



YOUR RELIABLE PARTNER

Storage Tank Cleaning & Maintenance



YOUR CHALLENGES

Traditional methods of tank cleaning and maintenance are time-consuming, hazardous, and costly. To combat these issues, operators are increasingly searching for contractors who can shorten cleaning and maintenance cycles, apply non-man entry cleaning and inspection techniques, and recover valuable product from the removed waste.

OUR TANK CLEANING & MAINTENANCE

CR Asia provides comprehensive solutions for all your tank cleaning and maintenance requirements, whether it is for a small product tank or a large crude oil storage tank. Our teams take full responsibility from pre-job preparation and planning, through to set-up, cleaning, waste handling and reclamation, with options to match each individual scenario.

HOW WE SUPPORT YOUR BUSINESS

We provide full project management, working to the highest standards within the refining and petrochemical industries. Integrating the tank cleaning with our inspection and repair capability gives clients a full turnkey option with all the interfaces removed so that the focus is directed on doing the job safely, on time and within budget.

Our team of experienced engineers can also plan, manage, and execute any repairs necessary to ensure compliance with API or similar standards. Whether you require full circumferential repairs, strake sections, pontoons, bottom or top plating, wind girders or seals replacing, we can cope with all these issues and more. Furthermore, we will provide you with the confidence that all scopes will be completed safely and efficiently.

THE CR ASIA DIFFERENCE

CR Asia's large in-house team of highly trained technicians is subject to regular audits and a stringent safety passport scheme. We invest heavily in the latest equipment and SMART systems to maintain our reputation as the region's leading one-stop provider of specialised maintenance services.

Innovative equipment and techniques

CR Asia continually invests in the latest technologies and equipment. Our non-man entry cleaning solutions include:

- Multi-directional tank cleaning heads combined with chemical treatment
- Manway cannons and tank sweepers, capable of targeting sludge deposits up to 60 metres away
- Robotic cleaning with vacuum or pumping removal of the waste stream
- Suspension separation using proprietary hydrocarbon chemical addition
- Recovery and reclamation of valuable hydrocarbons

Outstanding QHSE performance

By investing in the latest innovations and technology, we continue to raise health and safety standards, reduce schedules, and develop new solutions to meet the ever-increasing aspirations of our clients. Our quality and safety track record is maintained through structured training programmes, knowledge sharing, new processes and modern, automated equipment that increases productivity while minimising the risk of injury.

Depth of experience

CR Asia offers holistic packages that carry the best practices and experiences gained in one discipline over to the next. We aim to always deliver the best quality service, whilst ensuring the project is completed within schedule, within budget and without incident. As specialists in their respective disciplines, our teams interface seamlessly to make even the most complex project seem relatively straightforward.

YOUR BUSINESS BENEFITS

Benefit from a one-stop solution – integrating the tank cleaning with our inspection and repair capabilities gives clients a full turnkey option with all the interfaces removed so that the focus is directed on doing the job safely, on time and within budget.

Minimise safety risks – with advanced equipment and innovative solutions that reduces the manpower required and minimises confined space entry for cleaning and inspection.

Save time and money – with a single contractor that supports numerous activities and reduces costs by utilising multi-skilled personnel to perform the full range of jobs you need done.

CR ASIA - YOUR RELIABLE PARTNER

CR Asia is the leading provider of highly specialised pre-commissioning and maintenance services to the Oil, Gas, Chemical, Power and other heavy industries throughout Asia. As your reliable partner, we provide the safest and most efficient solutions to the maintenance, repair and overhaul challenges facing your business. To learn more, visit www.crasia.net

Exceptional service

As the region's leading multidisciplinary service provider, CR Asia knows the complete production process better than anyone. We also understand the challenges our customers face.



OUR SERVICES

- Resuspension of sludge to improve storage capacity
- Non-man entry cleaning of intermediate & final product tanks (various methods including robotic cleaning)
- Non-man entry cleaning of crude oil tanks (various methods including robotic cleaning)
- Separation of hydrocarbons, water, and sludge by chemical addition
- Recovery and reclamation of valuable hydrocarbons
- Tank repairs including scaffolding, cold cutting, and welding
- Tank revamps and rejuvenations
- Storage tank installation



CR ASIA IN ACTION

The challenge

A crude oil storage tank required cleaning, inspecting and major repairs to the floor (cone up to cone down). Waxy sludge and sand had to be removed prior to the repairs.

