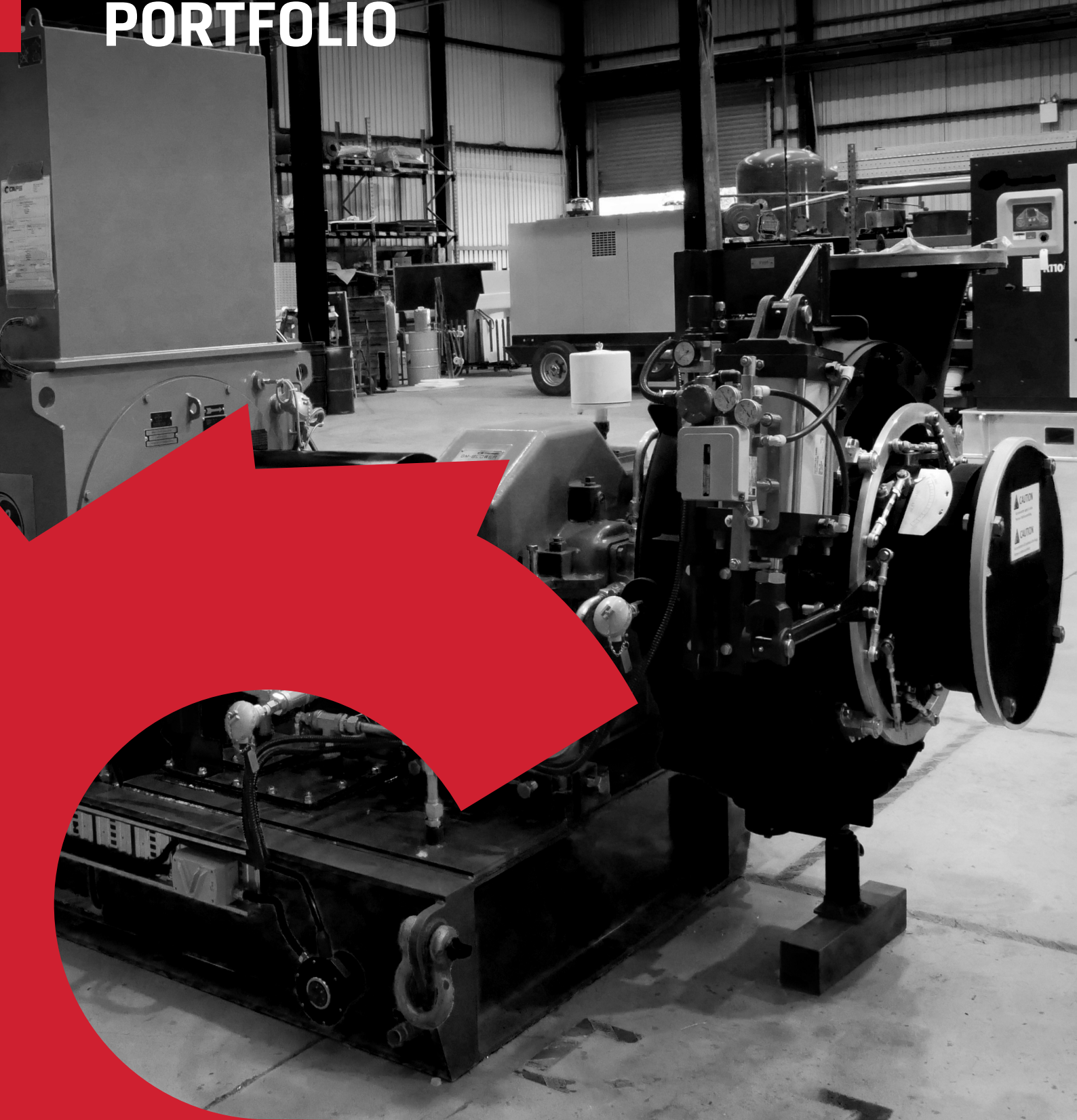


AIR BLOWERS LOW PRESSURE PORTFOLIO



**COMPLETE AIR
& POWER SOLUTIONS**



CAPS AUSTRALIA COMPLETE AIR & POWER SOLUTIONS

CAPS Australia is a privately owned and proud Australian company intent on remaining at the forefront of compressed air, gas and power generation solutions.

