

INNOVATION in BWT Technology

**SCIENCO/FAST**<sup>®</sup>  
a subsidiary of BioMicrobics, Inc.

**SCIENCO/FAST**<sup>®</sup>  
**InTank**<sup>®</sup>  **BWTS**  
Ballast Water Treatment System



**FILTERLESS OPERATION:**  
*Full utilization of ballast pump capacity*



**UNIQUE:**  
*Rapid semi-sub flood and drain operation without treatment*



**INSTALLED:**  
*Handy to Cape, MR to VLCC, semi-sub-rigs & vessels*



***InTank***<sup>®</sup> = ***InVoyage***<sup>™</sup> + ***InControl***<sup>™</sup>  
***and InCompliance***

BETTER WATER. BETTER WORLD.<sup>®</sup>

[www.intankballast.com](http://www.intankballast.com)

# SIMPLE



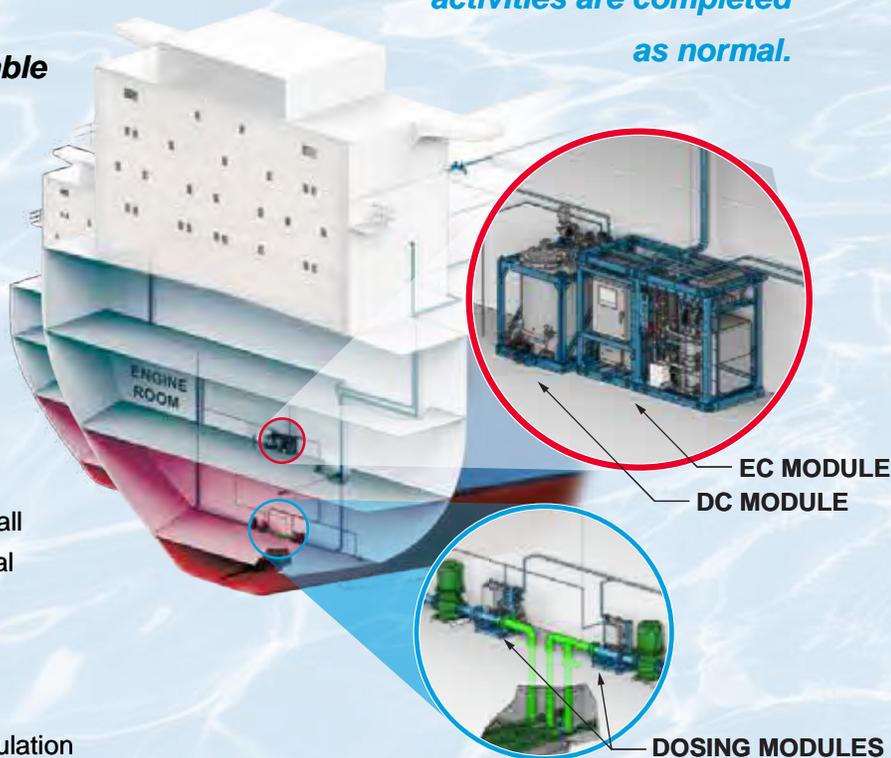
*Without the use of filtration or increase in power demand, the de-ballasting activities are completed as normal.*

## **Introducing a simple, robust and reliable BWTS solution - Scienco® InTank®**

The Scienco® InTank® BWTS is the only USCG and IMO Revised G8 Type approved InVoyage™ Ballast Water Treatment System that does not require the attention of a vessel's crew during cargo operations. InTank allows vessel operators to maintain complete control of ballast water compliance without compromise.

InTank's unique, sophisticated, and robust ballast water treatment process works by circulating a small percentage of the ballast water from each individual ballast tank.

During circulation, sodium hypochlorite (NaOCl), either stored in bulk or generated onboard by an electrochlorination module, is injected into the circulation loop through a dosing module and allowed to spread evenly throughout each ballast tank.



As the NaOCl spreads throughout each tank, the total residual oxidant (TRO) level of the water therein begins to rise, which is detected in each circulation loop with a TRO Monitor mounted on the dosing module.

This process allows InTank to track treatment progress for each ballast tank in real time by monitoring and recording the TRO levels for each ballast tank. At the end of the treatment, the same process is used to inject neutralizer from the dechlorination module into the system before discharge.

Scienco InTank's ability to operate InVoyage™ and its fully automated controls provide vessel crews with a simple system that does not require extra resources during busy port calls.

Scienco InTank's simplicity of operation, comparatively low power demand, and low OPEX offers vessel owners and managers compliance without compromise.



