

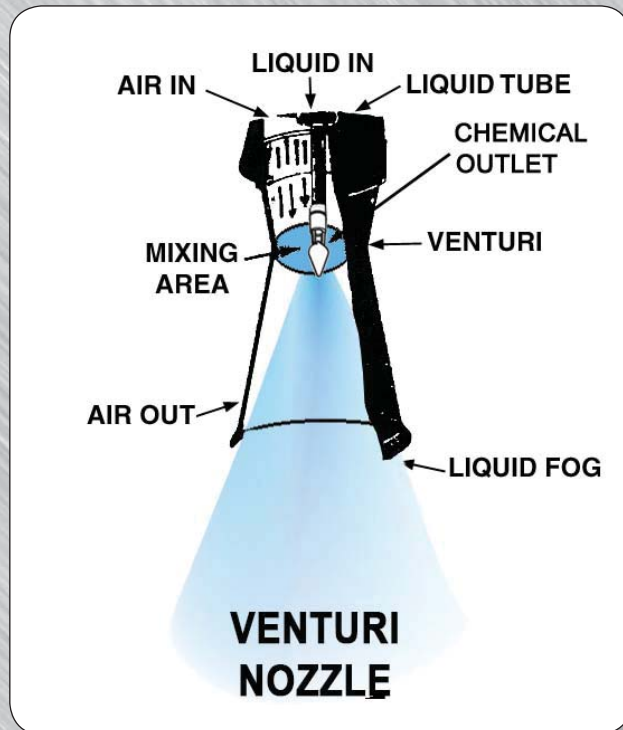
INCLUDES:

- OVERVIEW OF ALL SPRAYERS
- LITERATURE ON EACH MODEL
- DISTRIBUTION SPRAY HEADS
- FACTS & GENERAL INFORMATION
- DESIGN WORKSHEET



VENTURI AIR SPRAYERS

MASTER CATALOG



13477 Benson Ave. • Chino, CA
Ph: 909/548-4848 • Fax: 909/548-4747

www.gearmore.com

March 2017

**ONE LINE OF SPRAYERS THAT COVERS FOUR
DIFFERENT MARKETS****MORE****FOR****LESS****MORE**

Acres per fill-up.
Spray twice the
acreage per day.

**VINEYARD****LESS**

Chemical run-off
means better spray
utilization and savings.

MORE

Uniform spray
particles with
fog size droplets.

**ORCHARD****LESS**

Applications per season.
Complete plant coverage
each application.

MORE

Coverage and
chemical utilization.
Entire plant is evenly
covered with spray.

**BUSH/CANE BERRIES****LESS**

Gallons means
fewer fill-ups.
Reduces soil
contamination.

MORE

Control of
air distribution.
Distribution heads
that match crop.

**ROW CROPS****LESS**

Maintenance no
high pressure pumps
to repair, and no spray
tips to replace.

How the Venturi Air Spraying System works

Our Venturi Air Sprayers produce high air velocities that shear the liquid in 50 micron fog sized droplets, which penetrate and cling to all areas of the plant foliage.

www.gearmore.com

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Venturi Air 3-Point Hitch Models

Our Most Popular Models Will Operate On Tractors As Low As 18 PTO H.P.



These Venturi Air Sprayers feature the 8 nozzle distribution head for vineyard rows up to 10 foot width. The nozzle assemblies are manually adjustable up and down. For terraced vineyards optional electro cylinders, controllable from the tractor, are available.

These unique Venturi Air Sprayers feature the latest technology in low volume spraying. Thus, growers achieve the following benefits: spray atomization of droplets are smaller and more uniform, less fill-ups, even distribution of concentrated spray, complete foliage coverage, better product utilization, less chemical waste and soil contamination. All Venturi Air Sprayers shown on the following pages have these same advantages.

FEATURES:

- Cat. 1, 3-point hitch, P.T.O. 540 RPM
- High performance, precision balanced all steel centrifugal fan
- Special molded polyethylene fan housing
- Translucent heavy walled polyethylene tank with lid, sump and strainer basket
- Built-in overrunning clutch to protect the tractor and sprayer drive train
- Compact, rounded tank design permits traveling through vegetation without damaging it
- Simple, efficient "Dial-A-Rate", 15 position metering disc
- Agitation by liquid sparging tube and air from the fan
- Low pressure spraying system - 15 to 40 PSI spraying pressure means less maintenance for pumps and nozzles
- Power band fan speed-up is automatically adjusted by spring loaded idler
- Broad range of Venturi distribution heads that produce 50 micron droplets and are specially designed to match a variety of foliage profiles
- Capable of application rates of 20 to 200 gallons per acre, depending on row width
- Reachable controls from tractor seat, allows operator to switch liquid from off to right, left or both sides spraying
- Built-in 6 gallon fresh water safety tank

SPECIFICATIONS:

MODEL NO.	GALLONS	VOLUME OF AIR	WIDTH	H.P. REQ'D	WT.
P42N1-300-G	75 Gallons	2350	38"	18 H.P.	400#
P42N1-400-G	100 Gallons	2350	44"	18 H.P.	440#
P45N1-300-G	75 Gallons	3180	38"	32 H.P.	435#
P45N1-400-G	100 Gallons	3180	44"	32 H.P.	455#

Two Row Venturi Air Sprayers

Sprays Two Complete Rows In One Pass So Your Spraying Time is Cut In Half



The Venturi 2 Row Sprayer covers two complete rows at one time so your spraying time is cut in half; reducing your labor, fuel, wear and tear on your tractor/sprayer, and since you are travelling every other row, you will have less soil compaction. Plant coverage is greatly increased because the spray enters the foliage from opposite directions at the same time. Thus, chemical drift is greatly reduced as the spray is held in the foliage longer.

FEATURES:

- Cat. I & II, 3-point hitch, P.T.O. 540 RPM
- High performance, precision balanced all steel centrifugal fan
- Special molded polyethylene fan housing
- Translucent heavy walled polyethylene tank with lid, sump and strainer basket

These sprayers are available with many different types of distribution heads, however the most productive is the unit shown above. The over the row nozzles are adjustable for 6 to 10 foot rows. The extensions have hydraulic cylinders for folding away when required.

- Compact, rounded tank design permits traveling through vegetation without damaging it
- Simple, efficient "Dial-A-Rate", 15 position metering disc
- Agitation by liquid sparging tube and air from fan
- Low pressure spraying system - 15 to 40 PSI spraying pressure means less maintenance for pumps and nozzles
- Reachable controls from tractor seat, allows operator to switch liquid from off to right, left or both sides spraying
- Built-in 6 gallon fresh water safety tank

SPECIFICATIONS:

MODEL NO.	GALLONS	VOLUME OF AIR	WIDTH	H.P. REQ'D	WT.
P50N1-400-G	100 Gallons	4444	44"	45 H.P.	510#
P50N1-600-G	150 Gallons	4444	57"	45 H.P.	540#
P50S1-400-G	100 Gallons	4875	44"	52 H.P.	510#
P50S1-600-G	150 Gallons	4875	57"	52 H.P.	540#



The development of this sprayer was for horizontal spraying up to 90 feet. The system features 4 upper cannons, one central cannon and 4 lower nozzles. This cannon sprayer is popular in areas of limited tractor roads and is used in nurseries and crops like melons.

FEATURES:

- Cat. 2, 3-point hitch, P.T.O. 540 RPM
- Translucent heavy walled polyethylene tank with lid, sump and strainer basket
- Built-in overrunning clutch to protect the tractor and sprayer drive train
- Simple, efficient "Dial-A-Rate", 15 position metering disc
- Agitation by liquid sparging tube and air from fan
- Low pressure spraying system - 15 to 40 PSI
- Electro valve controls to switch liquid from off to right, left or both sides spraying
- Built-in 6 gallon fresh water safety tank

SPECIFICATIONS:

MODEL NO.	GAL.	VOL. OF AIR	WIDTH	H.P. REQ'D	WT.
P55E1-600E	150	9,125	57"	70 H.P.	550#



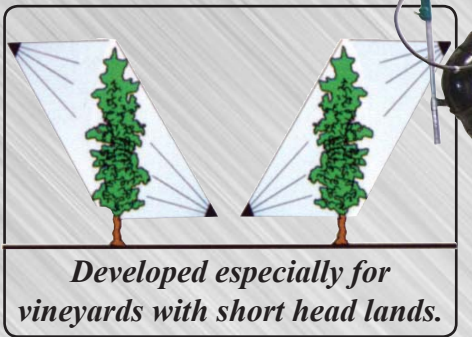
This model features fishtail type distribution heads for orchards with trees up to 35 feet in height. The fishtails are fitted with special manifolds with a total of 64 orifice outlets. This feature produces a fine mist spray to obtain total plant coverage. Also, growers have found that the sprayer is the most economical way to apply foliar feed.



This sprayer has special tall tree cannons that will give complete coverage on trees up to 50 feet in height. The unit was designed for spraying walnuts, avocados, and other tall tree orchards. The sprayer is also excellent for applying foliar feed.

Venturi Air - Short Turning Hitch

With Short Turning Radius Hitch - Designed So The Driveshaft Is Always Straight In Line



Shown with optional 2 row distribution head to spray 2 complete rows



These Venturi Air Sprayers feature a special short turning radius design. The fan and distribution head is 3-point hitch mounted. The trailer assembly is attached to the fan assembly with a heavy duty double knuckle joint. The sprayer can "turn on a dime" with no stress or damage as the drive system is always straight.

The sprayer shown is equipped with our unique 2 row distribution heads for spraying two complete rows with one pass. This cuts your spraying time in half, reducing labor, fuel, and wear and tear on your tractor/sprayer.

These unique 3-point/trailer sprayers are the perfect units for narrow and short head land rows.

FEATURES:

- Cat. I & II, 3-point hitch, P.T.O. 540 RPM
- Turns as sharp as your tractor
- High performance, precision balanced all steel, front mounted centrifugal fan
- Translucent heavy walled polyethylene tank with hinged lid, sump, strainer basket and shower head
- Dual tank lids for safety, one for water and one for adding chemicals

- Centrifugal pump - 37 G.P.M.
- 200 Gallon has one pump, 300 gallon has 2 pumps
- Dual agitation systems, liquid and air
- Low pressure spraying system-15 to 40 PSI spraying pressure means less maintenance for pumps & nozzles
- Electro-valve controls allows operator to switch liquid to right, left or both sides spraying
- 8 Gallon fresh water safety tank

2 ROW BOOM FEATURES:

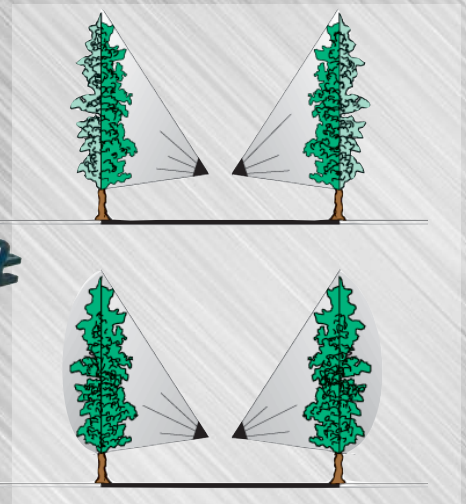
- Total of 4 distribution heads with 4 Venturi nozzles on each head with individual shut off valves
- Frame width adjusts for row from 6 to 10 feet wide
- Two hydraulic cylinders with hoses for opening and closing horizontal booms

SPECIFICATIONS:

MODEL NO.	GALLONS	VOLUME OF AIR	WIDTH	LENGTH	TIRE SIZE	H.P. REQ'D	WT.
L50N1-800	200 Gallons	4444 C.F.M.	43"	9'	9.5Lx15-8 Ply	48 H.P.	855#
L50S2-1200	300 Gallons	5000 C.F.M.	54"	9'	11Lx15-8 Ply	52 H.P.	960#

Venturi Air 200 Gallon

Built For Low Horsepower Tractors Spraying Narrow Rows



FEATURES:

- Trailer mounted, P.T.O. 540 R.P.M.
- Translucent heavy walled polyethylene tank with hinged lid, sump, strainer basket and shower head
- Unique polyethylene belly mounted air tubing to the distributor heads
- Dual tank lids for safety, one for water and one for adding chemicals
- Compact, rounded tank design permits traveling through vegetation without damaging it
- Adjustable tread width, facilitates matching sprayer tread with tractor tread
- Tongue with clevis hitch has length adjustment
- Simple, efficient "Dial-A-Rate", 15 position metering disc
- Dual agitation systems, liquid and air
- Low pressure spraying system - 15 to 40 PSI spraying pressure means less maintenance for pumps and nozzles
- Built-in overrunning clutch to protect the tractor and sprayer drive train
- Power band fan speed-up is automatically adjusted by spring loaded idler
- Electro-valve controls to allow operator to switch liquid from off to right, left, or both sides spraying
- Built-in 8 gallon fresh water safety tank

Our 200 Gallon Trailer Mounted Sprayer was developed for low horsepower tractors doing narrow row spraying. Tractors with P.T.O. horsepower of as low as 36 will handle this sprayer. The 48 inch overall sprayer width allows for operating in the narrowest of rows. Growers achieve the following additional benefits - spray atomization of droplets are smaller and more uniform, less fill-ups, even distribution of concentrated spray, complete foliage coverage, better product utilization, less chemical waste and soil/water contamination.

