DPX fertiliser spreaders: SULKY’s experience for excellent fertiliser application

The mounted DPX range - with adjustable spread width from 9 to 28 metres

As the fertiliser spreading specialist, SULKY knows that you are faced with a high cost fertiliser operation that must be adapted to your crop potential and that you must also meet the latest environmental protection regulations. This is why you are looking for an accurate and practical spreader that offers the latest advances in technology.

<table>
<thead>
<tr>
<th></th>
<th>Mixed farms</th>
<th>Crops</th>
<th>Capacity (l)</th>
<th>Payload</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPX Prima</td>
<td>9 - 24 m</td>
<td></td>
<td>900/1500/1800/2100</td>
<td>2 100 kg</td>
</tr>
<tr>
<td>DPX 28 m</td>
<td>12 - 28 m</td>
<td></td>
<td>1500/2100 liters</td>
<td>2 100 kg</td>
</tr>
</tbody>
</table>

Robust design

- 3-year warranty gear-boxes come greased for life.
- Key components 100% stainless steel.
- Stainless steel front guards protect against mud thrown up by the tractor wheels, even with wide tyres.
- “Top of the range“ paintwork; 3 layers with full immersion in a primer bath, as well as a 4th layer on the corners and sensitive areas.

- Each DPX comes with a basic hopper: 900 litres for the DPX Prima and 1 500 litres for the DPX 28. To increase hopper capacity, SULKY has developed special extensions with rounded, cast-iron corners.
Several outstanding benefits

- Heavy duty chassis, built to accept a maximum payload of up to 2,100 kg.
- 2.20 m loading width.
- Reduced overhang to suit smaller tractors.

The yardstick for ease of use

- The working width can be steplessly adjusted up to 24 mètres simply by moving the “drop off” point of the feed chutes.
- The SULKY spreading principle – multiple overlapping – has been proven in the field for many years (in terms of accuracy, wind tolerance, half width operation, etc.).
- The disc rpm is constant and moderate (720 rpm) to avoid damage to the granules by the spreading vanes.

- A choice of two systems is standard for border spreading, plus the optional in-cab operated TRIBORD device (see page 10/11 for details).
- A complete selection of standard equipment (calibration kit, quick setting scale, parking stands, etc.).
- Recently, technical evolutions have become available such as the MS System and the VISION DPB (rate proportional to forward speed and on-the-move rate modulation).
New achievements even with Urea to 24 metres

A large easy to fill hopper
- heavy duty frame, built to accept a maximum payload of up to 2 100 kg.
- 2,40 m loading width.
- Reduced overhang to suit smaller tractors.
- Full road lighting as standard.

Easier use and setting
- Clevice hitch for quick connection to the tractor.
- The working width can be steplessly adjusted up to 28 metres simply by moving the “placement” point of the feed chutes.
- The SULKY spreading concept – multiple overlapping – has been proven in the field for many years (in terms of accuracy, wind tolerance, half width operation, etc.)
- The disc rpm is constant and moderate (810 rpm) to avoid damage to the granules by the spreading vanes.
- A choice of two systems is standard for border spreading, plus the optional in-cab operated TRIBORD device (see page 10/11 for details).
- A complete selection of basic features (calibration kit, quick setting scale, parking stands, etc.).
- Recently, technical evolutions have become available such as the MS System and the VISION DPB (rate proportional to forward speed and on-the-move rate modulation).
Controlled spread rates
1 Pressed, weld-free stainless steel hopper bases give a steady flow, almost to the last kilo.
2 The outlet shutters open gradually and are located on an inclined surface to maintain a steady flow against the downward pressure from a full load or over a bumpy surface.
3 A SULKY patented, oscillating agitator gives a smooth flow of fertiliser, no matter the amount left in the hopper. The flexible, rounded tines are gentle on the granules, even when the shutters are closed (for half-width spreading, half turns, etc.).

