UniQa
Winter maintenance spreader
4M³-16M³
Outstanding performance Worldwide from our highly regarded spreaders

The UniQa Range has established itself as Bucher’s most popular and dependable heavy duty highway spreader. The Latest UniQa Range spreaders have been developed from over 50 years of evolution and continuous improvement to meet the demands of our customers.

Bucher Winter equipment provides a wide choice of products and options, offering accurate material delivery, telematics and effective snow clearance in the safest manner.
Engineered to last, designed to perform

The UniQa range Spreader has been developed to provide fast, cost effective, safe de-icing treatments, combined with ease of use and low operational costs. The UniQa range excels in each of these areas:

- High Performance
- High Productivity
- Lower Cost of Ownership
- Telematics
- Safety
- Operator’s experience
High performance

The UniQa spreader range can be supplied with nine hopper capacities from 4 cubic metres to 16 cubic metres and various drive systems to tailor the spreader to the operation. A wide range of options extends the functionality and performance further to provide a truly productive spreader.

Maximising on-route time requires a balance of accurate salt delivery systems, reliable spreading rates at higher speeds, having enough material to achieve route KPI’s, being able to preload the spreader ready for despatch and preventing tunnelling/bridging during spreading.

Over years of development, Bucher feel we have achieved a strong balance of these requirements, providing possibly the best performance spreader in its class, perfectly suited to handling UK rock salt.

PTO drive – Power take off systems are the most popular way to drive the spreader belt and spinner. Johnston can mount the Bucher spreader onto a wide range of chassis to be either permanently mounted or PTO with a demountable body via a hook lift, rapid change or twist lock system to allow body changes.

Axillary engine – the UniQa can be supplied with its own on board power pack, allowing the spreader to be independent from the chassis. With optional bluetooth connectivity to the Ecosat control unit, the spreader can be used in the back of a tipper truck, flatbed or skip loader.

Fully Electric – Bucher also offer a full electric Phoenix Electra spreader, which has all the same functionality as the UniQa but with the advantage of zero emissions and no hydraulics.
Up to 10,500kg payload
Up to 10,500kg payload with an 18,000kg GVM
Lowest centre of gravity in its class. Improved
spreader handling and stability due to the
unique hopper design

UniQa metal belt drive system
Allows spreader to be left loaded and the wide
feeding system prevents salt bridging

20% less salt
With accurate salt delivery,
UniQa uses up to 20% less salt
in comparison to other spreaders

Hopper volumes
4, 5, 6, 7, 7.5, 9, 11, 12 and 16m³
Widest range of hopper volumes available
able to match your preferred chassis and
meet operational requirements

Bucher Assist
With Bucher Assist you’re informed.
Route history, route planning, material
spread can be programmed, remotely
updated and queried from a remote PC.

Spreading
Up to 13 metre spread width
at speeds of up to 50 mph

Spraying
Pre-wet and full liquid spraying
available through jets or spinner disc.
High productivity

Productivity is driven by reliability and dependability through fewer breakdowns or service interventions. The gritter is on the road for longer, as stoppages due to salt bridging/tunnelling are prevented. Options such as hands free spreading, on board temperature sensing with automatic dosage adjustments and liquid de-icer delivery through the plough blade directly onto the road surface, all add up to ensure the most efficient use of the driver’s time is achieved.

The UniQa spreader delivers great productivity with standard features and a wide range of options to match your operational needs.

Spreading speeds of up to 50 mph. Bucher’s patented wider metal belt delivery system ensures greater volumes of de-icing material can be delivered to the spinner, even at high speeds. With the roller breaker counter rotating against the material coming out of the hopper, larger lumps are broken up before they get to the spinner allowing the spreader to deliver up to a 13 metre spread up to @ 50 mph.

Roller Breaker - before salt exits the hopper, Bucher’s patented hydraulically driven roller breaker with stainless steel blades, constantly rotates against the flow of material. This serves to breaking any salt lumps and promotes a continuous flow from the hopper to the spreading unit, maintaining accuracy and control. The roller breaker also minimises damage to the spreader or passing vehicles by preventing large particles from ever reaching the spinning disk.

Johnston design engineers work with major chassis manufacturers to offer the shortest wheelbases designed to improve turning circles and enhance maneuverability. In addition, our wider hoppers can enable more material to be held without compromising the spreaders height or centre of gravity.

Hands free spreading. Route Replay and Bucher Assist allow the spreader to be pre-programmed for asymmetry, spread width and application rates, reducing the need for the operator to constantly adjust the spread pattern whilst driving. Plough heights and angles can also be pre-programmed specific to GPS location ensuring due consideration is given to road infrastructure that is sometimes hidden by snow. This increasingly prevalent technology ensures that novice drivers without winter maintenance experience are safeguarded against making the wrong decisions, which is especially important when their focus and attention is on the challenging winter conditions ahead.

