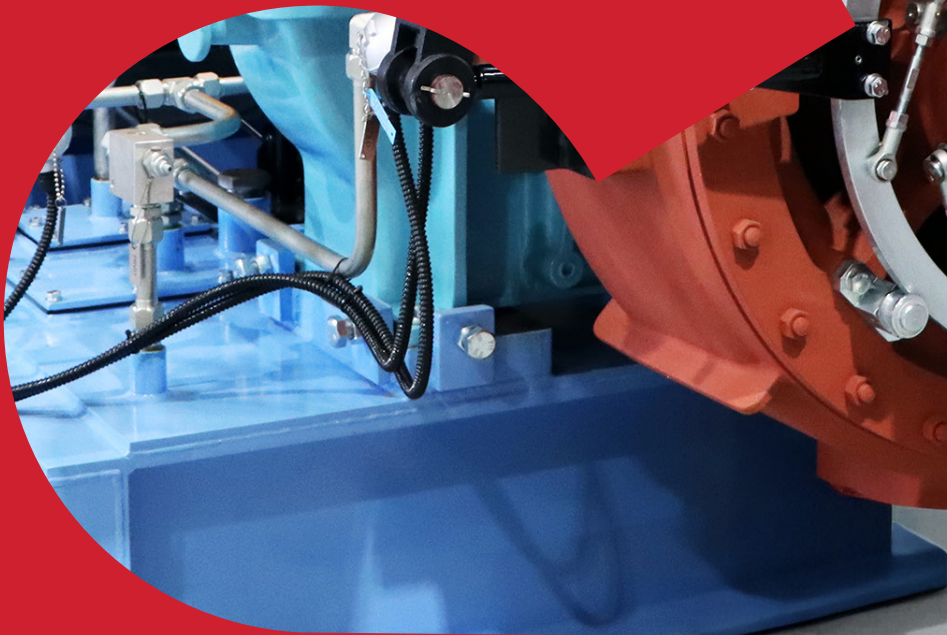


AIR BLOWERS LOW PRESSURE PORTFOLIO



**COMPLETE AIR
& POWER SOLUTIONS**



COMPLETE AIR & POWER SOLUTIONS

CAPS Australia is a leading provider of power generation, compressed air and gas generation solutions, boasting an extensive portfolio of products and brands.

WHO IS CAPS AUSTRALIA?

- More than **45 years of experience** in the Australian market.
- **10 branches** around Australia with **over 200 employees**.
- **60 service technicians** covering the full national footprint, with a **24/7 service** offering.
- A vast inventory of **spare parts**.
- The flexibility to search globally for the best products and technologies that serve the **Australian market's needs**.
- World-renowned partner brands such as Ingersoll Rand, AIRMAN, Mitsubishi Generator Series and more.
- Custom design, engineering, manufacturing, supply and service.
- Operating under an ISO 9001 accredited quality system.

WHO DO WE SERVE?

- Mining
- Manufacturing
- Industrial
- Agriculture
- Commercial
- Data centres
- Public and private utilities
- Waste & water treatment plants



GLOBAL NETWORKS

Backed by local knowledge & experience

Founded in Western Australia in 1980, CAPS joined the Ingersoll Rand family in 2024, expanding its access to the Ingersoll Rand's global offering of innovative and mission-critical air, fluid, energy and medical technologies that enhance industrial productivity and efficiency.

This also means that CAPS' delivery of air and power solutions is underpinned by the financial strength of one of the world's leading companies.

By utilising quality products with proven reliability where and when they are needed, CAPS' extensive range of industrial equipment features world-renowned brands and means customers have full access to the latest technology, suited to Australian operating environments.

DIFFERENT BLOWERS TYPE FOR DIFFERENT UTILISATION

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 blowers to suit your efficiency requirements. Our portfolio has the most efficient blower solution across the full operating range available in the market.

SERVICEABILITY

Our proactive maintenance, trained technicians, local service centres and spare parts inventory are kept up to date to support customers' needs.



GM45H, CAPS KHI BLOWER, Single Stage Geared - 553 m³/min, 212 Kpa(A), 1100 Kw
Manufactured & assembled at our CAPS Perth engineering facility.

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 is part of the Ingersoll Rand Group of Companies.



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 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 of galvanised metal sheet. The inner side of each acoustic panel is lined with self-extinguishing polyester absorbing material, covered with a waterproof film.

REMOTE COMMUNICATION (OPTIONAL)

Electronic control panel displays a range of parameters including temperature, pressure, and vibration with remote communicators functionality available.

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 floor is included for easy transport.

PRODUCT RANGE

Models	Flow (m ³ /hr)	Pressure (barG)
CBERNT Series	0.74 - 151.7	up to 1



MULTISTAGE 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, and a fellow member of the Ingersoll Rand Group of Companies.

