

# Tensos

TECHNICAL DESCRIPTION



**ASSMANN**

# Technical description, Tensos

## Materials

Tensos components are made of high-quality materials that meet all current standards and guidelines.

## Panel material

The table elements are made of high-quality, three-layer chipboard with direct melamine resin coating according to DIN EN 14322, in plain surfaces or with various wood décors, sealed on all sides with 3 mm PP (polypropylene) edging. Laser application. The surfaces are highly resilient and scratch-resistant. Moreover, all panels satisfy the test requirements of the Blue Angel eco-label RAL UZ 38.

Note: With the exception of the melamine surfaces black décor, signal white décor and the veneer surfaces ash black veneer and walnut veneer, the degree of gloss and reflection corresponds to DIN Technical Report 147 and was approved within the scope of testing for the GS mark.

## The system

- Desks with electric height adjustment
- Conference add-ons
- Knee room panels
- CPU mounts
- Table top cut-outs
- Organisation system
- Privacy screen/acoustic elements
- Multifunctional rail
- Power connections
- Workplace modules

## Requirements for the system dimensions

### Rectangular desks

Width range: 800 mm, 1000 mm, 1200 mm, 1400 mm, 1600 mm, 1800 mm, 2000 mm  
 Depth range: 800 mm, 900 mm, 1000 mm

### Free-form desks:

Width range: 1600 mm, 1800 mm, 2000 mm  
 Depth range: 800/1000 mm, 1000/800 mm, 1000/1000 mm

### Combined-form desks:

Width range: 1800 mm, 2000 mm or 2165 mm, 2365 mm, 2565 mm, 1200/1200 mm  
 Depth range: 800/1200 (1400) (1600) mm, 1200 (1400) (1600)/800 mm, 800/800 mm

## System design characteristics

The basic frame consists of a symmetrically manufactured upper system frame for table widths of 800 mm to 2000 mm and table depths of 800 mm to 1000 mm. The upper system frame is screwed firmly to the telescopic tubes of the T-leg side parts. This makes it easy to replace the motor in the event of motor problems. Depending on the table depth, the cantilever legs have a depth of 800 mm or 1000 mm and are screwed in place so as to be concealed.

The following frame leg variants are available:

## T-leg

- Square tube (70 × 70 mm)
  - Round tube (d = 70 mm)
  - Rectangular tube (80 × 50 mm)
- Infinite electric height adjustment, table height 620 – 1270 mm, bottom-up lifting columns (tubes taper towards the top), one motor unit per frame side part. One central unit (control box) drives the individual motor elements. Tables are series-fitted with collision protection as standard (prevents damage to solid objects located in the table's movement range). Base adjustment screws are fitted in the cantilever legs for levelling out floor unevenness (+15 mm).

The control panel is available in four different variants:

- UP/DOWN,
- UP/DOWN with display,
- UP/DOWN with display and 4x memory function
- UP/DOWN with display, 4x memory function, and USB charging port

## Conference add-ons

Conference add-ons are solidly attached to the lifting column of the desk and their height can be adjusted separately, i.e. independently of the table height. The panels of the configuration satisfy the legally prescribed minimum distances with regard to shearing and crushing points.

## PC mounts

The PC mounts are available in three variants:

### PC mount with strap, moves up and down with the table:

for installation below the table top, with strap attachment to secure the computer. The mount is screwed directly under the table top and moves up and down with the table top.

### PC mount with clamping carriage, moves up and down with the table:

for assembly on the upper frame; can be used for external and internal assembly. The mount moves up and down with the table top and is suitable for computer heights from 380 mm to 440 mm. The setting range for computer width is 50 mm to 202 mm for external installation and 142 mm to 202 mm for internal installation. The computers are attached without tools to an anti-slip support panel (200 mm × 100 mm). The CPAV is suitable for table depths of 800 mm and above.

### PC mount with clamping carriage, attached to the frame leg:

for mounting on the frame leg (T-leg variant), with width-adjustable sliding carriage (185–230 mm or 90–110 mm) to suit the PC size. The mount is clamped to the table column and can be attached both internally and externally. The max. computer height is 440 mm for internal assembly.

Each of the three variants has a maximum load-bearing capacity of 15 kg.

