

PROBIG®

NON-METALLIC SCRAPING SYSTEMS

PROBIG®
IMAGE



SOLUTIONS AND SYSTEMS

FOR WATER AND WASTE WATER
TREATMENT TECHNOLOGY

PRO SOLUTIONS FOR
WATER TREATMENT

www.probig.com



Vöcklamarkt/Austria site

Innovative environmental technology made in Austria

PROBIG® has been developing, designing and producing high-quality chain and flight scrapers, DAF separators and API scrapers from high-tech non-metallic materials for decades. As a pioneer of this technology, the company, which operates globally, is an international market leader and is one of the most innovative providers of non-metallic chain scrapers for water and waste water technology.

We offer our customers state-of-the-art process technology and proven expertise for complete solutions for pre-treatment. PROBIG® is your specialist and reliable partner for system engineering in the field of sedimentation and flotation plants.

PROBIG® systems are certified for the highest requirements:

- ISO 9001
- ISO 14001
- OHSAS 18001
- ATEX-certified for ex-zone 0



II 1 G c/b IIC T6

Specialising in top quality

In the development of treatment and scraping systems for a wide range of applications, PROBIG® concentrates on the permanent improvement and further development of scraping systems. PROBIG®'s team of experts take over the entire planning process. The manufacture of high-quality parts made from non-metallic materials is carried out by specialised manufacturing companies in accordance with PROBIG®'s specifications.

The close collaboration between PROBIG® and the carefully chosen partner companies guarantees optimal project security and exclusive, strictly controlled quality: all non-metallic components are exclusively manufactured using PROBIG®'s own tools.



Strong partners for solutions in a class of their own



Specialists in pultrusion technology

use pultrusion procedures to manufacture glass-fibre reinforced plastic profiles for GRP scraper flights after construction and on behalf of PROBIG®.



Specialists in the production and processing of non-metallic materials

produce high-quality wear parts and mill sprockets from thermoplastic and sinter-pressed plastics for PROBIG®.



Specialists in injection moulding technology

use casting and injection moulding procedures to manufacture chains and wear parts for PROBIG® from high-quality plastics.



Specialists in steel and mechanical engineering

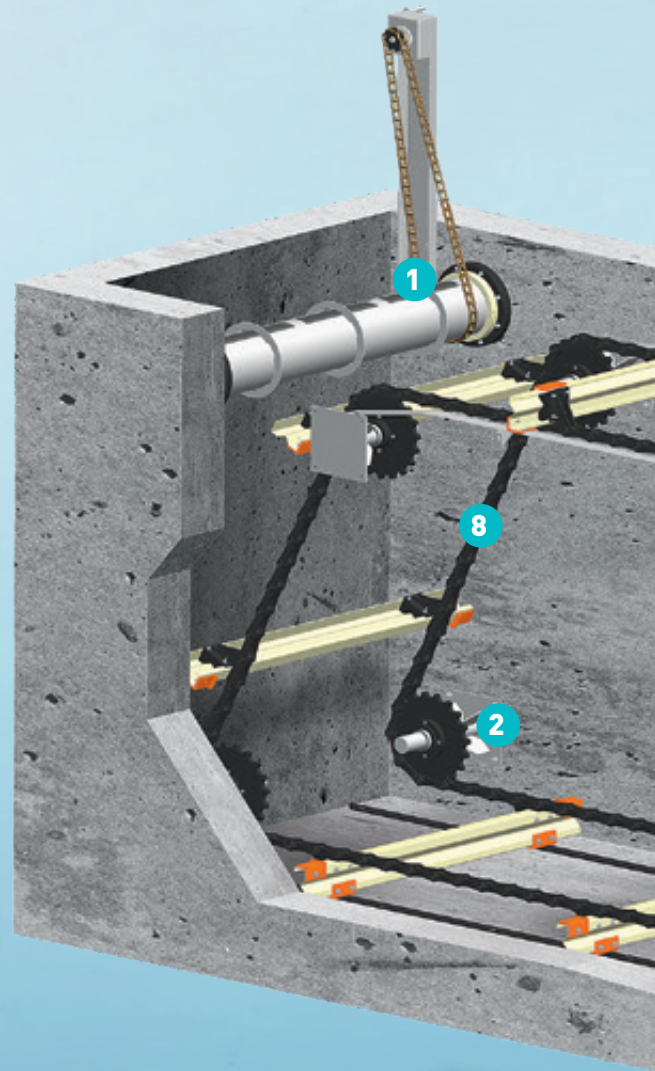
manufacture and install load-bearing steel parts for PROBIG® plants **in all material grades tailored to the individual application.**

Chain and flight scrapers manufactured from high-tech non-metallic materials: innovative technology for the future

PROBIG® is the first choice for continuously operating treatment and scraping systems manufactured from high-tech non-metallic materials. We can offer you scraping systems for rectangular tanks up to a maximum of 140 m length and 14 m width. The range of applications for PROBIG® scraping systems is just as diverse as the growing challenges faced by designers, industries and municipalities all over the world.

