



Special-purpose equipment for sewage treatment plants

- **Scraper tracks**
- **Repair of concrete structures**
- **Tailor-made equipment**



The kingfisher loves natural and clean rivers and canals. Thanks to the further progress in sewage plant technology we can today see this bird again fishing in many brooks and rivers.

More than 25 years of experience in the design and construction of scraper tracks



Thomas Rabel, Nico Siegfried
and Friedrich Krumme –
a team right from the beginning

The predecessors of our
modern 40-ton service trucks

More than 25 years ago, the first sewage treatment plant was equipped by Messrs. Friedrich Krumme GmbH with their special-purpose equipment. Meanwhile the number of plants both in the entire Federal Republic of Germany and in other European countries has increased to more than 1000. These figures speak for themselves and reflect the high quality standard of our products and their sound workmanship. Every project we worked on in the past signified a new challenge with individual tasks. Strong powers of endurance, continuous progress and the demand



for top performance as to our own work have been the keys to our success. As market leaders we are obliged to both our suppliers and our customers to provide durable, reliable and low-maintenance solutions which, thus, prove to be cost-effective in the long run.

Yours, Friedrich Krumme

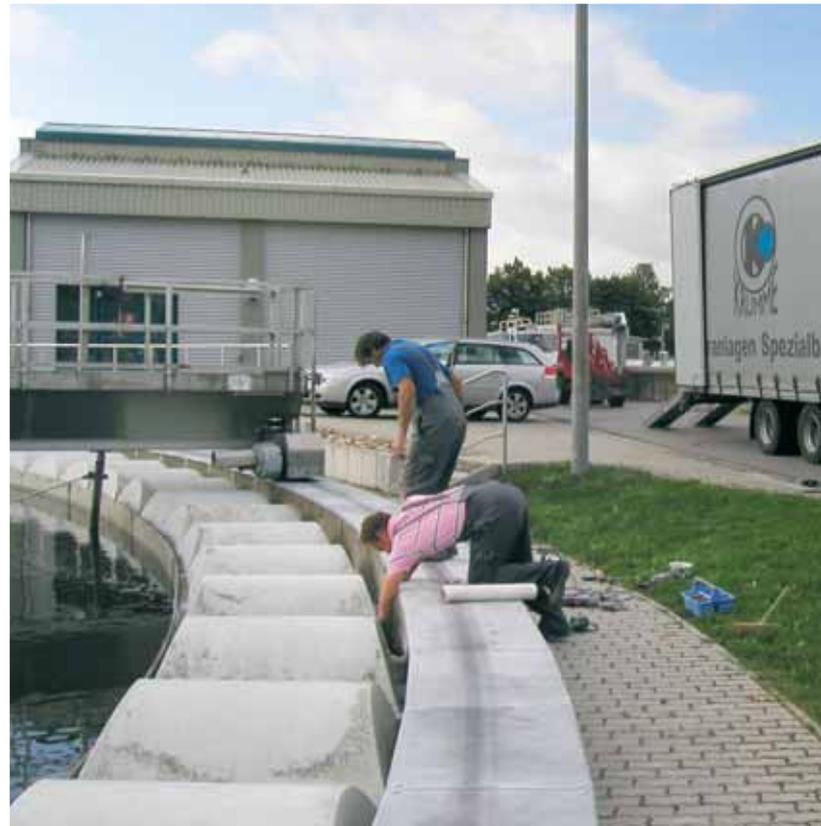
"Messrs. Friedrich Krumme installed this scraper track 20 years ago. Since that point of time, the scraper has been working absolutely trouble-free. I would decide in favour of this equipment time and again."

*Mr. Bartonitschek, Operations Manager
Blomberg Sewage Treatment Plants*



Fairness, reliability and innovation

These features are the basis of our
success – without any ifs and buts!





“Specialists of all crafts involved choose high-quality materials for installation – in my opinion, this is practical quality assurance.”

Thomas Rabel, Site Management

Competence in technique and technology

Every order placed with us is worked on exclusively by our team. This means that planning, design, manufacture and construction are performed by our experts alone. In this way we make sure for our clients that required quality standards are complied with by continuous internal surveillance and quality management.

Thanks to our comprehensive range of products and services we are in a position to react flexibly to our clients requirements and recommendations.

From the repair of concrete structures – of course in accordance with SIVV certificates (certificate with regard to protecting, repairing, joining and reinforcing concrete structures) – to electrical engineering by academically-trained engineers and foremen, the satisfaction of our clients requirements always ranks first.

We only apply first-quality products which are well-suited to each other and which are provided by suppliers certified in accordance with statutory requirements and standards.

