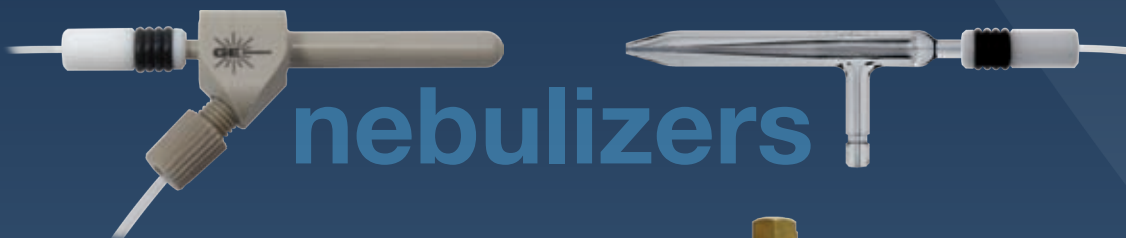


ICP-OES/ICP-MS

SUPPLIES & ACCESSORIES



spray chambers

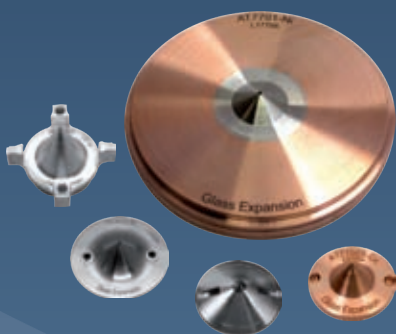


nebulizers



torches

coils



cones



GLASS EXPANSION

Quality By Design

Issue 9

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Product Lists

Manufacturer	Instrument type	Models	Torch Arrangement	Page
Agilent (HP)	ICP-MS	7500	Axial	14
Agilent (HP)	ICP-MS	7700/8800	Axial	16
Agilent (Varian)	ICP-OES	700-ES Series Axial, Vista Axial	Axial	18
Agilent (Varian)	ICP-OES	700-ES Series Radial, Vista Radial	Radial	21
Jobin Yvon (Horiba)	ICP-OES	24, 38 & 138 Series, Ultima, Activa	Radial	23
PerkinElmer	ICP-MS	Elan 6000, 9000, DRC II, DRC-E	Axial	25
PerkinElmer	ICP-MS	NexION 300	Axial	28
PerkinElmer	ICP-OES	Optima 2000/4000/5000/7000/8000 DV Series	Axial	30
PerkinElmer	ICP-OES	Optima 4300V, 5300V, 7300V	Radial	33
Shimadzu	ICP-OES/MS	1000, 5000, 7000, 8000 & 9000	Radial	35
Spectro (Ametek)	ICP-OES	EOP (Modula, CIROS, Genesis, ARCOS)	Axial	37
Spectro (Ametek)	ICP-OES	SOP (Modula, CIROS, Genesis, ARCOS)	Radial	39
Spectro (Ametek)	ICP-OES	Spectroblue EOP/TI	Axial	41
Spectro (Ametek)	ICP-OES	Spectroblue SOP	Radial	42
Thermo	ICP-MS	X Series	Axial	43
Thermo	ICP-MS	iCAP Q	Axial	45
Thermo	ICP-OES	iCAP 6000/7000 Duo	Axial	46
Thermo	ICP-OES	iCAP 6000/7000 Radial	Radial	48

Trademarks*

Trademarks of Glass Expansion are as follows:

Conikal	U-Series	Cinnabar	Capricorn	PuraFlex	Glass Expansion
SeaSpray	UniFit	Twister	Helix	D-Torch	Glass Expansion logo
MicroMist	OpalMist	Twinnabar	VitriCone	TruFlo	
Slurry	EzyFit	ABC Torch	Niagara	DuraMist	
VeeSpray	EzyLok	GazFit	Trident	Assist	
PolyCon	Tracey	Eluo	IsoMist	Contour	

*All company names listed are registered tradenames and all instrument brand/model names are the property of the respective companies listed.

GLASS EXPANSION NEBULIZER PART NUMBERS

U-Series glass concentric, DuraMist, OpalMist, PolyCon and VeeSpray nebulizers

ARG - yy - ZZ nnn

ARG argon gas operated nebulizer

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

CP = PolyCon Polyimide HF resistant nebulizer

PFA = OpalMist PFA HF resistant nebulizer

nnn aspirated uptake at nominal argon flow, in mL/min
eg. UC2 = 2mL/min, UM04 = 0.4mL/min, CP005 = 0.05mL/min

LEARN ABOUT GLASS EXPANSION NEBULIZERS

Our glass concentric nebulizers are available in two styles – the latest U-Series and the earlier nebulizer with EzyFit sample connector. All have Glass Expansion's unique VitriCone construction.

U-Series Glass Concentric Nebulizers

The U-Series is our latest design and it has a UniFit sample connector which slides easily over the sample arm. The benefits of the U-Series nebulizer are:

- 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.



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

The EzyLok argon connector

The EzyLok is the easy, safe and effective way to connect argon supply tubes to your nebulizer

Features:

- Promotes user safety
- Stiffening of argon supply tube is no longer a problem
- Eliminates bonding of argon supply tube to nebulizer side arm
- Can be used with 4mm nylon tubing or standard 6mm soft tubing

The EzyLok Kit:

The EL-1 EzyLok Kit comprises:

- 1 x EzyLok Connector for 4mm Tubing
- 1 x EzyLok 6mm hose adaptor
- 1 x Hose Clip

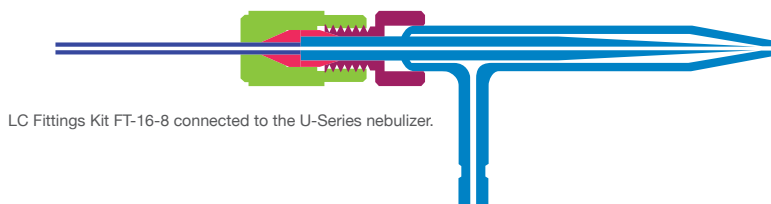


All nebulizers in this catalog are supplied with the EL-1 EzyLok Kit.

LC INTERFACE FOR SPECIATION MEASUREMENTS

The chemical effect of some elements varies dramatically depending on the species present. Therefore the concentration of each species needs to be determined rather than the total concentration of each element. In order to measure the concentration of different species, they must first be separated using chromatography – most commonly LC – and then detected using ICP-MS or ICP-OES.

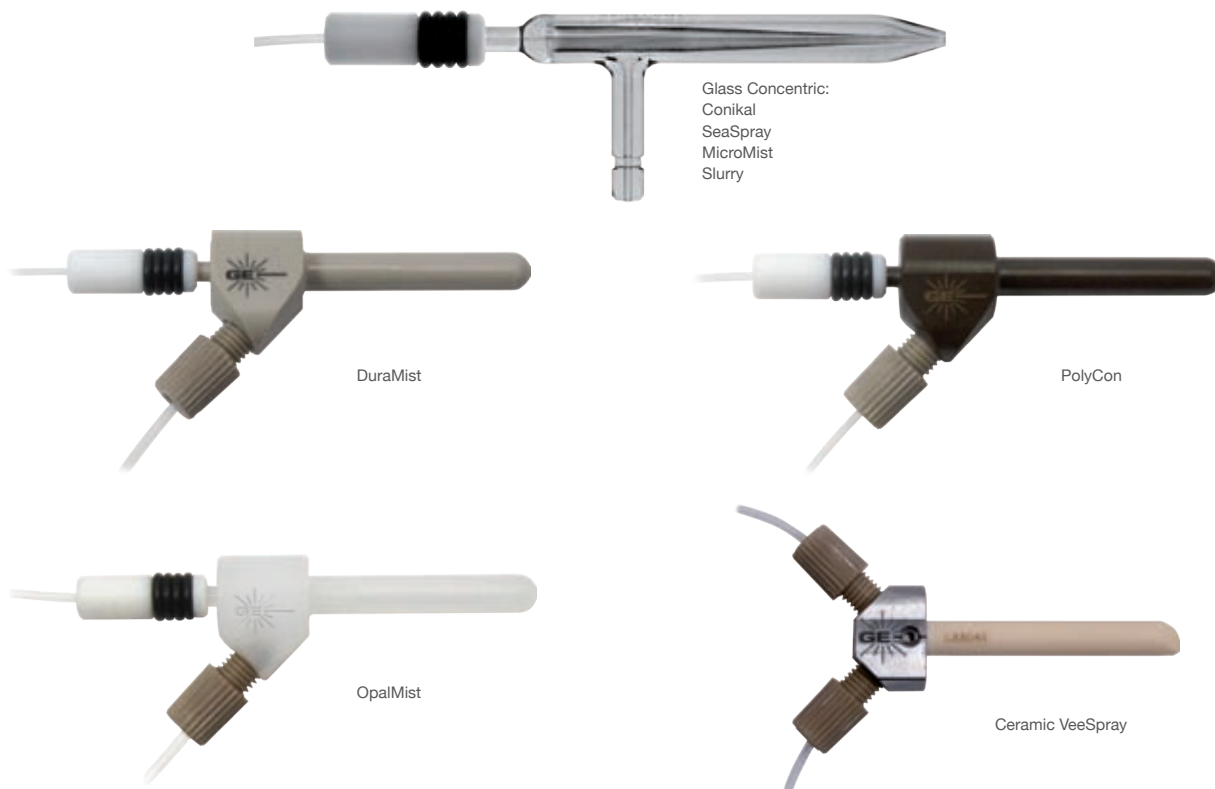
The LC Fittings Kit, part number FT-16-8, allows quick and easy connection to any U-Series nebulizer. And the LC Fittings Kit can be configured to interface to all common LC outputs.



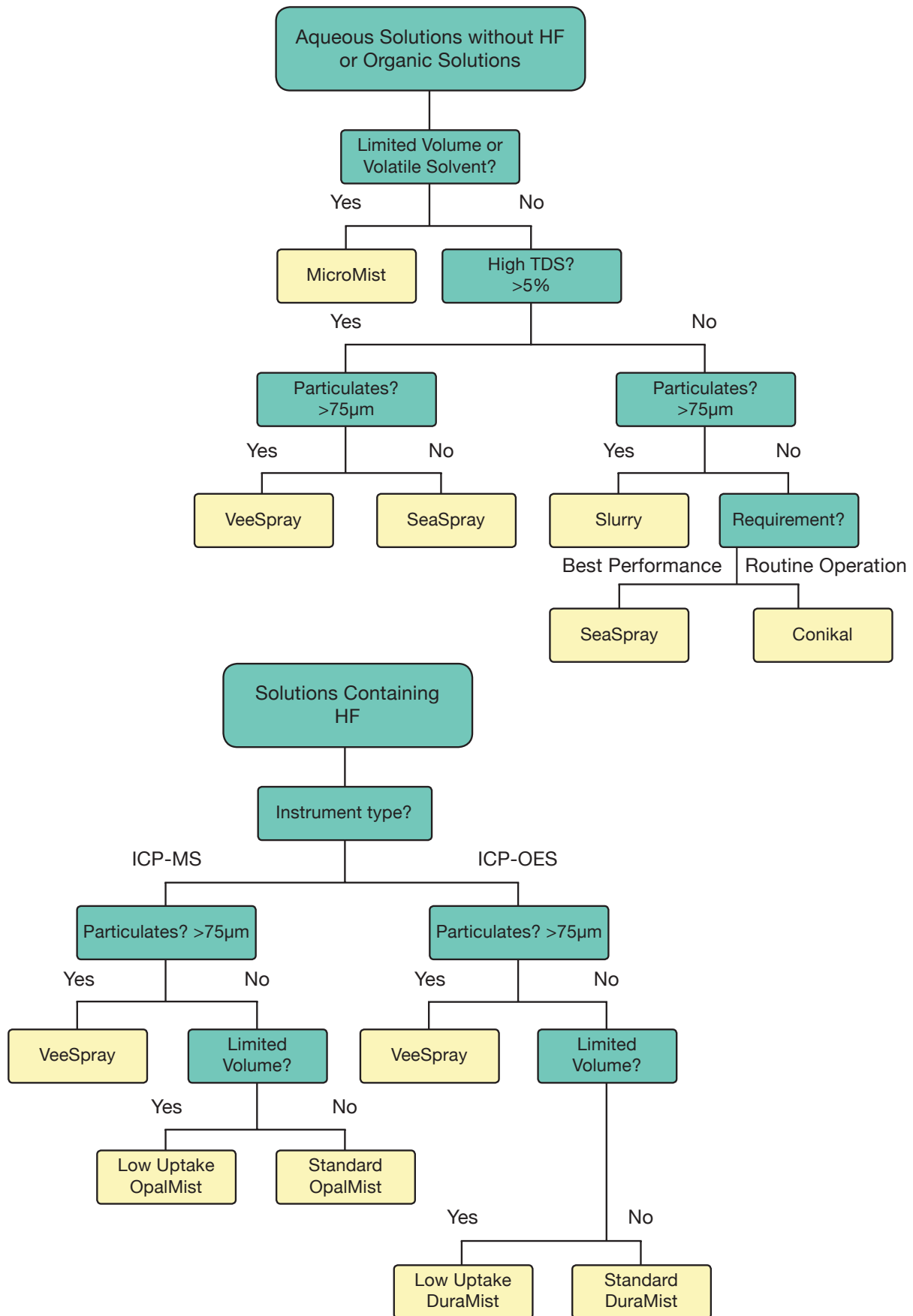
NEBULIZER TYPES

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

* Varies with nebulizer uptake



NEBULIZER SELECTION GUIDE



SPRAY CHAMBERS – HIGHEST QUALITY, UNIFORMITY AND EFFECTIVENESS

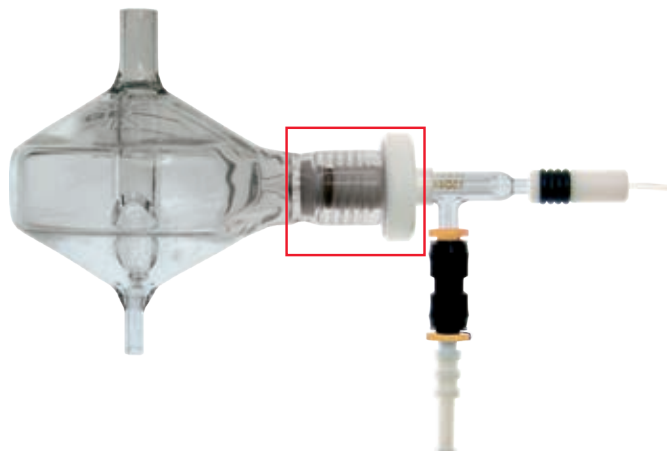
Helix – The Modern Interface Between Nebulizer and Spray Chamber

Most ICP spectrometers rely on an O-Ring seal between the nebulizer and the spray chamber. This design may result in extended washout times due to dead volume around the seal. The Helix eliminates dead volume, resulting in faster washout times and higher sample throughput. Also, even the most chemically resistant O-Rings are prone to wear and tear and require regular replacement. They also tend to bond to a glass nebulizer, making the nebulizer difficult to remove. To eliminate all of these problems, Glass Expansion has developed Helix – the user friendly nebulizer/spray chamber interface.

