-803-1108



Trident Internal Standard Kit

Standard Kit 60-808-1185
 Standard Kit for HF 60-808-1150



Glass DC Nebulizers

SeaSpray

2mL/min uptake	A21-07-USS2
1mL/min uptake	A21-07-USS1
400µL/min uptake	A21-07-USS04

MicroMist

600µL/min uptake	A21-07-UM06
200µL/min uptake	A21-07-UM02
100µL/min uptake	A21-07-UM01
50µL/min uptake	A21-07-UM005



Slurry

4mL/min uptake	A21-07-US6
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Conikal

2mL/min uptake	A21-07-UC2
1mL/min uptake	A21-07-UC1

DC Nebulizers for HF

DuraMist

1mL/min uptake	A21-07-DM1
400µL/min uptake	A21-07-DM04



OpalMist

2mL/min uptake	A21-07-PFA02
600µL/min uptake	A21-07-PFA06
200µL/min uptake	A21-07-PFA02
100µL/min uptake	A21-07-PFA01
50µL/min uptake	A21-07-PFA005



VeeSpray

0.6-3mL/min uptake	A21-07-CV6
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IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

For ARCOS II EOP

Glass Spray Chamber	KT-1146-XR
Quartz Spray Chamber	KT-1146Q-XR
PFA Spray Chamber	KT-1146P-XR

For Blue TI/EOP

Glass Spray Chamber	KT-1141-XR
Quartz Spray Chamber	KT-1141Q-XR
PFA Spray Chamber	KT-1141P-XR



Spray Chambers

Tracey

50mL Cyclonic	20-809-2665HE
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Twister

50mL Cyclonic	20-809-2951HE
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Scott Spray Chamber

20-809-4053

Quartz Adaptor

21-809-3772



Quartz Adaptor with Aux Port

21-809-3771



Spray Chambers for HF

Tracey TFE

50mL Cyclonic	20-809-3717
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Suitable for use with HF.
Requires Transfer Tube 21-809-3726.



PuraFlex Transfer Tube 21-809-3726



Torches

D-Torch Blue EOP 30-808-3600

D-Torch Blue TI 30-808-3629

Comprises:

Base and Inner Tube 31-808-3605

Quartz Outer Tube 31-808-3630

Injector Ferrule 31-808-2962

Retaining Ring 31-808-3595

Adaptor for D-Torch B19 31-808-3651

Adaptor S19-B19-90deg 21-809-4045

Metal Ball Joint Clip JC-19

D-Torch Options:

Sheath Gas Adaptor 21-809-4082

Aux Gas Line 70-803-1424



Tapered Injectors for Blue EOP/TI D-Torch

Quartz Injector 1.0mm 31-808-0009

Quartz Injector 1.2mm 31-808-3643

Quartz Injector 1.5mm 31-808-0007

Quartz Injector 1.8mm 31-808-8146

Quartz Injector 2.0mm 31-808-0008

Quartz Injector 2.4mm 31-808-3541

Quartz Injector 2.5mm 31-808-3645

Alumina Injector 1.0mm 31-808-0835

Alumina Injector 1.5mm 31-808-0013

Alumina Injector 1.8mm 31-808-0015

Alumina Injector 2.0mm 31-808-0027

Alumina Injector 2.4mm 31-808-0385



Capillary Injectors for Blue EOP/TI D-Torch

Alumina Injector 1.8mm 31-808-0087

D-Torch ARCOS II EOP 30-808-3657

Comprises:

Base and Inner Tube 31-808-3660

Quartz Outer Tube 31-808-3658

Injector Ferrule 31-808-2962

Retaining Ring 31-808-3595

Adaptor for D-Torch B19 31-808-3651

Adaptor S19-B19-90deg 21-809-4045

Metal Ball Joint Clip JC-19

D-Torch Options:

