



121 Corporate Lane | New Bern, NC 28562 | USA  
Toll Free. 1-800-217-8677 | Tel. 1-252-631-7188  
Web. [www.chemacinc.com](http://www.chemacinc.com) | Email. [Chemac@chemacinc.com](mailto:Chemac@chemacinc.com) | E-Mail. [service@chemacinc.com](mailto:service@chemacinc.com)



## High pressure cleaning heads cleanliness all around



High Pressure Technology

## Cleaning at the highest level

### Perfect internal cleaning of vessels with the URACA TWK system

In industries such as the chemical, petrochemical, synthetics, paper and food industries – in short, whenever deposits in vessels, reactors, autoclaves, tanks or similar equipment impair the product quality and production efficiency, the URACA TWK system comes into its own. Even boiler sediment, coke, polymers or tough residue such as natural, synthetic or PVC latex can easily be removed with the URACA TWK system.



### A system made to measure

The technical conception of a TWK system depends on your specific requirements in terms of automation level and configuration. We design a tailor-made system for you according to the work cycle and space requirements.

### Proven under extreme conditions

URACA pump units and cleaning systems are in operation worldwide under extreme conditions. URACA products withstand dirt and dust, high and low temperatures and especially heavy duty conditions that such machines are subject to. Countless testimonials from enthusiastic users confirm the durability of URACA units and systems. Profit from the best cleaning systems you can get.





# URACA tank cleaning heads have clear advantages

## Your benefit

- Optimal results for multiple cleaning tasks
- Easy adaption to the individual places and positions
- Reduced cleaning times due to higher surface efficiency
- Ideal for vessels with small openings
- Reduced cleaning times due to energy efficient tools
- A protective cage is not necessary, no hooking, no adhesion
- Suitable for aggressive atmospheres
- Recycling or disposal of the cleaning fluid
- Suitable for hot water
- Additives and other cleaning fluids are possible
- Possibility to suspend the cleaning heads at a flexible hose
- Perfect regulation of the rotor speed
- Short production downtimes and high product quality through quick and proper cleaning
- Quick replacement in case of emergency
- Utilisation in explosion-proof areas

## Our features

- Different types, versions and pressure ratings
- Various configurations
- Compact cleaning jet over a range of 3 metres
- Small interference circle
- Minimal internal pressure losses
- Smooth casing surface
- Corrosion-resistant materials (CrNi steel)
- Cleaning with cold water without additives
- Cleaning temperature up to 95°C
- Acid-base resistance
- Outstanding running stability
- Solenoid brake: wear-free, encapsulated, adjustable
- Special rotor conception for perfect surface cleaning
- 24 hours replacement service
- Type examination certificate ATEX (zone 0 and 20)



Our promise:  
the most **reliable** products in the market

## Developed for the future

As a leading manufacturer in the field of high pressure technology, URACA offers with their pump units and vessel cleaning tools a wide range of perfectly matching components for the professional application in industry and services. We do not invent superlatives on paper, but develop tools for current practice. URACA vessel cleaning systems are designed for manual and/or automatic operation, according to customer's requirements. They are renowned for long life times.

## Our promise

- Over 120 years of experience
- Production in Germany
- Highest vertical integration
- Comprehensive engineering know-how
- In-house testing
- Customized solutions
- Excellent price-performance ratio
- Highest energy efficiency

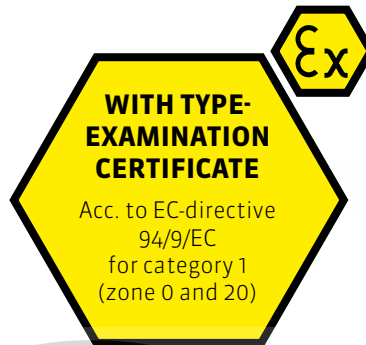
# Tank cleaning heads **TWK**

The renowned URACA tank cleaning heads TWK are operated without auxiliary energy and are driven by recoil forces.

Three different model types at six different pressure ranges (600 – 1600 bar) are available, to handle various water flow rates.

The tank cleaning head TWK can be equipped with various rotors and extensions thus being suitable for different vessel sizes.

All URACA tank cleaning heads TWK can be used for explosion proof areas (zone 0 and 20).



