



INTELLIGENT COMFORT CONTROL

COMPANY PROFILE



OUR VISION

To be the World's preferred supplier of Variable Geometry Air Diffusion Products and Accessories.

OUR MISSION

Our commitment is to serve the needs of the air-conditioning industry with product solutions and services that deliver class leading effectiveness, efficiency, flexibility, reliability and value. We strive to achieve this by maximizing the utilization of plant and employee skills through the implementation of fair and equal employment practices and by providing opportunities for growth and advancement. It is our conviction that good employment practices that result in trust and pride for the company, ensure that all employees add value through their activities. The outcome is financial stability for the company and increased security for its employees and suppliers.

AREA'S OF EXCELLENCE

Quality • Flexibility • Innovation • Teamwork • Support

OUR VALUES

- Mutual Respect • Ethics • Hard Work • Diligence
- Honesty Integrity • Loyalty • Pride • Relationships
- Social Responsibility

PRODUCT BENEFITS

- Save Energy • Individual Temperature Control • Superior Comfort and Ventilation
- Low Turndown Ratio without Dumping • Green Building Credits • Unparalleled Zone Flexibility
- Large and Small Buildings • Free Diffuser Management Software
- BMS compatible • Modular or Dedicated Diffuser options

HISTORY

Rickard Air Diffusion (Pty) Ltd was established in Cape Town, South Africa in 1979 with a staff of only two. Today it is the leading producer of Variable Geometry VAV equipment and controls internationally. The company is privately owned, managed and directed by its shareholders.



AWARDS AND ACHIEVEMENTS

In 1994 the company won the Safmarine Trophy for the best export performance in it's class in the Western Cape region.

Since then the company has seen consistent growth in this area. The company's labour force, headed by a fully-qualified engineering staff, is well trained, reliable and committed to producing the highest quality VAV diffuser equipment for which Rickard has become renowned.



PROJECTS

Since 1985 Rickard has actively promoted its products in many countries around the world. Our success has resulted in the installation of our VAV equipment in prestigious buildings such as:

AFRICA

West Hills Mall - Ghana
First National Bank HQ - Namibia
First National Bank HQ - Botswana
High Court - Botswana
SADC - Botswana
Southern Sun Hotel - Maputo, Mozambique
Avenida Marginal Mall - Maputo, Mozambique
Stanbic Bank - Botswana
Chevron HQ - Angola
AAA Office Park - Angola
National Assembly - Angola
British Embassy - DRC
Centurion Petroleum Corporation - Egypt
Port Ghalib Resort Company - Egypt

AUSTRALIA

Echuca Hospital (Excellence in Innovation Award) - Victoria
Sun Coast University Hospital - Victoria
Royal Rehabilitation Centre - Sydney
Yellow Pages House - Sydney

ENGLAND

Rolls Royce Offices - Birmingham
Heathrow Airport

SOUTH KOREA - SEOUL

GT Tower (LEED - Gold Rating)
NC Soft R&D Centre
Yonsei Cancer Centre
Yonsei Library
Daelim D-Tower
Ex-Soldier Tower
AHN Laboratories
Hyundai Yangpyung
Iconix & Ubiquos HQ
LG U+ HQ
Hyundai Samho Heavy Industry
Yakurut Korea HQ

THAILAND - BANGKOK

Sathorn Square Tower (LEED - Gold Rating)
United States Embassy
K-Bank
Betagro Tower
Bangkok Bank
King Power - Pattaya

HONG KONG

Movie City

Nike Town, NY, USA



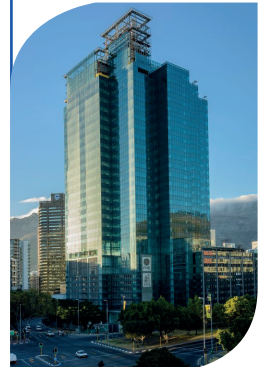
ICC & The Westin - Cape Town, SA



Sathorn Square, Thailand



Portside, Cape Town, SA



UAE - DUBAI

Madinat Jumeirah Resort & Hotel
Endurance City Desert Retreat
Jumeirah Shopping Complex
Royal Mirage

USA

New York Times - NY
Deloitte & Touche - NY
Nike Town - NY
George Washington University - Washington

