

### CHAIR CHECKLIST (ANSI/HFES 100 - 2007)

Item	REQUIREMENTS	Yes/No
<b>Chair</b>	Shall have a lumbar support	
	Shall have a backrest that reclines	
	Shall have a seat pan that adjusts for height and tilt	
	Shall support at least one other of the seated reference postures in addition to the upright sitting posture	
	Shall provide support to the user's back and thighs in the chosen reference postures	
<b>Seat Pan and Backrest Adjustments</b>	Shall be height adjustable	
	Shall have a user adjustment for tilt	
<b>Backrest</b>	Shall not constrain the user's torso to a position forward of vertical	
	Shall not force a torso-thigh angle less than 90 degrees	
	Shall allow adjusting the angle between the backrest and seat pan to an angle of 90 degrees or greater	
	Shall allow the user to recline at least 15 degrees from the vertical	
<b>Armrests</b>	Shall provide sufficient clearance to allow the user to sit or stand without interference	
	Shall not cause the user to violate any of the following postural guidelines	
	<i>elbow angles between 70 and 135 degrees</i>	
	<i>shoulder abduction angles less than 20 degrees</i>	
	<i>shoulder flexion angles less than 25 degrees</i>	
	<i>wrist flexion angles less than 30 degrees</i>	
	<i>wrist extension angles less than 30 degrees</i>	
<i>torso-to-thigh angles equal to or greater than 90 degrees</i>		
<b>Seat height</b>	Shall be adjustable by the user over a minimum range of 11.4 cm (4.5 in.) within the recommended range of 38 to 56 cm (15 to 22 in.)	
	Manufacturer shall provide information to show which of the three seated postures the chair will accommodate	
<b>Depth and Front Edge of the Seat Pan</b>	Shall, if nonadjustable, be no greater than 43 cm (16.9 in.)	
	Shall include 43 cm (16.9 in.) if adjustable	
<b>Seat Pan Width</b>	Shall be at least 45 cm wide (17.7 in.)	
<b>Seat Pan Angle</b>	Shall have a user-adjustable range of at least 4 degrees, which includes a reclined position of 3 degrees	
<b>Seat Pan-Backrest Angle</b>	Shall be able to achieve a position that is vertical or to the rear of vertical.	
	If the backrest is adjustable, it shall have an adjustment range of 15 degrees or more within the range of 90 degrees and 120 degrees relative to horizontal	

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<b>Chair</b>	Should be adjustable to provide clearance under the work surface	
	Should provide information to the user as to the recommended use and adjustment of the chair	
<b>Casters</b>	Should be appropriate for the type of flooring at the workstation	
<b>Seat Pan and Backrest Adjustments</b>	Should be wide enough to accommodate the clothed hip width of a 95th percentile female	
	Should be of sufficient depth to allow the user's back to be supported by the backrest without contact between the back of the user's knee and the front edge of the seat pan	
	Should have a tilt lock or stop position that the user can select while seated, if a tilt lock is provided (a stop limits motion in one direction, whereas a lock limits movement in two directions)	
	Should have a rounded front edge	
<b>Backrest</b>	Should allow the user to control the resistance necessary to recline the backrest	
	Should provide support to the lumbar and thoracic regions of the back	
	Should have a means of adjusting the backrest tension	
<b>Armrests</b>	Should be adjustable in height	
	Should allow adjustment of the clearance width between the armrests	
	Should be detachable	
	Should adjust in height from 17 to 27 cm (6.7 to 10.6 in.) above the compressed seat pan height	
	Should be designed to distribute forces evenly over the contact area	
	Should not create excessive pressure points	
	Should not irritate or abrade the skin	
	Should be able to be detached from the chair if necessary to fit the workplace	
	Fixed-height armrests should be between 18 and 27 cm (7.1 to 10.6 in.) above the compressed seat pan height	
	The clearance between armrests should be at least 46 cm (18.1 in.)	
The clearance between armrests should be adjustable by the user (for example, pivot or otherwise move)		
<b>Seat Pan–Backrest Angle</b>	If the backrest recline angle exceeds 120 degrees from the horizontal, the backrest should have a headrest, preferably user adjustable	
<b>Backrest Height and Width</b>	Should be at least 45 cm (17.7 in.) above the compressed seat height	
	If fixed, the lumbar support area of the backrest should be located between 15 and 25 cm (5.9 and 9.8 in.) above the compressed seat height	
	The position of the center of the lumbar support should be user adjustable between 15 and 25 cm (5.9 and 9.8 in.) above the compressed seat height	
	The width of the backrest should be at least 36 cm (14.2 in.)	

