



## Design guide Bathroom



# The right choice

Pressalit is a market leader for bathroom solutions for people with disabilities. We are well-known for our know-how and for the quality and flexibility that is integrated into our products.

In addition to a wide range of innovative solutions, we offer an interior design service which is based on in-depth knowledge about illness progression and space requirements.

Pressalit's products are the result of collaboration with both users and carers and the knowledge we have acquired about patterns of movement, interior design needs and space requirements. It is against this background that we create the best and most future-proof solutions.

The aim is to enhance the lives of people with disabilities, improve working environments for health professionals, and ensure better and longer-term solutions for investing managements.

# Contents

The functional bathroom .....	Page	4
Checklists.....	Page	6
Space requirements .....	Page	8
Turning areas.....	Page	9
At the wash basin.....	page	10
At the toilet .....	Page	12
In the shower area.....	Page	14
Single user.....	Page	16
Changing users .....	Page	18
Private homes.....	Page	20
Occasional use.....	Page	22
Layouts.....	Page	24
The flexible bathroom .....	Page	26



# The functional bathroom



## User

We want to help users to do as much as possible for themselves for as long as possible. The flexible layouts enable users to use the various bathroom facilities on their own to a much greater extent.

## Independence

Pressalit's track system helps to support user independence. The products can be adjusted and positioned according to the individual user - whether he or she is a child or adult, seated or standing.

## Details

The system's innovative design, choice of materials and attention to detail make it easy to integrate into the room - without compromising on functionality, comfort and design.

## Self-esteem

Being able to look after yourself in safe and stylish surroundings gives you more energy to get through the day.



## The carer

Users who are not independent will need assistance. The bathroom thus becomes a workplace for both relatives and carers. Good working conditions should therefore have a high priority to ensure the right considerations are made with respect to health and safety.

## Working environment

Pressalit's products mean a minimum of physical strain, faster and easier working procedures, thus creating good working conditions.

## Flexibility

The products can be quickly and easily adjusted and moved according to the needs of users and carers.

## Respect

The flexibility of the system ensures that carers can perform their work without the user sacrificing any integrity or dignity.

## Flexibility

In our view, the bathroom must adapt to the user, and not vice versa. How is it possible in practice to design a room which meets the needs of different users, which provides a good working environment for healthcare staff and which fulfils the demands of the management for a sound economy?

All of this can be achieved by incorporating flexibility into the design. Thanks to Pressalit's system of horizontal and vertical tracks, the bathroom can easily and logically be adapted to the individual user's physical capabilities.

The track system makes it easier for users to look after themselves and for carers to assist: It is easier to prepare the room, easier to free up space, easier to help with transfers and easier to combine the bathroom functions.

Pressalit always makes its knowledge available to help you understand the specific needs of the disabled at the wash basin, at the toilet and in the shower area. In this way, together we can arrive at the best possible solution in every single case.



### The room

Bathrooms are often either too small or badly arranged. As the walls can't move, our products must do so. The inherent flexibility of our solutions makes the room more accessible and work-friendly because of the efficient use of space.

### Consultancy

Turnkey consultancy on the functional bathroom guarantees that the room meets the needs of users and carers alike and that it complies with occupational health and safety rules.

### Future-proof

Pressalit's system reduces the need for costly refurbishments when user needs change. The products can be mounted on and removed from the tracks without the use of any tools.

### Design

The philosophy behind the products is to create flexible, functional and economical solutions without compromising on design or equipment.



# Checklists



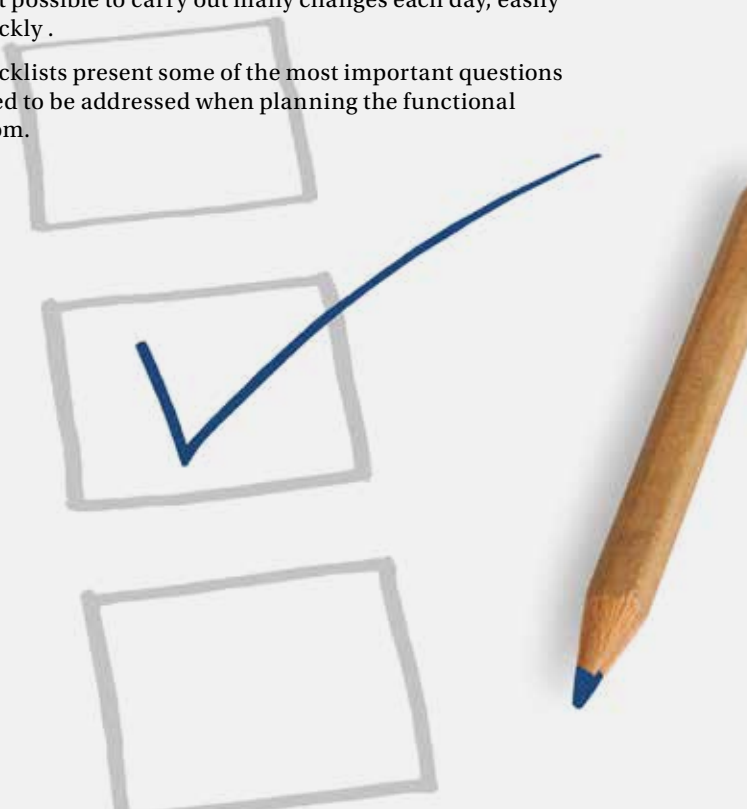
## Project planning

The key to a functional bathroom is a systematic assessment of the room's possibilities and the needs of both the user and carer. This requires a careful review of space requirements, turning space and the individual functions at the wash basin, toilet and in the shower area.

All the different factors that have to be considered at the planning stage may seem overwhelming and confusing. However, taking a systematic approach facilitates the process.

The first distinction is between one or several users. In the case of a single user, the layout must be adapted to take account of both current and future physical capabilities. In the case of several users, even more flexibility is required. It is crucial that the way in which such a room is fitted out makes it possible to carry out many changes each day, easily and quickly.

The checklists present some of the most important questions that need to be addressed when planning the functional bathroom.



## User

- Is the user a child or an adult, frail or heavy, independent or dependent?
- Is the user standing, seated or lying down?
- Does the user use a walking stick, a wheelchair or large mobility aids?
- Is the user's impaired mobility the result of an accident, age or illness?
- Is the situation stable, or is the user suffering from a progressive disease?
- How self-reliant is the user at the wash basin, the toilet and in the shower?
- Is the user fully rehabilitated?
- Is the user right or left-handed?
- Can the flexibility of the products improve the user's independence?

## The carer

- Are one or more carers necessary?
- Has the fact that a user with a carer requires more space been taken into account?
- Are there rules or legislation relating to space and working conditions which must be observed?
- Which mobility aids and transfer methods are used?
- What are the patterns of movement and the work situation like at the wash basin, the toilet and in the shower area?
- Is the carer right or left-handed?
- Can the flexibility of the products improve the carer's working conditions?



