Ergonomic work by hotel guests

Work performed on the move has become part and parcel of many people’s jobs. Modern mobile devices enable people to work from almost anywhere and to network with others around the world. When travelling, people frequently work from their hotels.

Working on a laptop or tablet PC balanced on the lap is not recommended for longer periods of time: this posture can lead to disorders of the locomotor apparatus, particularly in the shoulder and neck, and also eye disorders. Working ergonomically is however also possible in hotels if they provide mobile workstations that satisfy the minimum requirements for VDU work.

This issue of Fachbereich AKTUELL, **FBVW-401**, classifies workstations created in hotels. Each workstation is assigned to one of three categories, **MINIMAL, FUNCTIONAL** and **OPTIMAL**, according to the ergonomics of its design. These categories apply solely to hotel areas used by guests (e.g. hotel rooms, hotel lounges, dedicated closed-off areas in hotels). They are not applicable to the computer workstations used by the hotel staff or located in work premises.

The categories can be used by the hotels to offer different levels of workstation quality for mobile work, depending on the individual needs of each guest. The design and furnishings of the workstations are geared to the duration of the work to be performed there.

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1 Workstation categories

The three workstation categories differ in terms of their minimum ergonomic requirements. The nature and duration of the work performed there should be appropriate for the workstation.

MINIMAL workstation

A workstation in the MINIMAL category is suitable for work of brief duration. Examples of work to be performed in this case are:

- Preparation and follow-up of meetings, discussions, etc.
- Replying to e-mails

FUNCTIONAL workstation

A workstation in the FUNCTIONAL category is suitable for work lasting up to half a day. Examples of work to be performed in this case are:

- Creating brief presentations
- Editing texts or tables
- Input of customer contact information
- Replying to e-mails

OPTIMAL workstation

A workstation in the OPTIMAL category satisfies the requirements and recommendations for an office workstation, and is therefore suitable for activities lasting a whole day and possibly even several days. Examples of work to be performed in this case are:

- Creating extensive presentations
- Writing texts
- Creating extensive tables
- Participating in video conferences
- Replying to e-mails

Figure 1: The three workstation categories and their respective minimum requirements for the desktop, free movement area and legroom at the mobile workstation in the hotel (all dimensions in mm)
### Examples of mobile workstations in hotel rooms

<table>
<thead>
<tr>
<th>Category</th>
<th>MINIMAL</th>
<th>FUNCTIONAL</th>
<th>OPTIMAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hardware provided by the hotel</strong></td>
<td>None</td>
<td>Keyboard, mouse and screen available on request</td>
<td>Keyboard, mouse and screen with universal connectivity (e.g. Bluetooth) provided in the hotel room</td>
</tr>
<tr>
<td><strong>Desktop</strong></td>
<td>Area: 800 × 600 mm Not adjustable for height Height: 740 ± 20 mm</td>
<td>Area: 1200 × 800 mm Not adjustable for height Height: 740 ± 20 mm</td>
<td>Area: 1600 × 800 mm Adjustable for height</td>
</tr>
<tr>
<td><strong>Legroom width</strong></td>
<td>At least 600 mm</td>
<td>At least 850 mm</td>
<td>At least 850 mm Recommended: 1200 mm</td>
</tr>
<tr>
<td><strong>Legroom depth</strong></td>
<td>600 mm</td>
<td>800 mm</td>
<td>800 mm</td>
</tr>
<tr>
<td><strong>Office chair</strong></td>
<td>Conference chair</td>
<td>Conference chair</td>
<td>Office swivel chair with suitable castors</td>
</tr>
<tr>
<td><strong>Free movement area at the mobile workstation</strong></td>
<td>800 × 800 mm</td>
<td>Area: 1200 × 800 mm</td>
<td>1600 × 1000 mm</td>
</tr>
<tr>
<td><strong>Lighting</strong></td>
<td>Illumination of the desktop with 500 Lux For example by a desk lamp, wall lamp, furniture lamp or similar</td>
<td>Illumination of the desktop with 500 Lux For example by a desk lamp, wall lamp, furniture lamp or similar</td>
<td>Illumination of the entire working area (1600 × 1800) with 500 Lux</td>
</tr>
<tr>
<td><strong>Climate</strong></td>
<td>Natural ventilation, temperature control by means of the radiator thermostat</td>
<td>Natural ventilation, temperature control by means of the radiator thermostat</td>
<td>Quiet hotel room, no disturbances caused by an elevator, staircase, traffic noise, etc.</td>
</tr>
<tr>
<td><strong>Acoustics</strong></td>
<td>Requirements as for a normal hotel room</td>
<td>Requirements as for a normal hotel room</td>
<td></td>
</tr>
</tbody>
</table>

