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.

Jord supplied the closed circuit cooling water system, NOx control modules and turbine wash skids to this 2,100 MW gas fired power plant in Saudi Arabia.
Ideas Engineered
Jord custom-designs, manufactures, commissions and services process plant for the power generation 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.

For example, Jord overcame severe plotspace restrictions on a Petrobras Brazil offshore gas platform to design and construct lube oil recirculation modules for offshore gas turbines.

Recently, Jord overcame a number of hurdles to successfully retrofit a 36 MW boiler into an existing power plant. Factors to consider were poor site access, a maximum lift restriction, minimising plant downtime, the structural integrity of the unit due to limited anchor points and easy replacement of the cold end tubes in the event of dew point corrosion.

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

- Antoine St. Exupery
Ideas are like rabbits. You get a couple and learn how to handle them, and pretty soon you have a dozen.” — John Steinbeck

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.

One of our more unusual projects was a brief to custom design and construct an iso-pentane revapourisation system for a Combined Cycle Power Plant, such that all iso-pentane produced in an adjacent LNG facility could be fully consumed without any venting or flaring. Jord’s system comprises five modules that convert liquid iso-pentane into superheated pentane vapour for delivery to the power station’s HRSGs.
In all our projects, we will look to add value, be it to increase capacity or efficiency, reduce cost or operating risk, decrease cycle time or reduce environmental impact.

Jord’s turbine auxiliary systems are a good example of this. Over a 20 year period, Jord has provided good value to its repeat order customers by a relentless drive to reduce both module cost and cycle time.

Since Jord’s first cooling water recirculation module was designed, manufactured and delivered to a 120 MW Malaysian power plant in 1994, Jord has supplied over 1,000 gas turbine accessory modules, to all points of the globe. In addition to cooling water applications, applications include NOx emission control, fuel and lube oil conditioning and turbine washing systems.

References include a number of world scale installations, for 1,000 MW+ gas fired power plants involving large banks of turbine accessory modules. Short cycle time delivery has been a key consideration for these projects, requiring strict adherence to rigorous project execution processes.
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.

Jord’s reliability can be demonstrated through its steam cycle heat exchanger systems. Our robust Air Cooled Condenser (ACC) designs were forged from a joint venture with German based Balcke Duerr in the 1990s. The units we have supplied since then span the harshest of operating environments; from the hot sandy desert environment of Saudi Arabia to the freezing conditions of northern Russia, where design temperatures drop to –45 deg C.
Case Study – Fuel Gas Conditioning

Jord’s Wet Electro-Static Precipitators (WESP’s), Detarrers, and Flue Gas Desulphurisation (FGD) units offer superior technology to tackle difficult and complex plant emission applications within the Power industry.

Such as the cleaning of synthesis gas, or Syngas, to fuel gas turbines. Syngas is typically created as a by-product from Blast Furnaces and Coke Ovens. It is heavily contaminated with small particles of dust and tar. Carefully designed Detarrers and WESP’s condition the gas, making it suitable for Gas Turbine use.

FGD is a process for removing sulphur dioxide from the flue gas of boilers burning high sulphur fuels. Conventional FGD systems often require an expensive reagent, high grade lime or limestone, and generate solid wastes that must be transported to landfill. Jord’s FGD systems utilize a range of less expensive reagents that produce a saleable product, gypsum, which has multiple uses including the manufacture of cement.
Modular delivery is undertaken wherever practical. The below two ACC modules, each weighing 300 tons, were seafreighted from Asia to the Caribbean.

Jord International
Jord has been serving the global process industries since 1972. Established in Australia, 80% of our business is international. Power is one of three business divisions, the other two being Oil & Gas and Resources. 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 from 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 complementary skills of Jord and its partners to offer better value to customers.

FUTURE
From FEED studies through to EPC solutions for biomass, waste to energy and small scale power plants.
“An idea is salvation by imagination.”

– Frank Lloyd Wright
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 collaboration with turbine suppliers, Jord offers design and supply of major equipment through to complete EPC solutions for bio-mass, waste to energy and small scale simple cycle, combined cycle and cogeneration power plants. For example, Jord recently secured an order to supply fuel gas treatment, air-cooled condensers and a cooling water circuit for a 90MW combined cycle power plant in the middle East.

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

– Charles Eames
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.

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

Jord’s quality guarantee is backed by over 20 years of ISO accreditation; our systems are fully integrated to ISO9001, ISO14001 and ISO18001. 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.

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.
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.