Sheath Gas Adaptor 21-809-4082

Adaptor S19-B13-90deg 21-809-4048

Adaptor assembly 21-809-4223



Torches

Tapered Injectors for ARCOS II EOP D-Torch

Quartz Injector 1.8mm 31-808-3663

Quartz Injector 2.0mm 31-808-3674

Quartz Injector 2.5mm 31-808-3676

Alumina Injector 2.0mm 31-808-3699

Alumina Injector 2.4mm 31-808-3700



Capillary Injectors for ARCOS II EOP D-Torch

Sapphire Injector 2.0mm 31-808-3718

Sapphire Injector 2.4mm 31-808-3850

Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier 70-803-1271



Gaurdian In-Line Filters

Guardian in-line non-return gas filter 70-803-1362

Guardian in-line sample filter 70-803-1108



Trident Internal Standard Kit

Standard Kit 60-808-1185

Standard Kit for HF 60-808-1150



Autosampler Probes

(See page 12 for complete list of probes)

For Cetac ASX-520

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
1mL/min uptake	A21-07-USS1
400µL/min uptake	A21-07-USS04

MicroMist

600µL/min uptake	A21-07-UM06
200µL/min uptake	A21-07-UM02
100µL/min uptake	A21-07-UM01
50µL/min uptake	A21-07-UM005



Slurry

4mL/min uptake	A21-07-US6
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Conikal

2mL/min uptake	A21-07-UC2
1mL/min uptake	A21-07-UC1

DC Nebulizers for HF

DuraMist

1mL/min uptake	A21-07-DM1
400µL/min uptake	A21-07-DM04



OpalMist

2mL/min uptake	A21-07-PFA02
600µL/min uptake	A21-07-PFA06
200µL/min uptake	A21-07-PFA02
100µL/min uptake	A21-07-PFA01
50µL/min uptake	A21-07-PFA005



VeeSpray

0.6-3mL/min uptake	A21-07-CV6
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IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

For ARCOS II SOP

Glass Spray Chamber	KT-1154-XR
Quartz Spray Chamber	KT-1154Q-XR
PFA Spray Chamber	KT-1154P-XR

For Blue SOP

Glass Spray Chamber	KT-1141-XR
Quartz Spray Chamber	KT-1141Q-XR
PFA Spray Chamber	KT-1141P-XR



Spray Chambers

Tracey

50mL Cyclonic	20-809-2665HE
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Twister

50mL Cyclonic	20-809-2951HE
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Scott Spray Chamber

20-809-4053

Straight Quartz Adaptor

21-809-3773



Straight Quartz Adapter with Aux Port

21-809-3804

Spray Chambers for HF

Tracey TFE

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



Straight HF Resistant Adaptor

21-809-3727

Torches

D-Torch 30-808-3614

Comprises:

Base and Inner Tube	31-808-3605
Quartz Outer Tube	31-808-3611
Injector Ferrule	31-808-2962
Retaining Ring	31-808-3595
Adaptor for D-Torch B19	31-808-3651
Adaptor for D-Torch B13	31-808-3596
Metal Ball Joint Clip	JC-19
Safety Gloves, Medium	SAFEGLOVE-med



Options:

Sheath Gas Adaptor 21-809-4083

Tapered Injectors for D-Torch

Quartz Injector 1.0mm	31-808-0009
Quartz Injector 1.2mm	31-808-3643
Quartz Injector 1.5mm	31-808-0007
Quartz Injector 1.8mm	31-808-8146
Quartz Injector 2.0mm	31-808-0008
Quartz Injector 2.4mm	31-808-3541
Quartz Injector 2.5mm	31-808-3645
Alumina Injector 1.0mm	31-808-0835
Alumina Injector 1.5mm	31-808-0013
Alumina Injector 1.8mm	31-808-0015
Alumina Injector 2.0mm	31-808-0027
Alumina Injector 2.4mm	31-808-0385



