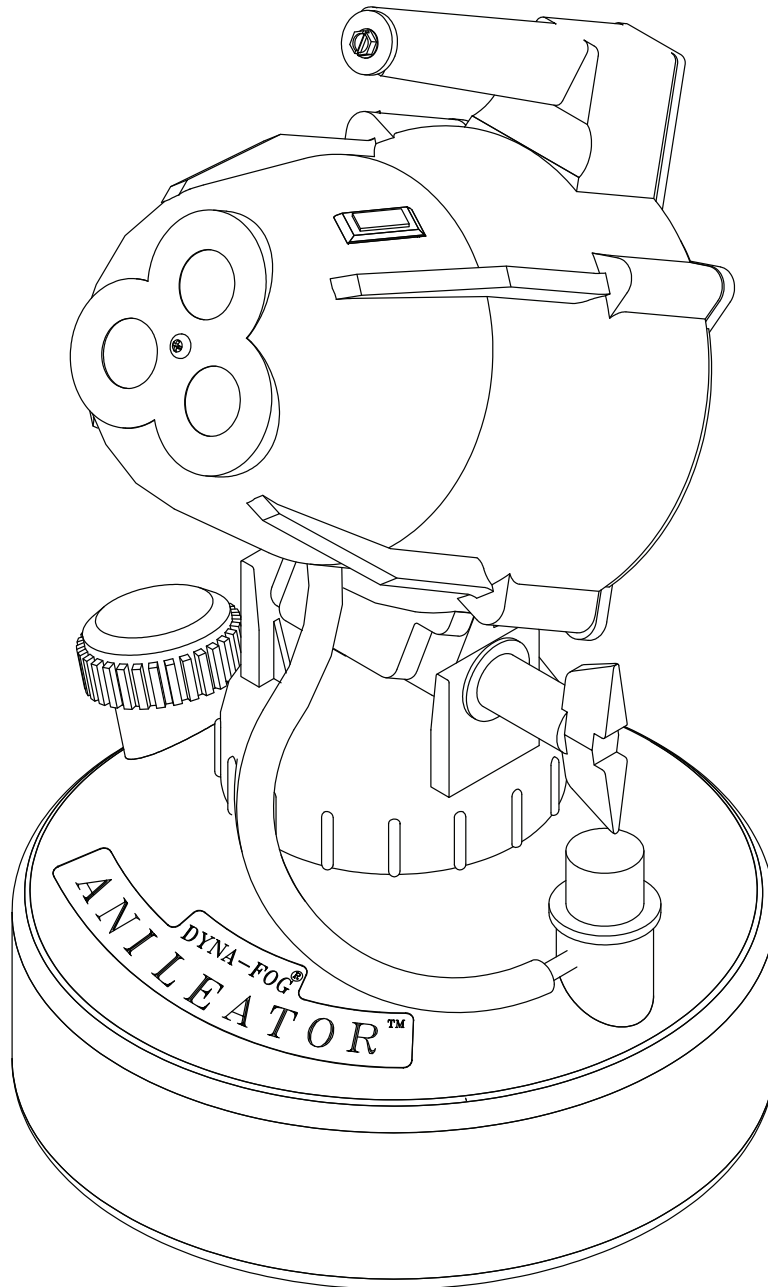


Dyna-Fog[®] ANILEATOR[™]

“Cold Fog” ULV Aerosol Applicator



Model 2997 (115V), 2998 (230V)

Instruction Manual
For
Operation, Service and Maintenance

INDEX

Page No

SAFETY PRECAUTIONS	1
Electric Power	1
Formulations	1
Aerosol Concentration	2
Proper and Improper Use (Do and Do not)	2
SPECIFICATIONS	4
WORKING PRINCIPLES	5
FLUIDS SYSTEM DIAGRAM	5
FLOW RATE	6
MAINTENANCE	7
BRUSH MECHANISM REPLACEMENT	7
ELECTRICAL SCHEMATIC	8
EXPLODED ISOMETRIC, MACHINE COMPONENTS	9
PARTS LIST, MACHINE COMPONENTS	10
NOISE LEVEL COMPARISON	12
SPACE FOR YOUR NOTES	13
HELPFUL CONVERSIONS	14

SAFETY PRECAUTIONS

WARNING

READ AND UNDERSTAND THESE SAFETY PRECAUTIONS BEFORE OPERATING MACHINE. FAILURE TO PROPERLY FOLLOW THESE PRECAUTIONS MAY LEAD TO A FIRE, EXPOSION OR ELECTRIC SHOCK HAZARD.

1. **ELECTRIC POWER.** This machine uses electrical power at common commercially available voltages. When directly contacted, such voltages are hazardous to human life. All precautions commonly applicable to the use of the electric power general are applicable to the use of this machine. This machine is designed to operate from three wire power systems where one of the wires is a safety ground. Do not disconnect the safety ground or use extension cords or “cheater” plugs to connect this machine to a two-wire system. This defeats the purpose of the safety ground and may result in a hazardous electrical shock condition.

When making repairs on the machine, use an area or work bench that is dry and not electrically conductive. Dry natural wood and plastics are generally non-conductive at the working voltages of this machine. Metals are usually conductive. Do not probe inside the machine.

Extension cords must be properly sized and rated for the voltage, current and length of an individual cord. Consult the nameplate current and voltage rating of your machine and the marked rating of the extension cord. A single extension cord only should be used. When two or more extension cord are placed in series, the rated current carrying capacities of the cords may no longer be valid. If an extension cord gets warm to the touch, discontinue its use and obtain a cord with a higher current rate. Improper extension cords are not only hazardous, but may result in poor machine performance due to excessive voltage drop. Finally, since the machine uses oil-based formulation, the extension cord should be rated as oil resistant.

2. **FORMULATIONS.** Many formulations are combustible; that is, they all can be caused to burn. This is true of even high flash point or “no” flash point formulation (fine particle dust in a grain mill has “no” flash point). A combustible liquid vapor can more easily be ignited because it more readily form a uniform mixture with the air which contains the Oxygen needed for combustion. However, fine particles of combustible liquids or solid suspended in the air very closely spaced are capable of propagating flame from one to another once an ignition starts. A good analogy is the grain mill explosion. Although the fine particle dust in a grain mill has “no” flash point, the phenomena of the grain mill explosion is an all too common occurrence.

