

BUCHER
municipal

AeroFocus

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Above and **beyond**

Bucher Municipal offer an advanced range of reliable, cost effective and intelligent products specifically designed to keep airports running at full capacity and meeting the highest safety standards. Find out more on page 6.



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you name it, we do it!

Making a difference every day



Karel Goedkoop

“We are aware of our responsibility to society and the environment for ensuring airports and surrounding spaces are kept clean and safe. We live up to it by focusing on functional engineering, environmental integrity, and driving comfort.”

Welcome to the second edition of AeroFocus, our new airport focused magazine, where we share news about Bucher Municipal technologies, partnerships, and innovations supporting our clients to keep airports running smoothly and efficiently.

We are proud to partner airports globally with industry-leading products, raising the bar for efficient, profitable and sustainable sweeping, stand cleaning and glycol recovery operations.

We firmly believe that intelligent technologies allow us to pave the way forward and our revolutionary fleet management platform Bucher Connect is just the start.

At Bucher Municipal we are continually innovating, prioritising sustainable solutions and identifying partnerships to keep us leading the way for our airport clients – giving you the best solutions for a cleaner, safer tomorrow.

In this edition, we will showcase the range of Bucher Municipal solutions making a difference every day across airports globally.

We will also share insights about upcoming innovations and the Bucher difference when it comes to first-class service and support.

We hope you enjoy reading.

Karel Goedkoop
Business Development, Europe and Americas, Bucher Municipal

A new frontier for the MaxPowa V65



Earlier this year Bucher Municipal, in partnership with Transtech in South Africa, secured an order for a MaxPowa V65t airport sweeper for one of the most remote airports in the world, St Helena (IATA: HLE). St Helena is a remote volcanic tropical island situated in the South Atlantic Ocean, 1210 miles west of the coast of south-western Africa.



The Airport opened in 2017 and regular flights operate to/from Johannesburg, South Africa and is a vital link to support the islands population and economy.

We speak with Marten Fourie; Communications, Navigation and Maintenance Manager at St Helena airport to understand more about the project:

Why did you choose Bucher Municipal as the supplier?

Being so remote, support and back up is critical to our organisation. With weekly flights to South Africa and Bucher being represented locally by their partner Transtech, it meant we would have expert support for service and spares. Transtech had also supplied dump trucks to St Helena Island on previous occasions.

What are your initial experiences with the machine?

The machine meets our needs perfectly, being so exposed to the elements means that we experience specific challenges due to cross winds blowing debris on to the runway and wildlife fowling. The Machine has the performance we need to keep the runway and taxiways clear of FOD and maintain operational safety.

What are the challenges with your airport operations?

With the airport being a remote and exposed location, debris is inevitably blown onto the airport areas and the



performance of the machine has enabled fast and efficient cleaning of FOD ensuring safe airport operation.

How has working with Bucher and Transtech helped your business?

The V65 product has helped improve the safety and operational uptime of the airport and having a Transtech who understands the challenges we face operating remotely, has ensured we are supported going forward...

Christian Schneck Head of Sales & Service - Africa, Middle-East, Indian Subcontinent for Bucher Municipal adds:

As a company we are delighted to be working so closely with Transtech and St Helena airport to successfully support operational cleaning requirements. This project is a showcase of what is achievable in a strong partnership between manufacturer, dealer, and customer. With a range of innovative product solutions tailored for various airport cleaning application tasks in the Bucher Municipal product range and a knowledgeable dealer network I am anticipating many further successful projects across our region.

Virginia airports welcome V90 arrivals



Two Bucher Municipal XPowa aero V90s have been commissioned at Richmond and Roanoke airports in Virginia to support their daily operations and improve productivity.



Bucher Municipal North America and their exclusive aviation partner, Fortbrand secured the order for the two XPowa V90s from a national cooperative bid. After completing a week of bespoke training, the two V90s are now in service and ready to assist Richmond and Roanoke airport operations.

