The following instructions provide the necessary information for the proper maintenance of the Binks SV100 gravity feed spray gun. Please read and understand all the information in this document in order to get the maximum performance from your new SV100 gravity spray gun.

The SV100 spray gun is the result of quality engineering and development activity. The result is an ergonomic product with reduced triggering effort and fine atomization. The HVLP air cap has been specifically designed to comply with local regulatory air quality restrictions. The specification table details the operating parameters of the gun to achieve those compliant conditions. In addition, the relatively low air flow rate of the SV100 spray gun will help in containing overspray.

The SV100 spray gun should be operated under the safety directions outlined in this literature. Your safety and the safety of others depend on your thorough understanding of the material contained on the Part Sheet.

If you have any questions or do not understand the content in this literature, call your nearest service representative.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Air Pressure</td>
<td>175psi/12bar</td>
</tr>
<tr>
<td>For HVLP Compliance</td>
<td>26 psi inlet pressure delivers</td>
</tr>
<tr>
<td>(with SV100-693K cap)</td>
<td>10 psi air cap pressures at</td>
</tr>
<tr>
<td></td>
<td>12 cfm air volume</td>
</tr>
<tr>
<td>Gun Body:</td>
<td>Cast Aluminum</td>
</tr>
<tr>
<td>Fluid Path:</td>
<td>Aluminum</td>
</tr>
<tr>
<td>Fluid Nozzle:</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>Fluid Needle:</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>Fluid Inlet Size:</td>
<td>3/8”-19 BSP(F)</td>
</tr>
<tr>
<td>Air Inlet Size:</td>
<td>1/4” NPS(M)</td>
</tr>
<tr>
<td>Gun Weight:</td>
<td>1.02 lbs. (461 g)</td>
</tr>
</tbody>
</table>
Read the following warnings before using this equipment.

**WARNING**
- **READ THE MANUAL**
  Before operating finishing equipment, read and understand all safety, operation and maintenance information provided in the operation manual.
- **OPERATOR TRAINING**
  All personnel must be trained before operating finishing equipment.
- **EQUIPMENT MISUSE HAZARD**
  Equipment misuse can cause the equipment to rupture, malfunction, or start unexpectedly and result in serious injury or death.
- **LOCK OUT / TAG-OUT**
  Failure to de-energize, disconnect, lock out and tag-out all power sources before performing equipment maintenance could cause serious injury or death.
- **AUTOMATIC EQUIPMENT**
  Automatic equipment may start suddenly without warning.
- **PRESSURE RELIEF PROCEDURE**
  Always follow the pressure relief procedure in the equipment instruction manual.
- **KEEP EQUIPMENT GUARDS IN PLACE**
  Do not operate the equipment if the safety devices have been removed.
- **KNOW WHERE AND HOW TO SHUT OFF THE EQUIPMENT IN CASE OF AN EMERGENCY**
- **WEAR SAFETY GLASSES**
  Failure to wear safety glasses with side shields could result in serious eye injury or blindness.
- **INSPECT THE EQUIPMENT DAILY**
  Inspect the equipment for worn or broken parts on a daily basis. Do not operate the equipment if you are uncertain about its condition.
- **NEVER MODIFY THE EQUIPMENT**
  Do not modify the equipment unless the manufacturer provides written approval.
- **NOISE HAZARD**
  You may be injured by loud noise. Hearing protection may be required when using this equipment.

**CAUTION**
- **PROJECTILE HAZARD**
  You may be injured by venting liquids or gases that are released under pressure, or flying debris.
- **PINCH POINT HAZARD**
  Moving parts can crush and cut. Pinch points are basically any areas where there are moving parts.
- **STATIC CHARGE**
  Fluid may develop a static charge that must be dissipated through proper grounding of the equipment, objects to be sprayed and all other electrically conductive objects in the dispensing area. Improper grounding or sparks can cause a hazardous condition and result in fire, explosion or electric shock and other serious injury.
- **TOXIC FLUID & FUMES**
  Hazardous fluid or toxic fumes can cause serious injury or death if splashed in the eyes or on the skin, inhaled, injected or swallowed. LEARN and KNOW the specific hazards or the fluids you are using.
- **FIRE AND EXPLOSION HAZARD**
  Improper equipment grounding, poor ventilation, open flame or sparks can cause a hazardous condition and result in fire or explosion and serious injury.
- **MEDICAL ALERT**
  Any injury caused by high pressure liquid can be serious. If you are injured or even suspect an injury:
  - Go to an emergency room immediately.
  - Tell the doctor you suspect an injection injury.
  - Show the doctor this medical information or the medical alert card provided with your airless spray equipment.
  - Tell the doctor what kind of fluid you were spraying or dispensing.