Where a high flash point or “no” flash point liquid formulation will ignite far less readily than a low flash point liquid and for this reason is strongly advocated. The higher or “no” flash point formulation can ignite if the proper conditions exist. These conditions are basically two: 1. A sufficiently volume of liquid in the form of fine particles suspended in the air; and 2. A sufficiently high energy source of ignition.

3. **AEROSOL CONCENTRATION.** It has been fully established that an acceptable level of liquid in the atmosphere is one gallon per 50,000 cubic feet (2.7 Liter per 1,000 cubic meters). There is a safety margin of at least 5 to 1 in this figure. To avoid danger of fire or explosion in a closed space, the enclosed volume, spray time and required formulation volume must be carefully calculated.
4. **AEROSOL IGNITION.** If a combustible atmosphere is established or a combustible deposit is laid down, a source of ignition may cause a fire. Sources of ignition can be gas or oil pilot lights or sparks from electrical controls. Therefore, it is strongly recommended that all such sources be eliminated by extinguishing all pilot lights and turning off all unnecessary electric power. To avoid danger of fire or explosion in an enclosed space, the enclosed volume fogging time and required formulation volume should be carefully calculated.

PROPER AND IMPROPER USE.

The following rules apply to the operation of this machine:

DO

Read the entire manual before operating the machine and pay particular attention to all CAUTIONS and WARNINGS.

Store formulation in its original labeled container.

Use an extension cord which is properly rated for voltage, current and length and which is free from nicks, cracks and other signs of prior abuse. For lengths up to 100 feet (30.5 meters) cord No. 12AWG wire are usually adequate.

Replace damaged or worn electric cord immediately.

Turn the flow valve CLOCKWISE to the OFF position after each spray application while the motor is still operating to allow clearing of the lines. This will also prevent a siphon effect if the unit is ever accidentally knocked over with the valve remaining open.

Always comply with any requirements for protective clothing, goggles, gloves, facial masks or respirator required by the formulation label.

Ensure that formulation are applied only in strict compliance with the formulation label as well as local State and Federal regulations.

DO NOT

Do not Spray flammable liquids near open flame or other source of ignition.

Do not Use a machine that is broken or damaged in any way.

Do not Alter the machine by adding or removing parts.

Do not Restrict the motor blower inlet area.

Do not Tamper with the output nozzle.

Do not Allow the machine to operate unattended.

Do not Apply more than one gallon of formulation per 50,000 cubic feet (2.7 Liters per 1,000 cubic meters) enclosed space. Exceeding this concentration is both hazardous and wasteful.

SPECIFICATIONS

The Anileator™ machine is an electric “Cold Fog” ULV aerosol applicator with three rugged nylon nozzles. This device is intended for applications of both oil bases (following necessary precautions) and water based chemical treatments. The body and tank are made of high-density chemical resistant polyethylene. The applicator is useful for dispensing most chemicals which are labeled for aerosol applications such as disinfectants, deodorizers, germicides, insecticides, etc., in locations such as hospitals, schools, nursing homes, greenhouses, stables, warehouses, homes, and farm buildings. The particle sizes generated range from 7 to 20 microns VMD, depending on the flow rate and viscosity of the materials.

MODEL 2997 ANILEATOR™ 110-130 VAC

MODEL 2998 ANILEATOR™ 210-250 VAC

MOTORIZED BLOWER:

2997 CONTINUOUS DUTY

110-130 VOLTS AC

6.85 AMPS

50/60 HZ

20,000 RPM

2998 CONTINUOUS DUTY

210-250 VOLTS AC

3.4 AMPS

50/60 HZ

20,000 RPM

OUTPUT: 2 GAL/HOUR
(125 ml/min) WITH WATER

1 GAL (3.8 L)
TANK CAPACITY

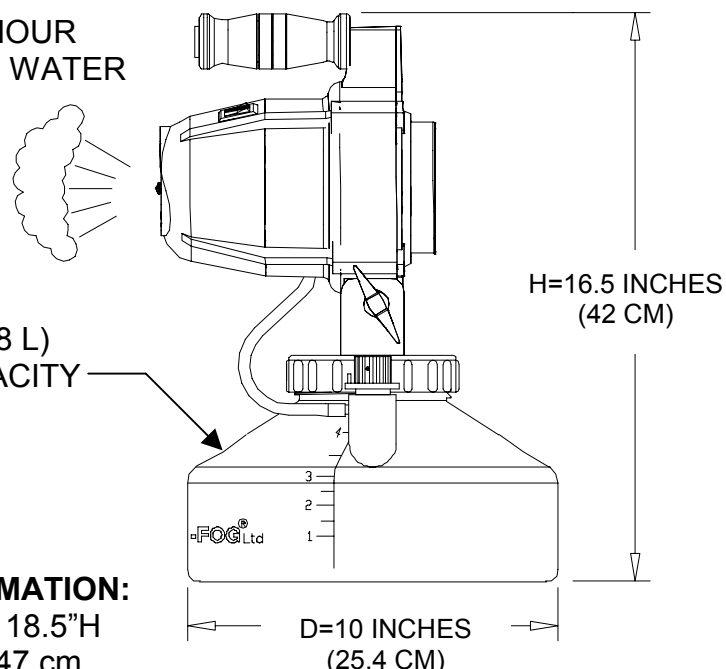
WEIGHT(empty)
6.6 LB (3 Kg)

SHIPPING INFORMATION:

16.5”L X 12.5”W X 18.5”H

42 cm X 32 cm X 47 cm

Weight: 9.5 LB (4.3 Kg)

