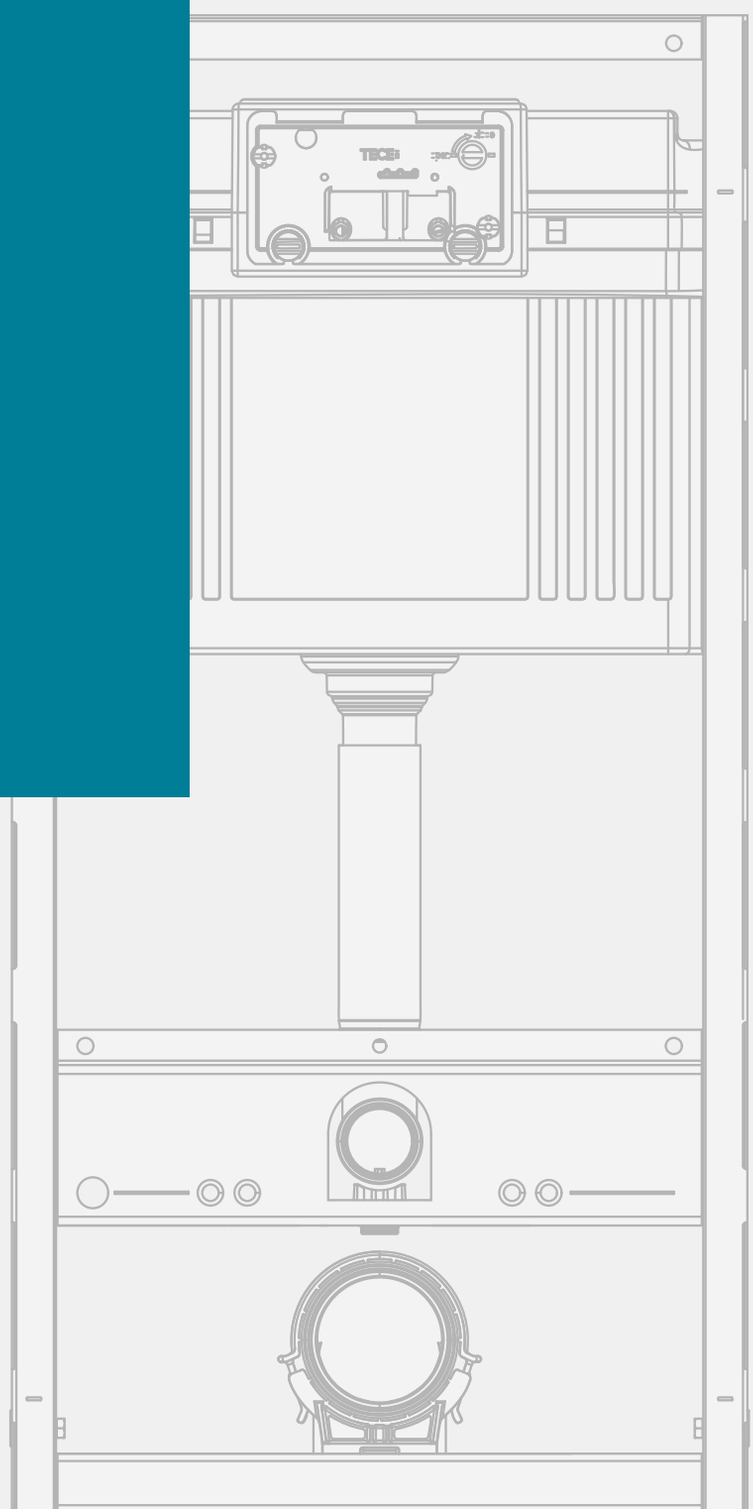
TECE

Sanitary systems

TECEprofil

TECHNICAL INFORMATION



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TECEprofil dry-wall construction system

TECEprofil is a pre-wall system that has proven its value over many years, and can be used to create bathroom walls quickly and effectively. The installer not only produces the sanitary and heating installation, but with TECEprofil they have the option of offering bathrooms completely from a single source, right through to the tiled surface.

TECEprofil is a dry-wall construction system which is particularly suitable for the renovation of old buildings due to its flexibility. Thanks to the time and cost savings compared with bricked-in pre-walls, the TECEprofil system is also of interest for new builds. The design freedom offered by TECEprofil allows the installer to realize unconventional bathrooms, and offers generous scope for creative ideas.

Bathroom walls with TECEprofil – before

Bathroom walls with TECEprofil – after

The TECEprofil system offers universal modules for popular applications. These modules not only simplify installation in a TECEprofil wall, but can also be used for conventional dry-wall constructions and as individual modules.

The TECEprofil system basically consists of the supporting frame, the universal modules and the TECEprofil system cladding. The supporting frame is based on a profile pipe which is connected with corner joints. The complete supporting frame is mounted to the structural shell using double joints or angle brackets.

The three basic components of the TECEprofil system:
- Profile pipe
- Angle bracket
- Corner joint

Special features of the TECEprofil system:

- Clearly structured range with only three basic components
- Generous dimensional tolerance when cutting the profile pipe to length
- Stable and safe fixing technology
- Clean and fast installation
- Highly versatile TECEprofil universal modules
- Installation without special tools
- Price advantages when considering the overall cost

System description

The TECEprofil system is suitable for new and old buildings alike. Thanks to its universality, the TECEprofil system is ideal for difficult building situations such as sloping ceilings or wall recesses. The TECEprofil supporting frame is variable and extremely stable.

Fields of application

Pre-wall assembly

Pre-walls are becoming increasingly popular in bathrooms. They offer additional shelf space and make installation of the sanitary items far easier.

Free-standing installation wall

Free-standing installation walls can be erected anywhere in the room. They can be implemented at partial height or at floor-to-ceiling height. Free-standing walls must be firmly attached to the unfinished floor. Assembly on finished floors is not possible. Walls that protrude freely into the room must additionally be fixed with a "support foot for free-standing walls".

Partition walls

The TECEprofil system enables the creation of floor-to-ceiling partition walls. For example, an existing room can be divided into separate toilets for men and women. The partition wall can be directly equipped with toilet or washstand modules. The construction is performed according to DIN 4103.
Structural certification for TECEprofil partition walls was provided by the Braunschweig Materials Testing Institute (MPA).

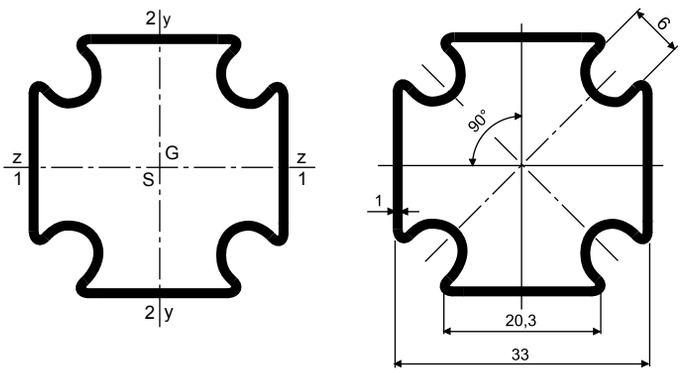
Duct claddings

The TECEprofil system allows all types of ducts to be clad-ded. Combinations of installation walls and ducts are also possible.

Shelf heights

Practically, all shelf heights are possible. The standard universal modules permit a minimum supporting frame height of 1,150 mm. The toilet universal modules for low construction heights have a minimum supporting frame height of 980 or 820 mm. For the universal modules, the TECEprofil range offers the option of using telescopic fasteners (order no. 9380001) or the height-adjustable module fastener (order no. 9380002) to achieve an upwardly variable and continuously adjustable supporting structure height.

Profile pipe – Technical data



- Wall thickness: 1.00 mm
- Maximum distance Z from profile: 33.00 mm
- Maximum distance Y from profile: 33.00 mm

Cross-section value		Gross
Cross-sectional area	A	1.36 cm^2
Neutral line Y direction	z_G	1.64 cm
Neutral line Z direction	y_G	1.65 cm
Moment of inertia about the Z axis	I_g	1.78 cm^4
Moment of inertia about the Y axis	I_z	1.78 cm^4
Resistive torque about the Z-axis	W_z	1.08 cm^3
Resistive torque about the Y-axis	W_y	1.08 cm^3
Main moment of inertia by 1-1	I_1	1.78 cm^4
Main moment of inertia by 2-2	I_2	1.78 cm^4
Main resistance torque by 1-1	W_1	1.08 cm^3
Main resistance torque by 2-2	W_2	1.08 cm^3
Weight	P	1.03 kg/m
Thrust centre of gravity position	z_S	0 cm
Thrust centre of gravity position	Y_S	0 cm
St. Venant drill resistance	I_t	1.94 cm^4
Camber resistance	I_w	0.0651 cm^6

Economic efficiency

In order to prove the price advantage of a pre-wall realised in dry construction with TECEprofil compared to a brick pre-wall, the two construction methods were compared and evaluated at the Münster Chamber of Trade Training Centre.

Task

Construction of a sanitary installation up to the tileable surface.

Conditions

In two prepared installation boxes, two tradesmen (master tradesman or journeyman and apprentice) respectively worked in brick or dry-wall construction under the same conditions.

Brick-wall construction (left) versus dry-wall construction

As work in brick-wall construction can only be carried out in partial steps over several days, this was granted two extra boxes in which the partial steps were prepared with the required dried condition. The brick-wall construction also received the support of a “bricklaying team”.

Assessment

The Sanitation, Heating & Air Conditioning Managing Director, Franz-Josef Heinrichs, and the Head of the Supply Engineering Department of the Münster Chamber of Crafts Education Centre, Rudolf Mlynek, ensured compliance with the relevant standards, rules and regulations. Lawyer Andrea Saabe from the Münster Chamber of Crafts Education Centre supervised the comparability of the competition conditions. A neutral reference expert recorded the time.

Finished sanitary installation

Result

The installation created with TECEprofil was approx. 20% cheaper than the masonry pre-wall. Three trades (plumber, bricklayer, plasterer) were involved in the masonry pre-wall. The dirt load in brick-wall construction is considerably greater than with a TECEprofil wall. This was created from a single source. With a TECEprofil wall, there is no need for coordination between trades. Plumbers increase their turnover considerably by creating a complete pre-wall.

Dry-wall construction with TECEprofil	**Brick-wall construction with commercially available materials**
Complete TECEprofil pre-wall Toilet module pre-wall, profile pipe Accessories €557.23 Waste water installation €107.51 Potable water installation €93.43	Sanitary installation Materials: for toilet and washstand €244.00 Waste water installation €204.10 Potable water installation €127.54
Labour costs: 3 hrs. 31 min. each master and apprentice plus 0.5 hrs. travel € 226.00	Labour costs: 1 hrs. 51 min. each master and apprentice plus 0.5 hrs. travel € 129.82
	Sanitary walling Building materials €168.80
	Labour costs: 3 hrs. 24 min. each master and apprentice plus 0.5 hrs. travel € 226.00
	Tileable surface Materials and labour costs €153.23
Total costs €984.17	**Total costs €1,253.50**

Cost comparison – dry-wall and brick-wall construction

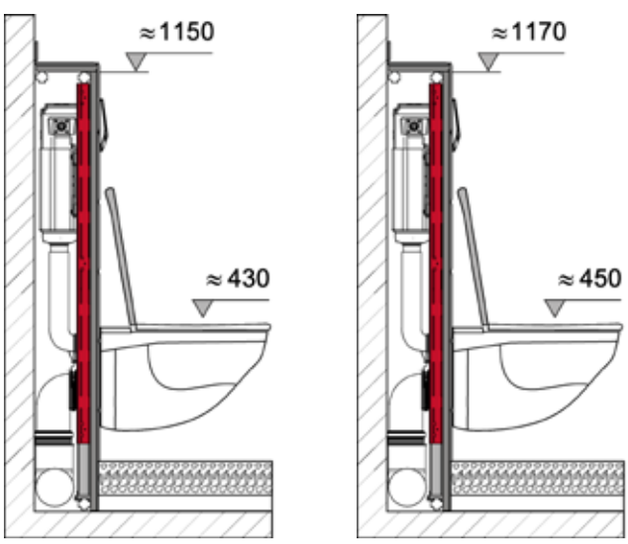
System installation/instructions

For the installation of a TECEprofil sanitary wall, minimum distances for struts and fixings must be observed. In the following sections, the guidelines for installing the system will be explained.

Standard heights of installation walls

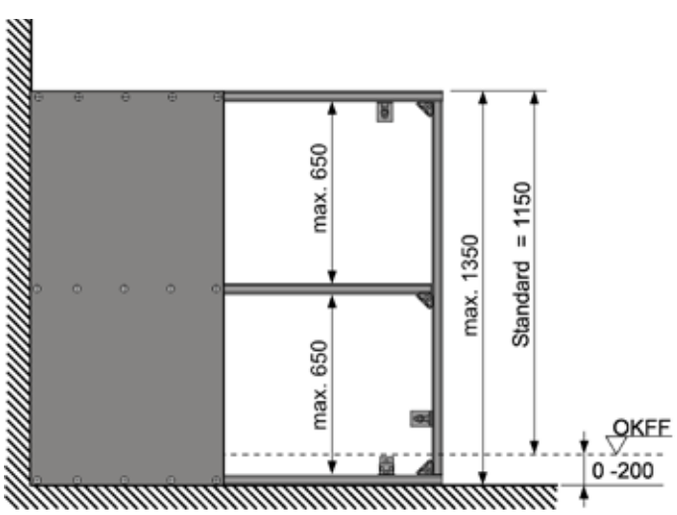
The standard supporting frame height of a TECEprofil pre-wall is 1,150 mm. This results in a WC seat height of 430 mm.

Tip:
For reasons of comfort, we recommend a seat height of 450 mm. The height of the supporting frame in this case is 1,170 mm. To guarantee secure fixing of the cladding, a horizontal TECEprofil strut must be integrated at least every 650 mm.



Toilet seat height: Standard (left) and comfort

The dimensions of the TECE cladding are 625 x 1,350 x 18 mm. The maximum floor build-up is 200 mm.

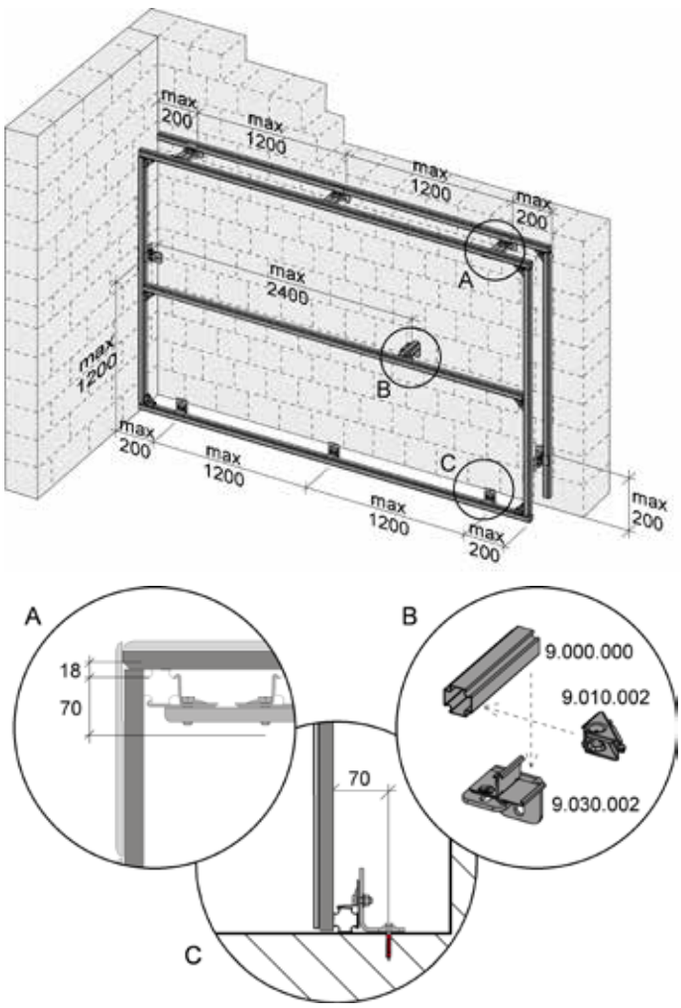


Cladding dimensions

For easier installation, all universal modules have a meter line stamped on them.

Standard applications

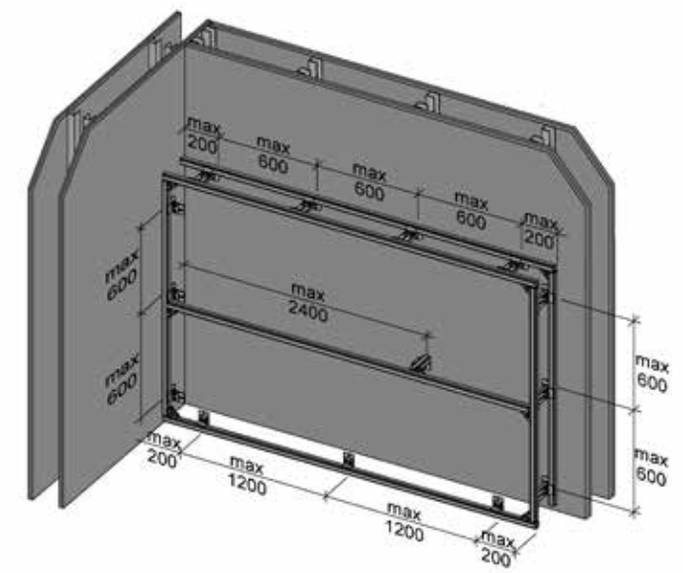
In front of a solid wall



Profile wall in front of a solid wall

The distance between the attachments on the structural shell must be maximum 1.2 m. The first wall, floor or ceiling attachment must be maximum 20 cm from the edge of the pre-wall.

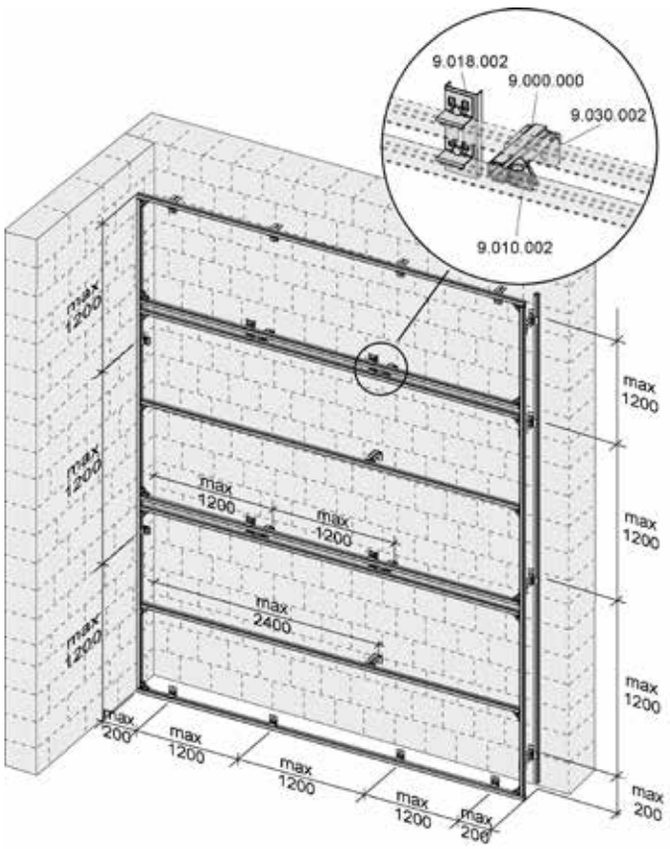
Drywall stud wall



Drywall stud wall

TECEprofil installation walls can be set up in front of dry-wall stud walls. The wall must be constructed according to the manufacturer's instructions and local requirements and standards must be observed.