**NOTE**
- **WEAR RESPIRATOR**
  Toxic fumes can cause serious injury or death if inhaled. Wear a respirator as recommended by the fluid and solvent manufacturer’s Safety Data Sheet.
- **GET IMMEDIATE MEDICAL ATTENTION**
  To prevent contact with the fluid, please note the following:
  - Never point the gun/valve at anyone or any part of the body.
  - Never put hand or fingers over the spray tip.
  - Never attempt to stop or deflect fluid leaks with your hand, body, glove or rag.
  - Always have the tip guard on the spray gun before spraying.
  - Always ensure that the gun trigger safety operates before spraying.
- **PROP 65 WARNING**
  WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

It is the responsibility of the employer to provide this information to the operator of the equipment. For further safety information regarding this equipment, see the General Equipment Safety Booklet (77-5300).

Binks reserves the right to modify equipment specification without prior notice.
OPERATION AND MAINTENANCE INSTRUCTIONS

Your new SV100 Gravity Feed Spray Gun is exceptionally rugged in construction and is built to stand up under hard, continuous use. However, like any other fine precision instrument, its most efficient operation depends on a knowledge of its construction, operation, and maintenance. Properly handled and cared for, it will produce beautiful, uniform finishing results long after other spray guns have worn out.

SET-UP FOR SPRAYING (Figure 1)
CONNECTING GUN TO AIR HOSE
Air should be supplied by a suitable length of 5/16" diameter air hose fitted with a 1/4 NPS(f) connection at base of gun handle. For hose lengths over 50’, use 3/8” hose.

CONNECTING GRAVITY FEED CUP TO GUN
Insert gasket and screw the cup into the spray gun fluid inlet. Insert strainer, if used, and fill the cup with filtered paint.

OPERATING THE SV100 GRAVITY FEED SPRAY GUN

CONTROLLING THE MATERIAL FLOW
Correct fluid nozzle size should be selected for proper material flow rate. The material valve control knob may be used to restrict the material needle valve opening and reduce the material flow as necessary.

CONTROLLING THE FAN SPRAY
The fan spray is controlled by means of the spray pattern valve control assembly. Turning this control clockwise until it is closed will give a round spray. Turning it counterclockwise will widen the spray into a fan shape. The fan spray can be turned anywhere through 360° by positioning the air cap relative to the gun. To affect this, loosen retainer ring, position nozzle, then tighten retainer ring.

TROUBLE SHOOTING

FAULTY SPRAY
A faulty spray is often caused by improper cleaning resulting in dried materials around the material nozzle tip or in the air nozzle. Soak these parts in thinners to soften the dried material and remove with a brush or cloth. If either the air cap or fluid nozzle are damaged, these parts must be replaced before perfect spray can be obtained.

INTERMITTENT SPRAY
Fluttering spray is caused by one of the following:
1. Insufficient material in cup. Refill the cup.
2. Loose fluid nozzle. Tighten snugly.
3. Cup connection loose or dirt in connection. Correct as necessary.

SPRAY GUN CLEANING INSTRUCTIONS

In certain states, spraying solvents which contain Volatile Organic Compounds (VOC) into the atmosphere when cleaning a spray gun is now prohibited.

In order to comply with these new air quality laws, Binks recommends one of the following two methods to clean your spray finishing equipment.
1. Spray solvent through the gun into a closed system. An enclosed unit or spray gun cleaning station condenses solvent vapors back into liquid form which prevents escape of VOCs into the atmosphere.
2. Place spray gun in a washer type cleaner. This system must totally enclose the spray gun, cups, nozzles and other parts during washing, rinsing and draining cycles. This type of unit must be able to flush solvent through the gun without releasing any VOC vapors into the atmosphere.

CLEANING GUN AND GRAVITY FEED CUP
Remove the cup cover and drain unused material from cup. Carefully rinse cup with solvent. Place clean solvent into the cup and spray this through the gun until it is clean. Remove and clean the cup if necessary. Blow air through the gun to dry it. (Refer to Service Bulletin SBBI-4-043 for cleaning instructions when using cup liners.)
GENERAL SPRAY INSTRUCTIONS

To reduce overspray and obtain maximum efficiency, always spray with the lowest possible fluid/air pressure that produces an acceptable spray pattern.

Excessive atomizing air pressure can increase overspray, reduce transfer efficiency and with some materials, result in poor finish quality from dry spray.

