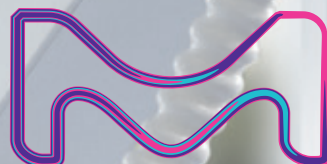


**Milli-Q®**

Lab Water

# Milli-Q® IQ 7000 purification system

An ultrapure water solution designed  
with YOU in mind



The life science business of Merck  
operates as MilliporeSigma in the  
U.S.A and Canada.

**MERCK**

# Enjoy breakthrough design

Compact, ergonomic and intelligent. With its large touch screen for intuitive interaction, **the new Q-POD® ultrapure water dispenser** offers all the flexibility you need.

**Discover how much you'll enjoy using it every day in your lab.**

## Simple and intuitive dispensing

Just a twist of the new dispensing wheel lets you deliver water at the flow rate you need, from precise drop by drop up to a full 2 liters per minute. For added efficiency, you can also directly select a dispensing option from the *Home* screen.

While dispensing, you can easily check the water quality parameters, always visible onscreen. Their values are continuously monitored by the system, so you can have full confidence in your water quality.



Feel free to continue working while the **Volumetric dispensing** mode fills labware for you. Water delivery will automatically stop when the programmed volume is reached.

To repeat this dispense as often as you like, simply push the button again.



**Tip:** Make sure to click the *Home* screen **Recirculation** button to refresh water quality just before dispensing.



## Assisted dispensing

This new dispensing mode has a special drop-by-drop finish to always meet your calibration mark.

Designed for your precision filling needs, Assisted dispensing mode lets you avoid using an intermediary bottle or beaker — an extra step that is often a source of contamination.

Now you can directly use fresh ultrapure water without introducing unwanted contaminants into your samples.



The **Dispense report**, available right after water delivery, provides all dispense-related information in a single click.

Fill in the free text field to tag your project, your team, or even yourself to this dispense.

You can instantly export the report by scanning its QR code, or downloading it on a USB key.

The Dispense report data will be archived in Milli-Q® system memory for later retrieval.

