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General Use Disinfection
NSF/ANSI 55 Class "A" Certified Disinfection
Integrated Mini-Rack Systems

innovative ultraviolet
water disinfection solutions



UV

Dynamics

UVDynamics products are designed and manufactured in Canada. Our products have been designed so that they are easy to install and service. Every component of a UVDynamics disinfection system can be easily replaced onsite, without tools. There is never a need for extensive and time consuming disassembly to replace any system component, resulting in more predictable repair times and no unwelcome surprises for your customers.

Every UVDynamics power source incorporates both visual and audio lamp failure alarms, as well as an annual lamp change reminder timer. This feature ensures continued disinfection performance, while also ensuring regular replacement lamp sales. All monitored systems are shipped with our patented UV sensor. With its leak resistant one piece primary PTFE body and replaceable secondary window, the UVDynamics sensor is robust and easy to service.

UVDynamics designs and manufactures both the disinfection chambers and the power sources in a single facility in Canada. Our vertically integrated production processes enable us to offer well designed, high quality products at a competitive price. Our products have been performing in the field for over 16 years and are proven to be highly reliable.

UVDynamics offers a full range of UV disinfection products:

General Use Disinfection
NSF/ANSI Class "A" Certified Disinfection
Mini-Rack Systems



NEW NSF/ANSI 55 Class "A" series

Features & Benefits:

- Available in six flow rates ranging from 3pm – 40gpm
- Proprietary Turbo HDTM enables lamp power to be increased to allow operation at lower UVT% levels – no flow meter or dose calculation necessary
- Available with true dose (mJ) or percent reading UV intensity sensors
- Patented UV sensor design with removeable secondary window for easy servicing
- Simplified system design: no need to consult charts or tables, just choose your flow rate
- Mounting versatility with field adjustable right or left outlet port
- Bottom mounted inlet with test tube style quartz sleeve simplifies servicing – no special tools required to remove the quartz sleeve
- Dedicated purge port enables manual or optional automatic chamber purge during alarm conditions
- Flow based lamp dimming with redundant temperature based flow detection
- Low power consumption in standby mode saves energy, lowers chamber temperature, extends lamp life, reduces fouling, and expands service intervals
- Adjustable alarm threshold to enable higher dose alarm set point



With flow rates ranging from 6 to 50 gpm (23 to 189L/min) at 30mJ/cm², the UVDynamics general use disinfection series is suitable for use in homes and cottages as well as small commercial and industrial applications.

The microprocessor controlled UV power source is designed for long life and includes both visual and audio lamp failure alarms, as well as an annual lamp change timer. The 3½" reactor chamber achieves notable energy efficiency when compared with a traditional 2½" reactor design.

Optional isolated low voltage solenoid drive outputs and UV monitors allow for customization to specific installation requirements.

PRODUCT SPECIFICATIONS - non-monitored systems

model	30mJ/cm ² flow rate ♦	40mJ/cm ² flow rate	port size	shipping weight	chamber size	solenoid output
UVD180	6gpm (23L/min)	4.5gpm (17L/min)	¾" MNPT	6lbs (2.7kg)	16"x4"x6"	no
UVD240	8gpm (30L/min)	6gpm (23L/min)	¾" MNPT	7lbs (3kg)	18"x4"x6"	no
UVD245	8gpm (30L/min)	6gpm (23L/min)	¾" MNPT	7lbs (3kg)	16"x5"x6½"	no
UVD320	10gpm (37L/min)	8gpm (30L/min)	¾" MNPT	7lbs (3kg)	18"x4"x6"	yes
UVD320E	10gpm (37L/min)	8gpm (30L/min)	¾" MNPT	7lbs (3kg)	18"x4"x6"	no
UVD400	13gpm (50L/min)	10gpm (37L/min)	¾" MNPT	9lbs (4kg)	22"x4"x6"	yes
UVD400E	13gpm (50L/min)	10gpm (37L/min)	¾" MNPT	8lbs (3.5kg)	22"x4"x6"	no
UVD485	16gpm (60L/min)	12gpm (45L/min)	1" MNPT	9lbs (4kg)	24¼"x4"x6½"	yes
UVD485E	16gpm (60L/min)	12gpm (45L/min)	1" MNPT	9lbs (4kg)	24¼"x4"x6½"	no
UVD600	20gpm (75L/min)	15gpm (57L/min)	1" MNPT	13lbs (6kg)	37"x4"x6½"	yes
UVD800	26gpm (98L/min)	20gpm (75L/min)	1" MNPT	14lbs (6.5kg)	37"x4"x6½"	yes
UVD1000	33gpm (124L/min)	25gpm (94L/min)	1" MNPT	16lbs (7.5kg)	37"x5"x6½"	yes
UVD1200	40gpm (151L/min)	30gpm (113L/min)	1" MNPT	18lbs (8kg)	50½"x4"x6½"	yes
UVD1500	50gpm (189L/min)	37gpm (140L/min)	1" MNPT	20lbs (9kg)	50½"x5"x6½"	yes

