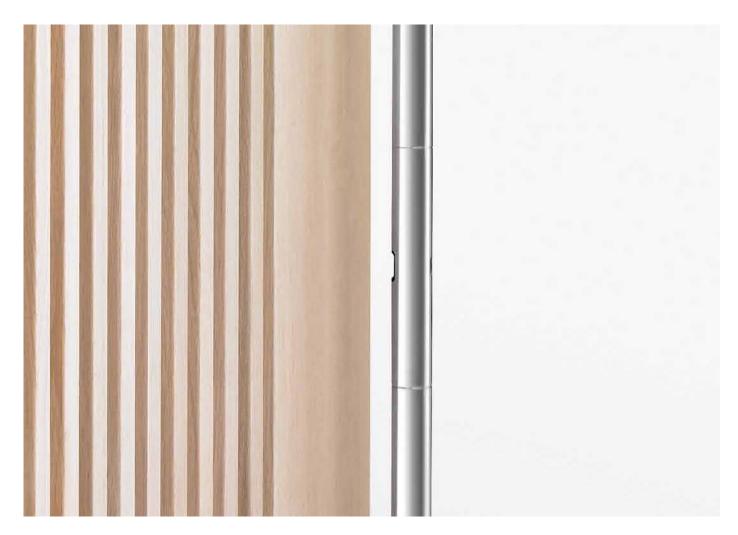


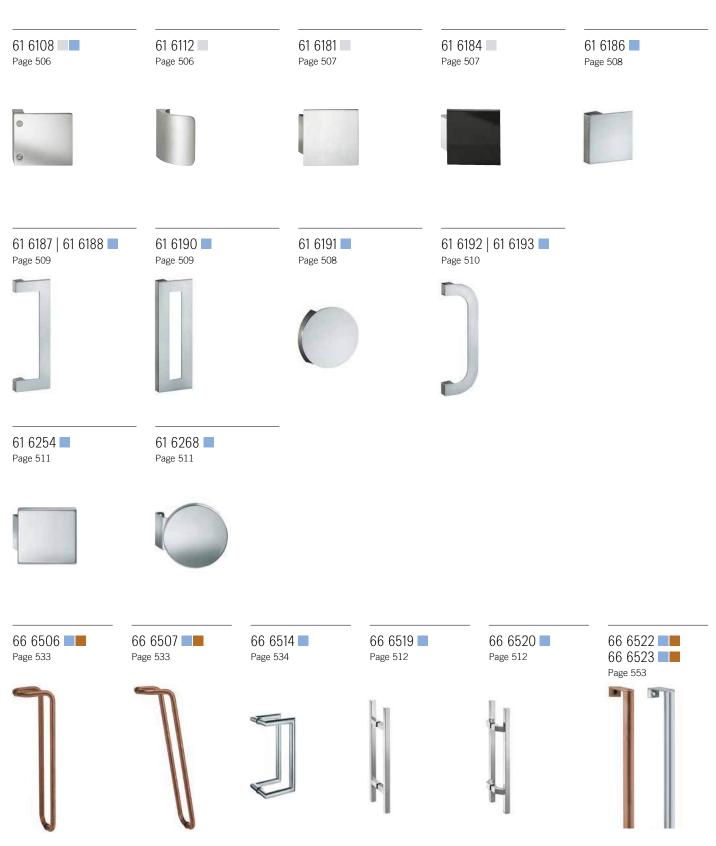


We give our all for a perfect finish, as you well know - and, going by what our specialists in the various manufacturing divisions say, no two finishes are alike. Comparably large areas need to be treated differently than significantly smaller ones, whilst round or curved parts are clearly not going to behave in the same way as flat surfaces. We have evolved a sophisticated grinding "philosophy" to take account of this. As well as involving physical input in the bulk of cases, it also calls for a certain "knack". Whereas some colleagues are predisposed to produce geometrical shapes, there are others who are more at home with free-flowing organic forms (as Johannes Potente's, for example). Our production staff work with no end of abrasive belts, brushes and polishing pastes and the whole process is invariably run over several stages. Test the quality of finish of the various handles stocked with your own hands and we feel sure you will agree that Stainless Steel finishes are quite a mixed bunch.

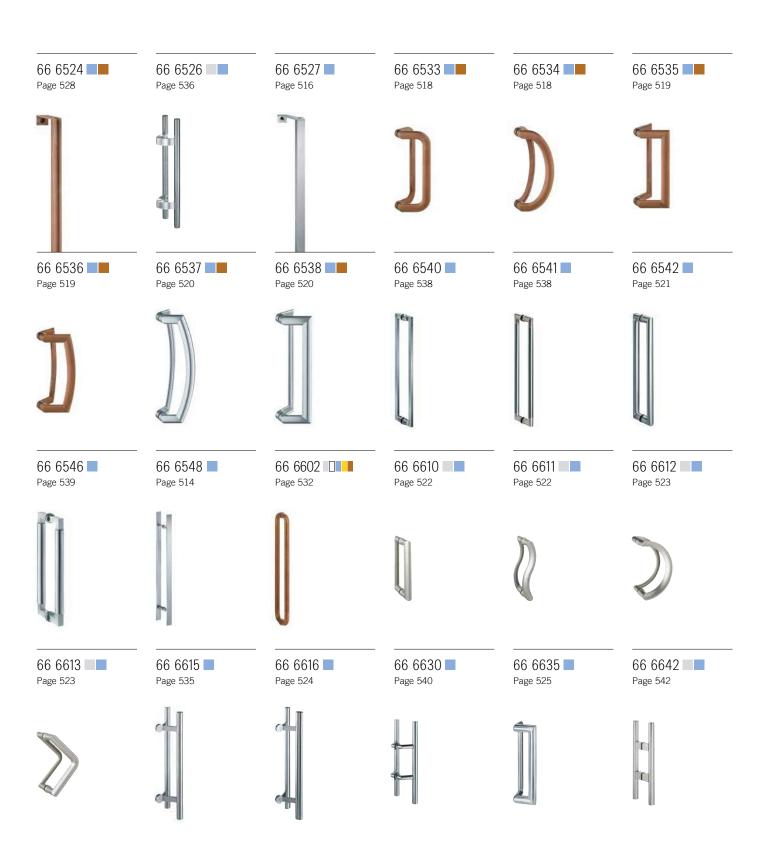
Push/pull pad handles	5a
Angular door pulls	
Oval-section door pulls	
Round-section door pulls	
Fixing with self-tapping	
threaded insert	
Fixing with clamping roses	
Drilling dimensions	
Fixing methods	
Lever-handles AGL®	
<ul><li>turnably fixed</li></ul>	
	Angular door pulls Oval-section door pulls Round-section door pulls Fixing with self-tapping threaded insert Fixing with clamping roses Drilling dimensions Fixing methods Lever-handles AGL®

