



Freedom of design:

**fischer System A | C | T**

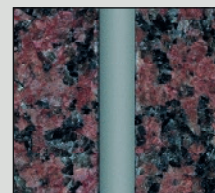
for fixing ventilated cladding

**fischer** <sup>®</sup>  
*innovative solutions*

# fischer ACT System – the key to new façade aesthetics.

With its ACT System (Advanced Curtain wall Technique), fischer offers architects and specifiers an innovative, high-quality, all-inclusive system for fixing ventilated claddings. Apart from technical and financial advantages, the ACT System also provides a particularly extensive scope for architectural design. For example, ACT allows the use of natural stone façade panels from 20 mm in thickness and glass panes ESG and VSG from 8 mm glass thickness, free positioning of the anchor anywhere on the rear side of the panel and easy replacement of all or individual panels. Even reveal panels can be attached with ease and in many different ways. ACT's aesthetic highlight is its undercut technology combined with the FZP II fischer zykon panel anchor, which ensures that there are no visible fixing elements at the joint.

**Complete service from a single source.** The ACT System is not restricted to innovative fixing products – this is only the start. Fixing specialists at the ACT Competence Centres offer architects, specifiers and craftsmen comprehensive support, from the planning stage and static calculations through to on-time delivery to the site. Their service also includes provision of design software and instruction for users, as well as advice in selecting the appropriate fischer drilling machines.



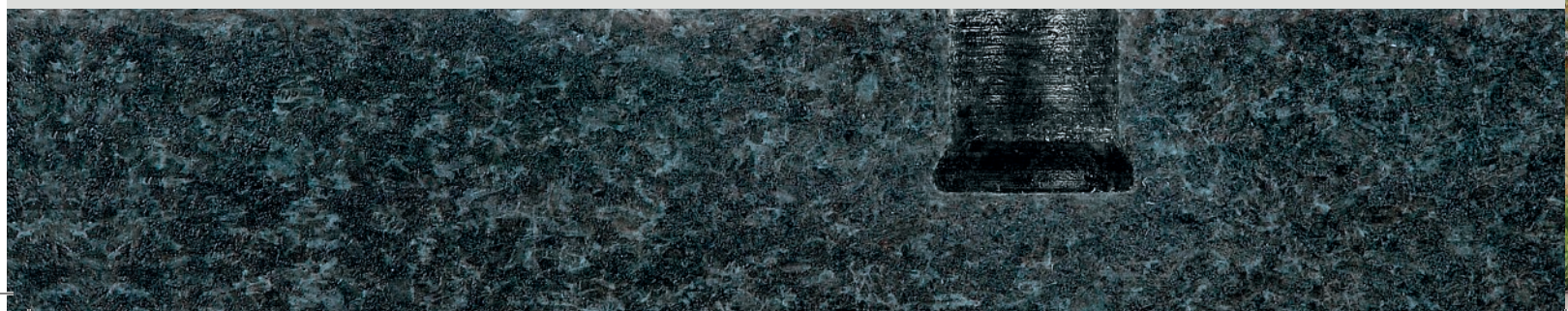
*Appearance of ACT joint  
without unattractive  
fixing points*



*Appearance of joint  
with conventional dowel  
fixing*

*New Library,  
Guangzhou, China  
Shandong White  
Granite*

*Title page left:  
Neximmo34, Paris  
Title page right:  
Huyyu-Chen-Fong,  
Taiwan*









**Where powerful forces are at work.**

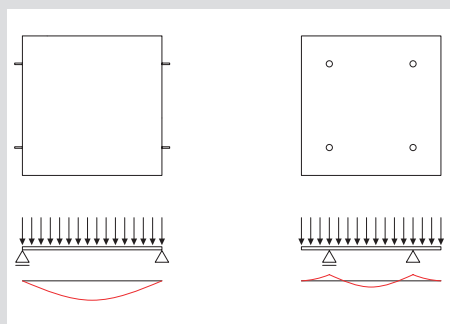




The fischer ACT System opens up the way for effortless and cost-efficient design of attractive, complex façades. The reason lies in the system itself - FZP II, the fischer zykon panel anchor, which is undercut and therefore stress-free fixing system that is installed into pre-drilled undercut hole. This technology offers several times higher ultimate loads than conventional fixings. Because anchor positioning can be optimised, the bending moment within the panel is reduced by about 50% when compared to traditional systems. This allows reduced panel thickness and larger panel sizes. In addition, the varied panel thickness can be compensated by the use of stand-off anchor types.

