

## Specialist among universal fixings

# New product from Rawlplug® R-FFS shortest expansion zone frame fixing

Like no other provider of fixings, fasteners and tools, Rawlplug® offers solutions for professionals representing every sector of the construction industry. Being an expert operating in international markets for 100 years, the company knows and understands what designers and contractors really need. And since it was in Rawlplug that the world's first wall plug was invented, no wonder that they have just proposed a truly revolutionary solution in the category of lightweight fixings: a technologically advanced frame fixing intended to work in a broad variety of substrates with a reduced anchoring depth – a genuine specialist among universal fixings.

Rawlplug® represents an excellent example of a manufacturer which can combine the needs and expectations of those who operate in the construction industry with the company's 100 years long expertise and experience acquired in international markets, providing their customers with solutions that satisfy every sector of the industry. Mechanical and bonded anchors, facade and roofing insulation fixings, manual and direct fastening systems, fasteners and power tool accessories, foams and sealants – they all form the brand's comprehensive portfolio, and are perfectly complemented by our specialised services and innovative training schemes. But as the inventor of the world's first wall plug, patented in the 1920's, Rawlplug® deserves special attention on account of their lightweight fixings track record, all the more since they have just added another revolutionary product to their portfolio – the R-FFS shortest expansion zone frame fixing.

Depriving the construction industry of lightweight fixings would be like severing one of the industry's limbs. There is virtually no construction sector without light-



### The line of R-FFS frame fixing

**EXCELLENT HIGH** temperature resistance of the R-FFS established in the ETA at 90 minutes in concrete;

**HIGH LOAD CAPACITY** confirmed in the extensive documentation;

**FLANGED PLUG** designed with installation ventilated facades and window frames;

**HIGH SHEAR STRENGTH** thanks to the use of steel grade 6.8;

and medium-duty applications, and it is precisely for them that these products have been designed. Similarly, there is no interior finishing professional in the world who would do without common wall plugs, hammer-in fixings, drywall fixings or frame fixings at work. Regardless of the market, lightweight fixings are the bread and butter of professional construction works as well as do-it-yourself jobs, and so they are required to be very universal.

## Optimised = universal

From such a perspective, apparent universality seems as a higher level of specialisation of lightweight fixings, as it proves that the everyday needs of construction professionals are simply taken into consideration. However, the key to success in this case is the focus on details which settle that you ultimately recognise the given product as a top-quality one, easy to install and durable. And sometimes, such a judgement makes you consider one product as an alternative to others, even representing a different category. Here is an example. The Rawlplug® R-FF1 frame fixing. It comes with an abundance of advantages, including a unique one, namely the special polyamide formula accountable for its superior parameters in substrates of all categories according to ETAG 020: A, B, C and D. This means that it can be successfully used to ensure load capacity analogical to that which only bonded or mechanical anchors can deliver, which is unprecedented in the category of lightweight fixings, the only difference being that, unlike mechanical anchors, it is suitable for many different substrates, including concrete (cracked and non-cracked), clay and calcium silicate brick, both solid and perforated, as well as hollow lightweight concrete block or aerated concrete, while at the same time, as opposed to bonded anchors, it enables simple installation without dedicated accessories. For these reasons, whenever you cannot rely on heavyweight fixings on account of the application type, the lightweight R-FF1 comes to your aid. *"The traditional technology typically applied in such jobs would require using a broader variety of fixings and fasteners along with the necessary accessories, not to mention the effort invested in following the complicated installation procedure. The R-FF1 lets you optimise both time and progress of construction works while ensuring 100% safety. What is more, similarly to our other patented solutions, it has been designed, tested and*

*released for production using an in-house model, allowing us to provide the customer with a guarantee of full control which translates into unparalleled quality of processes,"* claims our Brand Manager, Karol Szczuka, to sum up the product's innovativeness.

## Specialist among universal fixings

Considering that Rawlplug® already has a universal hit in its portfolio, why did the company decide to invest in the development of a new product, namely the R-FFS short expansion zone frame fixing?

Irrespective of the sector, one of the most important and topical contemporary consumer trends is specialisation pertaining to both products and services available in the market. Everyone expects solutions dedicated to a very limited scope of applications, which is obviously completely understandable business-wise, especially when it comes to solutions for professionals. The higher the specialisation, the more effectively and adequately one can address specific challenges. In the sector of fixings, fasteners and tools, such expectations are particularly relevant, because they encompass a wide spectrum of areas determining the product selection criteria adopted by designers and contractors: from base materials, to installation applications and methods, to different variants of technical parameters.

