

## CAPABILITY STATEMENT

### Introduction

K.J. Beer Pty Ltd was established in 1982 to provide consulting engineering services to industry in Australia. K.J. Beer quickly established itself as a supplier of engineering services primarily for pressure equipment and systems covering design and independent design verification. Major companies in the chemical, mineral processing, oil and gas, power and fabrication industries became regular users of these services. In 1998 the quality management system of K.J. Beer was registered as complying with ISO 9001. All engineering services offered by K.J. Beer are within the scope of the quality management system.



### Design

Engineering design of equipment and systems for the chemical, mineral processing, oil and gas, power and fabrication industries.

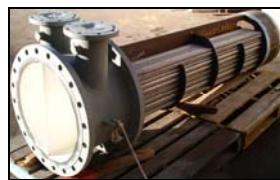
#### BOILERS



Mechanical / structural design of:

- fire tube, water tube and miscellaneous boilers in accordance with AS 1228 and ASME B&PV Sect. I.

#### HEAT EXCHANGERS



Shell and tube, double pipe and multi-tube, air-cooled, plate, plate-fin, spiral and heating coils:

- thermal design, rating and evaluation;
- mechanical / structural design in accordance with AS 1210, AS 3857, ASME B&PV Sect. VIII Dev. 1 & 2, BS 5500 and TEMA.

#### PIPING



Sizing, pressure design, flexibility and hydraulic shock analysis of:

- metallic systems in accordance with AS 4141 and ASME B31.3;
- glass reinforced plastic systems in accordance with BS 7159.

#### PRESSURE VESSELS



Mechanical / structural design of:

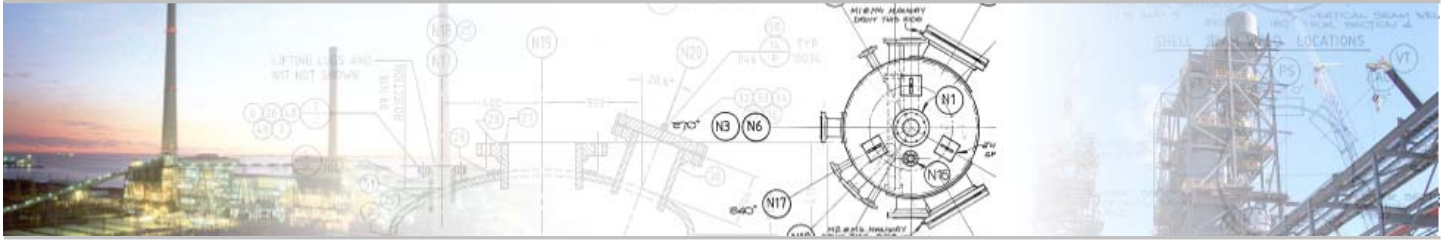
- metallic vessels in accordance with AS 1210, ASME B&PV Sect. VIII Div. 1 & 2 and BS 5500;
- glass reinforced plastic vessels in accordance with BS 4994.

#### TANKS



Mechanical / structural design of:

- metallic tanks in accordance with AS 1692, API 620 and API 650;
- glass reinforced plastic tanks in accordance with AS 2634 and BS 4994.



## Design Verification

K.J. Beer Pty Ltd is a Design Verifying Body complying with SAA/NZS MP76, AS/NZS 4481 and AS 3920.1.

K.J. Beer's capability in pressure equipment design verification is recognised by Worksafe, Department of Commerce, Government of Western Australia and all other Regulatory Authorities of State Governments within Australia.

