

# FSB ErgoSystem® A100

Simply barrier-free –  
made of aluminium







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# Over 135 years of handle culture: FSB at the cusp of humanity and architecture

**FSB is the brand for door and window hardware in “Project” buildings. Without a doubt, our being a number one choice amongst architects and project planners also has something to do with the expertise we have gathered in all aspects of “handle culture” over the past 135 years and more. Cast a look back with us.**

## 1881

Established at Iserlohn by Franz Schneider under the name of “Westfälisches Metallwerk”. Company moves to Brakel in 1908, adopting the new name of “FSB” as the acronym for Franz Schneider Brakel. Production focuses on cabinet furniture.

## 1920s

The Bauhaus defines a new conception of design ... and FSB picks up the thread. The company switches to producing door and window hardware, in the process laying the foundations for adopting an approach based on the Bauhaus philosophy.

## 1950s

“In-house designer” Johannes Potente develops the moulded-to-the-hand design that has continued to characterise FSB to the present day. Door handle 1051 is a design classic of the 1950s and 1960s to match designs by the likes of Charles and Ray Eames, Arne Jacobsen etc.

## Early 1980s

Company mentor Otl Aicher, whose achievements include designing the public images of the 1972 Olympic Games and Lufthansa, initiates a further reappraisal of corporate and product identity.

## 1980s – paradigm shift

FSB makes products for the hand: door handles become an interface between people and architecture and are upgraded into key constituents of architecture and design ventures. FSB turns its entire product range on its head, moreover, and comes up with innovations such as its AGL® compensating bearing. This ingenious item of handle engineering is still the non plus ultra for heavily used doors today.

## 1986

“Handle Workshop” at Brakel. Participants include Alessandro Mendini, Dieter Rams and Mario Botta. This event has spawned numerous design collections by architects and designers such as David Chipperfield, Jasper Morrison, Christoph Ingenhoven, Philipp Starck or Alfredo Häberli in the period since.

## 1990s

The four door handle designs 1051, 1020, 1046 and 1058 are added to the permanent collection at the Museum of Modern Arts (MoMA) in New York.

## 21st century

FSB products from the eastern Westphalian sticks have come to be loved the world over. The “made in Brakel” tag is a guarantor for timeless design, functional technology, durability and sustainability both at home and abroad.

FSB is quick to respond to demographic change by launching its barrier-free ErgoSystem® concept in 2003, a system that transcends individual handles to deliver spatial sequences of hardware.

It is a classically discreet system that marries the merits of ergonomics and architecture. It is founded on a range of handles in shiny stainless steel in differing variants and lengths. It is of its essence rooted in the laws governing ergonomic grip. The unique diagonal styling of its oval cross-section makes for optimised gripping that requires less effort. Functionality, aesthetics and ergonomics add up to a compelling whole with ErgoSystem®. It is a system that becomes universally applicable in combination with accessory elements

such as toilet roll holders, pushbutton actuators, armrest pads or shower seats with rotatable, tip-up seat sections.

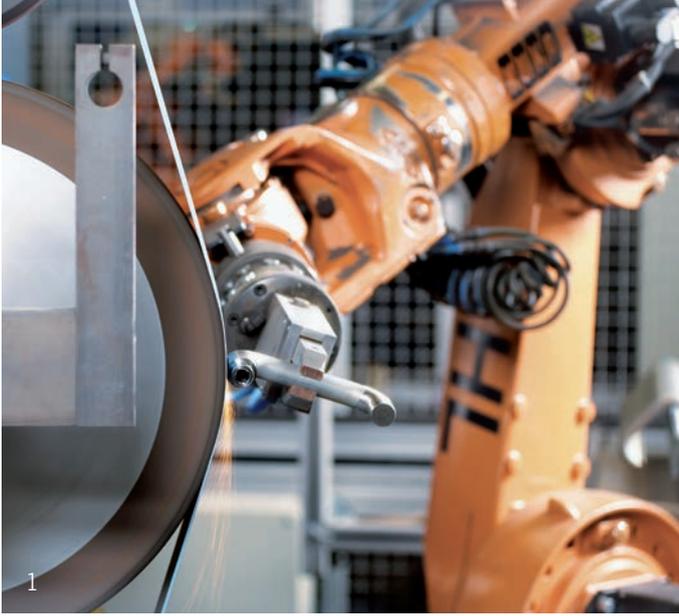
Functionality, aesthetics and ergonomics make our ErgoSystem® a compelling all-in performer (ErgoSystem® E300). 2015 saw FSB launch its ErgoSystem® A100, a must for budget-conscious projects that operates with an innovative colour concept. Constructed in powder-coated aluminium, ErgoSystem® A100 adds multifarious new interior-design options to the existing system's benefits of convenience, ergonomics and design. ErgoSystem® A100 allows detailed account to be had to brightness reference values whilst being conducive, where it is the client's individual taste that counts, to utterly distinctive design and colour schemes.

We see ErgoSystem® as a “design-for-all” concept that addresses the needs of people of all ages - regardless of whether they be children, adolescents, (young) adults, those in the “prime of life”, the over 50s or 60s, the so-called “elderly” or whatever titles marketing strategists may have concocted for them. A multiply award-winning design that pleases the discerning eye just as much as it does hands on rails proves that functional and ergonomic products can (or must in our view) also look good.

For you to integrate FSB into your schemes would give us great pleasure. We will gladly make ourselves personally available to assist in your planning processes and provide comprehensive advice. Our Public Project consultants are listed under [www.fsb.de/contact](http://www.fsb.de/contact)

Made in Brakel  Germany

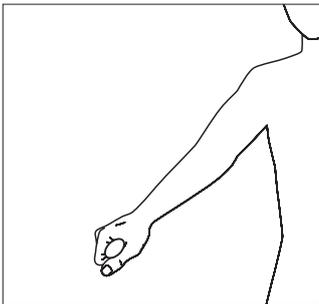
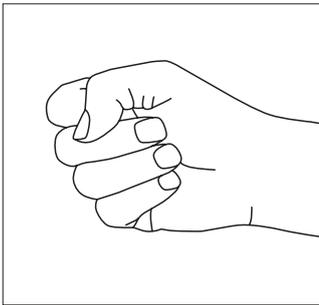
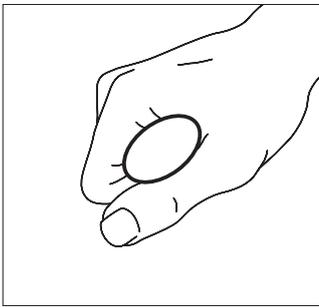
- 1 | FSB is a byword for select leading-edge manufacturing technology
- 2 | isis® M100 access management: attractively priced and ideal for smaller buildings, [www.fsb.de/isism100](http://www.fsb.de/isism100)
- 3 | Door lever handle FSB 1004, design: David Chipperfield
- 4 | The ErgoSystem® E300 as fitted in “Speicher 7”, [www.fsb.de/speicher\\_7](http://www.fsb.de/speicher_7)
- 5 | Sliding door fittings by FSB: space-saving and also ideal for sanitary areas
- 6 | isis® F100 | 200 | 300: rails with biometric function
- 7 | Pictograms by Otl Aicher



**Barrier-free ErgoSystem®.** We have funnelled our architectural expertise into a system that allows people of all ages to fashion their lives more conveniently without having to do without good-looking products.



## Diagonal + oval = ideal grip



**Functionality, ergonomics, aesthetics: these are what FSB's ErgoSystem®, the upshot of harnessing the “handle culture” skills we have acquired over the past 135 years to the design of barrier-free products for the sanitary sphere, are all about.**

It fulfils the function of supporting old or handicapped persons (and their helpers – be they partners or staff) as they move about the bathroom or toilet as well as enabling them to be more self-sufficient, to be cared for in greater comfort and to enjoy a better quality of life at home. The system's multi-award design is a treat not only to the hand as it grips but also to the discerning eye, amply underlining the thesis that products that are functional and ergonomic can also look good (indeed, we would say they have to).

ErgoSystem® sports a diagonal-oval design that consistently observes the laws governing grip ergonomics. Its diagonally slanted oval cross-section – unique of its kind in the marketplace – can be gripped by the hand to optimum effect.

In terms of gripping, there is a basic difference between taking hold of an object and enclosing it with the hands. With the former, the fingers only touch the object intermittently, which also means that the hand only intermittently exerts any force on the object. Enclosure, by contrast, involves the whole surface of the hand and hence a far more extensive transmission of force. The act of enclosing is the most archetypal form of grip: we all resort to it instinctively whenever we have to hold or support our own body weight. An oval cross-section conforms particularly well to the laws governing the anatomy of the hand. The hand encloses the elliptical cross-section snugly.

The effort is distributed evenly between all finger joints and optimum use is made of all parts of the hand including the wrist. The upshot is that far less force needs be exerted by the hand than with a circular cross-section to prevent it slipping on the handle.

The oval shape offers the greatest possible support whilst requiring little muscular exertion. The oval section is thus an ideal shape for handles because it is so natural – especially if it is rotated through 45 degrees so that it tilts diagonally. This echoes the spatial sequence when taking hold of something. This results from the search for direction and support with the arm, which performs a diagonal motion starting from the shoulder joint and finishing with the act of enclosure. A sturdy triangle is thus formed between the hand, the shoulder used and the area the person is standing on. This causes an optimum transmission of force emanating from the body through the arm to the hand.

# ErgoSystem® A100 and E300: one system, two appointment levels

**Freedom from barriers has long since been a matter of course. With the ErgoSystem® available in two versions, FSB always provides the right solution for different operator, client and budget requirements.**

For more than 10 years, the classic ErgoSystem®, which now bears the system name E300 (E = stainless steel, 300 = high class / heavy duty), has stood for unparalleled system depth, superior design and well-thought-out functionality. The ErgoSystem® A100 (A = aluminium, 100 = attractive to modest budgets / heavy duty) draws on these quality standards and evolves them in terms of budget attractiveness, handling and interior coordination. Whilst the ErgoSystem® E300 is often preferred for exclusive furnishings (e.g. hotels) and optional service areas, budget-sensitive projects can also enjoy FSB quality with the ErgoSystem® A100.