Capillary Injectors for D-Torch

Alumina Injector 1.8mm 31-808-0087

Spectro Torch 31-808-3405



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 70-803-1271



Gaurdian In-Line Filters

Guardian in-line non-return gas filter	70-803-1362
Guardian in-line sample filter	70-803-1108



Trident Internal Standard Kit

Standard Kit	60-808-1185
Standard Kit for HF	60-808-1150



Autosampler Probes

(See page 12 for complete list of probes)

For Cetac ASX-520

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 A31-1-USS04

MicroMist

400µL/min uptake A31-1-UM04

200µL/min uptake A31-1-UM02

100µL/min uptake A31-1-UM01

50µL/min uptake A31-1-UM005



DC Nebulizers for HF

OpalMist

400µL/min uptake A31-1-PFA04

200µL/min uptake A31-1-PFA02

100µL/min uptake A31-1-PFA01

50µL/min uptake A31-1-PFA005



IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

Glass Spray chamber KT-1027-XR

Quartz spray chamber KT-1027Q-XR

PFA spray chamber KT-1027P-XR

Elbow Adaptor 21-809-4155



Torches

Quartz Torch 31-808-3357

Torch Options:

Quartz Injector 1.0mm 31-808-3440

Quartz Injector 2.0mm 31-808-3898

Quartz Injector 2.5mm 31-808-3428

Base for iCAP Q Torch 31-808-3494



Autosampler Probes

(See page 12 for complete list of probes)

For Cetac ASX-520

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



Cones

Sampler Cones

Aluminium Sampler TG1021-Al

Platinum Sampler with Copper Core TG1026A-Pt/Cu

Nickel Sampler with Copper Core TG1021-Ni/Cu



Skimmer Cones

Nickel Skimmer TG1034-Ni



Nickel Skimmer Hot and Cold Plasma TG1035-Ni

Platinum Skimmer TG1038-Pt



Platinum Skimmer Hot and Cold Plasma TG1039-Pt

Skimmer Cone Inserts

Insert 2.8 TG1036-28

Insert 3.0 TG1036-30

Insert 3.5 TG1036-35

Insert 4.5 TG1036-45



Graphite Sampler Cone Gasket

TG5001

Common Accessories

Elegra Argon Humidifier

Elegra Argon Humidifier 70-803-1303



Gaurdian In-Line Filters

Gaurdian in-line non-return gas filter 70-803-1362

Gaurdian in-line sample filter 70-803-1108



Trident Internal Standard Kit

Standard Kit 60-808-1185

Standard Kit for HF 60-808-1150

Glass DC Nebulizers

SeaSpray

2mL/min uptake	A31-07-USS2
400µL/min uptake	A31-07-USS04

MicroMist

600µL/min uptake	A31-07-UM06
200µL/min uptake	A31-07-UM02
100µL/min uptake	A31-07-UM01
50µL/min uptake	A31-07-UM005



Conikal

2mL/min uptake	A31-07-UC2
1mL/min uptake	A31-07-UC1

Slurry

4mL/min uptake	A31-07-US6
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DC Nebulizers for HF

DuraMist

1mL/min uptake	A31-07-DM1
400µL/min uptake	A31-07-DM04



OpalMist

2mL/min uptake	A31-07-PFA2
600µL/min uptake	A31-07-PFA06
200µL/min uptake	A31-07-PFA02
100µL/min uptake	A31-07-PFA01
50µL/min uptake	A31-07-PFA005



VeeSpray

0.6 - 3mL/min uptake	A31-07-CV6
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IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

Glass Spray Chamber	KT-1015-XR
Quartz Spray Chamber	KT-1015Q-XR
PFA Spray Chamber	KT-1015P-XR



Spray Chambers

Tracey

50mL Cyclonic	20-809-2665HE
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Twister

50mL Cyclonic	20-809-2951HE
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Adaptor

Right Angle With Ball Joint	21-809-2761
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Spray Chambers for HF