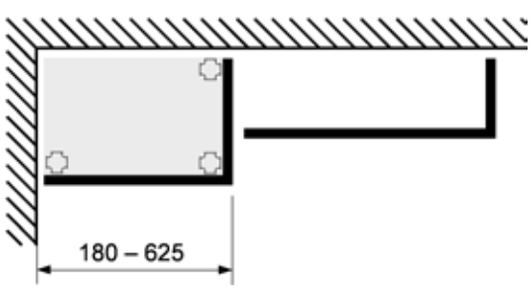
Floor-to-ceiling installation wall

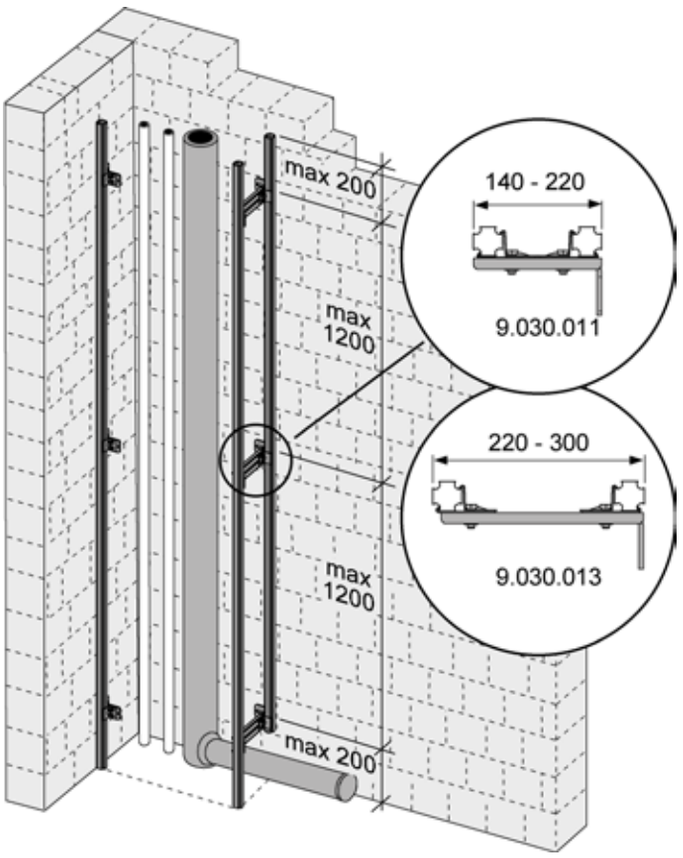


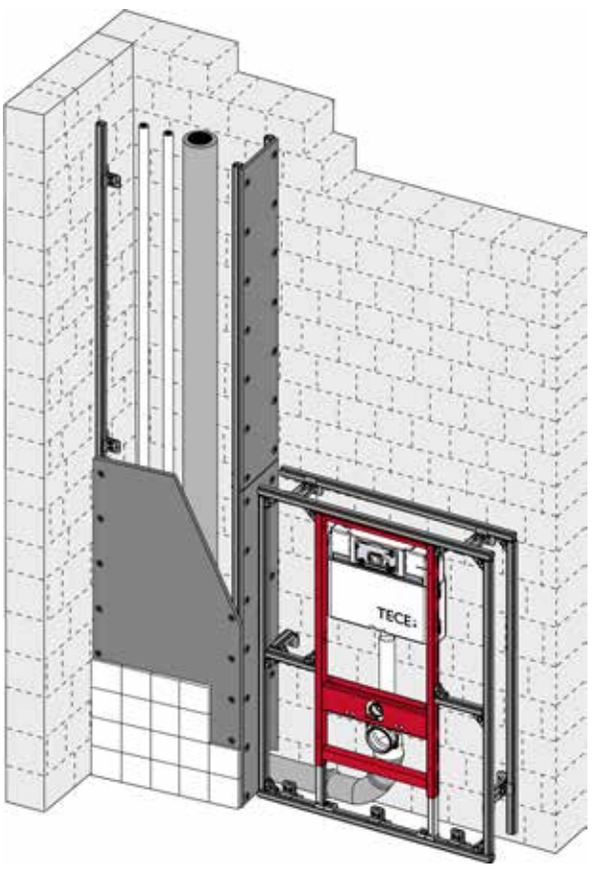
Installation wall, floor-to-ceiling

Double struts are required for the cladding. They must be fixed together at least every 1.2 m. They shall also be supported against the wall at the back.

Adjacent duct/pipe covering

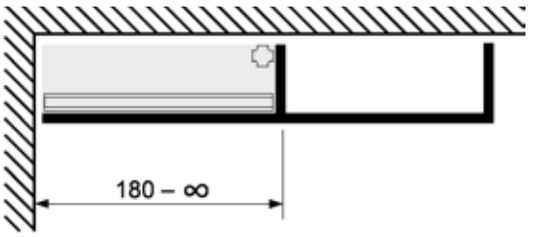


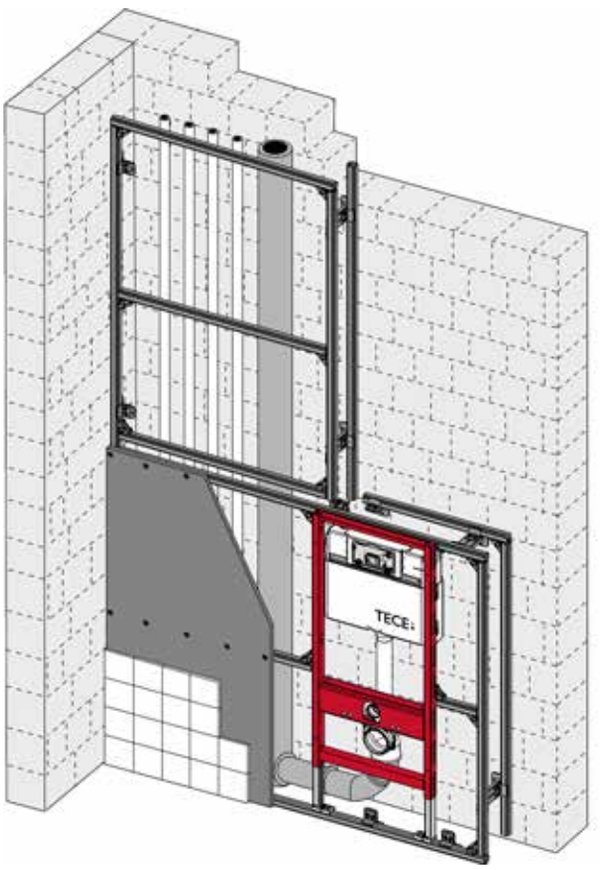




Adjacent duct, pipe covering

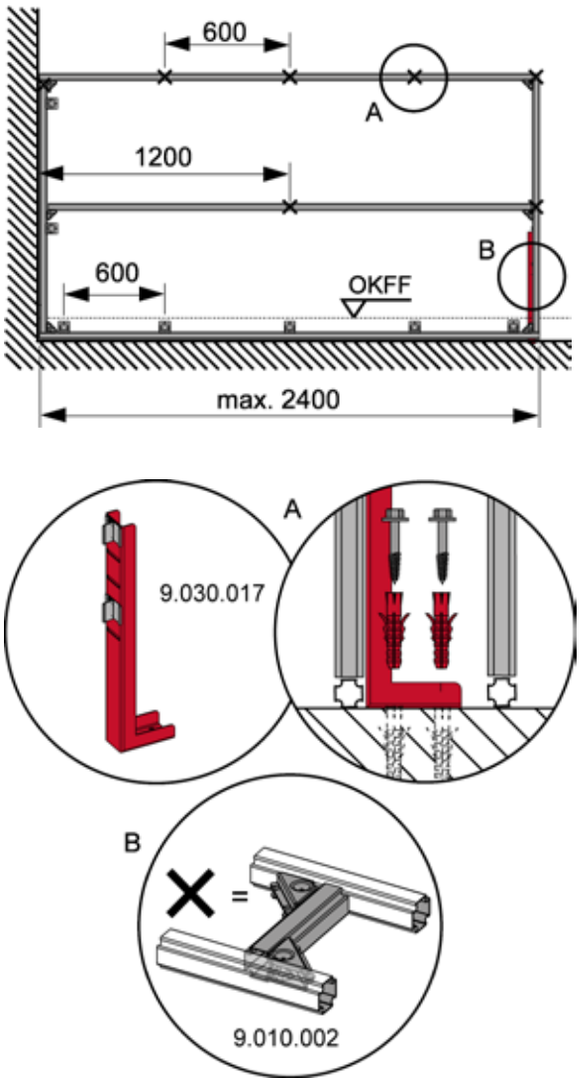
Attached duct

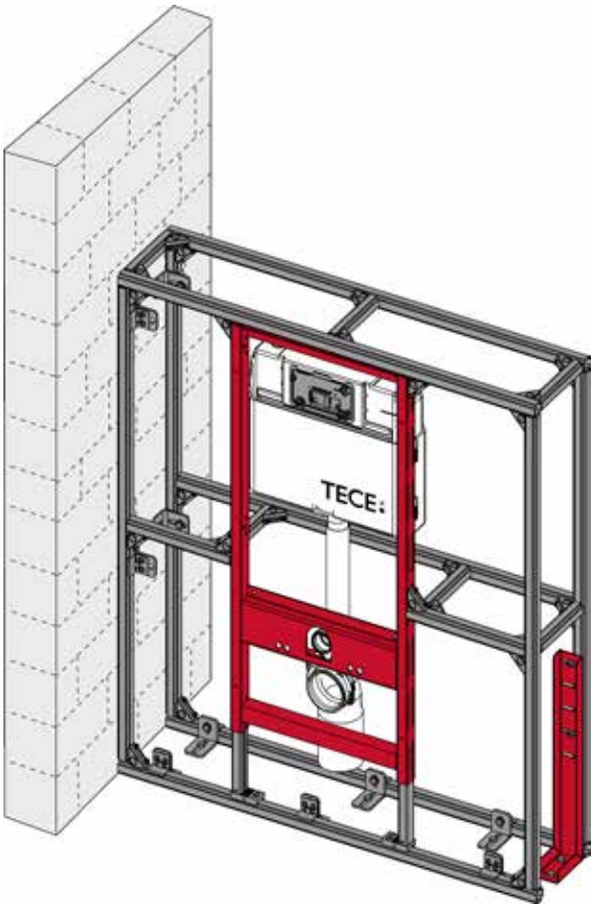




Attached duct

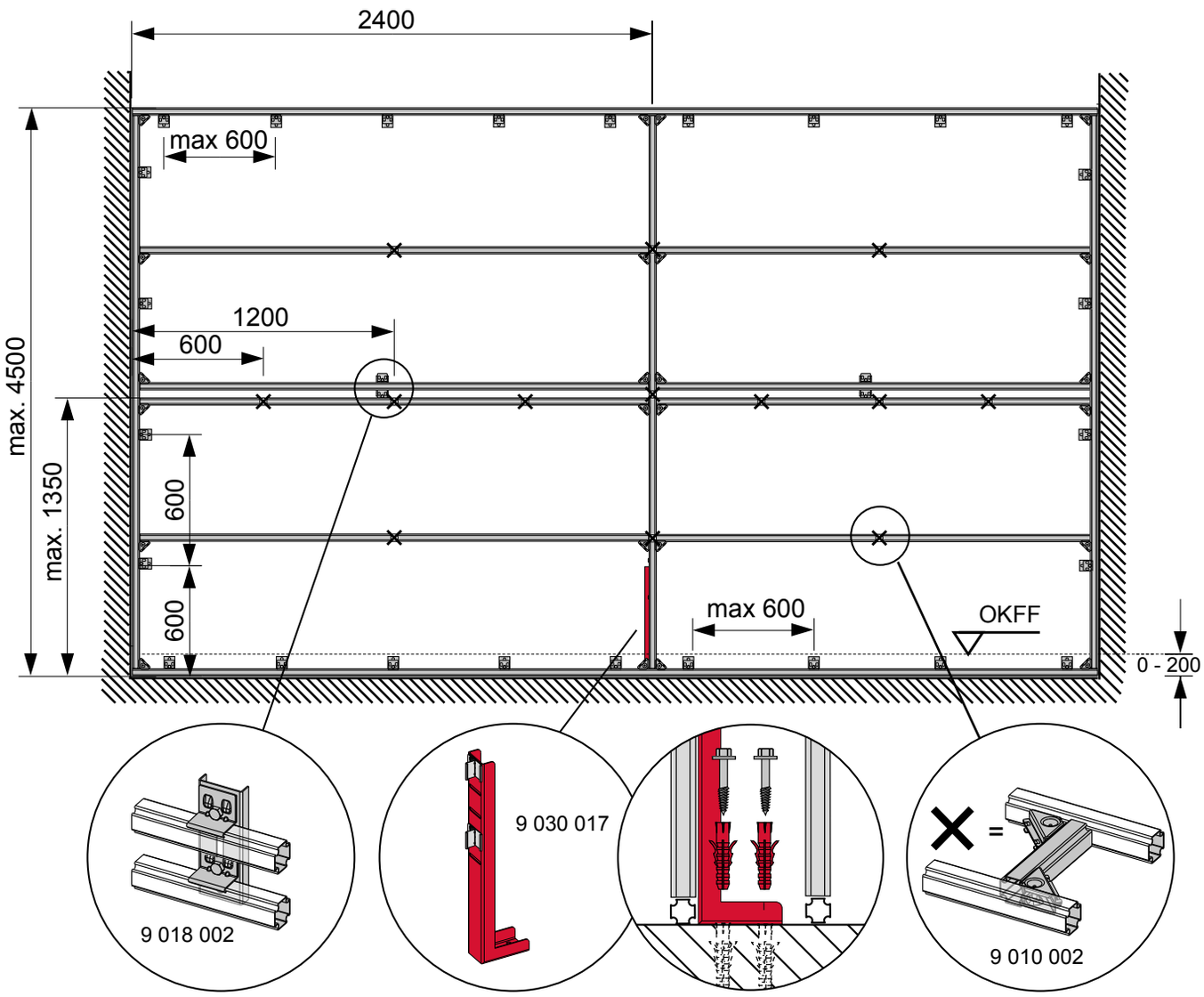
Free-standing wall, leaning on one side





Free-standing wall, leaning on one side

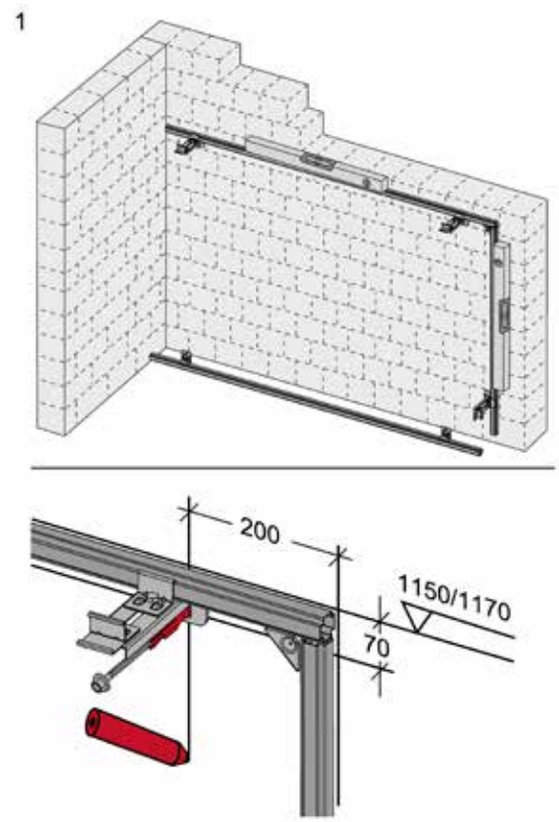
Free-standing wall, leaning on both sides



Free-standing wall, leaning on both sides

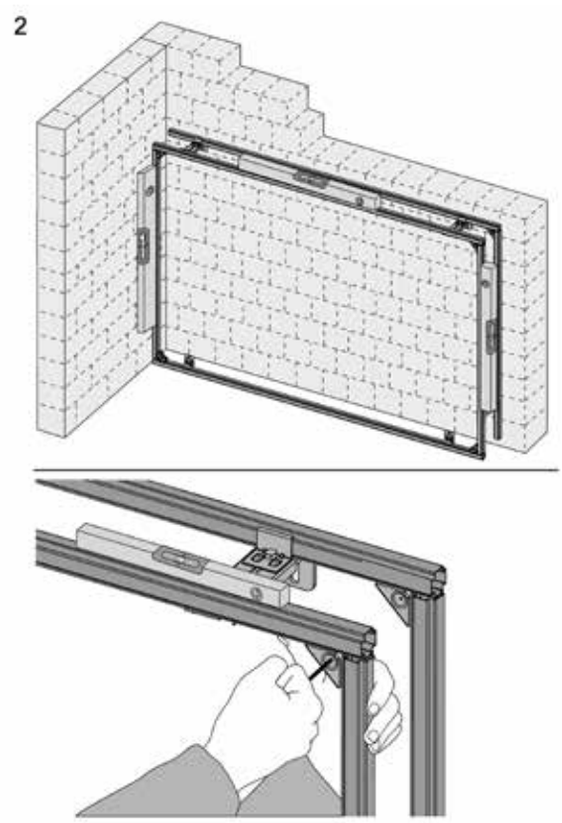
Building a supporting frame with module installation

1



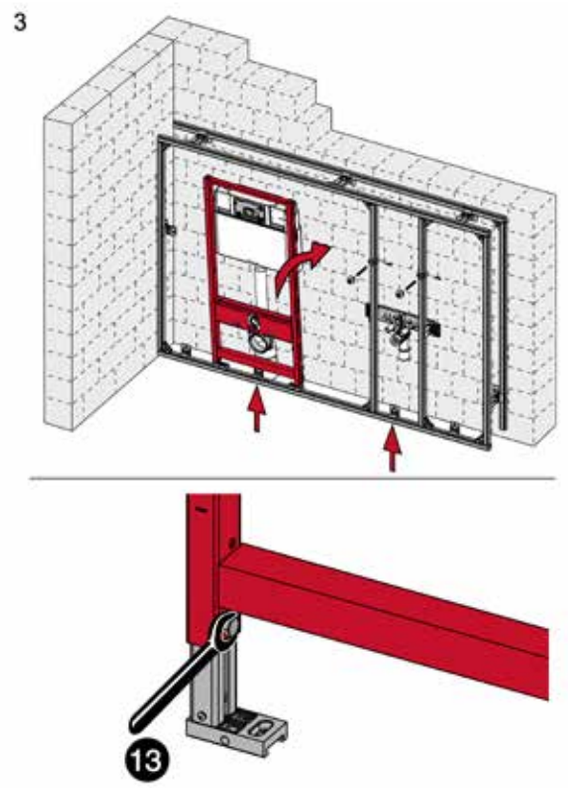
Secure the profile pipe to the wall with double joints, and to the floor with angle brackets

2



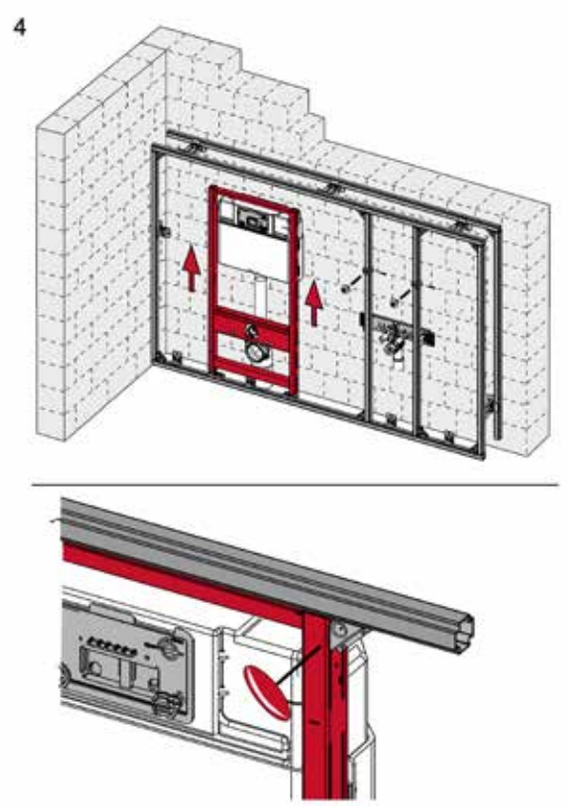
Align the profile pipes using a spirit level and connect them using corner joints.