- Faster washout times due to elimination of dead volume around the nebulizer seal
- No O-Rings to replace
- Totally inert – impervious to organic solvents and strong acids
- Smooth nebulizer insertion and removal
- Special release/lock mechanism seals the chamber
- Positive stop to ensure correct nebulizer position

Helix fittings can only be used with Glass Expansion spray chambers incorporating the Helix side arm. They cannot be used with spray chambers designed with an O-Ring seal.

Part numbers for Helix glass spray chambers can be identified by the letters HE at the end, as in 20-809-0224HE. All of the glass spray chambers in this catalog are supplied with Helix. All of the PTFE and PFA spray chambers in this catalog are supplied with a Helix. They do not have the HE suffix since they are not available without Helix.



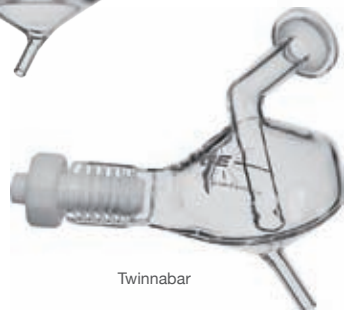
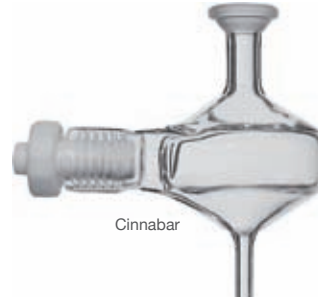
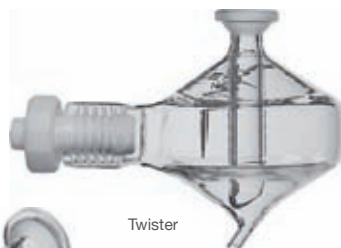
UniFit Drain Connector

For your convenience and safety, each Glass Expansion spray chamber with standard 4mm drain tube is supplied with a UniFit connector P/N UFT-075. The UniFit connector efficiently connects a 0.75mm ID x 1.3mm OD drain tube to the spray chamber.

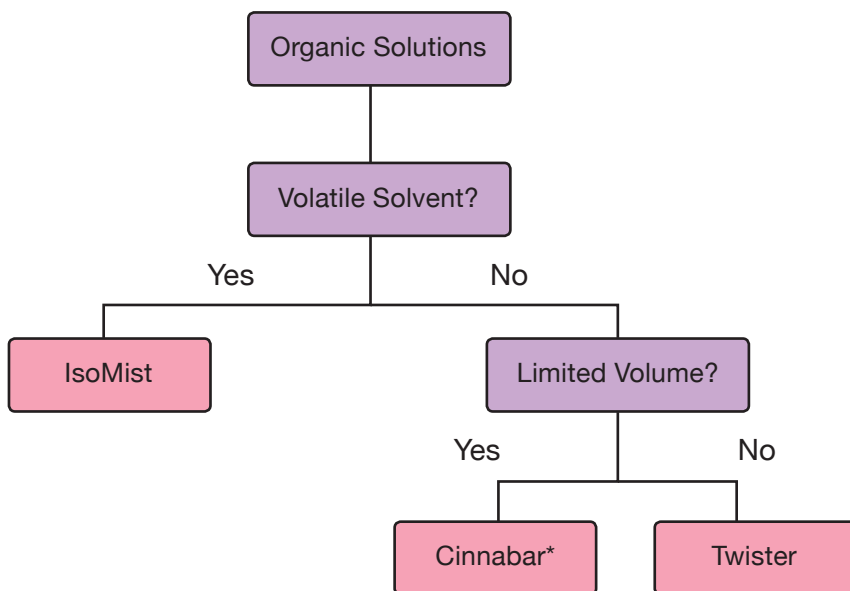
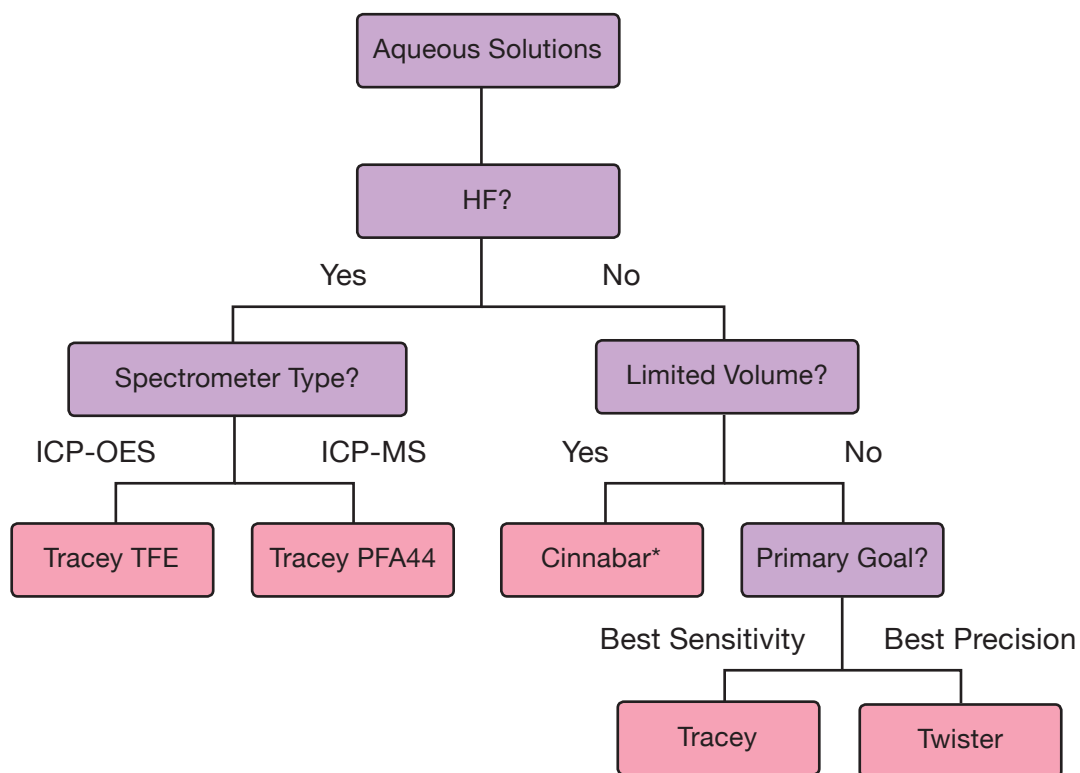


SPRAY CHAMBER TYPES

Spray chamber	Internal Volume, mL	Internal Baffle	HF-resistant	Precision	Purity	Material
Tracey	50	No	No	Very good	Good	Glass
Twister	50	Yes	No	Excellent	Good	Glass
Cinnabar	20	No	No	Very good	Good	Glass
Twinnabar	20	Yes	No	Very good	Good	Glass
Tracey TFE	50	No	Yes	Good	Good	Teflon
Tracey PFA44	44	No*	Yes	Good	Excellent	PFA



SPRAY CHAMBER SELECTION GUIDE



*The Cinnabar Spray Chambers also provide a faster washout

TORCHES – INNOVATIVE AND INSPIRATIONAL

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



Semi Demountable Torches

- Highly accurate construction
- Lower running costs than 1-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.

Essentially the design of the torch for standard analyses and HF analyses is the same, with the exception of the injector material. The torch for aqueous and organics analyses comes with a quartz injector, while the torch for HF analyses comes with an alumina injector. Hence simply interchange between quartz and alumina injectors for appropriate analyses. Several internal diameters for both quartz and alumina injectors are available.

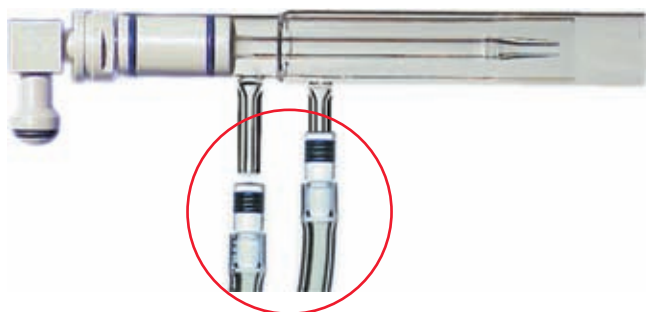
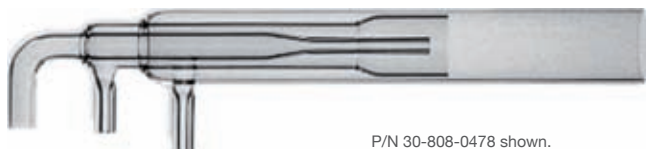
Fixed Quartz Torches (One Piece)

- Precise quartz construction
- Wide range held in stock
- High dimensional accuracy
- Supported by Glass Expansion expertise

GazFit Connectors

Now there's a better way to connect argon tubes. GazFit connectors provide reliable attachment of argon tubes without adhesion. Available to suit torches with 4mm, 5mm, 6mm and 8mm OD side arms.

Note: 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.



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.



P/N 70-900-1000G shown.

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 CD with Do-it-yourself instructions saves time.

Glass Expansion Installation Kits for RF Coils

Save the cost of a service call

- 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.
- CD with Do-It-Yourself instructions.

ICP-MS CONES

Our manufacturing plant includes several CNC machines plus an electron beam welder and is the best equipped and best qualified cone machining plant in the world. 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.

Contact us at enquiries@geicp.com to check the availability of cones and ConeGuards for your ICP-MS model.



ISOMIST



IsoMist Programmable Temperature Spray Chamber

The Ultimate Spray Chamber for ICP-MS and ICP-OES

The IsoMist Programmable Temperature Spray Chamber, provides the benefits of a temperature-controlled ICP sample introduction system in a compact, convenient package.

Peltier Effect Temperature Control

The temperature is electronically controlled using a powerful inbuilt Peltier device. You can select any temperature between -10°C and $+60^{\circ}\text{C}$ in 1°C increments to provide the optimum conditions for any application. The rapid response of the Peltier device allows a spray chamber temperature of -5°C to be reached within 15 minutes.

Versatile Computer Interface

For maximum convenience, the IsoMist can be controlled from your PC via a Bluetooth® wireless interface or a standard USB network connection. The spray chamber temperature can be monitored through a temperature versus time plot on your PC screen. And, for regulatory compliance, the temperature versus time data file can be saved with your results. If these features are not required, once the temperature has been programmed, the IsoMist can be run in stand-alone mode without a PC connection.

Reduced Oxide Interferences in ICP-MS

By introducing the sample at low temperature, the IsoMist reduces oxide levels, resulting in fewer interferences and improved detection limits.

Perfect for Volatile Organics

The temperature can be set as low as -10°C to reduce the solvent load on the plasma and allow the straightforward ICP-MS or ICP-OES analysis of even the most volatile organic solvents.

Constant Temperature Improves Stability

By holding the spray chamber at a constant temperature, the IsoMist significantly improves long-term signal stability, increasing the likelihood of calibration checks passing.

Heating Mode Enhances Sensitivity

The sensitivity for many applications is enhanced by running the spray chamber at an elevated temperature, a feature that is particularly important for samples with limited volume.

Proven Cyclonic Spray Chamber

The IsoMist incorporates the proven Twister cyclonic spray chamber, combining excellent sensitivity and precision with exceptionally fast washout. The Helix nebulizer interface has zero dead volume and provides for convenient nebulizer insertion and removal. This system is compatible with the full range of Glass Expansion nebulizers.

Completely Self-Contained Ergonomic Package

The compact design includes a rugged, low maintenance, chemically-resistant polypropylene housing. It provides a much more convenient alternative to a jacketed spray chamber with an external chiller because it does not require an external source of coolant. It is compatible with almost all ICP-MS and ICP-OES models.

Optional PFA and Quartz Spray Chambers



The IsoMist can be used with PFA or quartz spray chambers in addition to the standard glass Twister spray chamber. Please contact enquiries@geicp.com for information on a suitable PFA or quartz spray chamber for your IsoMist.

The IsoMist can also be ordered with a PFA or quartz spray chamber installed in place of the standard glass spray chamber. Simple add a "P" for PFA or a "Q" for quartz to the part number for the standard kit, eg. KT-1010P for PFA or KT-1010Q for quartz.

Ordering Information

We have established an IsoMist Kit for common ICP-OES and ICP-MS models. Each kit contains the IsoMist module, encapsulated Twister spray chamber, torch interface and mounting bracket (if required).

Please see the Product List for your ICP model to find the compatible IsoMist kit or contact enquiries@geicp.com for assistance.

