MARTIGNANI

- Low volume electrostatic sprayers -

PHANTOM series

M748
M120
M511
M612



martignani.com



“Pioneers of Low Volume and Electrostatic Charge”.
Since 1958 we have been developing pneumatic spraying technology, heir to the KWH patents, in cooperation with leading international Agricultural Institutes.

ADVANTAGES

- Uniform, constant spraying at any volume
- Perfect distribution of active ingredients
- Exceptional spray range and penetration on every crop and in any weather
- Maximum effectiveness with fungicides and insecticides, especially against leaf miners, moths, mealybugs, mites, aphids and psyllids
- Low liquid pressure: no stress on the plant, no run-off to the ground

SAVINGS

- 90% WATER
- 30% CHEMICALS
- 60% LABOUR
- 40% FUEL

DISTRIBUTION

VOLUME	LT/HA
normal	over 1,000
medium	500-1,000
low	200-500
very low	50-200
ultra-low	less than 50

No nozzle changes, constant pressure of 1.5 bar, micronised droplets of 100–150 microns.

Since 1981 — the first in Europe, and the only one tested in Italy and abroad with published crop protection results

TECHNICAL PRINCIPLE

The electrostatic fields that form between plants — good conductors of sap, mineral salts and moisture — attract the charged droplets delivered by Martignani sprayers, reducing drift even in windy conditions. A principle validated by decades of field trials in Europe, North and South America, Asia and Africa.

ADVANTAGES

- Uniform distribution, even on the underside of leaves and in the upper parts of the plant
- Lower drift losses → less product per hectare
- Working speed up to 12 km/h
- Healthier plants, better crop quality
- 70% less operator contamination
- Fruit and wine free of unwanted chemical residues

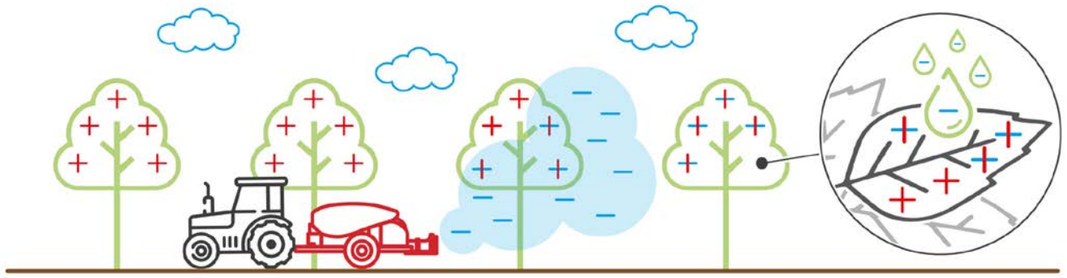
ELECTROSTATIC RECOVERY DEVICE

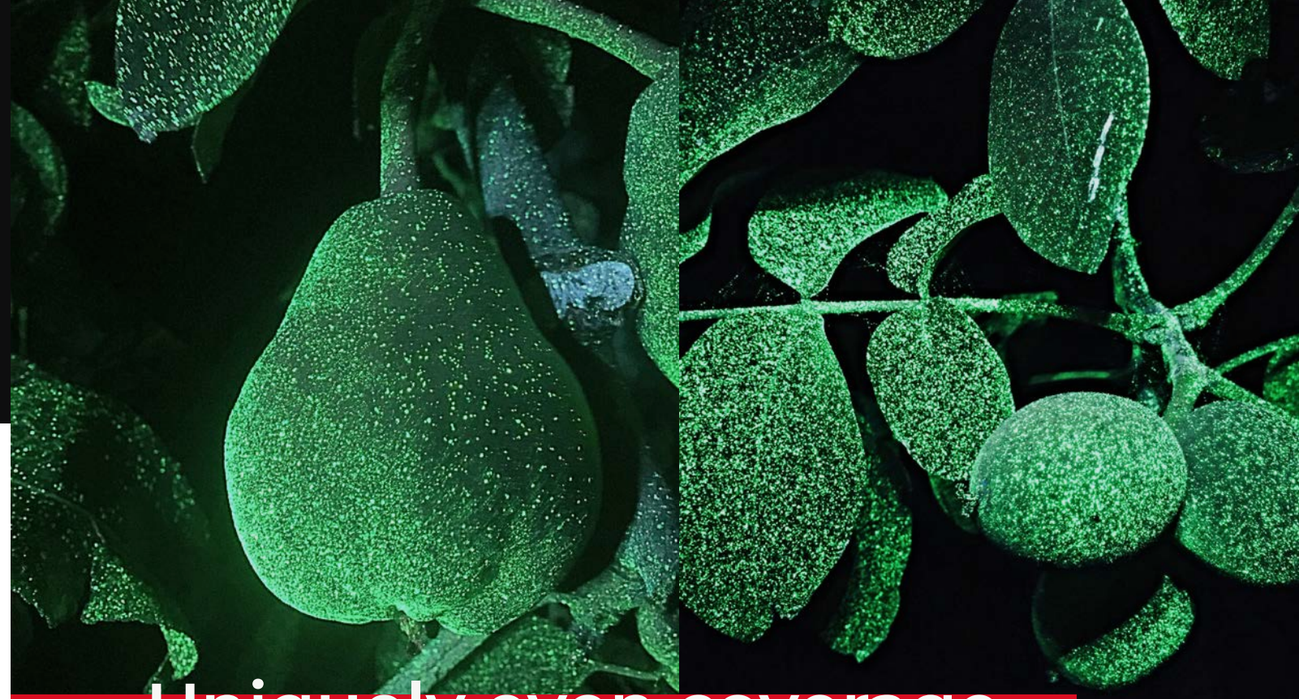
Already in use on thousands of fruit and wine farms worldwide. Available on request across the whole Martignani range.