♦ flow rates assume 95% UVT; for alternate UVT levels and doses please consult Appendix A: Performance Curves

- Annual lamp change timer
- Lamp life remaining feature
- 9000 hr long life coated UV lamp
- No tools required for regular servicing
- Easy service lamp connector
- Microprocessor controlled UV power source with audible & visible lamp failure alarms
- Passivated 304 stainless steel reactor manufactured from A249 pressure rated tube
- QR codes enable access to quick reference maintenance guide via smart phones.



- Advanced UV Detection System designed to minimize nuisance alarms
- Patented UV sensor with leak resistant one piece PTFE primary probe body and easy to clean secondary window
- Solenoid override feature allows water flow during alarm conditions for 24hrs
- Two digit UV level display indicates UV level as well as lamp life remaining and any current codes

PRODUCT SPECIFICATIONS - monitored systems

model	40mJ/cm ² flow rate ♦	port size	shipping weight	chamber size	solenoid output
UVD320/S	8gpm (30L/min)	¾" MNPT	9lbs (4kg)	18"x4"x6"	yes
UVD400/S	10gpm (37L/min)	¾" MNPT	11lbs (5kg)	22"x4"x6"	yes
UVD485/S	12gpm (45L/min)	1" MNPT	13lbs (6kg)	24¼"x4"x6½"	yes
UVD600/S	15gpm (57L/min)	1" MNPT	15lbs (7kg)	37"x4"x6½"	yes
UVD800/S	20gpm (75L/min)	1" MNPT	16lbs (7.5kg)	37"x4"x6½"	yes
UVD1000/S	25gpm (94L/min)	1" MNPT	18lbs (8.3kg)	37"x5"x6½"	yes
UVD1200/S	30gpm (113L/min)	1" MNPT	20lbs (9kg)	50½"x4"x6½"	yes
UVD1500/S	37gpm (140L/min)	1" MNPT	22lbs (10kg)	50½"x5"x6½"	yes

♦ flow rates assume 95% UVT



Systems⁺certified by IAPMO R&T against:
NSF/ANSI 61 (materials safety)
NSF/ANSI 372 (lead free compliance)
CSA B483.1

⁺see iapmo.org for model information



REPLACEMENT PARTS

models	lamp	sleeve	spring	O-ring kit
UVD180, 245	P/N 400434	P/N 400435	P/N 400111	P/N 400202
UVD240, 320, 320E, 320/S	P/N 400152	P/N 400151	P/N 400111	P/N 400202
UVD400, 400E, 400/S	P/N 400128	P/N 400129	P/N 400111	P/N 400202
UVD485, 485E, 485/S	P/N 400269	P/N 400273	P/N 400111	P/N 400202
UVD600, 600/S, 800, 800/S, 1000, 1000/S	P/N 400158	P/N 400157	P/N 400111	P/N 400205
UVD1200, 1200/S, 1500, 1500/S	P/N 400271	P/N 400275	P/N 400111	P/N 400205

NSF/ANSI Class "A" certified disinfection



With flow rates ranging from 8 to 20 gpm (30 to 75L/min), the UVDynamics NSF 55 certified disinfection series is suitable for use in homes and cottages as well as small commercial and industrial applications.

The proprietary extended cold spot lamp design combined with the active temperature controlled cold spot cooling fan results in improved lamp output during stagnant hot water conditions.

The micro-processor controlled UV power source has both audio and visual alarm indicators to validate lamp operation and an integral annual lamp change reminder timer. The UV display indicates actual dose in mj/cm^2 at rated flow.