TRUFLO

TruFlo Sample Monitor

Eliminates guesswork

Reduces sample repeats

Sounds out-of-range alarm

Is suitable for all ICP-OES and ICP-MS models

TruFlo Sample Monitor

TruFlo Sample Monitor 0-4mL/min	70-803-0643
TruFlo Sample Monitor 0-1mL/min	70-803-0788
TruFlo Sample Monitor 0-0.05mL/min	70-803-0774
TruFlo Sample Monitor for HF 0-4mL/min	70-803-0890

Do you ever need to repeat the analysis of a sample due to:

- A blocked nebulizer?
- Worn peristaltic pump tubing?
- Incorrect pressure of the pump tubing clamp?

With the digital display of the TruFlo Sample Monitor, you always know the actual rate of sample uptake to your nebulizer. This enhances the day-to-day reproducibility of your results and reduces the need to repeat measurements due to a blocked nebulizer, worn pump tubing or incorrect clamping of the pump tube. And the borosilicate glass sample path ensures that there is no memory effect or sample contamination. The TruFlo can even sound an alarm if the sample uptake is outside your specified limits.

The actual sample flow is shown on the TruFlo's inbuilt digital display and a graph of the flow versus time can also be displayed on your computer.



The TruFlo is normally calibrated for aqueous solutions. However, if you are running non-aqueous solutions, we can supply a TruFlo calibrated for your specific application. Simply add Part Number 70-TFCAL, TruFlo Calibration Service, to your TruFlo order.

NIAGARA CM

Niagara CM Rapid Rinse Accessory

Most ICP systems incorporate an autosampler. With these systems there is a significant delay between the time when the autosampler probe enters the sample and the time when the sample reaches the nebulizer and further time is lost as the probe moves between sample and rinse. If these delays could be eliminated, the analysis time per sample could be reduced significantly and the sample throughput increased.

This is what the Niagara CM Rapid Rinse Accessory achieves.

The Niagara CM provides all of the benefits of the original Niagara in a more compact easier-to-use design. It begins the rinsing of the nebulizer and spray chamber the instant the sample measurement is completed and continues to rinse until the next sample is ready. Thus the rinse is carried out in time that is usually wasted waiting for the sample solution to flow from the autosampler to the nebulizer. The time that is saved is around 30% for a typical analysis. This significantly reduces the cost per sample for busy laboratories such as those analyzing environmental, geochemical and oil samples.

The Niagara CM is compatible with most ICP-OES and ICP-MS spectrometers and autosamplers.

Niagara CM Rapid Rinse Accessory

[KT-1124](tel:70-803-1124)

Adjustable Mounting Bracket for Niagara CM

[70-803-1142](tel:70-803-1142)



NIAGARA PLUS CM

Niagara Plus CM

Halve your operating costs

Reduce your environmental footprint

Double your sample throughput

The Niagara Plus uses Flow Injection technology to reduce analysis time, environmental impact and operating cost:

- Lower argon consumption
- Reduced cost of consumables such as torches, cones, RF coils, pump tubing, acids, standards and chemicals
- Lower power consumption
- Reduced stress on RF system and lower maintenance cost
- Less down-time for cleaning carbon from torch when analyzing organics
- Less chemical waste to dispose of

In addition to the cost and environmental benefits, the Niagara Plus delivers a major improvement in analytical performance:

- Twice the sample throughput for a typical analysis
- Half the normal sample volume
- Automatic addition of the internal standard simplifies sample preparation
- Inert sample path reduces carryover – the sample does not contact any peristaltic pump tubing
- Constant flow of solution to the plasma maintains plasma stability and reduces stabilization times
- Compact design easily interfaces to almost all models of ICP-MS and ICP-OES

A mounting bracket is required for most ICP models. Choose from the following:

Part Number	ICP Model
70-803-0979	Agilent 7700/8800
70-803-0906	Bruker Aurora 800
21-809-3690	Spectro Arcos/Spectroblue with cyclonic spray chamber
No bracket required	Agilent Vista/700-ES Radial
No bracket required	Agilent 4100 MP-AES
No bracket required	Spectro MS
70-803-1141	All other models

The Niagara Plus requires a 1.0mm ID autosampler probe for optimum performance. Select one of the following probes:

Autosampler Probes

Teflon Encapsulated Carbon Fibre Probe 1.0mm ID (suitable for Cetac ASX-520)	70-803-0793
Teflon Encapsulated Carbon Fibre Probe 1.0mm ID (suitable for PerkinElmer S-10 or AS-93+)	70-803-0816
Teflon Encapsulated Carbon Fibre Probe 1.0mm ID (suitable for Agilent (Varian) SPS-3 or AIM-3600)	70-803-0853
Teflon Encapsulated Carbon Fibre Probe 1.0mm ID (suitable for Agilent I-AS)	60-703-0533

If your autosampler is not listed here, please contact Glass Expansion at enquiries@geicp.com.



Niagara Plus

Niagara Plus CM	KT-1118
Niagara Plus CM for HF	KT-1127
Niagara Plus CM with Pneumatic Actuator	KT-1126

ASSIST

The Assist syringe-driven sample introduction system

- Assists you with faster throughput
- Assists you with improved accuracy
- Assists you with better precision



The Assist is an automated sample introduction system for ICP-OES or ICP-MS. It consists of purpose-built programmable syringe drives with an integrated valve system. The Assist delivers the highest level of accuracy, stability and sample throughput by controlling the delivery of both sample and internal standard or diluent, eliminating the inaccuracies and pulsations caused by peristaltic pumps. The Assist provides you with:

Twice the sample throughput. The rinse time, stabilization time and the time for the sample to move from the autosampler to the nebulizer are all reduced. This reduces the time for a typical analysis by at least half.

Better precision. The sample is delivered by a precisely controlled syringe, eliminating the signal pulsation problem which occurs with the usual peristaltic pump delivery system.

Better accuracy. The internal standard is delivered by a second precision syringe drive, ensuring that the ratio of internal standard to sample is accurately maintained. The fluctuations in this ratio that occur when the internal standard is delivered by peristaltic pump are eliminated, greatly improving the analytical accuracy.

Automatic dilution. The second syringe drive can also be used to deliver a diluent, enabling accurate dilution to be carried out automatically.

Reduced carryover. The sample does not contact any peristaltic pump tubing and the sample path is totally inert. This allows for a faster rinse and reduces carryover.

Low sample and internal standard usage. The volumes required are substantially reduced, resulting in lower cost of reagents and less wastage.

Flexibility in the selection of the ratio of sample to internal standard. The syringe system allows you to use sample to internal standard ratios of up to 20:1 and still get accurate correction.

Longer life of consumables. The lower sample volume and reduced analysis time mean that you save on consumables such as torches and ICP-MS cones as well as argon.

Compatibility. The Assist software is configured to operate with almost all models of ICP-MS, ICP-OES and autosampler.

Assist Packages

Assist CM Premium Package (2 syringe units)	KT-1123
Assist CM Basic Package (1 syringe unit)	KT-1129
Assist CM Oils Package (3 syringe units)	KT-1132
Assist CM Premium Package for HF	KT-1131
Assist CM Basic Package for HF	KT-1122

Configured to suit your application

The Assist is a modular system of syringe drives and switching valves and it can be configured to suit specific applications.

Premium Package. This is the most common system and is the system described above. It incorporates two syringe drives and a Niagara switching valve. It provides for the inline delivery and mixing of the sample and internal standard or diluent. P/N KT-1123

Basic Package. This system is used when inline delivery of internal standard or diluent is not required. It incorporates a single syringe drive and a Niagara switching valve. It provides all of the benefits listed above with the exception of those relating to delivery of internal standard or diluent. P/N KT-1129

Oils Package. This system is configured specifically for the analysis of wear metals in raw (undiluted) lubricating oils. It incorporates three syringe drives and a Niagara switching valve. It takes a sample of the oil, mixes it with a diluent such as kerosene and precisely delivers the diluted oil to the ICP spectrometer. It eliminates the need for manual dilutions and increases the speed of analysis. P/N KT-1132

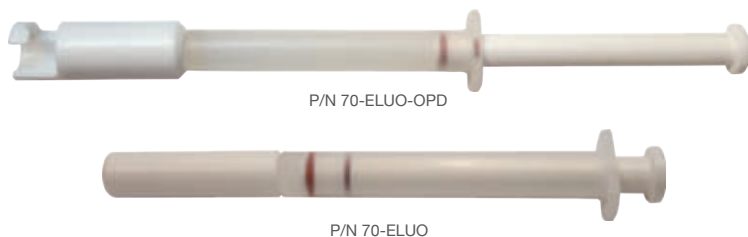
Please contact enquiries@geicp.com to find the Assist package most suitable for your application.

OTHER ACCESSORIES

Eluo Nebulizer Cleaning Tool

Particle build-up in a nebulizer capillary and tip causes sample flow to be constricted, thereby reducing nebulizer efficiency and performance. Previously there was no simple way to effectively clean and unblock nebulizers. 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 Nebulizer Cleaning Tool (glass concentric nebulizers) [70-ELUO](#)

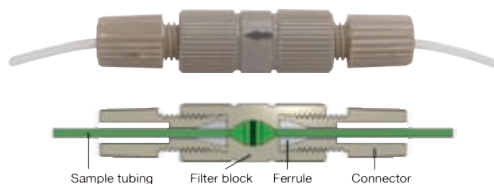
Eluo Nebulizer Cleaning Tool (new OpalMist, PolyCon or DuraMist) [70-ELUO-OPD](#)

Eluo Nebulizer Cleaning Tool (old OpalMist or PolyCon) [70-ELUO-OP](#)

Inline Particle Filter

If there are particulates in your samples, there is a risk that they may get trapped in the fine channels of your sample line or within the nebulizer. The Inline 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 filter and is suitable for use with 1/16 inch (1.6mm) OD sample tubing. Filters for use with different tubing are available on request.

The purpose-built clog-resistant design is ideal for ICP samples. 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.



Inline Particle Filter

Inline Filter for 1/16 inch Tubing [70-803-1108](#)

Eluo Adaptor for Inline Filter [70-803-1160](#)

Capricorn Argon Humidifier

The Argon Humidifier is commonly used in ICP analyses involving samples with high dissolved solids concentration. Helping to prevent salt build-up inside the sample introduction system, the Argon Humidifier allows uninterrupted and maintenance free operation. The Glass Expansion Capricorn combines ease of operation, high performance and safety.

- The rugged and durable casing enhances safety.
- The built-in pressure indicator serves as a diagnostic so you always know when the chamber is pressurized.
- An optional easy-to-use bypass toggle allows you to take the Capricorn off-line without disconnecting argon lines.
- Maximum and minimum fill marks ensure that you are always operating under optimum conditions.
- A rugged bubbling frit ensures maximum saturation of the argon.



Capricorn Argon Humidifier without bypass

Capricorn Argon Humidifier with bypass

Capricorn Argon Humidifier

Capricorn Argon Humidifier without bypass [70-808-1000](#)

Capricorn Argon Humidifier with bypass [70-808-1226](#)

Capricorn Argon Humidifier with bypass for Spectro [70-803-0518](#)

Capricorn Argon Humidifier with bypass for Agilent (Varian) [70-803-0608](#)

Capricorn Argon Humidifier with bypass for PerkinElmer [70-803-0570](#)

Capricorn Argon Humidifier with bypass for Thermo [70-803-0634](#)

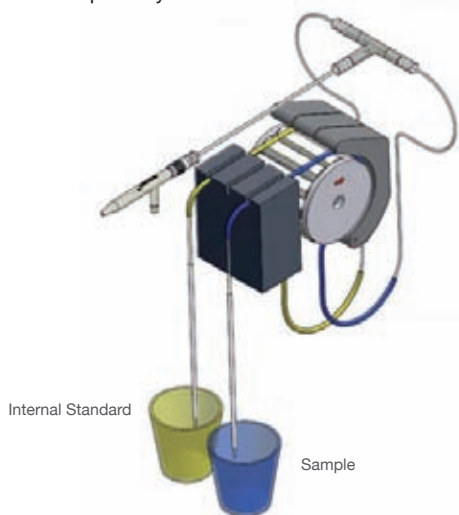
OTHER ACCESSORIES

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 Kits

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

O-Ring Tool

With older-style spray chambers which incorporate O-Rings, it is common for the O-Rings to bond to the glass making them difficult to remove. The O-Ring Tool makes removal of O-Rings much easier.

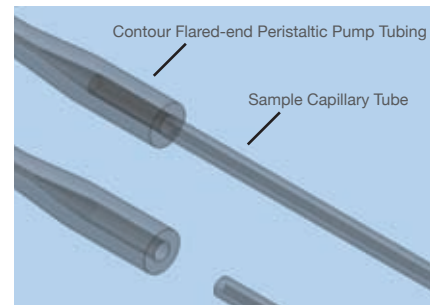


O-Ring Removal Tool

[50-100-1636](tel:50-100-1636)

Contour Flared-end Peristaltic Pump Tubing

It can be quite difficult to insert the sample and internal standard capillary tubes into the peristaltic pump tubes. This is particularly so for the internal standard pump tube due to its small ID (usually 0.2 to 0.4mm). To facilitate this connection, Glass Expansion supplies Contour flared-end pump tubing. The flared end of this pump tubing allows larger capillary tubing to be inserted.



Ordering details for Contour Flared-end Peristaltic Pump Tubing can be found on page 55.

