

# IMPRESSION



High Pressure Technology



URACA at a glance s.4   SELBEWAG Research Project s.2   NEW: Service videos s.4   Px-85-powerful process pumps s.3

– Topics

– Company

- Editorial ..... 1
- 130 Years URACA ..... 1
- Digital URACA..... 1
- Research Project SELBEWAG .....2
- RoKaTech Review .....4
- URACA-Student Academy .....4
- uraca\_azubis Instagram .....4

– Markets + Products

- RWD500 – URACA Nozzle Family Grows .....2
- The Revolver Nozzle – Professional Tip .....2
- Telescoping Hose Reel System .....2
- Px-85 – powerful process pumps..... 3
- P3-19G Pump units for the process industry ..... 3

– URACA News

- Truck on tour .....4
- Service videos.....4

– Company

## 130 Years URACA

In the year of 1893, the exciting history of Uraca began with the founding of the Bad Urach company by Gustav Magenwirth and Friederich Krumm. The engineered, designed, and manufactured high-pressure pumps, with pressures up to 3,000 bar, are still setting the standard for high quality German engineering, reliability, and customer specific solutions.



– Editorial



### Dear Readers,

A demanding and turbulent year nears its end.

World events, like the war in Ukraine and the conflicts in the Middle East, have changed the world and will continue to do so. High inflation, ongoing worker shortages and high energy costs have also impacted Uraca.

Despite all the challenges, and thanks to your trust in our products and services, we can look back at successful 2023. For this we share a heartfelt “thank you”. Your continued faith in our company allowed us to exceed our expectations for orders and sales. Our goals were also supported by our subsidiaries with a wide-ranging presence reaching customers all over the world. The URACA brand was also highly visible, promoted and strengthened by attending trade shows.

The year 2024 will also come with its share of challenges but will also bring new opportunities. Let’s take advantage of these opportunities together and make the best out of the coming year.

At this stage, we would like to give you a heartfelt thank you for the trust, partnership and cooperation entrusted in us over the many decades. We look forward to and enjoy the prospect of continuing to work together into the future.

I wish you, your co-workers and families a festive and enjoyable Christmas surrounded by loved ones. For the New Year all the best, especially health, happiness, and much success.

Yours  
Gunter Stöhr

## Digital Uraca – New Website

The goal – build a new website offering easy navigation requiring fewer “clicks” to search items.

# www.uraca.de



A sleek and modern design, offering a simple look and feel with clear organization of applications, process pumps, high-pressure technology and service guide the user to targeted solutions to their needs.

The new design now introduces product and application specific experienced contact persons to quickly find solutions to customer needs. The large pump selection allows users to sort searches by kW power, units are categorized for process and high pressure water technology. High pressure tools are also included from nozzles, lances, spray guns, tank cleaning heads, or complete cleaning systems – for all applications there is a plethora of informa-

tion available. Components for process technology, for example resonators, and the entire line of unique range of valves are all easy to navigate.

All available rental systems are viewable and can be made available for rental at attractive prices.

Specific product information, catalogs, certificates, amongst other things, can be found in our download section. For the section for Careers and Training/Studying have also been upgraded with more images and information to highlight the benefits of the available programs useful for future interns or employees.



Everything worth knowing is also available on our new LinkedIn profile. Weekly updates include information

on new products, projects, unusual applications in process and high-pressure technology and much more. Stay on top of the latest news by following us on LinkedIn.

### Telescoping Hose Reel System s.2





Development + Innovation

# URACA Expertise helping Research Project SELBEWAG

## Selective destruction of weeds with water jets

The research project goal is to discover an alternative to combat poisonous plants and invasive weeds which present a challenge for green acreage. Due to the risk of poisoning crops through contamination with chemical sprays, the arduous use of manual removal by hand to combat weeds remained the only alternative. Until now there was no adequate mechanical means to combat harmful weeds and plants.

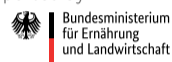
The goal of the research is to combat the harmful weeds and plants with a selective water jet that just removes harmful plants but not crops.

URACA's experience in the field of high-pressure water technology was put to work in developing a water hydraulic system, without the use of chemicals, to remove only harmful weeds and not crops. The unwanted plants (weeds) would be identified via a camera working with an AI program to identify the harmful weeds. Once identified, the system would use a water jet to remove the unwan-

ted plant. The tractor includes a proven on board control system by Anedo GmbH complimented by a towable water tank. For the best results using this technology a trial period identified early summer as the best time to put this new technology to work. Future tests with this tech will be conducted using a 6 meter long bar and will be certified for this application. The development of this technology is in progress between Martin Energietechnik and URACA.