SPECIFICATIONS:

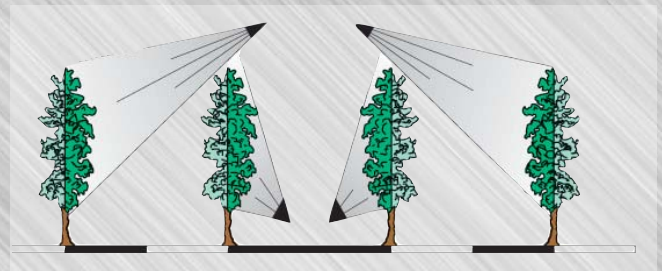
MODEL NO.	GALLONS	VOLUME OF AIR	WIDTH	LENGTH	TIRE SIZE	H.P. REQ'D	WT.
T45N1-800	200 Gallon	3,180 C. F.M.	48"	10' - 5"	9.5Lx15-8 Ply	36 H.P.	910#



*Shown with optional
16" wide x 52"
long floatation tracks*

FEATURES:

- Trailer mounted, P.T.O. driven 540 RPM
- Translucent heavy walled polyethylene tank with hinged lid, sump, strainer basket and shower head
- Dual tank lids for safety, one for water and one for adding chemicals
- Compact, rounded tank design permits traveling through vegetation without damaging it
- Adjustable tread width, facilitates matching sprayer tread with tractor tread
- Dual agitation systems, liquid and air
- Low pressure spraying system - 15 to 40 PSI spraying pressure means less maintenance for pumps and nozzles
- Electro-valve controls to allow operator to switch liquid from off to right, left, or both sides spraying
- Built-in 8 gallon fresh water safety tank



This sprayer was developed for the Cane/Bush Berry growers who requested a very narrow sprayer to spray 4 half rows of thick foliage berries. This sprayer required dual upper cannons extended out 10 feet on each side of the sprayer with electric actuator adjusters to direct and insure greater foliage penetration on the outer rows. Upper and lower 4 + 4 distribution heads in the drive row and our most powerful turbine fan.

SPECIFICATIONS:

MODEL NO.	GALLONS	VOLUME OF AIR	WIDTH	LENGTH	TIRE SIZE	H.P. REQ'D	WT.
T55AE-800	200 Gallon	9,125 C. F.M.	52" Min.	10' - 3"	9.5 x 15	60 H.P.	1945#

Sprays Two Complete Rows In One Pass So Your Spraying Time Is Cut In Half



The Gearmore 200 & 300 Gallon 2 Row Venturi Air Sprayer covers two complete rows at one time so your spraying time is cut in half; reducing your labor, fuel, wear and tear on your tractor/sprayer, and since you are travelling every other row you will have less soil compaction. Plant coverage is greatly increased because the spray enters the foliage from opposite directions at the same time. Thus, chemical drift is greatly reduced as the spray is held in the foliage longer. Hydraulic booms operated from the tractor seat fold away when required.

FEATURES:

- Molded polyethylene 200 & 300 gallon tanks
- Dual centrifugal pumps - 37 GPM for spraying and 37 GPM for agitation
- Dual agitation systems, liquid and air
- Low pressure spraying system - 15 to 40 PSI spraying pressure means less maintenance for pumps and nozzles
- Wheels are adjustable up or down, front or rear, in or out to obtain the best balance
- Electro-valve system controls spray off or on, both sides spray, right or left only
- Simple, efficient "Dial-A-Rate", 15 position metering disc
- Shower head is built into the main strainer basket to easily put wettable powders into suspension
- Separate safety clean water 8 gallon tank for handwashing
- 4 Distribution heads w/4 Venturi nozzles on each head w/individual shut off valves
- Frame width adjusts for row from 6' to 10'

SPECIFICATIONS:

MODEL NO.	GALLONS	VOLUME OF AIR	WIDTH	LENGTH	TIRE SIZE	H.P. REQ'D	WT.
T50S1-800	200 Gallons	5,000 C.F.M.	48"	10' - 5"	9.5Lx15-8 Ply	52 H.P.	950#
T50S2-1200	300 Gallons	5,000 C.F.M.	55"	11' - 8"	11Lx15-8 Ply	52 H.P.	970#

"10 Year Warranty on Polyethylene Trailer Tanks"

500 Gallon



Optional Flotation Tracks smooths out the ride, floats over wet ground and greatly reduces compaction.

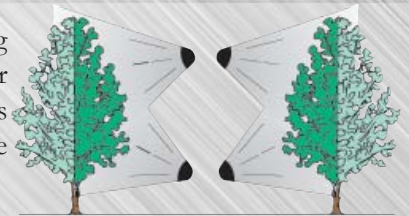
FEATURES:

- High performance, precision balanced all steel, front mounted, centrifugal fan
- Translucent heavy walled polyethylene tank with hinged lid, sump, strainer basket and shower head
- Dual centrifugal pumps - 37 GPM for spraying and 37 GPM for agitation
- Dual agitation systems, liquid and air
- Low pressure spraying system - 15 to 40 PSI spraying pressure means less maintenance for pumps and nozzles
- Broad range of Venturi distribution heads that produce 50 micron droplets and are specially designed to match a variety of foliage profiles
- Electro-valve controls to allow operator to switch liquid from off to right, left, or both sides spraying
- Built-in 8 gallon fresh water safety tank

These unique Venturi Air Sprayers feature our most powerful high speed turbine fans and are the latest technology in low volume spraying. Thus, growers achieve the following benefits: spray atomization of droplets are smaller and more uniform, less fill-ups, even distribution of concentrated spray, complete foliage coverage, better product utilization, less chemical waste and soil/water contamination.



This sprayer is operating with 2 lower & 2 upper orchard distribution heads to insure coverage on the upper half of trees.



SPECIFICATIONS:

MODEL NO.	GALLONS	VOLUME OF AIR	MIN. WIDTH	OVERALL LENGTH	TIRE SIZE	H.P. REQ'D	WT.
T55S2-1200	300 Gallon	8240 C.F.M.	55"	12'	11Lx15-8 Ply	60 H.P.	1020#
T55E2-1200	300 Gallon	9123 C.F.M.	57"	12'	11Lx15-8 Ply	74 H.P.	1020#
T55E2-2000	500 Gallon	9123 C.F.M.	71"	14'	12.5Lx15-10 Ply	74 H.P.	1320#



500 Gallon sprayer with "D" boom shown

We custom build booms and electro/hydraulic controls to grower's requirements.

Now available is a complete series of high strength Wrap-A-Round Spray Booms. The booms feature extra strong framing with heavier support tubings to the sprayer frame. The five hydraulic cylinders give total control on height adjustment, swing up for in row obstructions, and fold away for transport. The width adjustment is manual, *optional* electro cylinders operated from the tractor seat are available. These booms are available to spray two complete rows or two complete rows and two half rows. Boom controls require 5 rear remotes or Gearmore's *optional* electro over hydraulic kit. The booms are designed to fit the popular 300 and 500 gallon Venturi Air Sprayer.

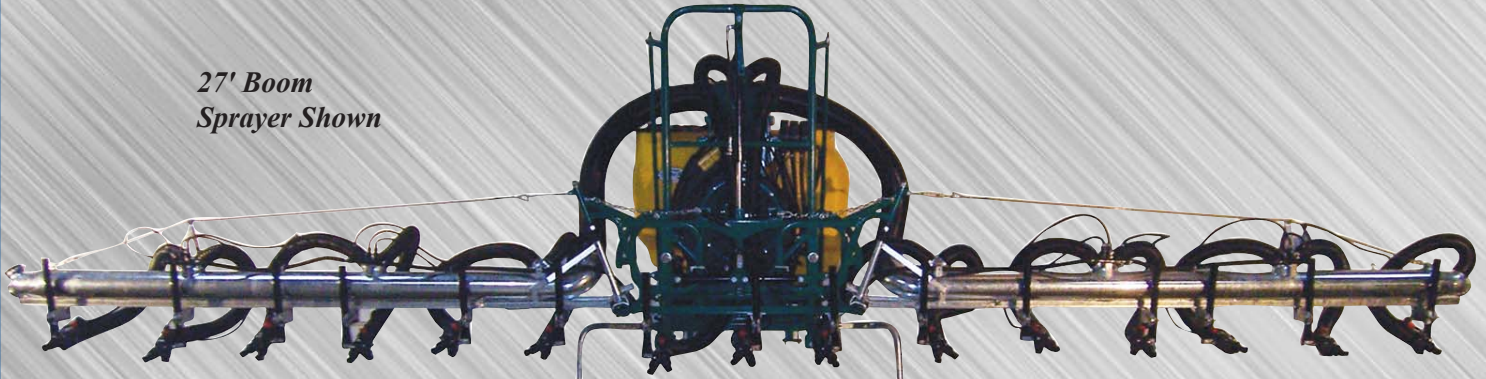


FEATURES:

- Sprayer features same as on previous page
- Booms swing hydraulically from operational to closed position
- Booms fold forward for transport and lock
- Height adjustment is hydraulic
- Boom bottoms can be fitted with single or double 4 + 4 nozzles or fishtails
- Boom tops can be fitted with 4 + 4 nozzles, cannons, fishtails, depending on crop

Boom Model #:	Sprayer Model:	Gals:	No. of Rows:	No. of Nozzle Assy:	Row Space:	Max. Crop Height:	Boom Clearance:	Nozzle Positions:	Type of Bottom Nozzles:	Type of Top Nozzles:
TS56MB55M12 "A" Boom	T55S2-1200	300	2 - Full 2 - Half	6	7.5' - 10'	7 ft.	8 1/2 ft.	Bottom Only	4 Outlet Head	None
TS56MC55D12 "A" Boom	T55S2-2000	500	2 - Full 2 - Half	6	9.5' - 13'	8 ft.	9 1/2 ft.	Bottom Only	4 Outlet Head	None
TS54M4CC55D12 "B" Boom	T55E2-2000	500	2 - Full	8	9.5' - 13'	8 ft.	9 1/2 ft.	Top & Bottom	4 Outlet Head	Cannons
TS512MC55D12 "D" Boom	T55E2-2000	500	2 - Full 2 - Half	12	9.5' - 13'	8 ft.	9 1/2 ft.	Top & Bottom	4 Outlet Head - Bottom & Top	
TS52V4V6V55D12 "Hedge Row" Boom	T55E2-2000	500	2 - Full	12	9.5' - 13'	8 ft.	9 1/2 ft.	Top, Center & Bottom	Fishtail Head - Bottom, Center & Top	

27' Boom
Sprayer Shown



- TANK:** Translucent polyethylene 150 gallon with hatch and strainer basket
- AGITATION:** Adjustable liquid bypass, and air from fan when required
- DRIVE:** 540 RPM P.T.O. driven with belt drive to fan and pump with overrunning clutch
- NOZZLES:** "No drip" system on each nozzle and individual liquid shut-off by hand, replaceable stainless steel discs and screens
- CONTROLS:** Reachable from tractor seat allowing operator to switch liquid from off to right or left
- FILTRATION SYSTEM:** 3 Stages - at filler, at pump, and at nozzles
- FAN:** Precision balanced all steel centrifugal fan
- PUMP:** Centrifugal with maximum 37 GPM
- SIGHT GAUGES:** In tank and tubing
- PRESSURE GAUGE:** 0 to 80 P.S.I. in liquid case to reduce vibration and extend life

