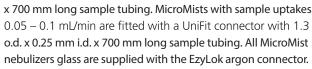


The MicroMist micro-uptake glass concentric nebulizer offers high performance for limited sample volumes. MicroMists with sample uptakes 0.2-0.4 mL/min are fitted with a UniFit connector with 1.3 o.d. x 0.50 mm i.d.



AR Flow Rate	Uptake Rate	Part No.
1.0 L/min	0.4 mL/min	N0775341
1.0 L/min	0.2 mL/min	N0775342
1.0 L/min	0.1 mL/min	N0775343
1.0 L/min	0.05 mL/min	N0775344

#### SeaSpray Nebulizers

The SeaSpray Concentric Nebulizer is ideal for samples with high dissolved solids and offers outstanding nebulization efficiency for trace level analysis. It offers freedom from

clogging while nebulizing solutions near the limit of solubility of most mineral salts, and conferring significant sensitivity gains. All SeaSpray Nebulizers are supplied with the EzyLok Argon connector.

AR Flow Rate	Uptake Rate	Part No.
1.0 L/min	2 mL/min	N0775340
1.0 L/min	1 mL/min	N0774069
1.0 L/min Quartz	1 mL/min	N0774069
1.0 L/min	0.4mL/min	N0777484

#### DuraMist Nebulizers

The DuraMist concentric nebulizer is an economical nebulizer for high precision analyses involving samples digested in HF. The DuraMist nebulizer is recommended for samples containing up to 5% HF. For samples with higher concentrations of HF, the OpalMist PFA nebulizer is recommended.

1.0 L/min	1.0 mL/min	N8121045
1.0 L/min	0.4 mL/min	N8121046
AR Flow Rate	Uptake Rate	Part No.

### Connectors for MicroMist and SeaSpray Nebulizers





Description	Pkg.	Part No.
UniFit		
0.25 mm ID x 1.27 mm OD x 700 mm long	10	N0777514
0.50 mm ID x 1.27 mm OD x 700 mm long	10	N0777513
0.75 mm ID x 1.27 mm OD x 700 mm long	10	N0777512
1.30 mm OD X 0.75 mm ID x 700 mm long	3	N0774077
1/16 inch OD X 0.75 mm ID x 700 mm long	3	N0774080
UniFit-EzyFit Sample Tube	6	N0777061
EzyFit		
0.25 mm ID x 1.27 mm OD x 700 mm long	10	N0777437
0.50 mm ID x 1.27 mm OD x 700 mm long	10	N0777436
0.75 mm ID x 1.27 mm OD x 700 mm long	10	N0777435
0.25 mm ID x⁄₁₅" OD x 700 mm long	10	N0777464
0.50 mm ID x⁄₁₅" OD x 700 mm long	10	N0777463
0.50 mm ID x/₁₅" OD x 700 mm long Twin	6	N0777462
1/16 inch OD x 0.25mm ID x 700mm	10	N0777845
1/16 inch OD x 0.50mm ID x 700mm	10	N0777846
1/16 inch OD x 0.75mm ID x 700mm	10	N0777847
UniFit-EzyFit Sample Tube	6	N0777061

#### **OpalMist Nebulizers**

The OpalMist is ideal for the geochemistry & semiconductor industry. The OpalMist PFA concentric nebulizer is for high precision analyses involving analyses requiring high chemical resistancy to HF, alkalis and organics. It also provides excellent results for trace analyses.

AR Flow Rate	Uptake Rate	Part No.
1.0 L/min	0.4 mL/min	N0777485
1.0 L/min	0.1 mL/min	N0777486
1.0 L/min	0.2 mL/min	N8121056
1.0 L/min	0.05 mL/min	N8121057
1.0 L/min	2 mL/min	N8121061

#### The Eluo™ Nebulizer Cleaner

The Eluo is designated to efficiently deliver a cleanser through the nebulizer capillary to dislodge particle build-up and thoroughly clean the nebulizer. One simple action does it all. No more messy procedures, waiting overnight or shattered nebulizers in ultrasonic baths.

Description	Part No.
For Newer OpalMist, PolyCon, DuraMist, Meinha other Glass Nebulizers.	rd, N0777712
For OLD style OpalMist or PolyCon Nebulizers.	N0775358

#### HIGH EFFICIENCY MICROFLOW NEBULIZERS

MicroFlow nebulizers are constructed entirely from chemically resistant fluoropolymers, ideal for strong acids, alkalis, organics, high salt solutions and high solid concentrations. They are resistant to clogging, are reliably self-aspirated or pumped and produce a fine aerosol for high transport efficiency and high sensitivity.