Owing to our well-equipped stock of raw materials we are in a position to respond to your needs quickly and independently.



Special tasks require special-purpose machinery to provide optimum results with high precision.



Our well-coordinated team consists of experts for the individual phases of construction: Our professionals know their job.



"At present, 12 young people – tomorrows experts – are being trained in our company."
Friedrich Krumme



Vocational education and further training



sewage treatment plant technology. The attention we pay to the qualifications of our employees is reflected by our training centre which is a glass building that projects far over the company grounds. Every year young apprentices start off into the future with us. Each of our employees is encouraged to maximum performance by regular in-house and industry-wide training courses. New materials and machines are presented with full particulars to our staff who is at the same time thoroughly instructed in their application and functioning. Our security officers make sure that all relevant laws and directions are complied with.

The sound vocational education of our employees as well as their regular attendance at further training courses contribute to the fact that our products and services set quality standards in





“The surface of the scraper track is of decisive influence on plant reliability and economy. A track in need of repair entails increased wear of all movable parts.”

*Dipl.-Ing. Stephan Heckerath
(academically-trained engineer)*

Scraper tracks in new and existing plants

Scraper tracks in sewage treatment plants are concrete components subject to heavy mechanical and chemical stress. Without suitable protection, even properly applied readymixed concrete does not withstand such stress in the long run. Damage, such as flaking, cracking and loss of material, often occurs already a few years after plant commissioning. Until the nineties of the past century, plastic material coatings were preferably applied both as protective measure and for scraper track restoration. Different coefficients of thermal expansion and the water tightness of plastic materials, however, have frequently been the reason for limited service life.



Patent for success

Already 25 years ago, Friedrich Krumme realised that only wear-resistant metal surfaces offer reliable protection. During many years of development work which culminated in taking out a patent, we have succeeded in optimising the design and construction of our protective system even further.

URKUNDE

über die Erteilung des
Patents

Nr. 42 12 826

“Thanks to the scraper track heating installed by Messrs. Krumme night work is past history for me!”

Mr. Zink, Sewage Works Operator, Treuchtlingen



Clear scraper tracks – even in winter!

The running surfaces of your scraper can be equipped by our electrical engineers and foremen with heating systems which work efficiently and at low cost. Whether you decide for a small local-control system or for integration into the existing control cubicle with connection to modern memory-programmed process control systems – a specially designed moisture and temperature sensor in combination with our tailor-made scraper track cover guarantee very low power consumption.

You may rest assured that plant operation is safe even in winter. Less than 150 operating hours per year with a power consumption of approximately 25 W per cable and linear meter are a totally realistic figure for our modern plants.

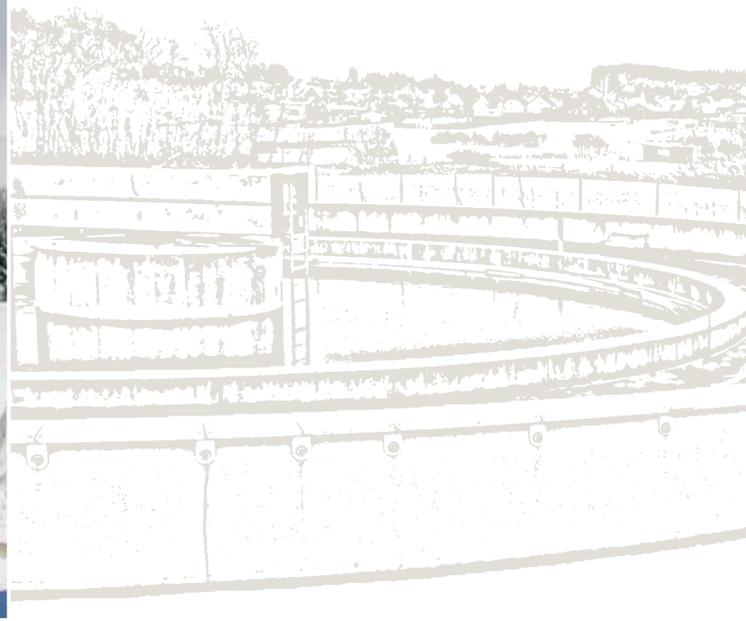
However, we are by no means satisfied with such a low energy consumption – we are at present

In spite of wintry temperatures and fresh snowfall overnight the functional capability of the plant is ensured.



operating prototype plants which are kept ice-free by the intelligent change of scraper design only.

Incredible? We would be pleased to inform you accordingly!





