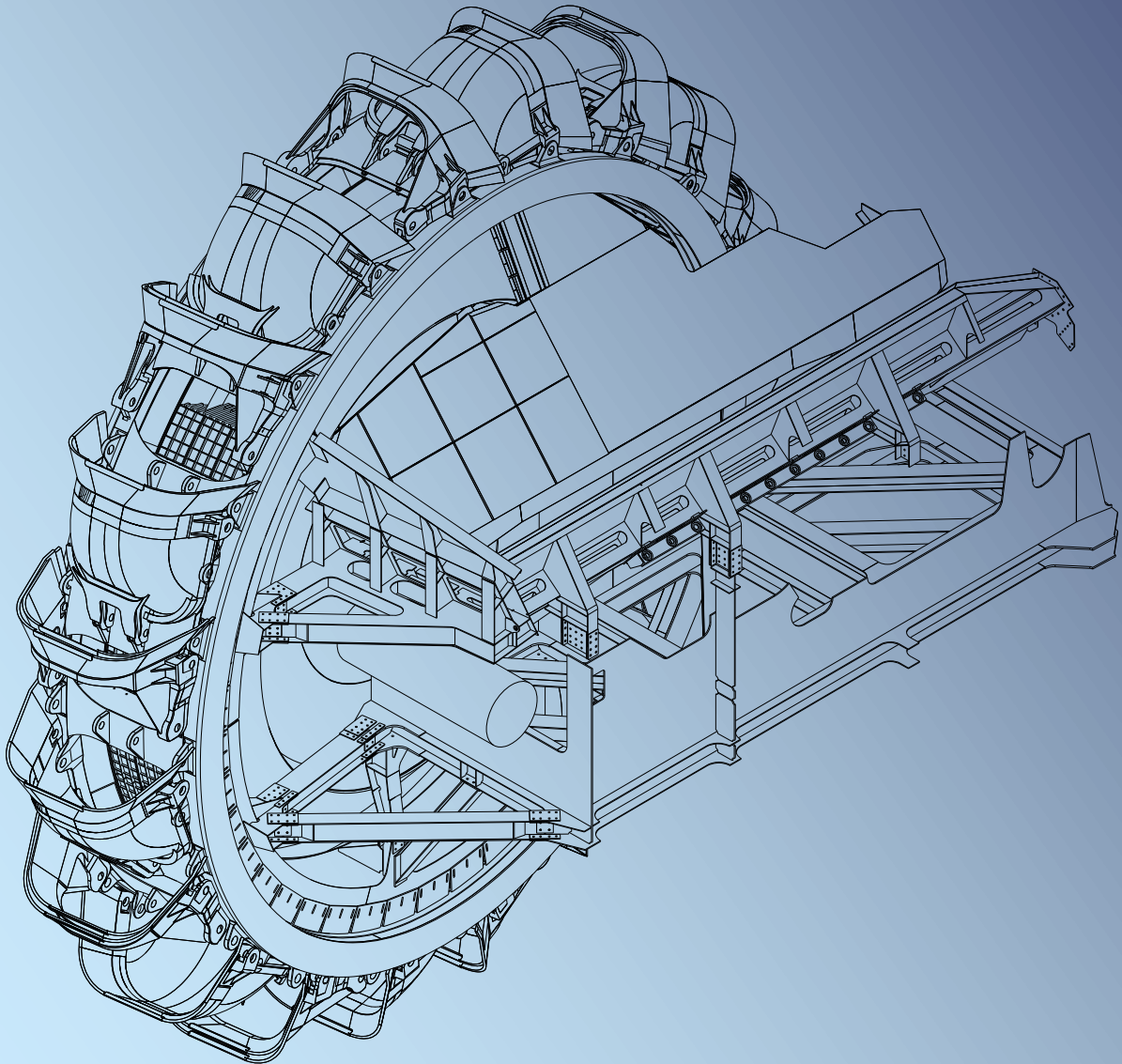
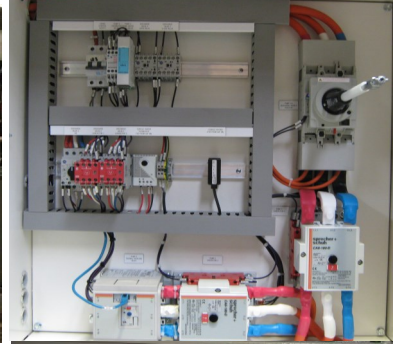