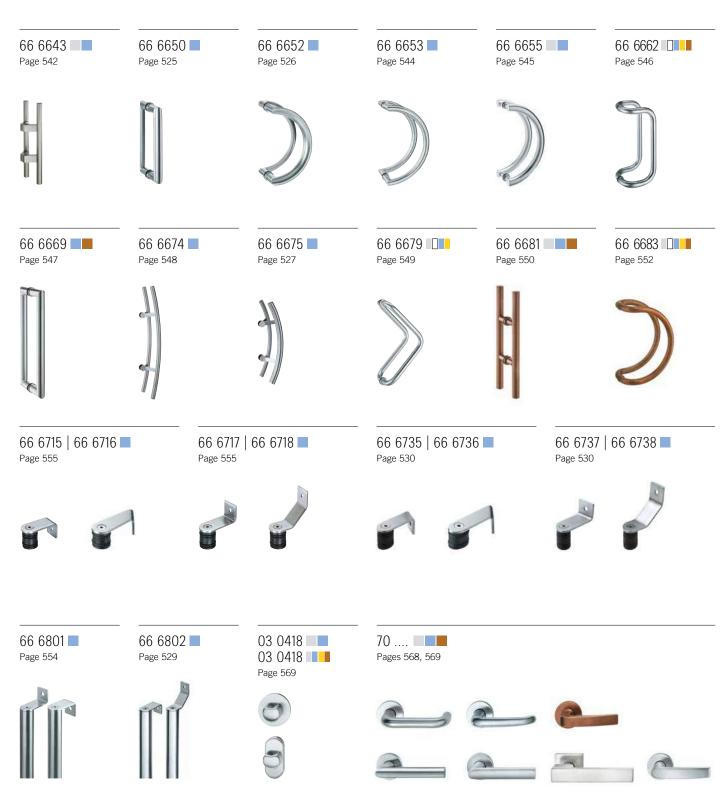


Be it in the form of classic tubular pulls round or oval in cross-section or of soberly pared-down push/pull pad handles from the S-Flat series angular or square in cross-section, FSB has the perfect design to hand for any door and taste. This section covers the full range. Besides "analog" pulls, with the Fingerscan series we also offer an impressive solution for the digital operation of doors. After all, biometrically scanning a finger for access identification purposes should ideally take place on the pull itself — in other words where the fingers grip. You can find our more about FSB's Fingerscan door-pull series with integrated biometrics technology on pages 55 ff.



## **Product Chart**





### **Technical information**

F-Series (Fingerscan) Angular door-pull range S-Flat

Square. Practical. Good-looking.

Angular front-door hardware from FSB.

FSB has augmented its established range of round and oval tubular pulls with a small but perfectly formed selection of pulls of angular/square cross-section.

As a result, we can now offer architects, fabricators and end-users the formal vocabulary of angular (pull) designs for main-entrance doors too. Our range of "angular" main-entrance door hardware embraces the following products:



- the new "S-Flat" push/pull pad handle range designed by that long-established master of his trade, Hartmut Weise. In the finest Bauhaus tradition, he has opted for a geometrical approach in his concept that sees every straight-cornered handle matched by a rounded variant. S-Flat handles come in a variety of dimensions as well as in either open or enclosed forms. The back of S-Flat handles features a concave pad of Technogel® that is pleasant to touch and ensures ergonomic operation. Find out more on pages 508ff.
- FSB's tried and tested ht range, a handle solution that wears its engineering on its sleeve, in a welded variant with a  $35 \times 35$  mm handle cross-section and in lengths from 350-2,100 mm, see pages 516 ff.
- angular and cranked crossbars of  $25 \times 25$  mm cross-section requests for custom variants and hefty bespoke lengths gladly received Models 66 6519 and 66 6520, see page 512.
- as an alternative, crossbars of 40 × 10 mm rectangular cross-section, FSB 66 6548, likewise in bespoke lengths, see pages 514f.

 and, rounding things off fair and square, FSB's new armoured rose 73 7397, indispensable as a security accessory – tested and certified to DIN EN 18257 ES1 as an angular variant too, see page 592.

Accessories available include angular doorknobs and security hardware, turnably fixed half-sets, letter plates and intercom/bellpush plates. Our proven numbers and letters for houses also deserve a concluding mention.

### Oval door-pull series

The oval designs FSB developed a decade ago are a key constituent of its range of door pulls and an alternative to traditional pulls of circular cross-section. The formula "diagonal + oval = ideal gripping" identified by FSB reduces the amount of effort required to take hold of and operate the handles on entrance doors. The oval styling offers the market a new gripping quality for eye and hand which FSB has had copyright protected. FSB now supplies almost all traditional designs in a haptic oval variant in tandem with its circular pull range.

A flattened oval pull series authored by our in-house designer Hartmut Weise echoes modern approaches to architecture. The ht kit principle has been applied to oval tubes for jobs needing to be completed quickly. It allows good solutions to be straightforwardly fabricated on site for lengths of up to 1,500 mm. For reasons of structural stability, FSB recommends opting for the variant welded at the works where lengths in excess of this are required. Welded ht handles in lengths of less than 1,500 mm are similarly obtainable.

# Fingerscan door with biometrics technology

In delivering electronic functions conducive to convenience and security in equal measure, FSB demonstrated that thinking about products whilst also taking account of human habits inevitably gives rise to substantive innovations. The biometric scanning of a finger as a means of access identification would, our technicians reasoned, need to occur at the point where fingers are positioned when taking hold of a handle. They duly came up with an FSB Fingerscan door pull with unique in-built biometrics technology. What the handle is actually capable of is set out on pages 55 ff.

#### Bronze hardware for front doors

The FSB range of bronze hardware for front doors is now a byword for the highest quality of exclusive fitments for entrance areas. It covers pulls from the ht kit (welded variant, round and oval) in lengths of up to 2,600 mm as well as classic doorpull designs 30 mm in diameter in lengths up to 1,200 mm. Rounding the range off is FSB 66 6681, a model of random length with variably positionable brackets.

Accessories include doorknobs, armoured roses and hardware, turnably fixed lever/ lever half-sets (AGL®) as well as intercom/ bell-push plates and letter plates.

#### Materials

FSB endeavours to supply its entire pull-handle range in either Aluminium, Stainless Steel or – with some standard variants – also in Bronze or Brass, with Stainless Steel being particularly recommended for heavy-duty applications. Aluminium surfaces can easily get blemished in such circumstances, though this "ageing process" in no way impairs the functioning of the handle. Owing to their tendency to corrode, Brass pulls are only offered with a waxed finish. It takes several years before a natural brown protective patina forms on such handles.

### Clamping-rose fixing method

FSB's clamping-rose fixing method 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. Visible screws are dispensed with. The radial play engineered into the assembly by FSB ensures the requisite compensatory tolerances during fitting. This fixing method is covered in greater detail on page 559.

#### Assembly scenario

Pulls can be either face or through-fixed to doors made of the most diverse of materials

In the case of through-fixing, either a pair of pulls or a single handle can be fitted. FSB has produced self-explanatory illustrations for these three fixing options – back-to-back fixing, bolt through fixing and face fixing with self-tapping threaded insert (see below).

As regards the issue of face fixing versus bolt through-fixing, FSB wishes to point out that the threaded-insert technique it adopts makes for face fixing that, as well as being aesthetically pleasing, is also sufficiently durable as a rule. This needs to be qualified, however, in the case of heavy-duty applications, (i.e. in schools, office blocks and other public institutions): here, we emphatically recommend bolt through-fixing, which ensures that the furniture remains fit for use even after years of heavy treatment, since the forces involved are absorbed on both sides of the door.

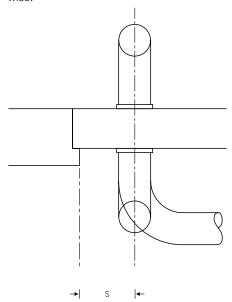
### Door pulls - in pairs or singly?

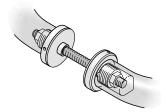
We show door pulls in pairs to facilitate an understanding of their technology and design. This allows the reverse face and geometric configuration to be seen. We do, of course, also supply door pulls as single items.

#### Safety clearance (S)

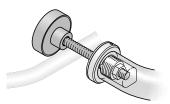
When fitting a handle to the closing or slamming face of a door, a safety clearance needs to be allowed for between the handle and the edge of the door and the jamb. The assembly scenario is made more readily comprehensible by the sketch below.

Ideally, the safety clearances as recommended by FSB should be adhered to. Conditions at the point of assembly may, however, provide a case for acting otherwise.