**ACT extends the options – and reduces the costs.** ACT System technology perfectly combines the use of panel anchors, individual substructures and sophisticated drilling technology. This pays off on the construction site, where installation is fast and simple, non-dependent on weather conditions. Construction time is reduced – and so are costs..

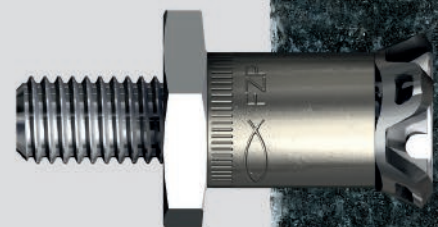
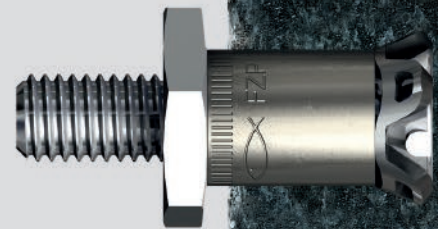
Traditional fixing



FZP II undercut fixing

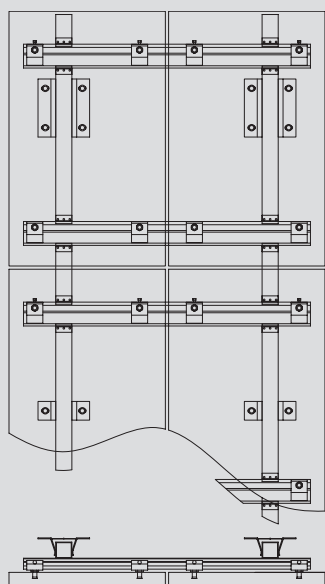
*Optimisation of the bending moment of the façade panel.*

*Compensating for panel thickness tolerances.*



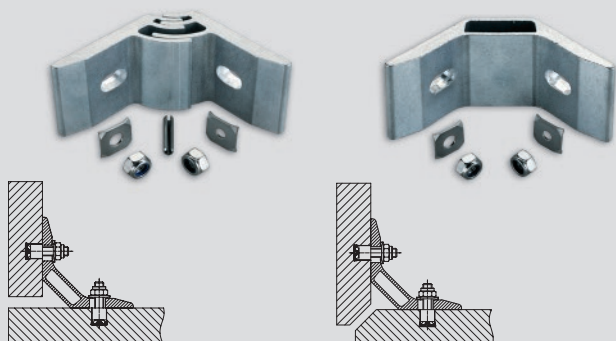
# There are a lot of good ideas behind FZP, such as SystemOne.

SystemOne, fischer's framework substructure, is an integral part of ACT system technology. It is designed for high loads, for large-size, heavy, natural stone panels, and for bridging non-bearing structural elements. SystemOne reduces on-site installation times and noise, for example during renovation works, and makes replacing panels easier.



*SystemOne  
substructure..*

**Cost-effective and standard-compliant:** fischer reveal angle bracket for mechanical fixing of reveal panels on the SystemOne substructure.



*Bellavita, Taiwan*



*Scottish Parliament,  
Edinburgh*



*Le Meridien, Taiwan*







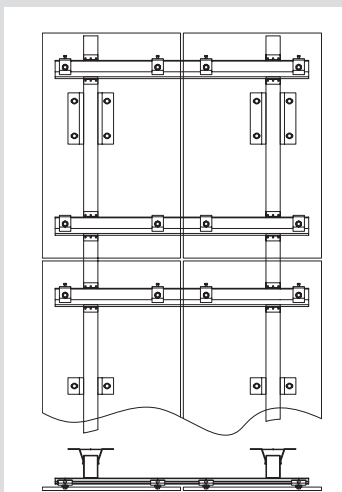
# Especially for lightweight façade panels – SystemOne light.