ISRAEL

Beer Seva Towers
Cable-Satellite Israeli TV Building
Calcified Military Building

MALAYSIA

Telekom Complex - Cyberjaya
AMD - Penang

SOUTH AFRICA - GAUTENG

ABSA Towers (5 Star Green Building)
Aurecon Regional HQ (5 Star Green Building)
Oliver Tambo International Airport
First National Bank - Fairlands
First National Bank - Menlyn
90 Grayston
Adams Adams - Lynwood Bridge

Menlyn Mall
Woodlands Mall
Lifemed Hospital
De Wielgers Hospital
Cell C HQ
Vodacom HQ
Sandton City Mall
Nedbank Complex - Sandton
Mandela Square Mall

SOUTH AFRICA - DURBAN

King Shaka International Airport
Nedbank Regional HQ
First National Bank Regional HQ - Umhlanga

SOUTH AFRICA - CAPE TOWN

Portside (5 Star Green Building)
Aurecon Regional HQ (5 Star Green Building)
Cape Town International Airport
Cape Town International Convention Centre
The V&A Waterfront Mall
Old Mutual HQ
Crystal Towers
First National Bank - Tygervally
E-TV (Media)
University of the Western Cape - Science Building
The One & Only Hotel

Ex Soldier Tower - Korea



GT Tower - Korea



Crystal Towers - Cape Town, SA



Yonsei Cancer Center - Korea



RICKARD

INTELLIGENT COMFORT CONTROL

VARIABLE GEOMETRY
VAV DIFFUSION
EQUIPMENT

DESIGN



Intelligent, dependable and energy efficient products developed to the highest standards.

QUALITY



Every product follows a Complete Quality Process and is thoroughly tested before shipped.

GREEN



Rickard has implemented TQM (Total Quality Management) into the production process and tests every unit before shipping.

CONTROL



Our Free Diffuser Management Software gives you more control than any other VAV Diffuser system available

FLEXIBILITY



Our advanced controls and modular diffusers offer unparalleled zone flexibility and system customisation.



RICKARD

INTELLIGENT COMFORT CONTROL

WHY?

VARIABLE VOLUME DIFFUSERS

The world's need to conserve energy has accelerated the tendency for designers to use VAV Diffusers as the most economical and effective solution to the problems posed by modern buildings multi-zone requirements. No other system offers such low operating costs and flexibility.

With the introduction of VAV Boxes into the air conditioning industry, the idea of varying the volume of supply air through a constant volume outlet (at constant temperature) as room conditions change, seemed totally unacceptable to many engineers. Since dumping and insufficient room air movement results from reducing the volume of air upstream of a constant volume outlet and the fan energy required to overcome the friction in a VAV box is wasteful, an alternative was required.



THE SOLUTION

VARIABLE GEOMETRY VAV DIFFUSION EQUIPMENT

Rickard VAV Diffusers control room temperature by adjusting the volume of air at the diffuser outlet. By changing the diffusers exit geometry, Coanda, Air Velocity and Throw is maintained at minimum and maximum volume. This technology prevents cold air from dumping at minimum, ensures excellent ventilation, air mixing, Air Change Effectiveness (ACE) and therefore thermal comfort (ADPI).

Rickard VAV diffusers also reduce pressure loss in the system due to their aerodynamic design and the absence of restrictions in the duct work.

Studies show that the difference in the fan energy required for a high pressure VAV Box system vs a low pressure VAV Diffuser system is typically 70% more for the VAV Box system. This equates to a 20% saving of the HVAC energy required and about 5% for the entire building (please contact Rickard for a copy of the study carried out by an independent, internationally recognised group of consultants).

APPLICATION

The Rickard Variable Geometry Vari-Disc Ceiling Diffuser is designed for general building zones where uniform radial discharge is the most suitable and desirable supply air distribution pattern. The basic diffuser is available in a wide range of sizes, styles and colours to suit individual requirements.

Uniform air distribution and low noise level have been combined with simple construction and an aesthetically pleasing appearance to provide a unit which is both functional and reliable. All diffusers are constructed from electrically galvanised sheet steel and are finished in a variety of chip resistant epoxy powder coated colours.

