



COMPACT MOUNTED SPRAYERS



The outstanding quality of the new tractor mounted sprayers from Lochmann Plantatec is the result of over 60 years of practical experience, the application of state-of-the art technologies, the use of high-quality materials and a strict quality control during the manufacturing process. Both the robust construction, which is in line with the strictest quality standards, and the clever modular design provide the user with a wide range of different sprayers adapted to all areas of fruit production and viticulture. The compact construction and the consequent limited overall dimensions allow the sprayers to be used in confined spaces.

In designing the new portable sprayers, the aim was to build a very compact and lightweight machine, while maintaining all the advantages and characteristics of the larger portable sprayers. Despite a raised fan assembly, we have succeeded with a new transmission system in keeping the PTO (PTO) position very low and shifted backwards. This has the advantage, even when the mist sprayer is mounted very close to the tractor, that the PTO shaft remains quite long (also suitable for very small tractors). Thus at normal working height the PTO shaft turns straight and the fan unit is kept away from the ground to avoid suction of leaves and dirt. It is also possible to lift the machine, without any vibration, very high to face very large access angles. The compact construction offers, thanks to the reduced overall dimensions, an easy and safe use even in limited spaces. In the design of the new portable sprayers, the goal was pursued to build a very compact and light machine, while maintaining all the advantages and characteristics of the larger portable sprayers. Despite a raised fan assembly, we have succeeded with a new transmission system in keeping the PTO (PTO) position very low and shifted backwards. This has the advantage, even when the mist sprayer is mounted very close to the tractor, that the PTO shaft remains quite long (also suitable for very small tractors). Thus at normal working height the PTO shaft turns straight and the fan unit is kept away from the ground to avoid suction of leaves and dirt. It is also possible to lift the machine, without any vibration, very high to face very large access angles. The compact construction offers, thanks to its compact dimensions, an easy and safe use even in limited spaces.

**APS 2/60
220 L**



**APS 2/60 QZ
220 L**



DIAPHRAGM PUMP

The three-diaphragm pump with a capacity of 70 to 96 l/min (50 bar) provides a balanced and constant water flow even at low pressure.



TRANSMISSION

The elastic V-belt transmission, with disengagement, is integrated in the fan unit and thus perfectly protected from water.



CONTROLS

The sprayer can be fitted with electric controls which open and close the nozzles of fast switching electromagnetic valves. These brass valves meet the highest quality standards and function perfectly up to an operating pressure of 50 bar. They are long-lived and maintenance-free due to their simple construction. Pressure control is effected by means of a time-tested brass pressure regulator which is driven by a linear activator. The perfect insulation of all electrical components prevents the otherwise usual damages or contact problems caused by corrosion when working under extreme conditions. This control mechanism can be operated by means of a computer operated metering control, which provides an exact digital display of the tank contents.

TANK

The new polyethylene tank with its large loading lid positioned on the side, sufficient overflow, optimal emptying on slopes, minimal residue, side ball valve for tank discharge, allow filling and emptying more ecological and convenient for the operator. The shape of the tank is well designed until the last detail, allowing easy access to the pump and transmission for any maintenance work. With the use of the new ecological polyethylene, the tank has a very smooth inner surface that avoids the sedimentation of the chemical product. It is discharged through a convenient and efficient ball valve. The level indicators are clearly visible, both from the driver's seat and from the side, during tank filling.



APS 2/60 Q
220 L

APS 3/60 Q
325 L



APS 3/60 QZ
325 L





MIXING BASKET AND BOTTLE WASHER

The mixing basket with volumes of 18 litres respectively with its rotating injector nozzle ensures the efficient and safe mixing of powdered plant protection products. The bottle washer makes it possible to clean empties easily and thoroughly.



SUCTION FILTER

The suction filter with its large filter surface is easily accessible for the operator. Additionally it has been equipped with a three-way valve which makes it possible to clean the filter even when the tank is full.