Model: EC 12

# LOW COST

## The most confidence of compliance with the least impact to operations!

### ► Operational Benefits:

- Complete cargo handling and all ballasting operations as normal.
- Filter-free design.
- No additional power use during cargo operations.
- Quality of ballast water does not influence the InTank systems.
- Gravity flow ballast or de-ballast without limitations.
- Complete automatic treatment cycle while at sea.

### ► Compliance Benefits:

- Treatment and neutralization cycle performed during voyage – technical compliance recorded before discharge.
- Full treatment cycle includes two dosing cycles to prevent regrowth.
- Treatment efficacy is assessed and adjusted for each ballast condition.
- In case of a malfunction, system can be repaired during the voyage.

### ► Installation Benefits:

- No filters.
- Average footprint (7 m<sup>2</sup>).
- System size adjusted to available treatment time (voyage time).
- All components could be installed during voyage, minimal dry-docking time required.



Electrochlorination Module (EC)

Scienco/FAST® InTank® BWTS — Electrochlorination (EC) Module							
MODEL SIZES	Rated Production Capacity (kg/hr)	SW Feed Flow Required (m <sup>3</sup> /hr)	Footprint Dimensions(m)			Dry Weight (kg)	Operating weight (kg)
			Length	Width	Height		
EC04	4	2	2.8	1.2	2.0	2178	2300
EC08	8	4	2.8	1.2	2.0	2314	2504
EC12	12	6	3.9	1.2	2.0	2835	3105
EC16	16	8	3.9	1.2	2.0	2972	3259



Dosing Module (DM)

Scienco/FAST® InTank® BWTS — Dosing Module (DM)						
MODEL SIZES	Pipe Size (DN)	Footprint Dimensions(m)			Dry Weight (kg)	Operating weight (kg)
		Length	Width	Height		
DM065G [DM065X]	65	0.7	0.8	1.0	177 [208]	184 [215]
DM080G [DM080X]	80	0.7	0.8	1.0	182 [212]	191 [221]
DM100G [DM100X]	100	0.7	0.8	1.0	190 [220]	201 [231]
DM150G [DM150X]	150	0.7	0.9	1.0	211 [242]	230 [261]
DM200G [DM200X]	200	0.7	0.9	1.0	238 [269]	268 [298]
DM250G [DM250X]	250	0.7	1.0	1.0	282 [312]	337 [367]

NOTE: Differences in the key parameters associated with the Explosion-Proof, EX-Rated [X] models are shown in square bracket.



Dechlorination Module (DC)

Scienco/FAST® InTank® BWTS — Dechlorination (DC) Module						
MODEL SIZES	Storage Capacity (L)	Footprint Dimensions(m)			Dry Weight (kg)	Operating weight (kg)
		Length	Width	Height		
DC1500	1500	1.5	1.6	2.0	545	2556

### Scienco/FAST® InTank® BWTS — Bulk Chemical (BC) Module

MODEL SIZES	Treatment Capacity (kg/hr)	Storage Capacity (L)	Footprint Dimensions(m)			Dry Weight (kg)	Operating weight (kg)
			Length	Width	Height		
BC1500	37-371	1500	1.5	1.4	2.0	535	2337

Not shown,  
Bulk Chemical Module (BC)

### Scienco/FAST® InTank® FITT® BWTS — Bulk Chemical (BC) Module

MODEL SIZES	Treatment Capacity (m <sup>3</sup> )	Max. Number Tanks	Footprint Dimensions(m)			Dry Weight (kg)
			Length	Width	Height	
InTank®FITT® SuperYacht	800	12	0.81	0.72	1.18	160
InTank®FITT®	500 – 5000	12 upgradable	0.81	0.62	1.18	165

# ROBUST



All the benefits of larger InTank® BWTS:

Easy maintenance

Assured compliance

Significantly smaller hardware

**InTank® = InVoyage™ + InControl™  
and InCompliance**

### ► Operational Benefits:

- Ballast as normal with no filters.
- Handle ballast water of any salinity, turbidity, organic or biological load – automatically.
- No filters or power usage needed.
- Fully automated operation.

### ► Compliance Benefits:

- Automatic dose monitoring and adjustment for biological compliance
- Ensure compliance with programmed treatment, neutralization and discharge.
- In voyage control without impacting port schedule.

### ► Installation Benefits:

- Treat during voyage and neutralize before discharge, assuring technical (TRO) compliance.
- Small footprint allows equipment placement versatility.
- Very small pump room footprint.