Rickard also produce a matching range of Vari-Disc constant volume diffusers ideally suited for use in internal zones where the load fluctuations are not as severe as the perimeter. The Vari-Disc CAV diffusers also distribute the air in a uniform radial pattern. Their flow rate can be set manually with the integral volume control damper adjustable from the face of the diffuser.

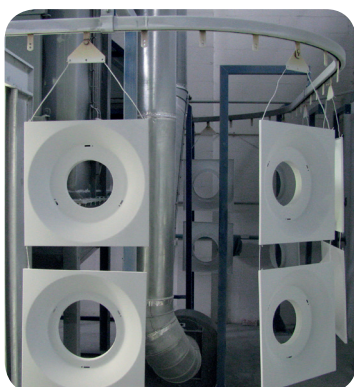


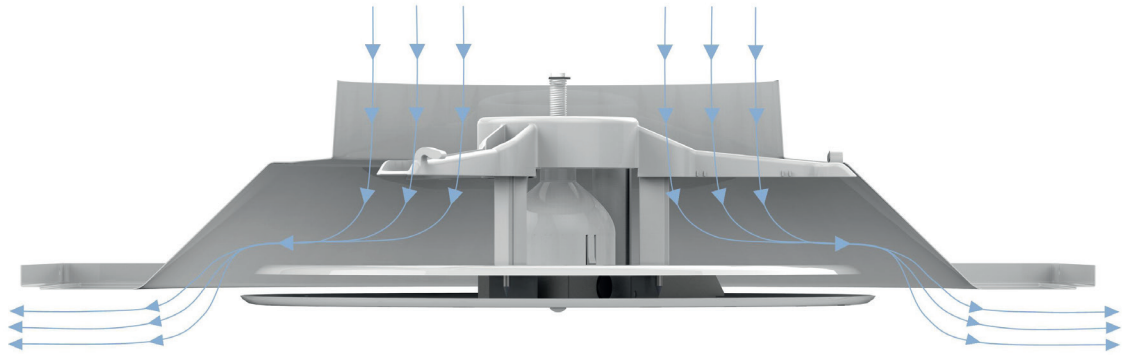
QUALITY ASSURANCE

Every product produced by Rickard is thoroughly tested, before being shipped.

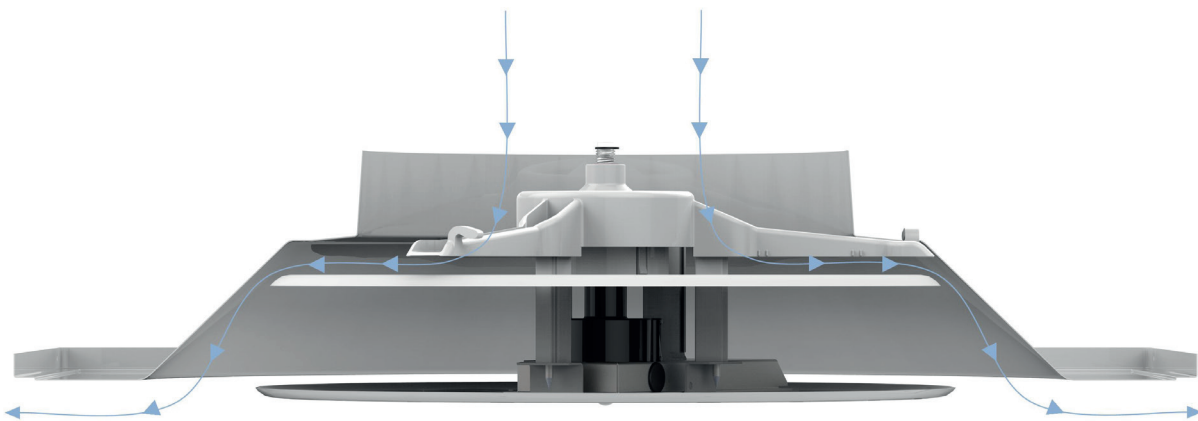
At Rickard we believe in delivering the highest quality products and therefore warrant our electronic and thermal diffusers with confidence to be free from defects in material or workmanship for a period of two years and ten years respectively.

Please contact us for our full terms and conditions.





Aperture fully opened to allow 100% of air flow to enter space.