WHO IS CAPS AUSTRALIA?

- Over **40 years of experience** in the Australian market.
- **10 branches** reach right around the country with **over 160 employees**.
- **60 service technicians** covering the full national footprint with a **24/7 service** offering.
- A vast inventory of **spare parts**.
- An **independent company** with the flexibility to search globally for the best products and technologies that best serve the **Australian market's needs**.
- CAPS has world-renowned partner brands such as Ingersoll Rand, Kohler, AIRMAN, Sauer, Pedro Gil, Next Turbo Technologies, Lamson and many more.
- **Custom design, manufacturing, supply and service**
- ISO 9001 accredited facilities

WHO DO WE SERVE?

- Mining
- Manufacturing
- Food and beverage
- Public and private utilities
- Waste and water treatment plants
- Oil and gas
- And much more throughout Australia and internationally, having exported turn-key packages to over 35 countries.



"At CAPS, we think outside the box to develop integrated, agile solutions that are designed around the specific needs of our customers."



**A family
owned
Australian
business**

DIFFERENT BLOWERS TYPE FOR DIFFERENT UTILISATION

When looking for the perfect blower to meet our customers' needs, the features we identified as important were:

- **Quality** – CAPS being ISO 9001 accredited company source complete packages and parts from trusted world-renowned partners. Our engineering facility in Perth has the capability to design, fabricate and assemble custom-made blower packages, including control systems to suit your application needs.
- **Reliability** – CAPS installed and service blowers that have been in operation for over 30 years
- **Efficiency** – CAPS can offer blower to suits your efficiency requirements. In our portfolio we have the most efficient blower across the full operating range on the market.
- **Serviceability** – Our proactive maintenance, trained technicians, local service centers and spare parts inventory are kept up to date with customers' needs

As one of the only Australian companies with access to the full suite of low-pressure air solutions, CAPS is able to provide the optimum blower selection for your low-pressure application. CAPS blowers are suited to a wide range of low-pressure industrial applications, including:

WATER & WASTEWATER TREATMENT

In water & wastewater treatment, air is used for a variety of applications including aeration systems and air scouring/filter backwashing.

- Aeration
- Aerobic Digestion
- Biogas
- Digester Gas Boosters
- Filter Backwashing/
- Air Scouring
- Grit Chambers

ENGINEERED VACUUM SYSTEMS

Air blowers are used to pick up, convey and capture a myriad of materials ranging from aluminum granules to corn flakes.

- Clean Rooms
- Electronics
- Explosive Dust Collection
- Flux Recovery
- Housekeeping
- Nuisance Dust Collection
- Oral Evacuation
- OSHA Standard Required
- Pneumatic Conveying
- Powder Paint
- Product Reclamation
- Sanitary/Product Quality - Bakeries, Flour/Grain Mills, Food Products, Pharmaceuticals
- Source Capture

INDUSTRIAL PROCESSING

In the industrial market, our blowers provide air or gas for sulfur recovery, combustion air, process gas boosting, coal mine venting, fluidised bed combustion systems, vapour and gas extraction, composting, sludge incineration and printing systems, to name a few.

- Aeration Basins
- Air Drying
- Air Flotation and Sliding
- Air Knife Stripping
- Blow-off Systems

- Carbon Black
- Coal Gasification
- Combustion Air Blowers
- FGD – Forced Oxidation
- Fluidized Bed
- Gas Boosting - O₂, CO₂, N₂, etc.
- Gas Recovery Landfill Gas
- LNG Vaporizers
- Printing Operations - Turning Bars, Dryers, Binding Applications
- Pulp Dewatering
- Steel Plating Baths
- Sulfur Recovery
- Vapor Recompression

POSITIVE DISPLACEMENT BLOWERS - ROTARY LOBE



World class positive displacement rotary lobe blowers

Following extensive customer feedback, CAPS completed a worldwide search to find the ideal blower to suit Australia's harsh conditions.

