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### **Fittings for narrow-stile doors** Added value at a glance

With its product collections, FSB ensures continuity of the selected design across all door and window fittings. Naturally this also includes fittings for narrow-stile doors with metal or PVC profiles. The fixing material supplied is adapted to meet the special requirements of narrow-stile doors and their fittings. Standard and heavy-duty variants as well as inactive-leaf sets are regularly designed for face fixing. Through-fixing is possible in combination with certain narrow-stile door locks; see page 495.

Non-positive door handle and spindle connection effectively diverts tensile forces to the opposite side of the door

Firmly fixed female handle ensures permanent handle–spindle connection

Option of in-line or cranked handles as well as a combination of the two

Injuries prevented by cranked handle neck pursuant to DIN 31001

Screw bushings fitted with retarder plugs stop slipping on the profile and hold screws tight

Increased stability thanks to solid steel base

1.5 million operating cycles tested	
Diverse materials and finishes in aluminium, stainless steel and bronze	
Symmetrical handles can be used on either side	6c
	Positive mechanism allows for a maximum operating angle of 45° so narrow-stile door handles do not sag
	Option of narrow-stile door handles with and without return-to-door (EN 179 compatible)
Over 70 different narrow-stile door handle models and over 50 models for emergency exit devices conforming to EN 179	
	Narrow-stile door handles meeting the requirements of the German Social
Roses alternatively available as angular variants	Accident Insurance (DGUV) for injury prevention are available

### **Fittings for narrow-stile doors** Product variants

### Product features of lever handles for narrow-stile doors

- Suitable for use on fire doors and escaperoute doors
- Concealed face fixing
- Oval or angular rose
- Integrated positive mechanism
- Max. operating angle of 45° for active leaf
- Turnably fixed plain bearing
- For single and double-leaf narrow-stile doors

#### Cranked lever handles for narrow-stile doors





 Oval rose:

 Image: Constraint of the second secon

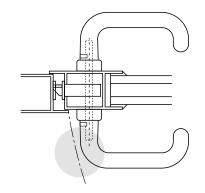
To enable fittings to be securely fixed onto the narrow stiles yet prevent hands from getting caught between the closing face and the door jamb, a cranked handle is used on the closing face and connected to a non-cranked male handle on the opening face. This inspired combination was the brainchild of philosopher Ludwig Wittgenstein and it both prevents hand injury and solves fixing problems. (Injury prevention in accordance with DIN 31001) Oval rose: • 06 .... 112 (spindle 9 mm) Angular rose: • 06 .... 172 (spindle 9 mm)

A perfectly matched lever handle for narrow-stile doors ideally becomes the jewel in the crown of every product collection. This is certainly true for the FSB 1272 and FSB 1286 models, for example. The cranking in these models is confined to a slight adjustment of the transition radius between the handle neck and the grip section. The basic design of the standard lever handle collection is thus systematically extended to narrowstile doors – while simultaneously taking into account the specific requirements and standards governing these doors.

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#### Safety clearance

The spatial restrictions associated with narrow-stile doors mean there is a risk of hands getting caught between the closing face and the door jamb when operating the door (see figure). DIN 31001 stipulates a clearance of 25 mm between the lever handle and the closing edge. Detailed information on safety clearances can be found in DIN 31001.



#### In-line lever handles for narrow-stile doors



 Oval rose:

 ● 09 .... 211 (spindle 8 mm)

 ● 09 .... 212 (spindle 9 mm)

 Angular rose:

 ● 09 .... 271 (spindle 8 mm)

 ● 09 .... 272 (spindle 9 mm)

Depending on the lock backset and the width of the door profile, the in-line lever handle is ideally combined with a cranked lever handle for narrow-stile doors. Two in-line lever handles for narrow-stile doors can also be combined.

 6c

### **Fittings for narrow-stile doors** Product variants

#### Product features of inactive-leaf sets

- Suitable for heavy-duty applications
- Available in-line and cranked
- For double-leaf narrow-stile doors
- Active leaf is for used for access; inactive leaf is only opened as needed
- Fixing material is supplied
- Oval or angular rose

Non-spring-assisted espagnolette locks with operating angles < 45° are to be used in combination with narrow-stile door handles fitted with a positive mechanism. If the operating angle is > 45° and models are simultaneously used as inactive-leaf sets (i.e. without positive mechanism), spring-assisted locks are generally called for in the case of bronze variants and the following stainless steel models:

- 06 1163 ... - 06 1164 ...
- 06 1243 ...

### In-line lever handle for narrow-stile doors as inactive-leaf set (ILS)



09 .... 223 (oval, spindle 9 mm)
 09 .... 273 (angular, spindle 9 mm)

### Cranked lever handle for narrow-stile doors as inactive-leaf set (ILS)



G → 06 .... 023 (oval, inactive leaf)
 G → 06 .... 073 (angular, inactive leaf)

Cranked lever handle for narrow-stile doors without positive mechanism

#### Product features of lever handles for narrow-stile doors

- For doors with low requirements, e.g. garden gates or side entrances
  Visible face fixing
  Angular rose
  For single-leaf narrow-stile doors

