

FOR THE LOVE OF WINE

GSG SPRAYERS

FOR PLANT PROTECTION

95% LOSS REDUCTION
35% AGENT USE REDUCTION

AGENT USE REDUCING RECYCLING DEVICES PAY
FOR THEMSELVES

- SPRAY
- RECYCLE
- SAVE



SPRAYERS

■ TECHNOLOGY

LIPCO over-row cross-flow fans type GSG are a new class in plant protection. They are equipped with hydraulic driven cross-flow fans. With types 2, 3 and 4 rows you can save until 40 % of plant protection agent and reach a high fuel economy.

■ ADVANTAGES

- a new arrangement of the fans (suction side and pressure side are on opposite side) you use until 40 % less plant protection agent and reach 95 % loss reduction.
- while driving with maximum speed, the machine runs extremely quiet
- big spray output (time saving) as several rows can be treated simultaneously -until 4 rows (on both sides) with type GSG-N4
- greater selection of plant protection agents
- no problems with neighbour plants
- the user is protected
- state subsidy possible
- recognized by the JKI* institute and registered in the index as a loss reducing and agent use reducing machine
- good sales argument for organic farmers

■ MODERN SPRAYING TECHNOLOGY PAYS OFF:

The greatest advantage is the backflow of the non-congealed fluid.

The recycling rate begins in spring at a rate of 70 % when there is little foliage. There is still a recycling rate of 30 % by the time the last spraying action takes place and foliage is proliferated. Throughout the season a saving of up to 40 % can be reckoned with. The secret of the GSG spraying machine lies in the fact that the congealed fluid is suctioned off by the hydro injectors, is filtered and then fed back in to the tank.

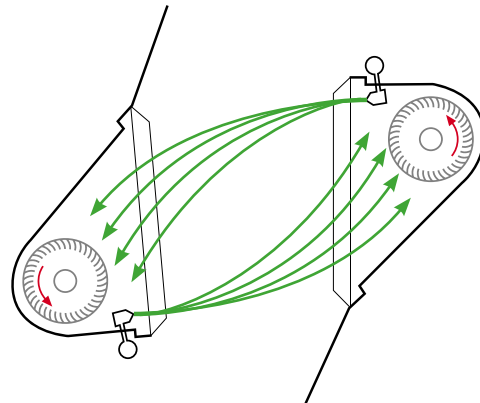
In the case of a plantation measuring 20 hectares a GSG-sprayer can save up to 70.000,- € worth of plant protection agent in 10 years!

Today no other agricultural machine can compete with this.

■ SPRAYING DETAILS

RECYCLING: IT'S PAYING OFF

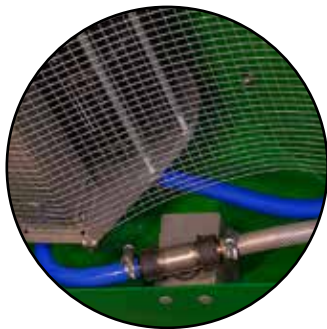
A new arrangement of the fans (suction side and pressure side are on opposite side) you use until 40 % less plant protection agent and reach 95 % loss reduction.



ATTACHMENT OF FANS
Flexible pendulum suspension

ADJUSTABLE AXLE

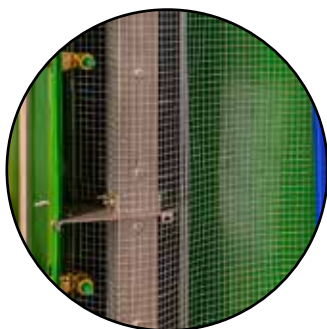
When type NV (hydraulic equipment and stroke 2x300 mm optionally). The wheels can be adjusted infinitely variable to the maximum possible width in the row. Thus silent running. While driving on the road, the axle is adjusted to the maximum width (about 2 m / 78.74 in.).