#### **PFA-ST Nebulizer**

The PFA-ST nebulizer features high purity, HF-resistance, and high performance, along with an



exchangeable external sample uptake capillary. The sample uptake rate is controlled by the dimension of the external capillary or probe. For use with autosamplers. Requires a CTFE union (N8122355) to connect to the UltraClean autosampler probe. All-PTFE construction, chemically inert. Chemically resistant—ideal for strong acids, alkalis, organics. Resistant to clogging – reliably self-aspirated or pumped. Low, spike-free background for important elements such as:

- Fe and Ca. Produces a fine aerosol for high transport efficiency and high sensitivity
- Analyze all sample types with a single introduction system Direct analysis of volatile and non-volatile organic solvents

Description	Part No.
PFA-ST Nebulizer	N8122192

#### PolyPro-ST Nebulizer

The PolyPro-ST Nebulizer is an HF resistant alternative to the PFA



nebulizer. The PolyPro has lower chemical resistance than the PFA nebulizer but has the same high efficiency aerosol generation. A robust nebulizer that can self aspirate with an exchangeable external sample uptake capillary or used with a peristaltic pump.

Description	Part No.
PolyPro-ST Nebulizer	N0777220

#### PFA-ST3 Nebulizer

Designed for superior clog resistance and higher sensitivity. PFA-ST3 nebulizer with external threaded connector is a high performance, clog resistant and chemically inert nebulizer for ICP-MS.

Description	Part No.
PFA-ST3 Nebulizer	N8145101



#### PFA Nebulizer Obstruction Removal Kit

Obstruction Removal Kit while naturally resistant to obstructions, PFA nebulizers may occasionally require maintenance. Use this kit to safely remove obstructions in all PFA-ST nebulizers for long-term high performance.

Description	Part No.
Nebulizer Obstruction Removal Kit	N8145236

#### PTFE Sample Capillaries

For use with ST Nebulizers.

I.D.	Self-Aspiration Rate	Part No.
0.15 mm Red	20 μL/min	N8122382
0.2 mm Purple	50 μL/min	N8145135
0.25 mm Green	100 μL/min	N8122383
0.3 mm Yellow	200 μL/min	N8145136
0.5 mm Orange	400 μL/min	N8122384
0.8 mm Blue	700 μL/min	N8145137
1.0 mm Gray	1 mL/min	N8145138

#### Sample Introduction Kits for NexION

Complete high purity sample introduction system for NexION. All wetted surfaces are PTFE and Pt. Used by a majority of



semiconductor labs worldwide for the analysis of semiconductor grade chemicals and Si wafer samples. Includes 2 PFA MicroFlow Nebulizers, PureCap PFA endcap with additional gas port, PFA spray chamber, Pt injector, Pt Shield and quartz torch.

Description	Part No.
PFA-Platinum HF-Resistant Sample Introduction Kit	N8142001

Complete HF-resistant sample introduction system for NexION. All wetted surfaces are PTFE and Sapphire. Provides a chemically inert and clean introduction system. Includes a PFA-ST Nebulizer, PureCap PFA endcap with additional gas port, PFA spray chamber, Sapphire injector, Pt Shield and quartz torch.

Description	Part No.	
PFA-Sapphire HF-Resistant Sample Introduction KitN8142002		
HF Sample Introduction Kit Consists of a Scott spray chamber w Flow II nebulizer, a 2 mm alumina in support adapter, O-rings, tubing and	jector, inje <mark>ctor</mark>	

#### Cyclonic Spray Chambers

- The Cyclonic Spray Chamber relies on momentum to efficiently and quickly remove the larger droplets from the sample mist decreasing any opportunity for occlusion or agglomeration of the smaller droplets. The result is higher efficiency, better precision and faster washouts than other spray chamber designs
- Decreased sample introduction system installation and optimization time due to the preset nature of the spray chamber/ nebulizer combination
- More samples per hour due to minimal dead volume and efficient draining

#### Unique design characteristics:

- The nebulizer port is oversized so that sample solution cannot build up around the nebulizer as it will in other cyclonic designs
- The nebulizer port angle is tightly controlled so that the nebulizer mist impacts on the same chamber wall area in each and every spray chamber
- Each spray chamber incorporates a precisely machined ridge a long the inside top of the spray chamber. This eliminates the periodic "spiking" that adversely affects precision and fosters faster washout times

#### **Baffled Cyclonic** Spray Chambers

The spray chamber is an integral part of the sample introduction system responsible for filtering the sample mist to permit the appropriate droplet size distribution to reach the plasma. The baffled cyclonic spray chamber features a central transfer tube which acts as a secondary particle separator



Part No. WE025221

helping separate larger aerosol particles from the sample. This reduces solvent load in the plasma without compromising detection limits. The distance between the bottom of the baffle and the chamber wall is carefully controlled so that droplets cannot form on the bottom of the baffle. The advantage is smooth draining and improved precision.



# **Baffled Quartz**Cyclonic Spray Chambers

Baffled Quartz Spray Chamber (PTFE O-Ring type) with ball joint.