Metal belt system – the Bucher metal belt has evolved over 50 years of front line service. The metal belt’s unique profile is fabricated from 4 different grades of steel to provide durability and long service. It requires minimal maintenance and is guaranteed for 5 years as standard. The metal belt is guided by toothed pinions that enable a constant traction, minimising a consistent feed without slipping.
It does not stretch a rubber belt and therefore can be left loaded without any risk of damage.

The spreader can be pre-loaded and ready for service and does not require emptying each night.

Ecosat control system - Latest generation 7” screen with microprocessor control system, offers maximum flexibility in programming for the different spreading parameters: width, asymmetry and application rate depending on the vehicle speed. Six different tools one control box, minimising dashboard clutter and maximising driver visibility.

Easycom joystick plough controller mounted on the Johnston central console or door arm provides intuitive and responsive plough operation.
Lower cost of ownership

Capital cost is only part of the operational expenditure of the spreader. Salt usage, maintenance costs and resale values can outweigh the initial purchase price offering better value in the longer term.

Salt and steel are not most obvious of bedfellows but with due consideration to the protection of the underlying materials, Bucher have developed a spreader that offers a long operational lifetime. Coupled with an unparalleled aftersales network to ensure you get the very best out of your investment.

The UniQa range has been designed to last, perform at low temperatures and have more durable wearing parts.

The UniQa range features, as standard, a fully welded hopper to prevent vibration, made from 4mm thick high strength steel (full stainless steel is also available as an option), providing high load capacity without any deformation.

The hopper paint process has been developed to offer a durable covering suited to the winter application negating the need for a full stainless steel hopper.

The steel is shot blasted to SA 2.5 (ISO 8501:1 1998) standard then an Epoxy Zinc powder coating is applied to protect from chemical corrosion (thickness 60–80 μm) before painting with a polyester powder paint heated to 200°C to protect from UV rays and mechanical abrasion (thickness 40–70 μm).

Total dry thickness of the paint process (100–150 μm) and is 2000 h salt fog corrosion resistant to (UNI EN 9227/93)

The spreader sub-frame and primary chassis components are galvanized before being painted with an anti-corrosion, chip-resistant coating. The access platforms are galvanized to prevent rusting and the Johnston power coat paint process features a polymer adhesive coating prior to the undercoat being applied. This increases durability and keeps them protected for longer.

The chain drive system is designed to last the life of the spreader and comes as standard with a 5 year warranty. Maintenance is minimal on the chain with only minimal tension adjustment required annually, along with general housekeeping (cleaning) and post-season lubrication treatment.

140 litre hydraulic tank reduces overheating and keeps the oil cooler during operation, reducing the risk of leaks and premature failures.

Johnston offer full width Polymer sheets under the hopper to prevent salt falling on to the chassis. Rear plastic covers also offers protection of the chassis from salt and brine.*

The Bucher Ecosat system provides fault diagnosis and operational feedback for the spreader, reducing maintenance repair times.

Bucher parts are available through the Johnston e-shop. Parts are available 24 hours a day via a web-based ordering system, showing parts availability and stock. Parts ordered before 5pm Monday to Friday are delivered next day free of charge.

Quick disconnect hydraulic hose system with leak tank reduces risk of damage and oil leaks with ease of connection/disconnection.*
The spreader hopper is manufactured from 3 mm carbon steel for sheets and 4 mm carbon steel for the frame.

The hopper walls are ribbed to obtain maximum sturdiness. Each hopper is painted with a state of the art inline shot blasting and paint process to guarantee the performance and durability.

The spreader hopper follows the following surface treatments to guarantee an optimum anti-corrosion protection:

- Shot blasting SA 2.5 (ISO 8501:1 1998)
- Zn powder (thickness 60÷80 μm)
- Painting – polyester powder heated at 200°C (thickness 40-70 μm)
- Total dry thickness (100-150 μm)
- 2000 h salt fog corrosion resistance

A single stage polyester topcoat thickness of 180microns is most likely delivered by a wet-paint application. Our two stage powder-coating process incorporates a Zinc primer base layer that acts as a sacrificial barrier (similar to addition of zinc addition in the galvanizing process), further enhancing the corrosion resistance. The top layer of polyester powder offers impact protection.

Powder coating offers a significantly more even and controlled paint application method over wet-paint applications.

