



**MODEL 25 PURS**



**MODEL 707**



**MODEL 148**

**Hydrovane Rotary Vane Compressors  
The World's Most Reliable Compressors  
5 Series, 7 Series and 8 Series**

## The Company



CompAir Hydrovane designs, manufactures and distributes rotary vane air compressors, one of the best selling types on the market today. Over half a million of the quiet, low maintenance units have been sold across the globe, building a reputation for quality and reliability that is second to none.

The Hydrovane range of air compressors utilize the innovative rotary vane principle of compressing air, which is an elegantly simple method, originally invented in the 1950s. The design is constantly re-evaluated and refined to fully exploit the latest

materials and techniques whilst retaining the simplicity that give Hydrovane compressors their reliability.

Hydrovane's design and production excellence, combined with a strong commitment to quality has seen it grow to become a key part of CompAir's compressor division, one of the top 100 companies in the UK.

As a world leader with over 40 years experience in the field, CompAir's Hydrovane products are designed to meet the needs of any customer. All of our Hydrovane compressors can cope comfortably with the most demanding or heavy duty operation, taking continual, intensive use in their stride...**Quality that simply lasts and lasts!**

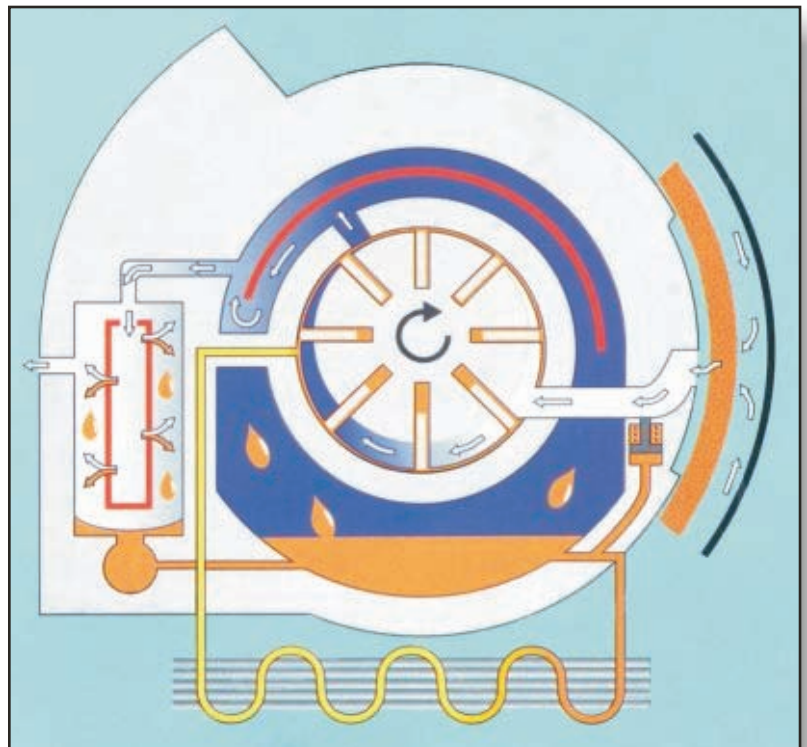
## The Rotary Vane Principle

The key to the Hydrovane compressor's exceptional performance is the rotary vane principle, first marketed in 1952.

A rotor, the major moving part, rotates within an offset cylindrical housing. The rotor has a number of slots into which fit free sliding vanes. During rotation the vanes extend to form individual compression cells. A precise amount of air is drawn into the compressor, controlled by a servo-controlled inlet valve.

The rotor turns, progressively compressing the air as the volume of each cell reduces. The rotor's vanes slide in slots on a film of oil which prevents any wear.

Oil is injected during compression, sealing and lubricating component parts as it cools the air. A multi-stage separation system ensures that only clean air is delivered from the compressor.