Part No. N8145013

ICP-MS Model	Part No.
NexION*	N8145013
ELAN DRC/DRCplus/DRC II	WE025221
O-Ring for Baffled Quartz Cyclonic Spray Chamber	09210011

<sup>\*</sup>O-Ring free

#### **Baffled Glass Cyclonic** Spray Chambers

The Cyclonic Spray Chamber relies on momentum to efficiently and quickly remove the larger droplets from the sample mist decreasing any opportunity for occlusion or agglomeration of the smaller droplets. The result is higher



Part No. N8145014

efficiency, better precision and faster washouts than other spray chamber designs. For use with ball joint injectors.

ICP-MS Model	Part No.
NexION (Standard with NexION Q/X/D)**	N8145014
ELAN	N0773196

<sup>\*\*</sup>O-Ring free



## **ELAN Baffled Quartz Cyclonic** PC<sup>3</sup> Spray Chambers

7 mm baffle, aux. gas port, drain line included and connects directly to ESI injectors. An adapter is needed to connect to other injectors. All-purpose for non-HF samples. Provides excellent sensitivity and stability with low background. For use with PC <sup>3</sup>.

Description	Part No.
With Auxillary Gas Port	N0777034
Without Auxillary Gas Port	N0777035



#### Glass Cyclonic Spray Chamber Kit

Contains one Glass Cyclonic Spray Chamber, mounting hardware and instructions. Requires, but does not include, a concentric nebulizer.

Description	Part No.
For ELAN 9000/6x00/5x00/DRC-e	
Glass Cyclonic Spray Chamber Kit	N8120150
Glass Cyclonic Spray Chamber Only	N8122188
O-Ring Free Glass Cyclonic Spray Chamber	N0775350



## **NexION O-Ring Free Baffled Cyclonic** PC<sup>3</sup> Spray Chambers

Feature o-ring free connections to the nebulizer and torch injector, secure, leak-free threaded drain port, internal baffle and threaded auxiliary port for addition gas.

Description	Part No.
High Purity Quartz Cyclonic Spray Chamber provides excellent sensitivity and stability with low background	N8145120
Micro Cyclonic Spray Chamber provides the fastest washout at low-flow rates compared to larger versions	N8145121
Borosilicate Glass Spray Chamber	N8145119
PFA Cyclonic Spray Chamber	N8145122

### Connectors and Spares





Part No. Part No. N0777438 N0777

Description	Pkg.	Part No.
Helix Locking Screw	1	N0777438
Helix Seal	4	N0777439
PFA 6 mm Short Length Secure Replacement Nut for Quartz Cyclonic Spray Chambers		N8141420
PFA 6 mm Long Length Secure Replacement Nut for Quartz Cyclonic Spray Chambers		N8145321



#### **Scott Spray Chambers**

Complete HF-resistant Scott Spray Chamber Includes (1) large O-Ring (WE013060), (1) Retaining Ring (WE014081) and (1) Right-Angled Drain Connector (WE013119).

Description	Part No.
For NexION/ELAN 9000/6x00/5000/DRC-e	
Scott Spray Chamber	N8120124
Scott Spray Chamber Large O-Ring	WE013060
Scott Spray Chamber Retaining Ring	WE014081
End-cap for Concentric Nebulizer. Ryton endcap to fit nebulizer onto Scott Spray Chamber	N0680504



Part No. N8142000

#### PFA PTFE Scott Spray Chamber

UltraClean, low volume 47 mm Scott Spray Chamber. For use with concentric nebulizers. Requires a PFA injector assembly and the PFA End Cap (N8122357).

Description	Part No.
PFA PTFE Scott Spray Chamber	N8122356
PFA Spray Chamber with PFA End Cap for NexION* N8142000	

<sup>\*</sup> Requires PFA body injector N8122411 or N8122412 or N8122413.

### TEMPERATURE CONTROLLED SPRAY CHAMBER





#### PC<sup>3</sup> Peltier Coolers for NexION

The PC³ is a small and robust Peltier cooler for ICP-MS cyclonic spray chambers. The cyclonic spray chamber offers the advantages of low memory effects, fast rinseout and high sample transport efficiency. The PC³ cools the outer walls of the cyclonic spray chamber to a constant temperature, enhancing long-term signal stability, reducing polyatomic interferences such as oxides, and reducing solvent loading when volatile organic solvents are analyzed. The PC³ has 2 preset temperatures +2 °C / -5 °C and is ideal for analysis of aqueous or aqueous/organic mixtures. The PC³-LT operates at -20 °C to reduce the solvent load on the plasma for analysis of 100% volatile organic solvents.

Description	Injector Size	Additional Temperatur Gas Port	Part No.
PC <sup>3</sup> Sample Introduction Kit*	1.5 mm	+2 °C / -5 °C Yes	N8142003
HF PC Sample Introduction Kit*	1.5 mm	+2 °C / -5 °C Yes	N8145309
PC <sup>3</sup> -LT Organic Sample Introduction Kit*	1.0 mm	+2 °C / -20 °C Yes	N8145099
HF PC-LT Organic Sample Introduction Kit*	1.5 mm	+2 °C / -20 °C Yes	N8145310

<sup>\*</sup> All PC3 kits include a PFA-ST nebulizer (N8122192).