Tracey TFE

50mL Cyclonic	20-809-3469
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Torches

D-Torch

30-808-2844



Comprises:

Base and Inner Tube	31-808-2932
Quartz Outer Tube	31-808-2840
Retaining Ring	31-808-2707
Injector Adaptor	31-808-2895
Injector Ferrule	31-808-2897

D-Torch for HF

30-808-2862



Comprises:

Base and Inner Tube	31-808-2932
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

Torches

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



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



Quartz Torch

Old Design 31-808-2676



Tapered Injectors for Old Design Torch

- Quartz Injector 1.0mm 31-808-2719
- Quartz Injector 1.5mm 31-808-2702
- Alumina Injector 1.5mm 31-808-2787



Capillary Injectors for Old Design Torch

- Quartz Injector 2.0mm 31-808-2675
- Alumina Injector 2.0mm 31-808-2786
- Sapphire Injector 2.0mm 31-808-2804



Duo Periscope Window

31-808-2677



Quartz Window

70-803-1116



RF Coils

RF Coil for 6000

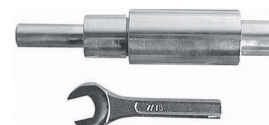
- Silver, Teflon Coated 70-900-4002S
- Gold, Teflon Coated 70-900-4002G



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 70-803-1303



Gaurdian In-Line Filters

- Guardian in-line non-return gas filter 70-803-1362
- Guardian in-line sample filter 70-803-1108



Trident Internal Standard Kit

- Standard Kit 60-808-1185
- Standard Kit for HF 60-808-1150



Autosampler Probes

(See page 12 for complete list of probes)

For Cetac ASX-520

- 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
400µL/min uptake	A31-07-USS04

MicroMist

600µL/min uptake	A31-07-UM06
200µL/min uptake	A31-07-UM02
100µL/min uptake	A31-07-UM01
50µL/min uptake	A31-07-UM005



Conikal

2mL/min uptake	A31-07-UC2
1mL/min uptake	A31-07-UC1

Slurry

4mL/min uptake	A31-07-US6
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DC Nebulizers for HF

DuraMist

1mL/min uptake	A31-07-DM1
400µL/min uptake	A31-07-DM04



OpalMist

2mL/min uptake	A31-07-PFA2
600µL/min uptake	A31-07-PFA06
200µL/min uptake	A31-07-PFA02
100µL/min uptake	A31-07-PFA01
50µL/min uptake	A31-07-PFA005



VeeSpray

0.6 - 3mL/min uptake	A31-07-CV6
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IsoMist XR

Programmable Temperature Cyclonic Spray Chamber

Glass Spray chamber	KT-1021-XR
PFA spray chamber	KT-1021P-XR
Twinnabar spray chamber	KT-1021T-XR



Spray Chambers

Tracey

50mL Cyclonic	20-809-2665HE
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Twister

50mL Cyclonic	20-809-2951HE
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Straight Ball Joint Adaptor

21-809-2723



Spray Chambers for HF

Tracey TFE

50mL Cyclonic	20-809-9198
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Torches

D-Torch Demountable 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



Options:

Ceramic Outer Tube	31-808-3836
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Torches

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



Quartz Torch

Old Design 31-808-2692



Tapered Injectors for Old Design Torch

Quartz Injector 1.0mm 31-808-2719



Quartz Injector 1.5mm 31-808-2702

Alumina Injector 1.5mm 31-808-2787

Capillary Injectors for Old Design Torch

Quartz Injector 2.0mm 31-808-2675



Alumina Injector 2.0mm 31-808-2786

Sapphire Injector 2.0mm 31-808-2804

RF Coils

RF Coil for 6000 Mark I

Silver, Teflon Coated 70-900-4002S

Gold, Teflon Coated 70-900-4002G

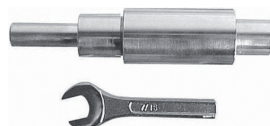


RF Coil for 7000/6000 Mark II

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 70-803-1303



Gaurdian In-Line Filters

Guardian in-line non-return gas filter 70-803-1362

Guardian in-line sample filter 70-803-1108



Trident Internal Standard Kit

Standard Kit 60-808-1185

Standard Kit for HF 60-808-1150



Autosampler Probes

(See page 12 for complete list of probes)

