

# CompactClean, OptIMO, IECEx, Loose Components

The CompactClean OptIMO BWMS has been designed for vessels trading globally or primarily in IMO regulated waters. The CompactClean OptIMO BWMS provides optimized performance in IMO waters combined with reduced flowrate in US territories. If your vessel trades primarily outside of US waters in International Maritime Organization (IMO)-regulated waters, we can offer the CompactClean OptIMO system for ballast water management.

## Dual mode software: IMO and USCG mode

The CompactClean OptIMO system is designed and tested according to the MPN testing methods under IMO. It means that the CompactClean OptIMO BWMS deploys an optimized and energy saving UV reactor to treat the ballast water, based on the same proven and high-quality technology as the well-known DESMI CompactClean BWMS. This is proved by the CAPEX and OPEX savings.

Even though CompactClean OptIMO is optimized for full flow in IMO waters, it can still be used in USCG waters at approximately 75% of max flowrate. Thus, if the unit size handles 1000 m<sup>3</sup>/h of water in IMO waters, it will handle 750 m<sup>3</sup>/h of water in USCG waters. The dual-mode software takes care of the correct treatment scheme after the operator chooses the operation mode. The destination port will determine whether the system should operate in IMO or USCG mode.

CompactClean OptIMO can, like CompactClean, handle water with low UV transmissions rates of just 40% in US territory.

Furthermore, CompactClean OptIMO has been certified to treat ballast water with UV transmission at record-breaking 35% in IMO mode.



IECEx Approved

SAFETY ON BOARD ANY SHIP

- INCLUDING OIL AND CHEMICAL TANKERS

The CompactClean BWMS is available in an ATEX and IECEx certified version, making installation in hazardous zones on board oil, chemical or gas tankers possible. The EX certification notation is:



Ex II 2G Ex IIB T4 Gb

And based on the following components:

- Uv sensor: Ex ia
- Temperature: Ex ia
- Pressure: Ex ia
- Water level: Ex ia
- Junction Box: Ex d
- Valve: Valves: Ex d
- UV lamp assembly: Ex d
- Pumps (mechanical ATEX approval)
- Flow Meter: Ex d ia [ia]

DESMI guarantees a distance of up to 100 m / 328 ft. between the main panel and the Ballast Water Management System.

## Loose Component Delivery

The loose component configuration provides maximum flexibility in terms of deployment. This is the typical choice for retrofit projects as all components freely can be placed where there is enough room for them. This configuration contains all components excepts electrical wiring and pipe spools, which will be customized for the vessel.

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Description	OptIMO 340	OptIMO 500	OptIMO 750	OptIMO 1000	OptIMO 1500	OptIMO 2100
IMO Mode Max Flow [m <sup>3</sup> /h] - Ballast	340	510	750	1040	1500	2100
IMO Mode Max Flow [m <sup>3</sup> /h] - De-Ballast	370	510	750	1200	1650	2500
USCG Mode Max Flow [m <sup>3</sup> /h] - Ballast - De-Ballast	250	340	500	870	1180	1740
USCG Mode Max Flow [m <sup>3</sup> /h] - De-Ballast	250	340	500	870	1180	1740
Minimum Flow Ballast [m <sup>3</sup> /h] Filter	45	50	65	95	126	126
Minimum Flow De-Ballast [m <sup>3</sup> /h] UV unit	9	9	13	19	26	38
Min Power required UV-T > 100% UV lamps dim to 38% [kW]	7.2	9.6	14.4	21.6	28.8	43.2
Avg. Power required UV-T = 85% UV lamps dim to 70% [kW]	21.6	28.8	43.2	64.8	86.4	129.6
Instal Power required UV-T < 62% All components running [kW]	54.0	67.0	93.0	131.0	169.0	245.0
Maximum Current At 440V [A]	73	106	126	177	229	332
Main Cabinet L x W x H [mm] Weight [kg]	606 x 594 x 1795 mm 262 kg	606 x 594 x 1795 mm 272 kg	606 x 679 x 2171 mm 349 kg	1206 x 579 x 1771 mm 498 kg	1203 x 700 x 2208 mm 677 kg	1203 x 700 x 2208 mm 788 kg
UV Unit H x W x D Dry Weight [kg]	776 x 828 x 438 mm 150 kg	902 x 828 x 446 mm 190 kg	852 x 828 x 516 mm 222 kg	986 x 838 x 541 mm 331 kg	1032 x 838 x 628 mm 390 kg	1102 x 844 x 722 mm 580 kg
Filter H x W x L [mm] Weight [kg]	1200 x 500 x 500 mm 288 kg	1300 x 650 x 650 mm 527 kg	1550 x 700 x 700 mm 757 kg	1750 x 800 x 800 mm 900 kg	2240 x 850 x 850 mm 1020 kg	2350 x 850 x 850 mm 1600 kg
Pump L x W x H [mm] Weight [kg] Stripping flow	S80 1014 x 356 x 529 mm 280 kg 75m <sup>3</sup> /hr @20mH	S80 1014 x 356 x 529 mm 280 kg 75m <sup>3</sup> /hr @20mH	S80 1014 x 356 x 529 mm 280 kg 75m <sup>3</sup> /hr @20mH	S80 1014 x 356 x 529 mm 280 kg 75m <sup>3</sup> /hr @20mH	S100 1090 x 356 x 549 mm 290 kg 75m <sup>3</sup> /hr @20mH	S100 1090 x 356 x 549 mm 290 kg 75m <sup>3</sup> /hr @20mH
VFD H x W x D [mm] Weight [kg]	480 x 242 x 260 mm 23 kg	480 x 242 x 260 mm 23 kg	480 x 242 x 260 mm 23 kg	480 x 242 x 260 mm 23 kg	480 x 242 x 260 mm 23 kg	480 x 242 x 260 mm 23 kg
External Control Box H x L x W [mm] Weight [kg]	503 x 676 x 422 mm 100 kg	503 x 676 x 422 mm 100 kg	503 x 676 x 422 mm 100 kg	503 x 676 x 422 mm 100 kg	503 x 676 x 422 mm 100 kg	503 x 676 x 422 mm 100 kg