Fixing A back-to-back



Fixing B bolt through-fixing

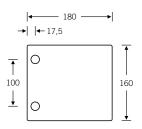


**Fixing C** face fixing with self-tapping threaded insert

Available in the following permutations: Bracket: Aluminium | Pad: Aluminium Bracket: Aluminium | Pad: Stainless Steel

M8 fixing



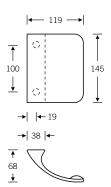






61 6112 M6 fixing



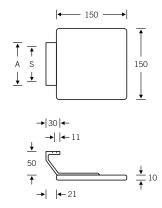


fsb.de/616108 fsb.de/616112 Fixing accessories, see page 770f.

61 6181 00062

Dimension A = 90 mmScrew centres S = 70 mm



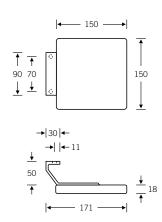


61 6184

61 6184 00062

Pad in Black Anodised Aluminium





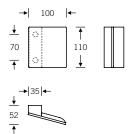
fsb.de/616181 fsb.de/616184 Screw holes Ø 8.5 mm (base), engravings for 61 6181, see page 396 f.

Fixing accessories, see page 770f.

Brackets Silver-Grey Powder-Coated

M8 fixing



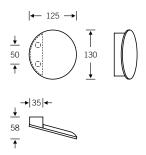


61 6191

Brackets Silver-Grey Powder-Coated

M8 fixing

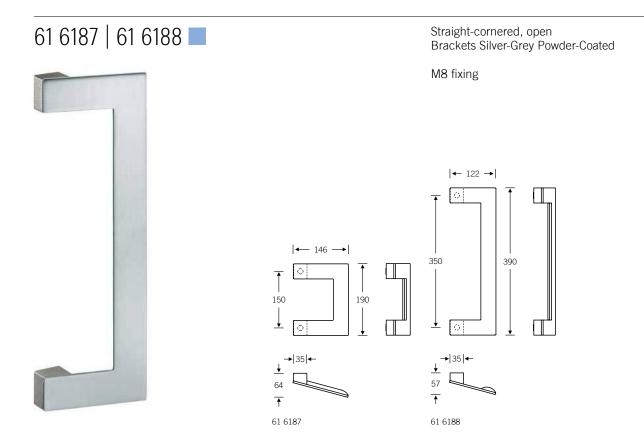


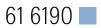


fsb.de/616186 fsb.de/616191

# Push/pull pad handles

Series S-Flat

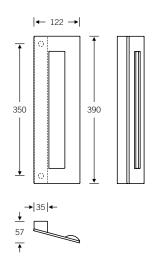






Straight-cornered, enclosed Brackets Silver-Grey Powder-Coated

M8 fixing



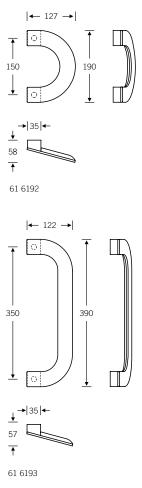
fsb.de/616187 fsb.de/616188 fsb.de/616190

61 6192 | 61 6193

Round-cornered, open Brackets Silver-Grey Powder-Coated

M8 fixing

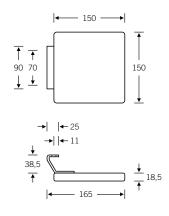




fsb.de/616192 fsb.de/616193

61 6254 00062

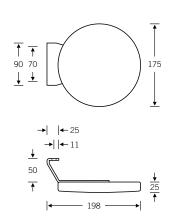




61 6268

61 6268 00000





fsb.de/616254 fsb.de/616268 Screw holes  $\emptyset$  8.5 mm (base), for engravings see page 396f.

Fixing accessories, see page 770 f.

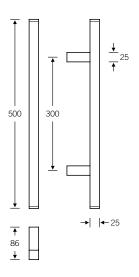
# Door pulls angular

66 6519



Handle cross-section  $\square$  25  $\times$  25 mm M8 fixing Standard length 500 mm (also in bespoke lengths, see form across the page) Safety clearance S = 53 mm (see page 505)

shown left: bespoke length

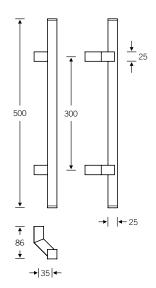


66 6520

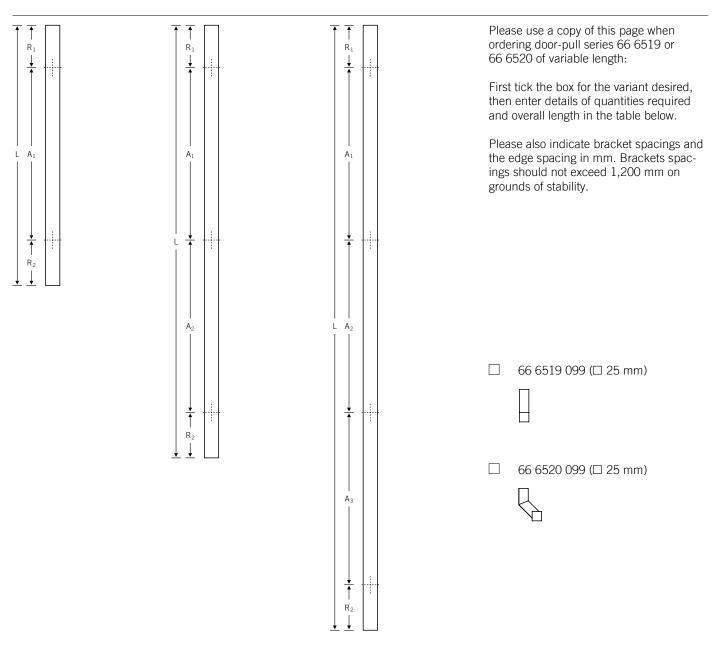


Handle cross-section  $\square$  25 × 25 mm M8 fixing Standard length 500 mm (also in bespoke lengths, see form across the page) Safety clearance S = 46 mm (see page 505)

shown left: bespoke length



fsb.de/666519 fsb.de/666520



Quant.	Length overall	Bracket spacing		Edge spacing*		Fixing type	
	L	$A_1$	A <sub>2</sub>	A <sub>3</sub>	R <sub>1</sub>	R <sub>2</sub>	

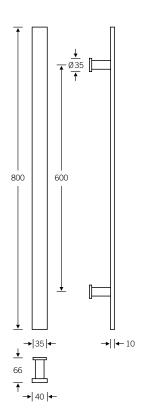
<sup>\*</sup> min. 30 mm, max. 350 mm

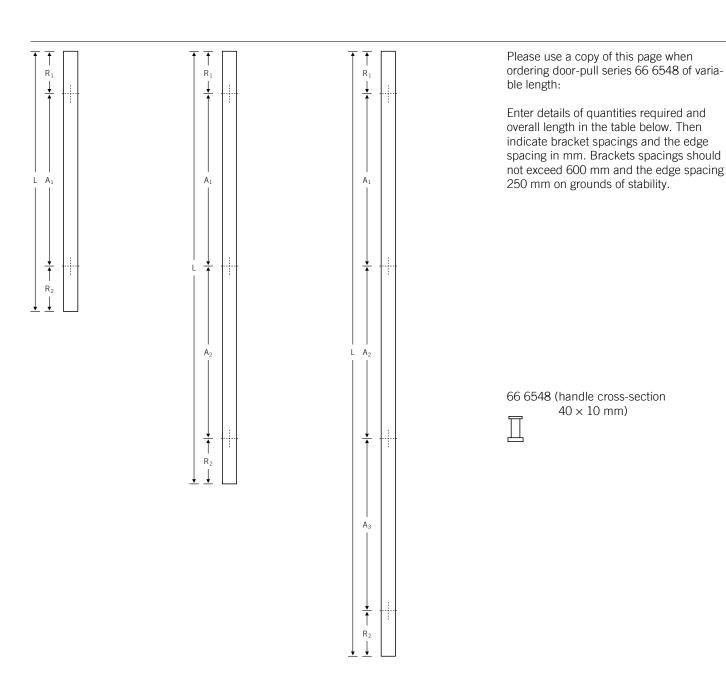
to match FSB 1003

Safety clearance S = 55 mm (see page 505)