Bucher Municipal North America General Manager, Todd Parsons has been working alongside trusted aviation partner Fortbrand for over 20 years and they have been instrumental in securing the two V90s for Roanoke and Richmond airports. With both airports' glycol recovery equipment coming to an end, Todd and the Fortbrand team completed an extensive discovery process to understand their requirements.

Andrew Perrone, Fortbrand Vice President Airfield Maintenance Equipment, comments: "Richmond and Roanoke airports battle ice and snow on a regular seasonal basis so improving their glycol operations was our top priority. The Bucher XPowa V90's powerful vacuum system means it can collect any fluids from the ground in one pass to clear up the area for airport traffic, improving efficiency and halving the costs of their glycol operations."

Before the V90s were commissioned both Richmond and Roanoke airports benefitted from specialist service and operator training with five experts from Fortbrand and Bucher Municipal. This comprehensive training was headed up by Robert Wolff, Bucher Municipal Export Sales Manager who flew in from Germany to facilitate the week-long course.



Bucher Municipal North America General Manager, Todd Parsons adds: "Bucher Municipal have a reputation in the US for high quality, efficiency, and sustainability. We provide machines that last and the airports that already have a V90 XPowa Aero in service are seeing a significant improvement in their daily operations."

"The Bucher XPowa V90's powerful vacuum system means it can collect any fluids from the ground in one pass to clear up the area for airport traffic, improving efficiency and halving the costs of their glycol operations."

Liverpool John Lennon Airport is the award-winning airport of choice for passengers from across the North-West England and North Wales. It is recognised for its best-in-class operational performance and is one of the UK's best performing airports when it comes to flight punctuality.

Imagine the possibilities



With direct flights serving over 50 destinations in the UK and across Europe and most recently the announcement that Liverpool John Lennon will become Jet2's 11th UK base housing 4 new aircraft, providing a safe and compliant environment is fundamental for Melanie Lawley, Head of Airfield Operations, and her team.

When airport operations restarted after the covid lockdowns, there was a greater need for Liverpool John Lennon to invest in high-quality equipment to provide a clean-up of both the car parks, which had been underused causing a build of tree leaves and debris in the kerbs, and to improve efficiency of daily airside tasks. After receiving an email from the Bucher Municipal airport team, Melanie Lawley enquired and purchased a second-hand CX201 which arrived within 6 weeks of ordering.

Melanie Lawley explains: "The CX201 was our first Bucher Municipal machine and our first drivable compact sweeper. Not only did we need a small, nifty addition to our fleet airside, but we had a large build-up of tree litter in our car parks from the covid pandemic and our handheld compacts were just not cut-out for the scale of the task.

"The process was seamless from enquiry to delivery with a successful demonstration, followed by a tailored 'Train the Trainer' day with a member of Bucher's experienced training team. Their in-depth knowledge and expertise enabled our trainer to deliver the in-house training to our 16 operators."

Liverpool John Lennon's CX201 compact sweeper has been undertaking daily maintenance at the airport for nearly a year and it's making a huge difference to an airport that prides itself on being the 'Faster, Easier, Friendlier' Airport.



Melanie comments on the impact the CX201 has made to their airport fleet: "The CX201 compact has made daily operations a lot easier and has proven indispensable to our team. It cleans and clears our smaller but very important airside areas like the baggage bays or when passengers drop things like Duty Free bottles near the aircraft, which happens more often than you may think when passengers are boarding/deboarding! This is crucial for us to deliver an enhanced customer experience whilst ensuring the highest safety standards."

For further information on Bucher Municipal's range of airport compact sweepers, please contact Global Key Account Manager for Airports, Mike Moore:
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Above and beyond...

Bucher Municipal's airport sweeping and cleansing equipment has been trusted by international clients in 80 different countries for 50 years. We offer an advanced range of reliable, cost effective and intelligent products specifically designed to keep airports running at full capacity and meeting the highest safety standards. Our innovative, high-quality airport solutions are matched with the customer service and support that goes one step further to exceed your expectations.