TWK 150-1400  
standard execution  
with long rotor

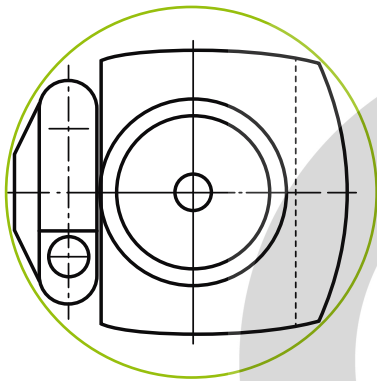
	TWK 125-1600	TWK 150-1400	TWK 185-1200
Design <sup>1)</sup>	Standard	Standard	Standard
Operating pressure (max.)	1.600 bar	1.400 bar	1.200 bar
Recommended flow rate	30–150 l/min	50–250 l/min	100–400 l/min
Nominal power (max.)	400 kW	600 kW	800 kW
kv-value	35	48	78
Interference circle (min.) <sup>2)</sup> Ø	125 mm	150 mm	185 mm
Rotor speed	5–20 min <sup>-1</sup>	4–20 min <sup>-1</sup>	3–20 min <sup>-1</sup>
Compact jet length (400 bar)	3 m	3 m	3,5 m
Connecting shaft screw thread	M24x1,5	G1	G1
Overall length without adapter	360 mm	405 mm	455 mm
Weight without rotor and connection	10,5 kg	15 kg	23,5 kg

	TWK 125-1000	TWK 175-800	TWK 200-600
Design <sup>1)</sup>	Chemistry	Chemistry	Chemistry
Operating pressure (max.)	1.000 bar	800 bar	600 bar
Recommended flow rate	40–200 l/min	75–350 l/min	100–750 l/min
Nominal power (max.)	350 kW	450 kW	750 kW
kv-value	43	63	130
Interference circle (min.) <sup>2)</sup> Ø	125 mm	175 mm	200 mm
Rotor speed	5–20 min <sup>-1</sup>	4–20 min <sup>-1</sup>	3–20 min <sup>-1</sup>
Compact jet length (400 bar)	3 m	3,5 m	4 m
Connecting shaft screw thread	M24x1,5	G1	M38x1,5
Overall length without adapter	360 mm	405 mm	435 mm
Weight without rotor and connection	10,5 kg	15 kg	23,5 kg

<sup>1)</sup> Special versions on request

<sup>2)</sup> See interference circle on next page

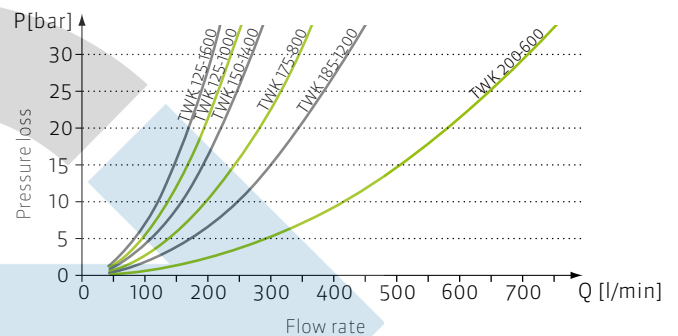
### Interference circle



<sup>2)</sup> The minimal interference circle describes the smallest possible space required for the rotating TWK, including the rotor.

All URACA TWK cleaning heads have an extremely small interference circle. The required manhole is minimal. The minimum interference circle is reached by means of a specific lever arm.

### Flow rate diagram



### Accessories for TWK system



#### Connections

- M 24 x 1,5 DKO-S
- M 36 x 2 DKO-S
- M 42 x 2 DKO-S
- M 52 x 2 DKO-S
- 3/4 NPT
- 1 NPT
- special connections upon request



#### Nozzle

- Nozzle type P (socket nozzle)
- Nozzle type S (socket nozzle)



#### Rotors

- Compact rotor (lever arm H 8 – H 65)
- Long rotor (lever arm H 8 – H 100)



#### Extension pipes

- for connecting shaft (length 500 mm)
- for long rotor (length 800 mm)
- for long rotor (length 1500 mm)
- other lengths upon request



#### Impact protection

- for casing
- for compact rotor



#### Others

- Eye bolt for suspension assembly
- High-pressure filter
- Safety arrester
- Set of assembly tools
- Additional weight
- Centring cone

# Small container cleaner **KBR**

Cleaning head with electric or pneumatic drive for the internal cleaning of containers and vessels. The small gear is ideal for narrow tank openings. For operations in abrasive environments, the gears are available with protection cover. At operating pressures up to 400 bar, the cleaning heads are acid-base resistant and also available in Ex design (ATEX II 2G c IIB T4).



