

This document outlines the minimum and preferred criteria for work surfaces. The checklist should be used to determine whether or not a work surface meets UC ergonomics requirements.

INSTRUCTIONS

Each section contains a set of criteria that should be evaluated for each work surface under consideration.

1. If any criteria are not met, the product is not recommended for purchase
2. Work surfaces that meet **preferred** criteria are recommended over work surfaces that meet minimum criteria
3. Work surfaces not covered by these requirements are subject to local UC Ergonomics Program approval

Note: These guidelines apply to approximately 90% of the population. Petite, tall or large-framed individuals and people with specific ergonomics needs may require equipment with size or range adjustments that are outside the parameters provided below. This checklist is not applicable for reception workstations or counters, as these areas need a depth narrower than 24 inches to reduce reaching to the client.

Contact your local UC Ergonomics Program for assistance with applying these requirements and for additional information, including requirements for reception counters/workstations, sit-to-stand adjustable workstations, laboratory and other work surfaces, seating and storage, and for a list of furniture that meets these requirements. Refer to your local UC Ergonomics Program for a site-specific version of this checklist with additional requirements and contact information.

UC Location: This checklist applies at _____. The _____ Ergonomics Program can be reached at _____.

MINIMUM REQUIREMENTS

Minimum requirements are provided in this checklist for workstation design.

Work Surfaces/Workstations: This checklist is divided into sections for three different types of work surfaces:

- A) Mixed-use workstations (*computer, paperwork and phone use*)
- B) Computer workstations (*computer use only*)
- C) Paperwork workstations (*paperwork and phone use only*)

Some work surface requirements will vary depending on the tasks performed on the work surface. Refer to the appropriate section for the type of desk, work surface or height-adjustable table being purchased. If the tasks to be performed are unknown, mixed-use workstation requirements apply.

Storage, Keyboard Trays and Pinch Points

For all workstation types, storage designed for placement underneath work surfaces shall not impede work surface height adjustability ranges/requirements. Storage and desk products placed above workstations shall not impede monitor placement and shall be adjustable and/or easily removable to accommodate monitor heights while sitting or standing. Storage should be mobile or removable to provide maximum flexibility.

Keyboard trays are not the recommended standard solution for adjustability. Keyboard trays may be added to work surfaces that meet the requirements below; however, keyboard trays alone may not meet requirements.

Work surface size should be reduced by one inch to allow for pinch points between user height-adjustable work surfaces and adjacent fixed surfaces/objects

Mixed-use Workstations (*computer, paperwork and phone use*)

<input type="checkbox"/>	<p>Height - <i>one of the following must be checked:</i></p> <ol style="list-style-type: none"> 1. Preferred: <ol style="list-style-type: none"> a. Sit-stand adjustability: entire work surface is user height adjustable; recommended adjustability range is from 22-48 inches or more (8, pg. 50) b. Seated-height adjustability: entire work surface is user or installer height adjustable; recommended adjustability range is between 22-30 inches or more (7, pg. 21-22; 1, pg. 79; 8 pg. 50) 2. Minimum: 28.5 inches if not adjustable. (1, pg. 79)
<input type="checkbox"/>	<p>Width of top surface - at least 60 inches of usable desk surface with a minimum of 41 inches unobstructed leg room underneath (1, pg. 17; 8, pg. 212)</p>
<input type="checkbox"/>	<p>Depth of top surface - at least 30 inches deep to allow for safe placement of computer equipment on the computer workstation (10, pg. 79); at least 24 inches deep for non-computer work surfaces (1, pg. 80)</p>
<input type="checkbox"/>	<p>Width underneath work surface - <i>one of the following must be checked:</i></p> <ol style="list-style-type: none"> 1. Preferred: 20.5 inches wide or greater (1, pg. 80); 30 inches wide or greater for ADA (5, pg. 321) 2. Minimum: 20.5 inches wide (1, pg. 80); 30 inches wide for ADA (5, pg. 321)
<input type="checkbox"/>	<p>Depth underneath work surface - <i>one of the following must be checked:</i></p> <ol style="list-style-type: none"> 1. Preferred: 17.3 inches or greater at the level of the knee and 23.6 inches or greater at level of the feet (1, pg. 80) 2. Minimum: 17.3 inches at the level of the knee and 23.6 inches at level of the feet (1, pg. 80)
<input type="checkbox"/>	<p>Thickness - no greater than 1.5 inches (1, pg.76)</p>
<input type="checkbox"/>	<p>Finish - matte finish (1, pg. 78)</p>
<input type="checkbox"/>	<p>Edges - rounded front edges with 3mm radii; no sharp corners, cut-outs or edges (1, pg. 78)</p>
<input type="checkbox"/>	<p>Stability - shall be structurally rigid and stable (1, pg. 77); freestanding work surfaces should have a functional load capacity of at least 200 pounds (9, pg. 18-20); Work surfaces and bases shall meet ANSI/BIFMA X5.5 2008 requirements (9)</p>
<input type="checkbox"/>	<p>Adjustment controls - easy to reach and operate from normal working postures and do not interfere with users' work positions (1, pg. 14)</p>
<input type="checkbox"/>	<p>Storage underneath work surfaces - <i>one of the following must be checked:</i></p> <ol style="list-style-type: none"> 1. Preferred: Allow for work surface height adjustment of 22-30 inches for seated, 22-48 inches for sit-to-stand. Storage should be mobile or removable. 2. Minimum: Maximum height of 27.0 inches for stationary height work surface of 28.5 inches. Storage should be mobile or removable.
<input type="checkbox"/>	<p>Storage above computer work surfaces - adjustable and/or easily removable to accommodate monitor heights while sitting or standing</p>