**Tip: Manage your Milli-Q expense sharing by tagging the user in the free text field.**

2017-03-07 08:00

Volume: 250 mL

Q-POD 1

Quality

18.2

MΩ.cm @25°C

1.7

ppb TOC

21.6

°C

Millipak

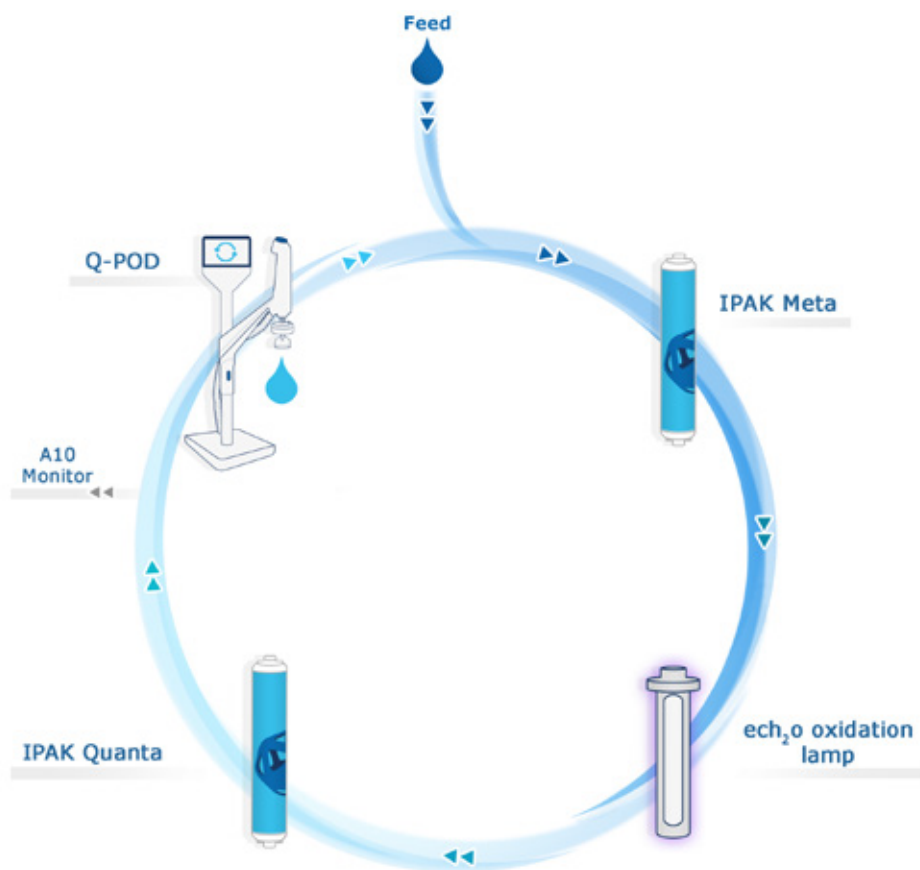
Export

OK

# Work confidently with Milli-Q® IQ 7000

## Complementary technologies

The Milli-Q® IQ 7000 system combines advanced technologies, hydraulic design and software capabilities to efficiently produce the superior-quality ultrapure water you need to work confidently.



## Boost your daily efficiency

The Q-POD® graphic interface is designed for intuitive use, just like a smartphone or a tablet. There's no need to search through the user manual — the information you need daily is at your fingertips.

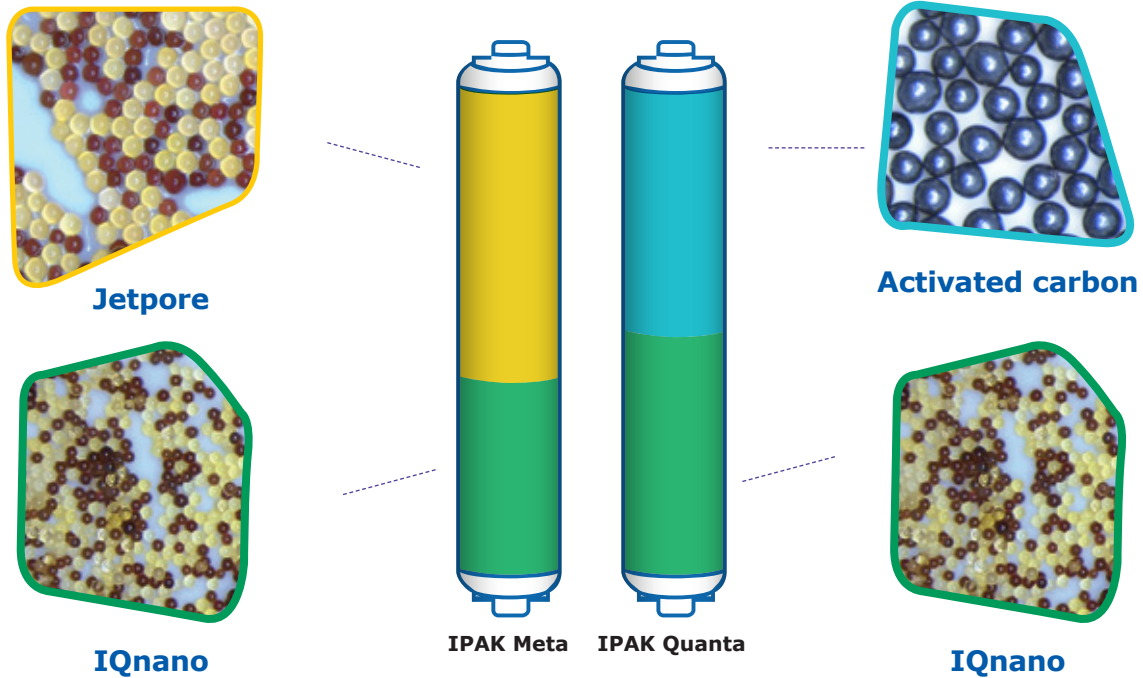
And when consumables have to be replaced periodically, your system will inform you, then automatically guide you, step by step.



