

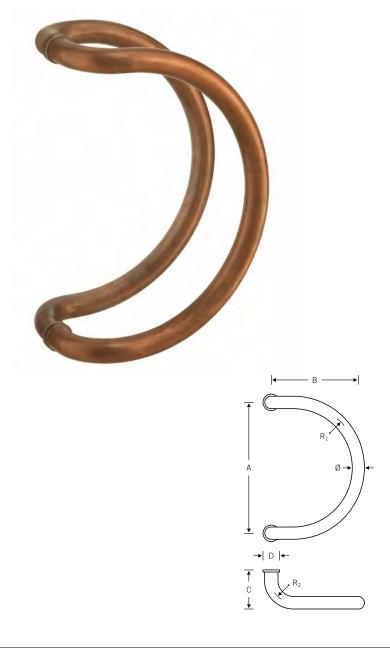
Quant.	Length overall	Bracket spacir	Bracket spacing		Edge spacing*		Fixing type
	L	A_1	A ₂	A ₃	R_1	R ₂	
				l			

^{*} min. 30 mm, max. 350 mm

Door pull round

66 6683	Product Code	А	Ø	R1	R2	В	С	D	S
	66 6673 034	200	25	100	40	140	80	35	42
	66 6673 037	300	25	150	40	190	80	35	42
	66 6673 038 66 6683 038 66 6659 038 66 6678 038	350 350 350 350	25 30 35 40	175 175 175 175	40 55 60 60	215 230 235 235	80 90 95 120	35 35 45 45	42 43 45 52

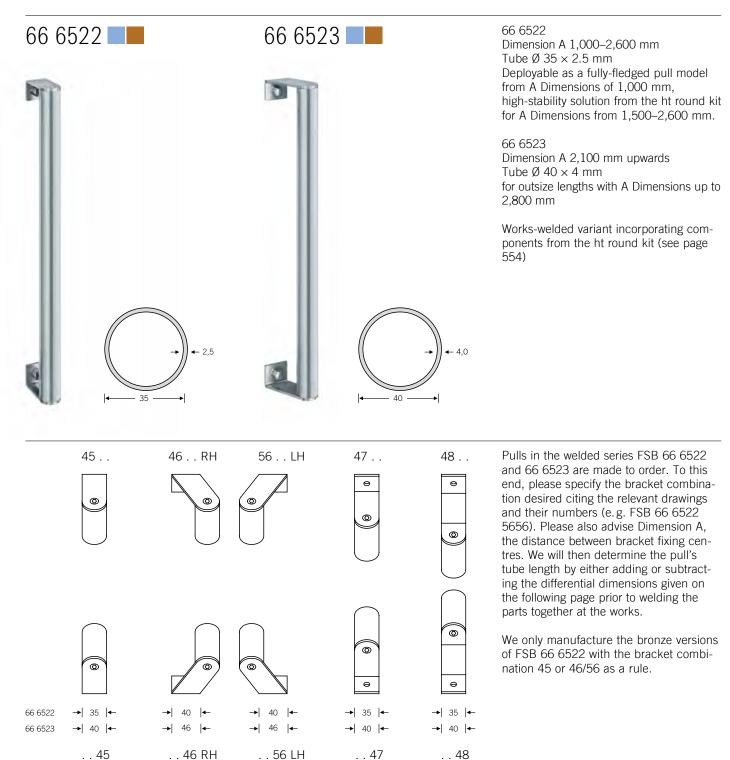
Bronze in \emptyset 30 mm (66 6683 038) only



fsb.de/666659 fsb.de/666673 fsb.de/666678 fsb.de/666683 S I Safety clearance (see page 505)

Door pulls

ht round welded



fsb.de/666522 fsb.de/666523 It is necessary when assembling ht round hardware (either oneself or using the works-welded variant) to bear structural requirements and conditions on site in mind. These handles are no substitute for gymnastic bars and must not be used as

safety barriers at hazardous building openings. If you are in any doubt, please consult the architect or structural engineer. Details of fixing methods are to be found on page 558ff.

Door pull

ht round kit system

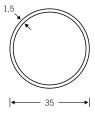


66 6801

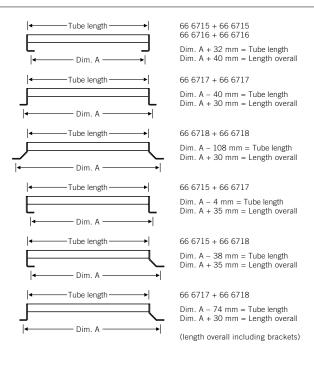


Tube Ø 35×1.5 mm Lengths up to 1,500 mm

The ht round kit system of tubes and companion brackets enables grabrail systems, handrails, safety rails etc. to be cut to size and assembled on site, using suitable tools, for A Dimensions of up to 1,500 mm. We recommend works-welded variant FSB 66 6522 for A Dimensions of 1,500 mm upwards. A further, similarly works-welded model, FSB 66 6523, is available for A Dimensions in excess of 2,100 mm (both shown on page 553).



Cut-to-size dimensions and bracket combinations:



The terms "tube length" and "Dimension A" have an important bearing on manufacturing, fixing and ordering. Dimension A defines the distance between bracket fixing centres. Tube length is arrived at by adding/subtracting the differential dimensions given alongside to/from Dimension

FSB recommends reinforcing pulls from the ht oval kit that are to be fitted to heavily frequented doors using the accessories we supply.

fsb.de/666801

It is necessary when assembling ht round hardware (either oneself or using the works-welded variant) to bear structural requirements and conditions on site in mind. These handles are no substitute for gymnastic bars and must not be used as

safety barriers at hazardous building openings. If you are in any doubt, please consult the architect or structural engineer. Details of fixing methods are to be found on page 558ff.

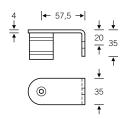
Door-pull brackets

ht round kit system

66 6715

In-line bracket, strap angled 90° inwards, to suit tube Ø 35×1.5 mm

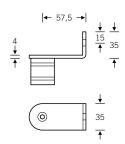




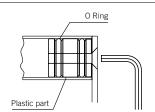
66 6717

In-line bracket, strap angled 90° outwards, to suit tube Ø 35×1.5 mm





Borehole \emptyset 8.5 mm Safety clearance S = 52 mm (see page 505)

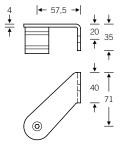


66 6716

66 6716 014 (RH) | 66 6716 015 (LH)

Bracket with 45° crank, strap angled 90° inwards, to suit tube Ø 35×1.5 mm, shown here: RH

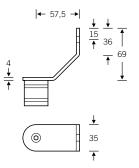




66 6718

Bracket for swing doors, to suit tube \emptyset 35 \times 1.5 mm





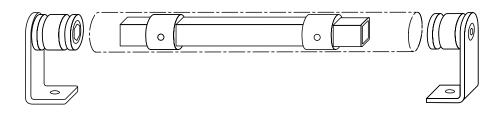
Once the tube has been cut to size (Dimension A \pm differential dimension), the expansion plugs for the brackets selected are inserted into the two ends of the tube and activated by screw action at the top.

Door-pull accessories

ht round kit system

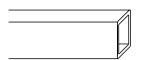
FSB recommends reinforcing pulls from the ht round kit fitted to heavily frequented doors with the aid of the accessories set out below – or, even better, opting for the works-welded variants FSB 66 6522 or 66 6523 (see page 553 f.).

How to proceed: cut steel rod to a length equal to that of the pull tube minus 100 mm. Slide spacer sleeves over the rod at intervals of 350 mm and secure. Insert the assembly into the handle and fit the hardware.



66 6801

hot galvanised hollow steel bar





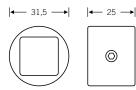
66 6801 02020

 $20 \times 20 \times 2$ mm Stock length supplied 3,000 mm

66 6719

Plastic





Spacing sleeve with securing screw

05 03..







05 0313 00880 (M8 \times 80 mm) threaded stud

05 0316 00840 (M8) headless wood screw

05 0320 00800 (M8) Stainless Steel dome nut

fsb.de/666801 fsb.de/666719

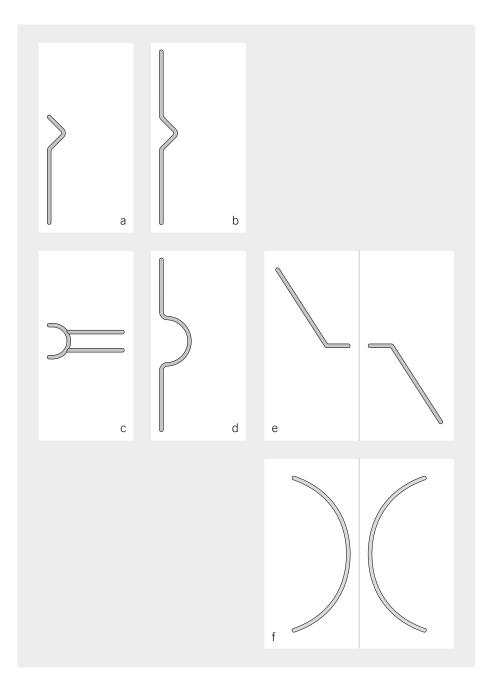
fsb.de/050313

fsb.de/050316

fsb.de/050320

Illustrative configurations

Round door-pull series



The sketches of pull configurations in Stainless Steel shown alongside are designed to serve as stimuli for architects, planners, designers, retailers and builders' clients.

Please always advise type of door, its material and thickness when requesting quotes. Accurately dimensioned drawings are essential for both quoting and manufacturing purposes.

For handing details, see page 266 f.

Fixing FSB door pulls

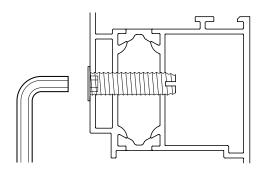
with self-tapping threaded insert



FSB's self-tapping threaded insert technology offers a practice-oriented and, at the same time, enhanced solution for the concealed face-fixing of door pulls to wooden, Aluminium and plastic doors that additionally guarantees a far more effective absorption of tensile forces by the door stile.

Self-tapping threaded inserts 34/45/58 mm in length are used depending on the door thickness or type of stile.

As it is inserted, the self-tapping thread creates an ideal connection between door stile and self-tapping insert with comparatively low tolerances that ensures even and effective positive locking – assuming a hole of 12.5 mm in diameter for wooden doors and 13 mm in diameter for metal and plastic doors has been accurately drilled.



First step

Mechanically or manually drill holes with a diameter of 12.5 mm (wooden doors) or 13 mm (metal and plastic doors) to accommodate FSB's self-tapping threaded inserts.

Second step

The self-tapping inserts are then screwed into place using an 8 mm Allen key. FSB recommends using an Allen key with a handle, as this offers the best possible application of the requisite forces. The grub screw supplied is fastened once the insert is flush with the stile.



Third step

The pull can now be secured at these fixing points.

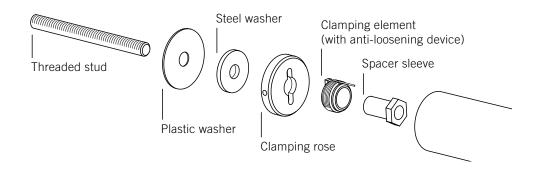
Fixing FSB door pulls

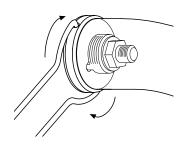
with clamping roses



FSB's clamping-rose fixing method enables pulls to be tightened fast against the surface of the door. The visible fixing screws otherwise required are done away with.

All door pulls with a round shank are supplied as female parts with anticlockwise internal threads measuring $18 \times 1.5 \text{ mm}$ (M8 fixing) or 14×1.5 mm (M6 fixing). The clamping rose fixing elements - plastic washer, steel washer, (non-loosening) clamping element, clamping rose and spacer sleeve – are securely held together by a plastic screw plug and pre-assembled at the end of the handle. FSB's clamping-rose fixing technique allows all FSB door pulls with round shanks to be tightened fast against any door face by means of an easy-to-assemble clamping rose. The radial play engineered into the assembly by FSB ensures the requisite compensatory tolerances during fitting. Installation is as follows:





First step

First, the threaded stud over which the clamping elements are to be fitted is passed through the door. This sequence is geared towards "back-to-back fixing", "bolt through-fixing" and "face-fixing with a self-tapping threaded insert".

Second step

The clamping elements are then removed from the pull ends by turning them anti-clockwise. Plastic washer, steel washer, clamping rose and clamping element are now removed from their plastic retainer and slotted over the threaded stud in that order. The spacer sleeve is used to screw the individual components to together, the clamping element and clamping rose remaining free to rotate.

Third step

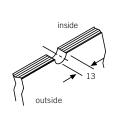
Finally, the pull is positioned over the fixing points and attached firmly to the surface of the door by alternately rotating the clamping roses in a clockwise direction.

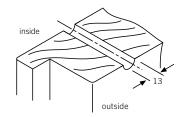
The turning tool for the FSB clamping rose forms part of the product supplied.

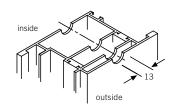
Drilling dimensions

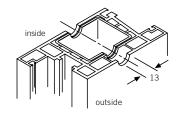
Glass doors Timber doors Metal doors Plastic doors

Fixings, see A

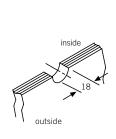


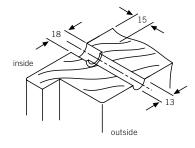


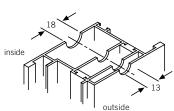


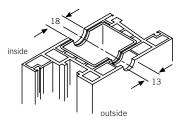


Fixings, see B

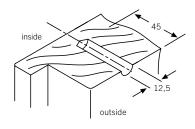


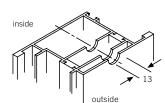


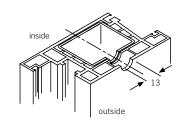


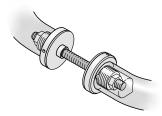


Fixings, see C

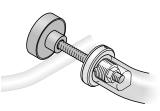












Fixing B bolt through-fixing: 05 0580, 05 0587



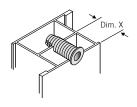
Fixing C face-fixing with threaded insert: all products

Door pull

66 6635

It should be borne in mind when selecting and ordering pulls and fixing methods that the handles in this series are manufactured as threaded and through-fixing components respectively.