Pedro Gil's F1 positive displacement (PD) roots-type blowers have been installed in thousands of locations, packed with many features to assist your operation.

PEDRO GIL BLOWERS

TIME-PROVEN PERFORMANCE

Pedro Gil's positive displacement (PD) roots-type blower is the ideal blower to suit Australia's harsh conditions with a wide range of applications and working load conditions.

With a proud heritage of over 100 years of manufacturing positive displacement blowers, Pedro Gil's high performance blowers have been installed in hundreds of applications and are packed with many features to assist your operation.



KEY BENEFITS

EASY ACCESSIBILITY / MAINTENANCE

New points of maintenance located in the front and rear acoustic hood panels. Allowing group side by side installation (up to DN200), optimising space.

Consumables can be changed in minutes and belts can be tensioned quickly with a cleverly designed belt tensioning system.

Optional external oil filling system for reliable and efficient oil level maintenance.

LOW NOISE SOUND PROOFING HOOD

Built from modular panels from galvanised metal sheet. The inner side of each acoustic panel is lined with self-extinguishable polyester absorbing material covered with a waterproof film.

REMOTE COMMUNICATION (OPTIONAL)

New electronic control panel for displaying and remotely communicating a range of parameters including temperature, pressure, and vibration.

TEMPERATURE CONTROL

Oversized cooling fan and motor

accommodates for Australia's often harsh climatic conditions, allowing reliable operation even in high ambient temperatures.

EASY TRANSPORT, LIFTING & POSITIONING

Solid acoustic hood floor is included for easy transport.

PRODUCT RANGE

Models	Flow (m ³ /hr)	Pressure (barG)
CBERN Series	0.74 - 151.7	1



MUTISTAGE CENTRIFUGAL BLOWERS

For more than 100 years customers have trusted the quality performance of the LAMSON Multistage centrifugal blowers. Now CAPS is happy to count the LAMSON blowers as part of their solution for the Australian market.

LAMSON multistage centrifugal blower/exhauster models cover a broad performance range to meet our needs. Each base model presents its own unique performance characteristics and design features.

LAMSON BLOWERS PROVEN SUPERIOR QUALITY

ROBUST & PROVEN SOLUTION FOR WASTE WATER TREATMENTS, FLOATATION CELLS AND OTHER PROCESS APPLICATIONS

LAMSON brand is recognised around the world as one of the best known multistage centrifugal blower and exhauster solutions for wastewater treatment and other aeration applications. For more than 100 years customers have trusted the quality performance these legacies provide. Anchored in tradition, this experienced Lamson blower/exhauster lineup remains the most comprehensive offering in the world.

PRODUCT RANGE

Models	Inlet sizes	Flow (m ³ /hr)	Pressure (barG)
310 - 732	2.5" - 6"	250 - 4,500	up to 1.10
850 - 752	8" - 12"	1,700 - 14,850	up to 1.37
1,400 - 2,400	14" - 30"	4,250 - 70,000	up to 1.40



Installed in wastewater industry



Installed in process industry

MULTISTAGE CENTRIFUGAL BLOWERS FEATURES

1 MULTIPLE BAFFLE RINGS

Many models feature our patent-ed Multiple Baffle Rings (MBR™) which help turn airflow smoothly into the eye of the impeller, dramatically reducing inlet passage losses. MBR combined with the two dimensional impeller design increases blower efficiency and pressure/vacuum capability.

2 BALANCE PISTON

A balance piston is located at the outlet end of the rotating impeller assembly to compensate for the axial force of the impellers on the inlet bearing. This greatly increases bearing life for longer, trouble free operation.

3 MULTISTAGE SHROUDED IMPELLERS

Two dimensional shrouded cast aluminum impellers are balanced individually and keyed onto the shaft. On most blowers, the complete assembly is then balanced to achieve smooth operation with lowest vibration levels in the industry. Rotor assemblies are designed to operate well below first critical speeds for added reliability.