#### PC<sup>3x</sup> Peltier Controlled Heated or Cooled Cyclonic Chamber for NexION



The PC <sup>3x</sup> is a compact Peltier heated or cooled inlet system that controls the spray chamber temperature and improves long-term stability. In cooling mode, water or solvent is removed from the aerosol, reducing water or solvent loading on the plasma. In heating mode, sensitivity is increased and volatility-related sample transport effects can be reduced or eliminated.

- Variable temperature control from -10 °C to +80 °C
- Thermal stabilization of spray chamber improves long-term stability
- · Last set temperature saved for stand alone operation
- USB or Bluetooth connectivity
- Remote monitoring and control

Description	Part No.
PC <sup>3x</sup> thermally stabilized inlet system	N8145340

### PC<sup>3</sup> Peltier Coolers for ELAN

The PC<sup>3</sup> is a small and robust Peltier cooler for ICP-MS cyclonic spray chambers. The cyclonic spray chamber offers the advantages of low memory effects, fast rinseout and high sample transport



efficiency. The PC³ cools the outer walls of the cyclonic spray chamber to a constant temperature, enhancing long-term signal stability, reducing polyatomic interferences such as oxides, and reducing solvent loading when volatile organic solvents are analyzed. The PC ³ has two present temperatures +2 °C / -5 °C and is ideal for analysis of aqueous or aqueous/organic mixtures. The PC³-LT operates at +2 °C / -20 °C to reduce the solvent load on the plasma for analysis of 100% volatile organic solvents.

ICP-MS Model	Part No.
ELAN Cassette Torch Mount	N8122410
ELAN Twist Type Torch Mount	N8122389
ELAN PŒ-LT	N8122452



#### IsoMist Programmable Temperature Spray Chambers

The IsoMist Programmable Temperature Spray Chamber lets you select any temperature between -10 °C and +60 °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. 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.

- Temperature range: -10 °C to +60 °C
- Temperature set in 1 °C increments
- Temperature stability: +/- 0.1 °C

ICP-MS Model	Part No.
ELAN	N0777364
NexION	N8141426

### INJECTORS AND ADAPTERS

#### Sapphire Injectors

#### Sapphire Injector Tube, 2.0 mm i.d.

Demountable injector for use with the HF-resistant sample introduction system. Not for use with PFA sample introduction system.

Dimension	Part No.
NexION/ELAN DRC-e/9000/6x00/5000	N0695495

#### **PFA Injector Assemblies**

#### PFA/Quartz Torchnjector Assembly

Description	Dimension	Part No.
PFA/Quartz Twist Type	1.5 mm i.d.	N8122394
PFA/Quartz Cassette	1.5 mm i.d.	N8122413

#### PFA.Sapphire Torclinjector Assembly

Description	Dimension	Part No.
PFA/Sapphire Twist Type	1.8 mm i.d.	N8122358
PFA/Sapphire Cassette	1.8 mm i.d.	N8122411

#### PFA/Platinum TordInjector Assembly

Description	Dimension	Part No.
PFA/Platinum Twist Type	2.0 mm i.d.	N8122359
PFA/Platinum Cassette	2.0 mm i.d.	N8122412

#### **Alumina Injectors**

Alumina injectors are compatible with twist type and cassette torch mounts. They are vacuum baked to reduce contamination.

#### Features and Benefits

- 2.0 mm i.d. for use with HF-resistant sample introduction system. Standard injector for aqueous solutions and less volatile organic solvents
- 0.85 mm i.d. for use with volatile organic solutions on the HF-resistant sample introduction system

Aluminal njectors for NelON/EIAN DRC-e/9000/6x00/5000/500

Dimension	Part No.
2.0 mm i.d.	N8126041
1.5 mm i.d.	N8126040
0.85 mm i.d.	N8126039

#### Injector Support Adapters

ICP-MS Model Part No.		
ELAN DRC/DRCplus/DRC II		
Ball Joint Twist Type Torch Injector Support Adap	oterWE023951	
ELAN DRC II		
Ball Joint Cassette Torch Injector Support Adapte	er W1012406	
ELAN 9000/6x00/5000/DRC-e		
Twist Type Torch Injector Support Adapter	N8122007	
Twist Type Torch Injector Support Adapter (Assembled with O-Rings)	N8120116	
NexION/ELAN 9000/6x00/5000/DRCs		
Injector Support Adapter O-Ring Kit	N8120100	
Cassette Torch Injector Support Adapter For Non-Ball Joint Injectors	W1013266	
Cassette Torch Injector Support Adapter For Ball Joint Injectors	W1012406	

#### **Quartz Injectors**

Quartz Injectors are compatible with twist type and cassette torch mounts. The ELAN DRC II uses a specially designed all-quartz sample introduction system to minimize background contamination levels. The standard 2.0 mm i.d. quartz injector is held by a specially designed pass-through, injector support assembly to minimize contact with materials that could cause sample contamination, a must for determinations made at the parts-per-trillion level.