**HYDROVANE...THE WORLD'S  
2 MOST RELIABLE COMPRESSORS!**

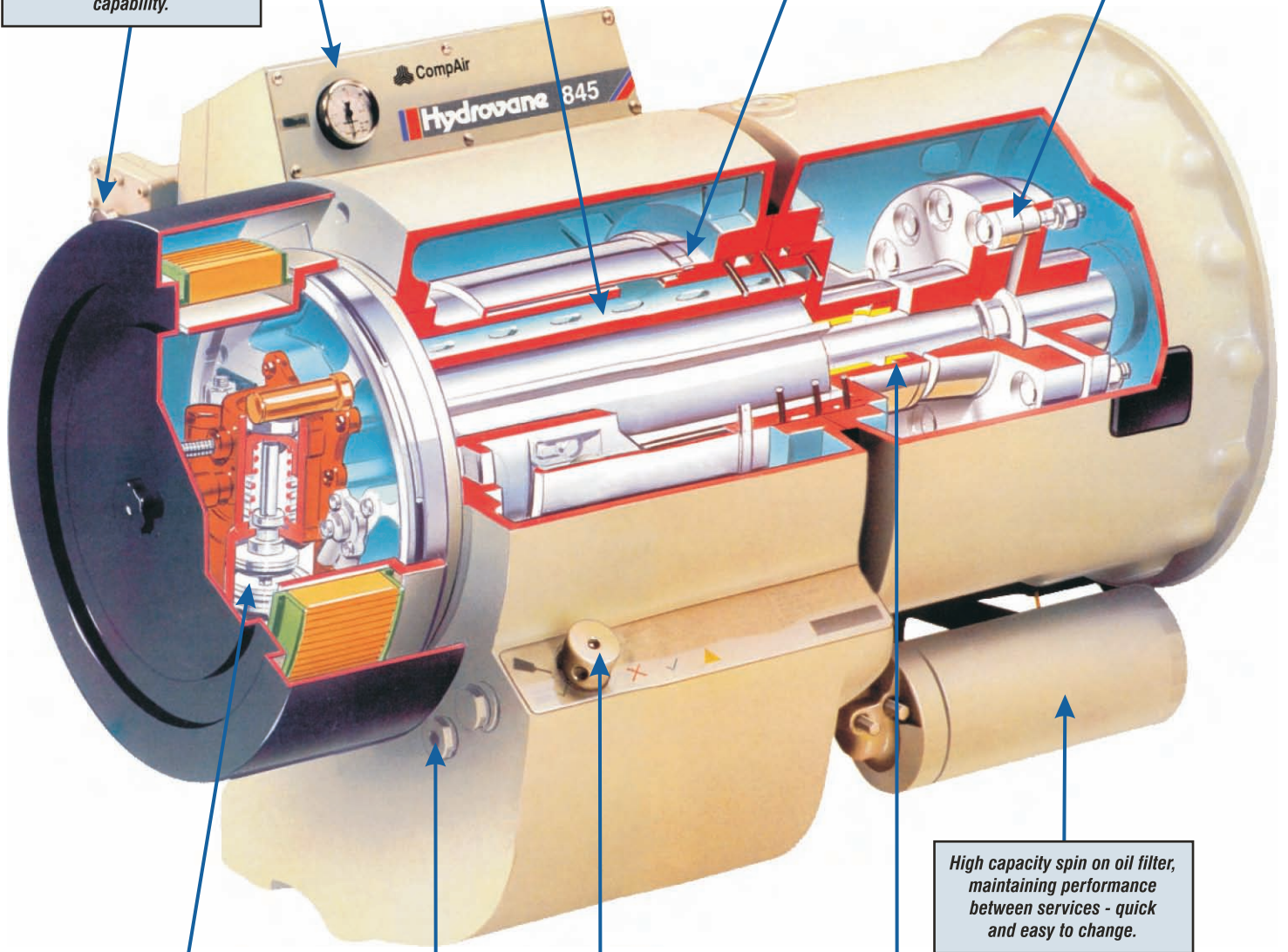
*Air pressure gauge provides continuous indication of working pressure.*

*Temperature gauge provides additional safety and monitoring capability.*

*Over temperature thermistor protection to safeguard the compressor by shutting down if necessary.*

*3-stage oil separation for extremely clean, oil free air, as low as 1 ppm!*

*Direct flexible drive means there's no power loss and no need for expensive replacements.*



*The unloader valve precisely matches the intake of air to the demand, increasing efficiency and reducing energy cost.*