## **Diagonal + oval + open gripping area**

Common to both system versions is the basic idea of the diagonal alignment of an oval gripping cross-section, which is unique on the market. It consistently follows the laws of gripping ergonomics and stands for unparalleled comfort and a secure hold. The hand positively interlocks around the elliptical cross-section. All parts of the fingers are evenly loaded, all joints – including the wrist – optimally used. Compared to a circular cross-section shape, the hand has to exert much less force to prevent twisting on the handle. The oval shape is thus an ideal cross-section shape, because it is natural, for a handle. Particularly when the oval is inclined by 45° in a diagonally slanted position, which is derived from the spatial procedure when gripping. Based on this, the ErgoSystem® A100 adds an open gripping area. Supports protruding diagonally



from the wall, for example, detach a hand-rail combination constructively and visually from the wall covering and serve the gripping hand in the best sense of the word. The wall, supports and handle form the structural principle of a triangle, which are subjectively and objectively responsible for high durability and stability: the gripping experience is perceived as particularly pleasant and safe.

## **Optimal visibility in the room**

Thanks to its variable colour constellations, the ErgoSystem® A100 can be individually matched to the interior and ambience. Supports/structural components and hand-rails/handles can be freely combined in terms of their colour. Adequate contrasts can be achieved in this way for optimal visibility and readability in the room, which provides added convenience and safety

especially for older people with impaired vision (lightness coefficient).

## **Assembly? It's easy!**

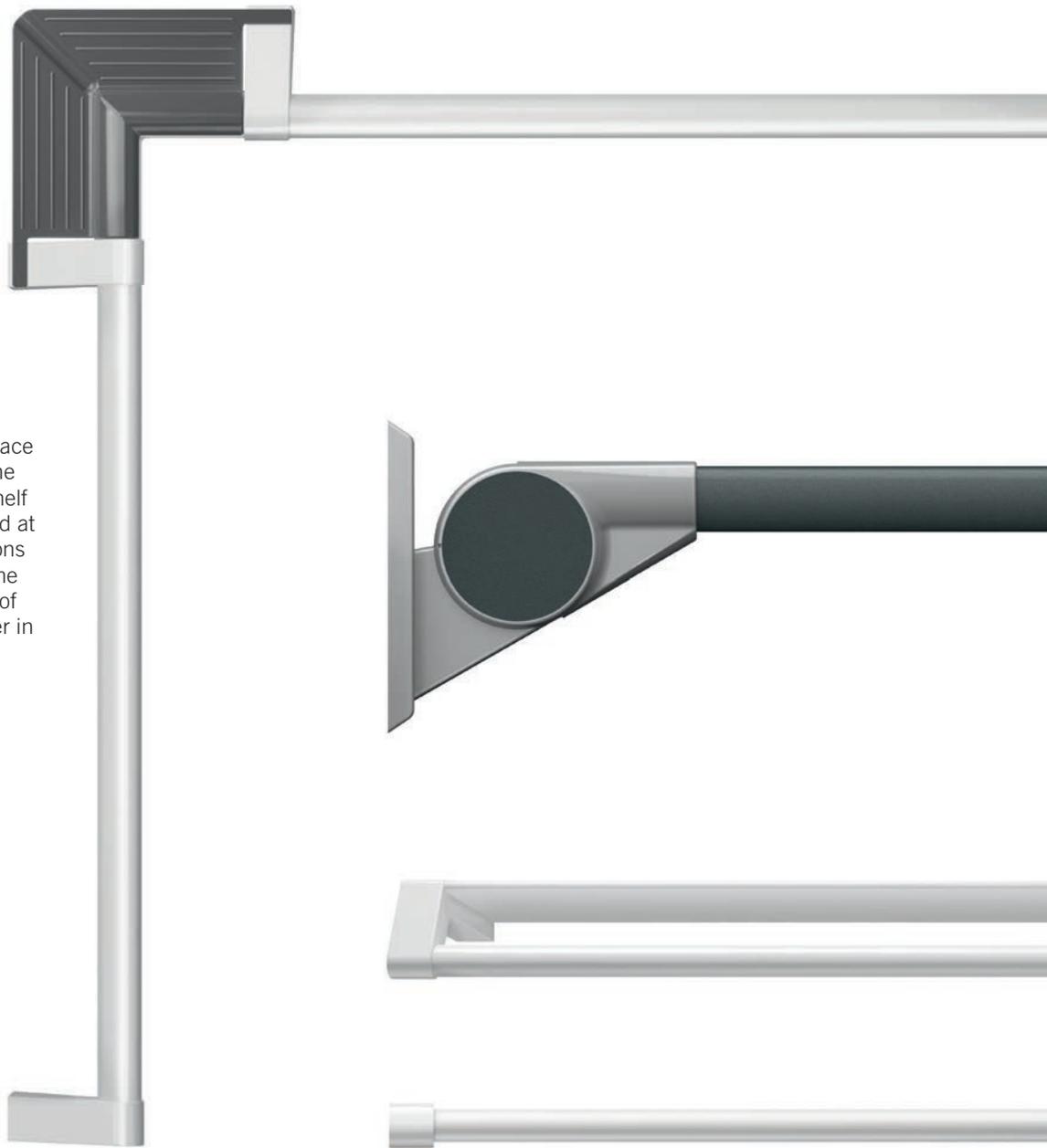
The ErgoSystem® A100 is also impressive when looked at under assembly aspects: a design simplification leads to fewer individual parts, which in turn are very easy to assemble thanks to the mounting shoe concept. Visible and assembly-related parts are kept separate, which makes them much easier to attach and prevents assembly errors and damage.



ErgoSystem® A100

### Corner shelf

The angled supports open up the space behind the handle bar and enable the attachment of a removable corner shelf made of plastic that can be retrofitted at any time, e.g. in handrail combinations in the shower area. In this position the corner shelf does not get in the way of the grasping hand and serve the user in a visually unobtrusive way.



### Toilet roll holder

The toilet roll holder is available in versions for wall mounting and to attach to the drop-down support. Its roll brake ensures convenient operation.



### Wall hooks

The conical shape of the wall hook available in two sizes combines a stable fastening method thanks to an enlarged mounting area with a slim and elegant appearance.

### Shelf

The shelf made of coated aluminium adopts the wedge shape of the wall supports. It is available in standard dimensions (140 × 600 mm) as well as with individual lengths of up to 1900 mm.



### Drop-down support

Its diagonal wall connection makes the formal bridge to the standard wall support and increases its stability. The pivot point of the drop-down support optically emphasises the maintenance-free bearing mechanism and brake. The handle is designed as a symmetrical profile with emphasised arm rest and enlarged gripping volume in the form of a half ellipse. The left-hand/right-hand usability of the drop-down support makes it particularly flexible from warehousing and planning through to assembly.



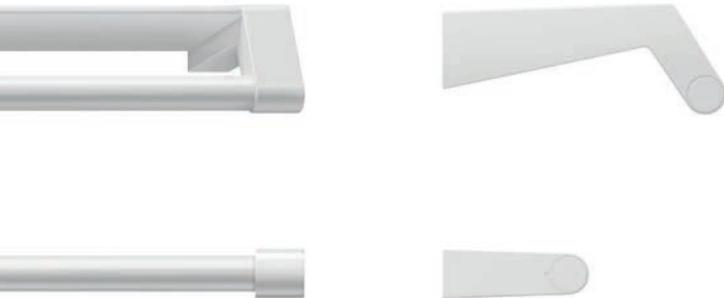
reddot design award  
winner 2008



Innovationspreis  
architecture + health

### Shelf with grabrail/towel rail

The side supports adapting the design principle adopt a handrail and combine it with a shelving area.



### Hand towel holder

The fixed hand towel holder with two side supports and a length of up to 1200 mm provides adequate room for a bath towel, for example. The twin pivoting hand towel holder looks good next to the washbasin.



### Shower head holder

The shower head holder, which has won multiple awards for its high design quality, has proven itself in the established ErgoSystem® E300 and has been colour coordinated with the ErgoSystem® A100.



### Handrails and wall handles

Characteristic of the design concept of the ErgoSystem® A100 are supports angled at 45° from the wall, which open up the gripping area for the hand and make it particularly convenient to grab them from the side. The wall, supports and handle form the structural principle of a triangle, which are subjectively and objectively responsible for high durability and stability. Differently coloured handles and supports ensure that taken hold of safely. The side support panels show the cross-section of the bar profiles as a graphic element. Handrail profiles are available in individual lengths and can be shortened on site – a particular advantage for planning and assembly.



## EPS powder coating from FSB: more than colour



**We produce ErgoSystem® A100 in four finishes and six colours, whereby coatings with different gloss levels are used at the same time.**

These range from completely matt (FSB 8803, 8809) through to high gloss (FSB 8220). The colour concept is based on three types of coating, which are offered in plain or are combined with each other in selected colours of defined components. The three plain colours mentioned are always used to coat handles, handrails or also the surfaces on utensil shelves – in other words the components that are subject to permanent use, be it from gripping and holding or also from depositing utensils. Supports, assembly elements, functional parts and also the appliquéés on the shower head holder, which are only seldom touched, can also be finished in the specified designs with the accent colour, Aluminium grey metallic (FSB 8829, silk matt)

or even in a contrasting style in the form of the above-mentioned colour combination FSB 8810 (handrail Anemone white FSB 8220, supports FSB 8803 Oyster grey) or FSB 8811 (handrail FSB 8809 Anthracite grey metallic, supports FSB 8829 Aluminium grey metallic). We can illustrate this here by means of some actual examples.

### Surface quality

Particularly with the EPS finishes (electrostatic powder coating) on handles, handrails and shelves, finely textured coating systems are used, which, in terms of their resilience, resistance to cleaning agents and scratches or also in the abrasion test, are far superior to conventional, purely decorative powders and processes. The powders used at FSB have their origins in façade engineering, a field where, traditionally, the highest demands are placed on surfaces when constructing façades or

also due to climate influences. In addition, the matt colours, Oyster grey (FSB 8803) and Anthracite grey metallic (FSB 8809), feature an above-average surface hardness and outstanding mechanical properties, meaning that these finishes are recommended for barrier-free areas where particular stress is anticipated.