4 FLEXIBLE COUPLING

Blowers/exhausters connect directly to the power source with a precision aligned flexible coupling. This optimises power transfer and minimises bearing loads for longer life.

5 CAST HOUSING

Blower housings are precision machined from high grade cast iron. Smaller models are cast aluminum. The intermediate blower sections are assembled using high strength steel tie rods. The blower and its driver are mounted together on a single steel baseplate. This assures long lasting performance and durability.

6 LABYRINTH SEAL

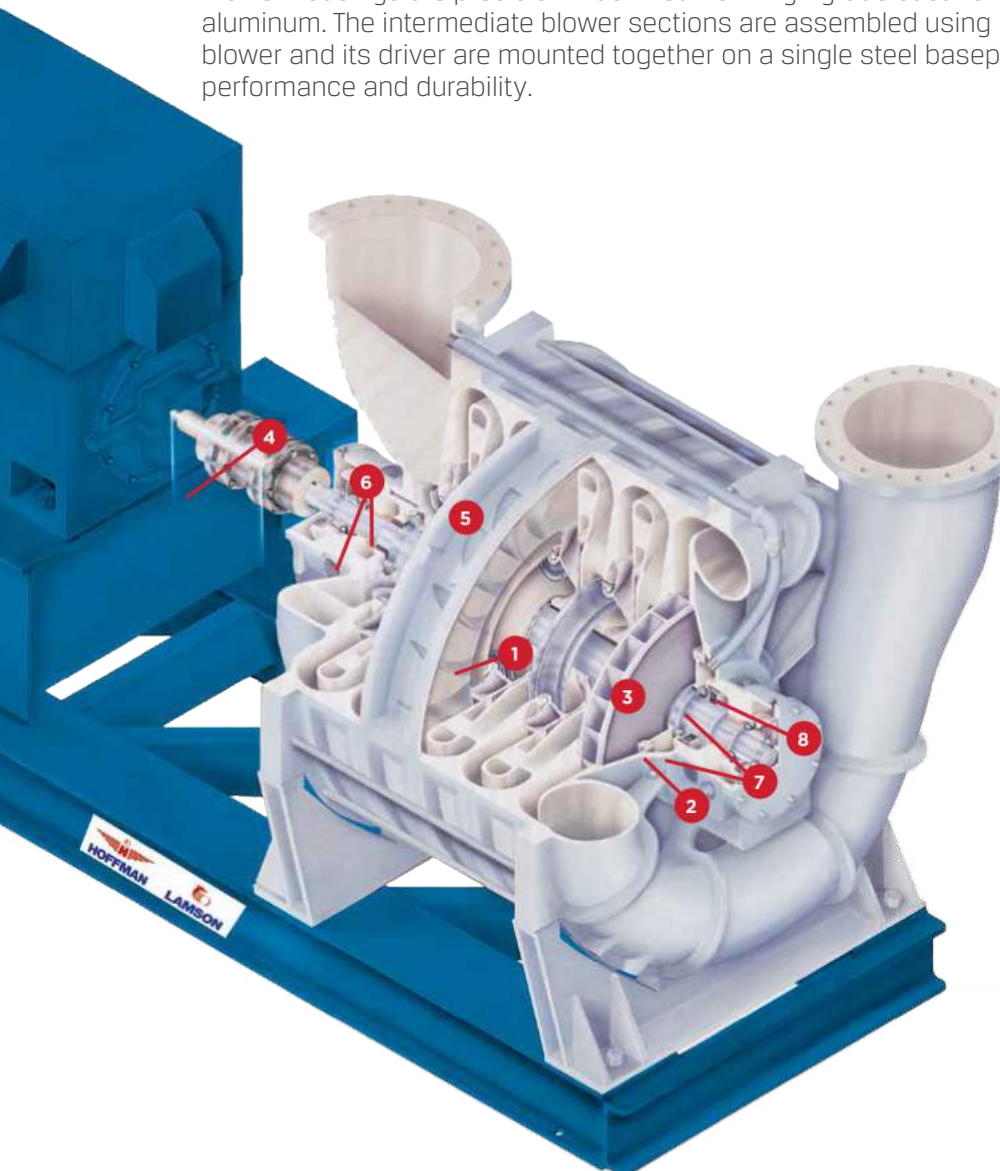
Non-contact, non-wearing labyrinth air seals are standard. This no maintenance seal is used in most air and some gas applications (purge option available). Carbon Ring seal for special air and gas applications requiring superior sealing, optional carbon ring seals are available with purge option.

