

Prototype Testing:

Engineering Metric Being Tested: Seat Surface Height From Ground

Purpose:

This protocol is written in order to determine the ideal seat surface height from the ground. It is necessary to determine comfortable ergonomic dimensions in order to allow for the greatest user satisfaction rating.

Goals:

The target seat height for this measurement is 46 centimeters. This value was determined through the Consumer Reports database as an acceptable measurement for comfortable toilet seat heights.

Conclusions:

The seat height is at an acceptable ergonomic value, and no changes to the design will be required in regards to this engineering metric.

Materials:

- *Complete toilet system prototype*
- *Measuring tape*

Procedure:

1. Assemble the complete toilet system
2. Use the measuring tape to measure the height from the ground to the seat

Results:

Seat Height = 46.5 cm (18.25")

Analysis:

The toilet was placed on a flat surface, and a tape measure was used to determine that the seat height from the ground is equal to 46.5 cm. This is very close to the intended 46 cm seat height, and is an acceptable value for an ergonomic seat height.