



IDEAS ENGINEERED

JORD GROUP

OIL & GAS INDUSTRY

CELEBRATING FOUR DECADES OF SERVICE





IDEAS ENGINEERED

- Innovation
- Value
- Reliability

QUALITY DELIVERED

JORD INTERNATIONAL

- People
- Partners
- Capital
- Performance

JORD FOUNDATION

Jord has served the power generation industry for over 45 years, with innovation, value and reliability. We are a privately owned firm that has grown steadily and organically, by solving unique problems with speed and personal service.

Think hard about Jord. We'll be thinking hard for you.

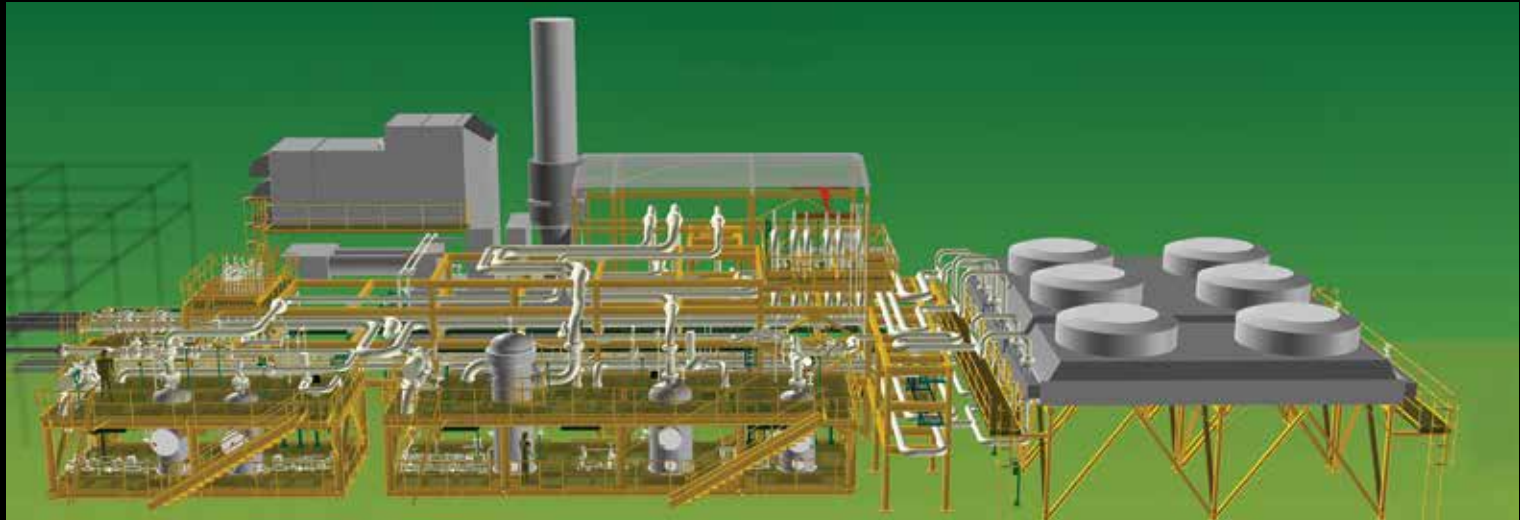


The three key stages of Jord's onshore gas compression station project in Queensland Australia; 3D modelling, modular fabrication and final plant commissioning.



Ideas Engineered

Jord custom-designs, manufactures, commissions and services process plant for the oil and gas industry. We supply individual capital equipment, or integrate various technologies into bespoke modular systems or complete turnkey plant. We collaborate with clients for both greenfield and existing sites, to meet the efficiency and environmental challenges of our times, while delivering innovation, value and reliability.





Clockwise from main page : Lube oil recirculation modules, Thailand. Hydrocracker automatic backwash feed filters, Malaysia. Seawater sulphate treatment modules, Angola.

Innovation

Jord's motto of Ideas Engineered reflects our pursuit of creative technical solutions that are cost-effective and dependable.