Aperture almost fully closed to allow only 10% of air flow to enter space

PRODUCT DESIGN

Our products are developed by a team of experienced Engineers who are assisted by Directors with up to four decades of experience and a passion for VAV diffusion. We use the latest design aids such as Solid Modelling and Computational Fluid Dynamics Software and a world class laboratory designed to ASHRAE standards to ensure our products are developed to the highest standards.

At Rickard we strive to be the leaders in intelligent, dependable and energy efficient Variable Geometry VAV diffusion equipment. We do this by constantly improving our existing product range and by creating innovations that truly offer intelligent comfort control.

PRODUCT RANGE

VCD/VSD/VRD1

A versatile electronically actuated and controlled Variable Geometry ceiling diffuser for variable air volume cooling and heating applications.

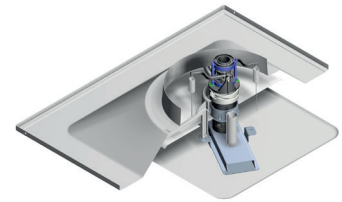
- Available in five neck sizes from 150mm (6 ins) to 350mm (14 ins)
- Sizes to suit metric and US customary unit ceiling configurations
- Air volumes from 62 l/s (131 cfm) to 465 l/s (985 cfm)
- Operating pressures from 20 Pa (0.08 ins wg) to 70 Pa (0.28 ins wg)
- Minimum air volume turn down to as low as 10% of design maximum
- BMS Compatible and comes with free diffuser management software



VCD/VSD/VRD4 & 5

A versatile thermally actuated Variable Geometry ceiling diffuser for variable air volume cooling and heating (4) or cooling only (5) applications.

- Available in four neck sizes from 150mm (6 ins) to 300mm (12 ins)
- Sizes to suit metric and US customary unit ceiling configurations
- Air volumes from 62 l/s (131 cfm) to 364 l/s (771 cfm)
- Operating pressures from 20 Pa (0.08 ins wg) to 70 Pa (0.28 ins wg)
- Minimum air volume turn down to as low as 10% of design maximum



CCD/CSD/CRD3

Constant Volume Diffusers

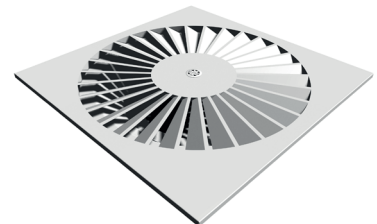
- Ex-Stock of 150-350mm neck sizes, S595 (CCD) & Round (CRD)
- Large face plate also available in square or round
- Built in volume adjustment accessible from the face of the diffuser



VSW/VRW1

A versatile electronically actuated and controlled Variable Geometry swirl ceiling diffuser for variable air volume cooling and heating applications.

- Available in four neck sizes from 150mm (6 ins) to 300mm (12 ins)
- Sizes to suit metric and US customary unit ceiling configurations
- Air volumes from 68 l/s (144 cfm) to 296 l/s (627 cfm)
- Operating pressures from 30 Pa (0.12 ins wg) to 70 Pa (0.28 ins wg)
- Minimum air volume turn down to as low as 25% of design maximum
- BMS Compatible and comes with free diffuser management software



CSW/CRW

Constant Volume Swirl Diffusers

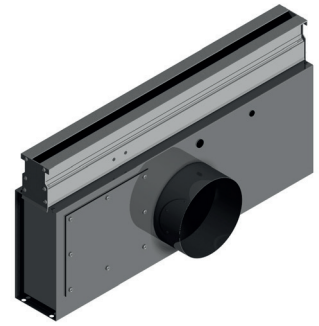
- Ex-Stock of 150-300mm neck sizes, S595 (CSW) & Round (CRW)
- Built in volume adjustment accessible from the face of the diffuser
- Ceiling-T, Plastered Ceiling and Mounting in Free Space options available



VLN1

A versatile electronically actuated and controlled Variable Geometry linear diffuser for variable air volume cooling and heating applications.