A consistent spread thanks to multi-overlapped fertiliser layers
4 Notched spreading vanes (SULKY patent) in different lengths: each notch opens up a layer, which then overlaps and naturally complements the other layers (see spread pattern chart on page 9).

5 Moderate and constant disc speed: even when operating to the equipment's maximum working width, the granules are discharged in respect of their physical characteristics - for precision spreading.

Unquestionable ease of adjustment
6 “Stepless” working width adjustment: simple and precise adjustment to maintain your working width (tramlines) when using fertilisers whose physical characteristics vary according to their mixture, batch origin, humidity, etc.
7 Each disc spreads on its own side; the overlap area can be easily adjusted through the “stepless” movable chutes.

8 Straightforward mechanics: the SULKY-patented movable chutes on the DPX adjust the working width simply by altering the “placement” point of the fertiliser onto the discs; no need for you to change gears, discs or vanes - even for top dressing.

DPX System: its simplicity plays a crucial role in the success of your fertiliser applications
Easy rate adjustment to get your spread rate quickly under control

An ergonomic lever and clearly visible graduated scales enable minute adjustments of the on/off outlet shutters. Both are easy to reach at the back of the machine.

A consistent fertiliser flow, even at low application rates, is essential. The DPX comes with two opening anti-clod sieves (2 x 1 m²) as standard, one-piece, pressed hopper bases and spring-mounted tine agitators. SULKY also supplies rate limiters as standard to spread slug pellets from 3 kg/Ha upwards.
A choice of in-cab operated shutter controls:

- teflon coated stainless steel cables (zero maintenance): gradual on/off operation, independent LH and RH control.

- hydraulic controls using two single acting valves; For tractors with only one single acting valve, an optional three way valve is available.

At work, the hydraulic cylinder rod is fully retracted so that it is protected against highly corrosive fertiliser dust.

For greater precision and controlled spreading when faced with an unknown fertiliser or a weather change, SULKY provides the user with performance checking facilities as standard:

- a rapid assembly calibration kit; the bucket pivots on its axis, to position just under the fertiliser stream and collect the sample during the actual forward speed test.

- from the first weighing operation, the graduation scale shows the appropriate setting number.

The SULKY setting charts suggest settings for more than 120 products: fertilisers, slug pellets, small seeds, catch crop seeds, etc.

If you wish to change the spread rate per hectare for the same fertiliser, there is no need to carry out another test as the scale immediately shows the new setting required.
Undoubtedly the simplest, most logical width adjustment system

DPX precision in 3 key areas

1. The swivel chute smoothly alters the fertiliser “drop off” point
   This SULKY-patented device means:
   • fast, logical working width adjustment,
   • settings can be accurately and easily adapted to suit your tramlines or when changing materials (e.g. fertiliser granules or slug pellets),
   • unrivalled mechanical simplicity: no need to change gears, vanes or discs.

2. Gentle handling of fertiliser from start to finish
   • the angled chute guides the fertiliser from the shutter outlet down to the disc,
   • it gently accelerates the flow without interruption until the spreading vanes take over,

3. Multi-overlap fertiliser spread
   • the SULKY discs rotate at a constant, low speed even at maximum working width,
   DPX technology takes the physical characteristics of your fertilisers into consideration: a vital asset for even spreading over higher working widths.

   The swivel chute (SULKY patent) ensures logical, “stepless” adjustment:
   To increase spread width, simply move the lever up the scale, to reduce it, move the lever down.
   The spreading vanes are of different lengths and notched:
   • each notched vane opens up a layer which then overlaps and naturally complements the other layers,
   • the stainless steel SULKY vanes provide long lasting precision at an extremely competitive replacement cost,
   • SULKY recommends “High Resistance” vanes for spreading abrasive fertilisers.
For top dressing, simply tilt the DPX forwards by 5°. A vertical position indicator on the linkage makes it a straightforward task, with no need to alter the spreading vanes. Official tests have proven its efficiency.