The lesser thickness of paint we offer should not be interpreted as a lesser quality surface finish.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Immediate Benefit</th>
<th>Longer Term Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal Belt Drive</td>
<td>Allows salt to be left loaded in the hopper overnight.</td>
<td>Operator spends more time on route and less time loading/unloading.</td>
</tr>
<tr>
<td>Steeper hopper walls</td>
<td>Reduces the potential for salt sticking to the walls and not flowing through the hopper.</td>
<td>Operators working at height is required less. Access ladders and platforms no longer need to be specified.</td>
</tr>
<tr>
<td>Improved hopper geometries</td>
<td>Squarer hopper shape means a lower centre of gravity and increased volume options.</td>
<td>More compact chassis gives drivers greater control, resulting in less vehicle damage. Bigger hopper volumes results in longer grit routes being possible.</td>
</tr>
<tr>
<td>High Speed Spreading</td>
<td>Controlled and accurate salt spreading at whatever speed suits the conditions.</td>
<td>Gritting routes take less time to complete.</td>
</tr>
<tr>
<td>Ecosat Controller</td>
<td>Simple and intuitive manual control or fully autonomous control of spreader functionality.</td>
<td>Material savings - Operators tend to err on the side of caution, using more material than is generally required.</td>
</tr>
</tbody>
</table>

- Fabrication
  - Power Coated Bodywork
  - Laser Welding
  - Chassis Treatment
- Operation
  - Longer grit runs
  - Less stoppages due to salt blockage
  - Greater driver control
- Disposal
  - Longer product life cycle
  - Brand recognition in second hand market
  - Fully treated low mileage Chassis
- Maintenance
  - Maintenance free metal belt
  - On-board diagnostics and fault diagnosis
  - Nationwide 24/7 service
Telematics

Tracking the spread rate, width, coverage and route covered is vital in today’s winter maintenance environment and Bucher have been proven to offer the most accurate GPS signal and tracking in 2017 tests.

Route-Inform* – is a satellite tracked telematics system. Bucher’s Ecosat control box offers integrated telematics hardware. The map highlights the route spread, spread width, application rate (g/m²), beacons on and even the road surface temperature at the time of spreading if fitted with climatronic*.

The system can be configured for customer preferences showing the route detail and KPI’s. If the driver deviates from the route, Route-replay will guide them back showing what has been treated and what still needs to be done.

Route-Replay* provides the ability to pre-program routes, offering hands free spreading. Once the route is programmed, the driver is guided by means of vocal and visual messages which show the road section already treated as well as the section that still has to be done. Routes are typically programmed by an experienced operator pre-driving the routes with the Ecosat unit, setting spread widths, application rates and material needed. The same routes can then be uploaded to other Ecosat units in the fleet. Programmed routes can easily be edited using a PC or tablet.

Bucher Assist* developed with the European space agency, offers a desktop based route control software allowing daily spreading routes to be coordinated via a desktop PC or laptop. The system allows integration with weather forecasting providers and additional authorities, to provide real time, reactive service offerings specific to the winter conditions. Spreaders which have to be relocated from one area to another can be easily updated with new routes either from programming routes via satellite maps or routes stored in the Bucher Assist system. This level of performance ensures that

* Driver experience As standard, the UniQa Spreaders features an easy clean.
The UniQa spreader features an easy clean system that systematically flushes all of the hard-to-reach areas of any salt and sediment build up. Drivers simply connect a wash-down hose or pressure washer to the easy clean nozzles and the system directs the water flow around the underside of the hopper and within the roller-breaker and chute area to ensure a quick and thorough cleaning of the spreader after each operation.
Safety

Safety is everyone’s responsibility and both Bucher and Johnston have considered all areas of human interaction when designing and mounting the UniQa range spreaders.

Chain drive system prevents tunnelling
The Bucher chain feeding system is 720mm wide providing a larger feeding system than rubber belt alternatives. This allows the hopper to be wider, reducing the centre of gravity and offering an improved side wall angle. The weight of the salt over the additional width prevents the salt from bridging and allows more material to sit on the belt. Routes can be completed without the need for the drivers to stop the truck and push salt down onto the feeding system, significantly reducing the risk of an accident.

Platforms built to conform to BS EN ISO 2867 standard. Wide platforms with 3 points contact can be installed both in-front and/or behind the hopper to assist cleaning and/or maintenance. The use of platforms however, are systematic of salt blockages in the hopper through bridging and tunnelling, on belt driver spreaders. The Bucher chain drive system prevents salt blockages, mitigating the need for drivers to operate at height during operations, which are generally conducted at night, in freezing conditions and whilst lone working. The chain drive system significantly reduces these risks, and raises the question whether high-level access platforms are needed at all.

Hands free spreading – Bucher Route Replay allows the operators to have pre-programmed routes, reducing the risk of the incorrect route being treated, and increasing the assurance that the correct dosage rate and spread width are consistently delivered. The ability to use the Ecosat spreader controller in the same way a sat-nav would be used means that an inexperienced operator can still deliver the required de-icing treatment, allowing them to focus on the road ahead.

