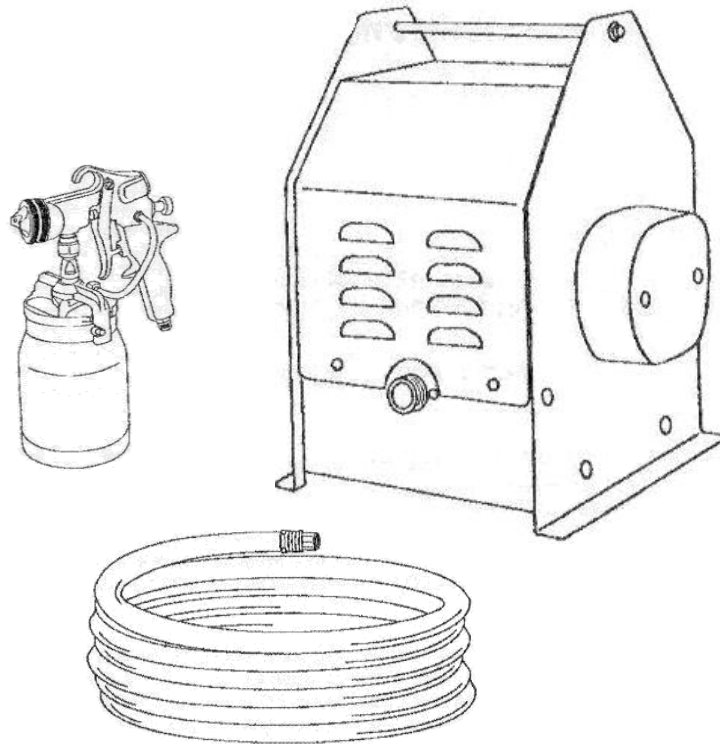




HVLP 310 & HVLP 410 Plus

HVLP Spray Finishing Systems



OPERATION MANUAL AND PARTS LIST FOR MODEL AIRLESSCO HVLP 310 & HVLP 410 Plus

WARNING: Before operating, doing any service or maintenance procedures, learn and follow all warnings on page 3.

**ALL SERVICE PROCEDURES MUST BE PERFORMED
BY AUTHORIZED AIRLESSCO SERVICE CENTER.**

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INTRODUCTION

Specifications

	<u>HVLP 310</u>	<u>HVLP 410 Plus</u>
Turbine Stages	3	4
PSI	5.5	8.0
Gun Style	Standard	Deluxe

WARNING

Prior to starting, read, understand and observe all safety precautions and warnings on cover & page 3 and all labels and tags on the machine

MANUAL NOTATIONS

WARNING - Alerts user to avoid or correct conditions that could cause bodily injury.

CAUTION - Alerts user to avoid or correct conditions that could cause damage to or destruction of equipment.

IMPORTANT - Alerts users to steps or procedures that are essential to proper equipment repair and maintenance.

NOTE - Identifies essential procedures or extra information.

Congratulations on your recent purchase of an Airlessco HVLP 310 or HVLP 410 Plus turbine spray finish system. These HVLP (High Volume Low Pressure) systems consist of three major components called the turbine unit, gun and air hose. Additionally, there are optional components for modified spraying systems that include such items as a 2 quart remote and 2.5 gallon pressure pots. The turbine unit outputs dry warm air to the gun via the air hose. This air moves through the two air passageways within the gun. The first passageway flows down the air feed tube, through the one way check valve and into the cup. This air pressure forces the paint or coating up through the fluid passage way and out the fluid nozzle. Here the air from the second air passageway exits from the air cap and shapes the paint or coating into an atomized fan pattern. It is this low pressure atomization that allows for sensitive control of the spray pattern, thus reducing overspray and coating usage.

It is important to note that the guns supplied with the HVLP 310 and HVLP 410 Plus are *bleeder guns*. With a bleeder gun, whenever the turbine is ON, air is flowing through the gun and out the air cap. This is beneficial for a couple of reasons. First, the air pressure is always flowing out and away from the turbine, so that there is no back pressure for the turbine to overcome. This significantly increases the life span of the turbine. Second, the escaping air can be used to prepare the surface for painting, by blowing away debris.

SETTING UP

1. Inventory components.

Ensure that the following items were included with your machine:

- a. Turbine unit.
- b. HVLP gun with cup.
- c. Air hose assembly.
- d. Instruction Manual.
- e. Zip Lock bag with:
 - i. Special Wrench
 - ii. Extra Galnd Seals
 - iii. Extra Nozzle Washers
 - iv. Extra Trigger Washers.

2. Connect air hose to Turbine unit.

- a. On the HVLP 410 Plus deluxe model, the hose to gun connection is a standard quick disconnect fitting.
- b. On the HVLP 310 standard model, the hose to gun connection is a threaded fitting. However the unit can be retro-fitted with the quick disconnect connections in the field. See page 10.

3. Connect air hose to HVLP gun.

The hose to turbine connection is a standard quick disconnect fitting on both models.

STARTING UP

1. Read and learn the warnings on page 3.

Spray systems can be dangerous. Treat them like a loaded firearm.

2. Learn the fuctions of the controls.

The following is intended to help identify the system controls. For details on each can be adjusted to achieve the desired effects, see OPERATIONS on pages 4-5.

ON/OFF Toggle Switch (Fig 7 Item 3) is mounted on the side of the Turbine Unit and is used turn the unit power ON and OFF.

Air Cap is located on the front of the gun (Fig 8 Item 2) and rotates to set the direction of the fan pattern.

Air Cap Locking Ring (Fig 8 Item 1) holds the Air Cap in place and can be loosened to feather the fan pattern.

Air Control Valve is situated at the rear of the gun (Fig 8 Item 11) and is turned to adjust the rate of air flow into the gun and cup.

Fluid Control Valve (Fig 8 Item 24) is just below the Air Flow Control and is rotated to control the rate of material flow from the cup to the nozzle.

3. Plug unit into outlet.

Refer to the warnings page 3 to ensure appropriate plug, outlet and power are utilized.