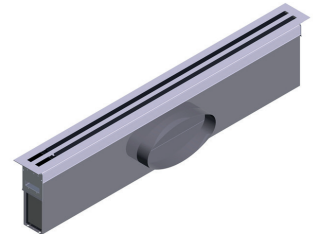
- The ideal solution to control a buildings internal perimeter zone
- Available in four standard diffuser lengths: 600mm (24"), 900mm (36"), 1200mm (48") & 1500mm (60")
- Air volumes from 41 l/s (87 cfm) to 236 l/s (500 cfm)
- Operating pressures from 30 Pa (0.12 ins wg) to 70 Pa (0.28 ins wg)
- Minimum air volume turn down to as low as 10% of design maximum
- BMS Compatible and comes with free diffuser management software



VLN4 & 5

A versatile thermally actuated Variable Geometry linear diffuser for variable air volume cooling and heating (4) or cooling only (5) applications.

- The ideal solution to control a buildings internal perimeter zone
- Available in four standard diffuser lengths: 600mm (24"), 900mm (36"), 1200mm (48") & 1500mm (60"), One and two 19mm (3/4") slot variants available
- Air volumes from 41 l/s (87 cfm) to 236 l/s (500 cfm)
- Operating pressures from 30 Pa (0.12 ins wg) to 70 Pa (0.28 ins wg)
- Minimum air volume turn down to as low as 30% of design maximum
- Adjustable pattern controllers direct the air vertically or horizontally



CLN3

Constant Volume Linear Diffuser

- Adjustable pattern controllers for vertical or horizontal flow
- Available in four standard diffuser lengths: 600mm (24"), 900mm (36"), 1200mm (48") & 1500mm (60"), One and two 19mm (3/4") slot variants available
- Shield transmitted loads from a building's exterior by adjusting to the vertical position
- Create good mixing without drafts by adjusting to the horizontal position
- Attractive alternative for internal zones



WBD1

A versatile electronically actuated and controlled Variable Geometry sidewall bulkhead unit for variable air volume cooling and heating applications.

- Available in standard widths from 300mm (12 ins) to 800mm (32 ins)
- Available in two standard height options 100mm (4") & 150mm (6")
- Air volumes from 58 l/s (123 cfm) to 520 l/s (1101 cfm)
- Operating pressures from 20 Pa (0.08 ins wg) to 50 Pa (0.20 ins wg)
- Minimum air volume turn down to as low as 10% of design maximum

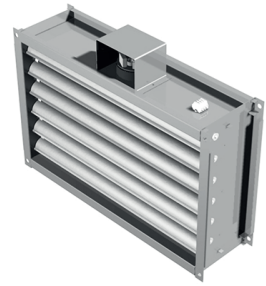


PRODUCT RANGE

PCD

A Variable Geometry pressure control damper designed specifically for duct pressure control in variable air volume system installations.

- Width increments of 50mm (2") from 200mm (8") to 1000mm (40")
- Height increments of 50mm (2") from 200mm (8") to 1000mm (40")
- Multiple dampers are used for larger sizes
- Built with integral sheet metal flanges
- Standard 24V AC electric actuators
- Static pressure control packages available
- Operating Pressures up to 200Pa (0.8" ins wg)
- Linear control characteristics



RVD

Variable Core Fixed Vane Constant Volume Radial Diffuser

- Variable Heating/Cooling Changeover (Manual/Thermally Actuated)
- Sizes: 315, 400 & 630mm
- Available with or without Square or Circular Plenums
- Ceiling-T, Plastered Ceiling and Mounting in Free Space options available



RCD

Fixed Vane Constant Volume Radial Diffuser

- Sizes: 315 & 400mm
- Available with or without Square or Circular Plenums
- Ceiling-T, Plastered Ceiling and Mounting in Free Space options available



RAG

Return Air Grilles

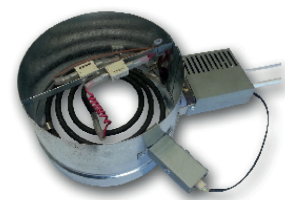
- Ex-Stock in S595 & 595x1195mm, with/without Hinged Filter, Straight (RSV)/Curved Vane RCV)
- Aluminium/Plastic Egg Crate & Perforated Plate Options available
- Special sizes and colours available



ACCESSORIES

Electric Heating

- Heaters are energised when it is not possible to close the diffuser further to warm the room
- Saves building energy as they prevent the entire plant from working harder to satisfy a few areas that are out of control
- Usually mounted in the neck of a diffuser



ACCESSORIES

Occupancy Sensor & Light Switch Integration

Built in Diffuser Occupancy Sensors save energy by closing the diffuser and turning off the lights when a zone is unoccupied.