*"This is precisely why, from now on, we provide our customer with the R-FFS frame fixing enabling installation with a reduced anchoring depth in multiple substrates – a solution designed to become the market specialist in installation of structural steel elements, and more specifically fixing of ventilated facade systems."* This is how Karol Szczuka explains Rawlplug's decision to market the new product.

## This is worth knowing about the R-FFS frame fixing

**POSSIBILITY TO ANCHOR TO THE DEPTH OF 40 MM** in category B materials, as per the Rawlplug Advanced Design, based on the results of the tests conducted at the TZUS Institute in Prague;

**INSTALLATION TIME SAVING UP TO 40%** when fixing in aerated concrete thanks to the dedicated setting tool included in the set, making it possible to obtain a hole of optimum depth without drilling and cleaning.



**WIDE RANGE** of matching base materials (A, B, C, D);

R-FFS can be used for **OUTSIDE CONDITION** with the use of bituminous coating;

**CONFORMITY** with the A1 classification requirements

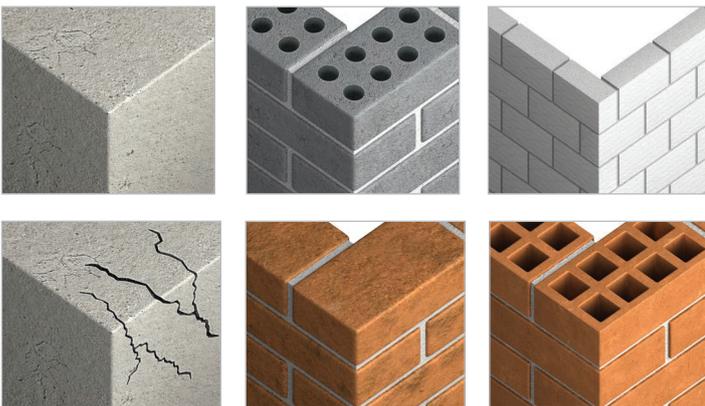
**ANCHORING DEPTH** reduced to 40 mm in category A materials, and 50 mm in cat. B, C and D substrates for quick installation;

The [brand name] ventilated facade bracket is currently one of the most popular and appreciated solutions used in the large structure construction industry, in terms of both installation and design aspects. So it is perfectly natural that the industry should look for optimisation addressing this application on many levels. Having the R-FF1 frame fixing on board, Rawlplug® is already on a safe side when it comes to satisfying the industry's needs, but the R-FFS is considered as a revolutionary alternative. Why is that so?

Firstly, the R-FF1 fixing's standard concrete anchoring depth of 50 mm has been decreased to 40 mm, which directly translates into actual reduction of the drilling time, and ultimately of the total installation time by even as much as 10%. This has a direct effect on cost savings, related to both the required drill bits and electricity consumption. Secondly, the R-FFS features – as a standard component – a stainless steel screw ensuring the highest corrosion resistance, while electro-galvanised and special zinc-flake coatings are dedicated to regular and moderately aggressive environments. Thirdly, the main design-related assumption adopted by the R&D Department was to create a fixing which would ensure outstanding expansion in the substrate. Rawlplug's experts have managed to achieve this by combining a screw made of a higher class steel, dedicated geometry, and a new mixture used to manufacture the plug's nylon sleeve. The unique expansion zone, responsible for the plug's perfect matching to the substrate, transfers pull-out forces, while the special screw made of high class steel transfers shearing forces. Fourthly, the innovative design and the quality of the materials the R-FFS is made of guarantees excellent technical parameters, which are reflected in the product's extensive documentation.

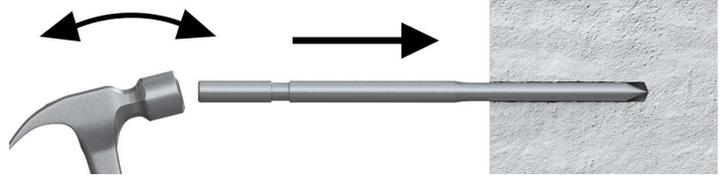
However, when creating this specialist, Rawlplug did not forget about the importance the consumers attach to universality in application. *"The original concept behind*

