



SAFE AND PRODUCTIVE SOLUTIONS FOR STEELMAKERS WORLDWIDE



# US PATENT NO. 11,737,179 B2 SUPER PLUG™

### "Rocket Science for the melt shop"

A safer and more effective way of lifting & handling graphite electrodes, the EXO SUPER PLUG™ is designed to replace outdated graphite plugs for improved safety, and dramatically longer service life.



## THE EXO SUPER PLUG™ HAS THE STRENGTH OF STEEL WITH THE PROPERTIES OF GRAPHITE



#### SUPER PLUG™ FEATURES

- Designed with a proprietary Superalloy used in aerospace, electronics, and defense industries.
- Superalloy insert has the low Thermal Expansion Properties (CTE) of Graphite at the operating temperatures above the electrode holder with a strength that is similar to high alloy steel, 15-20x that of graphite.
- Insert can be changed and, in some cases, re-machined if it becomes damaged.
- Custom designed for any crane hook in use.
- Safety Factor of 4x Working Load Limit.
- Load Tested to 2x the Working Load Limit.
- The SUPER PLUG is Certified to ASME B30.20-2018 Below-The-Hook Lifting Device Standards.



#### SUPER PLUG™ BENEFITS

- SAFETY! The threads of the SUPER PLUG are resistant to wear compared to fragile graphite threads.
- EASE OF USE Since the CTE is compatible with graphite CTE, there is no seizing when coming off the furnace.
- DURABILITY Dramatically better durability and extended service life compared to fragile graphite lift plugs.
- OVERALL MELT SHOP SAFETY Dramatically reduced risk of socket-plug system failure due to high strength-low wear nature of the Superalloy insert.



EXO Technologies Super Alloy Lift Plugs are a brand-new concept to lift electrodes. With 10 - 15X the strength of graphite.

"With the Super Plug, we don't worry about dropping \$30,000 of graphite due to a plug failure".

— 32" EAF Operator —





#### **EXCLUSIVE SALES REP**