

Water System Fabricators

THORNTON
Leading Pure Water Analytics



Confidence, Convenience and Compliance
in Water System Design

METTLER

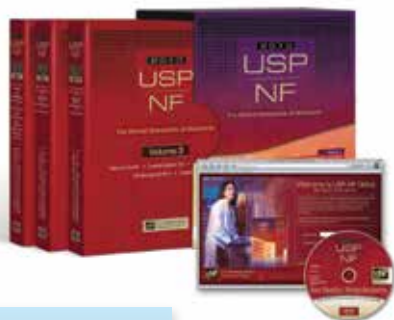
TOLEDO

A Global Commitment to Innovation and Quality

METTLER TOLEDO understands the water purification business and the challenges system fabricators face. Our focus on pure and ultrapure water measurements coupled with our commitment to meeting global water standards and regulations ensures that our products exceed the most stringent operation, calibration and validation requirements.

Confidence

- A leader in establishing global water standards and regulations
- The global partner you can trust, with operation and support structures in over 40 countries.
- A product portfolio recognized for its quality and integrity



Convenience

- Intelligent Sensor Management (ISM[®]) technology simplifies sensor handling, enhances measurement integrity, and reduces sensor lifecycle costs
- Multi-parameter flexibility facilitates system design
- Expanded measurement range reduces sensor selection and inventory
- Pre-calibrated sensors expedite installation
- Transmitter Configuration Tool (TCT) saves commissioning time and ensures error-free transmitter programming
- Transmitter simulation software improves training efficiency

Compliance

- Pre-calibrated UniCond[®] sensors and UniCond[®] Calibrator meet global pharmacopeia regulations
- Detailed documentation for compliance and validation
- Comprehensive calibration products and services for assured compliance



Simplified Compliance

ISM simplifies regulatory compliance by storing sensor calibration data internally and reducing written record keeping.



Measurement solutions and software tools to increase your productivity

Innovative multi-parameter, multi-channel transmitters provide flexibility and convenience for measuring a wide variety of parameters including conductivity, TOC, pH, ORP, DO, ozone and flow.

Our unique Intelligent Sensor Management technology offers Plug and Measure for fast, error-free measurement point start up.

Transmitter Configuration Tool (TCT) software facilitates complete transmitter pre-configuration from a laptop with a variety of unique-to-you, fast and repeatable downloads. Simulation Software for transmitters provides a convenient training and service tool for you and your customers.

ISM® Provides Much More Than a Measurement

Intelligent Sensor Management (ISM) is a proven technology embedded in a sensor, which outputs a robust digital signal, retains unique factory and current calibration data and predicts a sensor's need for maintenance, calibration or replacement.



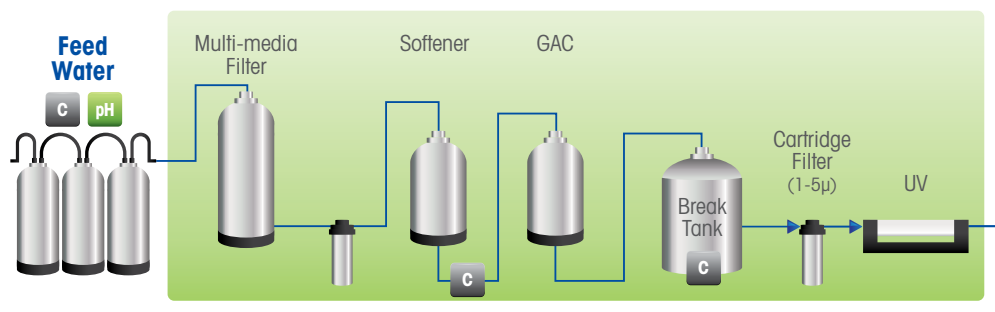
Transmitter Configuration Tool (TCT) and Simulation Software

Water Measurement Solutions from Feed Water to Ultrapure Water

Our extensive multi-parameter product portfolio supports all your measurement steps from incoming make-up water to ultrapure water point-of-use, and then to recycle, reclaim and reuse. This means fewer instrument and sensor types are required, so ordering is simple and fast and your inventory levels are kept to a minimum. Our short lead-times mean you get what you want when you need it, anywhere in the world.

