

WHO WE ARE

OGS is a global organisation with its corporate headquarters located in Perth, Western Australia and regional offices in Brisbane, Darwin, Singapore, Korea & China.

OGS delivers dedicated project support services, incorporating but not limited to; project design, procurement, construction, installation, commissioning, operations and maintenance. Our cross industry expertise, project expertise and track record of successfully delivering international projects with blue chip clients and partners has led to our fast evolving reputation as a preferred supplier worldwide within the oil and gas industry onshore and offshore within both greenfield and brownfield scopes.

Continuing to build upon an impressive global portfolio, OGS can provide complete and independent project solutions, from concept studies through to start-up, with continuing support throughout a project's life-cycle. OGS can handle any portion of the project required, large or small. OGS is committed to building strong relationships with Indigenous communities and creating increased opportunities for employment, engagement and capacity building.

OGS' service offerings include:

- Engineering Design;
- Construction Management;
- Commissioning (Systems, Processes, Resources);
- Completions Strategy;
- Multi-Disciplinary Engineering;
- Multi-Disciplinary Technicians;
- Operations & Maintenance Support;
- EX Inspect & Maintain;
- On Site Nitrogen Production;
- Water Treatment;
- Compact Separation Systems;
- Processes to support services;
 - Technology to improve efficiency and productivity (Completions Connect, HA Connect).

OGS delivers- whether working as an independent contractor, or more importantly as part of an integrated project team.



ON SITE NITROGEN PRODUCTION

NITROGEN ON DEMAND:

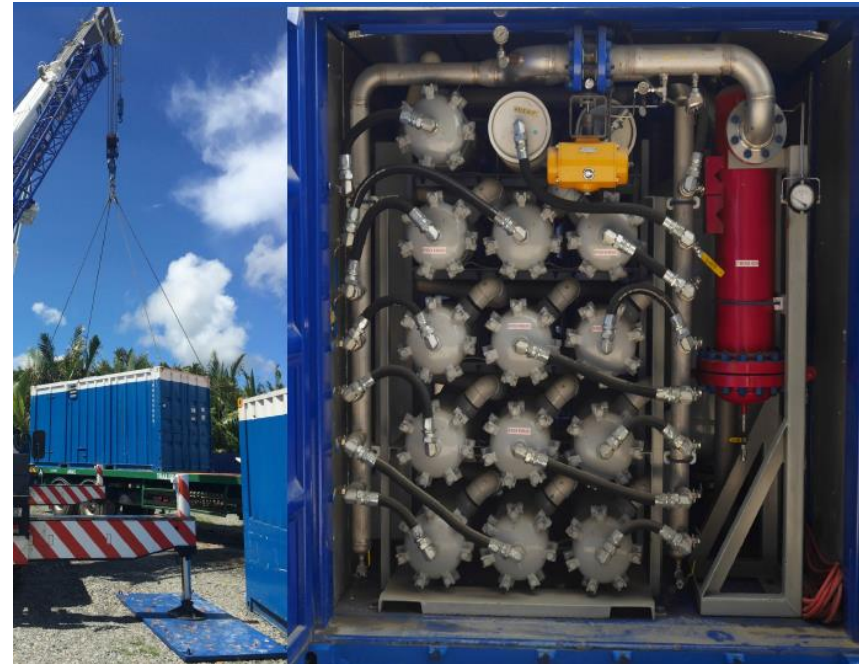
For operations requiring more than two tanks of liquid N₂, on site nitrogen production has significant advantages. Less handling time, lower costs, safer projects.

OGS provides on-site Nitrogen Production Units complete with all of the required compressors, generators and peripheral equipment, either containerised for in-situ use or truck mounted. We will take care of operational support and logistics anywhere in Australia.

Together with our technology partners, OGS delivers the latest in Nitrogen On Demand systems to the Australian market. Nitrogen On Demand has applications in:

- Pipeline pigging and purging;
- Platform packing and purging;
- Tank packing and purging;
- Enhanced oil recovery;
- Gas lifting;
- Coil tubing;
- Under balance drilling;
- Well clean up;
- Well stimulation;
- Drilling services;
- Offshore support.