4. Experiment with spraying with water.

Place water into the gun cap and experiment with the effects of each of the controls. Use the directions listed in OPERATIONS/TECHNIQUE as guidelines.

Caution: After the Turbine has been running , the Turbine Hose Coupler (Fig 5 Item 17) may be very hot. Also the cup will still be pressurized. Turn the Fluid Control Valve fully clockwise to the closed position, to prevent accidental pressure release.

WARNINGS

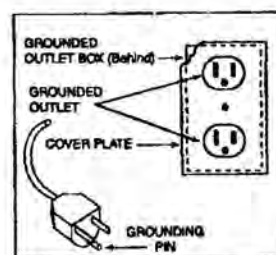
DO NOT USE EQUIPMENT BEFORE READING THIS SECTION

A fire or explosion hazard is present when spraying flammable materials. In order to assure safe operation of your spray system, please read the following instructions carefully.

- Always follow coating or solvent manufacturers safety instructions and warnings.
- Always spray in a well ventilated area.
- Always keep the turbine system at the maximum length of hose
- Always wear eye protection and a respirator.
- Always store indoors, never allow unit to freeze.
- Always use original manufacturers replacement parts
- Never spray flammable materials near open flames, pilot lights or any other source of ignition.
- Never alter or modify any part of this equipment; doing so can cause equipment malfunction and/or bodily injury.
- Never attempt to clean any part of the turbine system while it is plugged in. **CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT EXPOSE TO WATER.**
- Never leave spray equipment unattended. Keep away from children or any person not familiar with spray equipment.

GROUNDING INSTRUCTIONS

This product should be grounded. In the event of an electrical short circuit, grounding reduces the risk of electrical shock by providing an escape wire for the electric current. This product is equipped with a cord that has a grounding wire and appropriate grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances. Do not operate unit with a damaged cord or plug. Do not pull or carry unit by the cord. Keep away from heated surfaces. Do not unplug by pulling on the cord.



DANGER

Improper installation of the grounding plug can result in the risk of electric shock. Check with a qualified electrician or serviceman if in doubt as to whether the product is properly grounded. Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician. This product is for use on a nominal 120 volt circuit and has a grounding plug similar to the one illustrated. Make sure that the turbine is connected to an outlet with the same configuration as the plug. **DO NOT USE ANY ADAPTERS WITH THIS PRODUCT.**

USING EXTENSION CORDS

Use only a three wire extension cord with a 3-slot receptacle similar to the plug on the turbine. Make sure your extension cord is in good condition. When using an extension cord, be sure to select one that will carry a heavy enough current for the turbine system used. An undersized cord will cause a drop in the line voltage resulting in loss of power and overheating. If in doubt use the next heavier gauge. The smaller the gauge number, the heavier the wire thickness. Please use the chart below as a guide to selecting the proper size extension cord.

For lengths less than:	Use extension gauge:
25 ft.	16 AWG
50 ft.	14 AWG
100 ft.	12 AWG
150 ft.	10 AWG

FIRE OR EXPLOSION HAZARD

FLUID SECTION - SOLVENTS

Halogenated Hydrocarbon solvents can cause an explosion when used with aluminum or galvanized components in a closed (pressurizable) fluid system (pumps, heater, filters, valves, spray guns, tanks, etc.). The explosion could cause serious injury, death and/or substantial property damage. Cleaning agents, coatings, paints, etc. may contain Halogenated hydrocarbon solvents. The manufacturer of this equipment uses aluminum components that will be affected by Halogenated Hydrocarbon solvents. **DO NOT USE HALOGENATED HYDROCARBONS WITH THIS EQUIPMENT.**

EXPLANATION OF THE HAZARD

There are three key elements to the Halogenated Hydrocarbon (HHC) solvent hazard. These elements are:

1. The presence of HHC solvents
2. Aluminum or galvanized parts
3. Equipment capable of withstanding pressure

When all three elements are present, the result can be an extremely violent explosion. The reaction can be sustained with very little aluminum or galvanized metal; any amount of aluminum is too much. The reaction is unpredictable. Prior use of an HHC solvent without incident (corrosion or explosion) does NOT mean that such use is safe.

HALOGENATED SOLVENTS – definition: Any hydrocarbon solvent containing any of the elements as listed below. Consult your material supplier to determine whether your solvent or coating contains Halogenated Hydrocarbon Solvents.

Fluorine (F) "-fluor-"
Bromine (Br) "-bromo-"
Examples (not all-inclusive):

FLUOROCARBON SOLVENTS:

Dichlorofluoromethane
Trichlorofluoromethane

CHLORINATED SOLVENTS:

Carbon tetrachloride
Chloroform
Ethylene Dichloride

BROMINATED SOLVENTS:

Ethylene Dibromide
Methylene chlorobromide
Methyl bromide

TRICHLOROETHANE:

Trichloroethylene
Monochlorotoluene
Chlorine (CL) "-chloro-"
Iodine (I) "-iodo-"

METHYLENE CHLORIDE OR

DICHLOROMOETHANE

Monochlorobenzene
Orthodichlorobenzene
Porchloroethylene

IODINATED SOLVENTS:

N-butyl iodide
Methyl iodide
Ethyl iodide
Propyl iodide

OPERATIONS/TECHNIQUE

1. Spray Preparations.

Before spraying there are several items to be considered, in order to ensure a quality spray job.

a. Environment. Where and when you spray is as important as how you spray. It is best to spray in a clean, dry and warm location. The ambient temperature around 70 degrees F (21 degrees C) is ideal. Refer to the coating's can label or specification sheet.

b. Surface Preparations. Around 80% of coating failures are a direct result of poor surface preparations. It is critical to properly sand and then clean with a tack cloth, prior to spraying.

c. Coating Preparations. Most coatings require thinning prior to use. This varies for every coating. Refer to the coating's can label or specification sheet for the manufacturer's recommended thinning. TABLE "A" is provided below as a "rule of thumb" for thinning different classes of coatings. As with all thinning procedures, it is best to start with the minimum recommended amount of thinner and slowly increase the level of thinning until the desired result is achieved.

d. Needle & Nozzle Set and Air Cap Selection. Your Airlessco HVLP unit comes equipped with a #3 Needle & Nozzle Set (1.5 mm) and an "A" air cap. However, if spraying certain coatings it will be necessary to change the Needle & Nozzle Set and/or Air Cap to match the coatings viscosity. Refer to TABLE B to select the correct Needle & Nozzle Set and Air Cap.

e. Turbine Selection. Confirm your turbine size is correct for the coating to be sprayed. The HVLP 310 is a 3 stage turbine unit suitable for light to medium coatings. The HVLP 410 PLUS is a 4 stage turbine unit for light to heavy coatings.