## The room

- Will the room be used by one user or by several different users?
- Is the building a private home, an institution, a hospital, a hotel or a holiday resort?
- Is space required for mobility aids such as wheelchairs, mobile hoist, ceiling hoist etc.?
- Is it necessary to assist with transfers in the room or are the users independent?
- Does the room meet applicable legal requirements and standards with respect to bathrooms for people with reduced mobility?
- Are there any spatial and constructional constraints such as room size and shape, installations, waste pipes, pillars, doors etc.?
- How are the bathroom and bedroom positioned in relation to one another, and vis-à-vis any other rooms?
- Is the bathroom fitted out with respect for the user's and the carer's dignity and integrity?

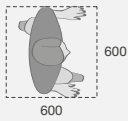


# Space requirements

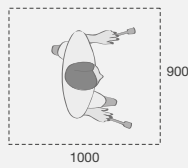
Bathrooms for disabled people need to be larger than conventional bathrooms. Space is required for the independent user and his or her mobility aids as well as for the dependent user with one or two carers. The following shows the dimensions for users, carers and the most commonly used mobility aids.



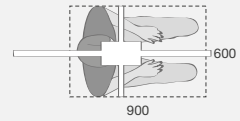
## User



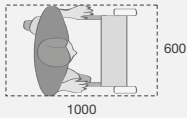
Ambulant person



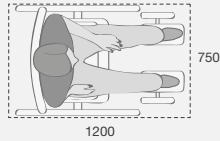
User with walking sticks



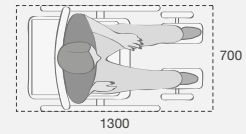
User in ceiling hoist



User with walking frame



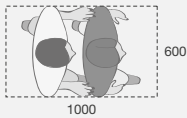
User in manual wheelchair



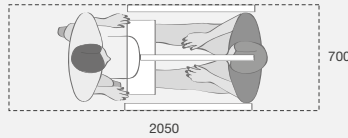
User in motorised wheelchair



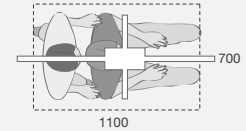
## Carer



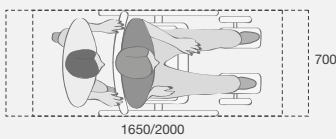
Ambulant user and carer



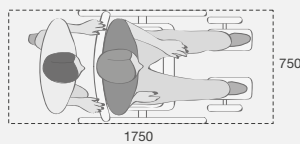
User and carer  
- mobile hoist



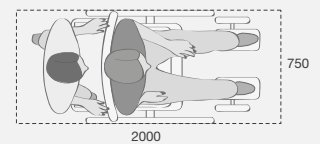
User and carer  
- ceiling hoist



User and carer  
- mobile toilet or shower chair,  
normal and tilted positions



User and carer  
- manual wheelchair



User and carer  
- larger wheelchair



# Turning areas

Bathrooms for disabled people require a turning area – an open space large enough to allow the user to manoeuvre. This is crucial because the user must be able to turn around and position him- or herself in relation to the various bathroom functions.



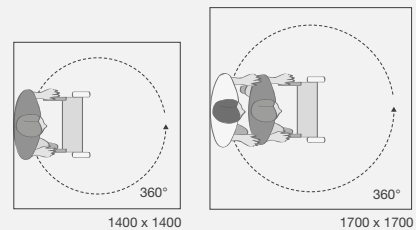
## Room

### Standing user

– users that use either a walking stick, crutches or walking frame.

Turning area without carer: 1400 x 1400 mm

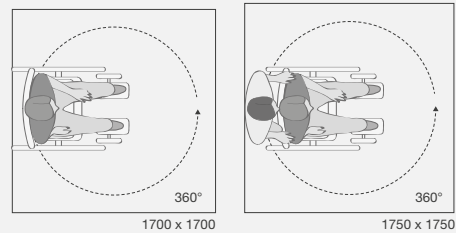
Turning area with carer: 1700 x 1700 mm



### User in manual wheelchair

Turning area without carer: 1700 x 1700 mm

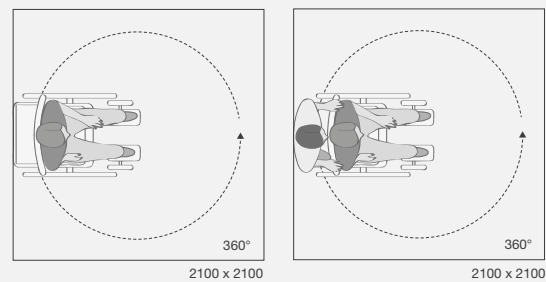
Turning area with carer: 1750 x 1750 mm



### User in motorised wheelchair or other larger wheelchair

Turning area without carer: 2100 x 2100 mm

Turning area with carer: 2100 x 2100 mm



The measurements are based on Danish Standards 3028:2001.

The size of the area should be seen in relation to the actual users in the institution or home. In general, the turning area needs to measure at least 1500 x 1500 mm. For users who need a lot of care and who use large mobility aids, 2000 x 2000 mm is recommended.



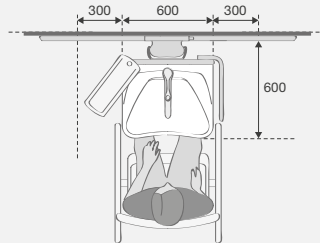
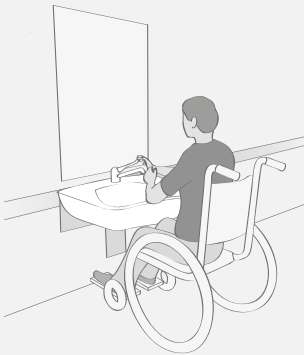
## Wash basin

- The width should be at least 600 mm, and the projection min. 600 from the wall to the front edge.
- As a minimum, it should be height-adjustable.
- Straight or incurving front edge, recessed plug-hole and rounded corners.
- Flat-bottomed to allow unobstructed access under the basin with space for the wheelchair user's legs.
- A wash basin with integrated handrails may be useful.

## At the wash basin



### Independent user



### Space requirements

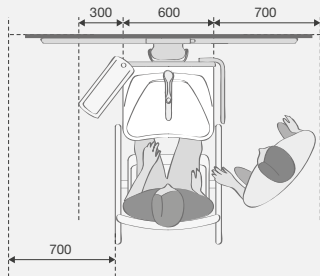
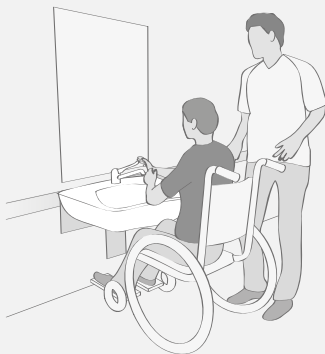
Min. 300 mm on either side of the wash basin.

### Free area

1500 x 1500 mm turning circle in front of the wash basin.



### Dependent user



### Space requirements

Min. 700 mm on the carer's side, but ideally on both sides of the wash basin.