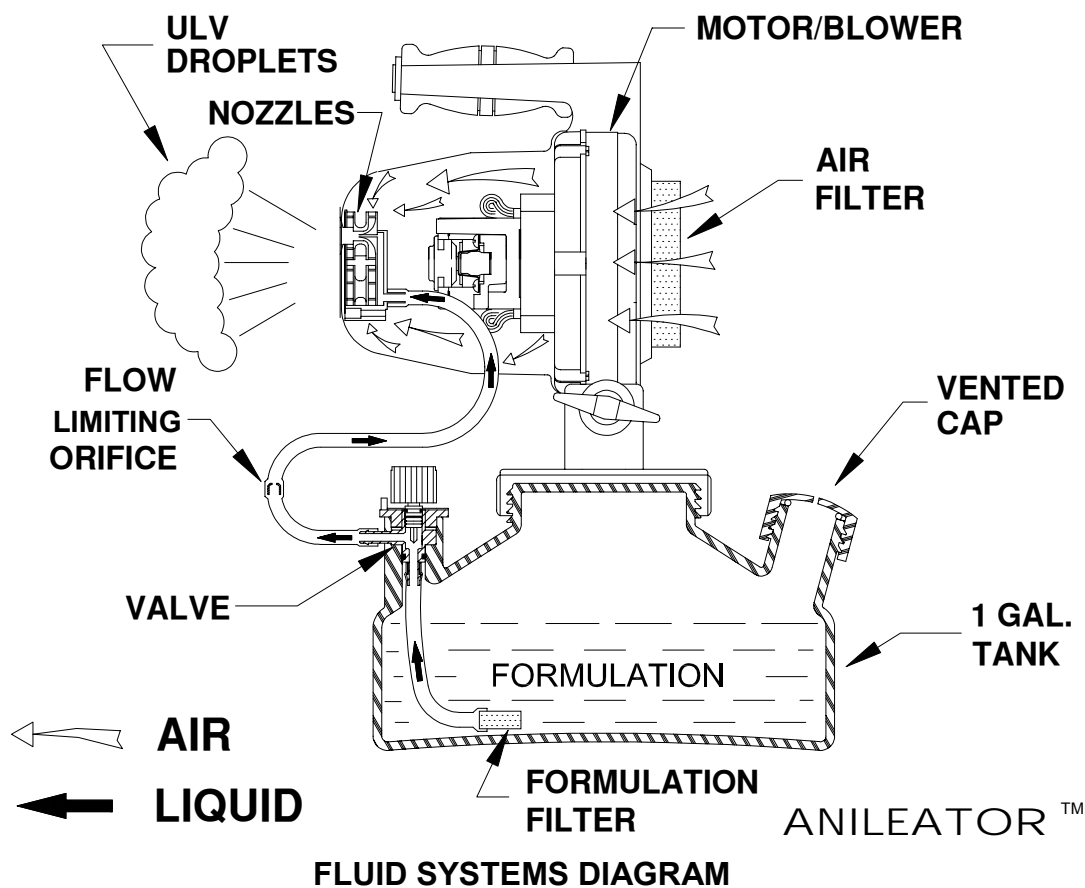


Cord Type SJ60, 18" (46 cm) length; optional 25 Ft (7.6 m) extension cord available.

WORKING PRINCIPLES

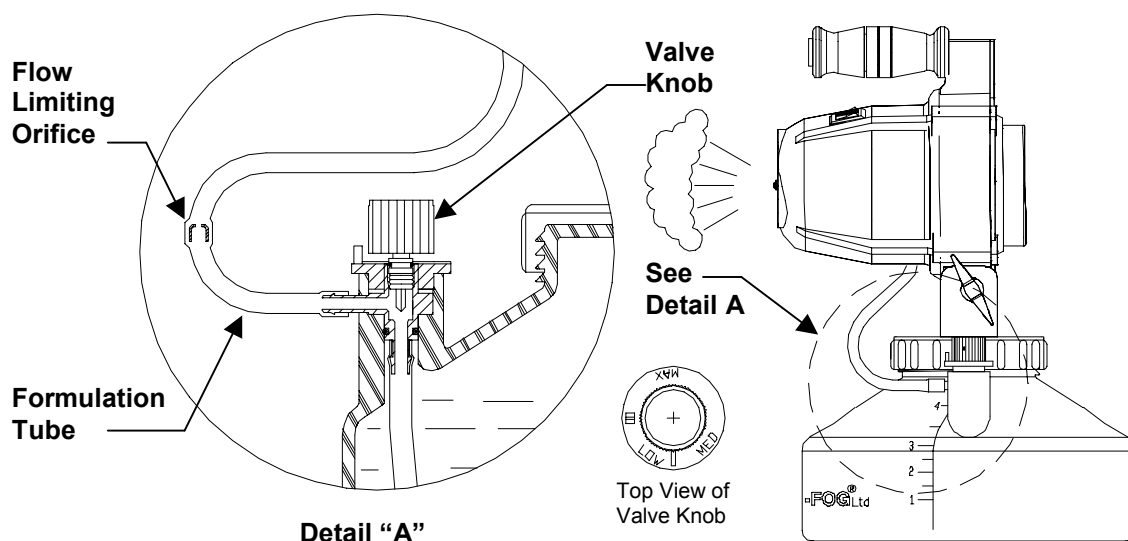
The machine consists of a motor/blower assembly, a nozzle system, a nozzle housing, a formulation tank, a metering valve and flow limiting orifice. The various components are identified in diagram below. The blower is a single stage/centrifugal impeller/axial flow driven by a universal motor operating at a speed of about 20,000 RPM. The blower moves a large amount of air through the nozzle system consisting of three individual nozzles, each of which has two sets of directing vanes. One vane set causes the air to be rotated clockwise and the other causes the air to be rotated counterclockwise. The intersection action of the circular forces shears the material being dispensed into small particles. Further, the air rushing by the specially shaped liquid tubes creates a negative pressure in the liquid tube. This negative pressure causes the liquid to be drawn from the formulation tank through the valve, the limiting orifice and into the nozzle system where it is pneumatically sheared into aerosol sized droplets. After break-up, the droplets are driven away from the machine by the air passing through the nozzle system.

Generally, the size of the output droplets increases with increasing flow rate and with increasing viscosity.



FLOW RATE

The Flow rate in the Anileator™ machine is mainly governed by the size of the Flow Limiting Orifice. The Flow can be stopped by rotating the valve knob clockwise. It can also be reduced with the valve, working only in the portion close to the “Low” mark of the valve indicator.



Under normal conditions, the flow rate of the machine, with the valve knob open, is indicated as following:

Flow rate is 2 GPH (125 ML/MIN) when a liquid with viscosity like water is used.
Flow rate is 1.2 GPH (78 ML/MIN) when a liquid with viscosity like Malathion is used.

The indicated flow applies when the standard orifice B-10247-36 remains inserted into the formulation tube, as shown in above diagram.