+ 67%

SPRAYING EFFICIENCY

ELECTROSTATIC ®
AGRO SPRAY SYSTEM



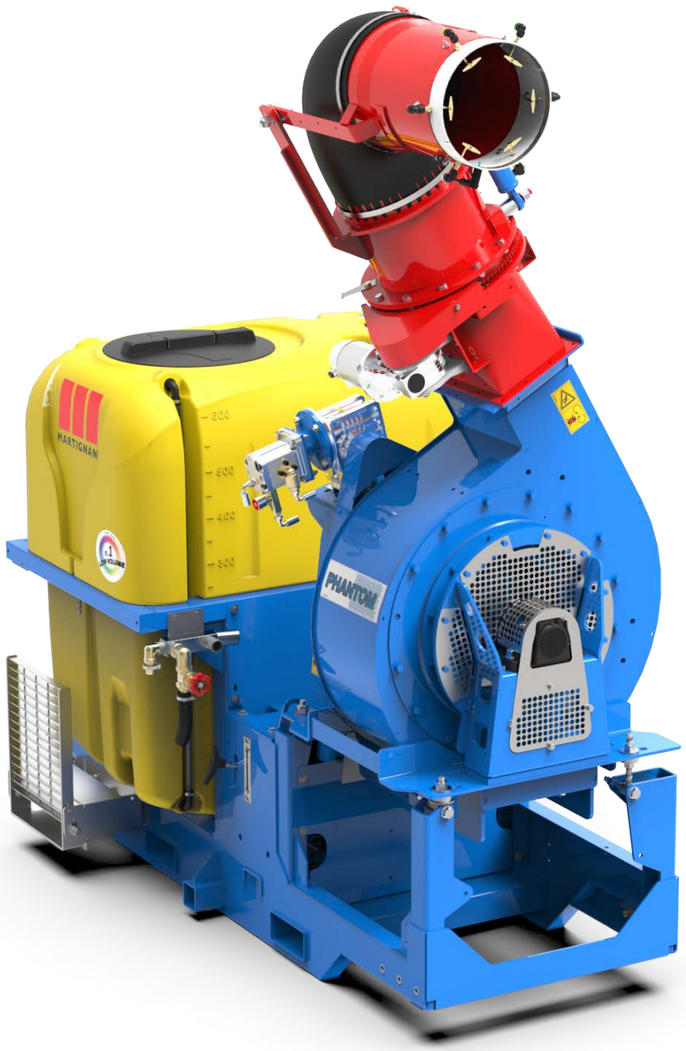


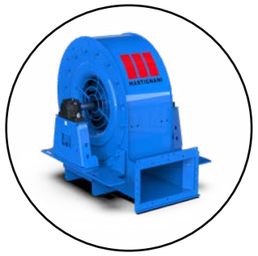
Uniquely even coverage.