Finishes tested to the following standards and methods:

– Resistance to proprietary cleaners, corrosion (DIN EN ISO 6988), scratching (DIN EN ISO 1518-1\*), abrasion (DIN EN 60068-2-70\*)

– Coating adhesion (DIN EN ISO 2409)

\* Testing with reference to the standard cited

#### Plain coatings

- ① FSB 8220 Anemone white, similar to RAL 9016
- ② FSB 8803 Oyster grey, similar to RAL 7040
- ③ FSB 8809 Anthracite grey metallic, similar to RAL 7016

#### Combined coatings

- ④ FSB 8223:  
Support/bracket  
FSB 8829 Aluminium grey metallic  
Handrail/bar  
FSB 8220 Anemone white
- ⑤ FSB 8810:  
Support/bracket  
FSB 8220 Anemone white  
Handrail/bar  
FSB 8803 Oyster grey
- ⑥ FSB 8811:  
Support/bracket  
FSB 8829 Aluminium grey metallic  
Handrail/bar  
FSB 8809 Anthracite grey metallic



# Adaptable brightness reference values: Style + Safety

Fitting the new combined-colour variants most notably makes for a greater play of contrast so as to have account to brightness reference values. Where, for instance, wall tiles in a colour similar to the silvery grey brackets are selected, hand and grab-rails can nevertheless be made to clearly stand out in either anemone white (FSB 8220) or anthracite metallic (FSB 8809). This is an utterly new approach that highlights rails and attachment devices. It thus allows the crucial plane of use and convenience to be lent even greater and targeted visual profile for the user – at the same time making day-to-day dealings with the ErgoSystem® A100 even safer.

An analogous and similarly exciting design principle suggests itself for the white tiles still common, in care facilities in particular, whereby white brackets are combined with oyster-grey rails (FSB 8810). It is possible in this way to ergonomically and functionally redefine colour schemes or, indeed, to utterly revitalise them by dint of a pure design idea. Whereas visible contrasts determined by brightness reference values are likely to hold sway in the Public Project sector, our colour concept opens up wholly new horizons for the planners and designers of interiors in the residential and sanitary spheres.

- ① FSB 8220
- ② FSB 8803
- ③ FSB 8809
- ④ FSB 8223
- ⑤ FSB 8810
- ⑥ FSB 8811

(For a description of colours cf. Page 11)





# ErgoSystem® features and benefits

## System features

- FSB's ErgoSystem® conforms to all sections of DIN EN 18040-1 + 18040-2.
- The ErgoSystem® is certified according to TÜV/GS (product safety).
- High corrosion resistance due to powder-coated parts in high-quality aluminium.
- Finishes tested to the following standards and methods:
  - Resistance to proprietary cleaners, corrosion (DIN EN ISO 6988), scratching (DIN EN ISO 1518-1\*), abrasion (DIN EN 60068-2-70\*)
  - Coating adhesion (DIN EN ISO 2409)
- \* Testing with reference to the standard cited
- Hands fit snugly due to the unique elliptical styling of the grip section, which observes the laws of anatomy.
- Brackets fitted at a splayed angle to the wall create an open handling area to make gripping a particularly pleasant and safe experience.
- Due the oval cross-section, demonstrably less force needs to be exerted both when taking hold of a handle and gripping it firmly.
- Ensuring optimum transmission of forces is the 45° tilt in the handle cross section, which in line with the rules of ergonomics allows the hardware to be taken hold of to form a triangle between hand, shoulder and the body's vertical axis.
- The consistent and uniform design concept underpinning the ErgoSystem® impresses with striking design elements right through to the line of accessories.
- Variable colour combinations for brackets and rail elements mean they are easy to see and blend in perfectly with their surroundings.

## System benefits

- Premium concept as regards convenience, function, ergonomics and design,
  - Low-cost purchase and operation. The modular concept additionally enables individual components to be replaced.
- The ErgoSystem's modular concept, variety of products and plethora of retrofittable accessories and complementary components enable flexible responses to changing conditions during planning and use:
- ErgoSystem® grab handles can be supplied in non-standard dimensions on request, so consideration can be given to specific requirements.
  - Handrail combinations in standard lengths or as system building blocks ensure optimum solutions in any area of application.
  - Restrained radii on all structural parts and concealed fastenings help meet hygiene requirements.
  - Barrier-free handle system aimed strictly at the target group, which exceeds normal market requirements in terms of planning, equipment and use owing to its proven ergonomic and design merits.
  - Hardware can be produced to customised dimensions where, for instance, close consideration needs to be given to joint grids, existing fixing points, etc.
  - Straightforward assembly adopting the assembly-shoe concept with built-in allowance for lateral play of +/- 2 mm
  - Drop-down support rails with touch-buttons having no visible cables – cabling is run along the inside of the rail and straight into the pre-wall installation via the baseplate.

## Planning benefits

- Variable colour constellations allow ErgoSystem® A100 to be custom-adapted to interiors and surroundings.
- ErgoSystem® A100 permits substantive account to be had to brightness reference values and bespoke design notions in equal measure.
- This opens up options for sanitary planners and interior designers that can be put to targeted effect in both Public Project and higher-echelon residential construction.
- Its premium design quality takes account of the aesthetic requirements of a new generation of "youthful seniors".
- A high level of user acceptancy is brought about by a wide variety of ergonomically driven fine detail in all product groups right through to the accessories, which afford users a maximum level of convenience as well as assisting them in everyday sequences of movements.
- The ErgoSystem's modular concept enables flexible responses to changing conditions during planning and use.
- The colour concept ensures differentiation in the fitting out of spaces, also serving as a means of marking out the likes of private wards or non-standard facilities in hotels.
- FSB's proximity to the market and production location in Germany allow it to deliver bespoke solutions and innovations promptly and flexibly.



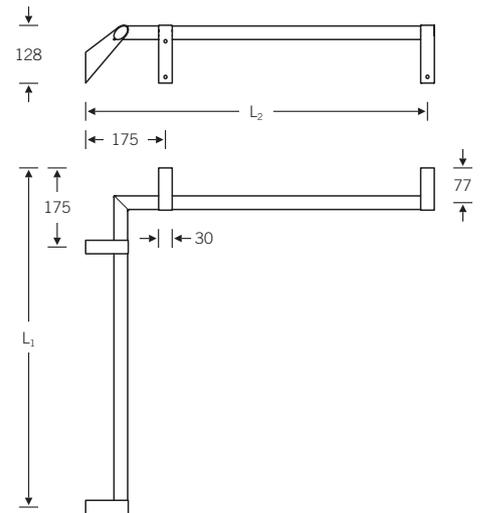
reddot design award  
winner 2008





## 18 Shower and bath area

82 8404 ■



# Shower and bath area

	L <sub>1</sub>	L <sub>2</sub>
82 8404 00101	750 mm	750 mm
82 8404 00102	750 mm	975 mm
82 8404 00201	975 mm	750 mm
82 8404 00202	975 mm	975 mm

Handrail combination

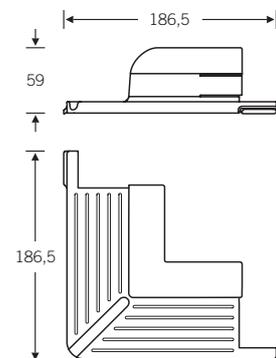


82 8460



82 8460 00013

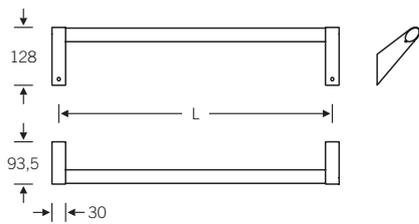
Plastic storage tray



[fsb.de/828404](http://fsb.de/828404)  
[fsb.de/828460](http://fsb.de/828460)

# Shower and bath area

82 8401 ■



[fsb.de/828401](http://fsb.de/828401)

# Shower and bath area

82 8401 00030 (L = 300 mm)  
82 8401 00045 (L = 450 mm)  
82 8401 00060 (L = 600 mm)  
82 8401 00090 (L = 900 mm)

Grab handle

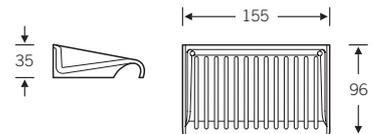


82 8260



82 8260 00039

Plastic storage tray

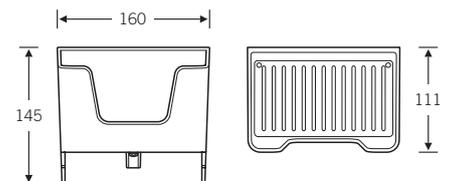


82 8260



82 8260 00059

Plastic storage tray  
push-in fitting on grab handles with  
anti-theft device



[fsb.de/828401](https://fsb.de/828401)  
[fsb.de/828260](https://fsb.de/828260)

# Shower and bath area



The showerhead holder is particularly convenient: it combines an ergonomically shaped handle that is safe and easy to operate without any turning action involved and features a maintenance-free, continuously adjustable height and tilt mechanism.

The shower head holder can be conveniently adjusted with one hand – leaving the other free at all times and giving the user the opportunity, for instance, to hold on to a grab handle. It can additionally be “re-handed” on site.

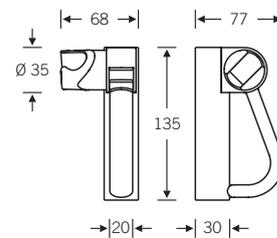


l. to r.:

- FSB 8220 Anemone white, similar to RAL 9016
- FSB 8803 Oyster grey, similar to RAL 7040
- FSB 8809 Anthracite grey metallic, similar to RAL 7016



- FSB 8223: Support/bracket
- FSB 8829 Aluminium grey metallic
- Bar
- FSB 8220 Anemone white
- FSB 8810: Support/bracket
- FSB 8220 Anemone white
- Bar
- FSB 8803 Oyster grey
- FSB 8811: Support/bracket
- FSB 8829 Aluminium grey metallic
- Bar
- FSB 8809 Anthracite grey metallic



# Shower and bath area

82 8439 ■

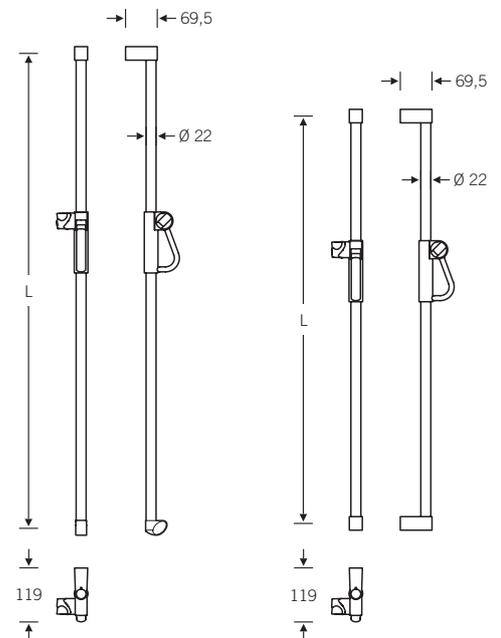
82 8439 01048 (L = 1048 mm)  
82 8439 01198 (L = 1198 mm)

Shower rail with shower head holder for  
assembly on grab handles and handrail  
combinations

82 8439 10900 for wall mounting



Plastic shackle for handrails in all colour  
variants RAL 7016 as standard; please  
advise shackle in RAL 9016 (white) sepa-  
rately when ordering.