Fixing type	Fixing accessories	Product Code	
back to back	2 M8 cheese-head screws 4 Plastic washers	05 0582 01008 Glass door	8 – 10 mm
	2 Handle caps in Stainless Steel	05 0582 03038 05 0582 03045 05 0582 03050 05 0582 03055 05 0582 03060 05 0582 03065 05 0582 03070 05 0582 03075	38 – 44 mm 45 – 49 mm 50 – 54 mm 55 – 59 mm 60 – 64 mm 65 – 69 mm 70 – 74 mm 75 – 79 mm
 ,	Boreholes Ø 13 mm	05 0582 03080	80 – 84 mm
bolt through-fixing	 2 M8 countersunk screws 4 Plastic washers 2 Fixing discs with Stainless Steel cover caps Boreholes Ø 13 mm	05 0582 02008 Glass door 05 0582 04038 05 0582 04045 05 0582 04050 05 0582 04055 05 0582 04060 05 0582 04065 05 0582 04070 05 0582 04075 05 0582 04080	8 – 10 mm 38 – 44 mm 45 – 49 mm 50 – 54 mm 55 – 59 mm 60 – 64 mm 65 – 69 mm 70 – 74 mm 75 – 79 mm 80 – 84 mm
face-fixing with threaded insert	 2 M8 cheese-head screws 2 Plastic washers 2 Self-tapping threaded inserts in hardened galvanised steel 2 Handle caps in Stainless Steel 	05 0582 00335 Dimension X Plug length 05 0582 00336 Dimension X Plug length 05 0582 00337 Dimension X Plug length	10 – 30 mm 38 mm 10 – 41 mm 45 mm 10 – 54 mm 58 mm
	Boreholes Ø 12.5 mm (timber), Ø 13 mm (metal/plastic doors)		



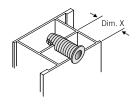
Dimension X = Cavity dimension

Door pulls round M8 66 6506, 66 6507, 66 6514, 66 6531, 66 6532, 66 6533, 66 6534, * different fixing method for 66 6535, 66 6536, 66 6537, 66 6538*, 66 6540, 66 6541, 66 6542, Fingerscan 66 6546, 66 6580, 66 6582, 66 6583, 66 6602, 66 6603, 66 6604, 66 6606, 66 6607, 66 6609, 66 6623, 66 6624, 66 6625, 66 6630, 66 6650, 66 6652, 66 6653, 66 6655, 66 6659, 66 6661, 66 6662, 66 6663, 66 6664, 66 6669, 66 6670, 66 6673, 66 6678, 66 6679, 66 6681, 66 6683 Fixing type Fixing accessories **Product Code** back to back 2 M8 threaded studs 05 0580 01008 Glass door 8 - 10 mm 05 0580 03035 35 - 54 mm 05 0580 03055 55 – 74 mm 05 0580 03075 75 - 94 mm 山 05 0580 03095 95 -114 mm Boreholes Ø 13 mm bolt through-fixing 2 M8 threaded studs Handle diameter 25/30 mm 2 fastening nuts with cover 05 0580 02308 caps 8 – 10 mm Glass door 05 0580 04335 35 – 44 mm ⋣ 05 0580 04345 45 – 54 mm 55 - 64 mm 05 0580 04355 05 0580 04365 65 – 74 mm 05 0580 04375 75 - 84 mm Handle diameter 35/40 mm 05 0580 02408 8 - 10 mmGlass door 05 0580 04435 35 – 44 mm 05 0580 04445 45 - 54 mm 05 0580 04455 55 - 64 mmBoreholes Ø 13/18 mm, 05 0580 04465 65 - 74 mm 05 0580 04475 75 – 84 mm see page 560 face-fixing with threaded insert 2 M8 threaded studs 05 0580 00335 2 self-tapping threaded inserts Dimension X 10 - 30 mm in hardened galvanised steel Plug length 38 mm 05 0580 00336 10 - 41 mmDimension X Plug length 45 mm FI 山 05 0580 00337 10 - 54 mm Dimension X 58 mm Plug length Boreholes Ø 12.5 mm (timber), Ø 13 mm (metal/plastic doors)

Door pulls round M6

66 6610, 66 6611, 66 6612, 66 6613

Fixing type	Fixing accessories	Product Code
back to back	2 M6 threaded studs	05 0580 01208 Glass door 8 – 10 m
		05 0580 03235 35 – 54 m 05 0580 03255 55 – 74 m 05 0580 03275 75 – 94 m
	Boreholes Ø 13 mm	
bolt through-fixing	2 M6 threaded studs 2 fastening nuts with cover	Handle diameter 20/25 mm
	caps	05 0580 02208 Glass door 8 – 10 m
	Boreholes Ø 13/18 mm, see page 560	05 0580 04235 35 – 44 m 05 0580 04245 45 – 54 m 05 0580 04255 55 – 64 m 05 0580 04265 65 – 74 m 05 0580 04275 75 – 84 m
face-fixing with threaded insert	2 M6 threaded studs2 self-tapping threaded inserts in hardened galvanised steel	05 0580 00435 Dimension X 10 – 30 m Plug length 38 m 05 0580 00436
		Dimension X 10 – 41 m Plug length 45 m 05 0580 00437 Dimension X 10 – 54 m
	Boreholes Ø 12.5 mm (timber), Ø 13 mm (metal/plastic doors)	Plug length 58 m

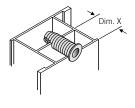


Dimension X = Cavity dimension

Door pulls

66 6615, 66 6616, 66 6674, 66 6675

	Fixing type	Fixing accessories	Product Code	
	back to back	2 M8 countersunk screws with M8 cap nuts in Stainless Steel	05 0583 01008 Glass door	8 – 10 mm
		4 Plastic washers	05 0583 03034 05 0583 03044 05 0583 03054 05 0583 03064 05 0583 03074	34 – 43 mm 44 – 53 mm 54 – 63 mm 64 – 73 mm 74 – 83 mm
<u> </u>	//	Boreholes Ø 13 mm		
	bolt through-fixing	2 M8 countersunk screws with M8 cap nuts in Stainless Steel	05 0583 02008 Glass door	8 – 10 mm
		2 Stainless Steel washers 4 Plastic washers	05 0583 04036 05 0583 04046 05 0583 04056 05 0583 04066 05 0583 04076	36 – 45 mm 46 – 55 mm 56 – 65 mm 66 – 75 mm 76 – 85 mm
		Boreholes Ø 13 mm		
	face-fixing with threaded insert	2 M8 countersunk screws in Stainless Steel 2 self-tapping threaded inserts in hardened galvanised steel 2 Plastic washers	05 0583 00335 Dimension X Plug length 05 0583 00336 Dimension X Plug length	10 – 30 mm 38 mm 10 – 41 mm 45 mm
		Boreholes Ø 12.5 mm (timber), Ø 13 mm (metal/plastic doors)	05 0583 00337 Dimension X Plug length	10 – 54 mm 58 mm

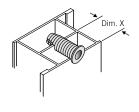


Dimension X = Cavity dimension

Door pulls and push-pull pad handles

61 6108, 61 6186, 61 6187, 61 6188, 61 6190, 61 6191, 61 6192, 61 6193, 66 6519, 66 6520, 66 6526, 66 6548

Fixing type	Fixing accessories	Product Code	
back to back	2 M8 threaded studs	05 0587 01008 Glass door	8 – 10 mm
		05 0587 03035 05 0587 03055 05 0587 03075	35 – 54 mm 55 – 74 mm 75 – 94 mm
	Boreholes Ø 13 mm		
bolt through-fixing	2 M8 threaded studs 2 fastening nuts with cover caps	05 0587 02308 Glass door	8 – 10 mm
	сарз	05 0587 04335 05 0587 04345 05 0587 04355 05 0587 04365 05 0587 04375	35 – 44 mm 45 – 54 mm 55 – 64 mm 65 – 74 mm 75 – 84 mm
	Boreholes Ø 13/18 mm, see page 560		
face-fixing with threaded insert	2 M8 threaded studs 2 self-tapping threaded inserts in hardened galvanised steel	05 0587 00335 Dimension X Plug length 05 0587 00336 Dimension X Plug length 05 0587 00337 Dimension X	10 – 30 mm 38 mm 10 – 41 mm 45 mm 10 – 54 mm 58 mm
	Boreholes Ø 12.5 mm (timber), Ø 13 mm (metal/plastic doors)	Plug length	oc

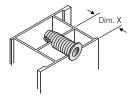


Dimension X = Cavity dimension

Door pulls and push-pull pad handles

61 6112, 66 6642, 66 6643

Fixing type	Fixing accessories	Product Code	
back to back	2 M6 threaded studs	05 0580 01208 Glass door	8 – 10 mm
		05 0580 03235 05 0580 03255 05 0580 03275	35 – 54 mm 55 – 74 mm 75 – 94 mm
	Boreholes Ø 13 mm		
bolt through-fixing	2 M6 threaded studs 2 fastening nuts with cover	05 0580 02208 Glass door	8 – 10 mm
	caps	05 0580 04235 05 0580 04245 05 0580 04255 05 0580 04265 05 0580 04275	35 – 44 mm 45 – 54 mm 55 – 64 mm 65 – 74 mm 75 – 84 mm
	Boreholes Ø 13/18 mm, see page 560		
face-fixing with threaded insert	2 M6 threaded studs 2 self-tapping threaded inserts	05 0580 00435 Dimension X	10 – 30 mm
	in hardened galvanised steel	Plug length	38 mm
	Boreholes Ø 12.5 mm (timber), Ø 13 mm (metal/plastic doors)		



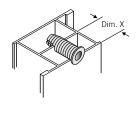
Dimension X = Cavity dimension

Door-pull series

ht oval kit ht round kit

66 6522, 66 6523, 66 6524, 66 6527, 61 6254, 61 6268

Fixing type	Fixing accessories	Product Code	
back to back	2 M8 threaded studs 4 M8 cap nuts in Stainless Steel 4 Plastic washers Boreholes Ø 13 mm	05 0585 03035 05 0585 03040 05 0585 03045 05 0585 03050 05 0585 03055 05 0585 03060 05 0585 03065 05 0585 03070 05 0585 03075 05 0585 03080	35 – 39 mm 40 – 44 mm 45 – 49 mm 50 – 54 mm 55 – 59 mm 60 – 64 mm 65 – 69 mm 70 – 74 mm 75 – 79 mm 80 – 84 mm
bolt through-fixing	2 M8 threaded studs 2 M8 cap nuts in Stainless Steel 2 M8 cap nuts with Stainless Steel washers 4 Plastic washers Boreholes Ø 13 mm	05 0585 02035 05 0585 02045 05 0585 02055 05 0585 02065 05 0585 02075	35 – 44 mm 45 – 54 mm 55 – 64 mm 65 – 74 mm 75 – 84 mm
face-fixing with threaded insert	2 M8 threaded studs 2 M8 cap nuts in Stainless Steel 2 self-tapping threaded inserts in hardened galvanised steel 2 Plastic washers Boreholes Ø 12.5 mm (timber), Ø 13 mm (metal/plastic doors)	05 0585 00335 Dimension X Plug length 05 0585 00336 Dimension X Plug length 05 0585 00337 Dimension X Plug length	10 – 30 mm 38 mm 10 – 41 mm 45 mm 10 – 54 mm 58 mm



Dimension X = Cavity dimension

Lever-handle AGL® half-sets

with positive mechanism

70 1015



70 1015 00504(RH) | 70 1015 00505(LH)

round rose 8 mm square hole Model FSB 1015

70 1023



70 1023 00504(RH) | 70 1023 00505(LH)

round rose 8 mm square hole Model FSB 1023

70 1070



70 1070 00504(RH) | 70 1070 00505(LH)

round rose 8 mm square hole Model FSB 1070

70 1076



70 1076 00504(RH) | 70 1076 00505(LH)

round rose 8 mm square hole Model FSB 1076

70 1108



70 1108 00504(RH) | 70 1108 00505(LH)

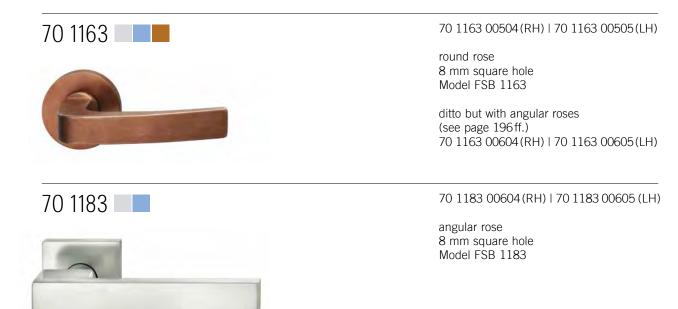
round rose 8 mm square hole Model FSB 1108

Stylistically similar model with arching grip: FSB 1107, see page 162ff.

fsb.de/701015 fsb.de/701023 fsb.de/701070 fsb.de/701076 fsb.de/701108 Lever handles with AGL® technology for face-fixing to front doors, with rugged base and positive mechanism. The requisite half-spindles 05 0115 and 05 0116 are to be found on page 764.

Lever-handle AGL® half-sets

with positive mechanism



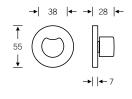
Further models are to be found in Section 3a

with round roses 70 1075 0050. (see page 138f.) and 70 1146 0050. (see page 180ff.) with angular roses 70 1003 0060. (see page 86f.) and 70 1004 0060. (see page 88ff.)

all with 8 mm square hole



03 0418

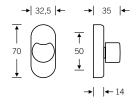


03 0418 00208

8 mm square hole Standard spindle projection 40 mm, custom spindle projections possible

Easy-action thumbturn on round rose with concealed face-fixing for use on multipoint locking systems





03 0418 003

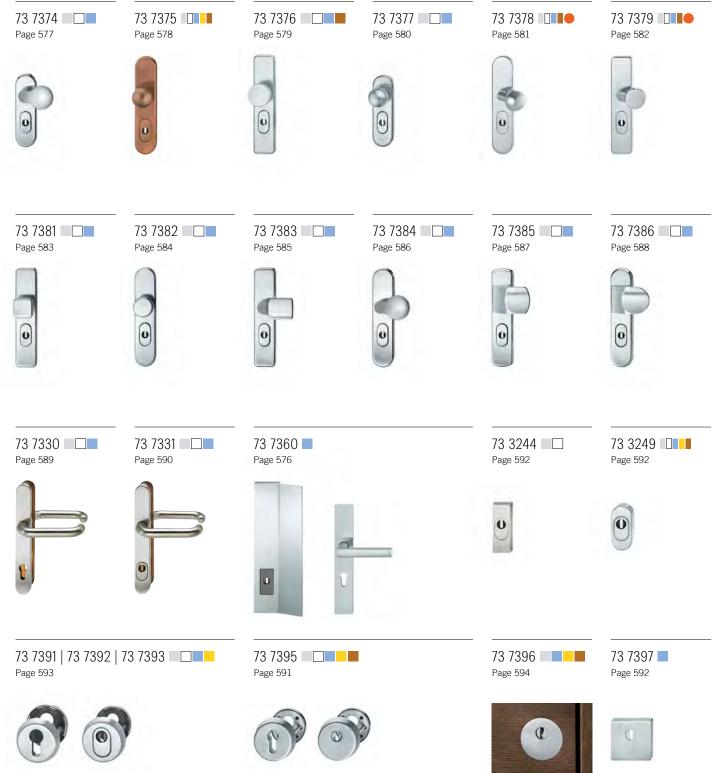
8 mm square hole Standard spindle projection 40 mm, custom spindle projections possible

fsb.de/701163 fsb.de/701183 fsb.de/030418 Lever handles with AGL® technology for face-fixing to front doors, with rugged base and positive mechanism. The requisite half-spindles 05 0115 and 05 0116 are to be found on page 764.

574	Design + Security	5b
	Security fittings	
589	Security fittings for	
	narrow stile doors	
591	Security roses	
594	Security rose, flush fit	



Is your front door open to new experiences? Anyone who thinks security hardware invariably comprises a knob and backplate has yet to encounter FSB purism at its most alluring: FSB 73 7360 is a sculpture of folded Stainless Steel plate 5 mm thick that boasts a most cohesive visual identity. Gone are the days when the best design was reserved for the highest security rating. FSB has turned the tables by making Security Classes 2 and 4 compatible with all security fittings in its "Design + Security" series — or, in wholly democratic vein, by opening up the technology of test winner FSB 73 7376 to all pockets.



