



SUSTAINABILITY & INNOVATION IN PLASTIC



### Water – a precious resource

Pure, clean water is one of the essential things in life, yet it's exposed to a large number of pollutants. GRAF develops, manufactures and markets an extensive range of products for water management. We provide solutions to global challenges, such as protecting watersources, purifying wastewater and preventing flooding, with typical German quality. Our focus is on avoiding environmental pollution and having a responsible attitude towards people and nature. We can draw on our experience of over 50 years in business.

We picked up on the considerable potential offered by rainwater harvesting early on. In 1974, the slogan "Rainwater is free" was used to market the very first rainwater barrels, which were soon followed by other innovations for rainwater harvesting. We have been consistently developing this area of our business ever since.



Otto Graf GmbH was established in 1962. We spent our early years almost exclusively selling containers, barrels and tanks for winegrowers and wineries. We systematically utilised the advantage that plastic's acid and alkali resistance offers, and also started to focus on tanks for industrial applications. Within a matter of a few years, we had achieved a leading position in this industry.

Thanks to the trust that our customers have placed in us and the commitment of our employees, our company has grown continuously and now employs a workforce of over 500 people worldwide, more than 300 of whom are based in Germany. Our products are exported to more than 70 countries across the globe. Numerous innovations bear impressive testimony to the high demands we place on ourselves as an innovative market leader for water management.

  
Otto F. Graf

  
Otto P. Graf



#### — TENINGEN SITE (NEAR FREIBURG/GERMANY)

- Size 155,000 square metres
- Approx. 280 employees
- Manufacturing using injection moulding and blow moulding

## — DACHSTEIN SITE (ALSACE/FRANCE)

- Size 100,000 square metres
- Approx. 95 employees
- Manufacturing using injection moulding and rotational moulding



## HERBOLZHEIM CENTRE OF EXCELLENCE FOR GREEN RAW MATERIALS (NEAR FREIBURG/GERMANY)

- Size 65,000 square metres
- Approx. 40 employees
- Raw materials processing, materials research and injection moulding
- Completion in the Autumn of 2018

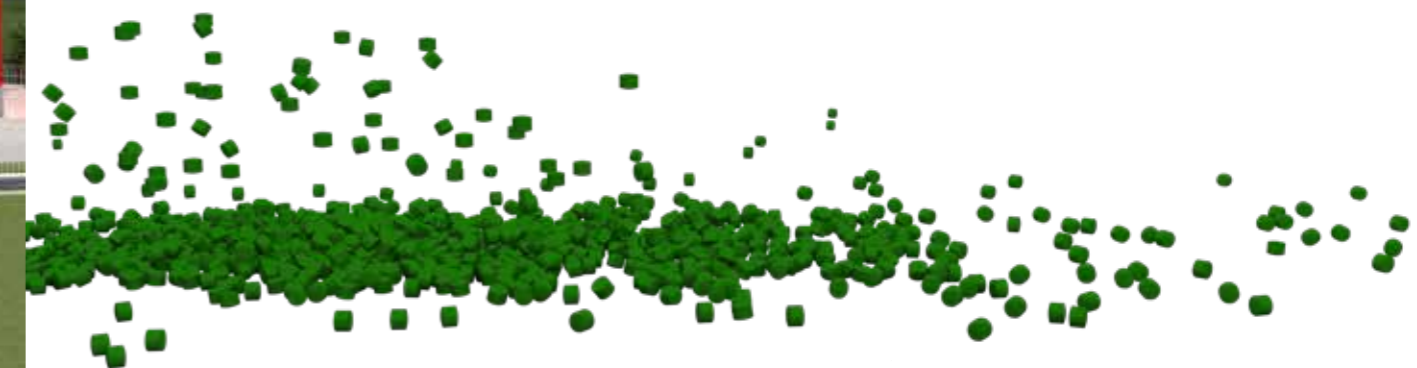
## GREEN RAW MATERIALS

### ECO-FRIENDLY PRODUCTS MADE FROM RECYCLED RAW MATERIALS

Over 50% of the raw materials used by GRAF are made from post-consumer recycling sources. In-house recycling of raw materials allows us to ensure consistently high raw material quality and to make all the products in our value-added chain highly sustainable.

