



Inspection of O-rings and Flanges

Door o-rings should be cleaned and inspected prior to closing the doors. All other o-rings and flange faces should be examined whenever the o-ring seal is broken. The o-ring should be cleaned with either Ethanol or Methyl Alcohol. After cleaning, the operator can apply a THIN coat of vacuum grease if he or she chooses. The operator should apply only enough vacuum grease to make the surface of the o-ring shine. The face of the o-ring should be free of any cuts, abrasions, nicks, scratches or debris. If the face of the o-ring should show any damage it should be replaced. The face of the sealing flange should be examined, and if any nicks, dents or abrasions are present in the sealing area, then the flange needs to be re-faced.

It is not unusual in high-pressure seals for some material to be extruded from the edges of the o-ring; this is especially true with softer o-ring materials such as silicon. A small amount of extrusion is expectable and is not detrimental in any way. If the amount of extruded material exceeds 5% of the total O-ring material, the O-ring should be replaced.

Excessive vacuum grease on o-rings can be detrimental to the system. Thick layers of vacuum grease can attract dirt and debris and could potentially damage the o-ring. Vacuum grease is also hygroscopic (moisture absorbing) and the presence of an excessive amount of grease in a furnace could hinder the performance of the vacuum system.



CAUTION!