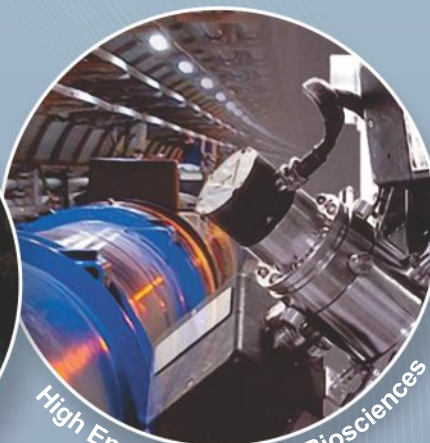


Vacuum and Air Engineers Central Vacuum Systems

Medical & Clinical Services



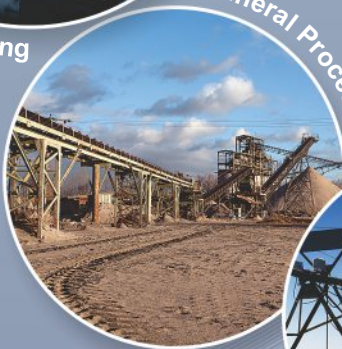
High Energy Physics & Biosciences



Industrial Processing & Manufacturing



Mineral Processing



Electric power, Oil & Gas Production



Water & Environmental Treatment



Chemical & Pharmaceutical



Food Production & Bio-Fuels



Our Experience Counts

Since our inception in 1981, Dynapumps' mission has been to supply high quality, recognised brands as a packaged product to our client's specifications and to provide excellent after sales service and spares.

Dynavac, our vacuum and air blower division, provides solutions for all applications. We engineer and build packages to suit the one-off needs of our customers, as well as the supply of individual components.

Once built, we can perform full functional testing to ensure you are happy with the job.



Australia Wide



We operate from four locations, Perth, Melbourne, Sydney and Brisbane.

All offices specialise in the full range of vacuum products.

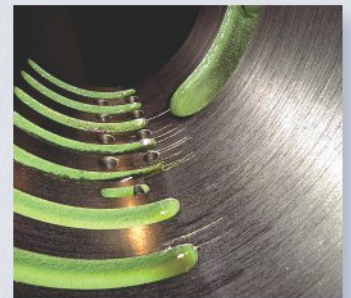
Our large manufacturing base provides value adding for standard pump products and packaged systems and our national engineering team provides technical support.

Programmed Maintenance

Our service staff can arrange fixed price programs for service and maintenance calls to your site to take the worry out of maintaining your equipment.

We are able to monitor the condition of your pumps and provide you with a report that notes any problems that are evident or that might be expected in the future.

Call us to arrange a free pump audit so you can assess your pumping plant status.



Guaranteed Repairs & Hire Pumps

When you send your pumps to us for repair we know you want them to be "just like new" so we repair them to the manufacturer's standards before we return them to you.

If we can't repair them to "like new" condition we will let you know what options you have and provide a full report on their condition.

We have a range of hire pumps available so your plant can continue to operate.

DISCLAIMER

All the products and services depicted in this brochure were available at the time of printing however please consult Dynapumps for the latest information.

Data shown on the following pages indicates the maximum flows and pressures and are only meant as a guide.

For details specific to your applications please consult Dynapumps.

Central Vacuum Systems



- Hospitals & Day Surgeries
- Medical Centres
- Dental Hospitals & Surgeries
- Veterinary Hospitals & Surgeries
- Universities
- General Industry

Dynavac pumps are installed in many Hospitals, Medical Centres and Universities around Australia.

W.A. – Fiona Stanley Hospital, Murdoch University Veterinary Hospital, Denmark Hospital, Swan Districts Hospital, Bunbury Hospital, Princess Margaret Hospital, Sir Charles Gardner Hospital, University of WA and Curtin University.

NSW – Prince Of Wales Hospital, Albury Day Surgery, St. Leonards Medical Oncology, Charles Sturt University, North Shore Private Hospital and Sydney University.

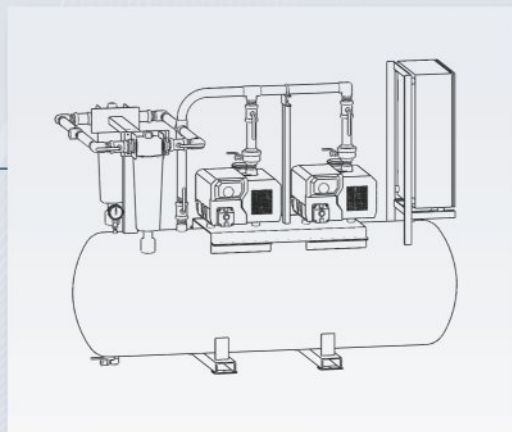
QLD – Suncoast University Hospital, and Queensland University of Technology.