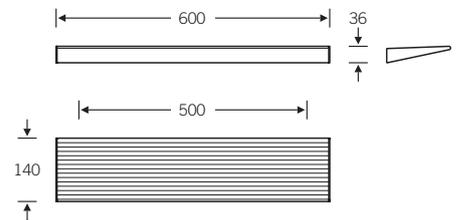


# Shower and bath area

82 8460 ■

82 8460 00010

Utensils tray

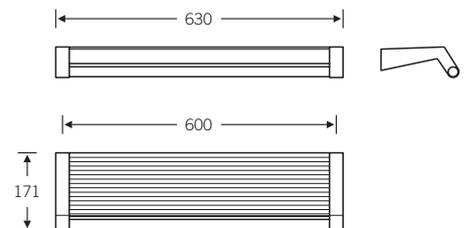


82 8460 ■

82 8460 00011

Utensils tray  
on grabrail/towel rail

Loading capacity to 100 kg (grabrail)



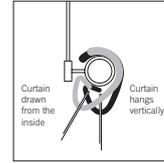
[fsb.de/828460](http://fsb.de/828460)

# Shower and bath area

82 8438 ■

82 8438 01010 (L = 1000/1000 mm)  
82 8438 01212 (L = 1200/1200 mm)

Curtain rail



Hooks will not get caught in the ceiling attachment even when the curtain is operated with one hand.



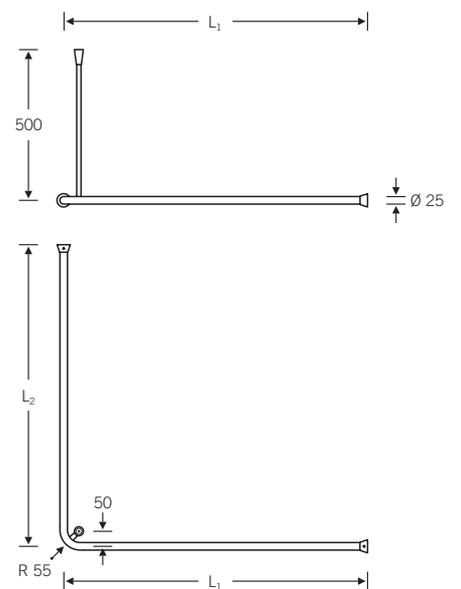
8200  
magicwhite



9000  
white



8800  
manhattan

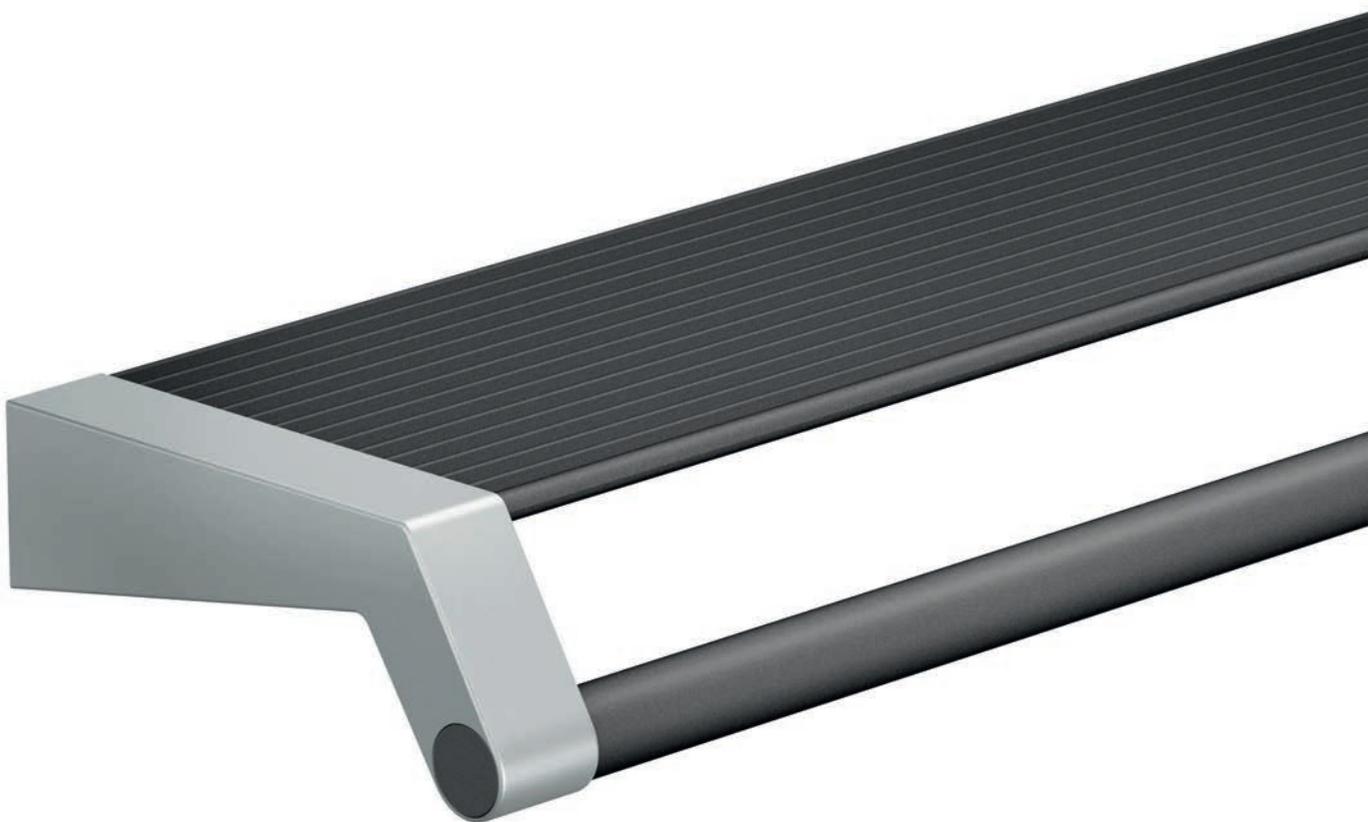




## 28 Washstand area

## Washstand area

82 8460 ■



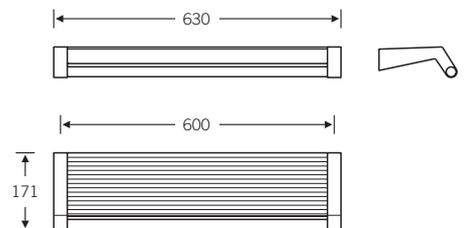
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# Washstand area

82 8460 00011

Utensils tray  
on grabrail/towel rail

Loading capacity to 100 kg (grabrail)



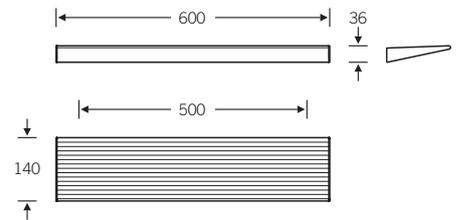
# Washstand area

82 8460 ■

82 8460 00010

Utensils tray

Custom lengths of up to 1,900 mm  
suppliable to order



[fsb.de/828460](https://fsb.de/828460)

# Washstand area

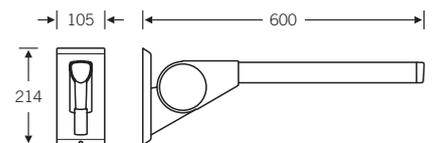
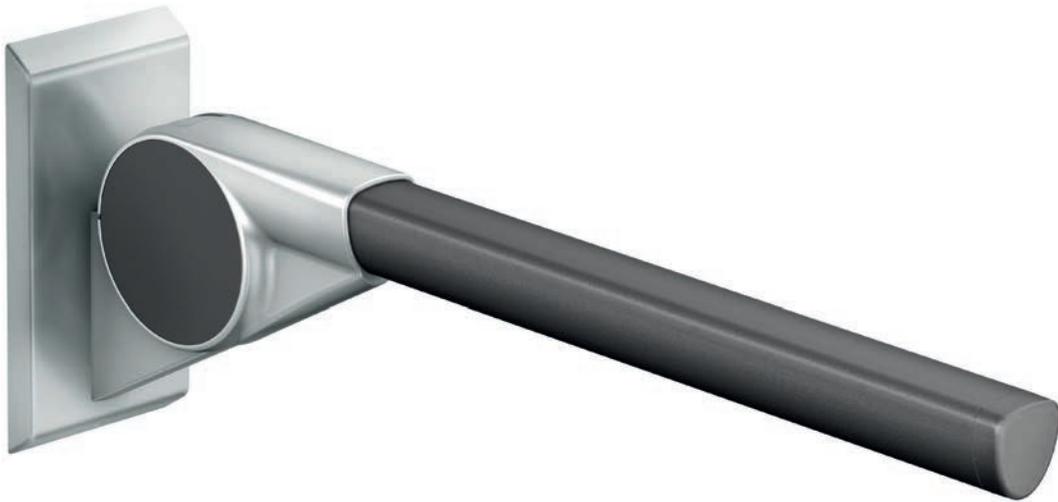
82 8420 ■