Using patented membrane technology, nitrogen can be produced to your exact purity requirements; up to 99.9% pure N₂. Bottled nitrogen, whilst relatively economical in small quantities, has disadvantages when used in high quantities or for extended campaigns.



ADVANTAGES:

- Unlimited run time- non-stop, 24 hour operations;
- Single units can produce at flow rates up to 5,000 scfm;
- Multiple units can produce at flow rates up to 18,000 scfm;
- High pressures- up to 5,000 psig;
- Patented membrane technology can produce N₂ (up to 99.9% purity);
- No downtime waiting for liquid nitrogen or bottle changeover;
- No waste due to N₂ boil off.

SEPARATION SOLUTIONS

FACILITIES SAND MANAGEMENT

OGS provides the most efficient solution for the separation and removal of solids from multi-phase fluids.

OGS provides the following sand management solutions:

- Wellhead Desander;
- Solids Filters;
- Solids Jetting;
- Solids Washing Systems;
- Collection/Transport/Storage.

PRODUCED WATER TREATMENT

OGS provides an efficient, compact and durable produced water treatment system. The hydrocyclone systems are pressure drop dependent, with separation causing the fluids to spin under a centrifugal force.

- Desander Systems;
- Deoiler Systems;
- DGF/IGF Systems;
- Sump Caissons.

COMPACT SEPARATION SYSTEMS

OGS provides carefully designed compact separation systems. The systems have the capabilities of fluidization, removal, and transport of solids which settle in a variety of production vessels and tanks.

- Partial Processing;
- Preseparation/Dehydration;
- Extended Well Test Packages;
- Compact Production & Gassing Systems;
- Wellhead Gas Desander.



HAZARDOUS AREAS

OGS provides hazardous area verification and inspections throughout construction and operation, as well as performing infrared thermographic and ultrasound inspections for maintenance.

OGS specialises in the provision of expert teams for the management and execution of hazardous area inspections and audits, either as part of a capital expansion project or during operations as part of an ongoing maintenance program. Armed with our specialist CONNECT™ inspection system, our personnel keep the client informed every step of the way, with instant progress updates and reporting to specific requirements available 24x7.

Infrared Thermography is a non-destructive, non-intrusive and pro-active approach to plant inspection and maintenance. Infrared thermographic inspections detect heat being generated by electrical and mechanical plant and equipment through measurements of infrared electromagnetic radiation.

OGS also provides EX Rated Equipment with an exclusive distributor agreement with one of the largest manufacturers of hazardous area equipment in the world.



PROCESSES

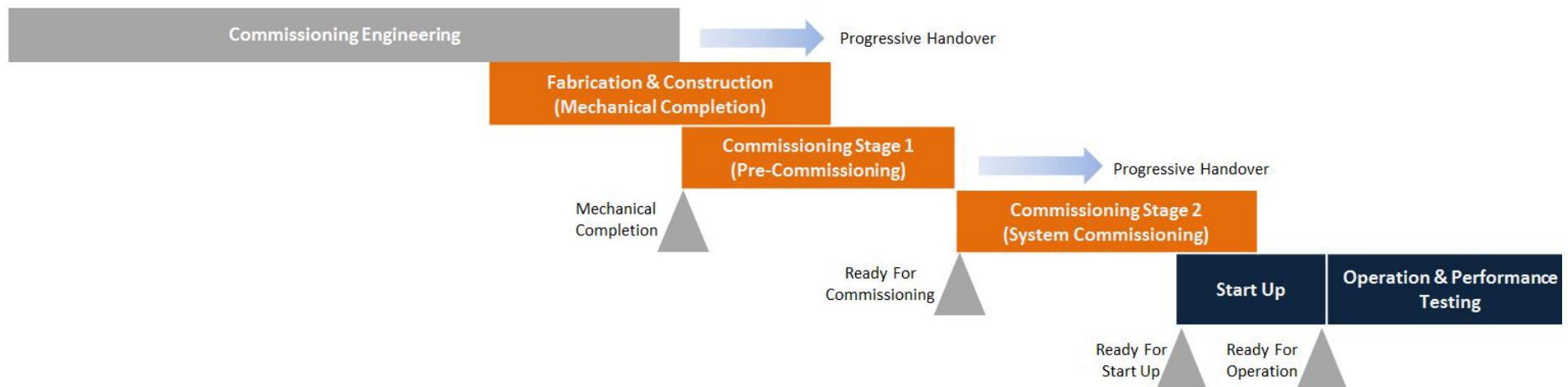
All projects hold many risks with regard to both cost and schedule impacts. These risks lie in all of the phases from concept to production. Mitigation measures are necessary to alleviate and ultimately remove these risks.