The patented true dose sensor design features a leak resistant one piece PTFE primary sensor probe body, and a replaceable secondary quartz window that can be cleaned or changed easily, immediately solving alarm conditions due to fouling.

PRODUCT SPECIFICATIONS - NSF certified systems

model	40 mJ/cm^2 flow rate♦	inlet port	outlet port	shipping weight	chamber size	watts lamp/total
UVD8.40C	8gpm (30L/min)	3/4" FNPT	3/4" MNPT	11lbs (5kg)	24 1/4"x4"x6 1/2"	49/63 watts
UVD11.40C	11gpm (41L/min)	1" MNPT	3/4" MNPT	13lbs (6kg)	32 1/2"x4"x6 1/2"	64/81 watts
UVD14.40C	14gpm (53L/min)	1" MNPT	1" MNPT	15lbs (7kg)	39 3/4"x4"x6 1/2"	84/103 watts
UVD20.40C	20gpm (75L/min)	1" MNPT	1" MNPT	19lbs (8.6kg)	50 1/2"x4"x6 1/2"	112/136 watts

♦ flow rates listed may be up to 12% less due to flow regulator variability; minimum UVT of 80% required.

- Advanced UV Detection System designed to minimize nuisance alarms
- Patented UV sensor with leak resistant one piece PTFE primary probe body and easy to clean secondary window
- Solenoid override feature allows water flow during alarm conditions for 24hrs
- Passivated 304 stainless steel reactor manufactured from A249 pressure rated tube
- QR codes enable access to quick reference maintenance guide via smart phones
- 9000 hr long life coated UV lamp
- Lamp life remaining feature
- Isolated solenoid drive
- Dynamic flow regulator



patented UV sensor
with replaceable window
US patent #8,912,500

REPLACEMENT PARTS

models	lamp	sleeve	spring	O-ring kit
UVD8.40C	P/N 400269	P/N 400273	P/N 400111	P/N 400202
UVD11.40C	P/N 400270	P/N 400274	P/N 400354	P/N 400205
UVD14.40C	P/N 400158	P/N 400323	P/N 400354	P/N 400205
UVD20.40C	P/N 400271	P/N 400275	P/N 400354	P/N 400205

UVDynamics Slimline Mini-Rack Systems incorporate the robust and reversible design of our standard mini-racks with smaller filter housings that provide cost and space savings. Slimline Mini-Rack Systems are ideal for smaller homes as well as providing a chlorine insertion point for easy plumbing disinfection.

- Available with 1 or 2 filter housings either 10" or 20"
- Reversible mounting bracket
- Audio/visual lamp timer included on UV system
- NSF 42 certified filter housings with double "o" rings
- Certified stainless steel interconnect
- 1/4" drain plug for winterization
- 3/4" porting



PRODUCT SPECIFICATIONS - single slimline mini-rack systems

model	UV flow rate ♦	sump size	dimensions	solenoid output
MR180-TP1S/100	6gpm (23L/min)	10"	13"x6"x19½"	no
MR180-TP1S/200	6gpm (23L/min)	20"	13"x6"x25"	no
MR240-TP1S/100	8gpm (30L/min)	10"	13"x6"x23"	no
MR240-TP1S/200	8gpm (30L/min)	20"	13"x6"x25"	no
MR245-TP1S/100	8gpm (30L/min)	10"	13"x6"x19½"	no
MR245-TP1S/200	8gpm (30L/min)	20"	13"x6"x25"	no
MR320-TP1S/100	10gpm (37L/min)	10"	13"x6"x23"	yes
MR320-TP1S/200	10gpm (37L/min)	20"	13"x6"x25"	yes
MR320E-TP1S/100	10gpm (37L/min)	10"	13"x6"x23"	no
MR320E-TP1S/200	10gpm (37L/min)	20"	13"x6"x25"	no
MR400-TP1S/200	13gpm (45L/min)	20"	13"x6"x27"	yes
MR400E-TP1S/200	13gpm (45L/min)	20"	13"x6"x27"	no