Leading expertise in surface and bottom scraping systems:

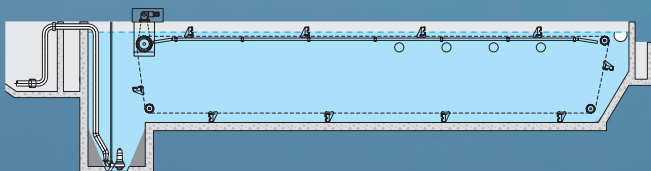
- Floating scum screw
- Paddle system
- Sludge removal using a ramp, scum pipe, screw conveyors etc.
- Bottom screws
- Grit collector scrapers
- Special solutions
- Solutions in potentially explosive environments in accordance to ATEX and much more



Types of chain and flight scrapers

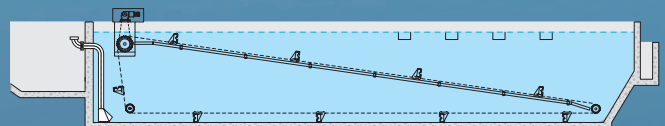
4-shaft scraper

For the removal of bottom sludge and floating scum



3-shaft scraper

For the removal of bottom sludge



1 Scum pipe

2 Stub shaft

3 Return run rails

4 Wear strips

5 Bearing for the main shaft

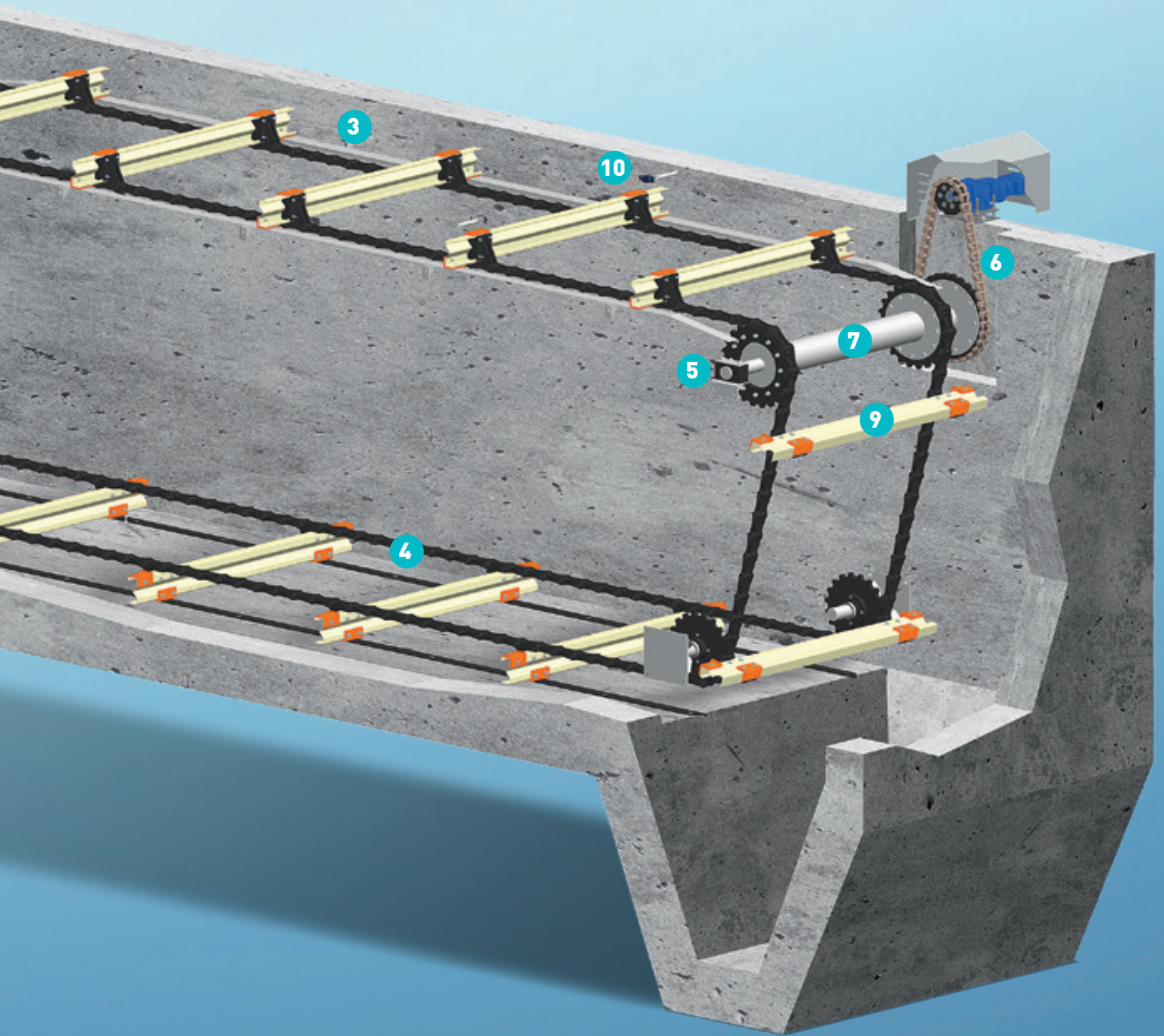
6 Drive chain

7 Main shaft

8 Non-metallic conveyor chain

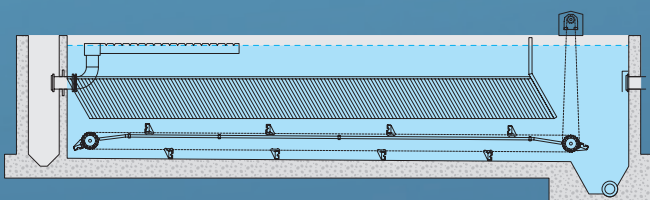
9 GRP flights with wear shoes

10 Flight alignment monitoring system



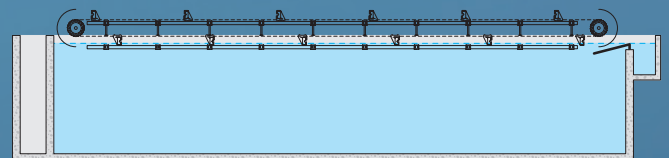
2-shaft scraper

For the removal of bottom sludge



2-shaft scraper

For the removal of floating scum





Flotation scraper made entirely of synthetic materials



Grit collector scrapers



Bottom sludge and floating scum scrapers

The sum of the best parts: Everything speaks for PROBIG®

For every customer, PROBIG® develops an unbeatable complete package with a multitude of advantages. PROBIG's® application specialists produce highly efficient solutions that enable enormous savings to be made when it comes to energy and maintenance costs.

With PROBIG®, you benefit from an almost infinite variety of systems, which win over customers thanks to their excellent cost-effectiveness, unique durability and high levels of operational security. PROBIG® ensures the flexible realisation of a wide range of designs with a multitude of materials, depending on the application.

