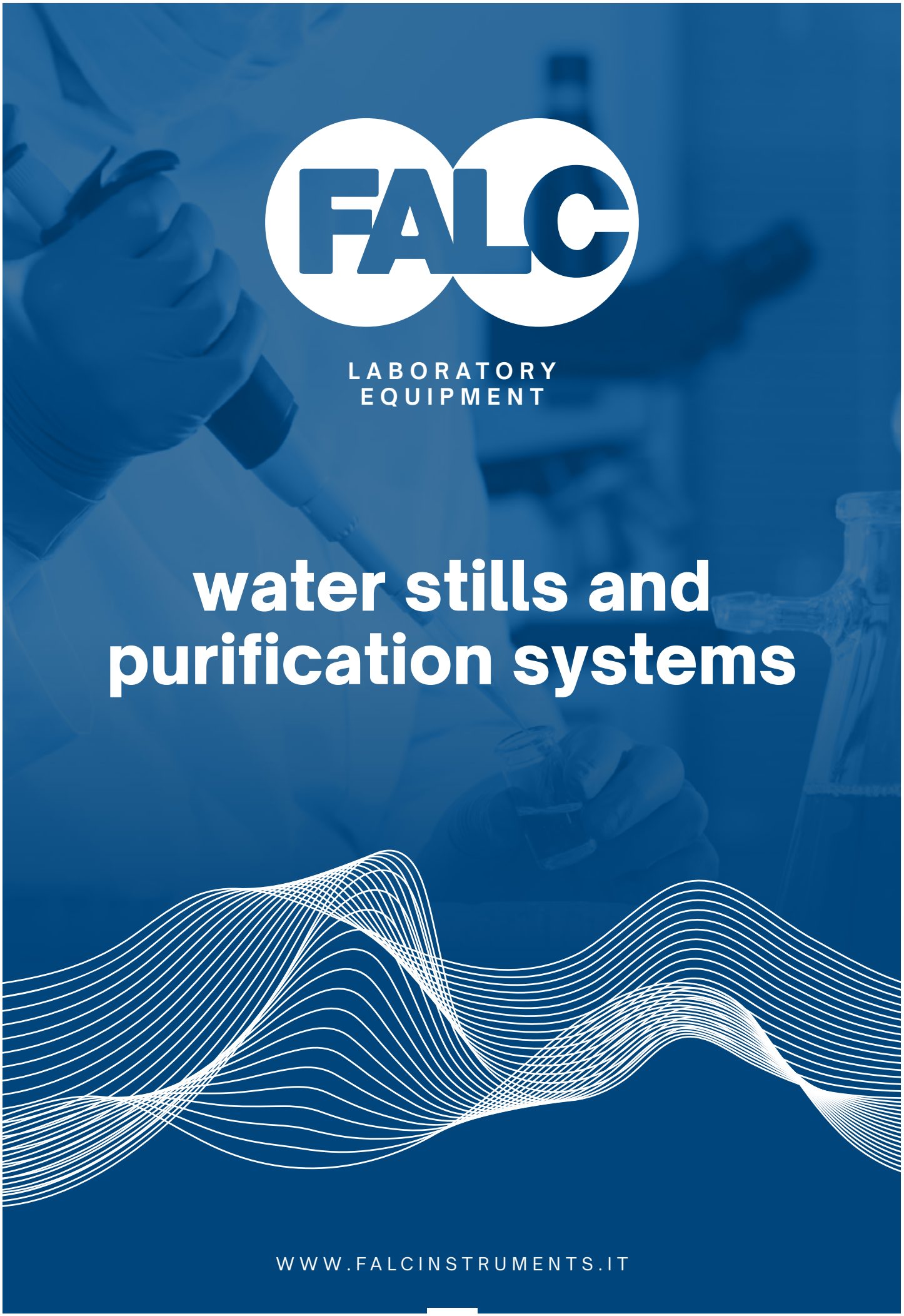

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EQUIPMENT

water stills and purification systems

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water stills and purification systems

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CLASSIFICATION AND COMPARISON

WATER PURITY CLASSIFICATION

- Tap water
- Reverse osmosis water (Type III) and Distilled water
- Pure/deionized water (Type II)
- Ultrapure water (Type I)