CARBON RING SEAL

7 For special air and gas applications requiring superior sealing, optional carbon ring seals are available with purge option.

MAX SEAL (MECHANICAL AXIAL)

8 An innovation in dry seal technology, the MAX Seal reduces fugitive emissions by up to 67% when compared to traditional seal options. Ideal for landfill gas and applications handling toxic and explosive gases. Improves the safety of your operation while extending bearing life and lowering total cost of ownership.



SINGLE STAGE CENTRIFUGAL TURBO BLOWERS

Historically, the low flow end of the waste water treatment aeration industry has traditionally been dominated by volumetric blowers with just one control device. With greater focus on energy efficiency and cost competitive centrifugal technologies, the paradigm has shifted.

Volumetric machines face low design efficiencies and direct driven turbocompressors have a limited turndown, reduced lifetimes, and are more sensitive to ambient conditions.

The NTT and Kawasaki integrally geared single stage turbo-compressor line combines all the advantages of well established geared turbocompressors with the latest engineering developments in rotating equipment and fluid dynamics.

NTT BLOWERS MOST EFFICIENT SINGLE STAGE INTEGRALLY GEARED BLOWER

Historically, the low flow end of the wastewater treatment aeration industry has been dominated by volumetric blowers with just one control device. With greater focus on energy efficiency and cost competitive centrifugal technologies, the paradigm has shifted.

The Next Turbo Technologies integrally geared single stage turbo- compressor is a product created by engineers with the most extensive knowledge using the best engineering practice within the industry. European built, affordable, robust design with superior efficiency and turndown, which offers numerous advantages over direct driven high speed turbo technologies such as: lower design efficiencies or limited turndown or reduced lifetime.

All NTT turbo compressor models feature discharge diffuser vanes (VDV) to achieve exceptional turndown range across the full operating range with 1-point or 2-point regulation control with intel Guide Vanes (IGV).

- Flexibility / stability in blower operations – with wide airflow-turndown of 40-100%
- Highest efficiency over entire turndown range with our diffuser vane regulation
- Power optimisation – with our mechanical or electrical 2-point regulation control
- Longest lifetime - offers more than 20 years of lifetime for your investment
- Reliable operations – thanks to a robust mechanical design; perfect for challenging environments such as Australia
- Proven technology – with a global reference base
- Spare parts security – with standard main auxiliaries readily available on the market