SPRAY TECHNIQUE

The first requirement for a good resultant finish is the proper handling of the gun. The gun should be held perpendicular to the surface being covered and moved parallel with it. The stroke should be started before the trigger is pulled and the trigger should be released before the stroke is ended. This gives accurate control of the gun and material.

The distance between gun and surface should be 6 to 8 inches depending on material and atomizing pressure. The material deposited should always be even and wet. Lap each stroke over the preceding stroke to obtain a uniform finish. Use 50% overlap.

SEPARATOR FILTER

Achieving a fine spray finish without the use of a good separator filter is virtually impossible.

A regulator/separator filter serves a double purpose. It eliminates blistering and spotting by keeping air free of oil and water and it gives precise air pressure control at the gun.

Atomizing pressure must be set to allow for the drop in air pressure between the regulator and the spray gun.

Binks recommends Model HFRL-508 Separator/Filter Regulator.

HOSE SIZE RECOMMENDATIONS WITH 60 PSI APPLIED AT AIR SUPPLY

Only 43 psi at gun inlet
25 feet of 1/4" I.D. hose causes a drop of 17 psi between the air supply and the gun.

54 psi at gun inlet
25 feet of 5/16" I.D. causes a drop of 6 psi between the air supply and the gun. For this reason we recommend the use of 5/16" hose.
# BINKS SV100 HVLP GRAVITY FEED SPRAY GUN

## PARTS LIST

(When ordering, please specify Part No.)

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>QTY.</th>
</tr>
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<tbody>
<tr>
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<td>SV100-693K</td>
<td>AIR CAP</td>
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<tr>
<td>2</td>
<td>—</td>
<td>FLUID TIP 1.4 mm w/GASKET</td>
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<tr>
<td>2a</td>
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<td>FLUID TIP 2.0 mm w/GASKET</td>
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<td>3</td>
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<td>GASKET</td>
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<td>BAFFLE</td>
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<td>FLUID NIPPLE</td>
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<td>—</td>
<td>PACKING w/NUT</td>
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<td>GUN BODY</td>
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<td>9</td>
<td>SGK-455</td>
<td>SPRAY PATTERN VALVE</td>
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<td>U-CUP SEAL</td>
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<td>AIR VALVE SEAT</td>
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<td>12</td>
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<td>AIR VALVE STEM</td>
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<td>AIR VALVE SPRING</td>
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<td>AIR VALVE BUSHING</td>
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<tr>
<td>15★</td>
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<td>FLUID NEEDLE 1.4 mm</td>
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<td>—</td>
<td>FLUID NEEDLE 2.0 mm</td>
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<tr>
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<td>FLUID NEEDLE SPRING</td>
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<td>FLUID ADJUSTMENT KNOB</td>
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<td>18</td>
<td>—</td>
<td>NIPPLE</td>
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<tr>
<td>19</td>
<td>—</td>
<td>AIR ADJUSTING VALVE ASSEMBLY</td>
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<tr>
<td>20</td>
<td>—</td>
<td>TRIGGER PIN ASSEMBLY</td>
<td>1</td>
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<tr>
<td>21</td>
<td>—</td>
<td>TRIGGER</td>
<td>1</td>
</tr>
<tr>
<td>22■</td>
<td>—</td>
<td>ASSEMBLY TOOL</td>
<td>1</td>
</tr>
<tr>
<td>23 54-4720</td>
<td>—</td>
<td>1 L GRAVITY CUP (ALUMINUM)</td>
<td>1</td>
</tr>
</tbody>
</table>

★ K-5053 Gravity Gun Fluid Tip and Needle Replacement Kit  
   (includes 1.4 and 2.0 mm tips)

■ K-5057 Soft Parts Kit

• K-5053-20 Gravity Gun Fluid Tip and Needle Replacement Kit  
   (includes 2.0 mm tip)

▲ SGK-537-K Baffle and 5 ea. Packings
AIR NOZZLE, FLUID NOZZLE, FLUID NEEDLE

**NOTE**

| To reduce overspray and obtain maximum efficiency always spray with the lowest possible atomizing air pressure. |

1. All nozzles and needles are precision made. They should be handled with care.
2. Do not make any alterations in the gun. To do so could cause finishing difficulties.
3. To clean nozzles, soak them in solvent to dissolve any dried material, then blow them clean with air.
4. Do not probe any of the holes in the nozzles with metal instruments. If probing is necessary, use only a tool that is softer than brass.

