

WITH YOU EVERYDAY

LUGASG.COM

AUTOSPIRE CLASSIC
SELF-PROPELLED VERTICAL AUGER MIXER

AUTOSPIRE PERFORMANCE
SELF-PROPELLED VERTICAL AUGER MIXER



AUTOSPIRE RANGE



LUCAS 
FEEDING SOLUTIONS



FOCUS ON PERFORMANCE

Reducing feeding and machinery costs is the main way to ensure profitable farming. Joint purchasing of self-propelled silo unloaders with the help of farm machinery cooperatives either as group or individual agricultural holdings in becoming more efficient. On the basis of these observations, Lucas G has created high-performance machinery that is reliable, modern and suited to precision livestock breeding.

From the silo to the feeding alley right through to milk and meat production farmers must be able to measure and have good command of the stages involved to achieve accurate production forecasts.

Lucas G has used the expertise and know-how he has managed to acquire over the last 40 years to make the self-propelled wagon Autospire a machine to meet the required standards.

The stages involved in loading, mixing, distribution and travel have been studied as a whole to find the best possible solution. Speed and efficiency for these different stages are key drivers of farming productivity and reliability. We have carefully chosen the most suitable solutions in order to reduce application time to a minimum, whilst also preserving the nutritional value of the raw materials used for feeding.

2 COMPLEMENTARY VERSIONS

The Lucas G range of self-propelled wagons comprises of six models from 12 to 24 m³. LUCAS G. develops 2 models of self-propelled machine to be close to users requirements and whatever the type of practices.



AUTOSPIRE CLASSIC

Reliable and Easy Solutions,

these machines are adapted to daily use. This self-propelled has been developed for individuals.

Standard finishing:

- Left back trap door
- Direct motor coupling
- Speed 25 km/h



AUTOSPIRE PERFORMANCE

Reliable and efficient solutions,

these machines are suited to intensive use, they have a cabin with superior soundproof for long hours.

Standard finishing:

- Rear distribution conveyor
- Motor coupling with distribution box
- Speed 40 km/h

Autospire	Classic	Performance
Mill Power	129 HP	200 HP (except 120 / 140 - 165 HP)
Mill speed	326 rpm	418 rpm
Mill protection	Manual	Hydraulic
Loading deflector	Manual	Hydraulic
Loading conveyor	V Molded shape	Straight rubber bars
Cut-off plates	Manual	Hydraulic
Tank emptying speed	45 rpm	60 rpm
Joystick	Multifunction	Multifunction + Automotive
Driving	Standard	Ecomode
Front axle	12 T	12 T
Rear axle	12 T except (200 / 240 - 17 T)	17 T
Greasing	Point by point	Grouped 3 points
Tyres	445 / 45 - R 19,5 - Ø 895 mm	495 / 45 - R 22,5 - Ø 1018 mm

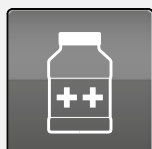
HIGH PERFORMANCE AND ADAPTED SILAGE UNLOADING

The loading stage is a critical when preparing mixture. The output rate of the mill must be sufficient and the quality of the raw material preserved.

The mill Ø625 mm is fitted with 54 curved and reversible sections (5.5 mm thick mounted 2 by 2) and has a working width of 2 m to ensure that all types of feed can be unloaded.



EDITABLE PARAMETERS



Concentrate speed:
50 % maximum. mill
+ 40 % max.
conveyor



Silage speed:
80 % maximum. mill
+ 80 % max.
conveyor



REDUCED RECYCLED EFFECT

The shape of the mill, coil design and position of cutting sections have been studied for better unloading and to reduce the negative effects of recycling (time wasting and shelling).

The shape and angle of the coil means that the feed material is gathered, recentred and placed in the middle of the conveyor for increased output. The sections are placed behind the coil to cut the produce without upsetting the loading flow.

FINISHING MADE FOR FIBRE

Loading fibrous raw material is known for being difficult and time-consuming, the Autospire can be fitted with a special fibre pack to improve performance for all types of feed material.

- Set of 54 additional cutting sections
- Anti-overflow ring
- 8 knives for mixing auger
- 1 neodymium magnet on mixing auger

The loading arm is curved at a height of 500 mm to make the flow of dense products easier.

200 HP MILL POWER

Available in Performance version, the loading is made with a lower engine speed. The results show a loading of 5 wrapped bales in 10 minutes what is equivalent to more than 3.5T of difficult materials loaded.

UNLOADING ASISTANCE

PRESERVATING NUTRITIONAL VALUE OF THE DIFFERENT INGREDIENTS.

Lucas G has made it possible for the machine operator to predefine the setting for loading according to the type of feed material. Once the mill has been activated, the XPA control screen is automatically put into loading mode.