CAUTION: Read and follow the instructions on the formulation manufacturer's label and in the operation manual.

IMPORTANT: This device is designed to dispense formulations in a SPRAY (Cold Fog). Many of the formulations which may be dispensed with this machine require registration with or approval by various government agencies.

Note: Thicker viscosity liquids will flow at lower rates than what is shown. Calibrate flow rate before attempting to spray.

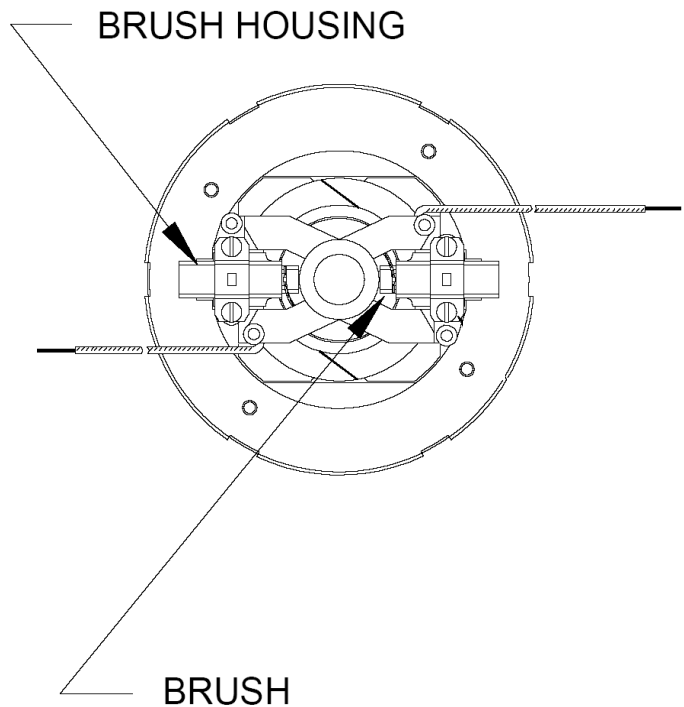
MAINTENANCE

1. Periodically clean the formulation tank using a hot water/detergent solution. Fully open the machine valve and operate the machine for 3 to 5 minutes, flushing the solution through the valve, lines and nozzle.
2. Examine the electrical cord for evidence of damage and replace any damaged cord immediately.
3. If it becomes necessary to disassemble the Machine for cleaning, be careful not to enlarge the metering (Flow Limiting) orifice or damage the taper of the valve stem, as this will affect the calibration of the machine.
4. Clean the Air Intake Filter after every application. If the filter gets saturated (wet and dripping) while the machine is working, stop the machine and clean the filter.
5. After 400-500 hours of operation, carefully remove the blower assembly and examine the brushes and the commutator bars of the blower motor. If brushes are worn out, replace them. If commutator bars are damaged, replace Blower Assembly.

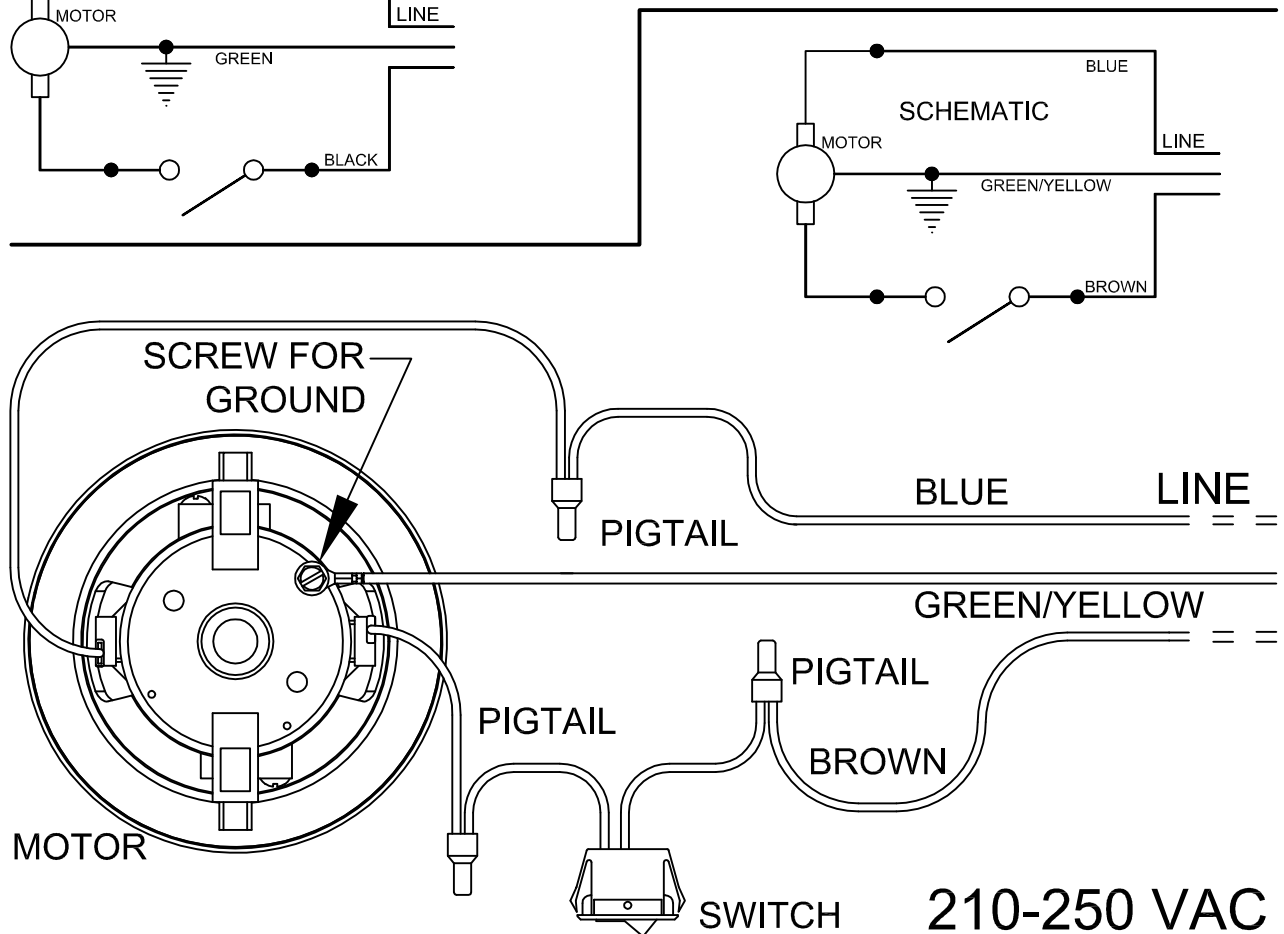
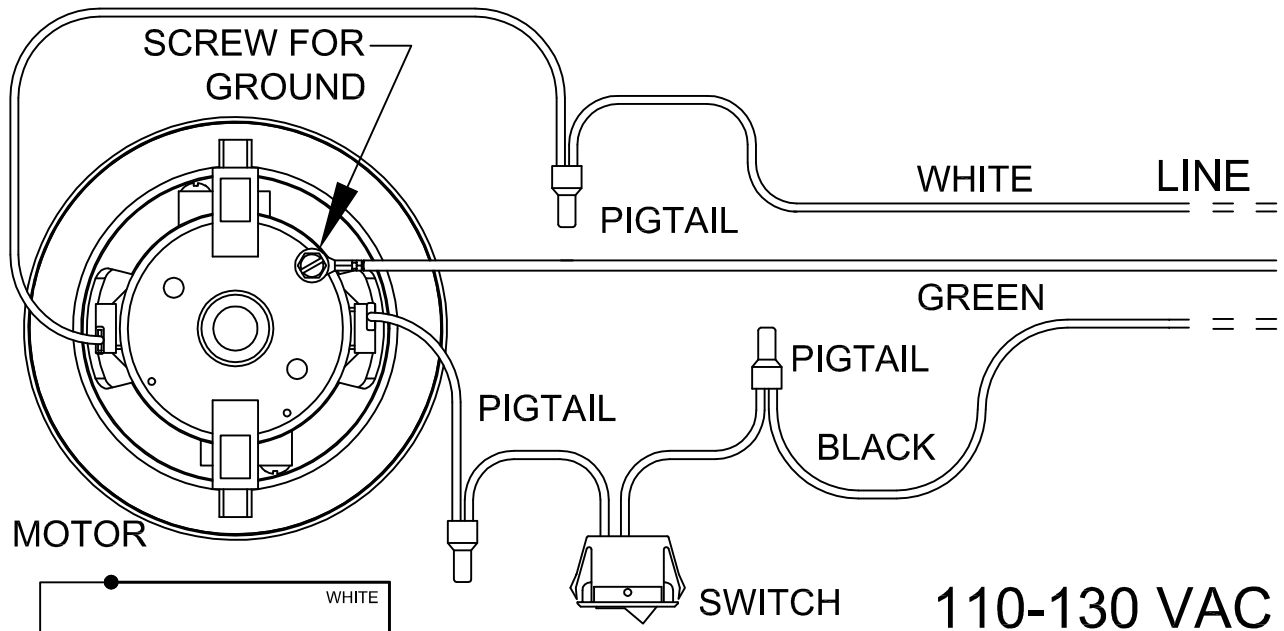
Note: If it becomes necessary to operate the machine in areas where the air become saturated with spray droplets and these droplets accumulate at the blower intake filter, the machine can be outfitted with an optional "Fresh Air Intake Hose" P/N 62060.

