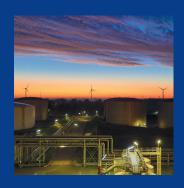


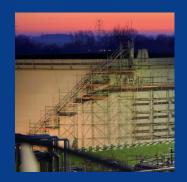
INDUSTRIAL CLEANING TANK CLEANING TANK CONSTRUCTION/-MAINTENANCE/PIPE CONSTRUCTION SCAFFOLDING INSULATION INSTALLATION & SHUTDOWN MANAGEMENT PLANT AND EQUIPMENT CONSTRUCTION AUTOMATION AND I&B CIVIL ENGINEERING

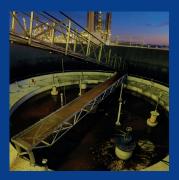


### TANK CLEANING OIL SLUDGE SEPARATION



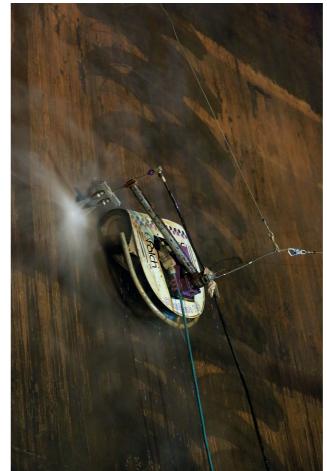


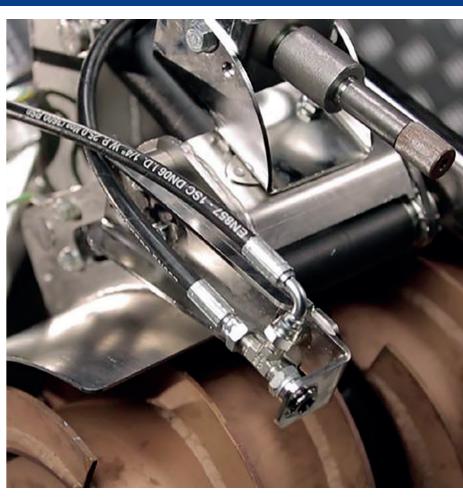




2 // THE COMPANY
THE BENEFITS // 3







# DECADES OF EXPERIENCE CUSTOMER-ORIENTED SOLUTIONS

For decades, the Rohrer Group has specialised in providing comprehensive services for industrial installations. Founded in 1975, the company has grown to become a strong global player while remaining family-owned to this day. A dense network of branches all over Europe guarantees quick service at the highest technical level.

The Rohrer Group consolidates a wide range of fields of expertise to provide comprehensive packages of products and services. One core competency is tank cleaning.

Innovative solutions and continued developments in the field of "No Man Entry" tank cleaning make the Rohrer Group an interesting partner for numerous refineries and fuel depots.













# INNOVATIVE TANK CLEANING SYSTEMS



- Residue minimisation via the use of Turbomix systems
- No Man Entry tank cleaning systems
- Tank cleaning robots for use in Zone 0
- Emissions-free tank cleaning via the use of mobile torching systems
- Tricanter® separation technology for dramatic reductions in residue

4 // TANK CLEANING METHODS







#### NO-ENTRY TANK CLEANING

No Man Entry systems for fixed roof tanks:

- Modular cleaning systems in container units
- Rotating cleaning lances
- Eccentric pumps
- Integrated hot water production
- Air compressor for operating the lances
- Monitoring of oxygen and explosion limits





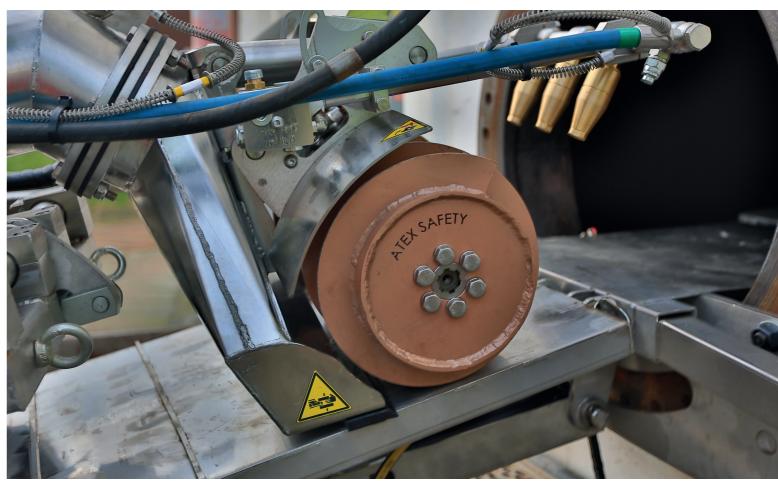
# EFFICIENT RESIDUE MINIMISATION

Hydraulically driven agitators for installation in tank roofs:

- Operation of up to 6 agitators per drive unit
- Mobile hydraulic aggregates for placement near
  the tank
- Jet direction of propeller is variable to remove deposits in a targeted fashion

6 // OIL SLUDGE SEPARATION INNOVATIONS // 7





# DECANTER®- AND TRICANTER®-SYSTEMS

Decanter®: Separation into solids and oil-water
 Decanter®: Separation into solids and oil-water

Decanter®- and Tricanter®-systems for separating the

- Tricanter®: Separation into solids, water and oil
- Drastic reduction of residue quantities

liquid residue in two and/or three phases:

- Minimisation of disposal costs
- Separated phases can be routed back into production
- Greatest advantages in combination with a No Man Entry cleaning system



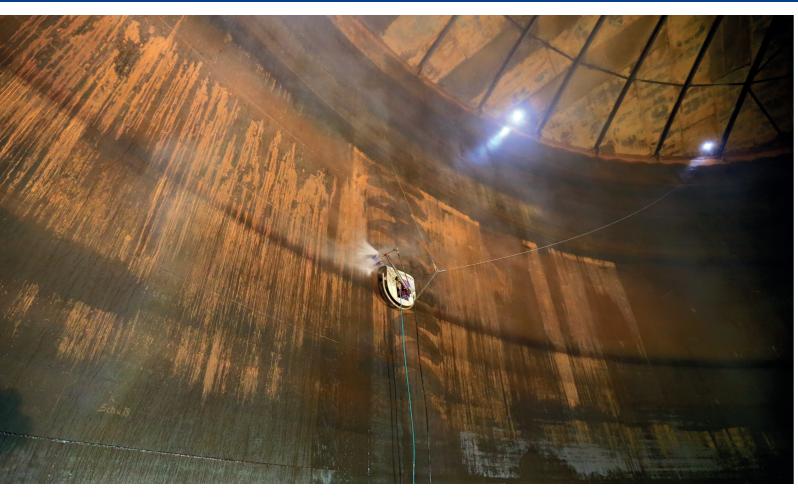


TANK CLEANING ROBOT ZONE 0

Modified tank cleaning robots for No Man Entry tank cleaning are used in ATEX Zone 0.

- Robots with multiple cameras
- Power pack with 75-metre hydraulic line
- Control station with monitors and control unit
- High-pressure hot water with 5 HP nozzles
- Camera rinsing
- Additional weights for use in oil sludge

8 // CRAWLER





## AUTOMATIC TANK WALL CLEANING

Cleaning and de-coating of tank walls and hard-to-reach surfaces with various robot systems:

- Wall cleaning robot with magnetic wheels
- Robot with integrated extraction function
- Outfitted with up to 5 HP nozzles
- Removes coatings with a max. of 2,500 bar
- Operated via remote control

