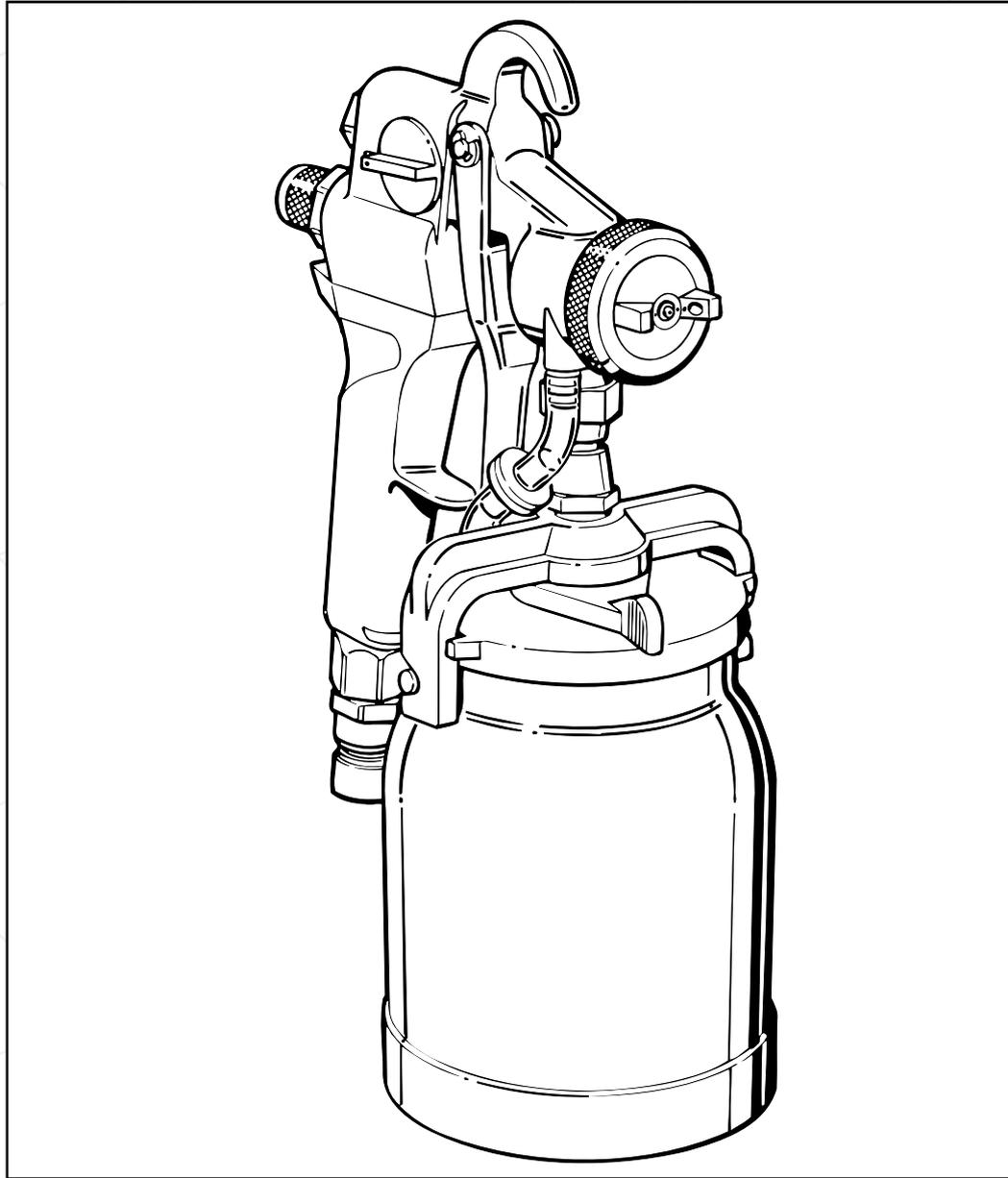


# ***NB Spray Guns***

## **Owner's Manual**



## ⚠ WARNING

### **EXPLOSION HAZARD - Incompatible materials. May cause property damage or severe injury.**

- **DO NOT** use bleach.
- **DO NOT** use halogenated hydrocarbon solvents.
- Halogenated hydrocarbon solvents such as methylene chloride and 1,1,1 - Trichlorethane are not compatible with aluminum and may cause an explosion. If unsure of a material's compatibility with aluminum, contact your coatings supplier.

### **GENERAL - May cause property damage or severe injury.**

- Read all instructions and safety precaution before operating.
- Comply with all appropriate local, state and national codes governing ventilation, fire preventive, and operation.
- The United States Government Safety Standards have been adopted under Occupational Safety and Health Act. These standards, particularly the General Standards, Part 1910 and construction Standard, Part 1926, should be consulted.
- This equipment is designed to be used with authorized parts only. When using this equipment with parts that do not comply with the minimum specifications and safety devices of the equipment manufacturer, the user assumes all risks and liabilities.
- Before each use, check all hoses for cuts, leaks, abrasion or bulging of cover or damage or movement of couplings. If any of these conditions exist, replace the hose immediately. Never repair a paint hose.
- Never aim the spray gun at any part of the body.