Project partners: Hochschule für Wirtschaft und Umwelt Nürtingen-Geislingen, Nürtingen; ANEDO GmbH, Martin Energietechnik GmbH, Universität Ulm, URACA GmbH & Co. KG

Supported by



Bundesministerium für Ernährung und Landwirtschaft

Project sponsor



Bundesanstalt für Landwirtschaft und Ernährung

based on a resolution of the German Bundestag  
Project duration: 01.09.2022-31.10.2025

More information



Image source: URACA GmbH & Co. KG



Markets + Products

# The Revolver Nozzle Professional Tip

## Flexible all around use of the URACA Revolver Nozzle



The Revolver Nozzle allows for flexible on demand settings for the type of waterjet from round, flat streams to the intensity of the waterjet. Simply by rotating the nozzle, it can easily change from one of three nozzle settings during operation. This makes adjusting to changing work conditions easy and efficient without the need for special tools. Despite the robust housing it is still light and easy to handle.

Available in two models: 250 bar | 5-125 l/min or 500 bar | 5-75 l/min.

Markets + Products

# Telescoping Hose Reel System

URACA reel systems are particularly suitable for containers with multiple vertical cleaning positions in confined installation spaces.

In a current project, a hose reel system was combined with a lance system with a 7m stroke optimizing its use in very large containers. The so-called telescopic hose reel positioning unit is a combination of a hose reel with a tele-arm. This system can not only rotate and extend and retract, but can also be tilted up to 30°. This means that all positions can be reliably cleaned – even components in the reactors can be cleaned at the same time.

The installed tank cleaning head is a 3D tank cleaning head, which rotates around its own vertical axis and at the same time rotates around the horizontal axis with its rotor. The resulting 3D waterjet pattern contributes to optimal interior cleaning. The operation of the cleaning device, i.e. the travel to the cleaning positions and the corresponding dwell time, can be carried out

automatically by previously programmed parameters for the cleaning positions or set manually. The vessel height was staged to ensure an optimal in-house test run. The angle, specified by the customer, for mounting the flange on the reactor was also simulated.

Connected to a URACA high-pressure pump unit with the appropriate water pressure and required flow rate, this cleaning system will quickly pay for itself due to increased productivity and a high-quality end product.

Image: QM product test run on the URACA premises

Markets + Products

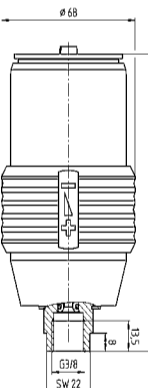
# RWD500 URACA Nozzle Family Grows

The rotating cleaning nozzle RWD500 is ideal for applications where similar facets require cleaning, for example surface cleaning. The nozzle can be used for paint removal and cleaning of facades. Even graffiti is easily removed with higher pressures. Cleaning floor grates, walls, and removal of various dirt can efficiently and easily be cleaned with the RWD500.

Even in the construction industry the multi-talented nozzle, due to its high efficiency, can remove castings, concrete from walls, building materials and other construction site material.

The RWD500 offers a wide range of speed adjustments via an adjustable magnetic brake. Easy seal changes and long-life bearings make the nozzle practically maintenance free and offering industry leading run times.

Uniquely robust, light and ideal for hot water, this tool makes easy work of all applications.



### Technical Data:

- Operating Pressure max: 50 - 550 bar
- Recom. Flow: 10 - 40l/min
- RPM: 500 - 4000 min<sup>-1</sup>
- Weight: 1,22 kg
- Connects to: SP503, SP802, SP1203
- Nozzle use by application: Typ L





## – Markets + Products

# Px-85 - powerful process pumps

## The new, compact pump series offering top level performance

With increasing diversity of applications and increasing requirements, the development of new products is of fundamental importance. Based on this motivation, URACA has supplemented the performance ranges of 700 kW and 1200 kW with compact pumps. The two new pump types are the P3-85 and P5-85 creating a new pump series in upper performance ranges.

This expands the product portfolio to include two extremely compact plunger pumps. The main features of which are a shorter design and integrated gearbox. With a stroke of 100 mm and a rod force of 280 kN, the average piston speed can be kept relatively low. The Px-85 series enables an increase in performance compared to long-stroke machines of corresponding performance classes while maintaining the limitation of the average piston speed set by API 674.

The short design, the elimination of the external gear and the high-power density at the same time expands the possible applications enormously for the benefit of the user. This means that not only several pumps can be replaced by one, in specific cases, the new series also opens up areas of application that previously had to be served by long-stroke and very slow-running pump types. In addition to saving space, these options also result in a cost reduction compared to the entire ensemble with transmission, converter and similar additional units.

Local conditions such as use in hazardous areas, or particularly high or low temperatures, pose enormous challenges to pump units and their manufacturers.