# Pro Draft

ENGINEERING DRAFTING



***Serving the Mining, Power &  
Manufacturing Industries since 1993***

## INTRODUCTION

*Pro Draft is a Latrobe Valley based company located 145 kilometers east of Melbourne, in the heart of Gippsland. We provide professional drafting services to local, interstate and overseas clients across various disciplines, especially within the mining, power-generation and manufacturing sectors.*

Our deep insights into these heavy industries, coupled with our understanding of the necessity to deliver projects on time and on budget, enables our clients to reduce costs related to procurement, manufacturing and installation.

We work collaboratively with our clients to deliver the highest quality technical drawings and to ensure each and every drafting project meets all outlined objectives, specifications, statutory requirements and quality standards.

Cover Page:  
Dredger Bucketwheel  
modelled by  
Pro Draft

## OUR VALUES

*Our values govern how we interact with our workplace*

**People** — We support our staff in their efforts to develop skills and achieve individual growth through their work.

**Partnerships** — We aim to be a key partner to our clients so they can fully establish their competitive position.

**Accountability** — We accept our individual and team responsibilities and we meet our commitments.

**Teamwork** — We work together to meet our common goals.

**Integrity** — We demonstrate honesty and fairness in every action we take.

**Quality** — What we do, we do well. We strive to find new and innovative ways to constantly improve.

**Service Excellence** — We are a team of dedicated, hardworking people who give our best each day.

**Safety** — We continually strive to improve health and safety practices. We believe that all injuries are preventable.

**Community** — We have a sense of responsibility to the society in which we live. We value our relationship with our local community.



## CORE COMPETENCIES

- **Design and Conceptual Development**
- **3D Modeling**
- **Power Station Plant**
  - Large steam-turbine components
  - Pulverized fuel mills & classifiers
  - Boiler feed pumps
  - Boiler pressure parts
  - Induced draft & forced draft fans
  - Draft plant expansion joints
- **Steel Fabrication**
  - Stairs
  - Platforms
  - Ladders
  - Lifting equipment
  - Monorails
  - Motor & pump bases
  - Guards and handrails
- **Bulk Materials Handling**
  - Conveyors
  - Hoppers & chutes
  - Conveyor idler & pulley systems
  - Conveyor layouts & belt lines
- **Bucket Wheel Dredgers**
  - Bucket wheel maintenance & redesign
  - Slew ball path refurbishment
  - Crawler component maintenance
- **Machined Parts**
  - Gears
  - Valves
  - Pumps
  - Shafts
  - Couplings
  - Actuators
- **Piping**
  - Non destructive testing corrosion survey diagrams
  - Pressure vessels
  - Steam and condensate systems
  - Piping isometrics
  - Piping and instrumentation diagrams
  - Hydraulic & pneumatic diagrams
- **Hazardous Area Experience and Compliance**
  - Major Hazard Facility support
  - Chemical and gas
  - Working at heights
  - Confined spaces
- **Electrical and Instrumentation**
  - Schematic diagrams
  - Single line diagrams
  - Wiring diagrams
  - Cable connection diagrams
  - Instrument loop drawings
  - PLC & logic schematics
  - Cabinet layouts
  - Fuse schedules
- **Technical Assistance**
  - Major outage - quality control and return to store checks
  - Compliance auditing to AS 4024 (safety of machinery) & AS 1657 (fixed platforms, walkways, stairways and ladders)
- **3D Laser Scanning**
  - Reality Capture and point cloud processing utilising our own in-house capabilities
  - Our FARO FocusS 150 enables fast, and accurate measurements of complex objects and buildings.