Airflow Measurement

- Measures total pressure and air volume for easy commissioning
- Limit maximum and minimum diffuser volumes to meet a building's design
- Integration with the building BMS
- Troubleshoot zones that are out of temperature control



Infrared Remote Set Point Adjuster

- Gives the user individual temperature control of an entire zone
- Can improve productivity and job satisfaction
- Save Energy by switching the diffuser to eco mode (diffuser closes)
- Plug and play conversion (MLM Controls)



CONTROLS

MLM Controls

MLM or Multi-Loop-Modular Controls were born from over 30 years of VAV diffuser experience and Rickard's vision to enhance the benefits of VAV diffusion. Comfort can be customised for large zones or specific individuals, powerful diffuser management software gives the user complete control over an entire buildings diffusers and intelligent energy saving software and hardware enhances energy savings. The modular benefits of VAV diffusion are maximised to allow complete layout flexibility without adding unnecessary cost and the cost of BMS integration is reduced by using Innovative Master Communication hardware that reduces the number of access points to one for every 60 diffusers. Accessories like Electric Heating, Occupancy Sensing, Light Switching, Airflow Measurement and Infrared Remote Set Point Adjusters are also available.



ML Controls

MLC or Multi-Loop Controls is a dedicated Master and Slave system that can be easily linked to building's BMS and Rickard's powerful diffuser management software. Just like MLM Controls, the cost of BMS integration is reduced by using Innovative Master Communication hardware that reduces the number of access points to one for every 60 diffusers. The system offers all of the benefits of MLM controls except for the ability to change slaves to masters. Occupancy Sensing, Light Switching and Airflow Measurement accessories are not available.

INTERNATIONAL DISTRIBUTORS

AUSTRALIA

FANTECH.
TEL: +61 3 9554 7882

CAMBODIA

GAGE & C.
TEL: +855 3662 3888

EGYPT

PROSERVICE.
TEL: +202 2 671 6739 49

HONG KONG & CHINA

ANWAY ENGINEERING CO. LTD.
TEL: +8522 598 4228

INDIA

RUSKIN TITUS INDIA PVT.
TEL: +91 96504 73555

INDONESIA

MULTITEK INDOPANCA.
TEL: +021 5366 1985

ISRAEL

METALPRESS EXPORT.
TEL: +972 3 551 4633

LAOS

THAI AIR MOVEMENT AND CONTROL.
TEL: +662 316 5432

MALAYSIA

ELTA FANTECH ASIA.
TEL: +60 3 7846 0340

MYANMAR

GLOVER ELECTRICAL INDUSTRIES.
TEL: +951 665848

NAMIBIA

STARKE MANUFACTURING & AIR CONDITIONING.
TEL: + 264 612 61647

NEW ZEALAND

AUCKLAND FANTECH.
TEL: +64 09 4446266

CHRISTCHURCH FANTECH.

