



model

STOC-4S, STOC-6S, STOC-8L, STOC-16L, STOC-24L, STOC-32L

The TOC Reduction systems by Sterilight are designed specifically for the reduction of total organic carbon (TOC) levels. These systems, based on our successful line of "SUV" disinfection systems are designed with shorter wavelength UV lamps emitting their spectral output at 185nm. These "shorter" wavelength lamps emit more energy than the standard 254nm lamps producing hydroxyl free radicals (OH) which in turn oxidizes most organics into carbon dioxide (CO₂) and water (H₂O).

These systems are specifically designed for the treatment of ultrapure waters such as those found in the production of semiconductors and other processes requiring water with extremely low levels of total organic carbon. All Sterilight TOC systems produce UV dosages in excess of 120 mJ/cm² at the end of lamp life.

It should be noted that a suitably designed UV system can lead to extremely low levels of residual TOC in the water supply. Additionally, both TOC reduction and microbial reduction occur with the same 185nm UV lamp. Since carbon dioxide is a natural byproduct of this process, a certain drop in the waters resistivity will occur after the UV. This is caused by an "ionizing charge" some organic elements hold after receiving UV energy. Using a final DI step will restore the waters resistivity and will further reduce the level of these remaining organic elements.

In applications where higher or lower UV dosages are required to achieve varying levels of TOC reduction, adjusting the rated flow of the unit can easily achieve these desired results. Please consult the factory for further technical assistance.

- various flow rates (10 - 200 gpm)
- Elapsed Time Meter measures the running time of the lamps
- High Panel Temperature Alarm gives an audible and visual alarm to indicate if the temperature inside the control panel rises above a preset maximum
- High Chamber Temperature Alarm gives an audible and visual alarm to indicate if the temperature inside the reactor chamber rises above a preset maximum
- 185nm hard glass, low pressure mercury vapour lamps with high isolation pin design
- polished 316 L stainless steel reactor chambers
- 150 lb. raised face flange connections with sample ports
- drain port for reactor chamber flushing
- separate Nema 4X rated and modified control panel for installation flexibility
- individual lamp-on indicators and audible ballasts
- new "intelligent" electronic ballasts with internal damage limiting circuitry
- on/off power switch (separately fused)
- viewing port for operational monitoring
- output plug for optional remote alarm (S-ROM/SUV)
- dry contact output connector (NO & NC) for solenoid valve, horn, etc.
- open end quartz sleeves and aluminum gland nuts for optimum operating temperature and sealing efficiency
- UV dose in excess of 120 mJ/cm² at end of lamp life
- seven year warranty on reactor chamber for unparalleled protection