NOTE: For the procedure for changing the Needle/Nozzle Set and Air Cap see Maintenance on page 6.

NOTE: Latex paint is a heavy coating, which requires a larger Needle & Nozzle Set than comes with the machine.

TABLE "A" Thinning Recommendations

Coating	Thinning Percentage
Stains	No thinning
Water Based Polyurethanes	0-10%
Catalyzed Polyurethane	10-30%
Sanding Sealers	20-30%
Polyurethane Varnishes	20-30%
Oil Based Enamels	20-40%
Lacquers	25-50%
Acrylic Enamels (latex)	50-60%

TABLE "B" Needle/Nozzle & Air Cap Selection Chart

Needle/Nozzle	Air Cap	Application
#1 (.75mm)	A	Inks, Dyes & other very thin coatings
#2 (1.0mm)	A	Thin Lacquers, Thin enamels, Automotive, Marine & Airplane Finishes
#3 (1.5mm)	A or B	Catalyzed lacquers, Conversion Varnish, Primers, Varnish, Heavy Industrial Coatings, Oil Based Enamels, Urethanes, Automotive, Marine & Airplane Finishes
#4 (2.0mm)	B	Latex (thinned), Multicolor, Heavy Primers, Butyrate, Nitrate Dope, & Heavy Industrial Coatings
#5 (2.5mm)	B	Latex (thinned), Multicolor, Adhesives & Wax Based Strippers

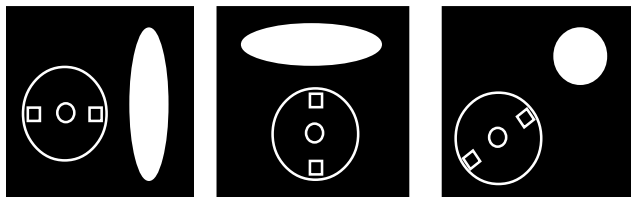
OPERATIONS/TECHNIQUE

2. Spraying.

Once the environmental, surface and coating preparations are complete, it is time to spray.

a. Select desired fan pattern. The Air Cap can be rotated to three locking positions, each of which provides a different fan pattern. For example, setting the Air Cap vertically renders a horizontal fan pattern. Refer to Figure 1 below for fan pattern selection.

Figure 1



The vertical fan pattern (Fig. 1 left) is used to paint side to side. The horizontal fan pattern (Fig. 1 center) to paint up and down. The circular pattern (Fig 1 right) is used for corners and other small areas.

b. Open the Air Control Valve. Turn the Air Control Valve (Fig 8 Item 11) fully clockwise to shut the air passageway. To open turn the Air Control Valve counter clockwise at least 2 revolutions.

c. Turn the Turbine unit ON. Plug Turbine unit into a power source that complies with the guidelines on page 3. Turn the ON/OFF Switch (Fig 7 Item 3) to the ON position.

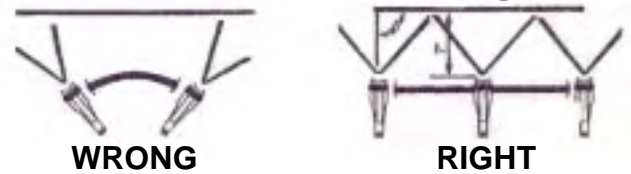
d. Adjust fan width. The fan width is adjusted by turning the Fluid Control Valve. When the Fluid Control Valve is fully clockwise, the fluid supply is shut off. This also acts as a gun safety. Slowly turn the Fluid Control Valve counter clockwise until the desired fan width is achieved. The maximum fan width is approximately 10 inch.

e. Adjust Air Control Valve. Turn the Air Control Valve counter clockwise to increase and clockwise to decrease air flow.

f. Spray Technique. When spraying there are a few rules to follow in order to get a good spray finish. They include:

- i. Keep the gun perpendicular (square) to the surface being painted.
- ii. Maintain a constant distance between the gun and the project surface. Fan pattern width can also be affected by changing the gun distance from the surface.

Figure 2



- iii. Overlap each spray pass over the previous pass.
- iv. Spray several thin coats, allowing for ample drying time between coats. Sand and clean as necessary between coats.

g. Practice. Make several practice spray passes on cardboard or scrap wood. Modify the Fluid and Air Control Valve settings to improve the spray pattern. If necessary adjust the coating viscosity (by thinning or adding more product) or changing the Needle/Nozzle Set and/or Air Cap.

h. Maintain Records. Once you have arrived at a satisfactory spray pattern, document the coating name, percentage thinned, Needle/Nozzle Set, Air Cap, Fluid and Air Control Valve Settings. This will significantly reduce set up time on later jobs.

NOTE: In the Standard set up the Air Hose from the Turbine is attached to the Gun Handle. However the Air Control Valve can be removed and the Air Hose can be attached there. This is advantageous when spraying in tight spaces. When the Air connection moved, a plug must be placed in the Gun Handle. See Figure 8 Item 9.

MAINTENANCE

1. Daily Clean Up.

As with all equipment, good clean up and periodic maintenance are required to keep your HVLP in good working order for the maximum amount of time. The following procedures should be completed at the end of every working day.

