

Apollo Sprayers International, Inc.

Two Year Limited Warranty

This machine and Equipment is **WARRANTED** by **APOLLO SPRAYERS INTERNATIONAL, INC.** for a total period of **TWO YEARS** on a **PRO-RATED** Basis (see schedule below) from the **ORIGINAL** date of purchase by the **ORIGINAL PURCHASER**. Proof of purchase to be included and all **SHIPPING CHARGES** to be pre-paid.

APOLLO SPRAYERS INTERNATIONAL, INC. upon examination of the machine/equipment will replace or repair at their discretion any defects in material or workmanship.

WARRANTY SCHEDULE

First Six Months	Parts NO CHARGE	Labor	NO CHARGE
Second Six Months	Parts NO CHARGE	Labor	CHARGED
Third Six Months	Parts CHARGED AT 50% of MSRP	Labor	CHARGED
Fourth (FINAL)Six Months	Parts CHARGED AT 75% of MSRP	Labor	CHARGED

Labor will be **CHARGED** at the current hourly rate, or specified Job Rate.

This **WARRANTY** does **NOT** include: mis-use, damage, neglect, alterations, disassembled equipment or modifications, lack of maintenance, cleaning, water damage to electrical parts, **INCORRECT VOLTAGE CONNECTION**. This **WARRANTY** is in lieu of all other express warranties, any **WARRANTY** implied by law, including but not limited to implied Warranties of merchantability or fitness, is excluded to the maximum extent permitted by law and, if not excludable, is limited to the duration of the express Warranty. No representative or person is authorized to extend this Warranty or to create for **APOLLO SPRAYERS INTERNATIONAL, INC.** any other liability in connection with the sale of any **APOLLO SPRAYERS INTERNATIONAL, INC.** product. **APOLLO SPRAYERS INTERNATIONAL, INC.** shall not be liable for any consequential, incidental, or special damages of any kind directly or indirectly resulting from breach of any express or implied Warranty. Some States do allow the exclusion of limitation of incidental or consequential damages or limitations on the length of any Warranty so that the above limitations and exclusions may not apply to you; however, to the maximum extent permitted under applicable law, the only rights and remedies shall be to obtain a replacement for any defective product. This Warranty gives you specific legal rights and you may also have other rights which vary from State to State.

Your Local Distributor for Parts and Service:

Advanced Machinery
PO Box 312
New Castle, DE 19720
1.800.727.6553
www.advmachinery.com

Never spray in an unventilated area. Never carry any of the turbine units while spraying. Keep the machine well away from any flammable materials. Always wear a mask or respirator in accordance with O.S. H. A. requirements. All Apollo Sprayers meet or exceed all government codes for transfer efficiency.

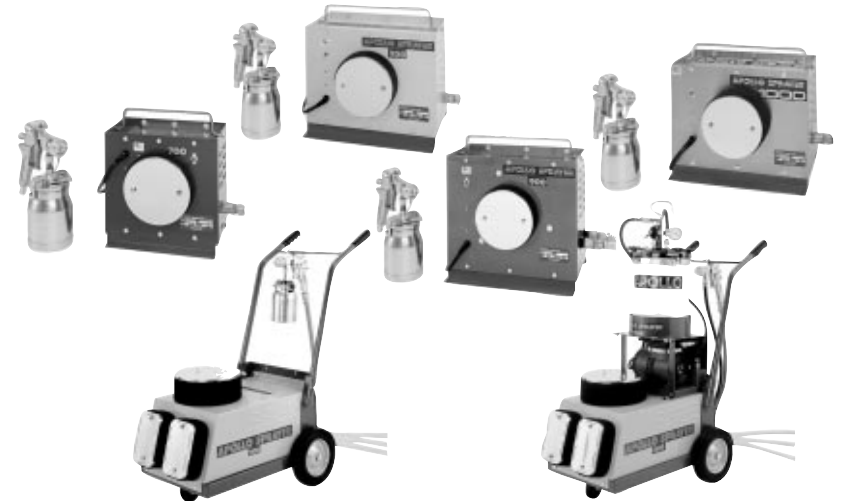
All Apollo sprayers are engineered and designed to work hard with virtually no maintenance. All electrical components are UL and C.S.A. listed. All components are high quality and made to last. Designed and manufactured in Vista, California, U.S.A.

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APOLLOSPRAY®

HIGH VOLUME LOW PRESSURE

SPRAY FINISHING SYSTEMS



INSTRUCTION MANUAL

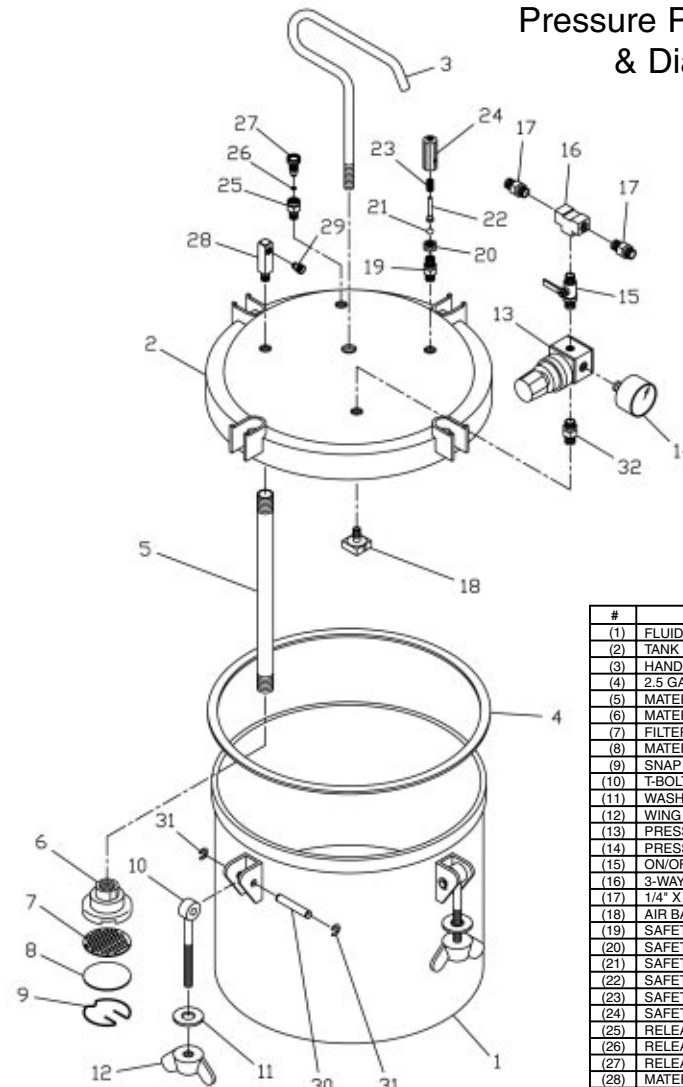
APOLLO SPRAYERS INTERNATIONAL, INC.

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A4113 DIAGRAM 6

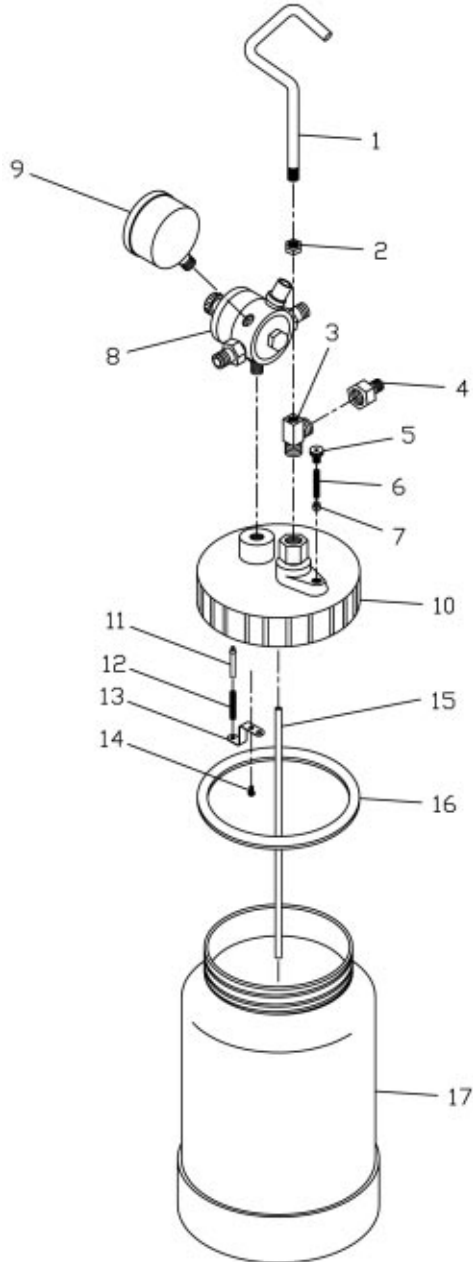
A4113 - 2.5 Gallon (10 Liter) Pressure Pot Parts List & Diagram