40' Boom
Sprayer Shown



FEATURES:

- Air velocity of 200 MPH at nozzle breaks down spray to fog size (50 microns) droplets which penetrate in and around all areas of each plant
- Air movement allows chemical to completely cover vegetation, especially the underside of leaves
- Volume as low as 5 gallons per acre results in fewer refilling stops and more acres covered per day
- Spray drift is reduced by 50% to 75%.
- Boom has breakaway and hydraulic fold away features to prevent damage and for transport
- Boom raises and lowers hydraulically for different crop heights, independent of the sprayer
- Boom nozzles are completely adjustable in width and angle for maximum coverage
- Chemicals only come in contact with plastic, rubber, and stainless steel parts

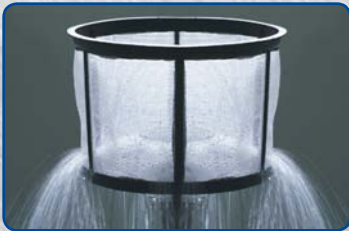
Models:	P50S-600-27	P55S1-600-40S	P55S1-600-40
Boom Width:	27'	40'	40'
Rows:	8 Row	7 Row	12 Row
No. of Nozzles:	2 + 2 = 32	2 + 3 + 2 = 49	2 + 2 = 48
Boom Design:	Steel Tubing	Framed Poly Air Tubing	Framed Poly Air Tubing
Tank Capacity:	150 Gal.	150 Gal.	150 Gal.
Diameter of Fan:	19.75"	21.75"	21.75"
Fan (RPM):	4320	3720	3720
Volume of Air (CFM):	4875 C.F.M.	8240 C.F.M.	8240 C.F.M.
Air Speed at Foliage:	10-50 MPH	10-50 MPH	10-50 MPH
Controls:	Liquid	Electro-Valve	Electro-Valve
Minimum Tr. HP:	52 H.P.	60 H.P.	60 H.P.
Sprayer Weight:	1230#	1800#	1800#

Call for special applications

ADVANTAGES:

- The Venturi Air Sprayer produces over 200 micro droplets for every average spray droplet produced by a traditional air blast sprayer.
- The Venturi Air Sprayer will spray from 2 to 4 time longer between fill-ups than air blast sprayers of the same tank size.
- The Venturi Air Sprayers efficiently operate at only 15 to 40 PSI, versus air blast air sprayers at 300 to 500 PSI. This low pressure greatly reduces maintenance costs.
- Venturi Trailer Air Sprayers have a front mounted fan, therefore, there are no long drivelines that run through the tank, no extra universal joints or bearings to service and spray laden air is not recirculated through the air system.
- The Venturi Air Sprayer has a simple "Dial-A-Rate" disc to set application rates. There are no expensive orifice discs to change and replace as with air blast sprayers.
- Venturi Air Sprayers obtain a vast improvement on spray coverage over air blast sprayers.

UNIQUE FEATURES:



Shower head is built into strainer basket



One piece polyethylene fan housing



Built-in overrunning clutch to protect drive train



Low pressure centrifugal pump made of anti-corrosive materials requires little maintenance



Trailer model electro valve controls to operate on, off, left, & right spraying



Large 3" dia. glycerine filled gauge, easy to see from tractor seat

Your Gearmore Representative

*WE ARE THE ONLY SPRAYER SUPPLIER
WHO CUSTOM BUILDS DISTRIBUTOR HEADS TO
FIT GROWERS EXACT FOLIAGE PROFILE*

**3-POINT HITCH MOUNTED
VENTURI AIR SPRAYERS**

Narrow row berry
sprayer with 12
nozzle spray head



Vineyard sprayer for up to 10 foot
rows with 8 nozzle spray head



Our Venturi Air Sprayers are available with many different distribution spray heads to fit exact profile of your crops. All sprayers with your required spray heads are then completely assembled at our warehouse to insure quality.

These unique Venturi Air Sprayers feature the latest technology in concentrate spraying. Thus, growers achieve the following benefits: spray atomization of droplets are smaller and more uniform, less fill-ups, even distribution of concentrated spray, complete foliage coverage, better product utilization, less chemical waste and soil/water contamination. All Venturi Air Sprayers shown on the following pages have these same advantages.

Many distribution spray heads are available



FEATURES:

- Cat. 1, 3-point hitch, P.T.O. 540 RPM
- High performance, precision balanced all steel centrifugal fan
- Special molded polyethylene fan housing
- Translucent heavy walled polyethylene tank with lid, sump and strainer basket
- Built-in overrunning clutch to protect the tractor and sprayer drive train
- Compact, rounded tank design permits traveling through vegetation without damaging it
- Simple, efficient "Dial-A-Rate", 15 position metering disc
- Agitation by liquid sparging tube and air from the fan
- Low pressure spraying system - 15 to 40 PSI spraying pressure means less maintenance for pumps and nozzles
- Power band fan speed-up is automatically adjusted by spring loaded idler
- Broad range of Venturi distribution heads that produce 50 micron droplets and are specially designed to match a variety of foliage profiles
- Capable of application rates of 20 to 200 gallons per acre, depending on row width
- Reachable controls from tractor seat, allows operator to switch liquid from off to right, left or both sides spraying
- Built-in 6 gallon fresh water safety tank



Low pressure centrifugal pump made of anti-corrosive materials requires little maintenance



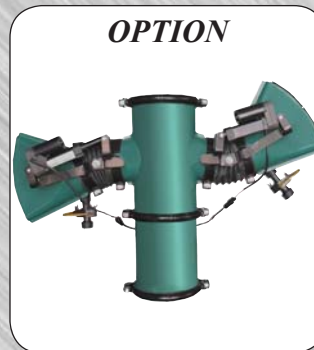
Bolt-on assist wheels are required when sprayer is mounted on a crawler tractor



Rotating yellow calibration discs, adjusts easily to provide accurate and constant regulation of application



Shower head is built into the main strainer basket to easily put wettable powders into suspension



OPTION
Electro cylinders on narrow row fishtail spray heads, with 32 orifice outlets



OPTION
Electro valve controls to operate on, off, left, and right spraying

SPECIFICATIONS:

MODEL NO.	GALLONS	VOLUME OF AIR	WIDTH	H.P. REQ'D	WT.
P42N1-300-G	75 Gallons	2350	38"	18 H.P.	400#
P42N1-400-G	100 Gallons	2350	44"	18 H.P.	440#
P45N1-300-G	75 Gallons	3180	38"	32 H.P.	435#
P45N1-400-G	100 Gallons	3180	44"	32 H.P.	455#

Specifications Subject To Change Without Notice

13477 Benson Ave. - Chino, CA 91710 - Ph: 909/548-4848 - Fax: 909/548-4747

**3-PT. HITCH MOUNTED VENTURI AIR SPRAYERS
WITH TWO ROW DISTRIBUTION HEADS**

*Shown with optional 2 row
distribution head to spray
2 complete rows*

The Gearmore 3-point hitch, 2 Row Venturi Air Sprayer covers two complete rows at one time so your spraying time is cut in half; reducing your labor, fuel, wear and tear on your tractor/sprayer, and since you are travelling every other row you will have less soil compaction.

Plant coverage is greatly increased because the spray enters the foliage from opposite directions at the same time. Thus, chemical drift is greatly reduced as the spray is held in the foliage longer.

The Venturi low volume spraying system also achieves these additional benefits: spray atomization of droplets are smaller and more uniform, even distribution of concentrated spray, better product utilization, less chemical waste and soil/water contamination and best of all less fill-ups.

Many different distribution spray heads are available.



3-POINT SPRAYER FEATURES:

- Cat. 2, 3-pt. hitch, 540 R.P.M.
- Molded polyethylene 100 & 150 gallon tanks
- Tractor requirements: 45 or 52 PTO H.P.
- Sprayer operates with a low pressure centrifugal pump which produces 37 GPM at normal operating pressure of 40 PSI
- Dual agitation system liquid sparging tube and additional air sparging tube
- High speed turbine fan
- Large pressure gauge visible from tractor seat
- Liquid controls system, controls spray off or on, both sides spray, right or left only
- Rotating calibration discs are easy to adjust and provide accurate regulation of the chemical application
- Shower head is built into the main strainer basket to easily put wettable powders into suspension
- Separate water and chemical filling hatches keep chemical from being splashed out while filling
- Separate safety clean water 5 gal. tank for handwashing
- Steel rear bumper
- PTO driveshaft

OPTIONS:

- ~ Electro valve for electric controls in lieu of liquid controls
- ~ Assist wheels which are required when sprayer is mounted on a crawler tractor

2 ROW BOOM FEATURES:

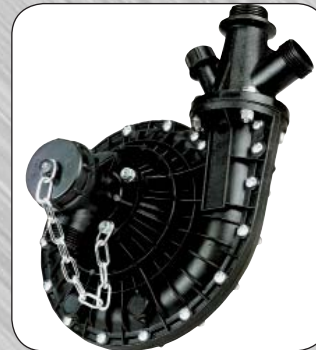
- Total of 4 distribution heads with 4 Venturi nozzles on each head with individual shut off valves, rotating calibration discs and anti-drip valves
- Rear mounted height adjustable frame
- Frame width adjusts for row from 6 to 10 feet wide
- Two hydraulic cylinders with hoses for opening and closing horizontal booms

OPTION:

- ~ Electro cylinders with control box to operate 2 or 4 Venturi heads

SPECIFICATIONS:

MODEL NO.	GALLONS	VOLUME OF AIR	WIDTH	H.P. REQ'D	WT.
P50N1-400-G	100 Gallons	4444	44"	45 H.P.	510#
P50N1-600-G	150 Gallons	4444	57"	45 H.P.	540#
P50S1-400-G	100 Gallons	4875	44"	52 H.P.	510#
P50S1-600-G	150 Gallons	4875	57"	52 H.P.	540#



Low pressure centrifugal pump made of anti-corrosive materials requires little maintenance



Power band fan speed up system with built-in overrunning clutch



Rotating yellow calibration discs, adjusts easily to provide accurate and constant regulation of application



Shower head is built into the main strainer basket to easily put wettable powders into suspension



Electro cylinders with control box operated from tractor seat (inner spray heads)



Electro cylinders with control box operated from tractor seat (outer spray heads)

Specifications Subject To Change Without Notice

13477 Benson Ave. - Chino, CA 91710 - Ph: 909/548-4848 - Fax: 909/548-4747

3-POINT HITCH MOUNTED VENTURI AIR SPRAYERS ONE SPRAYER - 3 DIFFERENT APPLICATIONS



The development of this sprayer was for horizontal spraying up to 90 feet. The system features 4 upper cannons, one central cannon and 4 lower nozzles. This cannon sprayer is popular in areas of limited tractor roads and is used in nurseries and crops like melons.



This model features fishtail type distribution heads for orchards with trees up to 35 feet in height. The fishtails are fitted with special manifolds with a total of 64 orifice outlets. This feature produces a fine mist spray to obtain total plant coverage. Also, growers have found that the sprayer is the most economical way to apply foliar feed.

These unique Venturi Air Sprayers feature the latest technology in concentrate spraying. Thus, growers achieve the following benefits: spray atomization of droplets are smaller and more uniform, less fill-ups, even distribution of concentrated spray, complete foliage coverage, better product utilization, less chemical waste and soil/water contamination. All Venturi Air Sprayers shown on the following pages have these same advantages.

Our Venturi Air Sprayers are available with many different distribution spray heads to fit exact profile of your crops. All sprayers with your required spray heads are then completely assembled at our warehouse to insure quality.



This sprayer has special tall tree cannons that will give complete coverage on trees up to 50 feet in height. The unit was designed for spraying walnuts, avocados, and other tall tree orchards. The sprayer is also excellent for applying foliar feed.