WindTunnel Autosampler Enclosure

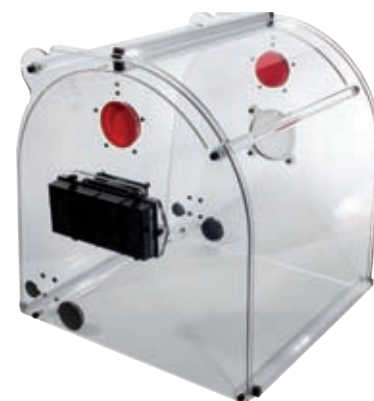
The WindTunnel autosampler enclosure will protect your samples against airborne contaminants and also protect the operator against fumes and odours. And its versatile configuration makes it suitable for the most common laboratory situations:

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, 520 and 520HS 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



WindTunnel Autosampler Enclosure

WindTunnel Autosampler Enclosure	70-803-1148
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

Glass Nebulizers

SeaSpray

400µl/min uptake [ARG-1-USS04X](#)

MicroMist

400µl/min uptake [ARG-1-UM04X](#)

200µL/min uptake [ARG-1-UM02X](#)

100µl/min uptake [ARG-1-UM01Q](#)

50µl/min uptake [ARG-1-UM005Q](#)



Nebulizers suitable for use with HF

OpalMist

400µl/min uptake [ARG-1-PFA04X](#)

200µl/min uptake [ARG-1-PFA02X](#)

100µl/min uptake [ARG-1-PFA01Q](#)

50µl/min uptake [ARG-1-PFA005Q](#)



Peltier Controlled Spray Chambers

PCC Spray Chamber for Agilent 7500

With glass spray chamber [KT-1109](#)

With quartz spray chamber [KT-1109Q](#)

With PFA spray chamber [KT-1109P](#)



IsoMist Programmable Temperature Spray Chamber for Agilent 7500

With glass spray chamber [KT-1010](#)

With quartz spray chamber [KT-1010Q](#)

With PFA spray chamber [KT-1010P](#)

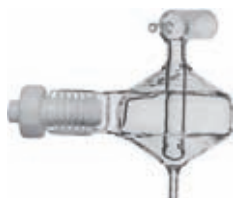


Spray Chambers

Twister with Aux. Port

50mL Cyclonic [20-809-2574HE](#)

Requires adaptor kit KT-1006.



Tracey PFA44 with Aux. Port

44mL Cyclonic [20-809-2578](#)

Suitable for use with HF.

Requires adaptor kit KT-1006.



Adaptor Kit

Adaptor Kit [KT-1006](#)



Torches

D-Torch

[30-808-3015](#)

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 [31-808-3198](#)



Options:

Tapered Quartz Injector 2.5mm [31-808-3302](#)

Tapered Alumina Injector 2.4mm [31-808-3205](#)

Sapphire Injector 2.4mm [31-808-3378](#)

PFA Connector [31-808-3379](#)



Semi Demountable Torch

[30-808-3068](#)

Comprises:

Torch Body, Quartz [31-808-3051](#)

Torch Adaptor [31-808-3067](#)

Tapered Quartz Injector 2.4mm [31-808-0773](#)

GazFit Connectors (PKT 4) [GAZ-0604](#)



Fixed Torch for 7500

Quartz Torch, 2.5mm Injector, 2 Projections, HMI compatible [30-807-0542](#)

Standard Quartz Torch, 2.5mm Injector [30-808-0816](#)

Standard Quartz Torch, 1.5mm Injector [30-808-1211](#)

Standard Quartz Torch, 1.0mm Injector [30-807-0516](#)



Quartz Injectors For Semi Demountable Torch

Tapered Quartz Injector 1.5mm [31-808-0771](#)

Tapered Quartz Injector 1.8mm [31-808-0772](#)

Tapered Quartz Injector 2.4mm [31-808-0773](#)

Capillary Quartz Injector 4.0mm [31-808-2502](#)



Bonnet

Quartz Torch Bonnet [31-808-2577](#)



Connector

Quartz Connector [31-808-2799](#)



Agilent ICP-MS: 7500

Torches (continued)

Semi Demountable Torch with Alumina Injector

[30-808-3069](#)

Comprises:

Torch Body, Quartz [31-808-3051](#)

Torch Adaptor [31-808-3067](#)

Tapered Alumina Injector 2.4mm [31-808-0776](#)

GazFit Connectors (PKT 4) [GAZ-0604](#)



HF-resistant Injectors for Semi Demountable Torch

Tapered Alumina Injector 1.5mm [31-808-0774](#)

Tapered Alumina Injector 1.8mm [31-808-0775](#)

Tapered Alumina Injector 2.4mm [31-808-0776](#)

Sapphire Injector 2.4mm [31-808-2580](#)



RF Coils

RF Coil

Gold [70-900-7500G](#)



RF Coil

Silver [70-900-7500S](#)



Installation Kit

Installation Kit [70-900-7500T](#)



Cones

Nickel Sampler

(Agilent p/n G1820-65238) [AT1001-Ni](#)



Nickel Skimmer - 4500, 7500a

(Agilent p/n G1820-65265, G1820-65050) [AT1002-Ni](#)



Platinum Sampler, 10mm Insert

(Agilent p/n G1820-65239) [AT1006-Pt](#)



Platinum Skimmer

(Agilent p/n G1820-65237) [AT1008-Pt](#)



Cones (continued)

Nickel Skimmer - 7500c

(Agilent p/n G1833-65497) [AT1002C-Ni](#)



Platinum Skimmer - 7500c

(Agilent p/n G1833-65092) [AT1008C-Pt](#)



Nickel Sampler - T-mode

(Agilent p/n G1820-65480) [AT1001T-Ni](#)



Nickel Skimmer - T-mode

(Agilent p/n G1820-65481) [AT1002T-Ni](#)



Nickel Skimmer - 7500ce

(Agilent p/n G3270-65024) [AT1002CE-Ni](#)



Platinum Skimmer, Copper Base - 7500cs, 7500ce

(Agilent p/n G1883-65132) [AT1008CS-Pt](#)



Platinum Skimmer, Nickel Base, 7500cs, 7500ce

(Agilent p/n G3270-60106) [AT1008CS-Pt/Ni](#)



Long Life Shield Plate, 7500/7700

(Agilent p/n G1833-65419) [AT5004](#)



ConeGuard Thread Protectors

ConeGuard, Sampler for Agilent 4500/7500

[70-803-1000](#)



ConeGuard, Skimmer for Agilent 4500/7500

[70-803-1002](#)



ConeGuard, Skimmer for Agilent 7500c/ce/cs

[70-803-1004](#)



Glass Nebulizers

SeaSpray

400µl/min uptake [ARG-1-USS04X](#)

MicroMist

400µl/min uptake [ARG-1-UM04X](#)

200µL/min uptake [ARG-1-UM02X](#)

100µl/min uptake [ARG-1-UM01Q](#)

50µl/min uptake [ARG-1-UM005Q](#)



Nebulizers suitable for use with HF

OpalMist

400µl/min uptake [ARG-1-PFA04X](#)

200µl/min uptake [ARG-1-PFA02X](#)

100µl/min uptake [ARG-1-PFA01Q](#)

50µl/min uptake [ARG-1-PFA005Q](#)



Peltier Controlled Spray Chambers

PCC Spray Chamber for Agilent 7700/8800

With glass spray chamber [KT-1116](#)

With quartz spray chamber [KT-1116Q](#)

With PFA spray chamber [KT-1116P](#)



IsoMist Programmable Temperature Spray Chamber for Agilent 7700/8800

With glass spray chamber [KT-1103](#)

With quartz spray chamber [KT-1103Q](#)

With PFA spray chamber [KT-1103P](#)

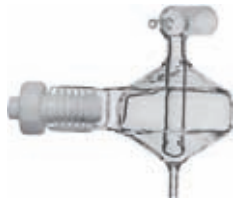


Spray Chambers

Twister with Aux. Port

50mL Cyclonic [20-809-2574HE](#)

Requires adaptor kit KT-1104.



Tracey PFA44 with Aux. Port

44mL Cyclonic [20-809-2578](#)

Suitable for use with HF.
Requires adaptor kit KT-1104.



Adaptor Kit

Adaptor Kit for 7700 [KT-1104](#)

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](#)



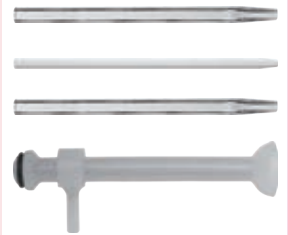
Options:

Tapered Quartz Injector 2.5mm [31-808-3302](#)

Tapered Alumina Injector 2.4mm [31-808-3205](#)

Sapphire Injector 2.4mm [31-808-3378](#)

PFA Connector with Dilution Port [31-808-3281](#)



Fixed Torch for 7700/8800

Quartz Torch, 2.5mm Injector [30-807-0556](#)

Quartz Torch, 1.5mm Injector [30-807-0557](#)

Quartz Torch, 1.0mm Injector [30-807-0558](#)



Bonnet

Quartz Torch Bonnet [31-808-2577](#)



Connectors

Quartz Connector with Dilution Port [31-808-3217](#)

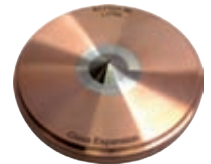
Straight Quartz Connector [31-808-3288](#)



Cones

Nickel Sampler - 7700

(Agilent p/n G3280-67040) [AT7701-Ni](#)



Nickel Skimmer - 7700x

(Agilent p/n G3280-67041) [AT7702X-Ni](#)



Nickel Skimmer - 7700s

(Agilent p/n G3280-67066) [AT7702S-Ni](#)



Cones (continued)

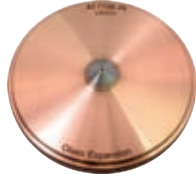
Nickel Plated Sampler - 7700

(Agilent p/n G3280-67061) [AT7701-Ni/Ni](#)



Platinum Sampler - 7700

(Agilent p/n G3280-67036) [AT7706-Pt](#)



Platinum Sampler - 7700 (18mm insert)

(Agilent p/n G3280-67056) [AT7706A-Pt](#)

Copper Skimmer - 7700s

(Agilent p/n G3280-67067) [AT7702S-Cu](#)



Platinum Skimmer - 7700x

(Agilent p/n G3280-67060) [AT7708X-Pt](#)



Platinum Skimmer with Nickel Base - 7700x

(Agilent p/n G3280-67063) [AT7708X-Pt/Ni](#)



Platinum Skimmer - 7700s

(Agilent p/n G3280-67064) [AT7708S-Pt](#)



Platinum Skimmer with Nickel Base - 7700s

(Agilent p/n G3280-67065) [AT7708S-Pt/Ni](#)



Retaining Ring for Agilent 7700 Sampler Cone

(Agilent p/n G3280-20504) [AT7704](#)



Graphite Gasket for Agilent 7700 Sampler Cone (PKT 3)

(Agilent p/n G3280-67009) [AT7703](#)



ConeGuard Thread Protectors

ConeGuard, Skimmer for Agilent 7700s

[70-803-1004](#)



ConeGuard, Skimmer for Agilent 7700x


[70-803-1008](#)




Glass Nebulizers

Conikal		
2mL/min uptake	ARG-07-UC2	
SeaSpray		
2mL/min uptake	ARG-07-USS2	
Slurry		
4mL/min uptake	ARG-07-US6	
MicroMist		
600µL/min uptake	ARG-07-UM06	
200µL/min uptake	ARG-07-UM02	
100µL/min uptake	ARG-07-UM01	
50µL/min uptake	ARG-07-UM005	

Nebulizers suitable for use with HF

OpalMist		
2mL/min uptake	ARG-07-PFA2	
600µL/min uptake	ARG-07-PFA06	
200µL/min uptake	ARG-07-PFA02	
100µL/min uptake	ARG-07-PFA01	
50µL/min uptake	ARG-07-PFA005	
DuraMist		
1mL/min uptake	ARG-07-DM1	
400µL/min uptake	ARG-07-DM04	
VeeSpray - Ceramic		
Standard	ARG-07-CV6	

IsoMist

IsoMist Programmable Temperature Spray Chamber for 700-ES or Vista Axial		
With glass spray chamber	KT-1014	
With quartz spray chamber	KT-1014Q	
With PFA spray chamber	KT-1014P	
For all glass system	KT-1054	

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	
Tracey TFE		
50mL Cyclonic	20-809-9188	
Suitable for use with HF.		
Mounting Bracket - 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.		

Agilent (Varian) ICP-OES: 700-ES Series Axial, Vista Axial

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](#)

Options:

- Tapered Quartz Injector 2.4mm [31-808-3043](#)
- Tapered Alumina Injector 0.8mm [31-808-3364](#)
- Alumina Injector 2.4mm [31-808-3133](#)
- Alumina Injector 1.8mm [31-808-3325](#)
- Sapphire Injector 2.0mm [31-808-3355](#)
- Ceramic Outer Tube [31-808-3027](#)
- PuraFlex Transfer Tube with bend [21-809-3707](#)



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](#)



Torches (continued)

Semi Demountable Torch

[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 Options

- Quartz Torch Body - Short (for high solids) [31-808-0177](#)
- Tapered Quartz Injector 1.0mm [31-808-0544](#)
- Tapered Quartz Injector 1.5mm [31-808-0543](#)
- Tapered Quartz Injector 1.8mm [31-808-0545](#)
- Tapered Quartz Injector 2.4mm [31-808-0400](#)



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](#)



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](#)











HF Resistant Injectors for Semi Demountable Torch

- Tapered Alumina Injector 1.8mm [31-808-0814](#)
- Tapered Alumina Injector 2.4mm [31-808-0401](#)
- Sapphire Injector 2.4mm [31-808-1426](#)



RF Coils

RF Coil Gold Vista	70-900-1000G	
RF Coil Silver Vista	70-900-1000S	
RF Coil Silver, Teflon Coated Vista	70-900-1000ST	
Installation kit Vista	70-900-1000T	
RF Coil Gold 700ES	70-900-1004G	
RF Coil Silver 700ES	70-900-1004S	
RF Coil Silver, Teflon Coated 700ES	70-900-1004ST	
Installation kit 700ES	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	

Agilent (Varian) ICP-OES: 700-ES Series Radial, Vista Radial

Glass Nebulizers

Conikal
2mL/min uptake [ARG-07-UC2](#)

SeaSpray
2mL/min uptake [ARG-07-USS2](#)

Slurry
4mL/min uptake [ARG-07-US6](#)

MicroMist
600µL/min uptake [ARG-07-UM06](#)
200µL/min uptake [ARG-07-UM02](#)
100µL/min uptake [ARG-07-UM01](#)
50µL/min uptake [ARG-07-UM005](#)



Nebulizers suitable for use with HF

OpalMist
2mL/min uptake [ARG-07-PFA2](#)
600µL/min uptake [ARG-07-PFA06](#)
200µL/min uptake [ARG-07-PFA02](#)
100µL/min uptake [ARG-07-PFA01](#)
50µL/min uptake [ARG-07-PFA005](#)



DuraMist
1mL/min uptake [ARG-07-DM1](#)
400µL/min uptake [ARG-07-DM04](#)



VeeSpray - Ceramic
Standard [ARG-07-CV6](#)



IsoMist

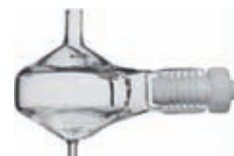
IsoMist Programmable Temperature Spray Chamber for 700-ES or Vista Radial

With glass spray chamber [KT-1022](#)
With quartz spray chamber [KT-1022Q](#)
With PFA spray chamber [KT-1022P](#)
For all Glass System [KT-1055](#)

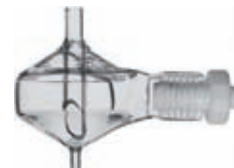


Spray Chambers

Tracey
50mL Cyclonic [20-809-0600HE](#)



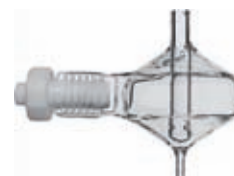
Twister
50mL Cyclonic [20-809-0285HE](#)



Cinnabar
20mL Cyclonic [20-809-0183HE](#)



Twinnabar
20mL Cyclonic [20-809-0448HE](#)



Tracey TFE
50mL Cyclonic [20-809-9188](#)
Suitable for use with HF.