*Oil level sight glass allows you to check the fluid throughout the compressor's operation.*

*Oil fill to overflow - quick, easy and foolproof.*

*High capacity spin on oil filter, maintaining performance between services - quick and easy to change.*

*White metal bearings are designed to last for the life of the compressor. There is no roller or ball race wear.*

# Features & Benefits

## Reliability

- A Hydrovane compressor utilizes only one major moving part to compress the air. This one part rotates at about half the speed of competing compressor systems.
- The slow rotating speed reduces internal stress, hence considerably increasing the life of the air end.
- There is no complicated internal machinery that can break down.
- Hydrovane compressors can last over 100,000 hours, the equivalent of 8 hours operation every working day for 40 years.

## Low Noise Levels

- A slow rotational speed means low noise levels - 66 dB(A) at 1 metre, in some cases.
- Due to their quiet operation, Hydrovane compressors can be sited close to the point of use. There is no need for the cost of installing lengthy, expensive pipework to distance the compressor or to build sound dampening compressor houses.



## High Quality of Air

- A slow rotational speed allows exceptionally good heat transfer resulting in low operating temperatures.
- A low temperature plus an integral aftercooler facilitates the removal of a vast majority of the water vapour which is present in the atmosphere and drawn into the compressor with the inlet air.
- The relative dryness of Hydrovane's compressed air greatly minimizes the risk of moisture damage to downstream equipment or the contamination or spoilage of products.

## Low Maintenance Costs

- Because of the simple design, Hydrovane compressors can cost up to 52% less to maintain than other compressor types.
- All consumable service items are easily accessible.
- Specially formulated CS5000 XL Synthetic Oil helps to extend the recommended service intervals to once every 5000 hours.\*

\* Can be extended with oil analysis test.

## The design & quality of Hydrovane is so exceptional, that if it was a car it would:



- be so reliable that its life expectancy could be in excess of 4 million miles.
- only need servicing once in every 80,000 miles.
- have a maintenance cost of only a fifth of a penny per mile.
- be capable of running at maximum speed all day, every day.
- have a superb performance level that remains unchanged throughout its life.

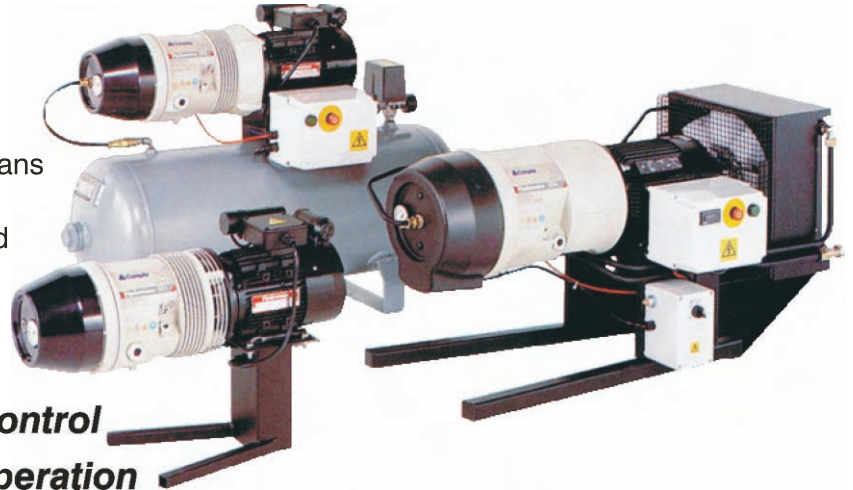
All Hydrovane compressors are designed and engineered to meet the highest standards. They combine the quality, reliability, quietness, efficiency and high performance of a Rolls Royce, with the low maintenance and operating costs you'd expect from a Cavalier. In other words, it's the perfect compressor.

Hydrovane compressors are low vibration machines that are easy to install. They are constantly updated, using the latest in design techniques and are built with state-of-the-art manufacturing and advanced material technologies. As a result, they are very reliable, and achieve a high quality of air with low maintenance cost and low noise levels.

## 5 Series Classic

The Design Council award winning 5 Series air compressors are ideal for a variety of applications including car body repairs, dentistry, packaging, farming and OEM's. They are compact and very quiet, which means they can be situated at the point of use, available free-standing or with a receiver and with over-temperature thermistor protection fitted as standard.

