



 **SCHIUMONE**





OPERATING PRINCIPLE AND FEATURES

Schiumone (hot foam) is a natural method for weeding by drying, which can be used in agriculture as well as in urban green areas or wherever weeding is required. The operating principle is based on heating the weeds to a temperature and for a period of time sufficient to achieve denaturation of the proteins. This process will inhibit vegetable photosynthesis leading to weed desiccation within a few days. Our machine produces a hot foam which, falling on weeds, acts as a heat carrier and insulator, ensuring that the effective temperature is maintained.

Water consumption compared to alternative systems available commercially is dramatically reduced with enormous advantages in terms of environmental sustainability.

The foam used is entirely of vegetable origin, biodegradable and environment-friendly.

Automotive diesel fuel is used for the combustion process required to heat the water, while the other drives are ensured by the tractor's power take-off.

Temperature

The method effectiveness depends on the temperature of the foam and not on the speed of the tractor.





Foam applied



Effect after 36 hours

Control panel

The machine is controlled via a display unit in the cabin - from which preheating and foam dispensing operations are managed. The towed tank is filled with clean water.



STRENGTHS

- Foam action happens in the seconds following its application regardless of travelling speed. The current speed is 3 km/h for a complete row of vineyards, a value that might even be increased in the future. This feature makes the biggest difference in economic terms with respect to all the alternative systems - very limited in terms of travelling speed and consequently featuring a worse cost/efficiency ratio due to a greater amount of man-tractor hours and slower response;
 - Lower amount of water required, from 0.30 litres down to 1 litre per treated square metre depending on how tall the weeds are and consequently, on how thick the foam layer that you wish to apply needs to be. This also considerably lowers the cost of heating the water.
 - Possibility of using 100% biodegradable plant-derived foaming agents, highly environmentally friendly.
 - Water consumption compared to alternative systems available commercially is dramatically reduced with enormous advantages in terms of environmental sustainability.
 - The foam used is entirely of vegetable origin, biodegradable and environment-friendly.
- Automotive diesel fuel is used for the combustion process required to heat the water, while the other drives are ensured by the tractor's power take-off.

Control electronics

All the functions are driven by our own-built proprietary electronics.





TECHNICAL SPECIFICATIONS

Operation from tractor PTO	540 RPM
Power required at PTO	8.5 kW
Minimum flow rate of the tractor hydraulic system	15 l/min
Maximum flow rate of the tractor hydraulic system	40 l/min
Recommended flow rate of the tractor hydraulic system	25 l/min
Max water flow to the system	14 l/min
Foam tank capacity	15 l
Diesel tank capacity	35 l
Water tank capacity	1040 l



AWARDS & RECOGNITION

Awarded at the International Agricultural Machinery Exhibition in Bologna in 2016 with both the technical innovation prize and Blue prize and by the Emilia Romagna region with the prestigious "Responsible Innovators Award" which is not just specific for agriculture but awardable to any production sector.



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