3

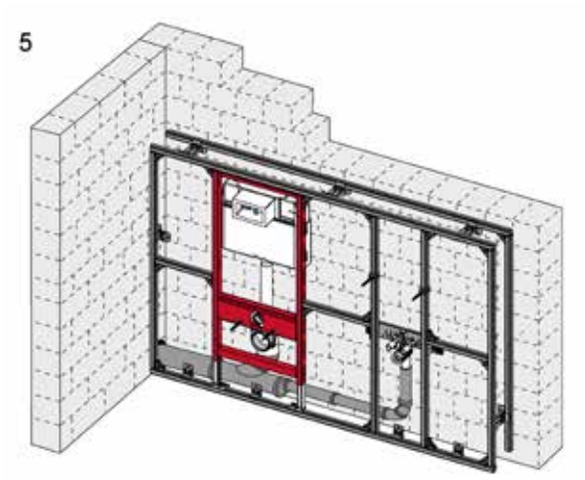


Place the angle bracket centred on the module or crossbeam, place the module feet onto the profile pipe, and release the foot brake

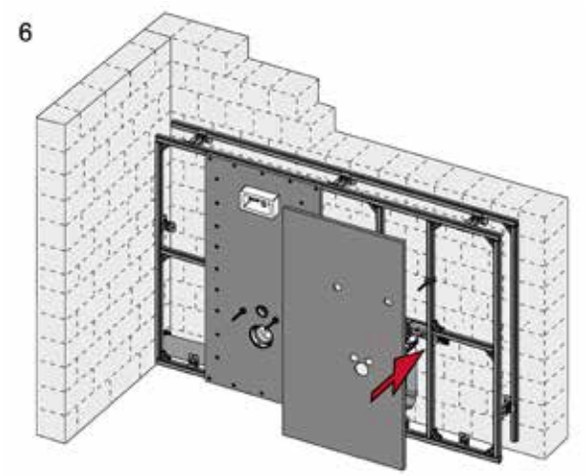
4



Pull out the module, secure it to the top profile pipe with corner joints, apply the foot brake and close the clip on the module foot



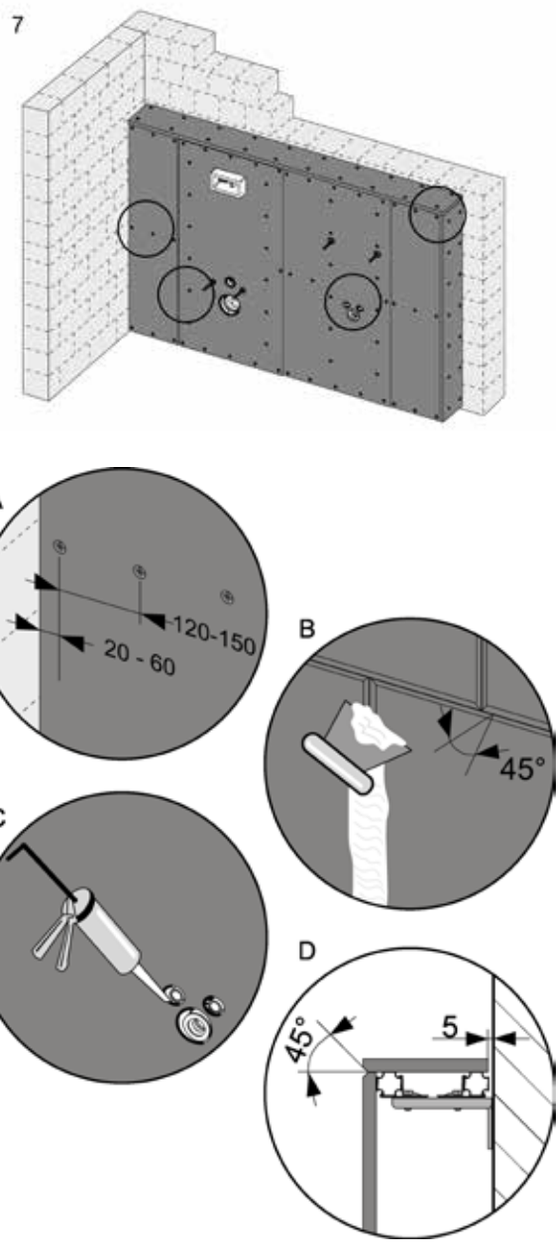
Install the horizontal middle struts



Make the cut-outs in the panel plates, put the cladding in place

Covering the cladding with plasterboard

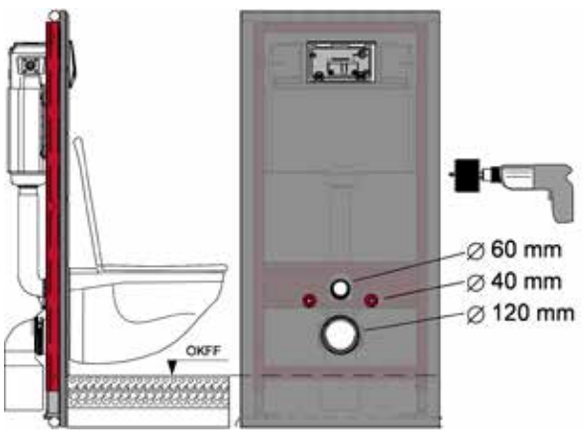
The walls are covered with 18 mm-thick single-layer plasterboard. Alternatively, 2 x 12.5 mm plasterboard or an equivalent cladding can be used. “Equivalent” means, for example, a combination of building plywood and plasterboard or planking made of gypsum fibreboard. The cladding must be screwed together both with the vertical module struts and with the adjacent, vertical supporting frame. The cladding on the supporting frame should start around the toilet module as that is where the largest number of cut-outs is required.



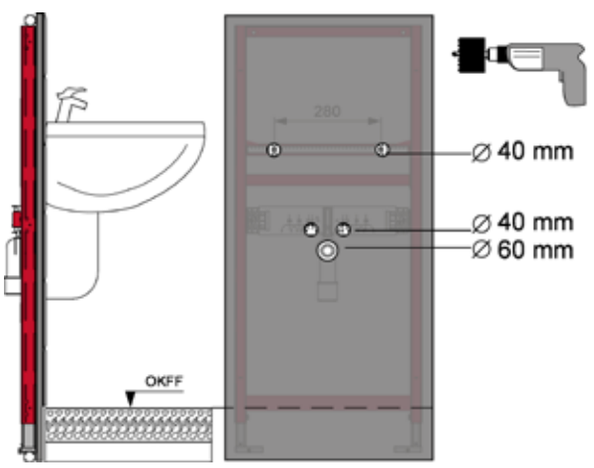
Cladding and filling the TECEprofil supporting frame.

Practical tip:

The required cut-outs can be easily marked out using the marking plugs supplied. To do so, press the cladding panel against the marking plugs. The centre points of the cut-outs are now clearly marked.



Size of cut-outs for the toilet module

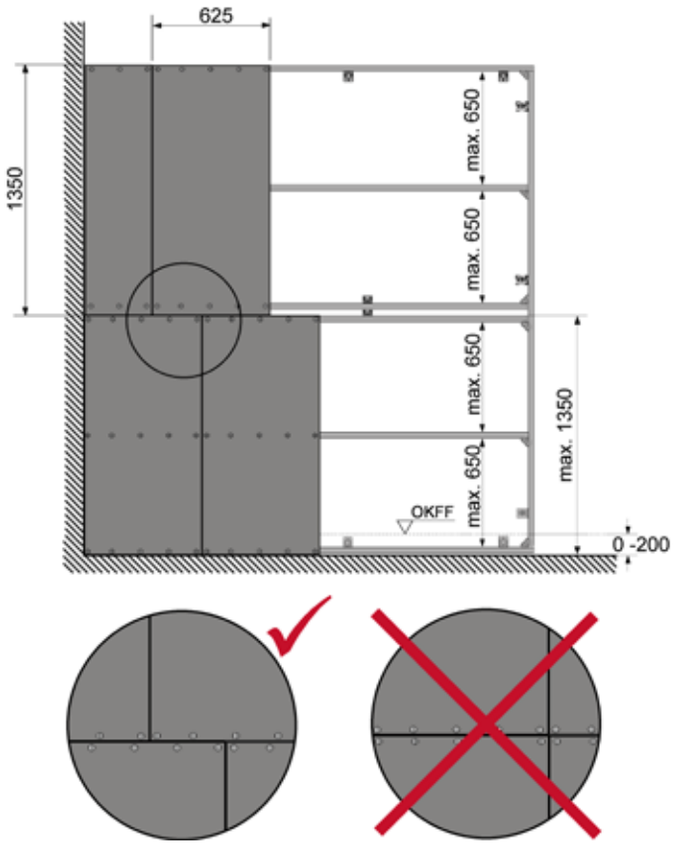


Size of cut-outs for the washstand module

Caution:

The marking plugs are not suitable for a pressure test.

When cladding, the general guidelines for dry construction must be observed. The joints in the cladding must be filled with the TECEprofil filling compound. On non-ceramic surfaces, additional fibreglass joint ceiling strips must be used. The 5 mm gap between the structural shell and the cladding must be filled and sealed with a permanently flexible compound. Cross joints (vertical and horizontal panel joints) should be avoided, the joints should be offset by at least 15 cm.



Joint patterns on the facing

Important: all abutting edges on the plasterboard must be chamfered to 45°.

Filling of plasterboard panels

When plasterboard panels are filled, a distinction must be made between four different levels of quality. Unless tender documents specify otherwise, quality level 1 generally applies.

Quality level 1 covers the following requirements for filling:
- filling of butted joints of plasterboard panels and
- coating of the visible parts of the fastening elements

Any excess material must be removed. Markings, scratches and burrs caused by tools are permitted.

Further information on the surface quality of filling can be found in data sheet no. 2 of the German Gypsum Industry Association.

TECEprofil filling compound

TECEprofil filling compound is a white powder to mix with water and is based on gypsum and PVA with methyl cellulose and cellulose reinforced fibre. It offers all the advantages of a quick plaster, has a very high adhesion and does not sink. TECEprofil filling compound can be applied as thickly as required in one step, and hardens in the process without strain or cracks.

Application (indoor area)
- Filling, plastering and smoothing of rough masonry, plaster, concrete, filigree ceilings, aerated concrete and foamed concrete, sand-lime brick, plasterboard, fibre-reinforced panels, light construction panels, and insulation panels
- Filling the joints in plasterboard and gypsum fibreboard without fabric reinforcement. The local requirements and processing guidelines of the panel manufacturers must be observed. The site must be dry. If necessary, insert reinforcement strips in the case of particularly stressed surfaces, e.g. in the area of installation openings.
- As a bonding agent for fixing plasterboard, gypsum fibreboard, polystyrene foam and mineral fibre boards to masonry in interior areas. Absorbent substrates such as aerated concrete and sand-lime blocks must be primed first with penetrating primer/sealer.
- As a gypsum adhesive for non-load bearing gypsum partition wall panels.

Substrate
The substrate must be clean, solid and offer maximum grip. Dirt, dust, wallpaper, old paint and plaster which is not adhering reliably must be removed. Pre-treat smooth concrete surfaces with diluted render primer, other smooth substrates, e.g. lacquer and dispersion coatings, with a pigmented primer.

Mixing
Pour clean water into a container and sprinkle in the powder (1 part water to approx. 2.25 parts powder). Stir vigorously until a very fine, smooth, paste-like compound is formed. To achieve the optimum working properties, wait for about 1–2 minutes and stir vigorously again.

Processing information
Apply TECEprofil filling compound evenly onto the substrate with a smoothing trowel.
- Can be worked for about 30 minutes without difficulty,
- only use at temperatures above 8°C.

Post-treatment
It is not generally necessary to post-treat the smoothed surfaces. However, if emulsion or gloss paint is applied, we recommend applying a coat of penetrating primer/sealer beforehand.

Cladding for highly wet areas

The TECEprofil panel plate for highly wet areas is a 12.5 mm-thick, cement-bound lightweight concrete board with a sandwich structure, reinforced with a top layer of alkali-resistant fibreglass webbing on both sides.
In areas where the walls are subject to a very high degree of moisture stress – such as in public shower facilities, swimming pools, fitness areas etc. – special cladding plates must be used.
For these areas, we recommend the use of especially durable and resistant water-repellent panelling material.
The 12.5 mm-thick, cement-bound TECE cladding plate for highly moisture-stressed areas fully meets these requirements.
In addition, the local standards for dry-wall construction finishes must be observed.

Storage guidelines

Plate storage and transport:
The panel plates are packed lying flat and delivered on pallets. They should always be stored lying flat on a smooth base. Storing them upright could distort the plates and damage the edges. If the plate stacks are placed on slabs, their load-bearing capacity must be taken into account. Storage in the open air is possible because of the resistance to frost and water. However, because of their later surface handling, the plates should be provided with a water-repellent covering and protected from soiling by building work.

Construction site conditions:
As with all materials used in construction, fibreglass lightweight concrete boards are subject to expansion and contraction due to the influence of temperature and moisture. The following installation conditions must be adhered to in order to perform dry-wall work correctly:

- Only install fibreglass lightweight concrete boards when the air humidity is less than 80%.
- Soaked panels must never be handled until they have completely dried out. Do not install damaged materials.
- Due to the technical process, bonding of fibreglass lightweight concrete boards must be performed with air relative humidity < 80% and at a room and material temperature of at least+ 5°C.
- The temperature of the adhesive must be > 10°C. The panels must have adapted to the surrounding room climate, which must not change significantly in the next 12 hours after bonding.
- Low temperatures and high relative humidity prolong the hardening times. Heating with gas burners can cause damage because of the risk of condensation. This especially applies to indoor areas with poor ventilation. Sudden rapid heating should be avoided.

Cutting:
Cement-bound lightweight concrete boards can be cut using a standard rail-guided portable circular saw with extraction, preferably as a plunge saw. To cut boards as exactly to size as possible and with sharp edges, we recommend using a saw blade with a smaller number of teeth. Cut-outs and curves can be cut conveniently using a jigsaw.

Cladding:
The TECEprofil walls can be clad with the extremely stable glass-fibre lightweight concrete panels in a single-layer design. They should be installed with the noticeably smoother face to the front. Direct tiling is possible, depending on the application in question. With multi-layer cladding, only the panel joints of the outer cladding layer need to be glued together. Cross joints are not permitted. The offset of the joints between the boards must be at least 200 mm. For the purposes of good bonding, the boards must be cut absolutely straight and with sharp edges.

Fixing:
The fibreglass lightweight concrete boards are secured to the TECE supporting frame using the same types of screw and with the same screw spacing as for the plasterboard panels. Pre-drilling is not necessary.

Joint technique:
Unlike plasterboard, the glass-fibre lightweight concrete panels are glued together butt-jointed. Only Fermacell joint adhesive (item no. 9200014) is permitted for this purpose. About 20 ml of adhesive is required per metre. A 310 ml cartridge will therefore bond about 15.5 m of panel joints. Apply the bead of adhesive to the edge of the board. It is important that the adhesive completely fills the joint when the two boards are pressed together (the adhesive should be visible on the joint). The maximum width of the joint must not exceed 1 mm. To avoid disturbing the adhesive film during the following fixing and curing, the joint should not be compressed "to zero". Depending on room temperature and humidity, the adhesive is set after about 12–36 hours. Afterwards the excess adhesive is completely removed. This can be done using a putty knife or a scraper.

Job steps for moisture stress class A (high degree of wetness)

In moisture stress class A areas, the whole surface of the cladding plates must be sealed with a sealing system (including the flexible adhesive).
For sealing systems of the other moisture stress classes, please contact manufacturers of building chemical products directly.

Work steps required:

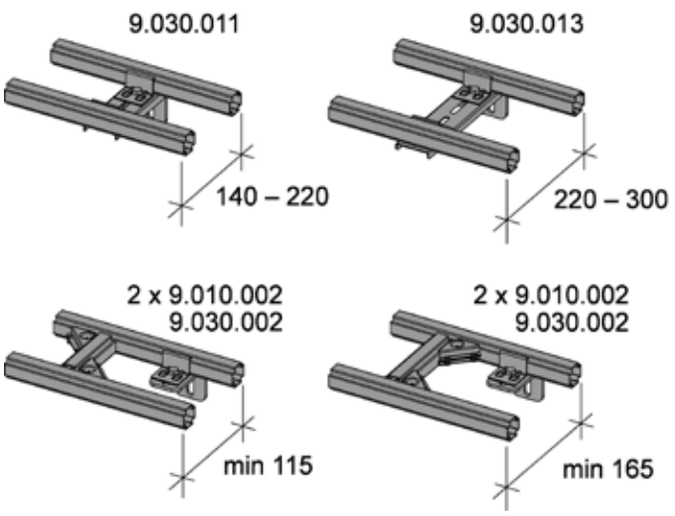
1. Bond the abutting edges
2. Remove excess joint adhesive after it has set
3. Fill the visible fastening material using fine filler or skim coating
4. Apply a sealing system (penetrating primer, liquid membrane, sealing tape, possibly a wall sealing sleeve) (see figs. 1 and 2)
5. To seal the pipe openings, bed the sealing sleeve into the still-wet liquid membrane and immediately brush the sealing system over it again (see fig. 3)
6. Apply the flexible adhesive

Fig. 1: Applying the lower sealing coating

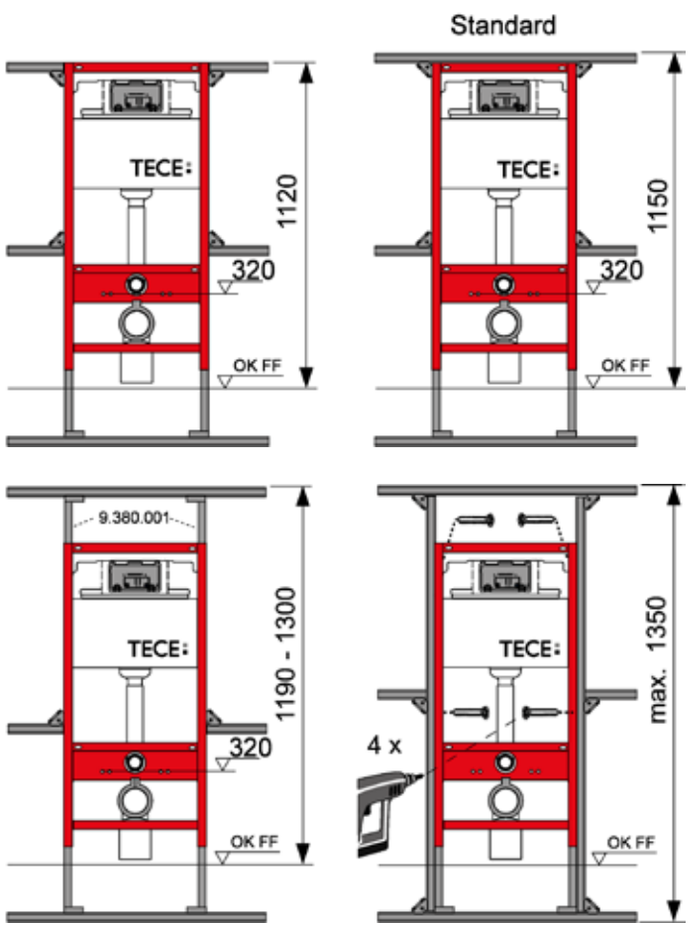
Fig. 2: Bedding the sealing sleeve into the still-wet sealing coating

Fig. 3: Applying the upper sealing coating

Possible pre-wall heights and depths



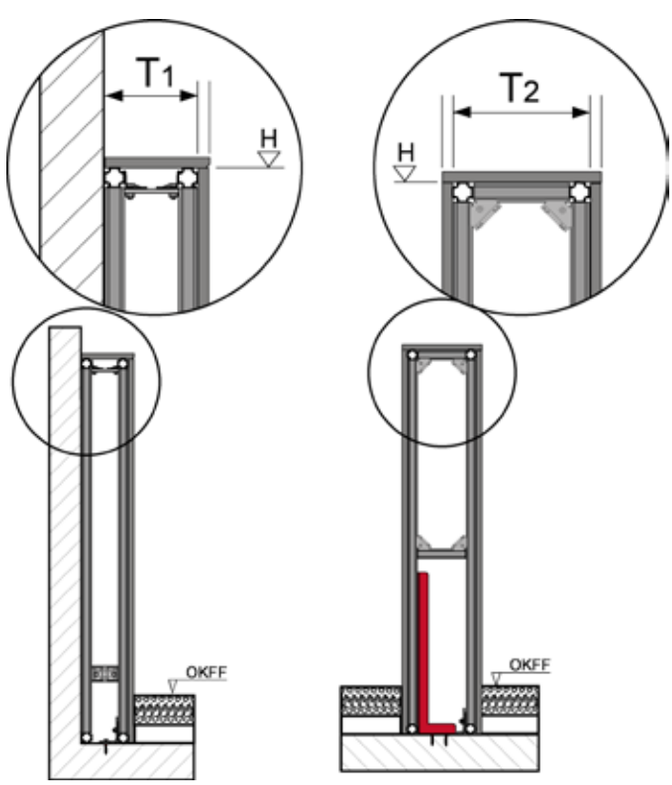
Possible pre-wall depths with TECEprofil supporting frame



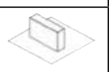
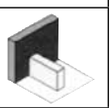
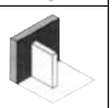
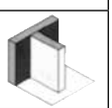
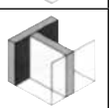
Possible pre-wall heights with TECEprofil supporting frame – 1

	Item no.	Standard height	T1 min.	T2 min.
O DN 100	9300000 9300003 9300009 9300011 9300044 9300079 9300100	1150 (1,120–1,350)	160	210
	9300022	980–1080	160	210
	9300001	820–920	160	210
	9041006	970–1350	160	210
O DN 50	9310000 9310004	1150 (1,120–1,350	140 (115	210
	9020033 9020018 9020034	820–1350	140 (115	210
O DN 50	9320008 **9320010** 9320013 9020017	1150 (1,120–1,350)	140 (115	170
O DN 50	9330000	1150 (1,120–1,350)	140 (115	210

Possible pre-wall heights with TECEprofil supporting frame – 2



Limits

Description	Type	Height	Depth	Width	Symbol
Standard wall	Standard wall, partial height and floor-to-ceiling height, with or without side attachment	Standard 1150 mm, max. 4500 mm	-	-	
Free-standing wall	partial height, without side attachment	Standard 1150 mm, max. 2100 mm	min. 210 mm	max. 2400 mm	
	partial height, attachment on one side	Standard 1150 mm, max. 2100 mm	min. 210 mm	max. 2400 mm	
	Privacy screen, partial height, attachment on one side (only approved for fitting installations)	max. 2100 mm	min. 170 mm	max. 1200 mm	
	floor-to-ceiling height, attachment on one side	max. 4500 mm	min. 210 mm	max. 2400 mm	
	Floor-to-ceiling partition wall, attachment on two sides	max. 4500 mm	Min. 170 mm (up to 2400 mm width); min. 210 mm (from 2400 mm width);	a vertical strut is required every 2,400 mm on all sides of the wall!	
Special wall	Partial height and room height corner construction 45° in front of a structural corner	max. 4500 mm	min. 350 mm	min. leg length 495 mm	

The maximum wall heights given always include the floor build-up. All dimensions refer to the supporting frame without cladding. The standard shelf height of 1,150 mm (supporting frame height above top edge of finished floor) can be changed easily.