SPRAYER FEATURES:

- Cat. 2, 3-point hitch - 540 R.P.M.
- Tractor requirements - 70 PTO H.P.
- Molded polyethylene 150 gallon tank
- High performance, precision balanced all steel centrifugal fan
- Translucent heavy walled spray tank with lids, sump and strainer basket
- Built-in overrinning clutch to protect tractor and sprayer
- Compact, rounded tank design permits traveling through vegetation without damage
- Simple, efficient "Dial-A-Rate", 15 position metering disc
- Agitation by liquid sparging tube and air from fan
- Low pressure spraying system - 15 to 40 PSI spraying pressure means less maintenance for pumps and nozzles
- Power band fan speed-up is automatically adjusted by spring loaded idler
- Electro-valve controls to operate on, off, left, and right spraying
- Separate safety clean water 6 gallon tank for hand washing

SPRAY HEAD FEATURES:

- Horizontal cannon with 9 venturi nozzles, spraying up to 90 feet
- Fishtail orchard head with 64 orifice outlets, spraying up to 35 feet
- Tall tree cannons with 8 large venturi nozzles, spraying up to 50 feet

OPTIONS:

- ~ Electro cylinders with control box to operate dual tree cannons



Low pressure centrifugal pump made of anti-corrosive materials requires little maintenance



Power band fan speed up system with built-in overrunning clutch



Rotating yellow calibration discs, adjusts easily to provide accurate and constant regulation of application



Shower head is built into the main strainer basket to easily put wettable powders into suspension



Electro valve controls to operate on, off, left, and right spraying



Large 3" dia. glycerine filled gauge, easy to see from tractor seat

SPECIFICATIONS:

MODEL NO.	GALLONS	VOLUME OF AIR	WIDTH	H.P. REQ'D	WT.
P55E1-600-G	150 Gallon	9123 C.F.M.	57"	70 H.P.	550#

Specifications Subject To Change Without Notice

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**3-POINT HITCH / TRAILER VENTURI AIR
SPRAYERS WITH SHORT TURNING HITCH**

Designed so driveshaft is always straight in line.



*Shown with optional 2 row
distribution head to spray
2 complete rows*

These Venturi Air Sprayers feature a special short turning radius design. The fan and distribution head is 3-point hitch mounted. The trailer assembly is attached to the fan assembly with a heavy duty double knuckle joint. The sprayer can "turn on a dime" with no stress or damage as the drive system is always straight.

The sprayer shown is equipped with our unique 2 row distribution heads for spraying two complete rows with one pass. This cuts your spraying time in half, reducing labor, fuel, and wear and tear on your tractor/sprayer.

These unique 3-point/trailer sprayers are the perfect units for narrow and short head land rows.



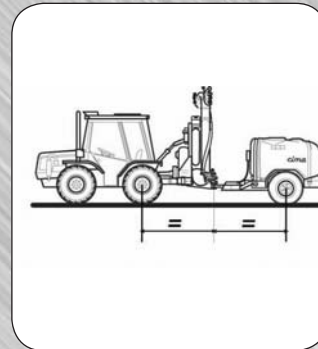
Many different distribution spray heads are available.

3-POINT SPRAYER FEATURES:

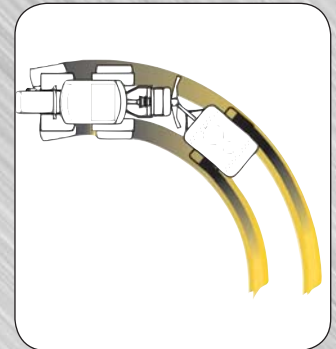
- Cat. I & II, 3-point hitch, P.T.O. 540 RPM
- Turns as sharp as your tractor
- Parking stands for 3-point and trailer assemblies
- High performance, precision balanced all steel, front mounted centrifugal fan
- Special molded polyethylene fan housing
- Translucent heavy walled polyethylene tank with hinged lid, sump, strainer basket and shower head
- Dual tank lids for safety, one for water and one for adding chemicals
- Simple efficient "Dial-A-Rate", 15 position metering disc
- Centrifugal pump - 37 G.P.M.
- The 200 gallon has one pump, 300 gallon has 2 pumps
- Dual agitation systems, liquid and air
- Low pressure spraying system - 15 to 40 PSI spraying pressure means less maintenance for pumps and nozzles
- Power band fan speed-up is automatically adjusted by spring loaded idler
- Electro-valve controls allows operator to switch liquid to right, left or both sides spraying
- 8 Gallon fresh water safety tank

2 ROW BOOM FEATURES:

- Total of 4 distribution heads with 4 Venturi nozzles on each head with individual shut off valves, rotating calibration discs and anti-drip valves
- Height adjustable frame
- Frame width adjusts for row from 6 to 10 feet wide
- Two hydraulic cylinders with hoses for opening and closing horizontal booms



Distance of pivot point is the same between tractor and sprayer



Turns as tight as the tractor can, yet driveshaft is always straight



Rotating yellow calibration discs, adjusts easily to provide accurate and constant regulation of application



Shower head is built into the main strainer basket to easily put wettable powders into suspension



Electro valve controls to operate on, off, left, and right spraying



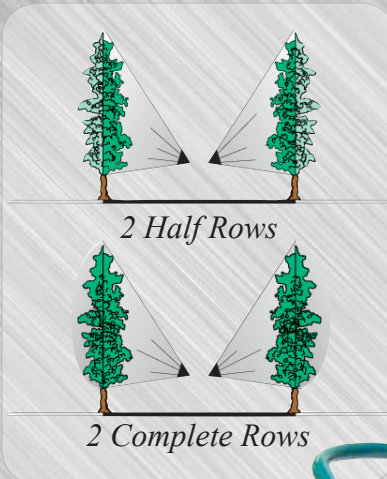
Low pressure centrifugal pump made of anti-corrosive materials - requires little maintenance

SPECIFICATIONS:

Model No.	Gallons	Volume of Air	Width	Length	Tire Size	H.P. Required	Wt.
L50N1-800	200 Gallons	4444 C.F.M.	43"	9'	9.5Lx15-8 Ply	48 H.P.	855#
L50S2-1200	300 Gallons	5000 C.F.M.	54"	9'	11Lx15-8 Ply	52 H.P.	960#

Specifications Subject To Change Without Notice

13477 Benson Ave. - Chino, CA 91710 - Ph: 909/548-4848 - Fax: 909/548-4747

**TRAILER MOUNTED VENTURI AIR SPRAYERS - 200 GALLON
DESIGNED FOR NARROW ROW SPRAYING WITH
LOW HORSEPOWER TRACTORS**

Our 200 Gallon Trailer Mounted Sprayer was developed for low horsepower tractors doing narrow row spraying. Tractors with P.T.O. horsepower of as low as 36 will handle this sprayer. The 48 inch overall sprayer width allows for operating in the narrowest of rows. Growers achieve the following additional benefits - spray atomization of droplets are smaller and more uniform, less fill-ups, even distribution of concentrated spray, complete foliage coverage, better product utilization, less chemical waste and soil/water contamination.

Our Venturi Air Sprayers are available with many different distribution spray heads to fit exact profile of your crops. The sprayer with your required spray head is then completely assembled at our warehouse to insure quality.



FEATURES:

- Trailer mounted, P.T.O. 540 R.P.M.
- Translucent heavy walled polyethylene tank with hinged lid, sump, strainer basket and shower head
- Unique polyethylene belly mounted air tubing to the distributor heads
- Dual tank lids for safety, one for water and one for adding chemicals
- Compact, rounded tank design permits traveling through vegetation without damaging it
- Adjustable tread width, facilitates matching sprayer tread with tractor tread
- Tongue with clevis hitch has length adjustment
- Simple, efficient "Dial-A-Rate", 15 position metering disc
- Dual agitation systems, liquid and air
- Low pressure spraying system - 15 to 40 PSI spraying pressure means less maintenance for pumps and nozzles
- Built-in overrunning clutch to protect the tractor and sprayer drive train
- Power band fan speed-up is automatically adjusted by spring loaded idler
- Electro-valve controls to allow operator to switch liquid from off to right, left, or both sides spraying
- Built-in 8 gallon fresh water safety tank



Low pressure centrifugal pump made of anti-corrosive materials requires little maintenance



Power band fan speed up system with built-in overrunning clutch



Rotating yellow calibration discs, adjusts easily to provide accurate and constant regulation of application



Shower head is built into the main strainer basket to easily put wettable powders into suspension



Electro valve controls to operate on, off, left, and right spraying



Electro cylinders, 2 or 4 with control box operated from the tractor seat

SPECIFICATIONS:

MODEL NO.	GALLONS	VOLUME OF AIR	WIDTH	LENGTH	TIRE SIZE	H.P. REQ'D	WT.
T45N1-800	200 Gallon	3,180 C. F.M.	48"	10' - 5"	9.5Lx15-8 Ply	36 H.P.	910#

Specifications Subject To Change Without Notice

13477 Benson Ave. - Chino, CA 91710 - Ph: 909/548-4848 - Fax: 909/548-4747

GEARMORE INC.

**AFFORDABLE
QUALITY**

TRAILER MOUNTED VENTURI AIR SPRAYERS WITH TWO ROW BOOM



The Gearmore T50S 2 Row Venturi Air Sprayer covers two complete rows at one time so your spraying time is cut in half; reducing your labor, fuel, wear and tear on your tractor/sprayer, and since you are traveling every other row you will have less soil compaction. Plant coverage is greatly increased because the spray enters the foliage from opposite directions at the same time. Thus, chemical drift is greatly reduced as the spray is held in the foliage longer.

The Venturi low volume spraying system also achieves these additional benefits: spray atomization of droplets are smaller and more uniform, even distribution of concentrated spray, better product utilization, less chemical waste and soil/water contamination and best of all less fill-ups.

Many different distribution spray heads are available.



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www.gearmore.com - e-mail: sales@gearmore.com

SPRAYER FEATURES:

- Molded polyethylene 200 or 300 gallon tank
- Sprayer operates with a low pressure centrifugal pump which produces 37 GPM at the normal operating pressure of 15 to 40 PSI
- Dual centrifugal pumps - 37 GPM for spraying and 37 GPM for agitation on 300 gallon only
- Air speed is 415 MPH at nozzles
- Wheels are adjustable up or down, front or rear, in or out to obtain the best balance and clearance
- Electro-valve system controls spray off or on, both sides spray, right or left only
- Separate water and chemical filling hatches keep chemical from being splashed out while filling
- No gearbox for fan speed-up, only a simple power band pulley system with overrunning clutch
- High speed turbine fan turns at 4320 RPM with air delivery of 4885 cu. ft. per minute
- Separate safety clean water 8 gallon tank for handwashing

2 ROW BOOM FEATURES:

- For 6 to 10 foot rows
- Total of 4 distribution heads with 4 Venturi nozzles on each head with individual shut off valves, rotating calibration discs and anti-drip valves
- Rear mounted height adjustable frame
- Two hydraulic cylinders with hoses for opening and closing horizontal booms

OPTION:

- ~ Electro cylinders with control box to operate 2 or 4 Venturi heads

SPECIFICATIONS:

Model No.	Gallons	Volume of Air	Width	Length	Tire Size	H.P. Required	Wt.
T50S2-800	200	4885 C.F.M.	42" to 50"	10'-5"	9.5Lx15-8 Ply	48	910#
T50S2-1200	300	4885 C.F.M.	54" to 74"	11'-7"	11Lx15-8 Ply	52	1020#

Dimensions are less 2 row distribution spray head



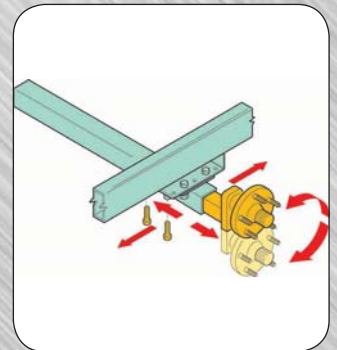
Low pressure centrifugal pump made of anti-corrosive materials requires little maintenance



Power band fan speed up system with built-in overrunning clutch



Electro valve controls to operate on, off, left, and right spraying



Wheels adjust up or down, in or out, front or rear to obtain best balance and clearance



OPTION

Electro cylinders with control box operated from tractor seat (inner spray heads)



OPTION

Electro cylinders with control box operated from tractor seat (outer spray heads)

Specifications Subject To Change Without Notice

13477 Benson Ave. - Chino, CA 91710 - Ph: 909/548-4848 - Fax: 909/548-4747

**TRAILER MOUNTED VENTURI AIR SPRAYERS
300 & 500 GALLON CAPACITIES**

*"10 Year Warranty
on Polyethylene
Trailer Tanks"*



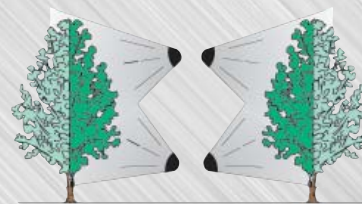
500 Gallon Shown

*Optional Floation Tracks
smooths out the ride, floats
over wet ground and
greatly reduces compaction.*



These unique Venturi Air Sprayers feature our most powerful high speed turbine fans and are the latest technology in low volume spraying. Thus, growers achieve the following benefits: spray atomization of droplets are smaller and more uniform, less fill-ups, even distribution of concentrated spray, complete foliage coverage, better product utilization, less chemical waste and soil/water contamination.

