



Freedom of design:

fischer System A | C | T

for fixing ventilated cladding

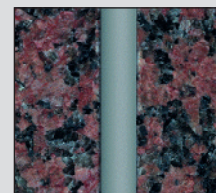
fischer ®
innovative solutions

fischer ACT System – the key to new façade aesthetics.

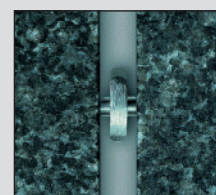
With its ACT System (Advanced Curtain wall Technique), fischer offers architects and specifiers an innovative, high-quality, all-inclusive system for fixing ventilated claddings. Apart from technical and financial advantages, the ACT System also provides a particularly extensive scope for architectural 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 zykron 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..

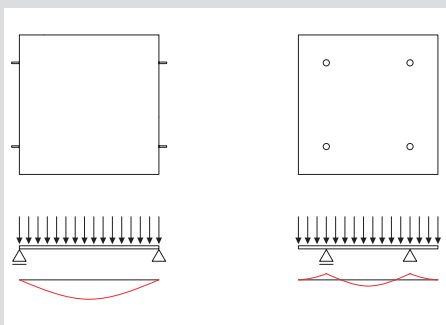


Compensating for panel thickness tolerances.



Traditional fixing

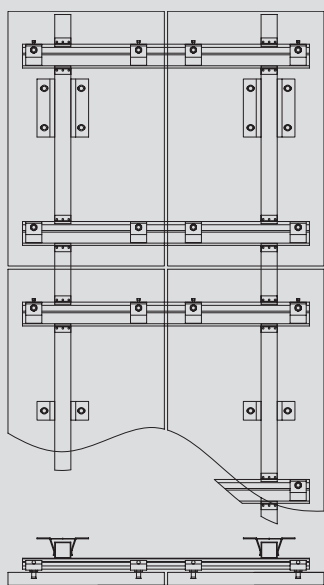
FZP II undercut fixing



Optimisation of the bending moment of the façade panel.

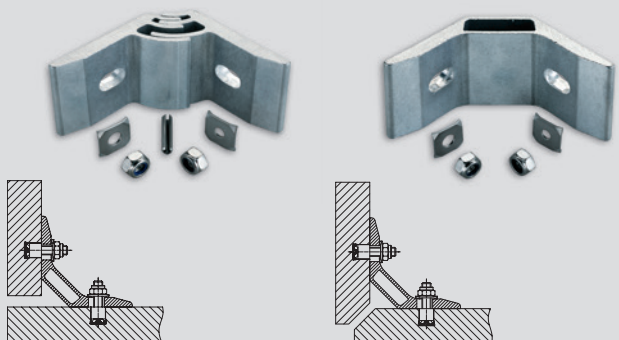
There are a lot of good ideas behind FZP, such as SystemOne.

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.





*Raiffeisenbank
Bad Zurzach, Switzerland*



*Residence Airone,
Italy*

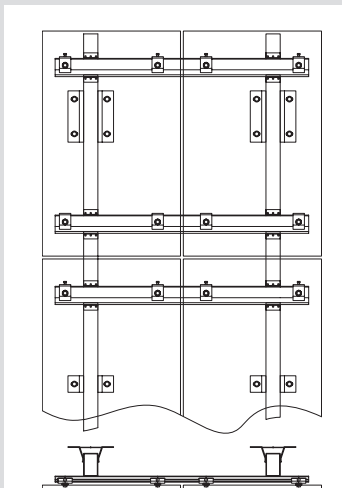
Especially for lightweight façade panels – SystemOne light.