### **Hazardous vapors - Paints, solvents, insecticides, and other materials may be harmful if inhaled causing severe nausea, fainting, or poisoning.**

- Use a respirator or mask whenever there is a chance that vapors may be inhaled. Read all instructions with the mask to insure that it will provide the necessary protection against the inhalation of harmful vapors.

### **Explosion or fire - Solvent and paint fumes can explode or ignite causing property damage and or severe injury.**

- Exhaust and fresh air introduction must be provided to keep the air within the spray area free from accumulation of flammable vapors.
- Avoid all ignition sources such as static electricity sparks open flames such as pilot lights, hot objects such as cigarettes, and sparks from connecting and disconnecting power cords and working light switches.
- Fire extinguishing equipment must be present and in working order.
- Power cord must be connected to a grounded circuit.
- Follow the material and solvent manufacturer's safety precautions and warnings.
- Cleaning solvents must have a flashpoint above 100° F (37.8° C) Flashpoint is the temperature at which a fluid begins to give off sufficient amount of flammable vapor that could ignite when exposed to a flame or spark. Contact your coatings supplier for more information.

### **Skin burn - Heated parts can cause severe skin burn injury.**

- Quick disconnect fittings on hose and spray gun become hot during use. Avoid skin contact with quick disconnect fittings when they are hot. Allow quick disconnect fittings to cool before disconnecting spray gun from hose.

### **Limited Warranty - HVLP PAINT SPRAY EQUIPMENT**

This product, manufactured by Wagner Corporation (Wagner), is warranted against defects in material and workmanship for one (1) year following date of purchase if operated in accordance with Wagner's printed recommendations and instructions. This warranty does not cover damage resulting from improper use, accidents, user's negligence or normal wear. This warranty does not cover any defects or damages caused by service or repair performed by anyone other than a Wagner Authorized Service Center.

ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS LIMITED TO ONE YEAR FOLLOWING DATE OF PURCHASE. WAGNER SHALL NOT IN ANY EVENT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, WHETHER FOR BREACH OF THIS WARRANTY OR ANY OTHER REASON. THIS WARRANTY DOES NOT APPLY TO ACCESSORIES.

THIS PRODUCT IS DESIGNED FOR HOME USAGE ONLY. IF USED FOR COMMERCIAL OR RENTAL PURPOSES THIS WARRANTY APPLIES ONLY FOR 30 DAYS FROM DATE OF PURCHASE.

If any product is defective in material and/or workmanship during the applicable warranty period, return it with proof of purchase, transportation prepaid to any Wagner Authorized Service Center (Service Center listing is enclosed with this product). Wagner's Authorized Service Center will either repair or replace the product (at Wagner's option) and return it to you, postage prepaid.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS OR THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION AND EXCLUSION MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.



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## INTRODUCTION

This owner's manual is dedicated to providing all the information needed to properly operate and maintain your Wagner NB spray gun. Please review all the information contained in this operating manual before using the equipment.

All the Wagner systems are made of the highest quality materials right here in the U.S.A. This assures you of the very best spray equipment available on the market today. Wagner units are made to be rugged, dependable and efficient, providing you with the quality and dependability you have come to expect from Wagner.

## HOW THE NB MODEL SPRAY GUN WORKS

The NB is a specially designed Non-Bleeder HVLP spray gun. The unique design of the gun allows for totally controlled spraying without a large cloud of overspray. The spray pattern can be adjusted to allow the operator to spray with a tight round pattern of 1/4 of an inch all the way up to a wide spray pattern up to 12 inches.

### One Quart Cup Set Up

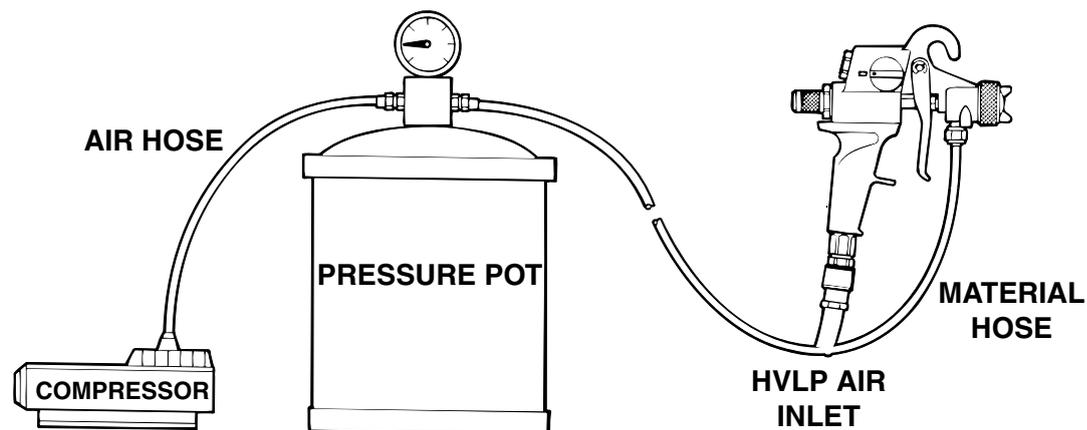
A one quart cup can be used with all the Wagner HVLP systems whenever the user wants to spray up to one quart of material at a time.