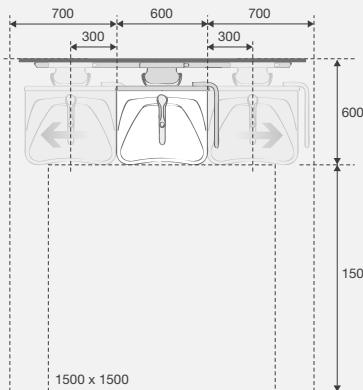
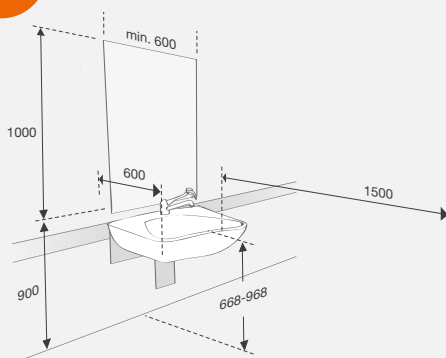
### Free area

1500 x 1500 mm turning circle in front of the wash basin.

A free area creates space for the carer to pass.



### Space around the wash basin



A wash basin which can be adjusted vertically and horizontally can be positioned in relation to the individual user situation and space requirements.

Bathroom accessories should be placed within reach of the user and the carer, and if possible mounted on the adjustable basin.

Please be aware of factors such as the need to reinforce walls, and placement of flexible feed and waste hoses, electrical installations etc.

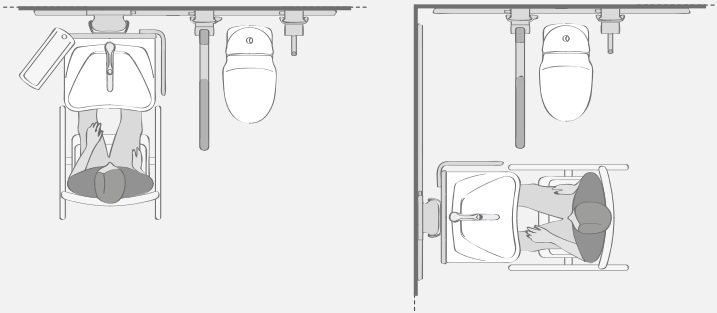
**Note:** All measurements and layouts are based on a right-handed user. They can be mirrored for left-handed users.

## Tap

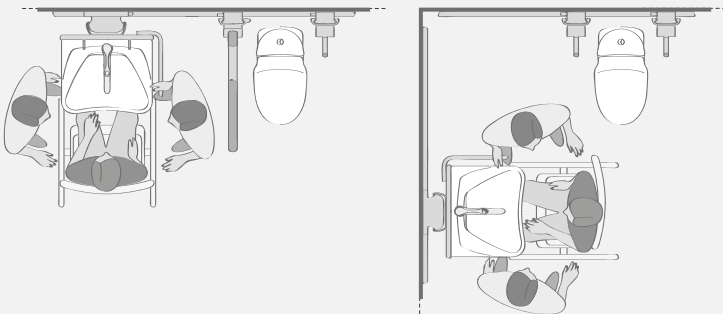
- Should be operable by standing and seated users. Choose a model with scald protection.
- Club-shaped handle and long rotatable nozzle, with a clear distinction between water flow and temperature control.
- Avoid a pop up waste. It is difficult to operate and takes up considerable space under the basin.

## Mirror

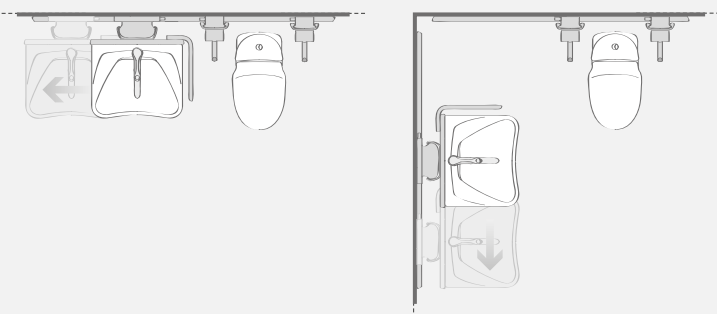
- Should be usable by both children and adults, standing and seated.
- Min. 1000 x 600 mm (h x w). Wider if the wash basin can be moved sideways.
- Mirror lighting must not dazzle, with the best position being on either side of the mirror.



The wash basin should be placed so that it can also be used by a user who is sitting on the toilet. Many independent users like to be able to reach running water when using the toilet.



The wash basin is placed so that there is space for the carer on at least one side — preferably on both sides.



Sideways-adjustable products offer considerable freedom with respect to bathroom layouts. The wash basin can be placed to meet the needs of both independent users and carers. The wash basin is moved by the carer.

Please note that the width of the mirror as well as the length of the feed and waste hoses should be determined by the maximum sideways movement of the wash basin.



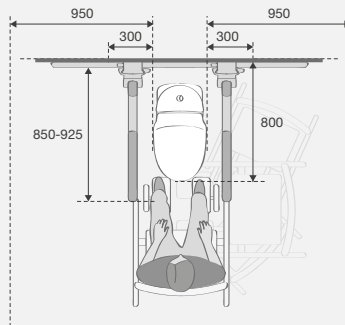
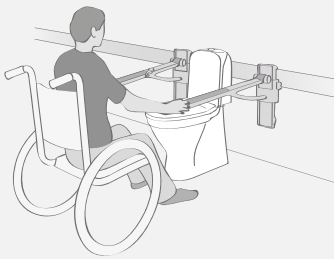
## Toilet

- 700 - 800 mm from front edge to rear wall.
- On floor models, it is possible to adjust the seated height by using a raised toilet seat.
- Wall-hung toilets can be installed at individual heights on walls or mounted on a toilet lifter.
- Wall-hung toilets allow space for e.g. wheelchair footrests and facilitate cleaning.

## At the toilet



### Independent user



### Space requirements

At least 950 mm of free area is required on one side of the toilet – and on both sides if transfers need to be made from both the right and left.

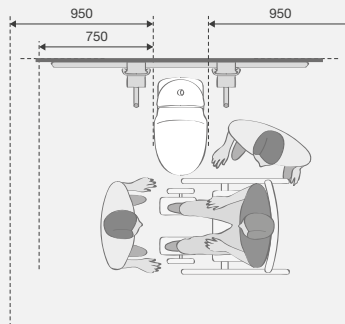
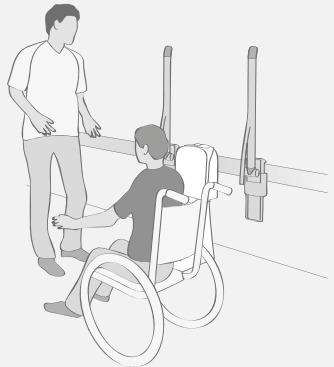
### Free area

1500 x 1500 mm in front of the toilet bowl. This allows space for all types of transfers to and from the toilet.

Waste and storage baskets and toilet paper should be within easy reach of the user



### Dependent user



### Space requirements

Min. 950 mm free area on the wheelchair side and 750 mm on the carer's side. If transfers need to take place from both sides, both distances must be min. 950 mm.

