

LIPCO

RECYCLING (OVER-ROW) TUNNEL[®]-SPRAYERS TSG

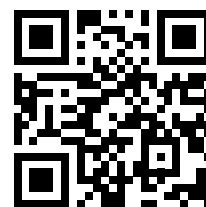
95 % loss reduction

up to 40 % agent use reduction



viniculture | fruit growing | tree nurseries | ornamental plants |
special crops

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Trailer-mount unit OSG-NVM

(one row) · for lower link attachment to tractor



Trailer-mount fan unit with one-sided crossflow fan equipment

Technical data:

Max. row height	3.10/3.50 m (122/138 in.)
Width adjustment	1.20-2.40 m (47-94 in.)
Weight	approx. 1,410 kg/1,500 kg (3,108 lbs./3,307 lbs.)

(tractor requires 1x double-acting operating valve or 1x pressure and 1x free return flow)



Trailer-mount unit OSG-NVM

(two rows) · for lower link attachment to tractor



Trailer-mount fan unit with two-sided crossflow fan equipment

Technical data:

Max. row height	3.10/3.50 m (122/138 in.)
Width adjustment	0.60-2.40 m (24 to 94 in.)
Row width	2.20-3.50 m (87 to 138 in.)
Road use	2.60 m (102 in.)
Weight	approx. 2,380 kg/2,490 kg (5,247 lbs./5,490 lbs.)

(tractor requires 1x double-acting operating valve or 1x pressure and 1x free return flow, minimum oil volume of 40 l/min required (without own hydraulic))



TUNNEL[®] sprayer conversion set TSG-U

(right/left)



TSG-U with mounting console
(optionally)

- For
- existing trailer or saddle-mount sprayer
 - mounts on tractor on roll bar, center mounting and leaf-cutting frame

Technical data:

Tunnel length	1.25 m (49 in.)
Max. row height	2.20 m (85 in.)
Tunnel width adjustment	0.20-1.10 m (8 to 43 in.)
Minimum row width	Width of tractor/trailer/saddle-mount unit + 0.80 m one row (+ 32 in.) + 1.20 m two rows (+47 in.)
Weight	120 kg/Tunnel (265 lbs./Tunnel)

(tractor requires 1x double-acting operating valve for each sprayer tunnel, with air support additionally 1x pressure and 1x free return flow)

Saddle-mount TUNNEL[®] sprayer TSG-A1/A2

(one row/two rows) · for three-point suspension



TSG-A2

saddle-mount unit with one-sided/two-sided TUNNEL[®] equipment

TSG-A1 can be retrofitted as two-sided unit at all times!

Technical data:

	TSG-A1 (one row)	TSG-A2 (two rows)
Tunnel length	1.25 m (49 in.)	1.25 m (49 in.)
Max. row height	2.20 m (87 in.)	2.20 m (87 in.)
Tunnel width adjustment	0.20-1.10 m (8 to 43 in.)	0.20-1.10 m (8 to 43 in.)
Minimum row width	1.50 m (59 in.)	1.70-2.40 m/3.00 m (67 to 94 in./118 in.)
Weight	370 kg (816 lbs.)	490 kg (1,080 lbs.)

(tractor requires 1x double-acting operating valve (TSG-A1) / two double-acting operating valves (TSG-A2), with air support additionally 1x pressure and 1x free return flow)

Saddle-mount *TUNNEL*[®] sprayer **TSG-AN2**

(two rows) · for three-point suspension



TSG-AN2 with 1,500 l tank

Saddle-mount unit with two-sided *TUNNEL*[®] equipment, coupled with **LIPCO** trailer tank

Technical data:

Tunnel length	1.25 m (49 in.)
Max. row height	2.20 m (87 in.)
Tunnel width adjustment	0.20-1.10 m (8 to 43 in.)
Row width	1.70-2.40 m/3.00 m (67 to 94 in./118 in.)
Weight	450 kg (992 lbs.)

(tractor requires two double-acting operating valves, with air support additionally 1x pressure and 1x free return flow)

Trailer tank for saddle-mount sprayer *TUNNEL*[®] **TSG-AN2**

Trailer tank with tank cleaning nozzle and injector agitator.
Water jet mechanism integrated in filling screen.



Tank trailer 1,000 l



Tank trailer 1,500 l

Technical data:

	Tank trailer 1,000 l	Tank trailer 1,500 l
Tank width	1.14 m (45 in.)	1.24 m (49 in.)
Outer width incl. wheels	1.24 m (49 in.)	1.35 m (53 in.)
Total length	2.75 m (108 in.)	2.90 m (115 in.)
Weight	320 kg (705 lbs.)	348 kg (767 lbs.)
Wheels (standard)	10.0/75-15.3 8PR	11.5/80-15.3 8PR

Trailer tank with *TUNNEL*[®]-mounting TSG-NV2-K

(two rows) · for lower link attachment to tractor



**With this type you gain about 1 m
(34 in.) headland!**



Trailer tank with two-sided *TUNNEL*[®] equipment
(with 1,000 l or 1,500 l tank)

Technical data:

	1,000 l	1,500 l
Tunnel length	0.80 m (31.5 in.)	0.80 m (31.5 in.)
Max. row height	2.20 m (87 in.)	2.20 m (87 in.)
Tunnel width adjustment	0.20-1.10 m (8 to 43 in.)	0.20-1.10 m (8 to 43 in.)
Row width	1.60-3.00 m (63 to 118 in.)	1.80-3.00 m (71 to 118 in.)
Total length	3.95 m (156 in.)	4.10 m (161 in.)
Weight	1,180 kg (2,601 lbs.)	1,290 kg (2,844 lbs.)

