

ECOFLO II UNITS

The ECOFLO II is the latest, state-of-the-art UV treatment system. Our objective for the product was simple – to be the best on the market, no compromise. The ECOFLO II offers the flexibility of a horizontal or vertical installation application

Utilizing our proven medium pressure lamp technology, the ECOFLO II type UV systems offer a high quality 'high specifications' product at a very competitive price. The powerful two lamp units are designed to provide protection and extended life from that of single lamp systems. Suitable for all pools and whirlpools with flows from 560 – 7000 gpm and flange sizes from 6" – 14'.

Treatment Chamber

The new ECOFLO II UV treatment chambers are designed for installation into the piping after the filters and heaters, but before any chemical dosing. Please refer to the ECOFLO II Units Technical Specifications document for dimensions and clearance requirements.

The UV chamber is manufactured from polished 316L stainless steel, with ANSI 150 RF flanges for easy installation. Temperature probes, UV monitor probes, and automatic quartz wipers are included.

A pressure rating for the unit is 150 psi, and pressure drop through the chamber is minimal.



The treatment chamber has been designed for the simplest installation into any pipe work system. They can be mounted vertically or horizontally. The

Control System

The control system is located in a NEMA 12 (IP54) rated cabinet.

As a standard, it is supplied with a 15' cables for connection to the treatment chamber.

The power supply (PSU) and control cabinet is powered with the latest SPECTRA microprocessor control unit. Three levels of operation (simple control, full parameter display, and operator configuration) allow easy, uncomplicated operation of the unit by an operator. Included is a sophisticated password protected engineering section for integrating the unit with other system devices.

Auto power restart, pump and valve interfaces, process interrupt and low power overnight operation are all features specifically designed for use on swimming pools and waterparks.

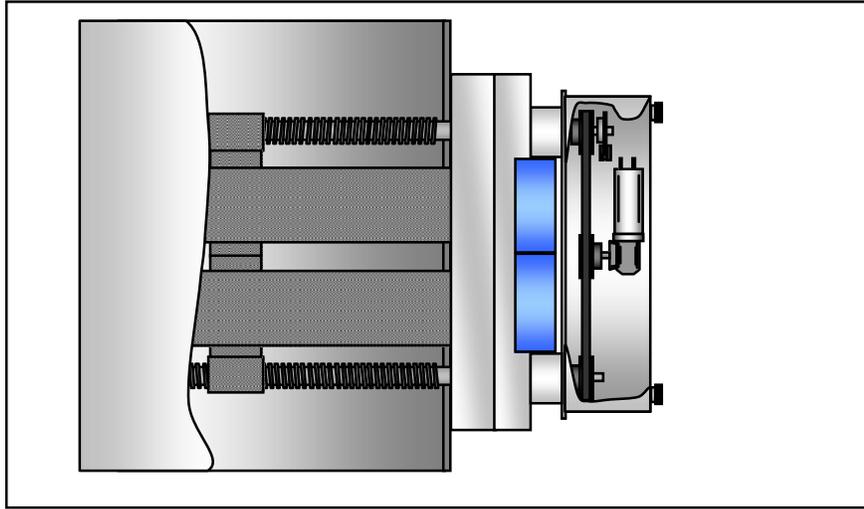


ECOFLO II CONTROL UNIT TECHNICAL SPECIFICATIONS



TYPE	SUPPLY	WEIGHT	DIMENSIONS		
			Width	Height	Depth
ECF – A-XX	480/460v 60hz	250lbs	24"	40"	12"
ECF – C-XX	480/460v 60hz	350lbs	32"	48"	12"
MATERIAL	Carbon Steel		IP Rating	NEMA12/IP54	
COMPLETE WITH					
RCD protection			Overtemperature Protection		
UV Monitoring			Automatic Wiper		
SPECTRA Microprocessor Control					
Simple START STOP and RESET buttons			Full fault screen display and help screens		
Dose, Flow, Current and Temperature display			Remote operation and control function		
Auto restart on power failure			Valve and Pump interface contacts		
Half power operation for low pool use periods			Separate password protected engineer functions		

ECOFLO II UNITS INTELLIGENT WIPER – THE RQWE RANGE



Designed for the ETS ECOFLO II units, the new wiper system includes many unique features, making it a state-of-the-art wiper.