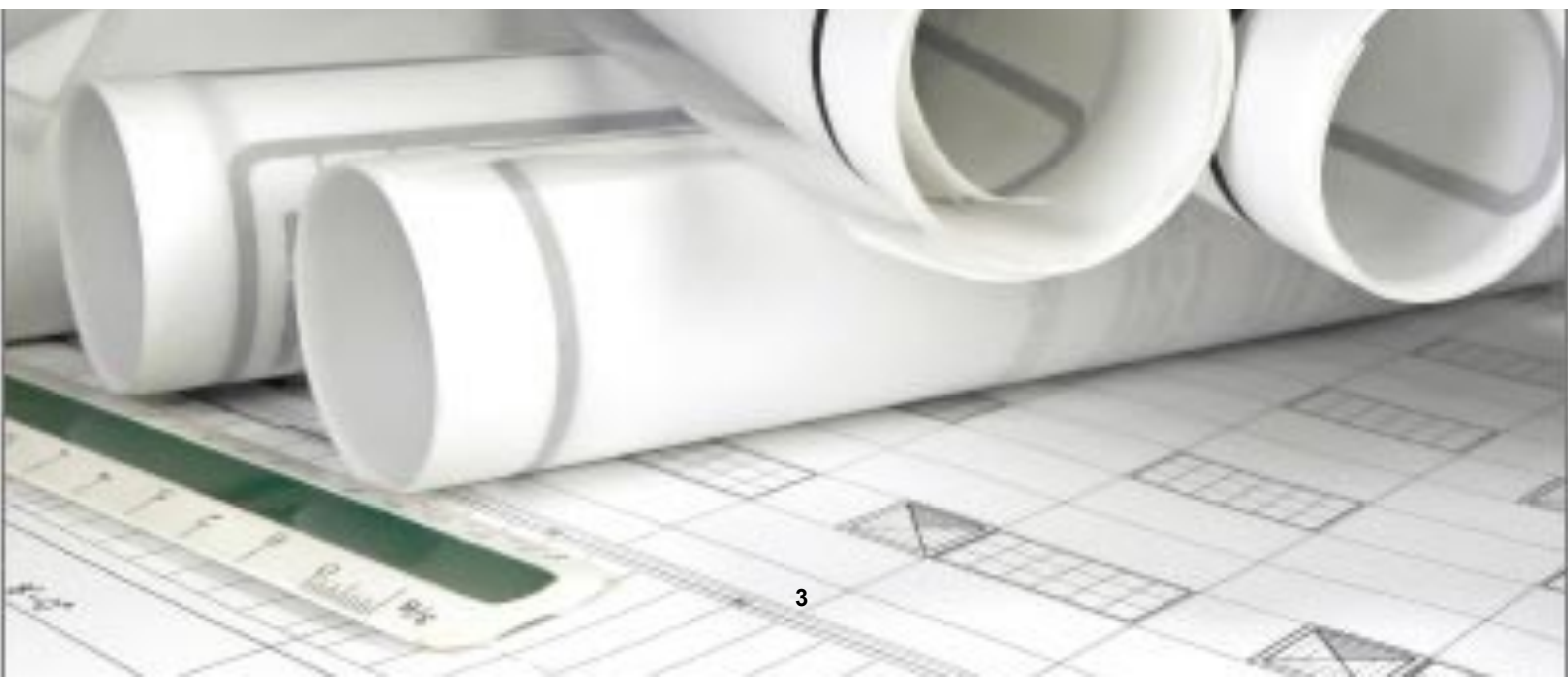
FARO FocusS 150

## DRAWING OFFICE MANAGEMENT & OTHER SERVICES

*Pro Draft has been managing Drawing Offices since 1993*

Our skilled administrators help clients transition from traditional forms of drawing production, management, storage, backup and retrieval to today's best practices involving software-based solutions tailored specifically for client circumstances.