ensuring the safety of your water

SPECIFICATIONS TOC

	STOC-4S	STOC-6S	STOC-8S	STOC-8L	STOC-16L/2	STOC-24L/2	STOC-32L/2
Flow Rate	37.9 lpm (10 gpm) (2.3 m ³ /hr.)	60.6 lpm (16 gpm) (3.6 m ³ /hr.)	94.6 lpm (25 gpm) (5.7 m ³ /hr.)	208.2 lpm (55 gpm) (12.5 m ³ /hr.)	378.5 lpm (100 gpm) (22.7 m ³ /hr.)	567.8 lpm (150 gpm) (34.1 m ³ /hr.)	757 lpm (200 gpm) (45.4 m ³ /hr.)
Dimensions	Length	97 cm (38")	97 cm (38")	97 cm (38")	173 cm (68")	173 cm (68")	173 cm (68")
	Width	20 cm (8")	25 cm (10")	25 cm (10")	25 cm (10")	46 cm (18")	51 cm (20")
	Height	28 cm (11")	33 cm (13")	33 cm (13")	42 cm (16 1/2")	53 cm (21")	75 cm (29.5")
	Cell Diameter	15 cm (6")	20 cm (8")	20 cm (8")	20 cm (8")	30.5 cm (12")	30.5 cm (12")
	Control Panel	43x43x15cm (17"x17"x6")	43x43x15cm (17"x17"x6")	43x43x15cm (17"x17"x6")	43x43x15cm (17"x17"x6")	43x43x18 cm (17" x 17" x 7")	61x51x25 cm (24" x 20" x 10")
Shipping Weight	36.3 kg (80 lbs.)	55.8 kg (123 lbs.)	56.2kg (124 lbs.)	call factory	call factory	call factory	call factory
Electrical	Volts	100-130V. 50-60Hz. ¹	100-130V. 50-60Hz. ¹	100-130V. 50-60Hz. ¹	100-130V. 50-60Hz. ¹	200-250V. 50-60Hz.	200-250V. 50-60Hz.
	Power Consumption	195 W	285 W	375 W	685 W	1,370 W	2,055 W
	Lamp Watts	156 W	234 W	312 W	520 W	1,040 W	1,560 W
	Maximum Operating Pressure	8.62 bar (125 psi)	8.62 bar (125 psi)	8.62 bar (125 psi)	8.62 bar (125 psi)	8.62 bar (125 psi)	8.62 bar (125 psi)
Ambient Temperature	2 - 40°C (36 - 104°F)	2 - 40°C (36 - 104°F)	2 - 40°C (36 - 104°F)	2 - 40°C (36 - 104°F)	2 - 40°C (36 - 104°F)	2 - 40°C (36 - 104°F)	2 - 40°C (36 - 104°F)
Number of Lamps/Sleeves	4	6	8	8	16	24	32
Inlet/Outlet Port Size	1" 150lb. FLANGE	1" 150lb. FLANGE	1" 150lb. FLANGE	2" 150lb. FLANGE	2 1/2" 150lb. FLANGE	2 1/2" 150lb. FLANGE	3" 150lb. FLANGE
Sample Ports	1/8"	1/8"	1/8"	1/4"	1/4"	1/4"	1/4"
Visual "Power On"	YES	YES	YES	YES	YES	YES	YES
Audible Lamp Failure	YES	YES	YES	YES	YES	YES	YES
Remote Alarm Output	YES	YES	YES	YES	YES	YES	YES
Dry Contacts (NO and NC)	YES	YES	YES	YES	YES	YES	YES
Drain Plug	3/8"	1/2"	1/2"	3/4"	1"	1"	1"
Hour Meter	YES	YES	YES	YES	YES	YES	YES
Panel temperature Monitor	YES	YES	YES	YES	YES	YES	YES
Chamber Temperature Monitor	YES	YES	YES	YES	YES	YES	YES
Reactor Chamber Material	316L S.S	316L S.S	316L S.S	316L S.S	316L S.S	316L S.S	316L S.S
Control Panel	304 S.S	304 S.S	304 S.S	304 S.S	304 S.S	304 S.S	304 S.S
Lamp Connection Cable Length	3m (10')	3m (10')	3m (10')	3m (10')	3m (10')	3m (10')	3m (10')

1. 200-250V/50-60Hz available on request

Replacement Parts

S36ROL - 185nm lamp for STOC-4S, STOC-6S, STOC-8S

S64ROL - 185nm lamp for STOC-8L, STOC-16L/2, STOC-24L/2, STOC-32L/2

QS-012 - quartz sleeve for STOC-4S, STOC-6S, STOC-8S

QS-064 - quartz sleeve for STOC-8L, STOC-16L/2, STOC-24L/2, STOC-32L/2

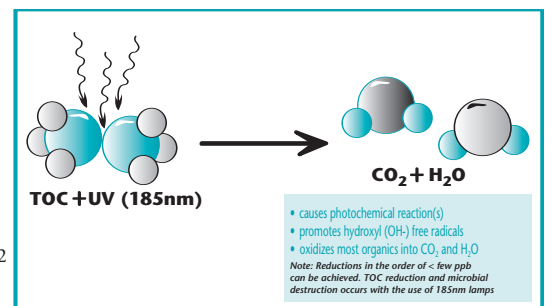
OR-212 - o-ring for STOC-4S, STOC-6S, STOC-8S

OR-COM - o-ring for STOC-8L, STOC-16L/2, STOC-24L/2, STOC-32L/2

BA-E36122 - 100-250V/50-60Hz. audible electronic ballast for STOC-4S - STOC-8S (both voltages)

BA-E6412 - 100-130V/50-60Hz. audible electronic ballast for STOC-8L

BA-E6422 - 200-250V/50-60Hz. audible electronic ballast for STOC-8L/2, STOC-16L/2, STOC-24L/2, STOC-32L/2



Warranty The Sterilight TOC Reduction systems carry a three year warranty on the stainless steel reactor chamber, a one year warranty on UV lamps and quartz sleeves, and a five year pro rated warranty on all other components.

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