As every project is different, we collaborate with our client's experts to devise, consider and rank options : methodical approaches harnessing open minds and lateral thinking. Each approach is driven by a desire to reduce cost, time and risk – both for plant installation and for ongoing service and refurbishment.

Several recent projects exemplify our innovation practices and culture. In 2007, we overcame significant technical hurdles to supply 500 tons of seawater sulphate treatment plant for an offshore gas platform in Angola. In 2009, we designed and installed high-efficiency automatic backwash feed filters to increase catalyst longevity for a Malaysian refinery Hydrocracker. More recently, we successfully overcame an exceptionally tight plotspace to meet the operating requirements for lube oil re-circulation modules for a brownfields gas expansion project.



“Ideas are like rabbits. You get a couple and learn how to handle them, and pretty soon you have a dozen.” – John Steinbeck



Clockwise from main page : Harp type slug catcher, China.
 Dry gas filters for coal seam gas gathering field, Australia.
 Six of 157 multi-cyclone separators for a 4000km pipeline, China.



Value

In all our projects, we will look to add value, be it to produce a higher grade product, increase plant capacity, reduce cost or operating risk, increase safety, reduce environmental impact, or conclusively prove new industrial processes.

Our first major oil sector project in 1977 was the supply of an air cooled heat exchanger for a Shell refinery in Sydney, Australia. It was the first time the refinery had sourced process plant from a local firm. They did so because Jord could deliver to international standards but with local supply chain costs and immediacy.



Today, our staff access local supply chain advantages on a global basis, packaging our equipment into modular or turnkey solutions to further multiply value. In 2012, Jord was contracted to design and supply a harp-type slug catcher. With a condensate holding capacity of 7,000 m³, it ranks amongst the largest in the world. Jord engaged local suppliers to reduce capital cost, maximise in-country value and minimise cycle time. A robust and innovative pipe support system was designed to ensure longevity of service in this typhoon prone area.

“I can’t understand why people are frightened of new ideas. I’m frightened of the old ones.”

– John Cage



Reliability

Just as many of our earliest plants will soon reach 50 years of active service, we expect our latest plant to do the same, even in the most challenging of operating environments.

There are many reasons for this. First, we have the technical skills and take the time to understand the full plant in which our system will operate. This allows us to appreciate the risks; ensuring our part of the plant is well designed and manufactured. Second, we nurture exclusive, stable fabrication partnerships that over decades provide consistent quality of manufacture and service. Finally, as a private firm that's here for the long term, we bend over backwards to make sure our systems operate as designed for our clients. We systematically troubleshoot operational issues and work with our customers to optimise performance as process conditions change throughout the life of a plant.

In 1982, Jord supplied the main air cooler train to Santos' Moomba Gas Field in central Australia. These units are still in operation today. Jord has supported Santos throughout these decades with various de-bottlenecking projects and other plant upgrade work to keep the units in line with latest process conditions and OH&S regulations.

Clockwise from main page : Modular supply of a recently delivered air cooler train. A Jord air cooler train in central Australia that is still in service after 35 years. Incolloy header box.



CASE STUDY - GAS RECOMPRESSION

One of three gas compressor modules delivered in 11 months. The modules were assembled on a jack-up rig (Facing page). Far right is a 1,000 ton self-supporting pipe bridge JORD supplied to connect the jack-up rig to the main platform.



QUALITY DELIVERED

Case Study – Gas Recompression

In 2015, our European office, in alliance with independent Mexican gas developer Nuvoil, delivered a topside jack-up module to reduce flare gas emissions and extend the life of a Pemex offshore gas field. The scope included three gas compression modules, a jack-up pipe bridge and accompanying metering, separator and flare system packages. Financed with an innovative lease arrangement, the jack up rig can be moved to other gas fields during its lifetime.

The 2,000 tons of modules were delivered within eleven months of award, with zero lost time injury.



The FPSO industry has unique requirements that Jord takes into account in the process and mechanical design of its gas, condensate and produced water treatment systems.