LAMSON multistage centrifugal blower/exhauster models cover a broad performance range to meet your needs. Each 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. The quality performance is 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 BLOWER FEATURES

1 MULTIPLE BAFFLE RINGS

Many models feature our patented 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 the lowest vibration levels in the industry. Rotor assemblies are designed to operate well below first critical speeds for added reliability.

4 FLEXIBLE COUPLING

Blowers/exhausts 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

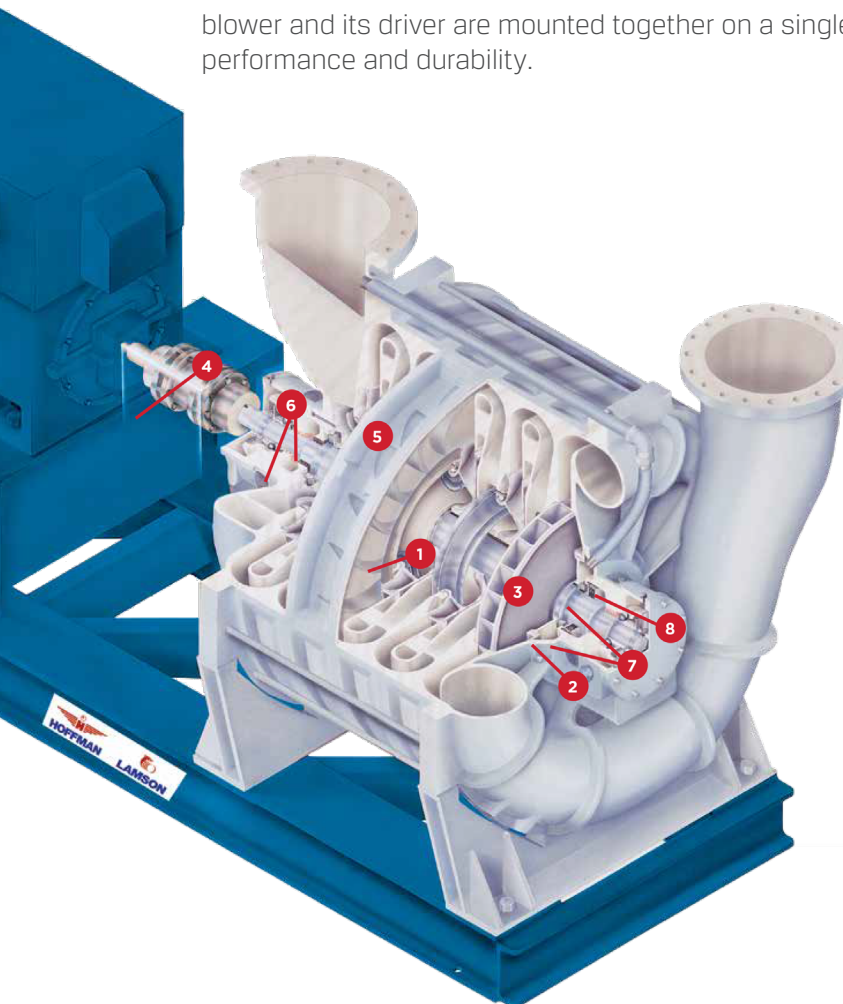
Non-contact, non-wearing labyrinth air seals are standard. This no maintenance seal is used in most air and some gas applications (purge option available).

7 CARBON RING SEAL

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

8 MAX SEAL (MECHANICAL AXIAL)

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.



INGERSOLL RAND SCREW BLOWERS

BS BELT-DRIVEN CONFIGURATION

Designed to deliver reliable airflow across a wide range of operating conditions, the BS belt-driven series combines flexible performance with a compact, robust package. Available in multiple configurations, the range provides dependable operation for a variety of industrial applications.



BS DIRECT-DRIVEN CONFIGURATION

In addition to the standard belt drive, we introduce a new 'True' Direct Drive option that drives the blower with a direct coupling, without speed increasing gears. Depending on your requirements, this new option allows you to maximise energy efficiency in our engineered enclosure. The advantages of direct-drive include higher specific flow which means more m³/hr per kW and no gears/belts which reduces noise and maintenance costs.



