

Example Calculation 1: Standing/Seated Work Place Work Surface Height Variable

Given:

- › Work place with **variable work surface height** and computer support
- › Part of the work task is the data comparison and the transfer of the findings into a SAP-mask with **average visual and/or fine motor requirements (k =1)**
- › The thickness of the tabletop measures 2 cm.
- › There is a permanent change between women and men at this work place.
- › The measurements for the work place design result from **table 2 1a seated work place work surface height variable**



Example Calculation 1: Standing/Seated Work Place Work Surface Height Variable

Resulting in a :

Adjustable working height	= 560 mm up to 1225 mm
Adjustable work surface height	= 560 – C up to 1225 – C = 560 mm up to 1225 mm
Foot room depth	= 96 mm
Leg room height between	= 560 – K up to 1225 – K = 540 mm up to 1205 mm
Leg room depth	= 497 mm
Leg room width	= 994 mm
Adjustable seating height	= 370 mm – 535 mm

Tabelle 2: Arbeitsplatzmaße für Anforderungen (k = 1)

	Euro-Mensch
	M/F
Arbeitshöhe	560-1225
Arbeitsflächenhöhe	Arbeitshöhe - C
Beinraumhöhe	Arbeitsflächenhöhe - K
Beinraumbreite	497
Fußraumbreite	782
Beinraumbreite	994
Sitzflächenhöhe	370-535



Example Calculation 1: Standing/Seated Work Place Work Surface Height Variable

The thigh leg room is to be checked :

- › According equation 1 on slide 4 of this document the thigh leg rooms are:
 - › $TLR (P5) = WSH \text{ min.} - SSH \text{ min.} - K$
 - $TLR (P5) = 560 \text{ mm} - 370 \text{ mm} - 20 \text{ mm}$
 - $TLG (P5) = \underline{170 \text{ mm}} > 125 \text{ mm (thigh height P5, according table 1)}$
- › According table 1 page 4 the thigh height is smaller than the existing thigh leg room, the design measures can be implemented.

Example calculation 2: Seated Work Places Work Surface Height Fixed

Given:

- › Mikroscope work place with **fixed work surface height**
- › Work task **with height requirements concerning the visual inspection and fine motor tasks ($k = 1,2$)**
- › The distance between the place of manual operation and the worktop (C) 18 cm.
- › The thickness of the tabletop measures 2 cm.
- › The measurements for the work place design result from **table 1 [2b seated work place work surface height fixed](#)**
- › There are only women deployed at this workplace.



Example Calculation 2: Seated Work Places Work Surface Height Fixed

Resulting in a :

Working height	= 871 mm
Work surface height	= 871 mm – C = 691 mm
Leg room height	= 853 mm – K = 671 mm
Leg room depth	= 547 mm
Foot room depth	= 882 mm
Leg room width	= 790 mm
Adjustable seating height	= 535 mm – 625 mm
Adjustable foot rest height	= 0 mm – 165 mm

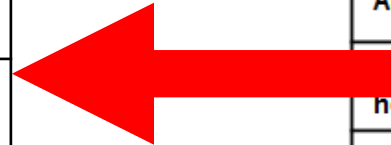


Tabelle 1: Arbeitsplatzmaße für Art (k = 1,2)

	Euro-Mensch
	M/F
Arbeitshöhe	871
Arbeitsflächenhöhe	Arbeitshöhe -C
Beinraumhöhe	Arbeitsflächenhöhe -K
Beinraumtiefe	547
Fußraumtiefe	882
Beinraumbreite	790
Sitzflächenhöhe	535-625
Fußauflagenhöhe	0-165

Example Calculation 2: Seated Work Places Work Surface Height Fixed

The thigh leg room is to be checked :

