

# Duo<sup>™</sup> Dual Quality Type 2 and Type 1 Water System



#### Overview

The  $Duo^T$  Water Purification System is a complete pre-engineered system designed to provide Type 2 water that can be dispensed from the storage tank via a dispense tap or provide Type 1 water that can be dispensed from an integral dispenser gun or via a remote dispenser gun.

The innovative and unique Duo provides two water qualities within one easy to use system. Save on space, initial outlay and consumable costs.



## Features & Benefits

- Fast variable dispense of ultrapure water up to 2 liters per minute.
- Quick-change consumables with realistic costs.
- Novel recirculation loop extends life of membranes and cartridges.
- · Easy to use software.
- Dual wavelength 185nm and 254nm UV in a quartz thimble.
- Bench, wall or reservoir top mounting.
- Choice of production rates.
- Choice of storage reservoir: 30, 60 or 100 liters.
- Comprehensive monitoring of water quality including TOC (Total Organic Carbon).
- Integral boost pump.
- Space saving design with 2 water qualities from one unit.









# Duo™ Dual Quality Type 2 and Type 1 Water System

# Specifications

#### UNIT SPECIFICATIONS

#### Part Number:

- 7120-4500-010; Duo T1/T2 UF 10 I/hr
- 7120-4500-020; Duo T1/T2 UF 20 I/hr
- 7120-4500-030; Duo T1/T2 UF 10 I/hr w/ Remote Dispenser
- 7120-4500-040; Duo T1/T2 UF 20 I/hr w/ Remote Dispenser
- 7120-4500-110; Duo T1/T2 10 l/hr
- 7120-4500-120; Duo T1/T2 20 I/hr
- 7120-4500-130; Duo T1/T2 10 I/hr w/ Remote Dispenser
- 7120-4500-140; Duo T1/T2 20 l/hr w/ Remote Dispenser

#### Dimensions

- Unit: 19 in. (W) x 26 in.\* (H) x 11 in. (D)
   490 mm (W) x 670 mm\* (H) x 290 mm (D)
   \* To the top of Dispense Gun, height to the top of the Dispense tube curve is 29 in. (730 mm).
- Remote Dispensing Stand Dimensions
  10 in. (W) x 25 in.\* (H) x 10 in. (D)
  250 mm (W) x 640 mm\* (H) x 255 mm (D)
  \* To the top of Dispense Gun, height to the top of the Dispense tube curve is 26 in. (670 mm).
- Shipping Weight: 58 lb (26 kg)

#### **Power Supply**

• 100-240 VAC; 50/60 Hz

### Water Quality

Type 1 or Type 2

#### Feed Water Requirements

- Flow Rate at Pressure
  - Duo10 & Duo10-UF: 0.833 lpm @ 10 kPa, 0.1 bar (0.22 gpm @ 1.5 psi) minimum
  - Duo20 & Duo20-UF 1.0 lpm @ 10 kPa, 0.1 bar (0.27 gpm @ 1.5 psi) minimum
- Inlet pressure: 1.5 psi (10 kPa, 0.1 bar) minimum to 87 psi (600 kPa, 6.00 bar) maximum (NOTE: Minimum pressure must be maintained at the flow rate specified above)
- Temperature: 41°F to 95°F (5°C to 35°C)
- Minimum Feed Water Pressure: 1.5 psi (0.1 bar)
- Maximum Feed Water Pressure: 87 psi (6 bar)
- pH: 3.0-9.0

#### Waste Water Drain Requirements

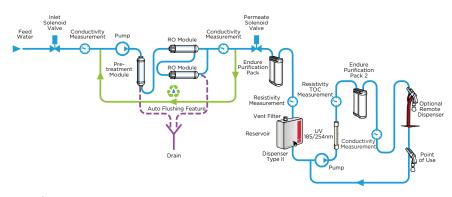
- A. Flush water drain, 5/16 in. tube connection to 1-1/2 in. (38 mm) pipe minimum, with a minimum safety distance of 3/4 in. between tube end and waste water drain.
- Floor level drain not to exceed 6.56 pipe feet (2000 mm) of the RO drain outlet.

All specifications are subject to change without notice.

#### Operation

The innovative and unique Duo provides two water qualities within one easy to use system. Save on space, initial outlay and consumable costs. Type 2 water is available from the reservoir while Type 1 water is ready to dispense from the unit or the remote dispenser.

#### **DUO FLOWCHART**



# Application

Duo is suitable for Type 2 water use of 10-150 liters per day. Type 2 water is used for buffer and media production, sample and reagent diluent, general chemistry, protein electrophoresis, histology, cytology and spectrophotometry. Duo is also suitable for Type 1 water use of up to 100 liters per day. Type 1 water is used for molecular biology, electrophoresis, cell and tissue culture, sequencing, HPLC, genomics, pharmacology and any other sensitive applications.

TOC monitoring is critical when organics will affect results so a real time TOC reading will provide absolute confidence in your water quality.

	Duo 20 TOC	Duo 20 TOC UI	Duo 20 TOC	Duo 20 TOC UF
Production (into tank)	20 l/hr	20 l/hr	20 l/hr	20 l/hr
Dispense Rate (Ultrapure)2 I/min		2 l/min	2 l/min	2 l/min
Resistivity	18.2 MΩ-cm	18.2 MΩ-cm	18.2 MΩ-cm	18.2 MΩ-cm
TOC	1-5 ppb	1-5 ppb	1-5 ppb	1-5 ppb
RNase/DNase	-	free	-	free
Bacteria	<1 cfu/ml	<1 cfu/ml	<1 cfu/ml	<1 cfu/ml
Endotoxins	-	<0.001EU/ml	-	<0.001EU/ml
Feedwater pressure	0.1-6 bar	0.1-6 bar	0.1-6 bar	0.1-6 bar