## Laptop drawer:

Laptop drawer, with a usable support surface of (W × D) 412 × 411 mm, pulls out up to 370 mm and is height-adjustable from 70 – 140 mm. This allows for easy mounting underneath the table top.

The maximum load-bearing capacity is 10 kg.

## Knee room panels

The knee room panels are available in three different variants:

### Knee room panel, fixed:

Panel height 400 mm, flexible positioning and mounting of the brackets on the table top. Available knee room panel fillings include materials such as high-quality, three-layer chipboard coated with melamine resin and real wood, and metal. The thickness of the fillings should be 2 mm (metal) or 8 mm (wood) for aesthetic reasons. The panels are screwed in place using the knee room panel brackets.

### Knee room panel, flexible:

Panel height 485 mm, flexible positioning and mounting of the brackets on the table top. Available knee room panel fillings include materials such as high-quality, three-layer chipboard coated with melamine resin and real wood, metal, and glass. The thickness of the fillings should be between 2 mm and 8 mm. Furthermore, the knee room panel fillings should not be firmly screwed to the knee room panel brackets. For installation, a variant should be chosen in which the knee room panel filling is clamped in place with the bracket so as to enable the knee room panel to be perfectly aligned.

### Knee room panel frame:

Panel height 485 mm, fixed positioning and mounting of the brackets on the upper frame of the table frame. Available knee room panel fillings include materials such as high-quality, three-layer chipboard coated with melamine resin and real wood, metal, and glass. The thickness of the fillings should be between 2 mm and 8 mm. Furthermore, the knee room panel fillings should not be firmly screwed to the knee room panel brackets. For installation, a variant should be chosen in which the knee room panel filling is clamped in place with the bracket so as to enable the knee room panel to be perfectly aligned.

## Organisation system (railing system)

An optional railing system is available for workspace organisation. The organisation system is attached to the table top using clamp mountings. The railing can accommodate a variety of accessories, such as storage trays, pen holders, CD holders etc.

## Privacy screen/acoustic elements

Four variants of privacy or acoustic elements are available as table-top panels. The elements can either be clamped to the table top or firmly mounted to the frame using special adapters.

- Partitioning screen system in lightweight design, 32 mm: made of fabric without visible frame. The partitioning screen system can be provided as a table top or floor-standing partitioning screen, and cannot be connected. The tested acoustic effectiveness of the elements has been verified through corresponding certificates from a recognised testing laboratory.

- Partitioning screen system in lightweight design, 27 mm: with a discreet all-round aluminium profile frame and fabric filling, optionally provided with integrated railing track (organisable), also made of aluminium. The partitioning screen system can be provided as a table top or floor-standing partitioning screen, and the standing version can also be connected. The tested acoustic effectiveness of the elements has been verified through corresponding certificates from a recognised testing laboratory.

- Partitioning screen system in lightweight design, 40 mm: with a recessed all-round aluminium profile frame with fabric filling, glass filling, or combined fabric/glass fillings. The walls can be finished with an optional integrated railing track (organisable), also made of aluminium. The partitioning screen system can be provided as a table top or floor-standing partitioning screen, and the standing version can also be connected. The tested acoustic effectiveness of the elements has been verified through corresponding certificates from a recognised testing laboratory.

- Partitioning screen system as protection against infection: for avoiding droplet infections in the area around the tables. Made of high quality acrylic glass, the walls can either be installed as an extension on new orders or retrofitted on the 40 mm walls. They can be provided either as an independent partitioning screen element which is attached to the table top via a clamp fitting, or as a standing version on suitable metal feet. The material used is high-quality Plexiglas® XT, crystal clear, 5 mm thick. All edges are polished, the 4 corners are rounded with a radius of r = 10 mm.

## Multifunctional rail

Optionally, a multifunctional rail can be fitted to the rear edge of desks. Integrated or retroactively adaptable versions are available. The rail extends the table surface by 100 mm and is used to accommodate accessory elements such as lights,

partition walls, socket strips etc., which can be freely positioned and moved along two functional grooves. A brush profile enables simple cable routing under the table top.

## Organisation system (railing system)

An optional railing system is available for workspace organisation. The organisation system is attached to the multifunctional rail using adapters. The railing brackets are attached to the profile system by slot nuts, which means that the railing position can be easily adjusted later on. The railing can accommodate a variety of accessories, such as storage trays, pen holders, CD holders etc. A selection of screen supports (for flat screens) can also be mounted on the rails. The railing system is supplied in an anodised aluminium version with a similar surface and design to the adapters for the other accessories.