SULKY spread quality - proven to official standards
The largest, independent agricultural machinery testing stations in Europe have agreed on common standards (CEN standards) to evaluate the design quality of spreaders. The spread quality is highlighted by the consistency of spread pattern across the bout width and expressed as a coefficient of variation (CV); Experts consider this to be "very good" if it is between 5-7 %.

SULKY – always on the operator’s side
Scale setting charts provide indicative information for each product type: fertilisers, slug pellets, seeds, etc.

With unknown fertilisers, this optional SULKY granulometer A offers an immediate check of the granules’ ability to reach the required spread width. The optional overlap check kit B consists of 4 grid trays and 4 test tubes to ascertain the overlap area.

What to keep in mind
- The consistency of spread rate across the bout width is the number 1 criteria to evaluate your fertiliser applications,
- the SULKY spread patterns show excellent CVs with different fertilisers, a guarantee of end user satisfaction,
- even on large working widths, the overlapping area of each fertiliser layer remains important with a DPX. This ensures less sensitivity towards the width setting and also towards variations in fertiliser quality.
Border spreading: solutions to suit every situation

<table>
<thead>
<tr>
<th></th>
<th>DPX Prima</th>
<th>DPX 28</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRIBORD</td>
<td>Electrical in-cab control</td>
<td>optional$^1$</td>
</tr>
<tr>
<td>ECOBORD</td>
<td>Manual control</td>
<td>standard</td>
</tr>
<tr>
<td>1/2 width deflector</td>
<td>Manual control</td>
<td>standard</td>
</tr>
</tbody>
</table>

$^1$ Factory fitted - $^2$ Choice of, please specify on ordering

TRIBORD System: The ultimate border spreading system... without limiting your results

Without getting out of your tractor
coming near the border to be spread, you engage (A) the TRIBORD System thanks to an electric actuator (B) whose movement then feeds the “special border” curved vane.

Finally an “anti-shattering” System for your granulated fertilisers

The movable chute as well as the “special border” curved vane of the TRIBORD System:

- smoothly accompanies the fertiliser flow
- reduces fertiliser projection without artificially slowing down or deflecting it
- protects the granulation, to obtain an even pattern on your cultivated border.

Results obtained on borders from use of the TRIBORD System are in accordance with the European environmental standard EN 13739 relating to fertiliser spreading in “sensitive” areas (nearness of watercourses, residential zones, etc.).
A design that is a real asset TRIBORD SYSTEM

The TRIBORD's easy setting is unique on the market: you have only one lever to control simultaneously the spread width and the border. Visually discreet, the TRIBORD System is 100% integrated into the DPX technology. Therefore, there is no risk of damage during setting, refilling, transport, storing... Furthermore, its electric control doesn't require you to free up another hydraulic coupling to use the border control system.

For ease of use and for long-lasting precision, the actuator is protected by a synthetic, corrosion resistant casing fitted with a wiper seal; its chute, mechanical parts, disc and vanes are made from stainless steel. The TRIBORD can be controlled directly from the VISION control box if the DPX is equipped.

2 ECOBORD : optimum environmental protection

- Spread to the border without leaving the tramlines;
- Prevents all fertiliser spread beyond the cultivated area (SULKY patent);
- Special, stainless steel vane fitted on the RH disc; no tools required.
- Conform to the Environmental norm EN 13 739 relating to fertiliser spreading in sensitive areas (watercourses, residential zones, etc.)

3 Stainless steel, «half-width» deflector plate

- Spreads from the field border (LH or RH) with the appropriate shutter closed;
- Quick, tool-free fitting by turning the rear deflector through 180°
The VISION DPB: spread rate proportional to forward speed (electronic DPA)

Easy to understand, with useful information

• the "large screen" (100 x 80 mm) is clear, user-friendly and uncomplicated (with detailed diagrams, scrolling menus, etc.)
• The on-screen display shows: programmed rate in kg/ha, forward speed, on the move rate modulation level, area covered (partial or total), tonnage spread (partial or total), fertilisers used and shutter position
• TRIBORD control from the box
• Traceability: possibility of saving up to 75 different field operations (farm n°, field n°, fertiliser spread, rate/ha...).