#	DESCRIPTION	PART #
(1)	FLUID TANK	A4901
(2)	TANK LID	A4902
(3)	HANDLE	A4903
(4)	2.5 GAL. (10 LTR.)TANK GASKET	A4904
(5)	MATERIAL PICKUP TUBE	A4905
(6)	MATERIAL FILTER HOUSING	A4906
(7)	FILTER BASE	A4907
(8)	MATERIAL FILTER ELEMENT	A4908
(9)	SNAP RING	A4909
(10)	T-BOLT	A4910
(11)	WASHER	A4911
(12)	WING NUT	A4912
(13)	PRESSURE REGULATOR	A4913
(14)	PRESSURE GAUGE	A4914
(15)	ON/OFF VALVE	A4915
(16)	3-WAY BLOCK	A4916
(17)	1/4" X 1/4" ADAPTER	A4917
(18)	AIR BACK-FLOW BLOCK	A4918
(19)	SAFETY VALVE ADAPTER	A4919
(20)	SAFETY VALVE NUT	A4920
(21)	SAFETY VALVE STEEL BALL	A4921
(22)	SAFETY VALVE NEEDLE ROD	A4922
(23)	SAFETY VALVE SPRING	A4923
(24)	SAFETY VALVE HOUSING	A4924
(25)	RELEASE VALVE ADAPTER	A4925
(26)	RELEASE VALVE "O"-RING	A4926
(27)	RELEASE VALVE	A4927
(28)	MATERIAL OUTLET ADAPTER	A4928
(29)	FLUID HOSE ADAPTER	A4929
(30)	COTTER PIN	A4930
(31)	C-SNAP RING	A4931
(32)	REGULATOR LID ADAPTER	A4932

A4200 DIAGRAM 5

A4200- 2 Quart (2 Liter) Pressure Pot Parts List & Diagram



#	DESCRIPTION	PART #
(1)	HANDLE	A4601
(2)	HANDLE LOCK NUT	A4602
(3)	FLUID OUTLET	A4603
(4)	FLUID ADAPTER	A4150
(5)	RELIEF VALVE STEM	A4608
(6)	RELIEF VALVE SPRING	A4615
(7)	RELIEF VALVE PLUG	A4617
(8)	AIR REGULATOR ASSEMBLY	A4607
(9)	0-30 PSI PRESSURE GAUGE	A4211
(10)	CUP TOP CASTING ASSEMBLY	A4604
(11)	CHECK VALVE	A4605
(12)	CHECK VALVE SPRING	A4612
(13)	CHECK VALVE BRACKET	A4613
(14)	CHECK VALVE SCREW	A4614
(15)	MATERIAL PICKUP TUBE, S.S.	A4610
(16)	CUP TOP GASKET	A4609
(17)	2-QUART CUP WITH TEFLON	A4611

SAFETY 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 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 length less than:	Use extension gauge:
25ft	16AWG
50ft	14AWG
100ft	12AWG
150ft	10AWG

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
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-”	Carbon tetrachloride	Trichloroethylene	Orthodichlorobenzene
Bromine (Br) “-bromo-”	Chloroform	Monochlorotoluene	Parochloroethylene
Examples (not all-inclusive):	Ethylene Dichloride	Chlorine (CL) “-chloro-”	IODINATED SOLVENTS:
FLUOROCARBON SOLVENTS:	BROMINATED SOLVENTS:	Iodine (I) “-iodo-”	N-butyl iodide
Dichlorofluoromethane	Ethylene Dibromide	METHYLENE CHLORIDE	Methyl iodide
Trichlorofluoromethane	Methylene chlorobromide	OR	Ethyl iodide
CHLORINATED SOLVENTS:	Methyl bromine	DICHLOROMOETHANE	Propyl iodide
	TRICHLOROETHANE:	Monochlorobenzene	

APOLLOSPRAY®

Multi-Task™ SPRAY FINISHING SYSTEMS

CONGRATULATIONS!! You have just purchased the finest HVLP air turbine system available. You are about to enjoy the great benefits of your ApolloSpray Multi-Task™ spray finishing system. Our product designs are the result of many years of experience in manufacturing HVLP spray equipment. We have painstakingly worked and consulted with professional spray finishers and coatings manufacturers to bring you this versatile, well-engineered tool.

Whether you are new to spray finishing, or you have spray finished previously, or, you are just new to HVLP spraying, there are some basic spray finishing guidelines that will help you to achieve the best results and optimum success from your new equipment. Reading this information carefully and following these simple steps will ensure that you get the best performance and results from your new Apollo HVLP spray system.

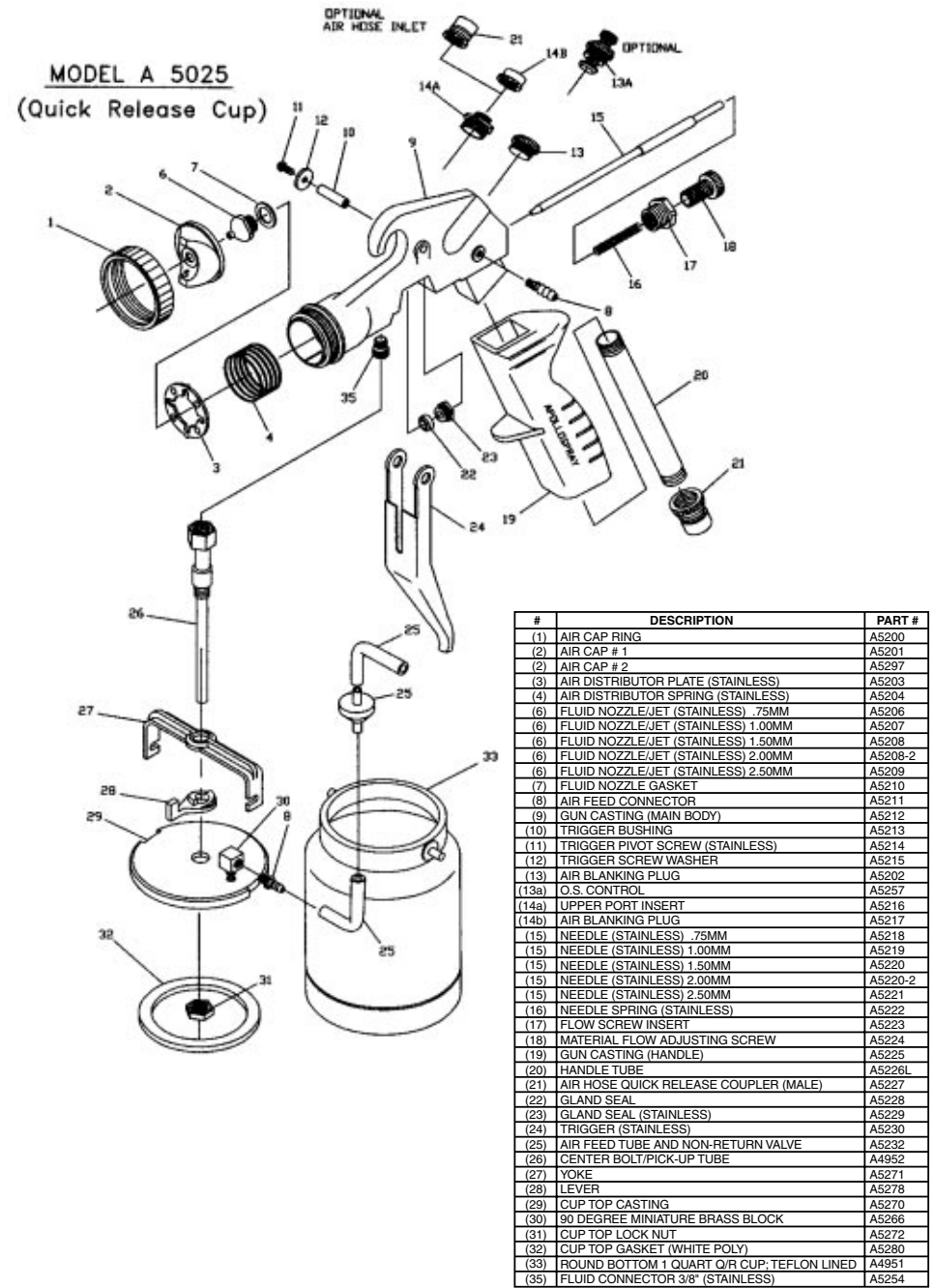
Check the contents of your box. The following are included:

- Turbine unit
- Slim-Flex™ air hose
- Spray Gun
- Instruction Manual

How Your Apollo Turbine System Works

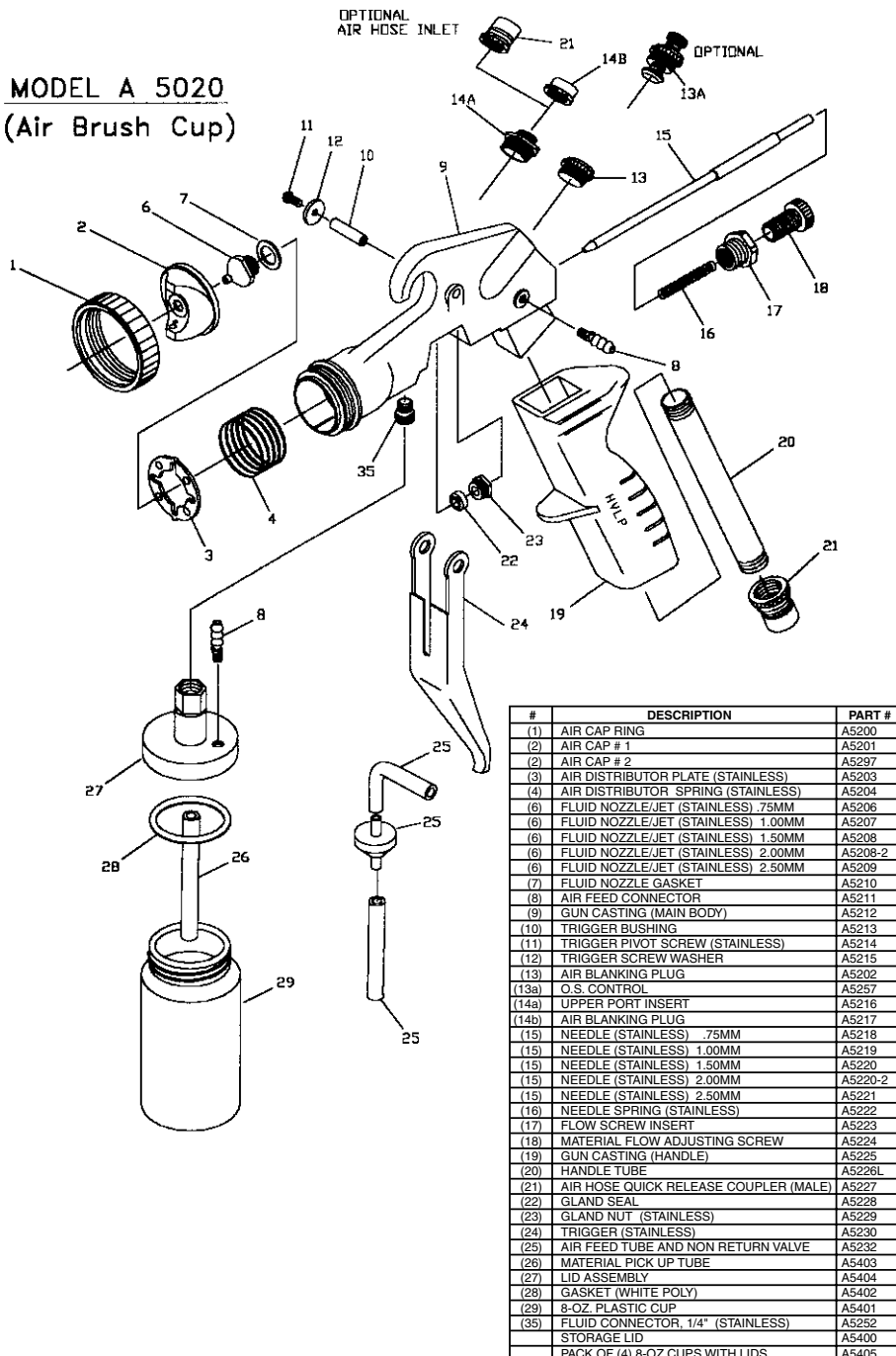
Your turbine system has three components: the turbine unit, the air hose and the spray gun. The turbine unit, when connected to the correct electrical power supply, and with the on/off switch in the “on” position provides a continuous source of clean, warm, dry, **High Volume Low Pressure** air (as measured in cubic feet per minute - CFM). The air hose connects the turbine unit to the spray gun. Air flows through the air hose to the nozzle of the specially designed Apollo Multi-Task™ spray gun. Atomization of the coating is achieved when the air mixes with the stream of fluid passing through the tip/nozzle. This low pressure atomization principle achieves minimum misting (overspray) to the spray environment.

A5025 DIAGRAM 4



A5020 DIAGRAM 3

MODEL A 5020 (Air Brush Cup)



APOLLO Multi-Task™ TURBINE SPRAY GUNS



A5010
BAYONET CUP

A5010L
BAYONET CUP

A5025
ROUND
BOTTOM
CUP

A5005
PRODUCTION GUN

HOW YOUR APOLLO SPRAY GUN WORKS

Apollo HVLP Multi-Task™ Turbine Spray Guns are **bleeder** type spray guns. When the turbine is turned on, air will constantly flow through the air cap (#2). This ensures the longevity of your equipment. Air also flows through the air feed tube (#25) to pressurize the cup to deliver fluid to the tip/nozzle (#6). When the paint flow screw (#18) is opened and the trigger (#24) pulled back, fluid flows through the tip/nozzle mixing with the air flow delivered from the air cap and projects a fine atomized mist to your work piece.



A5005L
PRODUCTION GUN



A5020
8oz CUP

Your spray gun offers you many options. You can adjust (click) the air cap (#2) to three positions. One will produce a horizontal pattern for spraying across, the second will produce a vertical pattern for spraying up and down, and the third will produce a round pattern to spray small or narrow pieces.

SPRAY PATTERN

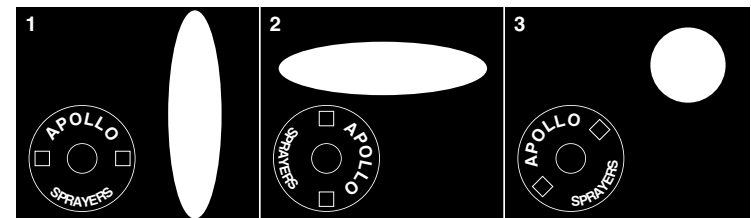


Fig. 1 Use this position when spraying across from side to side.

Fig. 2 Use this position when spraying from top to bottom.

Fig. 3 Use this position for spotting small objects, corners and sharp angles.

APOLLO TURBINE UNITS



MODEL 700—2 Stage motor 4.5psi (.31 bar) 14' (4.26m) Slim-Flex™ air hose, Apollo HVLP Spray Gun. 32lbs (14.5kg), 110v, 60Hz, 10amps, 1.5hp. (240v, 50Hz, 5amps).



MODEL 800—3 Stage motor, 5.5psi (.37 bar) 24' (7.31m) Slim-Flex™ air hose, Apollo HVLP Spray Gun. 41lbs (18.6kg), 110v, 60Hz, 11amps, 1.65hp. (240v, 50Hz, 5.5amps).