PRODUCT RANGE

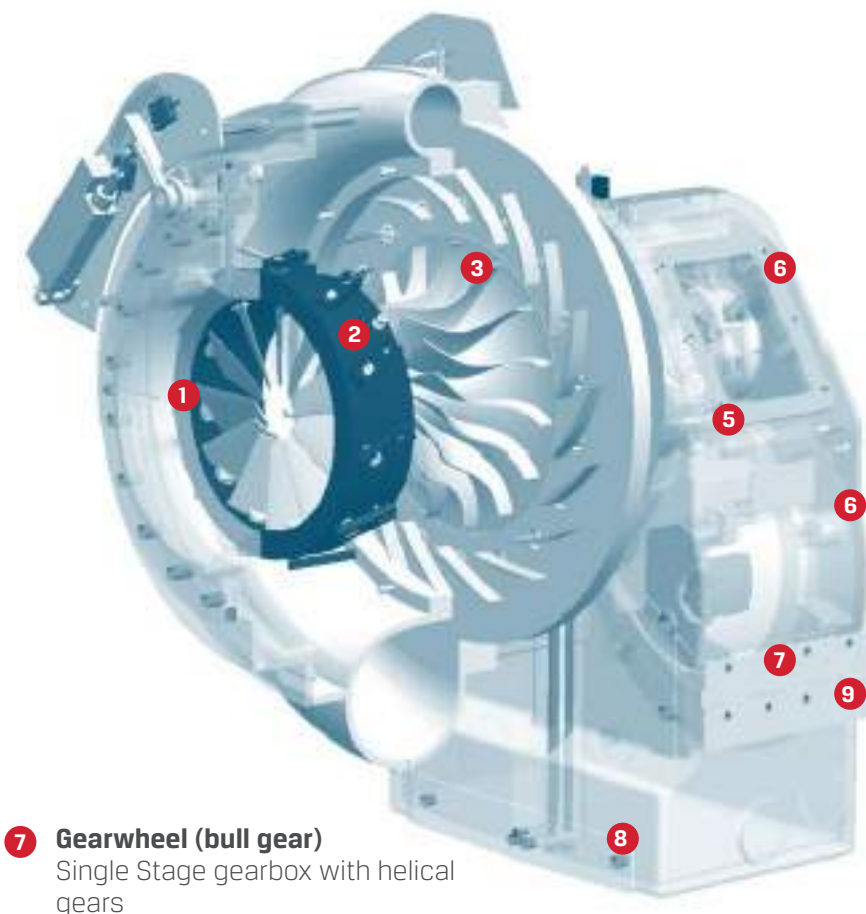
Flow (m³/hr)	Power (kW)	Pressure (barG)
1,000 - 100,000	37 - 3,000	0.2-2.4



TECHNICAL SPECIFICATIONS

An affordable, robust design with superior efficiency and turndown, which offers the advantages of recent technologies without their operational limitations.

- 1 Inlet Guide Vanes (IGV)**
Variable inlet guide vane system which pre-rotates the airflow for maximum efficiency
- 2 Impeller**
Milled from a solid billet of high strength aluminum alloy; open type, with radial backward leaning blades
- 3 Variable Diffuser Vanes (VDV)**
Discharge diffuser system for wide airflow regulation
- 4 Compressor volute**
Aerodynamic design, cast from high strength nodular iron GJS 400
- 5 Pinion shaft**
High speed compressor drive shaft
- 6 Bearings**
ceramic anti-friction ball type or hydrodynamic, multi-pad type bearing



- 7 Gearwheel (bull gear)**
Single Stage gearbox with helical gears
- 8 Oil reservoir**
Integrated in gearbox for GTB; external oil tank in base for GTH model
- 9 Mechanical oil pump**
For forced lubrication driven by the bullgear of gearbox

OPTIONS

- Acoustic Enclosure
- Master Control System
- Motor Space Heater
- Water Cooling
- Medium and High Voltage Motors
- Witnessed Performance Testing



KAWASAKI BLOWERS FULLY PACKAGED & CUSTOMISED

SINGLE-STAGE MIXED-FLOW TYPE BLOWER SAVES ENERGY THROUGH IMPROVED AERODYNAMIC PERFORMANCE AND HIGHER EFFICIENCY OF SPEED-INCREASING GEAR

The Kawasaki single stage blower is a modern integral compressor that combines state-of-the-art technologies to maximise the efficiencies between equipment size and flow-handling capability. This aerodynamic technology, combined with rugged, time-proven construction, creates a high-volume, low-pressure compressor that is unsurpassed in the industry.

Its high efficiency and reliability has made these units a proven performer, with over a thousand installations world-wide, in industries such as chemical, petrochemical & refining, municipal and industrial waste water treatment, food and mineral processing, pharmaceutical and pulp & paper.

BLOWER

The blower air-end consists of 17-4 pH stainless steel one piece impeller which ensures complete mechanical integrity. These are fitted in stages to alloy steel shafts with both static and dynamic balancing. The impeller assembly rotates inside heavy-duty cast iron housing with all tolerances being maintained to exacting standards to ensure optimum performance and efficiency. Performance testing to full ASME standards can be carried out to provide full customer assurance of operating parameters.

All but the smallest blowers are mounted on a base plate and are direct driven at 3000 RPM via a heavy duty flexible coupling. Other drivers such as steam turbine, diesel engine, gas turbine can also be utilized.