Computer Workstations

<input type="checkbox"/>	<p>Height - <i>one of the following must be checked:</i></p> <ol style="list-style-type: none"> 1. Preferred: <ol style="list-style-type: none"> a. Entire work surface (not keyboard tray) is user or installer height-adjustable; recommended adjustability range is from 22 – 30 inches or greater from the floor to the top of the work surface (1, pg. 79; 8, pg. 50) b. Seated-height adjustability: entire work surface is user or installer height adjustable; recommended adjustability range is between 22-30 inches or more (7, pg. 21-22; 1, pg. 79; 8 pg. 50) 2. Minimum: 28.5 inches if not adjustable (1, pg. 79)
<input type="checkbox"/>	Width of top surface - 27.6 inches or greater (this is strictly an anthropometric requirement and the functional requirements of the task will most likely dictate a larger width) (1, pg. 77, 82; 8, pg. 212)
<input type="checkbox"/>	Depth of top surface - at least 30 inches deep to allow for safe placement of computer equipment on the computer workstation (10, pg. 79)
<input type="checkbox"/>	<p>Width underneath work surface - <i>one of the following must be checked:</i></p> <ol style="list-style-type: none"> 1. Preferred: 20.5 inches wide or greater (1, pg. 80); 30 inches wide or greater for ADA (5, pg. 321) 2. Minimum: 20.5 inches wide (1, pg. 80); 30 inches wide for ADA (5, pg. 321)
<input type="checkbox"/>	<p>Depth underneath work surface - <i>one of the following must be checked:</i></p> <ol style="list-style-type: none"> 1. Preferred: 17.3 inches or greater at the level of the knee and 23.6 inches or greater at level of the feet (1, pg. 80) 2. Minimum: 17.3 inches at the level of the knee and 23.6 inches at level of the feet (1, pg. 80)
<input type="checkbox"/>	Thickness - no greater than 1.5 inches (1, pg.76)
<input type="checkbox"/>	Finish - matte finish (1, pg. 78)
<input type="checkbox"/>	Edges - rounded front edges with 3mm radii; no sharp corners, cut-outs, or edges (1, pg. 78)
<input type="checkbox"/>	Stability - shall be structurally rigid and stable (1, pg. 77). Freestanding work surfaces should have a functional load capacity of at least 200 pounds. (9, pg. 18-20). Work surfaces and bases shall meet ANSI/BIFMA X5.5 2008 requirements (9)
<input type="checkbox"/>	Adjustment controls - easy to reach and operate from normal working postures and do not interfere with users' work positions (1, pg. 14)
<input type="checkbox"/>	<p>Storage underneath work surfaces - <i>one of the following must be checked:</i></p> <ol style="list-style-type: none"> 1. Preferred: Allow work surface height of 22-30 inches for seated, 22-48 inches for sit-to-stand. Storage should be mobile or removable. 2. Minimum: Maximum height of 27.0 inches for stationary height work surface. Storage should be mobile or removable.
<input type="checkbox"/>	Storage above computer work surfaces - adjustable and/or easily removable to accommodate monitor heights while sitting or standing