For Cetac ASX-520

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



DC Nebulizer Gas Fitting Connectors

Agilent Vista/700-ES	70-803-0969
Agilent MP-AES	70-803-0969
Agilent 4500/7500	70-803-1086
Agilent 7700/7800/7900/8800/8900	70-803-1105
Agilent 5100/5110	70-803-1105
Horiba Jobin Yvon (All models)	70-803-0911
Leeman (All models)	70-803-0969
PerkinElmer Optima and Avio	70-803-1070
PerkinElmer Elan/NexION 300/350	70-803-1049
PerkinElmer NexION 1000/2000	70-803-1449
Shimadzu 9000/9800	70-803-1311
Shimadzu 2030	70-803-1311
Spectro (All models)	70-803-1070
Thermo iCAP 6000/7000/Q & X-Series	70-803-1292
Thermo Neptune	70-803-1468
Analytik Jena ICP-MS	70-803-0969

LC Interface for Speciation Measurements

The high-pressure fitting 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.

High Pressure nebulizer fitting kit	FT-16-8-X
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EzyLok Kit for Nebulizer Gas Side Arm

EzyLok Kit	EL-1
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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	FT-16-1.3
1/16 inch to 1/16 inch	FT-16-1.6

Sample Tube Connectors (PKT 10)

	UniFit P/N	EzyFit P/N
0.25mm ID x 1.27mm OD x 700mm long	NFT-025	EZT-025
0.25mm ID x 1.27mm OD x 2000mm long	NFT2-025	EZT2-025
0.50mm ID x 1.27mm OD x 700mm long	NFT-050	EZT-050
0.50mm ID x 1.27mm OD x 2000mm long	NFT2-050	EZT2-050
0.75mm ID x 1.27mm OD x 700mm long	NFT-075	EZT-075
0.75mm ID x 1.27mm OD x 2000mm long	NFT2-075	EZT2-075
0.75mm ID x 1.27mm OD x 1500mm long	NFTS-075	EZTS-075
0.07mm ID x 1/16" OD x 700mm long	NFT-16-07	EZT-16-07
0.13mm ID x 1/16" OD x 700mm long	NFT-16-13	EZT-16-13
0.18mm ID x 1/16" OD x 700mm long	NFT-16-18	EZT-16-18
0.25mm ID x 1/16" OD x 700mm long	NFT-16-25	EZT-16-25
0.25mm ID x 1/16" OD x 1500mm long	NFTS-16-25	EZTS-16-25
0.50mm ID x 1/16" OD x 700mm long	NFT-16-50	EZT-16-50
0.50mm ID x 1/16" OD x 1500mm long	NFTS-16-50	EZTS-16-50
0.75mm ID x 1/16" OD x 700mm long	NFT-16-75	EZT-16-75
0.75mm ID x 1/16" OD x 1500mm long	NFTS-16-75	EZTS-16-75
Tefzel 0.5mm ID x 1.3mm OD x 700mm long	NFTFE-050	EZTFE-050
0.3mm ID x 0.75mm OD x 700mm long	NFT-0703	EZT-0703

Sample Tubing

0.25mm ID x 1.27mm OD x 10m long	STT-025
0.50mm ID x 1.27mm OD x 10m long	STT-050
0.75mm ID x 1.27mm OD x 10m long	STT-075
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
0.3mm ID x 0.75mm OD x 10m long	STT-0703
0.13mm ID x 1.27mm OD x 10m long	PFT-013
0.18mm ID x 1.27mm OD x 10m long	PFT-018
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
Tefzel 0.5mm ID x 1.3mm OD x 10m long	TFE-050