BRUSH MECHANISM REPLACEMENT

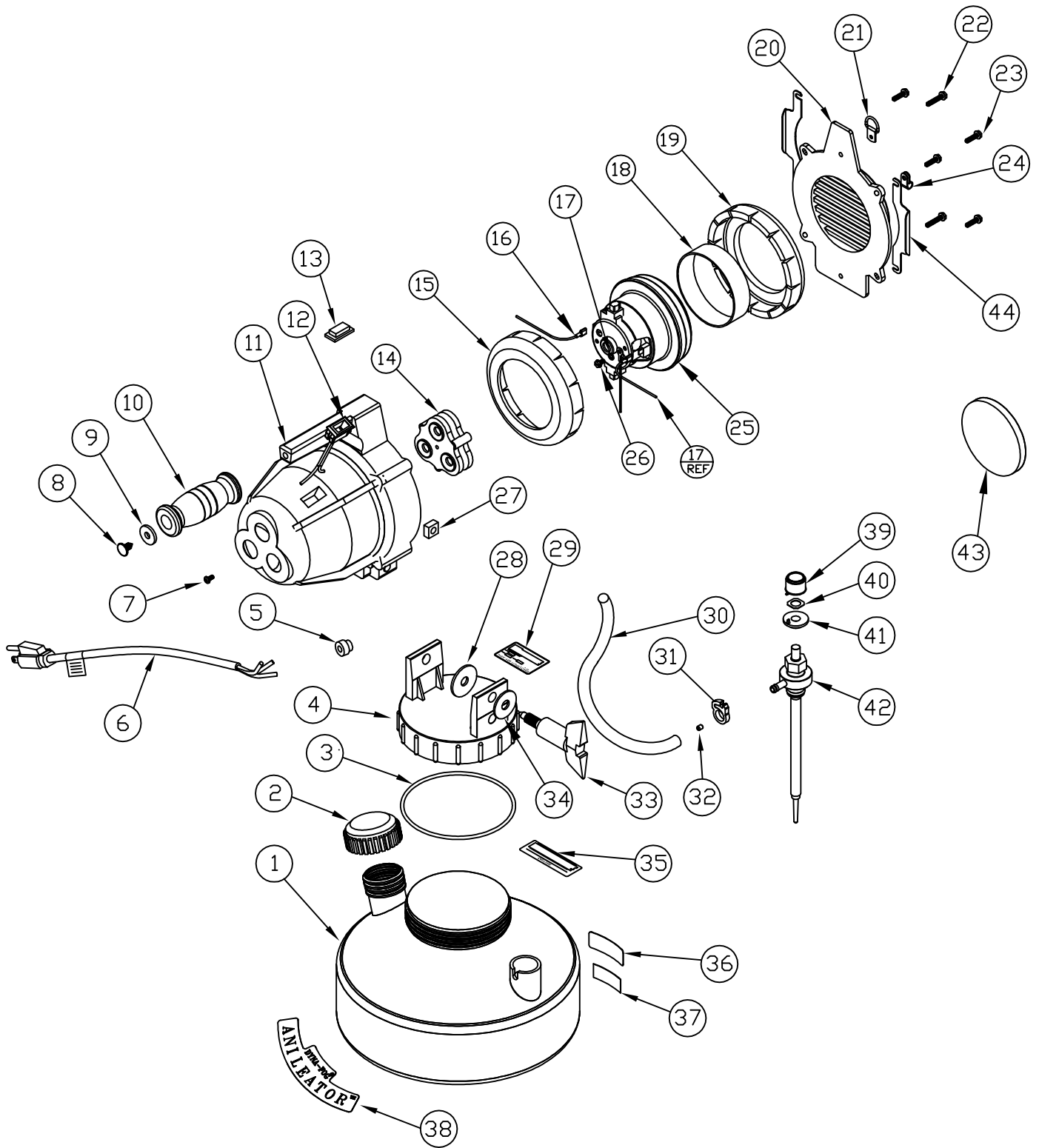
The Replacement of the brush mechanism could be performed by your Dyna-Fog local distributor, or by a qualified technician. Consult with Curtis Dyna-Fog, Ltd. for more information.