By building the centre of excellence for raw materials in Herbolzheim, we are continuing the consistent implementation of our sustainable production strategy for environmental products. There, GRAF has been turning post-consumer plastic resources into high quality re-granulate since the Autumn of 2018. For the first time, the plant incorporates new technologies to link multiple process steps into an overall integrated process stream. This pioneering technology makes the plant the only one of its kind in the world. The objective is to manufacture a plastic granulate that attains the quality level of virgin products. This will eliminate more than 100,000 tonnes of CO<sub>2</sub> emissions every year in the future.

The centre of excellence for green raw materials is the visible symbol of the leading position within this field. It is the largest single investment in our company's more than fifty-year history.





## — EXPORTS TO OVER 70 COUNTRIES

GRAF products are exported to more than 70 countries around the world. GRAF is present in strategically important countries with own manufacturing or sales operations. We already generate more than

50 % of our revenue outside of Germany – with this figure set to rise in the future. The share of our company's exports in relation to our total products has almost doubled in the past five years.

**” GRAF GENERATES OVER 50 % OF ITS REVENUE OUTSIDE OF GERMANY. “**



GRAF Australia



GRAF UK



GRAF Poland



KLARO Germany

## 1962

Otto F. Graf founded Otto Graf GmbH. To begin with, he sells plastic containers and drums for fruit and wine growing, as well as industrial containers.

## 1974

The market launch of the first GRAF water butts lays the foundations for what is now the company's most important product segment: rainwater harvesting.

## 1978

With the market launch of underground rainwater tanks, GRAF opens up a completely new product segment.

## 1990

Rotational moulding production facilities in France are expanded significantly with the commissioning of what was, at that time, the largest rotational moulding machine in Europe.

## 1996

Otto P. Graf, the son of the company's founder, joins the company as an additional managing director.

## 1997

In Dachstein, the company invests in its own injection moulding production facilities with three large-scale machines.

The Herkules tank revolutionises tank logistics. Its two halves fit together using a patented system.

## 1999

The first generation of GRAF percolation blocks lay the foundation for the rainwater infiltration and retention range.

## 2001

GRAF expands its range to include completely biological wastewater treatment systems, thus founding what is now a very successful wastewater processing range.

## 2002

GRAF opens up the segment of decorative rainwater collectors – which is now an important range at GRAF.

## 2001

GRAF expands its range to include completely biological wastewater treatment systems, thus founding what is now a very successful wastewater processing range.

## 2006

The world's highest injection moulding machine and mould starts its operation. GRAF expands the Teningen site to create the company's most state-of-the-art production site.

## 2008

Tremendous growth calls for the further expansion of the Teningen plant. GRAF invests in its own blow-moulding production facilities.

## 2009

Sustainability starts with the use of raw green materials. This is why GRAF opts to invest in its own raw material recycling process.

## 2010

1st place: Otto Graf GmbH is winner of Baden-Württemberg regional innovation prize.

## 2011

At the Dachstein plant, we invest in two of the latest generational rotational moulding machines. These completely automated machines set new benchmarks for quality and energy efficiency.

## 2012

GRAF Australia takes over an Australian market participant, turning it into the production site for the Pacific region.

## 2013

1st place once more: GRAF receives the first prize from the German Federal Ministry of Economics and Technology for the project "Developing welding technologies for large-volume plastic containers".

## 2014

After more than ten years of intensive cooperation, Otto Graf GmbH takes over Klaro GmbH, its technology partner of many years' standing in the decentralised wastewater processing sector.

GRAF UK Ltd, a new member to the GRAF Group, is formed after the takeover of an English partner.

## 2017

The takeover of a Polish company gives birth to GRAF Polska, a further sales and production location for the eastern European market.

## 2018

The centre of excellence for green raw materials in Herbolzheim is the visible symbol of the leading position GRAF's expertise has adopted in the field of raw materials.

# MILESTONES IN OUR SUCCESS STORY



” GRAF CUSTOMERS SAVE MORE THAN THE EQUIVALENT  
OF THE DRINKING WATER REQUIREMENTS OF THE CITY  
OF MUNICH EVERY DAY “

## GREEN PRODUCTS – GREEN PRODUCTION

Only one percent of the available water on earth can be used directly for drinking. This water should be used responsibly. GRAF develops, manufactures and markets an extensive range of products for water management. GRAF provides solutions to global challenges, such as protecting watercourses and preventing flooding, with typical German quality.