Our Venturi Air Sprayers are available with many different spray heads to fit exact profile of your crops. All sprayers with your required spray heads are then completely assembled at our warehouse to insure quality.



*Sprayer operating
with 2 lower and
2 upper orchard
distribution heads
to insure coverage
on the upper half
of trees*



Many different distribution spray heads are available.

FEATURES:

- Molded polyethylene 300 and 500 gallon tanks
- Translucent heavy walled tanks with hinged lid, strainer basket and shower head
- High performance precision balanced all steel, front mounted turbine fan
- Dual centrifugal pumps - 37 G.P.M. for spraying and 37 G.P.M. for agitation
- Low pressure spraying system - 15 to 40 PSI spraying pressure means less maintenance on pumps and nozzles
- Wheels are adjustable up or down, front or rear, or in and out to obtain the best balance and clearance
- Electro valve system controls spray off or on, both sides spray, and right or left only
- No gearbox for fan speed-up, unique simple power band system with built-in overrunning clutch
- Separate safety clean water 8 gallon tank for hand washing
- Dolly wheel adjustable parking stand



Low pressure centrifugal pump made of anti-corrosive materials requires little maintenance



Power band fan speed up system with built-in overrunning clutch

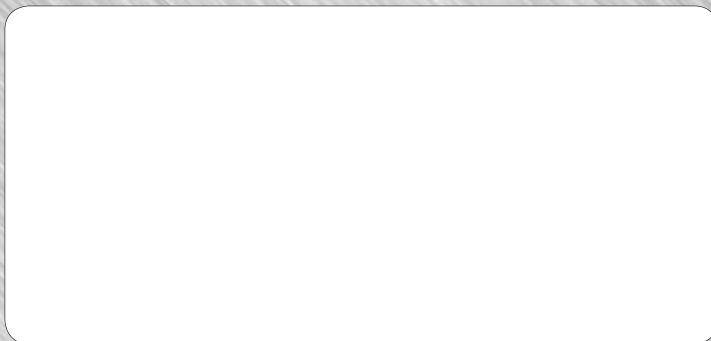


Rotating yellow calibration discs, adjusts easily to provide accurate and constant regulation of application

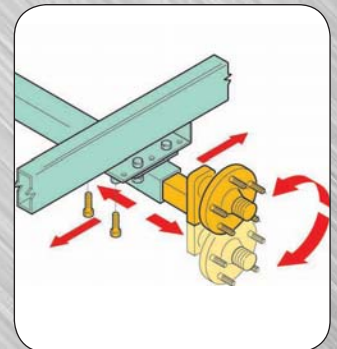


Shower head is built into the main strainer basket to easily put wettable powders into suspension

Your Gearmore Dealer:



Electro valve controls to operate on, off, left, and right spraying



Wheels adjust up or down, in or out, front or rear to obtain best balance and clearance

SPECIFICATIONS:

Model No.	Gallons	Volume of Air	Min. Width	Length	Tire Size	H.P. Required	WT.
T55S2-1200	300 Gal.	8240 C.F.M.	55"	12'	11Lx15-8 Ply	60 H.P.	1020#
T55E2-1200	300 Gal.	9123 C.F.M.	57"	12'	11Lx15-8 Ply	74 H.P.	1020#
T55E2-2000	500 Gal.	9123 C.F.M.	71"	14'	12.5Lx15-10 Ply	74 H.P.	1320#

Specifications Subject To Change Without Notice

13477 Benson Ave. - Chino, CA 91710 - Ph: 909/548-4848 - Fax: 909/548-4747

**WRAP-A-ROUND SPRAY BOOMS
5 MODELS AVAILABLE**

*500 Gallon sprayer
with "D" boom shown*



*We custom build booms and
electro/hydraulic controls to
grower's requirements*

We now have available a complete series of high strength wrap-a-round spray booms for high production spraying. The booms feature extra strong frames with heavier support tubings to the main sprayer frame.

The five hydraulic cylinders give total control on height adjustment, swing up for in-row obstructions and fold away for transport. The width adjustment is manual.

Optional electro cylinders operated from the tractor seat are available. Booms are available to spray two complete rows or two complete rows and two half rows.

All booms are assembled and tested to insure quality.



Shown spraying two complete rows and two half rows

FEATURES:

- Wrap-a-round booms are designed for our 300 and 500 gallon trailer sprayers
- Five different models of booms are available
- Booms are available to spray two complete rows, and two complete rows and two half rows
- Booms swing hydraulically from operational to closed position
- Booms fold forward for transport and lock
- Hydraulic height adjustment
- Boom controls require 5 tractor remotes or our optional electro over hydraulic kit
- The width adjustment is manual or optional electro cylinders operated from the tractor seat
- We will customize special booms to your requirements

OPTION:

- ~ Upper cannons in lieu of 4+4 nozzles

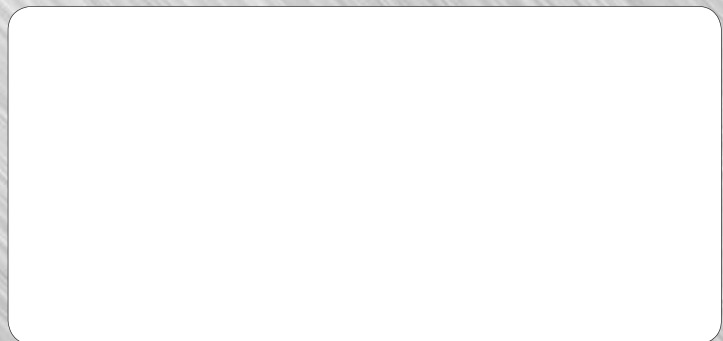


Boom center section main frame assembly



Outer drop assembly with 4 ea. 4 + 4 nozzles - "D Boom"

Your Gearmore Dealer:



SPECIFICATIONS:

Boom Model #	Sprayer Model	Gals	No. of Rows	No. of Nozzle Assy	Row Space	Max. Crop Height	Boom Clearance	Nozzle Positions	Type of Bottom Nozzles	Type of Top Nozzles
TS56MB55M12 "A" Boom	T55S2-1200	300	2 - Full 2 - Half	6	7.5' - 10'	7 ft.	8 1/2 ft.	Bottom Only	4 Outlet Head	None
TS56MC55D12 "A" Boom	T55S2-2000	500	2 - Full 2 - Half	6	9.5' - 13'	8 ft.	9 1/2 ft.	Bottom Only	4 Outlet Head	None
TS54M4CC55D12 "B" Boom	T55E2-2000	500	2 - Full	8	9.5' - 13'	8 ft.	9 1/2 ft.	Top & Bottom	4 Outlet Head	Cannons
TS512MC55D12 "D" Boom	T55E2-2000	500	2 - Full 2 - Half	12	9.5' - 13'	8 ft.	9 1/2 ft.	Top & Bottom	4 Outlet Head - Bottom & Top	
TS52V4V6V55D12 "Hedge Row" Boom	T55E2-2000	500	2 - Full	12	9.5' - 13'	8 ft.	9 1/2 ft.	Top, Center & Bottom	Fishtail Head - Bottom, Center & Top	

Specifications Subject To Change Without Notice

13477 Benson Ave. • Chino, CA 91710 • Ph: 909/548-4848 • Fax: 909/548-4747

**VENTURI AIR BOOM SPRAYERS
THE SPRAYER TO USE WHEN TOTAL PLANT COVERAGE IS REQUIRED***27' Boom Sprayer Shown*

There are many advantages using our Venturi low volume fine droplets sprayers over liquid boom sprayers.

Less Time In The Field - Our sprayer will spray from 2 to 4 times longer between fill-ups than a liquid boom sprayer with the same size tank.

More Chemical Droplet Per Acre - Our sprayer will produce over 200 fine micron droplets for every spray droplet applied by a liquid boom sprayer.

Even Distribution of Concentrated Spray - The flow of air, thoroughly saturated with fog-sized droplets of spray, penetrates in and around all areas of each plant. The homogeneous mixture of air and spray liquid covers even the undersides of plants.

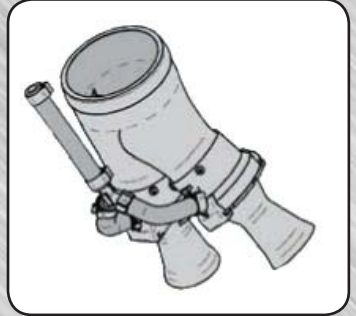
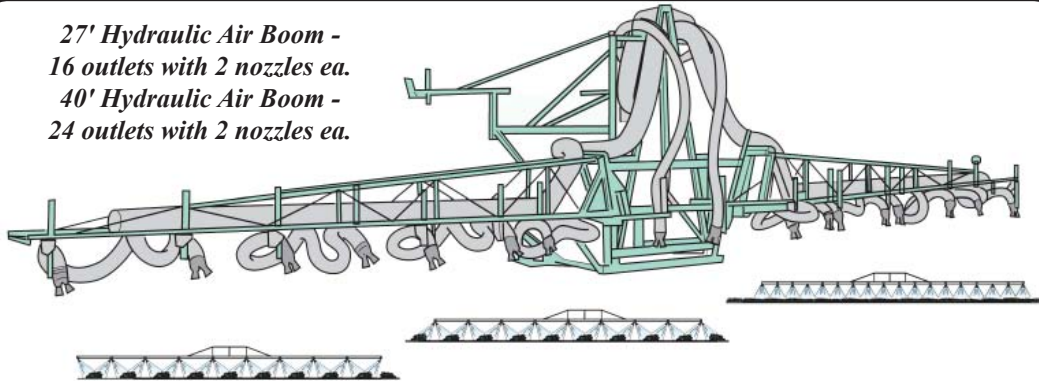
Complete Pesticide Coverage - The remarkable atomization of the liquid allows the air from the sprayer to carry the tiny droplets in suspension form. The fog sized (50 microns) droplets stick to the plant surface and deposit the chemical instead of dripping and running off onto the ground.

40' Boom Sprayer Shown

Better Product Utilization - The chemical product is distributed entirely over the crop and stays adhered to the plants, the secret is in the atomization. Other sprayer emit irregularly sized large drops (up to 250 times larger) that run together, drop and run off the plants surface to the ground. Spray run-off equals 25% wasted material.

Nozzles Adjust to Direct Spray Only On Crop - The Gearmore Venturi Air Boom Sprayers outlets are completely adjustable (360 degrees) so they direct all of the spray at the plants. With nozzles set at an angle and powerful air turbulence, chemical coverage of the complete plant is obtained. Row spacing is easily adjusted without tools.

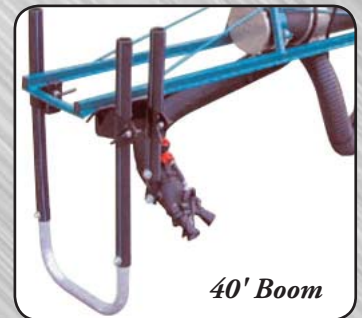
27' Hydraulic Air Boom -
16 outlets with 2 nozzles ea.
40' Hydraulic Air Boom -
24 outlets with 2 nozzles ea.