- **Design Council award winner**
- **Thermistor over temperature control**
- **Compact, with smooth quiet operation**
- **Integral aftercooler** • **Oil level sight glass**
- **Discharge pressure gauge** • **Heavy duty industrial Class F motor**



*Hydrovanes are used in the highly advanced Super-X leisure simulators.*

\* Free Air Delivery - Performance is for a statistically average machine running under reference conditions and tested to latest ISO 1217:1996 Annex C. Reference conditions: Absolute inlet pressure 1 bar (14.5 psi); Inlet air temperature 20°C (68°F); Speed - Synchronous 4-pole motor speed. Figures relate to PUAS only.

**PUTS** - Hydrovane compressor with motor, tripod and starter

**PUAS** - Hydrovane compressor with motor, starter, air blast aftercooler and autodrain

**PURS** - Hydrovane compressor with motor, receiver tank and starter

**Note:** Please specify delivery pressure option required when ordering.

### Technical Specifications - 5 Series

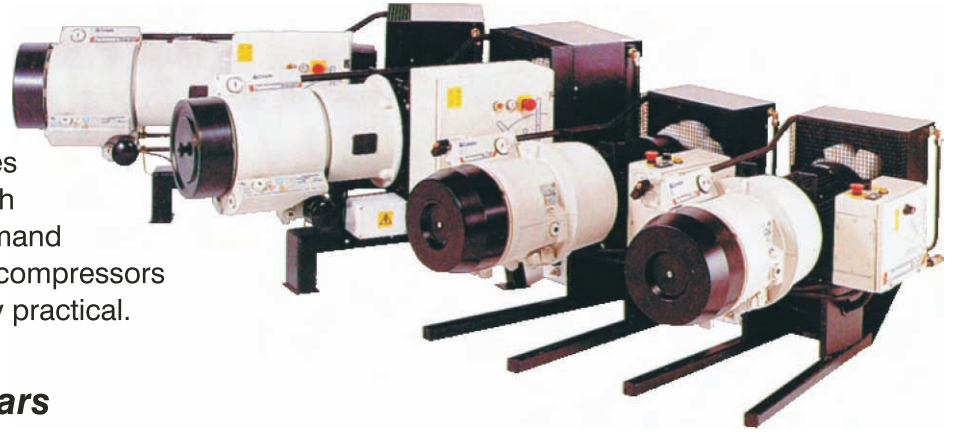
Model	Motor HP	Capacity SCFM@ 100 PSIG	Rotor Speed RPM	Noise Level - dB(A) @ 1 Metre	Oil Capacity (PTS)	Motor Voltage & Phase
10 PURS	2	6.3	1760	65	1.4	110 Volts - 1 Ph through 575 Volts - 3 PH
10 PUTS	2	6.3	1760	65	1.4	110 Volts - 1 Ph through 575 Volts - 3 PH
25 PURS	5	20.0	1760	72	3.8	200 Volts - 1 Ph through 575 Volts - 3 PH
25 PUAS	5	20.0	1760	72	3.8	200 Volts - 1 Ph through 575 Volts - 3 PH

### Dimensions - 5 Series

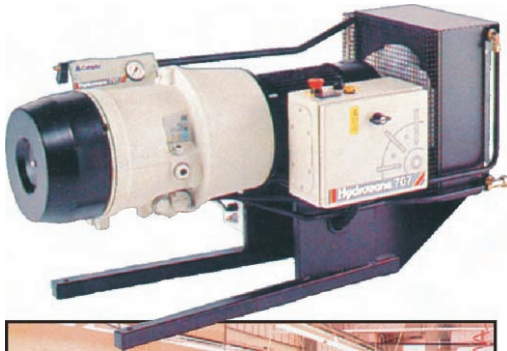
Model	Length in.	Width in.	Height in.	Weight lbs.	Receiver Size - gal.	Controls Regulation
10 PURS	43.00	19.50	30.5	300	30	Start-Stop
10 PUTS	25.00	11.00	18.0	130	-	Continuous Run
25 PURS	63.00	22.75	41.5	565	80	Start-Stop Continuous Run
25 PUAS	41.25	23.38	23.5	315	-	Continuous Run

# 7 Series Classic

Designed to meet even the most rigorous demands for compressed air in this HP range, the 7 Series establishes new standards in energy efficiency and performance. With features that include a servo-unloader valve which hydraulically matches air input to air demand and an integral aftercooler, the 7 Series compressors are tough, durable, quiet and thoroughly practical.