### Rainwater harvesting

The city of Munich consumes 208 million litres of drinking water per day\*. With rainwater harvesting products, GRAF customers save this incredible amount every single day, making an important contribution to the sustainable use of this precious resource. For private households, the potential savings are around 50 % of drinking water usage, which increases to 85 % for commercial properties. GRAF therefore enables hundreds of thousands of people and businesses to harvest rainwater with an independent solution that best suits their individual requirements.

### Rainwater infiltration and retention

GRAF stormwater management helps to counter the problem of the increasing amount of land covered by buildings, car parks and roads, which prevents rainwater from naturally infiltrating the ground, putting pressure on sewer systems and increasing the risk of flooding. GRAF solutions take the pressure off sewer networks and reduce surface water drainage charges.

### Local wastewater treatment

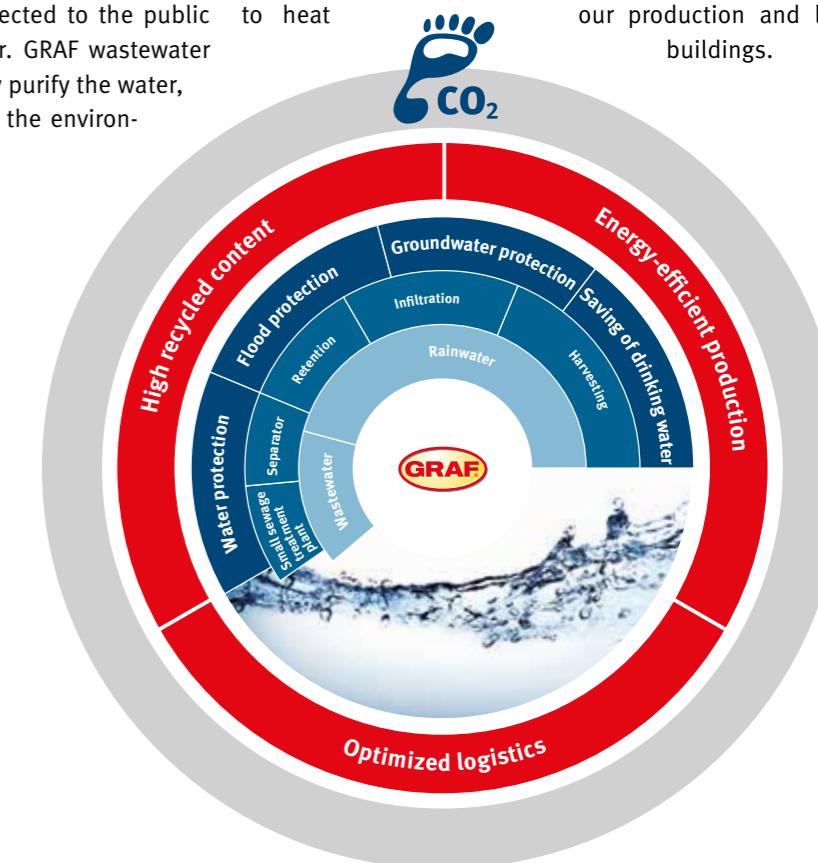
For local wastewater treatment, GRAF offers a wide range of small wastewater treatment systems for over 1 million households in Germany which cannot be connected to the public sewer network in a cost-effective manner. GRAF wastewater treatment systems are used to biologically purify the water, which can then be safely discharged into the environment.

### Grease and oil separators

One of the biggest hazards to drinking water is contamination with grease or oil. GRAF separators filter out hazardous substances from water, offering maximum safety and protecting the environment.

### Resource-conserving production

Our production processes relies on the latest systems for minimal use of resources. Our injection moulding machines require significantly less energy than conventional machines. Using heat recovery, the heat generated during production is used to heat our production and logistics buildings.



\*Average water consumption of 130 litres per person based on 1.5 million inhabitants in relation to the potential savings in drinking water consumption by using rainwater. The water savings per tank are multiplied by historical sales figures. For the mains water savings calculated, a flat-rate rainwater requirement of 15 times the container volume is assumed.

# FOUR LEADING BRANDS FOR OPTIMUM MARKET DEVELOPMENT

The GRAF brand world is based on four brands which differ in terms of the size of their range, their positioning and their sales channels.

This enables GRAF to pursue an extremely differentiated and, as a result, optimum market development strategy.



### Premium range

The premium brand with a comprehensive and professional product range. Distributed exclusively via specialist building materials suppliers.

[www.graf-online.de](http://www.graf-online.de)



### DIY brand quality

Product range for specialist trade and hardware stores – clearly arranged and straightforward.

