



POSITION DESCRIPTION

Position Title:	Senior Mechanical Technician
Cluster / Business Unit / Division	Clayton Campus
Section or Unit:	Engineering - Mechanical Technician
Classification:	Band 4/5 (Linked)
Job Family:	Engineering and Technical
Position Description Number:	PD-1843
Work Contract Type:	Technical
STEMM/NON-STEMM:	STEMM

POSITION PURPOSE

The Senior Mechanical Technician is responsible for provide specialised skills and technical expertise relating to the fabrication, installation, commission and maintenance mechanical systems to support accelerator and beamline equipment, in order to facilitate science and research & development at the SLSA.

ORGANISATIONAL ENVIRONMENT

ANSTO is the national organisation for nuclear science and technology. We focus on undertaking leading edge research, delivering innovative scientific services and providing specialised advice to government, industry, academia and other research organisations.

The Synchrotron Light Source Australia (SLSA) provides world-leading technical capability, and the nucleus around which new science and industry networks form as researchers interact. The synchrotron delivers better and faster experimental techniques that not only enhance current fundamental and applied research, but also open up new avenues of investigation to Australian science. The facility promotes international collaboration to enable leading-edge research and development and is a hub for research that greatly benefits Australia and its regional neighbours.

The Engineering Group at the Synchrotron provides comprehensive engineering, technical, safety, reliability, design, build and maintenance services, delivering engineering solutions to the Beamline Science Group including supporting the delivery of major capital programs and engineering upgrades. The Engineering Group comprises of the Mechanical Engineering Team, Mechanical Technicians Team, Electrical Engineering Team and the Facilities Team including Plant maintenance.

ACCOUNTABILITIES & RESPONSIBILITIES

Key Accountabilities - Band 4

- Plan, maintain and commission complex mechanical systems to ensure new and existing mechanical systems are operating at required conditions.
- Design and fabrication of specialized mechanical equipment, ensuring integration and operation of accelerator and beamlines.
- Facilitate and plan the effective running of relevant mechanical projects so that deliverables meet the correct requirements, installation, and timing of installations during shutdowns.
- Manage technical documentation, writing and developing SOP's and JSA/SWMS's to ensure compliance with facility standards and to obtain permits to work
- Supervise, train and mentor apprentices and technicians to ensure that all works are performed in a safe manner and according to the facility standards.
- Negotiate hire, source and manage sub-contractors as required.

- Identify requirements, source and procure materials, spares, tooling and specialized equipment to ensure continuous running of mechanical systems and service materials.
- Testing / factory acceptance of (mechanical) technical equipment to meet the needs and safety regulations, standards and requirements of the facility.
- Liaise, collaborate and provide advice to other science & engineering groups with regard to mechanical systems and technical aspects for fabrication and servicing of equipment.
- Care and maintain mechanical workshop and laboratory equipment to ensure its availability when required.
- Provide OHS/WHS advice on mechanical systems and processes and adhere to them.
- Undertake additional duties as required and during period of leave of other staff.

Key Accountabilities - Band 5

In addition to accountabilities at Band 4, Band 5 requires:

- Project management of smaller scale operational and capital projects, including conceiving and proposing new projects, according to Synchrotron plans and objectives, developing the technical case, prepare costing, organising quotes and planning execution.
- Lead the team tasked with the installation and commissioning of equipment, prepare, consult, and obtain safety approvals.
- Independently undertake formal safety assessments including initiating and preparing documentation for ANSTO processes for safety approvals or reapprovals for plant, processes, workshop or other hazardous areas.
- Lead the maintenance of equipment and associated infrastructure related to mechanical plants including the planning of maintenance periods, repairs and upgrades.
- Independently lead maintenance planning efforts and develop maintenance plans utilising electronic maintenance planning tools, for example SAP in coordination and providing the service and support to other Synchrotron Groups and facilities.
- Resolve complex technical issues by applying expertise in mechanical fabrication and beamline components to ensure Beamline Instrument functionality and optimisation.
- Advise the selection of materials and components appropriate for works related to Accelerator and Beamline
- Independently performing quality controls on newly installed or procured plants, planning and performing alignment and other highly sensitive installation works selecting appropriate equipment and providing feedback and training.
- Maintain technical expertise, train, coach and develop less experienced staff and apprentices to ensure technical knowledge is shared across the team in relevant areas of technical expertise.
- Responsible for the management of the mechanical workshop, including but not limited to the maintenance of workshop inventory, machinery safety and staff training on the correct and safe use of equipment. Assessing and signing off of competency of other staff in the use of workshop machineries equipment.
- Undertake additional duties as required and during periods of leave of other staff.