#### **Quartz Injectors**

For the NekON/EIAN DRC-e/9000/6x00/5000 when using the ResistantSample IntroductionSystem WE024782).

Description	Recommended Use	Part No.
1.2 mm i.d.	Organic Solvents	N0681631
1.6 mm i.d.	Organic Solvents	00473292
2.0 mm i.d.	Clinical Samples	N8125029

#### Quartz Ball Joint Injectors

For NexON/EIAN DRC/DRCplus/IBC II. For use with Pass-ThroughBall JointInjectorSupport Adapters/(E023951 or/W1012406).

Description	Recommended Use	Part No.
0.85 mm i.d.*	Volatile Organics	WE027030
1.5 mm i.d.*	Organics	WE027005
2.0 mm i.d.	General Purpose	WE023948

<sup>\*</sup>For reduced sample loading.

#### Injector Support Adapter O-Rings

Position	Torch Type	Part No.
Internal	Twist/Cassette	09210011
External (large)	Cassette	W1013545
External	Twist/Cassette	09210012
Internal	Cassette (non-Ball Joint only) N8122010	
Internal	Twist (non-Ball Joint)	WE013060

Injector Adapter Kits and O-Rings can be found on the next page.

#### Injector Adapter Kits and O-Rings

Description	Qty	Part No.
For NexION Injector Adapter Kit (Includes items listed b	elow)	N8140360
Adapter	1	W1012406
O-Ring 3/8 inch i.d. x 1/16 inch	1	W1008572
O-Ring 1/4 inch i.d. x 1/16 inch	1	W1008573
Injector Spacer	1	W1012409
Injector Nut	1	W1012408
For NexION Injector Adapter Kit 2 (Includes items listed b	elow)	N8140527
Injector O-Ring 0.239 i.d. x 0.070 WD	1	09210011
O-Ring 0.551 i.d. x 0.070 WD	1	N8122010
O-Ring 3/8 inch i.d. x 1/16 inch	1	W1008572
Adapter	1	W1012406
Injector Nut	1	W1012408
Injector Spacer	1	W1012409
O-Ring 5/8 inch i.d. x 1/8 inch WD	1	W1013545
For ELAN Cassette O-Ring Kit for Injector Support (Includes items listed below)		N8120100
Injector O-Ring 0.239 i.d. x 0.070 WD	2	09210011
Torch O-Ring 0.364 i.d. x 0.070 WD	2	09210012
O-Ring 0.551 i.d. x 0.070 WD	1	N8122010
O-Ring 5/8 inch i.d. x 1/8 inch WD	1	W1013545

#### Demountable Quartz Torch

The EasyGlide torch mount and alignment system used in the ELAN and NexION ICP-MS system.

It is a demountable design that



incorporates a quartz torch with a fully replaceable sample injector made of fused alumina, quartz or sapphire.

ICP-MS Model	Part No.
NexION/ELAN	N8122006

#### **High Efficiency Demountable Quartz Torch**

Demountable Quartz Torch only. Operates at 25% reduced argon gas flows compared to the Demountable



Quartz Torch (N8122006). The ELAN 9000 and 6x00 require the High Efficiency Torch Kit (W1007468) for first time installation.

ICP-MS Model	Part No.
ELAN 9000/6x00/DRCs	W1008384
NexION	N8145318

#### **High Efficiency Torch Kit**

Includes the High Efficiency Torch (W1008384) and flow restrictors required for use with the ELAN 9000 and 6x00.

ICP-MS Model	Part No.
ELAN 9000 and 6x00	W1007468

#### O-Ring-Free Demountable Quartz Torch

Demountable quartz torch for o-ring-free injectors. Use with ESI o-ring-free injectors.

ICP-MS Model	Part No.
ELAN/NexION	N8145106



The D-Torch is a revolutionary new demountable torch design. With the D-Torch, you need only replace the outer tube with interchangeable quartz and ceramic outer tubes.

Description	Part No.
D-Torch complete with Quartz Outer Tube	N0777419
D-Torch complete with Ceramic Outer Tube	N0777415
Base and Inner Tube	N0777416
Ceramic Outer Tube	N0777417
Quartz Outer Tube	N0777420
Retaining Ring	N0777055

#### Torch Alignment Tool

Used to align the torch in the load coil.

ICP-MS Model	Part No.
NexION/ELAN 9000/6x00/DRCs	WE015554

#### Cassette Torch Mount

The Cassette Torch Mount is an innovative torch design that is fully modular, demountable, rugged and easy to maintain.