RECYCLING TROUGH
Collecting tray with injector and screen to filter out big pieces

DRAWBAR

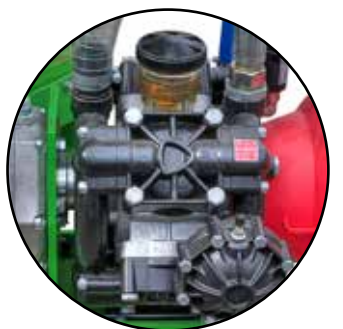
The plant protection agent pump of all GSG trailer mount machines is mounted of drawbar. This permits a maximum angle of turn without wide angle cardan shaft.



CROSS-FLOW FANS AS MODULAR SYSTEM
With hydraulic drive (infinitely variable), flat fan venturi nozzles individually adjustable.

OWN HYDRAULIC

By using 6 cross-flow fans or more the hydraulic equipment (pump capacity 1/min.) of tractor is not sufficient anymore that means that a gear drive with 2 oil pumps has to be attached to the drive through of the plant protection agent pump.



SPRAYERS

■ GSG-U (LEFT OR RIGHT)



KIT FOR SYSTEMS
WHICH ARE ALREADY EXISTING

Technical data:

Max. row height: 220 cm
Fan width adjustment: 20 to 110 cm
Minimum row width: 80 cm (1 row), 120 cm (2 row)
Weight: 120 kg

■ GSG-UK2 (2 ROWS)



Technical data:

Max. row height: 220 cm
Fan width adjustment: 20 to 110 cm
Minimum row width: 170 cm to 300 cm
Weight: 285 kg

■ GSG-A1 (1 ROW)

- for 3-point attachment to tractor
- saddle-mount unit with one-sided cross-flow fan equipment



Technical data:

Max. row height: 220 cm
Fan width adjustment: 20 to 110 cm
Minimum row width: 150 cm
Weight: 380 kg

■ GSG-A2 (2 ROWS)

- tractor requires 1x double-acting control valve
- or 1x pressure and 1x free return flow.



Technical data:

Max. row height: 220 cm
Fan width adjustment: 20 to 110 cm
Minimum row width: 170 cm à 300 cm
Weight: 490 kg

■ **GSG-AN2 (2 ROWS)**



Technical data:

Max. row height: 220 cm
 Fan width adjustment: 20 to 110 cm
 Minimum row width: 170 cm à 300 cm
 Weight: 450 kg (without tank)

■ **TRAILER TANK**



Technical data:

Outer width incl. wheels: 128cm
 Total length: 201 cm
 Volume tank: 1.000 to 1.500 liter
 Weight: 285 kg

■ **GSG-NV2 (2 ROWS): 1.000 LITERS**

- for lower link attachment to tractor
- trailer tank with two-sided cross-flow fan equipment



Technical data:

Max. row height: 220 cm
 Fan width adjustment: 20 to 110 cm
 Minimum row width: 160 cm
 Weight: 980 kg

■ **GSG-NV2 (2 ROWS): 1.500 LITERS**

- tractor requires 1x double-acting control valve
- or 1x pressure and 1x free return flow



Technical data:

Max. row height: 220 cm
 Fan width adjustment: 20 à 110 cm
 Minimum row width: 180 cm
 Weight: 1.170 kg

SPRAYERS

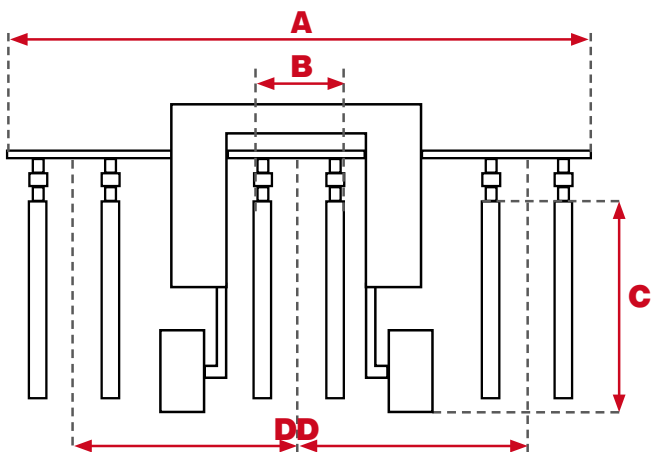
■ GSG ON HIGH-CLEARANCE TRACTORS

Because of multiples models of clearance tractors, the technical specifications are provided on request.