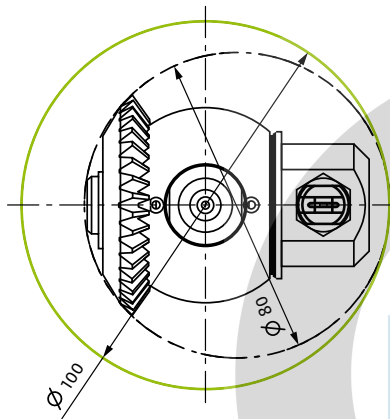
KBR 85-400

	KBR 60-250	KBR 80-200	KBR 80-400	KBR 85-400	KBR 95-400
Pneumatic drive	■	■	■	■	■
Electric drive	■	■	□	□	□
Operating pressure max.	250 bar	200 bar	400 bar	400 bar	400 bar
Recommended flow rate	50 l/min	80 l/min	120 l/min	120 l/min	120 l/min
Standard length	0,5 / 0,7 / 1,0 / 1,5 / 2,0 / 3,0 / 4,0 m	0,5 / 1,0 / 1,5 / 2,0 m	0,5 / 1,0 / 1,5 / 2,0 m		
Interference circle, centric	80 mm	85 mm	100 mm	100 mm	100 mm
Interference circle, eccentric	60 mm	80 mm	80 mm	85 mm	95 mm
Nominal diameter	–	–	DN 10	DN 10	DN10
Discharge connection	M24 x 1,5 DKO-S	M24 x 1,5 DKO-S	M24 x 1,5 DKO-S	M24 x 1,5 DKO-S	M24 x 1,5 DKO-S
Temperature	150°C	150°C	95°C	95°C	95°C
Nozzles	2x / 4x 1/8" NPT	4x 1/8" NPT	2x 1/4" NPT	4x 1/4" NPT	4x 1/4" NPT
Speed	4 – 12 min <sup>-1</sup>	4 – 12 min <sup>-1</sup>	4 – 25 min <sup>-1</sup>	4 – 25 min <sup>-1</sup>	4 – 25 min <sup>-1</sup>
ATEX conformity	□				■
Gear protection	□		□	□	■
Swivel ball joint	□	□	□	□	□

■ Standard

□ Options

## Interference circle



The interference circle describes the smallest possible space required for the rotating nozzle head.

All URACA KBRs have an extremely small interference circle. The required manhole is minimal.

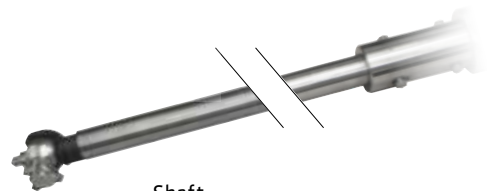
## Accessories for KBR system



- Connections
- M 24 x 1,5 DKO-S



- Nozzle
- Nozzle type N, different sizes



- Shaft
- Shaft available in different lengths

- Impact protection
- mandatory for KBR95-400

# URACA – professional **high pressure** system supplier



## Products and services

### — Pump units

Unit assembly and drives at your convenience in stationary or mobile design. Whether in container, on skid or on trailer.

- Electrically driven units
- Engine driven units
- Hydraulically driven units
- Tailor made pump control systems

### — Pumps

The core of the URACA technology: Superior quality, powerful high pressure positive displacement pumps, also for high-demanding continuous use. URACA pumps are designed acc. to API 674 on demand.

- Process and industrial pumps – reciprocating plunger pump or diaphragm design
- Test pumps
- High pressure water jetting pumps
- Sewer cleaning pumps



### — High pressure water jetting systems

URACA gathered a lot of experience and engineering competence in the field of water jetting. URACA designs and manufactures complete systems, from simple cleaning head positioning devices up to semi-automatic and automatic operated systems for

- Reactor and vessel cleaning
- Pipe and tube cleaning
- Surface conditioning
- And others – just give us your request!

### — Tools

URACA manufactures a wide range of cleaning tools for any application.

- Spray guns
- **Tank cleaning heads**
- Sewer cleaning nozzles
- Rotating nozzles
- Floor cleaners

### — Accessories and components

URACA's pump range is completed with a wide range of high pressure accessories and components, like

- Nozzles
- Remote controls
- Hoses
- High pressure valves
- 90 degree rotary joint
- Multi-consumer systems
- Resonators and pulsation dampers

### — Service

After sales service is URACA's top priority. The qualified and specially trained personnel and technicians are prepared to support you at any time, whether for

- Spare parts
  - Revamps
  - Upgrades in case of changed process conditions
  - Training
  - Supervising
  - Or answers to any questions you may have in terms of URACA equipment
- Please do not hesitate to contact us!