COMPARISON BETWEEN WATER STILLS AND WATER PURIFICATION SYSTEMS

	ADVANTAGES	DISAVANTAGES
WATER STILLS	• No consumables • Suitable for university and school applications	• Instrument cleaning needed • If water is bad quality, the instrument has to be clean frequently • High energy and water consumption • It needs a technician to use the instrument • High temperature water in output
WATER PURIFICATION SYSTEMS	• High quality water • Easy using • It can be connected to other instruments • Low power (Eco-friendly)	• Consumables to change

APPLICATION CLASSIFICATION	REVERSE OSMOSIS	PURE TYPE II	ULTRAPURE TYPE I
General lab Purpose			
Autoclave	■	■	
Humidification	■	■	
Glassware washing/rinsing	■	■	
General lab equipment (water baths, incubators, etc.)	■	■	
Feed water to Type 1 systems		■	
Media prep		■	
Buffer prep		■	
Chemical and biochemical reagent prep		■	
Analytical			
High performance liquid chromatography (HPLC)			■
Gas chromatography (GC)			■
Ion chromatography (IC)			■
Inductively coupled plasma spectroscopy (ICP)			■
Mass spectroscopy (MS)			■
Atomic absorption (AA)			■
Total organic carbon (TOC)			■
Life Sciences			
Genomics			■
Proteomics			■
Immunology			■
Pharmacology			■
Cell and tissue culture			■
Drug discovery			■
Molecular biology			■
Microbiology			■

WATER STILLS

Glass water stills

- Ideal for the production of distilled water (Type III)
- The structure made of borosilicate glass 3.3 ensures high quality of pyrogen-free water and metal ions
- The safety pressure switch is activated in the event of power supply failure
- The water outlet depends on the quality of the water supply and other environmental factors Wall mounted unit

DIS

Technical data		DIS 4
Output	liters/hour	4
Flow rate	liters/minute	1
Water pressure	bar	0.207
Water outlet		Distilled water
Distillate temperature	°C	25-35
Ph		5.0-7.5
Resistivity (25°C)	MΩ.cm	0.5
Conductivity	µs/cm	2
Bacteria	cfu/ml	<10
Dimensions LxWxH	mm	630x180x490
Power	W	3000
Weight	Kg	4.5
Code		**636.0700.03**

V/HZ AC 100/240-50/60	SAFETY CLASS 1	PROTECTION CLASS 42

ACCESSORIES

10 lt tank in plastic HDPE with faucet
Code 636.0700.30

20 lt tank in plastic HDPE with faucet
Code 636.0700.31

SPARE PARTS

	Code
Refrigerant	**636.0700.08**
Joint for fixing the plug	**636.0700.09**
Quarts candle	**636.0700.10**
Borosilicate glass boiler	**636.0700.11**

WATER STILLS

Glass water stills with external protective structure

HYDRO

- Ideal for the production of high-quality distilled water (Type III)
- The structure made of borosilicate glass 3.3 ensures high quality of pyrogen-free water and metal ions
- The external structure ensures a high level of safety for the user
- The water outlet depends on the quality of the water supply and other environmental factors Automatic filling device stops water and electrical supply when your tank is full

Technical data		HYDRO
Output	liters/hour	4
Flow rate	liters/minute	1
Water pressure	bar	0.207
Water outlet		Distilled water
Distillate temperature	°C	25-35
Ph		5.0-7.5
Resistivity (25°C)	MΩ.cm	0.5
Conductivity	µs/cm	2
Bacteria	cfu/ml	<10
Dimension LxWxH	mm	550x230x420
Power	W	3000
Weight	Kg	12
Code		**636.0700.14**

V/HZ AC 100/240-50/60	SAFETY CLASS 1	PROTECTION CLASS 42

ACCESSORIES

10 lt tank in plastic HDPE with faucet
Code 636.0700.30

20 lt tank in plastic HDPE with faucet
Code 636.0700.31

SPARE PARTS

	Code
Quartz candle	**636.0700.16**
Borosilicate glass boiler	**636.0700.17**
Refrigerant	**636.0700.18**

WATER STILLS

Water still in stainless steel

- Ideal for the production of distilled water (Type III)
- 18/8 stainless steel frame ensures water of high quality free of metallic ions and pyrogens
- Automatic level sensor in case of insufficient water
- The water outlet depends on the quality of the water supply and other environmental factors