### Free area

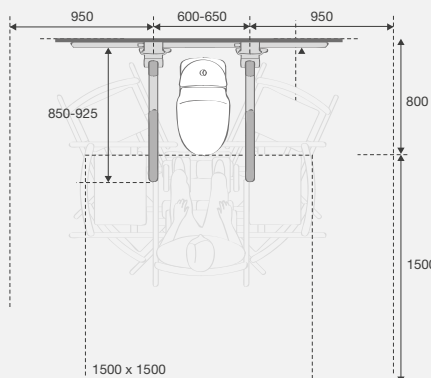
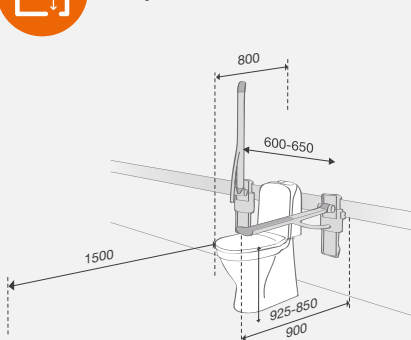
1500 x 1500 mm in front of the toilet bowl. This allows space for all types of transfers to and from the toilet.

A free area allows space for the carer to pass.

Waste and storage baskets and toilet paper should be within easy reach of the user



### Space around the toilet



The toilet is one of the stationary fixtures in the bathroom. In planning the layout, it is therefore necessary to take account of the user, carer and any mobility aids.

Support arms, which can be adjusted horizontally and vertically, meet the individual needs of the user.

It can be an advantage to establish functional coherence with other products such as wash basins and shower facilities.

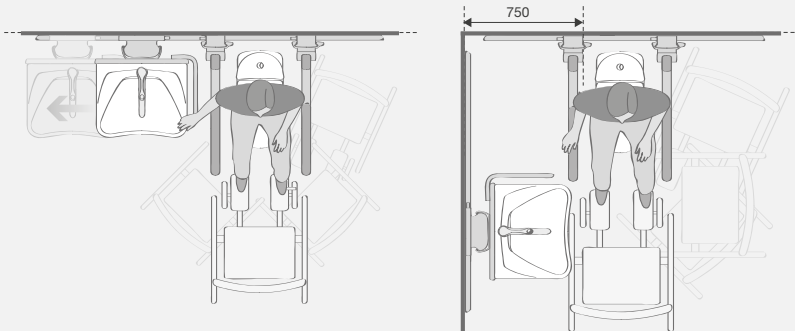
**Note:** All measurements and layouts are based on a right-handed user. They can be mirrored for left-handed users.

## Toilet seat

- Raised toilet seats can compensate for a low seated height.
- Choose a seat that suits the needs of the user.
- In rooms where sideways transfers take place, a seat with stabilising buffers and institutional hinges should be preferred.

## Support arms

- Support arms should be stable and it must be possible to fold them up.
- A height-adjustable support arm encourages the sense of security and comfort for the user.
- The support arms must project far enough from the wall for a standing user to move his legs well away from the toilet, for example in the case of a frontal transfer.
- The oval shape offers stable and ergonomic support. The end of the support arm must provide a secure grip.



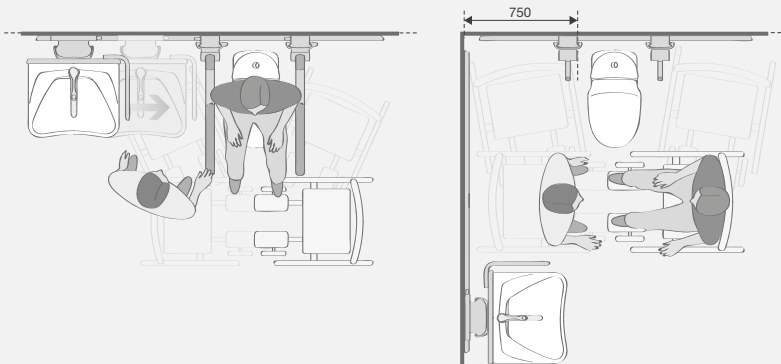
The wash basin is placed so that the user is able, from the toilet, to reach running water, i.e. within a distance of 750 mm. If the distance is any greater, the user will find it difficult to reach the wash basin.

### Corner arrangement

If the wheelchair needs to be placed between the toilet and the wall, the distance must be 950 mm, and the wash basin must be moved.

### Same-wall arrangement

With 45° transfers from the left, it is necessary to move the wash basin.



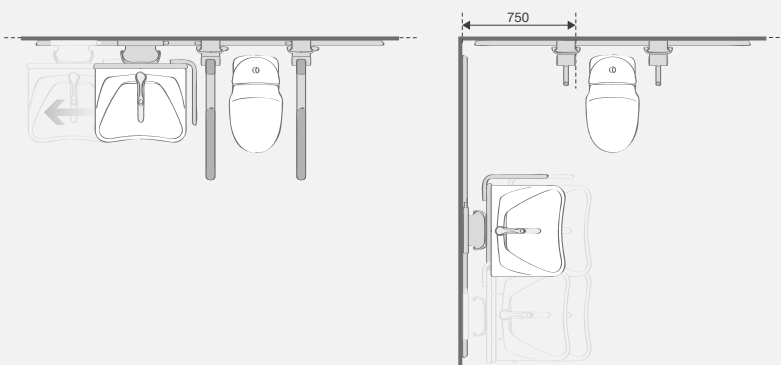
The wash basin is placed so there is plenty of space for the carer in connection with transfers. Afterwards, the wash basin is returned to its position so the carer and user can reach running water.

### Corner arrangement

The wash basin is placed beside or behind the carer.

### Same-wall arrangement

The wash basin is placed in front of the carer.



Sideways-adjustable products offer considerable freedom with respect to bathroom layouts. The distance between support arms can be adjusted to suit large and small people, and the wash basin can be placed to meet the needs of both the independent user and the carer. The wash basin is moved by the carer.



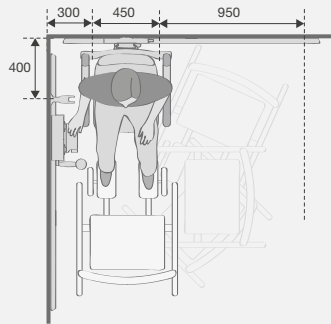
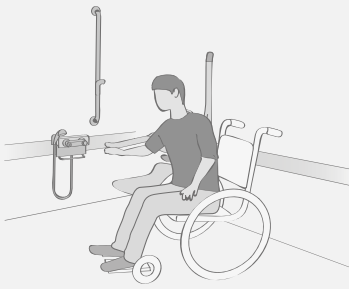
## Shower seat

- Should as a minimum be height-adjustable.
- It should be possible to fold it away to create space for standing users.
- Comfortable to sit on.
- Non-slip surface.

## In the shower area



### Independent user



#### Space requirements

Min. 950 mm on the wheelchair side.

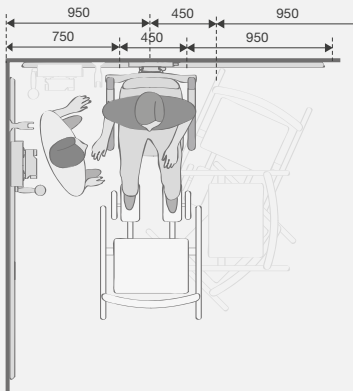
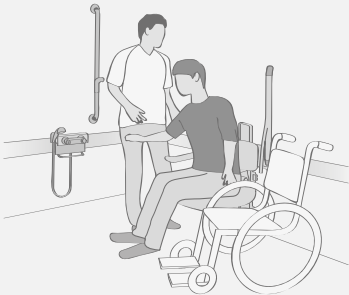
#### Free area:

1500 x 1500 mm turning circle in front of the shower seat.