When developing our systems, we place an emphasis on close cooperation with research institutes and universities. We work together with external specialists in design. PROBIG's® further spectrum of services ranges from engineering, planning, construction and assembly to maintenance and service. We realise an individual solution for every customer.

Clear advantages with PROBIG®:

- ISO-certified, ATEX and TUV tested
- Energy efficient
- Easy maintenance
- Up to 10 times more durable than metal
- Corrosion-resistant
- Low noise
- Short amortisation time
- Durable and reliable





Patented screw conveyor with concentric floating extractor



Shaft and flange made from GRP



Bottom sludge and floating scum scrapers



Patented screw conveyor with floating extractor at the side

Areas of application:

- Petrochemical/refineries
- Seawater desalination
- Chemical industry
- Municipal waste water treatment plants
- Drinking water plants
- Paper industry
- Food industry
- Breweries and many other industrial sectors

Applications:

- Surface scrapers
- Bottom scrapers
- Grit collector scrapers
- Chain conveyors
- Trough chain conveyors
- All types of sludge scrapers
- And anywhere where sludge is transported in moist/aggressive environments

From industrial firms to operators of municipal treatment plants: PROBIG® treatment and scraping systems meet the individual needs of all our customers worldwide. This is why so many international companies place their trust in PROBIG®'s expertise.