VSD OPTION

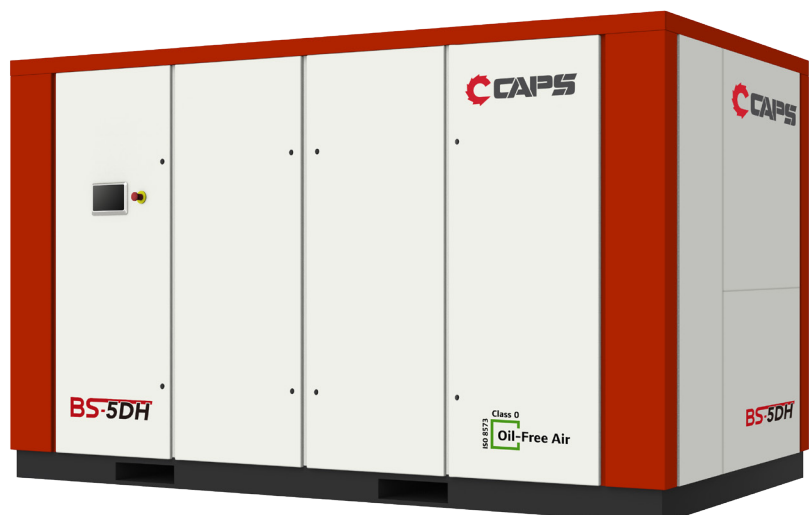
The BS range is also available with Variable Speed Drive (VSD) technology, automatically adjusting motor speed to match air demand for improved energy efficiency and operating performance.

TO MAXIMISE EFFICIENCY THERE ARE THREE VERSIONS OF THE AIR-END:

RC1 has the largest discharge port for high volume and low pressure. RC2 and RC3 are progressively smaller to match rising pressure requirements. This results in the lowest possible power for a given flow and pressure.

BS-DH RANGE

Designed for applications requiring clean, oil-free compressed air, the BS-DH series delivers reliable performance, high efficiency and low operating costs. Available in BS-3DH, BS-4DH and BS-5DH models, the range is engineered to provide consistent airflow and dependable operation across a variety of demanding industrial processes.



BS-DH SERIES KEY FEATURES

1 INLET FILTER

Made of a synthetic fiber material. Maintains a filtration efficiency of 99.9% @ 1µm particles.
*Optional for dirty environment.

2 INTELLIGENT CONTROLLER

Features real time monitoring, early malfunction warnings, cloud storage and IIoT management.

3 INTAKE VALVE

This controls the inlet flow rate on fixed speed versions to maximise the energy savings, and the start-up & shut-down. The intake valve ensures minimal energy is used to match the load and is more environmentally friendly and reliable. On variable speed versions the intake valve is only used on start-up, shut-down and when minimum speed has been reached and it is required to unload the machine.

4 SUPERIOR AIR-END

Professional oil-free screw technology with a highly integrated design. Although it has a compact structure it still provides a reliable and excellent performance.

5 OIL COOLER HEAT EXCHANGER

The water-cooled units feature stainless steel tubes that are more resistant to high temperatures, less susceptible to fouling and easier to clean when compared with plate type heat exchangers. They can also use lower quality cooling water. Air-cooled units have a aluminium plate-fin cooler with a fan that features a compact and easy to use design.

6 SILENCER

Durable, robust and has an excellent muffling effect on low and medium frequency noise.



TECHNICAL SPECIFICATIONS

BS BELT-DRIVE CONFIGURATION

Frame	Airend	Motor Size kW	Maximum Flow Rate (m ³ /min)	Max Pressure Barg
BS-2B	100CDL	15 - 45	20	1.2 - 1.3
BS-4B	160CDL	90 - 185	67 - 110	1 - 2.4
	200CDL			

BS DIRECT-DRIVE CONFIGURATION

Frame	Airend	Motor Size kW	Maximum Flow Rate (m ³ /min)	Max Pressure Barg
BS-3D	160CDL	75 - 110	72 - 74	1 - 1.3
BS-4D	200CDL	90 - 350	104 - 110	1.2 - 2.4
BS-5D	250CDL	160 - 350	170	1.2 - 1.3

For lower pressure applications, Dual Splash Lubrication (DSL) is used on the bearings and gears.
For higher pressure or operation at exceptionally low rpm, Forced Feed Lubrication (FFL) is used.

BS-3DH CONFIGURATION

Drive Type	Package Power kW	FAD (m ³ /min)	Discharge Pressure Barg
FS	90 - 160	30.3 - 54.5	1.25 - 2.5

BS-4DH CONFIGURATION

Drive Type	Package Power kW	FAD (m ³ /min)	Discharge Pressure Barg
FS	132 - 315	49.2 - 79.0	1.25 - 2.5
VSD	160 - 315	25.4 - 79.0	1.25 - 2.5

BS-5DH CONFIGURATION

Drive Type	Package Power kW	FAD (m ³ /min)	Discharge Pressure Barg
FS	315 - 560	105.0 - 152.4	1.5 - 2.5
VSD	315 - 560	103.0 - 152.4	1.5 - 2.5

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 and refining, municipal and industrial waste water treatment, food and mineral processing, pharmaceutical and pulp and 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 American Society of Mechanical Engineers (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 or gas turbine can also be utilised.