Bathroom accessories are placed within reach of the user.



### Dependent user



#### Space requirements

Min. 950 mm on the wheelchair side, 750 mm on the carer's side.

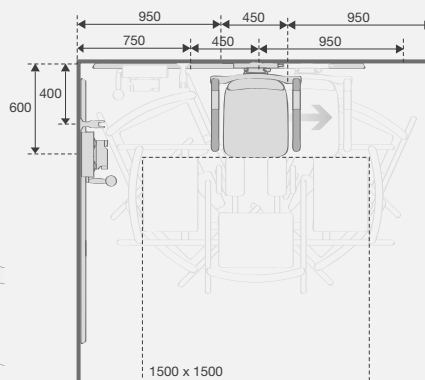
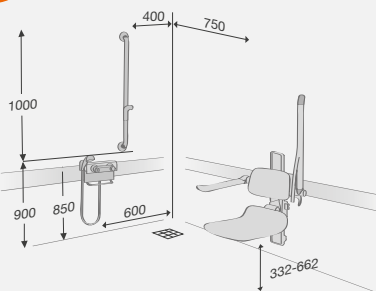
#### Free area:

1500 x 1500 mm turning circle in front of the shower seat.

A free area creates space for the carer to pass.



### Space in the shower area



Moveable shower seat and mixer tap for optimum flexibility.

A long shower hose – 2000 mm – provides considerable freedom of movement.

The floor must be non-slip, must not have any raised or sunken areas, and must have an incline of max. 2°.

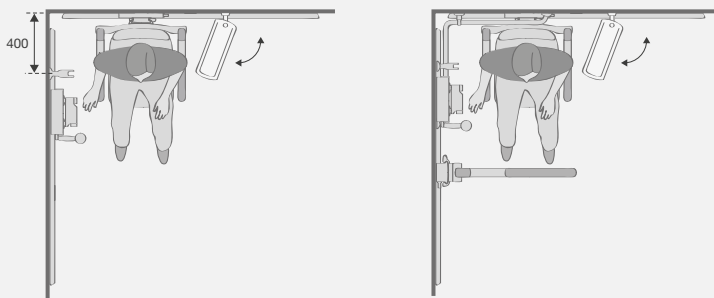
**Note:** All measurements and layouts are based on a right-handed user. They can be mirrored for left-handed users.

## Shower mixer and shower head

- The shower mixer should be convenient to use for both standing and seated users. Optionally moveable when fitted on a shower mixer bracket.
- Thermostatic control and stay-cool surfaces prevent scalding.
- Long levers and no sharp edges.
- The shower head must be light with a good grip.

## Shower rail and shower head holder

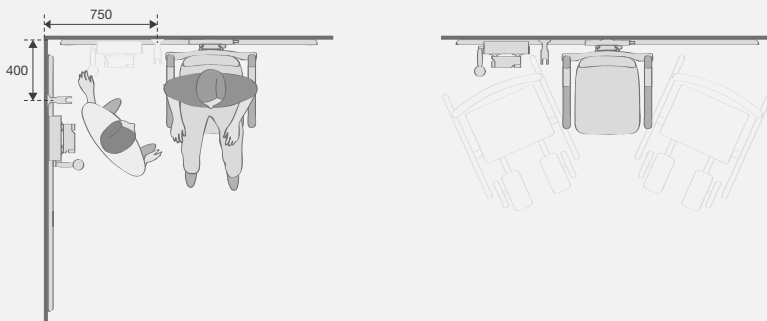
- The shower rail must be strong and stable so that it can also serve as a handrail.
- The shower head holder should be easily adjustable in relation to both height and water direction.
- The length of the upright should be min. 1000 mm for the sake of standing users.
- Shower hose made of heat-insulating plastic.



### Corner arrangement

The user must be able to reach the mixer tap, shower head and shower rail from the shower seat.

A support arm placed in front of the user can help with transfers or be used to provide support during, for example, intimate hygiene.



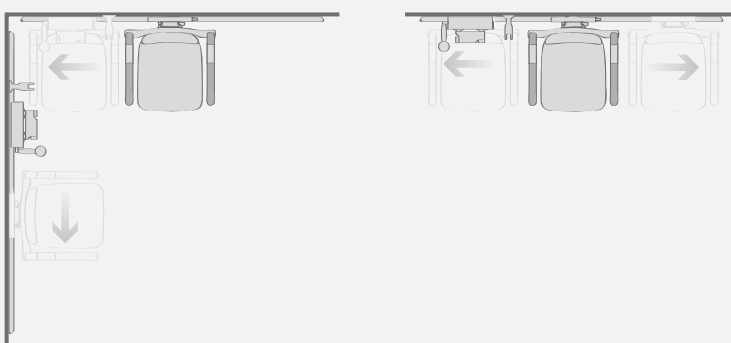
### Corner arrangement

To create space for the carer, the shower seat is placed min. 750 mm from the corner, for wheelchairs min. 950 mm. The extra shower rail is placed 750 mm from the corner.

### Same-wall arrangement

In rooms which are not used by independent users, this arrangement offers ample space for both transfers and carer.

An “inverted T” solution with handrail/shower pole offers support for dependent users who find it difficult to stand.



Sideways-adjustable products offer considerable freedom with respect to bathroom layouts. The shower seat and shower mixer bracket can be placed to meet both the user’s need for independence and the carer’s need for space in which to work. For example, the shower seat and shower mixer bracket can be reversed for left-handed users. The products are moved and adjusted by the carer.



## Single user

### The resident

The bathroom is furnished for the individual user and can easily be adapted to meet new requirements, either for the same person or in connection with a new resident.

It is not necessary to fit out every room in a facility with the same products, as they can easily be moved from one room to another without the use of tools as and when the need arises. Moreover, it is always possible to add new products, which just have to be fitted to the wall track.





- Who is/are the user/users?
- Who moves the equipment?
- When does it have to be moved?
- How far does it have to be moved?

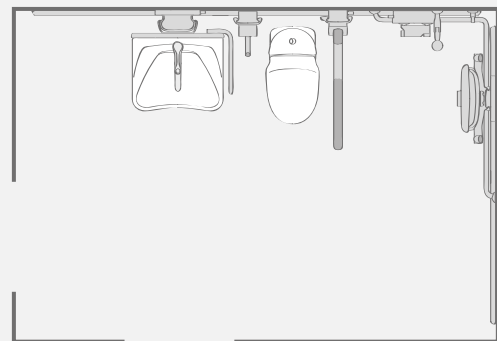


## Independent user

The independent user at a nursing home or in sheltered housing is able to cope with most day-to-day tasks. He or she finds it easy to move around using a walking frame or wheelchair and place it in relation to the various bathroom activities.