## Table-top sockets

Anodised aluminium socket box for direct access to power and communication connections. The box is connected to the rail on an approx. 60 mm adapter made of anodised aluminium, and a cable clip guides the permanently installed in-feed cables directly to the adapter under the table top. Connections such as power, USB charging, HDMI etc. can be selected individually and meet the latest standards.

## Privacy elements

Partitioning screen system in lightweight design, 32 mm, made of fabric without visible frame. It is attached using an adapter, approx. 60 mm high, made of anodised aluminium. The partitioning screen system is suitable for simple zoning and demarcation of workspaces and elements cannot be connected. The tested acoustic effectiveness of the elements has been verified through corresponding certificates from a recognised testing laboratory.

## Screen supports

A range of flat screen supports, with series-fitted quick-release single-lever operation for effortless assembly/dismantling, is available as a standard feature. They comply with the monitor mount standards VESA 75/75 and VESA 100/100. The supports are connected either to the rail of the organisation system or to the rail profile system using special adapters, approx. 85 mm high, made of anodised aluminium.

## Power connections

### Horizontal cable routing

Four different cable duct versions are available.

- Horizontal cable duct, fixed: horizontal cable duct made of powder-coated steel, flexible positioning and mounting of the cable duct on the table top. The duct provides sufficient space for sockets and excess cable lengths.
- Horizontal cable duct, flexible:

horizontal cable duct made of powder-coated steel, flexible positioning and mounting of the cable duct on the table top by means of sturdy plastic brackets. The duct can be folded down on the user or visitor side as required. Strain relief fittings are used to secure the cables. The duct provides sufficient space for sockets and excess cable lengths.

- Horizontal cable duct, frame: horizontal cable duct made of powder-coated steel, fixed positioning and mounting of the cable duct on the upper frame of the table frame by means of sturdy plastic brackets. The duct can be folded down on the user or visitor side as required. Strain relief fittings are used to secure the cables. The duct provides sufficient space for sockets and excess cable lengths.

- Horizontal cable duct, sliding: a smoothly gliding sliding panel function is optionally available for selected panel shapes. In this case, additional sliding panel adapters are mounted under the table top as a guide for panel movement on the upper system frame. A horizontal cable duct made of powder-coated steel, with fixed positioning and mounting on the upper frame of the table frame by means of sturdy plastic brackets, allows for generous access to the cable duct. The duct can be folded down on the user or visitor side as required. Strain relief fittings are used to secure the cables. The duct provides sufficient space for sockets and excess cable lengths. A sliding panel lock and trap protection (in the case of wall or block arrangements) are included in the set.

## Vertical cable routing

Two cable routing variants are available:

- Cable chain, flexible: vertical routing of the cables is carried out via a cable chain that is attached to the table top and ensures secure routing to the ground via a suitable leg. The chain links have a flexible arrangement, allowing them to react to different table heights.
- Cable chain, fixed: vertical routing of the cables is carried out from the underside of the table top to the ground via a cable chain that can be mounted on the leg without tools using magnets. These chain links also have a flexible arrangement, allowing them to react to different table heights.

## Sockets

High-quality triple Schuko sockets are used, which have been specifically developed for office furniture. The socket box is made of self-extinguishing, non-drip plastic in the colour black. A lockable feed cable supplies the socket with power; connecting lines can be used to connect several sockets (over longer sections). It is also possible to connect two sockets to create a 6x socket.

Alternatively, table-top socket boxes and fixed or rotatable fitted socket boxes, which are recessed in the desk top, are also available. The boxes can be configured individually to suit specific purposes. Please note that the manufacturer determines the sequence of the fittings. As a rule, the assembly begins on the left with the switch (if selected), followed by the Schuko sockets and the communication ports. The table-top socket boxes are supplied with two table clamps for fixing them to the table. The power supply to the table-top socket box is permanently integrated. The fitted socket boxes are always offered with cut-outs, and a lockable feed cable (which must be ordered separately) supplies the socket with power. In this case, the in-feed cables can be fixed under the table top using cable clamps.