MODEL 900—3 Stage motor, 6.0psi (.41 bar) 34' (10.36m) Slim-Flex™ air hose, Apollo HVLP Spray Gun. 50lbs (22.7kg), 110v, 60Hz, 12amps, 1.75hp. (240v, 50Hz, 6amps).



MODEL 1000—4 Stage motor, 8.0psi (.55bar) 34' (10.36m) Slim-Flex™ air hose, Apollo HVLP Spray Gun. 40lbs (18.2kg), 110v, 60Hz, 13amps, 1.85hp. (240v, 50Hz, 6.5amps).



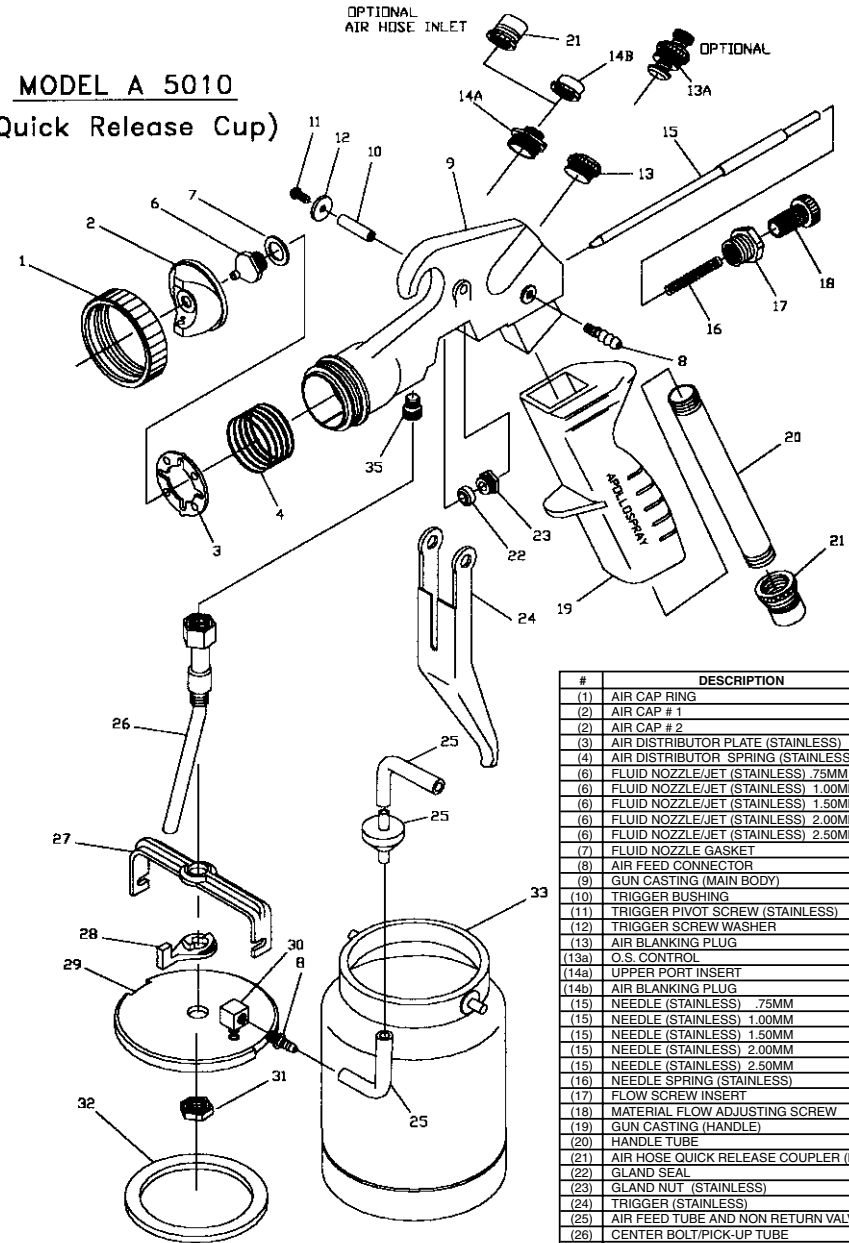
MODEL 1100—Dual Turbines, 3.5 - 10psi. (24 bar, 41 bar, 69 bar) 44' (13.41m) Slim-Flex™ air hose, Apollo HVLP Spray Gun. 77lbs (35kg), 110v, 60Hz, 15amps, 2.6hp. (240v, 50Hz, 7.5amps).



MODEL 1200—Dual Turbines, 3.5 - 10psi. (24 bar, 41 bar, 69 bar) 44' (13.41m) Slim-Flex™ air hose, 40' (12.19m) Fluid Hose, 2.5 gallon (10 Liter) Pressure Pot, Platform, Fluid Feed System, Apollo HVLP Spray Gun. 107lbs (48.54kg), 110v, 60Hz, 15amps, 2.6hp. (240v, 50Hz, 7.5amps).

A5010 DIAGRAM 2

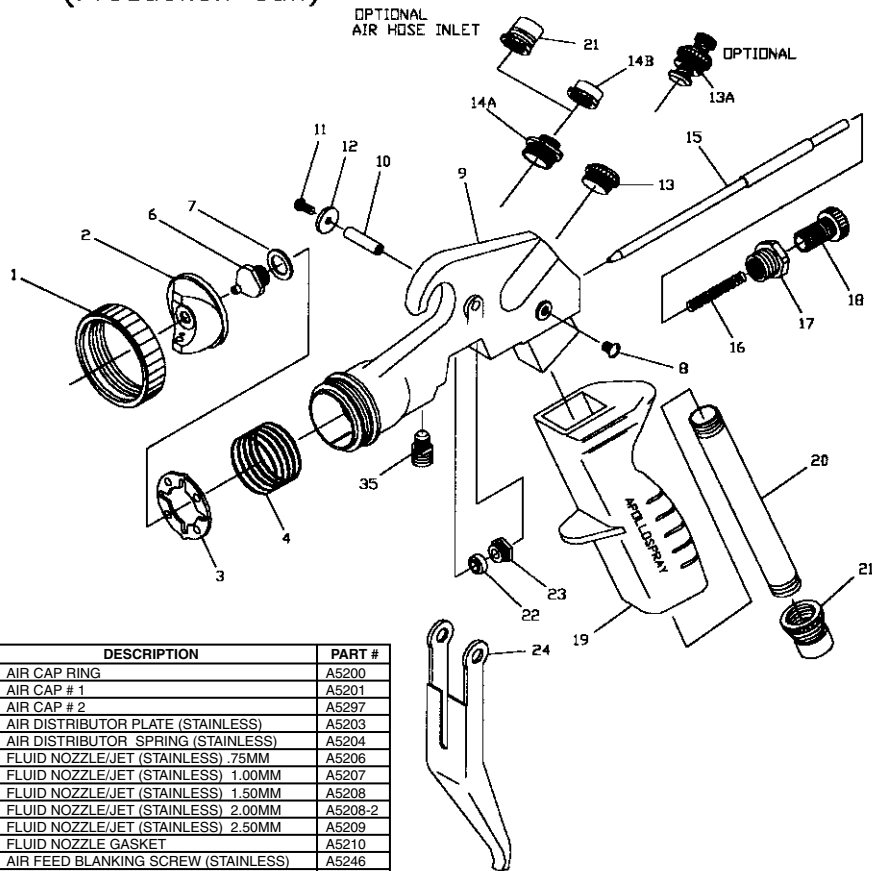
MODEL A 5010
(Quick Release Cup)