phantom series 26

CONSTRUCTION FEATURES

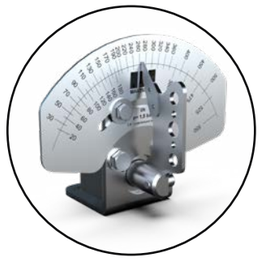




CENTRIFUGAL FANS WITH OUTSTANDING AERODYNAMIC EFFICIENCY



HIGH-FLOW CENTRIFUGAL PUMPS WITH EXCLUSIVE SEALS



PRECISION MECHANICAL METERING VALVES



WIDE-PASSAGE PNEUMATIC MICRONISING NOZZLES



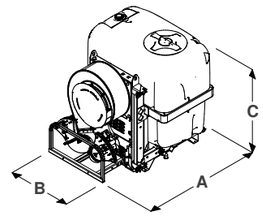
ELECTROSTATIC CHARGE WITH HIGH-VOLTAGE GENERATORS

TECHNICAL DATA

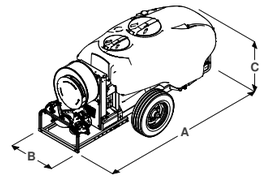
TECHNICAL DATA	FAN M748	FAN M120/M511	FAN M612
TRACTOR REQUIRED	from 20 HP	from 30 HP	from 70 HP
FAN OUTPUT	up to 4,500 m3/h	up to 15,000 m3/h	up to 24,000 m3/h
PUMP FLOW RATE	180 l/min	180 to 300 l/min	180 to 300 l/min
OPERATING PRESSURE	1.5 bar	1.5 bar	1.5 bar
METERING VALVE FLOW RATE	0 to 500/1,300 l/h	0 to 500/1,300 l/h	0 to 500/1,300 l/h
PNEUMATIC NOZZLE	dia. 4 mm	dia. 4 mm	dia. 4 mm
AGITATION	hydraulic	hydraulic	hydraulic

MODELS	CAPACITY	TANK	A*	A1*	B*	C*	EMPTY WEIGHT	STANDARD WHEELS
-	l	-	cm	cm	cm	cm	kg	-
M748	100 l Transported	Polyethylene	154	-	67	72	250	/
-	300 l Mounted slim	Polyethylene	150	120	100	140	355	/
-	400 l Mounted slim	Polyethylene	150	120	100	155	365	/
-	400 l Mounted	Polyethylene	150	120	121	126	365	/
-	500 l Mounted	Polyethylene	150	120	121	138	375	/
-	600 l Mounted	Polyethylene	150	120	121	150	385	/
-	600 l Pull-type	Polyethylene	260	233	105	125/135	450	205/65-15.0
-	1000 l Pull-type	Polyethylene	282	255	128	138/148	500	225/70-15.0
M120/M511	300 l Mounted slim	Polyethylene	150	125	100	140	385	/
-	400 l Mounted slim	Polyethylene	150	125	100	155	395	/
-	400 l Mounted	Polyethylene	150	125	121	130	395	/
-	500 l Mounted	Polyethylene	150	125	121	135	405	/
-	600 l Mounted	Polyethylene	150	125	121	143	415	/
-	600 l Pull-type	Polyethylene	278	258	105	130/140	585	205/65-15.0
-	1000 l Pull-type	Polyethylene	310	290	128	138/148	640	225/70-15.0
-	1500 l Pull-type	Polyethylene	360	340	149	152/162	870	340/55-16.0
-	2000 l Pull-type	Polyethylene	380	360	160	160/170	950	340/55-16.0
-	600 l Articulated	Polyethylene	330	-	105	130	710	205/65-15.0
-	1000 l Articulated	Polyethylene	358	-	136	157	740	260/70-15.3
	1500 l Articulated	Polyethylene	378	-	141	184	780	340/55-16.0
-	2000 l Articulated	Polyethylene	387	-	166	182	950	340/55-16.0
M612	400 l Mounted	Polyethylene	-	190	121	126	680	/
-	500 l Mounted	Polyethylene	-	190	121	138	690	/
-	600 l Mounted	Polyethylene	-	190	121	150	700	/
-	2000 l Pull-type	Polyethylene	-	380	150	165/175	1120	300/80-15.3

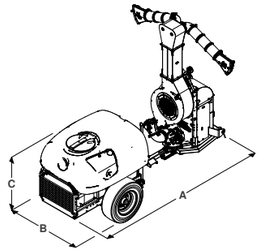
*A = Length with GIB-DOR - KOMBY - MULTI-FLOW - CALIFORNIA diffusers, without drawbar.
*A1 = Length with CANNON diffusers.
*B = Width (pull-type models with standard wheels).
*C = Tank height.
*M612 = This series is available with cannon configuration only.