ICP-MS Model	Part No.
NexION	W1037485
ELAN DRC II	W1020672
ELAN 9000/DRC-e	W1020668

Does not include Demountable Quartz Torch or Injector



#### **RF Load Coil Assemblies**

ICP-MS Model	Part No.
NexION/ELAN 9000/6x00/DRCs	WE021816
ELAN 5000	WE012411

#### **Power Amplifier Tube (Ceramic)**

ICP-MS Model	Part No.
NexION/ELAN 9000/6x00/DRCs and ELAN 5000As manufactured after September, 1992	N0695477

#### NexION SimulScan Dual-Stage Detector



The dual-stage detector is an integral part of the NexION 300 ICP-MS SimulScan <sup>™</sup> system. This electron multiplier measures both high- and low-level analytes simultaneously. This conserves valuable or limited samples, eliminates the need to perform time consuming sample dilutions and allows you to quickly characterize unknown samples.

ICP-MS Model	Part No.
NexION*	N8145000

#### Original SimulScan Dual-Stage Detector



The original dual-stage detector

is an integral part of the ELAN SimulScan <sup>™</sup> system. This electron multiplier measures both high- and low-level analytes simultaneously. This conserves valuable or limited samples, eliminates the need to perform time-consuming sample dilutions and allows you to quickly characterize unknown samples.

IC	P-MS Model	Part No.
	LAN 9000/6x00/DRCs* manufactured prior to pril, 2005	N8125001

#### Improved SimulScan Dual-Stage Detector



The improved Dual-Stage

Detector is designed for better stability and longer lifetime than its predecessor. ELAN instruments produced after April, 2005 have the proper electronics to accept this detector without modification. ELAN instruments manufactured before April, 2005 will require a one-time upgrade to the Detector Electronics (W1013195). Using this detector in an instrument without the upgraded electronics will result in higher noise levels and shorter lifetime.

ICP-MS Model	Part No.
ELAN 9000/6x00/DRCs*	N8125050

#### **Detector Electronics Upgrade Kit**

Boosts detector life at least 20%.

ICP-MS Model	Part No.
ELAN 9000/6x00/DRCs* manufactured prior to April, 2005	W1013195

<sup>\*</sup> Service installation is required, but not included

#### Ion Optics

PerkinElmer offers the industry's only single-ion lens with the exclusive SwiftMount  $^{\infty}$  II cassette lens mount. No tools are required as the design incorporates a clean capture-and-release concept.

#### Ion Lens

Description	ICP-MS Model	Part No.
Cassette Ion Lens Upgrade Kit	ELANs manufactured before April, 2005	W1017871
Series II Ion Lens	ELAN 9000/6x00/DRCs manufactured after January, 1998	WE018034
Ion Lens	ELAN 6000s manufacture before January, 1998	ed WE014777
Series II Lens Removal Tool	ELAN 9000/6x00/DRCs manufactured between January,1998 and April, 2005	W1010620





Series II ShadowStop



#### ShadowStop

Series II ShadowStop	ELAN 9000/6X00/DRCs manufactured between January, 1998 and April, 2005	WE029011
Cassette Lens ShadowStop	ELAN 9000/DRCs manufactured after April, 2005	W1013361
Description	ICP-MS Model	Part No.

#### Vacuum Pump Fluid for ELAN

For use with roughing pumps.

Pump Model	Part No.
Leybold	N8122004
Varian	N8122308

#### Fomblin (PFPE) Vacuum Pump Fluid

For use with NexION ICP-MS only. One liter Fomblin GV80 fluid (perfluoro polyether). 1L required per pump.

Description	Part No.
NexION Vacuum Pump Fluid	N8145003

#### High Vacuum Silicon Grease

For lubrication of vacuum system O-Rings.

Description	Part No.
High Vacuum Silicon Grease	09905147

**TESTEDANDAPPROVED** 

#### Sampler and Skimmer Cones

Precision-designed and manufactured, large-orifice sampler and skimmer cones provide superior long-term stability and resist clogging, allowing analysis under both high and low sample-uptake conditions. Nickel is a very rugged, long-lasting material for the majority of sample types, while platinum is the material of choice for more corrosive samples. The ELAN sampler cone, with a 1.1 mm orifice diameter, and the skimmer cone, with a 0.9 mm orifice diameter, are the largest in the industry. They have been designed to maximize signal stability and to minimize clogging during extended runs of samples containing high dissolved solids. The sampler cone, which is continually exposed to the plasma and the sample, utilizes a threadless pop-in, pop-out design for rapid removal.



ICP-MS Model	Туре	Part No.
NexION	Sampler	W1033612
NexION	Skimmer	W1026356
ELAN 9000/6x00/DRC	Sampler	WE021140
ELAN 9000/6x00/DRC	Skimmer	WE021137

#### Platinum Sampler and Skimmer Cones\*

ICP-MS Model	Туре	Part No.
NexION	Sampler	W1033614
NexION	Skimmer	W1026907
ELAN 9000/6x00/DRC	Sampler	WE027802
ELAN 9000/6x00/DRC	Skimmer	WE027803

<sup>\*</sup> Prices subject to change based on volatile precious metal prices.