82 8420 00060

Drop-down support rail  
with non-directional rail cross-section

With spring loading, ease of action  
adjustable as required

Loading capacity to 100 kg at leading  
edge



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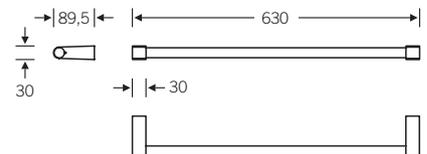
# Washstand area

82 8460 ■

82 8460 00001

Bath towel holder single

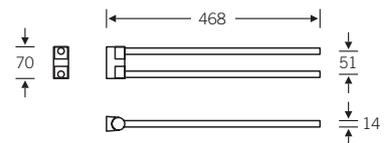
Custom lengths of up to 1,050 mm  
suppliable to order



82 8460 ■

82 8460 00002

Twin hand towel holder,  
pivotable



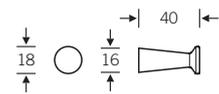
[fsb.de/828460](https://fsb.de/828460)

# Washstand area

82 8460 ■

82 8460 00003

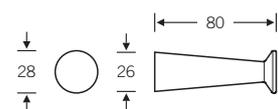
Bath/hand towel hook



82 8460 ■

82 8460 00004

Coat hook

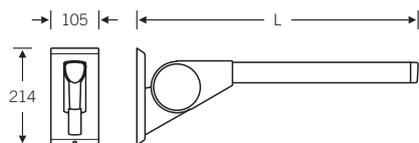
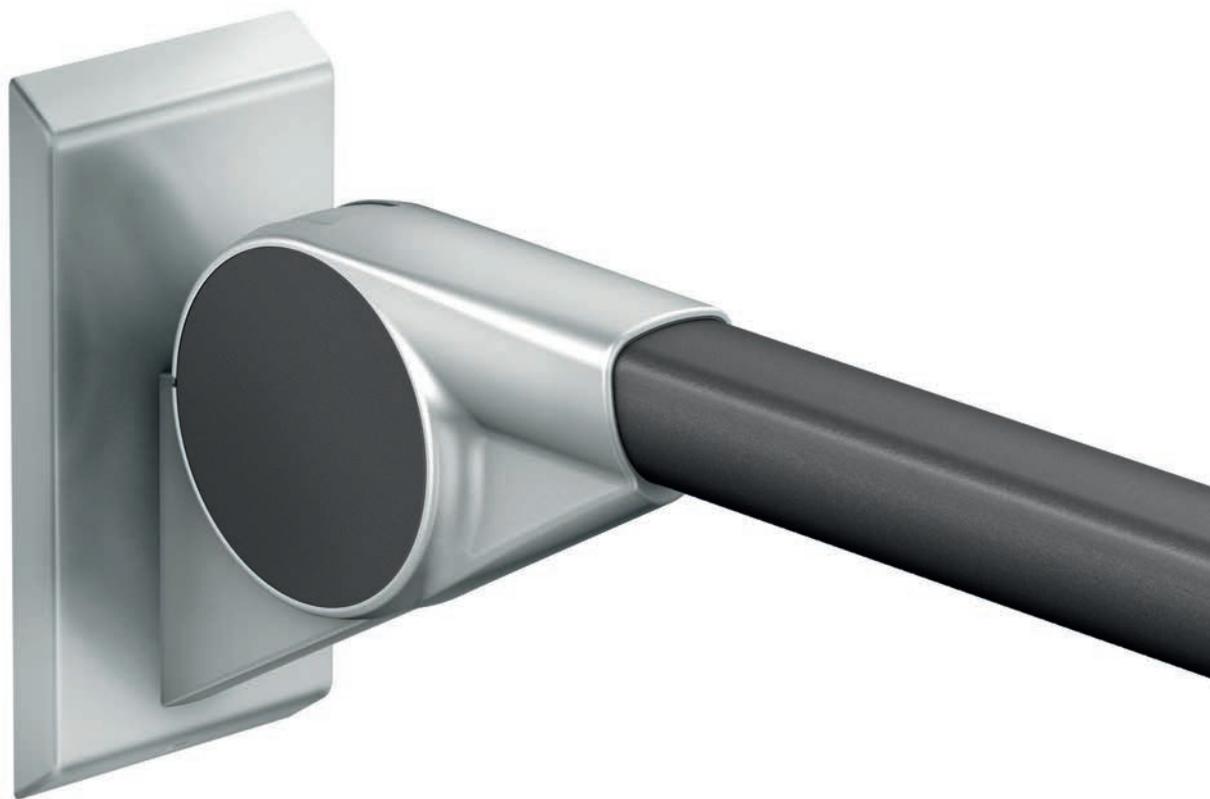


[fsb.de/828460](https://fsb.de/828460)





82 8420 ■



[fsb.de/828420](https://fsb.de/828420)

# WC area

82 8420 00060 (L = 600 mm)  
82 8420 00070 (L = 700 mm)  
82 8420 00085 (L = 850 mm)  
82 8420 00090 (L = 900 mm)

Drop-down support rail  
with non-directional rail cross-section

With spring loading, ease of action adjustable as required

Custom lengths of up to 900 mm suppliable to order

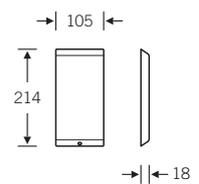
Loading capacity to 100 kg at leading edge



82 8421 ■

82 8421 00000  
(with support plate)  
82 8421 00001  
(without support plate)

Cover plate  
for flexible fitting in,  
for instance, hotels or  
optional service areas



fsb.de/828420  
fsb.de/828421

82 8420 ■

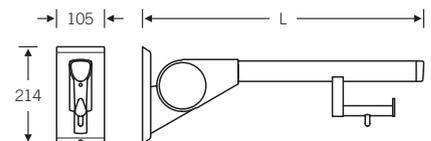
82 8420 01060 (L = 600 mm)  
82 8420 01070 (L = 700 mm)  
82 8420 01085 (L = 850 mm)  
82 8420 01090 (L = 900 mm)

Drop-down support rail  
with non-directional rail cross-section  
with integrated toilet roll holder

With spring loading, ease of action  
adjustable as required

Custom lengths of up to 900 mm  
suppliable to order

Loading capacity to 100 kg at leading  
edge



[fsb.de/828420](http://fsb.de/828420)

# WC area

82 8420 ■

82 8420 00170 (L = 700 mm, yellow)  
82 8420 00185 (L = 850 mm, yellow)  
82 8420 00190 (L = 900 mm, yellow)

82 8420 00270 (L = 700 mm, blue)  
82 8420 00285 (L = 850 mm, blue)  
82 8420 00290 (L = 900 mm, blue)

82 8420 00370 (L = 700 mm, red)  
82 8420 00385 (L = 850 mm, red)  
82 8420 00390 (L = 900 mm, red)

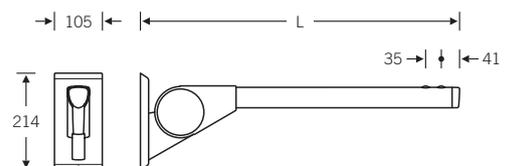
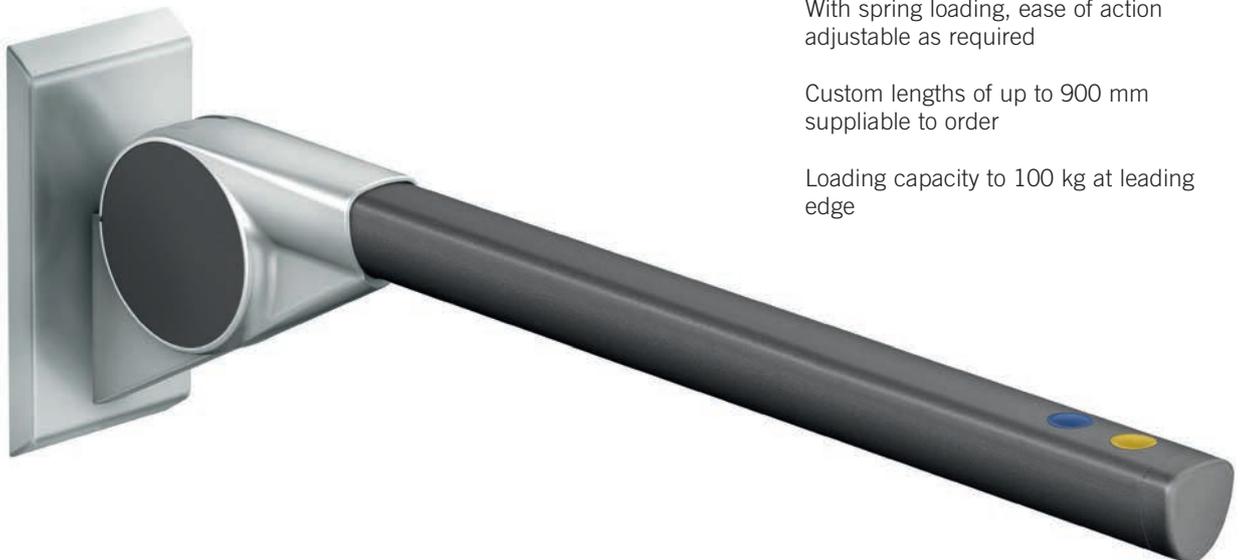
82 8420 00470 (L = 700 mm, blue/yellow)  
82 8420 00485 (L = 850 mm, blue/yellow)  
82 8420 00490 (L = 900 mm, blue/yellow)

Drop-down support rail  
with non-directional rail cross-section  
with one or two buttons

With spring loading, ease of action  
adjustable as required

Custom lengths of up to 900 mm  
suppliable to order

Loading capacity to 100 kg at leading  
edge



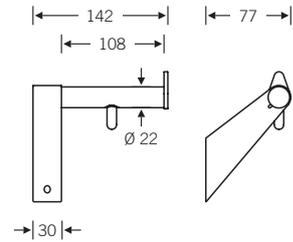
[fsb.de/828420](https://fsb.de/828420)

82 8460 ■

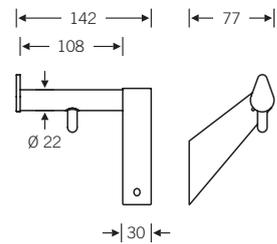


82 8460 00005 (RH)  
82 8460 00006 (LH)