The mill is also fitted with an unblocking system that is activated before jamming occurs. The captors inform the robot of imminent blocking so that the mill can make half a turn in the opposite direction. This goes unnoticed by the driver who can continue concentrating on loading.



Fibre speed:
100 % maximum. mill
+ 100 % max.
conveyor



A
difference in
homogeneity of
under 3 per cent
for distribution
over 60 m.

HOMOGENEOUS QUALITY RATIONS

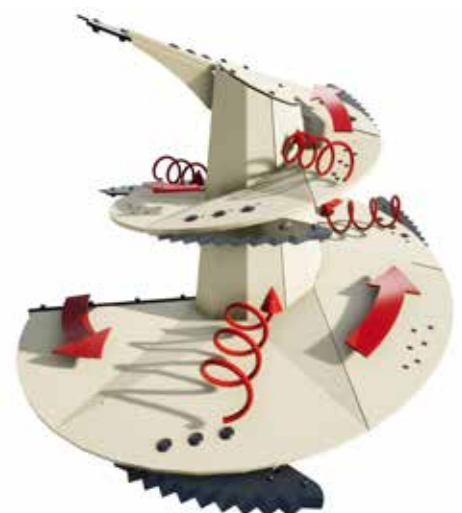
Material can move easier in a smooth rounded tank because it is not subjected to stress. As a result, the ration is mixed naturally and more effectively. The power required for a mix is reduced to a minimum. The smooth flared shape means that a homogeneous mixture can be obtained faster. The round design of the tank automatically extends the life of the tank.

A STEPPED AUGER TO ENSURE AN AERATED MIX

The Lucas G stepped augers have a unique form which means that the ration can be cut and ventilated by the steps which ensures the rations are blended properly for optimal proportioning.

In standard, augers come with 6 knives. It is possible to have 8 or 10 knives for each augers, adjust the angle to increase aggressivity and thus cut the fibre faster. The auger knives are tungsten carbide coated and are reversible to increase the lifetime.

To speed up the cutting process, the cut-off plates with programmed sequences are inverted to facilitate blocking the fibre at the bottom of the tank.



3 AUGER SPEEDS

TO ADAPT TO EACH PHASE IN THE MIXING PROCESS

The Autospires are fitted with a series of 3 auger rotation speeds in order to adapt to the different feed material and to ensure distribution speed remains constant. The augers are hydrostatically driven which ensures easy and comfortable use.



- **Smoothing speed**

10 turns/min: speed used for filling the machine better and which means that the rations are ventilated.

- **Mixing speed**

23 rpm: speed used to mix the different ingredients that make up the rations whilst always complying with the fibrosity and quality of the livestock feed. This speed can be kept steady throughout the entire loading process without any slump

- **Fibre speed and emptying**

60 rpm: speed used for cutting the fibre and for emptying the machine once distribution is complete. The speed can be automatically triggered according to the remaining weight in the tank.

- **Stationary mixing mode**

On the machines fitted with the Automotive system, there is a stationary mixing speed which can be associated to the preparation of the ration. This enables the driver to get off the machine during the mixing time while keeping the adjusted engine speed.



The auger speeds, stepped shape and rolled tank all guarantee optimal mixing time and as a result, reduced consumption. The ration is ready for distribution fast whilst always complying with the raw materials.



DISTRIBUTION OPTIONS



DISTRIBUTION WITH CONVEYOR

As standard on Performance, the large size of the distribution conveyor (900 mm x 2400 mm) and the unloading trap door (1200 mm x 800 mm), mean that any jamming linked to fibrous rations can be avoided and a regular swath can be given along the feeding table.

The speed of the conveyor is adjustable to perfectly control distribution. Thanks to the conveyor located at the rear of the machine, the distribution (left or right) is made regardless of space configuration even in dead end feeding alley. To guarantee optimal distribution efficiency, the conveyor distribution height is 800 mm and it can be hydraulically offset by 375 mm from left to right to the feed troughs.

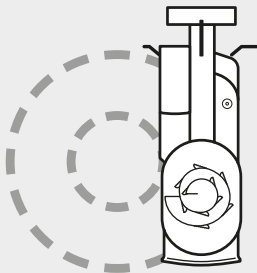
DISTRIBUTION BY TRAP DOOR

Standard on Classic version, the rear left distribution trap door (930 mm x 700 mm) ensures an easy distribution of the ration. This distribution mode reduces the overall length of the machine and its cantilever. The distribution height with the trap door is 630 mm.



