

ASTM G14 - Standard Test Method for Impact Resistance of Pipeline Coating (Falling Weight Test)

This test method covers the determination of the energy required to rupture coatings applied to pipe under specified conditions of impact from falling weight. This could be helpful if we end up using pipe coated with something to make it chemically resistant to certain bacteria build up to build the hydraulic system. There is a chance that one day someone may fall while using the device, and the impact of their weight may disturb the coating leading to unsanitary conditions.

ANSI/BIFMA HCF 8.1 Healthcare Furniture Design - Guidelines for Cleanability

This standard could provide us with the information we need to test whether or not our device fits the standards of cleanliness and cleanability met by current furniture/assistive seats used widely in the healthcare industry.

ASTM G161 - Standard Guide for Corrosion-Related Failure Analysis

One concern we have with the device is we do not currently have a material chosen to use. We need to look for one that is durable and resistant to corrosion. On the chance that the material does corrode, we should know what failures in the hydraulic system it may cause and any potential risks to the user due to those failures.

I think considering I alone have found two ASTM standards that would be extremely helpful when we enter the design phase of the project, it would be good for us as a team to apply for the grant. With more funding we could incorporate more testing into the reasoning behind our final material choice for the prototype we plan to build.