## A powerful combination of purification media

The slim IPAK Meta® and IPAK Quanta® cartridges are designed to function as a pair. The cartridges use a combination of Jetpore® mixed-bed ion-exchange resin and innovative IQnano® ion-exchange media to provide exceptional performance.

The IQnano's smaller bead size significantly improves the resin's kinetic properties. This reduces media needs dramatically: 33% less than former Milli-Q® cartridges — while still achieving ion removal down to trace level.



Completed by high-grade synthetic activated carbon, IPAK Quanta also targets traces of organic contaminants once they have been oxidized by the Milli-Q IQ 7000's new online photooxidation lamp. This unique  $\text{ech}_2\text{o}^\circ$  mercury-free UV lamp ensures oxidation of organic contaminants using xenon excimer (excited dimer) technology, emitting at 172 nm wavelength.

And, because they contain no mercury, the new lamps are now environmentally friendly.



### A Performance Report makes everything clear

A full report is available for the IPAK Meta and IPAK Quanta cartridges. It provides details on the technologies used, their performance during testing by our R&D department, as well as information concerning our quality and manufacturing requirements.

**For more information, please visit**  
[www.mymilliqconsumables.com](http://www.mymilliqconsumables.com)

## Water quality to match all your application needs

You'll find that our range of POD-Paks is the perfect solution for your various applications. Each of the Application-Pak polishers targets specific types of contaminants and removes them right at the Q-POD® dispenser.

**Millipak® & sterile Millipak® Gold:**  
0.22 µm filters for bacteria-free and particulate-free water



**EDS-Pak®:** water for endocrine disruptor-related applications



**Biopak®:** pyrogen-, nuclease-, protease- and bacteria-free water

**LC-Pak®:** water for ultra trace organic sensitive applications

**VOC-Pak®:** water for volatile organic compounds related analyses

**With the appropriate Application-Pak installed, your Milli-Q® IQ 7000 will provide water suitable for most of the analytical techniques used in the laboratory, including:**

- HPLC • GC • LC-MS • AA • UPLC • CE
- MALDI-ToF-MS • Particle analysis • IC
- Surface tension • ICP • Spectrophotometry

**In addition, specific Application-Paks are available for use with life sciences applications, such as:**

- Cell culture • PCR • Western blotting • Sequencing
- Dissolution testing • Proteomics • Spectroscopy
- Genomics • Immunoassays • Microbiology

### New application POD-Paks features:

- An e-Sure tag, for indispensable data traceability.
- An ergonomic pack locker and protective bell — for easy “snap-into-place” installation.

**NOTE:** Thanks to their e-Sure tag, all consumables' status can now be monitored on the Q-POD screen. Consumables' data and the events throughout their life are automatically recorded in the system's memory.

**Tip:** If you need several types of ultrapure water, simply connect up to 4 Q-POD dispensers to your system, each with a different POD-Pak.



# optimize lab space for greater efficiency

## Versatile configurations for the best fit

Each lab is unique. The Milli-Q® IQ 7000 system lets you optimize valuable lab space to help maximize your efficiency.

You may choose to wall-mount the production unit — or fit it under the bench. Designed for easy integration, the unit can be tucked into a corner, high up on a wall, or installed at a distance in a lab cabinet. Only the slim and neatly connected Q-POD® dispensers remain right at hand on the bench.

Cabling is available in customizable lengths and enclosed in protective sheathing for a neat, uncluttered installation.

Up to 4 Q-POD dispensers can be supplied by a single Milli-Q IQ 7000 production unit. This way, even scientists working at distant benches have convenient access to ultrapure water.