NOZZLES

The twin and triple headed swivel nozzles are made of brass and are fitted with Vaiton anti-drip diaphragms on the QZ fan. They have been installed outside the airflow and can be individually positioned.



HAND AND CIRCUIT CLEANING TANKS

The sprayer has a large hand-cleaning tank (15 litres), which is very important because the skin can now be cleaned quickly after contact with plant protection agents. In addition the sprayer has a circuit cleaning tank, which enables optimum circuit and nozzle cleaning. Moreover the outside of the sprayer can now be cleaned in the field, as prescribed by law.

APS 4/60 Q
425 L

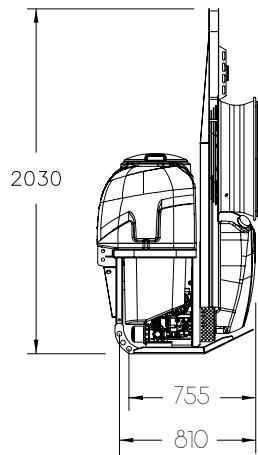


APS 4/60 QZ
425 L

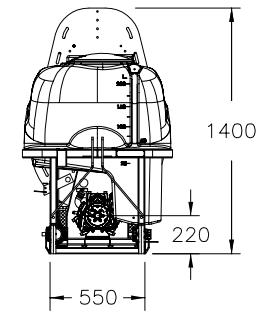


MODEL	TANK VOLUME L	PUMP PERFORMANCE L/min ; bar	AIR PERFORMANCE m ³ /h	NO. OF MEMBRANES	POWER ABSORPTION Kw/Cv	NO. OF NOZZLES	TARE Kg	FAN Ø mm
APS 2/60	220	70 ; 40	28.000	3	15/20	10	185	600
APS 2/60 Q	220	70 ; 40	28.000	3	15/20	12	205	600
APS 2/60 QZ	220	70 ; 40	32.000	3	15/20	14	242	600
APS 3/60 Q	325	70 ; 40	28.000	3	15/20	12	212	600
APS 3/60 QZ	325	70 ; 40	32.000	3	15/20	14	249	600
APS 4/60 Q	425	70 ; 40	28.000	3	15/20	12	226	600
APS 4/60 QZ	425	70 ; 40	32.000	3	15/20	14	263	600

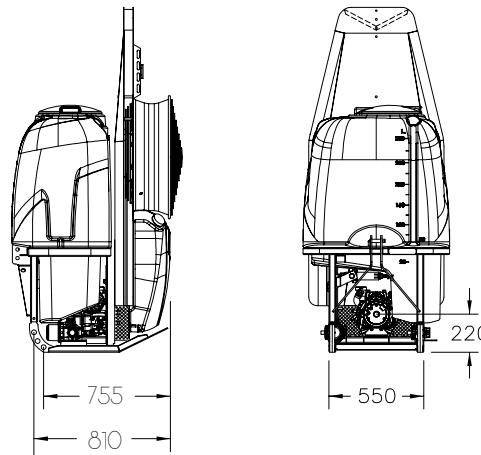
The air volume specified corresponds to the air from the blower (horizontal component only) which, at a speed of more than 4 m/sec, hits the leaves of the plants with a row distance of 2,0 metres and at 75% of the maximum fan speed. Subject to change - All data are approximate.