- **Drawing Management Software**
  - Asset-related databases and drawing registers in Oracle and Access
  - Administrative tools specifically to manage drawing records
  - Web-based tools with search options for site-wide access to registers and drawings
- **Printing & Scanning**
  - Colour and B&W plotting and scanning facilities
  - Microfilm to file scanning
  - Print to file scanning
- **Hybrid Scan to CAD**
  - Scan hardcopy prints and import to CAD.  
*This can be a very cost-effective alternative to re-drawing.*
  - Drawings can be modified using integrated CAD tools
- **Batch Processing**
  - Process multiple files unattended, saving valuable staff time
  - Create multiple hard copy prints or plot files in many formats
  - Data exchange between drawing files, databases & registers
  - CAD File Format Conversions
- **CAD Software Enhancements**
  - Discipline-specific menus, macros and symbol libraries providing real benefits to clients such as:
    - Accelerated production of mechanical and electrical drawings
    - An aid to accuracy and consistency



## OUR TEAM

*The Pro Draft team consists of approximately 20 staff offering a diverse range of expertise and experience in the mechanical and electrical disciplines and their derivatives*

With a staff mixture of approximately 80% mechanical and 20% electrical we are able to provide individuals, or small teams to suit client requirements.

### Senior Draftspersons / Lead Draftspersons

We have a number of senior electrical and mechanical design drafting staff, each with over 30 years of industry experience. In addition to handling design drafting tasks of the highest complexity, these industry experts are able to lead drafting groups, provide project advice and on-site supervision as required.

### Administration Staff

Our experienced administrative staff are familiar with all aspects of drawing office procedure. They are able to assist in general office administration as well as more specialised tasks. Administrative staff can be located on-site assisting with drawing office duties, backlog work or special projects.

## OUR TRAINEESHIP PROGRAM

*Our Clients benefit from the industry-specific training and mentoring provided to each of our graduates*

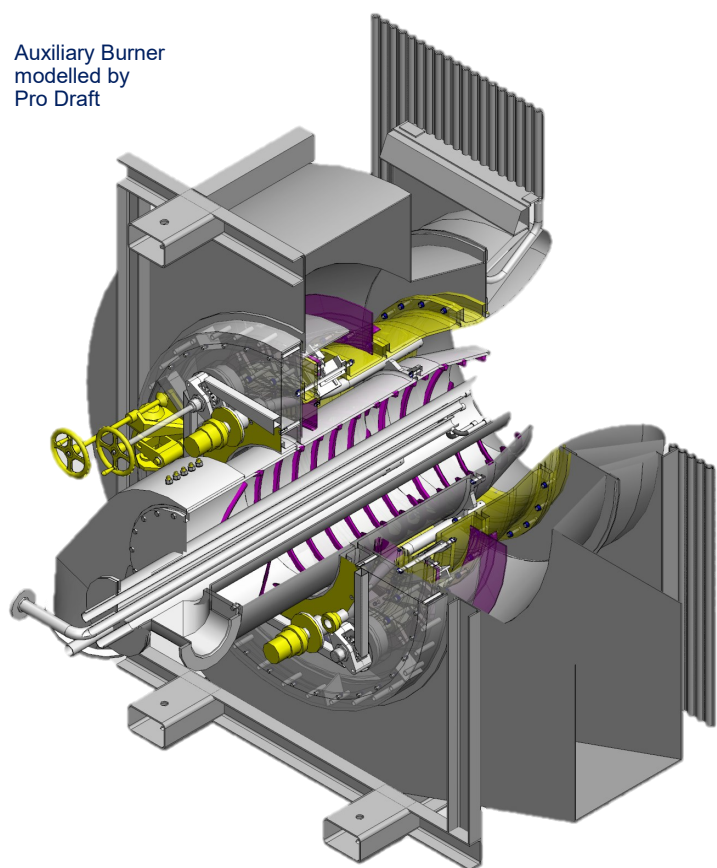
Since 2003 Pro Draft has invested significantly in traineeship programs for new drafting staff.

Each graduate attains an Advanced Diploma of Engineering qualification as well as receiving valuable mentoring while working alongside our senior drafting staff. After graduating, trainees have an enhanced skill set which they are able to apply to their day-to-day work activities.

