

aggreko *PROCESS SERVICES*



Address Critical Process Challenges

Aggreko Process Services helps the refining and chemical industry address process issues by providing engineered solutions that eliminate temperature related bottlenecks.

Aggreko can help:

- Reduce fuel-gas make
- Increase alkylate rates
- Reduce run down temperatures
- Improve product rates and quality
- Lower operating costs
- Provide process improvements without capital expenditure

For over 45 years Aggreko has provided temporary power solutions that go above and beyond industry standards. We bring a world of experience to each and every job, led by people with unequalled expertise within the industries we serve. Through innovation and a commitment to developing new solutions and enhancing service options, we ensure a higher level of performance. And with 120 locations worldwide, our 24/7/365 service is available where you are.

Technically Sensible & Financially Sound

Aggreko Process Services can provide tailored solutions to help you boost productivity throughout your operations whilst letting you manage your expenses.

High Benefit to Cost Ratio

Aggreko's solutions help our customers realise benefits that are several times the cost of the installed system.

Quick Project Installation

Projects can be designed and installed in less than 30 days. Providing quick project turnaround has been a key factor in Aggreko's success and reputation in the industry.

Low Risk

The APS work process is designed to identify and resolve risks before the solution is installed.

Capture Windows of Opportunity

As margins fluctuate seasonally APS helps you increase throughput and recoveries at critical market times in order to maximise profitability.

Minimal Capital Expenditure Required

As APS solutions are focused on temporary solutions to temporary problems projects can be funded from operating or maintenance budgets. This eliminates the need for approval for large capital expenditure.

Engineering Support

APS offers you the insight that comes from years of combined process experience. This in-depth experience helps APS provides solutions to common problems which affect your plant's profitability. You also receive vital documentation to support the Management of Change (MOC) work process.

Project Management

APS can provide on-site engineering support to ensure your solution is implemented correctly. Our strategic network of depots provides fast, reliable service to install and maintain the equipment during operation.

FOR MORE INFORMATION ON AGGREKO PROCESS SERVICES PLEASE CONTACT

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Refinery plant increases capacity during summer

At a big refinery, the de-iso-hexaniser plant was forced to reduce its run-down capacity during high summer temperatures. During the hot weather the pressure inside the column tent rose too high for good quality production to continue. The cause was found in the capacity of the overhead condensers (fin/fan units). It was not possible to increase the capacity of the units because of vibration problems when the fans were increased above a certain speed.

The customer used the temporary solution of spraying water over the condenser coils. At first this seemed to be effective but after a period of time the coils began to clog with residues from the evaporated water.

As a consequence the capacity of the condenser was even lower than at the beginning.

The APS team did a plant survey resulting in a proposal for improving the DIH process. After signing a principle agreement APS issued a process design package resulting in an order to supply the required additional heat rejecting equipment on a rental base.

After the first successful summer period the contract was extended for a further two years. The customer now has to decide whether to continue with this rental solution or to modify their process during a plant maintenance period.

It is likely that the rental option is the most favourable as this can be used only when required and is not dormant for the rest of the year.



Temperature controlled chemical plants

It is a well known fact that chemical processes which use outside air are more efficient at lower air intake temperatures. The capacity of the FCC blower is very often the limiting factor during the summer. By optimizing the running conditions it is often possible to increase the plant capacity by 10% or more.

Aggreko can supply you the turn key solution to increase your production profit. At a refinery Aggreko supplied the equipment to pre-cool the inlet air of the FCC blower. The air heat exchanger was specially designed and constructed for this application. It was installed at a height of 12 meters on the frame of the blower inlet without interrupting the airflow.

This resulted not only in an increase in capacity but also a more stable process as the air inlet temperature is no longer dependant on the day-night and climate cycles. The customer discovered that the process could run on tighter parameters, it is more stable, and there is less wear and tear and less waste. The benefits experienced were much higher than expected. As a result the customer decided to extend the rental period for two months and book the same package for early spring.

Petrochemical plant solution

A petrochemical plant in Germany had problems with the capacity of one of the hydrocarbon heat exchangers. Due to gradual capacity extensions the heat exchangers had become too small. The first plant stop had been planned for 3 years but never executed, so the build up of dirt was also having a negative effect on the heat transfer.

The Aggreko APS team was invited to find a solution for this complex problem. After a meeting with the customer's process specialist and mechanical engineers, a full plant survey was performed.

Aggreko proposed an innovative solution to isolate the heat exchanger concerned from the cooling tower loop. The proposal was to take over the cooling completely by chillers with a capacity in excess of 1 MW. Reliability is also a key word here.

After some intensive meetings it was decided to install 3 chillers. The overall capacity control was done by 'the Argus', an intelligent and programmable Aggreko controller. This panel programming is based on the customers requirements. It can communicate with any customer system and protocol.

In this particular installation the Argus unit controlled the chiller's capacity based on the actual hydrocarbon temperature. This made the final implementation very simple and reliable and resulted in a remarkable reduction in power consumption compared to the chiller capacity control based on water temperature.

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