Awareness of risks, the effects of delays and the need for effective control of Commissioning and Start-up activities has led to the development of our processes and systems. Our processes have been designed by Commissioning experts for Commissioning and Project Management up to start-up.

Quality assurance and technical integrity processes have been developed and updated with input from industry users and engineering practitioners over a considerable period. The results of this consultation is improved decision making ability and efficiency of the certification process by specifying the correct level of inspection and testing commensurate to the project being undertaken.

OGS processes ensure that projects achieve start up on schedule and gives QA/QC compliance through managing the delivery of a safe and operational product/facility. This includes the defining and recording of mechanical completion, and commissioning inspection, test, punch-listing, work prioritising and system availability. This gives assurance that the product/facility has been constructed using the correct and appropriate equipment to operate in accordance with its design intent.

ACTION	DEVELOP		IMPLEMENT		OPERATE	
Commissioning Activities Commissioning Requirements	Commissioning Activities FEED	Commissioning Activities Detail Design	Commissioning Stage 1 Pre- Commissioning	Commissioning Stage 2 System Commissioning	Commissioning Start Up	Operation & Performance Testing
Definition: Identification of Commissioning Requirements for FEED, Detailed Design and site execution phases. Budgetary requirements.	Definition: Development of detailed commissioning documentation. Preparation for Site Execution Scope of Work.		Definition: Checking and testing of individual items of equipment in situ to confirm compliance with drawings, instructions and specifications. It is a single discipline activity, carried out on energised tagged items (device by device).	Definition: Dynamic system testing, in readiness for the introduction of product i.e. "Dry" commissioning. A multi- discipline activity.	Definition: Introduction of product, start up and steady, controlled ramp up to first time operation.	Definition: Operation of the facilities and carrying out of defined activities to demonstrate the facilities meet the contract and design parameters.



SYSTEMS

COMMISSIONING MANAGEMENT:

Providing a structured process with a suite of documentation to facilitate the client's requirements for both Greenfield and Brownfield projects onshore and offshore. Directly manage sub-contractors scope including vendors for a smooth transition into commissioning/start-up and final Handover.

COMPLETIONS MANAGEMENT SYSTEM:

Utilising the most advanced systems available to the market ensures complete asset integrity; auditable throughout the entire process. Each project is unique and the software is tailored accordingly. OGS' chosen software is CONNECT™, which uses a metadata approach; resulting in no programming errors.

CONNECT™ is a cloud based system that manages tagged items through the inspection and test process within mechanical completion, pre-commissioning, commissioning, start-up and handover phases providing real time status of phase completion. Included within this system is a punch list management approach that is attached to each individual tag.

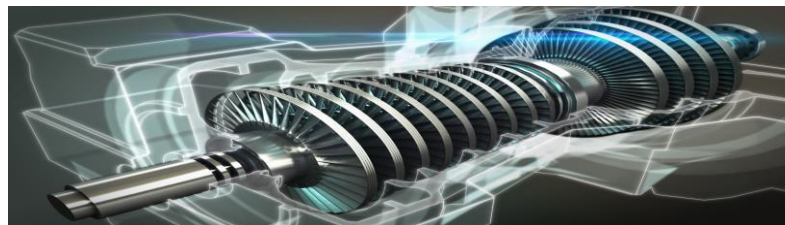
The objective of CONNECT™ is to assist Construction and Completions Managers deliver the handover of their projects to operations within acceptable timeframes and provide the requisite information at that point.