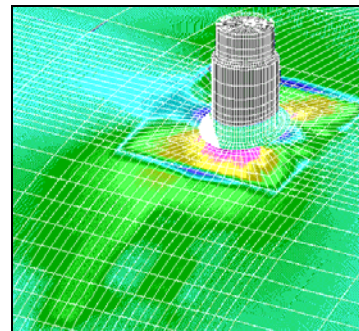
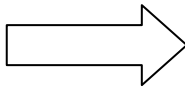
## Design Registration

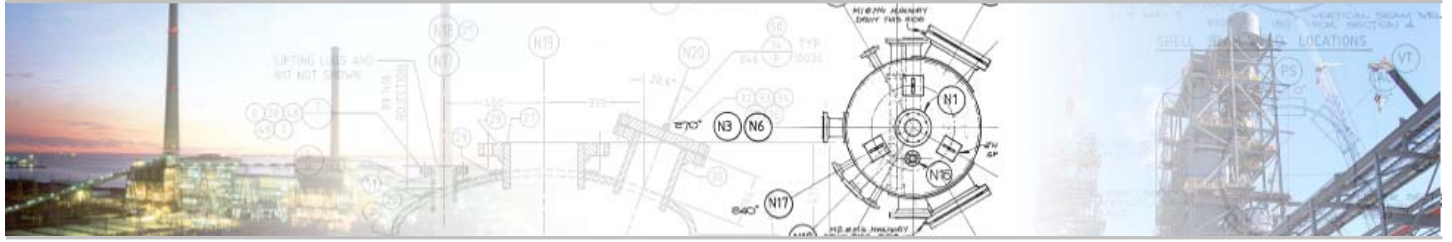
Design registration submission of pressure equipment to Worksafe, Department of Commerce, Government of Western Australia and all other Regulatory Authorities of State Governments within Australia.

## Integrity Assessment

Engineering integrity assessment of pressure equipment and tanks for continued safe operation.

- Localised wall thinning due to corrosion or erosion in excess of the design allowance in accordance with AS/NZS 3788.
- Crack or other planar or crack-like defects in accordance with AS/NZS 3788.
- Acceptability of flaws in metal structures in accordance with BS 7910.
- In-situ postweld heat treatment for damage due to self weight, wind, thermal gradients and creep deformation.
- Maximum allowable working pressure and temperature limited by reduced wall thickness, weld defects, corrosion, erosion, cracks, gouges, leakage, bulges, dents, metallurgical damaged material or when operating conditions have changed.
- Safe remaining life limited by fatigue, creep and wastage.
- Continued suitability for service of tanks in accordance with API 653.





## Inspection

K.J. Beer Pty Ltd is an In-Service Inspection Body committed to complying with SAA/SNZ MP76, AS/NZS 4481 and AS/NZS 3788.

K.J. Beer's capability in pressure equipment design, design verification and integrity assessment is utilised to perform:

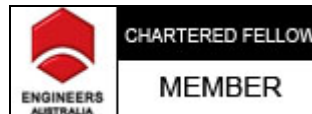
- Pre-commissioning inspection
- Inspection after damage
- Inspection after pressure or temperature excursion/s
- Inspection after modification, repair or process condition changes

K.J. Beer inspectors are registered with the Australian Institute for the Certification of Inspection Personnel (AICIP).



## Personnel

Kenneth Beer BE (Hons.) FIEAust. CPEng.  
National Professional Engineers Register  
Pressure Equipment Design Verifier  
Membership Number 30125+  
AICIP Inspector (ISI)



Matt Turnbull BE (Hons.) BSc.  
Simon Moore BE (Hons.) BSc.  
Shawn Fernando BE (Hons.), BSc (Hons.)  
AICIP Inspector (ISI)  
Simo Bodegrajac BE (Hons.)  
Vincent Lim BE (Hons.) GradIEAust.  
Jason Turner BE (Hons.)

## Computer Software

K.J. Beer has licenses for the following engineering software:

AutoCAD	Detailed Drawings
PV-Elite	Pressure Vessel Design/Analysis
CAESAR II	Pipe Stress Analysis
FE/Pipe	Pressure Vessel and Piping Finite Element Analysis
Nozzle/PRO	Pressure Vessel Nozzle Finite Element Analysis
Axi/PRO	Pressure Vessel Flange Finite Element Analysis
HTC-ACX	Air Cooled Heat Exchanger Design, Rating & Evaluation
HTC-STX	Shell & Tube Heat Exchanger Design, Rating & Evaluation

## Contact Details

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