### Specialised application in 11 substrates: A, B, C and D

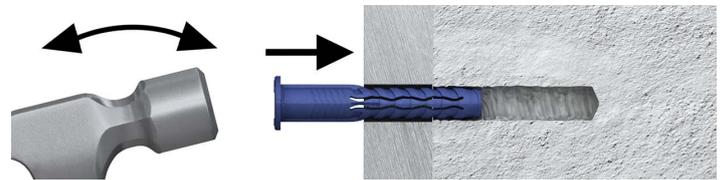


### R-FFS | Installation steps | Aerated concrete

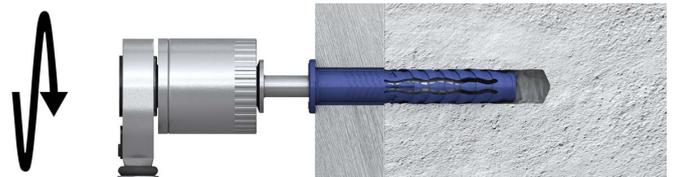
Step 1: Drill a hole to the required depth using the Rawlplug RT-SDSA or RT-SDSR drill bits when fixing in concrete and solid bricks (category A and B), and using the RT-SDSB drill bit when fixing in hollow brick and aerated concrete (category C and D substrates). You can also use a special punch-tool in aerated concrete



Step 2: Use a punch-tool to make a hole.



Step 3: Push the plug through the hole in the fixture.



Step 4: Insert the screw and drive it home with the required tightening torque.



**40% time saving!**

*the R-FFS was that it would only be intended for concrete, however, the excellent technical parameters we managed to achieve by investing in the related design and production operations make it suitable for the full spectrum of substrates, i.e. base materials A and B, where the plug works over the anchoring depth of 40 mm, as already mentioned, which was confirmed by the tests performed at the TZUS Institute in Prague, as well as C and D, where the hole depth is merely 50 mm, this being an achievement no other solution available in the market can compare to,"* comments Paweł Bunio, Manager at Rawlplug's R&D Department. This matters greatly to the optimisation of construction works, especially when considering the design of ventilated facade brackets, since the common practice is to fill the space in concrete structures with different base materials, and that's where the new

Rawlplug® branded product comes in handy, because you don't need to replace fixings with different ones, still being able to maintain the highest technical parameters, and ensure installation safety as well as long service life.

**Perfect couple**

What the market receives from Rawlplug is actually a perfect couple: R-FF1 and R-FFS, offering uncompromising technical parameters and fixing speed combined with installation simplicity and durability in operation in every case. But this is still not enough for the brand, which always strives to stand out, and so the customers receive another surprising duet: the R-FFS in a package with a setting tool for aerated concrete applications. The dedicated accessory tool makes it possible to obtain a hole of perfect depth without drilling and cleaning. It

**R-FFS | Installation steps | Concrete**

Step 1: Drill a hole in concrete to the required depth using the Rawlplug RT-SDSA or RT-SDSR, or equivalent drill bits.



Step 2: Blow the hole through using a blowpump.



Step 3: Push the plug through the hole in the fixture.



Step 4: Insert the screw and drive it home with the required tightening torque.



**Unrivalled corrosion resistance**



is for its high-precision design that, once you drive it into aerated concrete, the base material structure becomes more compact, locally strengthening the substrate, which translates into even higher load capacity than that which can be obtained by drilling. And if that is still not enough for the consumers, let's refer to yet another argument, namely the installation time saving, which – as tests have confirmed – can reach as much as 40%.

**Don't ask if, but which Rawlplug® fixing to choose**

Rawlplug® has raised another argument to claim that there is space for specialisation among universal solutions, provided that it focuses on the actual business and operational needs of users. The product is all the more versatile since it comes in numerous variants of diameter, length, head type or corrosion protection system. After all, if you analyse the market of lightweight fixings, installers' actual needs and the vast legacy of this sector, you may come to a conclusion that the only right path to choose is that of working with the form, and not the content. Many products placed on the market, modified multiple times in terms of design and components, only appear as novelties, while in fact they are ultimately rejected by the market on account of the complexity of their use, high costs and – last but not least – minute operating benefits.

Here's how our Brand Manager summarises this matter: *"It is the versatility of lightweight fixings that makes you focus on developing only a few key solutions catering to the needs of diverse construction jobs and universally suitable for different substrates, instead of designing dozens of specialised products intended for very narrow and specific applications. Under each of the 6 product subgroups in our portfolio of lightweight fixings, all of which completely satisfy the current market needs, there is a unique leading item which meets the most stringent technical criteria and mechanical strength requirements, in variants intended for diverse substrates."*