- a. Remove the cup from the gun, by sliding the locking lever (Fig 8 Item 28) to the right, then twisting the cup clockwise.
- b. Pour any remaining unthinned coating in the cup, back into the original coatings container. If coating is thinned, store in a separate container.
- c. Rinse out the cup with the appropriate solvent. For example if spraying with lacquer, rinse with lacquer thinner.
- d. Inspect the Cup Gasket (Fig 8 Item 31). Replace if necessary.
- e. Fill cup partially with the appropriate solvent and reattach the cup to the gun. Then spray the solvent out of the gun, in order to flush the fluid passageways.
- f. Remove the Air Cap (Fig 8 Item 2) from the gun and clean.
- g. Clean Fluid Nozzle (Fig 8 Item 3) and Fluid Needle (Fig 8 Item 25) with a small brush and solvent.

2. Periodic Clean Up.

Occasionally it is necessary to deep clean the gun and filters. This should be done at the end of every job, or when the unit will not be used for a while. If the unit is being used daily, complete the following procedure every 50 hours.

- a. Do the Daily Clean Up Procedures.
- b. Clean the Fluid Nozzle and Needle.

FLUID NOZZLE AND NEEDLE REMOVAL PROCEDURE

- i. Unscrew the Fluid Control Valve (Fig 8 Item 24) and remove the Needle Spring

(Fig 8 Item 22).

- ii. Use the special wrench to loosen the Gland Nut (Fig 8 Item 17). Be careful not to completely loosen the Gland Nut, as this greatly increases the chances to misplace the Gland Seal (Fig 8 Item 16) and Gland Nut, when the Fluid Needle is removed.
- iii. Pull the Fluid Needle (Fig 8 Item 25) out of the gun body.
- iv. Unscrew the Air Cap Ring (Fig 8 Item 1) and remove the Air Cap (Fig 8 Item 2), Air Cap Plate (Fig 8 Item 12), Air Cap Spring (Fig 8 Item 13). Clean as required.
- v. Use the special wrench to remove the Fluid Nozzle (Fig 8 Item 3) and Washer (Fig 8 Item 4) from the Gun Body.
- vi. Clean the Fluid Nozzle and Fluid Needle with a small brush and solvent.

FLUID NOZZLE AND NEEDLE INSTALLATION PROCEDURE

- i. Using the special HVLP wrench, re-mount the Fluid Nozzle and Washer to the Gun Body.
- ii. Place a little lightweight oil on the Needle Spring and Gland Seal. Ensure that the Gland Nut is loose enough so that the Fluid Needle can pass through it.
- iii. Slide the lightly oiled Fluid Needle through the Gun Body and Gland Seal, then into the Fluid Nozzle.
- iv. Tighten the Gland Nut until the Fluid Needle will not slide, then back off the Gland Nut about 1/8 of a turn.
- v. Place the Needle Spring over the Fluid Needle and into the Gun Body.
- vi. Screw the Fluid Control Valve over the Fluid Needle and into the Gun Body.
- vii. Reinstall the Air Cap Spring, Air Cap Plate, Air Cap and Air Cap Retaining Ring, as described in Daily Clean Up.

MAINTENANCE

c. Lubricate all threads.

d. Clean and inspect Turbine Air Filters.

Excessive paint build up on the filters, restricts air flow to the Turbine, which greatly reduces the Turbine's lifespan.

i. HVLP 310 Foam Filters.

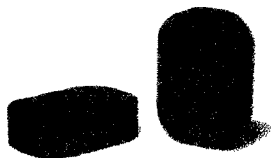
These solid foam filters can be rinsed out with water or blown clean with compressed air. If the filters are covered with excessive paint build up, it is imperative to replace them.

ii. HVLP 410 Plus Cartridge Filter with Foam Prefilter.

The prefilters are cleaned same as the solid foam filters, while the cartridge filter is compressed air clean only.

FOAM FILTER REPLACEMENT PROCEDURE

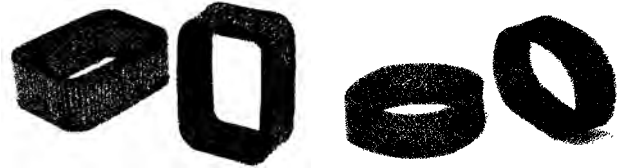
Figure 3



1. Remove the two retaining nuts (Fig 5 Item 1) and washers (Fig 5 Item 2).
2. Slide the Foam Filter off the mounting bolts..
3. Clean or replace as required.
4. Slide the cleaned or new Foam Filter over the mounting bolts.
5. Secure Filter with the two retaining nuts and washers.

CARTRIDGE FILTER WITH FOAM PREFILTER REPLACEMENT PROCEDURE

Figure 4



1. Remove the two retaining nuts (Fig 6 Item 2) and retangle cover (Fig 6 Item 3).
 2. Slide the Foam Prefilter off the Cartridge Filter.
 3. Clean or replace as required.
 4. Slide the Cartridge Filter off the mounting bolts.
 5. Clean or replace as required.
 6. Place the cleaned or new Cartridge Filter and Foam Prefilter over the mounting bolts.
 7. Secure Filter with the two retaining nuts and cover.
- e. Turbine Unit.
The Turbine unit is self contained and requires no preventative maintenance.

f. Maintain good records.

Use the maintenance log located on page 15, to document the unit spray hours, so that the periodic maintenance is completed as required.

NOTE: The Maintenance Log is set up to help record the coating, thinning, Needle/ Nozzle/Air Cap, Air and Fluid Control Valve settings that were used.

TROUBLESHOOTING

Equipment Related Problems:

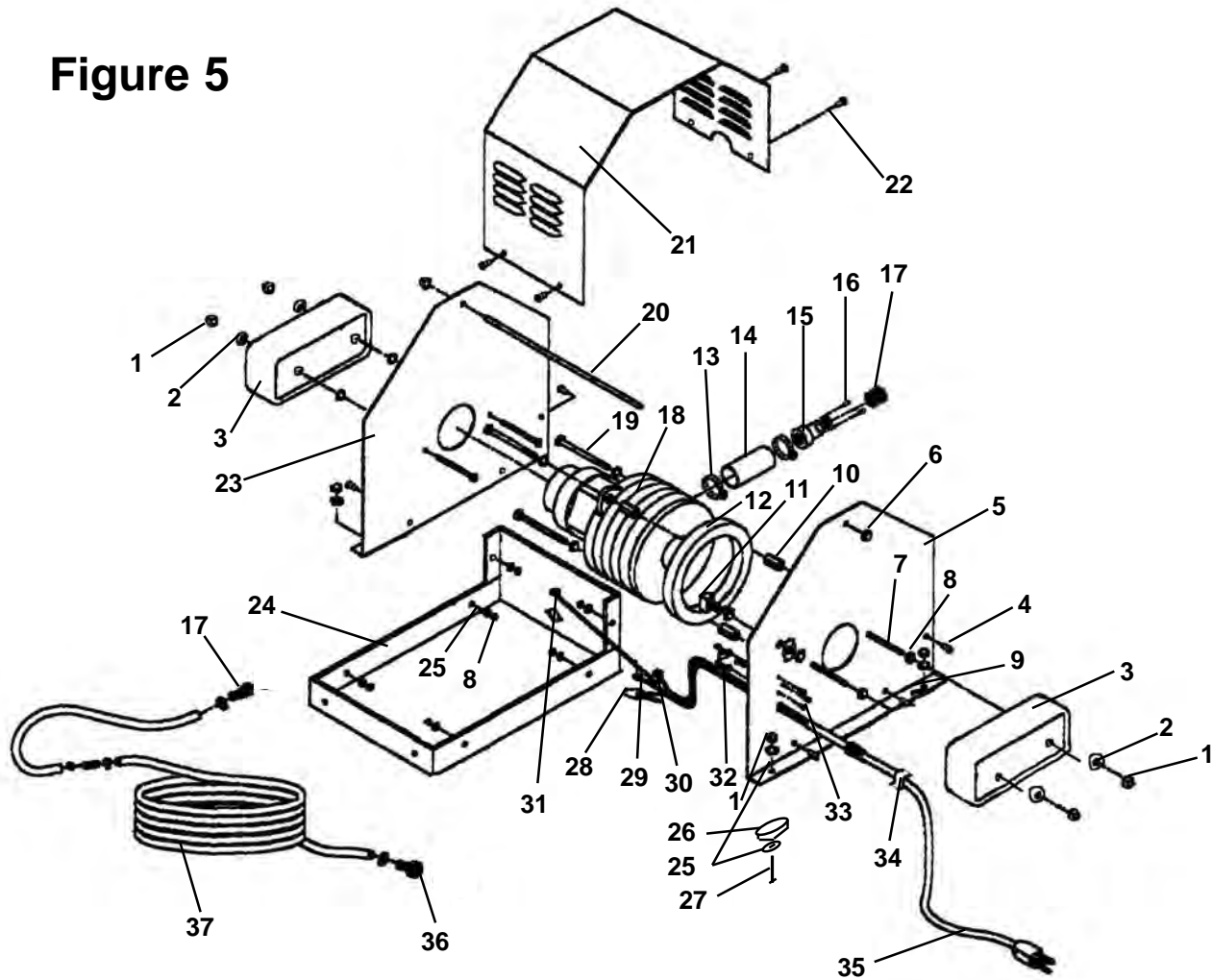
<u>SYMPTOM</u>	<u>CAUSE</u>
No Spray Pressure	<ol style="list-style-type: none">1. Turbine is in OFF position.2. No Coating in Cup.3. Airleak<ol style="list-style-type: none">a. Defective or Missing Cup Gasket.b. Gun Cup Loose.4. Check Valve Defective or Plugged.5. Pick Up Tube Plugged.6. Nozzle Plugged.
Uneven Spray Pattern	<ol style="list-style-type: none">1. Insufficient Air Flow<ol style="list-style-type: none">a. Turbine Undersized.b. Air or Fluid Passage ways or Nozzles Plugged.

Application or Coatings Related Problems:

	<ol style="list-style-type: none">2. Spray Pass not perpendicular or at a constant distance from the surface.
Excessive Overspray	<ol style="list-style-type: none">1. Spray Pass is too far from surface.2. Excessive Air and/or Fluid Flow.3. Needle/Nozzle/Air Cap is oversized.
The Dried Finish is uneven (Orange Peel)	<ol style="list-style-type: none">1. The coating is too thick.2. The Spray Pass is too slow.3. Air filters are clogged.
The Dried Finish is thin or cloudy (Dry Mist)	<ol style="list-style-type: none">1. The coating is too thick.2. The Spray Pass is too fast.3. The Spray Pass is too far from the surface.4. The Fluid Flow is insufficient.

TURBINE ASSEMBLY (3 Stage)

