



**POWER**  
TURBINE SERVICES

# Capability Statement



# We Are Power Turbine Services

Power Turbine Services is a privately-owned Australian company, specialising in the maintenance and repair of steam and gas turbines and auxiliary equipment within the power generation industry.

We are the new dynamic OEM alternative, providing customised and comprehensive support for planned and unplanned outages. Power Turbine Services can deliver independent, flexible and competitive solutions for your valued assets. We are experienced with all major OEM equipment including Mitsubishi, Hitachi, Toshiba, Siemens and G.E.

## Our approach



### Safety First

Our health, safety and environmental values are integrated throughout our company, fostering a safe work culture for our business and yours.

We guarantee compliance with all industry legislation, policies and procedures.



### Quality Assurance

Our focus on best practice, continual improvement processes and quality management practices ensure our work exceeds the requirements and specifications of our customers and ISO standards.



### Expertise

Our people are our greatest asset. We invest heavily in retaining experienced, highly skilled and motivated professionals, so we can mobilise a workforce to meet your needs.



**Power Turbine Services' Quality, Health and Safety Management Systems allow us to exceed our customers' requirements.**



## Our Experts Are Ever Ready

As a trusted service partner, Power Turbine Services provides comprehensive support services to ensure minimal downtime, reliable operations and a flexible workforce adept at rapid mobilisation. Our core specialisation is in outage support services, procurement and specialist labour supply.

 **Outage Support**

 **Procurement**

 **Specialist Labour**

### Specialist Labour Supply

Our reliable workforce consists of highly experienced maintenance specialists able to respond at short notice. Coupled with the flexibility to tailor each solution to your specific needs, our people are always ready to take on outages, planned or unplanned. Get peace of mind with pre-planning and outage preparation support.

- Trained specialist team
- Project managers
- Technical field advisors
- Safety advisors
- Experienced rigging and crane operators
- Supervisors for overhauls
- Commissioning support
- Other adhoc tasks

### Outage Support Service

Get peace of mind with pre-planning and outage preparation support. As a third-party provider, we partner with station owners to reduce costs, increase productivity and simplify the management process. You want to be ready, when it matters most.

- Understanding of permit to work systems
- Spare parts audit
- Variation monitoring
- QA plan review, including ITP and SWMS documents
- NDT Schedule and coordination
- Management of OEM and non-OEM workgroups
- Scaffold plan and management
- High risk activity compliance
- Monitoring onsite and workshop remedial tasks

# Why Us?

We as solution provider supply OEM-equivalent, reverse-engineered and re-engineered parts with associated warranties for scheduled and unscheduled maintenance and overhaul, which not only replace the parts but also ensure that future failures are avoided.

We offer cost effective and faster lead-times than most OEMs especially in emergencies. Our manufacturers are certified with in-depth knowledge and experience.

Older units built to old standards, material specs, hand-drawn detail drawings and manufacturing standards. Some OEMs even changed their part numbering systems and procure spares from OEMs is slow and expensive. Mid and small sized operators usually do not get the same attention compared to large operators where PTS can add value.



## Operator Challenges and Risks to replace parts

To replace a part in a worn condition by using it as a sample is often missing critical dimensions entirely due to wear or corrosion, therefore measuring techniques are of little use and the design has to be reviewed. Complex components insufficient access to measure the geometry in its entirety necessary for an engineer to fill in the gaps, however no way guaranteed to return an accurate representation of the original part. Assuming the condition of the sample is perfect and according to the original design, the measured dimension will be somewhere between the original minimum and maximum design tolerance.

Parts scanning should be supplemented with design knowledge such that any missing geometry is restored to original design intent having detail drawings to the intended nominal dimensions and associated tolerances. Consideration of mating components and the fits between them i.e. interference, sliding or clearance is important to ensure correct tolerances are established is critical to its correct function and this cannot be measured directly. By simply applying a 'standard' tolerance to a measured dimension could result in producing sub-standard parts will lead to failure of the component and hence the machine.