Toilet roll holder  
with roll brake



82 8460 00005  
(RH)



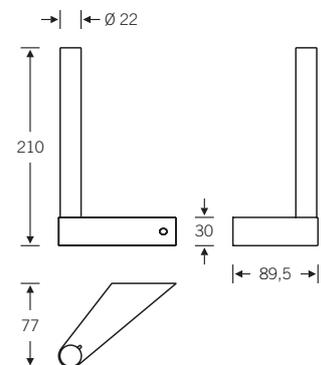
82 8460 00006  
(LH)

82 8460 ■



82 8460 00007

Spare toilet roll holder  
for two toilet rolls

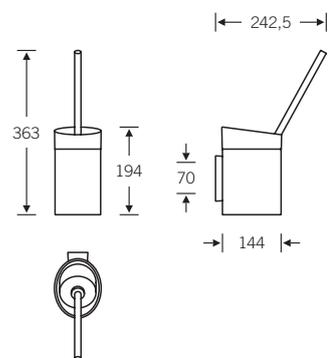


[fsb.de/828460](http://fsb.de/828460)

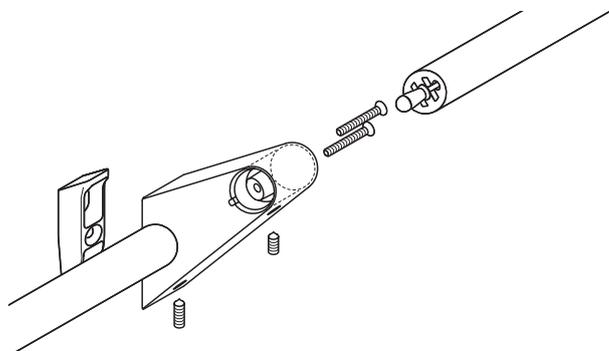
82 8460 ■

82 8460 0008

WC brush set



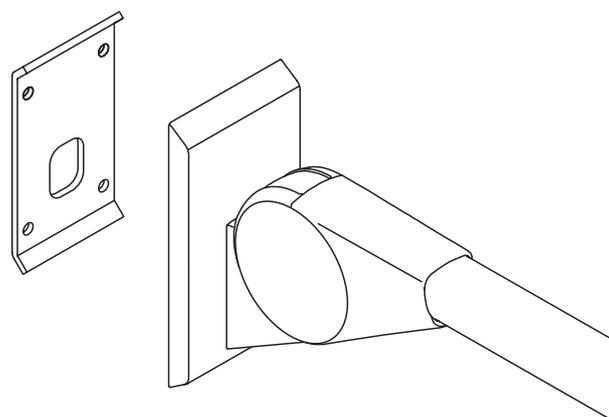
# Assembly and fastening methods



## Assembly

Handrail sections come with one bracket attached ex works. Modules can be screwed together to form either handrail configurations or grab rails. There is a pin on one side of each section by means of which it is secured to the

adjacent section at the level of the bracket. This is performed by means of an M5 grub screw passed through a borehole at the bottom of the bracket.



## Fixing

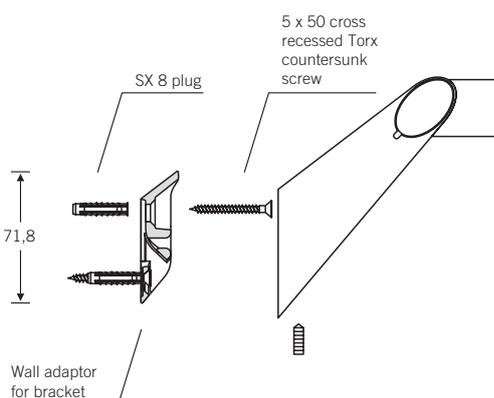
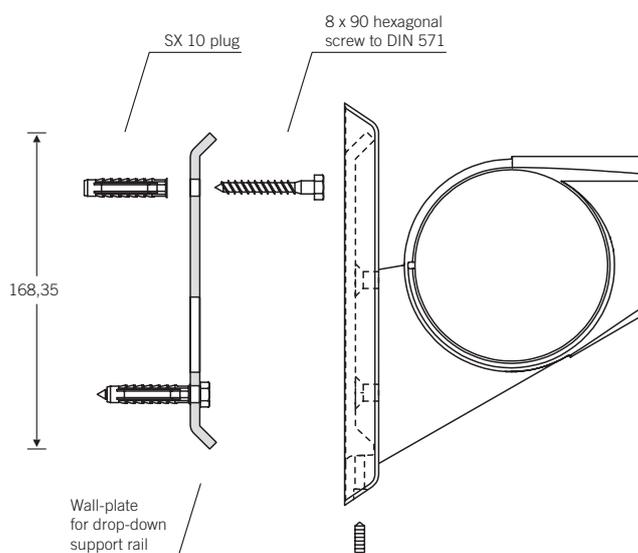
A key component in the fixing of pre-assembled modules is what is known as the “assembly-shoe concept”, which compensates for lateral play of up to +/- 2mm. Assembly shoes are applied at the brackets of grab rails and handrail configurations. Used is made of cylindrical pins to fix the utensils tray or wall

brackets for the shower rail. Both are concealed once the applicable components have been pressed home and secured with M5 grub screws – a technique FSB has adopted for decades for the fixing of door pulls.

## Important note

Should your walls necessitate a different form of fixing (light-weight designs, cavity bricks, secondary wall systems etc.), please follow the instructions

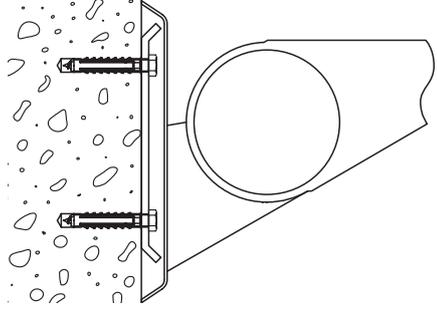
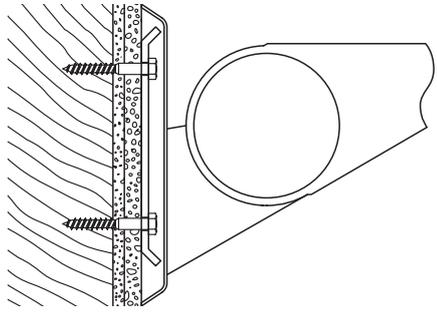
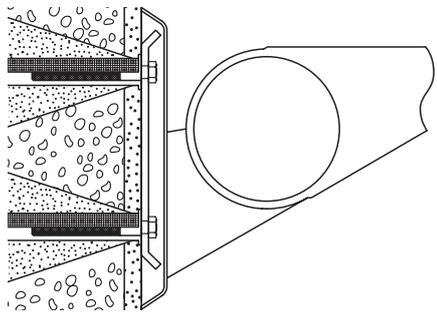
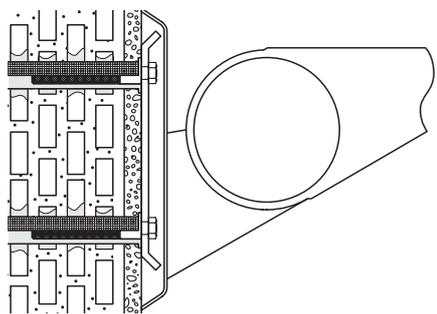
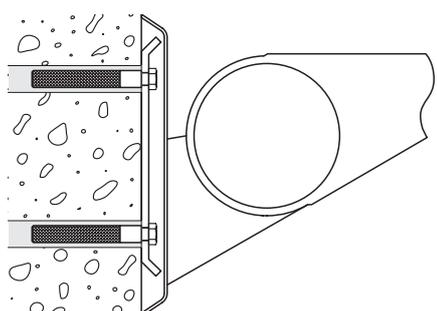
of the wall-plug or wall-system manufacturers.



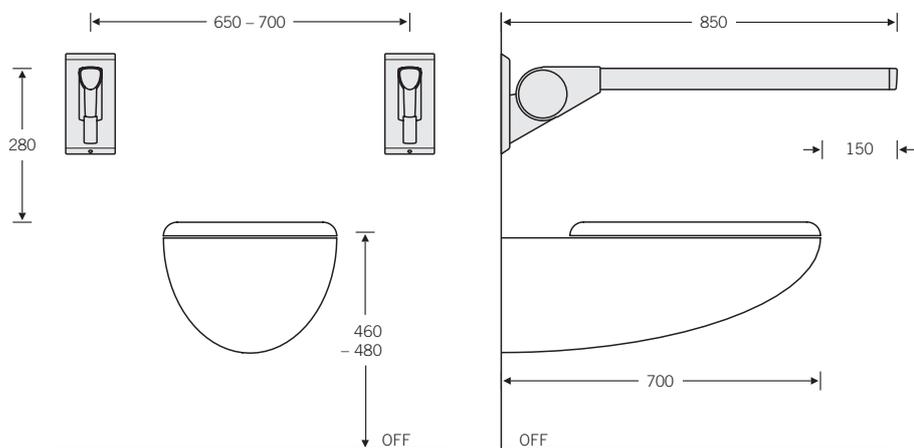
The fastenings needed to fit **drop-down support rails**, comprising 8 x 90 mm stainless steel hexagonal screws conforming to DIN 571 and SX 10 plastic plugs, are supplied with the product.

The fastenings needed to fit the **handrail/handle system** to solid walls, comprising 5 x 50 mm cross-recessed Torx countersunk screws in stainless steel and SX 8 plastic plugs, are supplied with the product.