- › According equation 1 on slide 4 of this document the thigh leg rooms are :

$$\text{TLR (P5)} = \text{WSH} - \text{SSHmax.} - \text{K}$$

$$\text{TLR (P5)} = 691 \text{ mm} - 625 \text{ mm} - 20 \text{ mm}$$

$$\text{TLR (P5)} = \underline{46 \text{ mm}} < 125 \text{ mm (thigh height P5, according table 1)}$$

$$\text{TLR (P95)} = \text{WSH} - \text{SSHmin.} - \text{K}$$

$$\text{TLR (P95)} = 691 \text{ mm} - 535 \text{ mm} - 20 \text{ mm}$$

$$\text{TLR (P95)} = \underline{136 \text{ mm}} < 185 \text{ mm (thigh height P5, according table)}$$

- › According table 1 the thigh heights are bigger than the existing thigh leg rooms, changes have to be made concerning the construction thickness (K) or concerning the distance between the place of manual operation and work surface (C).

Example Calculation 2: Seated Work Places Work Surface Height Fixed

In this case the required thigh leg room can be implemented by the following changes:

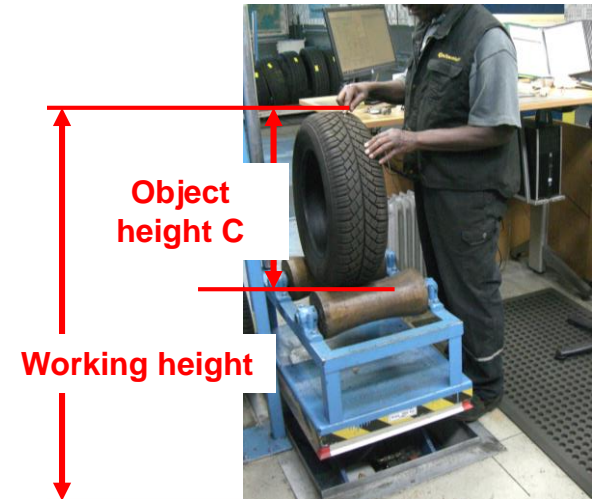
1. With a height adjustable base plate with hand rest and / or
2. With a height adjustable tube body.



Example Calculation 3: Standing Work Places Work Surface Height variable

Given:

- › Work place with **variable work surface height** for checking tires
- › Work task with average requirements concerning the manual tasks with free arm movement
- › Checked are tires with a diameter or object height C of 378,4 mm - 578,4 mm
- › The measurements for the work surface and working height result from table 2 [4a standing work place work surface height variable](#)
- › There is a permanent change between women and men at this work place.



Resulting in a :

Maximum working height	= 1225 mm
Work surface height (max.)	= 1225- C = 1225-378 = 847 mm
Work surface height (min.)	= 0 mm for tire positioning

Tabelle 2: Arbeitsplatzmaße für Arb Anforderungen (k = 1)

	Euro-Mensch
	M/F
Arbeitshöhe	960-1225
Arbeitsflächenhöhe	Arbeitshöhe -C
Fußraumhöhe	96
Beinraumtiefe	50
Fußtiefe	205,2

Example Calculation 4: Standing Work Places Work Surface Height Fixed

Given:

- › Work place with **fixed work surface height** for manual reprocessing with **low requirement concerning the visual inspection**, tasks with a greater usage of the upper body muscles ($k = 0,9$)
- › Workbench and vise with an object height of $C = 150$ mm
- › The measurements for the work place design result from table [4b standing work place work surface height fixed](#)



Resulting in a :

Fixed working height	= 956 mm
Fixed work surface height	= 956 - C = 800 mm
Foot room height	= 96 mm
Leg room height = 50 mm	= 50 mm
Foot room depth	= 205 mm

Tabelle 3: Arbeitsplatzmaße für Arbeitsplätze mit verstärkten Einsatz

	Euro-Mensch
	M/F
Arbeitshöhe	956
Arbeitsflächenhöhe	Arbeitshöhe - C

Example Calculation 4: Standing Work Places Work Surface Height Fixed

Additional recommendation

- › Avoiding constrained postures and securing efficient work movements by implementing devices for adjusting the height of vises
- › Further tips:

Layout: rotatable by 360°
Adjustment range : 220 mm respectively 380 mm