Compliance with local regulations, standards and quality certificates rounds off the requirement profile for the pump supplier.

The many years of experience, high level of specialist knowledge and design details, characterize the robust and long-lasting pumps URACA is known for. A design that satisfies the most demanding customers. ▶

### Technical data:

- Power Pmax: 750 - 1.200 kW
- Stroke: 100 mm
- Rod load: 280 kN
- Flow rates: 2.100 - 3.500 l/min
- Gearbox: with or without integrated gearbox

Image: P5-85 plunger pump



## – Markets + Products

# P3-19G Pump units for the process industry

## Small power packs - designed like larger ones

### Technical data:

- Power Pmax: 30 kW
- Flow rate: 82 l/min
- Operating pressure: 200 bar
- Pump speed: 300 rpm
- Plunger Ø: 45 mm
- Weight: 162 kg
- Stroke: 60 mm

URACA expands the process and industrial pump range for power ranges below 30 kW. These P3-19G pump units can be used for fat separation in oleo-chemistry - just like the well known version of larger URACA pumps.

They can be designed for higher medium temperatures up to 150 °C and equipped with a heated valve block. Available with integrated gear or with long shaft for various external drive types.

These smaller pump units also have the typical properties of the proven URACA process pump technology.

The tailor-made fluid parts are equipped with individually replaceable stuffing boxes and

valves and have an individual, application-specific selection of materials, such as high-quality duplex stainless steels.

Thanks to their conservative and long-lasting design, the pumps are generally suitable for tough continuous operation. This means: low speeds and low specific loads on all moving components.

The stuffing boxes are available with different seal configurations. Depending on a customer's wishes, individually suitable variants can be offered. ▶



Images: Pump units P3-19G





– Company

# URACA Student Academy- Path to the future

As part of the student academy at the Graf-Eberhard-Gymnasium in Bad Urach, URACA was able to welcome interested young people again this year. They gained insights into the company's diverse parts production and impressive vertical integration. A particular focus was on the introduction of the engineering profession and the associated working environment. The students experienced a varied program with exciting lectures, information about technical training and mechanical engineering courses, as well as direct insight into various departments and workplaces.



Image: Start in the morning

Image: Pupils with the self-made hand pumps



The highlight was the hands-on assembly of hand test pumps under expert guidance with subsequent pressure testing. By this means the students were introduced to the exciting topic of "pumps" and were given an initial inspiration for finding a career or path for future study. ▶

## NEW: uraca\_azubis on Instagram



On the new URACA trainee account on Instagram, our trainees and students are the content managers themselves! They report on their activities, projects, successes, experiences and everything they enjoy about their training and studies. Simply become a "follower" and don't miss anything! ▶

## RoKaTech - Visitor record

This year, URACA once again took the opportunity to maintain personal contact with customers in the sewer cleaning industry at the trade fair. With a record 13,000 visitors from 71 countries, this year's RoKa-Tech was the most successful since its inception. Our customers, and also many new interested parties, visited the trade fair stand and were impressed by the very high-quality pumps and products on display.

Technical questions on all topics related to pipe and sewer cleaning were clarified in detail during personal discussions. Customers were also interested in the presentation of new products, such as the RWD500 rotating cleaning nozzle.

Everyone was satisfied with the successful event. We would like to thank our customers for their active participation and look forward to the next RoKaTech 2025. ▶

**Trade fair schedule:**

**IFAT 2024**, Munich, May 13th – 17th, 2024, Hall C4, Stand 451

**ACHEMA 2024**, Frankfurt, June 10th – 14th, 2024, Hall 8, Stand E38

– URACA News

## TRUCK on tour! Trial cleaning on site

After a complete overhaul of our Jet Power 480 truck, we are now back on tour with our customers for a variety of test cleaning and on site demonstrations. With a variable working pressure of up to 3000 bar, the optimal parameters can be determined for every application and the most suitable accessories can be identified for the respective application.

These practical tests demonstrate that the results can be easily reproduced in regular operational service.

Thanks to efficient accessories and optimization of all process data, costs can be reduced in the future and environmentally harmful additives can mostly be avoided.

A wide variety of tests can also be carried out in our URACA technical center at the headquarters in Bad Urach. Our application engineers will be happy to implement your requests. Just call. ▶



Image: Truck in the new design



## Service videos Visual instructions

For our customers we present new service videos of the KD724 high-pressure pump, which is widely used in the market. Various maintenance work can now easily be carried out by technically qualified specialists. Similar pumps from this KD series can also be maintained or repaired using these clear instructions. The URACA service department is happy to entertain customers' wishes and suggestions for the production of additional videos. Further film projects are already being planned. Our videos are available in the service area of our website and on the URACA YouTube channel. ▶

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