#	DESCRIPTION	PART #
(1)	AIR CAP RING	A5200
(2)	AIR CAP # 1	A5201
(2)	AIR CAP # 2	A5297
(3)	AIR DISTRIBUTOR PLATE (STAINLESS)	A5203
(4)	AIR DISTRIBUTOR SPRING (STAINLESS)	A5204
(6)	FLUID NOZZLE/JET (STAINLESS) 1.00MM	A5206
(6)	FLUID NOZZLE/JET (STAINLESS) 1.50MM	A5208
(6)	FLUID NOZZLE/JET (STAINLESS) 2.00MM	A5208-2
(6)	FLUID NOZZLE/JET (STAINLESS) 2.50MM	A5209
(7)	FLUID NOZZLE GASKET	A5210
(8)	AIR FEED CONNECTOR	A5211
(9)	GUN CASTING (MAIN BODY)	A5212
(10)	TRIGGER BUSHING	A5213
(11)	TRIGGER PIVOT SCREW (STAINLESS)	A5214
(12)	TRIGGER SCREW WASHER	A5215
(13)	AIR BLANKING PLUG	A5202
(13a)	O.S. CONTROL	A5257
(14a)	UPPER PORT INSERT	A5216
(14b)	AIR BLANKING PLUG	A5217
(15)	NEEDLE (STAINLESS) 75MM	A5218
(15)	NEEDLE (STAINLESS) 1.00MM	A5219
(15)	NEEDLE (STAINLESS) 1.50MM	A5220
(15)	NEEDLE (STAINLESS) 2.00MM	A5220-2
(15)	NEEDLE (STAINLESS) 2.50MM	A5221
(16)	NEEDLE SPRING (STAINLESS)	A5222
(17)	FLOW SCREW INSERT	A5223
(18)	MATERIAL FLOW ADJUSTING SCREW	A5224
(19)	GUN CASTING (HANDLE)	A5225
(20)	HANDLE TUBE	A5226L
(21)	AIR HOSE QUICK RELEASE COUPLER (MALE)	A5227
(22)	GLAND SEAL	A5228
(23)	GLAND NUT (STAINLESS)	A5229
(24)	TRIGGER (STAINLESS)	A5230
(25)	AIR FEED TUBE AND NON RETURN VALVE	A5232
(26)	CENTER BOLT/PICK-UP TUBE	A5274
(27)	YOKER	A5271
(28)	LEVER	A5278
(29)	CUP TOP CASTING	A5270
(30)	90 DEGREE MINIATURE BRASS BLOCK	A5266
(31)	CUP TOP LOCK NUT	A5272
(32)	CUP TOP GASKET (WHITE POLY)	A5280
(33)	QUICK RELEASE CUP	A5275
(33)	QUICK RELEASE CUP (TEFLON COATED)	A5277
(35)	FLUID CONNECTOR, 3/8" (STAINLESS)	A5254

A5005 DIAGRAM 1

MODEL A 5005 (Production Gun)



#	DESCRIPTION	PART #
(1)	AIR CAP RING	A5200
(2)	AIR CAP # 1	A5201
(2)	AIR CAP # 2	A5297
(3)	AIR DISTRIBUTOR PLATE (STAINLESS)	A5203
(4)	AIR DISTRIBUTOR SPRING (STAINLESS)	A5204
(6)	FLUID NOZZLE/JET (STAINLESS) .75MM	A5206
(6)	FLUID NOZZLE/JET (STAINLESS) 1.00MM	A5207
(6)	FLUID NOZZLE/JET (STAINLESS) 1.50MM	A5208
(6)	FLUID NOZZLE/JET (STAINLESS) 2.00MM	A5208-2
(6)	FLUID NOZZLE/JET (STAINLESS) 2.50MM	A5209
(7)	FLUID NOZZLE GASKET	A5210
(8)	AIR FEED BLANKING SCREW (STAINLESS)	A5246
(9)	GUN CASTING (MAIN BODY)	A5212
(10)	TRIGGER BUSHING	A5213
(11)	TRIGGER PIVOT SCREW (STAINLESS)	A5214
(12)	TRIGGER SCREW WASHER	A5215
(13)	AIR BLANKING PLUG	A5202
(13a)	O.S. CONTROL	A5257
(14a)	UPPER PORT INSERT	A5216
(14b)	AIR BLANKING PLUG	A5217
(15)	NEEDLE (STAINLESS) .75MM	A5218
(15)	NEEDLE (STAINLESS) 1.00MM	A5219
(15)	NEEDLE (STAINLESS) 1.50MM	A5220
(15)	NEEDLE (STAINLESS) 2.00MM	A5220-2
(15)	NEEDLE (STAINLESS) 2.50MM	A5221
(16)	NEEDLE SPRING (STAINLESS)	A5222
(17)	FLOW SCREW INSERT	A5223
(18)	MATERIAL FLOW ADJUSTING SCREW	A5224
(19)	GUN CASTING (HANDLE)	A5225
(20)	HANDLE TUBE	A5226L
(21)	AIR HOSE QUICK RELEASE COUPLER (MALE)	A5227
(22)	GLAND SEAL	A5228
(23)	GLAND NUT (STAINLESS)	A5229
(24)	TRIGGER (STAINLESS)	A5230
(35)	FLUID CONNECTOR, 3/8" (STAINLESS)	A5254

PREPARING TO USE YOUR APOLLO TURBINE SYSTEM

Connect the air hose to the turbine. On the turbine unit, pull back the spring loaded quick disconnect coupler and insert the male connector on the air hose into the turbine connector. Release the ring. (Model 700 turbine will have a screw-on connector). Your air hose will be locked into place. To disconnect, pull back on the connector to release the air hose. **CAUTION:** If you have just finished spraying, the metal coupler at the turbine end may be hot.

Plug the electric cord into a correctly grounded electrical outlet. Be sure the electric current is the correct voltage. If you need to use an extension cord, be sure it is at least 12 gauge wire and has a correctly grounded outlet. (240v units for use outside of the United States may be supplied with just an electrical cord. A correct plug must be installed prior to use. Make sure the ground wire is properly connected).

Select a safe, well ventilated area where you will spray your work piece. Locate your turbine unit away from the area where you will be directly spraying. Do not cover or enclose the turbine. It is important to draw cool/ambient air through the unit for optimum performance. Avoid placing the turbine in a warm environment or in direct sunlight.

APOLLO TURBINE MODELS: 700, 800, 900 AND 1000

Model 700, 800 and 1000 have one air hose outlet on the side of the unit and are designed to run one spray gun. The model 1000 has the capability to run two spray guns at the same time with an optional Y connector (Part #A4227). Model 900 has two independent air outlets. This unit is supplied with one outlet capped. To use two spray guns at the same time, the cap needs to be removed and a quick disconnect coupler installed (A2070). When using only one spray gun, always be sure that one outlet is capped.

APOLLO TURBINE MODELS 1100 AND 1200

Model 1100 and 1200 have three independent air outlets on the back of the unit with the option of running one, two or three spray guns at the same time. The units come supplied with one outlet with a quick disconnect coupler and two outlets capped. It is necessary to uncap each extra outlet and attach a quick disconnect coupler (A2070) when operating additional spray guns. Always be sure to cap any unused air outlet.

There are two switches on the model 1100 and three switches on the model 1200. **Machine Off:** All switches in **Off** position. **Low Power: Right Switch** in **On** position (3psi). **Medium Power: Right Switch** in **Off** position and **Left Switch** in **On** position (6psi). (Two cooling fans located behind the two rectangular filters in the front of the unit operate automatically). **High Power: Left and Right Switch** in **On** position (10psi). (Both cooling fans operate automatically). The **Model 1200** operates the same as the **Model 1100** but adds a 2.5 gallon (10 liter) pressure pot, a platform for the pressure pot plus an automatic fluid feed system to the unit. This gives the option of continuous production spraying. The **Model 1200** contains a grounded outlet for the automatic fluid feed system which is operated by the third switch (far left) on the unit. See Using Pressure Pots for additional information.

As a general guide, use low power for thin viscosity materials, medium power for slightly thicker coatings and high power for thicker/heavier viscosities. Refer to viscosity chart (D) or call Apollo technical support 888-900-HVLP (4857) for further information.

FAMILIARIZING YOURSELF WITH YOUR APOLLO Multi-Task™ SPRAY GUN

Cup Guns: On Apollo MultiTask™ Spray Gun Model A5010 and A5025 (bayonet style cups), slide the lever to one side, releasing the cup from the holding pins on the cup. Reverse the procedure to install the cup onto the spray gun body. Make sure the cup is secure. On bayonet style cups, be sure the cup is centered on the gasket under the cup top. **CAUTION:** Do not force the lever or over tighten once the cup is secure. Over tightening can cause the cup pins to bend the cup which can alter the flat surface of the cup rim and cause the spray gun to leak.