Handle cross-section  $40 \times 10 \text{ mm}$ 







Quant.	Length overall	Bracket spacing		Edge spacing*		Fixing type	
	L	$A_1$	A <sub>2</sub>	A <sub>3</sub>	$R_1$	R <sub>2</sub>	
				İ		<u> </u>	

<sup>\*</sup> min. 30 mm, max. 250 mm

# **Door pull** ht angular welded

66 6527

350-2,100 mm square-section tube Rectangular tube  $\square$  35  $\times$  35  $\times$  2.5 mm

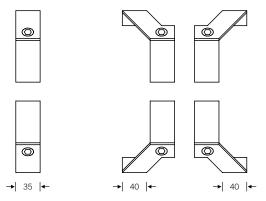


66 6527 is a works-welded version of angular cross-section based on the "ht kit system" and "ht welded" concepts (pages 528ff. and 553ff.). FSB manufactures the 66 6527 door pull to order in A Dimensions of from 350 mm to a maximum of 2,100 mm.

The two bracket variants for straight or cranked pull designs have defined dimensions. When ordering, please also advise Dimension A defining the distance between bracket fixing centres. The overall length of the pull is achieved by adding the dimensions  $2\times 20$  mm (borehole distance inclusive of material thickness).

It is necessary when fitting ht angular welded hardware 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 pages 558ff.

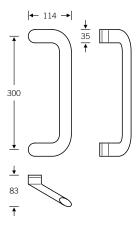
45 . . 46 . . RH 56 . . LH



..45 ..46 RH ..56 LH

Handle cross-section Ø  $35 \times 17.5$  mm

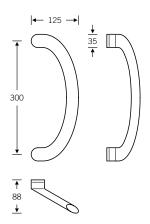




66 6534

Handle cross-section Ø  $35 \times 17.5$  mm





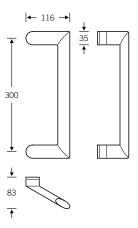
fsb.de/666533 fsb.de/666534

# **Door pulls** oval

66 6535

Handle cross-section Ø  $35 \times 17.5$  mm

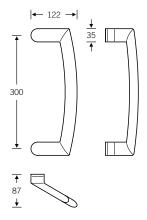




66 6536

Handle cross-section Ø  $35 \times 17.5$  mm





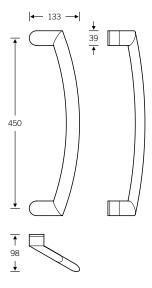
fsb.de/666535 fsb.de/666536

Design: Hartmut Weise



Handle cross-section Ø 39  $\times$  20 mm

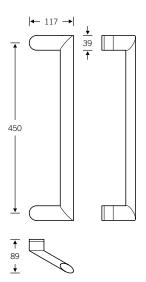




66 6538

Handle cross-section Ø 39  $\times$  20 mm





fsb.de/666537 fsb.de/666538

#### 5:

# **Door pull** oval

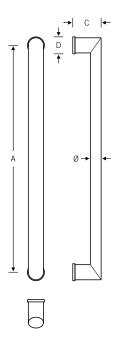
$\sim$	6542	
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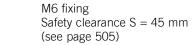
Product Code	Α	Ø	С	D	S	
66 6542 030	300	30 × 15	60	35	48	
66 6542 060	600	40 × 28	75	45	55	

to match FSB 1107 and FSB 1108

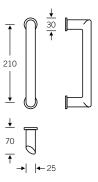
S = safety clearance (see page 505)











66 6611



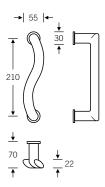
66 6611 02485 (RH) | 66 6611 02585 (LH)

M6 fixing Safety clearance S = 60 mm (see page 505)

shown here: RH\* viewed from the outside for handing details, see page 266 f.

\* as required for DIN LH opening inwards





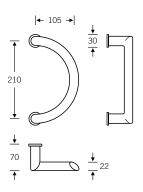
fsb.de/666610 fsb.de/666611

# **Door pulls** oval

66 6612



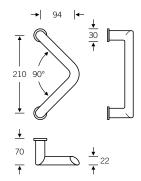




66 6613

M6 fixing Safety clearance S = 48 mm (see page 505)





fsb.de/666612 fsb.de/666613

Design: Hartmut Weise

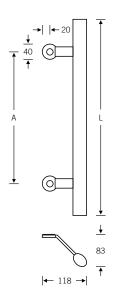
# **Door pull** oval

66 6616

Product Code	Α	Ø	L
66 6616 035	450	40 × 28	550
66 6616 045		40 × 28	650
66 6616 099		40 × 28	var.

Handle cross-section Ø 40 × 28 mm





fsb.de/666616

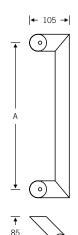
FSB recommends spacing brackets no more than 1,200 mm apart.

# Door pulls

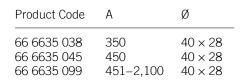
oval

66 6635









FSB's Oval series was inaugurated with door-pull model FSB 66 6635. Its easy-grip oval tube (Ø  $40 \times 28$  mm) was to be ergonomically aligned in such a way that it could be safely and purposefully taken hold of. This objective was achieved by welding handle and brackets together to form mitred joints. The upshot contrasted starkly with the gentle curves of the handle design incorporating round tubes.



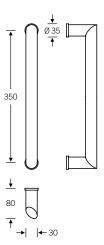




66 6650

Product Code	Α	Ø
66 6650 038	350	36 × 22
66 6650 099	351–1200	36 × 22

M8 fixing Safety clearance S = 49 mm (see page 505)

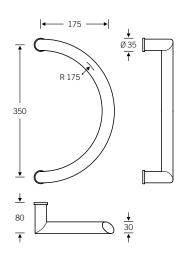


fsb.de/666635 fsb.de/666650 oval

66 6652

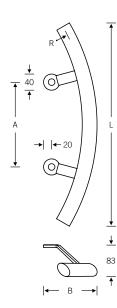
Handle cross-section Ø  $36 \times 22$  mm M8 fixing Safety clearance S = 53 mm (see page 505)





66 6675	Product Code	А	Ø	R	В	L
	66 6675 021 66 6675 035		40 × 28 40 × 28	485 1,420	132 129	504 745





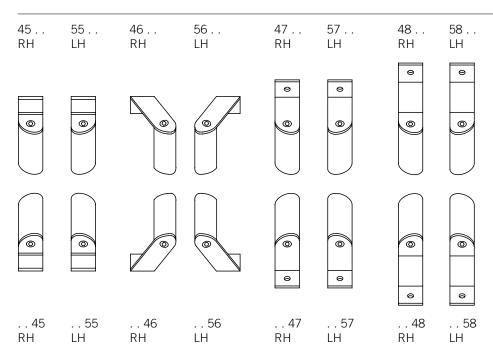
### Door pull

### ht oval welded



Lengths from 1,000–2,100 mm Tube  $28 \times 40 \times 1.5$  mm

66 6524 is a works-welded variant incorporating components from the ht oval kit (see next page). It can be used as a pull model in its own right from A Dimensions of 1,000 mm upwards and is also recommended on grounds of stability for A Dimensions of from 1,500–2,100 mm.