TECHNICAL CHARACTERISTICS

	120 / 140	160 / 180	200 / 240
Turning radius 2 wheels drive	8,70 m	10,10 m	11,50 m
Turning radius 4 wheels drive	6,50 m	7,40 m	8,10 m
Ground clearance 495 / 45 - R 22,5	370 mm	370 mm	370 mm



A MACHINE SUITABLE FOR ROAD TRANSPORT AND LONG HOURS



The Autospire self-propelled mixer has been made to carry out daily rounds over distances of more than 70 km. The machines are fitted with commercial axles, wide tyres and have a 4 disk breaking system for good road holding and optimal safety at 40km/h. The front hydropneumatic suspension and rear parabolic leaf suspension ensures a comfortable and smooth ride for the driver.

ECOMODE SYSTEM

To make long tours more enjoyable, Lucas G offers as standard on its machines an ECOMODE System. As soon as the machine exceeds 35 km/h, the system is automatically triggered to set the engine speed at 1600 rpm instead of 2300 rpm ensuring a significant drop of the fuel consumption and a reduction of the noise inside the cab.

EXCELLENT LOAD SHARING

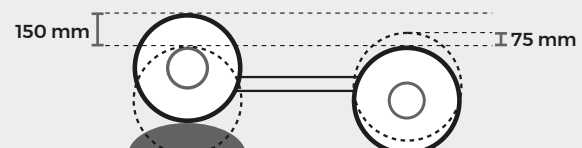
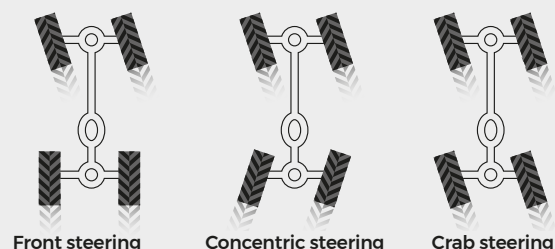
The machine has been designed with an engine that is positioned to avoid losing any of the load carried:

- When empty 55 % at the front and 45 % to the rear
- When loaded 45 % at the front and 55 % to the rear.

The engine is fitted in the middle of the machine on the right side so as to directly power the main parts of the machine. This position limits any loss of the load carried and guarantees responsible and efficient use of the machine.

ALL TERRAIN SELF-PROPELLED

To care for all the animal batches whatever the layout of the buildings, climatic conditions or state of the farmyard, the Autospire has high ground clearance and can be fitted with 4 guide wheels and 4 wheel drive.