[www.garantia.de](http://www.garantia.de)



### Promotional range

The do-it-yourself brand with the good-value basic range.

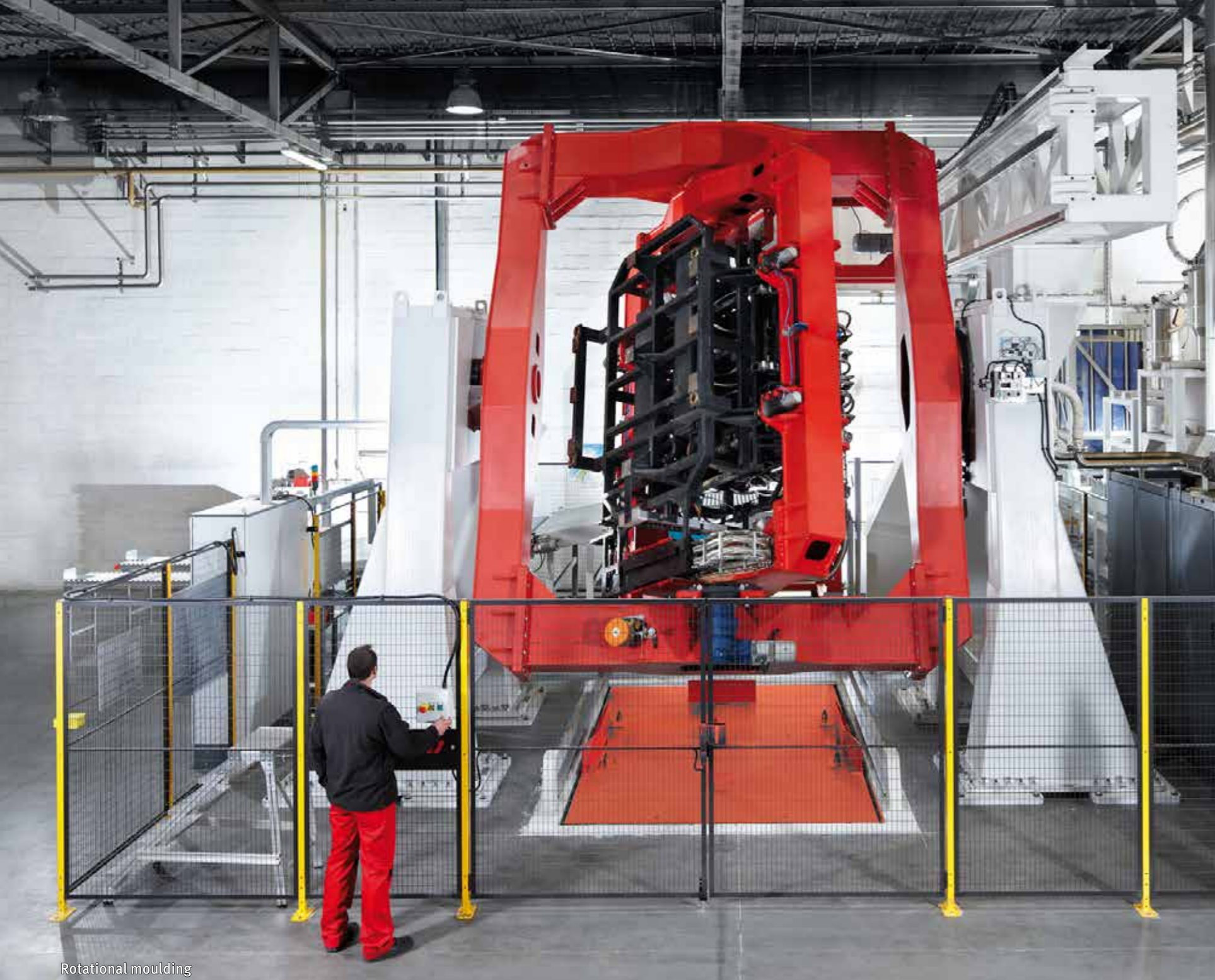
[www.4rain.de](http://www.4rain.de)



### Centre of excellence for wastewater

Small- and mid-scale wastewater treatment systems up to 2000 inhabitants and separation technology for specialist companies and as an OEM solution.