Pulls in the welded series FSB 66 6524 are made to order. To this end, please specify the bracket combination desired citing the relevant drawings and their numbers (e. g. FSB 66 6524 4545). Please also advise Dimension A, the distance between bracket fixing centres. We will then determine the pull's tube length by either adding or subtracting the differential dimensions given on the following page prior to welding the parts together at the works.

We only manufacture the bronze versions of FSB 66 6524 with the bracket combination 45/55 or 46/56 as a rule.

fsb.de/666524

It is necessary when assembling ht oval 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 pages 558 ff.

## Door pull ht oval kit system

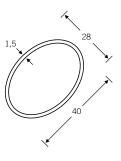


66 6802

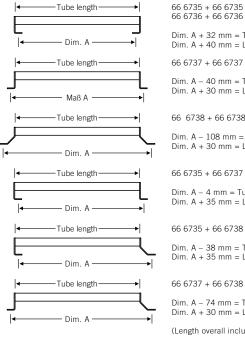


Lengths up to 1,500 mm Tube  $28 \times 40 \times 1.5 \text{ mm}$ Stock length supplied 3,000 mm

The ht oval 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 6524 for A Dimensions of 1,500 mm upwards, see previous page.



Cut-to-size dimensions and bracket combinations



Dim. A + 32 mm = Tube length Dim. A + 40 mm = Length overall

Dim. A - 40 mm = Tube length Dim. A + 30 mm = Length overall

66 6738 + 66 6738

Dim. A - 108 mm = Tube length Dim. A + 30 mm = Length overall

Dim. A - 4 mm = Tube lengthDim. A + 35 mm = Length overall

Dim. A - 38 mm = Tube length Dim. A + 35 mm = Length overall

Dim. A – 74 mm = Tube length Dim. A + 30 mm = Length overall

(Length overall including brackets)

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 A.

FSB recommends reinforcing ht-oval-kit pulls fitted to heavily frequented doors with the aid of the dedicated accessories we supply (see page 531).

fsb.de/666802

It is necessary when assembling ht oval 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

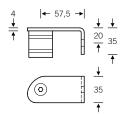
## ht oval kit system

66 6735

66 6735 004 (RH) I 66 6735 005 (LH)

In-line bracket, strap angled 90° inwards, to suit oval tube  $\emptyset$  40  $\times$  28  $\times$  1.5 mm



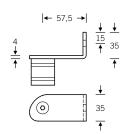


66 6737

66 6737 004 (RH) I 66 6737 005 (LH)

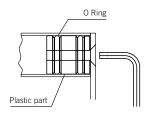
In-line bracket, strap angled 90° outwards, to suit oval tube Ø  $40 \times 28 \times 1.5$  mm





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

all examples shown: RH

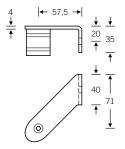


66 6736

66 6736 014 (RH) | 66 6736 015 (LH)

Bracket with 45° crank, strap angled 90° inwards, to suit oval tube  $\emptyset$  40  $\times$  28  $\times$  1.5 mm



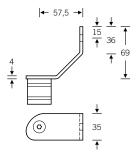


66 6738

66 6738 004 (RH) I 66 6738 005 (LH)

Bracket for swing doors, to suit oval tube  $\emptyset$  40  $\times$  28  $\times$  1.5 mm





Once the tube has been cut to size (Dimension A +/- 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.

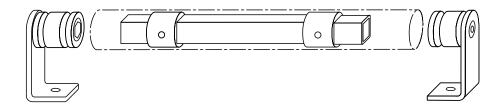
fsb.de/666735 fsb.de/666736 fsb.de/666737 fsb.de/666738

## Door-pull accessories

## ht oval kit system

FSB recommends reinforcing pulls from the ht oval kit fitted to heavily frequented doors with the aid of the accessories set out below – or, even better, opting for the works-welded variant FSB 66 6524 (see page 528).

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



66 6801

hot galvanised hollow steel bar





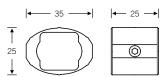
66 6801 02020

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

66 6739

Plastic





Spacing sleeve with securing screw

05 03..







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

05 0316 00840 (M8) headless wood screw

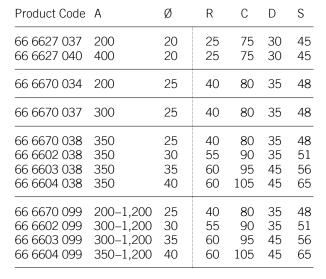
05 0320 00800 (M8) Stainless Steel dome nut

fsb.de/666801 fsb.de/666739

fsb.de/050313

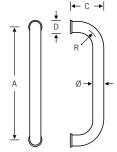
fsb.de/050316





Bronze in Ø 25 mm (66 6670) and 30 mm (66 6602) only





fsb.de/666602 fsb.de/666603 fsb.de/666604 fsb.de/666670 S I Safety clearance (see page 505)

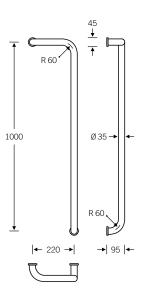
66 6506



66 6506 065 (RH) | 66 6506 075 (LH)

Handle cross-section  $\emptyset$  35 mm M8 fixing

shown here: RH viewed from the outside



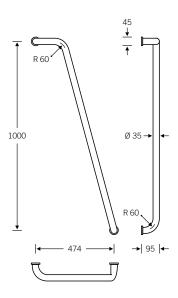
66 6507



66 6507 065 (RH) | 66 6507 075 (LH)

Handle cross-section  $\emptyset$  35 mm M8 fixing

shown here: RH viewed from the outside



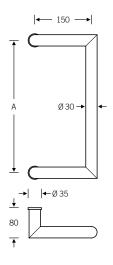
fsb.de/666506 fsb.de/666507 Safety clearance S = 47 mm (see page 505) For handing details, see page 266 f.

66 6514

Product Code	Α	Ø
66 6514 038	350	30
66 6514 045	450	30

M8 fixing Safety clearance S = 55 mm (see page 505)



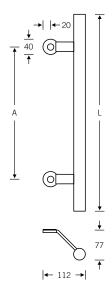


66 6615

Product Code	Α	Ø	L
66 6615 035	350	30	550
66 6615 045	450	30	650
66 6615 099	451–2,100	30	var.

Handle cross-section Ø 30 mm





fsb.de/666615

 $\label{eq:fsb} \mbox{FSB recommends spacing brackets no} \\ \mbox{more than 1,200 mm apart.}$ 

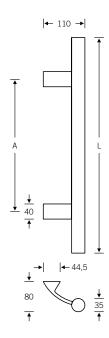
66	6526	
$\circ$	0020	

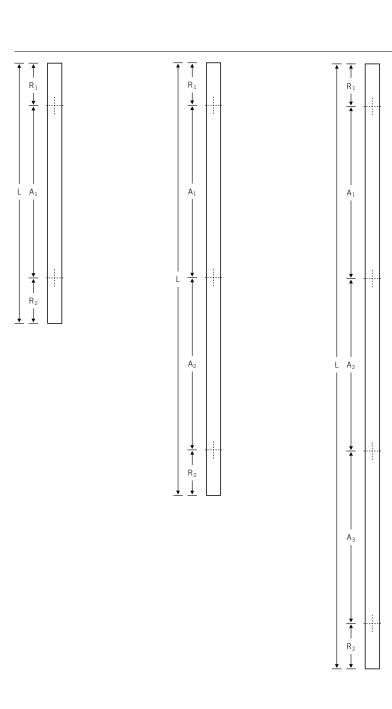
Product Code	Α	L
66 6526 035	350	570
66 6526 045	450	670

Handle cross-section Ø 35 mm

Brackets Silver Anodised Aluminium







Please use a copy of this page when ordering door-pull series 66 6526 of variable length:

Enter details of quantities required and overall length in the table below. Then indicate bracket spacings and the edge spacing in mm. Brackets spacings should not exceed 1,200 mm on grounds of stability.

