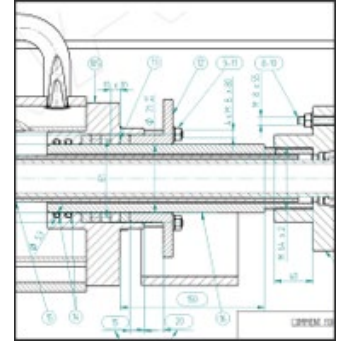


## TEADIT® 2202 CASE HISTORY

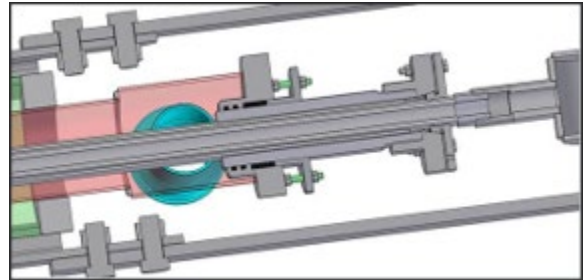
### SCENARIO

Teadit was contacted by a customer regarding an issue they were experiencing with a Viton o-ring seal on a sliding sleeve. The sleeve was part of an oxygen lance which is a tool that heats and melts steel in the presence of pressurized oxygen to create very high temperatures for cutting. Sealing failures caused efficiency losses in the equipment and the process as well as posing a safety risk. A suitable option had been difficult to find.



### SOLUTION

Teadit technical staff, in partnership with the customer, evaluated the application and determined that the root cause of the issue was related to high temperature exposure of the elastomeric o-ring seal. Elastomers, by nature, are highly susceptible to mechanical degradation at extreme temperatures. In this instance, the Viton was operating at or above the upper limits of its recommended use. It was



determined that a mechanical packing would offer a more reliable seal due to its improved temperature resistance characteristics. Teadit style 2202 packing was selected due to its extreme versatility in many demanding applications, both dynamic and static, and because it is particularly suited for high temperature and high pressure services. Style 2202 is diagonally braided from pure, expanded flexible graphite, and reinforced at the corners and throughout with high-quality carbon fibers. The carbon fiber reinforcement in the corners and body of the packing combine to make it three times more resistant to extrusion and also increase its pressure handling capability compared to a non-reinforced flexible graphite packing.

### CUSTOMER GAINS

Based on Teadit's recommendation, the customer decided to proceed with replacing the Viton o-rings with mechanical packing. They immediately noticed significant improvement in the length of operation between required maintenance. This led to a noticeable overall improvement of process efficiency as well as significant savings in maintenance and costly down times that they were previously experiencing.