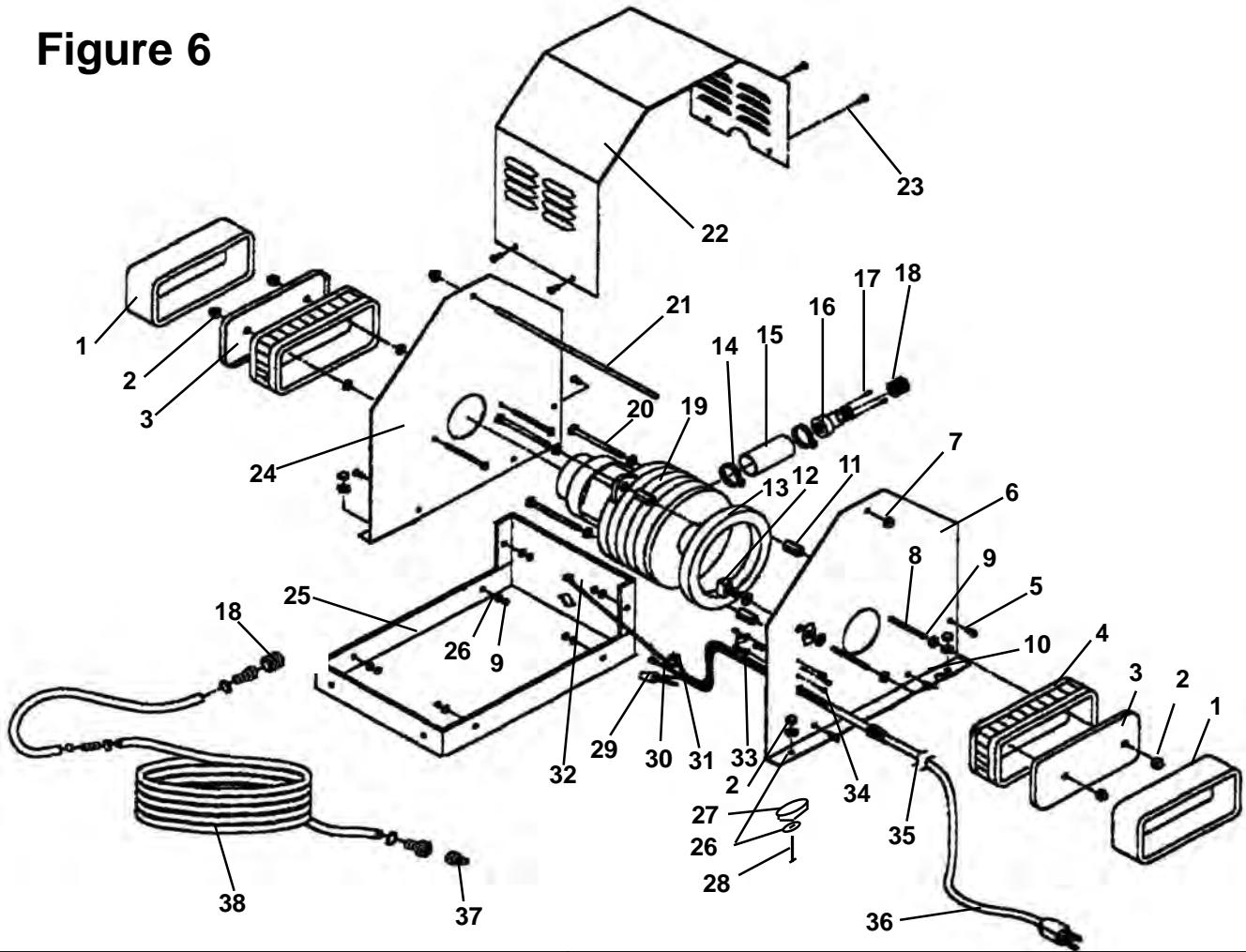
Figure 5



ITEM No.	PART No.	DESCRIPTION	ITEM No.	PART No.	DESCRIPTION
1	200-203	Cap Nut	20	200-198	Handle
2	200-221	Washer	21	200-197	Cover
3	200-211	Foam Filter	22	200-191	Screw
4	200-196	Screw	23	200-194	Plate-Right End
5	200-170	Plate-Left End	24	200-190	Base
6	200-199	Cap-Handle	25	200-195	Washer
7	200-182	Screw	26	200-204	Foot Pad
8	200-183	Nut	27	200-206	Screw
9	200-196	Screw	28	200-178	Connector-Wire
10	200-184	Screw	29	200-177	Terminal-Wire
11	200-171	Switch & Plate	30	200-179	Terminal-Ground Large Eye
12	200-185	Gasket	31	200-180	Terminal-Ground Small Eye
13	200-192	Hose Clamp	32	200-174	Clamp-Cable
14	200-193	Hose-Turbine Exhaust	33	200-175	Screw
15	200-188	Adapter-Female	34	200-173	Grommet-Cable
16	200-175	Screw	35	200-172	Power Cord (110V)
17	200-212	Q.D. Connector-Fem.		200-207	Power Cord (220V)
18	200-187	Turbine 3 Stage (110V)	36	200-222	Connector-Threaded
	200-208	Turbine 3 Stage (220V)	37	200-214	Air Hose Assembly Complete
19	200-186	Screw			

TURBINE ASSEMBLY (4 Stage)