66 6526 (Ø 35 mm)

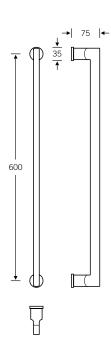


Quant.	Length overall	Bracket spacing			Edge spacing*		Fixing type
	L	$A_1$	A <sub>2</sub>	A <sub>3</sub>	$R_1$	R <sub>2</sub>	
				İ		<u> </u>	

\* min. 40 mm, max. 350 mm

66 6540





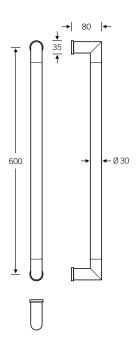
to match FSB 1035

Safety clearance S = 45 mm (see page 505)

Handle cross-section Ø  $15 \times 25$  mm

66 6541





to match FSB 1077

Grip Stainless Steel, knee sections Aluminium

Safety clearance S = 51 mm (see page 505)

fsb.de/666540 fsb.de/666541

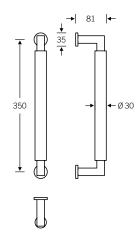
66 6546

to match FSB 1102

Bespoke lengths with A Dimensions of up to 1,200 mm suppliable

Safety clearance S = 51 mm (see page 505)

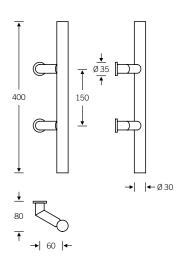


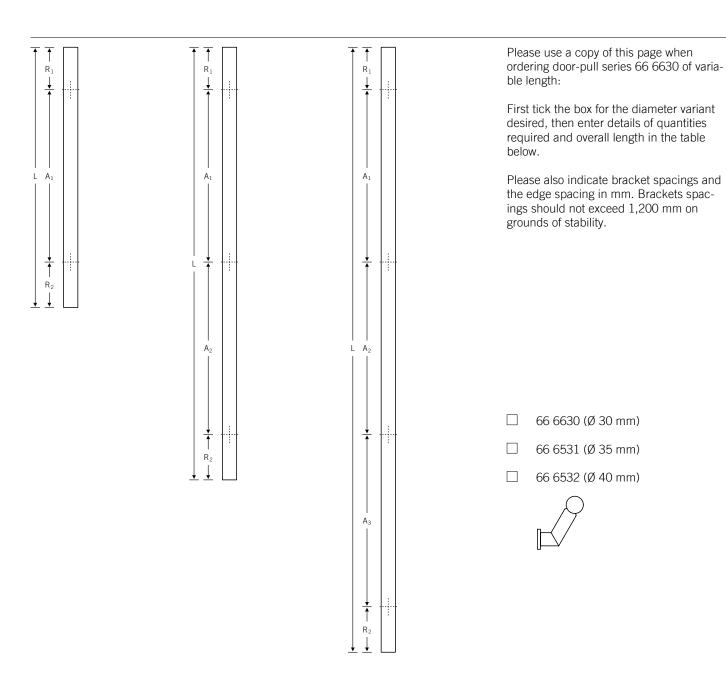


66 6630

Handle cross-section  $\emptyset$  30 mm M8 fixing Standard length 400 mm (also in bespoke lengths, see form across the page)







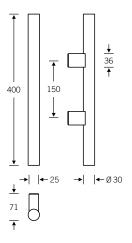
Quant.	Length overall	Bracket spacing			Edge spacing*		Fixing type
	L	$A_1$	A <sub>2</sub>	A <sub>3</sub>	$R_1$	R <sub>2</sub>	
				İ		<u> </u>	

<sup>\*</sup> min. 30 mm, max. 350 mm

66 6642



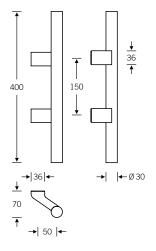
Handle cross-section Ø 30 mm
Brackets Silver Anodised Aluminium
Grip Aluminium or Stainless Steel
Standard length 400 mm
M6 fixing
Safety clearance S = 38 mm
(see page 505)



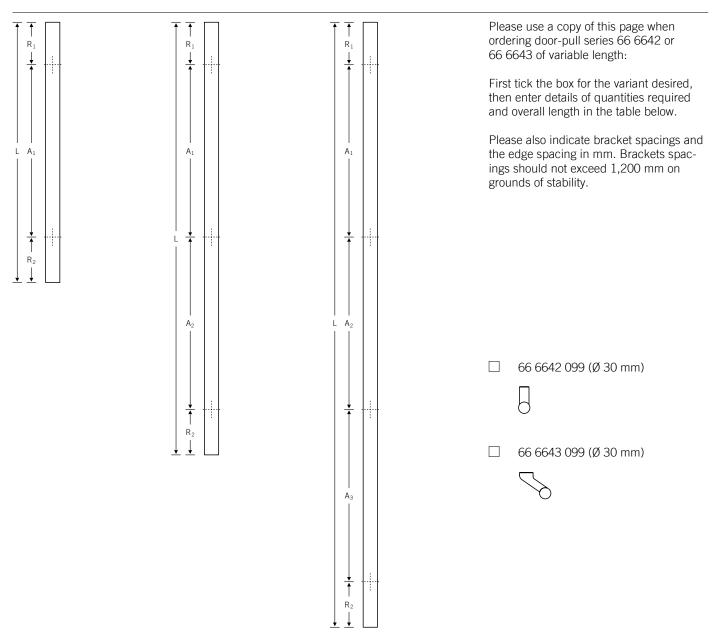
66 6643



Handle cross-section Ø 30 mm Brackets Silver Anodised Aluminium Grip Aluminium or Stainless Steel Standard length 400 mm M6 fixing



fsb.de/666642 fsb.de/666643



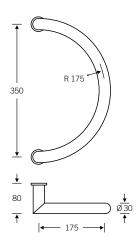
Qu	ant.	Length overall	Bracket spacing		Edge spacing*		Fixing type	
		L	$A_1$	A <sub>2</sub>	A <sub>3</sub>	R <sub>1</sub>	R <sub>2</sub>	

\* min. 30 mm, max. 350 mm

66 6653

Handle cross-section Ø 30 mm M8 fixing Safety clearance S=55 mm (see page 505)

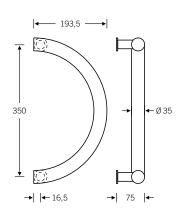




66 6655

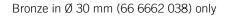
Handle cross-section  $\emptyset$  35 mm M8 fixing Safety clearance S = 55 mm (see page 505)



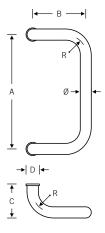




Product Code	Α	Ø	R	В	С	D	S
66 6661 034	200	25	40	100	80	35	42
66 6661 037	300	25	40	100	80	35	42
66 6661 038 66 6662 038 66 6663 038 66 6664 038	350 350 350 350	25 30 35 40	40 55 60 60	100 140 140 150	80 90 95 120	35 35 45 45	42 43 45 52
66 6661 099 66 6662 099 66 6663 099 66 6664 099	200-1,200 300-1,200 300-1,200 350-1,200	25 30 35 40	40 55 60 60	100 140 140 150	80 90 95 120	35 35 45 45	42 43 45 52







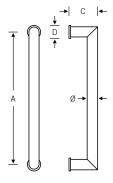
fsb.de/666661 fsb.de/666662 fsb.de/666663 fsb.de/666664 S I Safety clearance (see page 505)