The fire salamander protects itself against fungal and bacterial attack by its slightly toxic skin surface. This beautifully marked amphibian lives in the immediate vicinity of intact lakes and watercourses and in marshland.

Repair of concrete structures – for intact surfaces!

The renovation of concrete structures has been our original field of activity. Friedrich Krumme, however, realised very early that a lasting effect cannot be produced by simply coating the basin crest with concrete. This recognition was the basis for the development of metal scraper tracks. Nevertheless, we lay main emphasis on the fact that the concrete structure is repaired in an expert manner in the course of the installation of the basin crest covering. A safe foundation is indispensable to avoid consequential damage.

We do not do things by halves: Regular instruction by the suppliers of materials keeps our team up to date with latest developments. It goes without saying that our experts have SIVV certificates (certificates with regard to protecting, repairing, joining and reinforcing of concrete structures)



issued by Deutscher Beton- und Bautechnik-Verein e.V. (German concrete and construction association). The experience we have made for many years with all sorts of concrete is supported by machinery operating with the most advanced technology. The 2500 bar water jet apparatus is followed by special concrete spraying machines and coating procedures which form a concrete surface that stands up to close examination.

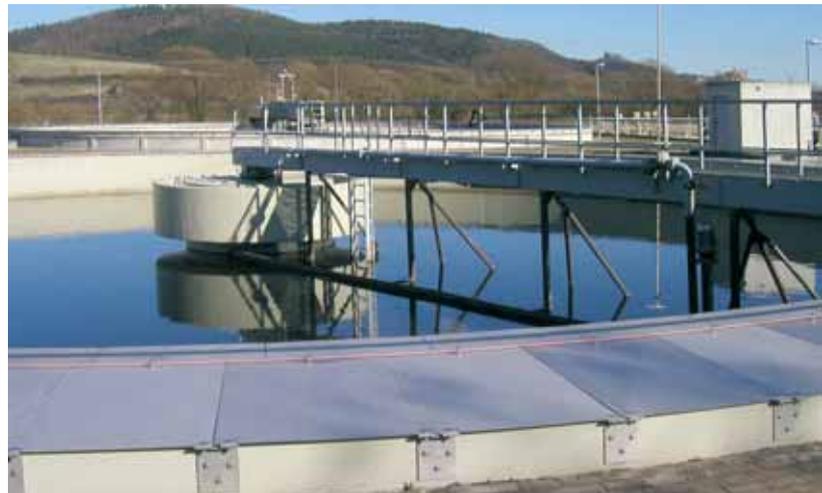


The nest of the white stork is of unique design. The bird is occupied untiringly in maintaining its nest in order to rear its brood.



Outlet channel covers and special-purpose equipment

Alga formation in the outlet channel is an omnipresent problem. Unhindered clean water discharge can only be ensured if the outlet channel is regularly cleaned either by machine or even by hand. We can take measures to counter this problem. Our light-proof channel covers made from metal reliably prevent the formation of green alga. We are in a position to offer a great variety of covers: accessible-type, with protection against snow and wind load, hinged-design, firmly-mounted design or slip-on type. We would be glad to advise you in this respect and to prepare an offer that suits your requirements. Particularly with low basin crests, accident prevention can be combined with a long-term reduction in operating expenses. We would like to offer you our expert advice also in other areas of accident prevention. We design and construct long-life railings and guards according to your requirements. Special-purpose equipment and metal covers for a great variety of applications, particularly made from high-grade steel, are our business. Please do not hesitate to contact us!





The char is very sensitive to water pollution. It is our endeavour to improve environmental conditions so that this beautiful fish will find an enlarged habitat in future.

Your partner – now and in future



We always strive for further development and regard new ideas as challenge. For this reason, we are in constant dialogue with the experts at site and are always looking forward to hearing about new research developments. You are invited to profit from our flexibility and speed of reaction: We have three fully-equipped service and erection trucks at our disposal to make sure that all materials and tools required are available at site without delay.

Within the entire area of the Federal Republic of Germany, the on-board equipment of the 40-ton trucks is regularly replenished by smaller service trucks. This system helps to avoid attendance and idle time of our construction teams at all German sites.



“Take us at our word. There’s nothing better than a personal meeting at site. I am looking forward to making your acquaintance.”
Oliver Niehues



Start with us now!

We are your reliable and efficient partner. Our business connection starts with a personal meeting. We prepare a detailed analysis of your requirements which forms the basis of a sound renovation scheme. Design and construction with proven materials are executed by our expert staff.

Please do not hesitate to arrange a meeting with us!

We would be pleased to advise you at short notice and free of charge – of course at site!





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