#### Grommet

The following panel cut-outs can be optionally included in the table tops:

The cable outlet socket has an internal diameter of 70 mm and is mounted in an opening with a diameter of 79.3 mm. Depending on the requirements, a multi-part removable cap can be provided with openings in different sizes. The customer provides a drawing to determine the position of the hole. The following designs and materials should be available:

- Round cover, diameter 87 mm, plastic, 3-part
- Round cover, diameter 87 mm, metal, chrome or stainless steel look, 2-part
- Rectangular cover, 93 × 93 mm, plastic, 3-part

Optionally, up to three panel cut-outs can be included at fixed positions on the rear edge of the table top. They are used as grommets for the horizontal cable duct to the workspace.

- Cover, rounded on one side, 88 × 71 mm, plastic, 3-part
- Rectangular cover, 88 × 71 mm, plastic, 3-part

#### Workplace modules

A workplace module can be fitted to the rear edge of desks as an additional option. For ergonomic reasons, it must still be possible to individually adjust the height of each table (single or double workstation).

#### Basic structure

The workstation module has a simple design and its basic structure features a sturdy and dimensionally stable frame system made of extruded aluminium profiles. For visual reasons, the outer corners can be selected in a round or angular variant. For reasons of stability, these outer corners are made of cast metal/cast aluminium and, like the frame system, are powder-coated. To stabilise the construction, a bottom rail and a centre crossbar made of steel are installed. The connections between all the

frame parts are reversible, i.e. the frames can easily be dismantled later in the event of renovation or for disposal. The aluminium profile of the frame system is designed in such a way that attachments such as table adapters, shelf supports, lights or monitor supports can be mounted securely and permanently in a functional groove. For sturdy installation, an option is provided for height compensation up to approx. 15 mm.

#### Fillings

The fillings consist of a 1 mm thick metal plate, which is bevelled to a thickness of 3 mm for an exact fit, allowing it to be inserted into the module's groove profile. The filling is powder-coated, solvent-free, and environmentally friendly, with a minimum coating thickness of 60 µ. To prevent annoying rattling, an anti-drumming mat is glued to the inside of the fillings.

At various points, the fillings are prepared for the insertion of cables and plugs by means of cut-outs, and therefore the openings beneath the desk tops can be used. The cut-outs are designed such that cables cannot be damaged. Fillings can also easily be replaced later on.

In order to easily fill and make use of the interior, two of the fillings can be removed without tools. At least one filling is secured to the frame system by a series-fitted lock, thus preventing unauthorised use of the module by third parties.

#### Installation of technical equipment

Triple socket elements can be installed in the upper section of both side profiles as well as in the upper cross profile. These can be individually outfitted with various power or communication inserts according to customer requirements. Where possible, gender changer inserts are used, which allow the customer to individually select and install the cable lengths of the in-feed cables for e.g. USB or network connections. For visual reasons, the visible edges of the socket inserts are installed flush with the frame profile of the module, i.e. there is no offset between the frame profile and the sockets. A total of max. 3×3 sockets can be selected for use in the external area of the module. If a 3x element is omitted, the unused cut-outs are outfitted with ventilation grids. The sockets are mounted without tools inside the module, using plastic clamps that can be easily moved about.

Furthermore, a maximum of 2 sockets can be mounted in the lower section of the interior. These elements can also be customised. They are also mounted without tools using plastic clamps that can easily be moved about.

Two power distributors attached to the inner crossbar ensure simple, VDE-compliant power connections. Excess cable lengths, small computer units, or network switches can easily be stowed in the interior of the workstation module. Two strain relief fittings in the lower section of the module ensure safe cable in-feed. Two ventilation grilles in the upper cross profile as well as the cut-outs for the cable in-feeds ensure good ventilation of the interior.

#### General

The materials can be separated for disposal and are fully recyclable. The desk system has been subjected to mandatory testing according to GS guidelines and authorises the holder to use the "GS tested safety" quality mark. Only chipboard of emission class E05 or CARB II is used, in accordance with the statutory requirements. All panel materials meet the test conditions of the Blue Angel eco-label RAL UZ 38 and are PEFC-certified. ASSMANN BÜROMÖBEL GMBH + CO. KG has installed a quality management system and is certified according to DIN EN ISO 9001. In addition, the production sites are audited by a neutral and independent company and are therefore entitled to carry the EMAS logo. Our environmental management system has been certified according to DIN EN ISO 14001, guaranteeing consistent quality.

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