

# Lever handles with value-added Protection in care facilities and public institutions





Made in Brakel  Germany

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# Our experience – your safety

## Ergonomic lever handles and maximum hygiene



Ensuring protection against infection is increasingly a matter of priority not only in hospitals. We have developed a safe solution for the new requirements in the form of FSB 1287. Its angular shape allows this ergonomically designed lever handle to be conveniently operated by forearm without any manual contact at all.



Get a handle on FSB 1287 in our video, either by going to [www.fsb.de/fsb1287](http://www.fsb.de/fsb1287) or by simply scanning the QR code.



### **1980s: Hand-hold ergonomics**

With able support from the Fraunhofer Institute, we took a project in hand back in the 1980s to develop lever handles optimised for use in the Health + Care sector. In-depth practical tests, analyses and studies gave rise to the FSB 1155 model – a particularly ergonomic lever handle of triangular shape that is still much in use today.

### **2020: No-hold ergonomics**

We've had a hands-on approach to the issue for many years then. These days, though, new sets of questions are emerging. Is it still in any way acceptable, especially in the Health + Care sector, to take hold of things with our hands? Our designers Markus Michalski and Michael Schmidt undertook a microscopic assessment of the scope for operating door handles hands-free. The upshot: FSB 1287.

### **FSB 1287: Operation by forearm**

A bent grip of optimum height and with an angled return-to-door: our new, ergonomically designed FSB 1287 lever handle can be conveniently operated by forearm – or, of course, by hand. It scores even more heavily in terms of hygiene overall in that it is supplied as standard complete with FSB's AIC Anti-Infection coating.

## FSB 1287

Measure of things? Human!



### **People are the best yardstick**

Our designers took their bearings from anthropometric data when developing FSB 1287. These cover human body measurements such as weight, height, length of arms, legs, thighs etc. having account to their frequency of occurrence (DIN 33 402). FSB 1287 accords with these data. Its return-to-door, for instance, is set at an ideal height of 111 cm, allowing the user's arm to rest particularly snugly on top of the handle.



**No hands free?**

Staff in nursing facilities have their hands full in the most literal sense of the term. FSB 1287 makes their work easier if, for instance, they have to open a door carrying a tray. They simply need to lay their forearm behind the handle's bent grip and – depending on the side from which they approach – press the handle down with either their wrist or their elbow.

**Any which way**

FSB 1287 will accommodate you with equal convenience from whichever side you approach. In the case of a DIN lefthand door opening outwards, for instance, it is the upper section of your forearm that rests on the return-to-door and operates the lever handle. Conversely, if you approach a DIN righthand door opening outwards from the left, the work will be performed by your wrist.

**A hand will do**

We humans are famously “creatures of habit” and thus it is that some of us remain keen to get hands-on with FSB 1287 too. This can be achieved just as conveniently and ergonomically as with the forearm. It's nevertheless good to know that FSB's AIC Anti-Infection coating will reliably put paid to bacteria in such an event.

## FSB 1287

### Advantages at a glance



#### **Opening doors hands-free**

FSB 1287 allows you to conveniently open doors with your forearm. Your hands remain free to do other things – and clean. The handle can be operated with equal ease regardless of whether you approach the door from the left or the right.

#### **Measure of convenience**

The return-to-door is positioned at an optimum height of 111 cm to ensure that operating the handle is as convenient as it possibly can be. FSB 1287 is universal design of the highest order guaranteeing optimum ergonomics for all people, whether with or without impairments.

#### **Ideal for heavily used doors**

FSB 1287 is just the thing for use on heavily frequented doors, e.g. in hospitals, nursing homes, nursery schools, schools or other public buildings. And this handle is just as ideally suitable for public WCs, e.g. in motorway service areas: it keeps freshly washed hands hygienically pure.

#### **Suitable for Civic/Commercial buildings**

Sets are suitable for standard, emergency-exit and fire doors pursuant to DIN EN 179. They are rotatably fixed, fitted with AGL® adaptor bearings and suppliable with either an 8, 8.5 or 9 mm spindle.