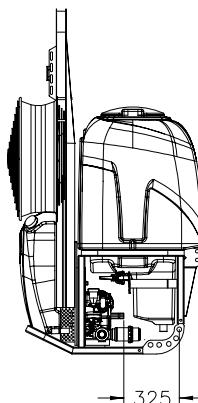
APS 2/60 QZ



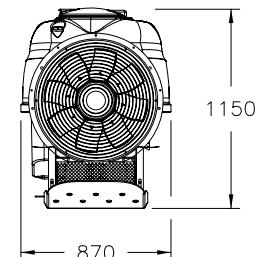
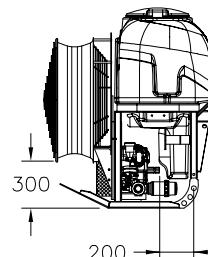
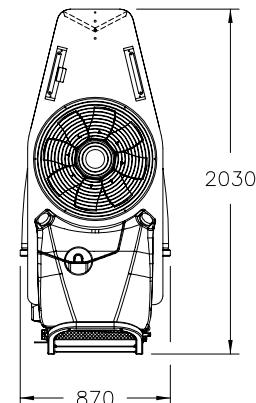
APS 2/60 Q



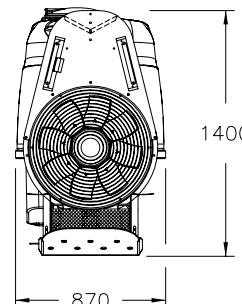
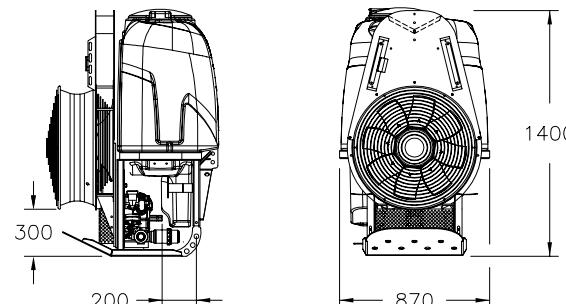
APS 3/60 QZ



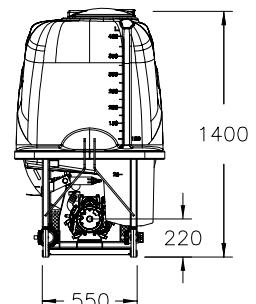
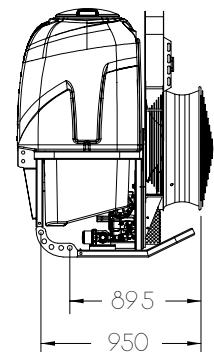
APS 4/60 QZ



APS 2/60



APS 3/60 Q



APS 4/60 Q



FAN GROUP

The fan units have been perfected on a new test bench that has made it possible to optimise the functionality of the fans. We were able to achieve such an air distribution that the volume and air speed on the plant, from top to bottom and from right to left, are perfectly uniform. This system has revolutionised the application of the liquid on the plant, allowing a considerable reduction in drift. The new "rectangular" distribution has halved power absorption, significantly reduced noise and reduced fuel consumption, with a significant improvement in the Co2 balance and energy efficiency. In particular, today we are able to treat a vineyard with an inter-row width of 2 metres and a plant height of about 2.30 metres, at a forward speed of 7.5 Km/h with power absorption of the lower fan unit of 5 hp. All the fan units are equipped with an 8-bladed curved propeller with an adjustable inclination, specially developed for a high volume that already at low air speed offers a very high degree of efficiency and limited noise. The stator positioned behind the propeller prevents air torsion, i.e. it guarantees: volume, exit angle and uniform air speed on both sides. The elastic belt drive, with engagement and disengagement, is integrated in the fan assembly and thus perfectly protected from water. Optimum air volume adjustment for the different leaf volumes promotes optimal deposition of the liquid on the plant, reduces drift and thus enables considerable product savings. The fully hot-dip galvanised fan frame is absolutely protected against corrosion.

The linear distribution turret (Q) allows an even more precise and targeted application, as its construction brings the jet closer to the plant. The more controlled fog, especially at the upper limit, minimises product drift upwards. The QZ turret, with its height, equal to or higher than the plant, ensures that the air flow is horizontal, it also allows 2 rows to be treated at the same time, excluding upward drift. The fan in the raised-central position increases efficiency and completely eliminates the suction of foliage.