The moveable products are within easy reach. The wash basin is close to the toilet, and the user can reach the mixer tap and shower from the shower seat in the corner.

The shower rail provides necessary support.



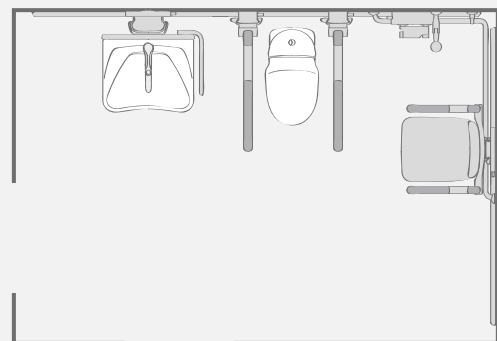
## Dependent user

If, sometime in the future, the resident requires the help of a carer, the bathroom can be adapted easily to the new situation

The flexible layout ensures good working conditions for the carer when using the various equipment.

As shown, the wash basin can be moved away from the toilet.

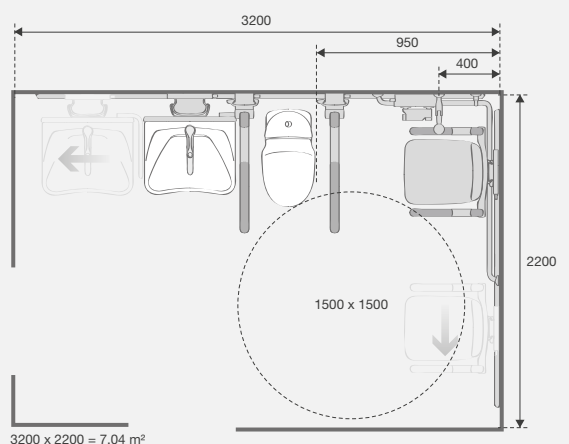
The shower seat and shower mixer bracket can be freely placed on either wall in the corner.



## Room

Is it necessary to be able to reach the wash basin from the toilet, or does the shower need to serve as a bidet? These are questions which should be considered in the same way as considerations about equipment and space requirements.

With a flexible layout, it is possible to meet the needs of both current and future residents.





# Changing users

## The patient

At a hospital, many different people use the bathroom in the course of a day. With height-adjustable products fitted to horizontal track, the room can be adapted to meet the needs of individual users. Patients will be able to look after themselves to a greater extent, sparing the staff from many strenuous work situations.



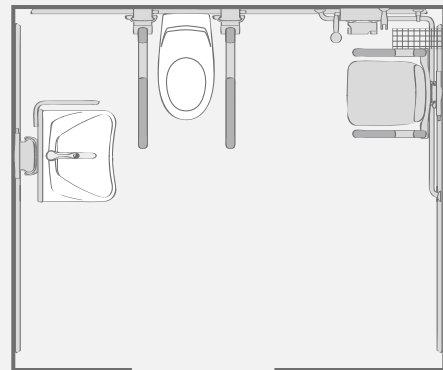
- Who is/are the user/users?
- Who moves the equipment?
- When does it have to be moved?
- How far does it have to be moved?



## Independent user

For the patient who can manage on his or her own but who requires a wheelchair, it is important that there is space for the wheelchair, for example during transfers.

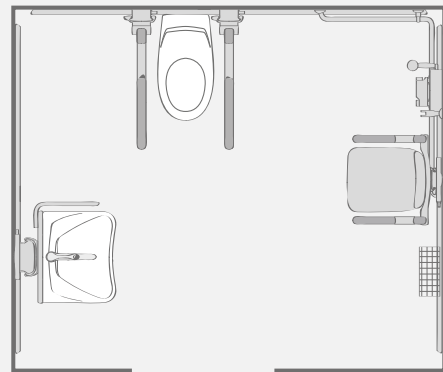
The wash basin is close to the toilet, and the user can reach the mixer tap using the shower head for a bidet in the UK would not be allowed in institutions - care homes, hospitals etc. The support arm can be moved across in front of the shower seat for extra support.



## Dependent user

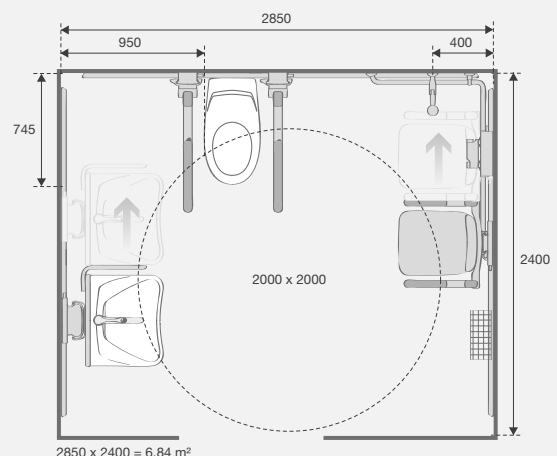
For patients who need a carer for most tasks, it is important there is plenty of space around the products. This ensures good working conditions for the carer.

Here, the wash basin has been moved away from the toilet and the shower seat away from the corner to give the carer plenty of space in which to work.



## Room

Having to switch quickly between different users is part of normal daily routines at, for example, hospitals. Moving and adjusting the products to each new situation therefore needs to be an easy and intuitive process.





# Private homes

## Family member

A bathroom in a private home needs to be a pleasant environment for the entire family, even though needs vary. It must be possible to quickly rearrange the room for users with widely differing needs to take account of children, adults and family members with disabilities.



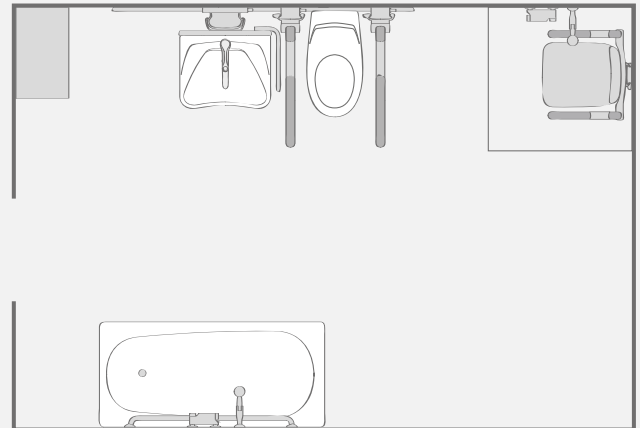
- Who is/are the user/users?
- Who moves the equipment?
- When does it have to be moved?
- How far does it have to be moved?



## Independent user

In a private home where one member of the family has a disability, it is only necessary to select the products that meet the needs of that person.

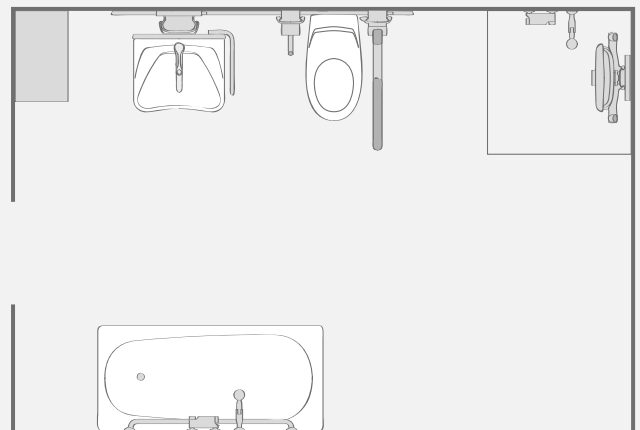
The long toilet with support arms facilitates transfers from the wheelchair. The user can reach the wash basin from the toilet, and in the shower corner, the mixer tap, shower rail and shower head are all placed within easy reach.