#### **Retrofit job? No problem!**

Should you wish to replace your existing hardware, FSB 1287 can be retrofitted at any time, technical circumstances permitting. This likewise applies for all the other multifunctional lever handles by FSB (see pp. 10 f.).

**High-quality stainless-steel alloy**

We work with a chrome-nickel steel as defined in DIN 17440, material no. 1.4301, containing approx. 18% chrome and 8% nickel. Stainless steel is extremely corrosion-resistant and impervious to knocks and scratches.

**Easy to look after? Indeed it is!**

The surface of stainless steel forms an invisible passive layer that provides it with a high level of resistance to cleaning agents and disinfectants.

**Antibacterial finish**

This new ergonomic lever handle is supplied with an FSB AIC Anti-Infection coating as standard. The antibacterial coating guarantees optimum protection against infection. Find out more about this over.

# FSB Anti-Infection Coating (AIC)

Hygiene in pure form



**FSB's AIC Anti-Infection coating is applied to the surface of FSB 1287 fittings as standard. Regardless of whether the handle is operated by forearm or hand, AIC virtually precludes the risk of bacteria being transmitted.**

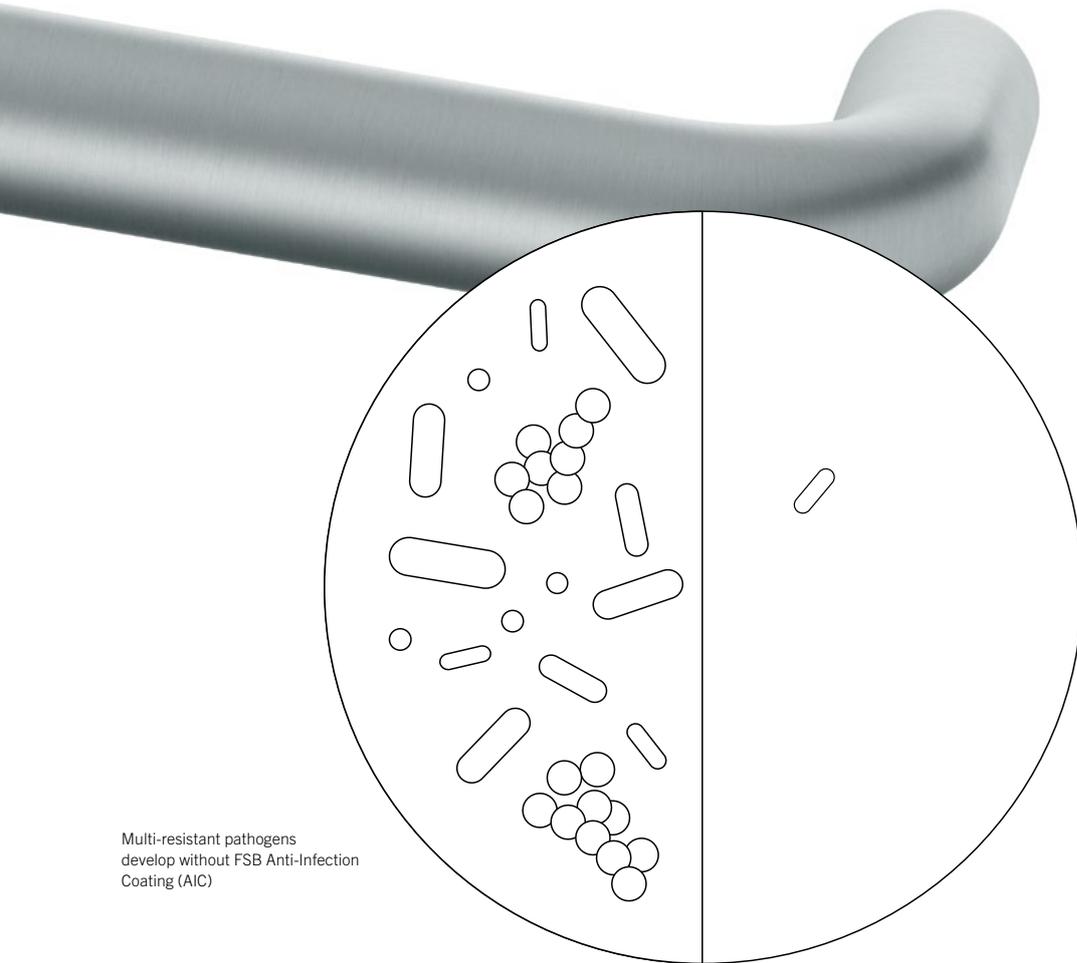
### **Acknowledged efficacy**

AIC eliminates 99.99 % of multi-resistant pathogens. Its life-long antimicrobial efficacy has been certified pursuant to ISO 22196 JIS Z 2801:2010.