Other Tubing

Sample tubing 0.25mm ID x 1.27mm OD x 700mm long, for 0.05 and 0.1ml/min OpalMist and PolyCon (PKT 10)	70-808-0360
Reagent tube 1.6mm OD x 1.0mm ID x 1400mm long with PTFE Sinkers (PKT. 3)	70-808-0360
Tygon Tubing 1/4 inch x 1m	70-808-0360
Tygon Tubing 700mm	70-803-0598

Helix & Helix CT Spray Chambers

Helix CT:

Helix CT Locking Screw with Seal	70-803-1439
Helix CT Seal (PKT 4)	70-803-1456

Helix:

Helix Locking Screw	70-100-0152
Helix Seal (PKT 4)	70-100-0237
Nebulizer Spacer	21-100-0246



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, 12mm small adaptor seal (PKT 5)	VT-9/1.5
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

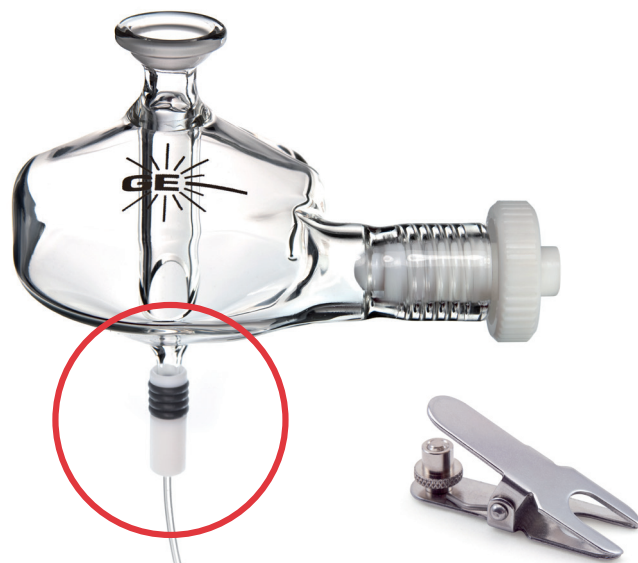
GazFit Connectors (PKT 2), for 8mm OD arm	GAZ-08
GazFit Connectors (PKT 4), for 6mm OD torch side arms	GAZ-06
GazFit Connectors (PKT 4), 2 for 6mm OD torch side arms, 2 for 4mm OD torch side arms	GAZ-0604
GazFit Connectors (PKT 4), for 5mm OD torch side arms	GAZ-05
GazFit Connectors (PKT 4), for 4mm 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
Nickel Joint Clip B14 (to connect spray chamber and drain adaptors)	KCM-14
Nickel Joint Clip KCM29 (to connect spray chamber and drain adaptors)	KCM-29
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

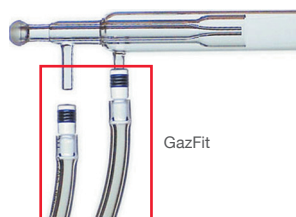


UniFit Connector with sample tube

Metal Ball Joint Clip JC-13

O-Rings for Torches

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

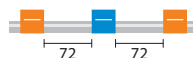
Limitations:

- Potential leaching of plasticizers.



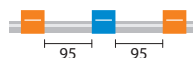
PVC, 2 Bridged, 152mm (152mm between tags)

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:

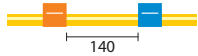
- Specially formulated for hydrocarbons, petroleum products and distillates.

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.