- Jord offices
- Alliance partner / Representative offices
- Principal fabrication centres

Jord International

Jord has been serving the global process industries since 1972. Established in Australia, 80% of our business is international. Oil & Gas is one of three business divisions, the other two being Resources and Power. We believe our engineering ideas work because, though they are innovative, they come from a very stable and effective base of people, partners, capital, performance and standards. Our principles of respect and fairness in all dealings have served us well.

1970s

Australian Foundations

Jord formed in 1972 to support the Australian sugar, minerals, oil and gas industries. Core technology in heat transfer and separation.

1980s

Asian Manufacturing

Value added via pioneering a strategic manufacturing alliance in Singapore. This was soon followed with alliances in multiple Asian and Middle Eastern countries.

1990s

Technology Investment

Organic growth generated through the broadening of technology and know-how, the investment in ISO standards and the development of a proprietary project execution system.

2000s

Global Growth

The gradual opening of offices across most continents, to locate staff closer to customers and fabrication centres.

2010s

Strategic Alliances

A focus on exclusive alliances that leverage the complimentary skills of Jord and its partners to offer better value to customers.

FUTURE

Continued organic growth in delivering innovation, value and reliability to our customers and partners. FEED studies through to supply of multi-thousand ton modules.



People

Jord was one of the first Australian engineering companies to support the country's resource boom from the 1970s. John Holden and Phil Blundell attracted and developed the expertise needed for their vision of serving the emerging petroleum, alumina, nickel and sugar industries, drawing in engineers with ability, humility, curiosity and dedication.

Now, the staff who share those same qualities span 10 countries, 25 nationalities and 40 languages. Our average length of service is 10 years, well ahead of the industry average.

Jord offers our people the stability of private ownership, flexible work arrangements to balance long-term commercial, professional and personal ambitions, and a significant share in the annual profit of the business.

“A pile of rocks ceases to be a pile when somebody contemplates it with a cathedral in mind.”

– Antoine St. Exupery

Clockwise from main page : A 904L three phase production separator, condensate stabilisation system and a mercury removal system supplied for an offshore gas platform, Thailand.



Partners

Jord fosters and sustains long-term partnerships with international technology leaders, with fabricators and with our customers, to learn from each other, solve challenges and engineer ideas. Many of these partnerships have prospered for decades.

