



Alfa Laval PureBallast 3 bulker-fit configuration

Flow-adapted ballast water treatment for bulk carriers



The Alfa Laval PureBallast 3 bulker-fit configuration is adapted to the operating profile of bulk carriers (bulk carriers), whose flow needs differ between ballasting and deballasting. By differentiating the two flows, the bulker-fit configuration reduces CAPEX, OPEX and system size while retaining full ballast water treatment performance.

This leaflet describes only the bulker-fit configuration details. For more information about PureBallast 3 performance and system components, please refer to the product leaflet for PureBallast 3 Std & Ex.

Application

Bulk carriers often load their cargo at twice the rate they unload it, which means deballasting occurs at twice the ballasting speed. The PureBallast 3 bulker-fit configuration addresses this issue by independently dimensioning the reactor and filtration capacities. Since the filter stage is only needed during ballasting, it is dimensioned for the lower ballasting flow.

Dimensioning the PureBallast 3 system in this way eliminates ballasting overcapacity, which removes a significant amount of CAPEX and also lowers OPEX. Likewise, it reduces the already small system footprint and further simplifies installation.

Benefits*

- Optimized dimensioning for bulker flow needs
- Substantially lower investment cost
- Reduced operating costs
- Even smaller system footprint
- Installation savings

* *PureBallast 3 technology and system benefits can be found in the PureBallast 3 Std & Ex product leaflet.*

System components*

- Treatment components
 - Filter
 - Reactor
- Support components
 - Lamp drive cabinet
 - Cleaning-In-Place (CIP) unit
 - Control cabinet
 - Auxiliary equipment

* Full component descriptions and technical details can be found in the PureBallast 3 Std & Ex product leaflet.

Flow regulation

Due to the large difference between ballasting and deballasting flows, the PureBallast 3 bulker-fit configuration requires external flow control in addition to the system's own flow regulating valve. PureBallast 3 has an external feed control output signal, which is intended as a setpoint signal for either the ballast water pump via a variable-frequency drive (VFD) or a control valve installed before the ballast water treatment system.



Capacity range (flow in m³/h)

This table shows the available PureBallast 3 bulker-fit configuration capacities in relation to standard configuration capacities.

PureBallast 3 bulker-fit			500*/ 1000**		750*/ 1500**	1000*/ 2000**		1500*/ 3000**		
PureBallast 3 IMO & USCG	250	300	500	600	750	1000	1200	1500	2000	3000
PureBallast 3 USCG HP	250	300	500	600	750	1000		1500		

* Ballasting

** Deballasting

Reactor/filter dimensions per capacity

	Size (mm) (W x D x H)	Net/dry weight (kg)	Volume (L)
PureBallast 3 bulker-fit 500/1000, reactor	1030 x 950 x 1500	540	190
PureBallast 3 bulker-fit 500/1000, filter	680 x 631 x 1375	620	146
PureBallast 3 bulker-fit 750/1500, reactor	1120 x 1110 x 1480	650	205
PureBallast 3 bulker-fit 750/1500, filter	760 x 714 x 1651	860	241
PureBallast 3 bulker-fit 1000/2000, reactor	2 x (1030 x 950 x 1500)	2 x 540	2 x 190
PureBallast 3 bulker-fit 1000/2000, filter	830 x 786 x 1810	1020	370
PureBallast 3 bulker-fit 1500/3000, reactor	2 x (1120 x 1110 x 1480)	2 x 650	2 x 205
PureBallast 3 bulker-fit 1500/3000, filter	775 x 791 x 2296	1150	480

Alfa Laval reserves the right to change specifications without prior notification.

How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com.