Mounting Bracket - HF Spray Chamber
[21-809-2555](#)



PuraFlex Transfer Tube
[21-809-2735](#)
Connects spray chamber to torch.
Requires adjustable mount 21-809-2555.



Torches

D-Torch Demountable Torch

D-Torch with Quartz Outer Tube [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](#)

Options:

Tapered Quartz Injector 1.5mm [31-808-3058](#)

Tapered Quartz Injector 0.8mm [31-808-3195](#)

Ceramic Outer Tube [31-808-3092](#)

Tapered Quartz Injector 1.5mm with Ball Joint [31-808-3150](#)

Tapered Quartz Injector 2.4mm with Ball Joint [31-808-2925](#)

Alumina Injector 1.8mm [31-808-3160](#)

Alumina Injector 1.5mm [31-808-3230](#)

Sapphire Injector 2.0mm [31-808-3312](#)



Semi Demountable Torch

[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](#)

Quartz Injectors

Tapered Quartz Injector 1.0mm [31-808-0544](#)

Tapered Quartz Injector 1.5mm [31-808-0543](#)

Tapered Quartz Injector 1.8mm [31-808-0545](#)

Tapered Quartz Injector 2.4mm [31-808-0400](#)



Fixed Torches

Quartz Torch, Low Flow, 1.5mm Injector [30-800-0015](#)

Quartz Torch, High Solids, 1.8mm Injector [30-808-1182](#)

Quartz Torch, 0.8mm Injector [30-807-0539](#)



Other Products

Quartz Torch Bonnet [31-800-0003](#)



Torches (continued)

Semi Demountable Torch HF

[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](#)



RF Coils

RF Coil

Gold Vista [70-900-1001G](#)



RF Coil

Silver Vista [70-900-1001S](#)



RF Coil

Silver, Teflon Coated Vista [70-900-1001ST](#)



Installation kit

Vista [70-900-1001T](#)



RF Coil

Gold 700ES [70-900-1005G](#)



RF Coil

Silver 700ES [70-900-1005S](#)



RF Coil

Silver, Teflon Coated 700ES [70-900-1005ST](#)



Installation kit

700ES [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](#)



Jobin Yvon (Horiba) ICP-OES: 24, 38 & 138 Series, Ultima, Activa

Glass Nebulizers

Conikal
1mL/min uptake [ARG-1-UC1](#)

SeaSpray
2mL/min uptake [ARG-1-USS2](#)

Slurry
4mL/min uptake [ARG-1-US6](#)

MicroMist
400µL/min uptake [ARG-1-UM04](#)
200µL/min uptake [ARG-1-UM02](#)
100µL/min uptake [ARG-1-UM01](#)
50µL/min uptake [ARG-1-UM005](#)



Nebulizers suitable for use with HF

OpalMist
2mL/min uptake [ARG-1-PFA2](#)
400µL/min uptake [ARG-1-PFA04](#)
200µL/min uptake [ARG-1-PFA02](#)
100µL/min uptake [ARG-1-PFA01](#)
50µL/min uptake [ARG-1-PFA005](#)



DuraMist
1mL/min uptake [ARG-1-DM1](#)
400µL/min uptake [ARG-1-DM04](#)



VeeSpray - Ceramic
Standard [ARG-1-CV6](#)



IsoMist

IsoMist Programmable Temperature Spray Chamber for Horiba Jobin Yvon

With glass spray chamber [KT-1064](#)
With quartz spray chamber [KT-1064Q](#)
With PFA spray chamber [KT-1064P](#)



Spray Chambers

Tracey
50mL Cyclonic [20-808-8882HE](#)



Twister
50mL Cyclonic [20-809-0222HE](#)



Cinnabar
20mL Cyclonic [20-809-0164HE](#)



Tracey TFE
50mL Cyclonic [20-809-2506](#)
Suitable for use with HF.



Torches

D-Torch Demountable Torch
D-Torch with Quartz Outer Tube [30-808-2882](#)

Comprises:
Base and Inner Tube [31-808-2884](#)
Quartz Outer Tube [31-808-2888](#)
Injector Adaptor [31-808-2891](#)
Injector Ferrule [31-808-2894](#)
Retaining Ring [31-808-2883](#)






Injector for D-Torch
Alumina Injector 3.0mm [31-808-2893](#)

Fixed Torch
Quartz Torch 1.5mm Injector [30-808-3007](#)

Components for JY Designed Demountable Torch

Quartz Inner Tube	31-808-0118	
Quartz Outer Tube	31-808-8123	
Torch Bonnet	31-800-0023	
Alumina Inner Tube	31-808-0571	
Alumina Injector Tube 2.9mm	31-808-0567	

RF Coils

RF Coil Gold	70-900-5000G	
RF Coil Silver	70-900-5000S	
Installation kit	70-900-5000T	

PerkinElmer ICP-MS: Elan 6000, 9000, DRC II, DRC-E

Glass Nebulizers

SeaSpray

400µL/min uptake [ARG-1-USS04](#)

MicroMist

400µL/min uptake [ARG-1-UM04](#)

200µL/min uptake [ARG-1-UM02](#)

100µL/min uptake [ARG-1-UM01](#)

50µL/min uptake [ARG-1-UM005](#)



Nebulizers suitable for use with HF

OpalMist

400µL/min uptake [ARG-1-PFA04](#)

200µL/min uptake [ARG-1-PFA02](#)

100µL/min uptake [ARG-1-PFA01](#)

50µL/min uptake [ARG-1-PFA005](#)



IsoMist

IsoMist Programmable Temperature Spray Chamber for PerkinElmer Elan

With glass spray chamber [KT-1013](#)

With quartz spray chamber [KT-1013Q](#)

With PFA spray chamber [KT-1013P](#)



Spray Chambers

Spray Chambers – Suitable for Torch adaptor

[31-808-0827](#) or [31-808-2825](#)

The following spray chambers are suitable for torch adaptors [31-808-0827](#) (equivalent PerkinElmer P/N N8120116) or [31-808-2825](#) (equivalent PerkinElmer P/N W1013266). These torch adaptors are usually used with non-DRC Elan models, or with Elan DRC models using an HF-resistant sample introduction system. They require the Elan Screw Mount CSC Adaptor, part number [21-808-0389](#), for secure mounting.

Tracey

50mL Cyclonic [20-809-0224HE](#)



Twister

50mL Cyclonic [20-809-0578HE](#)



Spray Chambers (continued)

Cinnabar

20mL Cyclonic [20-809-0162HE](#)



Twinnabar

20mL Cyclonic [20-809-0491HE](#)



Tracey PFA44

44mL Cyclonic [20-809-2509](#)

With ScrewLok.
Suitable for use with HF



Other Adaptors

Elan Screw Mount
CSC Adaptor [21-808-0389](#)

Elan Adaptor Nut [21-808-0388](#)

Elan Screw Mount CSC
Adaptor with Aux Port [21-809-2733](#)



Spray Chambers – Suitable for Torch adaptor

[31-808-0825](#) or [31-808-2824](#)

The following spray chambers are suitable for torch adaptors [31-808-0825](#) (equivalent PerkinElmer P/N WE023951) or [31-808-2824](#) (equivalent PerkinElmer P/N W1012406). This adaptor is usually used with DRC Elan models.

Twister

50mL Cyclonic [20-809-0296HE](#)



Cinnabar

20mL Cyclonic [20-809-0322HE](#)



Spray Chambers (continued)

Helix Nebulizer Adaptor 6/35

[21-808-1010](tel:21-808-1010)

For PE Scott style spray chambers.



Torches

D-Torch with Quartz Outer Tube

[30-807-0540](tel:30-807-0540)

Comprises:

Base and Inner Tube [31-808-2847](tel:31-808-2847)

Quartz Outer Tube [31-808-2848](tel:31-808-2848)

Retaining Ring [31-808-2818](tel:31-808-2818)



Ceramic Outer Tube for D-Torch

[31-808-2849](tel:31-808-2849)



Quartz Torch

Standard Quartz Torch [30-808-8107](tel:30-808-8107)

High Efficiency Quartz Torch [31-808-2784](tel:31-808-2784)



Quartz Injectors (non DRC)

Tapered Quartz Injector 1.0mm [31-808-0370](tel:31-808-0370)

Tapered Quartz Injector 1.2mm [31-808-0789](tel:31-808-0789)

Tapered Quartz Injector 1.5mm [31-807-0006](tel:31-807-0006)

Tapered Quartz Injector 1.8mm [31-807-0005](tel:31-807-0005)

Tapered Quartz Injector 2.0mm [31-807-0004](tel:31-807-0004)

These injectors are compatible with both D-Torch and standard torch. They are suitable for torch adaptors [31-808-0827](tel:31-808-0827) (equivalent PerkinElmer P/N N8120116) or [31-808-2825](tel:31-808-2825) (equivalent PerkinElmer P/N W1013266).

These adaptors are usually used with non-DRC Elan models.



Quartz Injectors (DRC Versions)

Tapered Quartz Injector with Ball Joint, 2.0mm [31-808-0806](tel:31-808-0806)

Tapered Quartz Injector with Ball Joint, 1.5mm [31-808-0851](tel:31-808-0851)

Tapered Quartz Injector with Ball Joint, 0.85mm [31-808-3125](tel:31-808-3125)

These injectors are compatible with both D-Torch and standard torch. They are suitable for torch adaptors [31-808-0825](tel:31-808-0825) (equivalent PerkinElmer P/N WE023951) or [31-808-2824](tel:31-808-2824) (equivalent PerkinElmer P/N W1012406).

These adaptors are usually used with DRC Elan models.



Torches (continued)

Torch Adaptor

Elan DRC Torch Adaptor [31-808-0825](tel:31-808-0825)

This adaptor is suitable for injectors with a ball joint



Torch Adaptor

Cassette Mount Adaptor for Ball Joint Injector [31-808-2824](tel:31-808-2824)

This adaptor is suitable for injectors with a ball joint.



Torch Adaptor

Elan Torch Adaptor [31-808-0827](tel:31-808-0827)

This adaptor is suitable for injectors without a ball joint



Torch Adaptor

PFA Cassette Mount Adaptor [31-808-2825](tel:31-808-2825)

This adaptor is suitable for injectors without a ball joint.



Other Components

Quartz Bonnet for Elan [31-800-0012](tel:31-800-0012)



HF Resistant Injectors

Tapered Alumina Injector 1.5mm [31-807-0044](tel:31-807-0044)

Tapered Alumina Injector 1.8mm [31-807-0045](tel:31-807-0045)

Tapered Alumina Injector 2.0mm [31-807-0060](tel:31-807-0060)

Sapphire Injector 2.0mm [31-808-2803](tel:31-808-2803)

Platinum Injector 2.0mm [31-808-2972](tel:31-808-2972)

These injectors are compatible with both D-Torch and standard torch. They are suitable for torch adaptor [31-808-0827](tel:31-808-0827) (equivalent PerkinElmer P/N N8120116) or [31-808-2825](tel:31-808-2825) (equivalent PerkinElmer P/N W1013266).



RF Coils

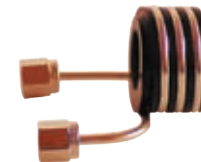
RF Coil for Elan 6000/9000 Series

Silver [70-900-2006S](tel:70-900-2006S)



RF Coil for Elan 6000/9000 Series

Copper [70-900-2006C](tel:70-900-2006C)



Installation Kit for Elan 6000/9000

RF Coil Installation Kit [70-900-2006T](tel:70-900-2006T)



Cones

Nickel Sampler

(PE p/n WE02-1140)

[PE2011-Ni](#)



Nickel Skimmer

(PE p/n WE02-1137)

[PE2012-Ni](#)



Platinum Sampler

(PE p/n WE02-7802)

[PE2013-Pt](#)



Platinum Skimmer

(PE p/n WE02-7803)

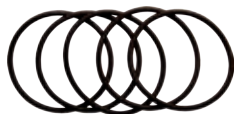
[PE2014-Pt](#)



Sampler Cone O-Ring (PKT 5)

(PE p/n N812-0511)

[PE5011](#)



Skimmer Cone O-Ring (PKT 5)

(PE p/n N812-0512)

[PE5012](#)



ConeGuard Thread Protectors

ConeGuard, Skimmer for Elan

[70-803-1022](#)



Glass Nebulizers

SeaSpray

400µL/min uptake

[ARG-1-USS04](#)**MicroMist**

400µL/min uptake

[ARG-1-UM04](#)

200µL/min uptake

[ARG-1-UM02](#)

100µL/min uptake

[ARG-1-UM01](#)

50µL/min uptake

[ARG-1-UM005](#)

Nebulizers suitable for use with HF

OpalMist

400µL/min uptake

[ARG-1-PFA04](#)

200µL/min uptake

[ARG-1-PFA02](#)

100µL/min uptake

[ARG-1-PFA01](#)

50µL/min uptake

[ARG-1-PFA005](#)

IsoMist

IsoMist Programmable Temperature Spray Chamber for PerkinElmer NexION

With glass spray chamber

[KT-1096](#)

With quartz spray chamber

[KT-1096Q](#)

With PFA spray chamber

[KT-1096P](#)

Spray Chambers

Twister50mL Cyclonic with Aux Port [20-809-3594HE](#)**Twinnabar**20mL Cyclonic [20-809-3650HE](#)**Cinnabar**20mL Cyclonic [20-809-3709HE](#)

Torches

D-Torch with Quartz Outer Tube[30-807-0540](#)

Comprises:

Base and Inner Tube

[31-808-2847](#)

Quartz Outer Tube

[31-808-2848](#)

Retaining Ring

[31-808-2818](#)**Ceramic Outer Tube for D-Torch**[31-808-2849](#)**Quartz Torch**

Standard Quartz Torch

[30-808-8107](#)

High Efficiency Quartz Torch

[31-808-2784](#)**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](#) (equivalent PerkinElmer P/N W1013266).