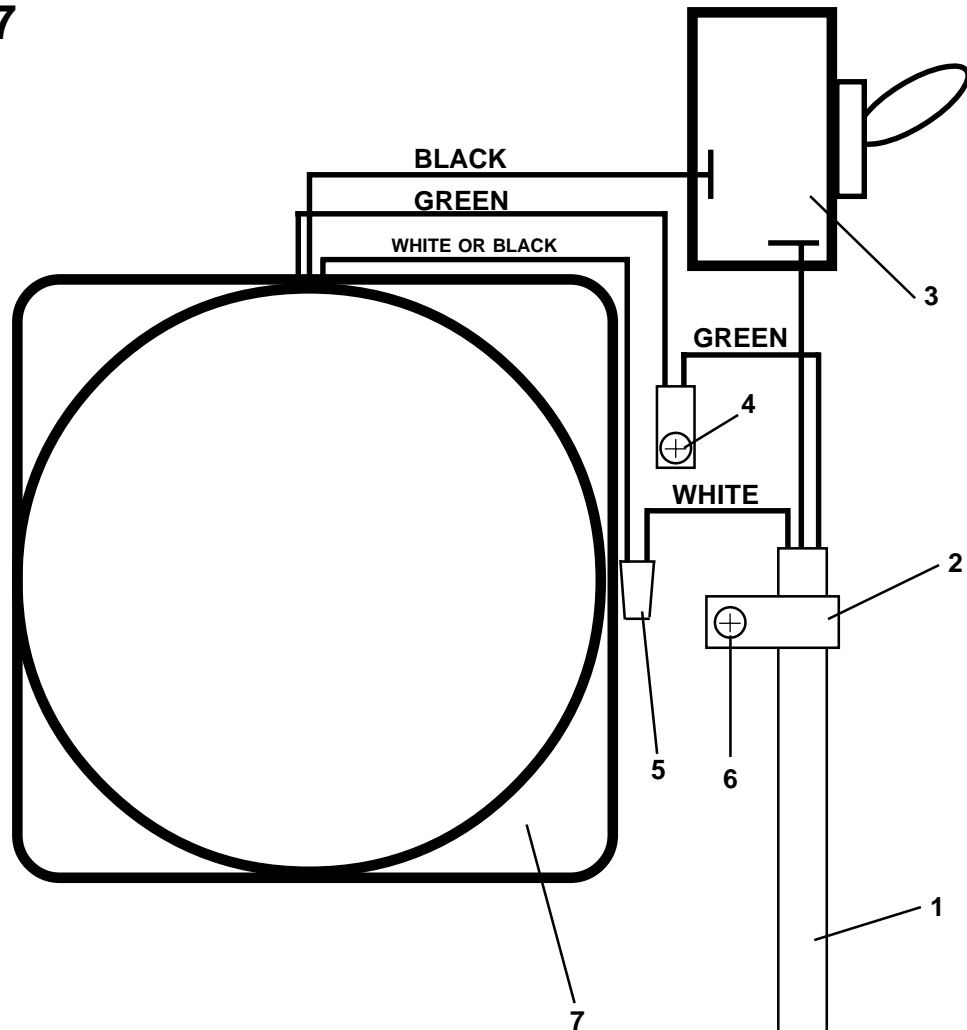
Figure 6



ITEM No.	PART No.	DESCRIPTION	ITEM No.	PART No.	DESCRIPTION
1	200-201	Foam PreFilter	20	200-186	Screw
2	200-203	Cap Nut	21	200-198	Handle
3	200-202	Cover-Filter	22	200-197	Cover
4	200-200	Filter-Cartridge	23	200-191	Screw
5	200-196	Screw	24	200-194	Plate-Right End
6	200-170	Plate-Left End	25	200-190	Base
7	200-199	Cap-Handle	26	200-195	Washer
8	200-182	Screw	27	200-204	Foot Pad
9	200-183	Nut	28	200-206	Screw
10	200-196	Screw	29	200-178	Connector-Wire
11	200-184	Screw	30	200-177	Terminal-Wire
12	200-171	Switch & Plate	31	200-179	Terminal-Ground Large Eye
13	200-185	Gasket	32	200-180	Terminal-Ground Small Eye
14	200-192	Hose Clamp	33	200-174	Clamp-Cable
15	200-193	Hose-Turbine Exhaust	34	200-175	Screw
16	200-188	Adapter-Female	35	200-173	Grommet-Cable
17	200-175	Screw	36	200-172	Power Cord (110V)
18	200-212	Q.D. Connector-Fem.		200-207	Power Cord (220V)
19	200-209	Turbine 4 Stage (110V)	37	200-213	Q.D. Connector-Male
	200-210	Turbine 4 Stage (220V)	38	200-214	Air Hose Assembly Complete

ELECTRICAL WIRING DIAGRAM

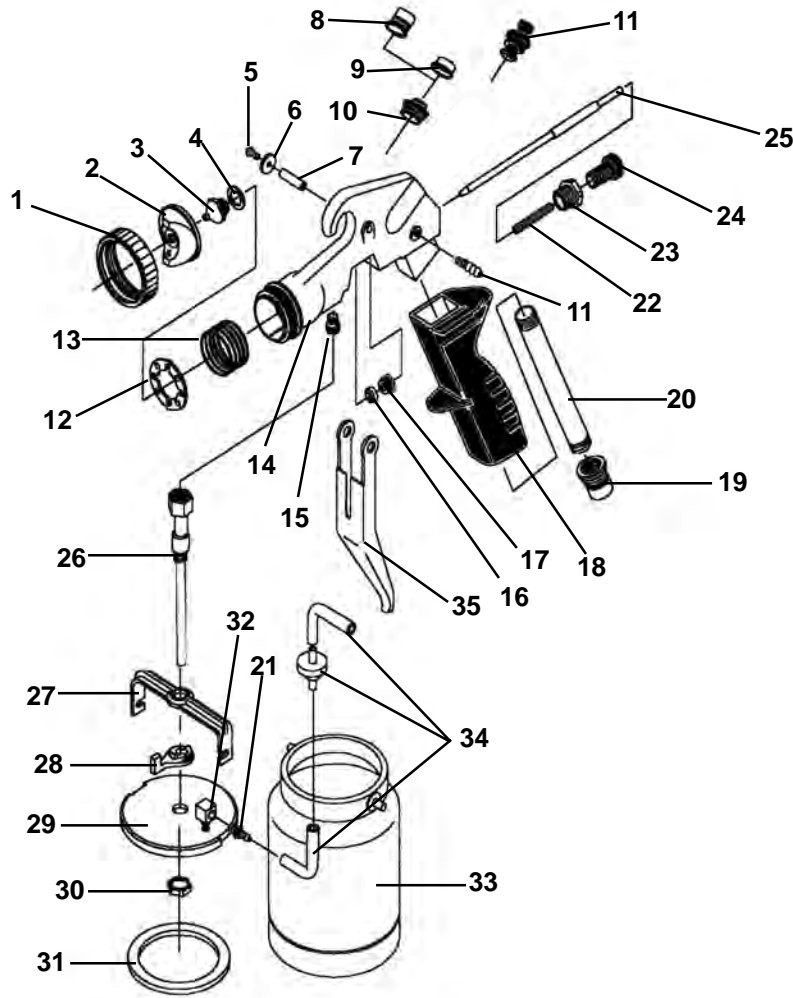
Figure 7



ITEM No.	PART No.	DESCRIPTION
1	200-172	Power Cord (110V)
	200-207	Power Cord (220V)
2	200-174	Clamp-Cable
3	200-171	Toggle Switch
4	200-223	Screw-Ground
5	200-178	Connector-Wire
6	200-175	Screw
7	200-187	Turbine 3 Stage (110V)
	200-208	Turbine 3 Stage (220V)
	200-209	Turbine 4 Stage (110V)
	200-210	Turbine 4 Stage (220V)

STANDARD GUN (P.N. 200-164)

