



Pure water duo

Ultimate Demineralization

Ultrapure water is used in many applications. Whether in laboratories, medicine or in technical applications, water that is practically free of salts and other unwanted impurities is essential to make sure the equipment used is safe and works optimally long-term.

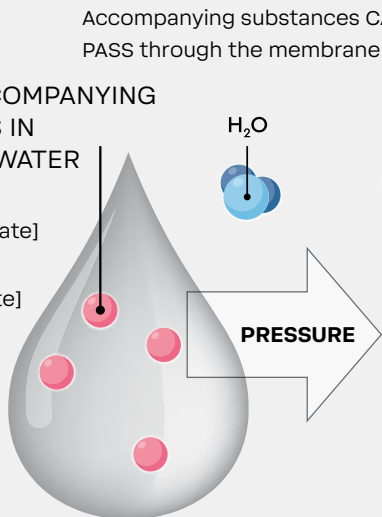
In practice, high requirements must be met for the quantities of water that are required and for safe water quality. The pure water BWT bestaqua ROC ULTRA duo guarantee both of these: a large amount of all suspended substances in the raw water are already removed at a high throughput using reverse osmosis during a first stage. An additional second stage with special BWT ion exchanger technology ensures the provision of pure water – at a constantly defined maximum quality. As a result, the BWT bestaqua ROC ULTRA System also safely meets the high requirements made of the quantity and quality of demineralized water.

HOW THE REVERSE OSMOSIS WORKS

RAW WATER

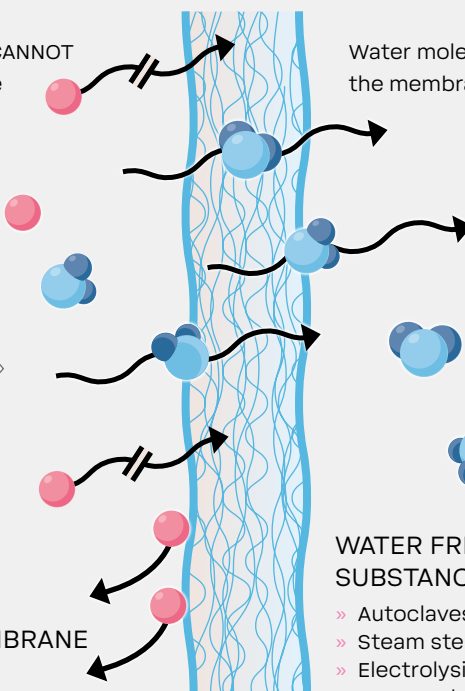
TYPICAL ACCOMPANYING SUBSTANCES IN UNTREATED WATER

- Limescale [calcium carbonate]
- Gypsum [calcium sulphate]
- Particles
- Calcium
- Magnesium
- Sodium
- Potassium
- Sulphate
- Carbonate
- Chloride
- Off-Flavours
- Chlorine
- etc.



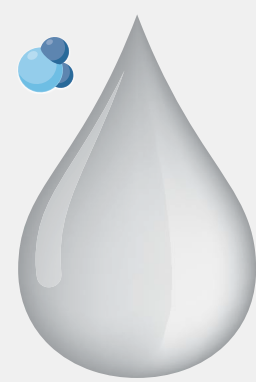
CLEANING OF THE MEMBRANE (CONCENTRATE)

HIGH-PERFORMANCE MEMBRANE



PURE WATER (PERMEATE)

Water molecules PASS through the membrane (diffusion)



WATER FREE FROM ACCOMPANYING SUBSTANCES, PERFECT FOR

- » Autoclaves (laboratories, medicine)
- » Steam sterilization (medicine)
- » Electrolysis cells (fuel cells)
- » ...everywhere pure demineralized¹ water is needed in large quantities

¹ In accordance with DIN EN 13060 and DIN EN 285

TECHNICAL DATA ROC-SYSTEM, COMPLETE

KEY DATA	BWT bestaqua 14 ROC ULTRA
Permeate performance ¹	1,6 L/min = 100 L/h
Salt retention rate	> 97 %
Permeate yield ^{1,2,3} (WCF)	ca. 50 %
OPERATING CONDITIONS	
Min. feed water flow rate	min. 4,2 L/min = 250 L/h
Concentrate flow rate	ca. 2,0 L/min = 120 L/h
Feed water pressure	0,15–0,4 MPa = 1,5–4 bar
Feed water temperature	5–30 °C
Ambient temperature	5–40 °C
POWER	
Power supply	220~240 V/ 50~60 Hz/ 10 A
Equipment fuse	T1.25AL250V
Power consumption	200 W, Standby < 3 W
Equipment connection	IEC-320
Cold appliance connection cable	1,8 m, CEE 7/4, IEC-60320 C13
Protection class	IP 21
FEED AND DRAINAGE LINES	
Feed water	M 3/4"
Permeate	M 3/8"
Concentrate	John Guest 8 mm
External tank	John Guest 8 mm
DIMENSIONS AND WEIGHT	
Dimensions (W x D x H)	277x297x505 mm
Weight (dry)	17,7kg
ORDER NUMBER	
BWT bestaqua 14 ROC ULTRA	125504752

TECHNICAL DATA FILTER CARTRIDGES

DIMENSIONS AND WEIGHT	BWT bestdemin PLUS M	BWT bestaqua 14 Membrane
Connection height in mm	424 mm	424 mm
Ø filter cartridge in mm	130 mm	130 mm
Weight, approx. (dry)	1,9 kg	1,9 kg
Weight, approx. (wet)	4,0 kg	4,0 kg
OPERATING CONDITIONS		
Nominal flow rate (bypass closed)	100L/h	120L/h
Operating pressure	2-8 bar	~7 bar
Inlet water pressure (min.)	>1,5 bar	>1,5 bar
Water temperature (min.–max.)	4–30 °C	4–30 °C
Ambient temperature (min.–max.)	4–40 °C	4–40 °C
Ambient temperature during storage/transport (min.–max.)	4–40 °C	4–40 °C
Installation position	Vertical	Vertical
Filter change after months	after 6 or 12*	after 12 or 24*
ORDER NUMBER	125505654	RS00Y61A00

IMPORTANT!