Protocol Fan Testing Based on Measurements before Alterations

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Owner of Sprayer

Testing Institution
Lochmann Plantatec GmbH/Srl
Vilpianerstr. / Via Vilpiano 42
39010 Nals / Nalles (BZ)

Fan Testing
Date of testing: 20.07.2020 09:38:14
Protocol ID: Loch_W 000084
Seal of approval: BZ04-Italy 149
Tester: Höller

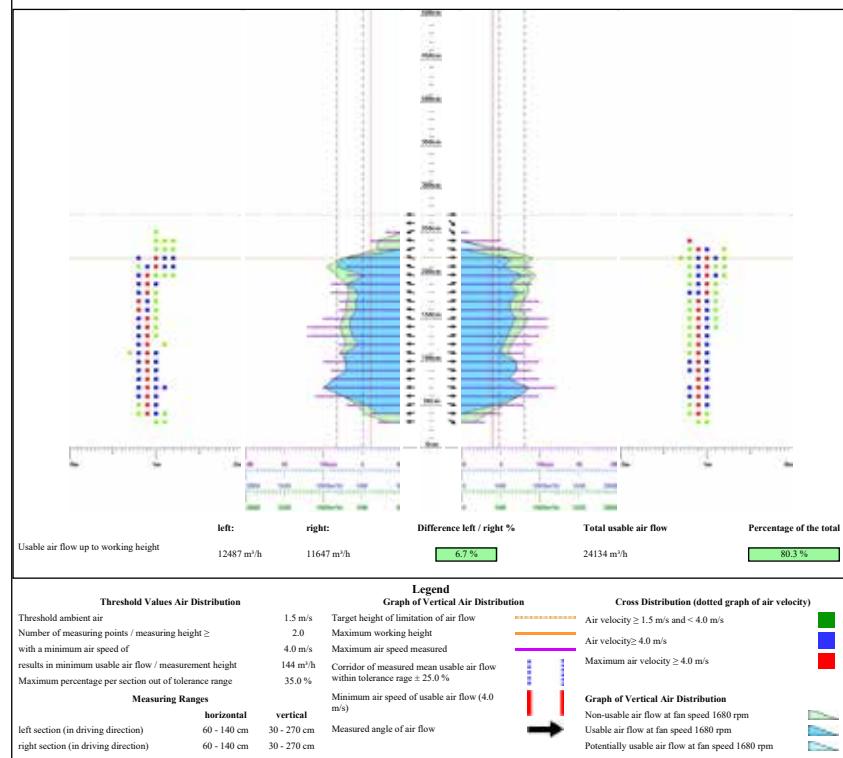
Fan Setting

Test speed (PTO): 400 rpm
Fan gear: 1
Test speed (fan): 1680 rpm
Measuring distance: 1.0 m

^a Please note: The test speed (fan speed and PTO speed respectively) is used only for air distribution measurements and adjustments and may only accidentally be consistent with the fan speed required in an orchard! Fan speed in an orchard has to be adapted to canopy width at any forward speed!

← left section (in driving direction)

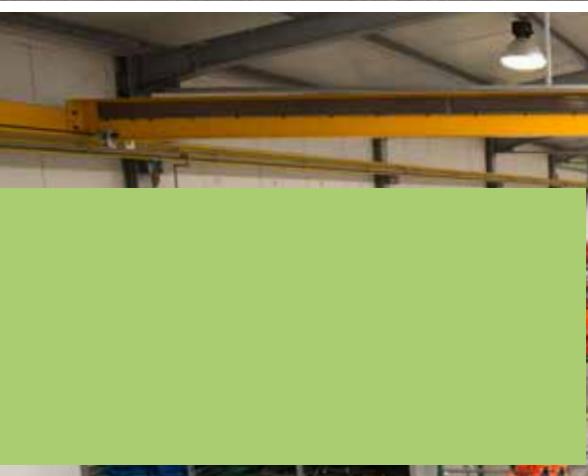
right section (in driving direction) →





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