#### Lever handles for narrow-stile doors with visible fixing





06 0605 013 09 1087 002

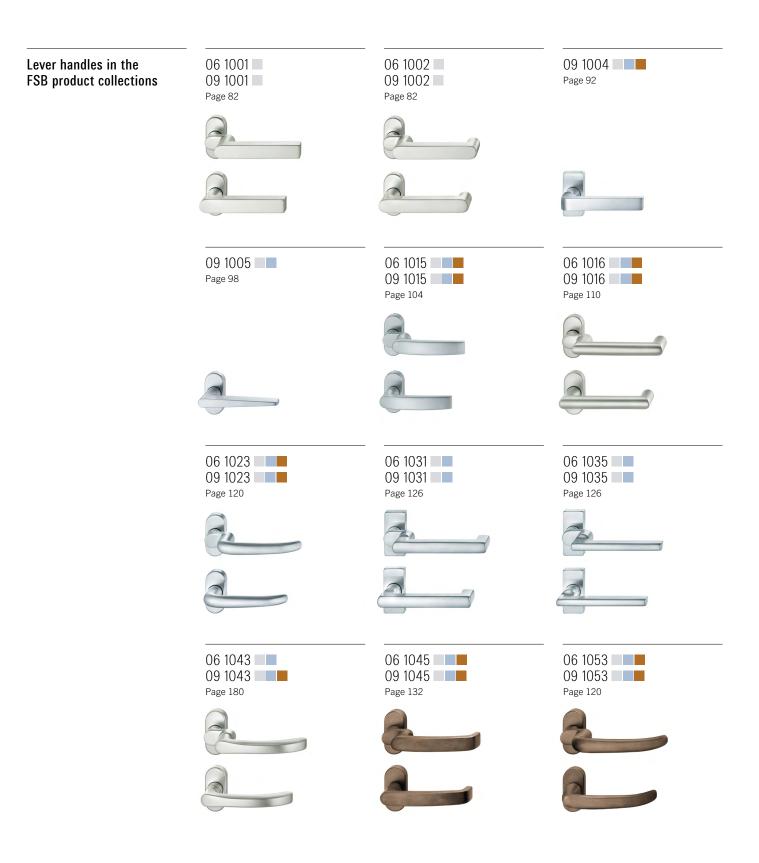


06 0620 016 06 0663 016

-

With positive mechanism

Overview



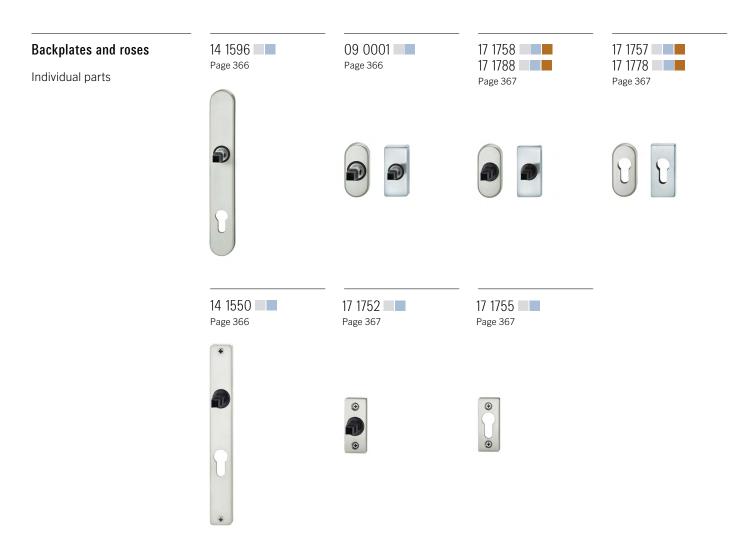
6c

06 1070 09 1070 Page 146	06 0644 09 1074 Page 248	06 1076 09 1076 Page 165	06 1078 09 1078 Page 162
06 1088 09 1088 Page 162	06 1093 09 1093 Page 168	06 1094 09 1094 Page 168	09 1102 <b>Page 174</b>
2			
09 1106	06 1107 09 1107 Page 186	06 1108 09 1108 Page 192	06 1119 09 1119 Page 198
	09 1107	09 1108	09 1119
	09 1107	09 1108	09 1119
	09 1107	09 1108	09 1119
Page 180	09 1107 Page 186	09 1108 Page 192 06 1146 09 1146	09 1119 Page 198

