

SIZING YOUR BIOSHIELD™ UV SYSTEM

1. Establishing flow rate requirements in GPM is critical to selecting the correct UV system for your application.

2. Know your UVT and dose requirement. UVT is the measure of UV-C light transmittance (254nm) in water. Contaminates and waterborne agents suspended in water will absorb UV light, preventing transmittance. Pentair has selected 90% UVT as a realistic measure of light transmittance in swimming pool water. Other manufacturers may use a higher UVT% which can greatly overrate flow capacity.

Dose is a factor of UV light intensity and contact time. Pentair calculates two average dose levels for pool applications as follows:

UV Dose	Commercial Application
40 mJ/cm ²	Inactivation of Cryptosporidium and other chlorine tolerant pathogens
60 mJ/cm ²	Additional breakdown of chloramines for greatly improved air and water quality.

3. Choose your BioShield UV system model. Select desired UV dose column below. Identify maximum flow rate that meets system flow rate requirement. Complete this step for model CLP4 or CLP6 and with provided vessel and power enclosure dimensions, choose the best model suited for the mechanical space. *Note: Small port size may restrict actual maximum flow rate.

Model ²	Lamps/Watts	UV-C Spectrum Output Watts	Max. Flow Rate at 90% UVT 40 mJ/cm ² (GPM)	Max. Flow Rate at 90% UVT 60 mJ/cm ² (GPM)	Port Size	Max. Flow for Port Size	Amps Max Load @ 120/230 VAC	UV Vessel Dimensions ³ (A x B x C)	Power Enclosure Dimensions (H x W x D)	Max. PSI
CLP4										
CLP41A6-XN	1/130	40	49	33	2"	-	2.1/1.0	56" x Ø6" x 47"	16" x 14" x 8.4"	150
CLP42A6-XN	2/130	80	90	60	2"	*64	3.9/2.0	56" x Ø6" x 47"	16" x 14" x 8.4"	150
					3"	-				
CLP43A6-XN	3/130	120	125	83	3"	-	5.8/2.9	56" x Ø6" x 47"	16" x 14" x 8.4"	150
CLP43A8-XN	3/130	120	167	111	3"	*144	5.8/2.9	62" x Ø8" x 51"	16" x 14" x 8.4"	150
					4"	-				
CLP44A8-XN	4/130	160	227	151	3"	*144	7.5/3.7	62" x Ø8" x 51"	20.2" x 16.3" x 8.4"	150
					4"	-				
CLP45A8-XN	5/130	200	272	181	4"	*251	9.4/4.7	62" x Ø8" x 51"	24.6" x 20.2" x 10.6"	150
					6"	-				
CLP46A10-XN	6/130	240	365	244	4"	*251	11.2/5.6	64" x Ø10" x 51"	24.6" x 20.2" x 10.6"	120
					6"	-				
CLP47A10-XN	7/130	280	430	287	6"	-	13.3/6.5	64" x Ø10" x 51"	24.6" x 20.2" x 10.6"	120
CLP47A12-XN	7/130	280	492	328	6"	-	13.3/6.5	69" x Ø12" x 51"	24.6" x 20.2" x 10.6"	90
CLP48A12-XN	8/130	320	555	369	6"	-	15.0/7.5	69" x Ø12" x 51"	30.5" x 24.1" x 12.6"	90
CLP6										
CLP61A6-XN	1/320	98	113	75	2"	*64	3.2/1.6	85" x Ø6" x 76"	24.6" x 20.2" x 10.6"	150
					3"	-				
CLP62A6-XN	2/320	196	200	133	3"	*144	6.0/3.0	85" x Ø6" x 76"	24.6" x 20.2" x 10.6"	150
					4"	-				
CLP63A6-XN	3/320	294	279	186	4"	*251	9.0/4.5	85" x Ø6" x 76"	24.6" x 20.2" x 10.6"	150
					6"	-				
CLP63A8-XN	3/320	294	372	247	4"	*251	9.0/4.5	86" x Ø8" x 76"	24.6" x 20.2" x 10.6"	150
					6"	-				
CLP64A8-XN	4/320	392	505	336	6"	-	12.0/6.0	86" x Ø8" x 76"	24.6" x 20.2" x 10.6"	150
CLP65A8-XN	5/320	490	606	403	6"	*569	15.0/7.5	86" x Ø8" x 76"	24.6" x 20.2" x 10.6"	150
					8"	-				
CLP66A10-XN	6/320	588	814	542	6"	*569	18.0/9.0	88" x Ø10" x 76"	30.5" x 24.1" x 12.6"	120
					8"	-				
CLP67A10-XN	7/320	686	953	638	6"	*569	11.0 ¹	88" x Ø10" x 76"	30.5" x 24.1" x 12.6"	120
					8"	-				
CLP67A12-XN	7/320	686	1095	729	8"	*996	11.0 ¹	90" x Ø12" x 76"	30.5" x 24.1" x 12.6"	90
					10"	-				
CLP68A12-XN	8/320	784	1235	823	8"	*996	13.0 ¹	90" x Ø12" x 76"	30.5" x 24.1" x 12.6"	90
					10"	-				
CLP69A14-XN	9/320	882	1462	974	8"	*996	14.0 ¹	92" x Ø14" x 76"	30.5" x 24.1" x 12.6"	50
					10"	-				
CLP610A16-XN	10/320	980	1690	1127	10"	*1567	16.0 ¹	94" x Ø16" x 76"	30.5" x 24.1" x 12.6"	50
					12"	-				
CLP611A18-XN	11/320	1,078	1963	1308	10"	*1567	17.0 ¹	96" x Ø18" x 76"	40.4" x 32.5" x 12.6"	50
					12"	-				
CLP612A20-XN	12/320	1,176	2335	1555	10"	*1567	19.0 ¹	98" x Ø20" x 76"	40.4" x 32.5" x 12.6"	50
					12"	*2218				
					14"	-				

¹ 230VAC Only

² When ordering: Replace 'X' in part number with requested flange size; eg. '2' for two-inch flange.

³ Vessel dimension "C" represents clearance requirement for glassware maintenance.