A selection of accountabilities is required for the higher band transition as indicated in the band transition checklist.

Decision Making

Band 4

The role makes decisions related to:

- OHS/WHS procedures.
- Day to day technical jobs allocated within the area of responsibility.
- Design and integration of parts.
- Sourcing, procurement of materials and components.
- Timeline coordination of jobs.
- Management of specialist projects / installations.
- Preparing Technical Documentation and interdepartmental liaising.
- The levels of authority delegated to this position are those approved and issued by the Chief Executive Officer. All delegations will be in line with the ANSTO Delegation Manual AS-1682 (as amended or replaced).

Band 5

- Independently responsible for maintenance planning, maintenance frequency and upgrade of Synchrotron systems according to the group work strategies established by the Group Leader and Synchrotron Operations Manager.
- Determines, in agreement with the Group Leader, and independently documents: maintenance interval, commissioning tests and safety requirements for new plants.
- When maintaining workshop operations, approves or restricts access to the workshop and workshop equipment to staff according to their proficiency and abilities in the use of equipment and safety.
- The levels of authority delegated to this position are those approved and issued by the Chief Executive Officer. All delegations will be in line with the ANSTO Delegation Manual AS-1682 (as amended or replaced).

Key Challenges

Band 4

- Keeping abreast of recent developments in field, ensuring continual improvement and implementation of best practise
- Providing acceptable solutions to sometimes complex technical problems within an environment in which problems are affected by and impact on other systems.
- Supporting a wide array of equipment requiring a wide range of technical skills with limited or no local support
- Improving customer service, response times and delivery efficiencies while managing conflicting priorities and deadlines for different stakeholders including short lead times.

Band 5

- Managing the delivery of projects providing at the same time high level of operational support, continuous maintenance to plants and assistance to Synchrotron groups, juggling competing priorities.
- Work within project budgets and provide recommendations and advice on Capital and Labour.

KEY RELATIONSHIPS

Who	Purpose
Internal	
Mechanical Group Leader	To discuss priorities and requirements of jobs, PDPs etc
Engineering staff	To discuss cross departmental requirements of jobs/projects and advise best practices
Scientific staff	To discuss system requirements, advice on best practices and provide mechanical services
Facilities	To discuss, plan and advise on the requirements for plant and support equipment
Other internal support departments	For HR, safety and quality requirements
External	
Contractors	To ensure the availability and scheduling of contracted works during regular maintenance periods
Suppliers	To keep up to date with current technology of specialised equipment and for the procurement of parts, tooling and equipment
Universities and other scientific research facilities	To facilitate continuous learning through the exchange of knowledge processes and staff during critical periods

POSITION DIMENSIONS

Staff Data	
Reporting Line	Reports to the Manager, Mechanical Technicians
Direct Reports	Nil
Indirect Reports	Nil

Special / Physical Requirements	
Location:	Clayton Working in different areas of designated site/campus as needed
Travel:	May be asked to travel to ANSTO sites from time to time
Physical:	Office based physical requirements (sitting, standing, minimal manual handling, movement around office and site, extended hours working at computer) Labour intensive physical requirements (sitting, standing, frequent manual handling up to 20kg) Standing for long periods Frequent movements (climbing, stooping, kneeling, crouching, crawling) Working in a loud environment Industrial facility physical requirements (lifting, standing for long periods, operating machinery, equipment and manipulators)
Radiation areas:	May be required to work in radiation areas under tightly regulated conditions. Perform duties with and in an area where hazardous chemicals or materials are handled under tightly controlled safety conditions
Hours:	After hours work may be required for short and infrequent periods
Clearance requirements:	Satisfy ANSTO Security and Medical clearance requirements. Obtain and maintain appropriate federal government clearance.

Workplace Health & Safety

Specific role/s as specified in AG-2362 of the ANSTO WHS Management System	All Workers Officer (definitions found in appendix 1 of AG-2362) Group Executive / General Manager Managers / Leaders / Supervisors Other specialised roles identified within the guideline a position holder may be allocated to in the course of their duties
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ORGANISATIONAL CHART

Ref published Organisation Chart.

KNOWLEDGE, SKILLS AND EXPERIENCE

Band 4

- A trade technical qualification, or equivalent practical experience in a specialised Mechanical Engineering field.
- Minimum 8 years relevant industrial experience in operating and maintaining mechanical equipment in a mechanical workshop.
- Experience with complex systems & scientific instrumentation
- Problem solving skills and ability to assess and resolve technical issues in a timely manner.
- Sound computers skills, including proficiency in MS Office products.
- Knowledge of 3D CAD modelling & ability for production
- Demonstrated understanding of technical documentation and the ability to write technical reports.
- Demonstrated ability to balance competing priorities and use initiative.
- Experience with supervision of other technical staff and contractors
- Project management skills
- Personal qualities that add value to a team operating in a high-level client service, safety & quality environment including being proactive & mentoring others, interpersonal and communication skills including conflict resolution skills and/or experience
- Deadline driven, reliable in following through with actions, and pro-active when attending to ANSTO and customer interests.