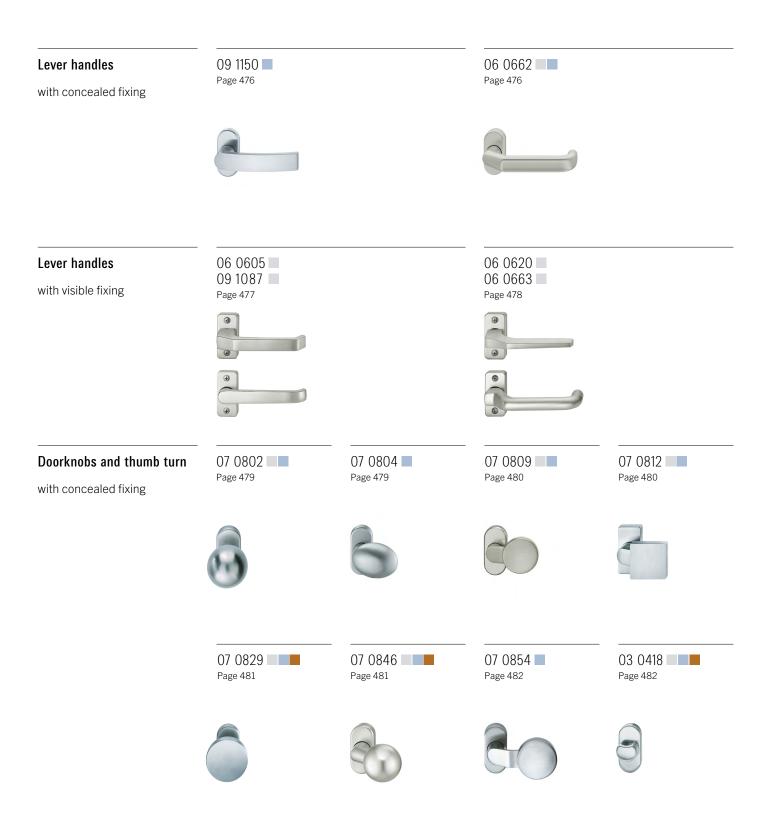
Overview

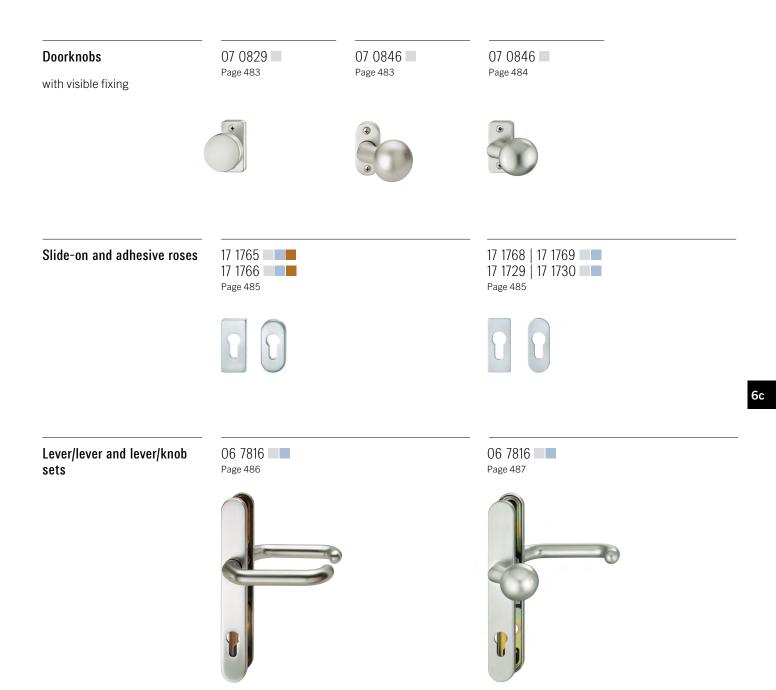


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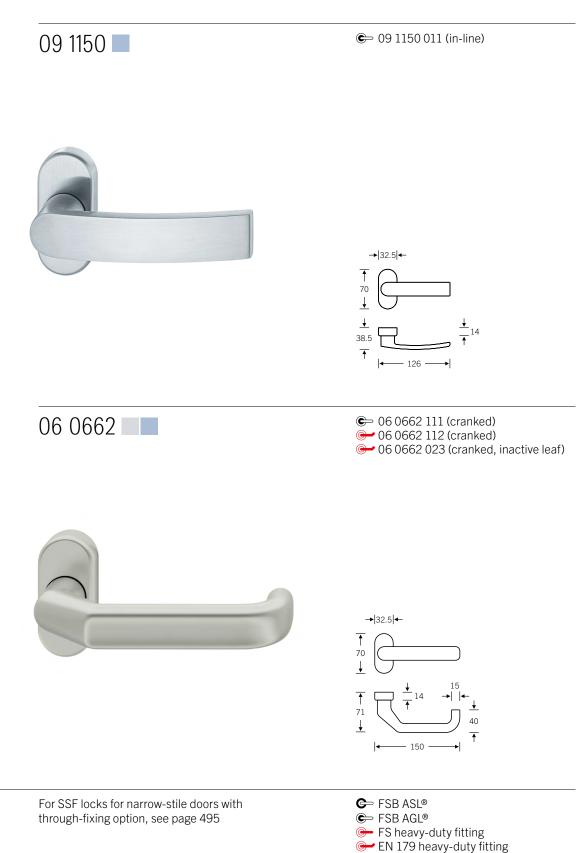
### **Fittings for narrow-stile doors** Overview