#### **Hyper Skimmer Cone and Spares**

Description	ICP-MS Model	Part No.	
	ici ilib ilibaci		
Hyper Skimmer Cone	NexION	W1033995	
Hyper Skimmer O-Ring	NexION	09902123	
Hyper Skimmer Screw	NexION	WE027484	
Hyper Skimmer Sampler Ga	sket NexION	W1040148	

#### Sampler and Skimmer Cone O-Rings

ICP-MS Model	Туре	Qty.	Part No.
ELAN 9000/6x00/DRC	Sampler	5	N8120511
ELAN 9000/6x00/DRC	Skimmer	5	N8120512





# pol

#### Cone Removal Tool

ICP-MS Model	Part No.
NexION	W1034694
ELAN 9000/6x00/DRC	WE017142





#### **ConeGuard Thread Protector**

When cleaning cones which have a screw thread, it is important that the thread is not contacted by any corrosive solution. If the thread gets corroded, the cone may not seal correctly or it may bond to the base and be difficult to remove.

ICP-MS Model	Type	Part No.
NexION	Sampler ConeGuard	N8145319
NexION	Skimmer ConeGuard	N8145320
ELAN	Skimmer ConeGuard	N8121086

### SAMPLE INTRODUCTIONYSTEMS AND SPARES KITS



# Glass Cyclonic Sample Introduction System for ELAN

Description	Part No.
Glass Cyclonic Sample Introduction System	N8120518
Kit includes (1 of each):	
Baffled Glass Cyclonic Spray Chamber O-Ring Free	N0775352
Cyclonic Spray Chamber Mount	WE014034
MicroMist Micro-uptake Glass Concentric Nebu 0.2 mL/min.	ıliz <b>⊕</b> 10775342
Quartz Injector 2.0 mm i.d.	N8125029
Tygon Tubing (1 foot)	02506516
Insert	09903094
¼ in. Front Ferrule	09903456
Fitting	09903464
Tube Fitting	09903465
Red/Red Standard PVC Tubing 1.14 mm i.d. (Pkg. 120)9908585	
Green/Yellow Flared End PVC Tubing 0.44 mm (Pkg. 6)	i.d.N0773113

# Quartz Cyclonic Sample Introduction System for ELAN

Description	Part No.		
Quartz Cyclonic Sample Introduction System	N8120519		
Kit includes (1 of each):			
Baffled Quartz Cyclonic Spray Chamber Baffled Quartz WE025221 Spray Chamber (PTFE O-Ring Type) with Ball Joint.			
MicroMist Micro-uptake Glass Concentric Nebulizer 0775342 Offers High Performance for Limited Sample Volumes. Fitted with an EzyFit Connector with 1.3 o.d. x 0.50 mm i.d. x 700 mm Long Sample Tubing.			
Quartz Ball Injector 2.0 mm i.d.	WE023948		
Tygon Tubing (1 foot)	02506516		
Insert	09903094		
1/4 in. Front Ferrule	09903456		
Fitting	09903464		
Tube Fitting	09903465		
Red/Red Standard PVC Tubing 1.14 mm i.d. (Pkg. 12)9908585			
Green/Yellow Flared End PVC Tubing 0.44 mm i.d. N0773113 (Pkg. 6)			
Ball Joint Cassette Torch Injector Support AdapterW1012406			
UV Safety Shield	W1020996		
Connector 1A	B0199233		



#### ELAN \* DRC-e/9000 Spares Kit

Description	Qty	Part No.	
ELAN° DRC-e/9000 Spares Kit		N8120610	
Kit Includes: Demountable Quartz Torch	1	N8122006	
RF Coil Assembly	1	WE021816	
Alumina Injector 2.0 mm i.d.	1	N8126041	
Cross-Flow II Replacement Gem Tips	1	N8120515	
Series II Ion Lens	1	WE018034	
Nickel Sampler Cones	2	WE021140	
Nickel Skimmer Cones	2	WE021137	
Sampler Cone O-Rings (Pkg. 5)	1	N8120511	
Skimmer Cone O-Rings (Pkg. 5)	1	N8120512	



#### ELAN \* DRC II Spares Kit

Description	Qty	Part No.		
ELAN® DRC II Spares Kit		N8120611		
Kit Includes: Demountable Quartz Torch	1	N8122006		
RF Coil Assembly	1	WE021816		
Quartz Ball Joint Injector 2.0 mm i.d.	1	WE023948		
Series II Ion Lens	1	WE018034		
Platinum Sampler Cone	1	WE027802		
Platinum Skimmer Cone	1	WE027803		
Sampler Cone O-Rings (Pkg. 5)	1	N8120511		
Skimmer Cone O-Rings (Pkg. 5)	1	N8120512		
Skimmer Cone O-Rings (Pkg. 5)	1	N8120512		



### SAMPLE INTRODUCTIONSYSTEMS AND SPARES KITS



#### NexION 300/350Q/X/D Consumables Kit

Typical one year's supply of consumables.

