



Drill riser buoyancy VIV suppression

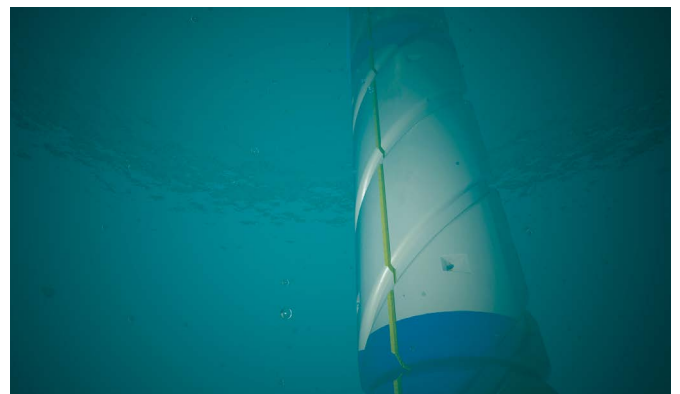
Drill Riser Buoyancy Module Helically Grooved (DRBM HG)

Drill Riser Buoyancy Module Helically Grooved (DRBM HG) is the result of a joint development between CRP Subsea and Diamond Offshore Drilling to integrate vortex induced vibration (VIV) suppression and drag reduction with drill riser buoyancy, increasing rig efficiency without compromising on safety or structural integrity.

DRBM HG design dimensions are optimised to ensure uncompromised uplift while effectively eliminating riser motions and higher levels of drag in onerous offshore current environments compared to traditional riser buoyancy. The minimal removal of material associated with the grooves corresponds to only a 2-3% buoyancy loss, which can easily be recovered through the manufacturing process by selecting lower density materials.

The new multi-functional design integrates VIV suppression and drag reduction technology into DRBM equipment from the time of manufacturing eliminating the requirement of ancillary suppression equipment, alleviating complicated and time intensive riser running and retrieval procedures. In addition, reductions in riser motions

due to VIV limit the number and magnitude of strain cycles transferred to subsea equipment, in turn, decreasing fatigue loading and extending the service life of wellhead and conductor/casing equipment.



Joint handling times and running methodologies during riser deployment and retrieval are equivalent between Magni DRBM HG and traditional buoyancy designs, resulting in increased personnel safety, higher efficiency and a more robust solution compared to traditional VIV mitigation equipment.

Benefits

- Expanded connected riser drilling & non-drilling operating envelopes
- Increased vessel transiting speeds with a drilling riser deployed
- Decreased riser and BOP excursion after disconnect
- Increased maximum allowable current conditions for riser deployment, retrieval, and hang-off operations
- Increased fatigue lives for the drilling riser and subsea equipment
- Increased personnel safety during riser deployment and retrieval over other ancillary VIV mitigation equipment
- Simplified riser running procedures
- Decreased demand on vessel station keeping propulsion systems

Applications

- Marine drilling risers
- Intervention risers



CRP Subsea delivers innovative and reliable offshore solutions that maximise business performance to meet your needs. Our dedicated and highly skilled staff are always on hand to provide seamless process support from initial idea, through to delivery and beyond.



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