ELECTRICAL SCHEMATICS

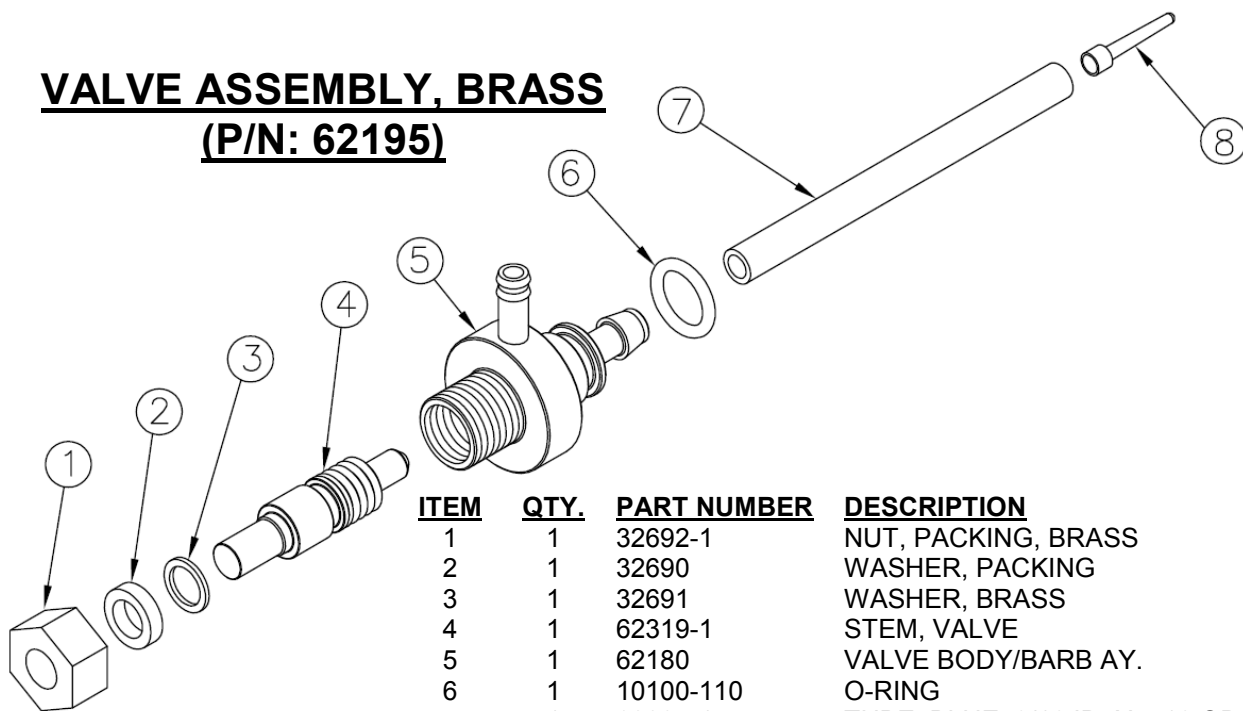


ANILEATOR PARTS DIAGRAM



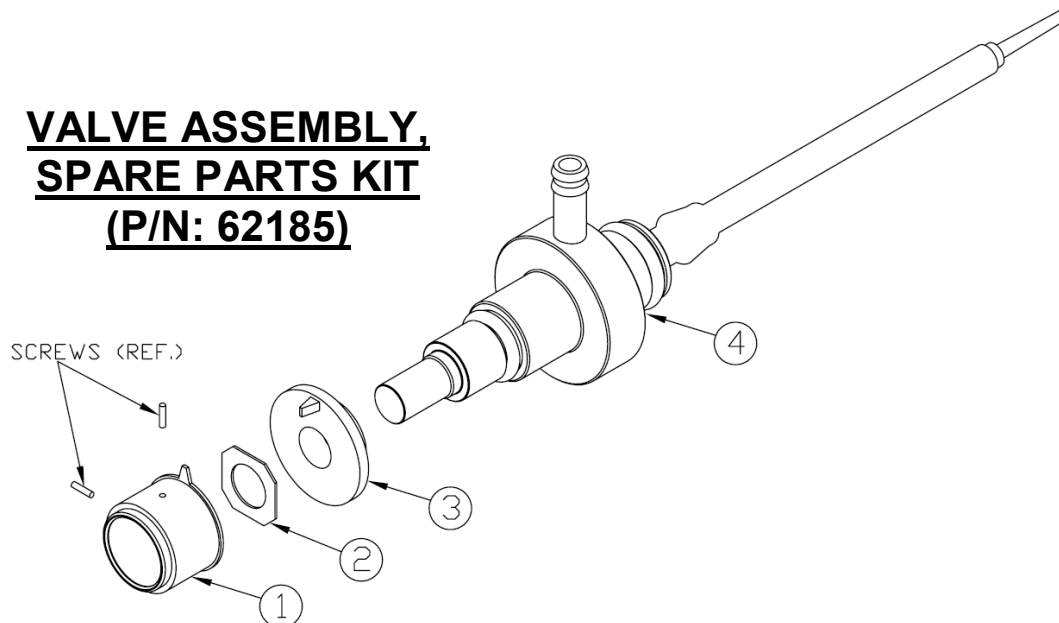
<u>ITEM</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>ITEM DESCRIPTION</u>
1	1	62130-10	TANK, 1G ROUND
2	1	62135-1	CAP ASSEMBLY, BLUE
3	1	10100-343	"O" RING
4	1	62131-1	CLEVIS, PLASTIC, BLUE
5	1	20180-3	STRAIN REL., POWER CORD, 115 VAC
		20180-4	STRAIN REL., POWER CORD, 230 VAC
6	1	62031-2	POWER CORD ASSEMBLY 115 VAC
		62051-1	POWER CORD ASSEMBLY 230 VAC
7	1	62361-2	SCREW, 10-24 X 3/4, SS
8	1	62316	CLIP, XMAS TREE
9	1	62228	WASHER, PLASTIC, BLACK
10	1	29509	HAND GRIP
11	1	62001-60	HOUSING, BLUE, ANILEATOR
12	1	62006-1	ROCKER SWITCH
13	1	39027	BOOT, ROCKER SWITCH
14	1	62045-54	NOZZLE ASSEMBLY, BLUE
15	1	62366	GASKET,FOAM,DIE CUT (.187 THK.)
16	2	62471-1	WIRE AY, MOTOR
17	1	138530	WASHER,LOCK,#8,INTO
18	1	62144-1	SPACER, PVC, MOTOR, (HURRICANE)
19	1	62366-1	GASKET,FOAM,DIE CUT (.375 THK.)
20	1	62002-54	HOUSING CLOSURE, BLUE
21	1	11719	CLAMP, CARRY STRAP
22	1	62160	SCREW, #10-16X1.25 SS
23	5	62161	SCREW 10X3/4, HIGH-LOW THREAD, SS
24	1	86690	CLAMP, PLASTIC
25	1	62147-1	MOTOR, BLOWER AY.120V (930W) PANASONIC
		62147-3	REPLACEMENT BRUSH KIT (110V)
		62147-2	MOTOR AY., 240V (950W), PANASONIC
		62147-4	REPLACEMENT BRUSH KIT (220V)
26	1	9425089	SCREW,#8-32X3/8,HEX, SLOTTED TYPE "F" TAP
27	1	62367	NUT, 3/8-16, SQUARE
28	1	62083	WASHER, FRICTION
29	1	62151-9	LABEL ID, ANILEATOR 115 VAC
	1	62151-10	LABEL ID, ANILEATOR 230 VAC
30	1	74312-3	SPRING, ANTICRIMP, SS
31	1	21158	CLAMP, PLASTIC
32	1	10247-36	ORIFICE, FLOW LIMITING
33	1	62010-54	LOCKING HANDLE, BLUE
34	1	62128	WASHER, LOCKING HANDLE
35	1	62230	LABEL, CAUTION/FLOW
36	1	62057	LABEL, WARNING
37	1	63409	O-LABEL, MADE IN USA
38	1	62226	LABEL, LOGO, ANILEATOR
39	1	64956	KNOB AY., FORMULATION VLV.
