Marketing Product Manager's Recommendations:

Must-buy Supplies for ICP-MS Workflow



# 7800/7900/8900 ICP-MS with x-lens for Routine Applications

Standard Configuration + Featured Supplies = Better Customer Experience

#### **Sample Introduction**

#### Nebulizer, MicroMist, 1/pk

- <u>G3266-80004</u> for 7800/7900 with UniFit sample connector
- G3266-80005 for 8900 with PEEK ratchet nebulizer gas connector

#### Spray chamber (quartz), 1/pk

- <u>G3280-80008</u> for 7800, non-UHMI
- <u>G8400-67150</u> for 7900/8900, UHMI

# Torches and Torch Box

#### Torches and supplies

- <u>G3280-80053</u> Torch, quartz, 2.5 mm id, 1/pk
- G1833-65419 Long life Pt shield plate for ShieldTorch, 1/pk
- G1833-65421 ShieldTorch bonnet, quartz, 1/pk

#### **Ouartz** connector tubes

- G3270-80025 Straight connector tube for use with 7900/8900 with UHMI spray chamber
- G3270-80024 Connector tube with dilution port for use with 7800 with HMI

#### **Peristaltic Pump Tubing**

- G1833-65569 Tygon tubing,
   3-bridged, white/white tabs, 1.02 mm id, for pumping sample, 12/pk
- G3280-67047 Tygon tubing,
   2-bridged, blue/orange tabs, 0.25 mm id, flared ends, for pumping internal standard, 12/pk
- G1833-65570 Ismaprene tubing, 3-bridged, yellow/blue tabs, 1.52 mm id, for pumping drain, 12/pk
- G1820-65105 PFA sample tubing, 0.5mm ID, 1.6 mm OD, 5 m for standard sample introduction.



# Vacuum Pump and Cooling System

- X3760-64004 AVF Platinum pump oil for MS40+, 1 L
- G1960-80039 Filter, oil mist, for MS40+ pump, 1/pk
- G3292-80012 Polyclear plus fluid, 2.5 gallons, for chiller.

#### **Interface**

- <u>G3280-67040</u> sampler cone, Nickel, 1/pk
- <u>G3280-67009</u> Graphite gasket for sampling cone, 3/pk

#### Skimmer cone, Nickel, 1/pk.

- <u>G3280-67041</u> for 7800
- <u>G8400-67200</u> for 7900/8900

#### Extraction-Omega lens assembly

- <u>G3280-67039</u> for 7800
- <u>G8400-67001</u> for 7900
- G3666-67300 for 8900

The supplies listed above are the replacement supplies required for routine applications with standard aqueous workflow using systems with an x-lens. Please see the separate guide for alternate supplies recommended for customers using systems with an s-lens (for semi-conductor applications).

# Standard 7800/7900/8900 ICP-MS with x-lens Workflow Supplies Recommendations

Part Number	Description	1st Purchasing Quantity Recommendation	Reasoning and Selling Points	Product Family
5067-0294	Nickel sampler cone care package	1	Comprises 2 sampler cones with supplies required for routine, plus a handy magnifier tool included at no extra cost.  Required for routine maintenance to ensure proper cleaning/maintenance of the sampler cone, ensuring best sensitivity and long, stable operation. Magnifier tool included with the kit allows the user to inspect the condition of your sampler or skimmer cone/s.	ICP-MS Interface Cones & Supplies
<u>5190-9614</u>	Magnifier 10X, LED lit for ICP-MS cones	1	Magnifier, for inspection and measurement of the orifice of the interface cones. Provides 10X magnification with LED illumination, manual focus and +/- 15 mm scaled reticle with 0.1 mm divisions. Required for routine maintenance to ensure proper cleaning/maintenance of the sampler cone, ensuring best sensitivity and long, stable operation.	ICP-MS Interface Cones & Supplies
G3280-67061	Sampler cone, nickel, nickel-plated, 1/pk.	1	Optional cone which provides longer life and reduced cleaning compared to standard Ni sampler cone. Recommended for samples containing > 0.5% HCl, or routine operation with (U)HMI with max. aerosol dilution ratio.	ICP-MS Interface Cones & Supplies
<u>5188-5359</u>	Detergent for cleaning interface cones and lenses, 1 gallon	1	Concentrated Citranox solution to be diluted to 2% v/v with ultrapure water for cleaning interface cones in ultrasonic bath.	ICP-MS Interface Cones & Supplies
<u>5064-8101</u>	Peristaltic pump tubing, PVC, black/black tabs, 0.76 mm id, flared ends, 12/pk	2	Recommended for introduction of high matrix samples, or for use with both Sample and ISTD uptake to achieve 1:1 dilution.	ICP-MS General Supplies
G3266-80012	UniFit sample connector, 0.5 mm id, 10/pk	1	Additional sample capillaries used to introduce sample into the nebulizer. Customers will need to periodically change this sample connector and should have extras on hand.	ICP-MS Spray Chambers & Nebulizer Supplies
G3266-80020	Nebulizer cleaner, for glass concentric nebulizers	1	Allows MicroMist nebulizer to be cleaned. This helps to dislodge particle build-up by back flushing, restoring nebulizer performance.	ICP-MS Spray Chambers & Nebulizer Supplies
G3161-80000	Nebulizer, Mira Mist, PTFE.	1	Recommended for high solids applications such as environmental, geological, etc. Excellent resistance to acids (including HF) and organics; does not self-aspirate.	ICP-MS Spray Chambers & Nebulizer Supplies
G4912-68000	Inert sample introduction kit, 2.5 mm id sapphire injector	1	Replaces standard sample introduction system with an inert system suitable for use with HF. Requires but does not include inert nebulizer (G3161-80000). Includes PFA end cap, spray chamber, connector tube, demountable torch and sapphire injector.	ICP-MS Spray Chambers & Nebulizer Supplies
G8412A#100	Argon Humidifier	1	The argon humidifier accessory is used to humidify the nebulizer and dilution gas when analyzing high matrix samples such as undiluted sea water. It helps to reduce blockage in the nebulizer and sample introduction system, improving long term stability. Customer installable.	ICP-MS Instrument Supplies
CP17973	Gas Clean carrier gas purifier, 1/pk	He gas only 1 pc He/H <sub>2</sub> gas 2 pcs	Replacement moisture and oxygen filter to be used for Helium and Hydrogen cell (ORS) gas lines	Gas Clean Gas Purifiers
<u>5190-0465</u>	Stock tuning solution, 100 mL	1	Used for tuning by dilution to 1 or 10 $\mu$ g/L. Contains Li, Mg, Y, Ce, Tl and Co; 10 mg/L; matrix 2% HNO $_3$	ICP-MS Tuning Solutions
<u>G6011B</u>	Quiet cover for MS40+ rotary pump	1	Recommended for MS40+ rotary pump used with 7800, 7900, 8900. Features a sound-absorbing cabinet with resistant foam insulation to effectively reduces pump noise, while cushioned mounts minimize vibration.	Quiet Covers