SystemOne light is an efficient solution when it comes to installing ventilated claddings made of lightweight façade panels. As you would expect, this rail-based system also offers all the advantages that make SystemOne unique:

- fast installation thanks to hook and hang system
- no anchoring point visible within joint
- designed for high loads
- bridging of non-bearing structural elements
- perfect for over-cladding of steel-frame constructions
- mechanical fixing for reveal panels
- non-destructive replacement of façade panels

## Wall bracket system:

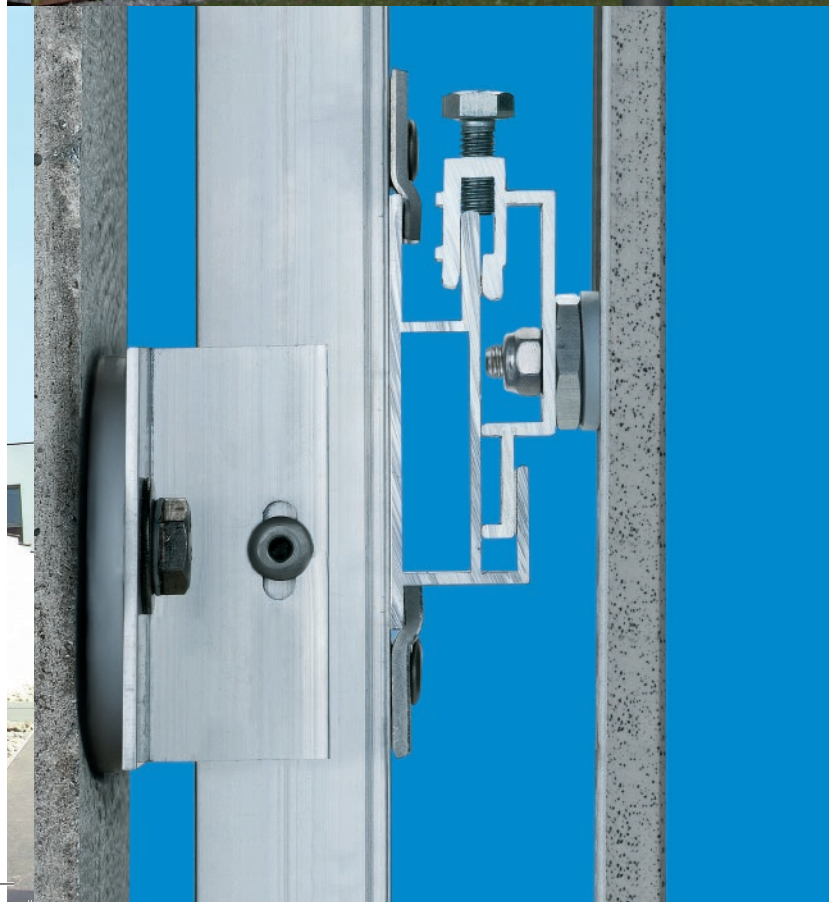
- minimised cold bridges
- reduced drilling costs
- noise reduction during renovation works
- dry installation, even at extreme temperatures



*SystemOne light substructure.*





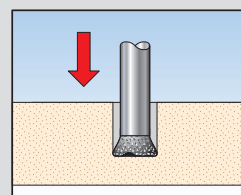


## Drilling and setting technology in fischer quality.

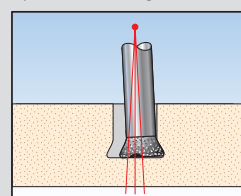
ACT drilling technique, same as our undercut anchor and substructure, is state of the art technology. The appliances for drilling undercut holes are essential parts of the overall system, which consists of drilled hole and anchor. For drilling, fischer offers in-house developed machines in various sizes ranging from portable machines for on-site use through to large-scale, serial production facilities. These machines allow fast and cost-effective drilling of holes thanks to diamondtipped drilling tools. Setting appliances are then used to fit the anchors into the panels. Fitting specialists at the ACT Competence Centre offer a comprehensive range of services in connection with drilling and setting:

