



DAMSTRA SOLO



Manage
Locate
Connect
Protect
and
Communicate
with your workforce whilst
improving workforce
Performance

Use Case



D A M S T R A SOLO

Wearable - All Staff

Company:	Keppel Offshore & Marine Keppel FELS	Company Users:	Currently deployed to 7,500 of 15,000 Singapore staff	
Summary:	<p>Within Singapore's premier rig & ship builders and dry docks across 4 yards they have distinct risks for blue-collar workers. Risks include falling from heights, confined space, heat, fatigue and heavy machinery. Government and MPA legislation has also been strengthened as a result of several fatalities in the Maritime sector. Full COVID-19 safe return to work protocols including safe distancing & contact tracing. Productivity gains through P&L visibility and improved task communications. Solution needs be to simple, accessible to workers with limited tech and 2nd language users plus drive productivity.</p>			
Solution:	<p>Implement Vault Solo wearable using the Samsung Galaxy Watch including incident management, advanced fall detection and Solo Insights for data analytics to identify productivity improvement opportunities. Solo solution satisfies COVID-19 circuit breaker and reporting requirements given high proportion of foreign workers.</p>			
Impact:	Cash / Productivity	Staff	Customer	Risk
Current State:	Staff Costs: xxx	Engagement: → Communications: →	Service Levels: →	Site evacuation, duress, fall detection & return to work
Future State:	Software Cost: xxx Staff Costs: x% reduction	Engagement: ↑ Communications: ↑	Service Levels: ↑	Comms, duress, fatigue, COVID and incident response ↑
Net Benefit:	Commercial in Confidence	Improved Engagement	Improved throughput	Enterprise Risk ↓

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- Initial purchase driven by HSE outcomes including Falls and working in Confined Spaces
- Deep trial phase with collaborative development to suit KOM's unique environment
- COVID-19 circuit breaker excluded all but 200 staff cross 4 shipyards & dry docks
- When macro conditions allow, the total workforce exceeds 15,000
- Solo enabled a proven safe return-to-work protocol including safe distancing and contact tracing
- This triggered government approval to bring the workforce back into the yards weeks earlier than other comparable large enterprises
- Staggered return to work with 7,200 licenses and wearables issued
- In excess of 3,000 workers active in the yard each day, including contractors and subcontractors
- Close contacts of COVID-19 cases identified (isolated, tested and treated)
- Locations affected were disinfected. New shift return to work within 48 hours
- Approx 20% of the active workforce down for 2 days, preventing a minimum 14 day full shutdown
- Preventing further productivity loss on existing build contracts, minimising the impact of Liquidated Damages
- 2020 MOQ of 5,000 significantly exceeded
- Total Keppel O&M FELS workforce coverage targeted for early 2021



The logo for Keppel Offshore & Marine features the word 'Keppel' in a white, bold, sans-serif font, followed by 'Offshore & Marine' in a red, bold, sans-serif font. A small red diagonal line is positioned above the 'K' in 'Keppel'.



Keppel Offshore & Marine

Keppel have published their first press release relating to Solo's white label as the Protection & Productivity solution through the integration into their Asset Management platform. Solo was the key factor in the establishment of Keppel's global command centre in Singapore.



You can see their custom watch face above

You can see the English translation on the right hand side of this slide

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Lin Jingtong (29 years old) works as a project supervisor in the operation department of Keppel Offshore & Marine (hereinafter referred to as "Keppel"). Many high-risk tasks are required at the shipyard, including operations in confined spaces and high altitudes. Operations and hoisting operations, etc. In May of this year, he received a Samsung Galaxy Watch (Samsung Galaxy Watch) distributed by the company. He said: "With this smart watch, our safety and health are better taken care of."

The heart rate monitoring, fall detection and SOS call for help functions of Samsung smart watches can be customized to detect abnormalities in time and send signals directly to Keppel's command center to avoid accidents. In addition, the watch also has another customized function. The command center can directly send safety information to the watch, so that employees on the construction site can also view the information in time.

During the epidemic, in order to comply with safety management measures and regulations, the watch also added the functions of geofencing and safety distance monitoring to supervise employees working in designated areas and maintain a safe distance.

"This smart watch improves safety by enhancing communication with base staff and shortening the response time to emergencies," said Weili Lu (43 years old), general manager of Keppel Offshore and Marine Corporation's digital and new business.

Currently, Keppel is preparing to add one more targeted warning function to the watch. Once the wearer enters the high-risk work area such as hoisting or testing the operating range, he will be notified to remind him to be vigilant and take the initiative to take preventive measures.

At the end of 2019, Keppel plans to use smart wearable devices to enhance the safety of shipyard work. At the beginning of this year, with the first link (M1), Samsung (Samsung) began to design customized exclusive software for Keppel's shipyard. First Pass uses a 4.5G private network at Keppel, and has set up many signal base stations in the shipyard to increase network coverage and signal density, and enhance the accuracy of watch positioning and call quality. At present, Keppel has distributed about 3,000 Samsung smart watches to employees, and it is expected that all employees will be equipped with this device by the end of 2020.

Equipping each employee with a Samsung smart watch is an important part of Keppel Offshore and Marine's long-standing digital transformation plan. "The combination of smart watches with our (smart terminal platform) AssetCare is our effort to use digitalization to improve safety and production efficiency," Lu Weili said.

"We are very pleased that after a series of rigorous tests, we are the first of its kind to be used in offshore and marine engineering." Said Cai Lizhen (55 years old), vice president of information technology and mobile equipment at Samsung Singapore. Samsung has a variety of smart devices that can be used in combination with customized software to provide solutions for companies in different fields." She believes that this smart solution is very practical for

other industries such as construction, logistics, and medical care. ||