Working Lights
The UniQa range can be supplied with a range of LED work lights to make low-light winter operations safer.

- Rear mounted work lights offer an illuminated area behind the spreader for reversing and working.
- High level plough lights are automatically activated when a snow-plough is fitted.
- Hopper mounted lights provide an illuminated hopper for assessing salt levels in low light conditions.
- Rear facing lights at the salt spinner ensure drivers can visually check for salt output, whilst not being distracting to other road users.

Hazard Warning Lights
Being seen is a necessity on highways and Johnston offer several options to suit customer needs.

As standard, and in line with the required legislation, the UniQa range is supplied with a cab mounted beacon and two rear beacons mounted at the back of the hopper, providing 360 degree visability. The beacons are operated from the Ecosat control, flashing in sync to ensure the spreader is always visible.

Optional beacons and LED Flashers can be supplied to increase the awareness of the spreader:

- Full width LED or Xeon cab roof Bar Beacons.
- LED beacons top mounted for improved reliability.
- An LED light board can be fitted with programmable messaging.
Camera Options

- Rear view, mounted at the top of hopper, comes on automatically in reverse.

- Hopper camera, to provide the driver with a view of the material levels in the hopper.

- Offside road view, providing additional vision for potential blind spot.

- 360 degree recording cameras can also be fitted.

Improved direct vision

The UniQa range now comes with an adjustable Ecosat screen, which allows the operator to adjust the screen and control box to suite their preferred angle and driving position. This not only improves the driver’s direct vision from the cab, but ensures optimal comfort and ergonomic positioning of equipment for different drivers.

Route replay

Spreading routes can be preprogrammed offering hands free spreading. This reduces the need for the operator to take their eyes off the road, and reduces the stress and risk of them spreading incorrectly.
**Operator Experience**

The UniQa range spreader has been cleverly designed with the operator in mind. Ease of use, great performance, minimal effort required to set-up, clean and operate makes the UniQa the operators’ first choice spreader.

**Ecosat display**

- The Spreader control box, featuring cup holders and USB charging points serve to ensure the driver is able to remain comfortable during potentially long stand-by periods.

- The Ecosat screen itself is mounted on an articulated arm allowing the rotation to be adjusted without the need for any tools.

**Easycom plough controls**

The ergonomic joystick controller can be used for all the plough operations, including position and height. The plough will float at the preferred height without the need for wheels, but wheels or sliding shoes can be specified upon request.

**Cleaning**

- The UniQa features a wide belt and steeper angled sides, allowing material to drop onto the belt faster for cleaning.

- The UniQa has an easy-clean function as standard. By connecting a standard hose to the easy-clean inlet, water is injected into the roller breaker system flushing out the salt from the chain.
### Spreader configuration

#### Outline Specification UniQa

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hopper Volumes</td>
<td>4, 5, 6, 6.5, 7, 7.5, 9, 9.5, 11, 12, 16 m³</td>
</tr>
<tr>
<td>Hopper Sidewall Materials</td>
<td>Carbon Steel, Stainless Steel</td>
</tr>
<tr>
<td>Hopper Base Material</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>Paint Process</td>
<td>2 Stage Powder Coating with Zinc Primer</td>
</tr>
<tr>
<td>Salt Delivery Mechanism</td>
<td>High Tensile Metal Belt</td>
</tr>
<tr>
<td>Salt Breaking and Grading Mechanism</td>
<td>Roller Breaker, Roller Brush</td>
</tr>
<tr>
<td>Spreading Speeds</td>
<td>5 - 50 mph</td>
</tr>
<tr>
<td>Spreading Widths</td>
<td>2 - 13 m</td>
</tr>
<tr>
<td>Spread Width Increments (minimum)</td>
<td>0.5 m</td>
</tr>
<tr>
<td>Salt Spreading Application Rate</td>
<td>5 – 40 g/m²</td>
</tr>
<tr>
<td>Application Rate Increments (minimum)</td>
<td>1 g/m²</td>
</tr>
<tr>
<td>Pre-wet Option</td>
<td>Yes</td>
</tr>
<tr>
<td>Liquid Tanks Capacities (pre-wet)</td>
<td>2270, 2600, 3000, 3700 litres</td>
</tr>
<tr>
<td>Hopper Wall angle on UniQa</td>
<td>81°</td>
</tr>
<tr>
<td>Hopper Output Aperture Width</td>
<td>775 mm</td>
</tr>
<tr>
<td>Metal Belt Width</td>
<td>720 mm</td>
</tr>
</tbody>
</table>
Call us to book your demonstration

Tel: +44 (0) 1306 884 722
Enquiries@johnstonsweepers.com

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