Dynavac Central Vacuum Systems comply with the "AS 2896 Medical Vacuum Systems" standard and are manufactured and tested in Australia.

3D drawings

We supply 3D drawings to ensure easy visualisation and accurate dimensioning for the installation of your finished Dynavac system.



Vacuum System Service and Repairs

Dynapumps can provide service and repairs for your vacuum systems on site or in our workshop.

Hire pumps are available if required.



Central Vacuum Systems Features

Manufactured and Tested in Australia to AS 2896.



Dual bacterial filters complying with AS 2896 can be fitted to the system or supplied separately for remote installation

A second check valve, with vacuum pressure test cock, backs up the internal check valve to prevent reverse rotation. A gas ballast valve is fitted as standard to remove contaminants.

AS 3000 electrical control panel with reliable, digital vacuum transducers

Removable power plugs (optional) eliminates the need for an electrician to attend, saving time & money



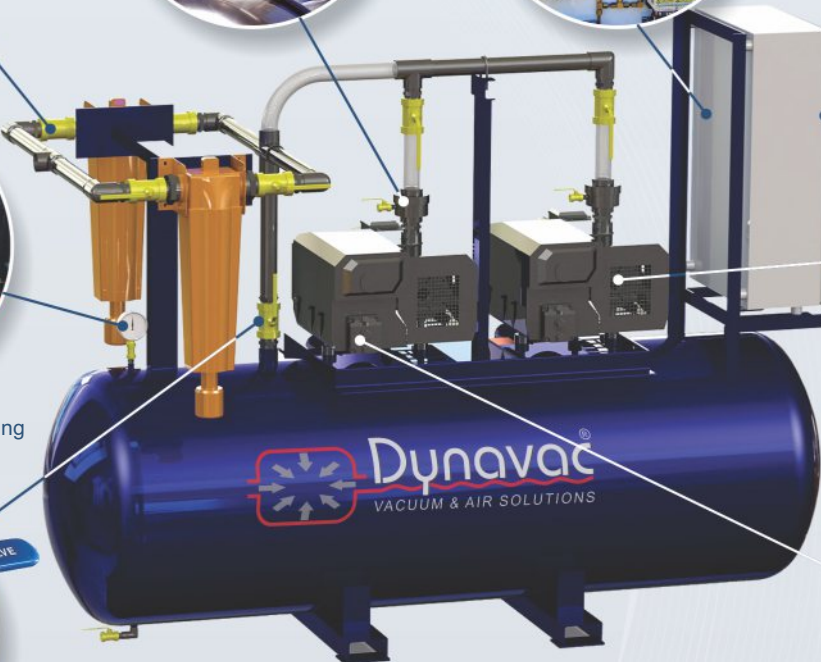
Liquid filled gauge with isolating valve for easy replacement



Removable spin off oil filter for quick servicing



Receiver isolation valve allows for servicing of the vessel without interrupting vacuum supply.



Receiver complies with AS 1210

Can be supplied in horizontal or vertical position. Finish can be painted, powder coated or galvanised.

Multiple Pump configurations

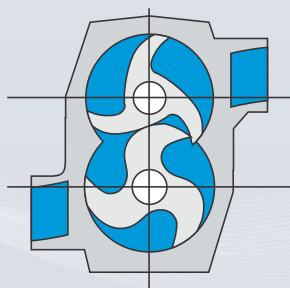
Also available as stacked modules to allow for easy expansion as you grow.



Low level oil switch indicates when oil is low. Pressure gauge indicates when filters need replacement.

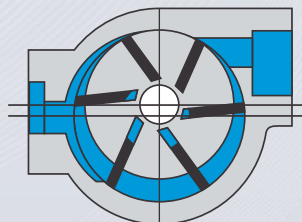
Two Pump Options

A Choice of Oil Free Claw or Oil Lubricated Rotary Vane Pumps



Oil Free Claw

- Latest technology
- 30%- 60%* power saving
- Non contacting rotors
- Very low maintenance
- Low running costs



Oil Lubricated Rotary Vane

- Traditional technology
- Higher running costs
- Low capital cost
- Maintenance required

*Further power savings can be made when a Dynavac variable speed controller is utilised. The Dynavac VS control system varies the pump speed to match actual vacuum demand. Energy is not wasted in exceeding the required vacuum level to meet switching set-points. Starts per hour are dramatically reduced and storage vessel volumes can be reduced.