Meeting the highest standards is as important to us as it is to you, and we do this through our dedicated airport team offering comprehensive end-to-end service and support. From our highly skilled team of engineers offering onsite support; €20M of stock housed in our strategically located global warehouses to our telematics repair and service platform, Bucher Connect.

Dedicated lifetime service

Our specialist airport team understand the complex demands of the airport environment. To ensure the highest levels of uptime, we offer on-site support facilitated by our strategically located team of factory trained engineers. As well as practical customer service, Bucher Municipal offer next-level customer solutions by harnessing technology and intelligent vehicles systems to anticipate your needs.

Right fit, first time

Louisa Monk, Parts Logistics Manager explains how the extensive investment in the spare parts support and logistical supply chain will serve you as an airport customer:

"It all starts with planning and documentation, every part is catalogued and recorded relevant to the machine serial number, this makes the part identification and ordering process simple. You can either order through our intuitive online shop which enables airport clients to check spare parts availability, prices, and place orders round the clock; or you can order through your parts manager, in both instances, the relevant parts warehouse team are focused on getting that part to you urgently. Once your order is placed the likelihood is stock is contained within our €20m inventory so it can be picked and dispatched that same day. Our aim is simple, to maximise your uptime with efficient parts ordering and logistical solutions."



Next level training

Our specialist airport focused training programmes will ensure your team have all the tools they need to get the most out of your Bucher machines.

Demonstration and Training Coordinator, Fiona Hadley explains how specialist training supports fewer breakdowns and more operational time for airport customers: "Our accredited City & Guilds operational training courses provide specialised courses which highlight ways to use the machine to its fullest potential, increasing operational efficiency, reducing costs and making sure your machine serves you well year after year. This is carried out on your site using your vehicles, ensuring the training is tailored to the specific working environment".

Intelligent solutions

Our intelligent digital platform, Bucher Connect enables premium support in planning and predicting usage and in maintaining equipment.

Harnessing the technology puts you in full control of your Bucher equipment with the peace of mind that our expert airport team are behind you. A few of the many Bucher Connect features to note – the automatic sweeping and intelligent route selection functions, enables operators to monitor vehicle cleaning records to ensure no area is missed. You can use the preventive maintenance system to plan fleet availability and service of equipment, securing maximum uptime and efficient operations utilising the right equipment for the right application.

For more information or to find about Bucher Municipal's tailored airport maintenance packages contact, Global Key Account Manager Mike Moore:

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"We offer certified airport-specific onsite training for up to four experienced operators using your own equipment and you can choose four specific topics to be covered in-depth ensuring you have experts in every area required."



Aero-vation...



In this edition of AeroFocus we meet Gareth Knopp, the Innovation and Simulation Manager for Truck Mounted Sweepers to discuss the latest developments and techniques used in design of the Bucher Municipal range of aero sweepers.

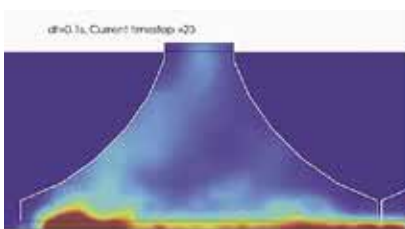
Gareth Knopp is responsible for all the simulation work which goes into the truck-mounted sweeper development including Computational Fluid Dynamics (CFD) for airflow development, Finite Element Analysis (FEA) for ensuring the structural integrity of the designs and 1D Analysis for systems integration simulation, in addition to developing emerging technologies.

Tell us a bit about your role

Gareth: "Simulation and analysis are at the heart of my role as they are enabling technologies for innovation. I lead a multidisciplinary team of engineers, from Structural Analysis, CFD, 1D, mechanical, systems and software, and

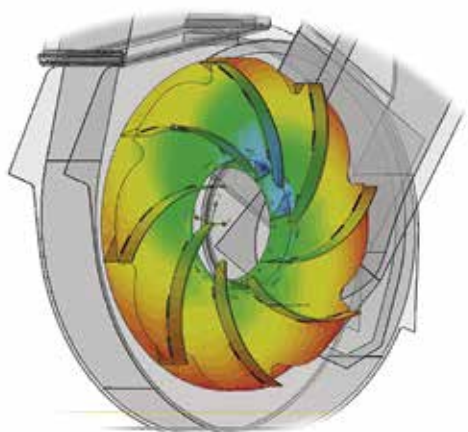
oversee how these techniques integrate into new product development streams.