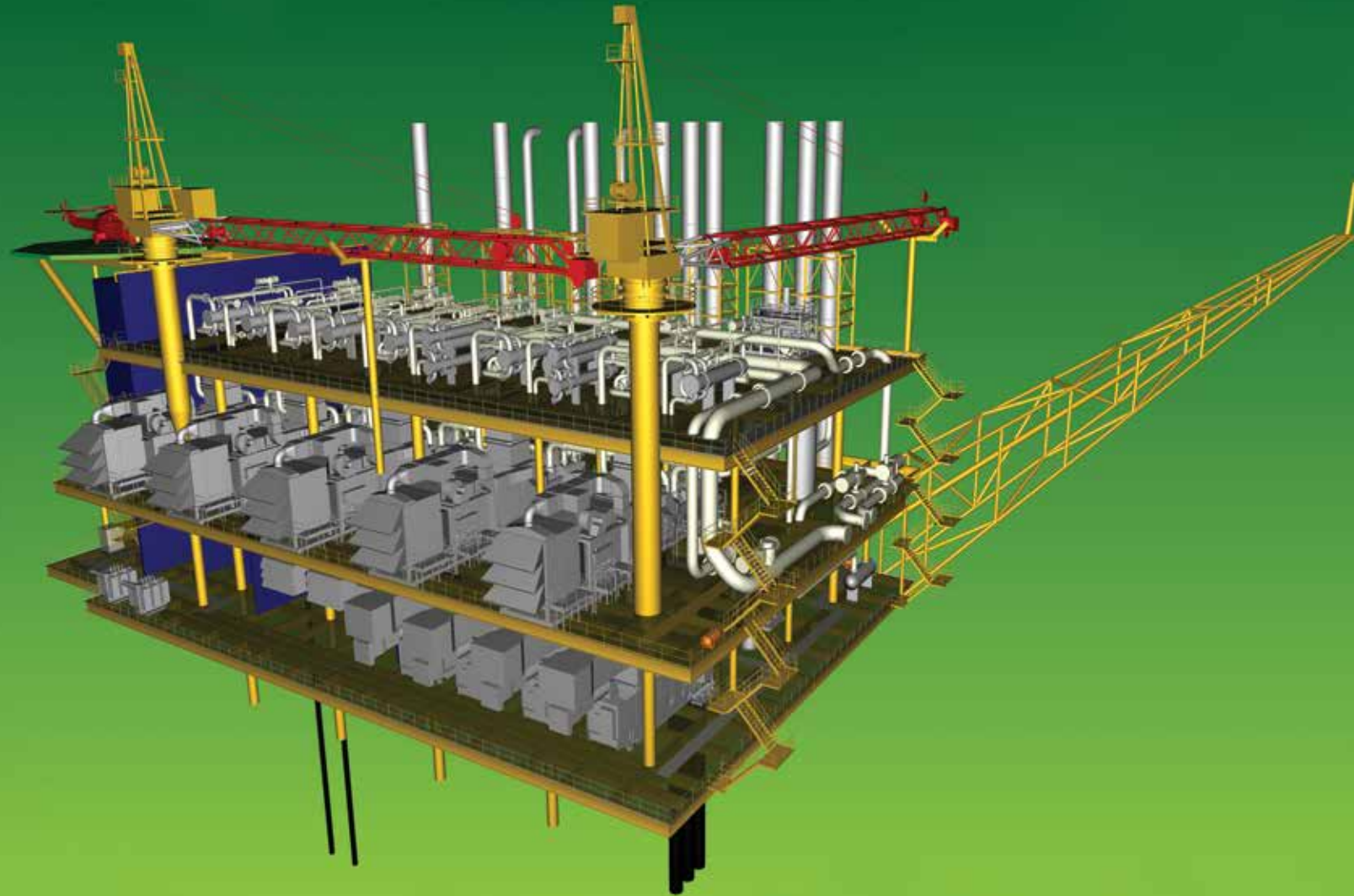
Together, we have custom-built and manufactured well over USD 2 billion of bespoke plant and systems. Each project, each technical challenge and each commercial setting is different.

In 2008, J Ray McDermott contracted Jord to supply 2,000 tons of condensate stabilisation, mercury removal and process separation systems for an offshore gas platform it was building for a gas platform in Thailand. A few years later, the roles were reversed and it was Jord contracting McDermott to fabricate gas compression modules.



“Eventually everything connects – people, ideas, objects. The quality of the connections is the key.”

– Charles Eames



Capital

Jord remains debt-free, with both a strong balance sheet and available facilities to ensure the financial demands of large international projects are met. Our conservative fiscal approach has helped us meet these demands despite four major global economic disruptions over our 40 years.

Retaining stable, private ownership during this time has also allowed Jord to invest in its staff for the long term.

Performance

Annual revenues of up to \$200 million has been generated through steady, organic growth rather than 'bolt-on' acquisitions – our customers trusting us with ever bigger and more complex projects. Our most satisfying projects are the ones where challenging circumstances are overcome and customer expectations are exceeded.

Jord's quality guarantee is backed by over 20 years of ISO accreditation; our systems are fully integrated to ISO9001, 14001 and 18001. We have developed our own custom-built, web-based "Horizons" project execution system and knowledge centre. Horizons gives our globally spread staff and customers real-time project information and performance data.

“The value of an idea lies in the using of it.”
 – Thomas Edison

Jord Environmental Trust

The Jord Environment Trust ("JET") was established in 2007 with a charter to donate funds to international causes that help foster a biologically diverse and sustainable planet.

Over \$2 million of capital has been steadily accumulated out of Jord annual profits, the interest from which is donated to various not-for-profit causes.

Most recently, JET supplied pro-bono services and funding to deliver various clean water and clean (solar) energy projects to nature reserves being managed in outback Australia by the world renowned Bush Heritage Trust. Other projects include cyclone relief in the Philippines, earthquake relief in Nepal and sustainable development in Cambodia.





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