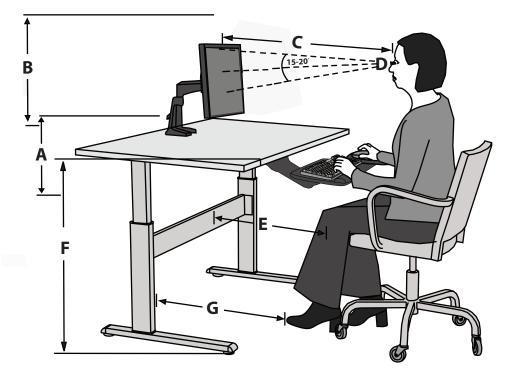
#### **ERGONOMICS AND ADA GUIDELINES**



# **Ergonomics - Sitting Workstation**



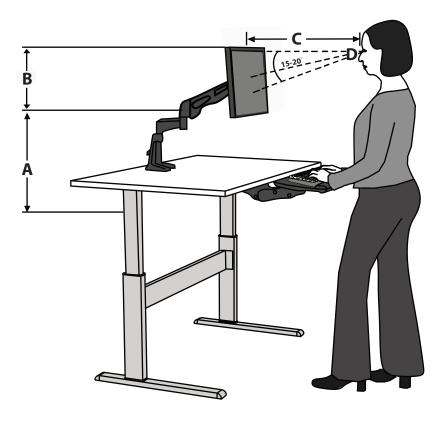
Sources: ANSI/HFES 100-2007 Standards; humantech (2010) Ergo Expo: Ergonomics and Design Guide Products shown: Equity Series with keyboard tray and monitor arm

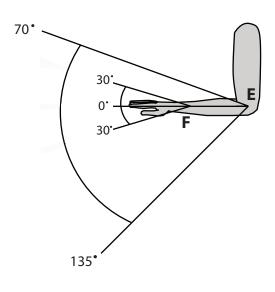
Zone	Dimension	Description		
A. Hand Working Height	Adj. 27"-36" Fixed: 36"			
B. Monitor Height	Adj. 58"-71"	Vertical distance from standing surface to top of viewable portion of the monitor screen		
C. Optimal Viewing Distance	Adj. 18"-30" Fixed: 23"	Horizontal distance from eye to monitor screen surface		
D. Gaze Angle	15-20 degrees	The center of the monitor should be 15-20 degrees below eye level		
E. Knee space depth	Min. 17.3	Beneath the work surface, horizontal distance from front of table edge to back of the workstation		
F. Height Adjustment	19.7″-28.3″	Height adjustment at the front edge of the work surface (range includes multiple postures)		
G. Foot Space Depth	Min 23.6"	Beneath the work surface, horizontal distance from front of table edge to back of the workstation.		
Hip well width	20.5"	Horizontal width across front of work surface		
Knee well width	30"	Beneath the work surface, horizontal width across front of work surface		

#### **ERGONOMICS AND ADA GUIDELINES**



# **Ergonomics - Standing Workstation**





Sources: ANSI/HFES 100-2007 Standards; humantech (2010) Ergo Expo: Ergonomics and Design Guide Products shown: Equity Series with keyboard tray and monitor arm