Trough chain conveyors



Surface scrapers for seawater desalination



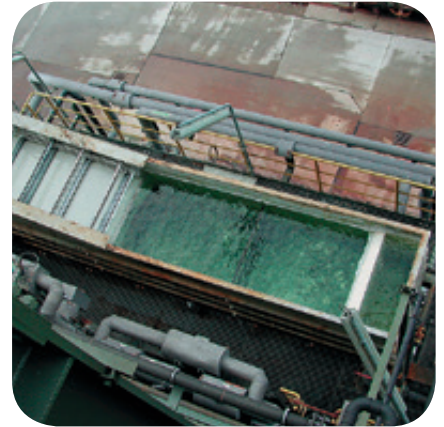
Sludge removal using of screw conveyors



API sedimentation tank in the refinery



CPI-oil/water separator



Flotation plant made entirely of non-metallic materials

Thinking ahead in pre-treatment: PROBIG® does more!

Certified PROBIG® complete solutions made from high-tech non-metallic materials fulfil the most stringent standards in the oil and gas industry, as well as in pre-treatment at seawater plants. Leading companies in the petrochemical industry all over the world rely on our pre-treatment solutions for waste water treatment.

Due to their decades of experience working with API, CPI and DAF, PROBIG® accredited installers implement solutions with special, authorised and certified materials that impress customers with their high levels of operational safety, energy efficiency and durability. We are also able to implement existing systems cost-effectively and efficiently.

Our key products:

- API
- CPI
- DAF



II 1 G c/b IIC T6



GRP cover for API tanks



CPI installations with covers



Complete solution with flotation

API, CPI, DAF: it's worth it!

PROBIG® develops the ideal systems for use in abrasive and oily environments, depending on the application.

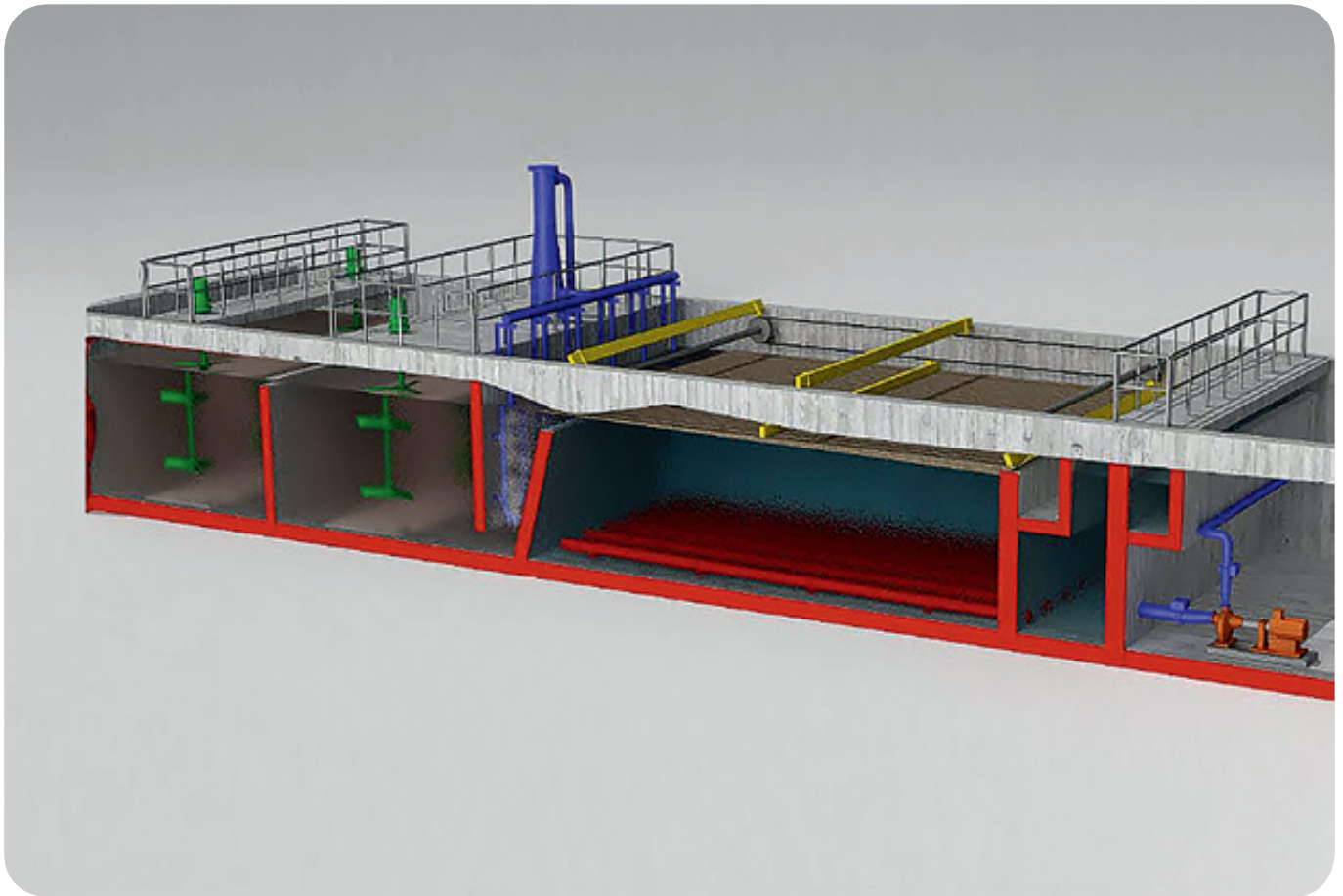
API (American Petroleum Institute): Our API scrapers are designed in accordance with the API standard 421. Waste waters containing solids and oily substances are collected in tanks and treated in API tanks: floating substances are first removed by the oil skimmer. Heavy sediments then separate naturally, while the light substances rise to the surface.