**Tip:** Take advantage of optional accessories, including a foot pedal for hands-free water delivery, or a water sensor that stops the system if a water leak is detected.



# Get the data tracking you need

## Easy data management for a paperless environment

Powerful, integrated data management makes it so much simpler and faster to manage your water system data — no more log book or paper to archive! All data generated by the Milli-Q® IQ 7000 is stored in the system memory.

With your needs in mind, we have tailor-made reports available in just a few clicks.

**Dispensing Events** is a history of all the dispensing reports. You can find a past dispense with its water quality, obtain how much volume you've used over a week, and even allocate costs using the User ID field.

**Daily Quality Measures** provides traceability on your water quality over time. Select your time frame to get a daily average of water quality parameters and volumes.

For all needs requiring more in-depth analysis, the **Complete History**, a global archive of ALL system data, is available. This includes not only water quality and volumes, but also any events such as alerts, setting modifications, consumables replacement, and other service activities.

**Tip:** All reports can be exported and are available in an open format suitable for any LIMS (laboratory information management system). The archiving function supports quality management systems, a growing industry trend.

*A graphic preview is available with the last 30 events; conveniently export data on a flash drive using the screen's USB port.*



## Password protection

Critical Milli-Q IQ 7000 data can be protected by the use of a password. When active, the password limits access to certain key data, such as system set points or configuration parameters, to authorized users only.





## Compliance with Quality Assurance demands

Our products are manufactured in an ISO® 9001 and ISO® 14001-registered production site, and their certificates are available on demand. To assist you in following industry requirements, specific certification documents are also available:

**Certificate of Conformity:** The system has been assembled and tested to Merck's stringent Quality Assurance procedures.

**Certificates of Calibration:** Included for the built-in resistivity and temperature meters and the A10® TOC monitor.

**Certificate of Quality:** Included with all our consumables which have been validated to consistently deliver the water quality expected.

**Performance Report:** This document is available with information about cartridge development, validation and qualification stages, as well as manufacturing and quality assurance.

## Water Quality Compliance

The Milli-Q® IQ 7000 system is intended to produce ultrapure water that meets or exceeds requirements as described by the organizations below:

Organization	Water quality / grade
European Pharmacopeia	Highly purified water
U.S. Pharmacopeia	Purified Water in bulk
Japanese Pharmacopeia	Purified Water
Chinese Pharmacopeia	Purified Water
ASTM® D1193	Type I water
ASTM® D5196	Bio-Application Grade Water (with appropriate final filter)
ISO® 3696	Grade 1 water
Chinese National Standard	GB 6682 Grade 1 water
JIS K 0557	A4 water
Clinical and Laboratory Standards Institute® (CLSI®)	Clinical Laboratory Reagent Water (CLRW)

The **Compliance Report** on Milli-Q IQ 7000 conformity to industry norms is also available upon request.

## Be environmentally friendly

Merck is committed to environmental sustainability. Lab Water products are developed with the dual objective of increasing our own sustainability and helping our customers move toward sustainable solutions themselves.

### Mercury-free solution

The Milli-Q IQ 7000 breaks new ground with the novel mercury-free technology of its ech<sub>2</sub>o® UV lamps. And to do even more for the environment, we

also worked on reducing the system footprint (by 23%), and the cartridges (by 33%) — all of which reduce manufacturing plastic needs, packaging and transportation, as well as waste levels.

Finally, the system is designed to support a paperless environment, with documentation now available online. The system is delivered with its relevant certificates and a brief guide with hints and tips on system functions. The user manual can easily be downloaded from the Q-POD® screen.