PRODUCT SPECIFICATIONS - double slimline mini-rack systems

model	UV flow rate ♦	sump size	dimensions	solenoid output
MR180-TP2S/110	6gpm (23L/min)	10"	19½"x6"x19½"	no
MR180-TP2S/220	6gpm (23L/min)	20"	19½"x6"x25"	no
MR240-TP2S/110	8gpm (30L/min)	10"	19½"x6"x23"	no
MR240-TP2S/220	8gpm (30L/min)	20"	19½"x6"x25"	no
MR245-TP2S/110	8gpm (30L/min)	10"	19½"x6"x19½"	no
MR245-TP2S/220	8gpm (30L/min)	20"	19½"x6"x25"	no
MR320-TP2S/110	10gpm (37L/min)	10"	19½"x6"x23"	yes
MR320-TP2S/220	10gpm (37L/min)	20"	19½"x6"x25"	yes
MR320E-TP2S/110	10gpm (37L/min)	10"	19½"x6"x23"	no
MR320E-TP2S/220	10gpm (37L/min)	20"	19½"x6"x25"	no



Systems[†] certified by IAPMO R&T against:
NSF/ANSI 61 (materials safety)
NSF/ANSI 372 (lead free compliance)
CSA B483.1

[†] see iapmo.org for model information

- ♦ flow rates are listed at 30mj/cm² and assume 95% UVT
maximum flow rate can be limited by filter cartridge selection

mini-rack systems

big blue style mini-rack systems



UVDynamics Mini-Rack Systems combine filtration and UV disinfection into one affordable and easy to install whole home drinking water system. Manufactured from rugged 10 gauge HR commercial grade steel and finished in a tough powder coat finish, the system will stay looking good as new for many years.

UVDynamics Mini-Rack Systems speed installation, are easy to service, and provide lasting value. Ideal for homes, cottages, and treating harvested rainwater.

PRODUCT SPECIFICATIONS - single big blue mini-rack systems				
model	UV flow rate ♦	sump size	dimensions	solenoid output
MR180-TP1/100	6gpm (23L/min)	10"	15"x7"x21½"	no
MR180-TP1/200	6gpm (23L/min)	20"	15"x7"x28½"	no
MR240-TP1/100	8gpm (30L/min)	10"	15"x7"x25"	no
MR240-TP1/200	8gpm (30L/min)	20"	15"x7"x28½"	no
MR245-TP1/100	8gpm (30L/min)	10"	15"x7"x21½"	no
MR245-TP1/200	8gpm (30L/min)	20"	15"x7"x28½"	no
MR320-TP1/100	10gpm (37L/min)	10"	15"x7"x25"	yes
MR320-TP1/200	10gpm (37L/min)	20"	15"x7"x28½"	yes
MR320E-TP1/100	10gpm (37L/min)	10"	15"x7"x25"	no
MR320E-TP1/200	10gpm (37L/min)	20"	15"x7"x28½"	no
MR400-TP1/100	13gpm (45L/min)	10"	15"x7"x29"	yes
MR400-TP1/200	13gpm (45L/min)	20"	15"x7"x29"	yes
MR400E-TP1/100	13gpm (45L/min)	10"	15"x7"x29"	no
MR400E-TP1/200	13gpm (45L/min)	20"	15"x7"x29"	no

- ♦ flow rates are listed at 30mj/cm² and assume 95% UVT
maximum flow rate can be limited by filter cartridge selection

- Available with 1 or 2 or 3 filter housings - either 10" or 20"
- reversible mounting bracket eases installation
- Audio/visual lamp timer included on UV system
- NSF 42 certified filter housings with double "o" rings
- Certified stainless steel interconnect
- ¼" drain plug for winterization
- ¾" porting
- Optional floor stand



MR240-TP1/100



MR240-TP1/200



Systems[†] certified by IAPMO R&T against:
NSF/ANSI 61 (materials safety)
NSF/ANSI 372 (lead free compliance)
CSA B483.1