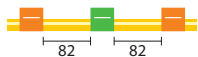
Limitations:

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








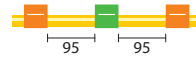
Solva, 2 Bridged, 140mm (140mm between tags)

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









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

Tag Colours	ID (mm)	P/N
	0.38	0.38-OG3B-SF
	0.76	0.76-BLK3B-SF
	0.89	0.89-ORG3B-SF
	1.14	1.14-RED3B-SF
	1.30	1.30-GRY3B-SF



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

Tag Colours	ID (mm)	P/N
	0.38	0.38-OG3B-95-SF
	0.51	0.51-OY3B-95-SF
	0.76	0.76-BLK3B-95-SF
	0.89	0.89-ORG3B-95-SF
	1.02	1.02-WHT3B-95-SF
	1.52	1.52-YB3B-95-SF

Viton® Peristaltic Pump Tubing

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

Special Properties:

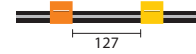
- Special tubing for concentrated acids and corrosive solvents.

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
	0.51	VS0.51-OY
	0.64	VS0.64-OW
	0.76	VS0.76-BLK
	0.89	VS0.89-ORG
	1.02	VS1.02-WHT
	1.14	VS1.14-RED
	1.30	VS1.30-GRY
	1.42	VS1.42-YLW
	1.52	VS1.52-YB
	1.65	VS1.65-BLU
	1.85	VS1.85-GRN
	2.06	VS2.06-PUR
	2.29	VS2.29-PBLK
	2.54	VS2.54-PO
	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:

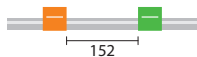
- Environmental-friendly tubing especially designed for solvents.
- Suitable for MIBK.

Advantages:







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

Limitations:

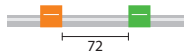
- Limited service life.









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

Tag Colours	ID (mm)	P/N
	0.38	0.38-ORG-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-ORG-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:

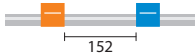
- Inexpensive all-round tubing for general laboratory applications.

Advantages:

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

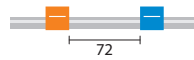
Limitations:

- Potential leaching of plasticizers.



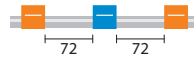
PVC, 2 Bridged, 152mm
(152mm between tags)

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
	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



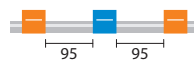
PVC, 2 Bridged, 72mm
(72mm between tags)

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



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

Tag Colours	ID (mm)	P/N
	0.13	0.13-OBLK3B-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:

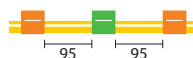
- Special tubing for hydrocarbons, petroleum products and distillates.

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.

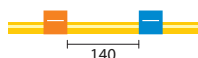
Limitations:

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



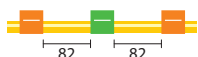
Solva, 3 Bridged, 95mm
(95mm between tags)

Tag Colours	ID (mm)	P/N
	0.38	0.38-OG3B-95-SF-F
	0.51	0.51-OY3B-95-SF-F
	0.76	0.76-BLK3B-95-SF-F
	0.89	0.89-ORG3B-95-SF-F
	1.02	1.02-WHT3B-95-SF-F
	1.52	1.52-YB3B-95-SF-F



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

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



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

Tag Colours	ID (mm)	P/N
	0.38	0.38-OG3B-SF-F
	0.76	0.76-BLK3B-SF-F
	0.89	0.89-ORG3B-SF-F
	1.14	1.14-RED3B-SF-F
	1.30	1.30-GRY3B-SF-F

Contour Flared-end Viton® Peristaltic Pump Tubing

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

Special Properties:

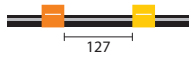
- Special tubing for concentrated acids and corrosive solvents.

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 MHSL 2001.

Special Properties

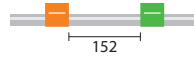
- Environmental-friendly tubing especially designed for solvents.
- Suitable for MIBK.

Advantages:

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

Limitations:

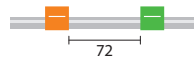
- Limited service life.



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

Tag Colours	ID (mm)	P/N
	0.38	0.38-ORG-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-ORG-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



GLASS EXPANSION
Quality By Design

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