## OUR ASSOCIATES

In addition to our own staff Pro Draft has established long standing associations with professionals in the engineering field. Together with these associates we are able to provide:

- Lifting equipment certification
- Structural steel – member size verification & calculation
- Reinforced Concrete foundation calculations
- Finite Element Analysis
- Piping Stress Analysis
- Engineering Survey Work



## MANAGEMENT

*The Directors of Pro Draft each have well over 35 years' experience in delivering drafting services to the heavy industry and manufacturing sectors. Together, Keith and Geoff have seen Pro Draft grow into a well-respected organisation known for its industry knowledge and strong client focus.*



**Keith Roberts**

Cert. of Technology -  
Electrical Design Drafting



**Geoff Chilver**

Bachelor of Applied  
Management

Cert. of Technology -  
Electrical Design Drafting

Keith commenced work with the State Electricity Commission of Victoria in 1978. During his time at the SECV Keith spent twelve months at both Morwell open cut coal mine and Yallourn W power station annexes.

Keith also completed a traineeship as a Unit Attendant at Hazelwood Power Station and obtained an Electrical Operators Authority. He has a comprehensive knowledge of power station systems and processes.

After leaving the SECV, Keith worked for six years as a contract draftsman primarily for Australian Paper at the Maryvale Mill Drawing Office where he established many cost saving records management systems. Keith has gained a wide range of experience in the electrical / control systems field and is also engaged in CAD based training and programming.

Geoff commenced work with the State Electricity Commission of Victoria in 1977. During his six years with the SECV Geoff was involved in all aspects of electrical drafting at the various SECV installations in the Latrobe Valley, including 12 months as annexe draftsman at the Loy Yang open cut coal mine.

After leaving the SEC in 1984 Geoff travelled extensively, working for consultants in London involved with the design of electrical sub-stations for the Middle East. Geoff also worked for four years at the Brown Coal Liquefaction Victoria coal-to-oil site in Morwell where his duties enabled him to gain a good understanding of the mechanical and piping disciplines.

Geoff is a Registered Building Practitioner in the category Building Design (Architectural) and in 2014 he attained a Bachelor of Applied Management .

## OUR CLIENTS

*Pro Draft has provided drafting services to over 160 clients and has established strong, on-going relationships with many major utilities and manufacturers. We are key suppliers of design drafting services to the following major clients*



### **Australian Paper - Maryvale Mill**

Provision of design drafting & supervision at the Maryvale Mill Projects Group & Maintenance Department since 1994



### **Energy Australia - Yallourn W Power & Yallourn mine**

Provision of design drafting services at Yallourn W Power Station & Yallourn Mine since 1994



### **AGL - Loy Yang**

Provision of design drafting services at Loy Yang A Power Station & Loy Yang Mine since 1996



### **Esso Australia (ExxonMobil Australia group )**

Provision of NDT Corrosion Survey Drawings at Longford Gas Plant and Conditioning Plant since 2012



### **Mainstream Aquaculture**

Provision of drafting services including 3D plant modelling for various aquaculture installations since 2018

#### **Other clients include:**

ABB Australia  
 Gippsland Water Factory  
 Ixom  
 Origin Energy  
 Silcar  
 Hydraulic & Pneumatic  
 Snowy Hydro Ltd  
 Campari Group

Diamond Power (Australia)  
 Ventia  
 Omnia Specialities Australia  
 RTL (Roche Thiess Linfox)  
 Theiss John Holland  
 Transfield  
 Chunxing Corporation Pty Ltd

## PROJECT EXPERIENCE

### LOY YANG POWER & LOY YANG MINE



Loy Yang A is Victoria's largest power station, producing 30% of the state's electricity.

Pro Draft provides drafting services, 3D modelling, measuring and technical assistance to Loy Yang Power and its contractors on major and minor projects.

2007-2016

#### **Unit 2, 3 & 4 Major Outages - Drafting Services in support of:**

- New high efficiency turbine cylinder installations
- Generator refurbishments and upgrades
- Boiler Gas Outlet Duct refurbishment
- Main firing burner duct replacements
- Auxiliary fuel burner upgrades & replacements

2016-2020

#### **Unit Major Outages - QA Inspections**

- Quality control checking of components prior to start of outage
- Comparison of part against engineering drawings
- Checks for faulty or damaged components
- Checks against original OEM part no.s
- Return to Store audit of unused items on completion of outage

Loy Yang Mine is the largest brown coal mine in Australia providing the fuel source for both Loy Yang A & B power stations. Pro Draft provides on-site electrical and mechanical drafting services, 3D Modelling, measuring and technical assistance to the Loy Yang Mine.