Lever handles with concealed fixing

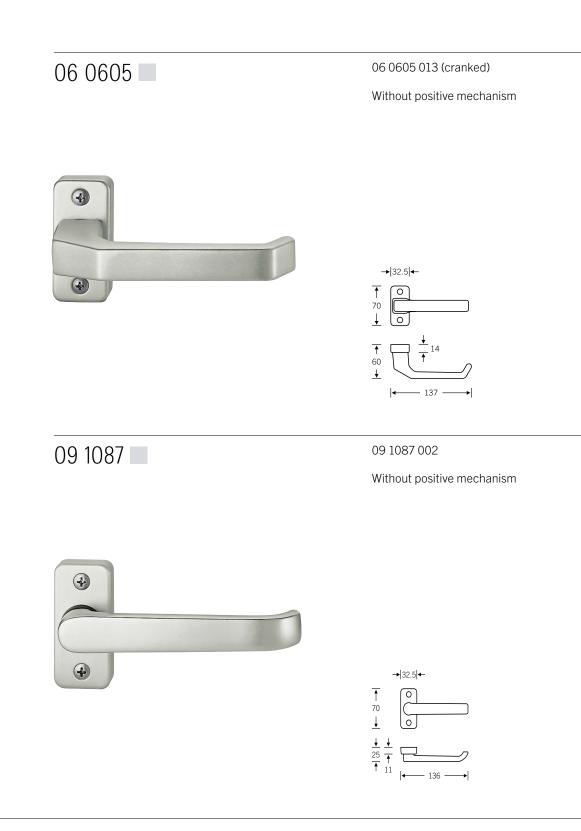




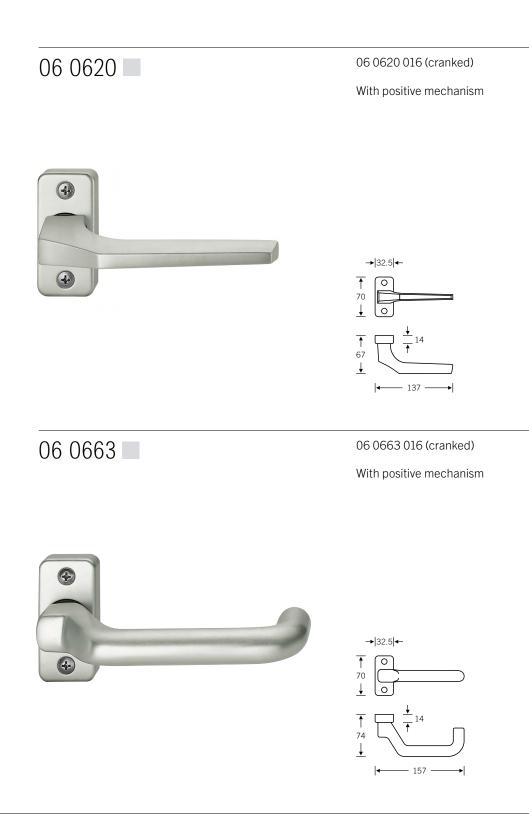
For bearings, see page 52 ff.