Distribution outlet with two nozzles, adjustable in height and width, and revolving in all directions

FEATURES:

- Air velocity of 200 MPH at nozzle breaks down spray to fog size (50 microns) droplets which penetrate in and around all areas of each plant
- Air movement allows chemical to completely cover vegetation, especially the underside of leaves
- Volume as low as 5 gallons per acre results in fewer refilling stops and more acres covered per day
- Spray drift is reduced by 50% to 75%.
- Boom has breakaway & hydraulic fold away features to prevent damage & for transport
- Boom raises & lowers hydraulically for different crop heights, independent of the sprayer
- Boom nozzles are completely adjustable in width and angle for maximum coverage
- Chemicals only come in contact with plastic, rubber, and stainless steel parts



40' Boom

Articulated arms with guard to avoid any damage

Tank: Translucent polyethylene 150 gallon with hatch and strainer basket
Agitation: Adjustable liquid bypass, and air from fan when required
Drive: 540 RPM P.T.O. driven with belt drive to fan and pump with overrunning clutch
Nozzles: "No drip" system on each outlet and individual liquid shut-off by hand, replaceable stainless steel discs and screens

Controls: Reachable from tractor seat allowing operator to switch liquid from off to right or left

Filtration System: 3 Stages - at filler, at pump, and at nozzles

Fan: Centrifugal type with PVC housing

Pump: Centrifugal with maximum 37 GPM

Sight Gauges: In tank and tubing

Pressure Gauge: 0 to 80 P.S.I. in liquid case to reduce vibration and extend life

Models:	P45N1-400-23	P50S-600-27	P55S1-600-40S	P55S1-600-40
Boom Width:	23'	27'	40'	40'
Rows:	5 Row	8 Row	7 Row	12 Row
No. of Nozzles:	2 + 2 = 10	2 + 2 = 32	2 + 3 + 2 = 49	2 + 2 = 48
Air Boom Design:	Steel Frame	Galvanized Tubing	Galvanized Tubing	Galvanized Tubing
Tank Capacity:	100 Gal.	150 Gal.	150 Gal.	150 Gal.
Diameter of Fan:	17.75"	19.75"	21.75"	21.75"
Fan (RPM):	4500	4320	3720	3720
Vol. of Air (CFM):	3180	4875	8240	8240
Air Speed at Foliage:	10-50 MPH	10-50 MPH	10-50 MPH	10-50 MPH
Controls:	Liquid	Electro-Valve	Electro-Valve	Electro-Valve
Min. Tractor HP:	32	52	60	60
Sprayer Weight:	700#	1230#	1800#	1800#

Call for special applications

Specifications Subject To Change Without Notice

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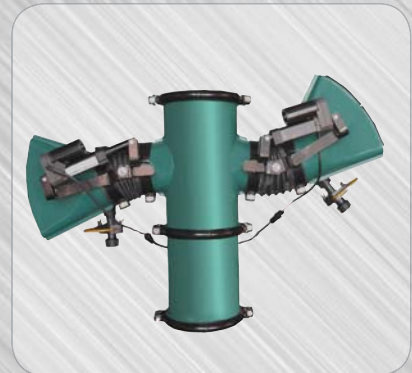
**DISTRIBUTION SPRAY HEADS
SOME OF THE MOST POPULAR SPRAY HEADS**



*Vineyard Head
8 Nozzle*



*Vineyard Head
10 Nozzles*



*Electro-Cylinders, Fishtails
Narrow Row Heads*



*Tree Cannon
4 Nozzle*



*Double Tree
Cannon*



*Double Tree
Cannon With 2 Nozzles*



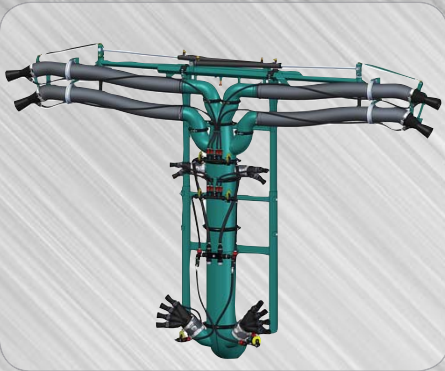
*4 + 4 Nozzles
Top and Bottom*



*Raspberry Head
12 Nozzles*



*2 Cannons
Lower 4 + 4 Nozzles*



*4 Cannons
Lower 4 + 4 Nozzles*



*2 Row, 4 + 4
Heads*



*Orchard
Spray Head*



*Orchard
Head 4 Vents*



*Orchard
Head 6 Vents*



*Potato Head
10 Cannons*



*Horizontal
Cannon*



*Tomato
Spray Head*



*Vertical Cannon
Spray Head*

Specifications Subject To Change Without Notice

13477 Benson Ave. • Chino, CA 91710 • Ph: 909/548-4848 • Fax: 909/548-4747

FACTS & GENERAL INFORMATION ON

VENTURI AIR SPRAYERS

FOR STATE OF THE ART SPRAYING



**THE SPRAYER TO USE WHEN
TOTAL PLANT COVERAGE IS REQUIRED**

GEARMORE VENTURI AIR SPRAYERS

This booklet is designed to provide information on the many advantages of venturi air spraying and why, in today's environment, it is important to consider this spraying system.

In this booklet, we will go into great detail on venturi air spraying technology and how it relates to the GEAR-MORE VENTURI AIR SPRAYER.

The most common system of spraying is called Dilute (High Volume) spraying. Using this spraying technique, the liquid is forced, under high pressure, through a small diameter orifice. Traditionally, high pressure boom sprayers and air blast sprayers all use this system to atomize the spray.

Our method of spraying was developed using a venturi tube to atomize the spray liquid. Air is passed through the venturi and the liquid is sheared into extremely fine and uniform particles. Now, the air becomes the carrier of the spray instead of high volumes of water; we call these

sprayers Concentrate (Low Volume) Venturi Air Sprayers.

Laboratory tests show that there is substantial difference in the size of spray particles between the two methods of atomizing the liquid. With Dilute (High Volume) spraying, the droplets have a diameter of 250 to 300 microns. The sizes can not be reduced much even by increasing the pressure. The Venturi Air Sprayers reduce the liquid to diameters of approximately 50 microns i.e. fog size. Unlike the Dilute (High Volume) spray, the particles from the Venturi Sprayers do not run together and drip off the plant. Much less water is required because air is carrying the spray particles to cover the plants with a homogeneous fog like spray.

To sum up the above information, Venturi Air Sprayers require 25 to 50% less water with the same chemical concentration. This allows growers to spray longer between "fill-ups", thus more acres per day with a fine micron spray that engulfs the entire foliage with no chemical run-off.

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QUESTIONS & ANSWERS ON THE GEARMORE VENTURI AIR SPRAYERS

Q: *Why do you call your sprayers Venturi Air Sprayers?*

A: A venturi is the narrow reduced diameter of air tubes. When air is forced through the tubing it increases the velocity of the air. If liquid is then injected into the venturi, it creates suction and turbulence. The venturi effect is named after the discoverer, Giovanni Venturi (1746 - 1822) an Italian physicist. All our sprayers have built-in venturi's.

Q: *Just how does a Venturi Air Sprayer work?*

A: Our distribution spray heads are designed with venturi nozzles that have a liquid tube in the center. The air, at speeds up to 200 miles per hour (depending on the type of spray head), literally shears the droplets to small micron size.

Q: *How is this possible when you use a centrifugal pump at pressures of only 15 to 40 PSI?*

A: We only need enough low pressure to get a steady even flow of liquid to the spray heads, the air speed atomizes the liquid, not high pressure liquid.

Q: *How do you save on chemicals and water with Venturi Air Sprayers?*

A: The remarkable atomization of the liquid allows the air from the sprayer to carry the tiny droplets in suspension form. These fog size (50 micron) droplets adhere to the plant surface and deposit the chemical on the foliage instead of dripping and running off on the ground. Also, all the distribution spray heads we offer are adjustable to direct the chemical on the foliage, thus no wasted chemical.

Q: *What is the difference between concentrate (low volume) and dilute (high volume) spraying?*

A: Concentrate spraying application rates use less water than dilute, but both systems use the same amount of chemical per acre.

Q: *Should we follow the chemical percentage and required gallon per acre of the manufacturer's application rate?*

A: Yes, always follow the label requirements.

Q: *Then how do we save time, reduced chemicals, less gallons per acre?*

A: If the label has both concentrate and dilute rate charts. You will obtain all the above savings by concentrate spraying. If the rate chart only has dilute (high volume) rates, follow those directions. However, obtaining better coverage should result in fewer applications. Fewer applications will result in not only reduced chemical usage, but also savings on tractor wear, fuel, labor, soil compaction, etc.

QUESTIONS & ANSWERS ON THE GEARMORE VENTURI AIR SPRAYERS

Q: *Are there other advantages to Venturi Air if the chemical application rates are listed for concentrate spraying?*

A: Yes, there are many other advantages besides using less chemicals. There is less soil and water contamination, less container disposal, less exposure of personnel, etc.

Q: *How can you get by using up to 75% less liquid than standard sprayers?*

A: Because of the small micron size we produce, we use the air as the carrier to the foliage instead of liquid.

Q: *Why is micron size important?*

A: The smaller the chemical droplet, the better the coverage. High volume sprayers put out micron sizes of about 300, Venturi Air Sprayers about 50 microns. There are 216 - 50 micron droplets in one 300 micron droplet.

Q: *Just how small are the 50 micron droplets you produce with the Gearmore Venturi Air Sprayer?*

A: One micron is one millimeter divided by 1000, which equals .00004 of an inch. Thus, a 50 micron droplet is (.002) 2 thousandths of an inch, or about 10 times smaller than the period at the end of this sentence.

Q: *If Venturi Air Sprayers are so effective, why do grower still purchase air blast sprayers?*

A: First of all, air blast sprayers work, otherwise growers would not be using them. However, the technology is over 50 years old, with little improvement over the years. Growers usually change when they have problems with coverage such as the underside of leaves and tree tops. This is when they look for a more effective spraying system.

Q: *My high pressure air blast sprayer can be calibrated to apply concentrate so why should I change to a Venturi Air Sprayer?*

A: It is true that some high volume sprayers can be adjusted to apply a low rate. The difference is the lack of uniformity of droplet size and the inability of the high volume sprayer to produce a significant quantity of droplets below 300 microns.

QUESTIONS & ANSWERS ON THE GEARMORE VENTURI AIR SPRAYERS

Q: *Why do your sprayers cost more than air blast sprayers?*

A: Air blast sprayer manufacturers purchase most of their components, such as fans, transmissions, pumps, tanks, etc. from component suppliers and just product the frame work and assemble. Our supplier, CIMA, manufactures the complete sprayer, as components to make their sprayers are not available in the marketplace. The components to produce fine micron droplets require close tolerances, which involves extremely costly molds and tooling. However, you will recover the additional cost over "air blasts" within the first year of operation, with less time in the field, less maintenance and by obtaining total plant coverage.

Q: *Why, in many cases, do chemical companies only have labels for dilute (high volume) application?*

A: Chemical manufacturers have had many bad experiences with improperly designed and poorly adjusted sprayers. They have found that by using higher amounts of chemicals and water to "flood" the plant, they can some what compensate for poor coverage. Also, it would cost chemical manufacturers a considerable amount of money to change the labeling of their products to include concentrate rates. Most important to chemical companies, lower application rates means less sales and profits.

Q: *Don't growers also like to see the chemicals running off the foliage?*

A: This is true, but under present environmental conditions, we feel it is no longer acceptable to "flood" crops. Also, it is a very uneconomical way of spraying.

Q: *This may be true, but at concentrate rates of say 25 gallons an acre, how do you tell you are getting coverage?*

A: True, it is difficult to see the coverage with the naked eye, but it is on the foliage. You will see the liquid coming out of the sprayer, but you will not see liquid running off the foliage. To assure yourself that you are obtaining total plant coverage, put out test papers.

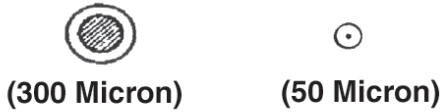
Q: *Sometimes I may want to dilute (high volume) spray. Can I use my Venturi Air Sprayer?*

A: We have designed the Venturi Sprayer to spray concentrate and dilute. By setting the "Dial-A-Rate" dials at (15), you can apply as high as 300 gallons per acre, however the droplet size will be larger and less effective, like air blast sprayers.

