Pipelines unsupported over free spans, such as steel catenary risers and rigid steel flowlines, are prone to vortex induced vibration (VIV) fatigue, which can cause serious performance issues such as pipe girth weld failure or premature pipe malfunction.

Developed in response to market demand, the Tri-Strakes® C (Combi) is a high quality, cost-effective VIV suppression system manufactured by Trelleborg Offshore. The system consists of overlapping and interlocking moldings, with three-start helical strakes to provide an effective triangular or trapezoidal strakes profile.

Working with polymers across a number of technologies and industries, Trelleborg Offshore was able to use insight and innovation to improve packing and handling factors using best-value engineered solutions. The established manufacturing process means that the Tri-Strakes® C (Combi) can be produced up to three times faster than systems manufactured using traditional techniques, ensuring shorter lead times. The product is manufactured in marine grade polyurethane (PU), giving the benefits of traditional cable and flowline impact and abrasion protection with an effective VIV suppression profile.

To perform at every level, Trelleborg Offshore built up a wealth of in-house VIV knowledge through consultation with industry renowned hydrodynamicists, alongside computational analysis. Physical hydrodynamic testing combined with in-house impact, axial slip and load bearing capacity testing has produced a hydrodynamically efficient and load bearing capable product. All materials and geometries used are fully qualified for long term subsea use.

Each section of the system has been designed as a single, lightweight component, enabling quick and easy pre-install onshore or install offshore. The hinged design permits the system to be stacked efficiently during shipping, ensuring more efficient and cost effective transportation and installation.
Features:

- Cost effective, high density packaging
- Light weight and easy to handle
- Impact and abrasion resistant
- Moderate S-Lay and full J-Lay load bearing capacity
- Temperature resistant up to 60 °C / 140 °F
- Qualified geometry and materials
- Quick installation

For a stackable and lightweight vortex induced vibration suppression solution take a look at our Tri-Strakes® L (Lite) product at: www.trelleborg.com/offshore/tri-strakes-lite

For a highly resilient vortex induced vibration suppression solution take a look at our Tri-Strakes® S (Stinger) product at: www.trelleborg.com/offshore/tri-strakes-stinger

Contact Us

Trelleborg Offshore delivers innovative and reliable offshore solutions that maximize 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.

Brazil: +55 22 2106 4040
China: +86 137 9287 9241
France: +33 3 44 23 03 50
Norway: +47 32 23 20 00
Singapore: +65 6265 0955
United Kingdom: +44 1695 712 000
United States: +1 832 456 8300
Email: Offshore@trelleborg.com