[www.klaro.eu](http://www.klaro.eu)



Rotational moulding



Blow moulding



Injection moulding process

## OUR COMPETENCES

### — PRODUCTION EXPERTISE

The manufacturing process is essential for a top-quality product. GRAF products have to fulfil a wide range of requirements. As a result, we have the know-how in all major production technologies. The optimal manufacturing procedure for each product can therefore be accessed in-house. Our production facilities feature state-of-the-art equipment. This is the only way to guarantee highest quality at attractive prices.

### **Continuous quality assurance**

The image of our products is characterised by the very highest levels of manufacturing quality. The development of each tank is comprehensively documented. All production parameters, such as weight, date of manufacture and material batch, are stored as part of our quality assurance system.

## WORLD'S LARGEST INJECTION MOULDING MACHINE

- 25 metres in length
- Weight: 585 tonnes
- Clamping force 5,500 tonnes
- Max. product weight 150 kilograms



## INJECTION MOULDING EXCELLENCE

GRAF broke into new ground by using injection compression moulding to make the Carat tank. To manufacture this tank, GRAF commis-

sioned the development and construction of the world's largest injection moulding machine and mould.

EXPORTS TO OVER 70 COUNTRIES



GRAF took the top spot at the 2010 Baden-Württemberg Innovation Prize competition with the Carat S underground tank.



## LOGISTICS EXCELLENCE

The GRAF dealer network has grown continuously over the past few years. We owe the remarkable loyalty shown by our customers not only to the unique quality of our products, but also to our pronounced service awareness in our dealings with our retail partners. Sophisticated logis-

tics with quick reaction and short delivery times play a crucial role in ensuring our high standards. With consistently high delivery performance of 99%, we ensure short-term availability at all times, even in seasonal peaks.



” THE GRAF LOGISTICS DEPARTMENT REACHES  
CONSISTENTLY HIGH DELIVERY PERFOR-  
MANCE OF 99% “



## DESIGN EXCELLENCE

In 1974, the classic water butt laid the foundations for one of GRAF's most successful product ranges. Today, our customers can choose from a range of over 70 container shapes, sizes and colours, from bright or muted colours to modern or rustic styles.