2020

#### **Dredger No.16 Slew Segment Replacement**

- Detailed 3D modelling (Solidworks) to assist with FEA design checks
- Design of davits, lifting beam, skates, jacks, winches, and monorail to enable lifting in a very confined area
- Detail drawings produced within a tight timeframe to minimise down time

2019

#### **Unit 5002 Drive Head Refurbishment**

- Drawings to enable complete refurbishment of existing drive head
- Design of cable trays and supports
- Design of Fire service installation
- Design of lubrication lines
- ECC Tank platforms and associated piping
- Emergency stop switches and Unit lighting layout



## PROJECT EXPERIENCE

### AUSTRALIAN PAPER (OPAL) – MARYVALE MILL



The Maryvale Mill is the largest integrated fine paper-making complex in Australia, producing more than 500,000 tonnes of paper every year. Pro Draft currently provides on-site electrical and mechanical drafting services to the Maryvale Mill projects department.

Pro Draft has had a close association with the Maryvale Mill since 1993. Pro Draft has played a key role in many projects including the following:

#### 2018-2019 **M4 Wet End Upgrade - Head Box Replacement (Electrical)**

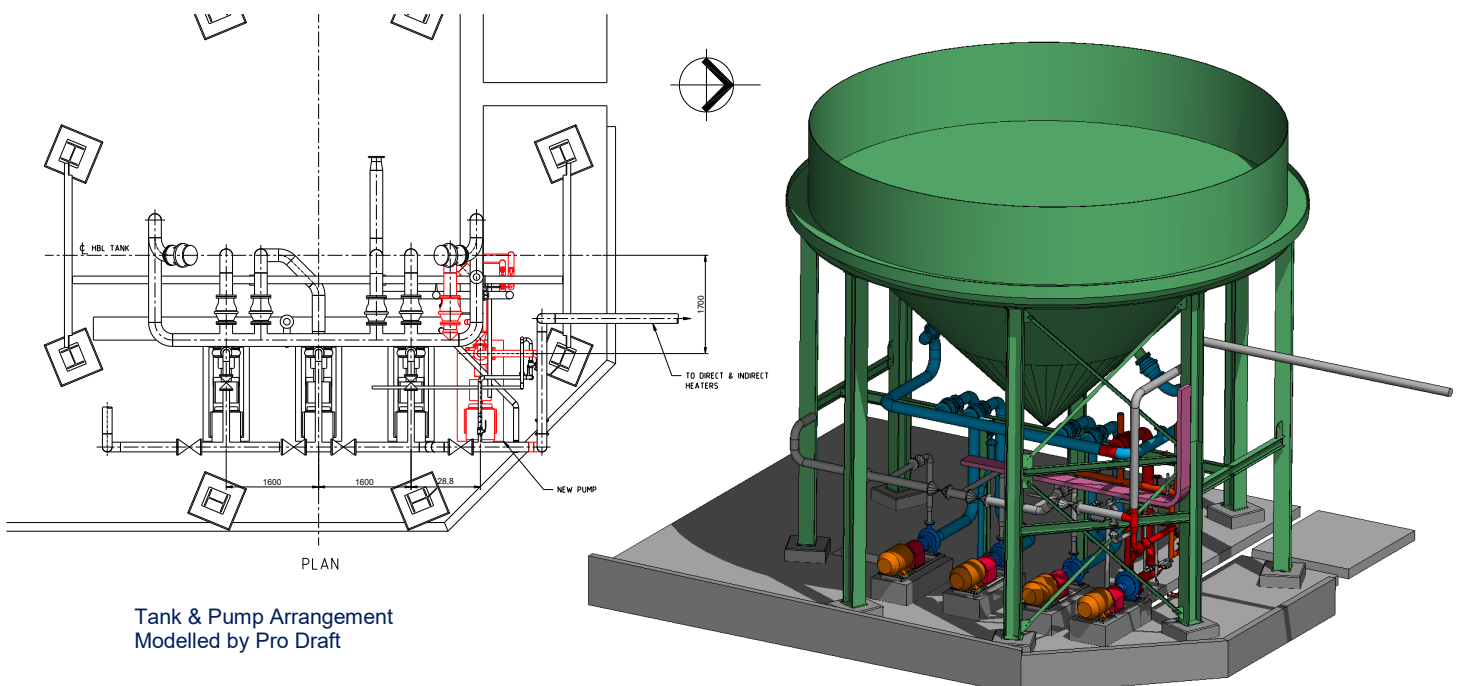
- Production of Cable Block Diagrams, Loop Drawings, Schematic and Wiring Diagrams
- Update existing wiring and connections
- Production of handover documentation & electronic files