# Recommended fastening methods

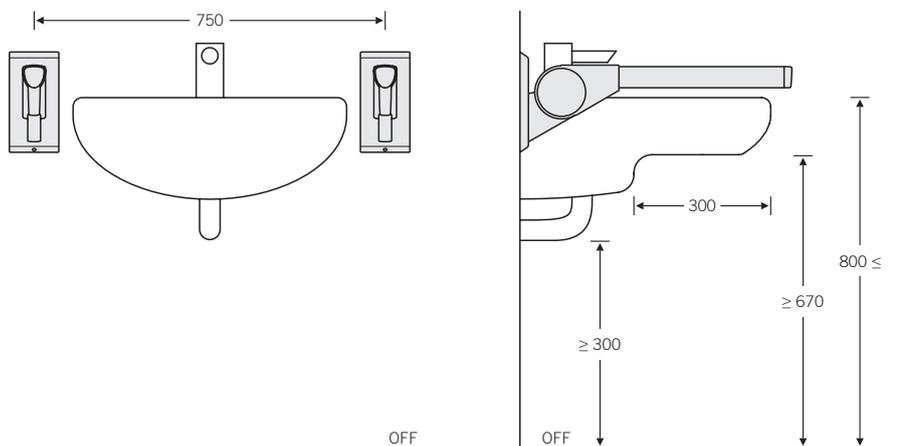
	Nature of wall	Grab handles and handrail configurations	Support rails and tip-up seat
	<ul style="list-style-type: none"> <li>· Concrete (&gt; B15)</li> </ul>	Fischer SX 8 × 40 wall plugs	Fischer 5 × 10 LR × 08 wall plugs  The screw material supplied by FSB can be used in conjunction with the wall-plug types shown here.
	<ul style="list-style-type: none"> <li>· Plasterboard</li> <li>· Chipboard</li> <li>· Hardboard backed with bonded laminated timber board</li> </ul>	Spax countersunk screw T (Torx) 5 × 50	8 × 90 hexagonal screw to DIN 571
	<ul style="list-style-type: none"> <li>· Solid V2 lightweight concrete block</li> <li>· Solid clay brick</li> <li>· HLz4 vertical coring brick</li> <li>· G2 expanded concrete (pumice stone)</li> <li>· Cored sand-lime brick</li> </ul>	Fischer SX 8 × 40 wall plugs	Fischer SX 10 LR × 80 wall plugs
	<ul style="list-style-type: none"> <li>· Vertical coring brick</li> <li>· Cored sand-lime brick</li> <li>· Cavity block</li> </ul>		Fischer with screw anchor collar  FISH 16 × 75 M injection screw anchor collar and FISE 11 × 75 M8 injection internal thread anchor
	<ul style="list-style-type: none"> <li>· Concrete</li> <li>· Natural stone</li> <li>· Solid sand-lime brick</li> <li>· Solid construction materials</li> <li>· Solid bricks</li> </ul>		Fischer with no screw anchor collar  FISE 11 × 75 M8 injection internal thread anchor

# Planning information ErgoSystem® WC



	DIN 18 040/1	DIN 18 040/2 	DIN 18 040/2
Installation height including seat	460–480 mm	460–480 mm	as required
WC depth (distance from front edge to wall)	≥ 700 mm	700 mm	550 mm
Mobility area at sides	≥ 900 mm on both sides	on access side min. 900 mm	as required
Mobility area in front of WC	1500 mm deep 1500 mm wide	1500 mm deep 1500 mm wide	1200 mm deep 1200 mm wide
Distance from WC to side wall	≥ 900 mm	≥ 300 mm	≥ 200 mm
Drop-down rails	280 mm above WC seat height on both sides	280 mm above WC seat height on both sides	as required
<ul style="list-style-type: none"> <li>· Distance between rails</li> <li>· Integrated flushing</li> <li>· Integrated toilet roll holder</li> <li>· Backrest</li> </ul>	650–700 mm on the left and right on the left and right 550 mm behind the front edge of the WC	650–700 mm on the left and right on the left and right 550 mm behind the front edge of the WC	as required as required as required as required
For planning bathroom and WC areas in barrier-free buildings, the following standards must be observed:	DIN 18 040 Part 1 relates to the planning, execution and fitting-out of public-access buildings or parts thereof as well of outdoor facilities, i.e. of all structural facilities except those of a purely residential nature. This standard does not apply to schools, nursery schools or hospitals – these are governed by the regional building regulations. In turn, the workplace directive applies to places of work.	DIN 18 040 Part 2 applies to the planning, execution and fitting-out of new rented and cooperative accommodation and corresponding residential facilities <b>suitable for wheelchair users</b> .	DIN 18 040 Part 2 applies to the planning, execution and fitting-out of new, barrier-free rented and cooperative accommodation and corresponding residential facilities.

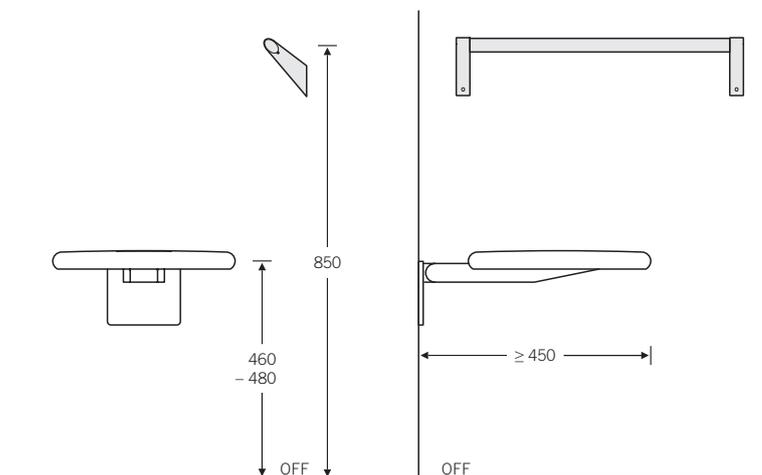
# Planning information ErgoSystem® Washstands



	DIN 18 040/1	DIN 18 040/2 	DIN 18 040/2
Installation height top edge of washstand	≤ 800 mm	≤ 800 mm	≤ 850 mm
Mobility area in front of the washstand	1500 mm deep 1500 mm wide	1500 mm deep 1500 mm wide	1200 mm deep 1200 mm wide
Room to move underneath	≥ 550 mm	550 mm	550 mm
Legroom in depth	≥ 300 mm	300 mm	300 mm
Room to sit underneath	≥ 670 mm high	≥ 670 mm high	≥ 670 mm high
Contactless single-lever fittings with anti-scald feature	mandatory	recommended	recommended
One-handed soap dispenser, paper towel dispenser, waste bin and hand dryer	Layout in the area of the washstand	as required	as required
Flush or recess-mounted stench trap	mandatory	mandatory	mandatory
Mirror usable in seated or standing position	A mirror at least 1000 mm high is to be fitted above the washstand	A mirror at least 1000 mm high is to be fitted above the washstand	as required

# Planning information ErgoSystem®

## Shower area

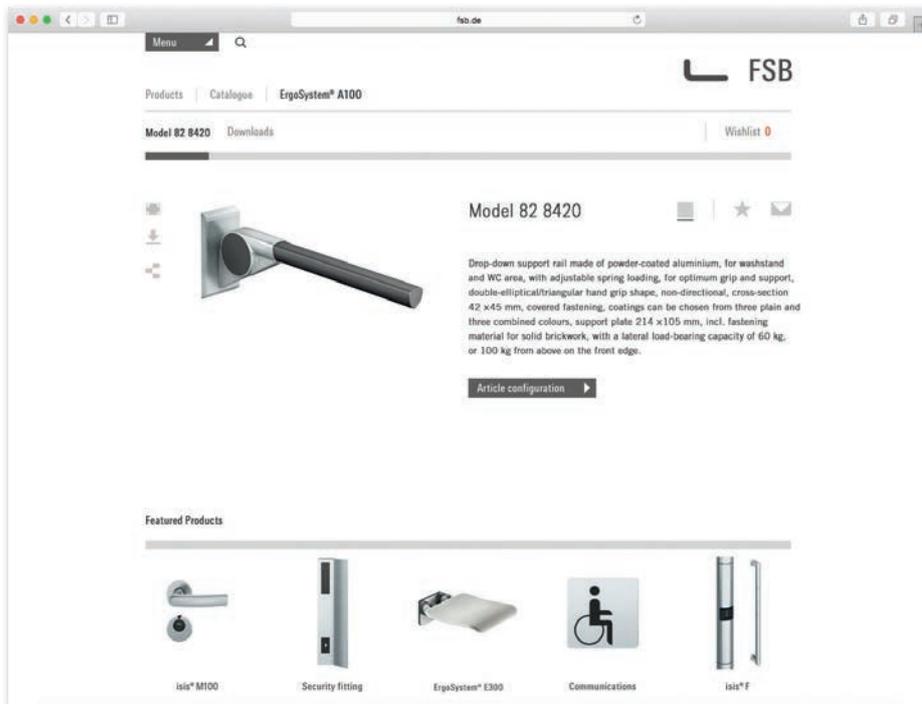


	DIN 18 040/1	DIN 18 040/2 	DIN 18 040/2
Flush with floor (no steps to be negotiated)	1500 mm deep 1500 mm wide	1500 mm deep 1500 mm wide	1200 mm deep 1200 mm wide
Subsequent installation of a bath tub	not prescribed in the public domain	must be capable of having a lifter moved	underneath
Tip-up seat	Installation height 460–480 mm, optionally shower seat 82 8243	Installation height 460–480 mm, must be retrofittable	as required
Fold-down rails	on both sides 280 mm above fold-away seat	must be retrofittable	
Grab handle	Installation height 850 mm	as required	as required
Fittings	Installation height 850–1050 mm at side, within reach when sitting	Installation height 850–1050 mm at side, within reach when sitting	as required
Contactless single-lever fittings with anti-scald feature	mandatory	recommended	recommended
For planning bathroom and WC areas in barrier-free buildings, the following standards must be ob- served:	DIN 18 040 Part 1 relates to the planning, execution and fitting-out of public-access buildings or parts thereof as well of outdoor facilities, i. e. of all structural facilities except those of a purely residential nature. This standard does not apply to schools, nursery schools or hos- pitals – these are governed by the regional building regulations. In turn, the workplace directive ap- plies to places of work.	DIN 18 040 Part 2 applies to the planning, execution and fitting-out of new rented and cooperative ac- commodation and corresponding residential facilities <b>suitable for wheel-chair users.</b>	DIN 18 040 Part 2 applies to the planning, execution and fitting-out of new, bar- rier-free rented and coop- erative accommodation and corresponding residential facilities.