Spread rate proportional to forward speed

• Speed data is obtained either from a sensor located on the tractor wheel or transmission shaft, or by an optional GPS speed sensor.
• The DPB system will automatically adjust the on/off shutters in line with forward speed variations. Therefore the DPB sustains a high level of accuracy whilst maximising work productivity. As an example, you do not have to worry about a constant tractor speed when operating on undulating land.

• Simple rate calibration through automatic calculation of the flow time (during manual cal test) and automatic setting according to the test results and the required spread rate.

On the move spread rate adjustment from the cab

• by +/- 10 % stages,
• to alter the overall spread rate or LH/RH independently.

GPS compatible

• with the GREENSTAR (John Deere), FIELDSTAR (Massey Ferguson - Fendt), AGROCOM (Claas), PROSERIES (RDS), AGROTRONIX, HYDRO-NSENSOR systems, etc.
• with a PCMCIA card reader, it is possible to interpret spreading application charts such as Agrimap, Farmstar,...
• The VISION is Windows compatible which enables all data to be saved onto a PC.
• Possibility of downloading software upgrades.
• versatility: the vision box can be used with a Sulky drill.
Double shutter control: a decisive advantage

Whichever SULKY electronics you select, the dual operated shutter concept is there: on/off operation through a hydraulic ram and spread rate setting through an electric actuator. This design gives 2 advantages:

- the shutters open/close instantly at the beginning or end of spreading,
- conversion to manual operation is possible at any time simply by unconnecting the electric actuators.

MS system: Useful and affordable electronic functions

Assisted spread rate adjustment

- automatic initial shutter setting on the scale position recommended by SULKY,
- automatic selection of the actual scale setting according to the calibration results and the required rate/hectare.

On-the-move rate adjustment from the cab by +/- 10% stages.

The MS System enables rate modulation infield and between fields by manual adjustment from the cab, based on your own knowledge and visual observations of your fields (crop strength, etc.)

Versatility:
The MS control box can be used with a SULKY drill.
High-quality options

Two way folding hopper cover.

Wheeled storage frame; this supplements the ground support guides and, thanks to the retractable wheels, which can stay on the machine, it makes storage easier.

Tungsten carbide coated HR vanes; when spreading abrasive fertilisers over a big width, these “high resistance” blades last up to 6 times longer than standard blades.

Optional 2-row locating kit on the DPX Prima for specialised crops at intervals of up to 9 metres (adjustable flaps)

The light bar (standard on the DPX 28 m) is mounted on a stainless steel support for longer life

GPS speed sensor: it accurately measures the real forward speed of the tractor. Of small dimensions and strong, fitting it onto the tractor is very easy thanks to a magnet at the sensor’s base and a metal strip to be stuck onto the tractor’s bonnet or cab roof. Therefore, it can be easily moved from one tractor to another.