NBC SPRAY GUN

### Pressure Pot Set Up

A pressure pot system is used for larger quantities of material in continuous run operations. Always follow instructions and warnings provided with the pressure pot and air compressor.



## Set Up Before Spraying

### Surface Prep

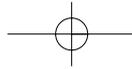
All objects to be sprayed should be thoroughly cleaned before spraying material on them. Areas not to be sprayed may, in certain cases, need to be masked.

### Spray Area Prep

Always spray in a well ventilated area.

### Material Prep

**Most material will need to be reduced and strained to assure proper sprayability and the best possible professional finish.**



## Spray Pattern

The spray pattern is adjusted by turning the ears of the air cap into either a vertical, horizontal or diagonal position as shown in figure 1. The positions of the air cap and the corresponding spray patterns are illustrated in figure 2. Never trigger the gun while adjusting the spray pattern.

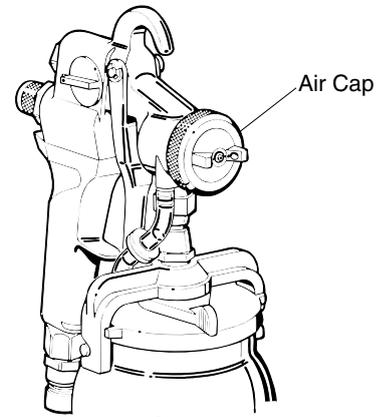


Figure 1

## Pattern Selection

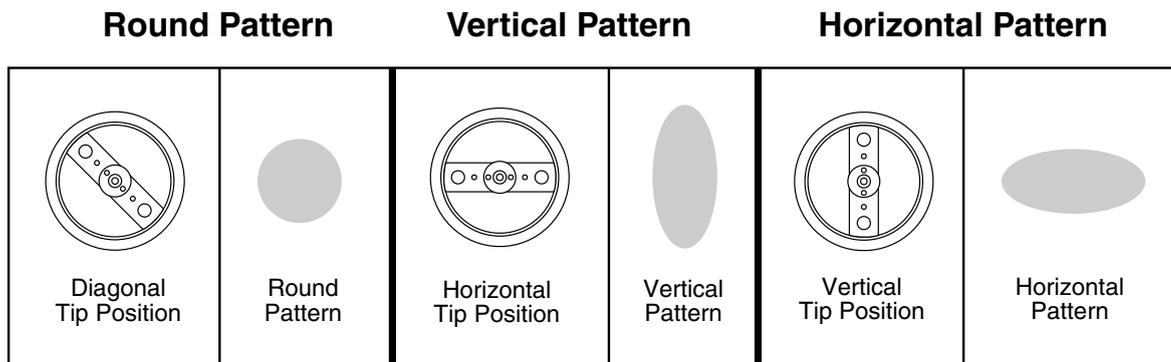


Figure 2

## Spray Pattern Size

To change the spray pattern size, but not the spray pattern shape, screw the air cap ring in or out accordingly. Figure 3 shows how to obtain a larger or smaller spray pattern size. Turning the ring clockwise will make the pattern bigger. Turning the ring counterclockwise will make the pattern smaller. As you reduce the spray pattern size you will need to move closer to the surface.

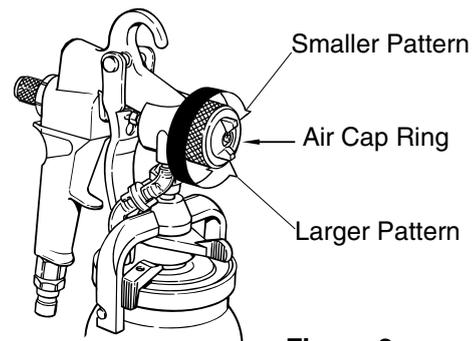


Figure 3

## Material Flow and Air Flow Adjustments

Figure 4 shows how to adjust the material flow and the air flow on the NB spray gun. Each individual job and material may require slight adjustments to these settings. For your individual needs spray first on a test surface.