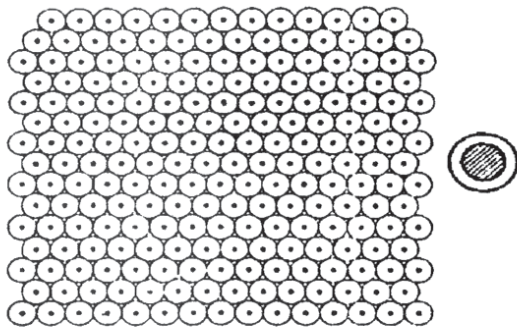
Q: *Why do you have over 30 different distribution heads when air blast sprayers usually only have a couple?*

A: First of all our Venturi Air Sprayers were developed to fit a large number of crops such as: grapes, berries, orchards, row crops, nurseries, etc. All these crops have different foliage profiles, so many different distribution heads are required to obtain total plant coverage.

WHY SMALLER DROPLETS ARE MORE EFFECTIVE



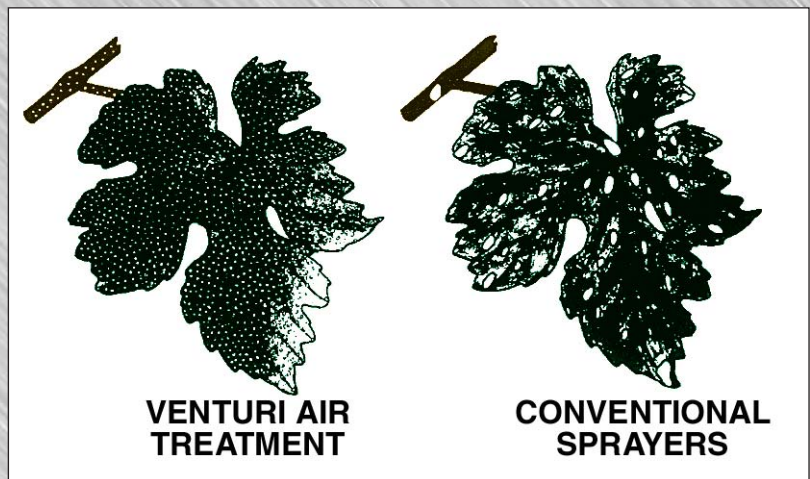
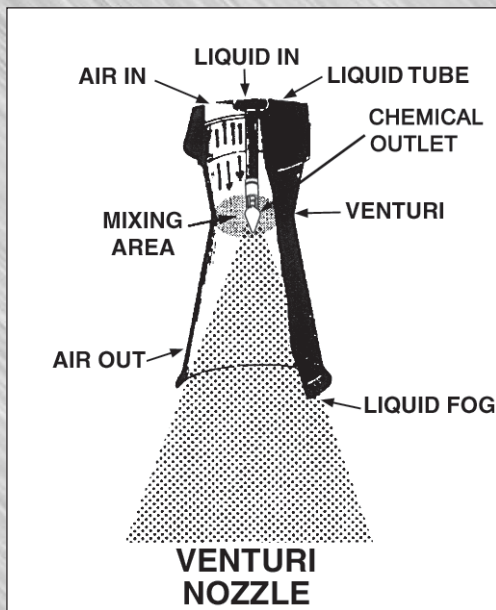
Inner circle or dot depicts the chemical, outer circle is the chemical kill zone.



Magnified Approximately 10 Times

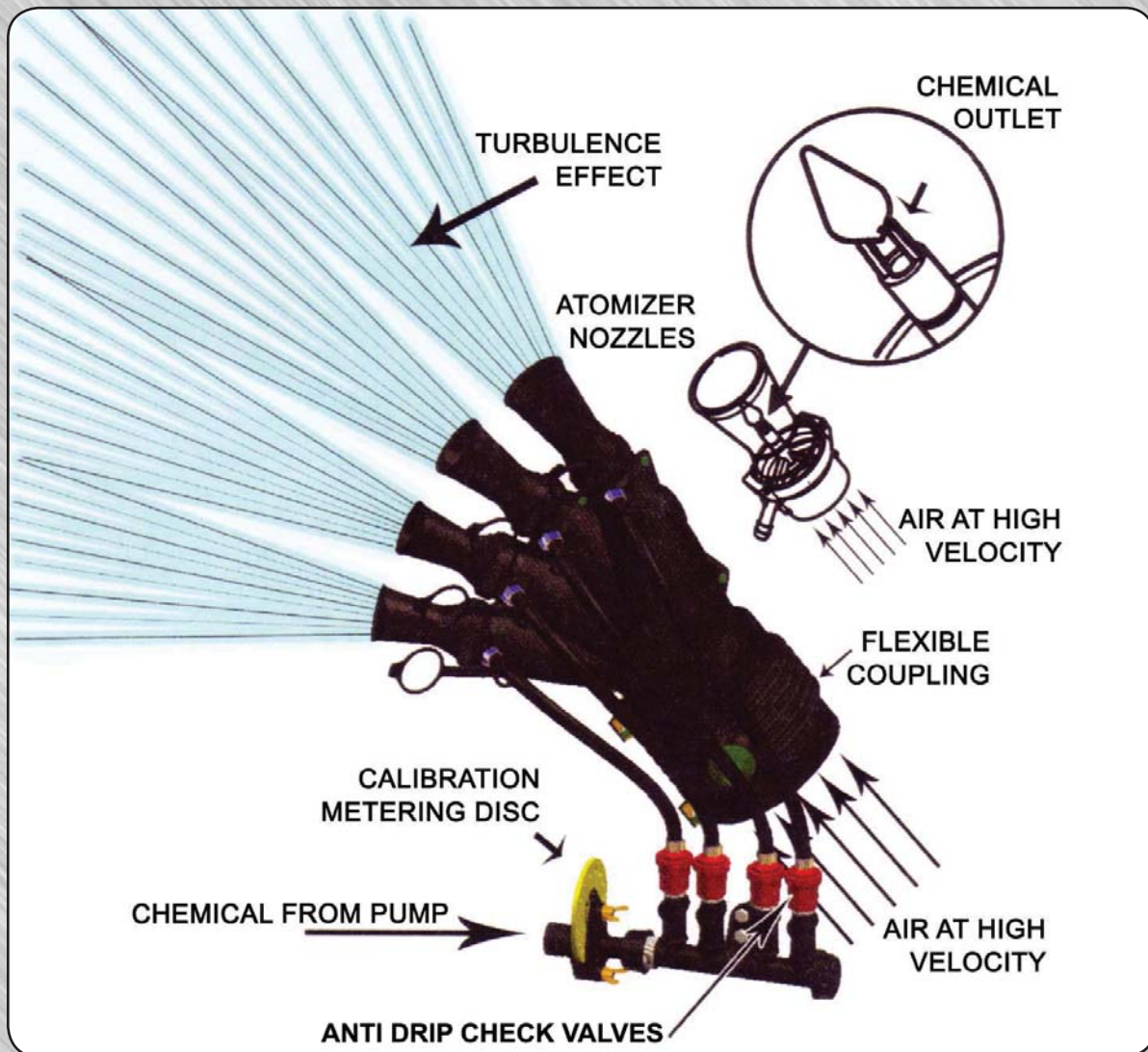
For each 300 micron droplet formed by a conventional sprayer, a Venturi Air Sprayer makes 216 fog sized droplets of 50 microns. The enlarged drawing at left represents a 300 micron droplet in proportion to another droplet of 50 microns. Each is surrounded by a zone of 100 microns representing the effective kill zone of the chemical.

In the drawing at left, 216 droplets of 50 microns and one droplet of 300 microns are shown each surrounded by a kill zone of 100 microns. It can be seen that the 216 droplets of 50 microns cover a considerably larger area than the single droplet of 300 microns. This is why substantially less water is required to carry the chemical on to the plants when using Venturi Air Sprayers. The fine uniformly sized spray droplets assure excellent coverage. This illustration gains impact because one gallon of liquid contains 268 million droplets of 300 microns and 58 billion droplets of 50 microns.



ADVANTAGES OF VENTURI AIR SPRAYERS

- Spray atomization is smaller and more uniform
- Concentrate spraying means less fill-ups
- Even distribution of concentrated spray
- Complete foliage coverage
- Better product utilization
- Nozzles adjust to direct spray only on the crop
- Less chemical waste and soil/water contamination
- Simple, accurate metering system with 15 hole discs



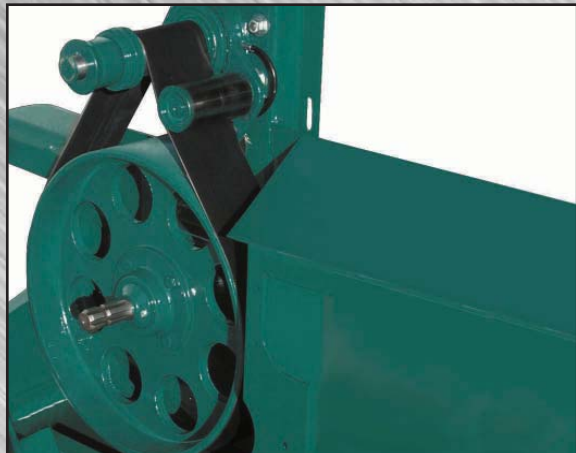
COMPARISON CHART

FUNCTION	AIR BLAST SPRAYERS	VENTURI AIR SPRAYERS
System of Spraying	High pressure pump and disc nozzles	Low Pressure pump and venturi nozzles
Droplet Distribution	Carried by high liquid pressure	Transported homogeneous with air
Working Pressure	50 to 300 PSI	15 to 40 PSI
Chemical Utilization	Because of dripping, many times only 80% of chemical reaches the vegetation, while remaining 20% falls on the ground.	No dripping, all of the chemical is used. Theoretically, mixture could have 25% less chemical. With the venturi air sprayer, chemical treatment is applied to a specific area. Different distribution heads can be used for various crops. Air flow can be directed and adapted for various shapes and requirements of different plants. The chemical is distributed evenly over the entire plant.
Foliage Coverage	Partial coverage, since larger droplet sizes and the large quantity of water used to "wash" the surface of the leaves, results in spotted, uneven coverage, and run off. Also, with this type of sprayer, the high liquid pressure tends to push the leaves against each other causing a "shingling" effect. This makes it extremely difficult to get coverage on the underside of leaves and fruit blocked by foliage.	Liquid is atomized in fog size droplets, which remain in suspension with the air. All parts of the plant are touched by air and consequently chemical is distributed uniformly to all surfaces and in the more hidden positions. Droplets are very small, so they stick to plant surfaces homogeneously and deposit the chemical instead of dripping and running off onto the ground.
Refilling Time	Requires a lot of wasted time refilling, thus tend to use larger tanks, which increase cost and soil compaction.	Uses 1/4 to 1/2 the amount of liquid, which means less fill-ups and more time spraying.
Servicing	High pressure pumps wear out sooner and require continuous maintenance. Discs and hoses wear out quickly under high pressure. The metering discs wear and spray volume changes over time. Constant testing and maintenance are required to maintain accuracy.	With Gearmore Venturi Air Sprayers, the only service required is 3 grease points and lubrication of the fan support and pump. All parts in contact with the spray liquid are non-corrosive. There are no nozzle discs to wear under low pressure. The centrifugal pump requires little maintenance. The quantity of liquid sprayed stays constant field after field.

FEATURES OF VENTURI AIR SPRAYERS

- ◆ High performance, precision balanced all steel centrifugal fan.
- ◆ Special molded polyethylene fan housing.
- ◆ Translucent polyethylene tanks with lid, strainer basket and sump.
- ◆ Compact, rounded tank design permits traveling through vegetation without damaging it.
- ◆ Agitation is by liquid spraying and air tube from the fan.
- ◆ Simple, efficient "Dial-A-Rate", 15 position metering discs adjusts flow in less than a minute.
- ◆ Main drive and pump belt are automatically adjusted by spring loaded idler.
- ◆ Centrifugal pump produces 37 gallons per minute.
- ◆ Low pressure spraying system, 15 to 40 PSI spraying pressure means less maintenance for whole liquid system.
- ◆ Built in overrunning clutch to protect the tractor and sprayer drive train.
- ◆ Reachable controls from tractor seat, allows operator to switch liquid from off to right, left or to both sides spraying. Available in liquid or electro-valve controls for cabs on most models.
- ◆ Adjustable rear bumper helps to prevent damage to fan and distributor heads.
- ◆ Capable of applications of 10 to 300 gallons per acre.
- ◆ Tank capacities from 75 to 500 gallon.

