

# V95t aero

High Speed Runway & Multitask Airport Sweeper





## **Extraordinary** performance and results from our airport sweeper

The V95t aero has become renowned as the industry leading high speed runway and multi-task airport sweeper capable of sweeping your airport hazard free.

Whether you are looking to keep your civilian airport runways, taxiways and aprons serviceable or need the highest performance of material pick up to remove foreign object debris on a military airfield the V95t aero is the machine to perform. From glycol recovery to high speed runway sweeping; all your airport cleaning tasks are covered.

The V95t aero airport sweeper has been developed to provide exceptional performance with the lowest environmental impact, combined with ease of use and low operational costs.

The V95t aero excels in each of these areas; high performance, high productivity, lower cost of ownership, environmental impact, safety and operator experience.



## High productivity

The V95t aero has a vast 9.5m³ hopper capacity enabling large areas to be swept before hopper capacity is reached.

#### **High speed sweeping**

With operational speed of up to 40 km/h the V95t aero makes the perfect choice for cleaning large areas of runways, taxiways and aprons quickly and effectively.

#### **Optimised airport cleaning solution**

The wide suction, high speed operation and large collection capacity are the perfect combination that gives you an excellent performance during your daily airport cleaning operations.

#### **Key Specification**



#### Up to 5000 kg

payload with an 18000 kg GVM chassis.

#### Up to 3400 mm

swept width with optional channel brush operation enables a sweeping area capability of 136,000m<sup>2</sup> per hour.

#### Up to 4000 litres

water capacity. Standard tank capacity of 1500 litres and various auxiliary tank options give you the capability to tailor the V95t aero to your operational requirements.



## High **performance**

The V95t exceeds the requirements of all internationally recognised military and civilian aviation authority pick-up tests to give the confidence your airport is swept clean and all debris is removed from traffic surfaces to prevent aircraft damage.

#### Multipurpose

Equipped with a specialist multitask sweeping and pickup system located between the axles to protect from accidental collision damage the V95t aero will pick up a range of debris including fine dust, FOD and liquid such as glycol or surface water.

#### Airblast nozzles

Exhaust air from the fan can be diverted down to dual side blast nozzles at ground level which prove very effective at the dispersal of debris such as grass clippings, leaves, sand or light snow from large areas of surface into noncritical areas.

#### **Auxiliary engine**

The heart of the machine is a powerful yet fuel efficient Mercedes Benz auxiliary engine. EU Stage V/ EPA Tier 4 final (210kw) and EU Stage IIIa (205kW) emissions compliant options are available to suit various environmental and operational territory requirements.

#### Water & detergent cleaning systems

Various options are available for the V95t aero to increase the cleaning performance of the machine including:

- High pressure water pump options
- V-lets
- Rotating jets
- Detergent dosing
- · Pre mixed detergent spray

#### **Permanent magnet**

Permanent magnet bar options are available, either front or rear mounted, for the collection of ferrous FOD.

#### Airport task capability



#### **Runway & Taxiway Sweeping**

Sweeping can be achieved at speeds of upto 40 km/h.

#### **FOD** removal

Designed with foreign object debris collection at the forefront of the machine design. The V95t aero excels at industry FOD pick-up test performance.

#### Glycol and fluid recovery

Full width nozzles achieve efficient liquid recovery from airport surfaces.

#### Stand cleaning

Optional channel brushes give effective stand cleaning capability and can be combined with optional high pressure water systems and detergent dosing for ultimate cleaning performance.

# Multi purpose pick-up unit



#### **Innovative nozzle geometry**

The highly specialised high speed runway sweeping machine is fitted with a unique and innovative multi purpose pickup head specifically designed for airfield applications. V-formation channels direct larger FOD (foreign object debris) directly into the primary suction nozzles. These are followed by a full width suction nozzle and a widesweep brush for the collection of finer debris.

#### **Glycol and liquid recovery**

The full width nozzles also excel as liquid recovery nozzles and allow the sweeper to clean up standing water, glycol, deposited detergent mix or fuel spillages. No component changes are required to optimise the pickup unit for liquid recovery, just minor adjustments on the hood.

#### **Brush control**

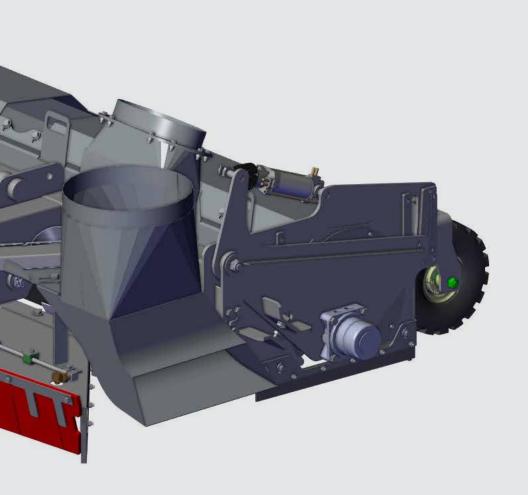
The widesweep brush is independently controlled to maximise the flexibility of the sweeper.