DES

Technical data		DES 4	DES 8
Output	liters/hour	4	8
Flow rate	liters/minute	1	1
Water pressure	bar	0.207	0.207
Water outlet		Distilled water	
Distillate temperature	°C	> 40	> 40
Ph		5.0-7.5	5.0-7.5
Resistivity (25°C)	MΩ.cm	0.5	0.5
Conductivity	µs/cm	2	2
Bacteria	cfu/ml	<10	<10
Dimension LxWxH	mm	435x370x220	635x370x260
Power	W	3000	6000
Weight	Kg	8	13
Code		**636.0750.04**	**636.0750.06**

V/HZ AC 100/240-50/60	SAFETY CLASS 1	PROTECTION CLASS 42

ACCESSORIES

10 lt tank in plastic HDPE with faucet
Code 636.0700.30

20 lt tank in plastic HDPE with faucet
Code 636.0700.31

SPARE PARTS

Description	Code
Silicone seal	**636.0750.08**
Heating element	**636.0750.10**

WATER PURIFICATION SYSTEMS

Reverse osmosis and deionized water systems

BASIC Q

It is fit to produce reverse osmosis (Type III) and deionized/ pure water (Type II)
Applications: cleaning laboratory accessories; autoclave and test chamber supplying; chemical, clinical, microbiological tasks and molecular biology

LED display monitoring running status

External structure is in powder painting metal
Tube and adapter meet NSF certification
RO system with DOW's membrane
Bench-top and wall-mounted sytem

High pure water quality and low running cost

Standard pretreatment to protect membranes
3 procedures of the RO membrane's self-flushing: power on, water shortage and work more than 2 hours
Bench top and wall mounted unit

Technical data		BASIC Q 15	BASIC Q 30
Output	liters/hour	15	30
Flow rate	liters/minute	Up to 2 (with optional pressure tank 636.0800.28)	
Water outlet		2: reverse osmosis water,deionized water	
DEIONIZED WATER QUALITY			
Resistivity (25°C)	MΩ.cm	13 - 17,5	
Conductivity	µs/cm	0.0571 - 0.0769	
Bacteria	cfu/ml	<0,1 (with optional 0.2µm PES terminal filter)	
Particle (>0,2 µm)	cfu/ml	<0,1 (with optional 0.2µm PES terminal filter)	
RO WATER QUALITY			
Ion rejection rate		97-99% new RO membrane	
Organic rejection rate		>99% when MW>200 Dalton	
Particle and bacteria rejection rate		>99%	
Feed water requirements		Tap water, temperature: 5-45°C, pressure: 1.0-4.0Kgf/cm^2	
Dimension LxWxH	mm	340x320x470	
Power	W	72	
Standard configuration		Main body (Including 1 set of cartridge)	
Weight	kg	15	15
Code		**636.0800.01**	**636.0800.02**

V/HZ AC100-240-50/60

CARTRIDGES

Codes from 638.0800.22 to 638.0800.26 are included

Description	Replacement term	Code
10” double water filter - If the tap water is hard water, TDS>200ppm		**636.0800.20**
Stainless steel flush filter - If the tap water is very dirty		**636.0800.21**
10” spun fiber filter	About 2-6 months	**636.0800.22**
10” granular active carbon filte-upgraded	About 4-6 months	**636.0800.23**
100GPD RO membrane filter	About 12-24 months (only for Basic Q 15)	**636.0800.25**
Mixed bed resin cartridge	About 1000 liters/pc (2 pieces needed for Basic Q 15, 3 pieces needed for Basic Q 30)	**636.0800.26**
200GPD RO membrane filter - service life	About 12-24 months (only for Basic Q 30)	**636.0800.27**

TANK FOR REVERSE OSMOSIS WATER

Pressure tank’s lining is made of double butyl, and it’s certified by FDA. It can prevent CO_2, and other pollutant to enter into RO water. Moreover, its maximum pressure can reach 0.3Mpa. It means that RO water can be supplied to point of use by pressure tank without any additional boost pump.
PE tank with liquid level control can monitor the filling.