Familiarize yourself with the controls on the spray gun. There are three principal controls. The rotating air cap (#2), the material flow screw (#18) and the air cap locking ring (#1). Click the rotating air cap into each position. Horizontal, Vertical and 45°. When the air cap is in the 45° position the pattern is round. This is useful for

RECORD OF TURBINE & SPRAY GUN USE		
MODEL	SERIAL #	DATE PURCHASED
DATE USED	HOURS USED	TOTAL HOURS

Turbine Recommended Maintenance: Clean and/or change pre-filter and/or cartridge filter elements every 50 hours or when necessary. See Pg. 15 - for the appropriate filter replacement for your model.

Spray Gun Recommended Maintenance: Check: Cup gasket (#32 or #28 on A5020), tip/nozzle gasket (#7), Gland seal (#22), air cap (#2), tip/nozzle (#6) and needle assembly (#15) every 50 hours or when necessary. Clean or replace parts as needed. Spray gun maintenance kit part #A5320.

RECORD OF TURBINE & SPRAY GUN MAINTENANCE	
DATE	MAINTENANCE PERFORMED

TROUBLESHOOTING

1. Paint cup full, HVLP air is supplied to the spray gun. Trigger is pulled and no paint comes out—Reason: Cup not pressurizing.
Check:
 - A) Air Feed Tube/one way air valve (#25)
 - B) Air Feed Connector (#8)
 - C) Cup is screwed or clamped on tight
 - D) Cup top gasket is not damaged.
 - E) On Model A5010, Look under Cup Top Lid (#29). Locate the “C” shaped tube. Check for blockage.
2. When spray gun is connected to a turbine and the turbine is on, air continually flows through the air cap even if the trigger is not pulled. Response: This is correct. All APOLLO turbine spray guns are “bleeder” type guns. This is necessary and desirable to ensure longevity of the turbine motor.
3. If you think that you are getting too much “overspray”
Try:
 - A) Moving the spray gun closer to the work
 - B) Closing down the fluid flow
 - C) Reducing the air power (use optional O/S control #13A).
 - D) Considering a smaller tip/needle assembly
4. If the sprayed surface is not flat and level after drying (orange peel effect) Try:
 - A) Increasing air power (Model 1100/1200)
 - B) Thinning the coating more.
5. If the finish looks like “dry mist”. Try:
 - A) Increasing the fluid flow
 - B) Moving the spray gun slower
 - C) Moving the spray gun closer to the work piece
 - D) Thinning the coating more.

Additional questions can be answered by Apollo Sprayers Technical support 888-900-HVLP (4857).

spraying small, narrow pieces of work. (Paint flow will increase when using the 45° position and it is usually necessary to reduce the paint flow by adjusting the flow screw (#18). (See Diagram Spray Patterns, Bottom, Pg. 2). Next, turn the material flow screw (#18) anti or counter clockwise to open or release more fluid, clockwise to reduce or close material flow. Last, loosen the air cap locking ring (#1) one or two turns. This will feather the top and bottom of the fan pattern and slightly reduce the fan pattern size. (See Paragraph 2, Pg. 8).

OPTIONAL ACCESSORIES FOR APOLLO MULTI-TASK™ TURBINE SPRAY GUNS

Option One: In diagram (1,2,3 or 4), locate the blanking cap (#13). Most Apollo turbine spray guns are fitted with this blanking cap. You can remove the cap and install the upper port insert (#14A) and upper port plug (#14B). This gives you the option to attach your air hose onto this port instead of onto the handle. To install, unscrew blanking cap (#13). Screw in the upper port insert and plug. To use this port, unscrew the male hose coupler (#21) and screw onto the upper port insert. Take the upper port plug and screw it onto the threads at the bottom of the handle. Reverse these two fittings to use the air hose coupled to the handle. (Note: some spray guns will already be fitted with the upper port insert and plug).

Option Two: This will allow you to control the air flow and create textured or splatter paint effects. To install, remove the blanking cap (#13) or the upper port insert (#14A) and the upper port plug (#14B). Screw OS Control (#13A) into the upper port on the spray gun. After installing the OS control, turn the adjusting screw as far as you can, counter (anti) clockwise (open). Always use in the full open position unless it is necessary to reduce the flow of air, or to create a textured or splatter effect. See instructions supplied with the OS Control for proper use. If you have questions, call Apollo technical support 888 900-HVLP (4857).

PREPARING TO SPRAY

You should now be ready to spray your coating of choice on your work piece. Good quality results with your APOLLO Multi-Task™ spray finishing equipment are a combination of careful preparation of your project, a proper spraying environment, a basic knowledge of the coatings you will be using and how these coatings work with your APOLLO HVLP spray equipment.

No project will look good unless you have properly prepared the surface for the finish application. If your project requires sand-

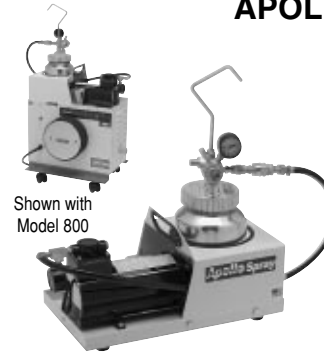
ing, sand all imperfections and clean the surface to be sprayed. Be sure the environment in which you will be working is clean, properly ventilated and that a moderate temperature is maintained. It should be neither excessively hot or cold. 70° F (21°C) is the optimum.

USING YOUR APOLLO Multi-Task™ SPRAY GUN

Your APOLLO Multi-Task™ Spray Gun is High Volume Low Pressure. It only uses from 3psi—10psi (depending on your turbine unit) of air pressure measured at the air cap (#2). All passages and air ports are much larger than a conventional spray gun. If one of these air passages becomes blocked, or build up of material starts to occur, your spray pattern will become distorted. Always keep your spray gun clean. Your APOLLO Multi-Task™ spray gun comes fitted with a 1mm tip/nozzle (#6) and needle (#15), inscribed with a number 2. This is a general purpose size that is suited to most thin to medium viscosity fluids. Using this size tip/nozzle and needle you can achieve a 1/4" line up to a 12" fan pattern, simply by rotating the air cap (#2) to the desired fan pattern type (See Spray Gun Diagram Pg. 2), opening the material flow screw (#18) counter (anti)-clockwise and moving the spray gun closer or further away from your work piece. A little practice will enable you to master this technique. For best finish results with different fluid viscosities (very thin viscosity to higher viscosity) an alternative tip/nozzle, needle and air cap should be selected. Refer to Chart B.

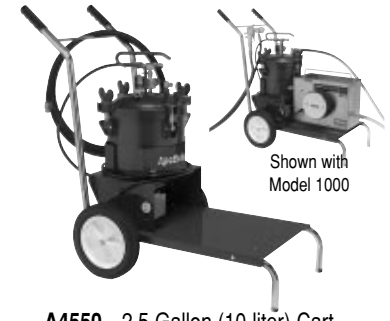
PRACTICE: Remove the cup from your spray gun. Fill it approximately half way with some water. (Do not worry! All fluid passages are stainless steel and the cup Teflon® coated). Attach the cup to the body of the spray gun. Attach the spray gun to the air hose. Turn the turbine unit on. You will notice air is now flowing through the air cap, this is normal and correct. Position the air cap (#2) in the horizontal position, turn the material flow screw (#18) counter clockwise approximately 1 to 1 1/2 turns. Point the spray gun away from yourself (and anyone else) and pull the trigger all the way back. You should see a "V" shaped mist (or triangle) called a fan pattern. Now, with the trigger depressed, slowly begin to turn the material flow screw (#18) clockwise (closing). Notice that the fan pattern is beginning to get smaller. Now, reverse this and notice the pattern get larger. Take a large piece of cardboard and direct the pattern at the surface. Turn the material flow screw 2 full turns and hold the spray gun approximately 6" from the surface.

