

# John Duncan Hollingworth

## Senior Mechanical/Project Engineer



### PERSONAL DETAILS

Date of Birth: 21<sup>st</sup> August 1967  
Marital Status: Single  
Nationality: Australian  
Position: Senior Mechanical/Project Engineer  
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Mobile: +61 (0)411 498 732  
Availability: Currently Employed

### EDUCATION

Bachelor of Engineering - Mechanical, Queensland University, St Lucia Brisbane QLD 1989.

### SUMMARY OF EXPERIENCE

My Mechanical engineering experience involves many aspects of mechanical calculation and design including recent works in cutting edge development of a worldwide based heat energy storage system. (See 1414Degrees.com.au).

Cement plant feasibility studies with some being developed into full design and construct. Plant redevelopment and upgrade in the food processing industry and other mechanical based design such as the Mobile Access Platform for safe truck loading/unloading.

Other works as a quality engineering of a large desalination plant and design engineering of gold plants, (primarily in infrastructure). A majority of this was the design and installation of all types of water, pumping reticulation and storage. Included was design for 3 Reverse Osmosis plants, potable and plant water systems along with sewage and a expansion of an existing waste water treatment plant.

An additional role was as the project engineer for the construction of three control rooms overseeing all aspects of the design and construction.. This included a three million dollar five storey pre-fabricated central control building/tower.

Other experience of plant design includes pumping, piping and material handling of many varied types of media (ranging from water, non-newtonian pulp slurries, to coal and alumina dust). Previous work on drilling rig design has expanded and existing design abilities with the advantage of a certificate in Inventor allowing limited expansion into 3-D design and drafting. Completing costings of plant has been a high priority along with long range operational costing. Experience was also gained in designing marine equipment such as winches, davits and gearboxes involving detailed design and stress calculations. Other roles also involved extensive onsite work with the associated induction training and medical testing. Design, consultation and co-ordination meetings were prevalent requiring presentations and report documentation.

Previously competent in all aspects of drafting including manual and Computer Aided Drafting (AutoCAD and Microstation), these skills, along with the engineering design, have greatly complemented each other in my engineering roles. System organization, along with quality drafting standards, were implemented to increase the efficiency of my design procedures.

My general work skill strengths are working well in a team and also independently when required. Strong time management and prioritizing has assisted me to set and achieve my deadlines and goals and perform effectively under pressure. My positive attitude has helped to generate a good rapport with team members and clients alike and if there are any deficiencies in my skills, my ability to learn new things quickly has been proven in many instances.

Many mining site inductions have been attained including accreditation of my Construction White Card, Confined Space and Working at Heights.

**SPECIFIC EXPERIENCE****1414 DEGREES PTY LTD (2012 to Current)**

Various Projects –

Mech Engineering and Project Management working on world first million dollar sized Heat Storage Projects. As a part of the formation of an independent company 1414 Degrees from ammjohn, key personnel were encouraged to transfer employment to assist the kickoff of this company to a large scale ASX listed company. My role has been to assist in both mechanical/piping gas system design from inception to commissioning from the first turbine TESS units to the current GAS TESS unit being installed at the Glenelg SA Water Waste Water Treatment plant.

**AMMJOHN PTY LTD (2011 to 2018)**

Various Projects –

Mech Engineering and Project Management working on Cement Projects from \$500k to \$150M. Experiencing new roles in research and development with thermal energy storage (Gnomon, Latent Heat Storage (LHS) 1414 Degrees) and development of new mining approaches utilizing modular mining plant development – OPS- Ore Processing Services. Various other projects from design to construct of mobile access platforms, to plant upgrades in the food processing sector.

**ABI GROUP PTY LTD (2009 to 2011)**

Adelaide Aqua – Adelaide Desalination plant

Lonsdale, Adelaide SA

Experiencing all facets of quality control for, not only, mechanical but other disciplines including marine, tunnels, civil and buildings. The role required the evaluation and checking of the Integrated Management Systems documentation including CEPs, ITPs, JSEAs and even development of specialized check sheets and a full Defect Management System. Extensive Quality Surveillance and Auditing was completed with strong utilization of my design experience to provide sound mechanical engineering solutions in the Reverse osmosis and general plant design and construction issues.

**WORLEY PARSONS AUSTRALIA (2008 to 2009)**

Rio Tinto – Gove Alcan Alumina Mine/plant

Brisbane QLD and Gove NT

In charge of 5 designers onsite, this mechanical engineering role involved multiple upgrades of the existing plant with some new infrastructure expansion projects. (e.g. Lubrication oil lines, lime plant expansion and water drainage piping systems.)