**Quartz Injectors (DRC Versions)**Tapered Quartz Injector with Ball Joint, 2.0mm [31-808-0806](#)Tapered Quartz Injector with Ball Joint, 1.5mm [31-808-0851](#)Tapered Quartz Injector with Ball Joint, 0.85mm [31-808-3125](#)

These injectors are compatible with both D-Torch and standard torch. They are suitable for torch adaptor [31-808-2824](#) (equivalent PerkinElmer P/N W1012406).

**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.



PerkinElmer ICP-MS: NexION 300

Torches (continued)

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](#) (equivalent PerkinElmer P/N W1013266).

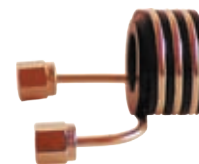


RF Coils

RF Coil for Elan/NexION

Copper

[70-900-2006C](#)



Installation Kit for Elan/NexION

RF Coil Installation Kit

[70-900-2006T](#)



Cones

Nickel Sampler

(PE p/n W1033612)

[PE3011-Ni](#)



Nickel Skimmer

(PE p/n W1026356)

[PE3012-Ni](#)



Platinum Sampler

(PE p/n W1033614)

[PE3013-Pt](#)



Platinum Skimmer

(PE p/n W1026907)

[PE3014-Pt](#)



Hyper Skimmer

(PE p/n W1033995)

[PE3015-Al](#)



ConeGuard Thread Protectors

ConeGuard, Sampler for NexION

[70-803-1024](#)



ConeGuard, Skimmer for NexION

[70-803-1026](#)



Glass Nebulizers

Conikal
2mL/min uptake [ARG-07-UC2](#)

SeaSpray
2mL/min uptake [ARG-07-USS2](#)

Slurry
4mL/min uptake [ARG-07-US6](#)

MicroMist
600µL/min uptake [ARG-07-UM06](#)
200µL/min uptake [ARG-07-UM02](#)
100µL/min uptake [ARG-07-UM01](#)
50µL/min uptake [ARG-07-UM005](#)



Nebulizers suitable for use with HF

OpalMist
2mL/min uptake [ARG-07-PFA2](#)
600µL/min uptake [ARG-07-PFA06](#)
200µL/min uptake [ARG-07-PFA02](#)
100µL/min uptake [ARG-07-PFA01](#)
50µL/min uptake [ARG-07-PFA005](#)



DuraMist
1mL/min uptake [ARG-07-DM1](#)
400µL/min uptake [ARG-07-DM04](#)



VeeSpray - Ceramic
Standard [ARG-07-CV6](#)



IsoMist

IsoMist Programmable Temperature Spray Chamber for PerkinElmer Optima 2000/4000/5000/7000/8000DV

With glass spray chamber [KT-1012](#)
With quartz spray chamber [KT-1012Q](#)
With PFA spray chamber [KT-1012P](#)



Spray Chambers

Tracey
50mL Cyclonic [20-809-0434HE](#)



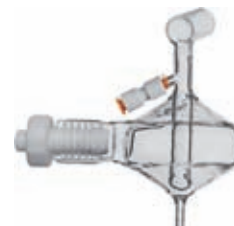
Twister
50mL Cyclonic (Aqueous) [20-809-0208HE](#)
With 7mm baffle.



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



Twister
50mL Cyclonic with Aux. port [20-809-0004HE](#)



Cinnabar
20mL Cyclonic [20-809-9121HE](#)



Twinnabar
20mL Cyclonic [20-809-9120HE](#)



Tracey TFE
50mL Cyclonic [20-809-2510](#)
Suitable for use with HF.
Plugs directly into cassette mount.



Torches for 2000/4000/5000/7000DV

D-Torch with Quartz Outer Tube

[30-808-2926](#)

Comprises:

- Base and Inner Tube [31-808-2981](#)
- Quartz Outer Tube [31-808-2986](#)
- Retaining Ring [31-808-2818](#)



Options:

- Ceramic Outer Tube [31-808-3365](#)
- Quartz Outer Tube with 3 slots [31-808-3436](#)



Quartz Torches

- Quartz Torch - JAZ with single slot [30-808-0845](#)
- Quartz Torch without slot [30-808-1122](#)
- Quartz Torch (short) without slot [30-808-0845S](#)
- Quartz Torch with 3 slots [30-808-1470](#)



Quartz Injectors

These injectors are compatible with both D-Torch and standard torch.

- Quartz Capillary Injector 1.0mm [31-808-0939](#)
- Quartz Tapered Injector 1.2mm [31-808-1154](#)
- Quartz Capillary Injector 1.8mm [31-808-0794](#)
- Quartz Tapered Injector 2.0mm [31-807-0075](#)
- Quartz Tapered Injector 3.0mm [31-808-2506](#)



HF Resistant Injectors

These injectors are compatible with both D-Torch and standard torch.

- Tapered Alumina Injector 2.0mm [31-808-1210](#)
- Tapered Alumina Injector 2.4mm [31-808-2771](#)
- Sapphire Injector 2.0mm [31-808-2774](#)



Torch Bonnet 2000/4000/5000/7000

[31-800-0018](#)



Copper Foil for Torch Body (PKT 12)

[31-808-2645](#)



Torches for 8000DV

D-Torch with Quartz Outer Tube

[30-808-3300](#)

Comprises:

- Base and Inner Tube [31-808-3292](#)
- Quartz Outer Tube [31-808-3294](#)
- Retaining Ring [31-808-2818](#)



Options:

- Ceramic Outer Tube [31-808-2990](#)
- Quartz Outer Tube, no slot [31-808-3407](#)



Copper Foil for Ceramic Outer Tube (PKT 12)

[31-808-3356](#)



Quartz Torches

- Quartz Torch without slot [31-808-3254](#)
- Quartz Torch with single slot [31-808-3255](#)
- Quartz Torch with 3 slots [31-808-3256](#)
- Copper Foil for Fixed Torch (PKT 12) [31-808-3289](#)



Quartz Injectors

These injectors are compatible with both D-Torch and standard torch.

- Quartz Tapered Injector 0.8mm [31-808-3257](#)
- Quartz Tapered Injector 2.0mm [31-808-3258](#)
- Quartz Tapered Injector 3.0mm [31-808-3259](#)



HF Resistant Injectors

These injectors are compatible with both D-Torch and standard torch.

- Tapered Alumina Injector 1.2mm [31-808-3287](#)
- Tapered Alumina Injector 2.0mm [31-808-3286](#)



Radial Purge Window Short (32mm) for 2000DV or 3300DV

[31-808-8098](#)



Axial Purge Window (17mm disk) for 4000/5000/7000/8000DV

[31-808-0551](#)



Torches for 8000DV (continued)

**Radial Purge Window for
4000/5000DV (Pre Nov. 2004)**

[31-800-0024](#)



**Radial Purge Window for
2000DV, Long**

[31-808-2631](#)



**Axial Purge Window for
2000/7000/8000DV (32mm disk)**

[31-808-2649](#)



**Radial Purge Window for 5000/
7000/8000DV (Post Nov. 2004)**

[31-808-2788](#)



RF Coils for 2000/4000/5000/7000DV

RF Coil

Gold

[70-900-2003G](#)



RF Coil

Silver

[70-900-2003S](#)



Installation Kit

[70-900-2003T](#)



PerkinElmer ICP-OES: Optima 4300V, 5300V, 7300V

Glass Nebulizers

Conikal	
2mL/min uptake	ARG-07-UC2
SeaSpray	
2mL/min uptake	ARG-07-USS2
Slurry	
4mL/min uptake	ARG-07-US6
MicroMist	
600µL/min uptake	ARG-07-UM06
200µL/min uptake	ARG-07-UM02
100µL/min uptake	ARG-07-UM01
50µL/min uptake	ARG-07-UM005



Nebulizers suitable for use with HF

OpalMist	
2mL/min uptake	ARG-07-PFA2
600µL/min uptake	ARG-07-PFA06
200µL/min uptake	ARG-07-PFA02
100µL/min uptake	ARG-07-PFA01
50µL/min uptake	ARG-07-PFA005
DuraMist	
1mL/min uptake	ARG-07-DM1
400µL/min uptake	ARG-07-DM04
VeeSpray - Ceramic	
Standard	ARG-07-CV6



IsoMist

IsoMist Programmable Temperature Spray Chamber for PerkinElmer Optima 4300/5300/7300V	
With glass spray chamber	KT-1011
With quartz spray chamber	KT-1011Q
With PFA spray chamber	KT-1011P



Spray Chambers

Twister	
50mL Cyclonic	20-809-0495HE
Tracey TFE	
50mL Cyclonic	20-809-2507
Suitable for use with HF.	



Torches

D-Torch Demountable Torch	
D-Torch for 4300/5300/7300V	30-808-2832
Comprises:	
Base and Inner Tube	31-808-2809
Quartz Outer Tube	31-808-2821
Retaining Ring	31-808-2818
Options:	
Ceramic Outer Tube	31-808-2815



Quartz Torch	
Quartz Torch - three slot	30-807-0064



Quartz Injectors

Tapered Quartz Injector 1.0mm	31-808-0119
Tapered Quartz Injector 1.5mm	31-808-0124
Tapered Quartz Injector 1.8mm	31-807-0008
Tapered Quartz Injector 2.0mm	31-807-0050
These injectors are suitable for both the fixed torch and D-Torch.	



HF Resistant Injectors

Tapered Alumina Injector 1.5mm	31-807-0051
Tapered Alumina Injector 1.8mm	31-807-0052
Tapered Alumina Injector 2.0mm	31-808-1352
Capillary Alumina Injector 2.0mm	31-808-2625
These injectors are suitable for both the fixed torch and D-torch.	

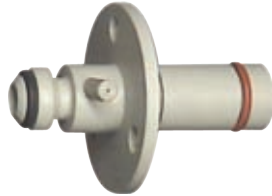


Torches (continued)

Torch Bonnet

[31-800-0018](#)Purge Extension Window
for 4300/5300/7300V[31-808-1345](#)

Torch Adaptor with Auxiliary Port

[31-808-2503](#)

RF Coils

RF Coil

Gold

[70-900-2003G](#)

RF Coil

Silver

[70-900-2003S](#)

Installation Kit

[70-900-2003T](#)

Glass Nebulizers

Conikal
1mL/min uptake [ARG-1-JC1](#)

SeaSpray
2mL/min uptake [ARG-1-USS2](#)

Slurry
4mL/min uptake [ARG-1-US6](#)

MicroMist
400µL/min uptake [ARG-1-UM04](#)
200µL/min uptake [ARG-1-UM02](#)
100µL/min uptake [ARG-1-UM01](#)
50µL/min uptake [ARG-1-UM005](#)



Nebulizers suitable for use with HF

OpalMist
2mL/min uptake [ARG-1-PFA2](#)
400µL/min uptake [ARG-1-PFA04](#)
200µL/min uptake [ARG-1-PFA02](#)
100µL/min uptake [ARG-1-PFA01](#)
50µL/min uptake [ARG-1-PFA005](#)



DuraMist
1mL/min uptake [ARG-1-DM1](#)
400µL/min uptake [ARG-1-DM04](#)



VeeSpray - Ceramic
Standard [ARG-1-CV6](#)



IsoMist

IsoMist Programmable Temperature Spray Chamber for Shimadzu

With glass spray chamber [KT-1067](#)
With quartz spray chamber [KT-1067Q](#)
With PFA spray chamber [KT-1067P](#)



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](#)



Glass Transfer Tube, Spray Chamber to ICPE-9000 [21-809-2846](#)



Tracey TFE
50mL Cyclonic [20-809-2506](#)
Suitable for use with HF.