[†] see iapmo.org for model information

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...innovative solutions

big blue style mini-rack systems



MR240-TP2/220



MR240-TP2/110



MR240-TP2/120

PRODUCT SPECIFICATIONS - double big blue mini-rack systems

model	UV flow rate ♦	sump size	dimensions	solenoid output
MR180-TP2/110	6gpm (23L/min)	10"	24"x7"x21½"	no
MR180-TP2/220	6gpm (23L/min)	20"	24"x7"x28½"	no
MR240-TP2/110	8gpm (30L/min)	10"	24"x7"x25"	no
MR240-TP2/220	8gpm (30L/min)	20"	24"x7"x28½"	no
MR245-TP2/110	8gpm (30L/min)	10"	24"x7"x21½"	no
MR245-TP2/220	8gpm (30L/min)	20"	24"x7"x28½"	no
MR320-TP2/110	10gpm (37L/min)	10"	24"x7"x25"	yes
MR320-TP2/220	10gpm (37L/min)	20"	24"x7"x28½"	yes
MR320E-TP2/110	10gpm (37L/min)	10"	24"x7"x25"	no
MR320E-TP2/220	10gpm (37L/min)	20"	24"x7"x28½"	no
MR400-TP2/110	13gpm (45L/min)	10"	24"x7"x29"	yes
MR400-TP2/220	13gpm (45L/min)	20"	24"x7"x29"	yes
MR400E-TP2/110	13gpm (45L/min)	10"	24"x7"x29"	no
MR400E-TP2/220	13gpm (45L/min)	20"	24"x7"x29"	no

- ♦ flow rates are listed at 30mj/cm² and assume 95% UVT
maximum flow rate can be limited by filter cartridge selection

even more mini-rack options






- triple sump systems
- monitored UV systems
- larger flow rates up to 20gpm at 30mj/cm²

Mini-Rack model # formula: MRXXX-TPY/ZZZ where:

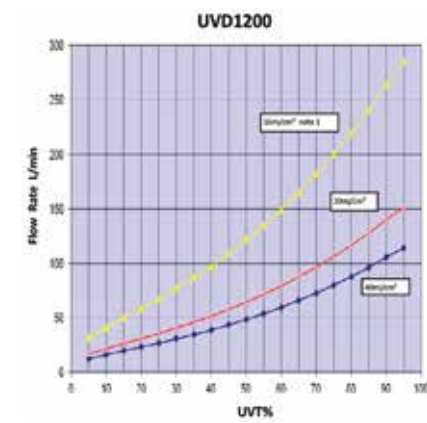
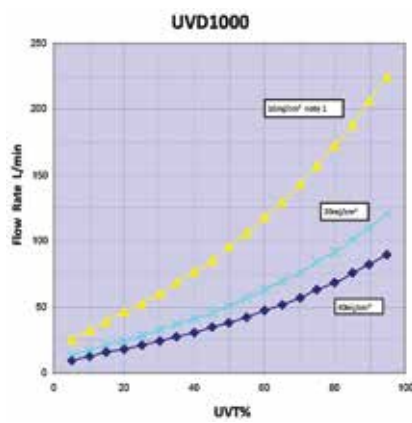
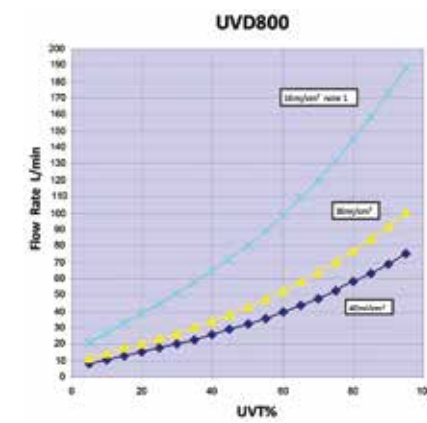
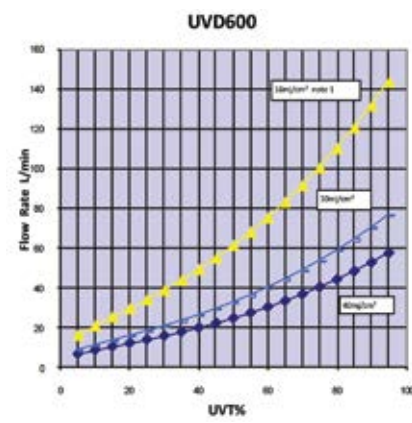
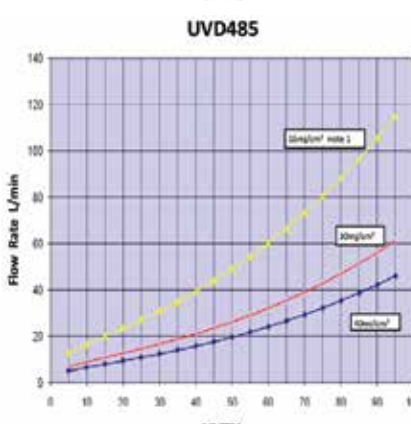
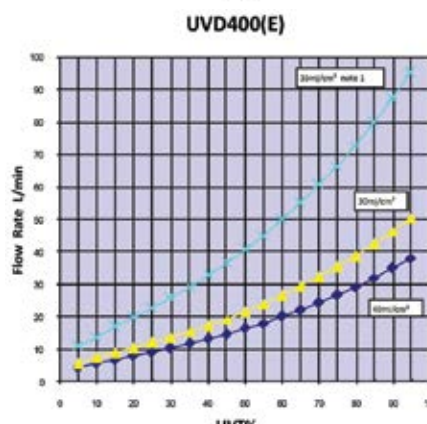
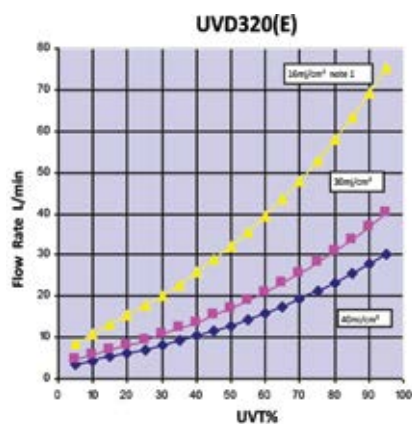
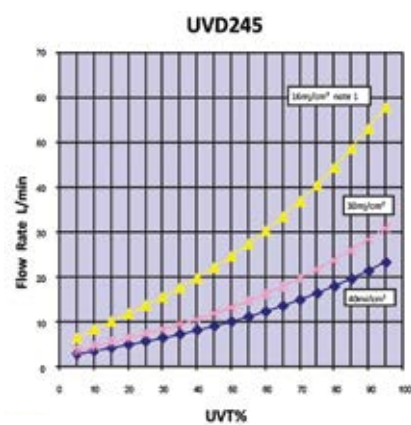
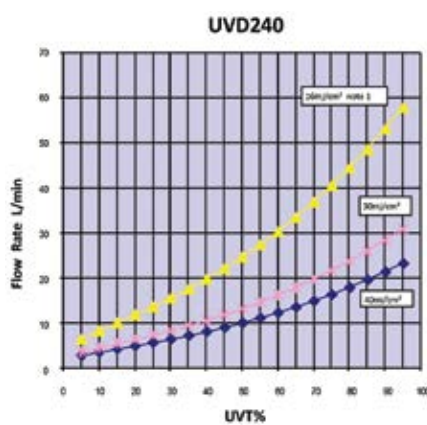
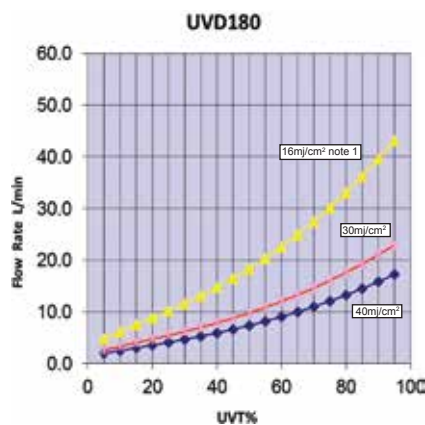
XXX is the UV disinfection unit, Y is the number of sump mounting footprints, ZZZ is the size of filter sumps (1 = 10", 2 = 20", 0 = no sump)