CPI (Corrugated Plate Interceptor): The coalescing plate separator is an oil/water separator for the removal of free oils and hydrocarbons from waste water and is used in a wide range of applications.

DAF (Dissolved Air Flotation): DAF (Dissolved Air Flotation): Dissolved air flotation is a proven and effective method for the treatment of industrial water streams. DAF scrapers are perfect for removing oils and fats and suspended solids and colloidal dissolved substances.

Our systems have unbeatable advantages:

- Durable and resilient
- Operationally safe and energy-efficient
- Considerably lighter and corrosion-resistant
- Reliable and maintenance-free operation
- Above-average lifespan



PROBIG® pre-treatment for seawater desalination

Sustainable, clean, efficient: seawater desalination with PROBIG®

PROBIG® makes an important contribution to the production of drinking water and water treatment with innovative pre-treatment systems.

Our pre-treatment solutions for desalination plants remove organic material, algae, oil, soluble metals and particles efficiently and reliably. PROBIG® develops and produces flotation systems that are tailored to the individual desalination plant.

Our solutions comprise four important steps in the water treatment process:

- Pre-treatment with coarse and/or fine screening
- Coagulation and flocculation through the use of auxiliary substances
- Separation by means of dissolved air flotation
- Clear water withdrawal with a scraper system completely made of synthetic materials

Your advantages:

- Minimal space requirement
- Reliable pre-treatment, even in the event of high and variable concentrations of suspended matter
- The perfect solution for the elimination of algae, 'red tide' algal bloom or other light organic materials.



Municipal waste water treatment plant, Vienna, Austria



Seawater desalination, Chile



Refinery, the Netherlands



Drinking water treatment, Kazakhstan



Petrochemical industry, Serbia

Selected solutions from PROBIG®: ...and everything runs smoothly.

Leading industrial companies and municipalities in more than 80 countries put their trust in high-quality products and solutions from PROBIG®. We have already designed and implemented thousands of systems manufactured from high-tech non-metallic materials for international companies, industrial companies and municipal waste water utilities.



API tanks with floating covers



Rectangular tanks with submerged drain tubes and screw conveyors for floating scum removal



Municipal waste water treatment plant with chain scrapers

Market leaders put their trust in PROBIG®.



Internationally
successful –
globally active.

PROBIG GmbH

Haid 57
4870 Vöcklamarkt
Austria

Tel.: +43 (0) 76 82/22 633-0
Fax: +43 (0) 76 82/22 633-20

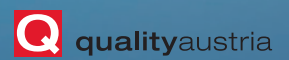
office@probig.com
www.probig.com

PROBIG high tech products GmbH

Rupertusstraße 10
83395 Freilassing
Germany

Tel.: +49 (0) 86 54/77 979-0
Fax: +49 (0) 86 54/77 979-33

office@probig.com
www.probig.com



SYSTEM CERTIFIED

ISO 9001:2015 No.06341/0-1
ISO 14001:2015 No.01214/0-1
BS OHSAS 18001:2007 No.00405/0-1

PRO SOLUTIONS FOR
WATER TREATMENT