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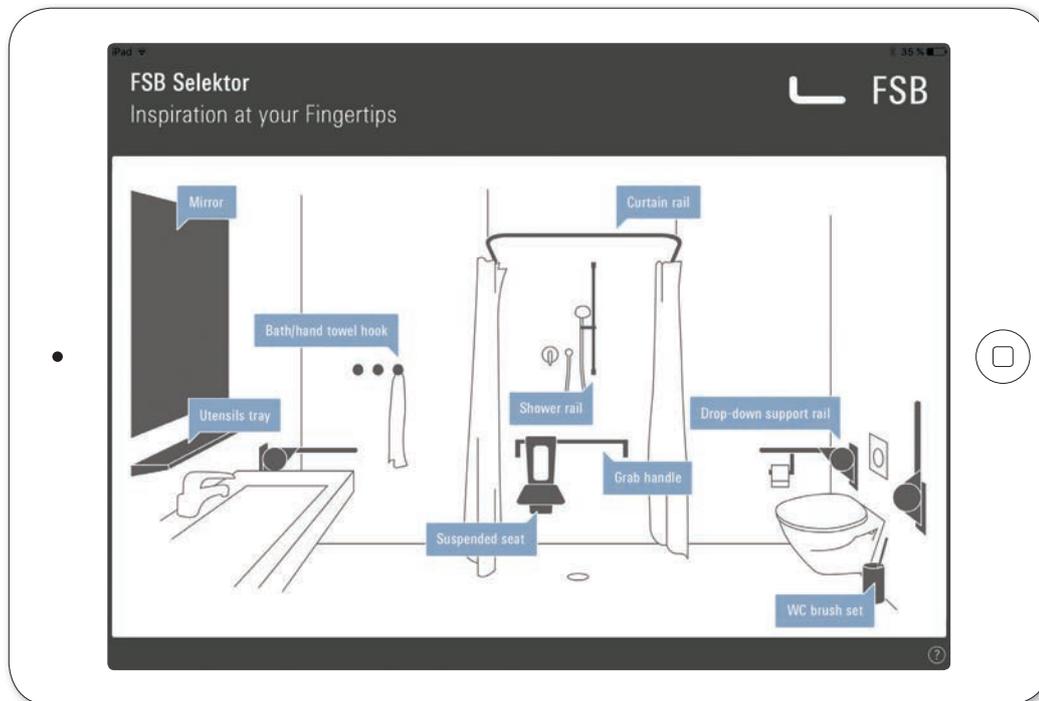
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# Inspiration always to hand: the FSB Selektor app



## Inspiration at your fingertips: [www.fsb.de/app](http://www.fsb.de/app)

Architects and builders' clients the world over count on FSB. Its range of over 25,000 products covers all aspects of graspable interfaces between people and architecture. FSB has for quite some time now been running a Digital Catalogue so as to allow the veritably limitless potential afforded by (combinations of) designs, materials, hardware types and analogue/digital access concepts to be better tapped. The new FSB Selektor supplements this online product configuration with a source of inspiration accessible anywhere, anytime.

## FSB Selektor – the app for Public Project applications

The new FSB Selektor app takes you intuitively to your goal in just four steps: Is a residential or Public Project building planned? Which rooms in what type of building are to be fitted out? Are door lever handles, window handles, a barrier-free rail-and-fitment scheme, electronic access management or biometric solutions for main entrance doors required? The FSB Selektor displays fitment proposals conforming to the relevant standards and regulations. The app makes selecting products a joy and acts as an interface with our Digital Catalogue's expanded planning functions.

# The Number One choice: ErgoSystem® + METRIC® bathroom accessories

The A100 and E300 ErgoSystems and METRIC® accessory range fit in with any bathroom and setting in their own different ways. They ensure enhanced levels of convenience without shouting about it and have impressive credentials both functionally, due to their well-conceived ergonomics, and formally, due to their restrained looks.

Handles and accessories in stainless steel or powder-coated aluminium, seat surfaces made in kind-to-the-skin PUR, a most exacting level of fabrication and a virtually unrivalled systemic depth: all this makes the ErgoSystem® the ideal solution for handicapped or elderly persons – as well as for those who simply cherish a little more convenience. Anyone looking for bathroom accessories that subtly merge with a space's design is onto a reliably tasteful thing with the METRIC® range.

Discerning customers from a variety of sectors have been won over by the system's palpable benefits and have already opted for the number one choice.

Cited alongside are a number of reference projects in which ErgoSystem® E300 has been proving its worth for years.

## Germany

- MEDIAN Hohenfeld-Kliniken Bad Camberg
- DRV Deutsche Rentenversicherung Bund, Reha-Zentrum Bad Driburg, Klinik Berlin
- Paracelsus-Krankenhaus Unterlengenhardt e.V.
- Evangelische Martinstiftung gGmbH, Bad Lippspringe
- Kliniken Main-Taunus-Kreis, Bad Soden
- DRV Deutsche Rentenversicherung Bund, Berlin
- Fürst Donnersmarck-Stiftung zu Berlin, P.A.N. Zentrum für Post-Akute-Neurorehabilitation, Berlin
- AWO Seniorenresidenz, Bexbach
- Krankenhaus Bietigheim-Bissingen
- Kath. Hospitalvereinigung Weser-Egge, Brakel, Bad Driburg, Höxter und Steinheim
- Klinikum Bremen-Mitte, Bremen
- Klinikum Bremen-Ost, Bremen
- Lukas-Krankenhaus Bünde
- BHD Seniorenwohnanlage St. Johannes, Coesfeld-Lette
- AWO Seniorenwohnstätte Dortmund-Eving
- Altenzentrum St. Antonius, Dortmund
- Franz-Hospital, Dülmen
- Marien Hospital Düsseldorf
- Service Wohnen, Düsseldorf
- Studentenwohnheime, Düsseldorf (IBS Bäder)
- Universitätsklinikum Düsseldorf
- EDI-Wohnpark, Edingen-Neckarhausen
- Marienhospital Emsdetten
- Klinik Königsfeld, Ennepetal
- Wohnheim Erwitte
- Huysenstift Kliniken Essen-Mitte
- St. Elisabeth Krankenhaus, Essen
- Universitätsklinikum Essen (AÖR)
- Universitätsklinikum Freiburg
- Theresianum Alten- und Pflegeheim, Fürstenfeldbruck
- St. Vinzenz-Haus – Marienhospital, Gelsenkirchen
- Altenpflegeheim Georgenthal
- Westf. Klinik für Psychiatrie, Gütersloh
- Seniorenzentrum Konrad-Beckhaus-Heim, Höxter
- St. Vincentius-Kliniken, Karlsruhe
- Wohnbebauung Gartenstadt Quartier Sonnengrün, Karlsruhe
- Klinikum Kirchheim-Nürtingen
- St. Vinzenz-Hospital, Köln
- Klinikum Leer
- St. Bonifatius Hospital, Lingen
- Dreifaltigkeits-Hospital, Lippstadt
- Kreiskrankenhaus Lörrach
- Klinikum Ludwigsburg
- St.-Marien-Hospital, Lünen
- Katholisches Klinikum Mainz
- LVCH-Klinik, Malente
- LWL-Wohnverbund Marl-Sinsen
- Seniorenheim St. Niklas, Mellrichstadt
- Johannes Wesling Klinikum, Minden
- St. Marien Hospital, Mülheim a. d. Ruhr
- Alexianer, Münster
- Westfälische Wilhelms-Universität, Münster
- Bettenhaus Inkelhofen, Neuwied
- St. Elisabeth Krankenhaus, Neuwied
- Integratives Senioren- und Begegnungszentrum St. Anna, Pfaffenhausen
- Seniorenheim Roth
- Panorama Fachklinik, Scheidegg/Allgäu
- Marienkrankenhaus Schwerte
- Emma-Reichle-Heim, Stuttgart
- Frauenklinik Charlottenhaus, Stuttgart
- Marienhospital, Stuttgart
- Pflegeheim Filderhof, Stuttgart-Vaihingen
- Altenwohnanlage, Thansau
- BDH-Klinik Vallendar GmbH, Fachklinik für Neurologie – Medizinisch-berufliche Rehabilitation, Vallendar
- Caritasverband für die Region Kempen-Viersen e. V.
- Krankenhaus Wangen
- AWO Seniorenresidenz St. Mattheis, Weiskirchen
- Marien-Hospital Wesel
- Westfälische Kliniken LWL: Marl, Lengerich, Münster, Bochum, Herten, Warstein

## Austria

- Krankenhaus Dornbirn
- Altenwohnheim Längenfeld
- Altenheim Lustenau

## Switzerland

- Alters- und Pflegezentrum APZ, Amriswil
- Universitätsspital Basel
- Domicil Schwabgut, Bern
- Wohn- u. Pflegeheim Flawil
- Alterszentrum Im Hof, Greifensee
- Tertianum AG Residenz Horgen
- Klinik St. Anna, Luzern
- Altersheim Sonnenberg, Reinach AG
- Roche Customer-Service Center, Rotkreuz
- Spital Schwyz
- Psychiatrisches Zentrum St. Gallen
- Pflegezentrum Linthgebiet, Uznach
- Seelandheim, Worben
- The Dolder Grand, Zürich
- Tertianum AG Residenz Zürich Enge

## Belgium

- OLV Ziekenhuis, Aalst
- Hotel B&B Maison Bousson, Brügge
- AZ Sint-Jan AV Hospital, Brügge
- RVT De 7 torentjes OCMW, Brügge
- WZC Van Zuylen, Brügge
- Hotel Thon, Brüssel
- Sainte-Anne Saint-Remi, Brüssel
- RVT Immaculata OCMW, Edegem
- Welzijnscampus, Genk
- CNRF, Fraiture
- Sint-Franciskusziekenhuis, Heusden-Zolder
- Serviceflats, Koekelare
- Alten-/Pflegeheim, RVT Wissekerke, Kruibek/Basel
- WZC Sint-Paulus, Langemark-Poelkapelle
- WZC Kapittelhof, Lommel
- Krankenhaus Sint-Vincentiusziekenhuis Campus Sint-Jozef, Mortsel/Antwerpen

## Certification exercises

All the products covered in this brochure undergo stringent quality control at the works. They have additionally been submitted to the TÜV Rheinland testing authority for appraisal and verification of their quality and safeness and certified with that body's Geprüfte Sicherheit ("Tested Safety") kite-mark. We shall be pleased to provide you with the applicable certificates if you so desire.









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