THE MIXED-FLOW IMPELLER

Equipped with a mixed-flow impeller, allows the compressed gas to flow at a 45o angle across the impeller face into the diffusion chamber. Turbulence is thereby reduced during compression, compared to other designs. The result is a reduction in horsepower requirements for a given application.

The flow handling capabilities described result in a 30 – 40% smaller impeller diameter for a given application. As a result, aerodynamic thrust loads, overhung impeller weights, as well as package sizes, are significantly reduced.

PRODUCT RANGE

Flow (m ³ /hr)	Power (kW)	Pressure (barG)
1,200 - 120,000	50 - 10,000	0.5 - 2.5



24/7 RAPID RESPONSE NATIONWIDE SUPPORT

10 BRANCHES SERVICING ALL AUSTRALIA



AUSTRALIA WIDE

With our extensive network of branches and regional service locations, CAPS can service anywhere in Australia.

From the metro area through to a remote mine-site, we have you covered with experts located all around Australia.

SPARE PARTS

A complete range of spare parts and accessories to help you get the most out of your industrial equipment.



HIGHLY TRAINED TECHNICIANS

Enjoy the peace of mind of having an expert at your doorstep. **Their knowledge is continually updated**, and they have the model by model knowledge to fix your generator first time, every time.

Whether you have one generator or have complex systems with multiple pieces of equipment, **our technicians will give you the advice you need to ensure continuous operation.**

PREVENTATIVE MAINTENANCE

We're always aiming to help you to **reduce operating costs and interruptions to your production.** Our factory-authorised programs include routine inspections, condition monitoring and the use of sophisticated diagnostic equipment to identify any potential problems before they impact you.

SAFETY COMPLIANCE

Safety is a core value of CAPS and our goal is never to put people, plant or the environment at risk. You can be confident that our technicians will be **completely compliant to any site specific safety requirements** you have.

NATIONAL HIRE

LONG TERM AND SHORT TERM HIRE AVAILABLE

At CAPS, we have a large range of equipment that's suitable for every kind of project.

CAPS check their equipment before every hire to ensure the highest standard of safety and service. When you hire through CAPS you are speaking to experts who can assist you with selecting the right equipment for the job every time.



Hire and you protect your staff, control your costs, avoid depreciation, maintenance and borrowing expenses.

CORE PRODUCTS

AIR COMPRESSORS

ROTARY SCREW



PORTABLE DIESEL



OIL FREE



HIGH PRESS. RECIPS.



SMALL RECIPS.



AIR BLOWERS

ROTARY LOBE



CENTRIFUGAL



GAS GENERATORS & COMPRESSORS

NITROGEN



OXYGEN



OTHER GASES



AIR TREATMENT

AIR DRYERS



AIR RECEIVERS



FILTRATION

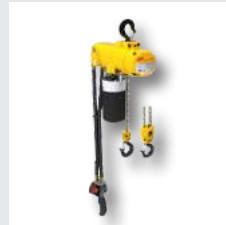


TOOLS & MATERIAL HANDLING

TORQUE CONTROL



WINCHES & HOISTS



POWER GENERATION & RENEWABLES

STANDBY



PRIME



BATTERY STORAGE



SOLAR



ONLINE SHOPPING

CAPSSHOP.COM.AU

If you are looking for spare parts or tools for your air and power equipment, visit our online shop.



SOLVING YOUR AIR AND POWER CHALLENGES

AIR BLOWERS - LOW PRESSURE PORTFOLIO

Inquiries: 1800 800 878

Service & 24/7 Support: 1800 802 697

Website: caps.com.au

Shop: capsshop.com.au

Email: info@caps.com.au

BRANCH LOCATIONS

PERTH (HEAD OFFICE) | ADELAIDE | BRISBANE | DARWIN | KALGOORLIE | LAUNCESTON
MACKAY | MELBOURNE | LAUNCESTON | SYDNEY | NEWCASTLE

INTERNATIONAL

MALAYSIA | GHANA



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