Integrated Asset Management – Consulting



Generating more value from the physical assets of our customers

thyssenkrupp Industrial Solutions' Integrated Asset Management (IAM) portfolio is designed to generate more value from the physical assets of its customers in chemical industry. This involves unlocking the untapped value and implementing new value enhancing solutions. This is achieved through better performance, for longer life and at an optimum of costs.

Through its consulting services, thyssenkrupp Industrial Solutions:

- Assesses the plant's current performance against the target/ desired performance in specified key result areas (HSE, productivity, quality, reliability, availability, life and direct & indirect costs).
- · Identifies the under-performing areas and their likely impact.
- Identifies the contributors for this under-performance (plant and machinery, asset management processes and organization).
- Suggests preliminary ideas for improvement measures.

The plant assessment is done by a team of specialists coming from the field of HSE, asset management, technology, process and equipment. They study the plant data, take measurements & conduct tests (if required), review various documents and interview plant personnel across the organization levels. This requires a site visit by a team of experts.

The team further draws upon thyssenkrupp's vast technological and engineering experience and capabilities to arrive at solutions required.

The findings of the team are presented to the customer preliminarily during the closing meeting and finally, along with recommendations in the form of a detailed report. The report contains the details of investigations and the findings. The report also enumerates the first ideas about possible solutions to improve the performance by eliminating or rectifying the contributors.

Properly engineered and feasible solutions with complete financial calculations can be worked out and submitted subsequently under a separate contract.

IAM consulting is typically suitable for customers having their own asset management (0&M) organization and looking for improving their performance.

Service advantages

- Better performance, longer life and reduced risks at optimum costs
- Improved safety, reliability, availability, productivity, life and efficiency of physical assets
- Higher returns on capital employed



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360° Service

Service solutions throughout the entire life cycle of your plant





Parts & supply management

We are the experts when it comes to the supply with spare and wear parts for your plant – over the entire lifetime, at the right time and with the right quality.

Spare parts supply

- All spare parts and components for your asset in OEM quality
- · Always state of the art technology with guaranteed functionality
- Attractive frame contracts and supply agreements

Wear parts solutions

- Development of wear parts according to your requirements
- Individual solutions in regards of quality and performance
- Innovative wear parts concepts

Advanced parts solutions

- Engineering and manufacturing of individual spare parts
- Continuous further development of spare parts and components in order to increase the performance of your plant
- Spare and wear parts for plants genuinely not developed by thyssenkrupp



Field services

We offer you local assistance when it comes to overhauling spare and wear parts, or when maintenance and servicing is needed.

Technical inspections

- Forward-looking inspections of machines and components
 Repairs and field support
- Fulltime site support and advice after handover of equipment
- Fault identification and emergency repair of components
- Installation and dismantling
- · Equipment adjustments and alignments



Revamps & outages

Over the course of time, demands change. In order to meet these changed demands, we offer you custom-tailored revamp solutions.

Analysis, engineering and manufacturing

- · Plant status and environmental analysis and assessment
- Feasibility studies
- · Basic, front-end and detail engineering
- Manufacturing of individual equipment

Plant improvements

- · Custom-tailored revamps and retrofitting solutions
- Debottlenecking through capacity extensions
- Efficiency enhancement through modernization and upgrades
- Emission reduction
- Safety and integrity upgrades
- Reliability improvement

Revamps execution up to EPC

- Execution of complex revamp and outage projects
- Execution of EPC revamps projects
- Custom-tailored risk and profit sharing models

Turnaround management

Management of plant turnarounds



Asset management

We offer you a holistic asset management approach in order to reduce the overall operating expenses of your plant.

Consulting

- · Evaluation and assessment of effectiveness and efficiency
- Process mapping and gap analysis
- Derivation and supervision of improvement measures

Technical guidance

- Implementation of improvement measures
- · Technical improvement of existing machines and components
- Strategic analysis and future planning
- Improvement of processes and procedures

Operation & maintenance contracts

- Complete or partial take-over of maintenance and/or operations activities
- One-stop operation and maintenance solutions including (optional) parts and consumables
- Custom-tailored business models focusing on a win-win situation

Operator & maintenance training courses

- Customer training for all areas of thyssenkrupp portfolio
- Utilization of product experts within thyssenkrupp's qlobal network