"It's our vision to drive forward innovation utilising simulation-driven and data-driven designs to develop cutting-edge truck mounted sweepers which can manage tasks in the most challenging applications. The safety critical nature of airport cleaning requirements is a clear focus for our aero range of machines. Engineers can be conservative by nature, but at Bucher Municipal we maximise the use of data-driven techniques, simulation tools and verify with practical physical testing which allows us to be confident in harnessing innovative designs."

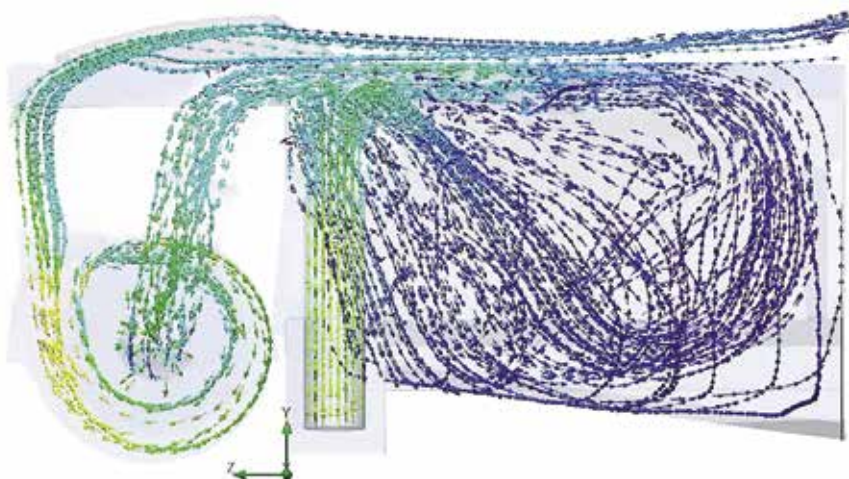


Discrete Element Method (DEM) simulation of nozzle & brush system – cutting edge simulation.





Tri-Plate impeller pressure pulse on blades.



Full hopper and system simulation – Smoothflow system (patent granted).

“It’s our vision to drive forward innovation utilising simulation-driven and data-driven designs to develop cutting-edge truck mounted sweepers.

How does harnessing this approach help the product development process?

Gareth: “CFD enables us to use computers to model fluid flows to design fan and airflow systems – which are essentially the heart of an air sweeper. The technology makes design modification and optimisation much easier, speeding up the development process and reducing the need for multiple physical prototypes to be manufactured and tested. For a recent performance driven fan design project, we modelled over 100 different iterations at the design stage, but only 1 prototype needed to be produced. This not only reduced the time from concept to market but also delivered system performance far beyond the levels achievable through physical iteration development.”

How are Bucher Municipal leading the way with innovation?

Gareth: “Innovation, sustainability and AI can all be used as buzzwords in the industry but at Bucher, we are embedding simulation and analysis in the design process to deliver customer driven solutions. We are at the forefront of developing technologies and want to ensure these methods are transferrable across all products and to our customers.

“Innovation runs through the core of everything we do, with simulation enabling these technologies for innovation. We are focused on developing unique and optimum solutions for our customers, this has led to us being able to protect the intellectual property of these designs. Currently we have several patents pending for various innovative and customer value enhancing features. In July, I had the opportunity to present our progress to Jacques Sanches, the CEO of Bucher

Industries (the parent company of Bucher Municipal), which shows just how pivotal the capabilities of simulation and data driven designs are for Bucher’s determination for innovation.”