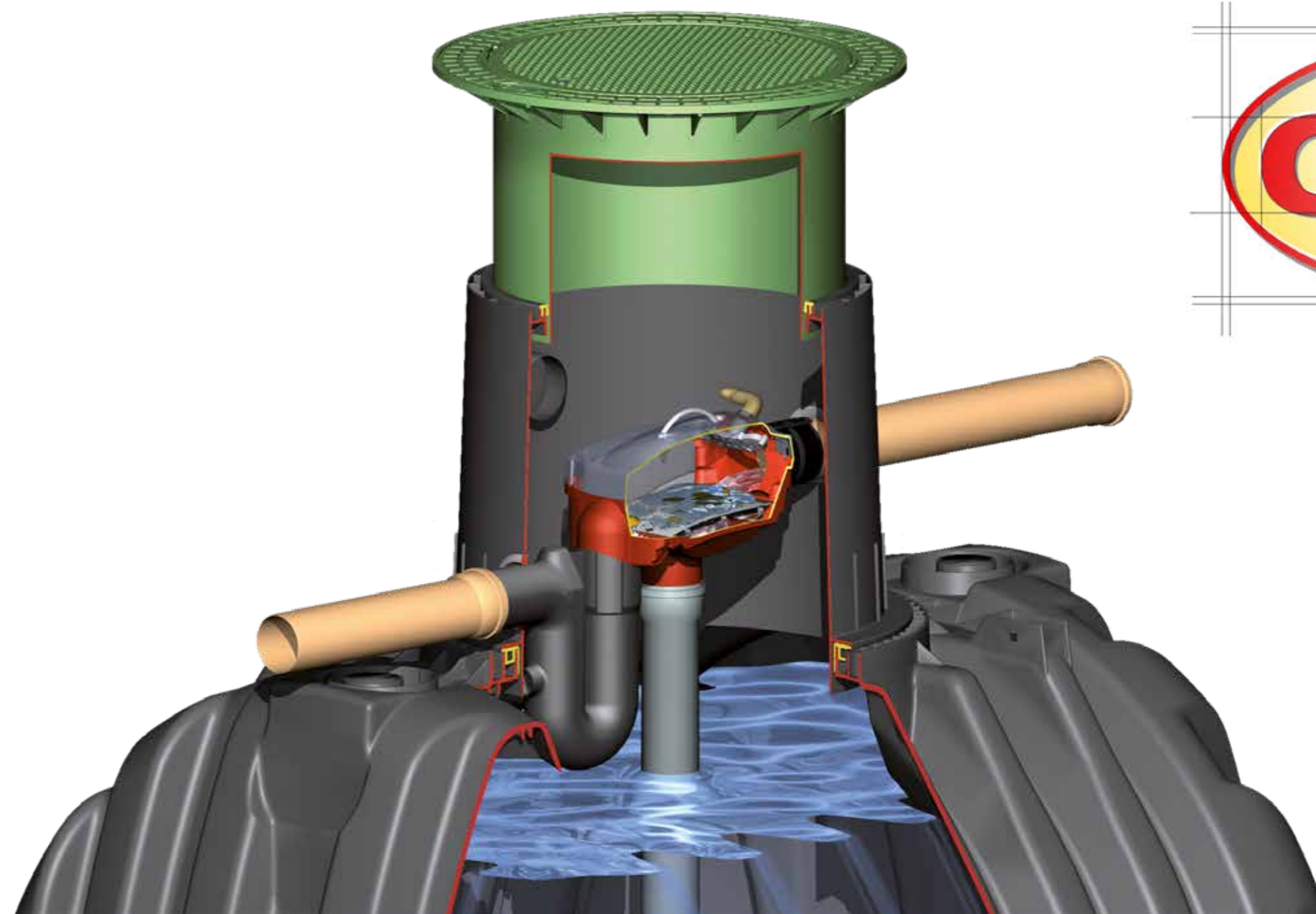
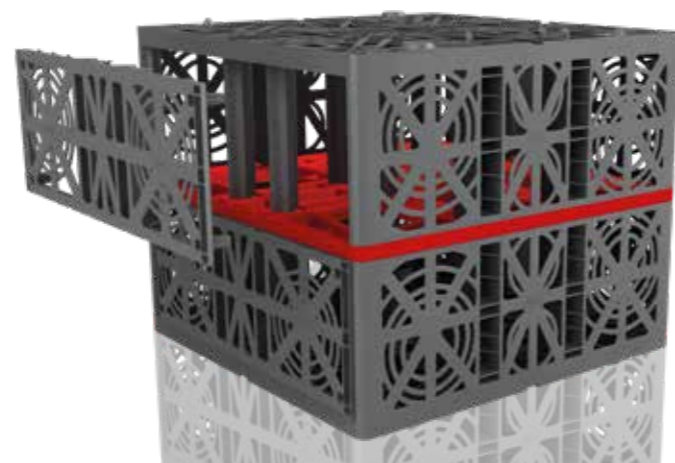
reddot design award  
winner 2017



## — ENGINEERING EXCELLENCE

Over 200 patents and property rights and numerous awards bear witness to our achievements as a driver of innovation and form the basis for our commercial success. These innovations are growth drivers and form the basis for our commercial success.

All GRAF products have been developed by our own R&D department. This department combines all necessary types of expertise, from design and function to construction and statics.





The GRAF project team

## — EXCELLENCE IN CUSTOMER SERVICE

Providing retail partners and end customers with reliable service is of considerable importance. Offering professional and friendly support whenever you may need it is essential for us. Our sales team and the traditionally close relationship with specialist building materials suppliers guarantee top-quality service. And if any problems may arise our excellent service department is on hand to resolve the issue quickly and easily.

### **GRAF project team**

Our project team provides full support for larger construction projects. This ranges from comprehensive support in the planning and dimensioning of our systems to on-site consulting on the construction site.

### **Highly effective marketing**

In the battle to win consumers, a brand's profile and image are often decisive factors. Our marketing mix creates demand and helps retailers to sell our products.



Numerous reference projects at  
[www.graf-online.de](http://www.graf-online.de)