Description	Code
15 L plastic pressure tank	**636.0800.28**
10 L PE tank with 2 points liquid level control	**636.0800.30**
20 L PE tank with 2 points liquid level control	**636.0800.31**
50 L PE tank with 2 points liquid level control	**636.0800.32**
100 L PE tank with 2 points liquid level control	**636.0800.33**
200 L PE tank with 2 points liquid level control	**636.0800.34**

WATER PURIFICATION SYSTEMS

Reverse osmosis and ultrapure water systems - with control data system

MASTER TOUCH

Comprehensive monitoring system

It is fit to produce reverse osmosis (Type III) and ultrapure (water (Type I)
Applications: cleaning laboratory accessories; autoclave and test chamber supplying; HPLC, GC, IC, ICP, MS, AA, TOC analysis; pharmacological, molecolar biological and microbiological applications

Colorful touch-screen controlling display

Plastic external structure
3 doors to replace cartridges and mantaining the system
Tube and adapter meet NSF certification
RO system with DOW's membrane

High pure water quality and low running cost

Double wavelength UV lamp (185&254nm)
Standard pretreatment
SD card and USB interface for storing data
4 ultrapure cartridges
3 water quality sensors
2 flow sensors
Built-in 15 liters pressure water tank
2 pumps to achieve single stage RO and sanitizing system

Level II password protects all parameter setting
Multiple alarm function: no feed water, full water, water quality's standard exceeding and cartridge life ending

Technical data		Master Touch-S 15 UV
Output	liters/hour	15
Flow rate	liters/minute	Up to 2 (with pressure tank 636.0800.28 included)
Water outlet		2: reverse osmosis water, ultrapure water
ULTRAPURE WATER QUALITY		
Resistivity (25°C)	MΩ.cm	18.2
Conductivity	µs/cm	0.0549
TOC*	ppb	<3
Bacteria	cfu/ml	<0,1
Particle (>0,2 µm)	ml	<0,1
Endotoxines (optionally)		N/A
RNases (optionally)		N/A
DNases (optionally)		N/A
RO WATER QUALITY		
Ion rejection rate		96-99% new RO membrane
Organic rejection rate		>99% when MW>200 Dalton
Particle and bacteria rejection rate		>99%
Feed water requirements		Tap water, temperature: 5-45°C, pressure: 1.0-4.0Kgf/cm^2
Dimension LxWxH	mm	500x360x540
Power	W	120
Standard configuration		Main body (Including 1 set of cartridge) +15 liters pressure tank
Weight	kg	20
Code		**636.0805.01**

V/HZ AC100-240-50/60

*The value will be influenced by temperature and feedwater's quality

CARTRIDGES

Codes from 638.0805.20 to 638.0805.26 are included

Description	Replacement term	Code
10" double water filter - If the tap water was hard water, TDS>200ppm	-	**636.0800.20**
Stainless steel flush filter - If the tap water was very dirty	-	**636.0800.21**
5µm spun fiber cartridge	2-6 months	**636.0805.20**
Mixed KDF cartridge	12 months	**636.0805.21**
Granular active carbon cartridge	6 months	**636.0805.22**
100GPD RO membrane filter	12-24 months/pc	**636.0800.25**
Low organic carbon cartridge	About 9000 liters	**636.0805.23**
Double (254&185nm) wavelength UV lamp	9000 hours	**636.0805.24**
Ultra pure polishing resin cartridge	1000 liters (4 pieces needed)	**636.0805.25**
(0.45+0.1) µm importing PES terminal filter	-	**636.0805.26**

TANK FOR REVERSE OSMOSIS WATER

Pressure tank's lining is made of double butyl, and it's certified by FDA. It can prevent CO_2, and other pollutant to enter into RO water. Its maximum capacity is 100 liters. Moreover, its maximum pressure can reach 0.3Mpa. It means that RO water can be supplied to point of use by pressure tank without any additional boost pump.
PE tank with liquid level control can monitor the filling.