Spray Chambers (continued)

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](#)



Torches (continued)

Quartz Torches

Quartz Torch Standard
 1.5mm Injector (Suitable for
 ICPS-7500/8100/9000) [30-808-1179](#)



Quartz Torch for Organics,
 1.0mm Injector (Suitable for
 ICPS-7500/8100/9000) [30-807-0519](#)

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

Quartz Torch 1.2mm Injector
 (Suitable for ICPM-8500) [30-808-9986](#)



Quartz Torch 1.5mm Injector
 (Suitable for ICPM-8500) [30-808-1090](#)

Quartz Torch L Shape
 (Suitable for ICPS-7000) [30-808-1091](#)



Quartz Mini Torch
 (Suitable for ICPE-9000) [30-807-0534](#)



Torches

Semi Demountable Torch (HF)

[30-808-8039](#)

Suitable for ICPS-7500/8100 and ICPE-9000

Comprises:

Semi Demountable Torch Body [31-808-1258](#)

Semi Demountable 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](#)



HF Resistant Injectors

Tapered Alumina Injector 1.5mm [31-808-0013](#)

Tapered Alumina Injector 1.8mm [31-808-0015](#)



Spectro (Ametek) ICP-OES: EOP (Modula, CIROS, Genesis, ARCOS)

Glass Nebulizers

Conikal
2mL/min uptake [ARG-07-UC2](#)

SeaSpray
2mL/min uptake [ARG-07-USS2](#)

Slurry
4mL/min uptake [ARG-07-US6](#)

MicroMist
600µL/min uptake [ARG-07-UM06](#)
200µL/min uptake [ARG-07-UM02](#)
100µL/min uptake [ARG-07-UM01](#)
50µL/min uptake [ARG-07-UM005](#)



Nebulizers suitable for use with HF

OpalMist
2mL/min uptake [ARG-07-PFA2](#)
600µL/min uptake [ARG-07-PFA06](#)
200µL/min uptake [ARG-07-PFA02](#)
100µL/min uptake [ARG-07-PFA01](#)
50µL/min uptake [ARG-07-PFA005](#)



DuraMist
1mL/min uptake [ARG-07-DM1](#)
400µL/min uptake [ARG-07-DM04](#)



VeeSpray - Ceramic
Standard [ARG-07-CV6](#)



IsoMist

IsoMist Programmable Temperature Spray Chamber

With glass spray chamber [KT-1027](#)
With quartz spray chamber [KT-1027Q](#)
With PFA spray chamber [KT-1027P](#)



Spray Chambers

Tracey
50mL Cyclonic [20-809-0439HE](#)



Spray Chambers (continued)

Twister
50mL Cyclonic [20-809-0243HE](#)



Tracey TFE
50mL Cyclonic [20-809-2506](#)
Suitable for use with HF.
Requires Transfer Tube 21-809-2582.



PuraFlex Transfer Tube
[21-809-2582](#)



Torches

D-Torch with Quartz Outer Tube
[30-808-3371](#)

Comprises:
Base and Inner Tube [31-808-3372](#)
Quartz Outer Tube [31-808-3142](#)
Injector Adaptor [31-808-3374](#)
Injector Ferrule [31-808-2962](#)
Retaining Ring [31-808-2818](#)

Options:
Ceramic Outer Tube (requires fibre optic below) [31-808-3250](#)

Fibre Optic [31-808-3380](#)
Tapered Quartz Injector 1.8mm [31-808-2974](#)
Tapered Alumina Injector 1.2mm [31-808-3238](#)
Tapered Alumina Injector 1.8mm [31-808-2963](#)
Tapered Alumina Injector 2.4mm [31-808-3388](#)
Sapphire Injector 2.4mm [31-808-3414](#)



Torches (continued)

Quartz Torches

EOP Quartz Torch
with 2.5mm Injector [30-808-0317](#)



EOP Fixed Sheath Gas Torch
with 3.0mm Injector [30-808-1165](#)



EOP Quartz Torch
with 1.8mm Injector [30-808-8005](#)

**Semi Demountable Torch (HF)**

Semi Demountable Torch
for Spectro EOP [30-808-1467](#)

**Comprises:**

SDT Quartz Torch Body [31-808-1458](#)

Tapered Alumina Injector 2.4mm [31-808-1195](#)

SDT Adaptor [31-808-1459](#)

Spectro (Ametek) ICP-OES: SOP (Modula, CIROS, Genesis, ARCOS)

Glass Nebulizers

Conikal
2mL/min uptake [ARG-07-UC2](#)

SeaSpray
2mL/min uptake [ARG-07-USS2](#)

Slurry
4mL/min uptake [ARG-07-US6](#)

MicroMist
600µL/min uptake [ARG-07-UM06](#)

200µL/min uptake [ARG-07-UM02](#)

100µL/min uptake [ARG-07-UM01](#)

50µL/min uptake [ARG-07-UM005](#)



Nebulizers suitable for use with HF

OpalMist
2mL/min uptake [ARG-07-PFA2](#)

600µL/min uptake [ARG-07-PFA06](#)

200µL/min uptake [ARG-07-PFA02](#)

100µL/min uptake [ARG-07-PFA01](#)

50µL/min uptake [ARG-07-PFA005](#)



DuraMist
1mL/min uptake [ARG-07-DM1](#)

400µL/min uptake [ARG-07-DM04](#)



VeeSpray - Ceramic
Standard [ARG-07-CV6](#)



IsoMist

IsoMist Programmable Temperature Spray Chamber

With glass spray chamber [KT-1027](#)

With quartz spray chamber [KT-1027Q](#)

With PFA spray chamber [KT-1027P](#)



Spray Chambers

Tracey
50mL Cyclonic [20-808-8882HE](#)



Spray Chambers (continued)

Twister
50mL Cyclonic [20-809-0222HE](#)



Cinnabar
20mL Cyclonic [20-809-0164HE](#)



Tracey TFE
50mL Cyclonic [20-809-2506](#)
Suitable for use with HF.



Torches

D-Torch [30-808-2928](#)

- Comprises:**
- Base and Inner Tube [31-808-2942](#)
 - Quartz Outer Tube [31-808-2939](#)
 - Injector Adaptor [31-808-3177](#)
 - Injector Ferrule [31-808-2962](#)
 - Retaining Ring [31-808-2818](#)



- Options:**
- Tapered Quartz Injector 1.8mm [31-808-2974](#)
 - Tapered Alumina Injector 1.8mm [31-808-2963](#)
 - Tapered Alumina Injector 1.2mm [31-808-3238](#)
 - Tapered Alumina Injector 2.4mm [31-808-3388](#)
 - Sapphire Injector 2.4mm [31-808-3414](#)
 - Ceramic Outer Tube [31-808-2973](#)



- Quartz Torches**
- Quartz Torch with 1.8mm Injector [30-808-0240](#)
 - Quartz Torch with 1.0mm Injector [30-808-1202](#)
 - Quartz Torch with 2.5mm Injector (with gas fittings) [30-807-0524](#)



Torches (continued)

**Components for Spectro designed
Semi-Demountable Torch**

Radial Demountable Torch Tube
Assembly with 3 gas inlets [30-808-0488-3](#)



Quartz Injector for Spectro
Demountable Torch 1.5mm [31-808-1203](#)

Quartz Injector for Spectro
Demountable Torch 1.8mm [31-808-0071](#)

Quartz Injector for Spectro
Demountable Torch 2.5mm [31-808-1204](#)

Spectro (Ametek) ICP-OES: Spectroblue EOP and TI

Glass Nebulizers

Conikal
2mL/min uptake [ARG-07-UC2](#)

SeaSpray
2mL/min uptake [ARG-07-USS2](#)

Slurry
4mL/min uptake [ARG-07-US6](#)

MicroMist
600µL/min uptake [ARG-07-UM06](#)
200µL/min uptake [ARG-07-UM02](#)
100µL/min uptake [ARG-07-UM01](#)
50µL/min uptake [ARG-07-UM005](#)



Nebulizers suitable for use with HF

OpalMist
2mL/min uptake [ARG-07-PFA2](#)
600µL/min uptake [ARG-07-PFA06](#)
200µL/min uptake [ARG-07-PFA02](#)
100µL/min uptake [ARG-07-PFA01](#)
50µL/min uptake [ARG-07-PFA005](#)



DuraMist
1mL/min uptake [ARG-07-DM1](#)
400µL/min uptake [ARG-07-DM04](#)



VeeSpray - Ceramic
Standard [ARG-07-CV6](#)



IsoMist

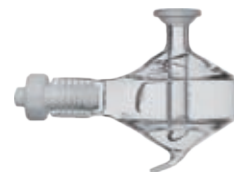
IsoMist Programmable Temperature Spray Chamber

With glass spray chamber [KT-1027](#)
With quartz spray chamber [KT-1027Q](#)
With PFA spray chamber [KT-1027P](#)



Spray Chambers

Twister
50mL Cyclonic [20-809-2951HE](#)



Quartz Adaptor
[21-809-3772](#)



Quartz Adaptor with Aux Port
[21-809-3771](#)



Tracey TFE
50mL Cyclonic [20-809-3717](#)
Suitable for use with HF.
Requires Transfer Tube [21-809-3726](#).



PuraFlex Transfer Tube
[21-809-3726](#)



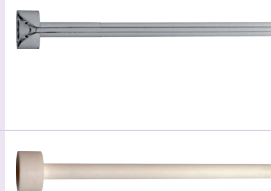
Torches

Quartz Torch
[31-808-3394](#)



Injectors

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](#)



Glass Nebulizers

Conikal
2mL/min uptake [ARG-07-UC2](#)

SeaSpray
2mL/min uptake [ARG-07-USS2](#)

Slurry
4mL/min uptake [ARG-07-US6](#)

MicroMist
600µL/min uptake [ARG-07-UM06](#)
200µL/min uptake [ARG-07-UM02](#)
100µL/min uptake [ARG-07-UM01](#)
50µL/min uptake [ARG-07-UM005](#)



Nebulizers suitable for use with HF

OpalMist
2mL/min uptake [ARG-07-PFA2](#)
600µL/min uptake [ARG-07-PFA06](#)
200µL/min uptake [ARG-07-PFA02](#)
100µL/min uptake [ARG-07-PFA01](#)
50µL/min uptake [ARG-07-PFA005](#)



DuraMist
1mL/min uptake [ARG-07-DM1](#)
400µL/min uptake [ARG-07-DM04](#)



VeeSpray - Ceramic
Standard [ARG-07-CV6](#)



IsoMist

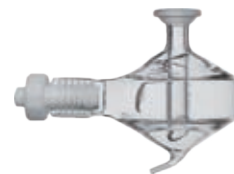
IsoMist Programmable Temperature Spray Chamber

With glass spray chamber [KT-1027](#)
With quartz spray chamber [KT-1027Q](#)
With PFA spray chamber [KT-1027P](#)



Spray Chambers

Twister
50mL Cyclonic [20-809-2951HE](#)



Straight Quartz Adaptor
[21-809-3773](#)



Straight Quartz Adaptor with Aux Port
[21-809-3804](#)

Tracey TFE
50mL Cyclonic [20-809-3717](#)
Suitable for use with HF.
Requires Transfer Tube [21-809-3726](#).



Straight HF Resistant Adaptor
[21-809-3727](#)

Torches

Quartz Torch
[31-808-3405](#)



Injectors
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](#)



Thermo ICP-MS: X Series

Glass Nebulizers

SeaSpray

400µL/min uptake [ARG-1-USS04](#)

MicroMist

400µL/min uptake [ARG-1-UM04](#)

200µL/min uptake [ARG-1-UM02](#)

100µL/min uptake [ARG-1-UM01](#)

50µL/min uptake [ARG-1-UM005](#)



Nebulizers suitable for use with HF

OpalMist

400µL/min uptake [ARG-1-PFA04](#)

200µL/min uptake [ARG-1-PFA02](#)

100µL/min uptake [ARG-1-PFA01](#)

50µL/min uptake [ARG-1-PFA005](#)



IsoMist

IsoMist Programmable Temperature Spray Chamber for Thermo X Series

With glass spray chamber [KT-1025](#)

With quartz spray chamber [KT-1025Q](#)

With PFA spray chamber [KT-1025P](#)



Spray Chambers

Twister

50mL Cyclonic [20-809-0293HE](#)



Twinnabar

20mL Cyclonic [20-809-0536HE](#)



Torches

Fixed Torch (Quartz One Piece)

Quartz Torch with 1.5mm Injector [30-808-1279](#)

Quartz Torch with 2.0mm Injector [30-807-0532](#)



Torches (continued)

Semi Demountable Torch (HF)

[30-808-0998](#)

Comprises:

X-Series Semi Demountable Torch Body [31-808-1009](#)

X-Series Semi Demountable Torch Adaptor [31-808-0984](#)

Tapered Alumina Injector 1.5mm [31-808-1013](#)

GazFit Connectors (PKT 4) [GAZ-06](#)



Injector Options

Tapered Alumina Injector 1.5mm [31-808-1013](#)

Platinum Injector 1.5mm [31-808-1256](#)

Sapphire Injector 2.0mm [31-808-3001](#)



Other Products

Quartz Bonnet [31-808-2831](#)



Silver Screen [TG5003](#)



Cones

Nickel Sampler, Copper Core

(Thermo p/n 3600812) [TG1021-Ni/Cu](#)



Nickel Skimmer, Xi, Xt

(Thermo p/n 3600811) [TG1022-Ni](#)



Nickel Skimmer, Xs

(Thermo p/n 3200860) [TG1004-Ni](#)



Skimmer Interface

(Thermo p/n 3600813) [TG1023-Cu](#)



Skimmer Interface, X Series II

(Thermo p/n 3601320) [TG1023-Ni](#)



Platinum Micro-Skimmer Cone, Xs, Copper Core

(Thermo p/n 3201101) [TG1008-Pt](#)



Cones (continued)

**Platinum Sampler Cone, X Series,
Copper Core**

(Thermo p/n 3601289)

[TG1026A-Pt/Cu](#)



ConeGuard Thread Protectors

**ConeGuard, Micro-Skimmer for X
Series**

[70-803-1028](#)



Glass Nebulizers

SeaSpray

400µL/min uptake [ARG-1-USS04](#)

MicroMist

400µL/min uptake [ARG-1-UM04](#)

200µL/min uptake [ARG-1-UM02](#)

100µL/min uptake [ARG-1-UM01](#)

50µL/min uptake [ARG-1-UM005](#)



Nebulizers suitable for use with HF

OpalMist

400µL/min uptake [ARG-1-PFA04](#)

200µL/min uptake [ARG-1-PFA02](#)

100µL/min uptake [ARG-1-PFA01](#)

50µL/min uptake [ARG-1-PFA005](#)



IsoMist

IsoMist Programmable Temperature Spray Chamber

With glass spray chamber [KT-1027](#)

With quartz spray chamber [KT-1027Q](#)

With PFA spray chamber [KT-1027P](#)



Torches

Quartz Torch

[31-808-3357](#)