FEED WATER

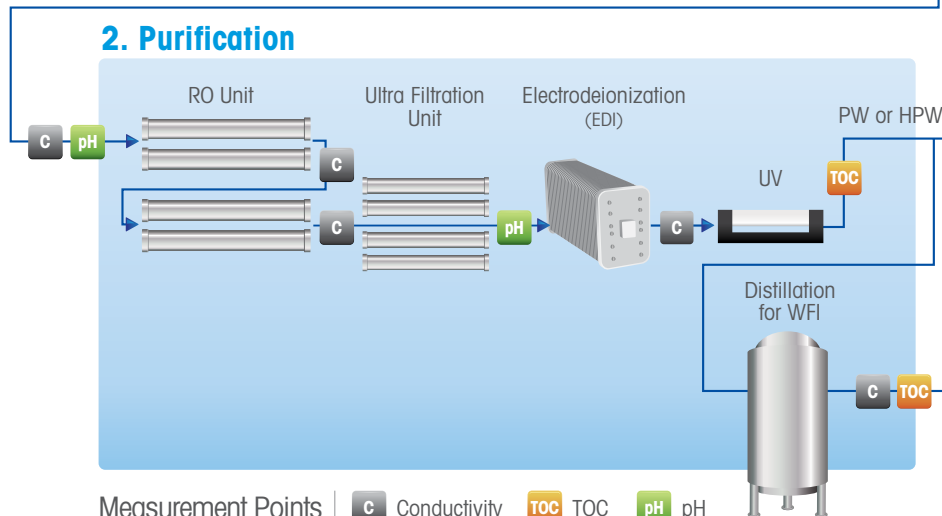
1. Pre-treatment



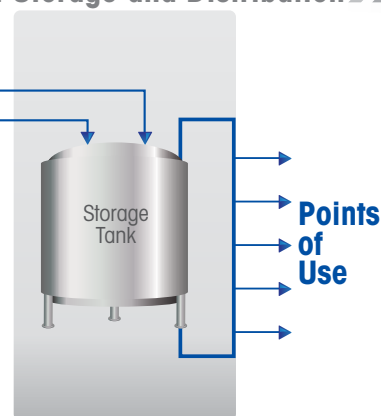
Water treatment can be divided into three stages:

1. Pre-treatment
2. Purification
3. Storage and Distribution

2. Purification



3. Storage and Distribution >>>

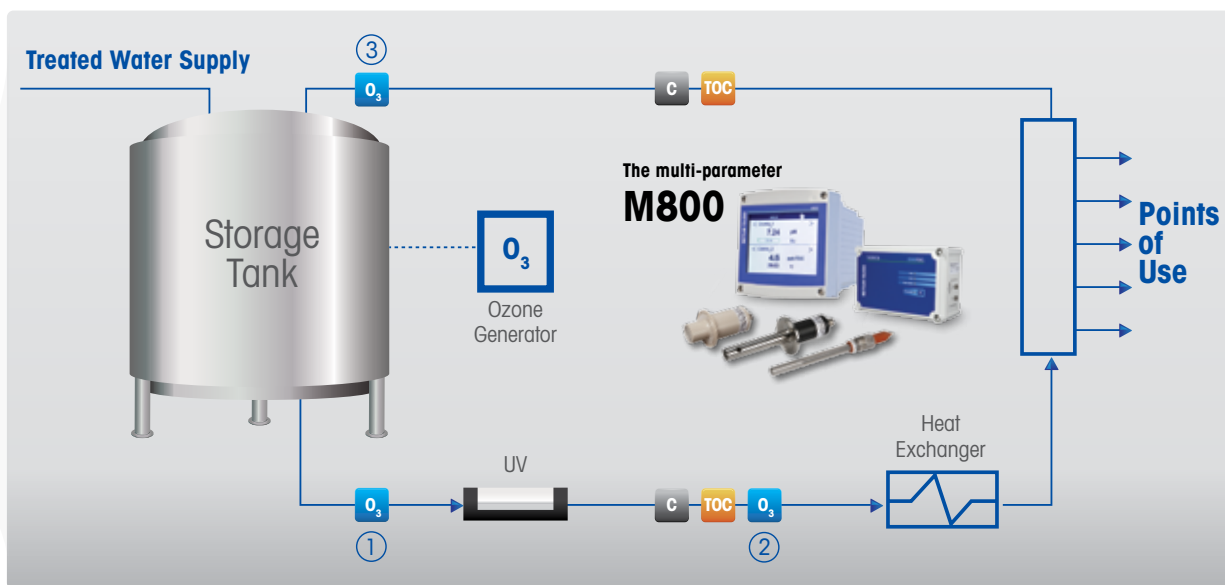


Measurement Points | **C** Conductivity **TOC** TOC **pH** pH



ULTRAPURE WATER

3. Storage and Distribution



Measurement Points | **C** Conductivity **TOC** TOC **O_3** Dissolved Ozone

1. Determine O_3 concentration in storage tank.
2. Determine O_3 concentration is "zero" after ozone destruct loop during production.
3. During loop sanitization, determine O_3 concentration at loop return. No production during this time.

Product Solutions Designed to Ensure Confidence, Convenience and Compliance

METTLER TOLEDO's reliable product solutions combined with our Intelligent Sensor Management technology has simplified compliance, providing you with the system confidence you need.

For more than 50 years, our measurement solutions have been recognized globally for their innovation, reliability and convenience. We lead or participate in water standards development within regulatory and industry

committees, such as USP, ISPE, PDA, ASTM, AIChE and SEMI, to ensure market standards make the most efficient use of new technologies. Our commitment and industry leadership results in reliable application solutions,

using flexible, convenient, robust, and user-friendly products, providing you with confidence that regulatory compliance is assured.

ISM

System Confidence

ISM helps to ensure production process control for consistent desired product quality and yield.

Digital Transmitter M200 easy



- Single or dual channel value line of transmitters
- Measures conductivity/resistivity, pH, ORP and dissolved oxygen
- Transmitter Configuration Tool (TCT) software included

Multi-parameter Transmitter M300



- Quick and easy installation thanks to Plug and Measure sensor capabilities
- Multi-channel (2) transmitter with multi-parameter measurement flexibility
- Measures conductivity/resistivity, pH, ORP, dissolved oxygen and ozone
- Transmitter Configuration Tool (TCT) software included

The ISM Advantage

Intelligent Sensor Management, or simply ISM, is a digital technology for in-line process analytical systems that simplifies sensor handling, reduces start-up time, enhances measurement integrity, and lowers sensor lifecycle costs.

These benefits translate into substantial gains for your customers in relation to production process reliability, data transparency, and managing regulatory compliance.

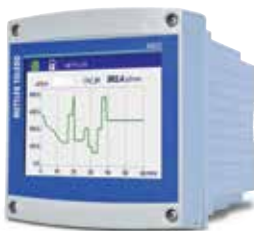
Unlike analog sensors, ISM sensors output a robust digital signal, retain their own calibration and other data, and even predict when they will need maintenance or replacement. ISM gives you much more than just a measurement.



Easy Sensor Handling

ISM sensors are pre-calibrated, providing error-free operation with Plug and Measure simplicity.

Multi-parameter Transmitter M800



- Simple menu operation with intuitive touchscreen control
- Multi-channel (2 or 4) transmitter with multi-parameter measurement flexibility
- Measures conductivity/resistivity, TOC, pH, ORP, dissolved oxygen, ozone and flow
- iMonitor diagnostics utility
- Dynamic Lifetime Indicator
- Trending graphics for all sensors

Wide Range UniCond with ISM



- Conductivity factory calibration data stored internally in sensor
- Integral high-performance measuring circuit
- Robust digital output signal
- Calibration tracked by iMonitor (M800) to ensure compliance

Total Organic Carbon Sensor 5000TOCi



- Process control for real-time release
- Instant notification of TOC excursion
- Simplified record keeping for SST and CAL
- Robust, reliable design virtually free of moving parts

For the METTLER TOLEDO Water Calculator go to:

► www.mt.com/pro-watercalc



Visit us online to discover white papers, application notes,
product documentation and more.

www.mt.com/pro_sf

Visit for more information

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