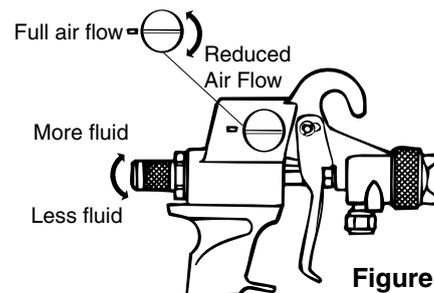


Figure 4



## Choosing a Projector Set

A projector set consists of a needle assembly, fluid nozzle and air cap (see figure 5). The NB spray gun comes standard with a #3 projector set. You should choose a projector set based on two things: type material to be sprayed and the finish desired. The chart below should be helpful to you in making the correct choice.

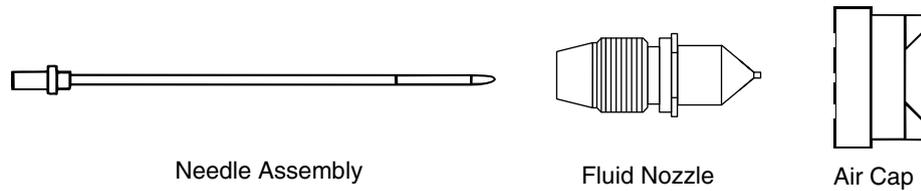
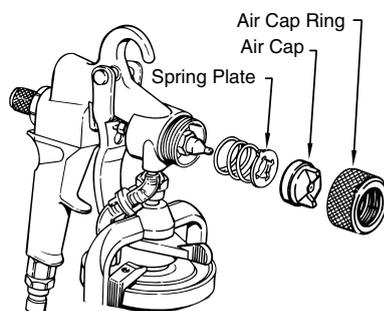


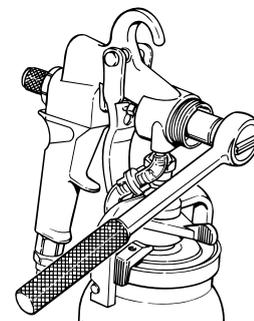
Figure 5

| Pro Set No. | Pro Set Part No. | Material to be used                                 |
|-------------|------------------|---|
| #2          | 0276161          | Low viscosity stains, varnish, automotive coatings  |
| #3          | 0276162          | Medium viscosity laquers, latex, enamel, oils, etc. |
| #4          | 0276163          | Medium viscosity laquers, latex, enamel, oils, etc. |
| #5          | 0276164          | High viscosity materials, gels, and adhesives       |

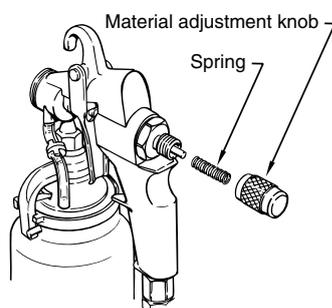
## How to Change Projector Sets



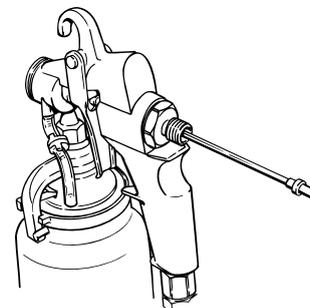
1. Remove air cap ring, air cap, and spring plate.



2. Remove fluid nozzle.

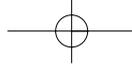


3. Remove material adjustment knob and spring.



4. Remove needle. If the needle does not pull out easily, loosen packing nut to prevent needle or packing damage.

**NOTE: Reverse the above procedure to install the new projector set. If packing nut was loosened follow adjustment procedures on page 7.**

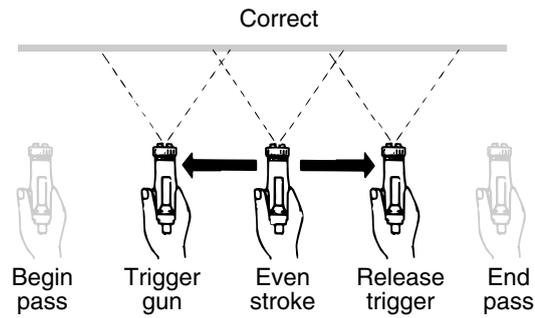


## How to Prepare Material for Spraying

Before spraying, the material being used must be thinned with the proper solvent as specified by the material manufacturer. Follow the material manufacturers recommendation and thinning procedures.

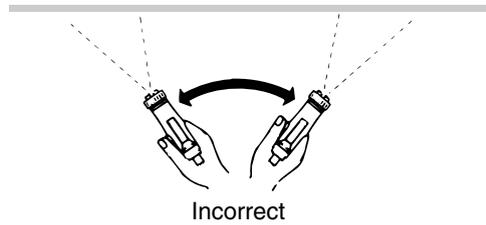
## How to Spray Properly

Position the spray gun perpendicular to and 1 to 8 inches from the spray surface, depending on the spray pattern size desired. Spray parallel to the surface with smooth passes at a consistent speed as illustrated in figure 6. Doing this will help avoid irregularities in the finish, i.e. runs and sags. Always apply a thin coat of material on the first pass and allow to dry before applying a second, slightly heavier coat.