(tractor requires 1x double-acting operating valve or 1x pressure and 1x free return flow)

Trailer tank with *TUNNEL*[®]-mounting TSG-NV2

(two rows) · for lower link attachment to tractor



Trailer tank unit with two-sided *TUNNEL*[®] equipment
(with 1,000 l or 1,500 l tank)

Technical data:

	1,000 l	1,500 l
Tunnel length	1.25 m (49 in.)	1.25 m (49 in.)
Max. row height	2.20 m (87 in.)	2.20 m (87 in.)
Tunnel width adjustment	0.20-1.10 m (8 to 43 in.)	0.20-1.10 m (8 to 43 in.)
Row width	1.80-2.40 m/3.00 m (71 to 94 in./118 in.)	1.80-3.00 m (71 to 118 in.)
Total length	4.85 m (191 in.)	5.00 m (197 in.)
Weight	1,180 kg (2,601 lbs.)	1,290 kg (2,844 lbs.)

(tractor requires 1x double-acting operating valve or 1x pressure and 1x free return flow)

Saddle-mount *TUNNEL*[®] sprayer **TSG-S3**

(three rows) · for selfdriving harvesters



! *THE mounting to use the harvester all-season!*

Saddle-mount unit with three-sided *TUNNEL*[®] equipment

Technical data:

Tunnel length	1.25 m (49 in.)
Max. row height	2.20 m (87 in.)
Tunnel width adjustment	0.20-1.10 m (8 to 43 in.)
Row width	1.80-2.50 m/3.00 m (mounted in the middle) (71 to 98 in./118 in.)
Road use	3.60 m (142 in.) (with unfoiled outer walls about 3.10 m (122 in.)
Weight	1,700 kg (3,748 lbs.)

! *Front or rear attachment possible!*



TUNNEL[®] sprayer for field testing

- available for all type of treatment
- pneumatic or pump system
- for viniculture, fruit growing and other similar cultivation
- for spray agent manufacturers, institutes, service provider



example version trailer tank for fruit growing



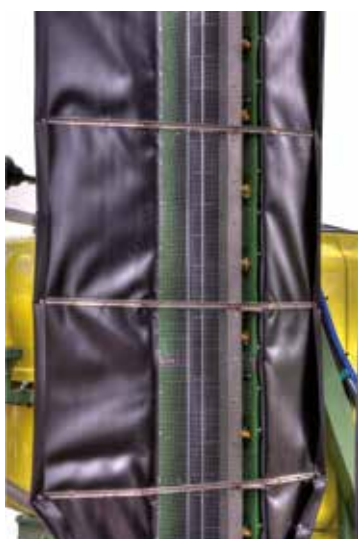
example version crawler for viniculture

equipment plant protection equipment

pressure jet atomizer
(standard
in viniculture)



air support
QS150 - tangential fan
(standard in fruit growing)



two agent-sprayer
(Botrytis)



fitting and control cabinet
(Botrytis)



**pivot and hydraulic
steering shaft**
(for tight manoeuvring)

Increasing efficiency by optimization in modern crop protection is often a reduction of parameters compared to current practice.

TUNNEL® spray technology



sustainability in production and application

When using the **LIPCO-TUNNEL®** spraying technology drift is turned into valuable spraying agent. Fluid that has not congealed flows back into the tank by means of the recycling technology. The valuable spraying fluid is filtered very finely back into the tank thus:

Protection of natural resources by high risk reduction and encouraging biodiversity.



ADVANTAGES

- up to 40% less plant protection agent on an annual average (agent use reduction)
- up to 95% loss reduction possible (non-target organism)
- saves time as several rows can be treated simultaneously (resistance management)
- greater selection of plant protection agents
- less distance to open waters, without restriction of special regulations
- no problems with neighbour cultivation
- protection of the user
- no noise emission
- a very high degree of intermediate sediment after every spraying
- state subsidy possible
- recognized by JKI (Julius-Kühn-Institut) institute and registered in the index as a loss reducing machine
- environmentally friendly spraying as an argument for your own distribution plant
- reduces fuel consumption of more than 20%



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 only little foliage.

There is still a recycling rate of 20% by the time the last spraying action takes place and foliage is proliferate. There is still a recycling rate of 20% by the time the last spraying action takes place and foliage is proliferate.

In the case of a plantation measuring 20 hectares (49 acres) a **TUNNEL®** sprayer can save 70,000 EURO worth of plant protection agent!

A conventional machine would require approx. 120,000 EURO of plant protection agent in 10 years of time.

Today no other agricultural machine can compete with this. The secret of the TUNNEL 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.

Example calculation –
LIPCO TSG-TUNNEL recycling technology
 cost of pesticides per year per hectare
 (per 2.5 acres) 1,000 €
 conventional machine: 650 €
TUNNEL® sprayer:
Saving: **350 € / ha**
 (per 2.5 acres)

Manufacturer & Sales

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