#### Capacity

Treats 500 m<sup>3</sup> – 5000 m<sup>3</sup> of ballast water

#### Container Dimensions

8 ft x 10 ft (2.4 m x 3.1 m)

#### Product Dimensions

32 in L x 25 in W x 47 in H  
(81 cm L x 62 cm W x 118 cm H)



## Assured Compliance:

Treating and neutralizing in the tank allows InTank® FITT® to complete treatment when the vessel needs it, such as after a long lay-up.

During treatment, InTank® FITT® checks the TRO level in the tank; if challenging water has used the initial dose, InTank® will automatically add more sodium hypochlorite, thus adapting treatment to water quality and assuring biological compliance.

Neutralization is also completed in the tank and technical compliance (TRO) is recorded, before discharge of the tank.

## We don't treat one tank, we treat ALLTANKS™

The InTank® FITT® is a ballast water treatment system specifically designed for smaller brown water or blue water vessels such as barges, tugs, PSVs, and mega-yachts, with ballast of 500 m<sup>3</sup> – 5000 m<sup>3</sup>. The system is fully automated, treating and neutralizing any number of ballast tanks. The treatment, which uses bulk-chemical dosing, occurs between ballasting events rather than during ballasting, which means that treatment won't interfere with the vessel's ballast operations.

The single greatest operational — and packaging — advantage of InTank® FITT® is that it has no filter, making it the easiest product on the market to maintain and operate.



NEW InTank FITT=0.5 m<sup>2</sup> footprint



**InTankFITT<sup>®</sup> SuperYacht offers the smallest footprint of any Ballast Water Treatment System on the market.**

**How is InTankFITT<sup>®</sup> SuperYacht different from regular InTankFITT<sup>®</sup>?**

**► Operational Benefits:**

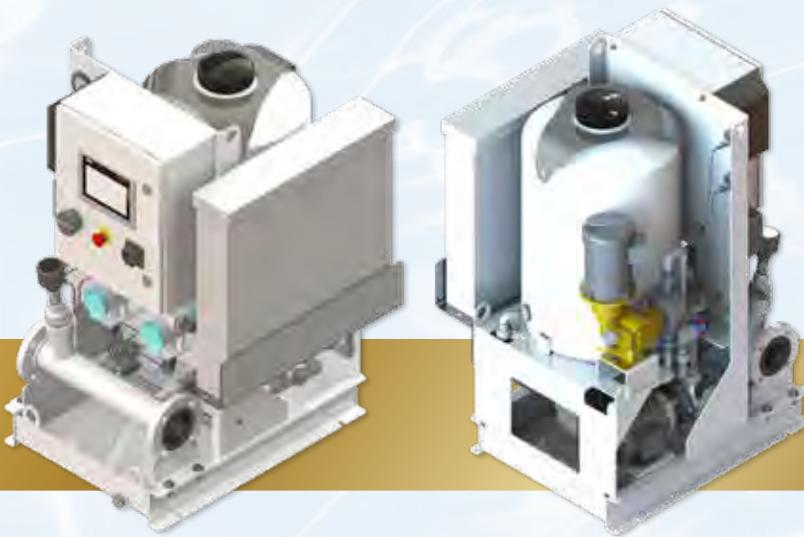
- Both the bulk chemical tank and the dechlorination tank are mounted on the main skid.
- Filter-free design.
- Conduct normal port activities without disruption.
- Fully automated operation.

**► Compliance Benefits:**

- The color of the system can also be matched to the color used on all other equipment in the engine room.
- Full control over treatment timing.
- Programmed treatment and neutralization ensures compliance and discharge safety.

**► Installation Benefits:**

- Installation can be containerized or modular.
- Small footprint.
- All components can be installed during voyage.



**InTank FITT<sup>®</sup> SuperYacht**  
**smallest footprint BWTS on the market**

**Our Affiliations**



Scienco<sup>®</sup> InTank<sup>®</sup> Proud Member of





With decades of history unlike any other, the origins of SCIENTO® & FAST® can be traced back to the 1940s in St. Louis, MO for water and salt management systems. In 1981, Scienco and FAST combined as Scienco/FAST® to produce internationally recognizable water, wastewater,

and maintenance products focused on marine, commercial food and beverage, and agricultural market treatments with top-notch field services. Scienco/FAST®'s current commercial product lines combine proven performance with long-term reliability and many low-cost options.




**Marine FAST**  
SEWAGE TREATMENT SYSTEMS



**Bio Barrier. Marine MBR**  
MEMBRANE BIOREACTOR



**PORTA/FAST**  
COMPLETE PORTABLE / PERMANENT RESTROOM



**SCIENTO/FAST InTank BWTS**  
Ballast Water Treatment System



**SCIENTO SciCHLOR**   **SCIENTO SciBRINE**



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