Technical information

Design + Security

Criminal statistics indicate that doors and windows are popular means of gaining access to buildings. This is why police advice centres and insurance companies recommend adequately securing doors and windows.

The sector has adapted to market requirements. Standards have been developed to help all concerned find their bearings:

The German Industry Standard for burglarproof windows, doors and additional locks (DIN 18103) and the German Industry Standard for building hardware and security hardware, terms, dimensions, requirements, tests and labels (DIN 18257).

EN 1906 and DIN EN 1627-1630 were drafted in tandem.

FSB's security hardware range in the "Design + Security" series saves architects, interior designers, carpenters and consumers from having to deal with the complicated issue of security technology. A decision is first made on the grounds of taste (design) and then of reason (the need for security), which is precisely why we call the scheme "Design + Security". All anyone opting for this solution has to do after choosing their design is decide whether Class 2 or Class 4 technical security is right for them. FSB then installs the security technology desired into the relevant design package.

Gone are the days when the lowest security class meant having to make do with the most basic design, while the best design was reserved for the highest class. FSB has rejigged the process. Only once the design has been chosen is it time to bring in the technical expert and then choose the desired security rating.

FSB's design offering is laid out clearly and comprehensively on the pages that follow. Browse through at your leisure, then choose whichever design takes your fancy. Next to your design you will find a set of technical questions; all you have to do is tick the ones that apply to you. It couldn't be simpler. For the technically inquisitive, we provide the low-down on the two security classes overleaf.

Stiftung Warentest, Germany's product testing organisation, thoroughly checked door locks for its "test" magazine. The test items included FSB 73 7376. This was accorded a dazzling total rating of 1.8, becoming the overall winner of the backplates group (Security Class 2/ES1-L-ZA). The testers felt it was important that lock, lock cylinder and backplate form a single unit. The latter component makes it more difficult to unscrew, break, pull off or smash through the lock cylinder. It also has to be firmly screwed from the inside and made of a solid material. None of which is a problem for FSB 73 7376: the level of burglary resistance resulting from these factors won it a rating of 1.4. What makes this result even more remarkable is that our Security Class 2 fitting achieved even better results than another company's design with a Class 3 security rating.

The security credentials of FSB 73 7376 are shared by all other models in the "Design+Security" range owing to the modular nature and standardised laminar configuration of Design+Security fittings.

FSB security hardware is supplied for the following door thicknesses as standard:

Room doors 40–42 mm House doors 67–69 mm FS doors 53–57 mm

Approved round and square roses with an ES 1 security rating are likewise available for entrance doors equipped with a pull and an armoured rose.

- round armoured roses 12.5 to 16.5 mm high of an open-keyway type
- round armoured roses 12.5 to 16.5 mm high with cylinder guards (ZA)
- round armoured roses 12.5 mm high with cylinder guards (ZA), prepared for flush fitting

Bandit-resistant builder's hardware (not tested to DIN 18257/EN 1906) is designed in such a manner as to put potential burglars off altogether or at the very least to considerably hold them up. FSB supplies the following product solutions of this kind:

- · rectangular and oval roses 16 mm high with cylinder guards (ZA)
- · rectangular and oval adhesive and clip-on roses 3, 7 and 9 mm high





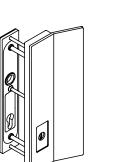




With its new 73 7360 security fitting, FSB has grafted a wholly new design concept onto its proven security technology.

The security hardware blueprint tabled by FSB's in-house designer Hartmut Weise exudes a radical purism quite at odds with received formal notions: he uses stainless steel 5 mm thick to create a sculpture of folded surfaces that makes no concessions whatsoever to the door.

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Security Class 2 as per EN 1906 open-keyway type

ES-1 K DIN 18257 reg. no. 4X078 ES-1 L DIN 18257 reg. no. 4X076 Strength of backplates 10 kN max. flexion ≤ 5 mm Tensile strength of fixing 15 kN max. deformation ≤ 5 mm Drill resistance 30 s Chisel test resistance 3 strikes

Security Class 2 as per EN 1906 with cylinder guard (ZA)

ES-1 K-ZA DIN 18257 reg. no. 4X077 ES-1 L-ZA DIN 18257 reg. no. 4X079

 $\begin{array}{lll} \text{Strength} & 10 \text{ kN} \\ \text{max. flexion} & \leq 5 \text{ mm} \\ \text{Tensile strength of fixing} & 15 \text{ kN} \\ \text{max. deformation} & \leq 5 \text{ mm} \\ \text{Drill resistance} & 30 \text{ s} \\ \text{Chisel test resistance} & 3 \text{ strikes} \\ \text{Strength of ZA} & 10 \text{ kN} \\ \end{array}$

Security Class 4 as per EN 1906 with cylinder guard (ZA)

ES-3 L-ZA DIN 18257 reg. no. 4X081

 $\begin{array}{lll} \text{Strength} & 20 \text{ kN} \\ \text{max. flexion} & \leq 5 \text{ mm} \\ \text{Tensile strength of fixing} & 30 \text{ kN} \\ \text{max. deformation} & \leq 5 \text{ mm} \\ \text{Drill resistance} & 5 \text{ min} \\ \text{Chisel test resistance} & 12 \text{ strikes} \\ \text{Strength of ZA} & 20 \text{ kN} \\ \end{array}$

Any of the design options with full-length backplate or either of two forms of shorter backplate can be selected for Security Class 2 hardware in the open-keyway (figs. 1+2) or cylinder-guard (ZA) variants (fig. 3).

For the inside of the door, FSB supplies a rose variant in this security class in addition to its backplate options.

Security Class 4 hardware is only obtainable with full-length backplates owing to the exacting demands placed upon it.

Security concept Modular multi-layer technique

FSB had recourse to the modular multilayer technique it had developed in-house when design-engineering its "Design + Security" fittings package. This is a technique that has proved its worth time and time again in practical use, and has in fact become the industry standard.

The level of security laid down in the standards is increased from one security class to the next by replacing and adding materials.







3

Design + Security







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Security fittingsDesign + Security

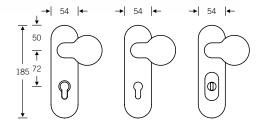
73 7374

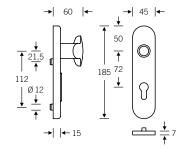


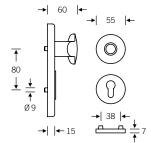


Order details	Standard Fire safety (FS)	□ 73 7374 □ 73 7574		
Type of furnitur	e	☐ Entrdoor	☐ Lever set*	
Inside hardwar	e	☐ Backplate	□ Roses	
Security Class	of backplate furn.	□ S2 □ S2 □ S2-ZA	11 mm 15 mm 8 – 15 mm	
Security Class	of rose furn.	□ S2-ZA	8 – 15 mm	
Handing of furi	niture	☐ Ins. lever handle pointing to right ☐ Ins. lever handle pointing to left		
Furniture to su	it door thickness	mm		
PC centres		□ 72 mm		
Square spindle		□ 8 mm □ 9 mm		
Material/colour	Aluminium (AL) Alu + Colour (AF) Stainless Steel (ER)	□ 01 □ white □ 6204	□ □ □ 6205	
		Quantity ordered	sets	

Lever-handle models by material: FSB 1107 (Aluminium, Alu + Colour, Stainless Steel)









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Design + Security

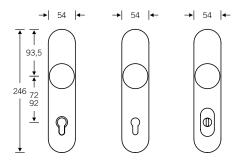


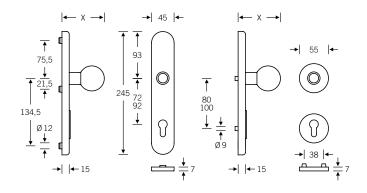
Order details	Standard Fire safety (FS)	☐ 73 7375 ☐ 73 7575		
Type of furnitur	e	☐ Entrdoor		
Inside hardward	e	☐ Backplate	□ Roses	
Security Class of	of backplate furn.	□ S2 □ S2 □ S2-ZA □ S4-ZA	11 mm 15 mm 8 – 15 mm 8 – 15 mm	
Security Class	of rose furn.	□ S2-ZA	8 – 15 mm	
Handing of furr	niture	☐ Ins. lever handle pointing to right ☐ Ins. lever handle pointing to left		
Furniture to sui	it door thickness	mm		
PC centres	☐ 72 mm ☐ 78 mm, RC 22.4 ☐ 72 mm	□ 88* mm mm*	□ 92 mm	
Square spindle	□ 8 mm	□ 8.5* mm	□ 10 mm	
	□ 9 mm			
Material/colour		□ 01 □ white □ 6204 □ 7615	□ □ □ 6205 □ 7625	

Lever-handle models by material:

FSB 1107 (Aluminium, Alu + Colour, Stainless Steel)

FSB 1023 (Bronze, Brass)







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* S2-ZA only

Dim. X: 85 mm (Aluminium, Alu + Colour) 80 mm (Stainless Steel, Bronze)

Brass not as FS variant and only in S2-ZA



Ju

Security fittings

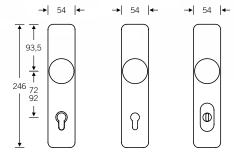
Design + Security

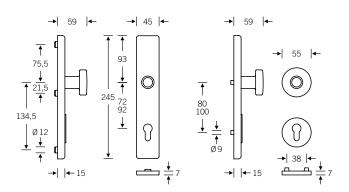




Oudou dataila			
Order details	Standard Fire safety (FS)	□ 73 7376 □ 73 7576	
Type of furniture	e	☐ Entrdoor	
Inside hardware	9	☐ Backplate	☐ Roses
Security Class of	of backplate furn.	□ S2 □ S2 □ S2-ZA □ S4-ZA	11 mm 15 mm 8 – 15 mm 8 – 15 mm
Security Class of	of rose furn.	□ S2-ZA	8 – 15 mm
Handing of furn	niture	☐ Ins. lever hand☐ Ins. lever hand☐	le pointing to right le pointing to left
Furniture to sui	t door thickness	mm	
PC centres	☐ 72 mm ☐ 78 mm, RC 22.4	□ 88* mm mm*	□ 92 mm
PC centres Square spindle	☐ 78 mm, RC 22.4 ☐ 72 mm		□ 92 mm □ 10 mm
Square spindle	☐ 78 mm, RC 22.4 ☐ 72 mm	mm*	

Lever-handle models by material: FSB 1107 (Aluminium, Alu + Colour, Stainless Steel) FSB 1023 (Bronze)







fsb.de/737376



Security fittingsDesign + Security

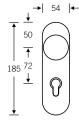
73 7377

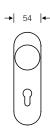


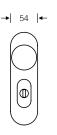


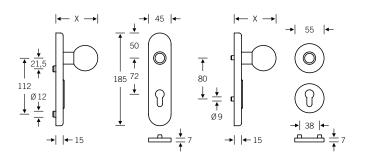
Order details	Standard Fire safety (FS)	□ 73 7377 □ 73 7577	
Type of furniture		☐ Entrdoor	
Inside hardware		☐ Backplate	□ Roses
Security Class of backplate furn.		□ S2 □ S2 □ S2-ZA	11 mm 15 mm 8 – 15 mm
Security Class of rose furn.		□ S2-ZA	8 – 15 mm
Handing of furniture		☐ Ins. lever handle pointing to right ☐ Ins. lever handle pointing to left	
Furniture to sui	t door thickness	mm	
PC centres		□ 72 mm	
Square spindle		□ 8 mm □ 9 mm	
Material/colour	Aluminium (AL) Alu + Colour (AF) Stainless Steel (ER)	□ 01 □ white □ 6204	□ □ □ 6205
		Quantity ordered	sets

Lever-handle models by material: FSB 1107 (Aluminium, Alu + Colour, Stainless Steel)











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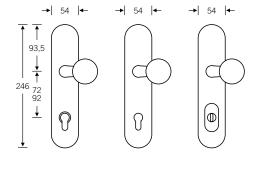
Dim. X: 85 mm (Aluminium, Alu + Colour) 80 mm (Stainless Steel)

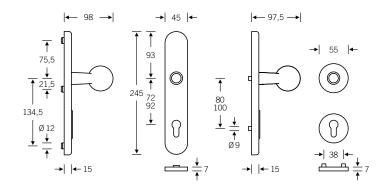
Design + Security



Order details	Standard Fire safety (FS)	□ 73 7378 □ 73 7578	
Type of furniture		☐ Entrdoor	
Inside hardware		☐ Backplate	□ Roses
Security Class of backplate furn.		□ S2 □ S2 □ S2-ZA □ S4-ZA	11 mm 15 mm 8 – 15 mm 8 – 15 mm
Security Class of rose furn.		□ S2-ZA	8 – 15 mm
Handing of furniture		☐ Ins. lever hand☐ Ins. lever hand☐	le pointing to right le pointing to left
Furniture to sui	t door thickness	mm	
PC centres	☐ 72 mm ☐ 78 mm, RC 22.4 ☐ 72 mm	□ 88* mm mm*	□ 92 mm
Square spindle	□ 8 mm □ 9 mm	□ 8.5* mm	□ 10 mm
Material/colour	Aluminium (AL) Alu + Colour (AF) Stainless Steel (ER) Bronze	□ 01 □ white □ 6204 □ 7615	□ □ □ 6205 □ 7625
		Quantity ordered	sets

Lever-handle models by material: FSB 1107 (Aluminium, Alu + Colour, Stainless Steel) FSB 1023 (Bronze)





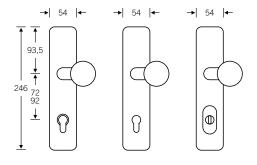


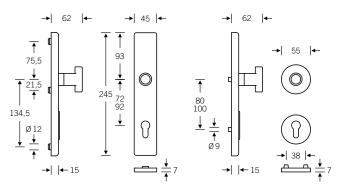
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Design + Security









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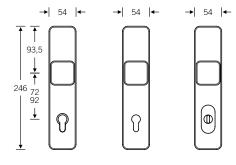


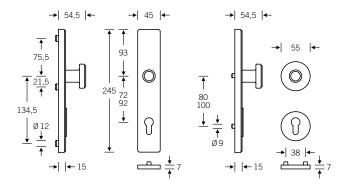
Design + Security



Order details	Standard Fire safety (FS)	☐ 73 7381 ☐ 73 7581 (Stainle	ess Steel only)
Type of furniture		☐ Entrdoor	☐ Lever set*
Inside hardware		☐ Backplate	□ Roses
Security Class of	of backplate furn.	□ \$2 □ \$2 □ \$2-ZA □ \$4-ZA	11 mm 15 mm 8 – 15 mm 8 – 15 mm
Security Class of rose furn.		□ S2-ZA	8 – 15 mm
Handing of furniture		☐ Ins. lever handle pointing to right ☐ Ins. lever handle pointing to left	
Furniture to sui	t door thickness	mm	
PC centres	☐ 72 mm ☐ 78 mm, RC 22.4 ☐ 72 mm	□ 88* mm mm*	□ 92 mm
Square spindle	□ 8 mm □ 9 mm	□ 8.5* mm	□ 10 mm
Material/colour	Aluminium (AL) Alu + Colour (AF) Stainless Steel (ER)	□ 01 □ white □ 6204	□ □ □ 6205
		Quantity ordered	sets

Lever-handle models by material: FSB 1107 (Aluminium, Alu + Colour, Stainless Steel)







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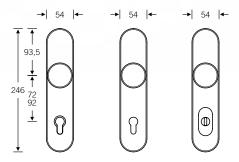
Security fittingsDesign + Security