**Figure 6**

Always squeeze the trigger of the spray gun after you begin your spray pass and release it before the pass is done. For best results, make the spray passes about 20 inches long and overlap each pass by 4 or 5 inches. Remember to keep the gun at right angles to the spraying surface.



**NOTE: If any problems occur with the quality of the surface finish refer to the troubleshooting chart on page 8 for problem identification and suggested solution(s).**



## Maintenance

**For maximum performance, the spray gun must be cleaned thoroughly after every use.**

1. Empty the material from the one quart cup after use.
2. Pour a small amount of appropriate solvent in the cup, attach cup to gun, shake and spray solvent through the gun in a well ventilated area. Do not restrict nozzle when cleaning with a hand or other body parts as back flushing of the system is not necessary. See figure 7 for proper cleaning of the check valve and air tube.
3. Repeat above step once or twice until the solvent appears clear. Then wipe exterior of the cup and gun with appropriate solvent until it is clean. Be sure to remove the needle, fluid nozzle and air cap and clean them thoroughly, making sure that the air holes and material passages are completely clean. Never use metal tools or picks to clean air cap or nozzle.
4. When threaded parts are removed, it is suggested that the thread be lubricated with petroleum jelly before reassembling. Do not use any lubricants containing silicone.

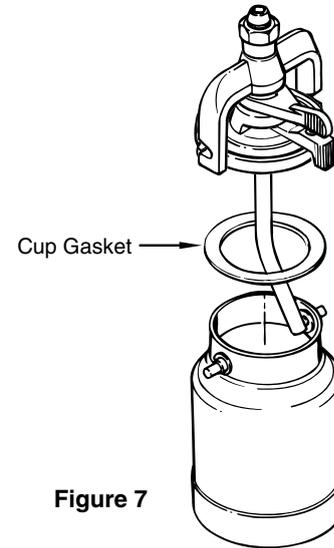


Figure 7

**NOTE: The cup gasket must be replaced periodically due to normal wear and tear. It is important to inspect these gaskets during each cleaning (see figure 7).**

**NOTE: If material leaks from around or through the packing nut, tighten the packing nut slightly and trigger the gun to see if the leaking has stopped. If leaking continues, repeat as above until there is no longer a leak. Be careful not to overtighten the packing nut, overtightening will cause the needle to stick in the packing. If adjusting the packing does not stop the leak the packing may need to be replaced.**

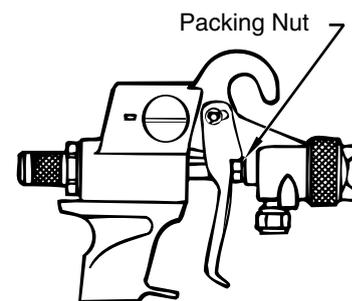
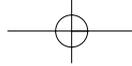