THE MIXED-FLOW IMPELLER

Equipped with a mixed-flow impeller, the compressed gas flows at a 45° 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



SINGLE STAGE CENTRIFUGAL TURBO BLOWERS

NTT BLOWERS EFFICIENT, SINGLE STAGE, INTEGRALLY GEARED

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 using the best engineering practices within the industry. European built, affordable and robustly designed with superior efficiency and turndown. NTT offers numerous advantages over direct driven high speed turbo technologies which have lower design efficiencies limited turndown and reduced lifetime.

All NTT turbo compressor models feature discharge diffuser vanes (VDV) to achieve exceptional turndown 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 diffuser vane regulation.
- Power optimisation – with 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

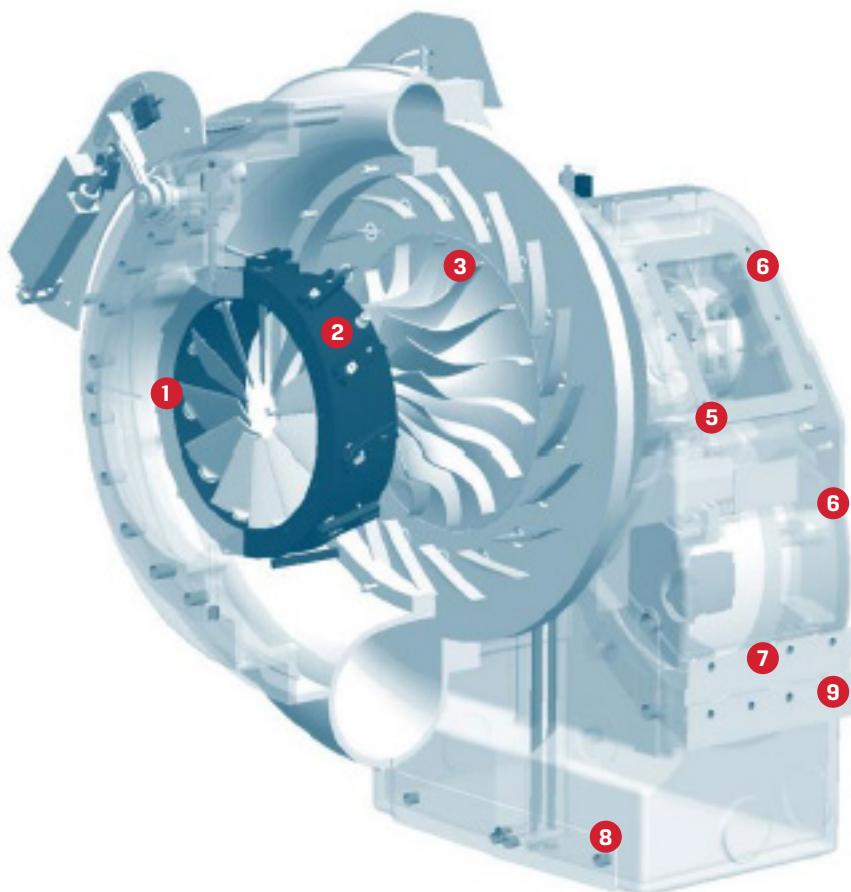
High speed compressor drive shaft

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 GTH base.

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



INDUSTRY APPLICATIONS

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 industrial applications, including:

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

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

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

24/7 NATIONWIDE SUPPORT

PREVENTATIVE MAINTENANCE

CAPS is 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 specialised diagnostic equipment to identify any potential problems before they impact you.

SAFETY COMPLIANCE

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

HIGHLY TRAINED TECHNICIANS

CAPS' technicians' knowledge is continually updated. So 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.



MAXIMISE YOUR OPERATION

CAPS Care takes care of your equipment, allowing you to focus on optimising your operation while we ensure it runs smoothly.

It consists of a range of diagnostic and service maintenance programs called Planned Care, Package Care, Parts Care and Performance Care.

Each program delivers specific features, from extended warranty and scheduled maintenance to providing a consistent supply of parts, as they are required. Each program puts your operation in a position to succeed, because when you succeed, we do too.



LONG & SHORT TERM RENTALS

Competitively priced, turnkey solutions that keep your operations running smoothly.

We offer short and long-term rental across Australia, ideal for your projects, seasonal demand and any breakdown requirements. And provide flexibility to suit your needs.

With vast experience in renting equipment to contracting, industrial and mining companies, CAPS has a large fleet of units available. The site ready solutions satisfy a wide range of applications and ensure quality equipment is available, backed with a high standard of customer service.



SOLVING YOUR AIR AND POWER CHALLENGES

10 BRANCHES SERVICING ALL OF AUSTRALIA



Inquiries: 1800 800 878

Service & 24/7 Support: 1800 802697

Website: caps.com.au

Shop: capsshop.com.au

Email: info@caps.com.au

BRANCH LOCATIONS

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



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*All specifications are subject to change without prior notice.
Contact CAPS to confirm the most current information.*