### **Ideal for hygiene-sensitive areas**

AIC makes for greater safety wherever large numbers of people come into contact with lever handles and the risk of infection is correspondingly higher. Particular cases in point are hospitals, nursing institutions, nursery schools and schools, though public buildings in general, hotels, canteen kitchens or cruise liners also fall into this category.





Multi-resistant pathogens develop without FSB Anti-Infection Coating (AIC)

FSB Anti-Infection Coating (AIC) reduces pathogens by about 99.99%

### **Doubly clean**

AIC is a physiologically safe coating. Its biocompatibility has been tested and confirmed pursuant to DIN ISO EN 10 993-5.

### **Particularly robust**

AIC is scratch-resistant as defined in DIN EN ISO 1518 and guarantees abrasion resistance over at least 100,000 cycles. The coating is resistant to all standard cleaning agents and disinfectants and retains its antimicrobial action throughout its service life.

### **For FSB products in Stainless Steel**

AIC can be applied to many other FSB products in Stainless Steel.

### **Tested in studies**

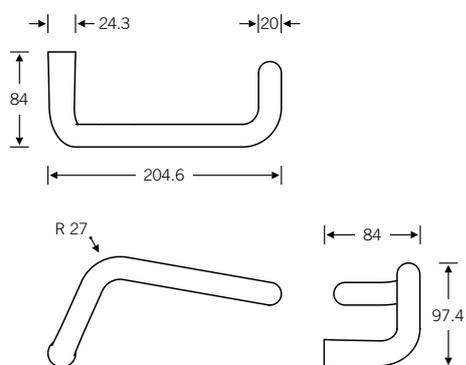
The efficacy of AIC has been demonstrated many times over. Within an hour of the coating being soiled by pathogens, the level of contamination was shown to fall by more than 90%. Virtually no remaining traces could be detected seven hours later.

# Multifunctional lever handles

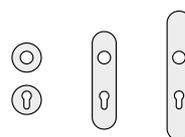
## Models Chart

1287 ■

72 1287 613.. 6204 (AGL® set, 8 mm, with roses)  
72 1287 713.. 6204 (AGL® set, 8.5 mm, with roses)  
79 1287 613.. 6204 (AGL® FS set, 9 mm, with roses)



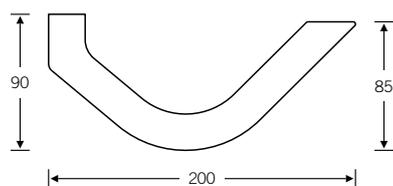
Recommended rose/backplate variants



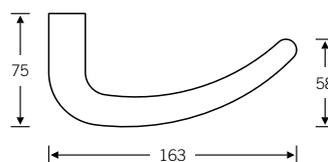
EN 179

Design: Markus Michalski | Michael Schmidt

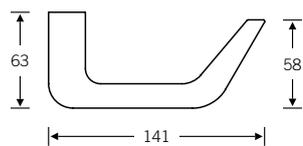
1155



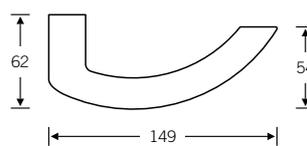
1117



1118



1119



## FSB 1155 + KARMIN

### First infection-prevention hospital ward



**The KARMIN project, whose initials are an acronym of the German words for “Hospital, Architecture, Microbia and Infection”, was launched in 2017. It is being funded by the German Ministry for Education and Research (BMBF) within the framework of its Zwanzig20 funding drive and as its contribution to the “InfectControl” research alliance.**

What kind of bacteria thrive on surfaces in hospital wards? Can infections in clinics be prevented by planning spaces differently? Architects have joined with molecular biologists and medics to address such issues.