- **Direct drive - no belts or gears**
- **Auto unloader valve - automatically adjusts air output to air demand**
- **Integral aftercooler - air discharge temperature <math><10^{\circ}\text{C}</math> above ambient**
- **Heavy Duty NEMA flange motor** • **Full voltage magnetic starter**



*Hydrovanes provide compressed air for a variety of uses around this manufacturing plant, including vacuum cutters on each of the sewing machines and cleaning of equipment.*

\* Free Air Delivery Performance is for a statistically average machine running under reference conditions and tested to latest ISO 1217:1996 Annex C. Reference conditions: absolute inlet pressure 1 bar (14.5 psi); inlet air temperature 20°C (68°F); Speed - Synchronous 4-pole motor speed.

\*\* bar figures given for comparison only. Models 711 and 715 can be operated at 7 bar with an increase in air output.

## Technical Specifications - 7 Series

Model	Motor HP	Capacity SCFM@ 100 PSIG	Rotor Speed RPM	Noise Level - dB(A) @ 1 Metre	Oil Capacity (PTS)	Motor Voltage & Phase
705 PURS	7.5	27.2	1760	73	-	200 Volts - 3 Ph through 575 Volts - 3 PH
705 PUAS	7.5	27.2	1760	73	-	200 Volts - 3 Ph through 575 Volts - 3 PH
707 PURS	10.0	41.5	1760	74	9.1	200 Volts - 3 Ph through 575 Volts - 3 PH
707 PUAS	10.0	41.5	1760	74	9.1	200 Volts - 3 Ph through 575 Volts - 3 PH

## Dimensions - 7 Series

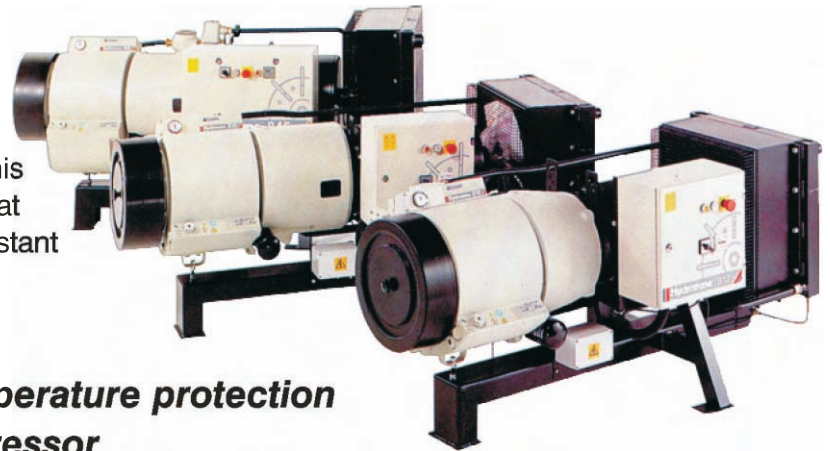
Model	Length in.	Width in.	Height in.	Weight lbs.	Receiver Size - gal.	Controls Regulation
705 PURS	72.0	27.0	51.0	700	120	Start-Stop Continuous Run
705 PUAS	47.0	27.0	25.5	500	-	Start-Stop Continuous Run
707 PURS	72.0	27.0	51.0	700	120	Start-Stop Continuous Run
707 PUAS	47.0	27.0	25.5	500	-	Start-Stop Continuous Run

**6 PUAS** Hydrovane compressor with motor, starter, air blast aftercooler and autodrain

**Note:** Please specify delivery pressure option required when ordering.

# 8 Series Classic

With efficiency and running costs very much in mind, 8 Series models have, amongst its many advanced features, Hydrovane's unique Auto-Idle control system fitted as standard. This system allows the compressor to run off load at much less than 30% of full load power, with instant reaction to air demand.