Band 5

- Minimum 5 years' experience with Diploma or equivalent experience in a relevant engineering field that covers operation, maintenance, calibration, and upgrade of mechanical, neutron optics and other equipment at the Synchrotron or an equivalent work experience at Synchrotron or in a similar environment.
- Specialist knowledge in Synchrotron accelerators, Beamlines, diagnostic equipment and ability to troubleshoot systems.
- Demonstrated knowledge of project management principles and related work experience
- Leadership skills include ability to develop desired cultures of safety and quality, ability to provide performance feedback, coaching skills and ability to manage a project team.
- An independent proactive mind with well-developed planning and organisational skills and the ability to manage projects from idea to operation.
- Excellent communication skills, including proven ability to interact within a team environment and provide timely status updates to projects and tasks.
- Ability to solve problems independently and pro-actively with a demonstrated high level of self-motivation.

- The ability to independently perform a range of metrology tasks, including vibrational analysis, and produce reports using a combination of metrology devices.

Linked Role Transition

Transition to the higher band within the linked role is not automatic and ability to perform higher band accountabilities will need to be demonstrated and assessed. This can be done by completing the attached form and completing a full written submission demonstrating and justifying how an employee meets the transition requirements.

VERIFICATION

This section verifies that the line manager and appropriate senior manager/executive confirm that this is a true and accurate reflection of the position.

Line Manager		Delegated Authority	
Name:	Trent Smith	Name:	Brad Mountford
Title:	Manager, Mechanical Technician	Title:	Senior Manager, Engineering
Signature:		Signature:	
Date:		Date:	

**Senior Mechanical Technician PD-1843
Band 4 to Band 5 Transition Checklist**

Name of Employee:	
Commencement Date:	
Assessment Date:	

Written submission demonstrating and justifying how the employee meets requirements must also be attached.

Requirements for transition	Met Criteria
a) Minimum 5 years working as Mechanical Technician (Band 4) OR b) Minimum 5 years of equivalent experience	☐ Yes ☐ No OR ☐ Yes ☐ No
Qualification for Band 5 or equivalent Minimum 5 years' experience with Diploma or equivalent experience in a relevant engineering field that covers operation, maintenance, calibration, and upgrade of mechanical, neutron optics and other equipment at the Synchrotron or an equivalent work experience at Synchrotron or in a similar environment.	☐ Yes ☐ No
Extensive experience and demonstrate meeting all below requirements	☐ Yes ☐ No

Demonstrated ability to independently and responsibly perform Band 5 accountabilities and apply required knowledge, skills and experience for the Band 5 position including:	
Undertake Band 4 accountabilities at a technical expert level and independently without supervision or guidance.	☐ Yes ☐ No
5 years minimum experience with a Diploma or equivalent experience that covers operation, maintenance, and upgrade of mechanical, accelerator, beamline and other equipment at the Australian Synchrotron or equivalent work experience.	☐ Yes ☐ No
Specialist knowledge in Synchrotron accelerators, beamlines and associated equipment, diagnostic equipment and ability to troubleshoot systems.	☐ Yes ☐ No
Demonstrated knowledge of project management principles and related work experience	☐ Yes ☐ No
Leadership skills include ability to develop desired cultures of safety and quality, ability to provide performance feedback, coaching skills and ability to manage a project team.	☐ Yes ☐ No
An independent proactive mind with well-developed planning and organisational skills and the ability to manage projects from idea to operation.	☐ Yes ☐ No
Excellent communication skills, including proven ability to interact within a team environment and provide timely status updates to projects and tasks.	☐ Yes ☐ No
Ability to solve problems independently and pro-actively with a demonstrated high level of self-motivation.	☐ Yes ☐ No

Attach written submission demonstrating and justifying how the employee meets each of the above requirements.

Line Manager Recommendation

I have reviewed the employee's competence in accordance with Linked Role PD-1843 and certify that the employee meets all requirements for transition and recommend transition from Band 4 to Band 5 be endorsed as demonstrated in the attached written submission detailing how the employee meets each of the requirements.

Name & Title:	Trent Smith - Mechanical Technician Manager		
Signature:		Date:	

Senior Manager, Engineering

I have reviewed all information and support transition from Band 4 to Band 5.

Name & Title:	Brad Mountford - Senior Manager, Engineering		
Signature:		Date:	