Party to the KARMIN alliance are Brunswick TU, the Charité University Hospital in Berlin, Jena University Hospital, the Septomics Research Group and Röhl GmbH. The research team has, since 2017, been developing the prototypes for an infection-prevention hospital ward in cooperation with 17 partners from industry.

FSB fitted its multifunctional FSB 1155 lever handle in the hygiene-sensitive door area.

This handle is underpinned by ergonomic insights FSB gained in cooperation with the Fraunhofer Institute during scientific analysis into operating a lever handle. The handle’s triangular styling enables the user to firmly position their elbow between the handle and the door without it slipping and in this way open or close the door.



Quite apart from any considerations of architectural aesthetics, materials have been consciously chosen that also contribute to reducing the risk of infection. The focus is placed on such materials as can be easily cleaned.

FSB 1155 is made of stainless high-grade steel. The chrome-nickel steel used contains approx. 18 % chrome and 8 % nickel. This is a blend that ensures the material meets the most exacting requirements in terms of its resistance, ease of cleaning and hygienic properties.

Further information on KARMIN (in German) at [www.karmin.info/patientenzimmer](http://www.karmin.info/patientenzimmer)



Project KARMIN, InfectControl | Image source/Copyright: IIKE, Tom Bauer 2020

## Lever handles in Bronze

Natural resistance against germs



FSB 7615  
Bronze Light Patinated Waxed

**Germs are killed quickly on bronze surfaces owing to the high fraction of copper in bronze. The material releases a virtually constant flow of copper ions that actively deprive multi-resistant germs of the conditions they need to thrive in – and do so for a handle's entire service life.**

### **Studies document efficacy**

Clinical studies reveal that 99.9 % of bacteria on copper-alloy surfaces are destroyed immediately or within two hours. These bacteria include Methicillin-resistant Staphylococcus aureus (MRSA), one of the most virulent and dangerous of all bugs. Recontamination is more than 99 % ruled out if the hygiene measures prescribed are adopted.

### **There's more than one bronze**

We make use of a particularly high-quality copper-tin alloy containing 92 % copper and 8 % tin that bears the formula CuSn8 and is registered as material no. 2.1030.

### **Ideal for heavily used doors**

Bronze boasts great tensile strength and hardness. Its resistance to abrasion recommends it for use in every-day products subjected to heavy wear and tear.