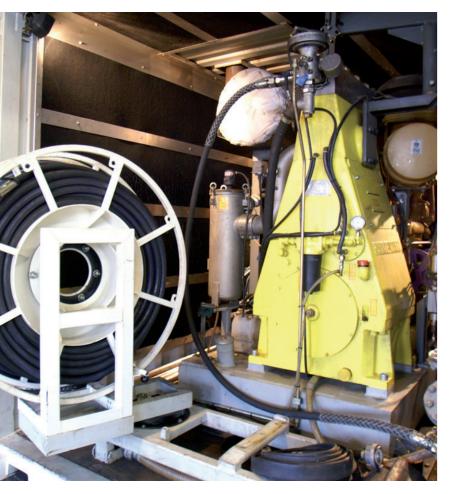




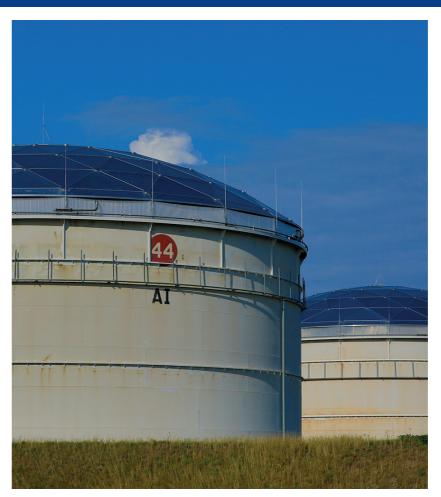
# REDUCTION OF EMISSIONS

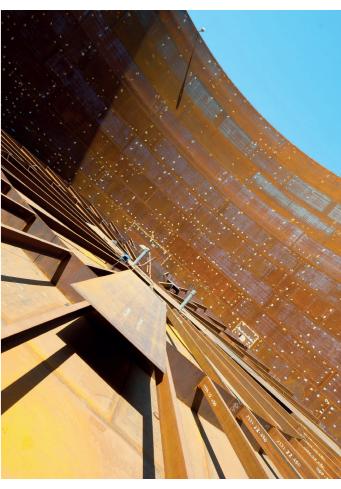
Highly efficient process for degassing and ensuring that prescribed limit values are not exceeded:

- Use of mobile torching systems or combustion chamber systems
- Processing of 3,500 m3 gas/hour
- Continued use of the torches during tank cleaning to eliminate explosions









GAS-FREE TANK

INDIVIDUAL SOLUTIONS

After removing most of the residue and oil sludge, manual fine cleaning is provided:

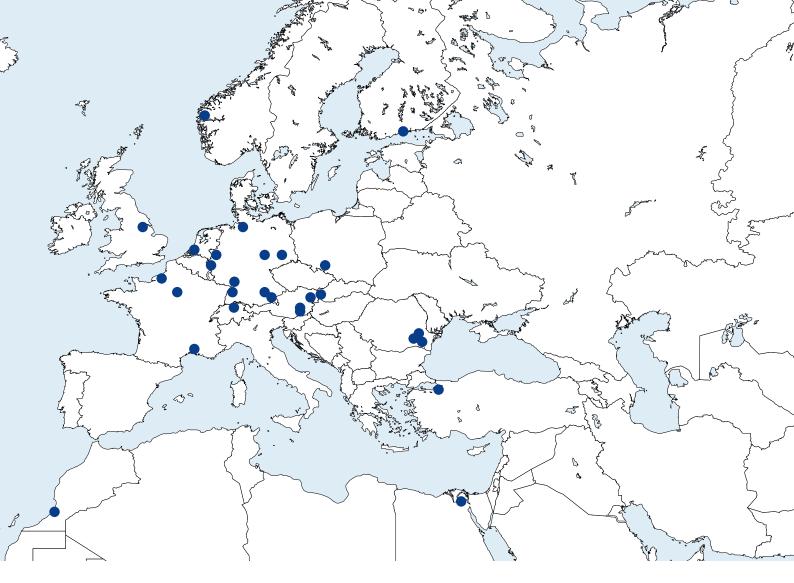
- Manual stripping and extraction of remaining oil layer
- Cleaning of floor, interior tank surfaces and fixtures with HP hot water devices
- Cleaning level without gas or welding suitable for tasks with a risk of combustion





Other services offered include turnkey projects in the field of tank construction and in tank installation and pipe construction.

- Tank construction
- Installation construction
- Pipe construction
- Steel construction
- Full range of on-site products and services





Johann Rohrer GmbH Parkring 3 8712 Niklasdorf Austria

T.: +43 3842 82727 F: +43 3842 82815 E: office@rohrer-grp.com

Johann Rohrer GmbH Mittelwegring 15 76751 Jockgrim Germany

T.: +49 7271 505 891 F: +49 7271 505 893

E: office.germany@rohrer-grp.com

Johann Rohrer Netherlands B.V. Pampus 25 3251 ND Stellendam Netherlands

T.: +31 187 490 000
F: +31 187 491 110
E: office.nl@rohrer-grp.com

Johann Rohrer GmbH Beim Schiffertor 6 21682 Stade Germany

T.: +49 4141 403 727 F: +49 4141 405 056

E: office.stade@rohrer-grp.com

#### With numerous other locations:

Vienna (AUT), Schwechat (AUT), Linz (AUT), Enns (AUT), Lenzing (AUT), Dietzenbach (GER), Gelsenkirchen (GER), Cologne (GER) Burghausen (GER), Herten (GER), Merseburg (GER) Neustadt/Donau (GER), Ludwigshafen (GER), Würzburg (GER), Pratteln (CHE), Antwerpen (BEL) Rouen (FRA), Porvoo (FIN), Kulloo (FIN); Isdalstø (NOR), Bukarest (ROU), Pitesti (ROU), Brazi (ROU), Istanbul (TUR) Immingham (GBR), Katowice (POL), Cairo (EGY), Maroc (MAR)