The BWT bestaqua ROC ULTRA may only be supplied with cold water of drinking quality. WCF: Water Conversion Factor | TDS: Total Dissolved Solids | SDI: Silt Density Index

1) The performance indicated applies for operation without permeate back-pressure at a water temperature of 15 °C. The performance achievable in practice depends on various parameters, such as the feed water quality, water temperature back-pressure on the permeate side etc., and may therefore deviate slightly from the value shown here.

2) The use of a feed water pre-treatment unit or a particle and activated carbon filter such as the BWT besttaste is recommended.

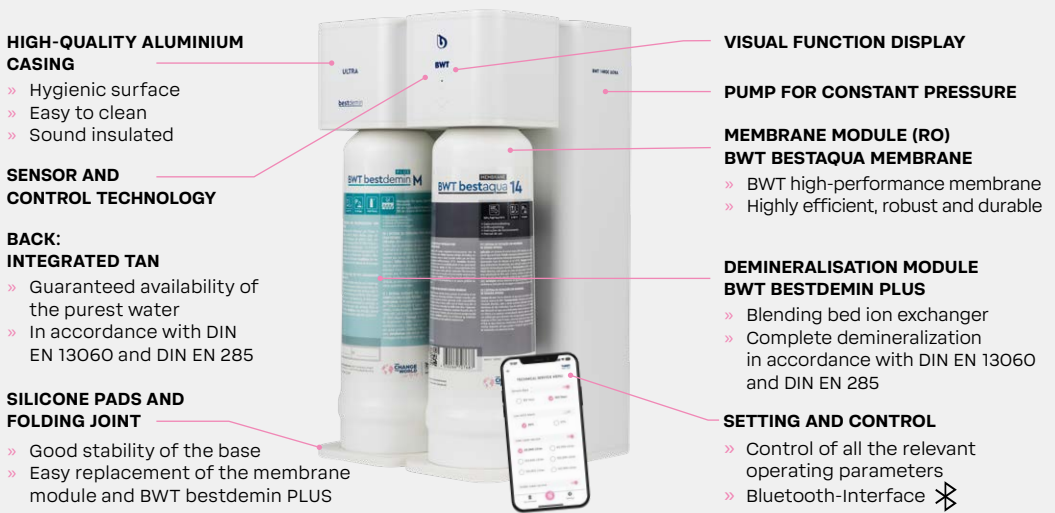
3) The default setting is for a WCF value of approx. 50 % at standard conditions (see ref. 1). The total WCF of device may vary due to local conditions and default settings, eg. rinsing cycles.

* Recommendation:

- Replace the filter cartridges regularly after 6 months, but at the latest after 12 months or when the filter capacity is reached.
- Replace the membrane regularly after 12 months, but at the latest after 24 months or if the flow rate is reduced.

Errors and omissions excepted, subject to change without notice.

FUNCTIONAL ELEMENTS



HIGH-QUALITY ALUMINIUM CASING

- » Hygienic surface
- » Easy to clean
- » Sound insulated

SENSOR AND CONTROL TECHNOLOGY

- BACK: INTEGRATED TAN**
- » Guaranteed availability of the purest water
 - » In accordance with DIN EN 13060 and DIN EN 285

SILICONE PADS AND FOLDING JOINT

- » Good stability of the base
- » Easy replacement of the membrane module and BWT bestdemin PLUS

VISUAL FUNCTION DISPLAY

PUMP FOR CONSTANT PRESSURE

MEMBRANE MODULE (RO) BWT BESTAQUA MEMBRANE

- » BWT high-performance membrane
- » Highly efficient, robust and durable

DEMINERALISATION MODULE BWT BESTDEMIN PLUS

- » Blending bed ion exchanger
- » Complete demineralization in accordance with DIN EN 13060 and DIN EN 285

SETTING AND CONTROL

- » Control of all the relevant operating parameters
- » Bluetooth-Interface

ROC YOUR WATER

FIX: Required maximum mineral content in the filtrate

GET: Safely demineralized water and full protection for the equipment used

RELY ON: Guide value > 5 µs or > 15 µs (see BWT bestdemin PLUS data sheet)

BWT BESTAQUA MEMBRANE - PERFORMANCE AT THE HIGHEST LEVEL

- » BWT high-performance membrane
- » Typical output 120 L/h
- » Robust, durable, efficient

BWT BESTDEMIN PLUS M – ULTRAPURE WATER

- » BWT blending bed ion exchanger
High filter capacity in combination with BWT Membrane
At a target guide value of > 5 µs/cm: approx. 1,600 litres*
At a target guide value of > 15 µs/cm: approx. 2,000 litres*

* +/- 20% depending on the mineral mix in the raw water

MANUFACTURER: SALES:

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