

## An Anthropometric survey on male hand in relation to manual work

Ahmed W Moustafa

Head of Design ergonomics information Center, Faculty of Applied Arts, Helwan University, Egypt

### Abstract:

All manual tools and controls used in manual work in Egypt must respect and respond to a large number of hand dimensions of their intended user (mainly male workers). This study was designed as an attempt to collect, compute, classify, and analyze anthropometric data on the hand of a representative sample of the Egyptian male Manual worker population to create a reliable and complete source of such data. The sample consisted of 140 subjects of manual workers and 46 subjects working in non-manual jobs selected randomly from sites distributed all over Egypt. Age range was 20 to 61 years old. Data is presented in a format easily utilizable by bodies and organizations involved in product design or in establishing guidelines and standards for male related products taking into consideration the potential functional applications.

Results shows a significant difference between manual workers and other subjects in most hand dimensions. Workers from upper Egypt tend to have a larger hand dimensions. Muscle strength shows also a significant difference between most classified groups.