Moisture protection

TECEprofil can be used in damp rooms (bathrooms, guest toilets, cellars). Use in wet rooms (swimming pools) is not possible.
Penetrations at washstands, urinals, bidets, etc. must be sealed with permanently elastic material. All unfilled cut edges of the cladding must be treated with penetrating primer/sealer before tiling. The edge between the floor and the TECEprofil cladding must be sealed with standard sealing tape.
Additional moisture seals, such as in the shower area, are to be created by the tiler. The tile laying trade organisation has produced a special information sheet on this subject.

Floor attachment

The TECEprofil pre-wall can be mounted both on the unfinished and finished floor. The entire length of the wall plugs must be anchored in the screed. The screed's compression strength must be at least 5 N/mm^2. Free-standing walls must be firmly attached to the unfinished floor. If mounting on a wooden floor, reliable fastening to the floor structure must be ensured.

Equipotential bonding

No potential equalisation needs to be provided with the TECEprofil system. Electrical equipment must be installed in accordance with the local requirements.

Console loads

When items are attached to a TECEprofil plasterboard wall, console loads are introduced into the wall. A distinction is made here between light, medium and heavy console loads. Heavy console loads are generally absorbed by a module or by a special connection unit. Medium console loads must be connected to the supporting frame. Light console loads can be directly secured to the panel facing at any desired position.
Suitable wall plugs must be used for fixing. Usually the mounting materials supplied with hand towel holders or mirror cabinets are also suitable for fixing to plasterboard. A large selection of suitable fixing dowels made of plastic or metal can be found at dowel manufacturers.

Light console loads

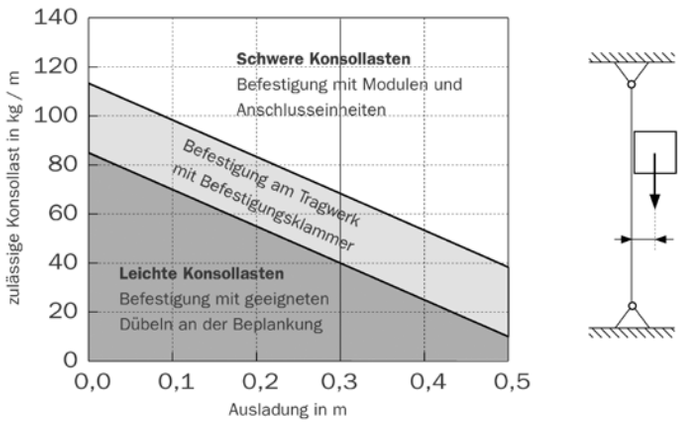
The permissible console load is given as a load per metre of wall.. The values given depend on the overhang of the load. Loads up to 40 kg/m wall length may be applied directly to the cladding at any point in the structure with a overhang of 30 cm. For other values, please refer to the following diagram.

Medium console loads

Medium console loads up to 70 kg/m of wall length with an overhang of 30 cm may be secured to the struts of the supporting frame. The fixing is made using an M 8 or M 10 fixing bracket (item no. 9040004/9040001).

Heavy console loads

Console loads in excess of 70 kg/m of wall length require a special attachment to modules or connection units, e.g. to a toilet module or an attachment plate for safety support arms and support systems.



Console loads

The following maximum loads can be assumed for the usual fixtures and fittings
(reference values):

- Pictures and mirrors approx. 15 kg
- Bathroom and mirror cabinets approx. 40 kg
- Toilet paper roll approx. 2.5 kg
- Hand towel holder approx. 8 kg
- Bathtub handles approx. 80 kg
- Rod for bath towel approx. 25 kg

Depending on the overhang, these items can normally be screwed directly to the cladding using the mounting material supplied.

TECEprofil universal module

The TECEprofil universal module is an all-rounder. Only one module is required for all current dry-wall constructions. This saves storage space and makes calculation and logistics easier.

Example

The TECEprofil universal module with Uni-cistern:

Toilet universal module, assembly height 1120 mm

- Clearly visible: punched meter tear.
- Robust, self-supporting mounting frame. All toilet modules are statically self-supporting and can withstand a max. load of 400 kg. Holes in the crossbeam enable shower toilet connections to be upgraded.
- Pre-drilled holes for mounting in flush-mounted profile walls and wooden stud walls.
- Strong crossbeam with four threaded holes for ceramics with an installation spacing of 180 or 230 mm. The crossbeam ensures that the ceramic is safely secured even under high loads.
- Optional retainers for additional supports for ceramics with a reduced supporting surface.
- Integrated foot brake facilitates module height adjustment.
- Adjustable foot supports for floor projection of 0 to 200 mm. For attaching to the floor or on a TECEprofil rail.
- Two-piece DN 90/100 toilet drain bend. This allows DN 90 and DN 100 sewer lines to be connected easily. The DN 90/100 adapter can also be individually installed as a horizontal outlet in the module. Downpipes behind the module can thus be connected directly without any problems.
- Many upgrade options, such as wooden panels to accommodate foldable support handles, shower-toilet solutions, corner fixtures, and more.

The use of universal module technology also means an extended range of applications:

- in a TECEprofil pre-wall
- in front of a solid wall
- in a C profile wall
- in a flush-mounted profile wall
- in a wooden stud wall

Installation in a TECEprofil pre-wall

Installation in a TECEprofil pre-wall

The simple mounting technology enables you to work swiftly and reliably. The universal modules can be integrated quickly and safely into a TECEprofil wall in a few simple steps:

- Release the foot brake
- Place the module foot on the lower continuous profile strut
- Pull the module out: the foot break is tight enough to hold the weight of the module and prevent it from slipping back
- Attach the module to the top profile strut with corner joints
- Apply the foot brake again
- Close the clip on the module feet
- Mounting the middle profile strut

In addition to installation in a pre-wall, the module can also be mounted in a free-standing wall made up of TECEprofil system parts:

Installation in a free-standing TECEprofil wall

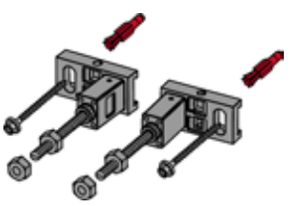
Installation in front of a solid wall

TECEprofil universal modules are also suitable for individual assembly. Compatible attachments are available for various installation situations. The universal module is statically designed so that, in standard cases, it only has to be attached to the load-bearing structural shell at four points. Additional attachments such as elbow brackets are only necessary where high loads are involved (e.g. barrier-free toilet facilities). The mounting material supplied with the attachment units is suitable for mounting on solid walls. When fastening in front of lightweight walls, use suitable cavity anchors In addition, reinforcement of the lightweight wall must be provided at the point of attachment. The procedure must be coordinated with the drywall contractor. The installation instructions of the drywall system used must be observed.

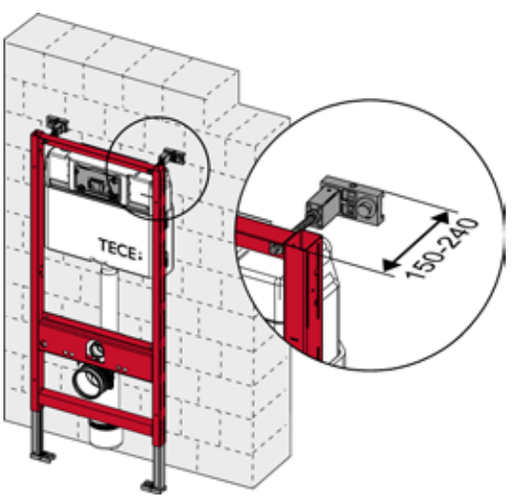
Single module installation with depth-adjustable universal fasteners (item number 9380014):

Single module installation with depth-adjustable universal fasteners

The universal module is placed directly against the wall. The pre-wall depth can be adjusted using the universal fastener. They have a depth quick-release fastener and stable fastening clip for connection to the TECEprofil supporting structure. The module height can be adjusted by means of the extractable module feet. The foot brake prevents the module from sinking down. In this way, the module can be accurately positioned before the module feet and universal fastener are attached to the structural shell.



Universal fastener 9380014

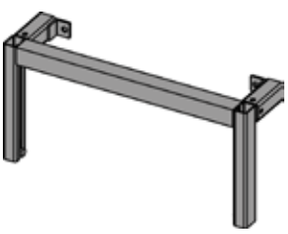


Adjustment range of universal fastener 150 – 240 mm

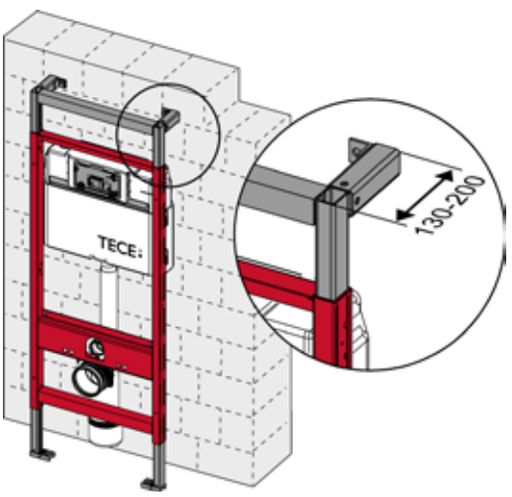
Single module installation with height-adjustable module fastener (item number 9380002):

Individual module assembly with height-adjustable module fastener

With the height- and depth-adjustable module fastener, variable supporting structure heights from 1160 mm to 1300 mm can be realised. In this way, for instance, the module height can be adjusted to suit a given tile pattern.



Universal fastener 9380002

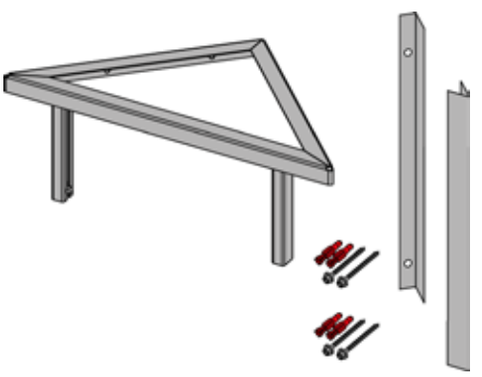


Adjustment range of the height-adjustable module fastener 130 – 200 mm

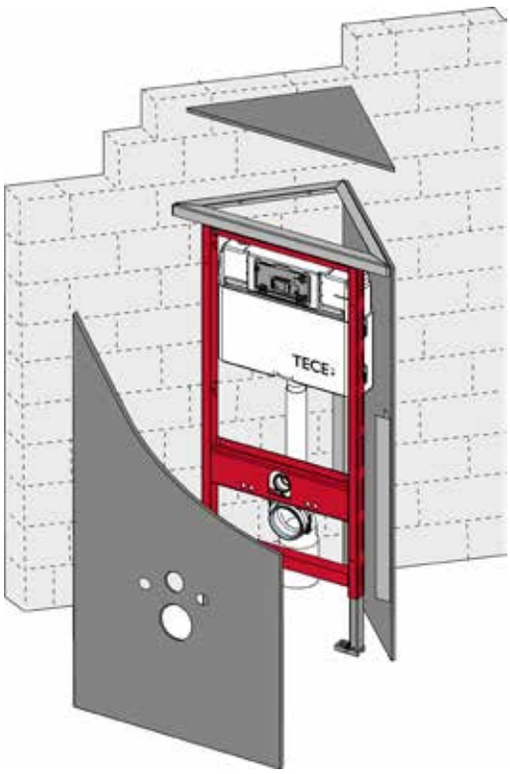
Installation with module fastener for wall corner assembly (item no. 9380004)

Single module assembly with module fastener for wall corner assembly

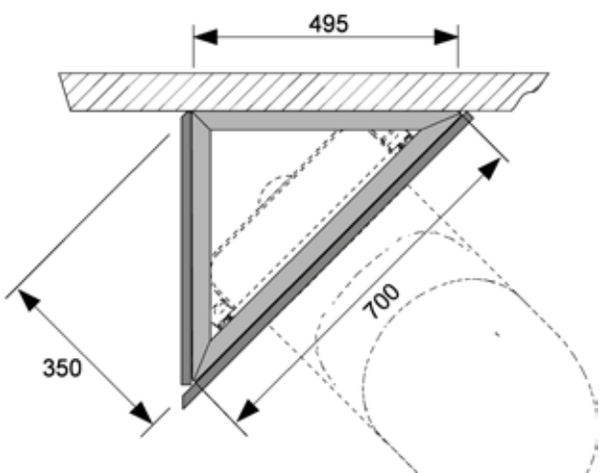
With the module fastener for wall corner assembly, TECEprofil universal modules can be attached to a solid structural wall at an angle of 45°. In this case, the fastening is only screwed to the building structure on one side. Two angle brackets are included for mounting the cladding. Thanks to the small side length of the fastener, structures with a base area of just 0.14 m^2 are possible.



Module fastener for corner assembly 9380004



Installation of the module fastener for corner assembly



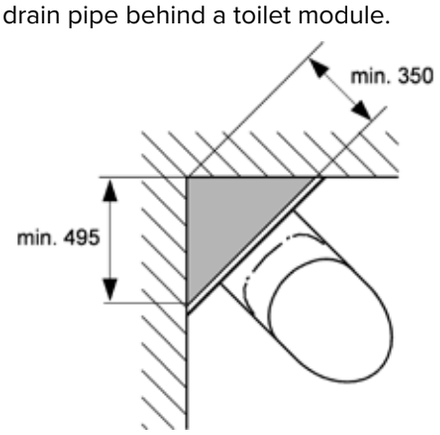
Dimensions of module fastener for corner assembly

Installation with module fastener for variable corner assembly (item no. 9380003)

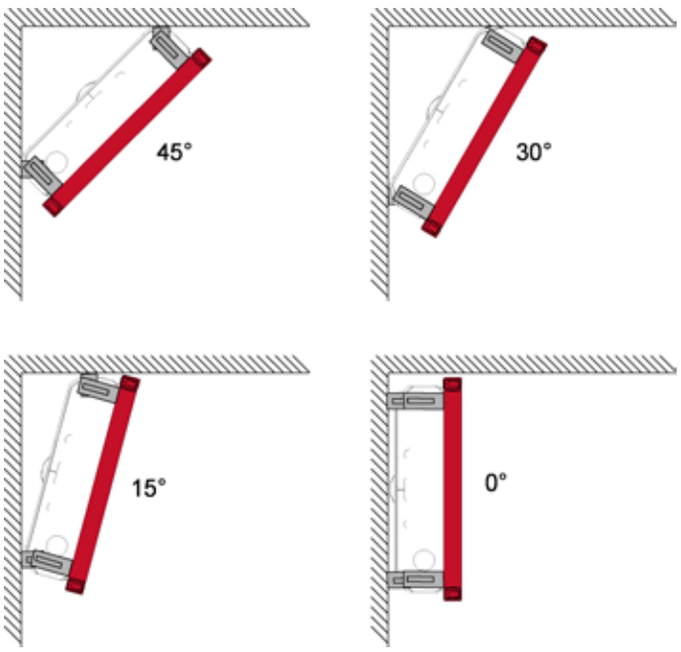
Module fastener for variable corner assembly 9380003

Installation of module fastener for variable corner assembly

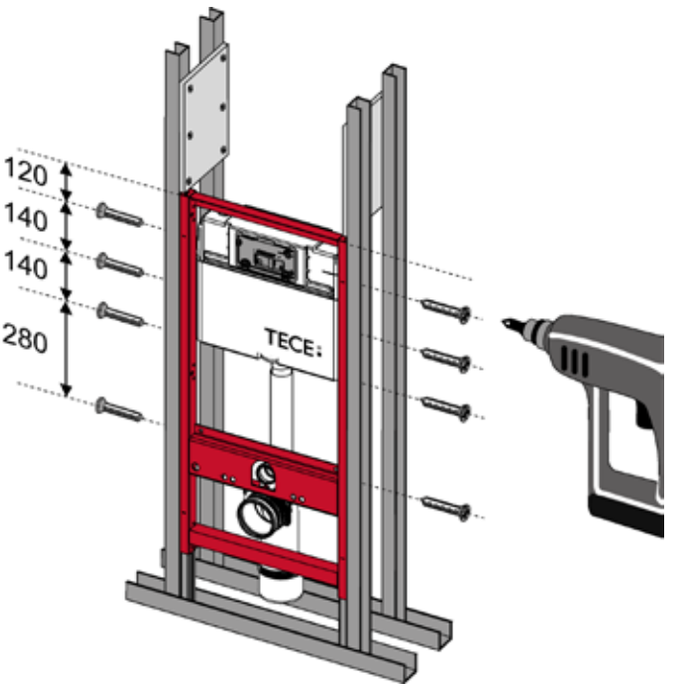
The universal module can be directly attached to the structural shell with the corner fastener. The corner fastener enables a TECEprofil strut to be mounted in parallel. A storage surface can be created with two TECEprofil struts, an angle bracket and a corner joint. The corner assembly requires very little space. The mounting set has a side length of just 49.5 cm. The depth from the front edge of the module up to the corner is only 35 cm. Despite the small installation depth, it is possible to install a DN 100 drain pipe behind a toilet module.



Dimensions of module fastener for variable corner assembly



Installation examples with module fastener for variable corner assemblies



Module fastener for installation in a room-high C-profile metal stud wall

Installation in C-profile metal stud wall

Installation in a C-profile metal stud wall

The module is screwed to the wall profiles at four points each using the self-tapping screws provided. The module feet are at the front under the horizontal C-profile and can be dowelled to the floor.

Local standards and the installation instructions for the dry-wall system used must be observed.

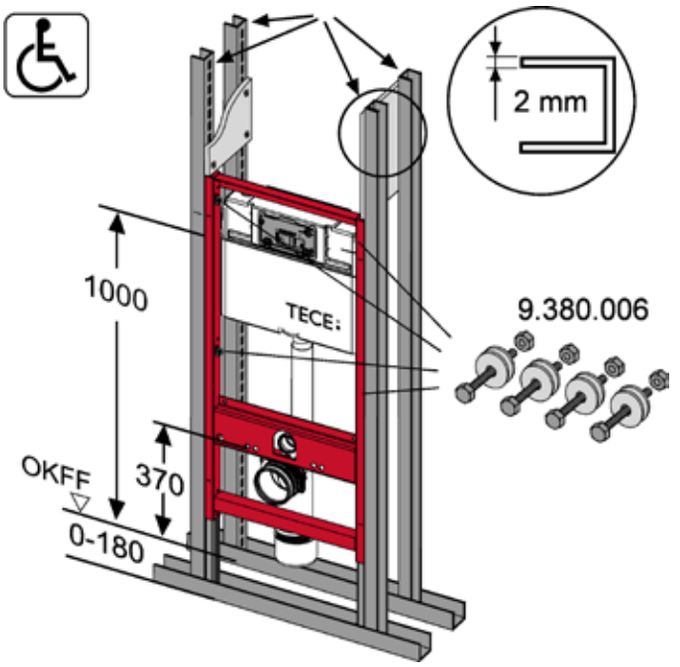
Installation in floor-to-ceiling metal stud wall with flush-mounted profiles

Installation in a floor-to-ceiling flush-mounted profile metal stud wall

If particularly wide or high walls are to have a higher rigidity, flush-mounted profiles can be used instead of C profiles. This measure is only relevant for toilet and bidet modules.

For a handicapped accessible toilet facility, only flush-mounted profiles may be used for the front and rear struts for strength reasons.

The module is then attached to the flush-mounted profile using mounting set (9380006).