Description	Code
15 L plastic pressure tank	**636.0800.28**
10 L PE tank with 2 points liquid level control	**636.0800.30**
20 L PE tank with 2 points liquid level control	**636.0800.31**
50 L PE tank with 2 points liquid level control	**636.0800.32**
100 L PE tank with 2 points liquid level control	**636.0800.33**
200 L PE tank with 2 points liquid level control	**636.0800.34**

ULTRAPURE WATER TANK

It's made by blow molding and the material in PE. There is no adhesives and surfactant. The seal ring could prevent air to enter into tank, and large cover is convenient to clean tank. Pure PE material avoids impurities' separating out. The smooth internal surface can restrain bacteri' s breeding. The inlet is at the bottom of tank, reducing absorbing of CO_2. Conical bottom could discharge all the water from the bottom, and it can assure complete cleaning of the tank (there's a drain valve in the bottom). Air filter could absorb CO_2 and organics, and eliminate bacteria and particles. UV lamp could restrain bacteria's increase and reduce TOC.

Commodity	Description	Code
Ultrapure water tank (Air filter code 636.0805.28 included)	Capacity: 50 liters	**636.0805.30**
Air filter	Absorb CO_2 and organics, elimante bacteria and particles	**636.0805.28**
Immersing UV lamp	Restrain bacteria's increase and reduce TOC	**636.0805.29**

REMOTE PORTABLE DISPENSER

It is suitable for any other brand water purification systems, equipped with independent flow meter, resistivity sensor and measuring&controlling system.
Its circulation system keeps top quality of ultrapure water from water purification system along pipeline supplying.
2.0-inch colorful graphics display monitors resistivity, temperature, flow rate and dispensed volume of pure water. R-DIS can have an instant or volume range dispensing, to get water and stop automatically till the set value of volume.

DATA SHEET
Tray base size: 222x150 mm
Volume range: From 10 to 9990
Code 636.0805.10

WATER PURIFICATION SYSTEMS

Reverse osmosis and ultrapure water systems

ECO

It is fit to produce reverse osmosis (Type III) and ultrapure water (Type I)
Applications: cleaning laboratory accessories; autoclave and test chamber supplying; HPLC, GC, IC, ICP, MS, AA, TOC analysis; pharmacological, molecolar biological and microbiological applications

LCD contolling system

Plastic external structure
3 doors to replace cartridges and mantaining the system
Tube and adapter meet NSF certification
RO system with DOW's membrane

High pure water quality and low running cost

Double wavelength UV lamp (185&254nm)
Standard pretreatment
4 ultrapure cartridges
2 water quality sensors
Built-in 15 liters pressure water tank
1 pump to achieve single stage RO system

Level II password protects all parameter setting
Multiple alarm function: no feed water, full water, water quality's standard exceeding and cartridge life ending

Technical data		ECO S-15 UV
Output	liters/hour	15
Flow rate	liters/minute	Up to 2 (with pressure tank 636.0800.28 included)
Water outlet		2: reverse osmosis water, ultrapure water
ULTRAPURE WATER QUALITY		
Resistivity (25°C)	MΩ.cm	18.2
Conductivity	µs/cm	0.0549
TOC*	ppb	<3
Bacteria	cfu/ml	<0,1
Particle (>0,2 µm)	ml	<1
Endotoxines (optionally)		N/A
RNases (optionally)		N/A
DNases (optionally)		N/A
RO WATER QUALITY		
Ion rejection rate		97-99% new RO membrane
Organic rejection rate		>99% when MW>200 Dalton
Particle and bacteria rejection rate		>99%
Feed water requirements		Tap water, temperature: 5-45°C, pressure: 1.0-4.0Kgf/cm^2
Dimension (LxWxH)	mm	340x500x560
Power	W	72
Standard configuration		Main body (Including 1 set of cartridge) +15 liters pressure tank
Weight	kg	18
Code		**636.0805.05**

V/HZ AC100-240-50/60

*The value will be influenced by temperature and feedwater's quality

CARTRIDGES

Codes from 638.0805.20 to 638.0805.26 are included

Description	Replacement term	Code
10" double water filter - If the tap water was hard water, TDS>200ppm	-	**636.0800.20**
Stainless steel flush filter - If the tap water was very dirty	-	**636.0800.21**
5µm spun fiber cartridge	2-6 months	**636.0805.20**
Mixed KDF cartridge	12 months	**636.0805.21**
Granular active carbon cartridge	6 months	**636.0805.22**
100GPD RO membrane filter	12-24 months/pc	**636.0800.25**
Low organic carbon cartridge	About 9000 liters	**636.0805.23**
Double (254&185nm) wavelength UV lamp	9000 hours	**636.0805.24**
Ultra pure polishing resin cartridge	1000 liters (4 pieces needed)	**636.0805.25**
(0.45+0.1) µm importing PES terminal filter	-	**636.0805.26**

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PE tank with liquid level control can monitor the filling.

