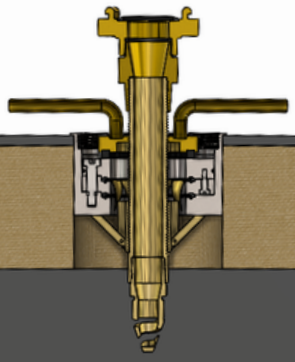
About me-innovations

Manderson Engineering Innovations Pty Ltd

CTO Intro [60 sec] | BAT DEMO [50 sec] | Applications [2:50 min]



Novel Indirect Fire Suppression Technology

We have designed a simple, safe portable penetration device and method to fight compartment fires at sea. And it could be life-saving.

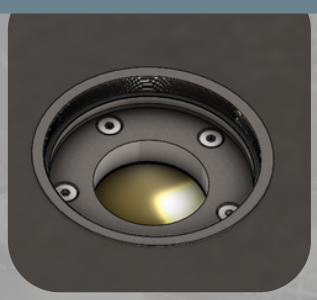
Our product, the Breach and Attack Tool (BAT) and accompanying Deck Box, provides mariners with a low-cost detection system for fire or explosion and a new, safe, effective indirect suppression capability.

By penetrating the BAT through the Deck Box, the system will become self-locking, gastight and can be operated unmanned, removing personnel from the vicinity of danger. It is a tool that could assist in narrowing gaps in current indirect attack and fire safety procedures.

Installing the Deck Box into a vessel's structure would provide firefighters with an ideally located pre-set penetrator mechanism, removing exothermic hull cutting or drilling operations to access the fire. The method of installing the BAT takes only seconds to perform and execute the emergency indirect attack.

Achievements

- Innovation Australia Awards for Excellence 2022, Finalists in Defence Capability Category
- Best Pitch Award, in Defence innovation at the Australian Defence Science, Technology and Research Summit (ADSTAR 2022)
- Technology published within Civil Defence and International Maritime Conferences (INDO PACIFIC 2022)
- Chief of the Royal Australian Navy's Innovation Excellence Award 2021 (CN's service Commendation)
- Established relationship with UTS a leading technology academic institution, providing R&D, TRL and MRL support.



Deck Box: Rapid Access & Containment

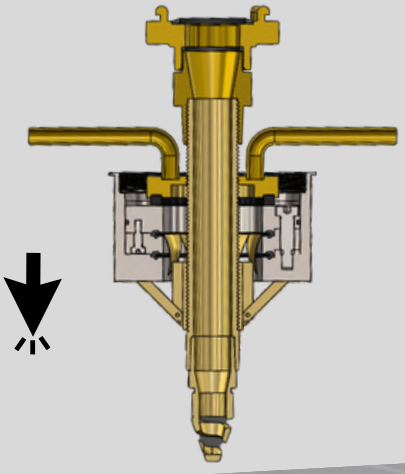
ACCESS FACILITATION CONDUIT - PCT/AU2023/050395

Underway configuration:

- Non-spark rupture disc protects the crew from fire escalation during penetration
- Optional fitted sensors provide real-time indication of fire/explosion
- Provides an inert and gastight conduit to conduct an indirect fire attack in seconds
- Training is simple, easy and deployable

Maintenance Configuration:

- Deck Box internal design compatible with water mist nozzle and hose fitting.
- Inlet hose connector consistent with domestic and international fire hoses
- Provides additional fire safety and suppression redundancy in high-risk maintenance environment.



<- Breach and Attack Tool (BAT)

FIREFIGHTING ACCESSORY AND METHOD THEREFOR – PTC/AU2020/051319

Clear IPRP, with versatile capabilities

- Compatible with an aperture cut via a hole saw in an emergency
- Spring-loaded bias barb construction, anchors and locks device to secure the nozzle into the fireside of the compartment
- Design capable of supporting all suppressants

-> inert gases, foam, CO2, Dry Chemical, water, etc.

Transition Options for Growth

- Emergency Services offered interest in supporting R&D, to address Ag & silo fires.
- Patent covers inert, insulated Deck Box and penetrators to address battery storage thermal runaway and emergency cooling.
- Provides emergency access for containerised ammunition storage.
- Suitable for hazardous chemical storage.
- Growing interest from commercial maritime market segments, with offers for teaming engagements through NDAs and MOUs.

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