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mini-rack systems ∞

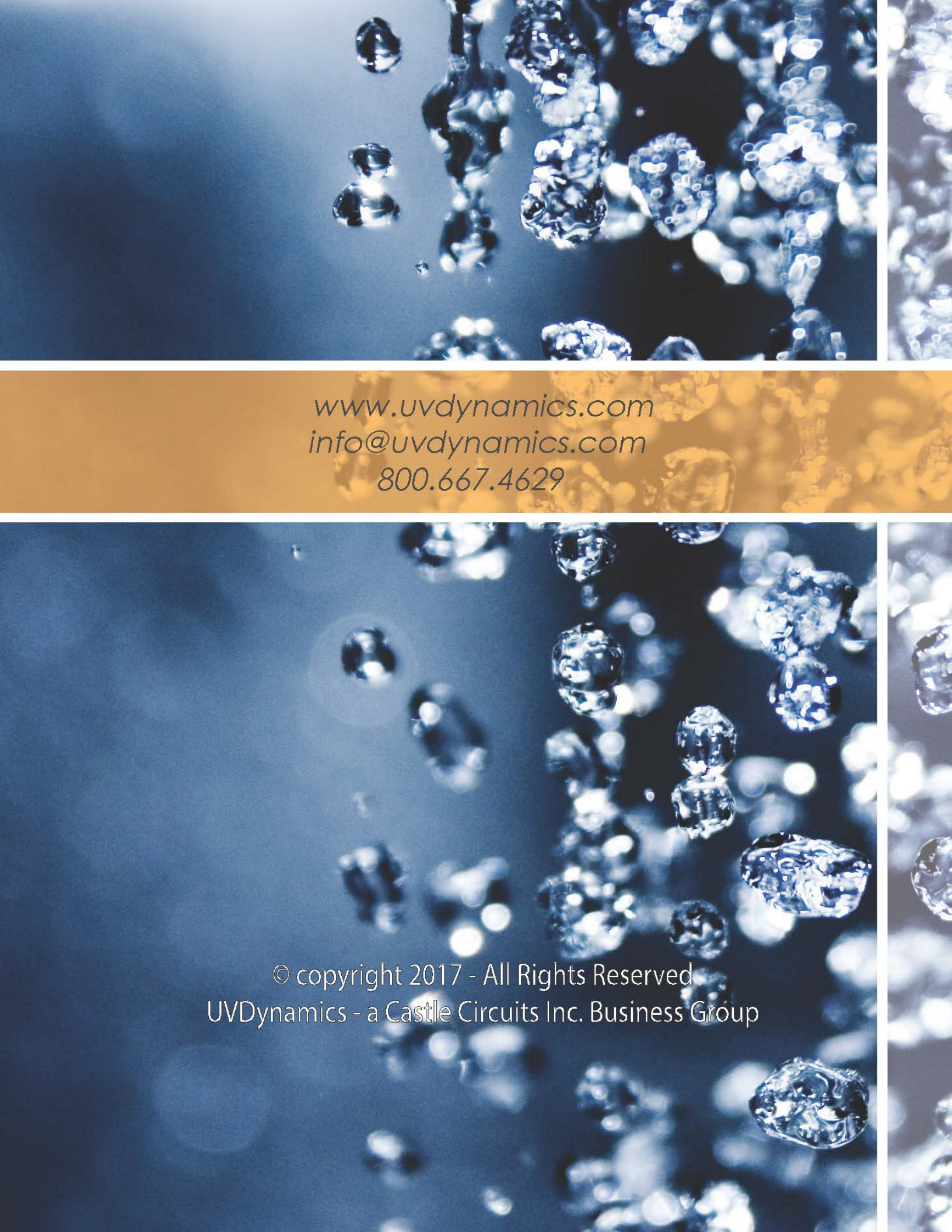
item	part number	description	
	P/N 400455	solenoid valve kit includes valve, remote solenoid interface, and power cord.	
	P/N 400454	1" solenoid valve	
	P/N 400429	Remote solenoid interface provides stable power supply to solenoid as well as an override options during alarm conditions.	
	P/N 400294	Economical ultraviolet transmission meter useful for designing systems as well as sales demonstrations and monitored system maintenance.	
	P/N 400481	3/4"	Both 3/4" and 1" stainless steel regulator bodies fit available inserts in a variety of flow rates.
	P/N 400482	1"	
Flow regulator inserts are available in the following flow rates: 5gpm (20L/min), 6.5gpm (25L/min), 8gpm (30L/min), 10gpm (38L/min) 12gpm (45L/min), 13gpm (50L/min), 20gpm (76L/min), 25gpm (94L/min), 29gpm (110L/min)			

Our general use UV disinfection systems are rated assuming 95% UVT. These performance data charts can be used to determine the flow rate and UV dose a disinfection system is capable of at alternate UVT levels.



note 1 - 16mj/cm² dose is suitable for reducing non-pathogenic nuisance organisms only. Disinfection chamber hydraulic performance may limit maximum flow rate.





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