



# Agilent 8800 ICP-QQQ Upgrades

Enhancing performance while  
ensuring continuity of your laboratory's  
analytical capability

The Agilent 8800 was launched in 2012 and defined ICP-QQQ performance, control of reaction chemistry for interferences, abundance sensitivity, and wide dynamic range. The earliest 8800 instruments are now more than 12 years old and are approaching the end-of-guaranteed-support date.

Extended service provision is still available for the 8800 Series. But, after April 30th 2025 support can only be provided on a "best effort" basis because of the potential for some components to be no longer available. Now is a good time to consider upgrading your ICP-QQQ instrumentation to ensure that your laboratory continues to benefit from the most powerful and flexible ICP-QQQ systems available.

Upgrading your 8800 to an Agilent 8900 provides a seamless transition, as the new instrument can replace your existing 8800 with minimal disruption to your lab's operations:

- Existing laboratory services – power, exhaust vent, and gas supplies – will still be suitable
- Major peripherals such as the ASX and SPS 4 autosamplers and water chiller/recirculator can still be used
- Many consumables (torches, sampling cones, tubing) are compatible
- Upgrading also gives you access to the latest in ICP-QQQ technology as well as the upgraded UHMI High Matrix Introduction system<sup>1</sup>.

1. UHMI is not available for the #200 semiconductor option



## Upgrading your Agilent 8800 ICP-QQQ

For a limited time, Agilent is offering 8800 Series ICP-QQQ users the opportunity to upgrade their ICP-QQQ instrumentation to the latest, high-performance, Agilent triple quadrupole ICP-QQQ.

The Agilent 8900 is the ideal replacement for your 8800, as it provides continuity of analytical capability but with even better performance. The 8900 is also compatible with your existing bench space and lab services.

With the 8900, there is no need to compromise the unmatched matrix tolerance, helium, and unparalleled reaction cell mode performance and wide detector dynamic range that made the 8800 such a remarkable success.

In fact, the 8900 offers many performance improvements compared to its predecessor:

Specification	8800	8900
Required bench space (width)	1.06 m	1.06 m
Weight	143 kg	139 kg
Aerosol dilution	HMI (up to 25x dilution, 3% TDS)	UHMI (up to 100x dilution, 25% TDS)
Collision/reaction cell	ORS <sup>3</sup>	ORS <sup>4</sup>
Axial acceleration ORS <sup>4</sup>	–	Option #100 <sup>§</sup> or #200 <sup>∞</sup>
Inert Ar flow system for S, Si	–	Option #100 <sup>§</sup> or #200 <sup>∞</sup>
Cell gas switching	Standard	Fast (3 seconds)
Background (@ 9 & 238 u)	<0.2 cps	<0.2 cps
Short-term stability	<3% RDS	<3% RDS
Long-term stability	<4% RSD	<3% RDS
Detector dynamic range	9 orders	10 or 11 <sup>‡</sup> orders (ODS)
Q1, Q2 mass range	Q1: 2-260 u, Q2: 2-260 u	Q1: 2-260 u, Q2: 2-275 u
TRA minimum dwell time	3 ms	0.1 ms (0 ms same-mass settle time)
High throughput valve system*	ISIS 2	AVS MS (piston pump & 6-port valve)
Advanced dilution system*	–	ADS 2

\* Option

<sup>§</sup> #100 Advanced application (includes the additional plasma option gas line for O<sub>2</sub> addition)

<sup>∞</sup> #200 Semiconductor application (includes a dry pump in lieu of the oil pump and the additional plasma option gas line for O<sub>2</sub> addition)

<sup>‡</sup> 11 orders dynamic range is available for #100 and #200

The Agilent 8900 offers even greater performance gains, with up to 2x higher sensitivity than the 8800, wider (10 or 11 orders) detector dynamic range, higher Q2 mass, and fast (0.1 ms) TRA operation as standard.

## Options to upgrade to a new Agilent ICP-MS

Agilent ICP-MS and ICP-QQQ instruments give many years of reliable service, and the Agilent support team will try to keep your instrument operational for as long as parts are available. But it is risky for any lab, especially those labs that rely on a single ICP-MS for critical analyses, to keep instruments running beyond the end of guaranteed support.

Agilent 8800 Series users in most regions can currently take advantage of attractive upgrade offers to access the latest Agilent ICP-QQQ model appropriate to your analysis. As well as the latest ICP-QQQ hardware, you will also benefit from the latest software revision on a new PC and operating system.

To see which Agilent ICP-MS system offers the best solution for you, contact your local Agilent representative.

- If your current analytical requirements are the same or similar to when you installed your 8800, an Agilent 8900 triple quadrupole ICP-QQQ provides a like-for-like replacement, but with even better performance. Switching is straightforward, as existing laboratory services are compatible, as are peripherals such as autosamplers and chillers, many consumables, and methods. Check the offers available in your region.



Figure 1. Optional staggered timeline for upgrading an 8800 Series ICP-QQQ to a new 8900 Series.

- If you need even higher sensitivity and greater flexibility, or you now perform even more challenging analyses, such as low-level sulfur, phosphorus, or silicon analysis, an Agilent 8900 with axial acceleration cell and clean argon filter might be the ideal solution for your lab. Contact Agilent for more information.
- The Advanced Application option (#100) adds axial acceleration ORS<sup>4</sup> providing almost 2x sensitivity increase when using reaction chemistry, e.g., when measuring As<sup>+</sup> as AsO<sup>+</sup>. The option also adds an argon gas filter and upgraded cell gas controllers to reduce contamination of S and Si backgrounds in particular.

ICP-MS MassHunter version 5 supports the 8800 ICP-MS as well as all current models. So, for a seamless transition to a new Agilent ICP-MS, you could upgrade the software first, while keeping the 8800 hardware you are familiar with (Figure 1).

ICP-MS MassHunter version 5 has an improved user interface and simpler operational workflow. The latest versions support the Agilent Advanced Dilution System (ADS 2) as well as up-to-date technologies for compliance laboratories.

ICP-MS MassHunter 5 is also compatible with ICP Go, our simplified, browser-based user interface that makes running an ICP-MS easier than ever.

Once your methods are transferred and your operators are familiar with the new functions, you can upgrade the ICP-QQQ hardware with minimal disruption. If you then upgrade your 8800 hardware to a new Agilent 8900 ICP-QQQ within the promotion period, you will get a credit for the cost of the software upgrade.

Contact Agilent for more details.

### Flexible finance options, available from Agilent

Your new Agilent ICP-MS system can be purchased outright, or via a range of Agilent [purchasing options](#) including:

- An operating lease (pay for use).
- A capital lease (pay to own).

We can also supply certified pre-owned instruments, refurbished to factory standards. Whatever is the best option for your lab and finances, we have an option to help.

Learn more:

[www.agilent.com/chem/icp-ms](http://www.agilent.com/chem/icp-ms)

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