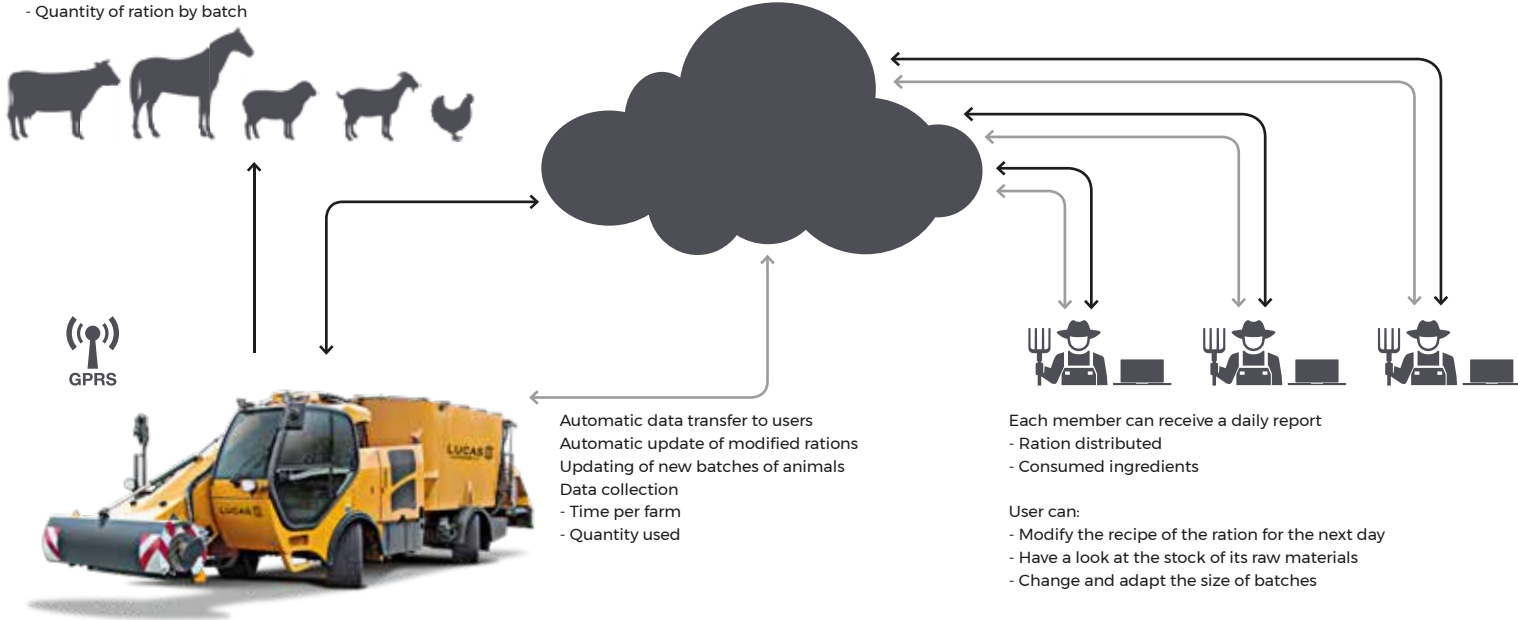


The amplitude of the suspension has been oversized to absorb maximum stress linked to travelling (150 mm at the front / 75 mm to the rear).

PRECISION LIVESTOCK BREEDING AT YOUR FINGERTIPS

User knows:

- Ration distributed by batch
- Quantity of ration by batch



With this unique control screen, you can have all necessary information to pilot the Autospire. Most parts of the machine can be programmed to help you during the different work stages:

- Mill speed and loading arm conveyor
- Preparing the ration (repeater function)
- Mixing speed
- Distribution speed
- 4 Cameras for working and driving



AUTOSPIRE CONNECT

CONNECTED AUTOSPIRE

This option fitted into the XPA Display screen allows you to collect data in real time via cloud. The Autospire connect identifies, amongst other things, data regarding distribution for each batch of animals, consumption of feed material, time required for each operation, any change in the ration... This system enables the driver to focus on feeding animals and no longer on calculations and changes of rations.

MAINTENANCE AND COMFORT

EASY AND FAST MAINTENANCE

The different parts of the machine which require regular maintenance have been positioned to ensure easy access. The engine has been positioned for easy access to oil levels, filters and fans.

To reduce maintenance time, the Autospire has gathered its lubrication points in 3 points to ensure that the machine works correctly. It is also possible to opt for the automatic lubricating terminal for saving time.



XPA DISPLAY DIAGNOSTIC TOOL



The screen gives in real-time a complete diagnostic of the machine. The periodicity of maintenance may be consulted directly on the screen (engine drain, filter change) to simplify needs of maintenance.



DRIVING COMFORT



MULTIFUNCTION JOYSTICK CLASSIC

Piloting the machine is carried out by using a single lever with multifunctions to ensure the phases for unloading, mixing and distributing. - The automotive version is available as an option.

AUTOMOTIVE JOYSTICK PERFORMANCE

Piloting the machine is carried out by using a single lever with multifunctions to ensure the phases for unloading, mixing and distributing. This joystick includes the automotive technology. The forward and reverse speed and also the engine speed are made by the tilting of the joystick, giving to the driver a better reactivity of the machine.





AUTOSPIRE

STANDARD EQUIPMENT

- 2 m mill, 54 sections
- 3 modes: Silo, Work, Road
- Automatic anti-clockwise system
- Rear axle equipped with limited-slip differential
- Hydrostatically driven mixer
- Programmable weighing unit X500
- Multifunction Joystick
- Welded auger with 6 knives
- 2 driven axles, 2 steering axles
- XPA Display touch control screen

Autospire	120	140	160	180	200	240
Capacity (m³)	12	14	16	18	20	24
Number of augers	1		2			
Motor	Deutz 156 HP		Deutz 217 HP		Deutz 245 HP	
Number of cylinders	4 cylinders		6 cylinders			
Tank capacity / AdBlue	250 L / 20 L (AdBlue)					
Mill working width (mm)	2000 mm					
Mill diameter (mm)	Ø 625 mm					
Mill power - Classic / Performance	129 / 165 HP		129 / 200 HP			
Silage loading height (m)	5 m					
Distribution height with trap door (mm) version 445 / 45 - R 19,5 // 495 / 45 - R 22,5	520 / 630 mm					
Distribution height with conveyor (mm) version 445 / 45 - R 19,5 // 495 / 45 - R 22,5	700 / 800 mm					
Overall height (mm) version 445 / 45 - R 19,5 // 495 / 45 - R 22,5	2810/2920	3050/3160	2780/2890	2930/3040	2730/2840	2960/3070
Overall width (mm)	2550 mm					
Overall length (mm)	8250	8180	9970	9930	10820	10780
Front suspension	Hydropneumatic					
Rear suspension	Parabolic leaves					
Guide wheels	2 or 4					
Wheels drive	2 or 4					
Speed (Km / h)	25 or 40 Km/h					
Unladen weight	11700	12000	13700	14700	15600	15950
Tyres	445 / 45 - R 19,5 - Ø 895 mm // 495 / 45 - R 22,5 - Ø 1018 mm					

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