(1) Machine not equipped with the safety guard (standard feature)
### Options

<table>
<thead>
<tr>
<th>Type</th>
<th>DPX Prima</th>
<th>DPX 28</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cat. II linkage</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Parking stands</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Stainless steel protection guards</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Stainless steel guard tube</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Light bar with stainless steel support</td>
<td>○</td>
<td>●</td>
</tr>
<tr>
<td>Stick-on rear reflectors</td>
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<td>○</td>
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<tr>
<td>540 rpm PTO shaft c/w slip clutch</td>
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<tr>
<td>3-year warranty gearboxes</td>
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<td>●</td>
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<tr>
<td>Double-opening sieve (2 x 1 m²)</td>
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<td>●</td>
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<tr>
<td>Calibration kit</td>
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<td>●</td>
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<tr>
<td>Spread rate limiters (slug pellets and small seeds at 3 kg/ha)</td>
<td>●</td>
<td>●</td>
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<tr>
<td>On/off shutter controls</td>
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<td>○</td>
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<tr>
<td>Hydraulic control (2 SA required)</td>
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<tr>
<td>Pilot operated check valves (2 DA) (2)</td>
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<tr>
<td>Hydraulic control (1 SA required)</td>
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<tr>
<td>Vertical setting indicator (top dressing)</td>
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<td>●</td>
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<tr>
<td>Overlap check kit</td>
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<tr>
<td>Granulometer</td>
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<tr>
<td>Stainless steel “half-width” deflector plate</td>
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<td>●</td>
</tr>
<tr>
<td>ECOBORD “environment” border spreading deflector plate</td>
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<tr>
<td>TRIBORD border spreading system c/w cab control (1)</td>
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</tr>
<tr>
<td>Instruction manual c/w setting charts</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Two way folding hopper cover (front and rear opening)</td>
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<td>○</td>
</tr>
<tr>
<td>HR vanes tungsten carbide (except 9-18 m)</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Wheeled storage frame</td>
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<td>○</td>
</tr>
<tr>
<td>GPS Radar speed sensor</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>2-row locating kit</td>
<td>○</td>
<td>-</td>
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<tr>
<td>Anti-compaction plate (for ammonium sulphate and rye-grass)</td>
<td>○</td>
<td>○</td>
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<tr>
<td>MS system (assistance to calibration and on the move modulation)</td>
<td>○</td>
<td>-</td>
</tr>
<tr>
<td>DPB VISION system (rate proportional to forward speed)</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

* Factory fitted
  ○ Standard on the VISION DPB version

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**An important stage in the new SULKY anti-corrosion process:** components are dipped by robot in a bath of high adhesion hydrosoluble primer.

**Top quality paint system for long-lasting protection**

All painted parts are treated on the SULKY paint line.

After a five-stage cleaning and preparation process, they are dipped in a bath of high-adhesion hydrosoluble primer. After oven baking at 130°, a second layer of anti-corrosion primer is applied. An “extra coat” is also applied on the corners and sensitive areas. Finally, the last coat of polyurethane finishing paint is applied by spray gun before another oven baking at 100°.

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### Specifications

<table>
<thead>
<tr>
<th>Type</th>
<th>DPX Prima</th>
<th>DPX 28</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity (water level)</td>
<td>900 l</td>
<td>1 500 l</td>
</tr>
<tr>
<td>Overall width (m)</td>
<td>2,29</td>
<td>2,36</td>
</tr>
<tr>
<td>Loading width (m)</td>
<td>2,21</td>
<td></td>
</tr>
<tr>
<td>Min height (m)</td>
<td>0,87</td>
<td>1,05</td>
</tr>
<tr>
<td>Weight* (kg)</td>
<td>260</td>
<td>290</td>
</tr>
<tr>
<td>Application rates (approx.)</td>
<td>From 3 kg to 1000 kg/ha on 24 m at 8 km/h</td>
<td></td>
</tr>
</tbody>
</table>

* May vary on standard version
All our departments are working for your success.

Today, SULKY is France’s leading manufacturer of seed drills and fertiliser spreaders.

As a manufacturer and a provider of service, our first aim is that our machinery continues providing farmers with more productivity and quality.

Your order is tailor made to meet your needs in terms of yield. It remains for us to ensure delivery as soon as possible, to explain to you how it works and to secure the supply of spare parts for maintaining your machines.

We are ready.

Our dealers are there to help you realise the benefits of your SULKY machine. Our engineers will back them up with additional advice and draw up the necessary instruction books.

Customer service is our priority.

Drilling or fertiliser spreading, we are by your side.

www.sulky-burel.com

SULKY-BUREL - BP 92111, rue Fabien Burel, 35221 Châteaubourg Cedex FRANCE
Tél.: (33) 02 99 00 84 84 • Fax: (33) 02 99 62 39 38
E-Mail: info@sulky-burel.com

Specialist in drilling and fertiliser spreading