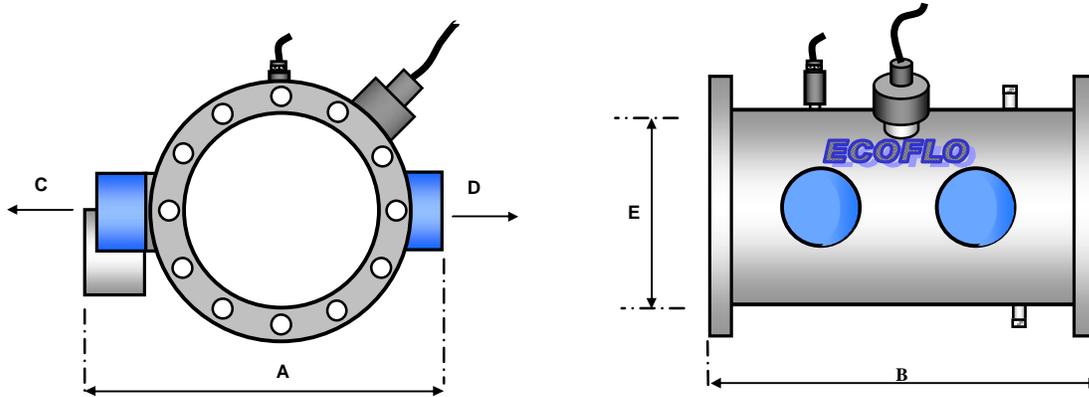
- Unique double seal and bearing housing for longer life, including food-grade-approved seal materials.
- A single wiper shaft
- Fully enclosed housing to maintain NEMA (IP) ratings.
- Wiper power supply @ 24 Volt DC for improved safety.
- Belt drive with all pulleys and shafts square-machined to prevent slippage and pin shearing.
- Direct shaft encoding for positional location; no need for external proximity switches and internally located magnets. No complex transfer gear boxes for limit switches.
- Wiper interval operator selectable, with an optional override switch.
- Ability to upgrade most systems with a retrofit wiper.

INTELLIGENT OPERATION

The new electronic control system features an automatic start-up/commissioning application. Operators do not need to position the wiper carriage. A very simple commissioning procedure records the wiper position at both ends of the chamber and establishes its travel run without the need to check stop positions and adjust limits accordingly. There is no risk of proxy faults causing wiper failure.

The system also fully recovers from power dips and interruptions, with a permanent memory of wiper location and travel direction stored in its processor. The wiper can also report directly into the new SPECTRA control panel for fault reporting and data logging.

