



U.S. Coast Guard Type Approved Ballast Water Management System Limitations

USCG Type Approval	Name of BWMS	Approval Date	Technology	Flow Rate (m ³ /hr)	US Flag Hazardous	Hold Time (Hours)	Temperature (°C)	Electrolyte Feed Temperature (°C)	Electrolyte Feed Salinity (PSU)	Salinity (PSU)	Filter Inlet Pressure (Bar)	TRO (mg/L)	UV Intensity (W/m ²)
Alfa Laval	PureBallst 3 BWMS	23/12/2016	Filtration + UV	85 - 3000	Yes	72	NA	NA	NA	NA	NA	NA	Varies ¹
Bio-UV Group	Bio-Sea B BWMS	20/6/2018	Filtration + UV	55 - 1,400	No	24 (Marine water); 72 (Brackish water); N/A (Fresh water)	(-) 2 - 35	NA	NA	NA	>1	NA	>690
DeNora	Balpure BWMS	19/12/2018	Filtration + Electrolysis	400 - 8,570	Yes	>24	0 - 50 (Fresh water); (-)2 - 50 (Marine & Brackish Water)	15 - 50	18 - 36	0 - 36	>1.5 (During Backwash Only)	NA	NA
Ecochlor	Ecochlor BWTS	10/8/2017	Filtration + Chemical Injection (Active Dose 4.25 mg/L)	500 - 16,200	Yes	24 (meet 2 mg/L ClO ₂ MADC)	NA	NA	NA	NA	>0.4	NA	NA
Envirocleanse	inTank BWTS	1/2/2019	Electrolysis + Chemical Injection	Up to 200,000	Yes, with dosing modules "X". All other components (including other dosing modules) must remain outside hazardous zone.	24 minimum (may increase depending on TRO average set point)	NA	0 - 35	>22 mS/cm (minimum salinity varies with temp.)	NA	NA	2 - 5 mg/L (varies with hold time)	NA
Erma First	Erma First FIT BWMS	18/10/2017	Filtration + Electrochlorination	90 - 3,740	Yes	NA	NA	> -2	0.9	NA	1.6	6	NA
Headway	OceanGuard BWMS	6/11/2018	Filtration + Electrolysis	65 - 5,200	No	24 (Brackish & Marine Water); 120 (Fresh Water)	0-40	NA	>0.85	NA	>1.5	2	NA
Hyundai	HiBallast BWMS	26/10/2018	Filtration + Electrolysis	75 - 10,000	Yes	72 (Brackish & Marine Water); 48 (Fresh Water)	NA	>4	>15	NA	>1.5	8	NA
JFE	JFE BallastAce BWMS	13/11/2018	Filtration + Chemical Injection (Max. Active Dose 20 mg/L)	500 - 3,500	No	24	NA	NA	NA	NA	>1.5	NA	NA
OceanSaver	OceanSaver MKII BWMS	23/12/2016	Filtration + Electrodialysis	200 - 7,200	No	NA	NA	>17	>20	NA	1.6	1.7	NA
Optamarin	Optamarin OBS/OBS EX	2/12/2016	Filtration + UV	167 - 3,000	Yes	>72	0 - 55	NA	NA	NA	>1.5	NA	>600
Panasia	GloEn-Patrol BWMS	14/12/2018	Filtration + UV	50 - 6,000	Yes	>48	(-)2 - 40	NA	NA	NA	>1.0	NA	>900 (100% TRC); >600 (50% TRC)
Samsung	Purimar BWMS	15/6/2017	Filtration + Electrochlorination	250 - 10,000	No	24 (fresh water only)	Ambient 0 - 55	4 to 40	>10	NA	>.5	2.5 - 3	NA
Sunrui	BalClor BWMS	6/6/2017	Filtration + Electrolysis	50 - 8,500	No	NA	NA	>5	>15	NA	>1.6	7.5	NA
Techcross	Electro-Clean BWMS	5/6/2018	Electrochlorination	150 - 12,000	Yes w/EX prefix	120	Ambient 0-45	NA	1.5	NA	NA	9	NA
Wartsilla	Aquarius EC/ECX BWMS	30/8/2018	Filtration + Electrolysis	250 - 4,000	No	24	(-)2 - 45	>15	>15	NA	1.6	10	NA

Contact the Ecochlor® BWMS sales team with any questions at +1 978 298 1463, the Cyprus office at +357 96 689945 or send an email to sales@ecochlor.com.