FSB 7625  
Bronze Dark Patinated Waxed

#### **Natural patina**

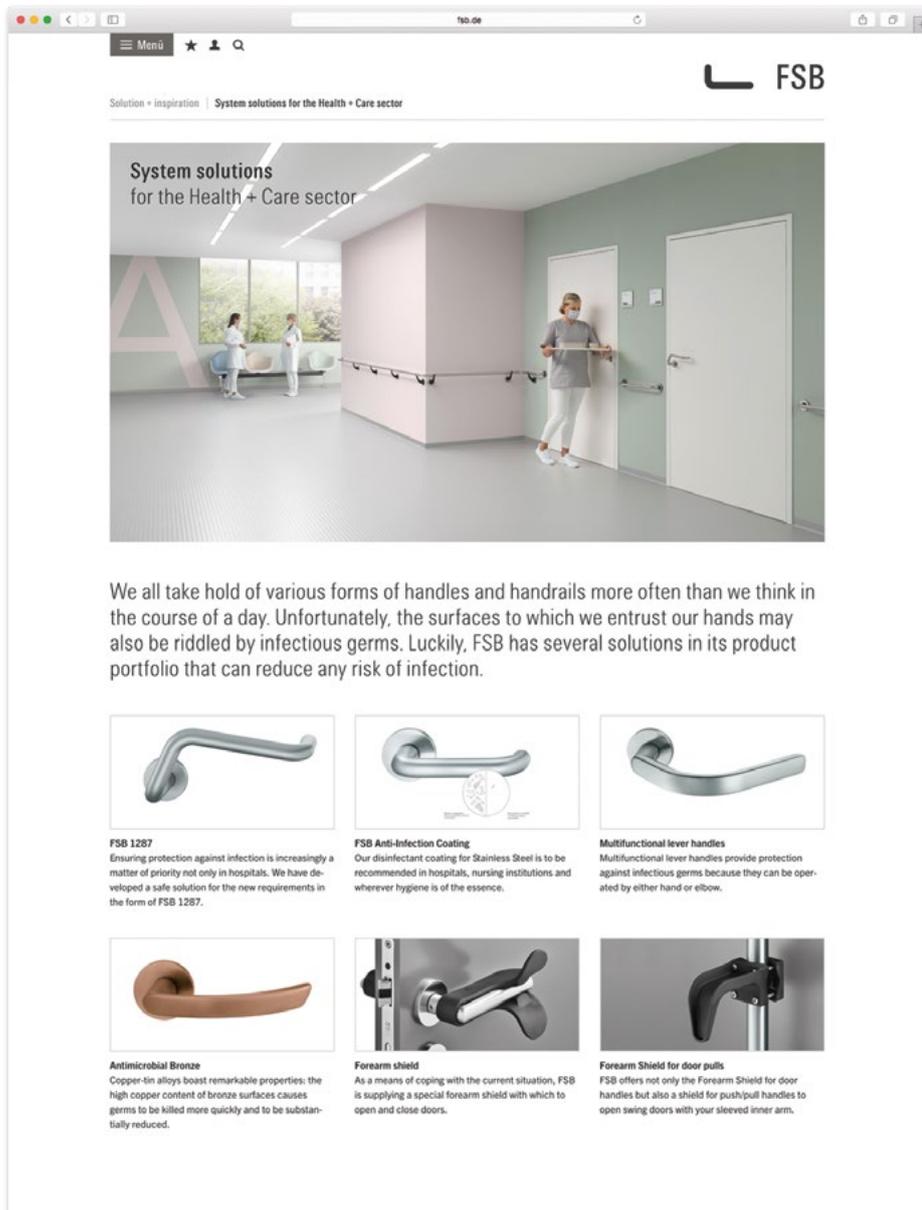
Lever handles in Bronze are self-polishing in day-to-day use. Any parts with which hands do not come into contact acquire a natural patina in the course of time. The resultant change in colour relative to the as-delivered finish is natural to the material and visually very alluring.

#### **Waxed finish**

We use wax to – as far as possible – keep the finish in the condition produced at the works. The wax is used to conserve the bright copper-coloured patina on our bronze when it leaves the works as well as to prevent any natural patina forming during storage, delivery and assembly.

# Full range on the web

[www.fsb.de/care](http://www.fsb.de/care)



**System solutions for the Health + Care sector**

We all take hold of various forms of handles and handrails more often than we think in the course of a day. Unfortunately, the surfaces to which we entrust our hands may also be riddled by infectious germs. Luckily, FSB has several solutions in its product portfolio that can reduce any risk of infection.

 <p><b>FSB 1287</b> Ensuring protection against infection is increasingly a matter of priority not only in hospitals. We have developed a safe solution for the new requirements in the form of FSB 1287.</p>	 <p><b>FSB Anti-Infection Coating</b> Our disinfectant coating for Stainless Steel is to be recommended in hospitals, nursing institutions and wherever hygiene is of the essence.</p>	 <p><b>Multifunctional lever handles</b> Multifunctional lever handles provide protection against infectious germs because they can be operated by either hand or elbow.</p>
 <p><b>Antimicrobial Bronze</b> Copper-in alloys boast remarkable properties: the high copper content of bronze surfaces causes germs to be killed more quickly and to be substantially reduced.</p>	 <p><b>Forearm shield</b> As a means of coping with the current situation, FSB is supplying a special forearm shield with which to open and close doors.</p>	 <p><b>Forearm Shield for door pulls</b> FSB offers not only the Forearm Shield for door handles but also a shield for push/pull handles to open swing doors with your sleeved inner arm.</p>

Visit us at [www.fsb.de/care](http://www.fsb.de/care) and discover all our solutions for the Health + Care sector.

Our website will provide you with all the information you need about our multifunctional lever handles, FSB's AIC Anti-Infection coating, the antibacterial action of bronze and much more besides.



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