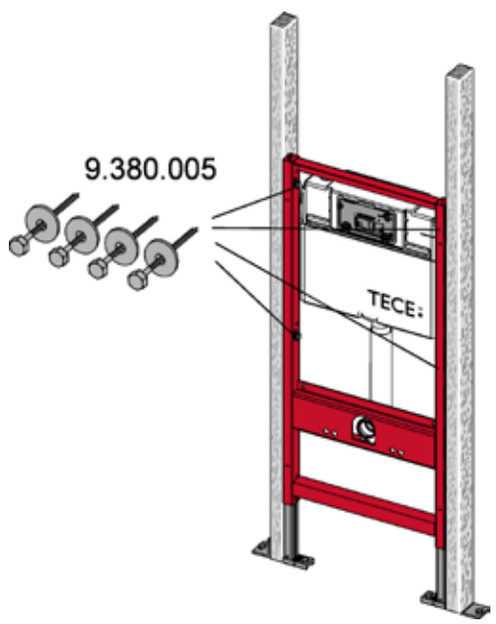
Module fastener for installation in a floor-to-ceiling flush-mounted profile metal stud wall

Due to the prescribed seat height of 48 cm, the universal module must be mounted 5 cm higher than the standard installation height. TECEprofil universal modules have pre-drilled holes in the side struts for attaching universal modules to the UA50 profiles. The holes are arranged so that there are at least two possible mounting options per strut.

Installation in a wooden stud wall

Installation in a wooden stud wall

In addition to metal stud walls, the module can also be installed in wooden stud walls. The frame can be mounted using special wood screws (item no. 9380005) on the vertical struts.



Module fastener for installation in a wooden stud wall

The holes pre-drilled in the side struts are also used to attach the universal module to the wooden struts. The holes are arranged so that there are at least two possible mounting options per strut.
The local regulations and guidelines must be observed during installation.

Attaching individual modules to the floor

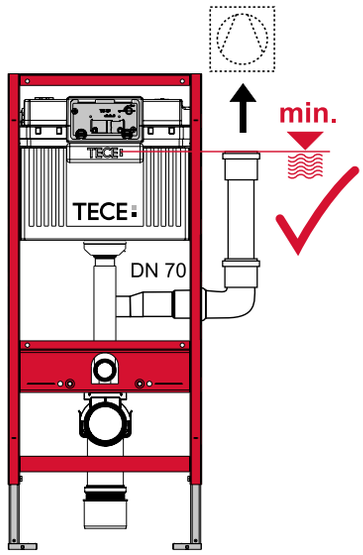
The universal module's feet are attached to the unfinished floor using the screws and wall plugs supplied. The entire length of the wall plugs must be anchored in the screed. The screed's compression strength must be at least 5 N/mm^2. If mounting on a wooden floor, reliable fastening to the floor structure must be ensured.

Toilet module with connection for odour extraction

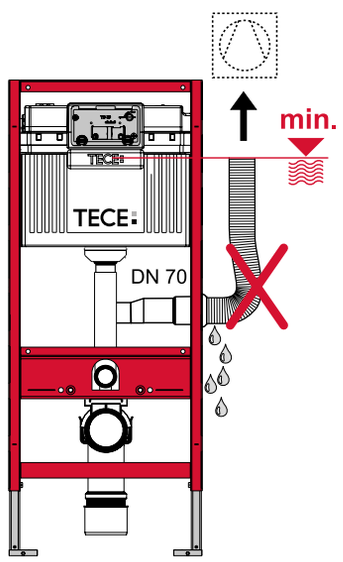
For applications including odour extraction, TECE offers a toilet module with a DN 70 outlet in the flush pipe. The DN 70 connection offers the advantage that, as a rule, no more nominal width changes have to be made. The DN 70 fitting is universal and therefore allows any commercially available fans (e.g. Maico ER 60 or ER 100 with Maico ER-UP fan housing and ER-AS extraction sleeve) to be connected. Odours are extracted directly via the toilet ceramics through the flush pipe. Intensive testing confirms that the flush performance is not adversely affected by the side connection for the odour extraction. To prevent any draught effects, the extraction flow volume should not exceed 18 m^3/h.

Caution:

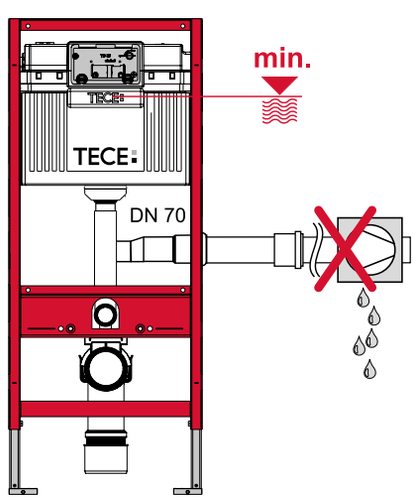
Since part of the flushing water also enters the ventilation pipe during the flushing process (principle of communicating pipes), the connected ventilation pipe must always be installed watertight up to above the water column of the cistern. Direct connection with a corrugated pipe to the flush pipe connection is not suitable for this purpose.



Watertight installation up to the cistern's water column



Do not use a corrugated pipe for connection



Fan must not be connected directly below the water column of the cistern.

Apartment building:

In interior toilet rooms of apartment buildings, the toilet element can simply be connected to the room fan. This is achieved using the existing DN 70 connection sleeve, which permits connection to the concealed housing with a second room connection via plastic pipes. The large cross-section of 70 mm ensures a low air velocity and permits effective, draught-free odour extraction. The moisture in the extracted air condenses on the inner wall of the air extraction pipe before it reaches the fan.

Detached house:

The toilet element with odour extraction can also be used in a detached house. If the bathroom has an outside wall, the extraction pipe from the toilet element is connected to a pipe-insert fan. Odour extraction can therefore be easily implemented, without adverse effects such as a temperature drop caused by opening a window, which in turn leads to higher heating costs.

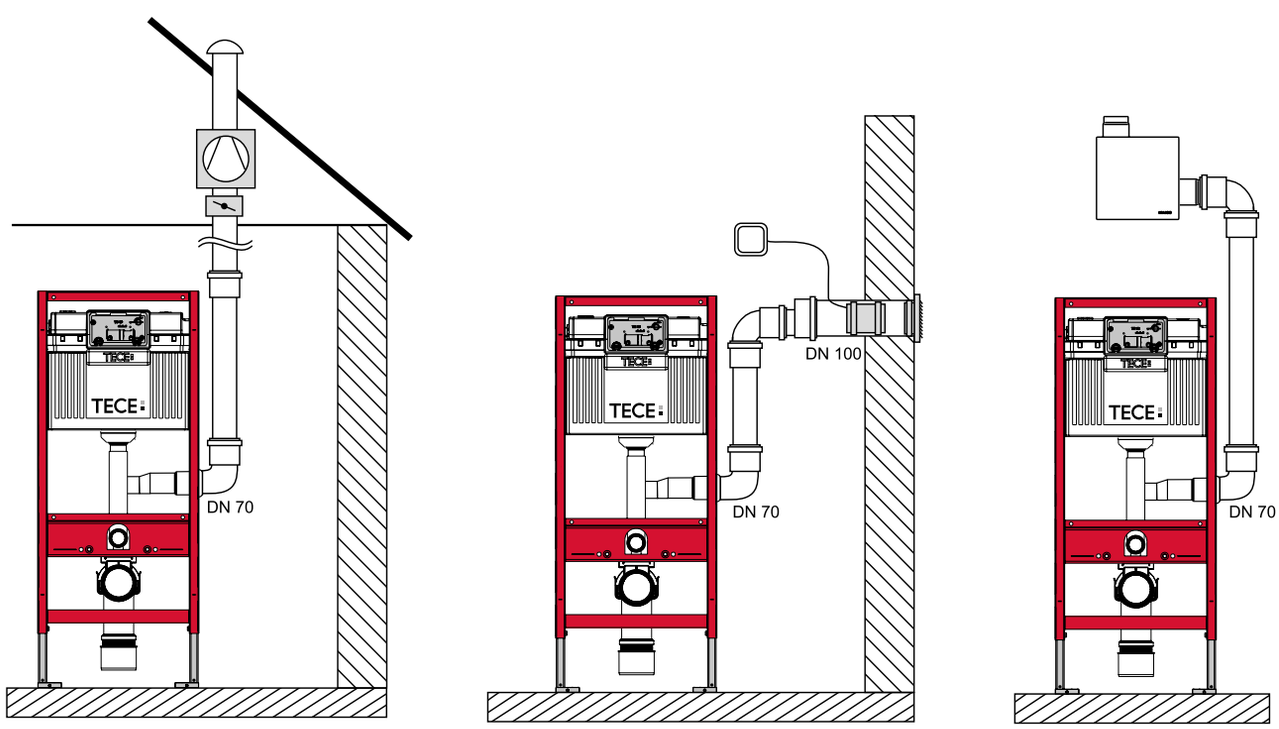
Note:

Odour extraction is possible for all conventional toilet ceramics. However, in some ceramics which have a higher seat position or higher flushing rim, the flushing water remains standing in the flush pipe, resulting in the bowl becoming partially or completely full.

The following table lists ceramics for which, at the time of publication, the use of the odour extraction is not possible:

Manufacturer	Product	Item no.
Catalano	Zero	1VSxxN00
Duravit	Strength 1	021009
	Strength 3	221509
	Architec (Duraplus)	254609
Ideal Standard	Connect	
	Mia/SimplyU	J4521xx
	SoftMood	T3226xx
	Tonic II	K 31xx xx
	Ventuno standing toilet	T3161xx
Geberit	4U RimFree	203460
	500 by Citterio – deep	202100
	CASSINI – deep	203200
	EMANI by Citterio – deep	207800
	ERA – deep	208800
	It! RimFree	201950
	Plus 4	202010
	Silk – flat	203670
	Visit	2063xx
Laufen	LB3	20681
	Pro	21962
	Moderna R	21546
Toto	MH	CW162Y
Villeroy & Boch	Omnia classic	66 65 10
	Omnia O.novo	66 95 10
	Antheus	46087R0

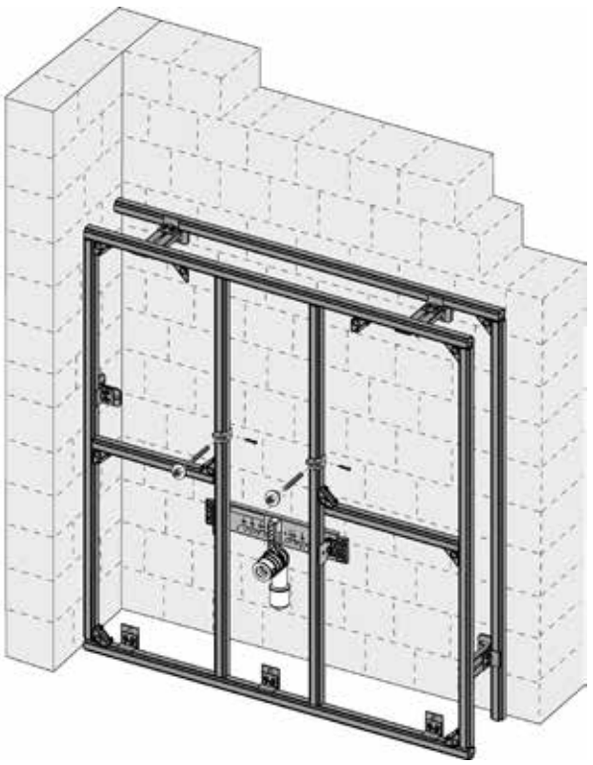
(Listing without claim to completion)



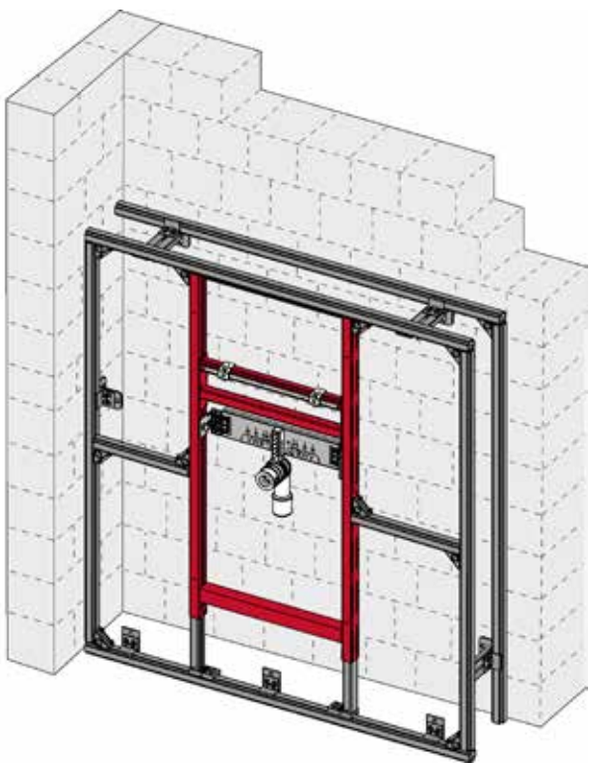
Assembled examples of module with odour extraction

Individual or modular construction

The supporting frame is built using the four basic components – profile pipe, corner joints, double joints and angle brackets. When installing sanitary items, the fitter has the choice between individually installed connection units and the TECEprofil universal modules.



Individual construction with connection unit for washstand



Module construction with universal module for washstand

Alternatively, the same installation can be performed with a TECEprofil universal module. It is not just in TECEprofil supporting frames that TECEprofil universal modules can be integrated, they can also be installed in metal or wooden stud walls.

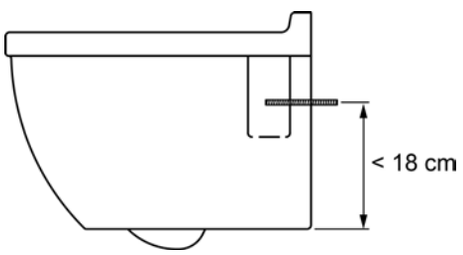
Installing the vertical strut in the toilet module

Vertical struts (item number 9041029) can be optionally inserted in the lower installation space of almost all TECEprofil toilet modules. These struts are only necessary on toilet ceramics with a reduced supporting surface. (e.g. made by Villeroy & Boch: Memento, Sentique, Subway 2.0 or all Flaminia ceramics).

Installing the vertical strut in the toilet module

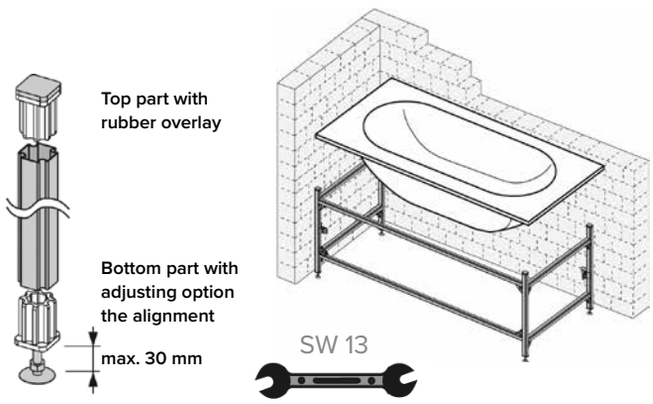
Important:

The use of vertical struts is absolutely necessary for supporting surfaces of < 18 cm. Otherwise there is a risk that the dry-wall construction will collapse behind the ceramic.



TECEprofil bathtub structure

A basic framework made of TECEprofil is created. Plug-in feet (item no. 9140000) are inserted into the four side struts. With an adjustment range of 30 mm, these feet allow height adjustment and alignment. Steel bathtubs can be installed without the need for additional supporting feet under the bathtub.



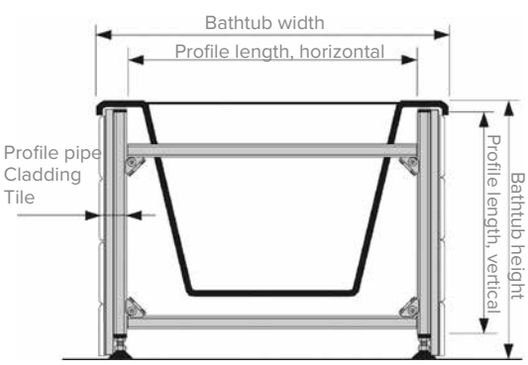
Installation of a steel bathtub in a TECEprofil supporting frame

TECEprofil profile struts

When cutting the horizontal profile struts, the thickness of the vertical profile struts, the cladding and the tile thickness must be taken into account.

You can calculate the exact profile length using the following formula:

Bathtub length/width
– 2 x thickness of vertical profile strut
+ cladding
+ tile thickness
= length of horizontal profile strut

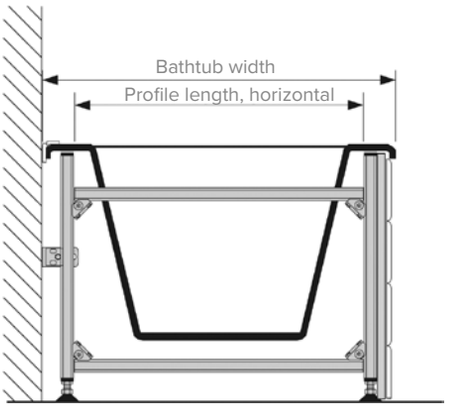


Exact calculation of the bathtub length/width for free-standing bathtubs

For the horizontal struts, the following rule of thumb formula applies in most cases:

Bathtub length/width
– 12 cm

= length of horizontal profile strut



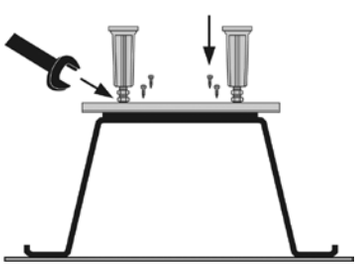
Exact calculation of the bathtub length/width for free-standing bathtubs

When being installed onto the unfinished floor, the floor projection must be taken into account during the calculation of the length of the vertical struts. The profile length is calculated as follows:

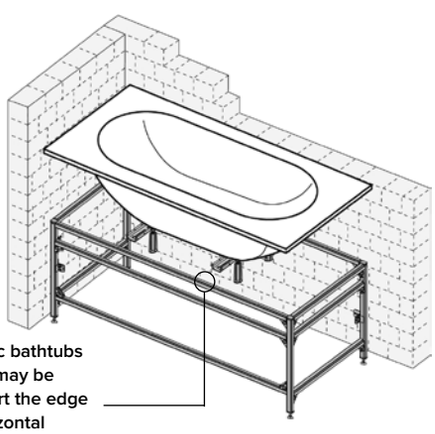
Bathtub height
+ floor projection
– plug-in foot (4.5 cm)
= length of vertical profile strut

Special features of acrylic bathtubs

To safely install an acrylic bathtub, the base plate must be supported by an acrylic bathtub foot. This is screwed to the laminated base board. The required mounting material is usually supplied with the bathtub foot.



Installing acrylic bathtub feet

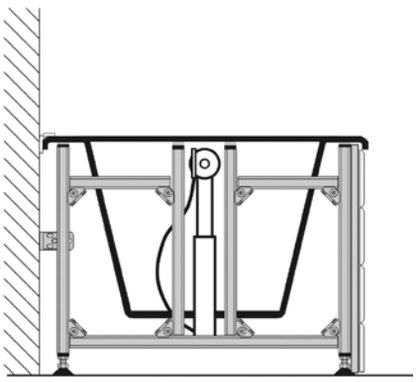


In the case of acrylic bathtubs with a thin edge, it may be necessary to support the edge with additional horizontal profile braces.

Installing a steel bathtub in a TECEprofil supporting frame

Things to note when installing the overflow fittings

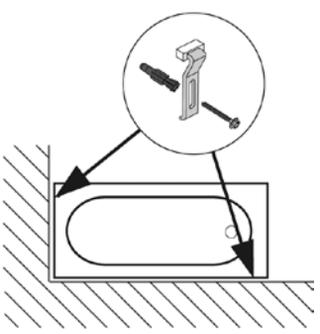
On some bathtubs, the outlet and overflow fittings are very close to the outer edge. In this case, it may be necessary to interrupt the upper horizontal strut. This can be done at any point using the universal TECEprofil pipe and the corner joints.



TECEprofil supporting frame when installing an overflow fitting

Securing the bathtub

To secure it in place, the edge of the bathtub is clamped to a wall of the structural shell using bathtub anchors.

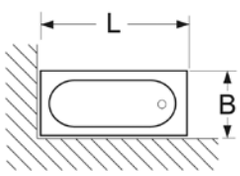
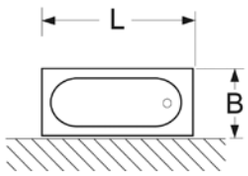
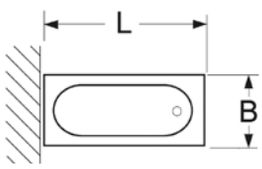
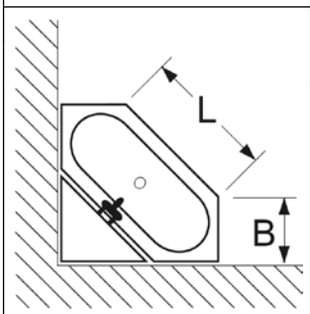


Securing the bathtub using bathtub anchors

Bathtub insulation tape with tear-off edge

In order to prevent an acoustic bridge between the edge of the bathtub and the structural shell, a bathtub insulation tape is fixed to the side of the bathtub edge. With the tear-off edge, the upper half of the tape can be cleanly removed during fine installation. Then place the silicone joint between the tile edge and the tub.