SPECIAL STANDARD FEATURES UNIQUE TO OUR SPRAYER



Power Band Drive System



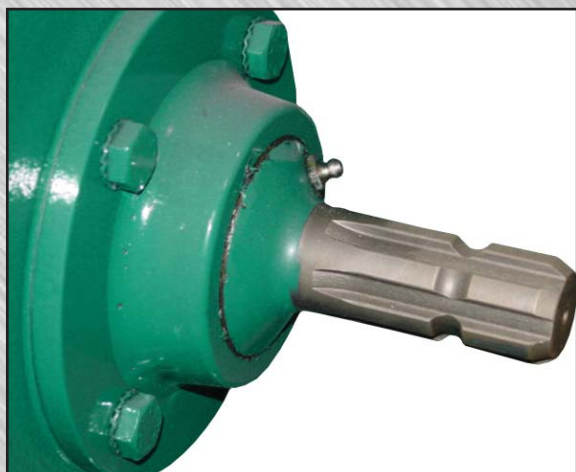
Polyethylene Centrifugal Pump



Dial-A-Rate Metering System



Shower Head Is Built Into Strainer Basket



*Built-in Overrunning Clutch To
Protect Drive Train*



One Piece Polyethylene Fan Housing

SPECIAL STANDARD FEATURES UNIQUE TO OUR SPRAYER



Electro Valve Controls - Standard On Trailer Optional On 3-Point



5 Gallon Separate Fresh Water Tank For Cleaning Hands



Large 3" Diameter Glycerine Filled Gauge, Easy To See From Tractor Seat



Large Flip Top Hinged Cover With Built-in Vent



Over 30 Different Distribution Heads Available



Optional Electro Cylinders To Adjust Nozzles For Different Plant Heights

APPROXIMATE REPAIR & MAINTENANCE COSTS

GEARMORE VENTURI AIR SPRAYER VS. CONVENTIONAL AIR BLAST SPRAYER

Over 7 Year Period

OPERATION	*	VENTURI AIR SPRAYER	*	CONVENTIONAL AIR BLAST
Repair leaking pump	2	Parts - \$ 120 Labor - 1 hr. x \$ 90 = \$ 90 Total Cost = \$ 420	4	Parts - \$ 331 Labor - 4 hrs. x \$ 90 = \$ 360 Total Cost = \$ 2,764
Replace complete pump	1	Parts - \$ 524 Labor - 1 hr. x \$ 90 = \$ 90 Total Cost = \$ 614	2	Parts - \$ 1,156 Labor - 1 hr. x \$ 90 = \$ 90 Total Cost = \$ 2,492
Replace set of ceramic discs		D.N.A.	2	Parts - \$ 95
Replace gearbox	1	D.N.A. - Power belt only Part - \$ 150 Labor - 1 hr. x \$ 90 = \$ 90 Total Cost = \$ 240	1	Parts \$ 953 Labor 3 hrs. x \$ 90 = \$ 270 Total Cost = \$1,223
Repair and replace high pressure hoses		D.N.A. - 15-40 PSI system Little or no cost	◆	Parts - \$ 334
TOTAL REPAIR COSTS OVER 7 YEARS □		\$ 1,274		\$ 6,479
● <i>By subtracting \$ 1,274 from \$ 6,479 and dividing by 7 (years) equals \$ 743 savings per year</i>				

* Means the approximate number of times replacements made over the 7 year period, no labor was included on some repairs that can be performed by the tractor operator.

◆ Means the approximate total cost over the 7 year period.

DNA means the sprayer "Does Not Apply" to the repair operation.

The above chart is only to show the approximate repairs over a 7 year period. True repair costs will vary because of hours used, general maintenance performed, etc.

Study was based on 300 gallon trailer sprayers.

REVIEW OF VENTURI AIR ADVANTAGES OVER "AIR BLAST" SPRAYERS

- The Venturi Air Sprayer produces over 200 micro droplets for every average spray droplet produced by a traditional air blast sprayer.
- The Venturi Air Sprayer will spray from 2 to 4 times longer between fill-ups than air blast sprayers of the same tank size.
- The Venturi Air Sprayers efficiently operate at only 15 to 40 PSI, versus air blast air sprayers at 300 to 500 PSI. This low pressure greatly reduces maintenance costs.
- Venturi Air Sprayers feature a special built-in overrunning clutch to protect the drive train; air blast sprayer manufacturers do not furnish an overrunning clutch.
- Venturi Trailer Air Sprayers have a front mounted fan, therefore, there are no long drivelines that run through the tank, no extra universal joints or bearings to service and spray laden air is not recirculated through the air system.
- Venturi Air Sprayers have over 30 different distribution heads specially designed to fit/match your foliage profile. Air blast sprayers usually have only 2 to 3 heads.
- The Venturi Air Sprayer has a simple "Dial-A-Rate" disc to set application rates. There are no expensive orifice discs to change and replace as with air blast sprayers.
- Venturi Air Sprayers obtain a vast improvement on spray coverage over air blast sprayers.
- Over a thousand of these sprayers of all sizes currently operating just in California.

TESTIMONIALS

"We purchased a Gearmore Venturi Air Sprayer last year to control mite infestation in our avocado orchards and were able to obtain complete control of the mites with one spraying. In the past we sprayed by air at \$140/acre with little control. Our cost per acre with the Gearmore sprayer was \$50. To date approximately 600 acres have been sprayed by us and a couple of neighbors. We have also had great success using the Gearmore Air Sprayer for "foliar feeding". The feature we like best about the sprayer is how the fine micron droplets completely "fogs" the trees."

Escondido, CA

"We purchased a P50 and a T55-2000, 500 gallon trailer mounted Venturi Sprayer in 1994 and then another T55-2000, 500 gallon sprayer in 1995. We have sprayed 1000 acres of our wine grapes and are very pleased with the results. We use the P50 3-point sprayer for narrow rows and new plantings and the 500 gallon trailer sprayers, with over the row cannons, in the other vines. We get excellent coverage with the Venturi Sprayers. Because we can use low volumes of water, sometimes we spray all day without having to refill the tank. The superior coverage and extended operating time saves us a lot of operating costs. We are so pleased with the low maintenance, ease of operating, and effective coverage, we just purchased two more 500 gallon and one 300 gallon Venturi Trailer Sprayers."

Livermore, CA

"My Gearmore Venturi Air Sprayer allows me to cover more acres per day. I also like the simple design and easy calibration system."

Napa, CA

"The ability to get total plant coverage at low pressure is what I like most about my Gearmore Venturi Air Sprayer. The ease of operation and less "fill-ups" per day mean high production for my operation."

Temecula, CA

"Your P45 Venturi Sprayer is great. I'm able to cut my time in the vineyard in half, water usage to 1/5 and chemical usage to 1/5. Most growers using your Venturi Sprayers still don't believe what your amazing sprayers will do. They are afraid to risk getting powdery mildew by reducing recommended rates. The answer is significantly better coverage. Because of the 50 micron droplets, I have actually fogged in my vineyard when the dew point and temperature are close. So far my vineyard is free of powdery mildew. I'm going to make more applications of Rubigan at 2 oz. per acre along with 20 gallons of water."

Lompoc, CA

"I achieve much better coverage with my Gearmore Venturi Air Sprayer so it greatly reduces my chemical costs. The sprayer is extremely easy to operate and adjust. The efficiency and affordability of the sprayer made it one of my best purchases."

Acampo, CA

VENTURI AIR SPRAYER

COST SAVINGS

The Gearmore Venturi Air Sprayer reduces your spraying costs over "air blast" sprayers in four ways:

- 1. Less time in the field:** You will be using $\frac{1}{4}$ to $\frac{1}{2}$ the amount of liquid, so your costs will be reduced by approximately 50%*. Less fill-ups means more production..
- 2. Less maintenance:** Venturi Air sprayers have fewer parts and operate at low liquid pressure. This makes maintenance costs approximately 20% of high pressure air blast sprayers. See page 11 for information on repair costs.
- 3. Less spraying:** You obtain total plant coverage with venturi sprayers, this will increase timing between spraying, thus reducing the number of applications required. This should eliminate at least one spraying per year.
- 4. Higher yields:** Normally obtainable as total plant coverage should produce a bigger and better crop. However, no large scale studies have ever been done to definitely prove percentages of yield increase, so no dollar amounts will be used in this study.

Using the information above, we will show you an example of the savings obtainable based on 100 acres. Put in your numbers to calculate your savings.

1. Less time in the field:

Application cost, for labor, per acre \$ 15.00 x number of acres 100 x number of applications per year 5 = \$ 7,500 x 50% less time in the field = \$ 3,750 savings per year.

2. Less maintenance:

Using the maintenance chart on page 11, the yearly cost savings is \$ 743 .

3. Less spraying:

Chemical cost per acre \$ 50.00 plus application costs per acre \$ 15.00 = \$ 65.00 x 100 acres = total cost \$ 6,500. (Based on one less application per year)

Gearmore Venturi Air Sprayer savings based on 100 acres (1) \$ 3,750 + (2) \$ 743
+ (3) \$ 6,500 = Total Yearly Savings of \$ 10,993.

**This percentage will vary based on how efficient your "nursing" operation is.*

VENTURI AIR SPRAYERS

**We hope this booklet gave you
a better understanding of
Venturi Sprayers.**

**For more details
and a demonstration
on our sprayers,
please contact the
dealer listed below.**





Date: _____

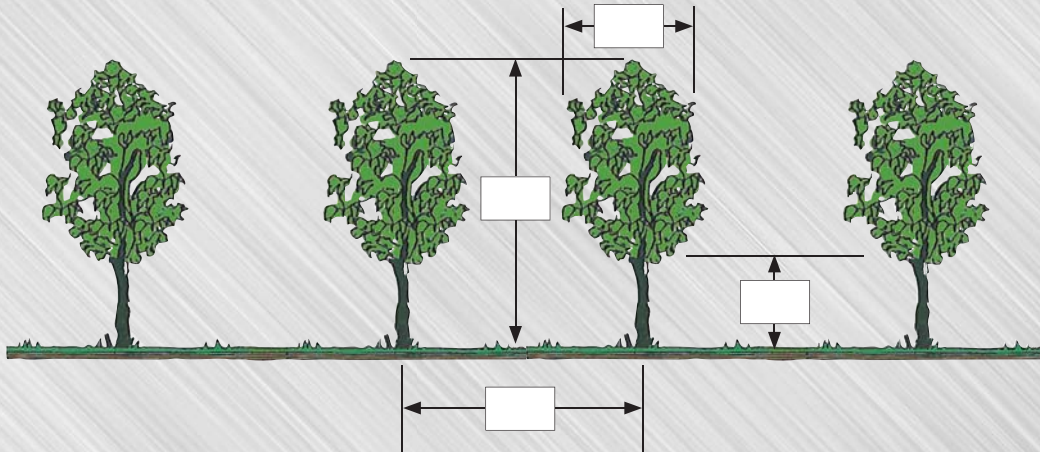
VENTURI AIR SPRAYER DESIGN WORKSHEET

In order to supply you with the correct model sprayer and distribution spray head, we have a few questions.

Please provide the following information:

1. What is the P.T.O. horsepower of your tractor? _____
2. Would you like a 3-point or trailer model? _____
3. Name of crop you will be spraying: _____
4. Are the fields terraced? _____ Yes _____ No
5. How many rows do you want to spray on one pass?
 _____ Two Half Rows
 _____ Two Complete Rows
 _____ Two Complete Rows and Two Half Rows

6. Please fill in the dimensions of your crop:



Name: _____

Address: _____

City: _____ Zip: _____

Email: _____ Fax: _____

Return worksheet to Gearmore - email: sales@gearmore.com or fax: (909) 548-4747



Form:
CI_VenturiMasterBrochure2017

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