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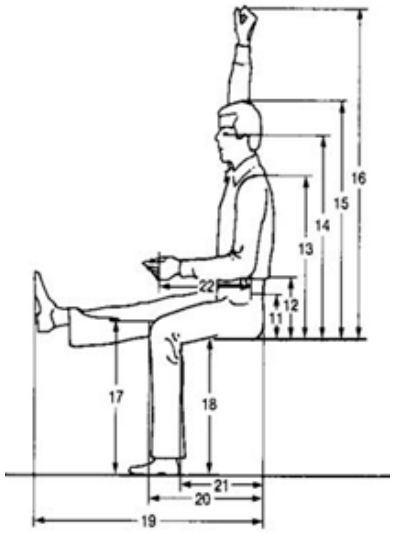
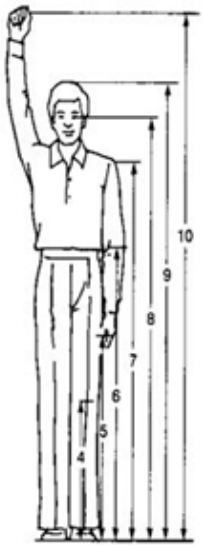
## Anthropometry – Sit/Stand Workbench

In the Anthropometry section in the manual we went through a case study where we determined the specifications for a standing height workbench (adjustable and fixed height).

In some other workstations we may want a workbench where the worker can sit and/or stand (sit/stand workbench). For this Exercise you will access the ***Anthropometry Reference Data Base.xlsm*** found in your training materials and generate the specifications for a sit/stand workbench.

### *Exercise – Sit/Stand Workbench*

| Reference Points | | Background Information |
|---|---|---|
|  |  | **Task –** A workbench is being designed for a ***general assembly*** process.<br>**User Population – *Diverse*** user population (gender, stature, etc.).<br>**Object Weight –** Up to ***5#***.<br>**Body Position –** Assembly performed at ***elbow height*** from ***either seated or standing*** positions.<br>**Reference Points –** Select the Dimensions of Interest in the Reference Points.<br>**Homework Tip –** You may need to add together segment lengths to determine the needed Reference Points. |
| **Thigh Clearance Height - Sit {11}** | **Tibial Height {4}** | **Seated** |
| **Elbow Rest Height - Sit {12}** | **Knuckle Height - Stand {5}** | **Dimension(s) of Interest** (Enter in the box) |
| **Mid-shoulder Height - Sit {13}** | **Elbow Height - Stand {6}** | **Adult Population Mix (%)** (enter number)<br>Men Women |
| **Eye Height - Sit {14}** | **Shoulder Height - Stand {7}** | **Design Exclusion (%)** (enter number) |
| **Sitting Height - Normal {15}** | **Eye Height - Stand {8}** | **Find Values –** Click on ***Find Value***s in the spreadsheet to perform the calculation |
| **Functional Overhead Reach - Sit {16}** | **Stature {9}** | **Results** (enter calculated seated workbench height) |
| **Knee Height - Sit {17}** | **Functional Overhead Reach - Stand {10}** | **Standing** |
| **Popliteal Height - Sit {18}** | | **Dimension(s) of Interest** (Enter in the box) |
| **Leg Length - Sit {19}** | | **Adult Population Mix (%)** (enter number)<br>Men Women |
| **Upper-Leg Length - Sit {20}** | | **Design Exclusion (%)** (enter number) |
| **Buttocks-to-Popliteal Length - Sit {21}** | | **Find Values –** Click on ***Find Value***s in the spreadsheet to perform the calculation |
| **Elbow-to-Fist Length {22}** | | **Results** (enter calculated standing workbench height) |
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