AluminiumStainless steelBronze

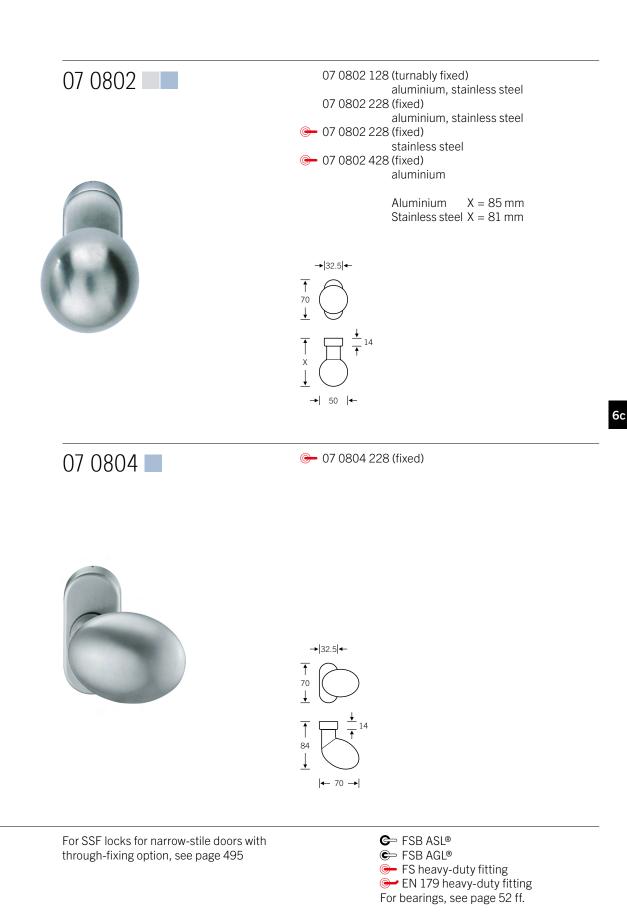
Lever handles with visible fixing



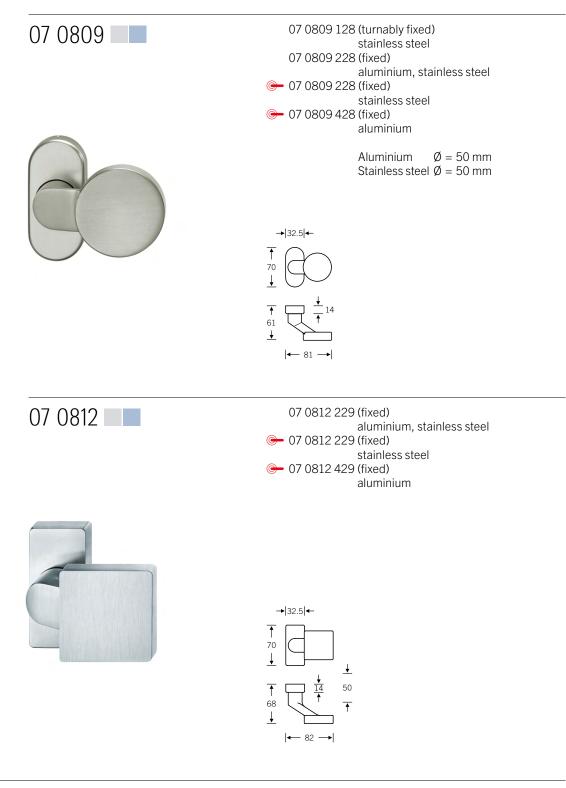
Lever handles with visible fixing



Doorknobs with concealed fixing

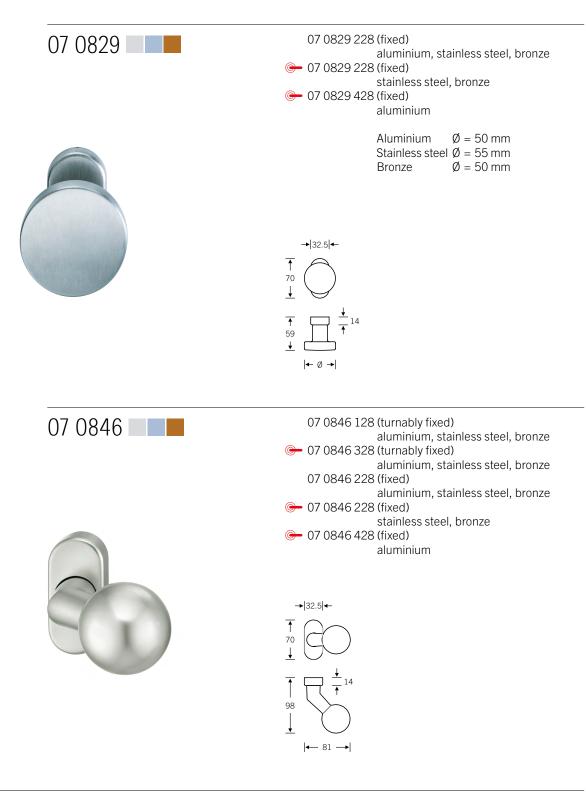


Doorknobs with concealed fixing



For SSF locks for narrow-stile doors with through-fixing option, see page 495

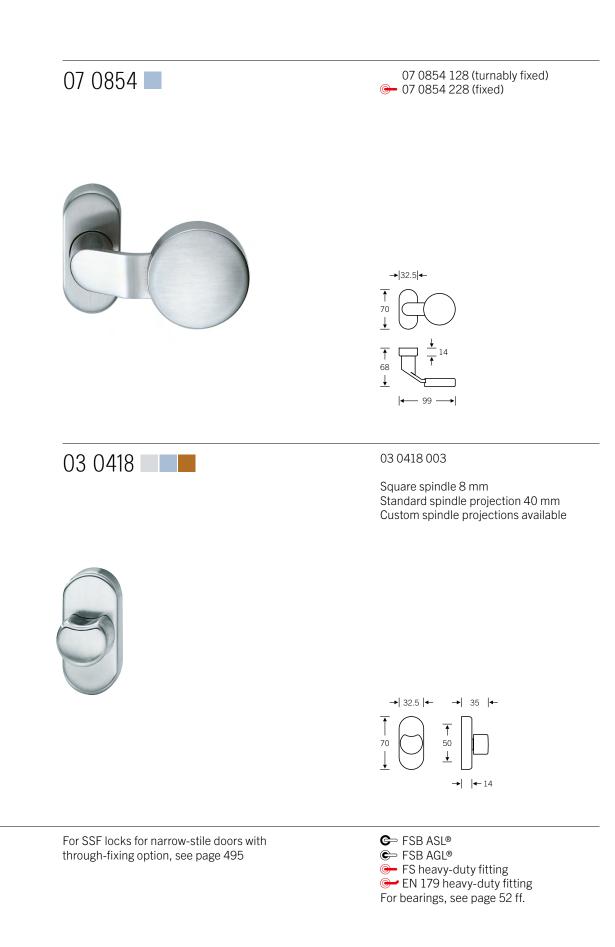
Doorknobs with concealed fixing



For SSF locks for narrow-stile doors with through-fixing option, see page 495

Doorknobs and thumb turn with concealed fixing





Doorknobs with visible fixing

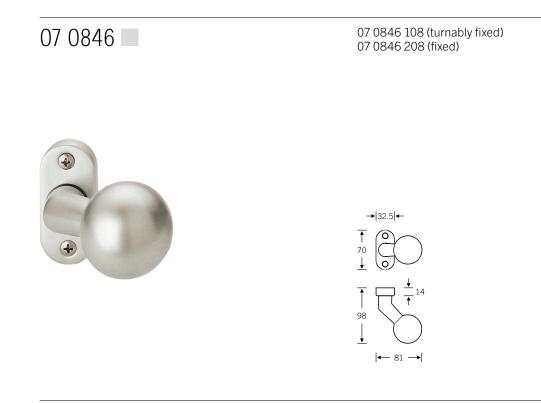




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Doorknobs with visible fixing



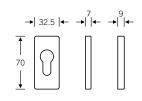


Slide-on and adhesive roses

17 1765	
17 1765 000 (7 mm) 17 1765 001 (9 mm)	

