































## Quantum Mist™ Sprayer Features, Benefits & Functions

<b>Feature</b>	<b>Description</b>	<b>Function</b>	<b>Benefit</b>
	SARDI fan blade assembly	Produces directional air. Purpose designed for canopy spraying.	Improved airflow and better canopy penetration at a range of speeds. One-piece for strength & durability. Increased energy efficiency.
	Hydraulic drive	Variable speed drive motor, driven by independent oil supply or direct from tractor hydraulics.	Simplicity of function using power supply (hydraulic) from tractor. Speed infinitely variable to suit canopy size.
	Adjustable brackets	Allows full adjustment to suit canopy type	Coverage is affected dramatically by spray-head placement. Full adjustment ensures correct directional spraying can be achieved.
	Narrow intake	Ensures fan has no restriction on the intake side	Brackets, motor & bearing block assembly are shaped to achieve maximum intake efficiency allowing full use of available air
	Hydraulic control block (*tractor supply model shown)	Hydraulic controls including; distribution, relief valve, anti-cavitation, test ports and soft-start	Simple and compact control centre for easy access for all hydraulic control functions.
	Hydraulic flow adjustment	Adjusts oil flow to spray head circuits	Allows infinite air adjustment to suit canopy growth stage and vine/canopy size
	Heat exchanger	To provide back-up for tractor oil-cooling	Oil is cooled from tank liquid bring passed through heat exchanger ensuring correct oil temperature in the hottest conditions. Easily flushed and maintained.

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	Shut-off & anti-drip valve	Shuts off each head individually as required	Allows easy control of liquid output of each spray head for different canopy stages & vine ages
	Double nozzle assembly	Allows low through to high spray output & angle adjustment	Can be operated with one or two nozzles and adjusted to suit output & angle required. Ensures excellent droplet spectrum
	Front and rear fan guards	Safety guards to ensure hands and fingers cannot touch fan in operation	Complies fully with OSH requirements for safety. Avoids risk of injury to operator or bystanders.
	High volume, low-speed air delivery	Allows good canopy penetration without "tiling" leaves. High air volume (48m <sup>3</sup> /hr per canopy-row) can lift lower canopy and penetrate upper canopy	Increased coverage of large, dense canopy. Less off-target drift. Better droplet deposition in target zone.
	Two heads per canopy-side	Adjustable brackets and drop-arms allow spray heads to be positioned correctly above and below canopy	Increased coverage, decreased drift, improved disease control are results of correct head placement & air interaction (see report)
	Roto-molded poly cowl	One-piece roto-molded cowl for high strength and light weight	Each head weighs just 15kg (total) including motor & brackets. Polyethylene material has high impact resistance
	Over-row structure (two-row model shown) *Note: a three-row model is available	Increased efficiency gains spraying multiple rows	Reduce spraying time by up to 40% (see table of comparisons)

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	2200 litre tank on the 2000 model	10% extra tank capacity	Increased area capability per tank-load
	Tank level indicators	Dual tank level indicators, front and side – replaceable (2000 litre model)	Enables tank capacity to be viewed while filling or from tractor. Replaceable easily when discoloured
	Pull-out step	Large working platform that can be pulled out for tank access	Safe working platform for top-filling and/or mixing
	Galvanised chassis, transport hooks	Full-length galvanised chassis with transport points	C-section chassis for corrosion resistance, full-length for maximum strength
	Suction filter & suction probe	Easy access for filter cleaning, and easy-access to chemical induction probe	Large filter area for maximum filtration, suction probe avoids lifting buckets to fill tank
	Fixed drawbar, adjustable length	Stable towing in hills and roadways	Strong drawbar, adjustable for length. Optional bearing block in front of pump for added pump-mount protection
	Optional Self-tracking drawbar	Allows tighter turning & wheel tracking	Sprayer wheels follow exactly in tracks of tractor wheels, ideal for narrow headlands. Protects PTO as it moves with drawbar and never alters angle. Fully greasable for long life
	160 litre per minute diaphragm pump	Supplies liquid for all functions (spraying, agitation, mixing)	Positive displacement for good pressure, high agitation and excellent droplet formation. High capacity, robust pump.

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	Pressure-fed venturi agitation	Uses positive pump pressure to agitate tank through venturi action	Two agitators (front & rear of tank) on 2000/4000 models. Each agitator turns over 400 l/min per minute.
	Fresh water flushing tank (130 litre – 2000 model) (80 litre – 4000)	Allows full flushing of sprayer in the field	Ensures sprayer is rinsed properly before leaving the field. Avoids dumping rinse liquid at the yard, shed or filling station. More environmentally sustainable.
	15 litre hand wash tank*	Allows fresh water use in the field	Clean water for eye-splash if needed, and for cleaning hands. Can also be used to clean filter if needed (*not on 4000 model)
	Selector valve for main/flushing tank	Large, easy access valve for selecting suction from spray tank or flushing tank	Easily accessed so the operator can quickly flush the sprayer in the field. Halfway position also allows inspection of suction filter without main tank liquid loss
	Pressure gauge	Large, easy to read gauge	Mounted at the front of the sprayer so as to be easily seen by the operator.
	Self-cleaning pressure filter	Can be self-cleaned at the turn of the tap, or disassembled for complete clean	80-mesh screen picks up anything that gets through the suction filter. Easy access and quick to clean.
	Flip-taps for selection of agitators, mixing basket & suction probe	Single manifold for selection of functions	Allows operator to quickly select functions during mixing, spraying & filling, and in the field for agitation

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	Motor valve electric controls	Left/right shut-off, dump valve (when both sides shut off), in-cab pressure adjustment manually or by auto-rate controller	Reliable, modular ARAG electric motor valves for all electric liquid-control functions
	Rapid-check flowmeter	Measures liquid flow for spray controller	Accurate flow meter with sapphire bearings. Easily checked and cleaned without demounting the unit from the sprayer
	Large, weatherproof plug	Electrical connection of cab-loom to tractor loom	Completely weatherproof with dust covers and strong connections. Heavy duty loom cabling
	Wheel hubs	For 6-stud wheel & heavy-duty wheel bearings	Heavy-duty hub, 6-stud, with adjustable & greasable bearings. Rated at 2 tonne/axle for 2000 litre & 3.5 tonne/axle for 4000 litre.
	Optional tandem axle	Provides improved ride & stability in rougher conditions	Less wear and tear on chassis & boom arms, ensures boom arms remain more stable during spraying in rougher vineyards
	Stainless Steel nuts, bolts and hose-clamps	To improve life fittings & clamps	Stainless steel provides corrosion resistance in aggressive spray environment
	Tank drain valve	Allows tank to be drained easily	Sump shape ensures total emptying of tank and quick drainage