*Table 1: Respective requirements for the three workstation categories: MINIMUM, FUNCTIONAL and OPTIMAL*
2 Technical requirements to be met by the hotel

Facilities for mobile work in hotels begin with provision by the hotel of a suitable infrastructure. This includes fast Wifi access to the Internet and sufficient electrical sockets for devices such as laptops, smartphones and tablets. Ideally, generic charging facilities for the electrical devices should be provided, such as USB ports or inductive charging cradles.

The hotel should provide information on the work equipment available, the facility for cable and wireless connection, and ergonomic use of the work equipment (such as the VBG leaflet “Healthy Working with a Computer – Check your workplace” [1]).

Sufficient daylight and visual contact to the outside should be objectives for work performed in the hotel, as elsewhere. Where sunlight causes glare or makes viewing the screen difficult, sunshades or similar should be provided. Vertical blinds are one suitable solution.

3 Requirements arising from mobile work

Employees performing field work should be provided with work equipment of ergonomic design suitable for mobile work. Attention should therefore be paid to the following laptop properties at purchase:

- Low weight
- Anti-glare display
- Display with high brightness (luminance)
- Rigid case (resistant to bending)
- Keyboard with dark lettering on light keys (clearly legible even under poor lighting conditions)
- Adequate battery capacity

If tablet PCs are to be used in the field, the following properties should be considered at purchase:

- Bright, high-contrast and matt display
- Display if possible fully visible at all viewing angles
- Display size appropriate for the work tasks (at least 10”)
- Adequate battery capacity (sufficient for at least one working shift)

Devices of both types should feature a wide range of ports for external input and output devices (e.g. mouse, keyboard, printer, monitor).

Companies employing field workers should communicate clear arrangements for the scope and timing of work performed in the field. Field workers must observe the provisions of the German Working hours act, since unregulated working hours may pose a health risk.
Literatur:

[2] DGUV Regel 100-500 „Betreiben von Arbeitsmitteln“, Kapitel 2.3 Pressen der Metallbe- und -verarbeitung. (Inhalt aus VBG 7n5.1 Exzenter- und verwandte Pressen, VBG 7n5.2 Hydraulische Pressen), Stand: April 2008 [Buch].

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Tables:
The tables were produced by the Office Subcommittee.
Annex: Possible furnishings of a mobile workstation

Figure 2: Possible furnishings of a mobile workstation: MINIMAL category

Figure 3: Possible furnishings (floor plan) of a mobile workstation: MINIMAL category (all dimensions in m)

Free movement area at the mobile workstation

Functional area, e.g. area swept by furniture doors or drawers; avoid overlap with functional areas of other furniture or the sweep range of doors
Figure 4: Possible furnishings of a mobile workstation: FUNCTIONAL category

Figure 5: Possible furnishings (floor plan) of a mobile workstation: FUNCTIONAL category (all dimensions in m)

Free movement area at the mobile workstation

Functional area, e.g. area swept by furniture doors or drawers; avoid overlap with functional areas of other furniture or the sweep range of doors
Figure 6: Possible furnishings of a mobile workstation: **OPTIMAL** category

Figure 7: Possible furnishings (floor plan) of a mobile workstation: **OPTIMAL** category (all dimensions in m)

- Free movement area at the mobile workstation

- Functional area, e.g. area swept by furniture doors or drawers; avoid overlap with functional areas of other furniture or the sweep range of doors
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