- large variety of machines
- large-scale machines for serial production
- support in the selection of the machine
- purchase/renting of machinery

### Drilling the undercut holes.

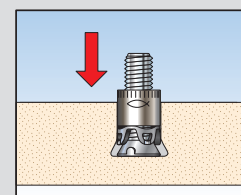


Cylindrical drilling

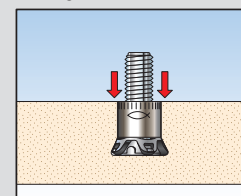


Undercutting

### Setting the FZP II anchor.



Setting the anchor



Installed anchor



# Innovation in Glass: Undercut Point Fixing in Glass.





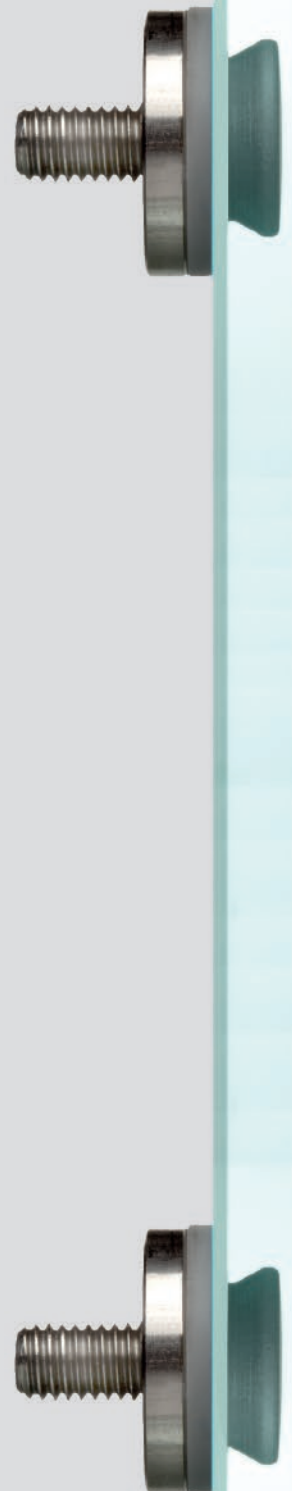
## **The first glass point fixing with undercut in the world is state of the art**

The Deutsche Institut für Bautechnik [German Institute for Building Technology] (DIBt) in Berlin has issued a general approval for the fischer Zykon point fitting (FZP-G). The revolutionary development is state of the art and can now be used without consent in individual cases for sophisticated glass façades. By using undercut technology, our company has succeeded in creating the first point fitting for glass in the world in which the hole does not penetrate the glass.

The FZP-G-Z involves an undercut point fitting made from stainless steel. It consists of cone bolt, expansion sleeve, plastic cap, shim washer and retaining nut.

The smooth outside of the glass façade offers the architect a broader design field, while at the same time, the susceptibility to soiling and cleaning requirements are reduced. The fischer FZP-G-Z is offered in two variations for glazing with toughened safety glass (ESG or ESG-H) and laminated safety glass (VSG). The glass panes can be enamelled or coated and can also serve as substrates for solar elements that are laminated on.

*Akademiefhof,  
Ludwigsburg Germany*





**We create new ways to design  
modern façades.**







*Assembly chamber, Bavarian Parliament, Munich, wall and overhead glazing fixed with FZP-G.*



*Apartment building, Dresden, glass façade fixed with FZP-G.*



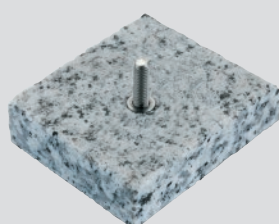
*Neuer Wall 52, Hamburg. Glass shingle façade, fixed with FZP-G on SystemOne light.*



# The new freedom in façade design.

With ACT, you also benefit from a great choice of materials:

**Natural stone/Cast stone**  
from 20 mm panel thickness\*



FZP II



FZP II-SO



FZP II-VS



FZP II  
Carbon



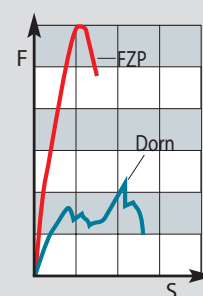
FZP II-SO  
Carbon



\*depends on material

## Average ultimate load values:

| Material             | Panel thickness [mm] | Embedment depth $h_e$ [mm] | Connection thread | Average ultimate load value FZP II [kN] | Dorn [kN] |
|----------------------|----------------------|----------------------------|-------------------|---|-----------|
| Tropical Sun         | 30                   | 15                         | M8                | 6,0                                     | 1,8       |
| Rosa Sardo Beta      | 30                   | 15                         | M8                | 7,5                                     | 2,2       |
| Impala Black         | 30                   | 15                         | M8                | 13,0                                    | 2,6       |
| Jura limestone       | 30                   | 15                         | M8                | 6,5                                     | 2,5       |
| Obernkirch sandstone | 40                   | 20                         | M8                | 5,5                                     | 1,9       |
| Udelfanger sandstone | 40                   | 20                         | M8                | 4,0                                     | 1,7       |





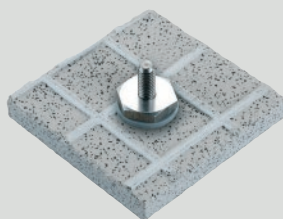
#### HPL/Fibre cement

from 8/12 mm panel thickness\*



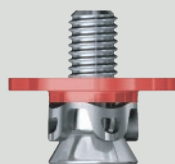
#### Ceramic/Fine stoneware

from 10 mm panel thickness\*

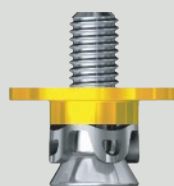


#### FZP II-T

anchorage depth



6 mm



8 mm

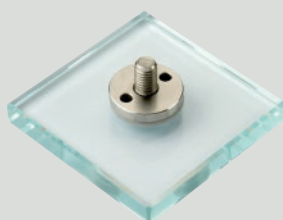


10 mm

\*depends on material

#### Toughened safety glass

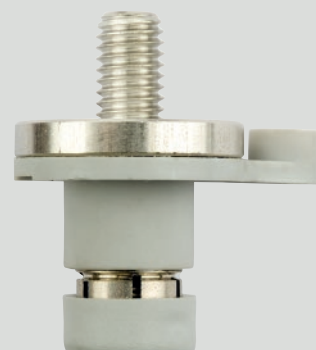
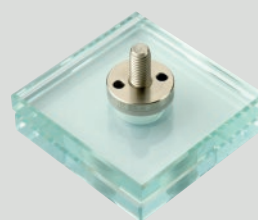
from 10 mm glass thickness



FZP-G-Z

#### Laminated safety glass

from 10/8 mm glass thickness



FZP-G-Z



## fischer FIXPERIENCE. The design and information software suite.



- The modular design program includes engineering software and application modules.
- The software is based on international design standards (ETAG 001 and EC2, such as EC1, EC3 and EC5), including the national application documents. All common force and measurement units are available.
- Incorrect input will be recognized and the software gives tips to get a correct result. This ensures a safe and reliable design every time.
- The graphical display can easily be rotated through 360°, panned, tilted or zoomed as required.
- The 3D display gives a detailed and realistic image.
- The "live update" feature helps to keep the program up to date ensuring you are always working with the latest version.
- Free download and updates at [www.fischer.de/fixperience-en](http://www.fischer.de/fixperience-en)

## Our service to you.



We are available to you at any time as a reliable partner to offer technical support and advice:

- Our products range from chemical resin systems to steel anchors through to nylon anchors.
- Competence and innovation through own research, development and production.
- Global presence and active sales service in over 100 countries.
- Qualified technical consulting for economical and compliant fastening solutions. Also on-site at the construction site if requested.
- Training sessions, some with accreditation, at your premises or at the fischer ACADEMY.
- Design and construction software for demanding applications.

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