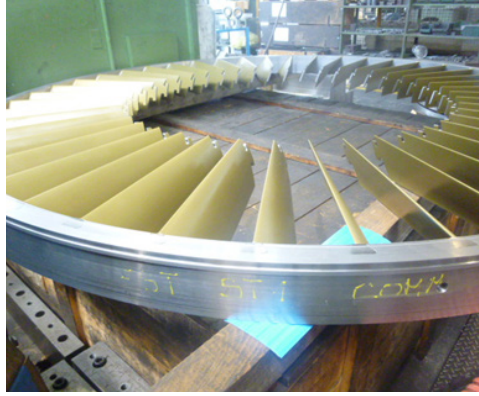
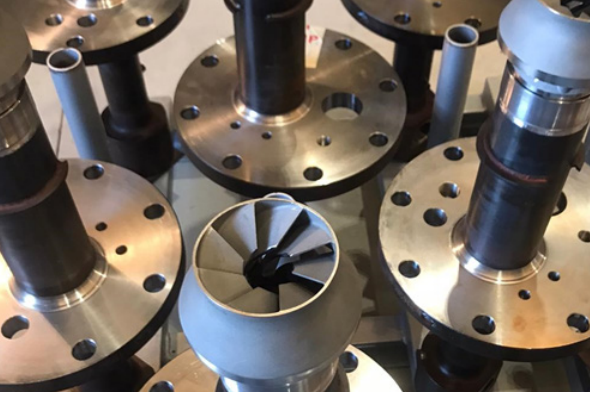
## Material Specs

Positive Material Identification or other techniques do not tell the whole story and selection should be based on particular set of properties that are correct for the application.

## Manufacturing

After obtaining the correct component design and the material still requires proper manufacturing process and stringent quality control. Our raw material is sourced from suppliers capable of manufacturing to specified standards taking account of the necessary quality control and testing requirements.

Additional processes such as welding chrome plating or coatings, heat treatment are controlled and carried out according to qualified procedures such as NDT, balance, spin test, metallurgical analysis, dimensional analysis etc. to ensure the final quality of the part.



# PTS Spare Parts

Power Turbine Services manufacture, source and supply a wide range of gas and steam turbine spare parts from our international network of well-known and certified suppliers.

Majority of spares are in stock or available with a minimal lead-time. Our parts are equal in form, fit and function to the OEM parts primarily to support aging fleet and OEM abandoned units.

PTS capability includes but not limited to the following spare parts, which cover everything from capital spares to consumables such as:

## Steam Turbines

- Casings
- Rotors
- Diaphragm
- Blades
- Labyrinth Packing
- Oil Deflectors
- Keys
- Journal and thrust bearings
- Atmospheric Relief Diaphragm
- Fasteners
- Lifting and transport devices
- Valve components

## Gas Turbines

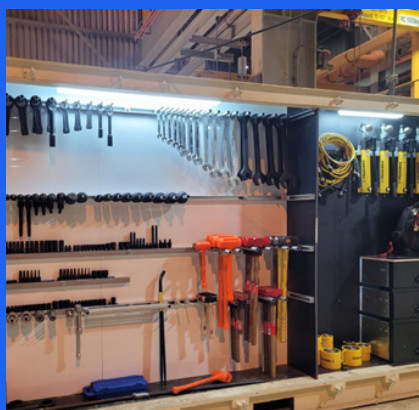
- Compressor diaphragm stator rings
- Turbine nozzle
- Blade Ring
- Vane segments
- Shroud block
- Ring segment
- Labyrinth seals
- IGV ring and gear
- Combustion chamber, liner, basket, TPs, seals, inner casing, mixing chamber, fuel nozzle, burner etc.
- Turbine and Compressor Casing
- Rotating blade or bucket
- Rotor, Tie Rod, Fwd/Aft Stub Shaft
- Journal and thrust bearings,
- Fasteners, Gaskets, Shims, Pins etc.
- Lifting and transport devices



All our parts come with a manufacturer's standard warranty against all defects in material or workmanship, for a period of 8000 service hours or 12 months from Ex-works delivery date, whichever comes first.

## Tooling Containers

PTS are able to provide project specific tooling, bolt heaters and specialised equipment. Our industry-leading specialised equipment ensures flexible and adaptable solutions for every outage.



# Why Choose Power Turbine Services



## Experienced Power Expertise

Our directors have been in the industry for over 20 years. Experience means expertise; we understand your business needs and are confident our range of solutions will get you results.



## Highly Qualified Professionals

We recruit, train, and retain the best professionals in the heavy industrial, power generation, oil and gas industries. All personnel are thoroughly screened before they are placed on any project.



## Reliability Ensures Productivity

You deserve the best quality service, and we can deliver. When the unexpected happens, you can depend on us to answer your call and get your equipment operating smoothly once again.

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