



# Revamp, Construction & EPCC Services



## YOUR CHALLENGES

Whether you are planning to increase capacity, add a new process or simply modernise your plant, it is often necessary to team up with a reliable local partner who can support with all phases of the project from engineering through to commissioning and ongoing maintenance.

## OUR REVAMPS, CONSTRUCTION & EPCC

Operating under a single project management team to ensure optimal safety, quality and schedule efficiency, we support our customers with detailed planning, execution and ongoing maintenance services for various revamp, construction and EPCC scopes.

We deliver your projects safely, on time and on budget with our multi-disciplinary approach and project management capability. Our planning and workflow management systems bring improved transparency and allow us to track compliance with operational and contractual objectives, which are crucial in meeting schedules and achieving quality plus customer satisfaction metrics.

## HOW WE SUPPORT YOUR BUSINESS

We are experienced at providing comprehensive revamp and construction projects and, together with our technical partners, can support clients with all aspects covering engineering, fabrication, construction, commissioning and project management. Often these projects coincide with planned shutdowns and turnarounds, which we can undertake in addition to the revamp, improving safety, eliminating interface issues and minimising cost.

We perform small-to-medium size EPCC (Engineering, Procurement, Construction and Commissioning) projects and can provide a full turnkey package including operations and maintenance of the new process module or unit.

We have dedicated workshops for fabricating structural and carbon steels separate from stainless steel and special alloys, like Hastelloy, to avoid cross-contamination. We can demolish and remove redundant piping and processes as well as embed large equipment items into existing facilities.

## THE CR3 DIFFERENCE

CR3'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

CR3 has unparalleled access to the latest equipment and technology from around the world ensuring our customers always benefit from the latest solutions and ways of working on any given project. We've launched an Innovation Program to allow all stakeholders to participate in our continuous improvement so we can identify better solutions to deliver increased value for all.

## Outstanding QHSE performance

Our investment in training, equipment and SMART systems combined with our focus on rigorous planning, preparation and execution of work ensures we can deliver a best-in-class performance that continually exceeds our clients' expectations for safety and quality.



## Unrivalled experience

Our large in-house teams of highly trained engineers, planners, procurement personnel and technicians combined with our regular investments in the latest equipment, tools

## YOUR BUSINESS BENEFITS

**Increase productivity** – with our workflow management systems that have improved transparency of available resources and allows us to track compliance with operational and contractual KPIs and assist in delivering significant productivity gains for our customers.

**Save time and money** – with our multi-disciplinary approach and project management capability that eliminates interface issues and minimises cost to deliver your projects safely, on time and on budget.

**Ensure high safety standards** – by working with a partner that offers regular training and safety awareness programs to maintain a strong safety focus and excellent safety culture.

CR3 is a leading provider of energy engineering solutions. Established in 1991, we provide specialised maintenance, plant upgrade, revamp and engineering services with a sharp focus on **Energy Efficiency, Engineering Excellence, and Sustainable Solutions.**

To learn more, visit [CR3.Group](http://CR3.Group)

and systems maintain our reputation as the region's leading provider of revamps, construction and EPCC projects.

## Exceptional service

Through constructability reviews, we can maximise the early installation of structures and new equipment pre-turnaround, whilst the facility is online, reducing schedules significantly and peak numbers during the subsequent outage.

Our strategic partnerships boost our in-house capabilities in key areas to ensure the highest levels of competence and professionalism are present on every job. With each project success, the experience and knowledge gained is channelled into the next generation of solutions.



## OUR SOLUTIONS

- Basic and detailed engineering services via specialist partners
- Dismantling, demolishing and removal of redundant equipment
- Fabrication of structural and carbon steels including piping systems
- Fabrication and installation of all pipework and steelwork including special alloys
- Fabrication of stainless steel and special alloys including Hastelloy
- Construction / constructability reviews
- Installation of large equipment and piping systems
- Procurement services
- Scaffolding
- Hot / cold cutting
- Rigging
- Alignment
- In-situ welding / overlay
- Non-destructive testing (NDT)
- Insulation / Refractory
- Fired heater revamps
- Flare system revamps
- Shutdowns and turnarounds
- Pre-commissioning and commissioning services
- Operations and Maintenance

## CR3 IN ACTION

### The challenge

A refinery underwent their largest and most complex revamp and turnaround in history to increase capacity by 10,000 b/d.