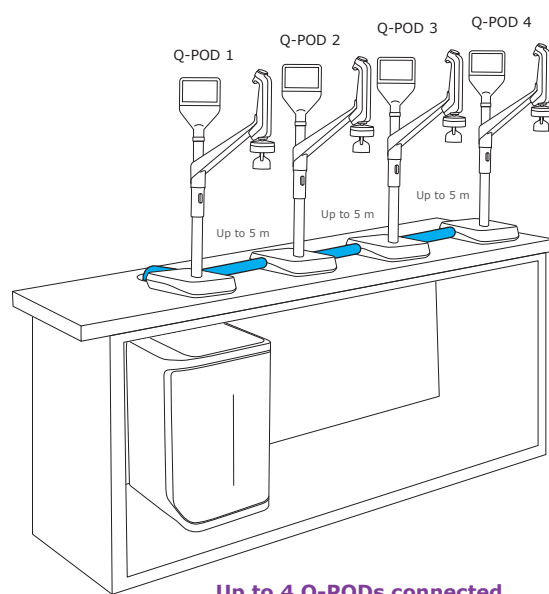


### Lab Close mode

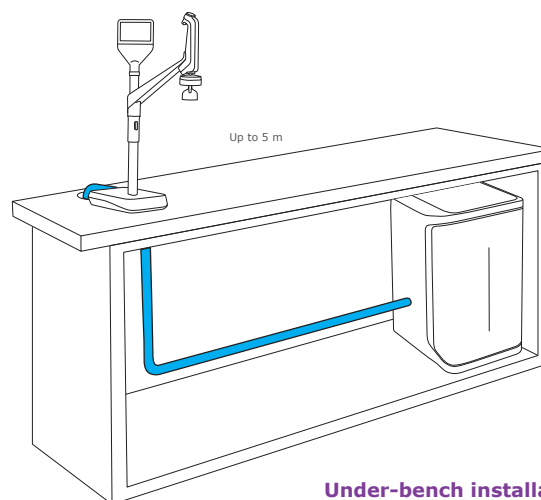
The unique Lab Close mode effectively “hibernates” your system, preserving water quality with only minimum water and electricity usage when the lab must be closed for extended periods.

# Installation Options To Fit Your Requirements

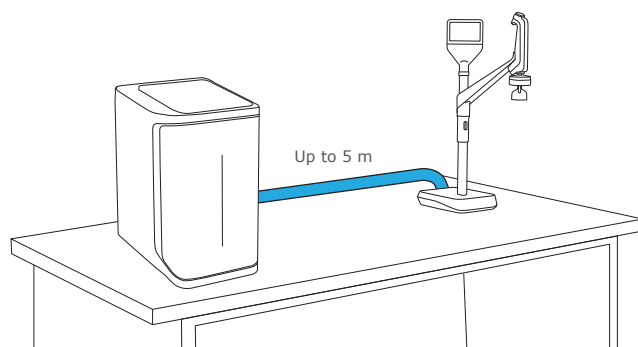
## Technical Appendix-4



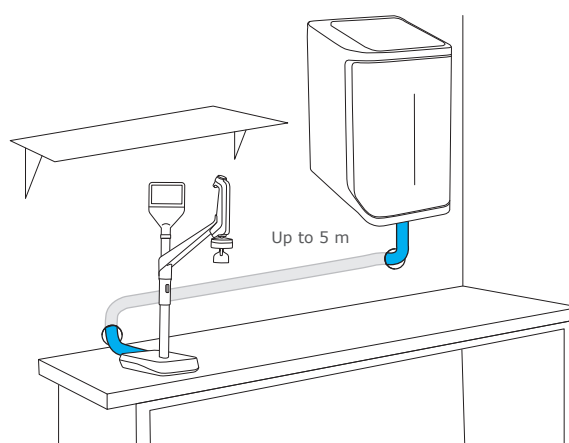
**Up to 4 Q-PODs connected**



**Under-bench installation**



**Bench-top installation**



**Wall-mounted installation**

# Water Specifications International Conformity

## Technical Appendix-5

### Feed water requirements

Feed water quality	Pretreated water using EDI, DI, RO or distillation technologies
Conductivity at 25 °C	<100 µS/cm
Total Organic Carbon (TOC)	<50 ppb
Pressure range*	Maximum 6 bar
Temperature	5 – 35 °C / 41 – 95 °F

\* For pressures between 0 and 0.1 bar, the system will operate, but product flow rate may be lower.