The solution

Our powerful hydraulic sludge pumps remove almost all of the heavy sludge. We designed a new tank floor to a cone down type and replaced new bitumen foundation.

The outcome

Advanced hydraulic pumping technology ensured the tank was cleaned significantly faster than conventional methods and the tank was returned to service earlier than expected.

Your Reliable Partner

Asia's leading one-stop provider of specialised maintenance services

CR Asia supports your business with extensive contracting experience in the delivery of catered service packages, 'blind to blind' jobs and turnkey maintenance services during major shutdowns and turnarounds. Our business upholds a culture and track record of integrated management systems that are certified to multiple international standards.

Our Services

We offer a comprehensive portfolio of maintenance services that are grouped into five business lines. Our experts deliver these services – onshore and offshore – on time and on budget.

Our complete 'blind to blind' solution ensures more streamlined and efficient projects, as we maintain direct, single-source control of all critical path elements. We cater to projects of widely varying scope and complexity, and can deliver multiple shutdowns concurrently.

Related services:

- Static & Rotating Equipment Maintenance
- Industrial Scaffolding
- Mechanical Services
- Column Modifications & Repairs
- Total Heat Exchanger Maintenance
- Flare Tip Replacements & Repairs
- Cleaning & Decontamination Services
- Mercury Management Services
- Catalyst Handling Services
- Nitrogen Services
- Waste Handling
- Decommissioning Services
- Insulation Services
- Valve Maintenance
- Storage Tank Cleaning & Maintenance

Our experts meet your demands for shorter change-outs, leaner project teams and superior quality standards for all reactor types with end-to-end solutions that reduce downtime and increase profitability.

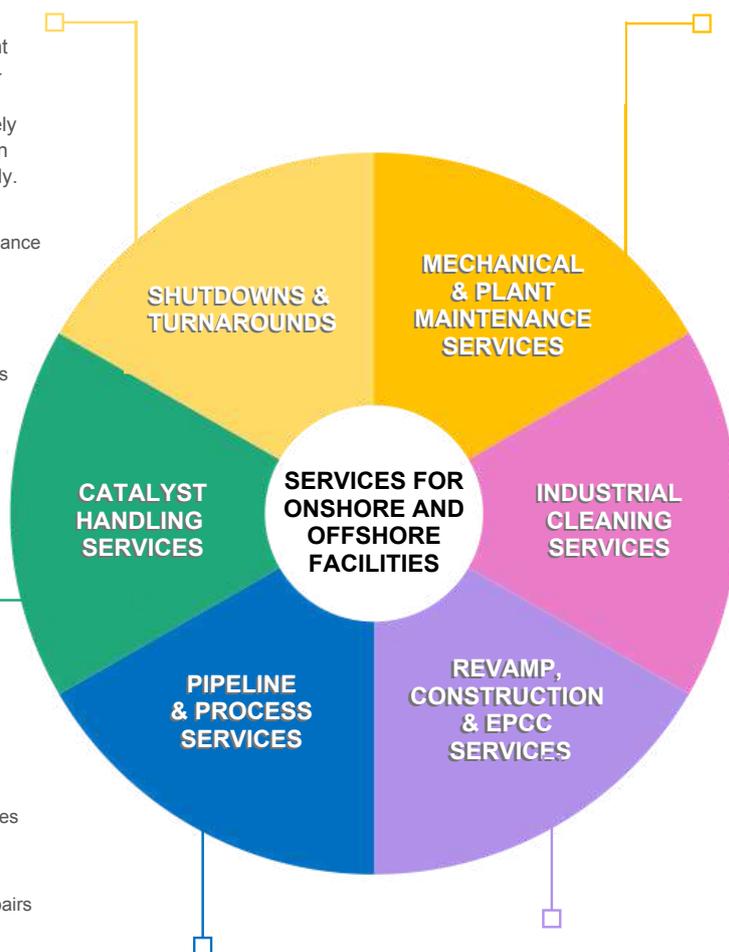
Related services:

- Catalyst & Adsorbent Handling Services
- Tubular Reactor Services
- Dense Loading
- 'Blind to Blind' Mechanical Services
- Reactor Internals Replacement & Repairs
- Nitrogen Services
- Waste Handling

We clean and inspect virtually all plant vessels, columns, drums and piping systems, both onshore and offshore, with services that can be tailored to requirements.