## The family

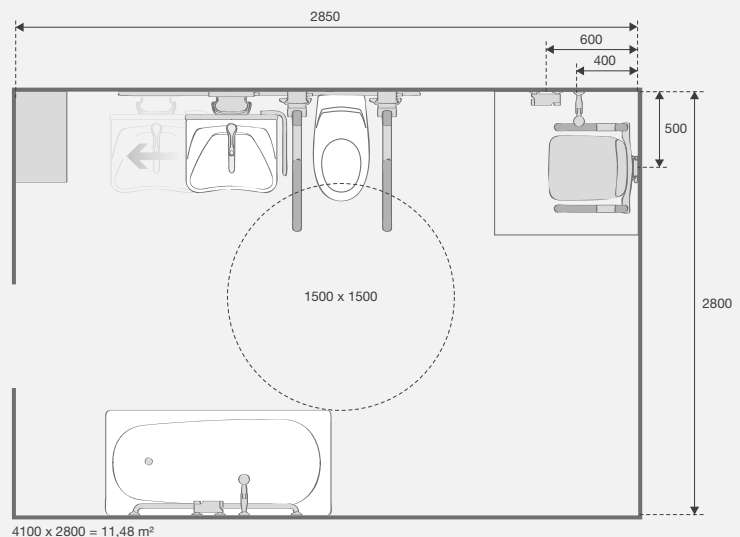
For the rest of the family, the shower seat folds up to create more space.

The wash basin can be raised - or lowered - to a suitable height, and if the support arms are in the way, they can be folded up.



## The room

The room is planned to take account of mobility aids such as a wheelchair and walking frame. It can quickly be rearranged to accommodate the ordinary standing user - without compromising on design or aesthetics.





## Occasional use

### The guest

Hotel rooms need to be able to cater for many different users. With the horizontal wall track, it is possible to adapt the room to the individual guest and his or her particular needs. The track makes it possible to change the set-up quickly, with only those products which are necessary being fitted and adjusted.

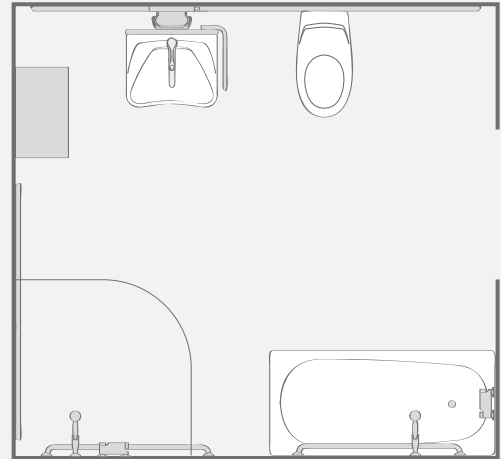


- Who is/are the user/users?
- Who moves the equipment?
- When does it have to be moved?
- How far does it have to be moved?



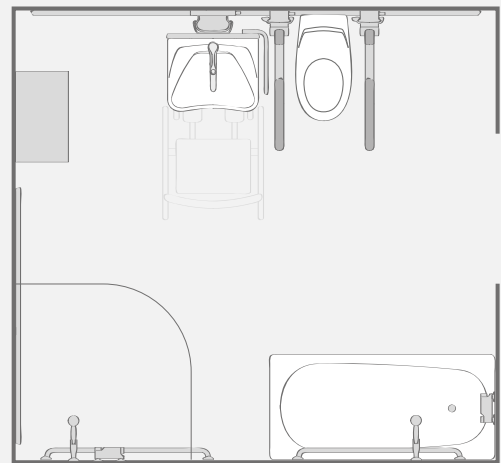
## Before

When not required, support arms, shower seat and backrest can be used elsewhere in the hotel or kept in storage.



## After

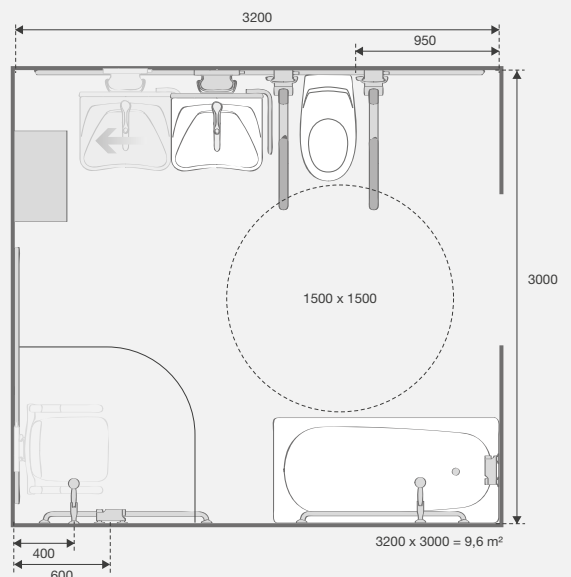
The bathroom can be prepared for a disabled guest very quickly. Relevant equipment such as support arms and shower seat are fitted to the horizontal wall tracks.



## Room

The room needs to be neat and welcoming for all guests without compromising on functionality for users who require assistive aids.

It should be quick and simple to fit the necessary products, and it should be easy and intuitive for the guest or his or her carer to adjust them.





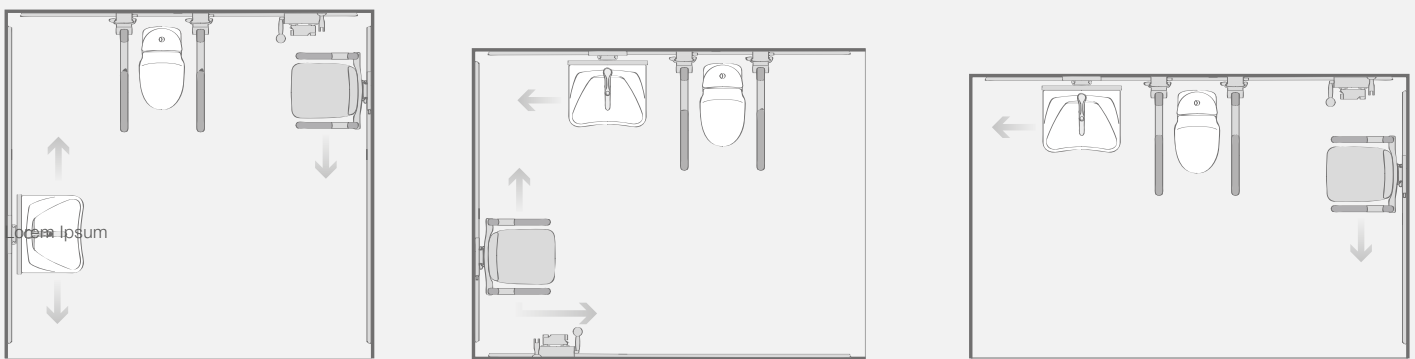
Do the toilet and wash basin need to be placed on the same wall or in a corner arrangement? There is no simple answer to this. In general, corner arrangements are suitable when the room needs to be used as a workplace. They offer an easy way to make space for both staff and mobility aids on both sides of the three stations: wash basin – toilet – shower.