Figure 8



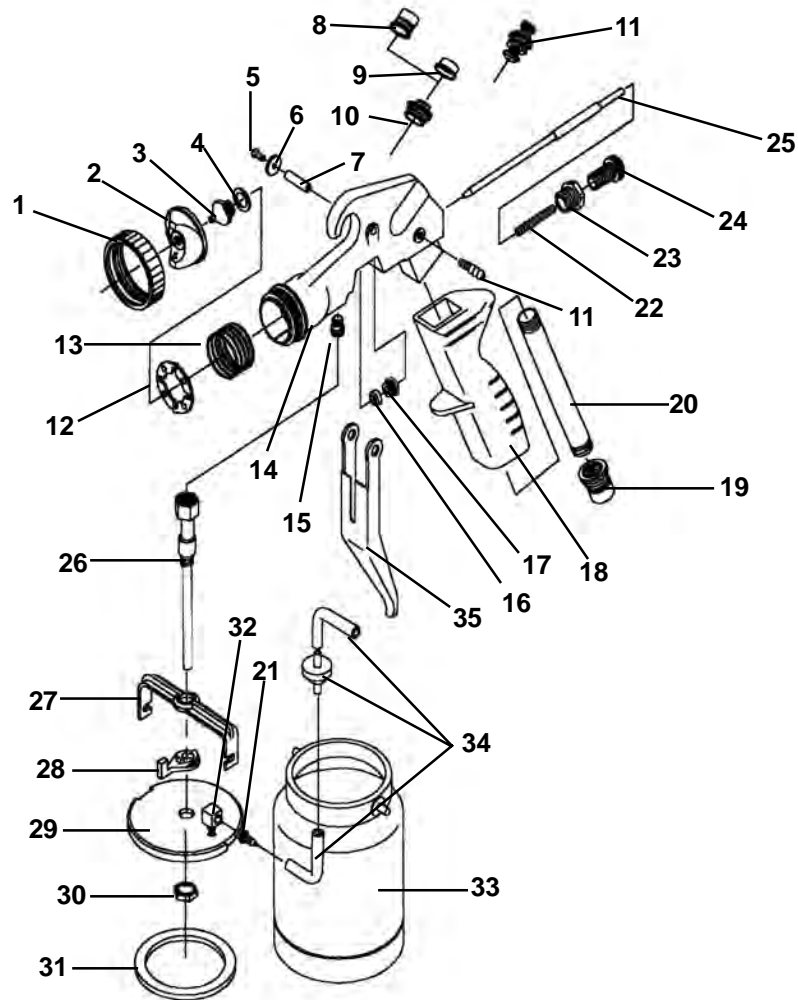
* Optional

ITEM No.	PART No.	DESCRIPTION	ITEM No.	PART No.	DESCRIPTION
1	200-120	Air Cap Ring	18	200-165	Gun Handle Plastic
2	200-121	Air Cap #1	19	200-149	QD Connector-Male
	200-122	Air Cap #2	20	200-148	Tube-Handle
3	200-125	Fluid Nozzle- #1	21	200-131	Connector-Air Feed
	200-126	Fluid Nozzle- #2	22	200-144	Spring-Needle
	200-127	Fluid Nozzle- #3	23	200-145	Insert-Fluid Control
	200-128	Fluid Nozzle- #4	24	200-146	Valve-Fluid Control
	200-129	Fluid Nozzle- #5	25	200-139	Fluid Needle- #1
4	200-130	Gasket-Fluid Nozzle		200-140	Fluid Needle- #2
5	200-134	Screw-Trigger Pivot		200-141	Fluid Needle- #3
6	200-135	Washer-Trigger Screw		200-142	Fluid Needle- #4
7	200-133	Bushing-Trigger		200-143	Fluid Needle- #5
8	200-149	QD Connector-Male*	26	200-154	Tube-Pick Up
9	200-138	Plug-Air Blanking*	27	200-155	Yoke
10	200-137	Insert-Air Control	28	200-156	Lever
11	200-136	Valve-Air Control	29	200-157	Lid-Cup
12	200-123	Plate-Air Distributor	30	200-159	Locking Nut-Cup Top
13	200-124	Spring-Air Distributor	31	200-160	Gasket-Cup Top
14	200-132	Gun Body	32	200-158	Elbow
15	200-162	Connector-Fluid 3/8"	33	200-161	Cup
16	200-150	Seal-Gland	34	200-153	Check Valve-Air Feed with Tubes
17	200-151	Nut-Gland	35	200-152	Trigger

DELUXE GUN

(P.N. 200-163)

Figure 9



* Optional

ITEM No.	PART No.	DESCRIPTION	ITEM No.	PART No.	DESCRIPTION
1	200-120	Air Cap Ring	18	200-147	Gun Handle Metal
2	200-121	Air Cap #1	19	200-149	QD Connector-Male
	200-122	Air Cap #2	20	200-148	Tube-Handle
3	200-125	Fluid Nozzle- .75mm	21	200-131	Connector-Air Feed
	200-126	Fluid Nozzle- 1.0mm	22	200-144	Spring-Needle
	200-127	Fluid Nozzle- 1.5mm	23	200-145	Insert-Fluid Control
	200-128	Fluid Nozzle- 2.0mm	24	200-146	Valve-Fluid Control
	200-129	Fluid Nozzle- 2.5mm	25	200-139	Fluid Needle- #1
4	200-130	Gasket-Fluid Nozzle		200-140	Fluid Needle- #2
5	200-134	Screw-Trigger Pivot		200-141	Fluid Needle- #3
6	200-135	Washer-Trigger Screw		200-142	Fluid Needle- #4
7	200-133	Bushing-Trigger		200-143	Fluid Needle- #5
8	200-149	QD Connector-Male*	26	200-154	Tube-Pick Up
9	200-138	Plug-Air Blanking*	27	200-155	Yoke
10	200-137	Insert-Air Control	28	200-156	Lever
11	200-136	Valve-Air Control	29	200-157	Lid-Cup
12	200-123	Plate-Air Distributor	30	200-159	Locking Nut-Cup Top
13	200-124	Spring-Air Distributor	31	200-160	Gasket-Cup Top
14	200-132	Gun Body	32	200-158	Elbow
15	200-162	Connector-Fluid 3/8"	33	200-161	Cup
16	200-150	Seal-Gland	34	200-153	Check Valve-Air Feed with Tubes
17	200-151	Nut-Gland	35	200-152	Trigger

ACCESSORIES



Needle/Nozzle/Air Cap Set (PN 200-218)



Maintenance Kit (PN 200-219)



Y Connector For 2 Gun Operations) (PN 200-217)



Viscosity Cup (PN 200-220)