Sealing with bathtub insulation tape and a silicone joint

	Bathtub length L	Bathtub width W	Profile pipe 9000000	Corner joint 9 010 002	Angle bracket 9030002	Double joint 9030011	Universal fastener 9018002	Fitting connection-Crossbeam 9020035	Plug-in foot 9140000	Bathtub anchor	Bathtub insulation tape	Panel plate 9200000
	m	m	m	Unit	Unit	Unit	Unit	Unit	Unit	Unit	m	m^2
	1.60	0.70	7.4	12	2	-	-	-	4	2	2.3	1.3
	1.70	0.75	7.8	12	2	-	-	-	4	2	2.5	1.4
	1.80	0.80	8.2	12	2	-	-	-	4	2	2.6	1.5
	1.60	0.70	7.4	12	2	-	-	-	4	2	1.6	1.7
	1.70	0.75	7.8	12	2	-	-	-	4	2	1.7	1.9
	1.80	0.80	8.2	12	2	-	-	-	4	2	1.8	2.0
	1.60	0.70	9.2	12	2	-	-	-	4	2	0.7	2.3
	1.70	0.75	9.7	12	2	-	-	-	4	2	0.8	2.4
	1.80	0.80	10.2	12	2	-	-	-	4	2	0.8	2.6
	1.10	0.57	13.8	25	5	2	4	1	6	2	2.2	2.0
	1.10	0.62	14.2	25	5	2	4	1	6	2	2.3	2.0
	1.30	0.64	15.4	25	5	2	4	1	6	2	2.6	2.4

Material requirements for a typical TECEprofil bathtub construction

Shower toilet solutions

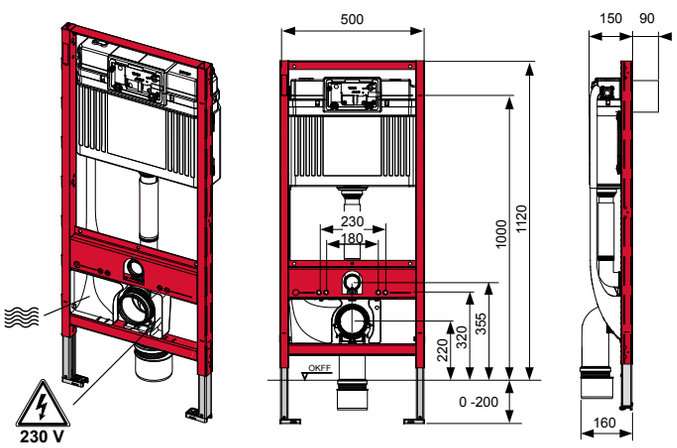
Shower toilet solutions are becoming increasingly popular. Modern shower toilets combine toilet and bidet technology. Thanks to the universal module technology and the upgrade sets for modules, TECE offers the possibility of installing the most common shower toilet solutions on the market.

Toilet module for shower toilets with power connection

The number of electrical shower toilets with concealed connections is continually increasing. It is not always easy to find the right connection position. The shower toilet modules make it much easier to connect shower toilets. The shower toilet module is available with installation heights 1,120 mm, 980 mm and 820 mm.

Caution:

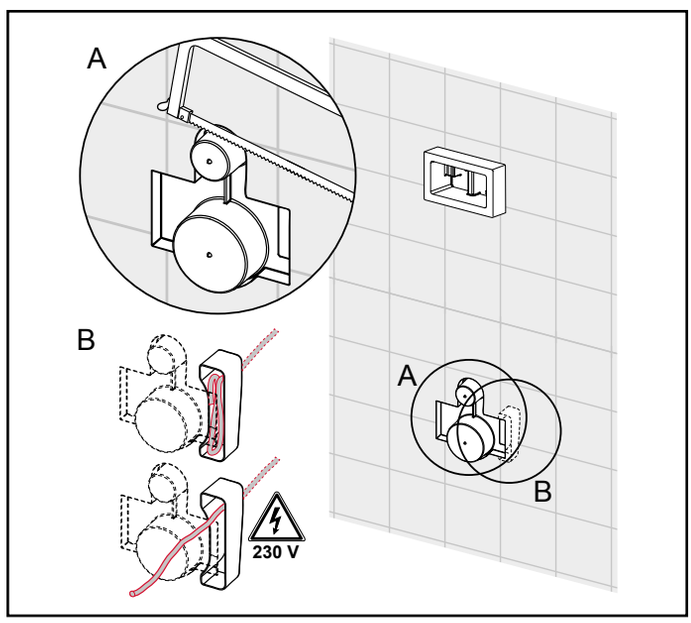
Due to the ever-growing number of shower toilets, 100% compatibility of the toilet module cannot always be guaranteed. If in doubt, always test the connection position beforehand.



Shower toilet module 9300079

Below the main beam, on the left-hand side, there is a large connection funnel that is connected to the cistern via a connecting pipe and provides the cold-water connection. The cable box on the right-hand side is intended for receiving a power cable. The connection funnel's and cable boxes large design means that the widest variety of water and electricity supply connection positions of many shower toilets made by other manufacturers can be covered.

This enables a high degree of universality when connecting shower toilets with concealed water and electricity connections.
The decision as to whether or which shower toilet is to be installed can be made at any time. The connection box must simply contain an NYM 3 x 1.5 mm^2 power connection cable. It must be ensured that this is not under voltage as long as no shower toilet is connected.

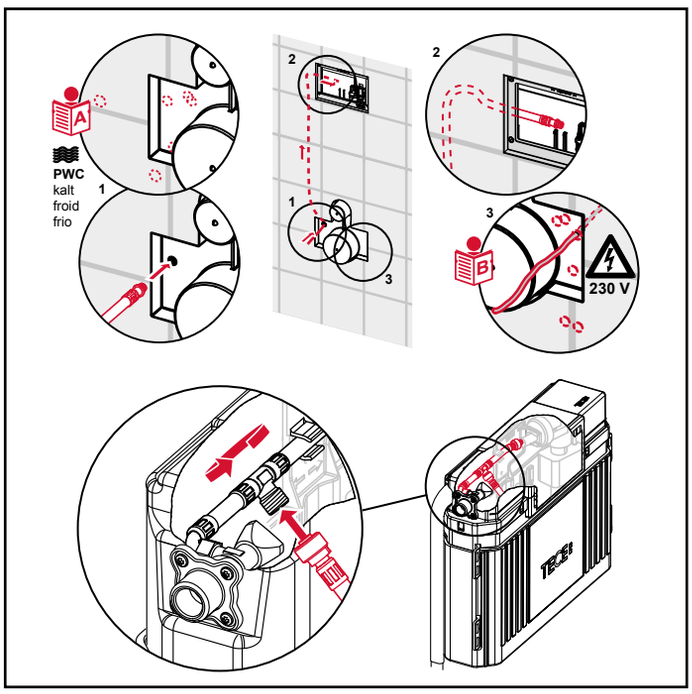


Fine installation set for shower toilet module

The fine installation set is only needed to install a shower toilet in combination with the universal shower toilet module. In addition to the replacement reinforced hose with T-piece, it also includes a long inlet hose for connection to the shower toilet. There are three versions of this depending on the module's respective installation height. These differ in the length of the reinforced hose for the cold water supply.

When installing a shower toilet, the round plugs for the flush and waste pipes must first be sawn off flush with the wall (A). The bare-wall protection can remain permanently in the wall. The toilet can be connected via the connection set. For the connection of water as well as electricity to a shower toilet, the shell plug must be cut at the level of the funnel opening and electrical box. Afterwards, both reinforced hoses from the fine installation set can be mounted. The long reinforced hose is pushed through the funnel opening into the cistern. The short armoured hose including T-piece must be replaced with the standard armoured hose in the cistern and connected to the long armoured hose at the T-piece.

In doing so, it must be ensured that the reinforced hoses do not break off, or come into contact with the lever mechanism. Once the water connection has been made, the electric cable can be pulled out of the power box to connect the shower toilet in front of the wall.

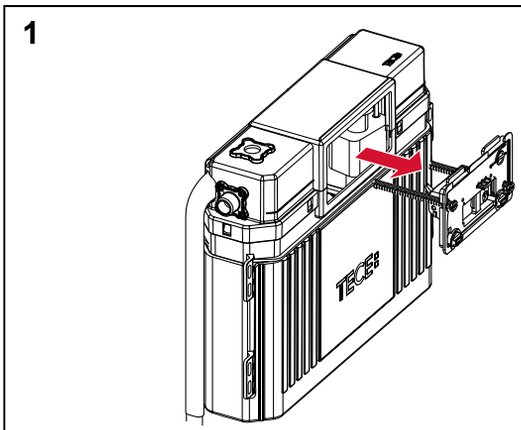


The reinforced hose and the electrical cable which are located in the lower part of the module, can be used at any time to connect the shower toilet. In the assembled state, the ceramic covers the water and power connections.

If ceramics with a reduced supporting surface are to be used, vertical struts must be inserted into the lower build space to prevent the wall from collapsing.

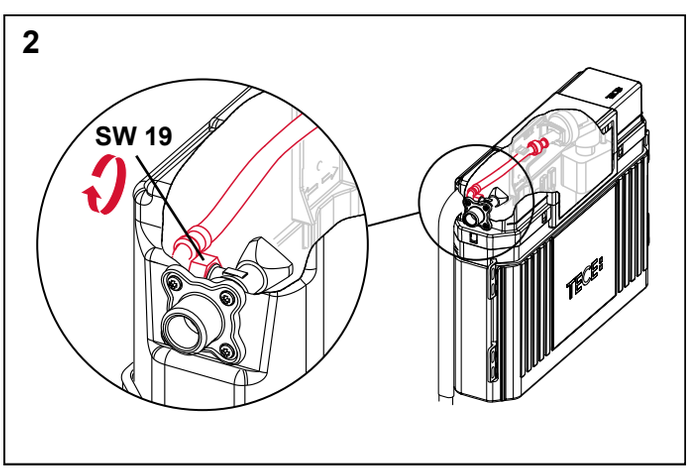
Mounting the fine installation set when installing a shower toilet

1



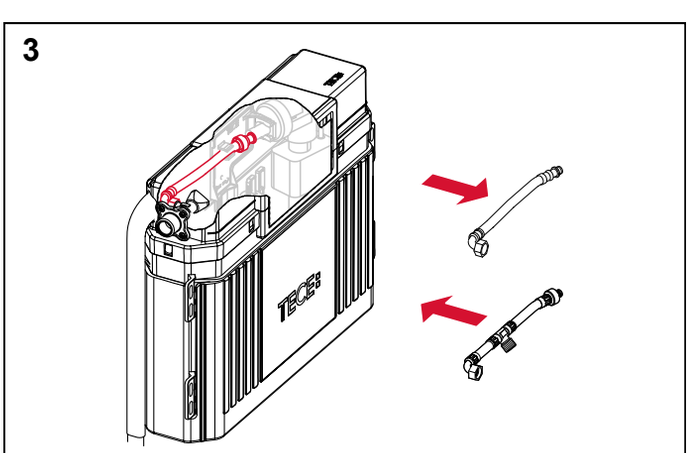
Dismantle the splash guard with actuation unit.

2

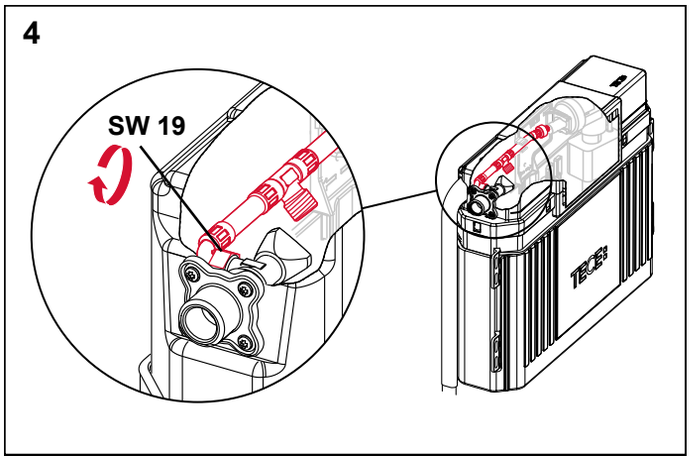


Close the corner valve in the cistern and loosen the reinforced hose including the thread connection on the filling valve.

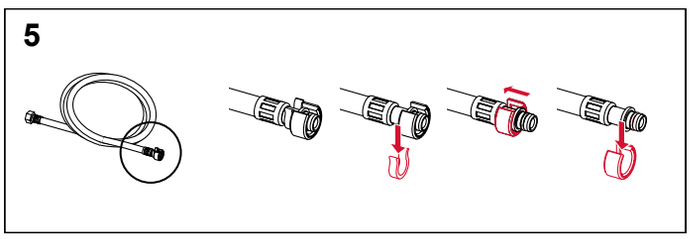
3



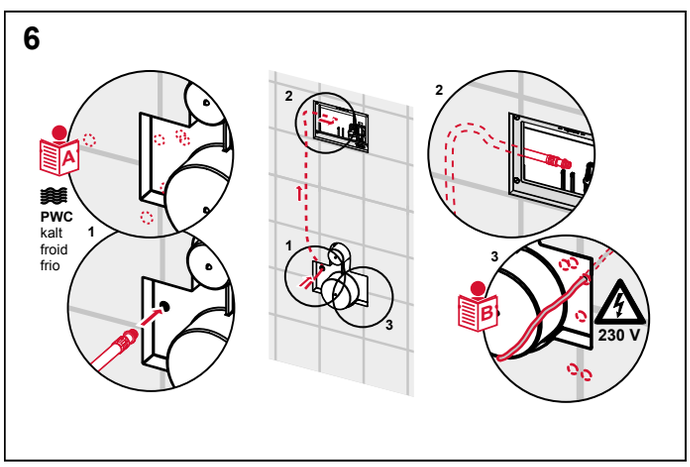
Remove the reinforced hose and reassemble the replacement reinforced hose in reverse order. When connecting to the filling valve F 10, you may have to use the enclosed adapter.



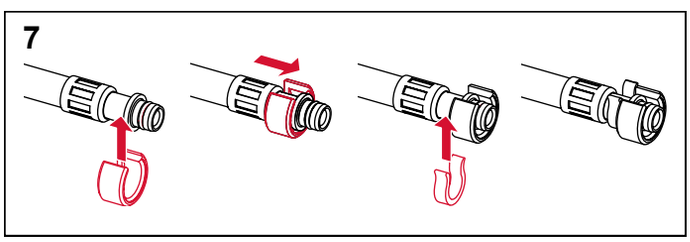
Mount the replacement reinforced hose.



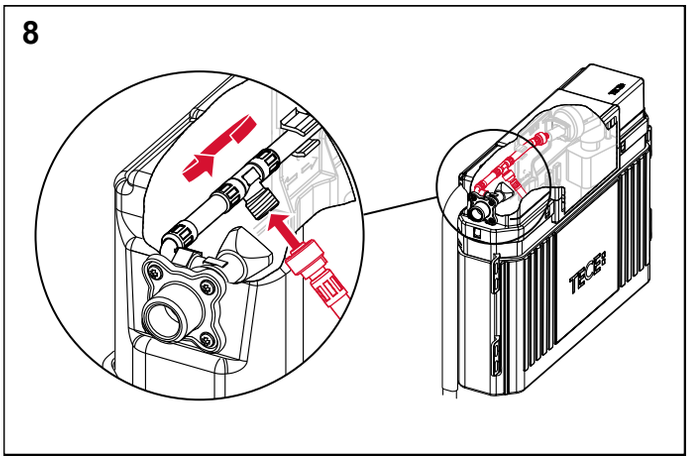
Before the hose can be pushed in, the union nut must be removed. To do so, remove the safety pins, push the union nut back and then pull it down.
Do not lose the safety pins or nut!



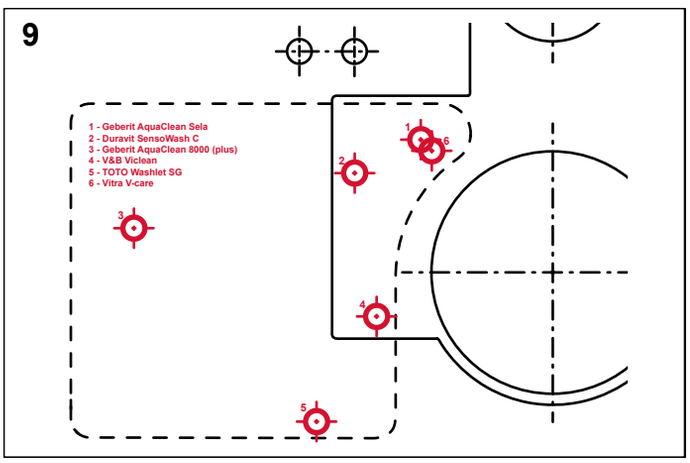
Depending on the shower toilet to be connected (see fig. 9), the hose is pushed through the space provided in the bare-wall protection, and the funnel is pushed into the cistern.



Attach the safety pin behind the union nut.



Connect the reinforced hose from the shower toilet to the T-piece of the replacement reinforced hose.



At present, the following shower toilets fit:

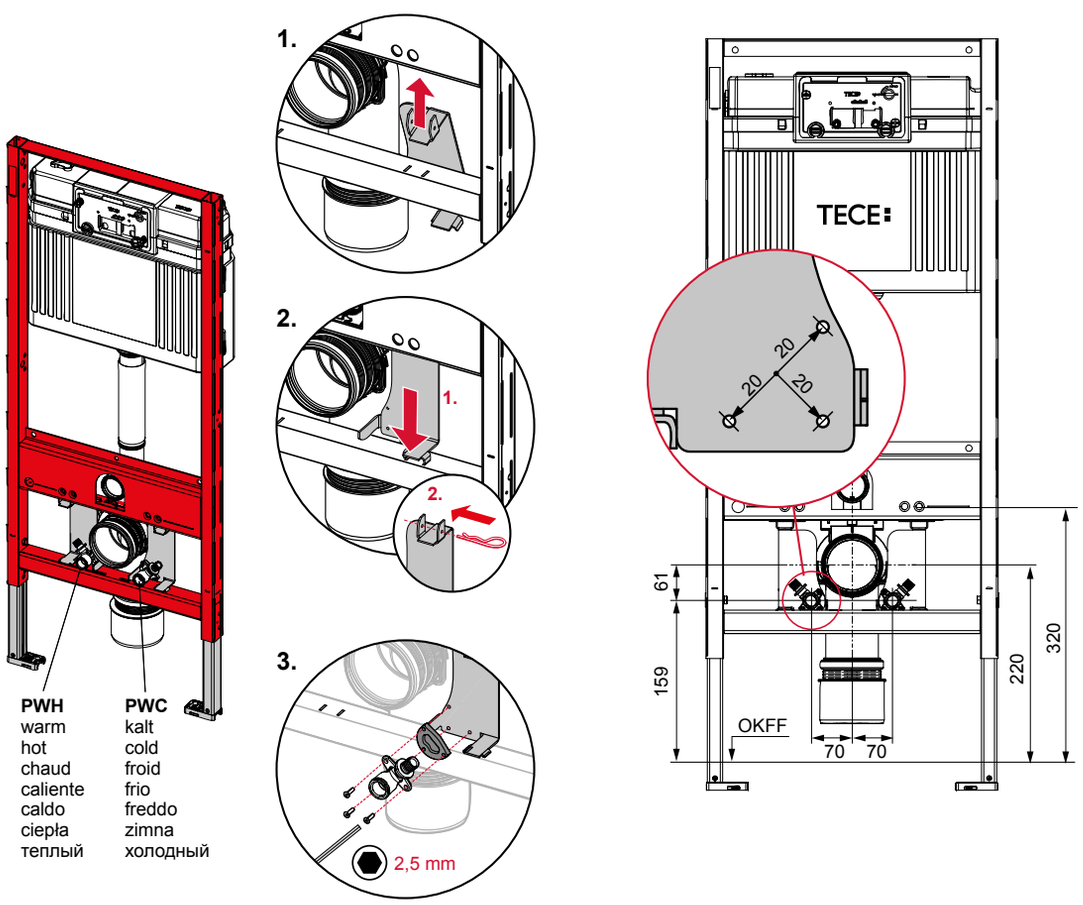
- Geberit AquaClean 8000 (plus)
- Geberit AquaClean Sela/Mera
- Duravit SensoWash C
- V & B ViClean
- TOTO Washlet RX/SX/SG 2.0/GL 2.0
- Vitra V-care

Other shower toilets possible. Test the connection position beforehand!