- **Direct drive - no belts or gears**
- **Thermistor shut-down over-temperature protection plus visual display on air compressor**
- **Integral aftercooler - air discharge temperature <10°C above ambient**
- **Oil circulation by differential pressure - no oil pump required**
- **Full voltage magnetic starter** • **Ductable heat recovery**



*Aston Martin Lagonda's paint shop receives its air from two Hydrovane 8 Series compressors.*

Technical Specifications - 8 Series								
Model	Motor HP	Capacity SCFM@ 100 PSIG	Rotor Speed RPM	Heat Rejected BTU-HR	Cooling Air Flow CFM	Cooling Water Flow IGPM	Oil Capacity Litres	Noise Level-dB(A) @ 1 Metre
68 PUAS	15	65	1760	35,100	720	-	6.3	82
88 PUAS	20	85	1760	46,800	720	-	6.3	82
128 PUAS	25	115	1760	58,337	2,543	-	11.4	83
148 PUAS	30	135	1760	71,300	2,543	-	11.4	84
148 PUWS	30	135	1760	71,300	-	2.8	11.4	83
178 PUAS	40	177	1760	95,000	7,912	-	12.3	85
178 PUWS	40	177	1760	95,000	-	3.3	12.3	83
218 PUAS	50	223	1760	118,800	7,912	-	12.3	85
218 PUWS	50	223	1760	118,800	-	4.2	12.3	83
845 PUAS	60	264	1760	142,500	8,500	-	13.5	87

Dimensions - 8 Series							
Model	Length in.	Width in.	Height in.	Weight lbs.	Air Outlet N.P.T. - in.	Radiator Dimensions in. (w x h)	Cooling Water Inlet - Outlet N.P.T. - in.
68 PUAS	59.50	25.00	36.0	590	0.75	18.50 x 18.75	n/a
88 PUAS	61.25	25.00	36.0	625	0.75	18.50 x 18.75	n/a
128 PUAS	67.00	28.25	39.5	975	1.00	20.25 x 22.25	n/a
148 PUAS	68.50	28.25	39.5	1025	1.00	20.25 x 22.25	n/a
148 PUWS	64.50	28.25	45.0	1090	1.00	n/a	1.0
178 PUAS	73.50	29.50	41.5	1210	1.00	24.25 x 26.75	n/a
178 PUWS	71.00	29.50	49.0	1280	1.50	n/a	1.0
218 PUAS	75.00	29.50	41.5	1275	1.00	24.25 x 26.75	n/a
218 PUWS	71.00	29.50	49.0	1345	1.50	n/a	1.0

\* Free Air Delivery - Performance is for a statistically average machine running under reference conditions and tested to latest ISO 1217: 1996 Annex C. Reference conditions: absolute inlet pressure of 1 bar (14.5 psi); inlet air temperature of 20°C (68°F) Speed - synchronous 4-pole motor speed.

\*\*bar figures given for comparison only. All models can be operated at 7 bar with an increase in air output.

**PUAS** - Hydrovane compressor with motor, starter, air blast aftercooler and autodrain  
**Note:** Please specify delivery pressure option required when ordering.

## A Few Hydrovane Customers

The following are a just a few of our thousand's of satisfied Hydrovane customers:

**Trim Trends • Royal Plastics Group • Annan & Bird Lithographers  
True Lite Industries • Weston Apparel • Inco • Kingston Memorials  
Hillebrand Estates Winery • Canada Post • McCoy Brothers Group  
Creative Memorials • Andres Wines • Department of National Defense  
Atco Electric • Rocky Wood Preservatives Ltd. • Mobil Oil • Mancor  
Popsicle • Nutron Valve Manufacturing • Bombardier • Turbo Cristal**



*The animated Chucky Egg display at Cadbury's World gets all the air it needs from a Hydrovane 5 Series compressor.*



*Hydrovane compressors are built into snow making equipment which is used at ski resorts worldwide.*



*Great Ormond Street Hospital uses Hydrovane compressors to deliver clean, dry, odour free air for medical use.*

**HYDROVANE...QUALITY THAT SIMPLY LASTS AND LASTS!**

# CAI

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