40	1	39090	RETAINER, SQUARE WASHER
41	1	62134-1	VALVE INDICATOR, METERING
42	1	62195	VALVE AY., BRASS (WITH FILTER)
43	1	62124	FILTER, AIR INTAKE
44	2	62233	BRACKET, SUPPORT, REAR HOUSING

VALVE ASSEMBLY, BRASS **(P/N: 62195)**



<u>ITEM</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	1	32692-1	NUT, PACKING, BRASS
2	1	32690	WASHER, PACKING
3	1	32691	WASHER, BRASS
4	1	62319-1	STEM, VALVE
5	1	62180	VALVE BODY/BARB AY.
6	1	10100-110	O-RING
7	1	62227-1	TUBE, BLUE, 3/16 ID. X 5.16 OD.
8	1	80408	FILTER, LONG TAPER, 130 MICRONS

VALVE ASSEMBLY, **SPARE PARTS KIT** **(P/N: 62185)**



<u>ITEM</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>ITEM DESCRIPTION</u>
1	1	64956	KNOB ASSEMBLY
2	1	39090	RETAINER, SQUARE WASHER
3	1	62134-1	VALVE INDICATOR, METERING
4	1	62195	VALVE AY., BRASS (WITH FILTER)

NOISE LEVEL COMPARISON

	TYPICAL SOUND	TYPICAL MUSIC	SPL, Db	
	Chest wall vibrates, chiking, giddiness		150	
	Jet taking off, 25 meters		140	
	Threshold of pain			
	Artillery, 100 yards	Cannon (peaks)	130	
	Pneumatic chipper			
	Riveter, nearby		120	
	Loud car horn, nearby	Very loud rock (peaks)		
		Very loud classical (peaks)	110	
Pain Threshold	Inside N.Y. subway	Very loud classical (avg.)	100	
		Loud classical music		
	Heavy truck		90	
Hearing Protection Recommended	Inside motor bus	Moderately loud classical		
	Noisy traffic, corner		80	
	Noisy office	Soft popular music		
			70	← Anileator
	Business office	Soft classical music		
	Conversational Speech		60	
	Private office	Very soft music	50	
	Background noise, city home			
			40	
	Background noise, suburb			
	Library		30	
	Background, country night			
	Whisper, leaves rustling		20	
	Good recording studio			
			10	
	Threshold of hearing		0	

The Anileator hand held electric aerosol applicator is a relatively quiet machine, as shown in above comparison.