#### Platinum Interface Cones for 7800/7900/8900 ICP-MS

Platinum interface cones are required for analysis of aggressive acids (especially hydrofluoric acid digests) and when  $O_2$ / Ar option gas is used for analyzing organic solvents. Users switching from the standard Ni cone will also need to install the brass skimmer base to prevent overheating of the cone and potential damage to the Pt cone.

Platinum skimmer cones with a copper base are recommended for lower limits of detection and for higher-matrix samples.

Platinum skimmer cones with a nickel base are recommended for aggressive acids (especially HCl, HF, and HClO $_4$ ), organic solvents and for higher-matrix samples.

Part Number	Description	1st Purchasing Quantity Recommen- dation	Reasoning and Selling Points	Product Family
G3280-60621 (7800) G8400-60625 (7900) G3666-60311 (8900)	Skimmer base, brass, for x-lens, ICP-MS	1	Required when customers need to work with Pt interface cones. Users switching from the standard Ni cone will also need to install the brass skimmer base to prevent overheating of the cone and potential damage to the Pt cone.	ICP-MS Interface Cones & Supplies
5067-0296	Platinum sampler cone care package	1	Comprises 2 sampler cones with supplies required for routine, plus a handy magnifier tool included at no extra cost.  Required for routine maintenance to ensure proper cleaning/maintenance of the sampler cone, ensuring best sensitivity and long, stable operation. Magnifier tool included with the kit allows the user to inspect the condition of your sampler or skimmer cone/s.	ICP-MS Interface Cones & Supplies
G3280-67036	ICP-MS sampler cone, Platinum, 1/pk.	1	Suitable for 78/79/8900 ICP-MS. Use with platinum skimmer cone and brass skimmer base.	ICP-MS Interface Cones & Supplies
G3280-67142	ICP-MS sampler cone, Pt/Ni- plated, 1/pk.	1	When used with aggressive matrices such as 10% aqua regia, the nickel plated Pt cone extends cone lifetime by more than 2X and reduces cone maintenance with a simple water sonication cleaning routine that reduces cleaning frequency by more than 3X, compared to the standard Pt cone.  Suitable for 7800/7900/8900 ICP-MS. Use with platinum tip, nickel base skimmer cone, and brass skimmer base.  (Strongly Recommended)	ICP-MS Interface Cones & Supplies
G8400-67201	7900/8900 ICP-MS skimmer cone, Pt, x-lens, 1/pk.	1	Platinum skimmer cone, with copper base for 7900/8900 ICP-MS. Use with platinum sampler cone and brass skimmer base.	ICP-MS Interface Cones & Supplies
G8400-67202	7900/8900 ICP-MS skimmer cone, Pt/Ni, x-lens, 1/pk.	1	Platinum skimmer cone, with nickel base for 7900/8900 ICP-MS. Use with platinum sampler cone and brass skimmer base.	ICP-MS Interface Cones & Supplies
G3280-67060	7700/7800/8800 ICP-MS skim- mer cone, Pt, x-lens, 1/pk.	1	Platinum skimmer cone, with copper base for 7800 ICP-MS. Use with platinum sampler cone and brass skimmer base (G3280-60621).	ICP-MS Interface Cones & Supplies
G3280-67063	7700/7800/8800 skimmer cone, Pt/Ni, x-lens, 1/pk.	1	Platinum skimmer cone, with nickel base for 7800 ICP-MS. Use with platinum sampler cone and brass skimmer base (G3280-60621).	ICP-MS Interface Cones & Supplies

If you need more guidance to help you recommend the right sampling cone, skimmer cone, and skimmer base for your customer's instrument configuration and application, please refer to <u>Cone Selection Guide</u> available here.