Figure 8

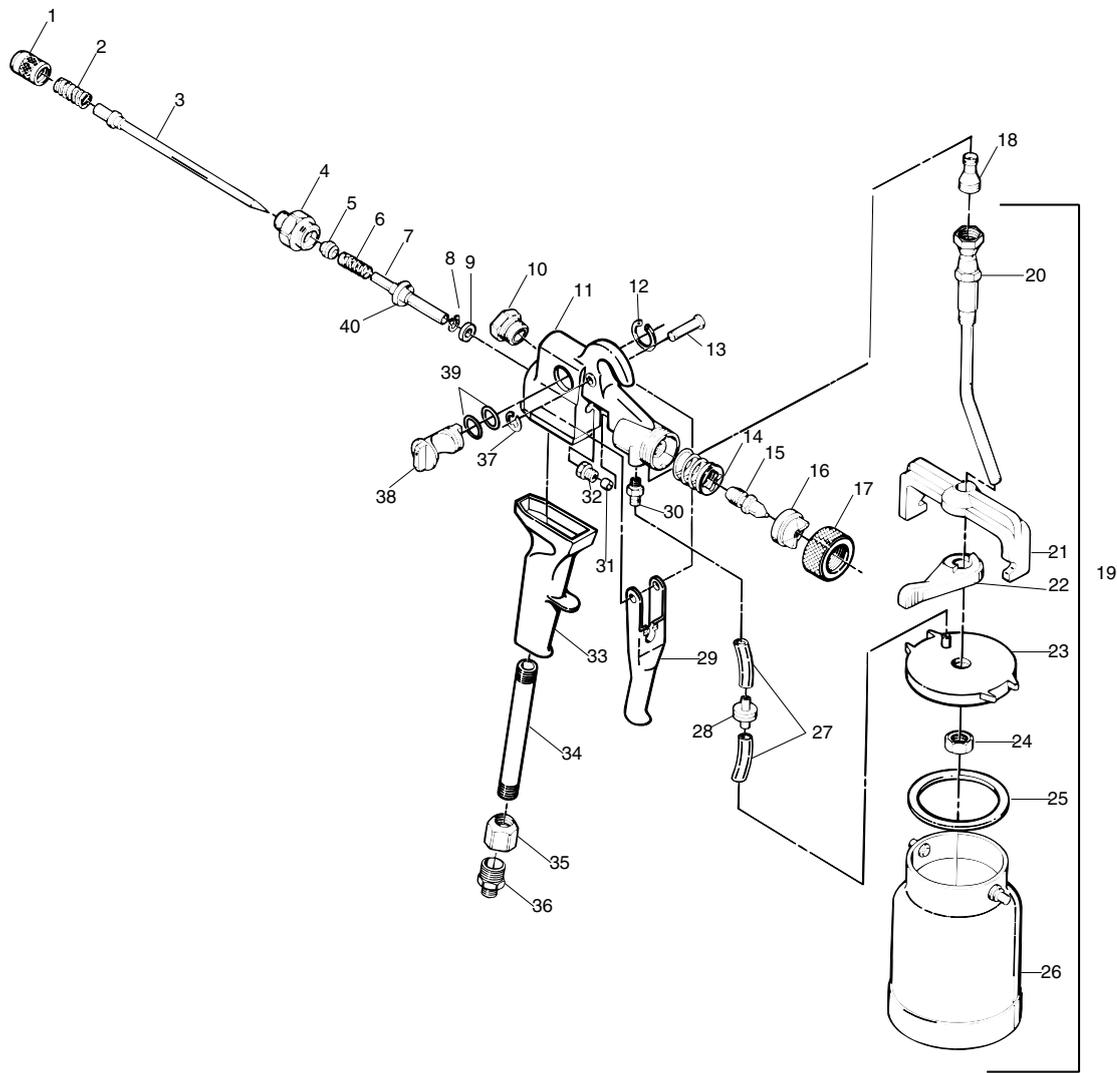
**NOTE: If your gun is supplied with a cup assembly, you have received a black thiokol seal assembled to the gun and 2 white polyethylene seals as service parts. The black is usable with most solvents. If the black seal becomes swelled, remove and replace with white to complete the job. The black will return to its original size after a period of time.**