APOLLO ACCESSORIES



Shown with Model 800

A4500—2 Quart (2 liter) Remote System. For use with 800, 900, 1000



Shown with Model 1000

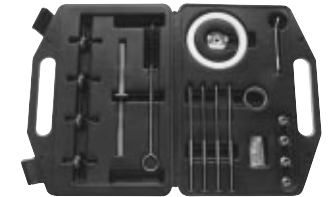
A4550—2.5 Gallon (10 liter) Cart System. For use with 800, 900, 1000



A4950—Round Bottom Cup Assembly



A5269—8 oz. Miniature Cup Assembly



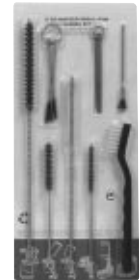
A5319—Spray Gun Maintenance Kit, With Case



A4200—2 Quart (2 liter) Pressure Pot



A4113—2.5 Gallon (10 liter) Pressure Pot



A5318—Spray Gun Cleaning Kit



A5257—O/S Control



A4227—Y Connector for model 700, 800 or 1000 for multiple spray guns.

TURBINE MAINTENANCE

The turbine unit needs virtually no maintenance. The motor has sealed bearings that are pre-lubricated. No service is necessary. Periodically, the turbine air filters and pre-filters should be examined. Clean filters are critical to good performance and equipment longevity. Models 700, 800, 900 and 1000 have 2 replaceable cartridge filter elements. Models 1100 and 1200 have 5 replaceable cartridge filter elements. (Do not forget the one underneath the chassis). Remove the two hex-head securing nuts in order to remove the cartridge filter elements for cleaning or replacement. Blow excess dust and dirt with an air compressor. Dirty filters will reduce the air being drawn through the motor, causing the unit to run abnormally hot, diminish spray performance and reduce the life of the motor. Clean and/or replace filters and pre-filters when you suspect they can no longer be cleaned. Use the maintenance record sheet on Pg. 18 to keep track of your equipment use.



MODEL	FILTER SET PART #	PRE-FILTER SET PART #
700	A4129	A4058
800	A4171	A4096
900	A4171	A4096
1000	A4171	A4096
1100	A4153	A4096 (2), A4095 (1)
1200	A4153	A4096 (2), A4095 (1)

RUNNING MULTIPLE SPRAY GUNS WITH A TURBINE

It is possible to run models 700, 800 and 1000 with two spray guns at the same time by installing Part # A4227, “Y” connector to the turbine outlet port. It is important to note that if the “Y” connector is installed and only one spray gun operated, the 2nd outlet must be capped or closed so that performance to the single spray gun will not be affected.

Pull the trigger. Observe the outline and size of the pattern. Now, turn the material flow screw clockwise (closing). Move the spray gun an inch or two closer to the surface. Pull the trigger. Notice the pattern has become smaller. You can continue reducing the material flow and move the spray gun even closer to the surface and the pattern will continue to get smaller and smaller. Next, rotate the air cap to a 45° position (See Spray Patterns, Pg. 2). Vary the material flow and the distance of the spray gun from the work surface. Notice the change in pattern size.

Finally, there is one additional control to learn. If you loosen the air cap locking ring (#1), approximately 1—2 turns, you can also control the fan pattern size and trim/feather the edge of the fan pattern itself. This should be considered a secondary control, the primary fan pattern size being adjusted between fluid flow and distance of the spray gun from the work piece.

Caution: Even when the turbine unit is turned off, pressure will remain in the spray cup. If you pull the trigger back, a stream of fluid will flow. To prevent accidents, turn material flow screw (#18) clockwise until it is completely closed. The trigger is now locked in the closed position.

Note: It is not necessary to empty and clean your spray gun when you pause between applications. Be sure, however, to clean your spray gun thoroughly at the end of your work session. It is a bad idea to leave paint in your spray gun overnight. Extra caution should be taken when spraying coatings that have a catalyst or hardener added since many of these coatings have short pot life. These coatings can harden in your spray gun quickly, making cleaning difficult or impossible. Read the coatings manufacturer’s instructions regarding how much time you have before catalyst/hardener begins to set up.

KNOW YOUR COATINGS

Coating Properties

Coatings are a blend of resins and additives to create a product that will provide a protective and beautifying surface to your work piece. Different resins have different properties. It is important to use the correct coating to achieve a desired result. Manufacturers of coatings can control the resin solids content, production viscosity, sheen, color, flow-out enhancement and other properties as well. Some products offer ways to adjust the coating properties such as speeding up or slowing down the drying time, adding catalysts to strengthen the molecular bond or adding flattening agents to lower the sheen. Manufacturers will often give some guidelines on how to thin their product for spray application. There are many different types of spray equipment in use. Coatings manufacturers cannot address all of them. It is important for you as a finisher to understand your spray equipment and to use common sense to arrive at the correct fluid viscosity to produce the best possible results with the selected coating and the chosen equipment technology.

Your Choice of Coatings and Viscosity

Extremely thin, watery or light bodied fluids such as inks, aniline dyes and oil stains can generally be used straight from the can. Most waterbased finishing products are also formulated to be used straight from the can without thinning with a **3 stage or larger turbine**. Most other coating products will need to be thinned anywhere from 10% to 50% depending on the available air pressure of the turbine model and the properties of the coating selected. (See Chart A) It is also necessary to select an alternative tip/nozzle, needle and air cap for the appropriate fluid viscosity (See Chart B)

Apollo Multi-Task™ HVLP Turbine Properties

Each Apollo turbine unit offers the finisher a maximum operating pressure. This pressure is determined by the size and output of the unit you have selected. The maximum available pressure will have a direct bearing upon the viscosity of the fluid that you choose to spray. Atomizing pressure and fluid viscosity directly relate to the efficiency of the equipment operation and the quality of the results that you will achieve.

USING PRESSURE POTS WITH TURBINE SYSTEMS

Any Apollo turbine system can be used with a remote cup assembly or pressure pot. Apollo offers the following options:

A4200—2qt. (2 liter) cup (Stainless steel fluid parts/Teflon® lined cup)
A4015—2.5 gal. (10 liter) pressure pot (supplied with model 1200)
A4113—2.5 gal. (10 liter) deluxe pressure pot

When using a remote cup or pressure pot, it is necessary to introduce compressed air to pressurize the remote pot to move the fluid from the pot to the tip/nozzle of the spray gun. In general 5 p.s.i. is sufficient for most average viscosity fluids in order to deliver the proper flow of fluid to the tip/nozzle (#6). Higher pressure would only be necessary for a heavier viscosity fluid. A good test to determine the correct fluid delivery would be to first, pressurize the pot. DO NOT turn on the turbine. Pull the trigger of the spray gun until a stream of fluid flows from the tip/nozzle. Adjust the pressure until the fluid drops off or bends at approximately 2 1/2 inches (6.35cm). Pot pressure should be correct at this point.

Apollo offers a 2 quart (2 liter) system (A4500) and a 2.5 gallon (10 liter) system (A4550) (See Accessory Page). These are complete compatible add-ons to your turbine system that will expand your system to production capability.

NOTE: When extending the spray gun higher than 5' – 6' (1.5m – 2m) above the level of the pressure pot, fluid delivery may decrease. There are two options to adjust for this situation. Option 1: Increase pot pressure a few pounds and reduce the flow of fluid to the spray gun when spraying at lower levels and increase fluid flow when the spray gun becomes elevated and you notice that fluid delivery slows down. Option 2: Elevate the pressure pot to a higher level so that you will not have to extend the spray gun higher than 4' (1.2m) above the pressure pot.

SAFETY PRECAUTION: Always depressurize the remote pot using the safety valve when the equipment will be idle. This will prevent excess fluid from remaining in the fluid hose, and prevent a possible accident should the trigger be pulled and paint streams from the spray gun.

Always ensure that the remote cup is tightly sealed and all gaskets are in good shape in order to prevent air and fluid leaks.

Be sure to flush and clean fluid hose at the end of a work session.

For smaller jobs, you can insert a one gallon can inside the 2.5 gallon (10 liter) pressure pot. This will keep the inside of the pot clean. (It may be necessary to remove the material filter housing (Diagram 6, #6) for a one gallon container to fit properly).

Keeping Your Apollo Multi-Task™ Spray Gun In Good Working Order
When and how to clean your spray gun

It is a good habit and practice to clean your spray gun at the end of each work session. The Apollo spray gun is easy to clean and maintain. A few minutes of time will ensure the continued good performance of your spray gun.