NB: Only available with oil-free claw vacuum pump.

DYNAVAC Oil Sealed Rotary Vane Vacuum Pump



DYNAVAC Rotary Vane vacuum pumps are found in most industrial applications. They can be used in food processing and packaging, vacuum forming, medical vacuum systems and printing press applications.

Dynavac's dry rotary vane models can also be used as a blower.

DYNAVAC WOVP SERIES Oil Sealed Rotary Vane Vacuum Pump

Model	Suction Capacity (m ³ /h)	Ultimate Vacuum (mbar abs)	Motor Power (kW)
WOVP-020	10	2	0.37
WOVP-030	15	2	0.75
WOVP-040	20	2	0.9
WOVP-060	30	<0.5	1.5
WOVP-080 *	40	<0.5	1.5
WOVP-130 *	65	<0.5	2.2
WOVP-200 *	100	<0.5	3
WOVP-320	160	<0.5	4
WOVP-350	175	<0.5	5.5
WOVP-430	215	<0.5	5.5
WOVP-500 *	250	<0.5	7.5
WOVP-600	300	<0.5	7.5
WOVP-800 *	400	<0.5	11
WOVP-1000 *	500	<0.5	11
WOVP-1200 *	630	<0.5	15
WOVP-1500 *	750	<0.5	18.5

- Compact Design - Reliable & Durable
- Easy to Maintain and Operate
- Simple Installation
- Air Cooled, No Water Required
- Direct Drive requires no belts
- Integral Exhaust Filter
- Discharge Air 99.9% Oil Free
- Quiet Operation



Single stage, oil re-circulating, air cooled and direct driven

Spare inlet and exhaust filters, oil filters, repair kits and vacuum gauges are available off the shelf.



*Models also available in "AQUA" water-resistant versions

DYNAVAC WVS SERIES Dry Rotary Vane Vacuum Pump or Compressor

Model	Suction Capacity (m ³ /h)	Ultimate Vacuum/ Pressure (kPa g)	Motor Power (kW)
WVS - 3	14	-81 / +60	0.38
WVS - 5	24	-85 / +60	0.75
WVS - 6	34	-85 / +60	1.5
WVS - 8	56	-85 / +60	1.5
WVS - 9	68	-85 / +60	2.2
WVS - 10	132	-85 / +60	3.8

- Compact Design - Reliable & Durable
- Easy to Maintain and Operate
- Simple Installation
- Air Cooled, No Water Required
- Oil Free
- Quiet Operation
- Ideal for Vacuum and Blower Operation



Single stage, dry rotary, carbon vane, air cooled design

State-of-the-art dry-type pumps have become the preferred option in a diverse range of high and medium vacuum applications. Due to their friction-less design and lubricant-free pumping chamber, dry pumps provide higher energy efficiency with minimal maintenance expense. Gases being pumped are discharged free of contamination. Degradation of vacuum pump lubricant is eliminated along with routine service expense. Energy savings of >30% are easily achieved with dry technology.

DYNAVAC VCX SERIES Dry Running Claw Vacuum Pumps

Model	Suction Capacity (m ³ /h)	Ultimate Vacuum (kPa g)	Motor Power (kW)
VCX 60	60	-95	1.1
VCX 100	100	-85	2.2
VCX 150	150	-90	3
VCX 250	235	-82	4
VCX 300	300	-81	5.5
VCX 400	385	-77	7.5
VCX 505	500	-77	9

- Simple Modular Construction
- Air Cooled & Direct Driven
- Low Maintenance – No Wear
- High Efficiency – Continuous Duty
- Relief Valves included



Dry Running - Oil Free – Contact Free Design

DYNAVAC PCX SERIES Dry Running Claw Compressors

Model	Discharge Capacity (m ³ /h)	Ultimate Pressure (kPa g)	Motor Power (kW)
PCX 60	56	200	3
PCX 100	100	80	3
PCX 100	100	140	4
PCX 100	100	220	5.5
PCX 150	150	120	5.5
PCX 150	150	200	7.5
PCX 250	235	100	7.5
PCX 250	235	200	11
PCX 300	300	60	7.5
PCX 300	300	140	11
PCX 300	300	220	15
PCX 400	385	80	11
PCX 400	385	120	15
PCX 400	385	180	18.5
PCX 400	385	200	22
PCX 505	500	80	15
PCX 505	500	120	18.5
PCX 505	500	160	22
PCX 505	500	200	30