## TROUBLESHOOTING

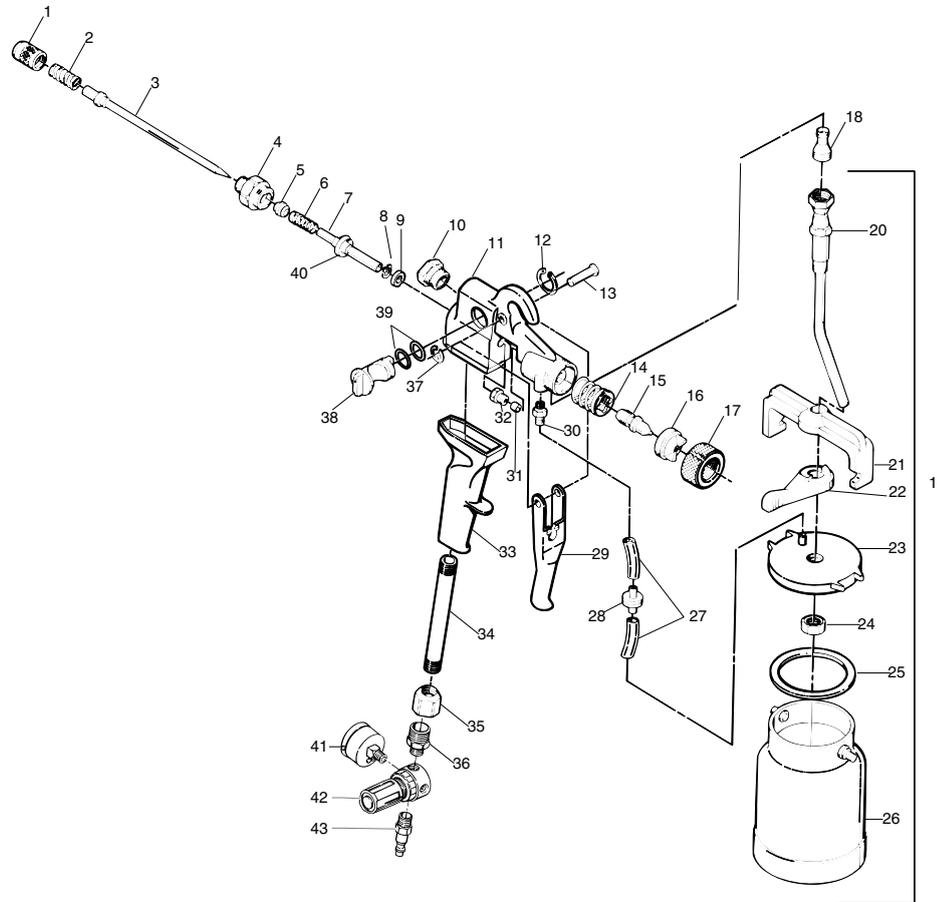
| <b>Problem</b>                 | <b>Cause</b>   | <b>Solution</b>   |
|--------------------------------|--|---|
| Little or no paint flow        | <ol style="list-style-type: none"> <li>1. Dried paint blocking fluid nozzle</li> <li>2. No air pressure in paint cup or pot</li> <li>3. Valve in air tube plugged</li> <li>4. No fluid pressure</li> <li>5. Blockage in material hose</li> </ol>           | <ol style="list-style-type: none"> <li>1. Disassemble and clean</li> <li>2. Inspect all air tubes, cup or pot gasket, clean or replace.</li> <li>3. Replace valve assembly</li> <li>4. Check material supply</li> <li>5. Clean by flushing with solvent.</li> </ol>         |
| Paint leaking                  | <ol style="list-style-type: none"> <li>1. Improper size needle or nozzle</li> <li>2. Damaged needle or nozzle</li> <li>3. Loose Nozzle</li> <li>4. Loose packing nut</li> <li>5. Needle not closing properly</li> <li>6. Gun is tilted too much</li> </ol> | <ol style="list-style-type: none"> <li>1. Replace</li> <li>2. Replace</li> <li>3. Tighten</li> <li>4. Tighten</li> <li>5. a) Loosen packing nut<br/>b) Replace needle spring<br/>c) Remove dried paint from needle.</li> <li>6. Don't tilt gun when not spraying</li> </ol> |
| Poor spray pattern             | <ol style="list-style-type: none"> <li>1. Air holes in air cap ears are clogged.</li> <li>2. Nozzle is clogged</li> <li>3. Damaged nozzle or needle</li> </ol>   | <ol style="list-style-type: none"> <li>1. Remove and clean air holes</li> <li>2. Clean with appropriate solvent</li> <li>3. Remove and replace.</li> </ol>  |
| Pulsating spray                | <ol style="list-style-type: none"> <li>1. Loose or damaged packing</li> </ol>  | <ol style="list-style-type: none"> <li>1. Tighten or replace</li> </ol>   |
| Pattern is heavy in the middle | <ol style="list-style-type: none"> <li>1. Too much fluid pressure</li> </ol>   | <ol style="list-style-type: none"> <li>1. Reduce pressure</li> </ol>  |
| Gun spitting paint             | <ol style="list-style-type: none"> <li>1. Valve in air tube is not operating properly</li> <li>2. Material too thick</li> </ol>  | <ol style="list-style-type: none"> <li>1. Replace valve assembly</li> <li>2. Thin material</li> </ol>   |
| Paint build up on the air cap  | <ol style="list-style-type: none"> <li>1. Improper adjustment of cap</li> </ol>  | <ol style="list-style-type: none"> <li>1. Adjust properly (refer to gun adjustments section of manual)</li> </ol>   |
| Too much overspray             | <ol style="list-style-type: none"> <li>1. Air pressure too high</li> <li>2. Material too thin</li> <li>3. Spray gun too far from surface</li> </ol>  | <ol style="list-style-type: none"> <li>1. Reduce air pressure</li> <li>2. Add unthinned paint</li> <li>3. Move closer</li> </ol>  |