■ GSG-S3 (3 ROWS)

Saddle-mount fan unit type GSG-S3
D: road use: 300 cm



Technical data:

Max. row height: 220 cm (A)
Fan width adjustment: 20 to 110 cm (B)
Row width: 180 to 300 cm (C)
Weight: 1.950 kg

■ FRUIT PLANTATION: GSG NO2 (2 ROWS)

for lower link attachment to tractor with own hydraulic
Available for one row too: GSG-NO1.



Technical data:

Max. row height: 220 cm / 310cm / 350cm
Fan width adjustment: 30 to 240 cm
Row width: 280 to 330 cm
Weight: 1.950 kg / 2.380 kg / 2.700 kg

■ **LEVELLING**

On pendular axis, 7°.



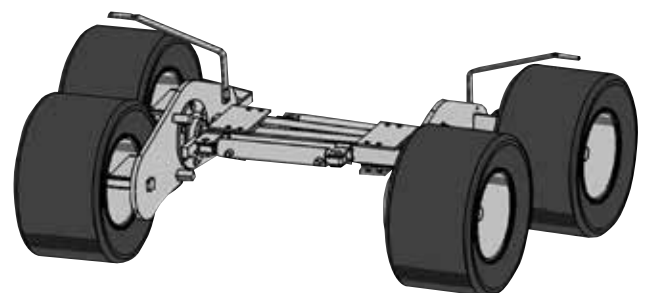
■ **MIXER**

25 or 35 liter.



■ **TANDEM AXLE**

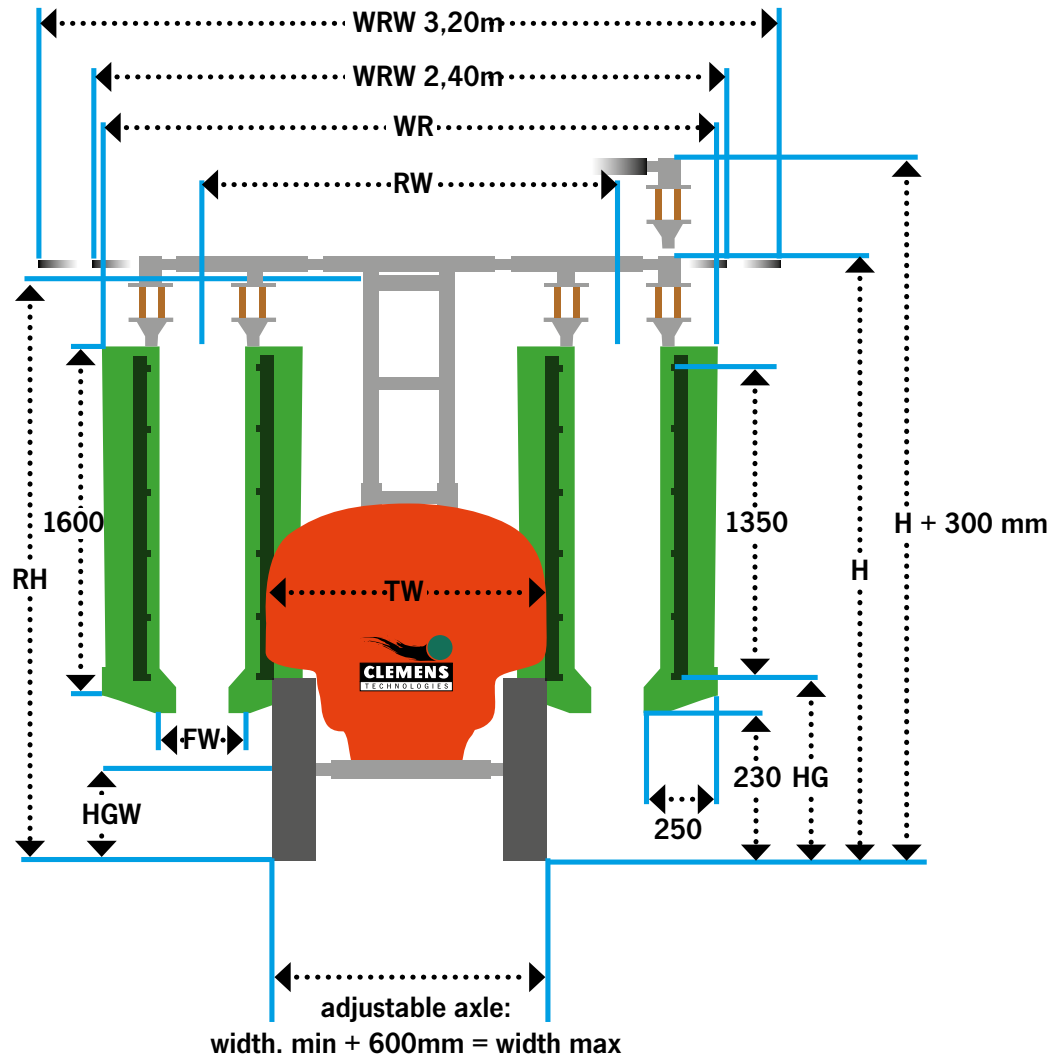
See table page 10.



