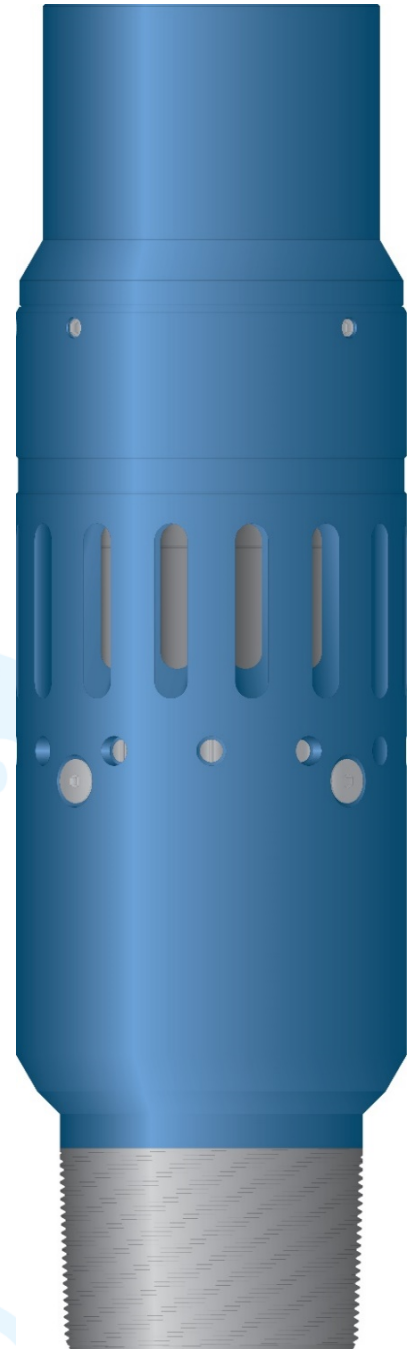


The SUREstack™ NC system is a revolutionary liner system for cemented or open hole applications. The permanently locked open, ball activated SUREstack™ NC valve is designed for installation in cased holes and is simple, yet economical to deploy, utilizing Gryphon's ball and seat technology. Balls are available in either a dissolvable or conventional millable style. The standard system is equipped with HNBR elastomers and LTC or BTC threads or can be ordered with premium elastomers and threads.

This system is intended to reduce the cost of a liner system by simplifying the valve as much as possible and by eliminating the requirement for open hole packers in cemented applications. Minimizing the equipment installed in the wellbore reduces not only the equipment cost, but also the time and risk associated with installation of any equipment.

Features and Benefits

- Compact design for ease of handling (no pup joints required)
- Improved ball seat geometric features to enhance production capability, ball on seat pressure rating, and ball off seat performance
- Simple valve, with only 4 main components
- Extremely short valve, with no requirement for open hole packers in cemented applications, allowing for tighter stages
- Up to 47 stages when run with a SUREstart™ Valve
- Non-closable design
- Utilizes easy to mill ball seat from Gryphon's other millable valves
- Compatible with all types of Gryphon's fracturing balls including dissolvables
- Rated to 400° F (204° C) with standard trim, elastomer upgrades available



Specifications								
Size	Weight	Max. O.D.	Post Millout I.D.	Max. Ball Size	Max. Seat I.D.	Min. Ball Size	Min. Seat I.D.	Pressure Rating
in mm	lb/ft kg/m	in mm	in mm	in mm	in mm	in mm	in mm	psi kPa
4-1/2 114.3	11.60 - 13.50 17.26 - 20.09	5.800 147.32	3.875 98.43	3.750 95.25	3.671 93.24	0.875 22.23	0.828 21.03	10,000 68,948
5-1/2 139.7	17.00 - 20.00 25.30 - 29.76	7.000 177.80	4.767 121.08	4.750 120.65	4.640 117.86			