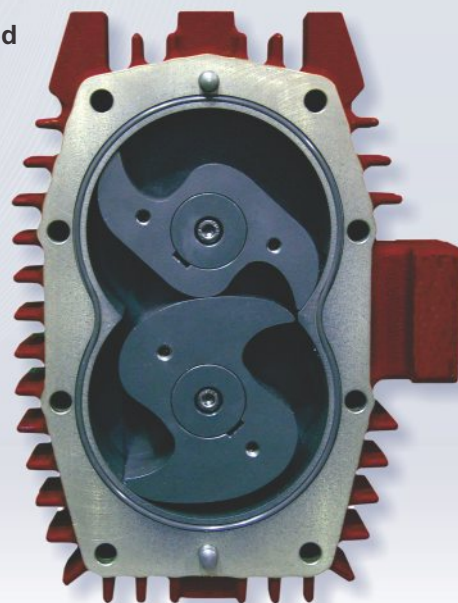
Dynavac Claw-type pumps

Claw pumps are available for processes requiring both vacuum and positive pressure and are an ideal replacement for liquid ring and rotary vane pumps in many applications.

VCX Series claw pumps are available for vacuum applications up to -95kPa.

PCX Series claw pumps are suitable for pressure applications up to 220 kPa.

Using a variable speed drive with a Dynavac claw pump can save up to 60% power consumption over lead-lag systems and the number of starts/hour are dramatically reduced which extends the life of the pumps.



Side Channel blowers are ideal where high suction and delivery rates are required at an economical price.

Side Channel blowers are commonly found in aeration, dental, pneumatic and vacuum conveying, vacuum holding and cleaning applications.

The Dynapumps range is extensive, offering you the best selection possible.

2RB 1-Stage Range

Model sizes	36
Suction Capacity (m ³ /h)	40 - 1050
Max Δ Pressure/ Vacuum (kPa)	+ 40 /- 30
Motor Power (kW)	0.2 - 18.5

2RB 2-Stage Range

Model sizes	35
Suction Capacity (m ³ /h)	88 - 2050
Max Δ Pressure/ Vacuum (kPa)	+ 55 /- 45
Motor Power (kW)	0.7 - 25

4RB High Pressure Range

Model sizes	24
Suction Capacity (m ³ /h)	47 - 170
Max Δ Pressure/ Vacuum (kPa)	+ 100 /- 60
Motor Power (kW)	0.55 - 7.5

IMPORTANT

Dynapumps supply vacuum & pressure relief valves with all blowers to protect the motors from overloading.



Two Stage Side Channel Blower



Relief Valve

Side channel blowers can be utilised for either a suction or blower application. Performance curves are available to ensure the most efficient selection is made.



Single Stage Side Channel Blower



DENTAL VACUUM SYSTEMS

Dynavac supplies pumps or side channel blowers and manufactures centralised vacuum systems for small surgeries and larger dental hospitals. These can be custom built with amalgam traps, control panels and vacuum receivers.

Handy Vacuum & Pressure Conversions

Pressure

	Pa (N/m ²)	kpa	bar	mbar	Torr (mm/hg)	psi
1 Pa (N/m²)	1	0.001	1x10 ⁻⁵	0.01	7.5x10 ⁻³	1.45x10 ⁻⁴
1 kpa	1000	1	0.01	10	7.5	0.145
1 bar	1x10 ⁵	100	1	1000	7.5x10 ²	14.5
1 mbar	100	0.1	0.001	1	0.75	0.0145
1 Torr (mm/hg)	133.3	0.1333	0.00133	1.333	1	0.01934
1 psi	6895	6.895	0.06895	68.95	51.71	1

Pumping Speed

	m ³ /h	l/min	l/sec	cfm
1 m³/h	1	16.667	0.278	0.589
1 l/min	0.060	1	0.0167	0.0353
1 l/sec	3.60	60	1	2.119
1 cfm	1.699	28.32	0.472	1

Ranges of Vacuum

	mbar	Pa
Low Vacuum	1013~1mbar	100 kPa~100pa
Medium Vacuum	1mbar~10 ⁻³ mbar	100pa~0.1pa
High Vacuum	10 ⁻³ mbar~10 ⁻⁷ mbar	0.1pa~10upa
Ultra High Vacuum	10 ⁻⁷ mbar~Less	10upa~Less

Pressure Terms

Absolute Pressure

Is the pressure above absolute zero, and equal to the barometric pressure plus the gauge pressure.

Barometric Pressure

Is the atmospheric pressure at the altitude where it is measured.

Gauge Pressure

Is the pressure measured by a gauge above or below atmospheric pressure.

Partial Vacuum

Is any pressure below atmospheric, i.e. a negative gauge pressure.