**FLUOR AUSTRALIA (2007 to 2008)**

Oxiana – Prominent Hill Gold Project

**PROJECT AND SENIOR MECHANICAL ENGINEER**

Adelaide and Prominent Hill SA

A mechanical engineering role was required for the many upgrades of the Infrastructure expansion from a 800 to 1600 person camp. A project management role was then required for the Process Plant construction phase. The engineering for infrastructure, from tendering to commissioning, included all services such as potable water, sewage and electrical systems to sports courts and accommodation expansions. The potable water included upgrades of 3 RO plants, and 4 large storage tanks with all associated valve work. The process plant project engineering included design, tendering and construction of various projects. This included the preliminary design of the diesel fuel farm and all three control rooms, which included a five storey floatation area control room tower. This included extensive site work.

**AKER KVAERNER (2006 to 2007)**

Boddington Gold Project

Perth and Boddington WA

Extensive design and engineering in plant infrastructure and overall layout including but not limited to the weighbridge, fuel depot and the entire plant potable water system.

**HBH CONSULTANTS (NOW PART OF SKM) (2004 to 2006)**

Tiwest Mineral Sands Plant

Mueha and Perth WA

Acting Mechanical maintenance engineer for the plant whilst they sought to fill the permanent maintenance engineers' role.

Fairbreeze Mineral Sands Project South Africa

Perth WA

Extensive design engineering and plant layout for the Feed preparation Area in charge of a small team of designers on a Mineral Sands plant for a South African Company. A wet process after the trommel feed, extensive design was required for the pumping and associated valving/piping at various stages of separation using banks of cyclones.

ALCOA Expansion Project

Perth and Pinjarra WA

Lead Designer and mechanical engineer of a four storey twin flash tank refurbishment from initial layout stage to construction at the Pinjarra plant.

SELF EMPLOYED (2003-2004)

**MECHANICAL ENGINEER/DESIGNER**

Companies-Confidential

Brisbane QLD

Privately contracted to a vending machine company redesigning and adapting proprietary machines using AutoCAD & Inventor 7.

Extensive designing with some engineering for a very large mobile drilling rig company. Load designs & hydraulic calculations in Brisbane.

SINCLAIR KNIGHT MERZ AUSTRALIA PTY LTD (2000)

**MECHANICAL ENGINEER**

Various Mine sites

Mt Isa QLD

Various facets of mechanical engineering including the installation of a gas scrubber for an acid plant.

AUSENCO AUSTRALIA PTY LTD (1998)

**MECHANICAL ENGINEER**

Newcrest Gold Mine NSW

Brisbane QLD

Engineering for the design and tendering of plant for a gold mining project.

IPCO CONSTRUCTORS SDN BHD (1997)

**MECHANICAL ENGINEER**

Lahad Datu (Sapagaya) Water Treatment Works Upgrade Lahad Datu Sabah MALAYSIA

Design and selection of all mechanical plant for the potable water treatment works upgrade.

TOUSSAINT & RICHARDSON CONSULTANTS (1995)

**MECHANICAL ENGINEER**

Comalco Australia, Alumina Processing Plant (CAP) Brisbane QLD

Design and cost estimation of the newly constructed CAP plant.

MINENCO PTY LTD (1995)

**MECHANICAL ENGINEER**

Comalco Australia, Gladstone Alumina Smelting Plant Brisbane and Gladstone QLD

Detailed design and cost estimation for maintenance packages for the "White Side" and .Boyne Smelter.

NABALCO PTY LTD (1995)

**MECHANICAL ENGINEER**

Nabalco Plant Long Range Capital Expenditure Nhulunbuy NT

Calculations and preliminary engineering for evaluation of the half yearly Capital Expenditure for expansion to the existing Alumina Plant. This then required draft costing for each of the engineering packages.

CMPS&F PTY LTD (1994)

**MECHANICAL ENGINEER**

Comalco Australia, Alumina Processing Plant (CAP) Brisbane QLD

Design and selection of plant for a entirely new Aluminum Smelting Plant to be constructed in Indonesia/Australia.

JADEN ENGINEERING PTY LTD (1989-1991)

**MECHANICAL ENGINEER**

Various Marine Projects and Clients

Burleigh Heads QLD

Design of marine equipment including hydraulic and electric plant for boats and dredges.

MECHANICAL DESIGNER ROLES (1989-1991)

**MECHANICAL DESIGNER**

Comalco Australia, Alumina Processing Plant (CAP) Brisbane QLD

Due to limited opportunities available after graduation (recession years) extensive work was completed in all facets of drafting and design predominantly in AutoCAD. This, I believe, gave me an immeasurably sound grounding for my future engineering career.

## **ADDITIONAL TRAINING**

Certificate (Introductory) in Inventor 7.

Certificate (Introductory) in Bentley PDS.

## **PROFESSIONAL ASSOCIATIONS**

**(Qualified for, and/or previously a member)**

Member, Institution of Engineers Australia (IEA)

Member, Association of Professional Engineers, Scientists and Managers, Australia (APESMA)  
Graduate Member, Association of Consulting Engineers Australian (ACEA)  
Currently applying for RPEQ.

For information of additional roles in design drafting, please contact the writer and they will be forwarded on at the earliest opportunity.

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