

PRECISION IN EVERY DETAIL

SIM-T

Laboratory ultrapure water system

Integrated reverse-osmosis and ultrapure-water production.

**18.2 MΩ·cm**

UP water resistivity · 25°C

10 / 20 / 30

L/hr · 25°C

Standard / UV

Two configuration types

From specialist instruments to complete laboratory solutions.

Product brochure · V0.0.7

01

DESIGNED FOR DAILY WORK

From separated water and electrical systems to maintainable modules.



Water/electrical separation and convenient maintenance

Electrical components and water circuits occupy separate spaces to reduce faults caused by moisture or leaks. Magnetic closures on the front, rear and sides provide access for consumable replacement and troubleshooting.

01

Automatic protective shutdown

The system shuts down automatically when tap-water pressure is too low, the supply is interrupted or the pressure tank is full.



Ion-exchange resin and purification cartridges

The original series literature specifies Rohm and Haas ion-exchange resin, with paired 15-inch purification cartridges and paired 15-inch ultrapure-water cartridges for a substantial resin fill.

Structural and consumable illustrations are from the original SIM series brochure. Standard equipment is defined by the specification page and supplied configuration.

02

Online water-quality visibility

Microcomputer control and a true-colour LCD show product-water quality and system operating data online.



RO membrane and cleaning

The original series literature specifies Dow RO membranes with anti-scaling cleaning, automatic startup flushing and manual cleaning.

02

STRUCTURE & MAINTENANCE

Separate compartments for a maintainable cabinet.



SIM series cabinet illustration

Structural illustration from the original series literature. Magnetic closures on the front, rear and sides facilitate cabinet access, consumable replacement and troubleshooting.

This image illustrates the series cabinet structure. Check the appearance and configuration of a specific model against its product image and specifications.



Separated water and electrical compartments

Water circuits and electrical components are organised in separate spaces without cross-contact, reducing electrical faults and safety risks caused by moisture or leaks.

Safety protection

The machine shuts down automatically when tap-water pressure is too low, tap water is interrupted or the pressure tank is full.

03

APPLICATIONS & CONFIGURATION

Match water quality, feed and configuration.

01

Integrated water-quality observation

Dual monitoring of RO conductivity and UP resistivity, with a true-colour LCD displaying system data.

02

Standard and low-organic types

The UV low-organic type adds a dual-wavelength UV lamp; the source specifies TOC values of 30 ppb and 5 ppb respectively.

03

Select for the feed-water type

Municipal tap-water feed; an external softener is recommended when TDS>200 ppm.

04

Match water to the method

Check resistivity, TOC, particles and microorganisms against the water requirements of the analytical method or connected instrument.

Water-quality statements in the source

The manufacturer states that product water meets or exceeds Grade 1 requirements in GB/T 6682-2008 and relevant ASTM, CAP, USP and CLSI standards. Verify method compatibility item by item against the water specifications and configuration.

Transcribed from the source; verify standard status and method requirements during project selection.

04

FULL SPECIFICATIONS

Complete specifications and standard equipment.

Item	Specifications and conditions
Product model	SIM-T10 / T20 / T30; SIM-T10UV / T20UV / T30UV
Feed-water requirements	Municipal tap water; TDS<200 ppm; 5–45°C; 1.0–6.0 kg/cm ²
UP water resistivity	18.2 MΩ·cm (25°C)
Total organic carbon (TOC)	Standard type: 30 ppb; UV low-organic type: 5 ppb
Heavy-metal ions	<0.1 ppb
Absorbance (254 nm, 1 cm optical path)	≤0.001
Dissolved silica (as SiO ₂)	≤0.01 mg/L
Particles (>0.22 μm)	<1/ml; requires an optional 0.22 μm point-of-use filter
Microorganisms	<1 cfu/ml; requires an optional 0.22 μm point-of-use filter
RO water conductivity	2–10 μS/cm (≤feed-water conductivity × 2%)
Inorganic-ion rejection	95%–99%
Organic-compound rejection	>99% (when MW>200 D)
Particle and microorganism rejection	>99%
Production rate (25°C)	10 / 20 / 30 L/hr, depending on model
Instantaneous dispensing rate	1.5–2.0 L/min
Water outlets	2 outlets: RO reverse-osmosis water and UP ultrapure water
Power supply / consumption	220±10% V; 50 Hz; 70 W
Operating environment	5–45°C; 20%–80% RH
Water-quality monitoring	Online RO conductivity and UP resistivity meters
Standard configuration	Standard type: main unit with purification and ultrapure-water cartridges + storage tank + accessory kit; UV type adds a dual-wavelength UV lamp

Source footnotes: tap-water quality affects water purity and consumable life; the stated particle/microorganism performance requires a 0.22 μm point-of-use filter. Production performance refers to municipal tap water at room temperature 25°C and TDS<200 ppm.