### Operating Supplies Kits for 7800/7900/8900 ICP-MS

The configurable supplies kits listed below include the recommended options for standard instrument configurations to maintain up to 12 months routine operation.

Part Number	Description	1st Purchasing Quantity Recommen- dation	Reasoning and Selling Points	Product Family
G1131A #100 #200 #300 #402	Configurable supplies kit for 7900 ICP-MS with these options: x-lens mandatory option; Ni sampling cone for 7900; Ni skimmer cone for 7900; Oil for the roughing pump	1 of the kit and 1 of each option	Provides all the supplies required to keep a 7900 ICP-MS instrument running for up to 12 months (depending on use) without worrying about reordering supplies.	ICP-MS Instrument Supplies
M5141A #100 #200 #301	Configurable supplies kit for 7800 ICP- MS with these options: Ni sampling cone for 7800; Ni skimmer cone for 7800; Oil for the roughing pump	1 of the kit and 1 of each option	Provides all the supplies required to keep a 7800 ICP-MS instrument running for up to 12 months (depending on use) without worrying about reordering supplies.	ICP-MS Instrument Supplies
G1091A #100 #200 #300 #401	Configurable supplies kit for 8900 ICP-MS with these options: Ni sampling cone for 8900; Ni skimmer cone for 8900; x-lens mandatory option; Octopole for x-lens option	1 of the kit and 1 of each option	Provides all the supplies required to keep an 8900 ICP-MS instrument running for up to 12 months (depending on use) without worrying about reordering supplies.	ICP-MS Instrument Supplies

If you need more guidance about the contents of the kit, and for further guidance on the alternative options available, please refer to <u>Operating Supplies Kits for Agilent ICP-MS Brochure</u> available here.

### ICP-MS Autosampler Workflow Supplies Recommendations (7800/7900/8900 ICP-MS)

Part Number	Description	1st Purchasing Quantity Recommen- dation	Reasoning and Selling Points	Product Family
Instrument Option G8415A#002 Or G8410-60100	SPS 4 Autosampler cover kit, 1/pk	1	Recommended to fully enclose the autosampler to help reduce sample and standard contamination from dust and drafts	SPS 4 Autosampler Supplies
5043-0065	PVC flexible ducting 50 mm-id for SPS 4 cover kit, 5 m	1	Ducting required to enable removal of fumes from the autosampler with the cover fitted. Fitted with 56 mm OD cuffs.	SPS 4 Autosampler Supplies
G8410-80101	SPS 4 probe 0.5 mm id with yellow markers. Inert, FEP sleeved for SPS 4 autosampler, 1/pk	1	Required to support routine operation of the SPS 4 autosampler when used with ICP-MS.	SPS 4 Autosampler Supplies
3710049000	Peristaltic pump tubing for supply of rinse solution to the autosampler, PVC Solvaflex, 3-bridged, grey/grey tabs, 12/pk	1	Required for routine operation as regular replacement of the pump tubing is recommended	SPS 4 Autosampler Supplies
6610025400	Sample rack for 16 mm od tubes, 60 positions	1	Additional sample racks are recommended to provide additional holding and storage capacity	Common Autosampler Supplies
6610026100	Rack overlay for 60-position sample rack Allows 13 mm od tubes to be used in 60-position rack	2 for each rack	Additional sample racks are recommended to provide additional holding and storage capacity	Common Autosampler Supplies

## ICP-MS Autosampler Workflow Supplies Recommendations (7800/7900/8900 ICP-MS)

Part Number	Description	1st Purchasing Quantity Recommen- dation	Reasoning and Selling Points	Product Family	
6610026600	Sample rack for 30 mm od tubes, 21 positions	1	Additional sample racks are recommended to provide additional holding and storage capacity	Common Autosampler Supplies	Agusta Maria
5043-0064	Sample bottle 250 mL for 5x60 mm std rack, 1/pk	5	Additional sample bottles, 60 mm-OD narrow neck LDPE for the 5 position standard rack of the SPS 4 autosampler when used with ICP-MS.	SPS 4 Autosampler Supplies	-
00000001600L	Polypropylene sample tubes, 17 mm x 130 mm, 1000/pk	1	Sample tube recommended for the 60 position sample rack.	Common Autosampler Supplies	
190065200	Centrifuge tubes, screw-capped, 29 mm od, 50 mL polypropylene, 500/pk	1	Sample tube recommended for the 21 position sample rack.	Common Autosampler Supplies	Transferien V

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