Slide-on rose

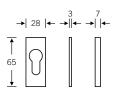




17 1768 | 17 1769 17 1768 (3 mm) 17 1769 (7 mm)

Adhesive rose



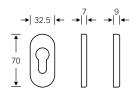


### 17 1766

17 1766 000 (7 mm) 17 1766 001 (9 mm)

Slide-on rose



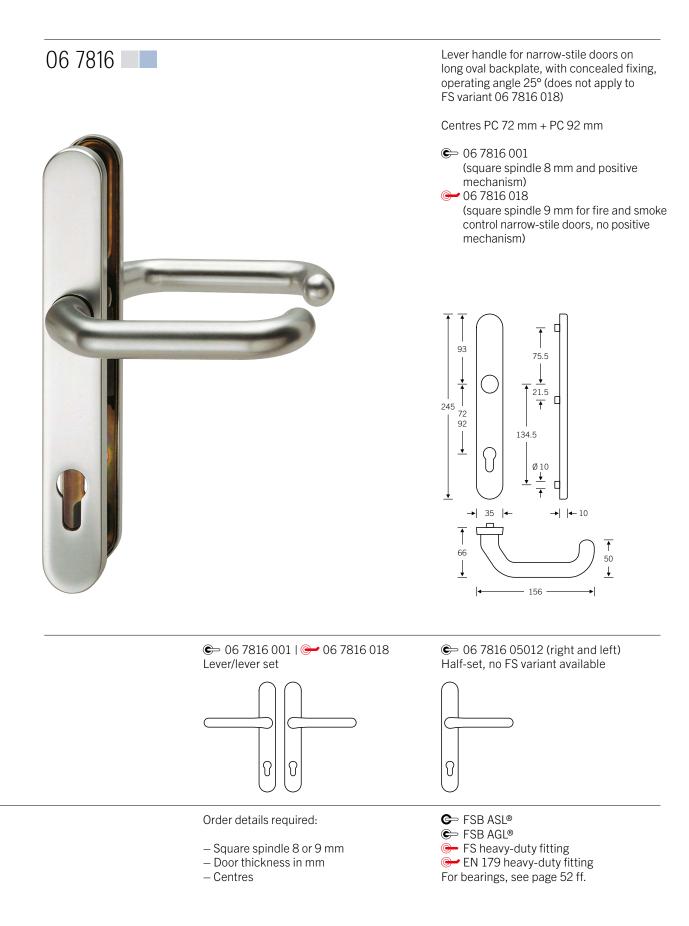


6c



Adhesive rose



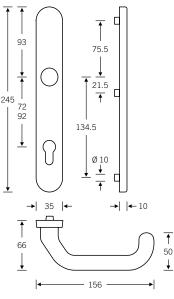




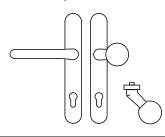
Lever handle for narrow-stile doors on long oval backplate, with concealed fixing, operating angle 25° (does not apply to FS variant 06 7816 019/20)

Centres PC 72 mm + PC 92 mm

- © 06 7816 013 (square spindle 8 mm and positive mechanism)
- O6 7816 019 (R) | 06 7816 020 (L) (square spindle 9 mm for fire and smoke control narrow-stile doors, no positive mechanism)



€ 06 7816 013 Knob-backplate set



Order details required:

- Square spindle 8 or 9 mm
- Door thickness in mm
- Centres
- Handing (9 mm: fixed knob, 8 mm: loose knob)

# FSB ASL<sup>®</sup> FSB AGL FS heavy-duty fitting EN 179 heavy-duty fitting For bearings, see page 52 ff.

### 489 **Technical information** Fittings for narrow-stile doors

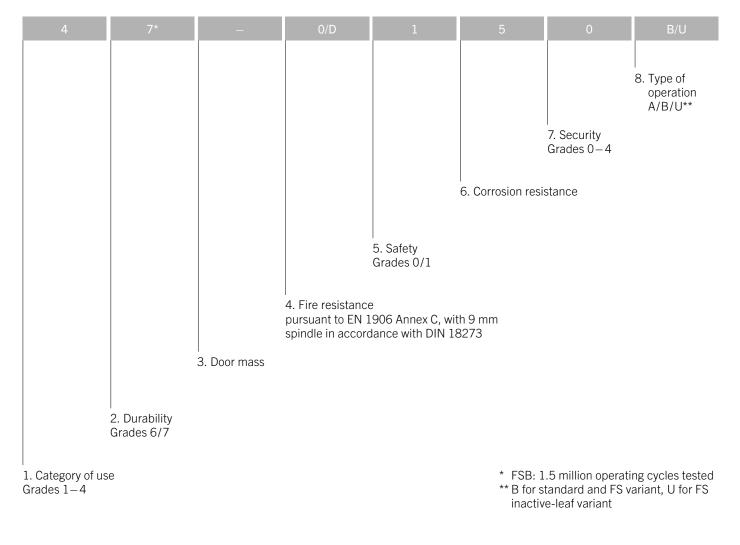
### Fittings for narrow-stile doors conforming to EN 1906