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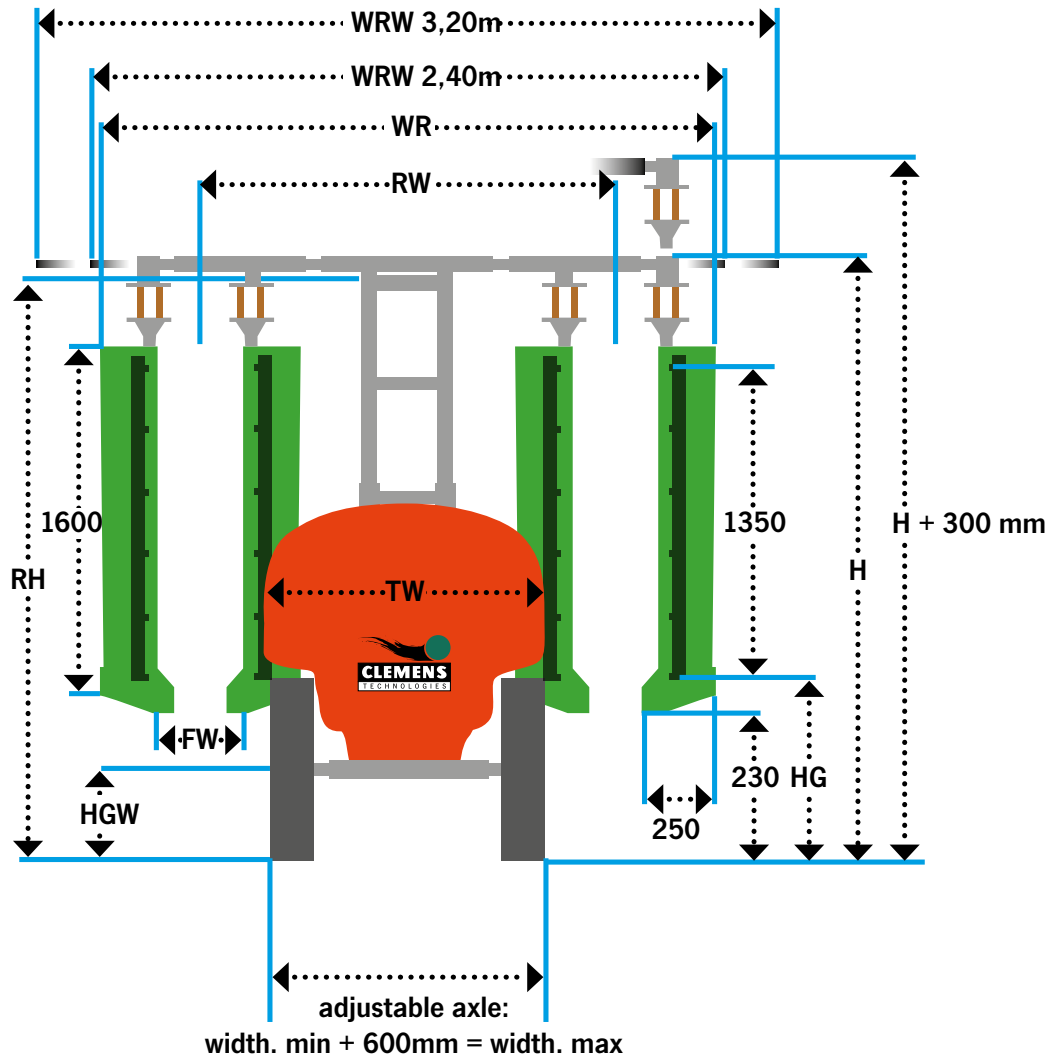
■ DIMENSIONS (BOARDS 160 CM, FANS 135 CM, SIX NOZZLES)