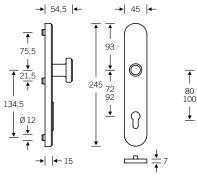
73 7382

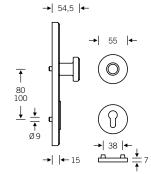


	Standard Fire safety (FS)	☐ 73 7382 ☐ 73 7582 (Stainle	ess Steel only)
Type of furniture		☐ Entrdoor	☐ Lever set*
Inside hardware		☐ Backplate	□ Roses
Security Class of	backplate furn.	□ \$2 □ \$2 □ \$2-ZA □ \$4-ZA	11 mm 15 mm 8 – 15 mm 8 – 15 mm
Security Class of	rose furn.	□ S2-ZA	8 – 15 mm
Handing of furniture		☐ Ins. lever handle pointing to right ☐ Ins. lever handle pointing to left	
Furniture to suit	door thickness	mm	
	□ 72 mm □ 78 mm, RC 22.4 r □ 72 mm	□ 88* mm mm*	□ 92 mm
Square spindle	□ 8 mm □ 9 mm	□ 8.5* mm	□ 10 mm
	Aluminium (AL) Alu + Colour (AF) Stainless Steel (ER)	□ 01 □ white □ 6204	□ □ □ 6205
		Quantity ordered	sets

Lever-handle models by material: FSB 1107 (Aluminium, Alu + Colour, Stainless Steel)





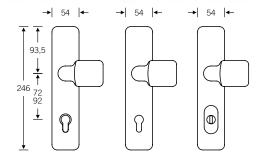


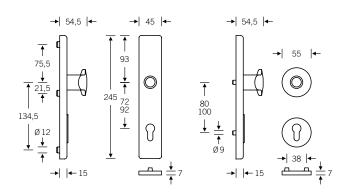


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Design + Security







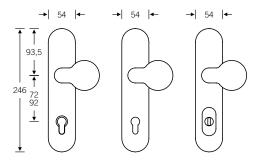


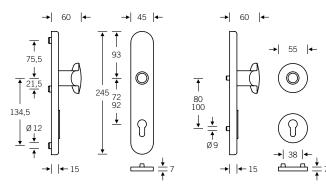
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Design + Security







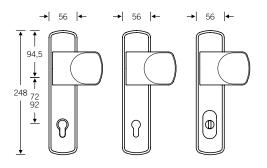


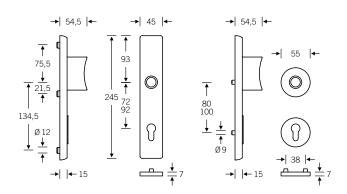
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Design + Security









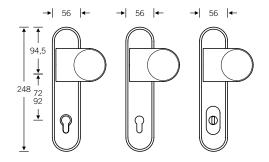
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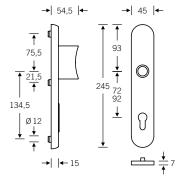
* S2-ZA only

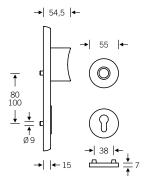


Design + Security











fsb.de/737386

* S2-ZA only

for narrow stile doors

73 7330



Lever-handle set for narrow stile doors, handles with turnably fixed bearings on both sides, outside backplate 14 mm, inside backplate 7 mm, PC centres 72 and 92 mm

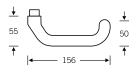
8 mm square spindle 9 mm square spindle

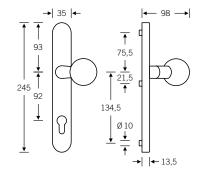


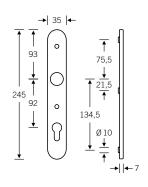
Entrance-door furniture for narrow stile doors, lever handle with turnably fixed bearing, outside backplate 14 mm, inside backplate 7 mm, PC centres 72 and 92 mm

8 mm square spindle 9 mm square spindle











fsb.de/737330

Certified to DIN 18257 ES 1





for narrow stile doors

73 7331



73 7331 03073 7531 030

Lever-handle set for narrow stile doors, handles with turnably fixed bearings on both sides, outside backplate 14 mm, inside backplate 7 mm, PC centres 72 and 92 mm

8 mm square spindle 9 mm square spindle

to suit cylinder projections of 8 – 13 mm

73 7331 03173 7531 031

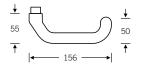
Entrance-door furniture for narrow stile doors, lever handle with turnably fixed bearing, outside backplate 14 mm, inside backplate 7 mm, PC centres 72 and 92 mm

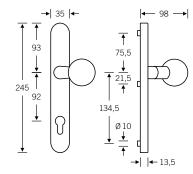
8 mm square spindle 9 mm square spindle

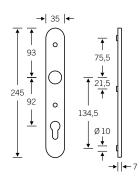
to suit cylinder projections of 8 – 13 mm













fsb.de/737331

Certified to DIN 18257 ES 1





Security roses

73 7395 01..

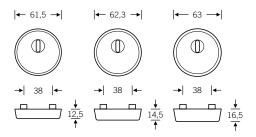


to suit cylinder projections (CP) as in table

Product Code	Ø	СР	Height
73 7395 01010	61.5 mm	6.5 mm	12.5 mm
73 7395 01110	62.3 mm	8.5 mm	14.5 mm
73 7395 01210	63.0 mm	10.5 mm	16.5 mm

Given the cylinder lengths generally marketed, these roses can only be used on doors 50 mm or more thick





73 7395 00..



to suit cylinder projections (CP) as in table

Product Code	Ø	CP*	Height
73 7395 00010 73 7395 00110 73 7395 00210	61.5 mm 62.3 mm 63.0 mm	12.5 mm 14.5 mm 16.5 mm	12.5 mm 14.5 mm 16.5 mm

* recommended cylinder projection \pm 1.5 mm



← 61,5 →	← 62,3 →	← 63 →
→ 38 ←	→ 38 ←	→ 38 ←
12,5	14,5 ↑	16,5



fsb.de/737395

Both armoured roses have been tested and certified to DIN 18257 ES 1 and DIN 18273 for FS doors

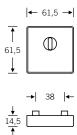


73 7397

Tested and certified to DIN 18257 ES 1 and DIN 18273 for FS doors, with inside rose FSB 17 1704 $\,$

Product Code		CP	Height
73 7397 01110	61.5 mm	8.5 mm	14.5 mm





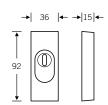
73 3244

to suit cylinder projections of $8-15\,$ mm, borehole diam. $3.2\,$ mm

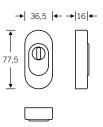


to suit cylinder projections of $10-17\,$ mm, borehole diam. 3.2 mm









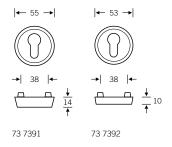
fsb.de/737397 fsb.de/733244 fsb.de/733249 The security engineering adopted entails the external dimensions of the armoured rose extending 11 mm (FSB 73 3244) beyond borehole centres. Please bear this in mind where other fittings are involved.

73 7391 | 73 7392 🗆 🗆 📉



73 7391 (14 mm) 73 7392 (10 mm)

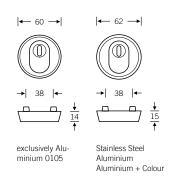




73 7393

to suit cylinder projections of 8-15 mm





fsb.de/737391 fsb.de/737392 fsb.de/737393

Security rose flush fit



Tested and certified to DIN 18257 ES 1 and DIN 18273 for FS doors

The defining dimension for flush armoured rose 73 7396 (door thicknesses of 56 mm upwards) is that between the centre of the lock and the outside of the door:

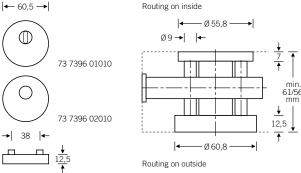
A distance of at least 33.5 mm is required for FSB 73 7396 01010, as against a mere 29.0 mm for FSB 73 7396 02010.

The lower figure for 73 7396 02010 is due to the securing disc being omitted, making 73 7396 02010 a first-rate choice where the combination of door thickness and lock position poses problems: if the door is of a thinner type or the lock position is less than ideal, 73 7396 02010 permits compensation of cylinder projections up to 4.5 mm greater and door thicknesses up to 4.5 mm less than with the 73 7396 01010 model. Omitting the securing disc does not affect the Security Class either - both versions enjoy ES1 classification under DIN 18257. An additional distance of 27.5 mm from the lock centre to the inside of the door is required if the inside rose is likewise to be flush-fitted - the profile cylinder then lies flush with the face of the door. The minimum door thickness required is thus 56 mm.

Routing dimensions: outside \emptyset 60.8 mm, depth 12.5 mm (routing bit \emptyset 20 mm, collar ring \emptyset 30 mm), inside \emptyset 55.8 mm, depth 7 mm (routing bit \emptyset 20 mm, collar ring \emptyset 35 mm).

73 7396

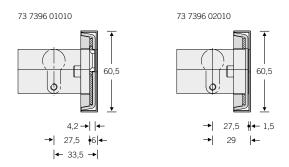
73 7396 01010 (with cylinder guard) 73 7396 02010 (without cylinder guard)



Lug boreholes (Ø 9 mm) need to be 38 mm apart and at least 7 mm deep on both sides. The areas machined subsequently require sealing – especially on the outside of the door!

Since flush fitting has no bearing on their security rating, armoured roses can, of course, be allowed to project by a few millimetres or, indeed, they can be surface-mounted in the "classical" way, a solution that is every bit as visually impressive given the elemental geometry informing this hardware. 73 7396 comes as a set complete with inside rose and, with the door thickness posited and M5 screws supplied, facilitates flush fitting on both sides. Please advise differing requirements when ordering.

A routing template, Product Code 03 0462 00010, is shown on page 780.



fsb.de/737396

Order details required:

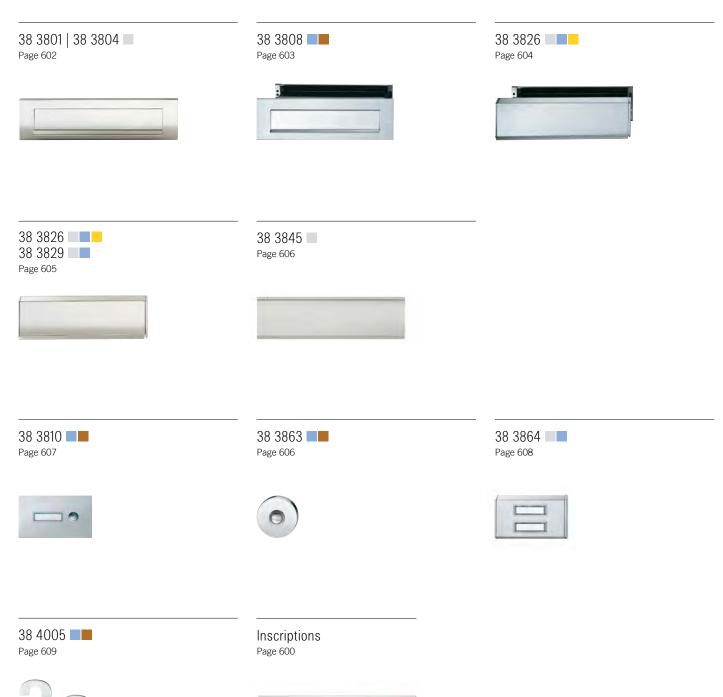
- Door thickness
- Variant 73 7396 01010 or 02010
- Material/finish
- Quantity
- Inside rose to be ordered separately

602	Letter plates
607	Bell-push plates
609	Numbers and letters

5c



A house's front door and entrance area can give an idea of the values shared by those who live there. The FSB product range offers virtually unlimited scope for customised or exclusive designs irrespective of whether classic door pulls, security hardware or, indeed, accessories that do not necessarily have to be fitted to the door are involved. A coherently sober design philosophy, uniform materiality (Aluminium, Stainless Steel, Brass and Bronze) and a refined surface finish common to all fittings combine to produce a cohesive overall appearance.



formikite julius

Letter plates and bell-push plates



Letter plates

All FSB letter plates have a spring mechanism, thus also allowing them to be fitted vertically. FSB produces letter plates with the most diverse external and Aperture dimensions and matching accessories for a wide range of settings and can also custom-engrave them:

- Letter plates with or without spacer
- Letter plates with or without name reference, optionally with a plastic frame or inscriptions directly engraved

Inscriptions

Inscriptions can be added to letter and bell-push plates alike. Please allow for somewhat longer delivery periods in the case of products with bespoke inscriptions and/or formats.

Fonts

Where inscriptions are concerned, we require precise details of fonts and sizes. Besides a broad range of typefaces, we can also arrange for your script, logos or names to be input in vectored form or converted into character paths. Unless other fonts, sizes and styles are specified when ordering, we produce typographic inscriptions in "Arial".

Bell push and light socket

Bell pushes may only be connected to a protective low voltage (max 42 V). Given the high no-load voltage involved, we recommend connecting the light socket (lamp operation max. 24V/40 mA) to the safety transformer (8 V).

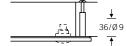


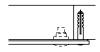
EN 13724

The European Standards Committee drew up the above EN standard in cooperation with the German Federal Post Office, letter-plate manufacturers and representatives of consumer associations. With regard to the aperture for domestic letter boxes, the standard stipulates that a test envelope 24 mm thick and of C4 format (= 229×324 mm) must be able to pass through without being crumpled or otherwise damaged. The FSB letter-plate designs 38 3829 and 38 3801 meet this condition.

Important note regarding assembly

When fitting letter plates and bell-push plates, please ensure that these are not directly exposed to driving rain!





Fixing procedures

Concealed fixing:

 \emptyset 9 mm, 36 mm deep, \emptyset 4.5 mm or \emptyset 5.5 mm for through-fixing. To be fixed with M4 or M5 screws (included).

Visible fixing (wall mounting): If so desired, bell-push plates and letter plate 38 3808 can also be supplied for visible fixing with \emptyset 5 mm countersunk screws.