### Ultrapure, Type 1 water specifications<sup>(1)</sup> (from Q-POD dispenser)

Resistivity at 25 °C <sup>(2)</sup>	18.2 MΩ·cm
TOC	≤2 ppb (µg/L) <sup>(3)</sup> , typically ≤ 5 ppb (µg/L)
Particles <sup>(4)</sup>	No particles with size > 0.22 µm
Bacteria	<0.01 CFU/mL <sup>(4,5)</sup> <0.005 CFU/mL <sup>(6)</sup>
Pyrogens (endotoxins) <sup>(5)</sup>	<0.001 EU/mL
RNases <sup>(5)</sup>	<1 pg/mL
DNases <sup>(5)</sup>	<5 pg/mL
Proteases <sup>(5)</sup>	<0.15 µg/mL
Flow rate	0.05 – 2 L/min

(1) These values are typical and may vary depending on the nature and concentration of contaminants in the feed water.

(2) Resistivity can also be displayed non-temperature-compensated as required by USP.

(3) In the appropriate operating conditions; otherwise typically ≤ 5 ppb.

(4) With Millipak® and Millipak® Gold.

(5) With Biopak®.

(6) With Millipak® Gold installed and used in a laminar flow hood.

## International regulation requirements

### Declaration of CE and cUL Conformity:

The Milli-Q® IQ 7000 system has been tested by an independent and accredited company for compliance with CE directives related to safety and

electromagnetic compatibility. The report can be consulted on demand. In addition, the Milli-Q IQ 7000 system is built using components and practices recommended by UL and has been cUL marked. The registration can be verified on the UL web site: [www.ul.com](http://www.ul.com)

**We also meet the regulatory requirements of the following organizations:**



# Ordering Information

## Technical Appendix-6

Water purification system	Catalog number
Milli-Q® IQ 7000 purification system	ZIQ7000WW*
Q-POD® remote dispenser with 2 m connector	ZIQP0D020
Q-POD® remote dispenser with 5 m connector	ZIQP0D050

Purification cartridges	Catalog number
IPAK Meta® & IPAK Quanta® polishing cartridge kit	IPAKKITA1
Millipak® 0.22 µm filter	MPGP002A1
Millipak® Gold 0.22 µm sterile filter	MPGPG02A1
Biopak® polisher	CDUFBI0A1
LC-Pak® polisher	LCPAK00A1
EDS-Pak® polisher	EDSPAK0A1
VOC-Pak® polisher	V0CPAK0A1

Accessories	Catalog number
Additional Q-POD® dispenser with 2 m connector	ZIQP0DX20
Additional Q-POD® dispenser with 5 m connector	ZIQP0DX50
Feed water conductivity cell	ZFC0NDCA1
Foot pedal	ZMQSFTSA1
Wall mounting bracket	SYSTFIXA1
Water sensor	ZWATSENA1

### Services

Our certified Field Service Engineers provide expert on-site professional support for the installation, validation, calibration and maintenance of your individual and total water solutions. To select the proper service plan for your water system, please contact your local service specialist to discuss and help you design the plan best adapted to your needs.

\* The end letters "WW" will be replaced by your country letters on your invoice to ensure you receive the appropriate accessory kit for your country, including the user manual in your local language and a power cord adapted to the local electrical network.

For more information, please visit our website:  
[www.merckmillipore.com/labwater](http://www.merckmillipore.com/labwater)



To order consumables online, please visit:  
[www.mymilliqconsumables.com](http://www.mymilliqconsumables.com)

For more information, please visit our website:  
[www.merckmillipore.com/milliq-iqsystem](http://www.merckmillipore.com/milliq-iqsystem)



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