Description	Qty	Part No.		
NexION 300/350Q/X/DConsumables Kit		N8140513		
Kit Includes:				
Demountable Quartz Torch	2	N8122006		
Load Coil	1	WE021816		
Quartz Ball Joint Injector 2.0 mm i.d.	2	WE023948		
Cassette Torch Injector Support Adapter for Ball Joint Injectors	1	W1012406		
Glass Cyclonic Spray Chamber	1	N8145014		
Nickel Skimmer Cone	2	W1026356		
Nickel Sampler Cone	2	W1033612		
Hyper Skimmer Cone	1	W1033995		
Sampler Cone Gasket	3	W1040148		
Hyper Skimmer O-Ring	2	09902123		
Hyper Skimmer Screw	2	09919737		
Santoprene1.30 mm Gray/Gray Pump Tubing	4	N0777444		
Flared PVC 0.38 mm Green/Orange Pump Tubing	4	N0777042		
Drain Tubing (feet)	6	02506495		
Sample Uptake Tubing (cm)	12	WE024375		
Instrument Filter (left)	2	W1036712		
Instrument Filter (back right)	2	W1036713		
Spray Chamber Drain Fitting	2	N8145015		
Nebulizer Fitting	2	N8145016		
Male Barb CTFE Fittting	2	N8145017		
Female Barb CTFE Fitting	2	N8145018		



#### NexION 300/350S Consumables Kit

Typical one year's supply of consumables.

Description	Qty	Part No.
NexION 300/350S Consumables Kit		N8140514
Kit Includes:		
Demountable Quartz Torch	2	N8122006
Load Coil	1	WE021816
Quartz Ball Joint Injector 2.0 mm i.d.	2	WE023948
Cassette Torch Injector Support Adapter for Ball Joint Injectors	1	W1012406
Quartz Cyclonic Spray Chamber	1	N8145013
Platinum Skimmer Cone	1	W1026907
Platinum Sampler Cone	1	W1033614
Hyper Skimmer Cone	1	W1033995
Sampler Cone Gasket	3	W1040148
Hyper Skimmer O-Ring	2	09902123
Hyper Skimmer Screw	2	09919737
Santoprene1.30 mm Gray/Gray Pump Tubing	4	N0777444
Flared PVC 0.38 mm Green/Orange Pump Tubing	4	N0777042
Drain Tubing (feet)	6	02506495
Sample Uptake Tubing (cm)	12	WE024375
Instrument Filter (left)	1	W1036712
Instrument Filter (back right)	1	W1036713
Spray Chamber Drain Fitting	2	N8145015
Nebulizer Fitting	2	N8145016
Male Barb CTFE Fittting	2	N8145017
Female Barb CTFE Fitting	2	N8145018
· · · · · · · · · · · · · · · · · · ·		



#### **NexION Spares**

Description	Part No.
Metal Spill Tray for vacuum pump	N8145022
UV Shield/Spray Chamber Nut	W1037267
Instrument Filter (left)	W1036712
Instrument Filter (back right)	W1036713
NexION Sample Tray	N8141206
Sample Spill Tray	W5005586

www.perkinelmer.com/supplies 59

# ENSURE INSTRUMENT REPRODUCIBILITY

#### Two-Stop Peristaltic Pump Tubing

PerkinElmer offers a wide range of high-quality peristaltic pump tubing for all of your ICP-OES and ICP-MS applications. Remember to replace your tubing frequently and always keep spares on hand.



#### Two-Stop Peristaltic Pump Tubing

i.d. (mm) Stop Colors	Standard PVC (Pkg 12)	Flared PVC (Pkg 12)	Solvent Flex (Pkg 12)	Viton® (Pkg 12)	Santoprene® (Pkg 12)	Silicone (Pkg 6)
0.19 orange red	N0695476	N0773111				
0.25 orange blue	N0773117	N0773112				
0.38 orange green	N0777110	N0777042	N0777874			
0.44 green yellow		N0773113				
0.51 orange yellow		N0777476		N0777446		
0.64 orange white		N0777711				
0.76 black black	09908587	N0777043	00473550	N0773118		00473552
1.02 white white				N0777442		N0777441
1.14 red red	09908585		09923037	N0773115	N0773119	N0691595
1.30 grey grey				N0777445	N0777444	N0777443
1.42 <u>yellow</u> <u>yellow</u>	N0777521					
1.52 yellow blue	09923536					
1.65 blue blue				N0777447		
1.85 green green	N0777518				N0773116	
2.06 purple purple	N0777561					
2.79 purple white			02508080			09923448
3.18 black white	N8122012					