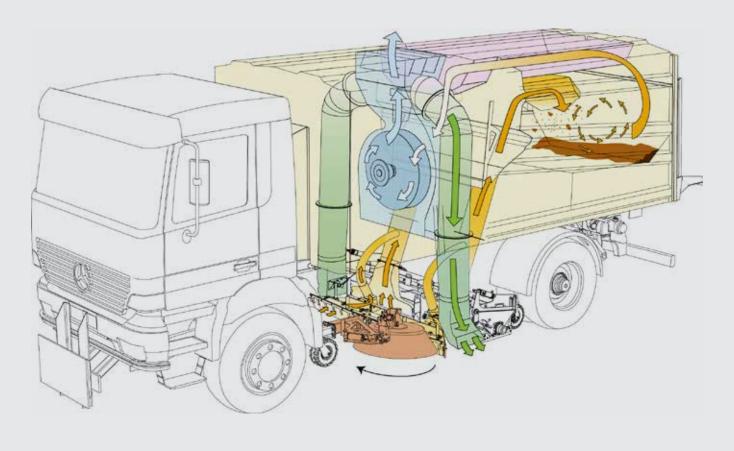
#### Safe and smooth operation

The whole unit is suspended on rubber castors to give a smooth ride and prevent any damage to the paved airport surfaces. At speeds above 40 km/h the pick-up unit automatically raises and will re-deploy once the vehicle slows to 10 km/h. This acts as a safety precaution to avoid damage to the machine or the surface.

#### Robust design

Mounting the pick-up unit between the axles reduces the risk of collision especially in confined spaces and when reversing. An additional benefit to centre mounting is the capability to fit an optional rear mounted magnet to the machine, minimising the overall vehicle length.





## Suction and sweeping system

The Bucher V95t aero is designed with cleaning at the heart of its operation.

#### Fan drive concept

Efficiency and performance are pivotal to the productivity of the V95t aero. The fan is driven from the auxiliary engine through a heavy duty gearbox and fluid coupling assembly to ensure maximum power transmission and minimised energy losses through a durable system.

#### Air flow

The fan creates a vacuum in the hopper which causes air and debris to be drawn up through the pick up nozzles. The debris is deposited in the hopper as the air swirls in the body before clean air exhausts through the mesh screens. The exhaust air either leaves the machine through the top mounted duct or is diverted via a pneumatically controlled valve down to the low level air blast nozzles.



#### Front mounted magnet \*

The optional front mounted magnet improves the airport cleaning and safety performance and effectively collects ferrous FOD which can cause serious damage to aircraft and support vehicles.



#### Channel brushes\*

Optional 900mm diameter channel brushes are available in either polypropylene or steel material. The ground pressure can be adjusted to aid with stand scrubbing duties.



#### **DIN plate\***

A front mounted DIN plate interface can be supplied fitted to your machine to enable operational flexibility and fast removal of front mounted equipment such as our optional magnet.



#### High pressure water\*

Various high pressure water options are available to assist with airport cleaning duty. A handlance is also available as an option for cleaning difficult reach areas around the airport.



#### 500 litre water tank\*

Twin 250 litre plastic water tanks can be added to the V95t aero to increase the water capacity by 500 litres. Situated under the hopper above the rear axle the additional tanks increase on station time.



#### Rear mounted wanderhose\*

Heavy duty, rear mounted wanderhose is also available to allow on airfield gully emptying and collection of detritus in confined and inaccessible areas. The single piece rear hose provides fast deployment.



## Safety

We understand the paramount importance of safety in air-side operations. The Bucher V95t aero has been designed to keep airports, both civilian and military, safe and operational by cleaning areas quickly and efficiently. Foreign object debris (FOD) covers a variety of material including loose runway material, rocks, sand, bolts which can cause damage to equipment or airport personnel. In addition the machine has been designed to keep the operator and maintenance personnel safe during their duties around the machine.

#### **Automatic body prop**

A highly visible, self-engaging body prop provides the operator and service personnel with a safe working environment. As it is disengaged from the pendant, there is no need for anyone to work under an unsecured body.

#### Lighting

Various hazard warning light options are available on the V95t aero to improve visibility of the machine to other airfield users. To help assist the operator in low light and night time conditions various work light options are available.

## Operator **Experience**

#### **CAN enabled HMI console**

Sweeper functionality is controlled through the easy to operate CAN bus enabled control unit ergonomically situated within the vehicle cab. Machine and diagnostic information is displayed on the high clarity colour display.

#### Simple operation

The centrally mounted pick up system is simple to set up and operate which maximises the operational time of the sweeper. The multipurpose pick-up head arrangement prevents complicated nozzle changes to switch from debris to liquid collection and achieved through simple operator adjustment.



#### Rear view camera The optional rear view camera provides a clear LCD screen in the cab that assists the operator to reverse easily and safely into tight locations around the airfiueld.



**CAN Bus enabled HMI console** Sweeper information is provided on the colour screen HMI interface and the easy to use controls allow intuitive opertion of the machine's functionality.



Autolube system An optional automatic lubrication system reduces manual greasing of the sweeper systems and ensures the sweeper remains in optimal



Fire extinguisher An optional fire extinguisher provides safety and piece of mind to the operator.

#### **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.













