

Partnership knowledge gives JUN-AIR and BCAS the advantage at the International Tennis Federation

Having reviewed and restructured its European distribution network to focus on a more distributor-driven approach to industrial sales, the Gast Group – a leading designer and manufacturer of precision air products and member of IDEX Corporation’s Health, Science & Safety division – has seen numerous successes since the creation of a partnering agreement with BCAS Limited, which covers the supply and service of GAST and JUN-AIR ranges in London and the south east of England.

Redditch, England (PRWEB UK) 1 October 2014 -- BCAS Limited’s knowledge of compressed air systems and 25 years of experience with the JUN-AIR range of air compressors provides a unique proposition for end users and OEMs, and one recent and high-profile example of this relationship has seen JUN-AIR compressors supplied to the laboratories of the technical department of the International Tennis Federation (ITF), the governing body of the sport of tennis.

Commenting for BCAS Limited, sales and marketing director Christine Peaden says: “BCAS Limited is delighted to be working with such a professional organisation as the International Tennis Federation (ITF). We also have every confidence in JUN-AIR as a premium brand – from quality and performance, through to support and personnel – and are always happy to recommend their products to our customers.”

As the International Tennis Federation’s sports engineer James Spurr explains, as in any sport, rules have to be established and enforced and the responsibility starts with governing bodies. “The mission of the ITF is to protect the nature of the game of tennis and we do that in a number of ways. One key element is to protect the skills traditionally required to play the game and our interpretation of that is when on court, you want the best player to win, not necessarily the player with the best equipment!

“It may then come as a surprise to many, but the document describing the rules of tennis is fairly small and, while including the familiar rules, it also details the equipment that players can use at official tournaments.”

However, while protecting tennis and ensuring it can be enjoyed by both players and spectators, the governing body also has a responsibility to encourage innovation within the game. The ITF’s technical department and its laboratories are therefore solely focussed on equipment, such as the ball and racquet, and must ensure that regulations are met. At the same time it must also encourage manufacturers to be innovative, as it is in their best interests and those of the sport, to develop new technologies.

“Innovation is encouraged at the International Tennis Federation,” says James. “But we must ensure that evolution does not become revolution because competitors and spectators are generally uncomfortable with that; and there are examples from other sports where such change has occurred and governing bodies have had to step in and retrospectively make changes to the rules.”

The ITF’s laboratories apply a number of fixed and mobile devices to test tennis balls and racquets and take direct measurements such as court speed. The results are used to investigate where performance comes from – how the modern tennis player interacts with the ball using speed and spin; how the ball interacts with the various playing surfaces; and how the player moves around the court. However, the one core objective of the

ITF's laboratory is ball approval.

To ensure that tennis balls can be used at official tournaments such as Wimbledon and the Australian and US Opens, manufacturers submit samples of approximately 300 different ball brands to ensure that each design falls within the ITF's specification of a tennis ball, and therefore gain the all-important ITF-approved status. Here, tests are pneumatically driven using compressed air from JUN-AIR oil-free and oil-lubricated compressors.

Here, automated machines using oil-lubricated 12-25 JUN-AIR compressors are loaded with up to 12 tennis balls to be tested for stiffness. Pneumatic grippers move tennis balls from a carousel onto two electro-mechanical platens, which stress and measure each ball a number of times on their various axes. Another durability test uses compressed air powered cannons driven by oil-free OF302-4B JUN-AIR compressors to fire six tennis balls 20 times onto a steel surface at 90mph (the typical speed of a forehand return or second serve). This replicates their typical usage over nine games. As the balls degrade with use and become lighter; and as the compound breaks down and the felt wears, a secondary bounce test measures rebound height from a 2.5m-drop, after which the balls are returned to the platen-based deformation machine for additional testing.

The technical department is also responsible for conducting field tests at locations all over the world; and ahead of major tournaments such as the Davis Cup and the Fed Cup. Here, the team has access to eight portable oil-free JUN-AIR compressors (including four of the company's portable i40-4B iSeries models) contained in flight cases.

Court Pace Rating (CPR) – the speed of the court – is measured using a similar cannon-based setup as the laboratory. Using compressed air, tennis balls are fired at approximately 75mph onto eight different locations of the court, which can be grass, clay or acrylic surfaces. The ball is fired between two light-gates to measure the horizontal and vertical components of the ball speed prior to and following impact. After some number crunching, the CPR is a number between 0 and 100 (but preferably between 24 and 50) that determines if the court pace falls within the permitted parameters for a tournament.

“The reason for field testing of court speeds is to prevent the risk of injury or accidents associated with low-friction courts; and to prevent any one nation having too much home advantage by practising on a court that is slower or faster than those of the visiting nations.” says James.

Fortunately, as tests are usually carried out in the days/weeks before a tournament, if the court is deemed too fast or slow and therefore too dangerous to play on, it can be replaced within hours and additional tests carried out. However, in extreme cases the host nation could forfeit the matches, or be penalised financially or through the deduction of team points.

Commenting on the compressors' performance, James says: “Ball tests are carried out daily during the laboratories' busy periods so the JUN-AIR compressors are well used. However, apart from routine maintenance and inspections, during which oil levels on the oil-lubricated compressors are checked and topped up if required; air tanks drained of water; and air filters cleaned of debris from the balls' felt covering, we have never had a failure and the compressors are always running well.”

The JUN-AIR OF range of oil-less air compressors offer an unrivalled combination of low noise levels, reliability, long life and low maintenance. With decibel ratings as low as 47dB(A) when housed in attractive soundproof cabinets, models in the OF oil-less range have the lowest noise levels available, making them ideal

for installations within laboratory environments and even in or near individual workstations.

The compact and self-contained JUN-AIR iSeries compressed air package consists of a rocking piston compressor and air receiver and is available with three compressor combinations and two different tank sizes, providing airflow rates from 28 to 56 lpm at 7 bar, a maximum pressure rating of 7 bar and tank sizes from 4 to 25 litres.

With noise levels below 45 dB(A), the JUN-AIR oil-lubricated piston compressor range comprises nine models offered in combination with five different receivers (from 4 litres to 150 litres) to create a wide range of complete compressor offerings.

Commenting for Gast Group, European sales director Andre Goodson says: “We are delighted to be involved with such a high-profile sporting body and grateful to BCAS Limited for providing the International Tennis Federation with expert advice on the JUN-AIR product and its on-going servicing and maintenance. Their 25 years of experience with JUN-AIR puts them in an enviable position and we believe that the combination of BCAS’s knowledge of compressed air systems and Gast Group’s vast range, gives the partnership a unique proposition for end users and OEMs.”

For further information call Gast Group on +44 (0)1527 504040, email [gastgroup.uk\(at\)idexcorp\(dot\)com](mailto:gastgroup.uk(at)idexcorp(dot)com) or visit www.jun-air.com.

Contact Information

Andre Goodson

Gast Group

<http://www.jun-air.com>

+44 1527504040

Simon Cantillion

Cantillion King Advertising

<http://www.cka.co.uk/>

01453 755551

Online Web 2.0 Version

You can read the online version of this press release [here](#).