#### 2018-2020 **No.4 Paper Machine - Winder Replacement (Mechanical)**

- Lead drafting role supporting design team
- Equipment Layout design
- Liaison with local and overseas engineering design staff
- Site supervision of all work

#### 2020 **No.2 Paper Machine - Z37 Switchboard Replacement (Electrical)**

- Design assistance
- Production of cable connection, schematics & loop diagrams and switchboard schedules
- Rework of vendor drawing to AP standards
- Registration of all associated documentation to Mill drawing system



Tank & Pump Arrangement  
 Modelled by Pro Draft

## PROJECT EXPERIENCE

### YALLOURN MINE ALLIANCE



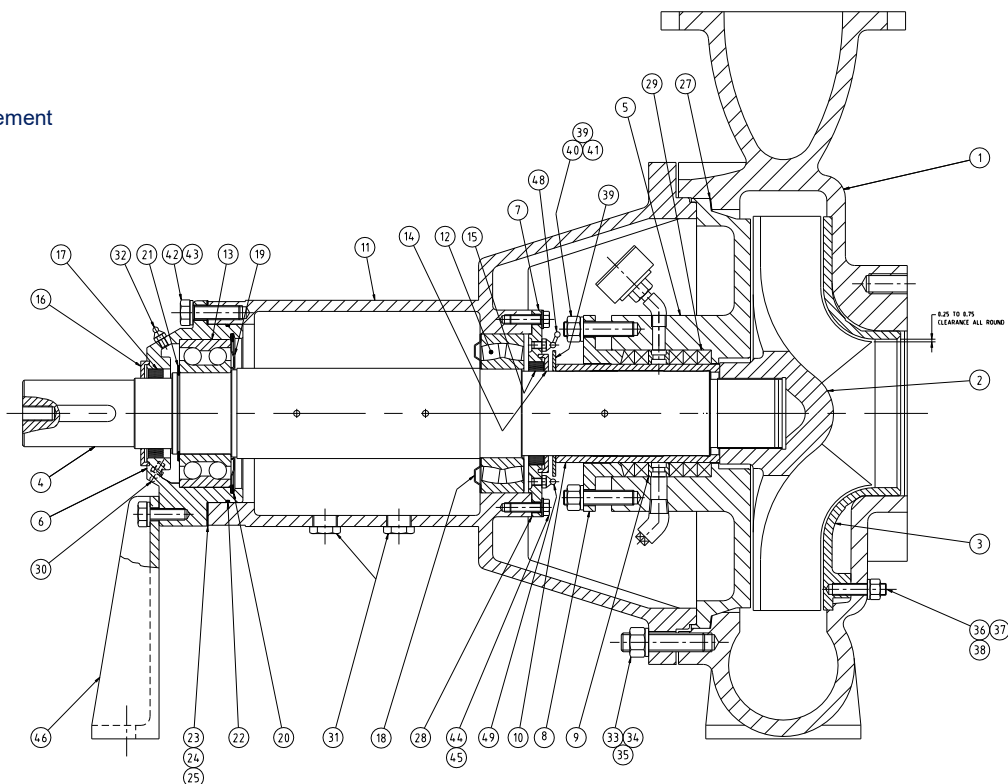
Australia's second largest open cut mine is adjacent to the Yallourn W Power Station and annually mines around 18 million tonnes of brown coal.

*Pro Draft manages the Yallourn Mine onsite drawing office*

We provide on-site electrical & mechanical drafting services including; 3D modelling and technical assistance.