Dyna-Fog® ANILEATOR™

MACHINE MODEL NUMBER: _____

MACHINE SERIAL NUMBER: _____

DATE PURCHASED: _____

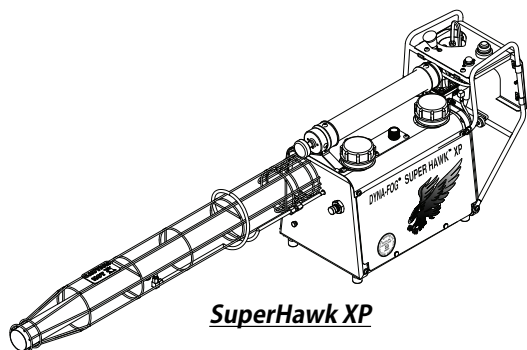
PURCHASED FROM: _____

NOTES:

HELPFUL CONVERSIONS

<i>TO CONVERT</i>	<i>INTO</i>	<i>MULTIPLY BY</i>
Ounces	Milliliters	29.57
Milliliters	Ounces	.034
U.S. gallons	Liters	3.78
Liters	U.S. Gallons	.26
Pounds	Kilograms	.45
Kilograms	Pounds	2.2
Cubic Feet	Cubic Meter	.028
Cubic Meter	Cubic Feet	36.2

Dyna-Fog Offers a Complete Assortment of Sprayers and Foggers



SuperHawk XP

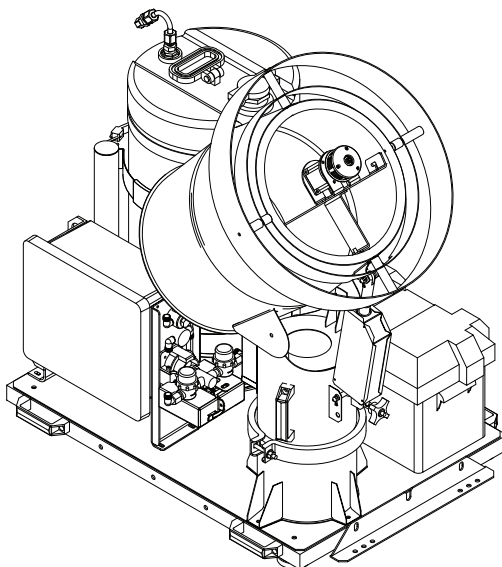
PULSE-JET POWERED THERMAL FOGGERS:

From 0-120 GPH (0-453 LPH) output. Our complete line include different models like the Superhawk, Golden Eagle, Trailblazer, Falcon, Patriot, Blackhawk, Mister III, SilverCloud and Model 1200. Portable or Truck mounted machines. Different models are available for Oil base or Water base formulations.

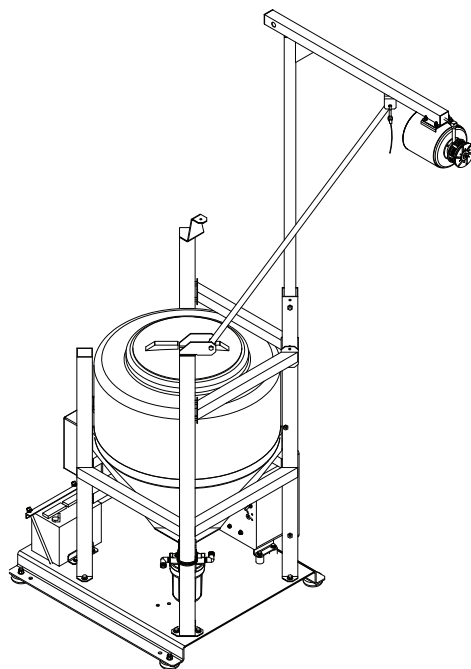
ELECTRIC ROTARY ATOMIZERS:

DYNA-JET L30: State-of-the-Art, Electric Rotary Atomizer ULV Aerosol Generator. 12 VDC, Light Weight, Truck mounted Machine with FMI pump. Optional Syncroflow Available.

DYNA-JET L15: Drift Sprayer for migratory pest control like Locust. Flow Rate from 0 to 2 L/min. Optional Radar Syncroflow.



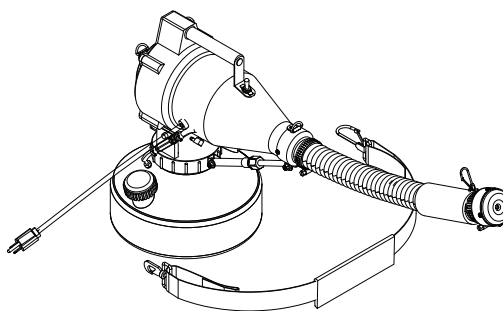
Dyna-Jet L-30



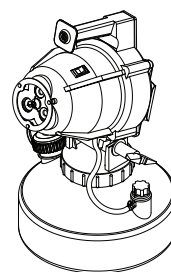
Dyna-Jet L-15

ELECTRIC HAND-HELD ULV/MIST GENERATORS:

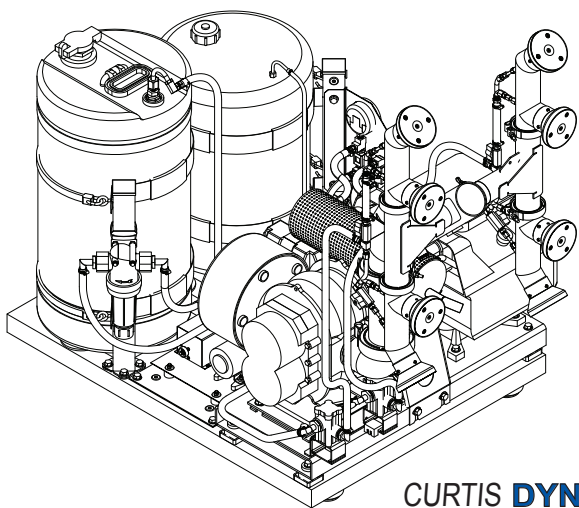
A Full line of electric cold fog applicators with 1-3 gallon tanks, available in 115 and 230 VAC.



Cyclone Ultra-Flex



Hurricane ES



LV-8

COMBUSTION ENGINE DRIVEN ULV AEROSOL GENERATORS:

Truck mounted Units powered by 8, 9, 11, 18 and 20 HP four cycle, OHV Gasoline Engines. Diesel versions also available. One, two, four and eight nozzle configurations. Patented full remote control of boom functions (rotation of turntable and angle of nozzles) available on certain models. Your choice of Gear, Piston or Diaphragm pumping system. Pressurized system versions available for specific international markets. Optional Automatic flow control "Syncroflow" also available with Radar or GPS speed sensing. 25 cc and 40 cc two cycle portable models are also available.

CURTIS DYNA-FOG Ltd.
"Innovators of Spraying and Fogging Technology Since 1947"

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web: www.dynafog.com

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