

LifeGuard Technologies introduces ultra-high pressure ETFE hydrogen and helium transfer safety hose

By Molly Burgess | 10 January 2019

LifeGuard Technologies has introduced and filed for patent protection for a new multi-diameter 24,000 psi burst pressure ethylene tetrafluoroethylene (ETFE) tube, stainless steel braid hose assembly (1/4" and 1/2" dia) incorporating LifeGuard's patented safety hose technology for use with hydrogen and helium.

The new hose offers the industrial hose and petrochemical industry a first combining ultra-high-pressure functionality with the minimal effusion and flexibility that a polymer-based hose provides.

Hydrogen is the lightest gas and a volume of around 11m³ (the volume of the boot of a large utility or commercial vehicle) is needed to store 1kg of hydrogen, the quantity needed to drive 100km, meaning its density must be increased by ultra-high-pressure storage in the gaseous form and safer forms of transfer must be developed. The LifeGuard Ultra-High pressure ETFE hose assembly offers a safe form of transfer.

"This LifeGuard Safety hose is designed to withstand constant pressure of up to 8000psi and burnt in excess of 24,000psi," said Joseph Abrams, Director of Engineering Emeritus.

"The combination of the ultra-high-pressure capabilities, its superior non-effusion internal tube and combination with our internal LifeGuard Safety technology gives the user an important new option as our industry migrates to much higher working pressure for hydrogen and helium," Abrams continued.

Pennsylvania-based LifeGuard Technologies manufactures its hoses in the USA, Canada, Sweden, India and Australia.