On the other hand, having the toilet and the wash basin on the same wall and the shower in a corner may help the user to remain independent. And with products which can be moved sideways, it is easy to make space for a carer and any mobility aids when necessary.

# Layouts

## Layout principles

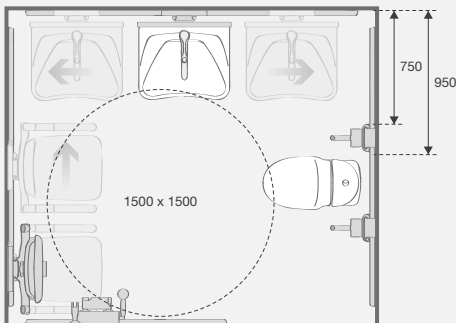
Placement of the toilet, wash basin and shower in three different room sizes



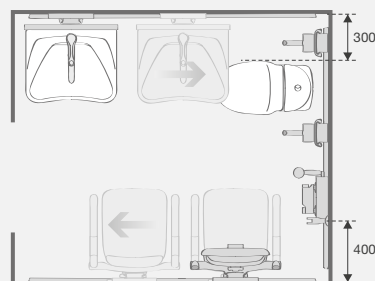
Not to scale

## Small rooms

In small rooms, for example in non-purpose-built buildings, moveable products can be fitted to create space for a carer or mobility aids.



2100 x 2450 = 5,1 m<sup>2</sup>



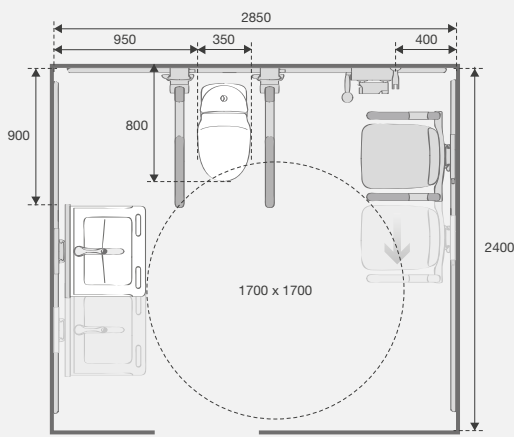
1800 x 2100 = 3,8 m<sup>2</sup>

**Note:** All layouts assume right-handed users and can be reversed as required.

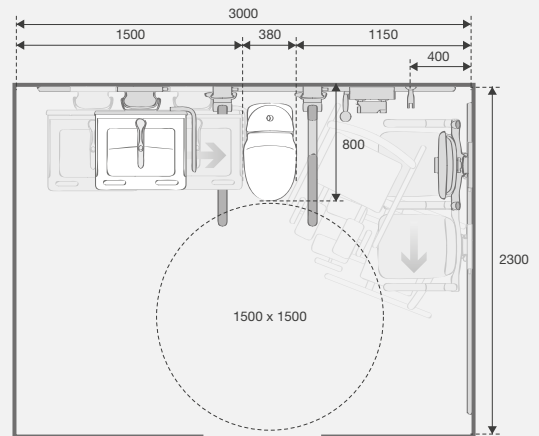


When planning the bathroom, take the needs of both users and carers as your starting point. Please note that many countries have adopted standards for furnishing bathrooms and toilets for disabled use with a view to ensuring the best possible conditions for both users and their carers.

## Room designs

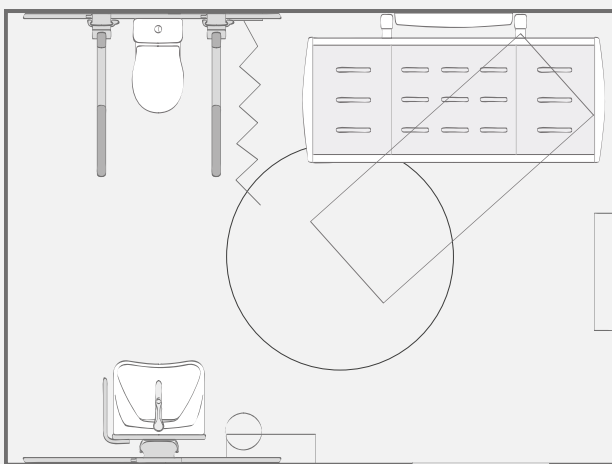


2850 x 2400 = 6,84 m<sup>2</sup>  
Workplace in focus

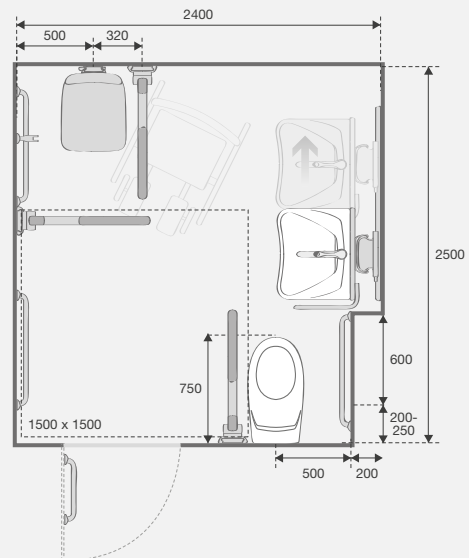


3000 x 2300 = 6,90 m<sup>2</sup>  
The independent user in focus

## British Standard BS8300



BS8300:2009 Fig 58 Example of a Changing Places Facility. 3000mm x 4000mm Designed to provide publically accessible facilities for profoundly disabled people requiring assistance or help.



BS8300:2009 Fig 42 Ensuite shower room with corner WC for independent use. 2400mm x 2500mm Intended for hotel ensembles, commercial, healthcare and sports facilities.

**Note:** The bathroom must be planned in conjunction with the other rooms in the home/building. It is also important to take into account the people using the room each day when selecting colours, lighting, heating, ventilation, flooring etc. See the checklist on pages 6-7.



# The flexible bathroom



The flexible PLUS system gives you the freedom to plan a bathroom to precisely match your requirements. Using the track as the basic element, the layout can at any time be adapted and extended to suit changing needs.



# PRESSALIT®

*Impaired mobility need not limit a person's development. For more than 35 years, the keep living philosophy has been a guiding principle for Pressalit's development of flexible kitchen and bathroom solutions for people with disabilities.*

*Thanks to its research-based knowledge, Pressalit is market-leading within specialist kitchen and bathroom solutions and today provides consultancy to customers worldwide.*

*An underlying respect for the individual and his or her possibilities is also reflected in the company's relationship to society at large and the local community. At Pressalit, Corporate Social Responsibility (CSR) is deeply rooted in the company's strategy and values which provide direction for all parts of the organisation.*

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