

1000 SERIES CRYOSTREAM

CONCENTRIC NOZZLE ALIGNMENT

INTRODUCTION

Ice forming on one side of the nozzle is most likely caused by the inner and outer nozzles not being concentric. This tech note describes the procedure for re-aligning the inner and outer nozzles to make them concentric. This may require slightly manoeuvring of the inner nozzle. No damage can be caused to the Coldhead as long as it is performed carefully.

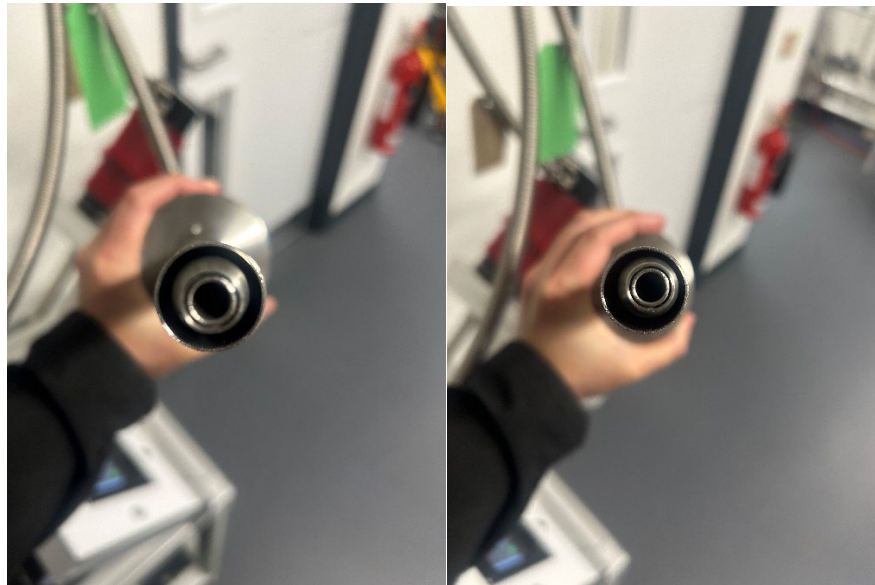
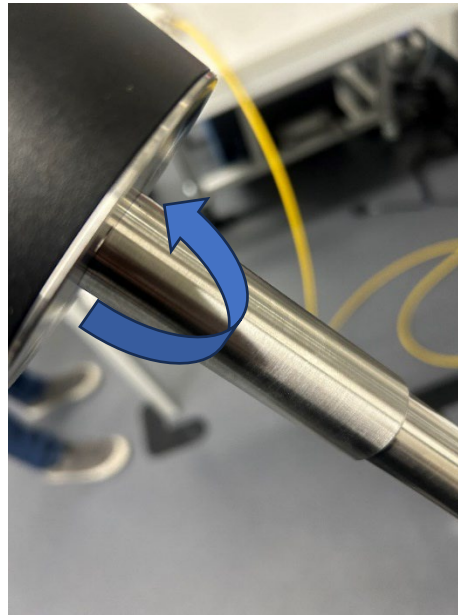


Figure 1 - Concentric and Non-Concentric inner and outer nozzles

1. The first step is to ensure the outer nozzle is fully screwed into the base of the coldhead. If this has unscrewed slightly the outer nozzle becomes loose and likely will go out of alignment. This can occur when installing and fixing the coldhead into the Varibeam or other nozzle holder for example. Grip the top of the nozzle and it can be screwed/unscrewed by hand.



2. If the outer nozzle is fully tightened but still not concentric with the inner nozzle, the next step is to try and move the inner part of the nozzle. Note which direction the inner nozzle needs to move, then fully unscrew the outer nozzle and take it off. Firmly hold the coldhead and put pressure on the inner nozzle to move it in the desired direction. Screw in the outer nozzle and check if they are concentric.