**CAUTION**

| Never use metal instruments to clean the air or fluid nozzles. These parts are carefully machined and any damage to them will cause faulty spray. |
## ACCESSORIES

### GFC-501 (Acetal) 20 Oz. Cup
54-4720 (Aluminum) 1-Liter Cup
**Gravity Feed Cups**

These gravity feed cups are designed to be used with EXL, FLG, Compact, SV100, 95G and M1-G gravity feed spray guns.

### Cleaning Brushes
42884-214-K5 (3/8”)
42884-215-K10 (5/8”)

These brushes are helpful in cleaning threads and recesses of gun body.

### 29-3100-K6 Scrubs® Hand Cleaner Towels

Scrubs® are a pre-moistened hand cleaner towel for painters, body men and mechanics that go where you go and no water is needed.

### Spray Gun Lube
SSL-10-K12 (2 oz. bottle)

Compatible with all paint materials; contains no silicone or petroleum distillates to contaminate paint. MSDS Sheet available upon request.

### Industrial Quick Connects for HVLP Guns (Air)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>HC-4419</td>
<td>1/4” NPS(F)</td>
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<tr>
<td>HC-4699</td>
<td>1/4” NPT(M)</td>
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</tr>
<tr>
<td>HC-4700</td>
<td>1/4” NPT(F)</td>
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</tr>
<tr>
<td>HC-1166</td>
<td>1/4” NPT(M)</td>
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</tbody>
</table>

### DeKups Cup System & Adapter

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPC-607</td>
<td>Reusable Cup 9 oz – Kit of 2</td>
<td></td>
</tr>
<tr>
<td>DPC-606</td>
<td>Reusable Cup 24 oz – Kit of 2</td>
<td></td>
</tr>
<tr>
<td>DPC-608</td>
<td>Reusable Cup 34 oz – Kit of 2</td>
<td></td>
</tr>
<tr>
<td>DPC-602</td>
<td>Disposable Cup 9 oz – Kit of 32</td>
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</tr>
<tr>
<td>DPC-601</td>
<td>Disposable Cup 24 oz – Kit of 32</td>
<td></td>
</tr>
<tr>
<td>DPC-600</td>
<td>Disposable Cup 34 oz – Kit of 32</td>
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<tr>
<td>DPC-31</td>
<td>Adapter</td>
<td></td>
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</tbody>
</table>

### OMX-70-K48 Paint Cup Liner Kit

Allows quick & easy clean-up.

**Consists of:**
1. Piercing Tool
2. Disposable Liners
3. Drain Bushings

### HAF-507 Whirlwind™ In-Line Air Filter

Removes water, oil, and debris from the air line.

### KGP-5-K5 Paint Filter Kit (Gravity)

Gravity cup strainers, 50 mesh, package of 5.

### Paint Spray Respirators

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>40-141</td>
<td>40-128 (Med)</td>
<td>Sm</td>
</tr>
<tr>
<td>40-143</td>
<td>40-143 (Lg)</td>
<td></td>
</tr>
</tbody>
</table>

NIOSH-Certified for respiratory protection in atmospheres not immediately dangerous to life.

### GFC-404-K2 Disposable Lid Kit

Kit of 2.

### KGP-13-K5 Gasket

Seals gravity cup to gun. Kit of 5.

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U.S. Patent Nos. 6,820,834 and 7,374,111 owned by 3M Innovative Properties Co.

WARRANTY POLICY

Binks products are covered by Carlisle Fluid Technologies one year materials and workmanship limited warranty. The use of any parts or accessories, from a source other than Carlisle Fluid Technologies, will void all warranties. For specific warranty information please contact the closest Carlisle Fluid Technologies location listed below.

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USA/Canada
info@carlisleft.com
Tel: 1-888-992-4657
Fax: 1-888-246-5732

Mexico
ventas@carlisleft.com.mx
Tel: +52 55 5321 2300
Fax: +52 55 5310 4790

Germany
info@carlisleft.eu
Tel: +49 (0) 6074 403 1
Fax: +49 (0) 6074 403 281

United Kingdom
info@carlisleft.eu
Tel: +44 (0)1202 571 111
Fax: +44 (0)1202 573 488

Japan
overseas-sales@carlisleft.co.jp
Tel: +81 45 785 6421
Fax: +81 45 785 6517

Australia
sales@carlisleft.com.au
Tel: +61 (0) 2 8525 7555
Fax: +61 (0) 2 8525 7575

China
mkt@carlisleft.com.cn
Tel: +8621-3373 0108
Fax: +8621-3373 0308

Brazil
ventas@carlisleft.com.br
Tel: +55 11 5641 2776
Fax: +55 11 5641 1256

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