TEL: +64 03 379 8622

PAKISTAN

INSTRUMENTATION & MANAGEMENT SYSTEMS.
TEL: +92 21 3431 3196/7

SINGAPORE

THE LGM GROUP PTE. LTD.
TEL: +65 6586 9017

SOUTH KOREA

GBK CO. LTD.
TEL: +822 461 2666

THAILAND

THAI AIR MOVEMENT AND CONTROL.
TEL: +662 316 5432

UNITED ARAB EMIRATES

GULF ENGINEERING SYSTEM SOLUTIONS FZC.
TEL: +91 6 5578100

USA

TITUS (ELECTRONIC & THERMAL PRODUCT).
TEL: +972 212 4800

RICKARD AIR DIFFUSION (THERMAL PRODUCT).
TEL: +972 744 9090

UNITED KINGDOM

ELTA FANS. TEL: +44 0 1384 275 800

VIETNAM

DOUBLE WIN ENGINEERING & TRADING ENTERPRISE.
TEL: +848 3862 7870

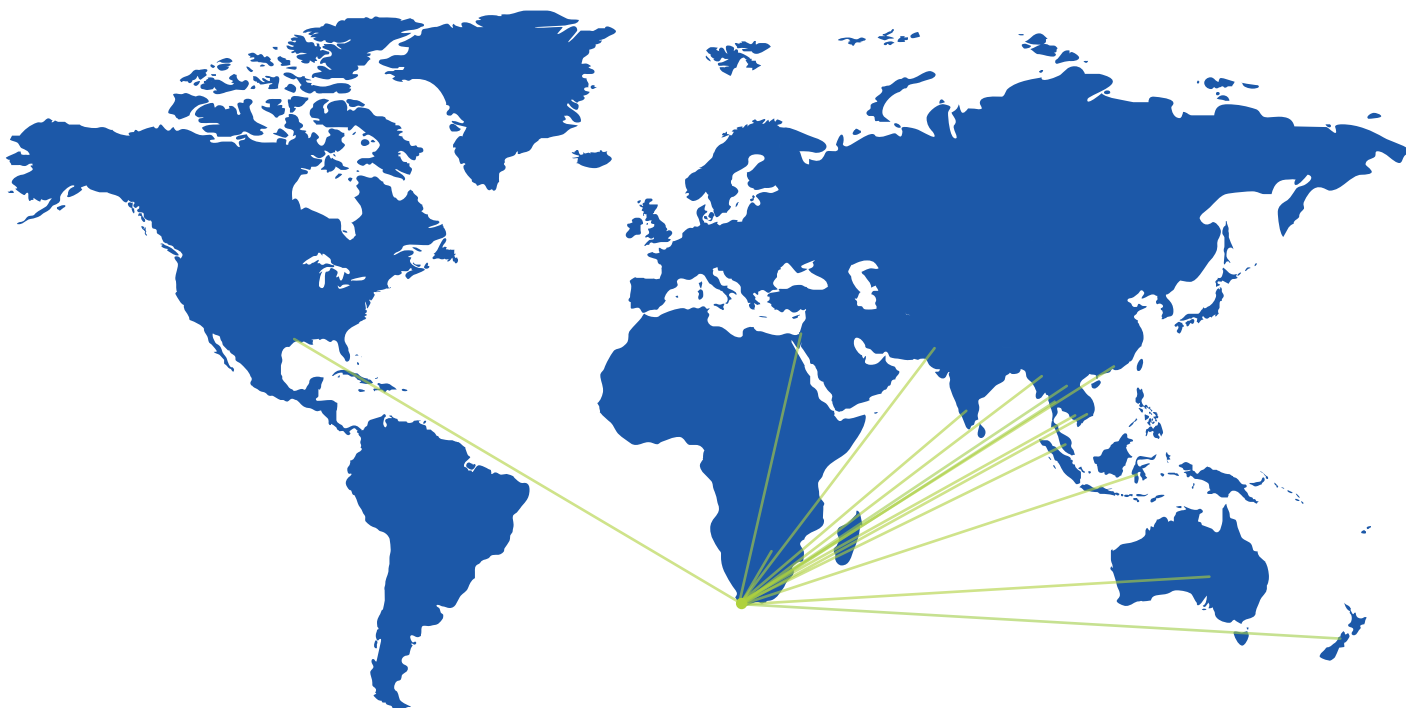
SOUTH AFRICAN DISTRIBUTORS

DURBAN

SA VENTILATION & AIRCON AGENCIES. TEL: +27 74 169 6168

PORT ELIZABETH

AIRMACH SYSTEMS. TEL: +27 41 487 1781



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WRITE TO US:

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P.O. BOX 1604, Silverton, Pretoria, 0127, South Africa.



SUPPORT

Rickard believes part of its success lies in the way we support our customers.

We are always willing to help because we understand that our product forms part of a bigger system that needs to work seamlessly with ours. If you have a product specific or general system query please don't hesitate to contact our experienced Sales or Engineering staff. If necessary a Rickard representative will meet you on site to resolve an issue or give you guidance.

SOUTH AFRICAN DISTRIBUTORS

Durban: SA Ventilation & Aircon Agencies Tel: +27 74 169 6168

Port Elizabeth: Airmach Systems Tel: +27 41 487 1781

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