Do you collaborate with any external partners for research/development?

Gareth: “We always want to bring fresh minds and fresh knowledge into our engineering department. We partner with leading universities and research focussed organisations including to drive our expertise and develop new technologies. Currently, we have several engineering undergraduates from various Universities.

Can you share any current developments and the benefits for airport customers?

Gareth: “Harnessing results from simulation is accelerating across many industries but at Bucher Municipal we started utilising these techniques in 2017/18. The maturity of the technology within our processes and products is delivering measurable benefits and differentiation to our customers. Successful projects have already resulted in being able to run the fan at the lowest possible speed whilst performing at the highest level to complete cleaning tasks. This benefits airport operators by ensuring continuity of operation while minimising environmental impact and operating costs.

“As well as reducing the cost of ownership and increasing safety standards, our innovation through utilising simulation tools and data driven techniques will support our airport customers with their sustainability goals – watch this space for our new developments.”

Aberdeen International Airport's 2009 Beam A 8000 stand cleaner is heading into its fifteenth year of service and is still going strong.

**Aberdeen International
Airport**



Quality prevails for Aberdeen Airport

The last couple of years have been a challenging time for the airport industry but Scottish Airport of the Year 2022, Aberdeen International Airport, continues its success in providing an efficient service for 2.3 million passengers and as the world's busiest heliport. The airside team are proud to have their Beam A 8000 stand cleaner assisting them in their role every day. The stand cleaner is critical for daily operations by removing foreign object debris (FOD) and spillages, which if not properly managed, can cause significant disruption at critical moments for airlines.

Last year, the airside team encountered an issue with their trusted stand cleaner that could have led to a significant problem if it had been decommissioned. A fault kept occurring on cold or wet days and after weeks of diagnosing the fault, Aberdeen Airport's Head of Motor Transport, Bruce Miller, managed to find the problem. The machine required a new part, but in the meantime, it was out of service.

Airside Operation Manager Robert Paterson explains: 'Understandably, due to our Beam A 8000's age, the part was obsolete and without it, we would have had to decommission the vehicle with a potential £200k replacement cost. The Bucher Municipal team were brilliant; Mike Moore (Global Key Accounts Manager) pulled out all the stops by contacting Bucher teams from across Europe. Mike managed to find the part in Scandinavia, so after nearly three months of downtime, we were delighted to have our brilliant stand cleaner back in service.'

With a new lease of life, Aberdeen International Airport's Beam A 8000 proves that quality prevails when your airside fleet is well-maintained. Bruce Miller and his team pride themselves on maintaining the machine and are now looking at other options to maximise its work utilising glycol recovery, which they will be trialling in November.



"The Bucher Municipal team were brilliant; Mike Moore pulled out all the stops by contacting Bucher teams from across Europe. Mike managed to find the part in Scandinavia."

Dorking Globetrotters

From Winnipeg to Wuhan: demos, training and events, you name it, we do it!



Swift Conference, Winnipeg Canada



Gatwick Airport - another great demo of the CityCat V20e electric compact sweeper



AOA Annual Dinner - A dapper duo!
Bucher's very own Mike Moore and Dan Taylor



British Army Airfield - MaxPowa V95t demonstration



Royal Naval Air Station - V95t aero ready for action



Wuhan, China - MaxPowa V80t training at the Zynkon factory



Poland Airport Event - Proud to support the Terberg Matec team

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Bucher Municipal
Focusing on functional
engineering, environmental
integrity, people's needs and
continuous innovation.



Bucher Municipal



For local contact and support, please scan the QR code or visit

buchermunicipal.com

At Bucher Municipal, we innovate and engineer better cleaning and clearing solutions, helping our customers grow and maintain efficient and profitable businesses. Leveraging the over 200-year-old heritage of Bucher, we are committed to helping you achieve more using less. Taking pride in being seen as a reliable partner, we work locally with you in realising the possibilities for a smarter, cleaner and more efficient tomorrow. Today.



Driven by better



Bucher Municipal
E-Shop

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