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

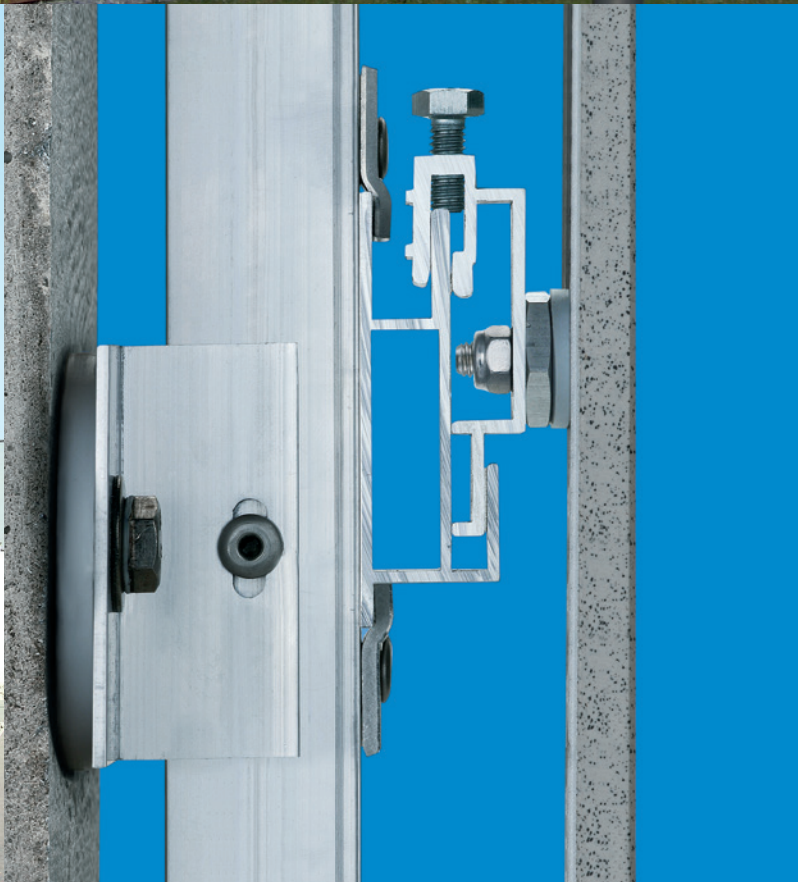


SystemOne light substructure.





Campeon,
München

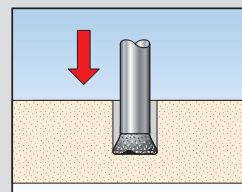


Drilling and setting technology in fischer quality.

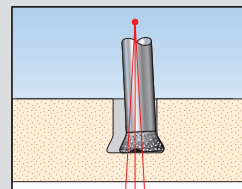
ACT drilling technique, same as our undercut anchor and substructure, is state of the art technology. The appliances for drilling undercut holes are essential parts of the overall system, which consists of drilled hole and anchor. For drilling, fischer offers in-house developed machines in various sizes 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 diamond-tipped 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.

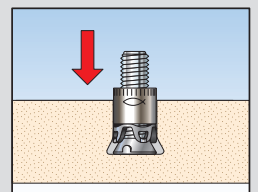


Cylindrical drilling

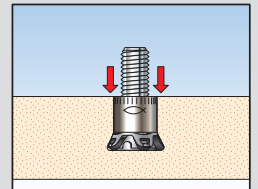


Undercutting

Setting the FZP II anchor.



Setting the anchor



Installed anchor

Innovation in Glass: Undercut Point Fixing in Glass.