#### Our handles for narrow-stile doors come out on top, going far beyond the standard in many categories.

Standard EN 1906 defines the requirements and test methods for door handles and doorknobs. The practical value and classification of fittings must be judged across the entire eight-digit grading system. Certification under EN 1906 is only granted once all test criteria and the required results are met. Perfection down to the last detail – our heavy-duty fittings pass with flying colours in each of the eight categories, also known as 'digits':

#### **Classification code**

For in-line and cranked lever handles for narrow-stile doors (on narrow rose) for 8 and 9 mm square spindle



### Fittings for narrow-stile doors conforming to EN 1906

#### 1. Category of use

#### Grade 1

Doors with medium frequency of use by people with a high incentive to exercise care and a small chance of misuse, e.g. i nternal residential doors

#### Grade 2

Doors with medium frequency of use by people with some incentive to exercise care but where there is some chance of misuse, e.g. internal office doors

#### Grade 3

Doors with high frequency of use by the public or others with low incentive to exercise care and with a high chance of misuse, e.g. doors in public administrative buildings

#### Grade 4

Doors in public places with high frequency of use, which are subject to abuse or at risk of being damaged, e.g. doors in public toilets or schools, etc.

The fittings are tested on the following aspects in order to allocate the different grades to them:

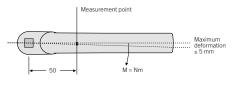
- Rotational torque strength of the square spindle
- Tensile load
- Free play in neutral position
- Free angular movement

FSB is always in a class of its own: the figures and graphs to the right show just how well our lever handles for narrow-stile doors perform against the EN 1906 grading scheme.

### Rotational torque strength of the square spindle

The FSB spindle offers greater rotational torque strength with less deformation.





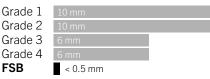
#### Tensile load

The compact design and durability of the connection elements guarantee the ability to withstand a higher tensile load.



#### Free play in neutral position

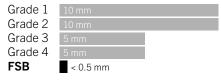
FSB bearing technology ensures a secure hold and does not allow sets to wobble, with a guide bearing depth of 7 mm and handle guide diameter of 18 mm.

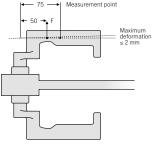


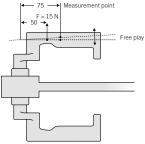


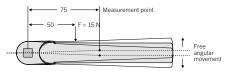
#### Free angular movement

Thanks to no-play tensioning, the FSB spindle prevents door handles from wobbling.









### Fittings for narrow-stile doors conforming to EN 1906

#### 2. Durability

FSB sets far exceed the requirements set for the fatigue test. The force and motion conditions likely to be experienced in the field are recreated on a test rig and simulated in a fatigue test. Grade 6 Grade 7 **FSB**  100,000 operational cycles for medium use 200,000 operational cycles for high use 500,000 operating cycles tested

#### 3. Door mass

No requirement. This digit describes the door weight.

#### 4. Fire resistance

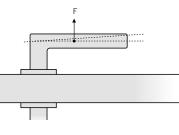
FSB lever handles for narrow-stile doors with 9 mm square spindles in the fire safety variant have been tested and certified under DIN 18273.

#### 5. Safety

To be assigned grade 1 here, fittings must be able to withstand loads of 1,500 N or 2,500 N depending on the category of use.

Lever handles for narrow-stile doors with 8 and 9 mm square spindles meet the increased safety requirements as they can withstand tensile forces of 2,500 N, making them wholly suitable for use in public buildings. Grade 0 = normal use Grade 1 = safety application Grade 1-4 category of use (first digit of the classification code)





#### 6. Corrosion resistance

This digit describes the defined corrosion resistance. FSB narrow-stile door fittings made of aluminium and stainless steel meet the requirements of grade 5 set out in EN 1906, which is verified with a 480-hour salt spray test.

- Grade 0 = no defined corrosion resistance Grade 1 = mild resistance Grade 2 = moderate resistance
- Grade 3 = high resistance
- Grade 4 = very high resistance
- Grade 5 = extra high resistance

#### 7. Security

Where 'burglary-resistant fittings' are concerned, FSB offers a special range of fittings for security grades 2 and 4 in many different designs. Naturally our security fittings also meet the other requirements of this standard.

Grade 0 = no burglary resistance Grade 1 = mild resistance Grade 2 = moderate resistance Grade 3 = high resistance Grade 4 = extra high resistance

#### 8. Type of operation

FSB lever handles for narrow-stile doors are equipped with a type A positive mechanism in the standard and FS variant. Inactive-leaf variants are unsprung (type U).

A = spring-assisted

- B = spring-loaded
- U = unsprung

### Fixing system for narrow-stile doors

### Application-specific FSB fixing accessories and spindles for narrow-stile door handles

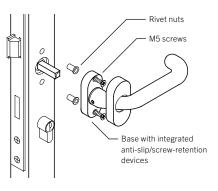
It is usual for narrow-stile door sets to be put together from individual components to suit differing applications. FSB caters to this with a versatile, needs-based spindle concept. The FSB spindles presented on the following page are designed for specific applications.

Our in-house sales team or FSB Applications Engineering department will be pleased to help you with the precise specification for your order with regard to your particular application and door thickness.