The advantages of CONNECT™ are:

- Simple to use functionality to create and manage work scope, punch lists & certificates;
- Efficient processing of completed work through the use of test sheet scanning technology and mobile devices;
- Dedicated manager functions for cable/piping through a mobile solution for 'real time' progress reporting;
- Inspection CONNECT™ for mobile devices that performs whilst the device is either on or offline;
- Real time progress reporting & full visibility of contractor progress;
- Increased project governance without the requirement for increased administration resources;
- Greatly simplified resource requirements and decreased cost of the handover to operations process.

CONNECT™ MANAGES:

- Completions Testing
- Punch Listing
- Hazardous Area Inspections
- Environmental Inspections
- Site Inspections
- Maintenance & Preservation Activities



**TO MANAGE THE PROJECT,
YOU NEED TO MANAGE THE PROCESS.**

- ✓ Governance technical security
- ✓ Informed decision making
- ✓ With detailed audit security

CASE STUDIES

CASE STUDY 1*	<p>Infrastructure Project- SAVINGS >\$300,000</p> <p><i>Using connect productivity improved.</i></p> <ul style="list-style-type: none"> The software enables <i>real time</i> reporting to different access levels across management. It integrates with major PM software packages (e.g. Primavera). The software design supports managed updates to the schedule saving rekeying of status data (min. of 2 hours per day) There is less labour cost- Manual activities such as compiling work packs, generating SoWs, Printing, Reporting (daily- 1hr/day, management- 4hr/week, board reports- 16hr/month) are all generated automatically from the system.
CASE STUDY 2*	<p>Oil & Gas Processing Project- SAVINGS >\$250,000</p> <p><i>Using connect the hand over MDR was finalised 2 days after the final check sheet was signed.</i></p> <p>One major issue and a major cost driver for large scale construction projects is the turnaround on closing out the project's dossiers.</p> <ul style="list-style-type: none"> When built manually, an MDR can take up to 3 FTE workers 3 months to complete.
CASE STUDY 3*	<p>Oil & Gas Processing Project- SAVINGS >\$500,000 P/M</p> <p><i>Productivity improvements and reduced reporting team headcount.</i></p> <p>These improvements enable a more efficient generation of work packs and management execution.</p> <p>By building interpretation rule sets, connect has enabled a full time reporting team to be reduced from >15 FTE workers down to 2.</p> <ul style="list-style-type: none"> Automatic updating of project spreadsheets reduces duplication, labour costs and errors from data entry.

* Further information available upon request.



RESOURCES

Our service capability covers the entire asset lifecycle across the industries we serve. OGS has project experience, competency, knowledge and high performing industry personnel to deliver challenging projects and assignments. It is our quality of industry professionals that has helped OGS to be recognized as the best in their field. OGS' integrated approach ensures absolute client satisfaction. With an extensive global resource database ***consisting of resources in excess of 60,000 personnel***.



ONSHORE RIG



PETROCHEMICAL PLANT



LNG TERMINAL



SHIPYARD



REFINERY



PLATFORM



LNG FACILITY



OFFSHORE RIG



FPSO

PROJECT TRACK RECORD



PROJECTS

CHINA

DANA WESTERN ISLES
DEVELOPMENT PROJECT

USA

MAERSK OIL/SPT MOPU

MIDDLE EAST

MAERSK OIL/SPT MOPU

RUSSIA

SHELL SIEC/SAKHALIN

SINGAPORE

APACHE VANGOGH FPSO
WOODSIDE LAMINARIA/CORALINA FPSO
WOODSIDE WANAE/CROSSACK FPSO
AMPOLEX WANDOO PLATFORM

SOUTH KOREA

EXXON MOBIL KIZOOMBAA A&B
WOODSIDE LAMINARIA/CORALINA FPSO
UNOCAL WEST SENO (FPU)
SHELL BONGA
KNOC

SOUTH AFRICA

EPSILON LNG

VIETNAM

JVPC RANG DONG WELLHEAD

NIGERIA

SHELL BONGA

ANGOLA

EXXON MOBIL KIZOOMBAA A&B

AUSTRALIA

FMG SOLOMON
FMG POWER STATION
INPEX ICHTHYS
UNGANI OILFIELD
ROY HILL IRON ORE
ADANI SHIP LOADER

BP REFINERY KWINANA
WOODSIDE LAMINARIA/
CORALINA FPSO
MAERSK OIL/SPT MOPU
QGC CSG