A full breakdown of the spray gun is not always necessary every time you spray. Often, a general inspection of the basic operating parts and a thorough rinse of the fluid passages will clean the spray gun sufficiently for the next use. This will depend on the coating you are using, the quantity of fluid you have sprayed and your general spray habits. After you have finished spraying, follow these simple steps to clean your Apollo spray gun:

Note: Detailed information regarding assembly and disassembly, cleaning and adjustments are included with your spray gun and are also available on the Apollo website at www.hvlp.com/library/index.htm.

1. Empty any unused coating from the cup and wash out any residue with an appropriate cleaner compatible with the coating, or water if using water based material. Partly fill the cup with cleaner and spray through the gun to flush out the material passages.

There are a few additional areas of the spray gun that may need attention when cleaning and/or adjusting. Inspect, clean and/or adjust as required.

2. Inspect the air cap (#2). Ensure that the air holes in the horns of the air cap are clean and there is no blockage of coating. Refer to detailed instructions with your spray gun for best cleaning method.
3. Inspect tip/nozzle (#6) for any coating deposit. Remove and clean as required. Refer to detailed instructions with your spray gun for removal and best cleaning method.
4. Inspect fluid needle (#15) for any dried paint deposits. Removal of needle will be necessary for this task. Refer to detailed instructions with your spray gun for removal and best cleaning method.
5. Inspect Air feed tube and non-return valve (#25). Remove, clean and/or replace as required. Before disassembling any part of the air feed tube and associated parts, refer to detailed instructions with your spray gun for inspecting, cleaning and/or replacement. **NOTE: Do not try to remove the 90° brass block (#30) on the top of the cup assembly as it is sealed into place in the factory. Attempting to remove this part can cause it to break off.**
6. Inspect the cup top gasket (#32) located under the cup top housing. Clean and/or replace as required. Refer to detailed instructions with your spray gun for removal, cleaning and/or replacement.
7. Inspect for paint around the gland seal (#22). If required, clean, and readjust. Refer to detailed instructions with your spray gun for best cleaning method and/or replacement.
8. Lubrication: Use a spray gun lubricating oil around all threaded parts (Material flow adjusting screw (#18), flow screw insert (#17), air cap ring (#1), and the air cap housing). In addition, put a small spot of lubricating oil on the needle assembly (#15) where it passes through the gland seal (#22) to ensure smooth and easy movement of the needle assembly. Be careful not to apply too much lubrication at this point so as not to contaminate any material that may come in contact with the needle assembly.

The available air volume and pressure at the air cap of the spray gun will meet the delivery of fluid coming out of the tip/nozzle to create a fine mist called atomization. The mist travels directly to your work piece where it blends together to form a connected wet film. Achieving a smooth, level surface will depend on the proper relationship between available atomizing pressure, the viscosity of the coating being applied and the properties of the coating.

CHART A TURBINE PERFORMANCE

MODEL	TURBINE SIZE	UNRESTRICTED PRESSURE
700	2 STAGE	4.5PSI
800	3 STAGE	5.5PSI
900	3 STAGE	6.0PSI
1000	4 STAGE	8.0PSI
1100	2 & 3 STAGE	3.5PSI—10PSI
1200	2 & 3 STAGE	3.5PSI—10PSI

CHART B TIP, NEEDLE, AIR CAPS & VISCOSITY

TIP/NEEDLE SIZE	APPLICATION	VISCOSITY ZAHN #2	AIR CAP
.755MM (.0295)(#1)	Inks, Dyes, Stains, extremely thin viscosity fluids, Water based finishes	16 seconds	(A) A5201
1.0MM (.039) (#2)	All purpose, thin lacquers, thin enamels, Water based finishes, Automotive, Marine, Airplane finishes	16—18 seconds	(A) A5201
1.5MM (.059) (#3)	Catalyzed lacquers, Conversion Varnish, Primers, Automotive, Marine, Airplane finishes, Varnish, High Viscosity Industrial Coatings, Urethanes, Enamels	18—24 seconds	(A) or (B) A5201 A5297
2.0MM (.079) (#4)	Thinned latex paint, Multi-color, Heavy Primers, Butyrate, Nitrate dope, High Viscosity Industrial Coatings	24—35 seconds	(B) A5297
2.5MM (.098) (#5)	Thinned latex paint, Multi-color, Faux, Solvent adhesives, Wax-based strippers	35+ seconds	(B) A5297

CHART C - VISCOSITY CUP COMPARISON	
ZAHN #2	FORD #4
16	5
17	8
18	10
19	12
20	15
22	17
24	19
27	21
30	23
34	26
37	29
41	31
49	36
58	41
66	45
74	51
82	56

CHART D—VISCOSITY GUIDELINES		
Coating	Thin/Reduce	Viscosity in seconds
Lacquers	25%-50%	15-22 seconds
Sanding Sealer	20%-30%	15-22 seconds
Enamels	20%-40%	16-22 seconds
Stains	use from can	15 seconds
Acrylic Enamel	30%-50%	16-22 seconds
Catalyzed Polyurethane	10%-30%	15-18 seconds
Polyurethane's Varnishes	20%-40%	16-22 seconds
Waterborne Coatings	00%-10%	24-34 seconds

Chart D should be used as a guide to thinning various coatings. Actual reduction will depend upon model turbine used, flow out properties of the coating and the final visual results of the sprayed work piece. Seconds quoted are measured in a Zahn #2 Viscosity Cup. Always adjust viscosity for best finish results.

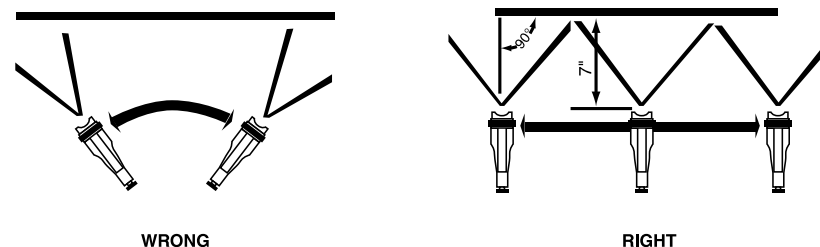
USING LATEX (EMULSION) PAINT

Although your turbine spray system is best suited to spray Class A Finish coatings such as lacquers, enamels, urethanes, varnishes, water base finishes, etc., you can spray latex (emulsion) house paints if you follow a few simple rules. First, we strongly recommend that you use a high quality latex (emulsion) enamel type paint where resins and pigments are more finely ground. This will provide a more satisfactory result. Second, it is absolutely necessary to thin latex (emulsion) paints with your HVLP sprayer. This will vary from as little as 10% to as much as 50% depending on the turbine you are using and the quality of the paint used. In addition, it is necessary to use a larger tip/needle assembly in the spray gun (2.0mm or 2.5mm). We also recommend that a latex conditioner (Floetrol®, - or other similar product) be added to aid flow-out. This product is sold at local paint stores.

TECHNIQUE

Like any skill, practice makes perfect. Never try to rush the spray finishing process. Learn the characteristics of the coating you will be spraying. Build up layers of material (3—4 applications or more if required). Sand between coats and allow proper drying time between applications, if appropriate.

It is important to remember to always keep the distance of the spray gun the same when moving across your work (or up and down). (Called a “pass”). Do not rotate or turn your wrist from side to side. Move the spray gun across your work from end to end. Be sure to maintain the same speed of movement. This will ensure an even application of coating. Always release the trigger at the end of a “pass”. Continue spraying in the opposite direction overlap-



ping your previous coat by 1/3rd to 1/2. When finished you should have an even wet coat on your work. If you have dry spots you have overlapped too wide. If you have heavy or wet spots, you have overlapped too much. When spraying a large or pre-assembled piece, start at the top and work down. Try to spray the hard to reach and underneath surfaces first. Common sense and some forethought will prevent errors. Remember, that a light wet film will generally produce better results than a heavy wet coat. When spraying a vertical surface it is advisable to apply a thin/light “tack” coat first, followed by a normal light wet coat. This technique will help prevent “runs” and “sags”.

When using your APOLLO Multi-Task™ Spray Gun you control five variables.

1. Fluid flow (#18).
 2. Distance of the spray gun from your work. (4"—8" is average. Closer if necessary).
 3. Pattern Direction (Vertical fan, horizontal fan and round)
 4. Speed of application
 5. Fan Pattern Control (adjust air cap ring #1)
- Items 1,2, and 4 directly relate to each other.