TECEone shower toilet - pre-fitting on the toilet module

The TECEone shower toilet operates without power. For this reason, only cold and hot water connections must be positioned at the appropriate points in the lower installation space of the toilet module. The upgrade set helps to ensure that the hot and cold water connections are positioned accurately. With the upgrade set, two prefabricated plates for holding wall discs are inserted into the pre-punched slots below the main cross beam and secured via a retaining pin. The upgrade set is supplied with screws and sound insulators for assembling the wall discs.

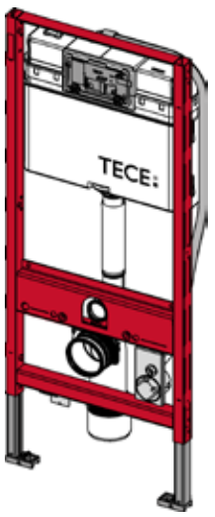
TECEone upgrade set for dry-walls (item no. 9880046)



For the hot water connection of the TECEone, a short branch line from the circulating hot water line to the module is recommended. This ensures that, when the water is circulating, hot water will come out of the shower rod immediately after the water supply has been opened. With a longer hot water branch line, by slightly opening the water inlet, cooled water will flow into the ceramic.

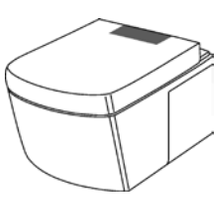
TOTO Neorest shower toilet module

This toilet module has been specially developed for installing a TOTO Neorest shower toiler. All the components required for installation in the bare wall are included.



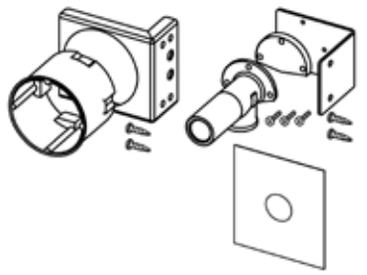
Toilet module for TOTO Neorest AC/EW shower toilet (item no. 9300044)

The module is completely pre-equipped: with a wall disc for the subsequent water connection, a hollow wall box for the power connection and an empty conduit including control cable. The control cable is used to control the motor unit for the TOTO's electronic flush actuation. Everything needed in the shell construction comes from TECE. The material for the fine installation (e.g. motor unit, Neorest shower toilet, etc.) is supplied by TOTO.

Shower toilet manufacturer	TECE item
TOTO Neorest AC 2.0/ EW 2.0, wall-hung 	toilet module for TOTO Neorest, installation height 1120 mm 9300044

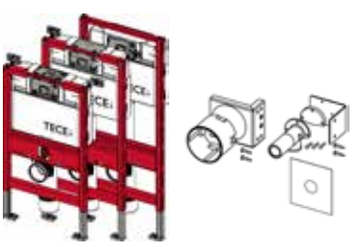
Shower toilet attachments

e.g. TOTO Washlet GL 2.0



Upgrade set for wall-hung shower toilet attachments (item no. 9880037)

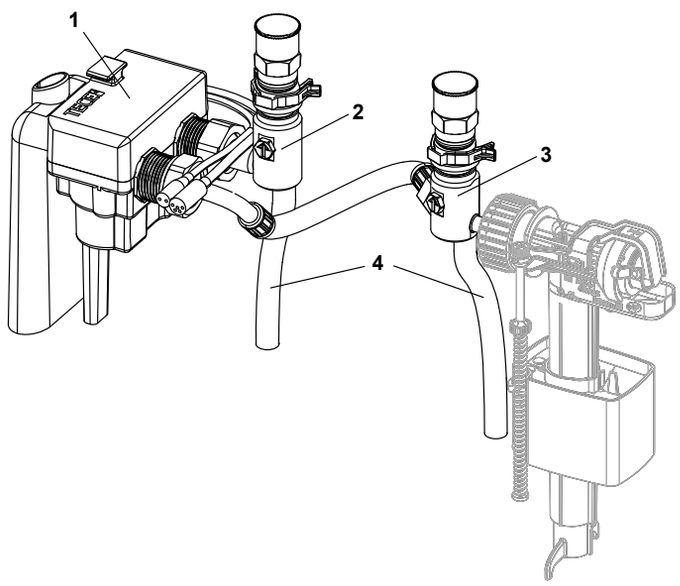
The upgrade set is required in the shell construction. It enables the subsequent installation of a TOTO Washlet GL 2.0 shower toilet attachment, for example. The upgrade set can be installed on any dry-wall module. For this purpose, the upgrade set, consisting of a hollow wall box, water connection and the retaining plates, is screwed onto the side of the module and connected during the shell construction phase.

Shower toilet manufacturer	TECE item
Shower toilet attachment, e.g. TOTO Washlet Giovannoni/GL 2.0/ GL 2.0	Dry-wall modules, all heights + upgrade set for shower toilet attachments e.g. 9300000 + 9880037 

Toilet module with hygiene flushing function

The TECE hygiene flush is integrated into a toilet module (item no. 9300100) and is intended for use in potable water installations. The hygiene flush supports the retention of potable water quality by draining stagnating water when not in use. The hygiene flush can be incorporated as an optional consumer in a looped ring installation or as the last consumer in a looped series installation.

Components of a hygiene flush



1. Hygiene flush unit with power connection and (optional) connection to the building control technology (BCT)
2. Shut-off valve 3-way
3. Shut-off valve 4-way
4. Flush hoses

Safety information

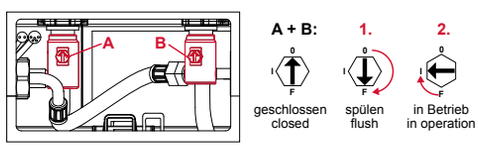
- Installation and commissioning may only be carried out by suitably qualified personnel.
- Adjust the flush programmes to the structural conditions. The parameters of the factory settings may deviate from the actual parameters.
- The electrical connection may only be carried out by suitably qualified personnel.
- Do not perform any repairs or amendments to the TECE hygiene flush. This should only be done by suitable qualified personnel!
- Do not install the hygiene flush in rooms subject to frost.
- The use of a TECE hygiene flush does not relieve the obligation of proper planning and implementation of the potable water installation in accordance with recognised engineering practice.

Caution: As soon as voltage is applied, the TECE hygiene flush operates in the factory settings and flushes water. However, if no ceramics have been installed at this point, the flushing water cannot be guided into the drain and will flow out of the flush pipe!

Initial operation

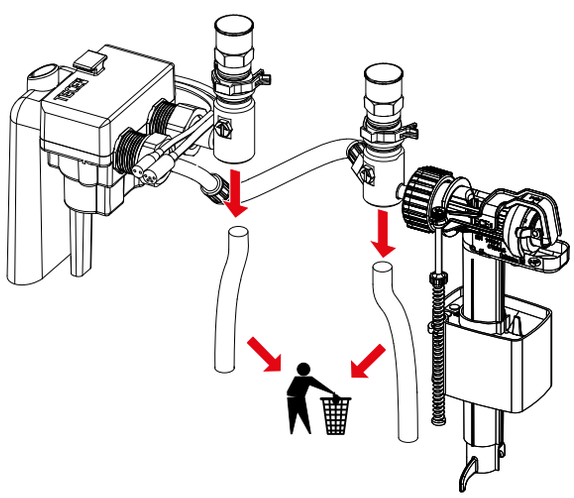
Flushing

Ensure that the pipelines are flushed before initial operation of the hygiene flush. To flush the pipelines, turn the arrow on the shut-off valve clockwise 180° to position F (= flush). Once the pipeline has been flushed sufficiently, the arrow can be turned clockwise 90° to position I (= in operation). Repeat these steps with the other valve too.



Valve positions

Caution: Once the pipelines have been flushed, the flush hoses must be disconnected and removed from the cistern.



Initial operation

In order to put the hygiene flush into operation, the plug for the hygiene flush unit is connected to the transformer plug. If voltage is present, a start sequence runs through. Open the valves one after another for five seconds and allow water to flow through. In this way, it can be detected whether the shut-off valves are in the operating position, the valves are working and voltage is present.

Practical tip:

If the hygiene flush is put into operation accidentally without flushing the pipelines first, the hygiene flush unit can also be disassembled at a later point and the filters can be cleaned.

Operation

The TECE hygiene flush can either be operated via the TECE **Smartflow** app or the connection to the building management system (BMS). There are two options for operation when connecting a BMS:

- Setting the flush programmes via the Smartflow app. The BMS only monitors the programmed flush programmes via the output interface of the hygiene flush.
- The flush programmes and scenarios are determined by the BMS.
  The BMS uses the input and output interface of the hygiene flush and controls the programming of the hygiene flush.

Connection setup - App

To use the Smartflow app you will need

- A TECE hygiene flush with power supply,
- A Bluetooth enabled device (mobile phone/tablet) and
- The TECEsmartflow app

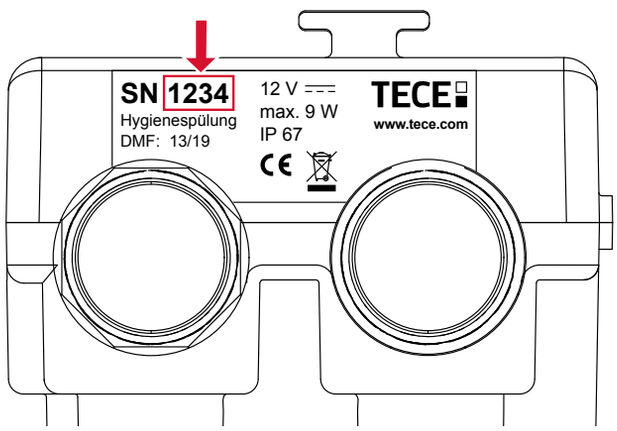
After starting the app, a pop-up asks for Bluetooth to be activated. The Home view of the app opens. By “Pull-Down to Refresh” or pressing the button “Search for devices”, the app searches for hygiene flushes in the vicinity. Selecting the hygiene flushes shown will establish a connection.

Password

A password is required on connection to protect the hygiene flush against manipulation. The password (= serial number) can be found on the nameplate of the hygienic flushing unit in the cistern. The password is stored automatically to prevent the need for repeated input.

Practical tip:

The installation instructions include a sticker on which you can write down the password and then stick it in a suitable place (e.g. splash guard). This makes it easier to find the password the next time you need it.



Position of the password on the nameplate of the hygiene flush unit

Practical tip:

Change the name of the unit immediately after connecting it to the hygiene flush for the first time to ensure that it can be assigned later. If multiple new hygiene flushes are installed in a building these should be put into operation one after another. This allows clear allocation prior to renaming.

Factory settings

If the hygiene flush is not programmed, it will work on the following factory settings after initial operation:

Valve allocation	Cold + warm
Cold flush programme	Interval flush Interval 72 h, flush volume 10 litres
Warm flush programme	Interval flush Interval 72 h, flush volume 5 litres

Hygiene flush factory settings

Flush programmes

Using the app, the flushing programmes can be easily adapted to the conditions of the building or the potable water installation. You can select from two programmes as required: Interval or weekday programme (see all installation examples).

Interval flush programme

- Setting of a time interval after which the hygiene flush initiates a water exchange.
- The same interval or two different intervals can be set for both water connections.
- The same flush volume or two different flush volumes can be set for both water connections.

Weekday flush programme
- Selection of the weekdays to be flushed.
- You can select a time for activating the flush.
- The same flush volume or two different flush volumes can be set for both water connections.

The programmes start after being installed on the electronics. After activating the test environment, you can get to know the app and try out the functions, even if there is no hygiene flush within reach.

Practical tip:

You can store flush programmes in the app and thus use them multiple times. This is always an advantage when there are similar rooms in a building (e.g. hotel). In addition, flushing programmes can be pre-programmed from the office and only need to be installed on the construction site.

Usage recognition

Usage recognition prevents the unnecessary flushing of potable water. If the toilet is used and water is used, the level sensor detects this and resets the interval or the day of the week. In the Interval flushing programme, the set interval then starts from the beginning; in the Weekday flushing programme, the flush scheduled for the day is skipped.

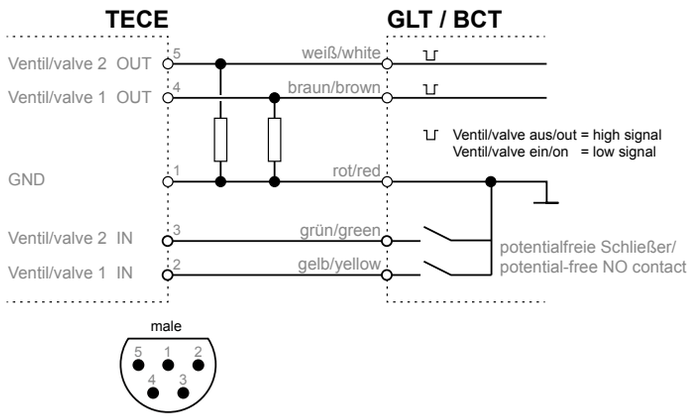
Reports

After connecting to the hygiene flush, the app offers the option to import and display a flush report from the hygiene flush. The flushing report can then be found under the Reports tab and is saved in the app. Stored flushing reports can also be sent as an email via export. The report lets you track and substantiate the flush history.

Connection to building management system

The TECE hygiene flush can be connected to a building management system via a 5-pin potential-free contact. This interface is independent of the system and can be combined with any BMS.

Both input signals can be used to control and switch on the warm and cold water flush valves. The flush volume can be regulated/set via the opening time for the valves (5 l/min).
In addition, the two output signals offer the possibility of transmitting and documenting flushing processes carried out by the hygiene flush to the BMS.



BMS interfaces

Practical tip:

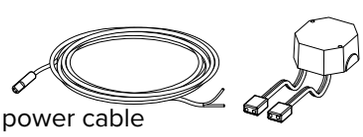
If the TECE hygiene flush is operated via a BMS, the pre-installed flushing programme "ApplicationBMS" can be used to deactivate the programmed flushing programmes (including factory settings) of the electronics.

Technical data

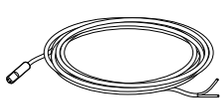
Max. water pressure:	10 bar (1 MPa)
Minimum flow pressure:	1 bar (0.1 MPa)
Calculation flow:	5 l/min.

Accessories and spare parts

The following items are available as accessories for the hygiene flush:

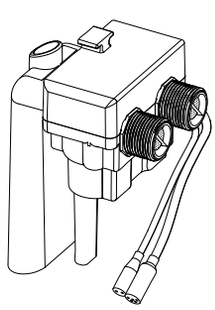


9810010
TECE transformer including power cable



9810011
BMS power cable (optional)

The following items are spare parts for the hygiene flush:

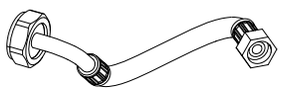


9820441
Hygiene flush unit

9820442
TECE shut-off valve 3-way

9820443
TECE shut-off valve 4-way

9820444
Reinforced hose



Maintenance

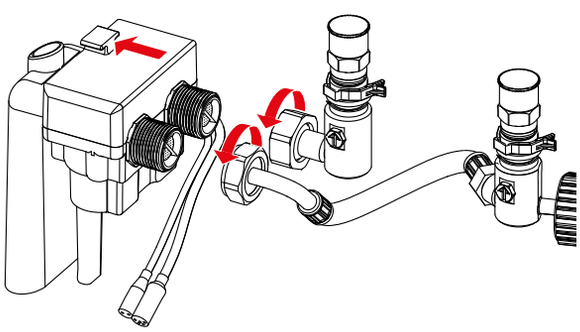
The hygiene flush must be serviced every 12 months and tested for suitable functionality. This includes a function test of the shut-off and magnetic valves (➜ test function in the app). Additionally, the report allows you to draw conclusions about past flushes.

Service

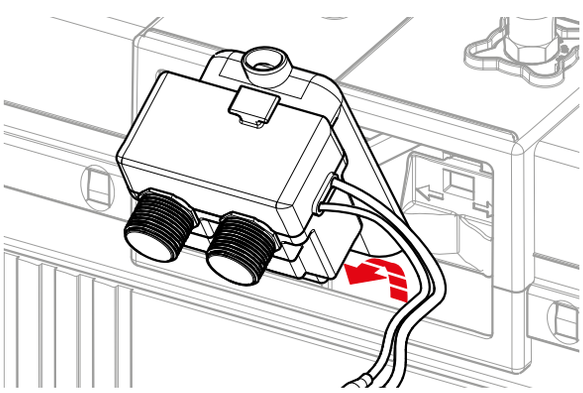
Upgrading the hygiene flush unit

To upgrade the hygiene flush unit, proceed as follows:

- Remove the drain valve from the tank.
- Undo the coupling nuts on the hygiene flush unit.



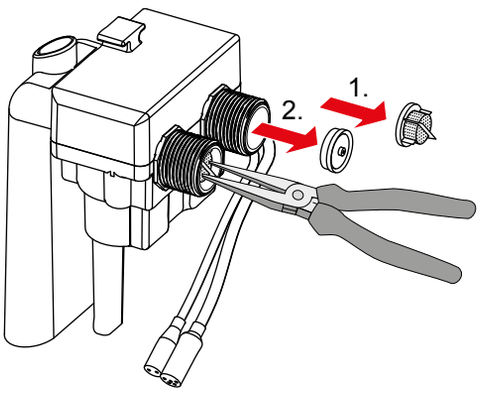
- Slide the hygiene flush unit backwards out of the bracket.
- Rotate the unit and remove it from the cistern.



Cleaning the filter or flow regulator

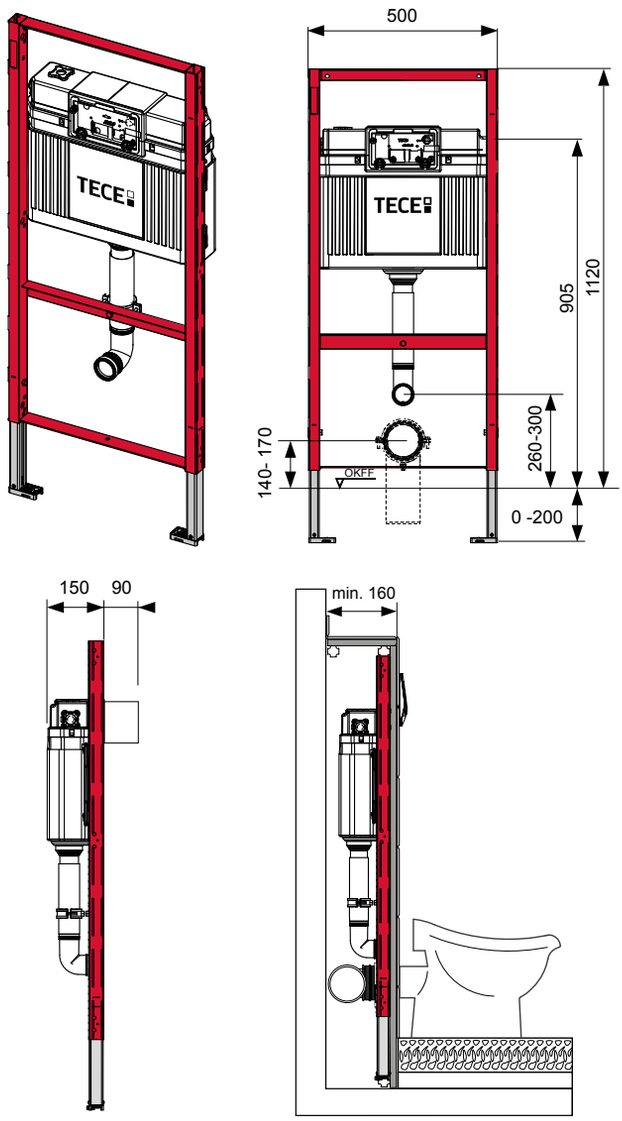
To clean the filters or flow regulator, first remove the hygiene flush unit (see above) and proceed as follows:

- Remove the filters (1.) from the magnetic valve connections with a suitable pair of pliers.
- Clean the filters under flowing water.
- If the flow regulator (2.) is dirty, remove it with the help of needle-nose pliers and clean it under running water.



Toilet module for baby/children's standing toilet

This toilet module has been specially developed for using a floor-standing baby/children's standing toilet. Baby/children's standing toilets have a significantly lower seat height compared to normal toilet ceramics, and different connection dimensions. The actuation height is also lowered in a way which is appropriate for children.
Both types of ceramics can be connected with the special baby/children toilet module. When delivered, the flush pipe is preset for the connection of a baby toilet. To achieve the slightly higher connection dimensions of a children's toilet, either the flush pipe can be shortened, or the cistern can be positioned slightly higher. If required, an optional waste water bend can be attached via a pipe clamp through a hole in the lowest strut.
When using a baby toilet, the standard flush volume of 6/3 litres can be changed to 4.5/3 litres at any time.
The universal module technology enables the toilet module to be installed in a TECEprofil wall, in metal or wooden stud walls or as an individual module. The toilet module is only suitable for baby/children's standing toilets. It is not possible to mount wall-hung toilet ceramics.