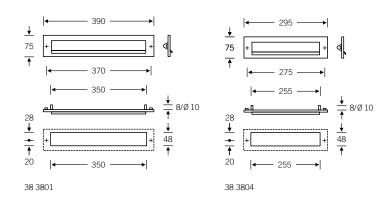
38 3801 | 38 3804 🗆

38 3801 02001 (without nameplate) 38 3801 02002 (with nameplate) Aperture dimensions 325×32 mm Cut-out in door 350×48 mm

38 3804 02001 (without nameplate) 38 3804 02002 (with nameplate) Aperture dimensions 230×32 mm Cut-out in door 255×48 mm

Inscriptions, cf. page 600





fsb.de/383801 fsb.de/383804 Fixing boreholes:

 \emptyset 10 mm, 8 mm deep \emptyset 5.5 mm through-fixing Fixing with M5 screws included

38 3808

 $38\ 3808\ 00061\ (40-70\ mm)$ $38\ 3808\ 00071\ (71-100\ mm)$ Letter-plate set without nameplate, with spacer und door tidy

38 3808 00001 (through-fixing from the opposite side)
38 3808 00101 (for fitting to the wall)
Letter plate without nameplate, spacer or door tidy, face-fixing with plugs

38 3808 00062 (40 – 70 mm) 38 3808 00072 (71 – 100 mm) Letter-plate set with nameplate, with spacer und door tidy

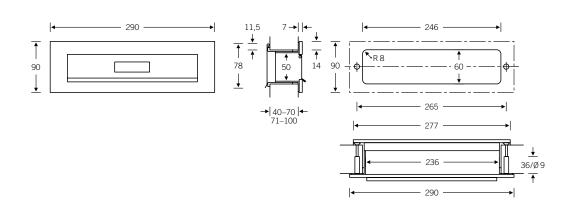
38 3808 00002 (through-fixing from the opposite side) 38 3808 00102 (for fitting to the wall)

38 3808 00102 (for fitting to the wall) Letter plate without nameplate, spacer or door tidy, face-fixing with plugs

Aperture dimensions 230 \times 35 mm Cut-out in door 246 \times 60 mm

Inscriptions, cf. page 600





fsb.de/383808

Concealed fixing from the inside or through the door tidy

Fixing boreholes:

Ø 9 mm, 36 mm deep Ø 4.5 mm through-fixing Fixing with M4 screws included

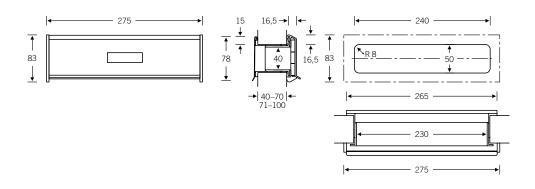
38 3826

38 3826 02061 (40 – 70 mm) 38 3826 02071 (71 – 100 mm) Letter-plate set without nameplate, with spacer and door tidy

38 3826 02062 (40 – 70 mm) 38 3826 02072 (71 – 100 mm) Letter-plate set with nameplate, with spacer and door tidy

Aperture dimensions $230 \times 40 \text{ mm}$ Cut-out in door $240 \times 50 \text{ mm}$





fsb.de/383826

Letter plate and door tidy fixed separately

38 3826 **38** 3829 **38**

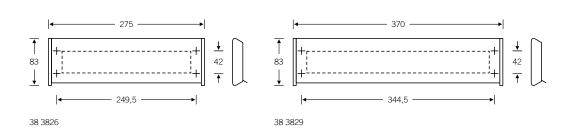
38 3826 02001 (without nameplate) 38 3826 02002 (with nameplate)

Aperture dimensions/cut-out in door $230 \times 40 \text{ mm}$

38 3829 02001 (without nameplate) 38 3829 02002 (with nameplate)

Aperture dimensions/cut-out in door $325 \times 40 \text{ mm}$





fsb.de/383826 fsb.de/383829 38 3845

To fit cut-out in door $255 \times 40 \text{ mm}$





38 3863

to be connected to a protective low voltage of max $42\ V$





fsb.de/383845

Bell-push plates

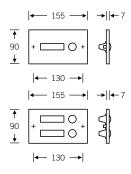
38 3810

38 3810 00011 (one-piece nameplate) 38 3810 00012 (two-piece nameplate)

Interchangeable nameplates in plastic as bell pushes

Area to be routed out W 110 \times H 70 \times D 30 mm





38 3864



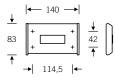
38 3864 00011 (one-piece nameplate) 38 3864 00012 (two-piece nameplate)

Interchangeable nameplates in plastic as bell pushes

Area to be routed out W $100 \times H 60 \times D 30 \text{ mm}$

All FSB bell pushes may only be connected to a protective low voltage (max 42 V). Given the high no-load voltage involved, we recommend connecting the light socket (lamp operation max. 24V / 40 mA) to the safety transformer (8 V).





00011

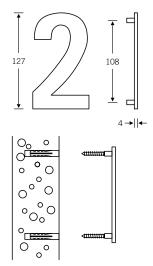
00012

Numbers and letters

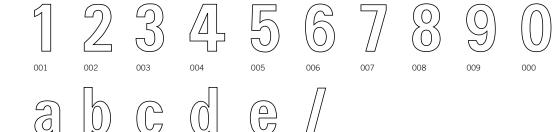
38 4005



The FSB range of numbers and letters incorporates designs that Otl Aicher recommended for use as a typeface by our company. Otl Aicher was mainly concerned with ensuring good legibility from a distance. Our characters are manufactured in Stainless Steel or sheet Bronze 4 mm thick. All characters feature identical fixing points equipped with threaded bushings (M4). Bolts are turned into these bushings and subsequently secured within plugs (8 mm). Each character is supplied with fastenings and a fixing template that defines an averaged distance between characters. Spacing can of course be determined to suit individual tastes.



Product Code 38 4005 00...



015

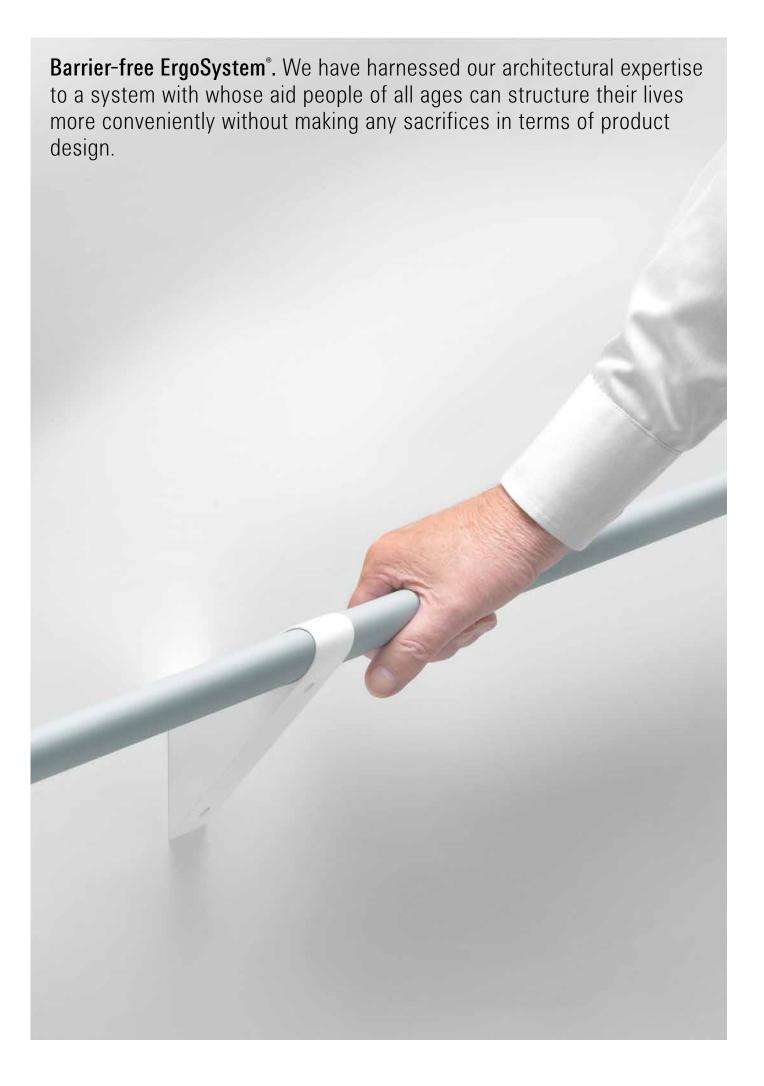
016





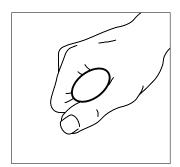
Our raw-material storeroom bears a faint resemblance to Fort Knox. The gold we trade in takes the form of premium-quality aluminium ingots weighing 7 kg each that are exclusively sourced, regularly monitored in terms of their alloy composition and enjoy materials testing approval. Aluminium started its triumphal march into interior design and design in general in the second half of the twentieth century. Its technological mystique, pleasant haptic properties and gleaming silvery surface opened up new horizons in the use of metals, notably in interior design. FSB has perfected the way it works aluminium over the years through a mix of manual and industrial routines that enable a given handle design to be "wrought" from the material in optimum manner regardless of whether the piece involved is a geometric classic or a moulded-to-the-hand design by Johannes Potente.

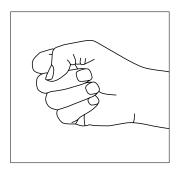
615	One system, two variants	6a
616	Meticulously well-conceived	
621	ErgoSystem® E300	
	Premium line in Stainless Steel	
627	ErgoSystem® A100	
	Ergonomic, good-looking,	
	attractively priced, in Aluminium	

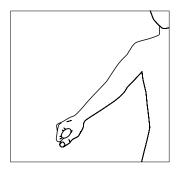


ErgoSystem® E300 and A100:

One system, two variants







Functionality, ergonomics, aesthetics: these are the three concepts underpinning the ErgoSystem®, the upshot of our applying more than 135 years of excellence in all aspects of "handle culture" to the design of barrier-free products for sanitary applications.

We see ErgoSystem® as a "design-forall" 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. The system's comprehensive range includes products tailor-made for those who simply desire a bit more convenience, products which, once used, they will never wish to do without again. 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, in our view, must) also look good.

The classic ErgoSystem®, which has now acquired the suffix E300 (E = Stainless Steel, 300 = "high grade"/heavy duty), has embodied peerless system depth, superior design and well-conceived functionality for more than 10 years now. ErgoSystem® A100 (A = Aluminium, 100 = attractivelypriced/heavy duty) meets the same quality standards whilst also scoring heavily in terms of budget-consciousness, handling and harmonised interiors. Whereas Ergo-System® E300 is often preferred for exclusive fit-outs (e.g. in hotels) and optional treatment areas (i.e. private wards), Ergo-System® A100 allows budget-sensitive projects to likewise benefit from FSB quality.

Common to both system segments is the fundamental notion, unique to the marketplace, of a diagonally aligned, oval grip cross-section that rigorously observes the ergonomics of good grip to deliver unparalleled convenience and dependable support.

There is a basic difference between taking hold of an object and enclosing it. Enclosure involves the whole surface of the hand and hence a far more extensive transmission of forces. The act of enclosing is the most archetypal form of grip: we all resort to it instinctively whenever we have to 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. As a result, far less force needs to be exerted by the hand to prevent it losing its grip than with a circular cross-section.

Oval styling offers the greatest possible support whilst requiring little muscular exertion. The oval section is thus organically predisposed to being adopted as a shape for handles - especially if it is rotated through 45° so as to become tilted diagonally forwards. This echoes the spatial sequence gone through when taking hold of something. The arm is in search of direction and support and describes a diagonal motion issuing from the shoulder joint and finding completion in the act of enclosure. A sturdy triangle is thus formed between the hand and shoulder used and the area the person is standing on. This causes bodily force to be transmitted via arm and hand to optimum effect.

Further information at www.fsb.de/certificates















Meticulously well-conceived

Looks a bit complicated, doesn't it. For our designers and engineers, though, this is a work of art whose narrative draws on well-conceived technical components and top-quality production. We fuse the two into our multiple award-winning ErgoSystem® "made in Brakel, Germany". The system's goodness, after all, derives from the sum of its parts.

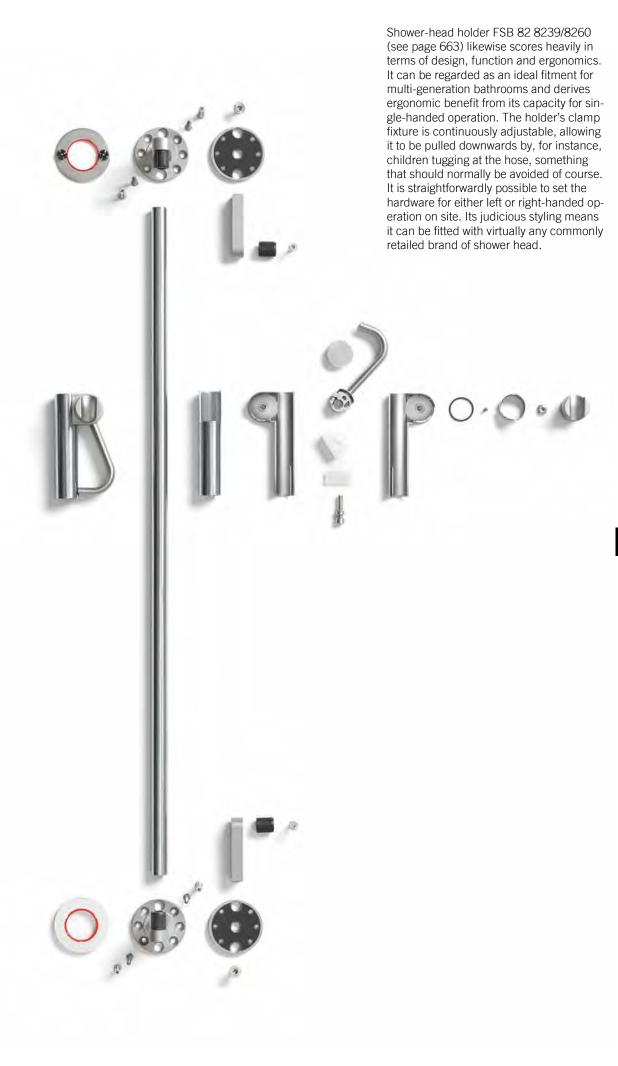




The FSB 82 8250 suspended seat (see lefthand page and Page 652) boasts a body-contour design with no sharp edges or pinch-points and a pared-down formal vocabulary. Its dimensions accord with DIN 18040 and it comes in variants with and without armrests (on one or both sides).

The FSB 82 8244 tip-up shower seat (shown on right as well as on page 655) with its rotating seat section is ideal in conjunction with the A-Flex assembly solution FSB 82 8244 00001 (see page 687) for flexible mounting in, for instance, hotels and private wards. The rotating seat is additionally available as a shower and bath stool FSB 82 8241 (see page 656) with a floor support and a retention stirrup for wall or corner mounting. A free-standing stool FSB 82 8243 (see page 657) offers high levels of comfort in, for instance, changing areas.









ErgoSystem® E300Premium line in Stainless Steel

It is not without reason that ErgoSystem® E300 in Stainless Steel, a treat not only to the hand as it grips but also to the discerning eye, has established itself over the past ten years and more as the Number One choice amongst architects and clients who lay particular store by convenience and design.

ErgoSystem® E300 is helpfully at hand without having the aura of a clinic or rehab equipment. With its timeless good looks, it will suit any bathroom architecture perfectly, enhancing levels of comfort without looking out of place. The principle informing the ErgoSystem® derives unequivocally from the ergonomics of grip. The diagonal alignment of its oval cross-section – a unique market design – affords the hand optimum gripping quality whilst reducing the force it exerts when taking hold of the hardware.

Flexibility is guaranteed by a completely barrier-free system comprising more than 400 products that can be combined and added to in line with the application in hand. ErgoSystem® E300 facilitates the flexible planning of exclusive fit-outs through a comprehensive range of grab rails, drop-down support rails and seat solutions that can be combined with the most diverse of accessory items so as to add further functions as specifically reguired. The range of add-on products with matching function and system properties includes shower rails with shower-head holder, care-responsive products such as splash guards and safety belts, and classic sanitary accessories such as towel holders, storage trays and mirrors. Top-quality machining and the exclusive use of premium materials are part and parcel of the FSB tradition. Stainless Steel with a satin matt sheen is the number one choice. Seat sections are in kind-to-the-skin PUR.