### Fixing accessories included in the scope of delivery

- M5 non-loosening screws
- Base with integrated anti-slip/screwretention devices
- Rivet nuts matched to the base (head Ø 11 mm); standard assembly tool required to insert blind rivet nuts

FSB cannot accept complaints caused by a failure to use FSB fixing accessories.



#### Anti-slip/screw-retention devices

The combination of rivet nuts, base and screws ensures that hardware can be fitted so as not to work loose. All FSB roses for narrow-stile door fittings have screw bushings fitted with rubbery plastic retarder plugs. These plugs act as an anti-slip device against their host surface while also providing the necessary axial and radial tension to hold the screws tight.

### **Technical information** Spindles for narrow-stile doors

### In-line and cranked lever handles for narrow-stile doors, concealed fixing

All FSB narrow-stile door handles with roses with concealed fixing feature front-end drill holes as standard. Loose/unstable floating spindles, which may be found on metal doors, are a 'no-go' at FSB. The fixed spindle connection ensures safety and no slippage of the fitting.

The following FSB recommendations apply to all of the combinations of narrow-stile door sets and half-sets shown on the right.

### Spindles for medium and heavy-duty doors and high-traffic doors

Special spindle 05 0525 028.. (8 mm) or 05 0525 029.. (9 mm); see page 766

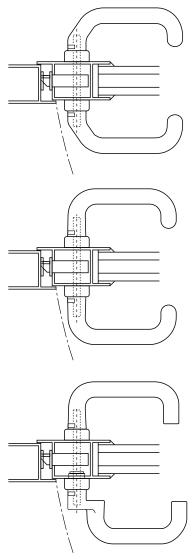
- Permanently non-positive connection: the male handle sits fast at the back of the handle recess, secured by a grub screw with a point that fits exactly into a corresponding hole in the spindle
- Fixed spindle: the axial forces arising when doors and handles are operated are transferred to the door profile
- Leverage potential in the forces arising is always compensated through the best possible reduction of assembly tolerances for all modules involved
- The female handle is firmly and reliably secured with a screw that goes directly into the square spindle

### Spindles for light to medium heavy-duty doors

Full spindle 05 0118 008.. (8 mm) or 05 0118 019.. (9 mm); see page 758/760 The application-related spindle variants for all other FSB narrow-stile door fitting combinations can be found starting on page 758 ff.

### Spindles for FS heavy-duty doors and emergency exit devices

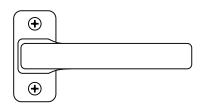
To combine two narrow-stile door handles for emergency exit devices pursuant to EN 179 or for fire doors with panic locks: FSB special spindle 05 0125, see page 768.



#### Standard variant, visible fixing

Spindles to combine two cranked lever handles for narrow-stile doors (06 .... + 06 ....)

Full spindles 05 0118 008.. (8 mm); see page 758



Locks for narrow-stile doors

#### Through-fixing of lock and fitting for heavy-duty doors and especially high stability

- Chip-guarded through-fixing holes for side-to-side and hence optimum fastening of the narrow-stile door
- Self-tightening follower
- Non-handed latch bolt
- Galvanised lock case, enclosed at top and bottom, through-fixing holes chip-guarded
- High-comfort thanks to acoustically attenuated latch bolt (except in case of roller latch and dead-bolt locks)
- No rivet nuts because metal stabiliser lugs are recessed on both sides of the door profile
- Effective and significant reduction of installation time: due to through-fixing, the set only has to be installed with two more screws

SSF – Sächsische Schlossfabrik GmbH Am Pappelhain 10 04539 Groitzsch, Germany Tel. +49 (0)34 2967 3300 www.ssf.de | info@ssf.de



Series 01 (bolt throw 15 mm)

- Mortice locks
- conforming to DIN 18251-2, grade 1



#### Series 02 (bolt throw 21 mm)

- Mortice locks conforming to DIN 18251-2, grade 3, with bolt throw 21 mm or as 34.5 mm hook bolt lock
- Panic mortice locks for single-leaf narrow-stile doors (APE, APB, APD)
- Roller latch locks conforming to DIN 18251-2, grade 3
   Latch locks
- conforming to DIN 18251-2, grade 3, in standard-length and short variants
- Dead-bolt locks conforming to DIN 18251-2, grade 3, in standardlength and short variants

#### Fixing system with through-fixing option

FSB has optionally adapted the fixing system for narrow-stile door fittings to suit SSF narrow-stile door locks with through-fixing points for series 01 and 02.

Associated fixing set: 05 0526 01 (see page 767) Narrow-stile door fittings can be ordered with this accessory pre-fitted. Associated spindle: 05 0525 028.. (8 mm) or 05 0525 029.. (9 mm); see page 767



Accessory bag	Screw length	Door thickness
05 0526 01045	50 mm	45 – 49 mm
05 0526 01050	55 mm	50 – 54 mm
05 0526 01055	60 mm	55 – 59 mm
05 0526 01060	65 mm	60 – 64 mm
05 0526 01065	70 mm	65 – 69 mm
05 0526 01070	75 mm	70 – 74 mm
05 0526 01075	80 mm	75 – 79 mm
05 0526 01080	85 mm	80 – 84 mm
05 0526 01085	90 mm	85 – 89mm
05 0526 01090	95 mm	90 – 94mm
05 0526 01095	100 mm	95 – 99mm
05 0526 01000	105 mm	100 – 104mm