

### Something you can rely on

# The result of our work is clear.

Technologies for wastewater treatment and water processing. Since 1987.





**Experience:** TIA Technologien zur Industrie-Abwasser-Behandlung GmbH is an ownermanaged family business, founded in February 1987 under the direction of the managing partner **Dr.-Ing. Norbert Müller-Blanke**.

Since then, TIA has been realizing turn-key, tailor-made **wastewater treatment plants** from pre-treatment up to full biological treatment to the grade for re-use resp. recycling. According to the industrial requirements, the plants are designed modularly. They can easily and clearly be extended and adapted to changed capacity requirements.

**Process:** Thanks to the free selection of the individual process steps out of all available state of the art processes, TIA is able to match the plant design specifically to the respective application: Safe and clear in its function, energy-efficient, economic and forward-looking.

**System technology:** Offering a combination of standardized chemical, physical and biological processes has been proven in practice in three systems:

### TIA COMPACT System:

Here the process steps are realized in rectangular, space-saving concrete basins.

### TIA MODULE System:

Here reactors and devices (stainless steel or plastic) are combined in classic industrial design.

### **TIA CONTAINER System:**

Machines und reactors are combined in containers and delivered as "plug + play" plant.

All TIA plant components are composed exclusively from reputable manufacturers from Germany and Europe. TIA plants are "Made in Germany" and "Managed in Germany"



## Transparency in our range of services:

## This is what you can expect from TIA.

**Operation:** Municipalities and industrial customers from nearly all branches receive our plants turn-key including a management and personnel training. As a service, TIA executes the commissioning and, if desired, also the plant management. For a responsible operation of the plant, we offer a remote monitoring with digital data transfer.

Renovation and Extension of existing plants are necessary in order to meet changed requirements regarding capacity and quality of wastewater purification and treatment at existing plants. Our own TIA systems are generally designed for extensibility. But we are

also specialized in the capacity increase of conventional plants: chemical, physical and biological process steps can be upgraded and completed with TIA technology.

Sphere of activity: TIA supplies customers in many countries in Europe, Asia, Africa and Middle East. In most of the countries local partners take over tasks regarding consulting and after sales service – always in coordination with TIA and on the basis of our experience going back to the year 1987.

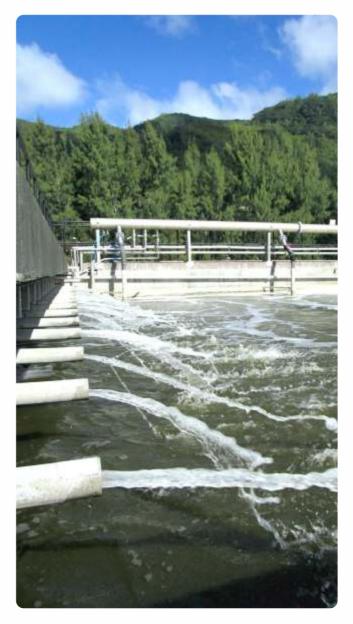
#### Industrial know-how since 1987: a clear benefit!

Aircraft Industry · Breweries · Casings Processing · Central Industrial WWTP · Cereals Chemical Industry · Compressor Construction · Confectionery · Convenience Products Dairy Products · Edible Oils Production · Electronic Industry · Energy Generation Environmental Remediation · Feather Processing · Fish Processing · Food Colours · Food Industry · Hospitals · Juice Production · Landfills · Meat Processing · Municipal · Oil Recycling · Paper Industry · Pastics Production · Potatoe Processing · Refineries · Rubber Products · Slaughterhouses · Soft Drinks · Spice Factories · Steel Processing · Tank Truck Cleaning · Textile Industry · Vinegar Production · Wineries · Wood Processing











## Smooth-flowing project implementation:

# We are there for you every step of the way – and thereafter!

### Industry:

Our broad and long experience in various industrial sectors and size of enterprise is the basis on which we design tailor-made plants for our customers: space requirement, energy efficiency, infrastructure, disposal capacities and costs are discussed with our customers and lead to the realization of our system technology.

Capacities between 50 m³/day and 7,500 m³/day have been realized in a wide variety of branches. Some plants have been extended and upgraded up to five times. We have experience with concepts for industrial zones as well as with their management, operation and cost sharing.

#### Municipalities, hospitals and hotels:

The TIA COMPACT System has conceptually and economically been well proven for the biological treatment of municipal wastewaters. It is designed in standard sizes from 1,000 m³/day and more with at least 2 single modules (lines) always operating with ARS technology and 2-step secondary clarification. Efficient aeration technologies, modular design and standardization lead to minimum maintenance and operational costs.

This also applies to the "little brother": COMPACTmini are strictly standardized plants featuring high energy efficiency which are completly assembled within 1 to 2 weeks. Thus, the generally very complex capacities between 500 and 3.000 P.E. are realized cost-efficiently.











## Developements:

# We offer the right process for every type of pollutant.

TIA generally applies all process steps which are technically proven and available on the market. The optimum systematic combination of such processes in a complete plant is our service to the customer.

At times, in-house developments are reasonable for an economic wastewater treatment, that is why we "research and develop" continuously. Some excellent results are for example:

- The ARS process: 25 years ago it has been developed and patented mutually with the Technical University of Hamburg Harburg. The sludge age in a biological clarification step can be raised to more than 20 days. Stable and odourless operation and an excellent accident management are achieved.
- The **2-step secondary clarification**: Normal sedimentation followed by separation via lamellae ensures the retention of biomass and thus the process. And saves space.
- The **Flotation:** More than 30 years of development have lead to one of the safest and most efficient Dissolved-Air Flotation (DAF) units. It is realized in a MODULE or concrete COMPACT System.
- After and alongside moving-bed and fixed-bed processes we apply **TIA FLEXIFILM**, a textile growth carrier which requires nearly no energy for flow and prevention of blockage.
- The **digital equipment** of our plants allows an efficient and safe operation, also with remote monitoring.



### It clearly goes without saying

## we will gladly make you a suitable offer.

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