66 6669

Product Code	А	Ø	С	D	S
66 6606 038 66 6669 038 66 6607 038 66 6609 038	350 350 350 350	25 30 35 40	75 80 85 90	35 35 45 45	50 55 57 60
66 6669 099 66 6609 099	Bespoke length Bespoke length	30 40			

Bespoke lengths with A Dimensions up to 1,200 mm in Ø 30, 35 and 40 mm Bronze in Ø 30 mm (66 6669 038) only M8 fixing

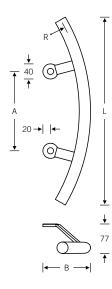




fsb.de/666606 fsb.de/666607 fsb.de/666609 fsb.de/666669 S | Safety clearance (see page 505)

66 6674	Product Code	Α	Ø	R	В	L
	66 6674 021 66 6674 035		30 30	485 1420	126 123	497 742



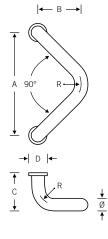


#### 5a

# **Door pull** round

66 6679	Product Code	Α	Ø	R	В	С	D	S
	66 6679 034	200	25	40	83	80	35	42
	66 6679 037	300	25	40	133	80	35	42
	66 6679 038 66 6623 038 66 6624 038	350 350 350	25 30 35	40 55 60	158 152 150	80 90 95	35 35 45	42 43 45



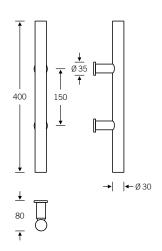


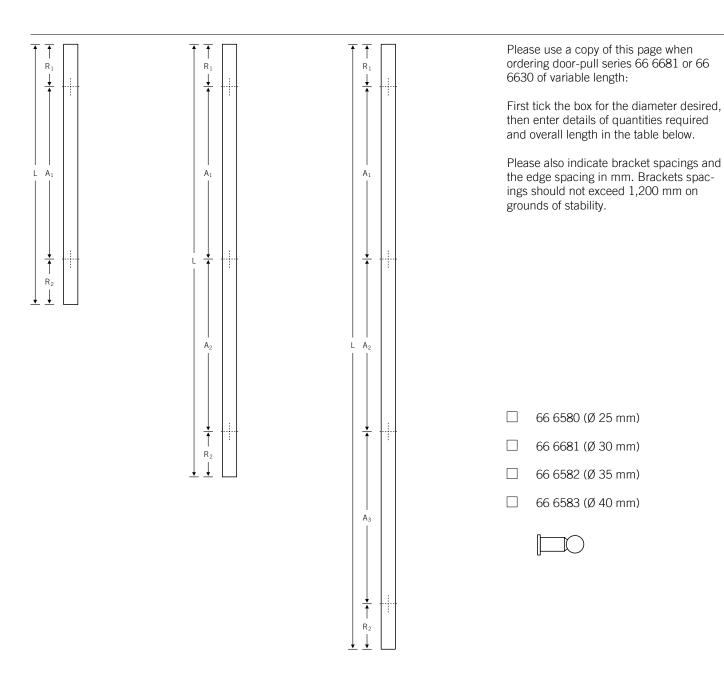
fsb.de/666623 fsb.de/666624 fsb.de/666679 S | Safety clearance (see page 505)

66 6681

Handle cross-section Ø 30 mm M8 fixing Standard length 400 mm (also in bespoke lengths, see form across the page) Safety clearance S = 38 mm (see page 505)





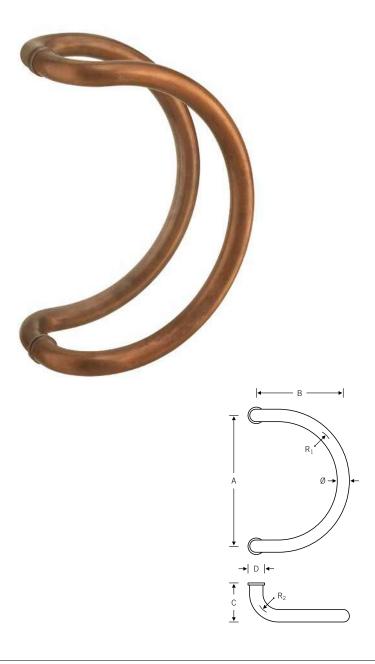


Quant.	Length overall	Bracket spacing		Edge spacing*		Fixing type	
	L	$A_1$	A <sub>2</sub>	A <sub>3</sub>	$R_1$	$R_2$	
				<u> </u>			

<sup>\*</sup> min. 30 mm, max. 350 mm

Product Code	Α	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	350	25	175	40	215	80	35	42
66 6683 038	350	30	175	55	230	90	35	43
66 6659 038	350	35	175	60	235	95	45	45
66 6678 038	350	40	175	60	235	120	45	52
	66 6673 034 66 6673 037 66 6673 038 66 6683 038 66 6659 038	66 6673 037 300 66 6673 038 350 66 6683 038 350 66 6659 038 350	66 6673 034 200 25 66 6673 037 300 25 66 6673 038 350 25 66 6683 038 350 30 66 6659 038 350 35	66 6673 034 200 25 100 66 6673 037 300 25 150 66 6673 038 350 25 175 66 6683 038 350 30 175 66 6659 038 350 35 175	66 6673 034 200 25 100 40 66 6673 037 300 25 150 40 66 6673 038 350 25 175 40 66 6683 038 350 30 175 55 66 6659 038 350 35 175 60	66 6673 034     200     25     100     40     140       66 6673 037     300     25     150     40     190       66 6673 038     350     25     175     40     215       66 6683 038     350     30     175     55     230       66 6659 038     350     35     175     60     235	66 6673 034     200     25     100     40     140     80       66 6673 037     300     25     150     40     190     80       66 6673 038     350     25     175     40     215     80       66 6683 038     350     30     175     55     230     90       66 6659 038     350     35     175     60     235     95	66 6673 034     200     25     100     40     140     80     35       66 6673 037     300     25     150     40     190     80     35       66 6673 038     350     25     175     40     215     80     35       66 6683 038     350     30     175     55     230     90     35       66 6659 038     350     35     175     60     235     95     45

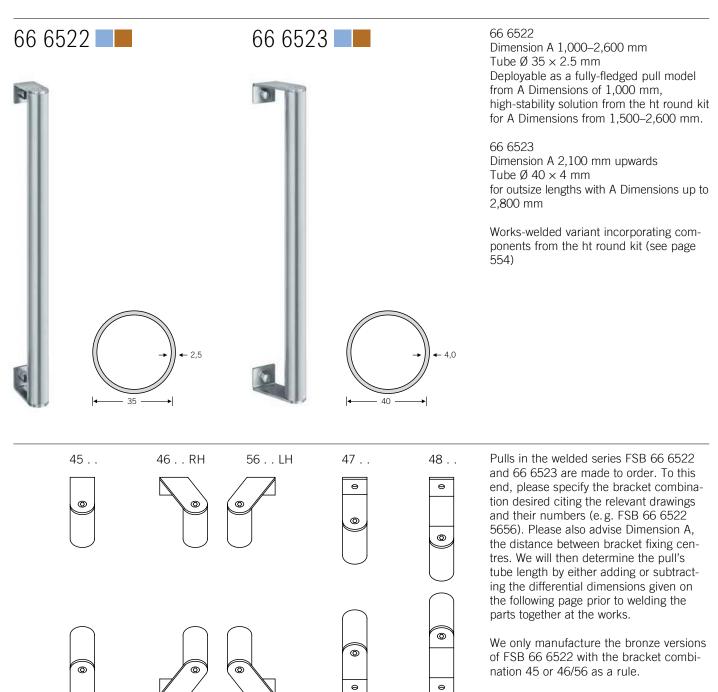
Bronze in  $\emptyset$  30 mm (66 6683 038) only



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

### Door pulls

### ht round welded



fsb.de/666522 fsb.de/666523

66 6522

66 6523

→ 35

→ | 40 |

. . 45

..46 RH

. . 56 LH

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

35 -

→ | 40 |

. . 48

**→**| 40 |**←** 

. . 47

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

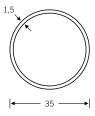
### ht round kit system



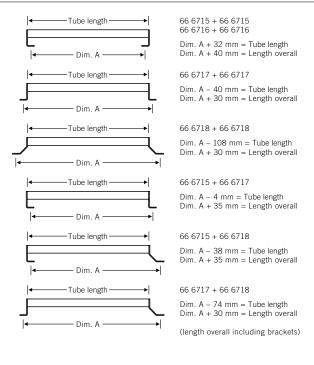
66 6801

Tube  $\emptyset$  35  $\times$  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 A.