### The solution

Constructability reviews maximised the installation of new pipework, structures and equipment pre-event, saving significant time and reducing manpower numbers during peak periods.

### The outcome

Refinery was restarted on schedule and performed as expected at new capacity. An innovative contract model with aligned objectives delivered significant savings.

## Leading one-stop provider of specialised maintenance services

CR3 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 Solutions

We offer a comprehensive portfolio of maintenance services that are grouped into six 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

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 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.

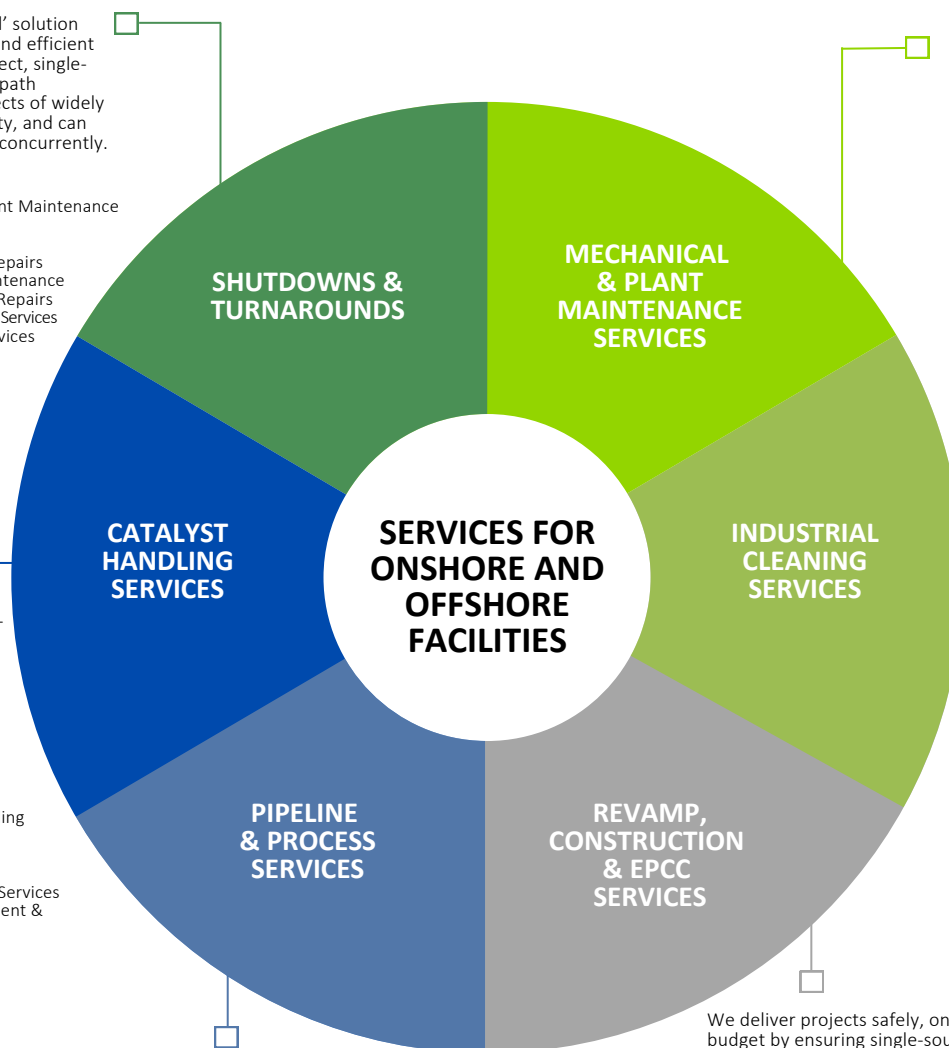
### Related services:

- 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
- CR3 Decoking Technology (CDT)
- Decontamination Services
- Waste Handling





CR3 is a leading provider of energy engineering solutions. Established in 1991, we provide specialised maintenance, plant upgrade, revamp and engineering services with a sharp focus on **Energy** Efficiency, **Engineering** Excellence, and Sustainable **Solutions**.

### Contact us today to learn more

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