Toilet module for baby/children's standing toilet (item no. 9300088)

Barrier-free construction with TECEprofil

Barrier-free toilet facility in public buildings

Local standards and legal regulations must be observed when creating a public barrier-free toilet facility. The requirements are significantly higher in the public sector than in the private sector due to the highest assumed disability of a person.

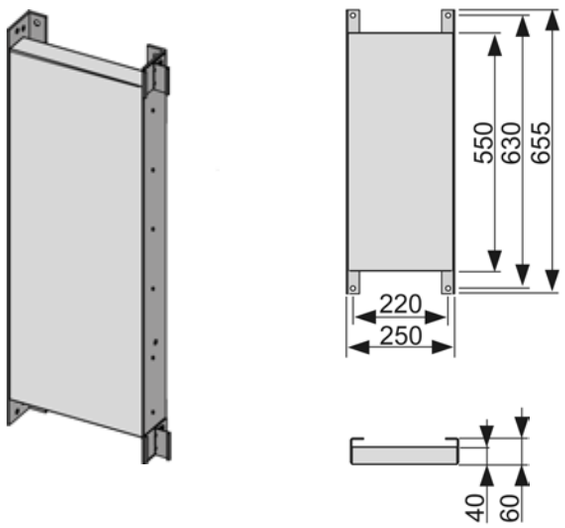
Barrier-free toilet system

Washstand module with flush-mounted siphon, and attachment plates for safety support arms

A senior citizen and disabled toilet system places particular structural demands on the installation system. In order to absorb the increased torque of the required safety or support handles as well as the extended toilet, these must be specially fastened. The TECEprofil modules are of such a solid construction that it is possible to securely mount support or safety handles as well as a longer toilet with just two additional fixings.

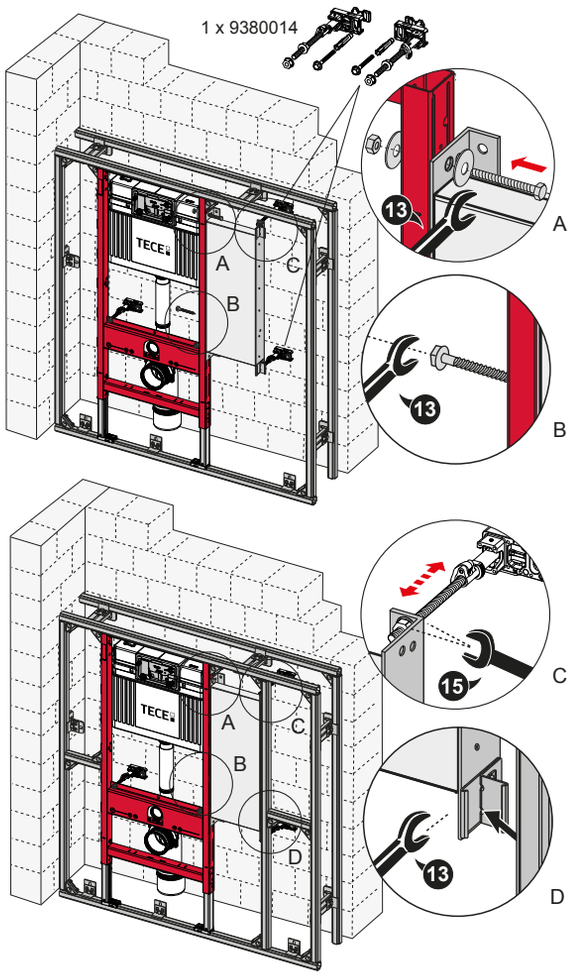
Barrier-free toilet system in a TECEprofil wall

Only one TECEprofil fixing plate per handle is required in a TECEprofil wall for secure fixing of the support or safety handles.

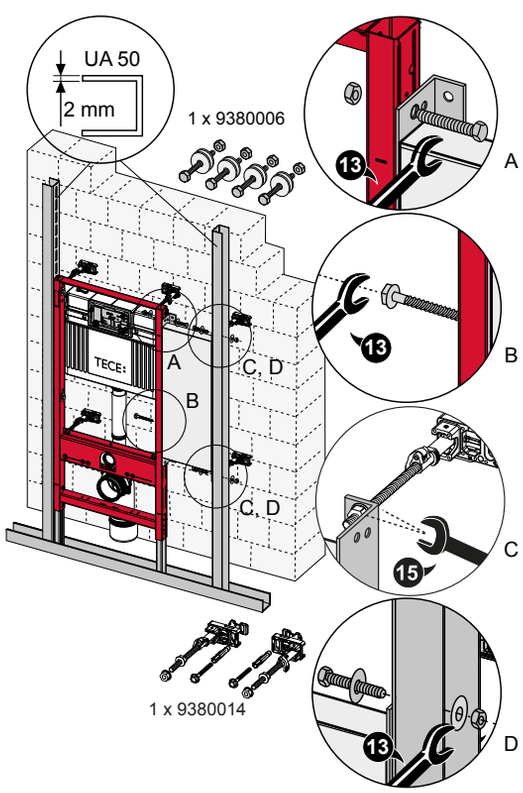


Fastening plate for safety support arms and support systems (item no. 9042003)

The fastening plate can be screwed directly to the universal module and is also equipped with multi clamps for fastening to profile pipes. The fastening plate must be secured to the solid wall with the TECEprofil modular fasteners. The fastening plate is provided with the appropriate holes for this purpose. Furthermore, additional TECEprofil modular fasteners (item no. 9380000) are required in the TECEprofil universal module's bowl area.



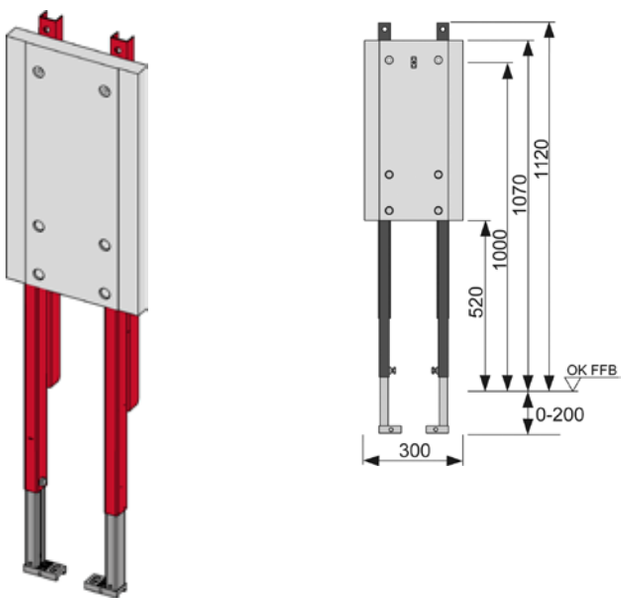
Installation of fastening plates for safety support arms with wall attachment (above) or multi-clips and profile pipe (below)



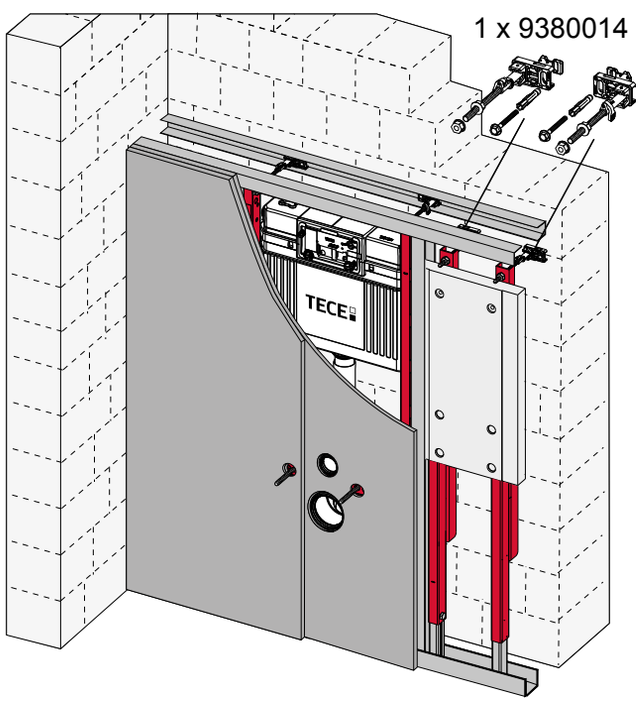
Installation in a metal stud wall

Barrier-free toilet system in an individual modular construction

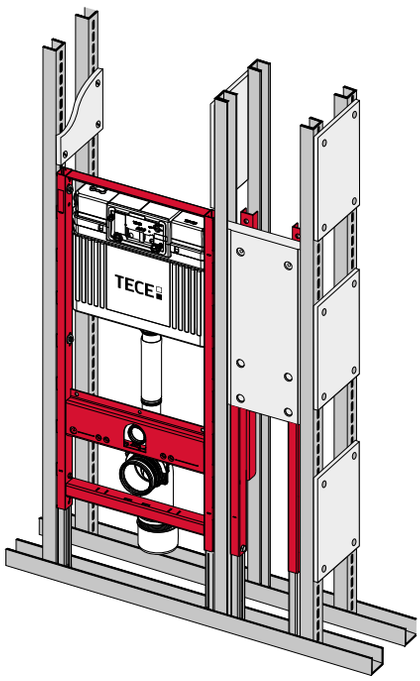
To mount the safety support arms, one TECEprofil universal module for safety support arms and support systems is used. Furthermore, an additional TECEprofil module fastener set (item no. 9380000) is required in the TECEprofil universal module's bowl area. This will be sufficient to satisfy the increased structural demands imposed by a barrier-free toilet system.
The toilet module and safety support arm module are prepared for installation on flush-mounted profiles (50 size).



Module for safety support arms and support systems (item no. 9360000)



Installing the module for the safety support arms and support systems with a flush-mounted profile in front of a solid wall

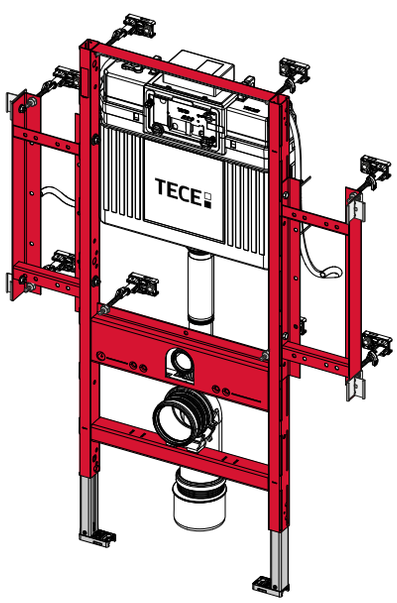


Installing the module for safety support arms and support systems in a free-standing wall with a flush-mounted profile

TECEprofil Geronto module

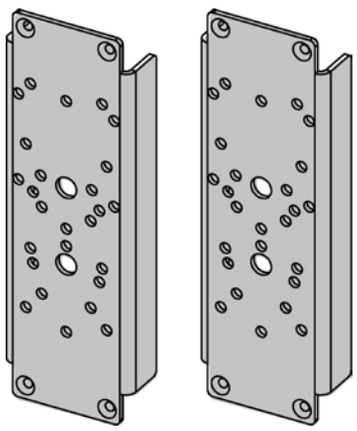
The Geronto module is based on the TECE toilet universal module. It has been specially developed for installation in barrier-free toilet systems.

All the required heights and widths from DIN 18 040-1 for creating a barrier-free toilet system in public buildings can be found again in this module. The crossbeam for mounting the toilet is 5 cm higher than in the standard module. The standard overall height of the pre-wall therefore remains unchanged.



TECE Geronto module (item no. 9300009)

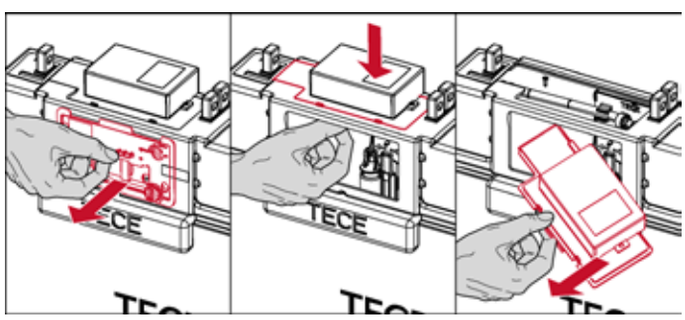
The steel side plates for mounting the safety support arms correspond exactly to the height and width requirements specified in DIN standard 18 040-1 for installing safety support arms. The steel side plates are easy to install. They are screwed to the basic frame using only four mounting screws. No matter which handle manufacturer is mounted, the dimensions always fit.



Steel plate set, suitable for the safety support arms of most manufacturers

The steel side plates for mounting the safety support arms come in various sets for the different manufacturers' equipment and must be ordered separately. The modular system allows safety support arms from practically all manufacturers to be installed. The system retains its flexibility due to the fact that the toilet module and steel plates are separate.

Thanks to the empty conduits fitted as standard, wiring the ectronic flush triggers is easy. The empty pipes ending on the top of the tank can be reached at any time by opening the tank lid from the inside. An electric socket screwed to the tank cover also makes it easy to wire up the electronics neatly. If servicing is required, the cables and electronics are accessible at all times.



Electrical socket for wiring on the top of the tank, removable from the inside

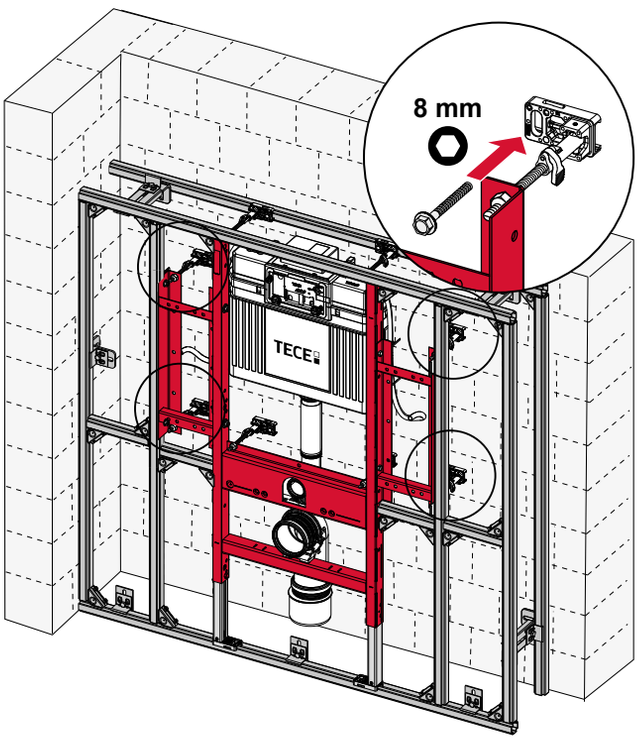
With the TECEplanus toilet electronics, TECE offers three flush actuation options to match the cistern: cable, wireless or infrared actuation. All three versions are available with battery or mains operation.

The electronic actuation unit works with a servo-motor/ actuator that is operated with any commercially available 6 V lithium batteries or a 12 V power supply. The flush is actuated either by a button in the safety support arm or on the wall.

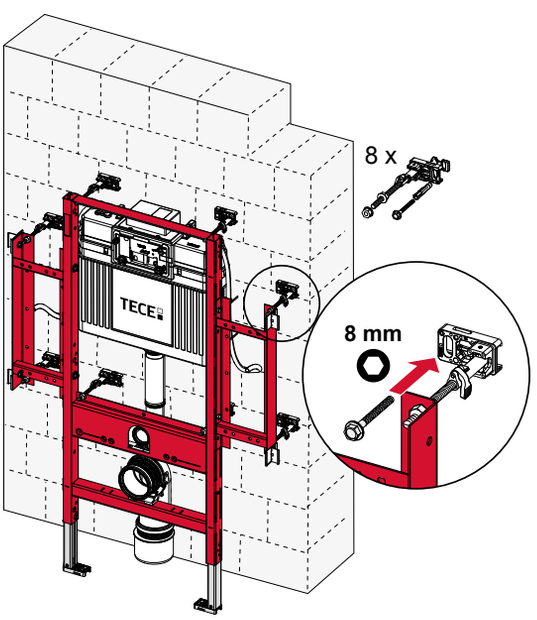
Installation options for the Geronto module

The Geronto module is variably adjustable:

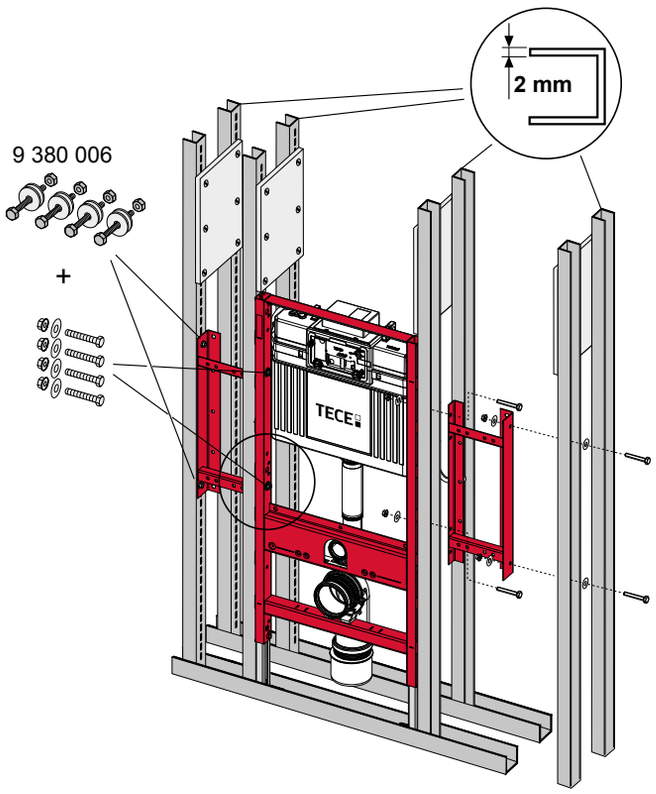
- Installation in a TECEprofil pre-wall
- Installation as an individual module in front of a solid wall
- Installation in a metal stud wall



Installation in a TECEprofil pre-wall



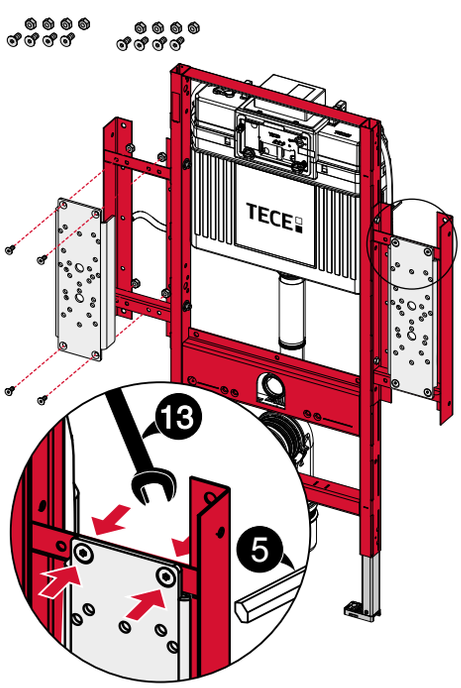
Installation as an individual module in front of a solid wall



Installation in a metal stud wall

Installing the steel plate set 90420xx on the Geronto module 9300009

The steel plate set is part of the the modular system of the toilet Geronto module 9300009. This set must be ordered to suit the safety support arms to be installed.



Installing the steel side plates on the Geronto module

On the installed toilet Geronto module, there are steel supporting frames at the sides for mounting the steel plate set. The steel plate set is screwed onto the steel frames via four fastening screws. Threaded plugs must be screwed into the appropriate threads, depending on the mounting points of the safety support arm. The exact position of the supportive safety support handles can be found in the assembly instructions. Later drilling of mounting points during the detailed installation phase is not necessary.

The empty conduit for a wired actuation must be connected to the steel plate and the supplied screw connections. This ensures secure retention of the conduit throughout the whole construction phase. The attachment plates must always be supported on a structural shell which is able to take the load, using the supplied wall attachments.

Sound insulation

Insulation against installation noise is becoming increasingly important in sanitary and heating technology. Particular attention has been given to sound insulation requirements in the development of TECEprofil pre-wall elements. TECE products also enable the increased demands for structural sound insulation to be met.
Not only the properties of the product, but planning tasks such as floor plan layout and the weights of walls are also very important for ensuring good sound insulation.

Fire protection

The applicable local laws and standards must be observed and complied with when installing TECEprofil pre-wall elements.