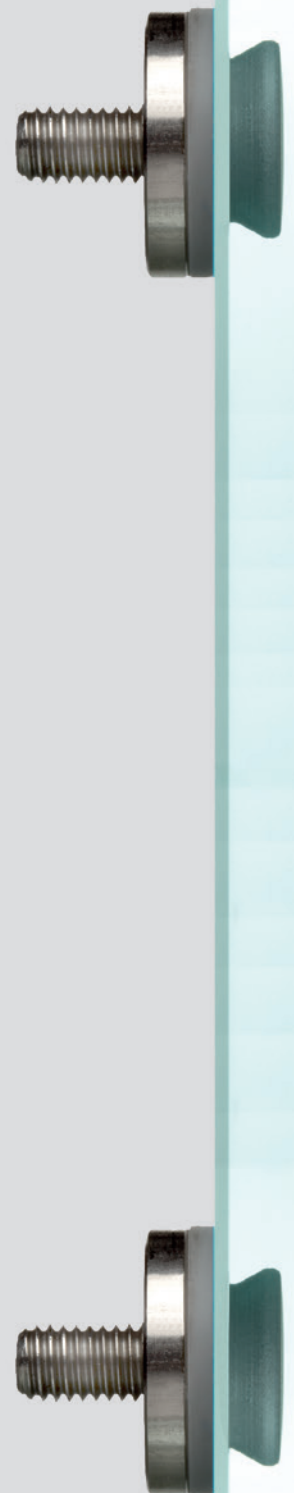
The first glass point fixing with undercut in the world is state of the art

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.**



*Porsche Museum,
Stuttgart Germany*



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



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



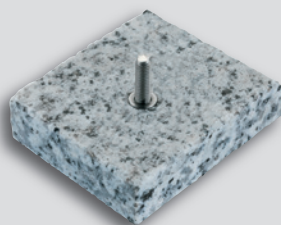
Neuer Wall 52, Hamburg. Glass shingle façade, fixed with FZP-G on SystemOne light.

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-S0

FZP II-VS

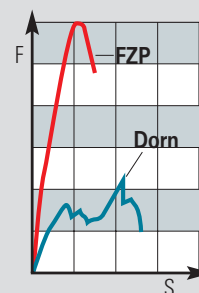
FZP II
Carbon

FZP II-S0
Carbon

*depends on material

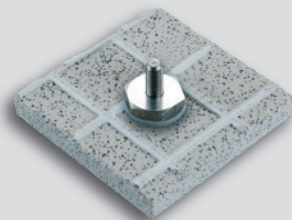
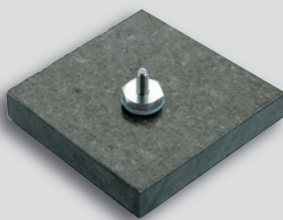
Average ultimate load values:

Material	Panel thickness [mm]	Embedment depth h_v [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

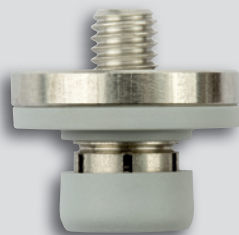
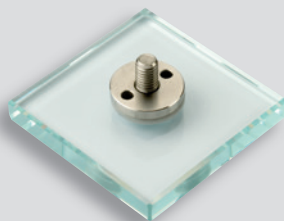
6 mm

8 mm

10 mm

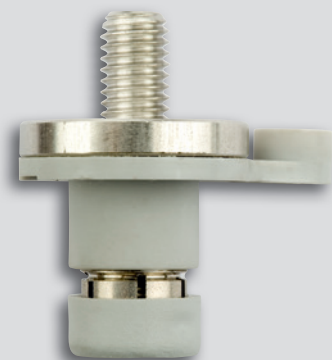
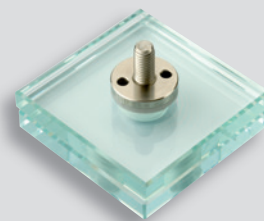
*depends on material

Toughened safety glass
from 10 mm glass thickness



FZP-G-Z

Laminated safety glass
from 10/8 mm glass thickness



FZP-G-Z

ACT Service

ACT Service offers:

Application technology advice

- determination of ultimate loads and anchor selection
- advice and support for framework systems
- support for licensing procedures (license for individual cases or building-inspectorate approval)
- support for architects, designers, structural engineers, consultants etc. during all stages of your building project
- on site support
- international subsidiaries guarantee technical support outside Germany

Machinery services

- technical advice on selection of machines
- hire or purchase of machines
- if required machine is made to customer specifications
- demonstration/instruction by our expertly trained personnel
- machinery service provided by fischer service engineers

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