Paperwork Workstations (*for paperwork and phone use only- no computers*)

<input type="checkbox"/>	Height - <i>one of the following must be checked:</i> <ol style="list-style-type: none"> Preferred: Entire work surface is user or installer height adjustable. Recommended adjustability range is between 26-32 inches or more (7, pg. 21-22) Minimum: Maximum height of 28.5 inches (1, pg. 79)
<input type="checkbox"/>	Width of top surface - 30 inches or greater (1, pg. 79; 8, pg. 212)
<input type="checkbox"/>	Depth of top surface - <i>one of the following must be checked:</i> <ol style="list-style-type: none"> Preferred: At least 30 inches deep (1, pg. 80) Minimum: 24 inches deep (1, pg. 80)
<input type="checkbox"/>	Width underneath work surface - <i>one of the following must be checked:</i> <ol style="list-style-type: none"> Preferred: 20.5 inches wide or greater (1, pg. 80); 30 inches wide for ADA (5, pg. 321) Minimum: 20.5 inches wide (1, pg. 80); 30 inches wide for ADA (5, pg. 321)
<input type="checkbox"/>	Depth underneath work surface - <i>one of the following must be checked:</i> <ol style="list-style-type: none"> Preferred: 17.3 inches or greater at the level of the knee and 23.6 inches or greater at level of the feet (1, pg. 80) Minimum: 17.3 inches at the level of the knee and 23.6 inches at level of the feet (1, pg. 80)
<input type="checkbox"/>	Thickness - no greater than 1.5 inches (1, pg.76)
<input type="checkbox"/>	Finish - matte finish (1, pg. 78)
<input type="checkbox"/>	Edges - rounded front edges with 3mm radii; no sharp corners, cut-outs, or edges (1, pg. 78)
<input type="checkbox"/>	Stability - shall be structurally rigid and stable (1, pg. 77). Freestanding work surfaces should have a functional load capacity of at least 200 pounds. (9, pg. 18-20). Work surfaces and bases shall meet ANSI/BIFMA X5.5 2008 requirements (9)
<input type="checkbox"/>	Adjustment controls - easy to reach and operate from normal working postures and do not interfere with users' work positions (1, pg. 14)
<input type="checkbox"/>	Storage underneath work surfaces - <i>one of the following must be checked:</i> <ol style="list-style-type: none"> Preferred: Allow work surface height of 22-30 inches for seated, 22-48 inches for sit-to-stand. Storage should be mobile or removable Minimum: Maximum height of 27.0 inches for stationary height work surface. Storage should be mobile or removable

REFERENCES

(1) ANSI/HFES 100-2007 Human Factors Engineering of Computer Workstations; (2) Human Factors in Engineering and Design, Mark Sanders and Ernest McCormick, 7th edition, McCraw-Hill, Inc., 1993; (3) Humantech Ergonomic Design Guideline for Engineers Manual; (4) Ergonomics Guideline for VDT (Visual Display Terminal) Furniture Used in Office Workspaces, BIFMA International, 2/28/2002 ; (5). CalDAG California Disabled Accessibility Guidebook, 1998; (6) Architectural Graphic Standards, Charles Ramsey, Harold Sleeper and John Ray Hoke editor, 9th edition, John Wiley & Sons, Inc., 1994; (7) Ergonomic Design for People at Work, Volume 1, Eastman Kodak Company, John Wiley & Sons, Inc., 1983; (8) Kodak's Ergonomic Design for People at Work, Second Edition, The Eastman Kodak Company, John Wiley & Sons, Inc. 2004; (9) ANSI-BIFMA x5.5-1998, Desk/Table Products - Tests.10) BIFMA G1-2013 Ergonomics Guideline for Furniture Used in Office Work Spaces Designed for Computer Use