Related services:

- Pre-Commissioning & Commissioning Services
- Nitrogen Services
- Pipeline Cleaning (Chemical & Mechanical)
- Pipeline Flooding
- Pressure Testing
- Dewatering
- Drying
- Purging



Our investment in training, equipment and SMART systems combined with our focus on safety and rigorous planning, preparation and execution of work underpins our track record as a leading provider of mechanical & plant maintenance services.

Related services:

- Static Equipment Maintenance
- Rotating Equipment Maintenance
- Specialist Cutting Services
- Online Leak Sealing
- Controlled Bolting
- Reactor Repairs & Maintenance
- Plant Change & Piping Modifications
- In-situ Flange Facing & Machining
- Industrial Scaffolding
- Insulation Services
- Valve Maintenance
- Continuous Plant Maintenance
- Storage Tank Cleaning & Maintenance

Our extensive portfolio of cleaning services sets the benchmark in terms of technical, environmental and safety standards.

Related services:

- Chemical Cleaning Services
- Mercury Management Services
- Fin Fan Optimisation
- Hydro Jetting Services
- CR Asia Decoking Technology (CDT)
- Decontamination Services
- Waste Handling

We deliver projects safely, on time and on budget by ensuring single-source control through our multi-disciplinary approach and project management capability.

Related services:

- Process Revamps, Rejuvenations & Retrofits
- Construction & Constructability Reviews
- Engineering, Procurement & Commissioning Services
- Operations & Maintenance
- Dismantling, Demolishing & Removal of Equipment
- Fabrication of structural, Carbon Steels & Pipe Systems
- Fabrication of Stainless Steels & Special Alloys
- Installation of Large Equipment & Pipe Systems
- Welding
- Hot & Cold Cutting
- Scaffolding & Insulation

Our Business

25



years in business



4



operational bases serving 18 active markets



4000⁺



experts



Our Partners

CR Asia has established long-term alliances with a number of key strategic partners. This collaborative approach ensures our customers always benefit from having access to the most appropriate tools and technologies on any given project. We recognise our industry is constantly evolving. That's why we are continuously looking to expand our network of strategic alliance partners.



CR Asia - Your Reliable Partner

CR Asia is the leading provider of highly specialised pre-commissioning and comprehensive maintenance services to the Oil, Gas, Chemical, Power and other heavy industries throughout Asia. As your reliable partner, we provide the safest and most efficient solutions to the maintenance, repair and overhaul challenges facing your business.

Contact us today to learn more

CR Asia Group

17th Floor, Unit 1706,
Two Pacific Place Building,
142 Sukhumvit Road,
Klongtoey, Bangkok 10110, Thailand
Tel: +66-2-653-3913-5
Fax: +66-2-653-3916
Email: crag@crasia.net

CR Asia Singapore

4 Tuas Avenue 2,
Singapore 639444
Tel: +65-6268-0255
Fax: +65-6268-3369
Email: cras@crasia.net

CR Asia Thailand

15/1 Moo 3, Bankoh - Mabkha Road,
T.Mabkha, Nikompattana
Rayong 21180, Thailand
Tel: +66-38-698-399
Fax: +66-38-698-398
Email: crat@crasia.net

CR Asia India

802 Windfall, Sahar Plaza,
J B Nagar, Andheri (East),
Mumbai – 400 059, India
Tel: +91-22-6288-1000
Email: crai@crasia.net

CR Asia Malaysia

Lot 1, PT 8250-1,
Teluk Kalong Industrial Area,
24000 Kemaman, Terengganu Darul Iman,
Malaysia
Tel: +60-9-863-2325 to 26
Fax: +60-9-863-2328
Email: cram@crasia.net

CR Asia Services India

803 Windfall, Sahar Plaza,
J B Nagar, Andheri (East),
Mumbai – 400 059, India
Tel: +91-22-6288-1000
Email: crsi@crasia.net

Or visit www.crasia.net