

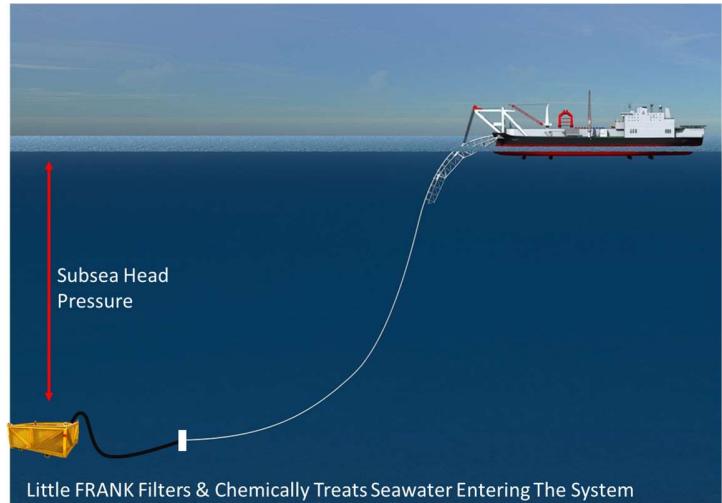
Little F.R.A.N.K

(Free-Flooding, Regulated, Autonomous, Networked, Kit)

FEATURE HIGHLIGHTS:

Little FRANK

Krakens engineering's team has designed and built Little FRANK to improve efficiency and reduce the cost of flooding subsea systems while ensuring our clients piece of mind. Little FRANK uses hydrostatic seawater head to flood subsea systems, without the need for a connection to a topsides vessel or installation. The system was also designed to be more compact and lighter than its competition, reducing the deck space and lifting requirements associated with a conventional free flooding operation. This compact ROV friendly design allows for the system to be manoeuvre easily for deployment and recovery to & from the seabed.



Autonomous Free-Flooding System

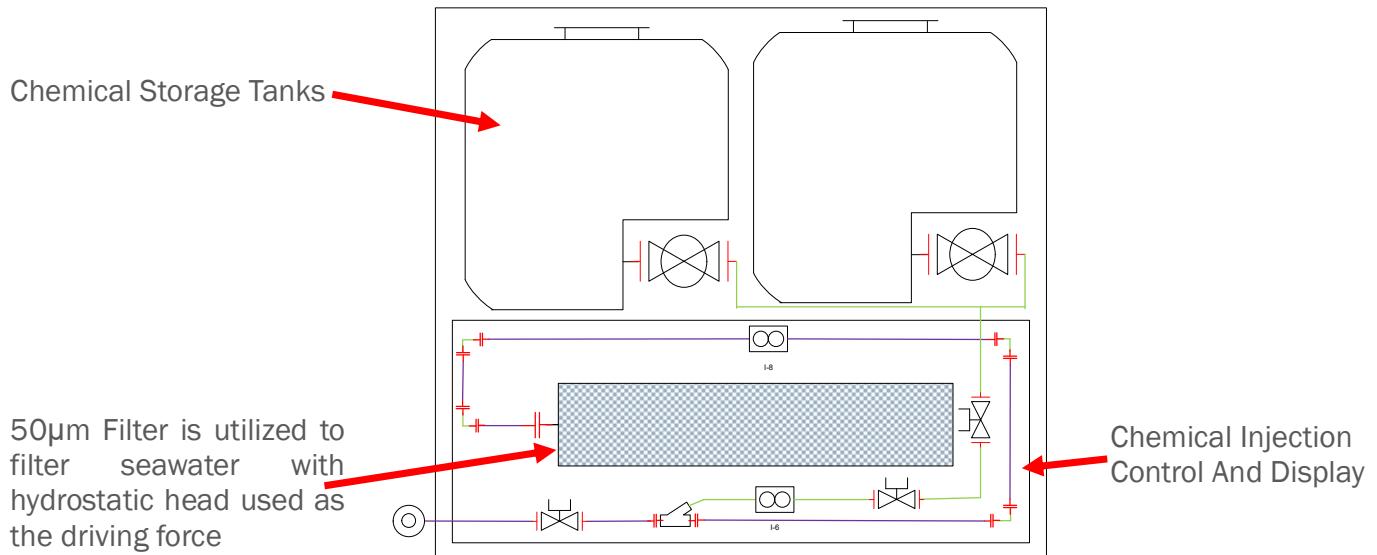
The autonomous systems onboard are capable of regulating chemical treatment of the fluid entering the system. This ensures an even distribution of chemicals throughout the system. The autonomous systems developed benefits from our extensive knowledge and experience in the pre-commissioning field.

Crew Reduction

Little FRANK key differentiator is that it requires no crew for most operations and only a single technician for ad-hoc maintenance and refilling for longer/multiply trips. This combined with a large reduction in deck space required compared to other systems means smaller vessels can be used saving our clients significant cost. Significantly less space is required compared to a conventional pipeline flooding spread.

Networked & Data Logging

The integrated data logging systems allow for logging of chemical flow, bulk water flow, subsea temperate and pressure monitoring during the free-flooding operation ensuring the system was correctly treated. Networked feature not available until Q2, 2021.



TECHNICAL SPECIFICATIONS:

Autonomy	Advanced control system capable of accurately regulating chemical treatment of the fluid entering the system
Line Sizes	Standard loadout is compatible with 2" – 16" pipelines or 100 – 1100 ltr/min depending on flooding speed/layrate required
Flowrate	Standard loadout suitable for flowrates of between 100 – 1100ltr/min, Custom loadouts can be increased to 2,200 ltr/min on request. Note: if higher flowrates are required FRANK is capable of up to 5,000 ltr/min.
Filter Spec	Standard load out of 50 micron Custom filtration systems available from 20 micron up to 25mm
Chemical Capacity	System can carry two independent 1,000 ltr bladders Custom system can carry up to six 1,000 ltr bladders
Water Depth	Standard spec 850 m Deep water system available capable of 3,000 m upon request
Crew Size	Standard autonomous loadout requires zero personnel
Data - Logger	Data-logging facilities allows the logging of chemical flow, total chemicals injected, bulk flow of seawater, total seawater injected, and time/date.
Battery Lift	Standard loadout of 14 days continue use Custom system can extend use by an additional 14 days
Savings	Up to 67% compared to a back deck spread c/w operators