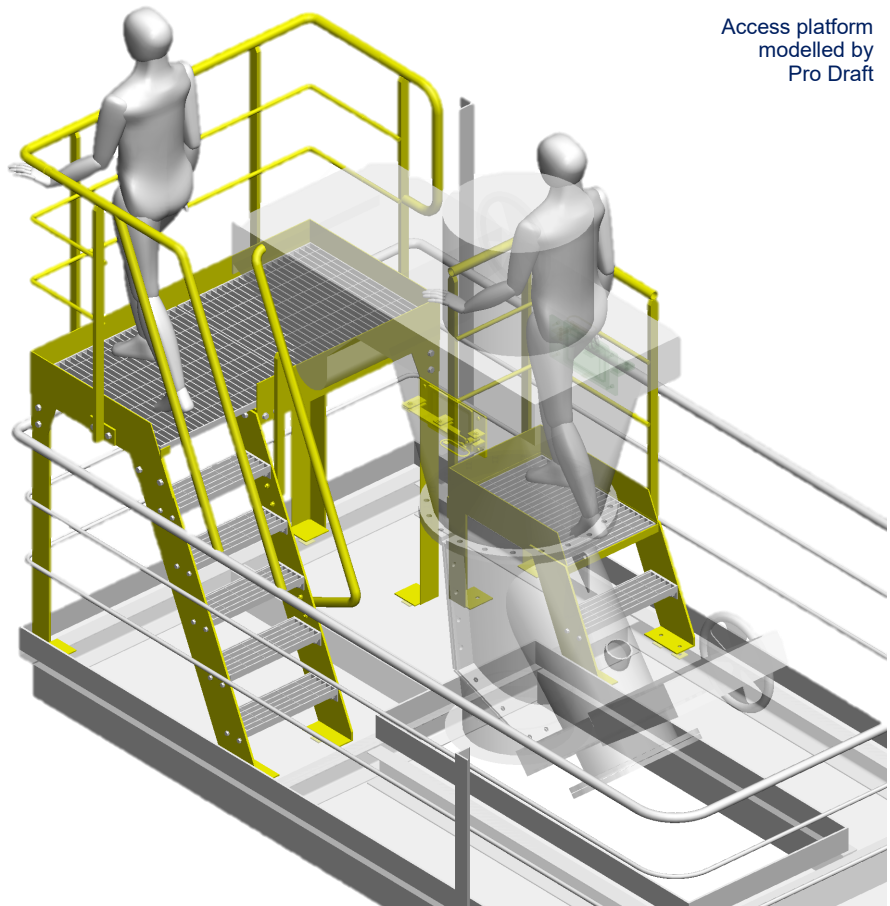
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- |           |   |
|-----------|---|
| 2015-2020 | <p><b>Twin Ash Pond Project (Mechanical and Electrical)</b></p> <ul style="list-style-type: none"> <li>• Electrical power, control &amp; protection schematics for pump systems</li> <li>• MCC, general purpose and field control cubicle design and detail</li> <li>• Pipework modelling and detail drawings for entire system</li> <li>• Access platform design and detail</li> </ul> |
| <hr/>     |   |
| 2019-2020 | <p><b>Raw Coal Bunker Counterweight Tower (Mechanical)</b></p> <ul style="list-style-type: none"> <li>• 3D Model for design analysis of damaged structure</li> <li>• Design and detail of new counterweights</li> <li>• Detail of structural refurbishment</li> </ul>   |
| <hr/>     |   |
| 2018-2019 | <p><b>Stage 1 Boiler Gas Outlet Duct (Mechanical)</b></p> <ul style="list-style-type: none"> <li>• 3D Model for design analysis of damaged structure</li> <li>• Detail of structure refurbishment</li> </ul>  |
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Pump  
Sectional Arrangement  
By Pro Draft



## REGISTRATIONS & MEMBERSHIPS

*Pro Draft currently holds membership and registrations with the following organisations:*



Access platform  
modelled by  
Pro Draft



**Pro Draft**  
**ENGINEERING DRAFTING**

**Pro Draft Pty. Ltd.**

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