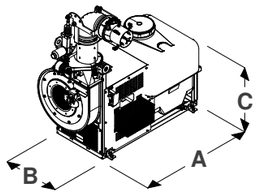
MOUNTED



PULL-TYPE



ARTICULATED



TRANSPORTED

ADVANTAGES

1. WORKING VOLUME

from 50 to 3,200 l/h, same spray range and penetration at any volume

2. UNIFORM MICRONISATION

with any formulation — including concentrated mixtures (Bordeaux mixture, copper oxychlorides, oils, polysulphides) and, if liquid, without dilution water

3. NO RUN OFF

at any working volume

4. NOZZLES

no clogging or wear, individually and instantly adjustable

5. MAXIMUM VERSATILITY

wide choice of accessories

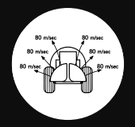
6. MINIMAL MAINTENANCE

simple, safe operation

MARTIGNANI



AIR FROM THE TWO-STAGE CENTRIFUGAL FAN: 100% USED



UNIFORM OUTLET SPEED, AIRFLOW DIRECTED AT THE CANOPY



AERODYNAMIC DUCTING, ALMOST NO POWER LOSS



CONTINUOUS FLOW, HIGH SPEED, PENETRATION WITHOUT TURBULENCE



DIFFUSERS ADJUSTABLE THROUGH 90°, MATCHING EVERY PLANT SHAPE



DOUBLE PENETRATION EVEN IN STRONG WIND



100% OF ABSORBED POWER PUT TO USE



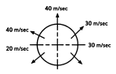
DUAL-EFFECT AIR: MICRONISES AND CARRIES (PNEUMATIC SYSTEM)

phantom series 26

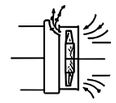
AIR BLAST SPRAYER



AXIAL FAN: ONLY 2/3 PRODUCES USEFUL AIR



AIR SPINNING AROUND THE PROPELLER AXIS → TURBULENCE, UNEVEN FLOW



SHARP 90° DEFLECTION → ~20% POWER LOSS



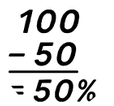
STRONG TURBULENCE → LOSS OF SPEED AND POWER



NO ADAPTATION TO DIFFERENT PLANT SHAPES



ONE-SIDED WORK: HALF THE POWER WASTED, YET STILL ABSORBED



~33% LOSS → LESS THAN 50% OF POWER ACTUALLY USEFUL



SINGLE-EFFECT AIR: TRANSPORT ONLY, UNEVEN SPRAYING (AIR-ASSISTED)

CONFIGURATIONS ON REQUEST

TRANSPORTED ARTICULATED

MOUNTED

KOMBY	TWIN MULTIFLOW VINEYARD	TWIN MULTIFLOW ORCHARD	CALIFORNIA ORCHARD
			

PULL-TYPE

KOMBY	TWIN MULTIFLOW VINEYARD	TWIN MULTIFLOW ORCHARD	CALIFORNIA ORCHARD
			

TRANSPORTED ARTICULATED

KOMBY	TWIN MULTIFLOW VINEYARD	TWIN MULTIFLOW ORCHARD	CALIFORNIA ORCHARD
			

KOMBY	MULTIFLOW	CANNON
		

phantom series 26

CONTROLS ACCESSORIES

MOUNTED

CALIFORNIA VINEYARD	CALIFORNIA MULTIFLOW	M120 CANNON	M612 CANNON
			

PULL-TYPE

CALIFORNIA VINEYARD	CALIFORNIA MULTIFLOW	M120 CANNON	GIB-DOR
			
		M612 CANNON	
			

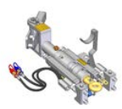
ARTICULATED

CALIFORNIA VINEYARD	CALIFORNIA MULTIFLOW	CANNON	TRIO
			

ACCESSORIES


FIXED DRAWBAR, EYE


FIXED DRAWBAR, FORK


STEERING DRAWBAR, HYDR. OR MECH., EYE


STEERING DRAWBAR, 3-PT


4-DIAPHRAGM PUMP

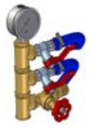

CENTRIFUGAL PUMP



ROAD HOMOLOGATION

CONTROLS


ELECTRIC CONTROL


MANUAL CONTROL


COMPUTER DPA


COMPUTER 4.0


ISOBUS

COMPUTER WITH TREE SENSOR



MARTIGNANI

FOR A GREENER WORLD

MARTIGNANI SRL

Via Fermi, 63 - Zona Industriale Lugo 1
48020, S. Agata sul Santerno (RA) Italy
Tel. (+39) 0545 230 77

martignani@martignani.com