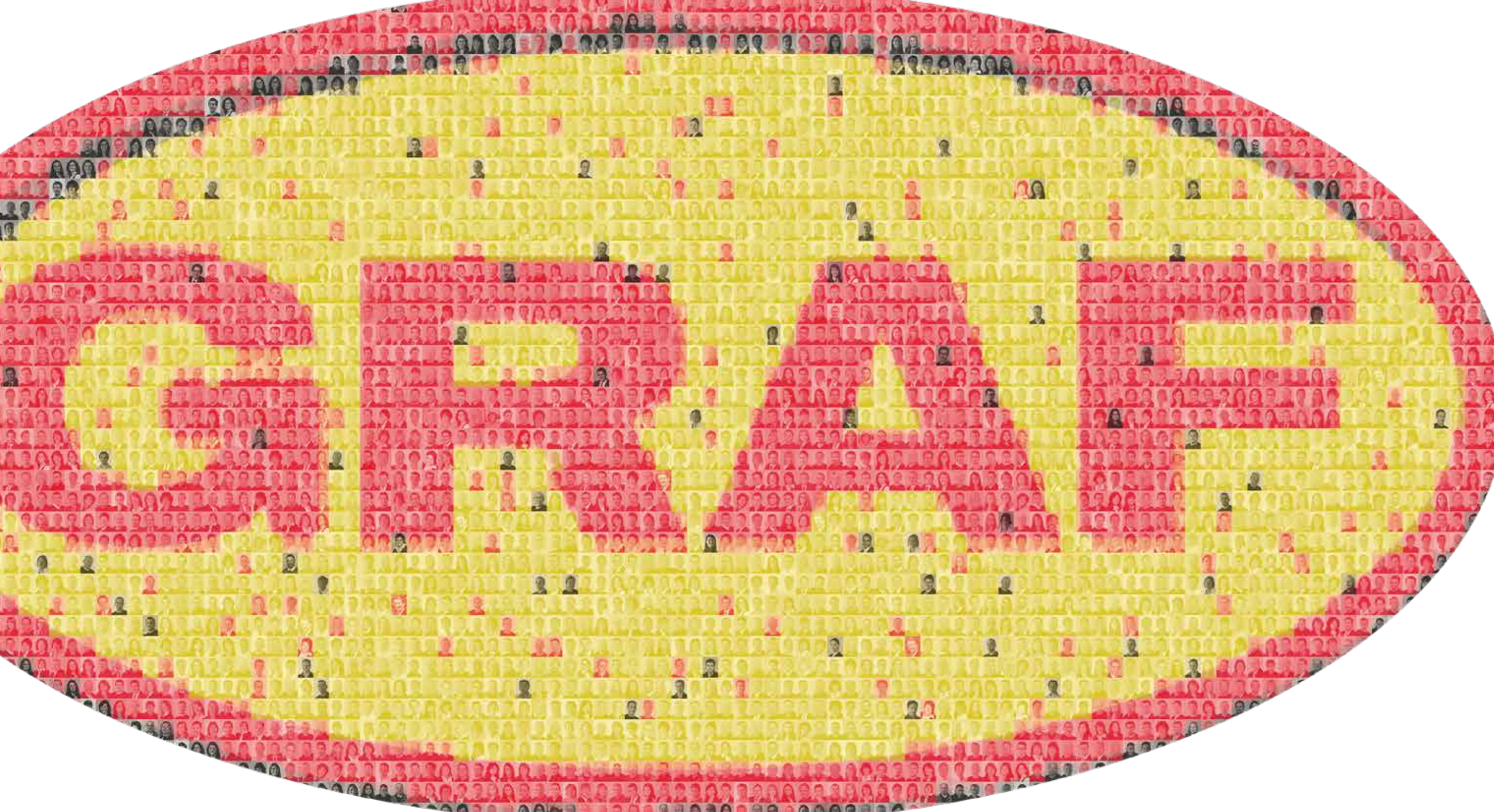


[www.graf-online.de](http://www.graf-online.de)

- GRAF TV
- Product advisor
- Numerous downloads



The **technical catalogues** contain detailed information on planning and dimensioning and also provide practical application examples.



## — PEOPLE MAKE THE DIFFERENCE

The high motivation and exceptional commitment of our staff provide the foundations for our commercial success. Their exemplary dedication to achieving our company's ambitious goals has made a key contribution to our success story. Today, GRAF has over 500 employees. Sales and employee numbers have more than doubled over the last 10 years.

### **Employer attractiveness**

GRAF has proven to be a reliable, stable employer. Its continued growth ensures security and predictability, while continuous investments in our plants foster additional confidence. Short decision-making and flat hierarchies enable employees to work independently and with responsibility. Furthermore, attractive overall conditions and an extremely positive working atmosphere contribute to GRAF's appeal as an employer.

### **Training at GRAF**

We actively live up to our social responsibility towards young people. Over 50 young people have already completed their training at GRAF and were then employed on a permanent basis.

[www.facebook.com/GRAF.Ausbildung](https://www.facebook.com/GRAF.Ausbildung)





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