05

QUALIFICATIONS & PATENTS

Manufacturer credentials and patents.

The original brochure states that Beijing Fly Science Technology Co., Ltd. has researched, manufactured and sold ultrapure-water systems since its establishment in 2014, obtaining technical patents and software copyright certificates.



Certificate images are retained from the source. Refer to the originals and supply documents for the holder, title, date and scope.

06

PROJECT PLANNING

Bring water quality, demand and maintenance into one selection checklist.



Beijing Fly Science Technology Co., Ltd. · Factory photograph from the original brochure

Selection item	Information to verify
Water use	Method-specific water quality and RO/UP dispensing requirements
Demand and configuration	Daily demand, peak dispensing, T10/T20/T30 and storage tank
Site conditions	TDS, water temperature, pressure, power supply, installation and maintenance space
Operation and maintenance	Consumables, replacement intervals, water-quality monitoring and protective-shutdown tests

From selection discussions to routine maintenance

Discuss laboratory water-quality targets, feed conditions, demand and consumables. Use the manufacturer's literature to prepare site checks, operating guidance and pre-sales/after-sales service arrangements.

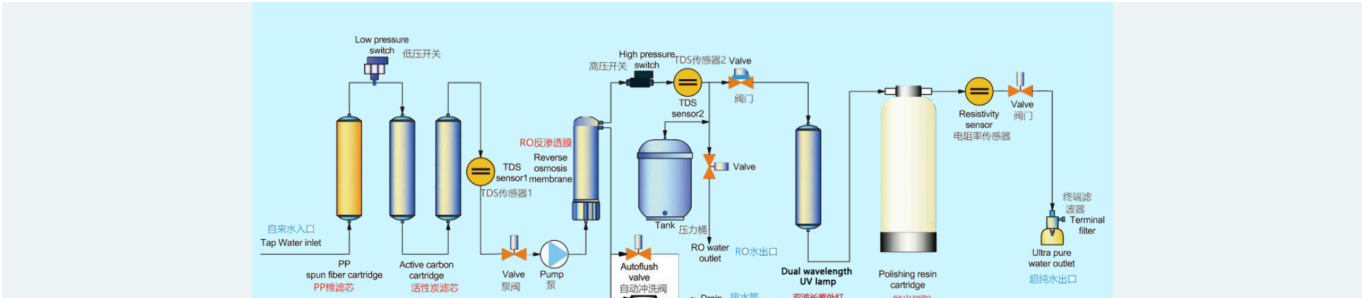
07

SERIES SELECTION

Select the series for your feed water and product-water needs.

Model and series	Capacity / flow	Type and output
SIM-T10 / T20 / T30	10 / 20 / 30 L/hr	Standard type; UP ultrapure water and RO reverse-osmosis water
SIM-T10UV / T20UV / T30UV	10 / 20 / 30 L/hr	Low-organic type; UP ultrapure water and RO reverse-osmosis water
SIM-Q10 / Q20 / Q30	10 / 20 / 30 L/hr	Standard type; DI deionised water and RO reverse-osmosis water
SIM-RO10 / RO20 / RO30	10 / 20 / 30 L/hr	Standard type; RO reverse-osmosis water
SIM-P	1.5–2.0 L/min	Standard type; purified-water feed, producing UP ultrapure water
SIM-PUV	1.5–2.0 L/min	Low-organic type; purified/distilled-water feed, producing UP ultrapure water

SIM series flow diagram



The source flow diagram includes branches for different series configurations. Check each model's actual outputs and water-quality monitoring against its specification page and standard equipment.

Feed water, environment and water-quality information

Municipal feed-water quality affects purified-water quality and consumable life. SIM-P uses purified-water feed; select other series according to the tap-water conditions on their respective pages.

The manufacturer's literature states that SIM-Q product water meets or exceeds Grade 1 requirements in GB/T 6682-2008 and relevant ASTM, CAP, USP and CLSI standards. This brochure retains that source statement; verify method suitability against specifications and project requirements.