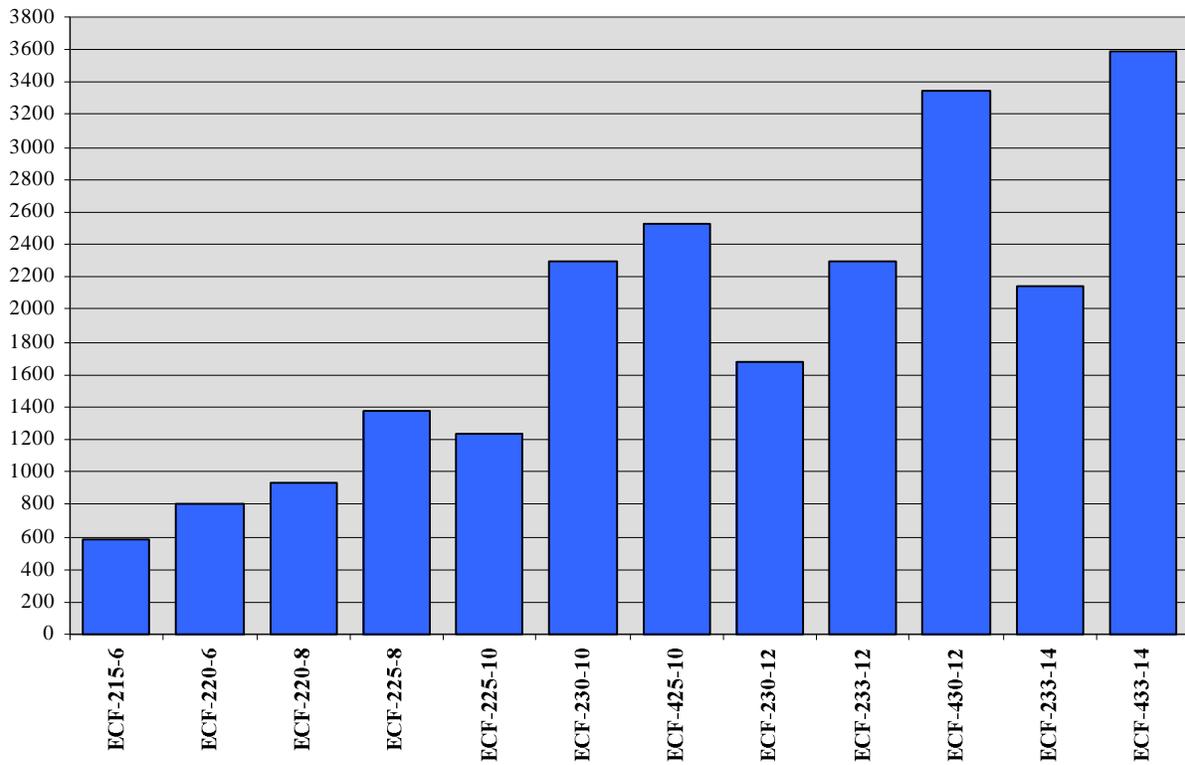
ECOFLO II TECHNICAL SPECIFICATIONS



TYPE	LAMPS & POWER	FLOW (US GPM)	WEIGHT (Dry/Wet)	DIMENSIONS & ACCESS					CONTROL PANEL TYPE
				A	B	C	D	E	
ECF-215-6	2 * 1.5kW	580	125/145lbs	19"	20"	16"	6"	6"	ECF – A-15
ECF-220-6	2 * 2.0kW	800	140/185lbs	21"	24"	16"	6"	6"	ECF – A-20
ECF-220-8	2 * 2.0kW	930	140/180lbs	21"	20"	16"	6"	8"	ECF – A-20
ECF-225-8	2 * 2.5kW	1,370	150/225lbs	23"	26"	16"	6"	8"	ECF – A-25
ECF-225-10	2 * 2.5kW	1,230	150/210lbs	23"	20"	18"	6"	10"	ECF – A-25
ECF-230-10	2 * 3.0kW	2,300	160/275lbs	24"	28"	18"	6"	10"	ECF – A-30
ECF-425-10	4 * 2.5kW	2,525	190/270lbs	23"	28"	18"	6"	10"	ECF – C-25
ECF-230-12	2 * 3.0kW	1,680	160/245lbs	24"	20"	20"	6"	12"	ECF – A-30
ECF-233-12	2 * 3.0kW	2,300	170/320lbs	26"	28"	22"	6"	12"	ECF – A-33
ECF-430-12	4 * 3.0kW	3,350	200/315lbs	24"	28"	20"	6"	12"	ECF – C-30
ECF-233-14	2 * 3.0kW	2,150	170/320lbs	26"	24"	22"	6"	14"	ECF – A-33
ECF-433-14	4 * 3.0kW	3,590	220/375lbs	26"	28"	22"	6"	14"	ECF – C-33
MATERIAL	316 Stainless steel		FLANGE TYPE	ANSI 150 RF					
PRESSURE DROP	Less than 0.6 PSI		DRAIN & VENT	3/4" NPT & 1/4" NPT					
PRESSURE RATING	150PSI		STRAINER	Supplied loose					

Ecoflo II Sizing Chart

Pipe	Model	Lamps	Total KW	Flow (GPM)
6"	ECF-215-6	2*1.5kW	3	580
	ECF-220-6	2*2.0kW	4	800
8"	ECF-220-8	2*2.0kW	4	930
	ECF-225-8	2*2.5kW	5	1370
10"	ECF-225-10	2*2.5 kW	5	1230
	ECF-230-10	2*3.0kW	6	2300
	ECF-425-10	4*2.5kW	10	2525
12"	ECF-230-12	2*3.0kW	6	1680
	ECF-233-12	2*3.0kW	6	2300
	ECF-430-12	4*3.0kW	12	3350
14"	ECF-233-14	2*3.0kW	6	2150
	ECF-433-14	4*3.0kW	13	3590



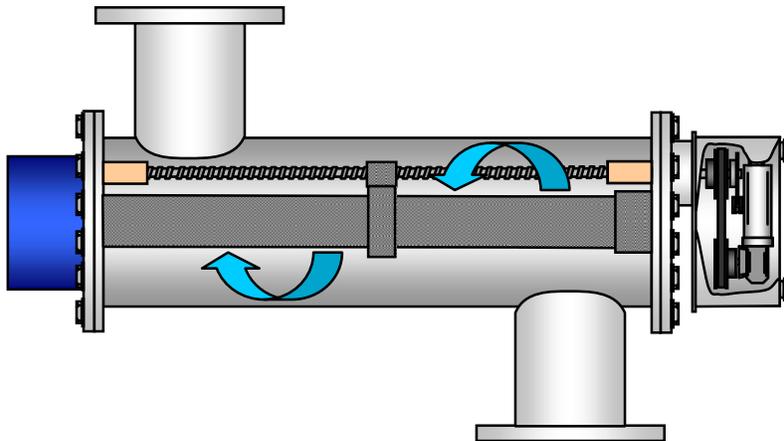
THE ECOFLO II UV WATER TREATMENT UNIT

Background

atg UV/ETS has been manufacturing UV water treatment products for a quarter century. UV treatment works by exposing water borne bacteria to intense UV light which alters the DNA of the bacteria, preventing replication and thus effectively killing the bacteria. With no chemical additives and very efficient disinfection with short contact times it has many diverse applications including drinking water, bottled drinks, pharmaceutical plants, aquaculture and many others. When applied to swimming pools a more significant benefit is the additional breakdown of combined chlorine - significantly improving the water quality for pool users

Traditional Design

The traditional configuration for a UV system is shown below.



Water enters the chamber, travels around a lamp or lamps mounted axially along the centre and then exits the chamber. The flow is assumed to swirl evenly through the chamber at the same speed, allowing all the water to receive the proper contact time.

Pressure drops are not excessive, in the region of 1.0/1.2 psi. The chamber shown above is more often supplied with the inlets and outlets mounted on the top.