

# MATRIX LGS®

## VIV AND DRAG REDUCTION FOR SUBSEA UMBILICALS RISERS & FLOWLINES (SURF)



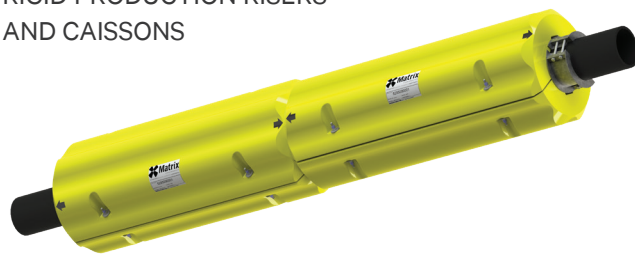
## EXTENDING YOUR REACH

The premise is simple: Matrix LGS® SURF solutions extend your reach and allow you to operate in environments where you wouldn't normally. Not only that, the system's passive and low profile, ensures easy installation before or after deployment, significantly reducing life cycle costs.

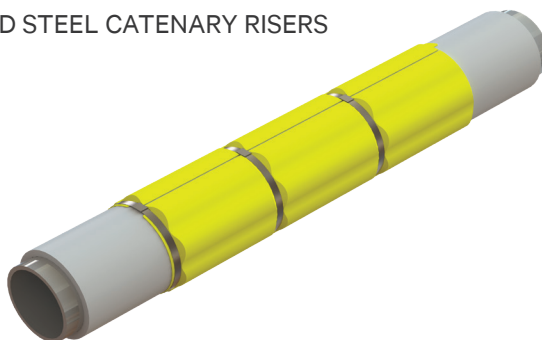


- Independently lab tested and field proven
- Reduces VIV fatigue, drag and top angle
- Mitigates riser clashing
- Lower drag profile compared to other VIV reduction solutions
- Robust and benign profile with relative immunity to seabed interactions
- No moving parts
- ROV installable options available for existing pipelines / risers
- Integral buoyancy option available
- Average fixed drag coefficient: 0.6
- Typical VIV amplitude:  $<0.25A/D$ .

### RIGID PRODUCTION RISERS AND CAISSONS



### FLEXIBLE RISERS AND STEEL CATENARY RISERS



### Matrix Composites & Engineering

150 Quill Way, Henderson, WA 6166 Australia

T: +61 8 9412 1200 E: [matrix@matrixengineered.com](mailto:matrix@matrixengineered.com) W: [matrixengineered.com](http://matrixengineered.com) | ABN 54 009 435 250