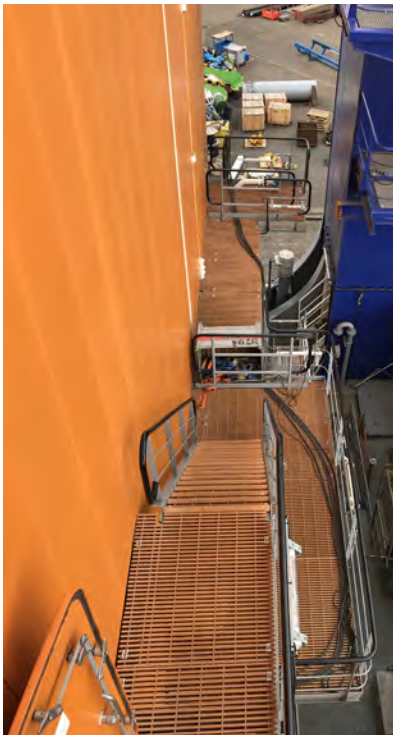
COMPOSITES AID NEXT GENERATION SUBSEA ROCK INSTALLATION VESSEL

The recent boom in the global oil and natural gas production has led to a surge in demand for vessels related to energy production.

Critical support ships within this industry include subsea rock installation vessels. These support vessels are vital due to their ability to stabilize and protect pipelines, cables, and other offshore structures.

The new Bravenes is a next generation subsea rock installation vessel owned by Netherlands-based Van Oord. This vessel stands out from its counterparts because it incorporates a new concept hull and bow allowing it to sail with minimal drag in normal or high sea conditions. In addition to forward and rear propulsion, the ship also offers dynamic positioning through the use of thrusters for horizontal movement, enabling precise movement around close offshore structures. Its ability to be precise also allows it to perform three different types of approximate subsea rock installations centered within the operational heart of the vessel.



In the midship area stands the automated fall pipe tower housing the moon pool access, the flexible fall pipe (capable of extending almost 1,500m or 4,900 ft), a remotely-operated underwater vehicle, and its main conveyor system. All of these are fed by two flanking cargo holds capable of holding a combined 15,500 tons of rock.

The mobile midship tower measures 20m x 20m x 20m (65' x 65' x 65') in length, width, and height. Since the ship's inception, corrosion and painting were main concerns, as this ship was designed for full automation. When at capacity, it only requires 40 individuals on board for up to 45 continuous days of operation. Composites were utilized not just in the tower, but most of the stair access and landings to the tower were also outfitted with DURAGRID® Phenolic stair treads and grating.

COMPOSOLITE® was outfitted throughout the mobile pipe tower due to its weight savings, particularly important in the lowering of the vessel's center of gravity. This is crucial, as the vessel can also transform into two additional rock installation functions known as the fall pipe launch via side and tremie pipe distribution. Both of these require a slight shift of the tower to gain closer proximity access to offshore structures.

With COMPOSOLITE® and DURAGRID® Phenolic grating, this vessel should provide years of protective fall pipe housing as it continues to stabilize and protect subsea pipelines, cables, and other structures at the bottom of the ocean. ●

TECHNICAL DATA

Product:	Mobile Midship Tower Housing & Grating
Process:	Pultrusion
Materials & Sizes:	COMPOSOLITE® Structural Building Panels DURAGRID® Phenolic I-5500 38mm (1.5") grating
For:	Van Oord
User:	Van Oord

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