With A-Flex, FSB offers a well-conceived means of flexibly and demand-responsively fitting spaces out with barrier-free components from the ErgoSystem® E300 range. A-Flex can be particularly recommended for hoteliers or the operators of hospitals with private wards, who can use it to cater to the individual or acutely changing needs of guests and patients. The system yields benefits in the form of significantly lower costs for the initial fit-out, as the spaces concerned are merely fitted with an A-Flex support plate and use can be made of drop-down support rails and tip-up shower seats as required.

Anti-ligature variants of selected products from the ErgoSystem® E300 range are additionally available for use in special areas such as prisons, forensic units or psychiatric establishments (see page 690 ff.).

ErgoSystem's formal and functional credentials are veritably superlative: three of its products have won the "red dot award" one of the most prestigious international design prizes. The jury made its award for high design quality in respect of an ergonomic suspended seat, an understatedly designed tilting mirror and a showerhead holder for single-handed operation. "What more can one ask of design", was its unanimous response. Over the past few years, ErgoSystem® E300 has already garnered an iF Award, the "Design Prize of the Federal Republic of Germany" and the "architecture + health Innovation Prize". It has also been accorded the quality kitemarks of the German Society for Gerontological Technology and the Rhineland Technical Inspection Agency. ErgoSystem® has - like all products by FSB - been certified in accordance with EN 15804, allowing it to fulfil even the most ambitious prerequisites for sustainable building.

ErgoSystem® E300 + METRIC®

Materials and Finishes



In 1912, the Krupp company in Essen took out the first patents for a new material that was initially known as "Nirosta" or "V2a steel". It soon made its mark in a wide variety of applications including container construction for the chemicals industry, structures used in the building of cars and aircraft as well as building materials and household appliances.

The generic term "Stainless Steel" now embraces over 100 separate rust and acid-resistant steels. We use chromiumnickel steel bearing Material No. 1.4301 under German standard DIN 17440 when making our builders hardware. It contains approx. 18% chromium and 8% nickel, an alloy that has been tried and tested in the builder's trade.

Properties that speak for themselves

Stainless Steel is an excellent choice for bathrooms and sanitary areas because its surface is extremely corrosion-resistant, hardly shows knock and scratch marks however roughly treated, is virtually non-wearing even if in constant use, and – primarily by dint of the chrome and nickel additives in the alloy – is very easy to look after. An invisible passive layer forms on its surface that is even claimed to kill bacteria.

FSB supplies ErgoSystem® E300 in Stainless Steel Satin Matt (FSB 6204) and Polished Stainless Steel (FSB 6205). The stock Stainless Steel Satin Matt variant is particularly robust. Polished Stainless Steel is an environmentally friendly alternative to chrome-plated finishes and is produced to order.

Tough as you like: areas of application

We recommend ErgoSystem® E300 in Stainless Steel for all heavily frequented areas, notably public buildings, hospitals and old people's/nursing homes, office buildings, ships, motorway service stations or parks and sports grounds – indeed, wherever people convene in large numbers and there is a need for easy-care hardware with a long service life.



Care? Easy!

Builder's hardware in Stainless Steel does not really need any looking after at all. Dirt marks can be removed with a damp cloth. Should signs of rust appear on outdoor hardware or that used in chlorinated swimming baths after a while, this is what is known as flash rust, which is external in origin as opposed to emanating from within the material and can be removed with vigorous rubbing.

Use should not be made of abrasive agents when cleaning ErgoSystem® E300 components in powder-coated aluminium (brackets, fasteners etc.). These inevitably give rise to fine scratches and hence to a duller finish.

Brackets with custom coatings

FSB offers you the option of having any of the aluminium components in its Ergo-System® E300 range, which are coloured dark-grey as standard, coated to order in almost any RAL colour. ErgoSystem® E300 "public project" fitments can be made to blend in with or accentuate bespoke schemes in this way.

Find out more on this on page 689.

Finishes

- ① ③ FSB 6204 Stainless Steel Satin Matt
- ② ④ FSB 6205 Polished Stainless Steel

ErgoSystem® E300

Features and benefits

System features

- FSB's ErgoSystem® E300 conforms to all sections of DIN standard 18040.
- ErgoSystem® E300 is certified to TÜV/ GS (product safety) and TÜV/GGT (comfort & quality).
- High resistance to corrosion due to the handhold components being in Stainless Steel, material 1.4301. This alloy is virtually immune to denting and scratches even under the most exacting forms of continuous use and guarantees top hygiene properties.
- Hands fit snugly due to the uniquely elliptical styling of the grip section, which observes the laws of anatomy.
- Demonstrably less force needs to be exerted when taking hold of a rail and actually holding it owing to its oval cross-section.
- Making for optimum transmission of forces is a 45° tilt in cross-section, which in line with the rules of ergonomics allows the hardware to be taken hold of in such a way that a triangle is formed between hand, shoulder and the body's vertical axis.
- The coherent end-to-end design concept underpinning ErgoSystem® E300 delivers conspicuous quality right through to the attendant accessories.

System benefits

ErgoSystem® E300's modular make-up, variable product configurations and wealth of retrofittable accessory and complementary components make for flexible responses to changing conditions during planning and use:

- ErgoSystem® E300 grab rails can be supplied with non-standard dimensions to order 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.
- Continuous radii with no sharp edges combine with concealed fixings to meet hygiene requirements.
- Barrier-free rail system with a single-minded target-group focus that exceeds general market requirements as regards planning, fitments and use owing to its demonstrable ergonomic and design merits.
- Custom dimensions and colours possible to order, see page 688f.
- Anti-ligature variants of applicable accessory elements can be supplied, see page 690ff.
- Flexible mounting where required of A-Flex-type components, see page 686 f.

Planning benefits

- The matching range of accessories likewise guarantees harmonious formal integration of the system into architectural schemes.
- With its sleek looks and a Brushed Matt Stainless-Steel finish that discreetly echoes the colours around, ErgoSystem® E300 unobtrusively blends in with bespoke bathroom environments.
- Its premium design quality mirrors 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 of comfort as well as assisting them in everyday sequences of movements.
- The ErgoSystem's modularity and versatility make for flexible responses to changing conditions during planning and use
- Its standard fitments and complementary products permit variation in the way spaces are fitted out in, for instance, private wards.
- FSB's proximity to the market and status as a producer in Germany allow it deliver bespoke solutions and innovations promptly and flexibly.







ErgoSystem® A100

Ergonomic, good-looking, attractively priced, in Aluminium

Whereas ErgoSystem® E300 is often preferred for exclusive fit-outs of, for instance private wards or hotels, Ergo-System® A100 likewise brings FSB quality to budget-sensitive ventures.

The ErgoSystem® A100 ("A" for Aluminium) brings added gripping space to the basic, unique-to-the-market idea familiar from the ErgoSystem® E300 ("E" stands for Stainless Steel in German) of diagonally aligning an oval gripping cross-section: brackets at an angle of 45° to the wall open up the gripping space afforded to the hand and are particularly conducive to side-on gripping. Wall, bracket and rail fulfil the static principle of a triangle that delivers a high degree of ruggedness and stability in both perceived and actual terms.

ErgoSystem® A100, which garnered the "ICONIC Award 2016 best of best", is perfectly geared to virtually any application and location. Randomly configurable sets of handrails with bespoke profiles that can be cut to length on site make for simplified planning and assembly. The rails combine with our multiply awardwinning shower-head holder for singlehanded operation to yield an ideal fitment level for shower areas. Shelf surfaces with and without retention bars are supplied in standard dimensions as well as in customised lengths. The drop-down support rail is particularly flexible owing to its not being handed. Wall rails of variable length, a fixed safety rail, towel holders, wall hooks and toilet-roll holders round off the ErgoSystem® A100.

The ErgoSystem® A100 can be customadapted to specific interiors and settings by dint of its variable colour constellations. The colours of brackets / structural parts and hand/grab rails can be freely combined, thus facilitating sufficient contrast

to ensure optimum visibility and readability within a space, something that makes life safer and more convenient for elderly people with poor eyesight in particular (brightness reference value). Safe gripping can optionally be aided by selecting handholds and brackets in different colours. Conversely, those for whom the issue of contrast is less critical - be they young or old – can simply deploy the different colours as an interior-design style tool. Ergo-System® A100 components can be imaginatively adapted to the colour, finish and sheen of tiling and solutions devised whereby products discreetly merge with their background. Though they can be taken for granted as part of a given spatial configuration, they nevertheless have a strong identity of their own, adding a bespoke touch to any interior.

The ErgoSystem® A100 cuts quite a dash in assembly terms too: simplified design engineering has given rise to fewer parts and these, in turn, are child's play to fit adopting the assembly-shoe concept. Visible parts and those of importance for the assembly process are decoupled from one another, which considerably simplifies fitting them and pre-empts assembly errors.

Very much as with the A-Flex solution for Ergo-System® E300, ErgoSystem® A100 drop-down support rails and tip-up shower seats are also optional available as variants for mounting on pre-assembled support plates and can be deployed demandresponsively in this way.

ErgoSystem® A100

Materials and Finishes



We produce ErgoSystem® A100 in six different colour settings, coatings simultaneously being produced with differing degrees of brightness.

These range from matt (FSB 8803 and 8809) to high gloss (FSB 8220). The colour concept involved draws on three coatings that are either supplied in unicolour or can be combined with each other in defined configurations of component colours or else accentuated with the aid of components coated in Aluminium Grey. Handholds, handrails and the surfaces of utensils trays – i.e. components subject to constant loading either by being gripped hold of or having utensils placed on them – are always coated in one of the three unicolours.

Brackets, assembly devices, working parts or, indeed, applications on the shower-head holder that are infrequently handled

may additionally be refined with the accent colour Aluminium Grey Metallic (FSB 8829, Satin Matt) in specified variants. The standard colour combination FSB 8810 comprises, for instance, a handrail in Anemone White (FSB 8220) and brackets in Oyster Grey (FSB 8803). Set out above are illustrative examples of the combined-colour products achievable under the scheme.

Surface quality

In particular, finishes on handholds, handrails and shelves and trays brought about by electrostatic powder coating (EPC) are far more resilient to cleansers, scratching or wear than conventional powders and procedures of a purely decorative persuasion. The powders used at FSB have their origins in facade construction – an area, after all, in which the most exacting demands are traditionally made of surfaces in the erection of facades or to account for

climatic impacts. The matt colour shades Oyster Grey (FSB 8803) and Anthracite Grey Metallic (FSB 8809) additionally boast above-average surface hardness and outstanding mechanical properties and can hence be recommended for barrier-free areas in which particularly high loadings are to be expected.



Finishes were tested to the following standards and methods:

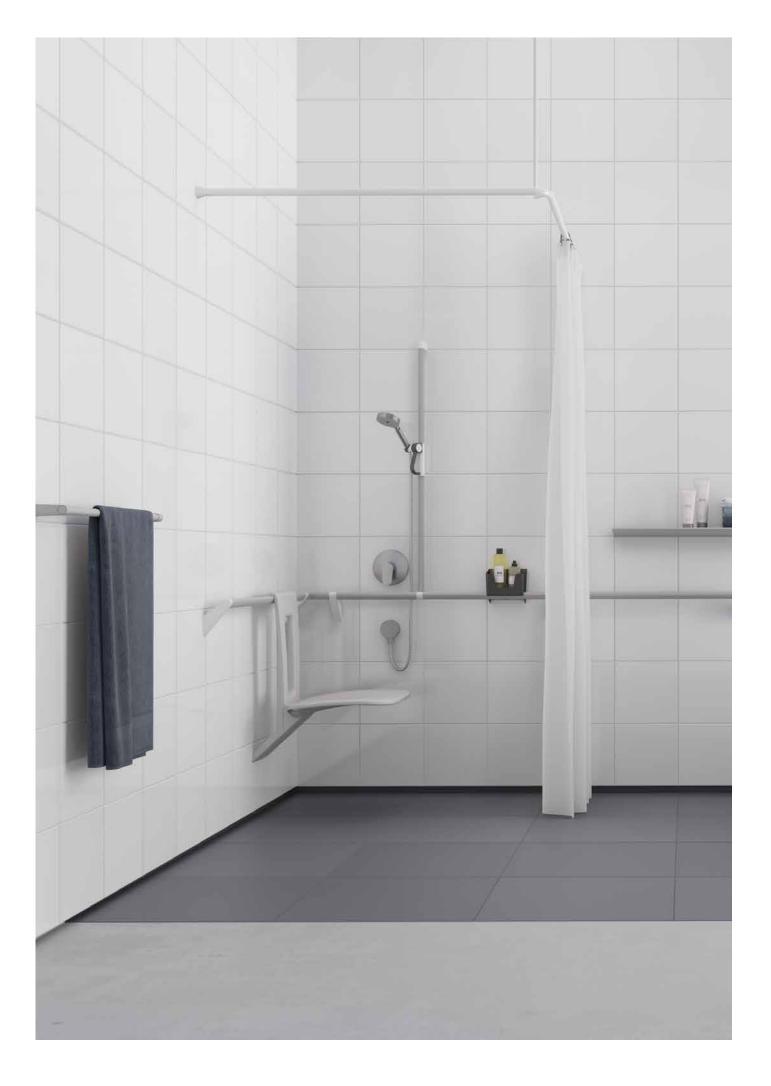
- Resistance to commercial cleaning agents, corrosion (DIN EN ISO 6988), scratching (DIN EN ISO 1518-1*), abrasion (DIN EN 60068-2-70*)
- Adhesiveness of coating (DIN EN ISO 2409)
- * Testing as laid down in the standard cited

Unicolour coatings

- ① FSB 8220 Anemone White, approximating to RAL 9016
- ② FSB 8803 Oyster Grey, approximating to RAL 7040
- ③ FSB 8809 Anthracite Grey Metallic, approximating to RAL 7016

Combined coatings

- 4 FSB 8223: Brackets/holder FSB 8829 Aluminium Grey Metallic Handrail/rail FSB 8220 Anemone White
- ⑤ FSB 8810: Brackets/holder FSB 8220 Anemone White Handrail/rail FSB 8803 Oyster Grey
- ⑤ FSB 8811: Brackets/holder FSB 8829 Aluminium Grey Metallic Handrail/rail FSB 8809 Anthracite Grey Metallic



ErgoSystem® A100

Definable brightness reference values

2

1

3

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 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

(Colours set out on page 629)







ErgoSystem® A100

Features and benefits

System features

- ErgoSystem® A100 by FSB conforms to all sections of DIN standards 18 040-1 and 18 040-2.
- ErgoSystem® A100 is certified to TÜV/ GS (product safety).
- High resistance to corrosion due to powder-coated components being in high-quality Aluminium.
- Finishes were tested to the following standards and methods:
 - Resistance to commercial cleaning agents, corrosion (DIN EN ISO 6988), scratching (DIN EN ISO 1518-1*), abrasion (DIN EN 60068-2-70*)
 - Adhesiveness of coating (DIN EN ISO 2409)
 - * Testing as laid down in the standard cited
- Hands fit snugly due to the uniquely elliptical styling of the grip section, which observes the laws of anatomy.
- Brackets at an angle of 45° to the wall open up the gripping space afforded to the hand and make gripping particularly pleasant and reliable.
- Demonstrably less force needs to be exerted when taking hold of a rail and actually holding it owing to its oval cross-section.
- Making for optimum transmission of forces is a 45° tilt in cross-section, which in line with the rules of ergonomics allows the hardware to be taken hold of in such a way that a triangle is formed between hand, shoulder and the body's vertical axis.
- The coherent end-to-end design concept underpinning the ErgoSystem® delivers conspicuous quality right through to the attendant accessories.
- Brackets and rail elements in variable colour combinations engender optimum visibility within a space and perfect coordination with their surroundings.