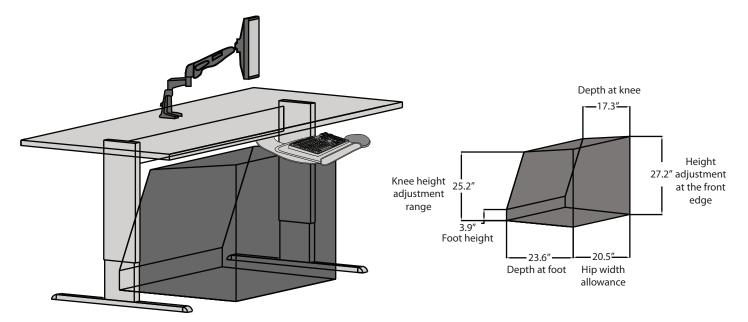
Zone	Dimension	Description		
A. Hand Working Height Optimal Acceptable	Adj. 38"-47" Fixed: 42" Adj. 30"-57" Fixed: 42"	Vertical Distance from standing surface to hand working height		
B. Monitor Height	Adj. 58"-71"	Vertical Distance from standing surface to top of viewable portion of display screen		
C. Optimal Viewing Distance	Adj. 18"-30" Fixed: 23"	Horizontal distance from eye to display screen surface		
D. Gaze Angle	15-20 degrees	The center of the monitor should be 15-20 degrees below eye level		
E. Elbow Position	Between 70 and 135 degrees	Elbow angle is allowed to vary between 70 and 135 degrees		
F. Wrist Position	+/- 30 degrees	Adjust height and tilt to facilitate neutral wrist posture		



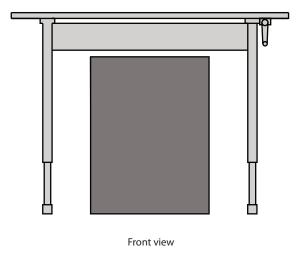
## ANSI/HFES - Computer Workstation Clearance Space

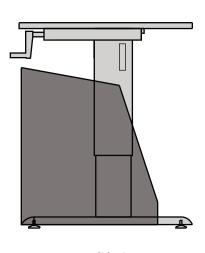
The figures of the Populas Accella series adjustable activity/computer table depict the orientation and dimensions of the clearance spaces under the work surface, as detailed in the ANSI/HFES 100-2007 Human Factors Engineering of Computer Workstations © 2007.

ANSI/HFES requirements and recommendations are based on accepted human factors, ergonomics research and established professional practices. The standards' goal is to match the user to the proper equipment when it comes to work styles, fluctuation in task content, and worker physiology.



Products shown: Accella Series with keyboard tray and monitor arm

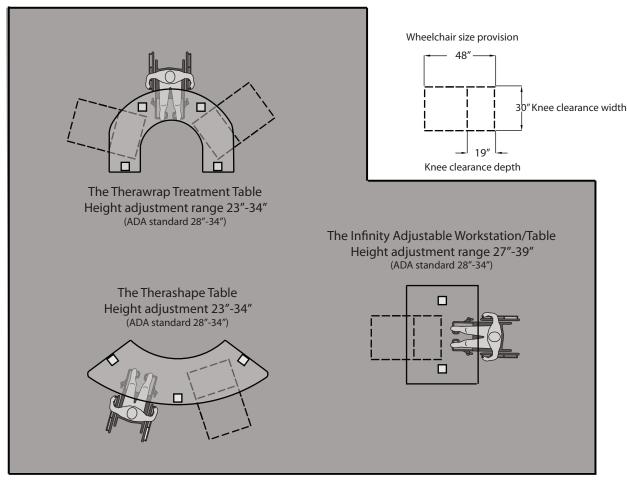




Side view



## ADA Standards - Workstations, Tables, and Desks



<sup>\*</sup> Code of Regulations: Department of Justice, ADA Standards for Accessible Design; 28CFR part 36, sections 4.2.4 and 4.32

The table below summarizes recommendations for accessibility standards for children's environments based on the following standards:

- · Americans with Disabilities Act Accessibility Guidelines (ADAAG)
- · United States Architectural and transportation Barriers Compliance Board (ATBCB) Recommendations for Accessibility Standards for Childrens Environments
- · Uniform Federal Accessibility Standards (UFAS)

	ADAAG	АТВСВ	UFAS
4.32.3 Knee Clearances	24" H, 30" W, 19" D	24" H, 30" W, 19" D	27" H, 30" W, 19" D
4.32.4 Table & Work Surface - Height	26" - 30", lower height for children 2 to 4 16" - 20"	30" Max	28" - 34"