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10 L PE tank with 2 points liquid level control	**636.0800.30**
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Commodity	Description	Code
Ultrapure water tank (Air filter code 636.0805.28 included)	Capacity: 50 liters	**636.0805.30**
Air filter	Absorb CO_2 and organics, elimante bacteria and particles	**636.0805.28**
Immersing UV lamp	Restrain bacteria's increase and reduce TOC	**636.0805.29**

REMOTE PORTABLE DISPENSER

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2.0-inch colorful graphics display monitors resistivity, temperature, flow rate and dispensed volume of pure water. R-DIS can have an instant or volume range dispensing, to get water and stop automatically till the set value of volume.

DATA SHEET
Tray base size: 222x150 mm
Volume range: From 10 to 9990

Code 636.0805.10

DIFFEENCES AMONG WATER PURIFICATION SYSTEMS

		BASIC Q15/30	ECO S- 15 UV	MASTER TOUCH S-15 UV
FEATURES				
Installation		Desktop or On-Wall	Desktop	Desktop
Outlets (ASTM)		Type III + Type II	Type III + Type I	Type III + Type I
Monitor		LCD	LCD, 3 inch	Color-LCD, 5 inch with Smart Touch OS
SENSOR				
Quality Sensor		2 TDS	1 TDS + 1 Resistivity	2 TDS + 1 Resistivity
Water flow Sensor		-	-	2
PHYSICOCHEMICAL SPECIFICATION				
TOC Content	ppb	<10	<10 (UV: <3)	<10 (UV: <3)
Particle (<1/mL)	µm	> 0.2	> 0.1	> 0.1
Resistivity	MΩ.cm	13-17.5	18.2	18.2
Conductivity	µS/cm	0.057-0.077	0.055	0.055
BIOLOGICAL SPECIFICATION				
Microorganisms	CFU / ml	< 0.01	< 0.01	< 0.01
Endotoxin / Pyrogens	EU / mL	-	< 0.001(optionally)	< 0.001(optionally)
Endotoxin / DNase	pg/ml	-	< 5(optionally)	< 5(optionally)
Endotoxin / RNase	pg/ml	-	< 1(optionally)	< 1(optionally)
OUTPUT MODE				
Volumetric		-	-	Yes, 10-999999 ml
Periodic (Timing)	min	-	Yes, 1-99	-
Qualitative	MΩ.cm	-	Yes, 0.1-18.2	Yes, 0.1-18.2
Manual		Yes	Yes	Yes
OUTPUT CAPACITY				
Maximal Flowrate (L/min)		2	2	2
Purification Capacity	lt/hour	15 / 30	15	15
Max. Daily Output Capacity	lt	300	300	300
Water Tank	lt	Separate accessory 15	Built-in 12	Accessory included 15
FUNCTIONS				
Consumable Life Management		Yes	Yes	Yes
Low Water Pressure Alarm		Yes	Yes	Yes
Leak Water Alarm		Yes	Yes	Yes
Auto Flushing		Yes	Yes	Yes
2nd Stage Password		-	Yes	Yes
Disinfection Mode		-	Optional	Yes
2 Pumps System		-	-	Yes
USB-Interface		-	-	Yes
Integrated SD		-	-	Yes
FEEDWATER REQUIREMENTS				
Feed water quality		Tap water	Tap water	Tap water
Pressure	Bar	1 - 4	1 - 4	1 - 4
TDS	ppm	< 200	< 200	< 200
Conductivity	µS/cm	< 2000	< 2000	< 2000
Temperature	°C	+ 5 to 45	+ 5 to 45	+ 5 to 45
POWER				
Power Supply	Volt/Hz	100-240/50-60	100-240/50-60	100-240/50-60
Power Capacity (Watt)		72	72	120
SYSTEM DIMENSIONS				
Product Dimensions LxWxH	mm	410x320x420	340x500x560	360x500x540
Empty Weight	kg	15	18	20
Running Weight	kg	32	33	37

Notes

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