Cones

Nickel Sampler, Copper Core

(Thermo p/n 3600812) [TG1021-Ni/Cu](#)



Nickel Skimmer

(Thermo p/n 1311870) [TG1034-Ni](#)



Platinum Skimmer

(Thermo p/n 1324540) [TG1038-Pt](#)



Platinum Sampler Cone, Copper Core

(Thermo p/n 3601289) [TG1026A-Pt/Cu](#)



Cones (continued)

Skimmer Cone Insert 2.8

(Thermo p/n 1311880) [TG1036-28](#)



Skimmer Cone Insert 3.0

(Thermo p/n 1318470) [TG1036-30](#)



Skimmer Cone Insert 3.5

(Thermo p/n 1318480) [TG1036-35](#)



Glass Nebulizers

Conikal	
2mL/min uptake	ARG-07-UC2
SeaSpray	
2mL/min uptake	ARG-07-USS2
Slurry	
4mL/min uptake	ARG-07-US6
MicroMist	
600µL/min uptake	ARG-07-UM06
200µL/min uptake	ARG-07-UM02
100µL/min uptake	ARG-07-UM01
50µL/min uptake	ARG-07-UM005



Nebulizers suitable for use with HF

OpalMist	
2mL/min uptake	ARG-07-PFA2
600µL/min uptake	ARG-07-PFA06
200µL/min uptake	ARG-07-PFA02
100µL/min uptake	ARG-07-PFA01
50µL/min uptake	ARG-07-PFA005
DuraMist	
1mL/min uptake	ARG-07-DM1
400µL/min uptake	ARG-07-DM04
VeeSpray - Ceramic	
Standard	ARG-07-CV6



IsoMist

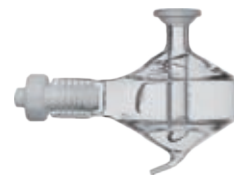
IsoMist Programmable Temperature Spray Chamber for Thermo iCAP 6000/7000 Duo

With glass spray chamber	KT-1015
With quartz spray chamber	KT-1015Q
With PFA spray chamber	KT-1015P



Spray Chambers

Tracey	
50mL Cyclonic	20-809-2665HE
Twister	
50mL Cyclonic	20-809-2951HE
Cinnabar	
20mL Cyclonic	20-809-3220HE



Tracey TFE	
50mL Cyclonic (Suitable for HF)	20-809-3469



Adaptor	
Right Angle With Ball Joint	21-809-2761



Torches

D-Torch Demountable Torch

D-Torch with Quartz Outer Tube	30-808-2844
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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



Torches (continued)

Injectors for D-Torch & EMT Torch

Tapered Quartz Injector 1.0mm [31-808-2833](#)

Tapered Quartz Injector 1.5mm [31-808-2834](#)

Capillary Quartz Injector 2.0mm [31-808-2836](#)

Capillary Quartz Injector 2.5mm [31-808-3246](#)

Capillary 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](#)



Ceramic Outer Tube and Optic Fibre for D-Torch

[31-808-3079](#)

Comprises:

Ceramic Outer Tube [31-808-2863](#)

Optic Fibre 170mm [31-808-2933](#)

Optic Fibre 450mm [31-808-3117](#)



Quartz Torch

EMT Design [31-808-2811](#)



Quartz Torch

Old Design [31-808-2676](#)



Injectors for Old Design Torch

Tapered Quartz Injector 1.0mm [31-808-2719](#)

Tapered Quartz Injector 1.5mm [31-808-2702](#)

Capillary Quartz Injector 2.0mm [31-808-2675](#)

Tapered Alumina Injector 1.5mm [31-808-2787](#)

Alumina Injector 2.0mm [31-808-2786](#)

Sapphire Injector 2.0mm [31-808-2804](#)



Other Products

Duo Periscope Window [31-808-2677](#)



Quartz Window [70-803-1116](#)



RF Coils

RF Coil

Gold, Teflon Coated [70-900-4002G](#)



RF Coil

Silver, Teflon Coated [70-900-4002S](#)



Installation Kit

[70-900-4002T](#)



Glass Nebulizers

Conikal
2mL/min uptake [ARG-07-UC2](#)

SeaSpray
2mL/min uptake [ARG-07-USS2](#)

Slurry
4mL/min uptake [ARG-07-US6](#)

MicroMist
600µL/min uptake [ARG-07-UM06](#)

200µL/min uptake [ARG-07-UM02](#)

100µL/min uptake [ARG-07-UM01](#)

50µL/min uptake [ARG-07-UM005](#)



Nebulizers suitable for use with HF

OpalMist
2mL/min uptake [ARG-07-PFA2](#)

600µL/min uptake [ARG-07-PFA06](#)

200µL/min uptake [ARG-07-PFA02](#)

100µL/min uptake [ARG-07-PFA01](#)

50µL/min uptake [ARG-07-PFA005](#)



DuraMist
1mL/min uptake [ARG-07-DM1](#)

400µL/min uptake [ARG-07-DM04](#)



VeeSpray - Ceramic
Standard [ARG-07-CV6](#)



IsoMist

IsoMist Programmable Temperature Spray Chamber for Thermo iCAP 6000/7000 Radial

With glass spray chamber [KT-1021](#)

With quartz spray chamber [KT-1021Q](#)

With PFA spray chamber [KT-1021P](#)

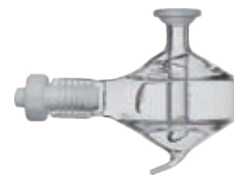


Spray Chambers

Tracey
50mL Cyclonic [20-809-2665HE](#)



Twister
50mL Cyclonic [20-809-2951HE](#)



Tracey TFE
50mL Cyclonic [20-809-9198](#)
Suitable for use with HF.



Straight Ball Joint Adaptor
[21-809-2723](#)



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 [31-808-2881](#)



Injectors for D-Torch & EMT Torch

Tapered Quartz Injector
1.0mm (EMT) [31-808-2833](#)

Tapered Quartz Injector
1.5mm (EMT) [31-808-2834](#)

Capillary Quartz Injector
2.0mm (EMT) [31-808-2836](#)

Alumina Injector 2.0mm (EMT) [31-808-2835](#)

Sapphire Injector 2.0mm [31-808-2977](#)



Thermo ICP-OES: iCAP 6000/7000 Radial

Torches (continued)

Quartz Torches

Quartz Torch (EMT) [31-808-2810](#)



Quartz Torch (Old Design) [31-808-2692](#)



Injectors for Old Design Semi Demountable Torch

Tapered Quartz Injector 1.0mm [31-808-2719](#)



Tapered Quartz Injector 1.5mm [31-808-2702](#)



Capillary Quartz Injector 2.0mm [31-808-2675](#)



Tapered Alumina Injector 1.5mm [31-808-2787](#)



Alumina Injector 2.0mm [31-808-2786](#)



Sapphire Injector 2.0mm [31-808-2804](#)



RF Coils

RF Coil

Gold, Teflon Coated [70-900-4002G](#)



RF Coil

Silver, Teflon Coated [70-900-4002S](#)



Installation Kit

[70-900-4002T](#)



NEBULIZER TUBING & CONNECTORS

EzyLok Kit for Nebulizer Gas Side Arm

[EL-1](#)

Comprises:

EzyLok Connector for 4mm Tubing

[QSM-4](#)

EzyLok 6mm Hose Adaptor

[70-808-0735](#)

Hose Clip, 6mm

[SNP-1](#)



PFA 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](#)

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](#)

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



Other Tubing & Clips

VeeSpray Nebulizer Sample Tubing (PKT 10)

[VSS-075](#)

VeeSpray Screw & O-Rings Kit (PKT 10 of each)

[VKT-0118](#)

PolyCon/VeeSpray Sample Tube O-rings (PKT 10)

[V-001](#)

Nebulizer Pressure Hose Clips (PKT 10)

[SNP-1](#)

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](#)

FITTINGS & CONNECTORS FOR SPRAY CHAMBERS

O-Rings & Seals

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



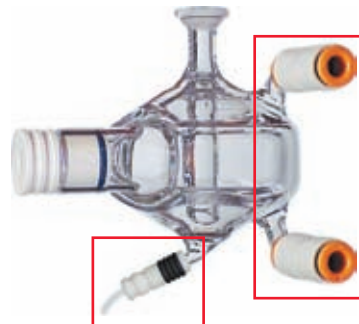
Helix Seal



Helix Locking Screw

Clips & Connectors

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
EzyLok Connector for Jacketed Spray Chamber Coolant Arm Tubing (PKT 4)	QSM-1/4-4
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

Suitable for use with 1/4" Nylon, Teflon, Polyamide or Polyurethane tubing.



JC-13

CONNECTORS FOR TORCHES

GazFit Connectors

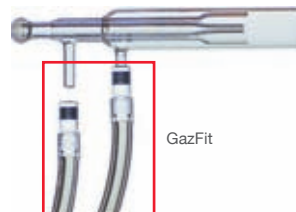
GazFit Connectors (PKT 2), for 8mm OD arm	GAZ-08
GazFit Connectors (PKT 4), for 6mm OD torch side arms	GAZ-06
GazFit Connectors (PKT 4), 2 for 6mm OD torch side arms, 2 for 4mm OD torch side arms	GAZ-0604
GazFit Connectors (PKT 4), for 5mm OD torch side arms	GAZ-05
GazFit Connectors (PKT 4), for 4mm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

O-Rings

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

Standard Peristaltic Pump Tubing

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.

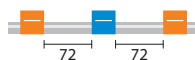
Limitations:

Potential leaching of plasticizers.



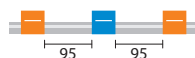
PVC, 2 Bridged, 152mm (152mm between tags)

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



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

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



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

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

SOLVA PERISTALTIC PUMP TUBING

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

Special Properties:

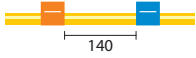
Special tubing for hydrocarbons, petroleum products and distillates.

Advantages:

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

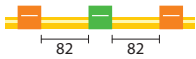
Limitations:

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



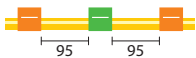
Solva, 2 Bridged, 140mm (140mm between tags)

Tag Colours	ID (mm)	P/N
	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:

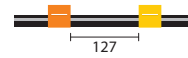
Special tubing for concentrated acids and corrosive solvents.

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

Viton® Tubing, Continuous

ID (mm)	Wall (mm)	P/N
1.00	1.00	V-1
1.50	0.75	V-1.5
2.00	1.00	V-2
3.00	1.00	V-3

Supplied in rolls

Standard Peristaltic Pump Tubing

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:

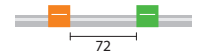
Limited service life.









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

	Tag Colours	ID (mm)	P/N
	orange/green	0.38	0.38-ORG-MH
	orange/white	0.64	0.64-OW-MH
	white/white	1.02	1.02-WHT-MH
	yellow/blue	1.52	1.52-YB-MH
	purple/purple	2.06	2.06-PUR-MH
	purple/white	2.79	2.79-PW-MH

Supplied in packs of 6 tubes



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

	Tag Colours	ID (mm)	P/N
	orange/green	0.38	0.38-ORG-MH3
	orange/white	0.64	0.64-OW-MH3
	white/white	1.02	1.02-WHT-MH3
	yellow/blue	1.52	1.52-YB-MH3
	purple/purple	2.06	2.06-PUR-MH3
	purple/white	2.79	2.79-PW-MH3

Supplied in packs of 6 tubes

Tygon® MH Tubing, Continuous

ID (mm)	P/N
0.38	0.38-ORGM
0.64	0.64-OWM
1.02	1.02-WHTM
1.52	1.52-YBM
2.06	2.06-PURM
2.79	2.79-PWM

Supplied in rolls of 10 metres

Contour Flared-end Peristaltic Pump Tubing

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.

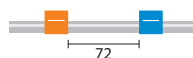
Limitations:

Potential leaching of plasticizers.



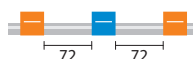
PVC, 2 Bridged, 152mm (152mm between tags)

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



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

Tag Colours	ID (mm)	P/N
orange/red	0.19	0.19-OR-F-S
orange/blue	0.25	0.25-OB-F-S
black/black	0.76	0.76-BLK-F-S
orange/orange	0.89	0.89-ORG-F-S

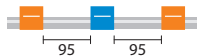


PVC, 3 Bridged, 72mm (72mm between tags)

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

Contour Flared end Peristaltic Pump Tubing

CONTOUR FLARED END PVC PERISTALTIC PUMP TUBING (CONT.)



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

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

CONTOUR FLARED END SOLVA PERISTALTIC PUMP TUBING

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

Special Properties:

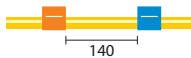
Special tubing for hydrocarbons, petroleum products and distillates.

Advantages:

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

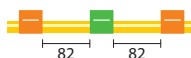
Limitations:

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



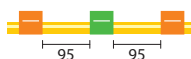
Solva, 2 Bridged, 140mm (140mm between tags)

Tag Colours	ID (mm)	P/N
	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



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

Contour Flared end Peristaltic Pump Tubing

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

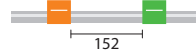
Environmental-friendly tubing especially designed for solvents. Suitable for MIBK.

Advantages:

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

Limitations:

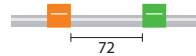
Limited service life.



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

Tag Colours	ID (mm)	P/N
orange/green	0.38	0.38-ORG-MH-F
orange/white	0.64	0.64-OW-MH-F
white/white	1.02	1.02-WHT-MH-F
yellow/blue	1.52	1.52-YB-MH-F
purple/purple	2.06	2.06-PUR-MH-F
purple/white	2.79	2.79-PW-MH-F

Supplied in packs of 6 tubes



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

Tag Colours	ID (mm)	P/N
orange/green	0.38	0.38-ORG-MH3-F
orange/white	0.64	0.64-OW-MH3-F
white/white	1.02	1.02-WHT-MH3-F
yellow/blue	1.52	1.52-YB-MH3-F
purple/purple	2.06	2.06-PUR-MH3-F
purple/white	2.79	2.79-PW-MH3-F

Supplied in packs of 6 tubes