System benefits

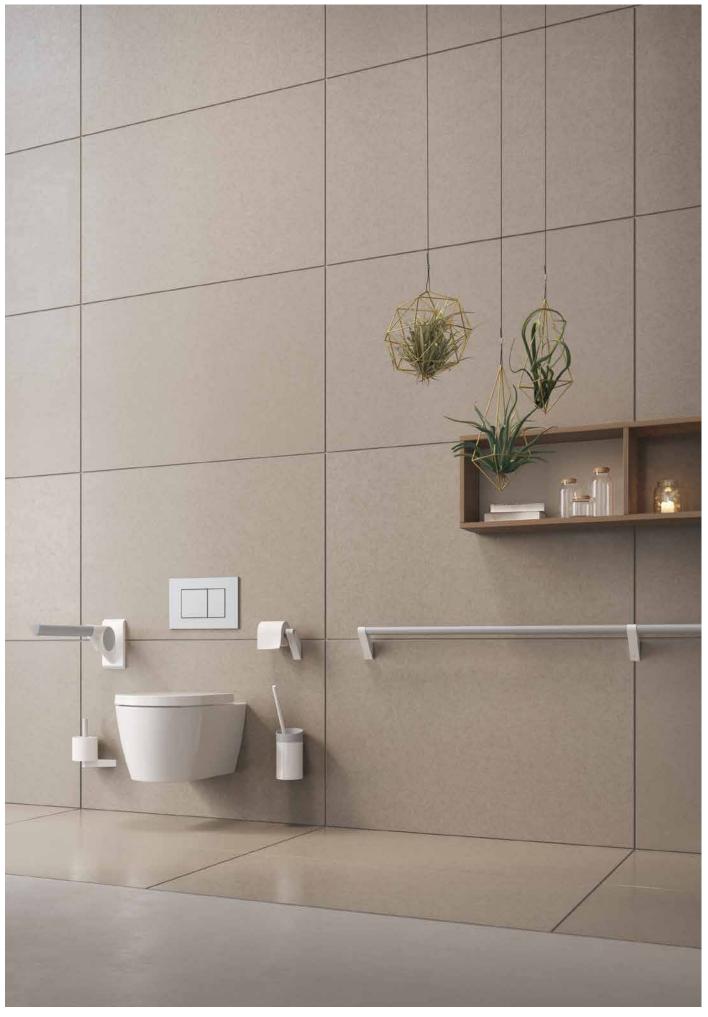
- Premium concept in terms of convenience, function, ergonomics and design.
- Budget-conscious option as investment and with systems running. Its modular make-up additionally allows individual parts to be replaced.

Variable product configurations make for flexible responses to changing conditions during planning and use:

- The grab rails can be supplied with non-standard dimensions 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.
- Gentle radii on all structural parts combine with concealed fixings to meet hygiene requirements.
- Barrier-free rail system with a singleminded target-group focus that exceeds general market requirements as regards planning, fitments and use owing to its demonstrable ergonomic and design merits.
- Custom dimensions as a means, for instance, of exactly aligning fittings with the joint grid or borehole layout available to order.
- Ease of assembly due to an assembly shoe concept with built-in lateral tolerance compensation of ± 2 mm.
- Drop-down support rails with pushbuttons and no visible wiring – this is run inside the rail and straight into the false-wall installation via the baseplate.

Planning benefits

- ErgoSystem® A100 can be custommatched to interiors and surroundings by dint of variable colour constellations.
- ErgoSystem® A100 allows targeted consideration to be given to brightness reference values and bespoke design ideas in equal measure.
- This opens up options for sanitary-area and interior designers that can be applied in a very focused manner in both public project and select residential ventures.
- Its premium design quality mirrors 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 of comfort as well as assisting them in everyday sequences of movements.
- The ErgoSystem's modularity and versatility make for flexible responses to changing conditions during planning and use.
- The chromatic concept involved permits variation in the way spaces are fitted out or identified in, for instance, private wards or, indeed, hotels.
- FSB's proximity to the market and status as a producer in Germany allow it deliver bespoke solutions and innovations promptly and flexibly.



636	ErgoSystem® E300	6b
639	Heavy-duty barrier-free	
	hardware	
645	Shower and bath area	
665	Washstand area and bathroom	
	accessories	
677	WC area	
685	Supplementary fitments	

ErgoSystem® E300

Product Chart

Shower and bath area

Grab rails Page 650



Angled rails Page 649 ff.



Handrail combinations Page 646ff.



Storage trays Page 649



holder



Bath towel rails



Washstand area and bathroom accessories

Wall-mounted support rails



Drop-down support rails Pages 667, 681



Floor/wall-mounted support rail



Hooks Pages 672, 674







Hooks (coloured) Page 675



Door stops Page 672



WC area

Wall-mounted/drop-down support rails Pages 678ff., 686



Backrest



Armrest Page 680



Supplementary fitments





Customised handrails Page 688f.



Dimensions to order with standard coating Page 688





Tip-up shower seats Page 654 f.



Bath seat Page 655



Shower and bath stool Page 656



Free-standing stool Page 657



Splash guard holder



Shower curtain rails



Shower-head Page 662 f.



Utensils tray Page 673



Mug holder, soap holder



Wall mirror



Wall-recessed litter bin





Hand towel rails Page 669



Page 676



Supporting leg



Toilet-roll holders Page 684



Toilet-brush set Page 684



Push-button actuators Page 682 f.



Reversible product solutions (A-Flex)





Anti-ligature variants Page 690ff.



Hardware for surveillanced spaces Page 695



Door hardware for barrier-free living Page 640ff.



639 Heavy-duty barrier-free hardware

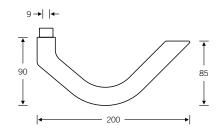
9 79 1155 613 (RH) | 79 1155 614 (LH)

turnably fixed with 9 mm square spindle

The chief merits of 79 1155 are:

- Its triangular styling follows the user's own trajectory.
- Its angular shape echoes the sequence of movements involved in its operation.
- Its chunkiness and sectional characteristics equate to the hollowing of a hand being closed.
- Its horizontal alignment provides the wherewithal for operation with an elbow.





EN 179

fsb.de/791155

For details of bearings, cf. page 24ff.

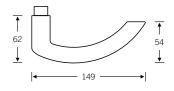
६ 12 1119 013

© 72 1119 613 (RH) | 72 1119 614 (LH) © 79 1119 613 (RH) | 79 1119 614 (LH)

FSB 1119 incorporates insights gained by FSB in co-operation with the Fraunhofer Institute during scientific analyses on the design of a lever handle for large-leaf doors in hospitals. Whereas the utmost importance was given to the rigorous observance of ergonomic parameters when implementing the Ergo lever handle, considerations of style predominated in the case of FSB 1119. It was conceived by FSB's in-house designer Hartmut Weise, who also authored the ErgoSystem®.



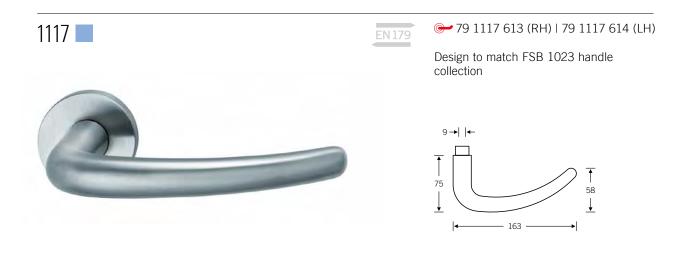




EN 179

fsb.de/791119

For details of bearings, cf. page 24 ff.





fsb.de/791117 fsb.de/791090 For details of bearings, cf. page 24ff.





Standard version:

- **€** 14 4240 40... (RH, 8 mm square)
- **©** 14 4240 50... (LH, 8 mm square)
- 14 4240 61... (RH, 9 mm square)
- **-** 14 4240 71... (LH, 9 mm square) FS approval to DIN 18273

Renovation version:

14 4241 40... (RH, 8 mm square) 14 4241 50... (LH, 8 mm square)

Routing work performed on existing fire and smoke doors in preparation for fitting barrier-free door hardware renders the door's fire-safety status void. Please consult the door maker on whether fire-safety approval obtains when fitting barrier-free hardware to the door concerned or whether there may be scope for exceptional acceptance.

C:c distance 72 mm (WC 78 mm) concealed fixing from both sides, to suit locks conforming to DIN 18251, compliant with DIN 18 040-1 (handle height 850 mm)

The spindle for the lever handle is connected to the upper spindle serving to operate the lock follower by rodding. When the handle is operated, the rodding turns the upper spindle the lock follower, thus releasing the latch.

With the requirements for barrier freedom in mind, FSB has also given fresh thought to traditional hardware solutions. What distinguishes barrier-free door furniture is that, as well as the door handle being more easily reached by wheelchair users, it is also easier to insert the key due to its being situated - more accessibly and visibly - above the handle. Barrier-free hardware can be fitted to existing doors and locks without the need for any modification work. The renovation backplate (width 55 mm) conceals the boreholes left by old fittings, moreover. Integrated into the hardware beneath the cover plate is a rugged mechanism that allows the lever handle to be positioned beneath the profile cylinder.

Standard version 14 4240 Renovation version 14 4241 56 |← **→**| **|←** 9 **→**| 45 |**←** 72 0 245 200 200

Order details required:

- Door thickness
- DIN handing
- 8/9 mm square spindle
- C:c distance
- Lever-handle model

M5 Stainless Steel screws are supplied as a function of door thickness.

Other keyways (cf. page 272f.) and c:c distances available to order.

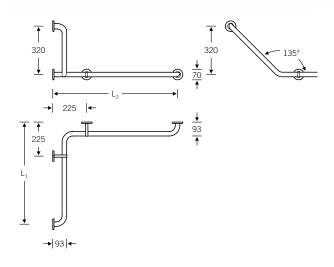
fsb.de/144240 fsb.de/144241

645 ErgoSystem® E300 Shower and bath area

Shower and bath area

82 8213







fsb.de/828213

		L_1	L_2
82 8213 00101	RH	675	675
82 8213 00102	LH	675	675
82 8213 00201	RH	825	675
82 8213 00202	LH	675	825

Handrail combination

Suitable for suspended seat 82 8250, see page 652f.





The handing of angled rails and handrail combinations relates to the view into the corner of the space: angled rails indicated as being "lefthand" are for fitting to the lefthand wall from this perspective and vice versa.



		L_1	L_2
82 8211 00101	RH	528	750
82 8211 00102	LH	528	750
82 8211 00201	RH	528	975
82 8211 00202	LH	528	975
82 8211 00301	RH	750	750
82 8211 00302	LH	750	750

Handrail combination

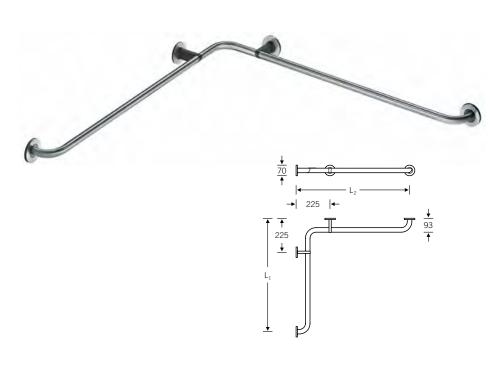
Suspended seat in lefthand segment only admissible with floor support (82 8250 00001, cf. page 652)

shown here: LH

Max. loading 100 kg

¹ / ₇₀		=
◆	- L ₂	→
→ 225 ←		1
		刃 ∰ →

82 8212



		L ₁	L ₂
82 8212 00100		750	750
82 8212 00200		975	975
82 8212 00301	RH	750	1125
82 8212 00302	LH	1125	750

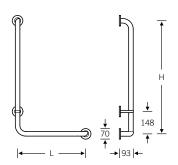
Handrail combination

Suitable for suspended seat 82 8250, see pages 652f.

Max. loading 100 kg

fsb.de/828211 fsb.de/828212 The handing of angled rails and handrail combinations relates to the view into the corner of the space: angled rails indicated as being "lefthand" are for fitting to the lefthand wall from this perspective and vice versa.

82 8210 Н 450 82 8210 00201 RH1048 82 8210 00202 LH 1048 450 1198 82 8210 00301 RH 600 82 8210 00302 LH 1198 600 Angled rail shown here: LH



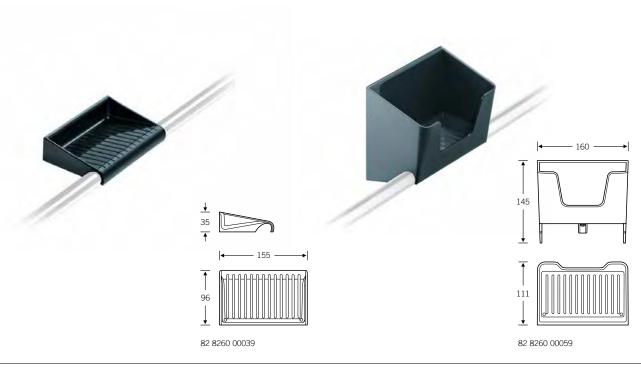
82 8260

82 8260 00039

Plastic storage tray

82 8260 00059

Theft-resistant clip-on plastic storage tray



fsb.de/828210 fsb.de/828260 The handing of angled rails and handrail combinations relates to the view into the corner of the space: angled rails indicated as being "lefthand" are for fitting to the lefthand wall from this perspective and vice versa.



82 8201	03000 (L	= 300 mm)
82 8201	04500 (L	= 450 mm)

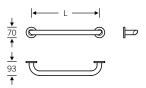
82 8201 06000 (L = 600 mm)

82 8201 09000 (L = 900 mm)

Grab rail

Suitable for suspended seat 82 8250, see page 652f.

Max. loading 100 kg



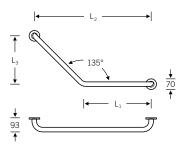
82 8202

	L_1	L_2	L ₃
82 8202 05120	300	512	210
82 8202 07720	450	772	320

Angled rail

with sides of equal length, can be fitted to point either to the right or left





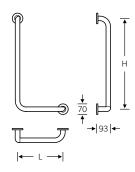
fsb.de/828201 fsb.de/828202

		L	Н
82 8203 03000 82 8203 06001 82 8203 06002	RH LH	300 300 300	300 600 600

Angled rail

shown here: LH





fsb.de/828203

The handing of angled rails and handrail combinations relates to the view into the corner of the space: angled rails indicated as being "lefthand" are for fitting to the lefthand wall from this perspective and vice versa.