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.

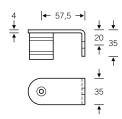
### Door-pull brackets

### ht round kit system

66 6715

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

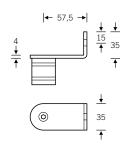




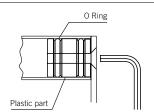
66 6717

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





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

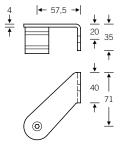


66 6716

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

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

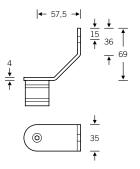




66 6718

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.

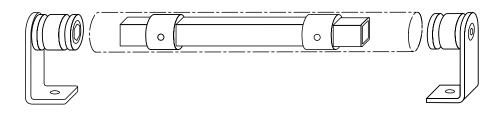
fsb.de/666715 fsb.de/666716 fsb.de/666717 fsb.de/666718

### Door-pull accessories

### ht round kit system

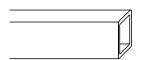
FSB recommends reinforcing pulls from the ht round kit fitted to heavily frequented doors with the aid of the accessories set out below - or, even better, opting for the works-welded variants FSB 66 6522 or 66 6523 (see page 553f.).

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





0

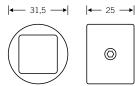
66 6801 02020

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

66 6719

Plastic





Spacing sleeve with securing screw

05 03..







05 0313 00880 (M8 × 80 mm) threaded stud

05 0316 00840 (M8) headless wood screw

05 0320 00800 (M8) Stainless Steel dome nut

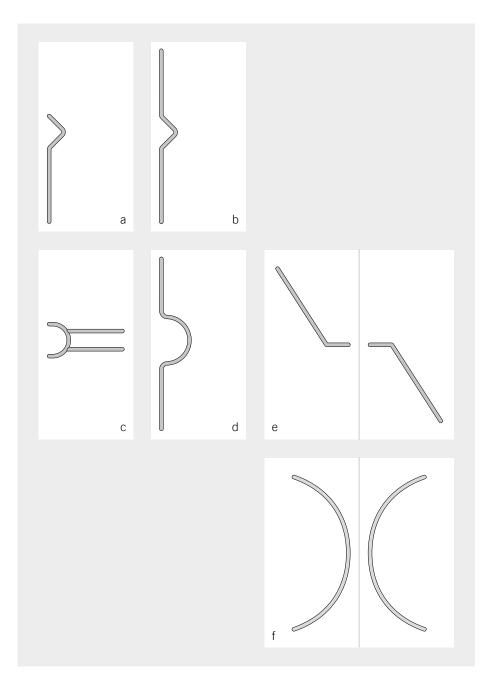
fsb.de/666801 fsb.de/666719

fsb.de/050313

fsb.de/050316

## 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

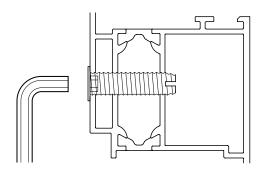
### with self-tapping threaded insert



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.

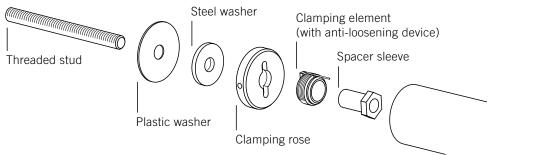
### Fixing FSB door pulls

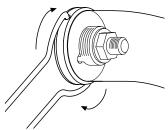
### with clamping roses



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  $14 \times 1.5$  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

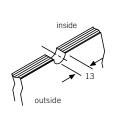
Finally, the pull is positioned over the fixing points and attached firmly to the surface of the door by alternately rotating the clamping roses in a clockwise direction.

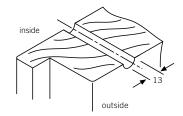
The turning tool for the FSB clamping rose forms part of the product supplied.

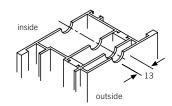
## Drilling dimensions

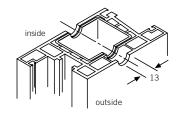
Glass doors Timber doors Metal doors Plastic doors

Fixings, see A

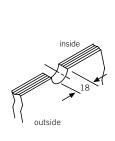


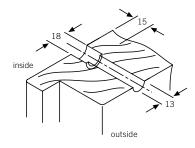


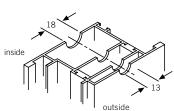


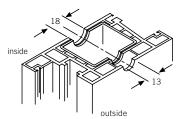


Fixings, see B

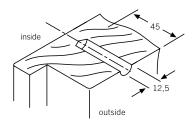


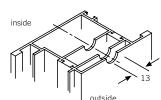


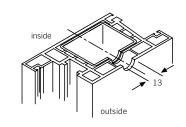


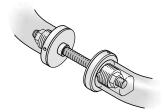


Fixings, see C

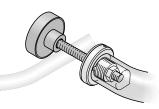












Fixing B bolt through-fixing: 05 0580, 05 0587



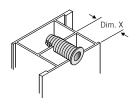
**Fixing C** face-fixing with threaded insert: all products

#### 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	05 0582 01008	9 10 mm
	4 Plastic washers 2 Handle caps in Stainless Steel	Glass door 05 0582 03038 05 0582 03045 05 0582 03050 05 0582 03055 05 0582 03060 05 0582 03065 05 0582 03070 05 0582 03075	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
 ,	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 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	<ul> <li>2 M8 cheese-head screws</li> <li>2 Plastic washers</li> <li>2 Self-tapping threaded inserts in hardened galvanised steel</li> <li>2 Handle caps in Stainless Steel</li> <li>Boreholes Ø 12.5 mm (timber), Ø 13 mm (metal/plastic doors)</li> </ul>	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



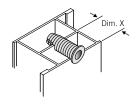
Dimension X = Cavity dimension

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

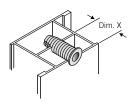


Dimension X = Cavity dimension

#### Door pulls

66 6615, 66 6616, 66 6674, 66 6675

Fixing type	Fixing accessories	<b>Product Code</b>	
 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
//	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	05 0583 00335 Dimension X Plug length 05 0583 00336	10 – 30 mm 38 mm
	2 Plastic washers	Dimension X Plug length 05 0583 00337 Dimension X	10 – 41 mm 45 mm 10 – 54 mm
	Boreholes Ø 12.5 mm (timber), Ø 13 mm (metal/plastic doors)	Plug length	58 mm

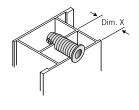


Dimension X = Cavity dimension

#### 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 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)	i idg ivrigui	

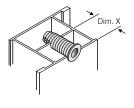


Dimension X = Cavity dimension

#### 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)		



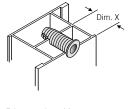
Dimension X = Cavity dimension

#### **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 03070 05 0585 03075 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



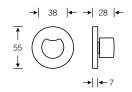
Further models are to be found in Section 3a

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







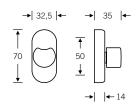
03 0418 00208

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.