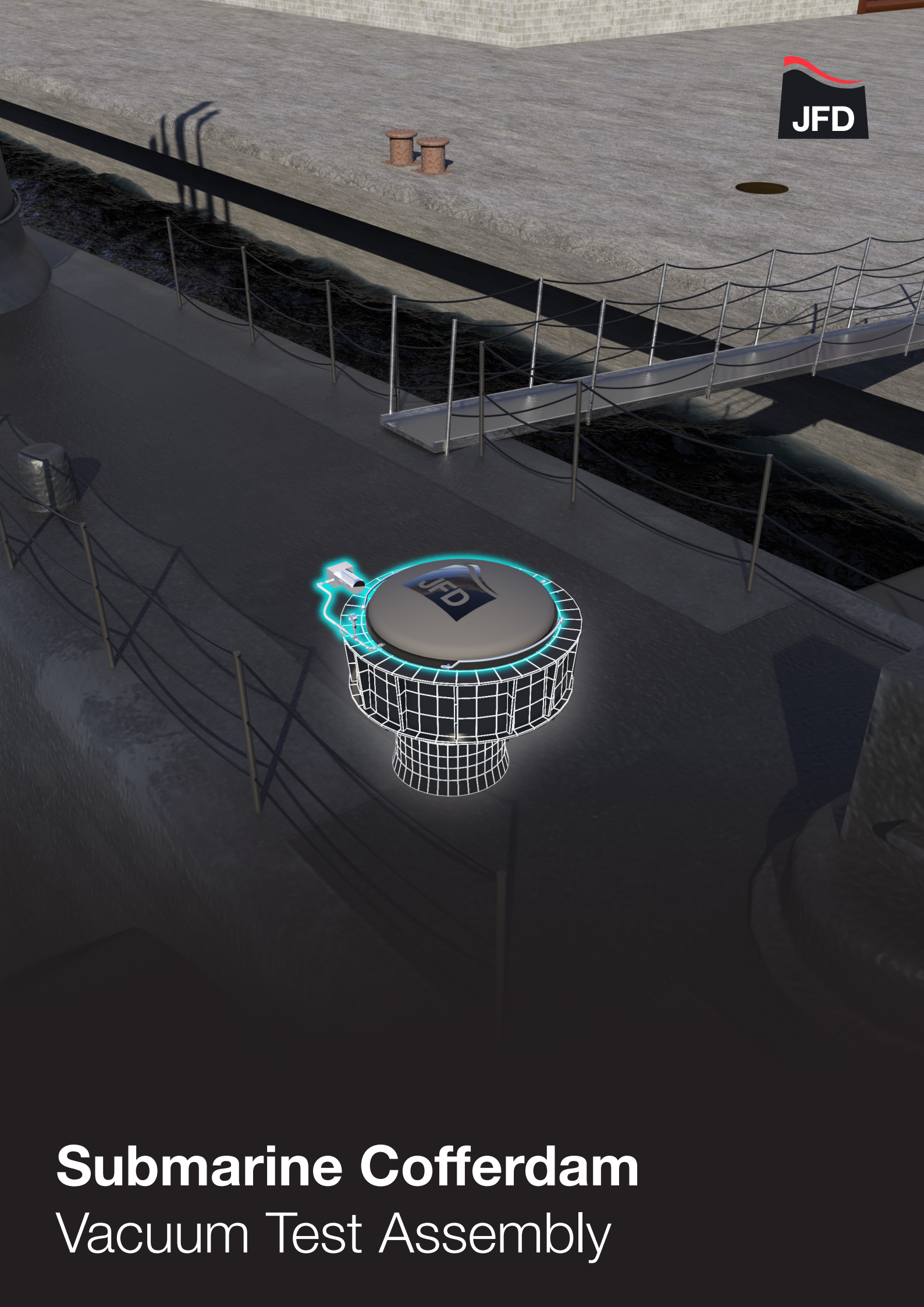


Submarine Cofferdam

Vacuum Test Assembly

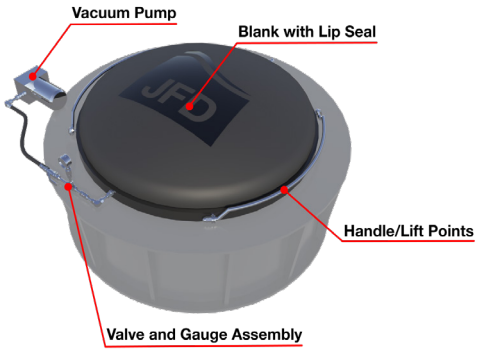
Submarine Cofferdam Vacuum Test Assembly

REQUIREMENT

- **NATO Standard ANEP-85 - MATERIAL INTEROPERABILITY REQUIREMENTS FOR SUBMARINE ESCAPE AND RESCUE,** requires that “If a rescue seat pressure boundary exists with free flood penetrators, a vacuum test shall be performed on the Rescue Pressure Boundary (or cofferdam).”

- **NATO Standard ANEP-85.1 - MATERIAL INTEROPERABILITY REQUIREMENTS FOR SUBMARINE ESCAPE AND RESCUE: RESCUE SEAT EVALUATION PROCESS,** describes the test as “Perform Rescue Pressure Boundary (or cofferdam) vacuum test in accordance with national standards. As a recommendation for the submarine nations without vacuum test standards, 100 millibars for 10 minutes with no leakage.”

SOLUTION



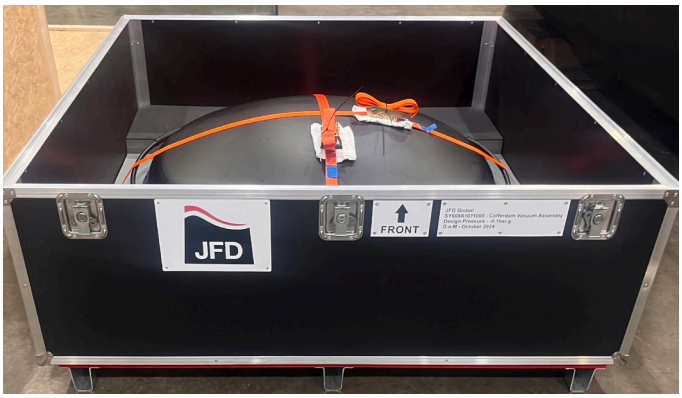
A portable apparatus to enable a submarine operator to perform a vacuum test of the rescue seat cofferdam cavity. Comprising:

- Aluminium alloy head with flange and lip seal (blank) that rests on top of the rescue seat.
- Vacuum pump with gauge, hose and fittings to draw a vacuum within the sealed cavity.
- Storage and transit case for portability and protection.

Manual Handling

SPECIFICATION

Weight	50 - 60kg
Dimensions	1300mm diameter, 300mm height
Operating Pressure	-100 millibars (-1 barg)
Operating Temperature	2°C - 40°C
Head Material	Aluminium alloy 5074
Surface Finish	Black anodised
Design Code(s)	PD5500:2024 - Specification for Unfired Pressure Vessels



Storage and Transit Solution

BENEFITS

- **Proven:** this solution has been manufactured and is in operational use.
- **Simple:** designed for ease of use and maintenance, with simple assembly and commercially available components.
- **Durable:** blank supplied with hard anodised coating, all components manufactured from corrosion resistant materials.
- **Portable:** light weight blank designed for manual handling or crane lift, detachable vacuum pump and controls.
- **Safe:** designed for safe operation and use.
- **Compliant:** meets the requirement for vacuum test as defined in ANEP 85.1.