### NBC SPRAY GUN

| <u>Item</u> | <u>Part No.</u> | <u>Description</u>           | <u>Qty.</u> | <u>Item</u> | <u>Part No.</u> | <u>Description</u>          | <u>Qty.</u> |
|-------------|-----------------|------------------------------|-------------|-------------|-----------------|-----------------------------|-------------|
| 1           | 0275577         | Knob, Material               |             | 22          | 0275571         | Lever, Cup Locking          |             |
| 2           | 0275576         | Spring, Needle               | 1           | 23          | 0275497         | Lid, Cup                    | 1           |
| 3           | 0276453         | Needle Assembly, #3          | 1           | 24          | 0275572         | Nut, Locking                | 1           |
| 4           | 0275300         | Housing, Material Adjustment | 1           | 25          | 0275520         | Gasket, Cup (Thiakol-Black) | 1           |
| 5           | 0275501         | Seal, Rear Air Valve         | 1           |             | 0275562         | Gasket, Cup (White)         | 1           |
| 6           | 0275578         | Spring, Air Valve            | 1           | 26          | 0275573         | Cup, One Quart              | 1           |
| 7           | 0275495         | Air Valve                    | 1           | 27          | 0276397         | Air Tube                    | 2           |
| 8           | 0275498         | Ring, Snap, Air Valve Seal   | 1           | 28          | 0276248         | Valve, Check                | 1           |
| 9           | 0275583         | Seal, Front Air Valve        | 1           | 29          | 0275490         | Trigger                     | 1           |
| 10          | 0275482         | Plug, Air                    | 1           | 30          | 0275586         | Fitting, Air Tube           | 1           |
| 11          | 0277909         | Gun Body, Service            | 1           | 31          | 0275579         | Packing                     | 1           |
| 12          | 0275581         | Ring, Snap                   | 1           | 32          | 0275519         | Nut, Needle Packing         | 1           |
| 13          | 0275536         | Pin, Trigger                 | 1           | 33          | 0275489         | Handle                      | 1           |
| 14          | 0275250         | Spring Plate Assembly        | 1           | 34          | 0275473         | Tube, Handle                | 1           |
| 15          | 0276451         | Nozzle, Fluid, #3            | 1           | 35          | 0275472         | Nut, Handle Tube            | 1           |
| 16          | 0276452         | Air Cap, #3                  | 1           | 36          | 0275481         | Quick Disconnect, Male      | 1           |
| 17          | 0275582         | Ring, Retaining              | 1           | 37          | 0275537         | E-Clip, Trigger Pin         | 1           |
| 18          | 0275480         | Fitting, Cup Assembly        | 1           | 38          | 0275575         | Valve, Air Control          | 1           |
| 19          | 0275247         | Cup Assembly                 | 1           | 39          | 0275584         | O-Ring, Air Control Valve   | 2           |
| 20          | 0275242         | Fluid Tube Assembly          | 1           | 40          | 0275496         | Seal, Air Valve             | 1           |
| 21          | 0275570         | Bridge, Cup                  | 1           |             |                 |                             |             |



### NBC SPRAY GUN (REGULATOR)

| <u>Item</u> | <u>Part No.</u> | <u>Description</u>           | <u>Qty.</u> | <u>Item</u> | <u>Part No.</u> | <u>Description</u>          | <u>Qty.</u> |
|-------------|-----------------|------------------------------|-------------|-------------|-----------------|-----------------------------|-------------|
| 1           | 0275577         | Knob, Material               | 1           | 23          | 0275497         | Lid, Cup                    | 1           |
| 2           | 0275576         | Spring, Needle               | 1           | 24          | 0275572         | Nut, Locking                | 1           |
| 3           | 0279208         | Needle Assembly, #2          | 1           | 25          | 0275520         | Gasket, Cup (Thiakol-Black) | 1           |
| 4           | 0275300         | Housing, Material Adjustment | 1           |             | 0275562         | Gasket, Cup (White)         | 1           |
| 5           | 0275501         | Seal, Rear Air Valve         | 1           | 26          | 0275573         | Cup, One Quart              | 1           |
| 6           | 0275578         | Spring, Air Valve            | 1           | 27          | 0276397         | Air Tube                    | 2           |
| 7           | 0275495         | Air Valve                    | 1           | 28          | 0276248         | Valve, Check                | 1           |
| 8           | 0275498         | Ring, Snap, Air Valve Seal   | 1           | 29          | 0275490         | Trigger                     | 1           |
| 9           | 0275583         | Seal, Front Air Valve        | 1           | 30          | 0275586         | Fitting, Air Tube           | 1           |
| 10          | 0275482         | Plug, Air                    | 1           | 31          | 0275579         | Packing                     | 1           |
| 11          | 0277909         | Gun Body, Service            | 1           | 32          | 0275519         | Nut, Needle Packing         | 1           |
| 12          | 0275581         | Ring, Snap                   | 1           | 33          | 0275489         | Handle                      | 1           |
| 13          | 0275536         | Pin, Trigger                 | 1           | 34          | 0275473         | Tube, Handle                | 1           |
| 14          | 0275250         | Spring Plate Assembly        | 1           | 35          | 0275472         | Nut, Handle Tube            | 1           |
| 15          | 0276446         | Nozzle, Fluid, #2            | 1           | 36          | 0276424         | Fitting                     | 1           |
| 16          | 0276640         | Air Cap, #3                  | 1           | 37          | 0275537         | E-Clip, Trigger Pin         | 1           |
| 17          | 0275582         | Ring, Retaining              | 1           | 38          | 0275575         | Valve, Air Control          | 1           |
| 18          | 0275480         | Fitting, Cup Assembly        | 1           | 39          | 0275584         | O-Ring, Air Control Valve   | 2           |
| 19          | 0275247         | Cup Assembly                 | 1           | 40          | 0275496         | Seal, Air Valve             | 1           |
| 20          | 0275242         | Fluid Tube Assembly          | 1           | 41          | 0275538         | Gauge                       | 1           |
| 21          | 0275570         | Bridge, Cup                  | 1           | 42          | 0276423         | Regulator                   | 1           |
| 22          | 0275571         | Lever, Cup Locking           | 1           | 43          | 0275696         | Nipple                      | 1           |