DIMENSIONS LOW VINES SHORT FANS 127 CM WITH 4 NOZZLES ON REQUEST (BOARD HEIGHT. 140CM)



		600 l	1000 l	1000 l
Row Width	RW (m)	1,40-2,20	1,60-2,40	1,60-3,20
Fan Width Adjustment	FW (m)	1,10-1,30	1,10-1,30	1,10-1,30
Width on Road	WR (m)	1,70	1,98	1,98
Width on Road with Widening	WRW (m)	2,04	2,04	2,62
Row Height	RH (m)	2,20+0,30	2,20+0,30	2,20+0,30
Overall Height	H (m)	2,42	2,45	2,45
Width adjustable Axle (min/max) with standard Tyres	Vmin/max (m)	1,03-1,63	1,24-1,84	1,24-1,84
Height from the ground, first nozzle	HG (m)	0,42	0,45	0,45
Tank Width	TW (m)	1,00	1,14	1,14
Height from the ground, middle of the wheel	HGW (m)	0,33	0,37	0,37
Length (from tank end to 3 points)	(m)	3,35	3,50	3,50

OVER-ROW CROSS-FLOW FAN



	1500 I	1500 I	2000 I	2000 I	2000 I
Row Width (RW)	1,80-2,40	1,80-3,20	2,00-2,40	2,00-3,20	2,00-3,50
Fan Width Adjustment (FW)	1,10-1,30	1,10-1,30	1,10-1,30	1,10-1,30	1,10-1,30
Width on Road (WR)	1,98	1,98	1,98	1,98	2,25
Width on Road with Widening (WRW)	2,04	2,62	2,04	2,62	2,78
Row Height (RH)	2,25+0,30	2,25+0,30	2,30-0,30	2,30+0,30	2,30+0,30
Overall Height (H)	2,50	2,50	2,55	2,55	2,55
Width adjustable Axle (min/max) with standard Tyres	1,35-1,95	1,35-1,95	1,65-2,25	1,65-2,25	1,65-2,25
Height from the ground, first nozzle (HG)	0,49	0,49	0,51	0,51	0,51
Tank Width TW)	1,24	1,24	1,44	1,44	1,44
Height fr.the ground, middle of the wheel (HR)	0,42	0,42	0,43	0,43	0,43
Length (from tank end to 3 points) (m)	3,70	3,70	4,10	4,10	4,10

SPRAYERS

■ TYRES GSG

	Dimensions inch	Tyres	Wheel fitting	Diameter Wheel
Tandem Axle	10	195/55/R10C	5/67/112	195/460
Tandem Axle	12	225/55/R12	5/67/112	225/540
Tandem Axle	12	23x10.50-12	5/67/112	250/580
Tandem Axle	12	23x12.50-12	6/161/205	320/580
Wheel large	12	26/12.00-12-8PR	6/161/205	320/670
Wheel radial	14	195/R-14C	5/67/112	195/664
Wheel Terra	15	31/15.5-15-8PR	6/161/205	380/720
Wheel machine	15,3	10.00/75-15.3-8PR	6/161/205	270/740
Wheel machine	15,3	11.5/80-15,3-8PR	6/161/205	270/740
Wheel machine	17	380/55-17-10PR	6/161/205	380/840
Wheel machine	17	480/45-17-10PR	6/161/205	380/840