82 8250 Seat section in PUR

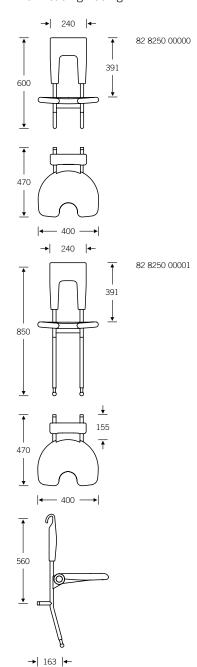




82 8250 00000 (wall-mounted support) 82 8250 00001 (wall/floor-mounted support)

Suspended seat for grab rails (min. length 450 mm), with spring-supported tip-up mechanism and gripping volume towards top of backrest

Max. loading 150 kg



470 —

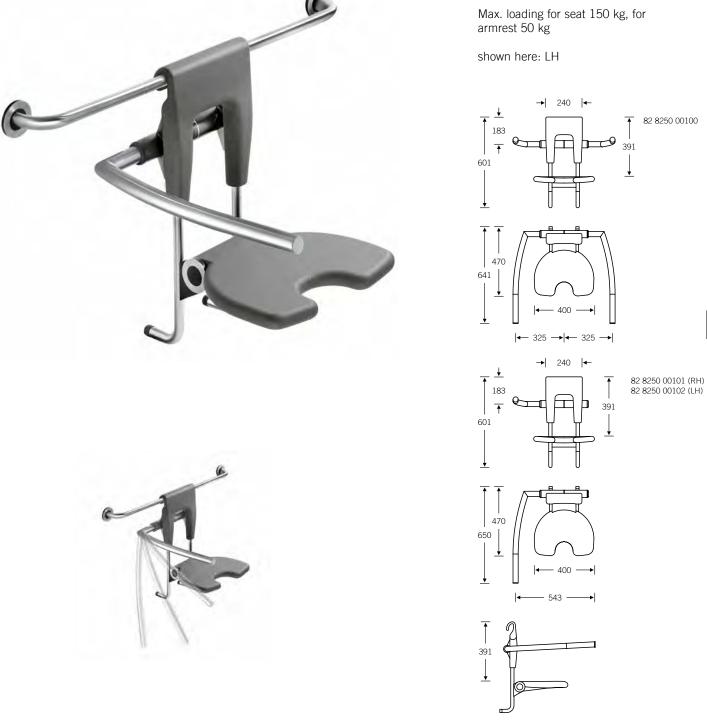


fsb.de/828250

red<mark>dot</mark> design award winner 2008 82 8250 Seat section in PUR

82 8250 00100 (armrests on both sides) 82 8250 00101 (armrest RH) 82 8250 00102 (armrest LH)

Suspended seat wall-supported like 82 8250 00000 but with armrests on one or both sides (shown here with armrest LH)



fsb.de/828250

82 8251 Seat section in PUR

82 8251 00000

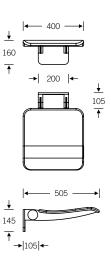
Tip-up shower seat with straight-sided seat section

A-Flex model 82 8251 00001 for flexible installation in, for instance, hotels or private wards, cf. page 687

Max. loading 150 kg







fsb.de/828251

82 8244 Seat section in PUR



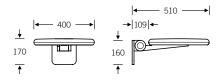


82 8244 00000

Tip-up shower seat with rotating seat section

A-Flex model 82 8244 00001 for flexible installation in, for instance, hotels or private wards, cf. page 687

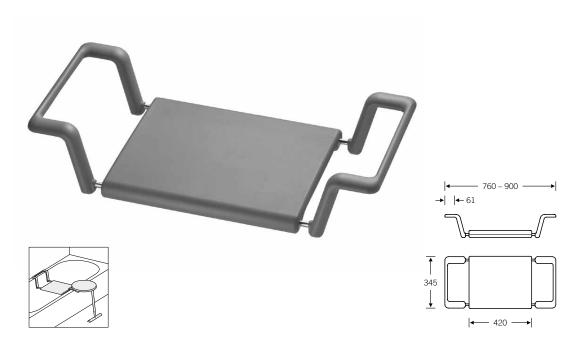
Max. loading 150 kg



82 8240 Seat section in PUR

Bath seat

Max. loading 150 kg



fsb.de/828244 fsb.de/828240 82 8241 Seat section in PUR

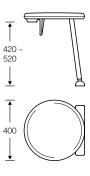
82 8241 00000 (without retention stirrup) 82 8241 01000 (with retention stirrup)

Shower and bath stool with rotating seat

Stool secured to retention stirrup by means of a groove on the underside of the seat

Max. loading 150 kg

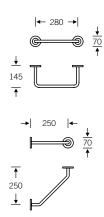




82 8242

82 8242 00000 (for wall mounting) 82 8242 00001 (for corner mounting)

Retention stirrup for shower and bath stool









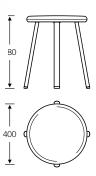
fsb.de/828241 fsb.de/828242 82 8243 Seat section in PUR

Free-standing stool with rotating seat

The free-standing stool has a rotating seat and provides a high degree of comfort in bathrooms and changing areas.

Max. loading 150 kg





fsb.de/828243

82 8260 00033

Walking aid holder for universal positioning and use in the home



82 8290 00011

Safety belt with which to secure a person

Can be combined with WC drop-down support rail 82 8224 08531/08532, 82 8224 09031/09032 or belt holder 82 8290 00016

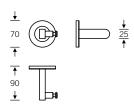


82 8290

82 8290 00016

Holder for safety belt



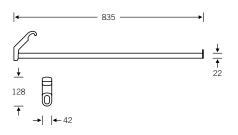


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Splash guard holder for showers, for hooking over FSB grab rails and handrail combinations



82 8236 Textile



Splash guard with attachment loops, for use on FSB drop-down support rails 850 mm in length, cf. page 678 f.

Width = 900 mm | Height = 720 mm







9000 White



8800 Manhattan

fsb.de/828249 fsb.de/828236

82 8238 | 82 8235

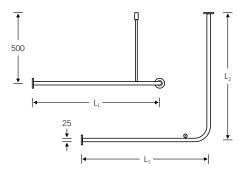
			L ₁	L ₂
82 8238 01000 82 8238 01200 82 8238 01500	(24	hooks)	1,200	1,200

Angled shower curtain rail with hooks (ceiling connector and rail can be shortened on site, though warranty claims then become void)

Ditto, but as a anti-ligature variant due to reusable click-in mechanism on the ceiling connector (rail cannot be shortened on site):

	L_1	L ₂
82 8235 01000 (16 hooks) 82 8235 01200 (24 hooks) 82 8235 01500 (24 hooks)	1,200	1,200

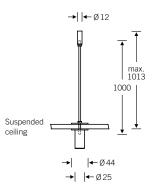
Please note: two curtains are required for angled shower curtain rails



82 8299

82 8299 00012

Ceiling connector for suspended ceilings (can be shortened on site)



fsb.de/828238 fsb.de/828235 fsb.de/828299





For curtain designs, cf. page 659

The curtain hooks do not catch on the ceiling attachment even under single-handed operation. Curtain rails of "U" shape or with radii to order.

82 8234 | 82 8233

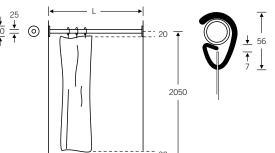
82 8234 00900 (L = 900 mm, 8 hooks) 82 8234 01200 (L = 1,200 mm, 16 hooks) 82 8234 01500 (L = 1,500 mm, 16 hooks) 82 8234 01800 (L = 1,800 mm, 16 hooks)

Shower curtain rail with curtain hooks for alcoves (can be shortened on one side on site)

Ditto, but as a anti-ligature variant due to reusable click-in mechanism (rail cannot be shortened on site):

82 8233 00900 (L = 900 mm, 8 hooks) 82 8233 01200 (L = 1,200 mm, 16 hooks) 82 8233 01500 (L = 1,500 mm, 16 hooks) 82 8233 01800 (L = 1,800 mm, 16 hooks)

The distance between rail centre and curtain is 20 mm and that between the bottom of the curtain and the floor ought to be 30 mm, cf. example shown.



82 8237 Textile		
	W	Н
82 8237 01200 82 8237 01800 82 8237 02400	1,800	2,000 2,000 2,000

Shower curtain

Sł wi in

fsb.de/828234

fsb.de/828233

fsb.de/828237

Shower curtain rails available to order with custom dimensions and curtains in inflammable material.

For curtain designs, cf. page 659

The on-site shortening of, for instance, curtain rails renders all warranty claims null and void.







The shower rail is not to be used as a grab rail.

82 8239 | 82 8260



fsb.de/828239 fsb.de/828260

82 8239 01048 (L = 1048 mm) 82 8239 01198 (L = 1198 mm)

Shower rail with shower-head holder for attachment to grab rails and handrail combinations

82 8260 00050 (for wall mounting,

L = 900 mm)

82 8260 00072 (for wall mounting, L = 900 mm), can also

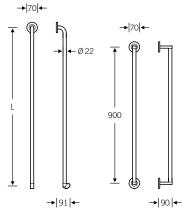
be used as a grab rail with up to 150 kg tensile loading

Differing lengths can be supplied either to take account of the tiling grid, to use/ conceal existing boreholes or as specifically desired by the customer. Please send us a dimensioned sketch for this purpose.



The rail is fixed in position using the double-sided adhesive strip supplied, which is inserted between the plastic connector and the oval tube during assembly.

For matching grab rails and handrail combinations (not included in the scope of delivery), cf. page 646 ff.

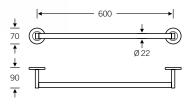


82 8260 00050 I 82 8260 00072 82 8239

The shower rail 82 8239 and 82 8260 00050 are not to be used as a grab rail.

82 8260 Sath towel rail





82 8260 00021

Double bath towel rail



fsb.de/828260

FSB's METRIC® line of accessories is to be found on page 734ff.

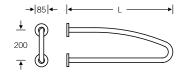
665 ErgoSystem® E300 Washstand area and bathroom accessories

		L
© 82 8220 06001 Ø 82 8220 06002 © 82 8220 07001 Ø 82 8220 07002	RH LH RH LH	600 600 700 700

Wall-mounted support rail

shown here: LH





fsb.de/828220

All fittings marked with the symbols © 'righthand' and Ø 'lefthand' need to be ordered and installed as righthand or lefthand variants respectively. Hands are determined looking towards the washstand/WC: the RH variant is to be fitted to the tight of the washstand/WC and vice versa.

82 8221 06000 (L = 600 mm) 82 8221 07000 (L = 700 mm)

Wall-mounted support rail non-handed





82 8224



		L
© 82 8224 06011 Ø 82 8224 06012 © 82 8224 07011 Ø 82 8224 07012	RH LH RH LH	600 600 700 700

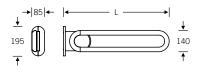
Drop-down support rail spring-loaded, ease of action adjustable

Compatible with TECEprofil 9.042.011

Max. loading 100 kg on the front edge

Optional accessory: adaptor-type wall socket for the retrofitting of support rails 82 8227 00001 (85 \times 195 mm)

shown here: LH



fsb.de/828221 fsb.de/828224 All fittings marked with the symbols \bigcirc 'righthand' and \bigcirc 'lefthand' need to be ordered and installed as righthand or lefthand variants respectively. Hands are determined looking towards the washstand/WC: the RH variant is to be fitted to the tight of the washstand/WC and vice versa.

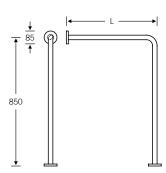
Fastenings supplied

		L
© 82 8225 06001 © 82 8225 06002 © 82 8225 07001 © 82 8225 07002	RH LH RH LH	600 600 700 700

Floor/wall-mounted support rail

shown here: LH

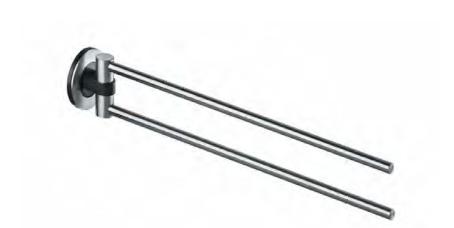




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All fittings marked with the symbols \bigcirc 'righthand' and \bigcirc 'lefthand' need to be ordered and installed as righthand or lefthand variants respectively. Hands are determined looking towards the washstand/WC: the RH variant is to be fitted to the tight of the washstand/WC and vice versa.

Double swivel-action hand towel rail



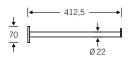


82 8260

82 8260 00012

Single fixed hand towel rail

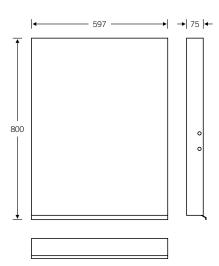






82 8260 00053

Tilting mirror with angle of tilt adjustable from 0° to 12° , variable ease of action using operating bar with optimised luminance contrast









red<mark>dot</mark> design award winner 2008

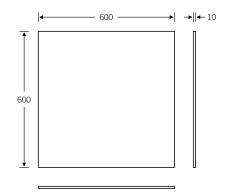


82 8260 00054 (450 × 450 mm) 82 8260 00055 (600 × 600 mm) 82 8260 00056 (600 × 450 mm)

Wall mirror in Polished Stainless Steel incl. mounting plate

Vandal-proof and anti-ligature due to non-glass mirror surface

Thickness of metal plate 1.5 mm



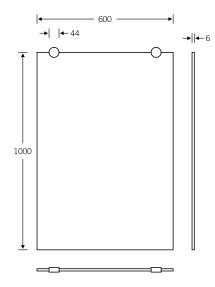
82 8260



82 8260 00051

Wall mirror Glass thickness 6 mm with 4 mirror holders

1,000 × 600 mm



Washstand area

Bathroom accessories

Planning information page 750 ff. Specification texts: fsb.de/ergosystem

82 8260

82 8260 00003

Door stop

Shorter dimensions available to order



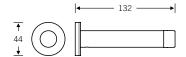
82 8260 00006

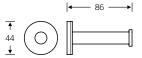
Coat hook

For matching wall hooks, cf. page 674





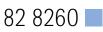




82 8260

82 8260 00004

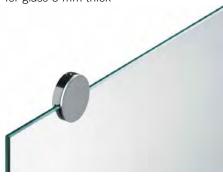
Double wall hook

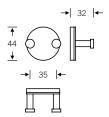


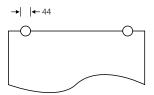
82 8260 00052

Mirror holders (4 in number) for glass 6 mm thick





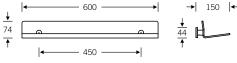






82 8260 00015

Utensils tray sloping slightly downwards towards the wall and with textured plastic surface to help hold items in place



82 8260



82 8260 00041

Mug holder with plastic mug

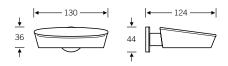


82 8260



Soap holder with plastic soap dish





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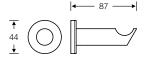
FSB's METRIC® line of accessories is to be found on page 734ff.

82 8260 00001 Wall hook 82 8260 00002 Coat hook









82 8260

82 8260 00005 Wall hook 82 8260 00007 Double wall hook

For matching coat hook cf. page 672

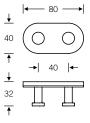
Ditto, but as a anti-ligature variant due to reusable clip fastening

82 8260 01005 Wall hook 82 8260 01007 Double wall hook









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FSB's METRIC® line of accessories is to be found on page 734 ff.

6b

Washstand area

Bathroom accessories

82 8260







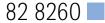
82 8260 00001 Wall hook

Planning information page 750ff.

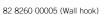
Colour options

RAL 1018 Yellow RAL 3002 Red RAL 5002 Blue













82 8260 00005 Wall hook 82 8260 00006 Coat hook 82 8260 00007 Double wall hook

Colour options

RAL 1018 Yellow* RAL 3002 Red* RAL 5002 Blue*

Cupboard identification by means of custom engravings or lasered designs in colours to match wall and coat hooks to order

- 86 ----▶







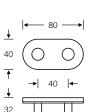
82 8260 00006 (Coat hook)



82 8260 00007 (Double wall hook)







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* Standard colours, further RAL colours for an extra charge. Please advise the RAL colour desired when ordering and specifying.

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