	Track Width 600 l (mm)	Track Width 1000 l (mm)	Track Width 1500 l (mm)	Track Width 2000 l (mm)
Tandem Axle	1160-1560	1280-1880		
Tandem Axle			1500-2100	
Tandem Axle			1500-2100	1600-2200
Tandem Axle			1620-2220	1700-2300
Wheel large	1400-2000	1460-2060	1550-2150	
Wheel radial	1030-1630			
Wheel Terra			1580-2180	1650-2250
Wheel machine	1190-1790	1240-1840		
Wheel machine		1270-1870	1350-1950	1550-2150
Wheel machine		1350-1950	1500-2100	1650-2250
Wheel machine			1700-2300	1850-2450

■ OPTIONS

- Hydraulic Power Unit
- External mixer
- External suction
- Unité de contrôle et de réglage
Quantité/Pression/Vitesse
- Levelling 7° with electric control
- Row width measurement system
- Hydraulic height adjustment 300 mm
- Hydraulic control of axle
- Hydraulic drawbar
- Lighting between the boards, left
- and right
- Support wheel
- Safety cover for connecting block
- Tandem axle



■ NOZZLES

INJECTION NOZZLE WITH FLAT SPRAY ID/IDK 90

Spray angle: 90°, Nozzle size: ISO 01-03, Pressure range: from 2 to 20 bar

PRESSURE on work (bar)	SPRAYING OUTPUT IN L/MIN WITH INDICATED PRESSURE					
	IDK 90-0087C black	IDK 90-01C orange	IDK 90-015C green	IDK 90-02C yellow	IDK 90-025C purple	IDK 90-03C blue
4.0	0,31	0,45	0,68	0,92	1,15	1,37
5.0	0,35	0,51	0,76	1,03	1,28	1,53
6.0	0,38	0,55	0,83	1,13	1,40	1,68
7.0	0,41	0,60	0,90	1,22	1,52	1,81
8.0	0,44	0,64	0,96	1,30	1,62	1,94
9.0	0,47	0,68	1,02	1,38	1,71	2,06
10.0	0,49	0,72	1,07	1,45	1,81	2,17
11.0	0,52	0,75	1,13	1,53	1,90	2,28
12.0	0,54	0,78	1,18	1,60	1,98	2,38

FLAT SPRAY INJECTION NOZZLES ALBUZ CVI 80

Spray angle: 80°, Nozzle size: ISO 015-03, Pressure range: from 2 to 20 bar

PRESSURE on work (bar)	SPRAYING OUTPUT IN L/MIN WITH INDICATED PRESSURE					
	CVI 80-01 orange	CVI 80-015 green	CVI 80-02 yellow	CVI 80-025 purple	CVI 80-03 blue	CVI 80-04 red
5.0	0,52	0,77	1,03	1,29	1,55	2,07
6.0	0,57	0,85	1,13	1,41	1,70	2,26
7.0	0,61	0,92	1,22	1,53	1,83	2,44
8.0	0,65	0,98	1,31	1,63	1,96	2,61
9.0	0,69	1,04	1,39	1,73	2,08	2,77
10.0	0,73	1,09	1,46	1,82	2,19	2,92
12.0	0,80	1,20	1,60	2,00	2,40	3,20
14.0	0,86	1,29	1,73	2,16	2,59	3,46
16.0	0,92	1,38	1,85	2,31	2,77	3,70

CLEMENS GSG SPRAYERS

■ Since its foundation in the year 1952 by Bernard and Mathias Clemens, the CLEMENS Company has been producing vineyard and agricultural machines with superior strength and durability. The company is family owned and is represented today by Thomas and Bernhard Clemens, both sons of Bernard. CLEMENS develops, manufactures and distributes high quality, unique and innovative products like the RADIUS an under vine de-weeder, HEXAGON, a strong utility frame for different cultivation tools, the „VINESCOUT“ automatically steering system and „ROTARY BRUSH“ for sucker removal, and several more machines for various applications. CLEMENS machines are the key to successful Vineyard management. Besides special services for winery-technologies, we also supply special tank-designs with equipment and materials based on the customer's demand. Individual tasks are always taken care of with total dedication, to ensure our client's needs are fulfilled. More than 70% of all products are exported all over the world, which shows the strength and demand of our machines. Currently CLEMENS is represented in more than 35 countries.



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